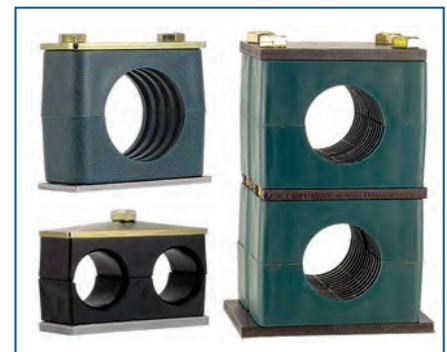




Engineering Catalog

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Table of Contents

Introduction	2 - 26	Omega Series	136 - 137	Quick Disconnects	261 - 388
Table of Contents	2	Alpha Series	138 - 139	Think Safety First	262 - 263
Pictorial Table of Contents	3 - 18	Cush-A-Claw	140	ISO & CRN Certifications	264
The Metal Framing System	19	Cush-A-Click	141	Pneumatic Quick Disconnects	265 - 322
Beam Load Support Formulas	20 - 21	Cush-A-Clip	141	Pneumatic QD Selection Chart	265
Design Fundamentals	22 - 23	Quick-Clip	142	Series 2 thru 6 - One Way Shut-Off	266 - 288
Materials & Finishes	24 - 25	Cush-A-Grip	143	210 & O Series	289 - 290
Back-to-Back Channel and Traceability	26	Airstrip	144	310 & O Series	291 - 292
Channel	27 - 78	Cush-A-Strip	145	TF & J Series	293 - 296
Channel Profiles	28 - 29	Saddle-Up	146	SHD & TL Series	297 - 299
Channel in Descending Order of Strength	30	Snap-A-Saddle	147	O60 & A70 Series	300 - 301
Channel Selection Chart	31	Snap-A-Saddle Pro	148 - 150	2FRL Series	302
Pierced Channel	32	Snap-A-Saddle Pro Multi	151 - 155	3FRL Series	303
Custom Channel	33	Snap-A-Cover	156	LN & L Series	304 - 305
W200 & W201 - Channel	34 - 39	SnapShock	157	F180 Series	306
W200 Series Combination Channel	35	Snap-A-Clip	158	DR Series	307
W200 Pre-Cut Channel	36	Electrical Fittings	159 - 164	U Series	308
W201 & W202 Pre-Cut Channel	37	Electrical Accessories	160 - 162	USV Series	309
W210 & W211 - Channel	40 - 43	Swivel Hangers	163	Safety Vent Series	310 - 314
W210 Series Combination Channel	41	Porc-A-Clamp	164	Push-Button Safety Vent Series	314
W300 & W301 - Channel	44 - 46	Spring Steel	165 - 190	FJT Series	315 - 322
W800 & W801 - Channel	47 - 50	Conduit and Cable Support	166 - 172	Hydraulic Quick Disconnects	323 - 350
W800 Pre-Cut Channel	48	Structural Attachment	173 - 182	Hydraulic QD Selection Chart	323
W900 & W901 - Channel	51 - 54	Stud Wall Applications	183 - 187	FHK & DS Series	324 - 333
W900 Pre-Cut Channel	52	Ceiling and Acoustical Applications	188 - 190	DS Series Carpet Cleaning	333
W500 & W501 - Channel	55 - 59	Loop and Ring Clamps	191 - 200	6600 ISO A Series	334
W500 Pre-Cut Channel	56	SPN Loop Clamps	192	FF Plus Series	335 - 338
W501 Pre-Cut Channel	57	SPD Loop Clamps	193	FF Series	339
W400 & W401 - Channel	60 - 62	SPW Loop Clamps	193	FVEP Series	340
W100 & W101 - Channel	63 - 66	SPH Cush-A-Ring Clamps - Tube & Pipe	194	FH & FIH Series	341 - 343
W100 Pre-Cut Channel	64	SPP Cush-A-Ring Clamps - PEX & CPVC	195	4000 Series	344
W150 & W151 - Channel	67 - 70	SVN Loop Clamps	196	6100 Series	345 - 346
W150 Pre-Cut Channel	68	SVW Loop Clamps	196	W Series	347
W600 & W601 - Channel	71 - 73	LVZ Loop Clamps	197	FST & ST Series	348 - 350
W700 & W701 - Channel	74 - 76	Cable Clamps	198	Blow Guns & Accessories	351 - 354
Lateral Bracing Load Reduction Charts	77	SSN Loop Clamps	198	Blow Guns & Kits	352
Channel Nut Without Spring Installation	78	HSN Loop Clamps	199	Blow Guns Accessories	353
Channel Nuts & Hardware	79 - 84	HVN Loop Clamps	199	Air Chucks	353
Channel Nuts - Design Torque & Pull-Out	80	Python Cable Clamps	200	Handy-Air Blow Guns & Accessories	354
Channel Nuts	81 - 82	Beta Clamps & Z-Clamp	201 - 220	Fittings & Accessories	355 - 364
Hardware	83 - 84	Beta Clamps - Overview	202 - 203	T-Valve	356
Threaded Rod	84	Beta Clamps - Standard	204 - 205	3-Way Sleeves	356
General Fittings	85 - 116	Beta Clamps - Heavy	206 - 207	Drain Cocks	356
Flat Plate Fittings	86 - 87	Beta Clamps - Twin	208 - 209	Garden Hose Couplings	356
90° Angle Fittings	88 - 90	Beta Clamps - "Smoothie" Standard	210	Brass Bushings, Adapters & Nipples	357
Zee Fittings	91	Beta Clamps - "Smoothie" Twin	211	Hose Barb Fittings	358 - 359
"U" Shape Fittings	91 - 93	Beta Clamps - Rubber Insert	212	Steel Pipe Fittings	360
Bracing	93 - 95	Beta Clamps - Heavy Rubber Insert	213	Brass Fittings	361
Wing Fittings	95 - 96	Beta Adapter	214	Reusable Hose Fittings	361 - 363
Trolley	97	Z-Clamp	203, 215 - 216	Swivel Fittings	364
Channel Brackets	98 - 100	Z-Clamp - Adapters	217 - 219	Hose & Accessories	365 - 370
Shelf Brackets	101	Z-Clamp - Hardware	220	Hytrel Hose & Fittings	366 - 367
Girder Style Brackets	102 - 103	Concrete Inserts	221 - 226	Polyurethane Recoil Hose	368
Utility Brackets	103 - 108	Concrete Inserts	222	"Push On" Hose	369
Beam Clamps	109 - 113	Continuous Concrete Inserts	223 - 226	Hose Manifolds	370
Post Bases	114 - 115	Cush-A-Block Rooftop Supports	227 - 236	Quick Disconnects Technical Data	371 - 388
End Caps	116	Cush-A-Block Rooftop Supports	238 - 233	Pipe Thread Identification	372
Pipe, Tube, & Conduit Supports	117 - 158	Cush-A-Block Mini Rooftop Supports	234 - 236	Seal & Fluid Compatibility Guide	373 - 374
Strut Clamps	118 - 120	GAMMA Anti-Vibration Pads	237 - 238	Quick Coupling Installation	375 - 379
Pipe Straps	120	ZSi & Wesanco Technical Data	239 - 260	Actual Size Layouts	380 - 388
J-Hanger	121	Material Specifications - Special Metals	240	Indexes	389 - 395
Tube Clamps	121	Design & Dimension Information	241 - 242	Keyword Index	389 - 390
Cush-A-Nator	122 - 126	Channel Engineering Data	243 - 247	Foster Breco Part Number Index	391 - 392
Cush-A-Clamp	127 - 128	Electrical Installation Instructions	248 - 252	ZSi & Wesanco Part Number Index	393 - 394
Cush-A-Therm	129 - 131	Beam Clamp Technical Data	253 - 257	Contact Information	Back Cover
Cal-Clamp Insulation	132 - 134	Technical Data Charts	258 - 260		
Cush-A-Glide	135				

Pictorial Table of Contents



Channel

Channel					
W200	W201	W210	W211	W300	W301
Pages 34 - 39		Pages 40 - 43		Pages 44 - 46	
W800	W801	W900	W901	W500	W501
Pages 47 - 50		Pages 51 - 54		Pages 55 - 59	
W400	W401	W100	W101	W150	W151
Pages 60 - 62		Pages 63 - 66		Pages 67 - 70	
W600	W601	W700	W701	Channel Information	
				The Metal Framing System 19 Beam Load Support Formulas 20 - 21 Beam - Design Fundamentals 22 Column - Design Fundamentals 23 Channel Profiles 28 - 29 Channel in Descending Order of Strength 30 Channel Selection Chart 31 Pierced Channel 32 Custom Channel 33 Lateral Bracing Load Reduction Charts 77	
Pages 71 - 73		Pages 74 - 76			

Introduction

Channel

Channel Nuts
& Hardware

General
Fittings

Pipe & Conduit
Supports

Electrical
Fittings

Spring
Steel

Loop & Ring
Clamps

Beta Clamps
& Z-Clamps

Concrete
Inserts

Rooftop
Supports

Gamma
Pads

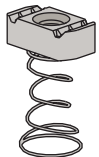

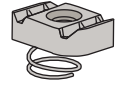





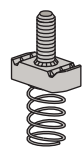
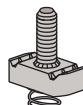


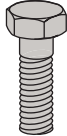








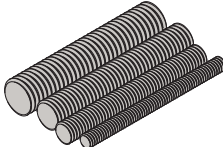
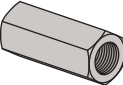
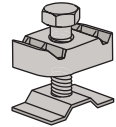
Technical
Data

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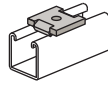
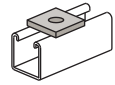
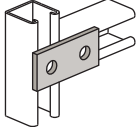
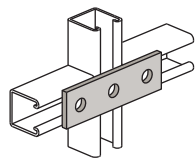
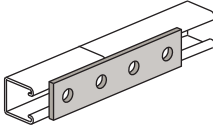
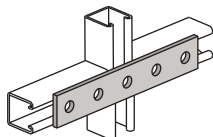
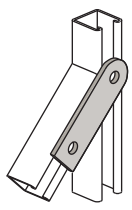
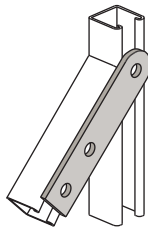
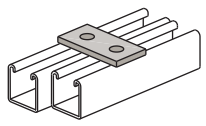
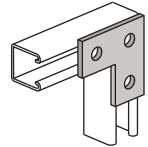
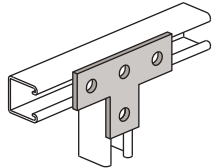
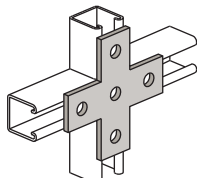
Pictorial Table of Contents

Channel Nuts & Hardware and General Fittings

Channel Nuts and Hardware

Channel Nut with Long Spring	Channel Nut with Standard Spring	Channel Nut with Short Spring	Channel Nut Without Spring	Mini Nut with Standard Spring	Mini Nut with Short Spring	Channel Nut With Cone
						
Page 81	Page 81	Page 81	Page 81	Page 81	Page 81	Page 81
Stud Nut Without Spring	Stud Nut with Spring	Stud Nut with Short Spring	Channel Nut with Top-Lock Spring	Rapid Strut Slide Nut	W7400 - W7415	W7470 - W7479
						
Page 82	Page 82	Page 82	Page 82	Page 82	Page 83	Page 83
W7420 - W7424	W7480 - W7483	W7460 - W7464	W7490 - W7492	W7430 - W7433	W7440 - W7443	W7450 - W7452
						
Page 83	Page 83	Page 83	Page 83	Page 83	Page 83	Page 83
W7124 - W7128		W7134 - W7138	B2486			
						
Page 84		Page 84	Page 84			

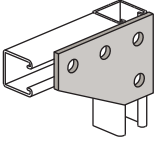
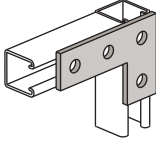
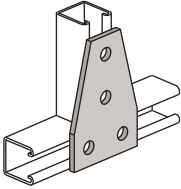
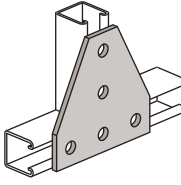
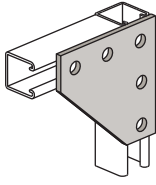
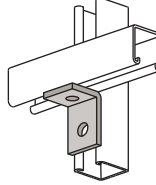
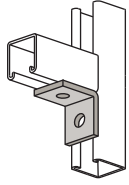
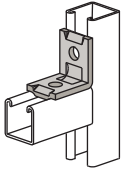
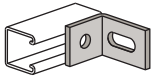
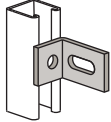
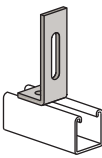
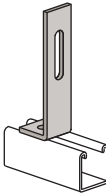
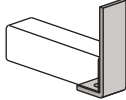
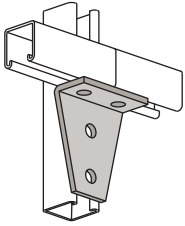
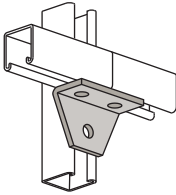
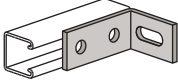
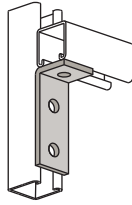
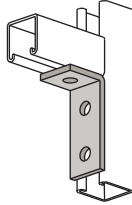
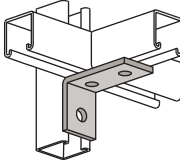
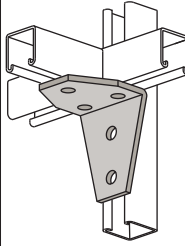
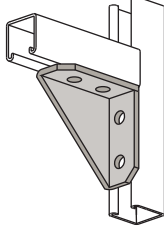
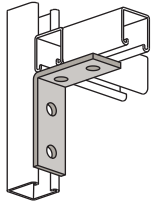
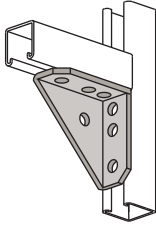
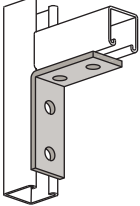
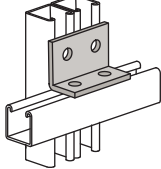
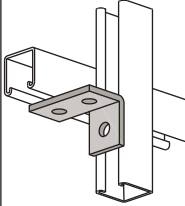
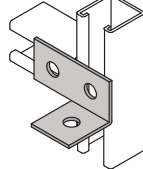
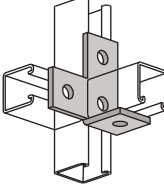
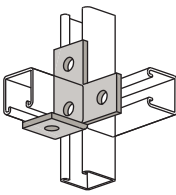
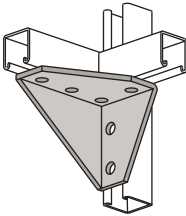
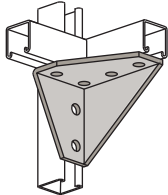
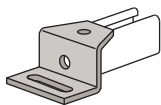
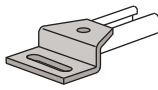
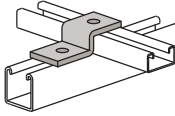
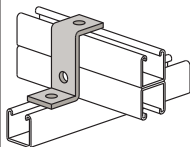
General Fittings

W5002 to W5006	W5052 to W5056	W5007	W5008	W5009	W5010
					
Page 86	Page 86	Page 86	Page 86	Page 86	Page 86
W5011	W5012	W5013	W5021	W5022	W5023
					
Page 86	Page 86	Page 86	Page 87	Page 87	Page 87

Pictorial Table of Contents



General Fittings

General Fittings						
W5024	W5025	W5026	W5027	W5028	W5102	W5103
						
Page 87	Page 87	Page 87	Page 87	Page 87	Page 88	Page 88
W5104	W5105	W5106	W5107	W5108	W5160	W5109
						
Page 88	Page 88	Page 88	Page 88	Page 88	Page 88	Page 88
W5110	W5111	W5112	W5113	W5115	W5117	W5121 or W5122
						
Page 89	Page 89	Page 89	Page 89	Page 89	Page 89	Page 89
W5123	W5124 or W5124W	W5125	W5126	W5135	W5136	W5140
						
Page 89	Page 89	Page 90	Page 90	Page 90	Page 90	Page 90
W5141	W5156	W5157	W5202	W5205	W5209 thru W5218	W5210
						
Page 90	Page 90	Page 90	Page 91	Page 91	Page 91	Page 91

Introduction

Channel

Channel Nuts
& Hardware

General
Fittings

Pipe & Conduit
Supports

Electrical
Fittings

Spring
Steel

Loop & Ring
Clamps

Beta Clamps
& Z-Clamps

Concrete
Inserts

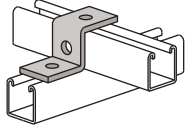
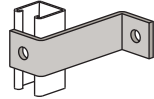
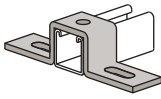
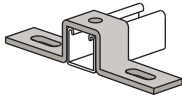
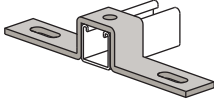
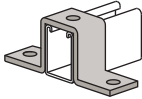
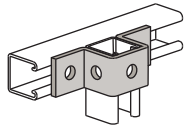
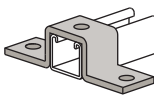
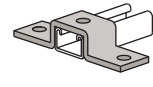
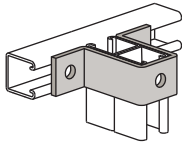
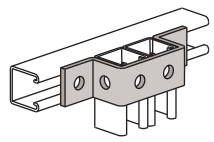
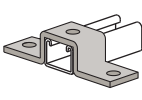
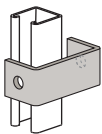


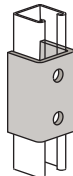
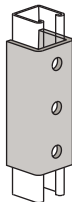

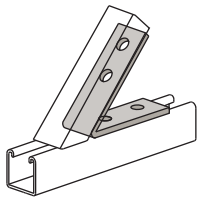
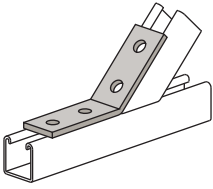
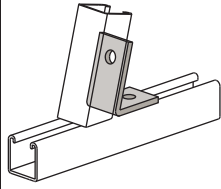
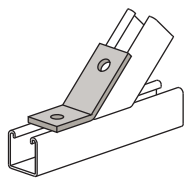
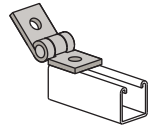
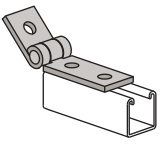
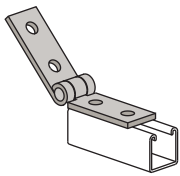
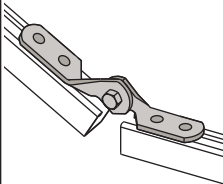
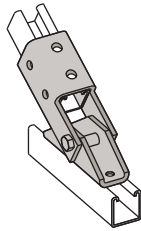
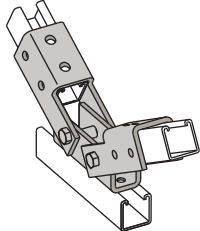
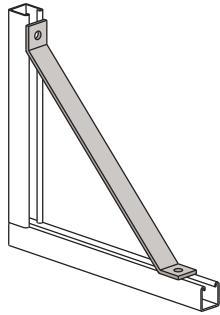
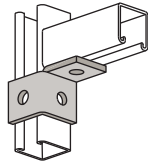
Rooftop
Supports

Gamma
Pads

Technical
Data

Pictorial Table of Contents

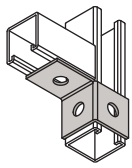
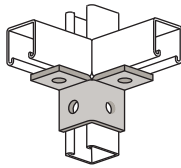
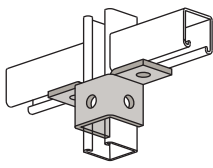
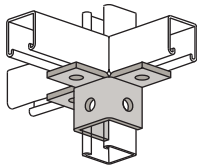
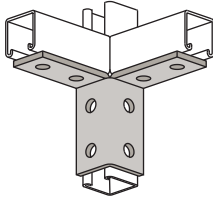
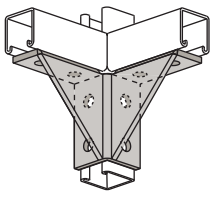
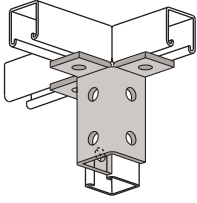
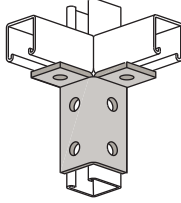
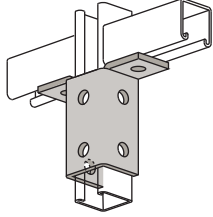
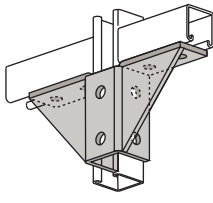
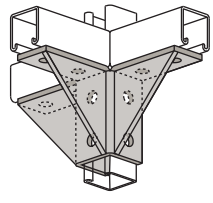
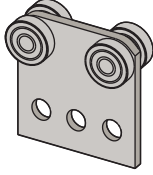
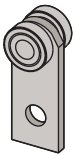
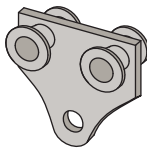
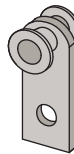
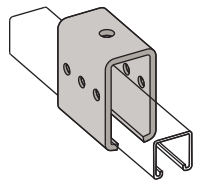
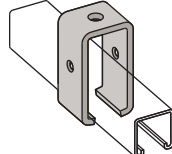
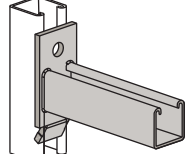
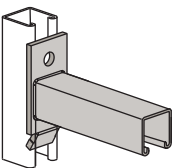
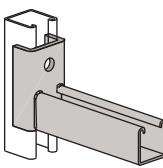
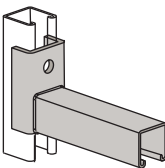
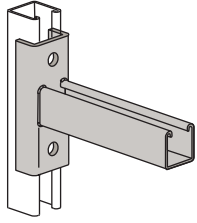
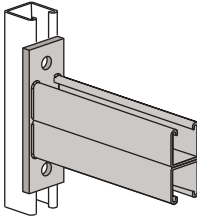
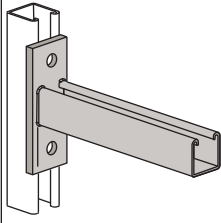
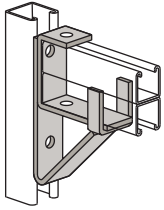
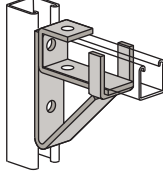
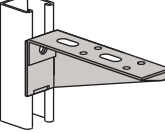
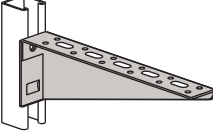
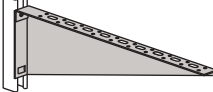
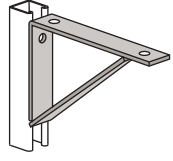
General Fittings

General Fittings					
W5212	W5224 thru W5228	W5307	W5308	W5310	W5311
					
Page 91	Page 91	Page 91	Page 91	Page 91	Page 92
W5312	W5313	W5315	W5316	W5317	W5318
					
Page 92	Page 92	Page 92	Page 92	Page 92	Page 92
W5325 thru W5328	W5342	W5343	W5344	W5346	W5345
					
Page 92	Page 92	Page 93	Page 93	Page 93	Page 93
W5413 & W5415	W5443 thru W5447	W5463 & W5465	W5423 thru W5471	B5490	B5491
					
Page 93	Page 93	Page 93	Page 93	Page 94	Page 94
B5492	B5495	W5480	W5485	W5472 thru W5475	W5510
					
Page 94	Page 94	Page 94	Page 94	Page 95	Page 95

Pictorial Table of Contents



General Fittings

General Fittings					
W5511	W5512	W5513	W5514	W5515	W5516
					
Page 95	Page 95	Page 96	Page 96	Page 96	Page 96
W5517	W5518	W5519	W5520	W5521	W6600
					
Page 96	Page 96	Page 96	Page 96	Page 96	Page 97
W6602	W6601 & W6605	W6606	W6603	W6604	W5631 - W5634
					
Page 97	Page 97	Page 97	Page 97	Page 97	Page 98
W5635 - W5638	W5641 - W5642	W5645 - W5646	W5647 - W5648	W5652 - W5656	W5661 - W5664
					
Page 98	Page 98	Page 99	Page 99	Page 99	Page 100
W5650	W5651	W5601 - W5606	W5607 - W5618	W5619 - W5626	W5669
					
Page 100	Page 100	Page 101	Page 101	Page 101	Page 102

Introduction

Channel

Channel Nuts
& Hardware

General
Fittings

Pipe & Conduit
Supports

Electrical
Fittings

Spring
Steel

Loop & Ring
Clamps

Beta Clamps
& Z-Clamps

Concrete
Inserts

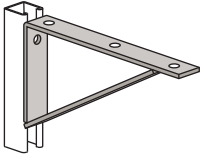
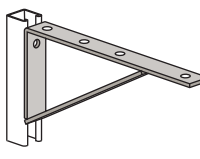
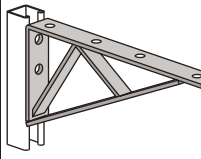
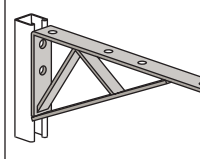
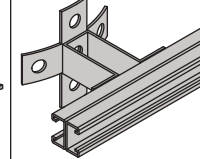
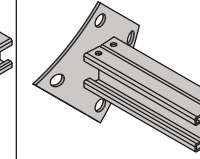
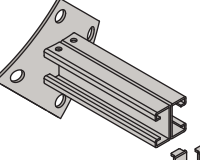
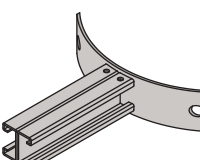
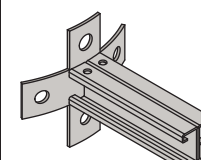
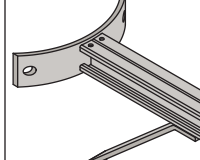
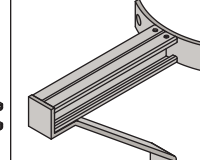
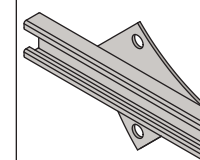
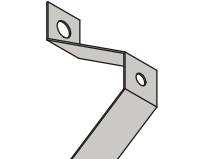
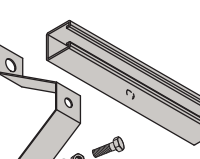
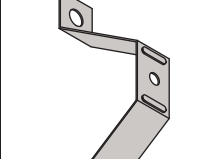
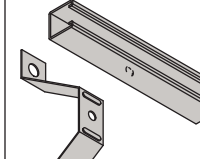
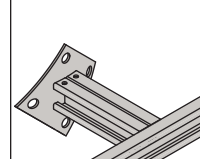
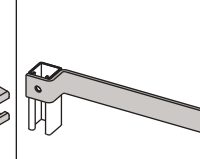
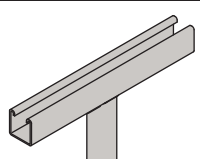
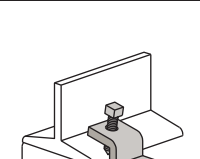
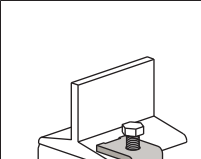
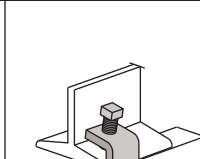
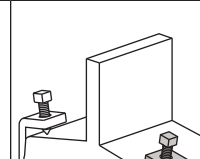
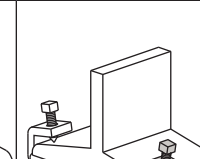
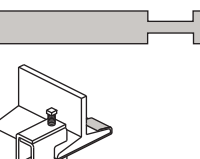
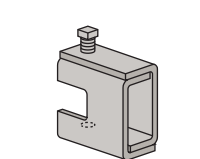
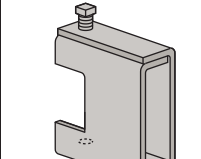
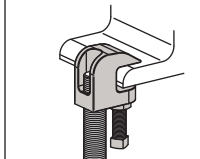
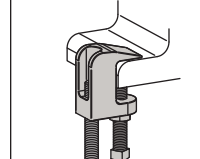
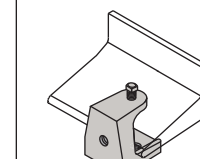
Rooftop
Supports

Gamma
Pads

Technical
Data

Pictorial Table of Contents

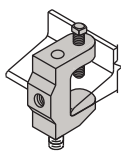
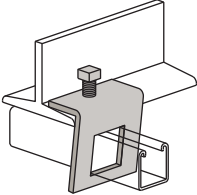
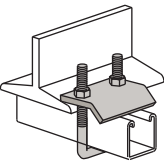
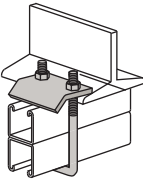
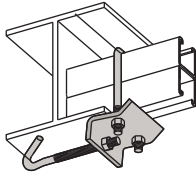
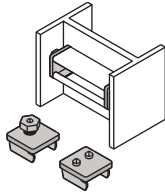
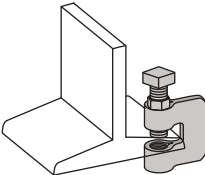
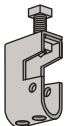
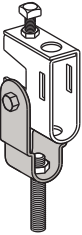
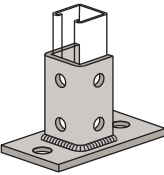
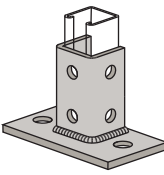
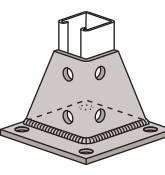
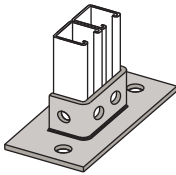
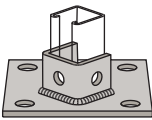
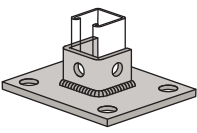
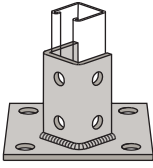
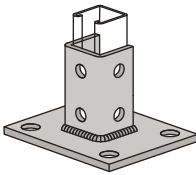
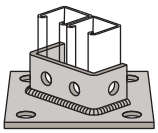
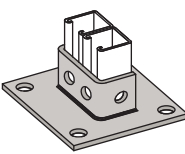
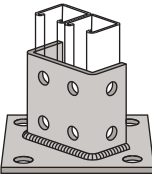
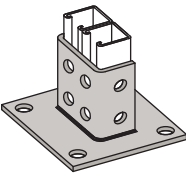


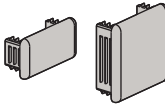
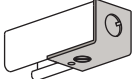
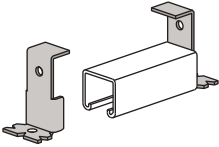
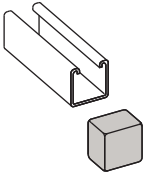

General Fittings

General Fittings					
W5671	W5673	W5675	W5677	W1007-Y	W1010-X
					
Page 102	Page 102	Page 103	Page 103	Page 103	Page 104
W1011-X	W1012-X	W1015-X	W1013-X	W1016-X	W1019-Y
					
Page 104	Page 104	Page 104	Page 105	Page 105	Page 105
W1017	W1017A-Y	W1017AR	W1017ARA-Y	W1021-X-Y	W1023-Y
					
Page 106	Page 106	Page 106	Page 106	Page 107	Page 108
W1022	W5712	W5713	W5714	W5717	W5715 or W5716
					
Page 108	Page 109	Page 109	Page 109	Page 109	Page 110
WBC0906	W5721 to W5729	W5731 to W5739	BC80	BC81	BC90
					
Page 110	Page 110	Page 110	Page 111	Page 111	Page 111

Pictorial Table of Contents



General Fittings

General Fittings					
BC91	W5702 to W5705	W5709	W5708	W5761	W5760
					
Page 111	Page 112	Page 112	Page 112	Page 112	Page 113
W5741 - W5745	W5750	W5751	W5810	W5810 FL	W5811
					
Page 113	Page 113	Page 113	Page 114	Page 114	Page 114
W5812	W5813	W5813SQ	W5814	W5814SQ	W5815
					
Page 114	Page 114	Page 114	Page 115	Page 115	Page 115
W5815SQ	W5816	W5816SQ	W5920	W5910 to W5938	B5920 & B5925
					
Page 115	Page 115	Page 115	Page 116	Page 116	Page 116
W5940 - W5943	W5952 - W5959	W5900 to W5935	W5900-M to W5935-M		
					
Page 116	Page 116	Page 116	Page 116		

Introduction

Channel

Channel Nuts
& Hardware

General
Fittings

Pipe & Conduit
Supports

Electrical
Fittings

Spring
Steel

Loop & Ring
Clamps

Beta Clamps
& Z-Clamps

Concrete
Inserts

Rooftop
Supports

Gamma
Pads

Technical
Data

Pictorial Table of Contents

Pipe, Tube, & Conduit Supports

Pipe, Tube & Conduit Supports					
One-Piece Clamp	W6025A - W6038A	W6056AB - W6068AB	W6224A to W6282A	W6125A - W6178A	W7826 - W7870
					
Page 118	Page 118	Page 118	Page 119	Page 120	Page 120
W4050 to W4400	W7724 - W7730	W2470-50	Cush-A-Nator®	Cush-A-Clamp®	Cush-A-Therm®
					
Page 121	Page 121	Page 121	Pages 122 - 126	Pages 127 - 128	Pages 129 - 131
Cal-Clamp	Cush-A-Glide™	Omega Series™	Alpha Series™	Cush-A-Claw®	Cush-A-Clip®
					
Pages 132 - 134	Page 135	Pages 136 - 137	Pages 138 - 139	Page 140	Page 141
Cush-A-Click	Quick-Clip	Cush-A-Grip	Airstrip®	Cush-A-Strip™	Saddle-Up
					
Page 141	Page 142	Page 143	Page 144	Page 145	Page 146
Snap-A-Saddle®	Snap-A-Saddle Pro™	Snap-A-Saddle Pro Multi™	Snap-A-Cover™	SnapShock™	Snap-A-Clip™
					
Page 147	Pages 148 - 150	Pages 151 - 155	Page 156	Page 157	Page 158

Pictorial Table of Contents



Electrical Accessories and Spring Steel

Electrical Accessories						
W6420 & W6422	W6424 & W6426	W6442 & W6443	W6449	W6432 to W6435	W6439	W6440
Page 160	Page 160	Page 160	Page 160	Page 161	Page 161	Page 161
W6445	B6445S	W6462	W6469	W6461	W6463	W6460
Page 161	Page 161	Page 162	Page 162	Page 162	Page 162	Page 162
W6500	W6500PLASTIC	W6905 & W6906	W6910 & W6911	W6915 & W6916	W6920 & W6921	Porce-A-Clamp®
Page 162	Page 162	Page 163	Page 163	Page 163	Page 163	Page 164
Spring Steel						
CC/CCT	CCP	PCH	WC/WCBW	MFC	MFCCCP	
Page 166	Page 166	Page 167	Page 167	Page 168	Page 168	
BCC	BCL CCP	FH C	FH CCP	FHS C	FHS CCP	
Page 168	Page 169	Page 169	Page 170	Page 170	Page 171	
FHV C	CFC	CC CC	CCP CCP	BR	FCH	
Page 171	Page 171	Page 172	Page 172	Page 172	Page 173	

Introduction

Channel

Channel Nuts
& Hardware

General
Fittings

Pipe & Conduit
Supports

Electrical
Fittings

Spring
Steel

Loop & Ring
Clamps

Beta Clamps
& Z-Clamps

Concrete
Inserts

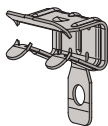

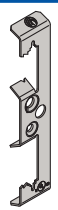

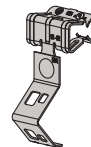
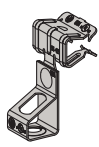


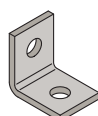
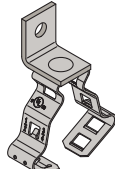
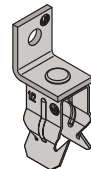
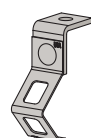
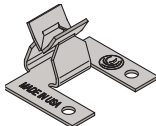
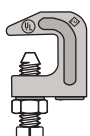
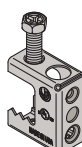
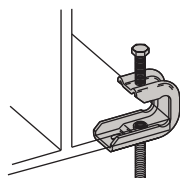
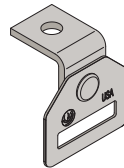
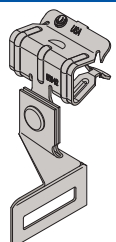
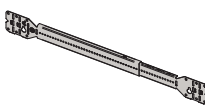
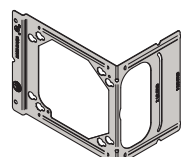
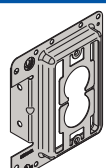

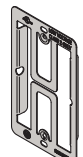
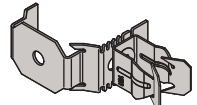

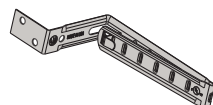


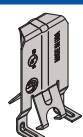
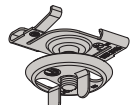

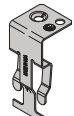
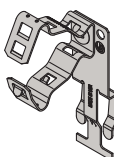
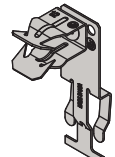
Rooftop
Supports

Gamma
Pads

Technical
Data

Pictorial Table of Contents

Spring Steel

Spring Steel					
FSM	FHV, FHZ	MFC	RHT & RHP	FH P	FH RHT
					
Page 173	Page 174	Page 174	Page 175	Page 175	Page 176
FBZ RH	FBZ RT	AB	AB C & NB C	AB CCP & NB CCP	ABR & ABR T
					
Page 176	Page 177	Page 177	Page 178	Page 178	Page 179
PSP, FSM	Silver Claw	BCL	BC92	ABSHP	FHS SH
					
Page 180	Page 180	Page 181	Page 181	Page 182	Page 182
ZBA Z-Bracket	BBSM	LVMN	LVMS	LVMP	MSC CC CCP
					
Page 183	Page 183	Page 184	Page 184	Page 185	Page 185
CTS	CSSTS	CCMS	SDTSLP8X1/2	SCT	TCB TCS
					
Page 186	Page 186	Page 187	Page 187	Page 188	Page 188
EBH	TBC	TB C	TBC SMCCP TMCCP		
					
Page 189	Page 189	Page 190	Page 190		

Pictorial Table of Contents



Loop & Ring Clamps and Beta Clamps & Z-Clamps

Loop and Ring Clamps						
SPN	SPW	SPD	SPH Cush-A-Ring Clamps	SPP Cush-A-Ring Clamps	SVN	SVW
Page 192	Page 193	Page 193	Page 194	Page 195	Page 196	Page 196
LVZ	SSN	Cable Clamps	HVN	HSN	Python Series	Python II Series
Page 197	Page 198	Page 198	Page 199	Page 199	Page 200	Page 200

Beta Clamps and Z-Clamps					
Beta Standard	Beta Heavy	Beta Twin	Beta Smoothie Standard	Beta Smoothie Twin	Beta Rubber Standard
Pages 204 - 205	Pages 206 - 207	Pages 208 - 209	Page 210	Page 211	Page 212
Beta Rubber Heavy	Beta Adapter	Z-CLAMP		Z-Clamp Adapters	Z-Clamp Hardware
Page 213	Page 214	Pages 215 - 216		Pages 217 - 219	Page 220

Introduction

Channel

Channel Nuts & Hardware

General Fittings

Pipe & Conduit Supports

Electrical Fittings

Spring Steel

Loop & Ring Clamps

Beta Clamps & Z-Clamps

Concrete Inserts

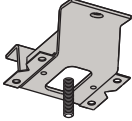

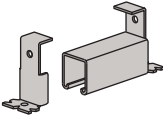
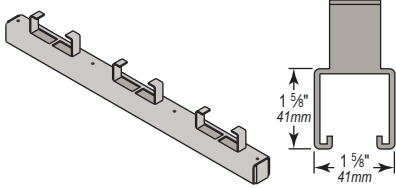
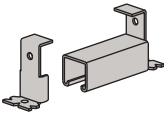
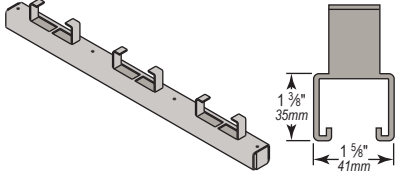
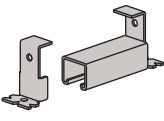
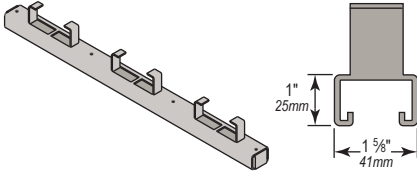
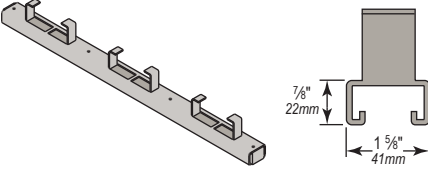
Rooftop Supports

Gamma Pads

Technical Data

Pictorial Table of Contents

Concrete Inserts

Concrete Inserts			
W7000	W7024 to W7029	W7250 Series Inserts W200 1-5/8" x 1-5/8" 12 Gauge Channel	
		W7250 to W7252	W7253 to W7270
			
Page 222	Page 222	Page 223	Page 223
W7350 Series Inserts W300 1-5/8" x 1-3/8" 12 Gauge Channel		W7550 Series Inserts W800 1-5/8" x 1" 12 Gauge Channel	
W7350 to W7352	W7353 to W7370	W7550 to W7552	W7553 to W7570
			
Page 224	Page 224	Page 225	Page 225
W7950 Series Inserts W900 1-5/8" x 7/8" 12 Gauge Channel			
W7954 to W7970			
			
Page 226			

Pictorial Table of Contents

Rooftop Supports and GAMMA Pads



Cush-A-Block® Rooftop Supports				
CBN Series	CBN-BR Bridge Series	CBN Series	CBN-EX Series	CBN-PRB Series
Page 228	Page 228	Page 229	Page 230	Page 230
CBN-RB Series Medium Support	CBN-RB Series Heavy Support	CBN-DS Series		CBN-DSFW Series
Page 231	Page 231	Page 232		Page 233
CBM	CBM Series	CBMPH Series	CBMPP Series	CBM REX
Page 234	Page 234	Page 235	Page 236	Page 236
GAMMA Anti-Vibration Pads				
GAMMA Shield	GAMMA Standard Pad	ISO - Cube	GAMMA Extreme Pad	
Page 238	Page 238	Page 238	Page 238	

Introduction
Channel
Channel Nuts & Hardware
General Fittings
Pipe & Conduit Supports
Electrical Fittings
Spring Steel
Loop & Ring Clamps
Beta Clamps & Z-Clamps
Concrete Inserts
Rooftop Supports
Gamma Pads
Technical Data

ZSi & Wesanco Technical Data	239 - 260
Material Specifications - Special Metals	240
Design & Dimension Information	241 - 242
Channel Engineering Data	243 - 247
Electrical Installation Instructions	248 - 252
Beam Clamp Technical Data	253 - 257
Technical Data Charts	258 - 260
Keyword Index	389 - 390
ZSi & Wesanco Part Number Index	393 - 394

Pictorial Table of Contents

Pneumatic Quick Disconnects

Pneumatic Quick Disconnects				
1/8" - Series 2	1/4" - Series 3 & B,C,D	3/8" - Series 4 & B,C,D	1/2" - Series 5 & B,C,D	3/4" - Series 6 & B
Industrial Interchange				
				
Pages 266 - 268	Pages 269 - 275	Pages 276 - 280	Pages 281 - 286	Pages 287 - 288
1/4" - 210 & O Series	3/8" - 310 & O Series	TF & J Series	SHD & TL Series	O60 - A70 Series
Interchange with ARO 210 Series	Interchange with ARO 310 Series	Interchange with Tru-Flate Series	Interchange with Schrader Standard & Heavy Duty)	Interchange with Hansen 600 & 700 Series
				
Pages 289 - 290	Pages 291 - 292	Pages 293 - 296	Pages 297 - 299	Pages 300 - 301
FRL Series	LN & L Series	F180 Series	DR Series	U Series
Interchange with Hansen RL Series	Interchange with Lincoln Long Nose	Interchange with Hansen 180 Series	Interchange with Rectus 21 KA	Universal Coupler
				
Pages 302 - 303	Pages 304 - 305	Page 306	Page 307	Page 308
USV Series	SV & SVPC Series	Push Buttons Series	Safety 210 Series	FJT Series
Universal Coupler	Safety Vent Series Industrial Interchange	Zero Pressure Connect and Disconnect Design Industrial Interchange	Interchange with ARO 210 Series	Interchange with DME, Jiffy-Tite, Jiffy-Matic, Parker Moldmate
				
Page 309	Pages 310 - 313	Page 314	Page 314	Pages 315 - 322

Pictorial Table of Contents



Hydraulic Quick Disconnects

Hydraulic Quick Disconnects			
FHK & DS Series	Carpet Cleaning	6600 Series	FF Plus Series, Flat Face
Compatible with ISO 7241-1, Series B	Compatible with ISO-B	Conforms with ISO 7241-1, Series A)	Flat Face, Meets ISO 16028 Standard
			
Pages 324 - 333	Page 333	Page 334	Pages 335 - 337
FF Plus Series Connect Under Pressure Plugs	FF Series, Flush Face	FVEP Series	FH & FIH Series
Flat Face, Meets ISO 16028 Standard	Flush Face, Meets ISO 16028 Standard	FVEP Interchange	Interchange with Snap-Tite H & IH Series
			
Page 338	Page 339	Page 340	Pages 341 - 343
4000 Series	6100 Series	W Series	FST & ST Series
Pioneer AG Interchange	Wing Nut	High Pressure Coupling, Enerpac Interchange	Straight-Thru Industrial Interchange
			
Page 344	Pages 345 - 346	Page 347	Pages 348 - 350

Introduction

Channel

Channel Nuts & Hardware

General Fittings

Pipe & Conduit Supports

Electrical Fittings

Spring Steel

Loop & Ring Clamps

Beta Clamps & Z-Clamps

Concrete Inserts






Rooftop Supports











Gamma Pads

Technical Data

Pictorial Table of Contents

Blow Guns, Fittings & Accessories, and Hoses & Accessories

Blow Guns & Accessories				
BG Series Blow Guns	Blow Guns Kits	Blow Gun Accessories	Blow Guns Air Chucks	Handy-Air® Blow Guns & Accessories
				
Page 352	Page 352	Page 353	Page 353	Page 354

Fittings & Accessories				
T-Valve	3-Way Sleeves	Drain Cocks	Garden Hose Couplings	Brass Bushings, Adapters & Nipples
				
Page 356	Page 356	Page 356	Page 356	Page 357
Hose Barb Fittings	Steel Pipe Fittings	Brass Fittings	Reusable Hose Fittings	Swivel Fittings
				
Pages 358 - 359	Page 360	Page 361	Pages 362 - 363	Page 364

Hoses & Accessories				
Hyrel Hose & Fittings	Polyurethane Recoil Hose	"Push On" Hose	3-Way Hose Manifolds	3-Way Hose Manifolds with Sockets
				
Pages 366 - 367	Page 368	Page 369	Page 370	Page 370

Quick Disconnects Technical Data	371 - 388
Pipe Thread Identification	372
Seal & Fluid Compatibility Guide	373 - 374
Quick Coupling Installation	375 - 379
Actual Size Layouts	380 - 388
Keyword Index	389 - 390
Foster & Breco Part Number Index	391 - 392

The Metal Framing System



Introduction

Channel

Channel Nuts
& Hardware

General
Fittings

Pipe & Conduit
Supports

Electrical
Fittings

Spring
Steel

Loop & Ring
Clamps

Beta Clamps
& Z-Clamps

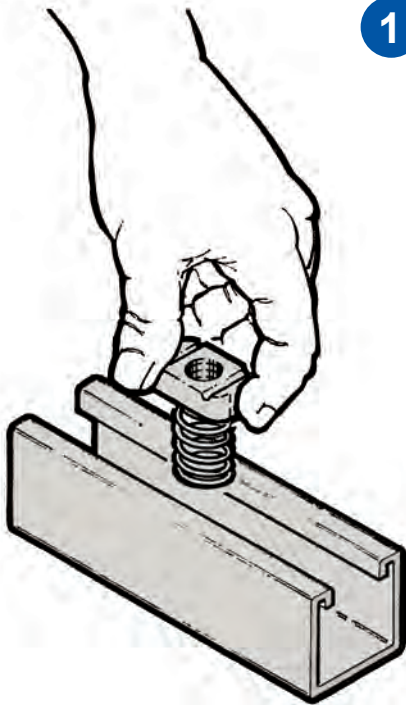
Concrete
Inserts

Rooftop
Supports

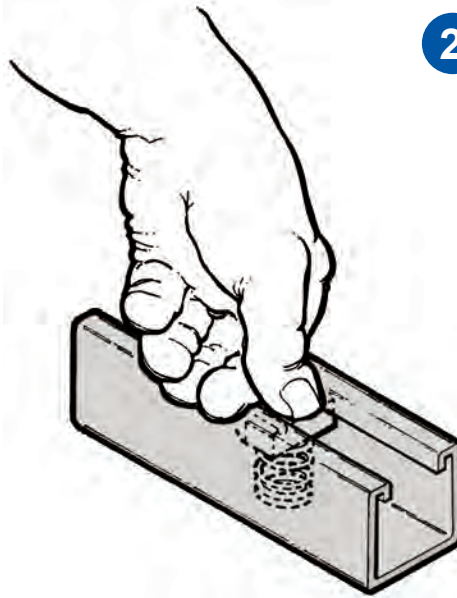
Gamma
Pads

Technical
Data

- 1 Insert the appropriate Wesanco® Channel Nut with spring, *parallel* to the slot edges, anywhere along the continuous open slot of the channel.



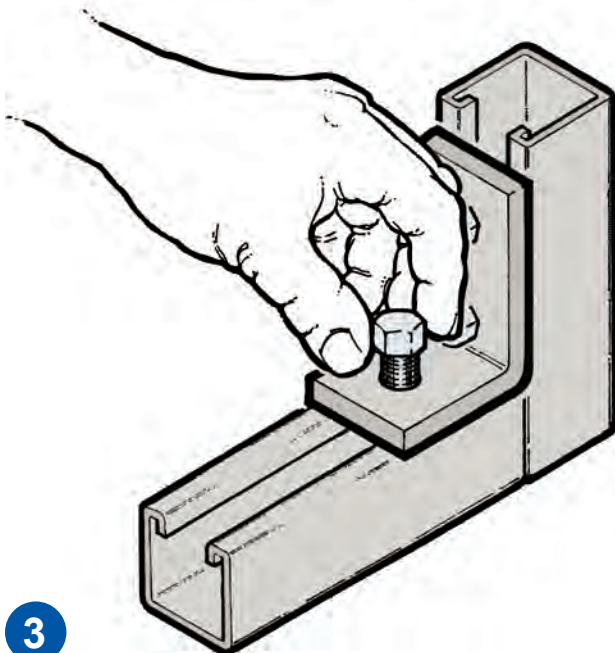
- 2 Depress the Channel Nut with spring below the in-turned channel edges. Rotate one quarter turn clock-wise, perpendicular, and release pressure on the nut.



The Nut will lock in-place, its pyramid grip enhanced grooves aligning with the underside of the channel's in-turned edges; the spring being designed to hold the nut in place during assembly.

- 4 Properly torquing the bolt draws the Channel Nut with spring up against the in-turned channel lips, forming a strong, secure clamping connection.

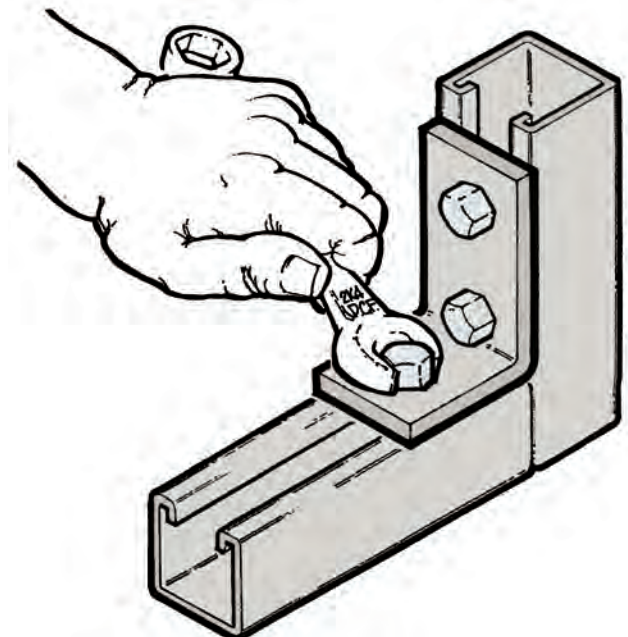
Use caution not to bottom the bolt (select one of sufficient length, but not so long as to contact the inside back). **Do not over torque the bolt.**



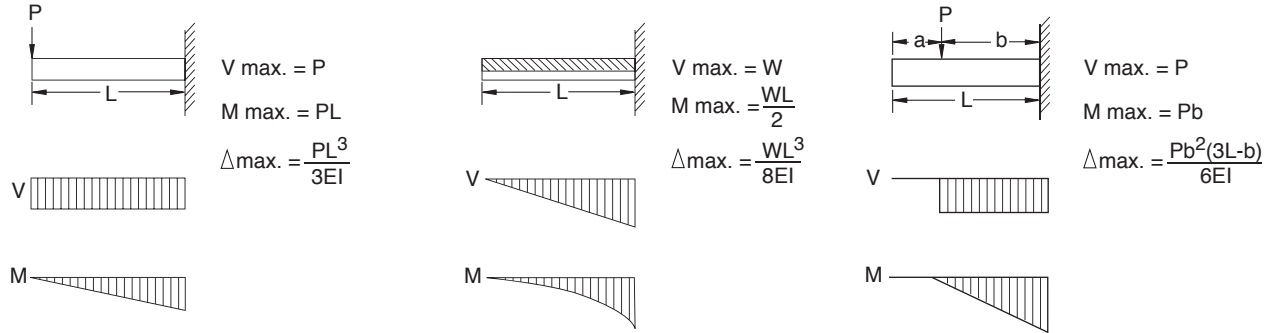
3

Fitting, bracket, or accessory, is located on the channel face over the Channel Nut with spring.

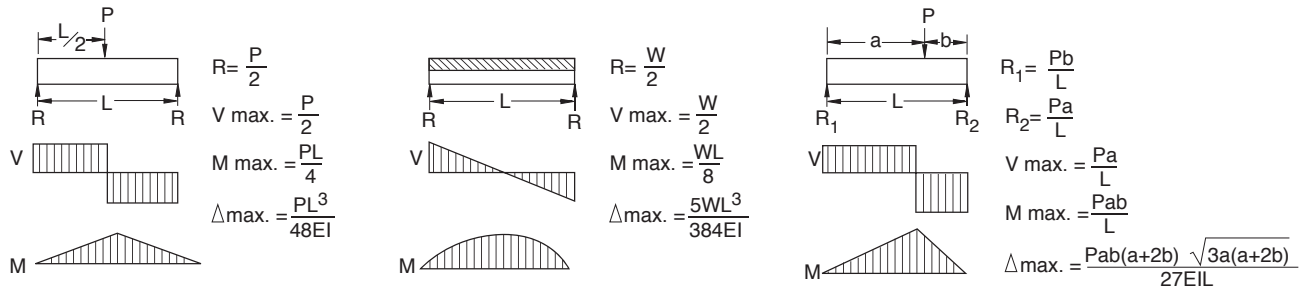
An appropriate diameter and length of bolt is inserted, and the fitting is adjusted for location at this time.



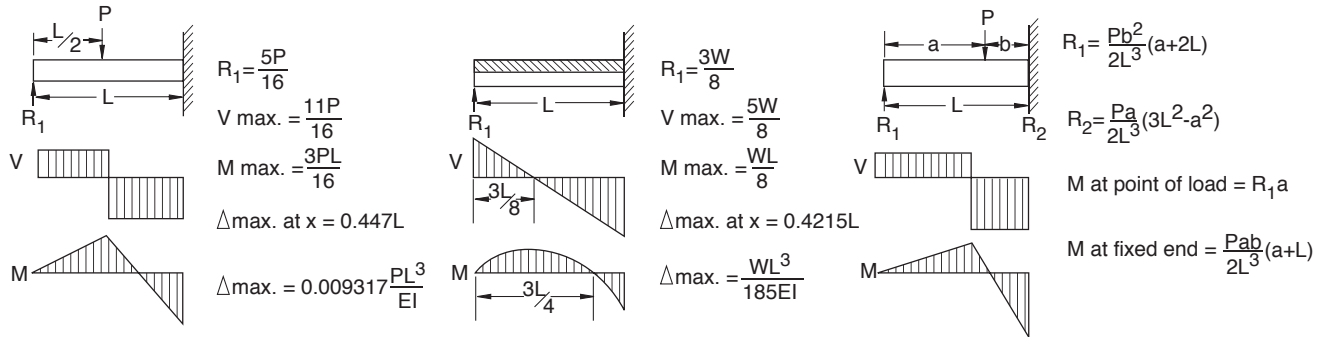
Cantilever Beams



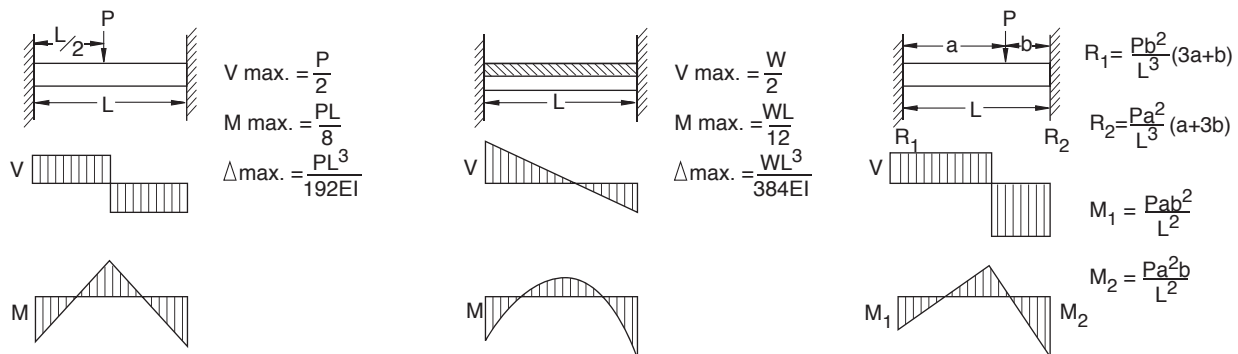
Simple Beams



Beams Fixed At One End & Supported At The Other



Beams Fixed At Both Ends



R – Reaction
 M – Moment
 P – Concentrated Load

W – Total Uniform Load
 V – Shear
 L – Length

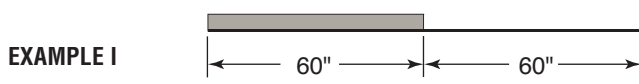
Δ – Deflection
 E – Modulus of Elasticity
 I – Moment of Inertia

Beam Load Support Formulas



All Beam Load tables are for simple beams supported at the ends. These can be used in the majority of the cases. There are times when it is necessary to know what happens with other loading and support conditions. Some common arrangements are shown below. Simply multiply the values from the Beam Load tables by factors given below.

Load and Support Condition		Load Factor	Deflection Factor
Simple Beam Uniform Load		1.00	1.00
Simple Beam Concentrated Load at Center		0.50	0.80
Simple Beam Two Equal Concentrated Loads at 1/4 Points		1.00	1.10
Beam Fixed at Both Ends Uniform Load		1.50	0.30
Beam Fixed at Both Ends Concentrated Load at Center		1.00	0.40
Cantilever Beam Uniform Load		0.25	2.40
Cantilever Beam Concentrated Load at End		0.12	3.20
Continuous Beam Two Equal Spans - Uniform Load on One Span		1.30	0.92
Continuous Beam Two Equal Spans - Uniform Load on Both Spans		1.00	0.42
Continuous Beam Two Equal Spans - Concentrated Load at Center of One Span		0.62	0.71
Continuous Beam Two Equal Spans - Concentrated Load at Center of Both Spans		0.67	0.48



PROBLEM:
Calculate the load and deflection of an W200 beam continuous over one support and loaded uniformly on one span.

SOLUTION:

A. From load table for W200 the load for a 60" span is 700 lbs. and deflection is 0.35".

B. Multiply by factors from Table above
Load = 700 lb. x 1.30 = 910 lbs.
Deflection = 0.35" x 0.92 = 0.322"



PROBLEM:
Determine load and deflection of an W150 cantilever beam with a concentrated load on the end.

SOLUTION:

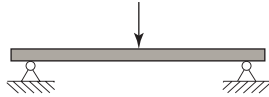
A. From load table for W150 the load for a 24" span is 5,360 lbs. and deflection is 0.09".

B. Multiply by factors from Table above.
Load = 5,360 lbs. x 0.12 = 643.2 lbs.
Deflection = 0.09" x 3.20 = 0.288"

- Introduction
- Channel
- Channel Nuts & Hardware
- General Fittings
- Pipe & Conduit Supports
- Electrical Fittings
- Spring Steel
- Loop & Ring Clamps
- Beta Clamps & Z-Clamps
- Concrete Inserts
- Rooftop Supports
- Gamma Pads
- Technical Data

Beams are structural members loaded at right angles (perpendicular) to their length. Most beams are horizontal and subjected to gravity or vertical loads, e.g. a shelf support. However a vertical member can act as a beam under certain conditions, such as, a curtain wall mullion subjected to wind loading. The bending moment developed in a beam is dependent on:

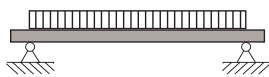
- (a) The amount of load applied
- (b) The type of loading applied
- (c) The support conditions



Beam Loading - Point Load

A load concentrated onto a very small length of the beam is a point load.

Beam Loading - Uniform Load



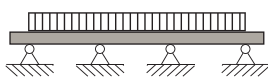
A load spread evenly over a relatively long length of the beam is a uniform load.

Point and uniform loads can be placed on a beam in any combination. A series of point loads can approximate a uniform loading. The load charts and tables are based on a uniform load unless identified otherwise.

Support Conditions - Simple Beam

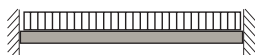
A simple beam has supports that prevent movement left and right, or up and down, but do not restrain the beam from rotating at the supports into a natural deflected curve. Most connections produce simple beams. The load charts and tables are based on simple beams unless identified otherwise.

Support Conditions - Continuous Beam



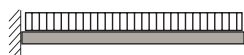
Any simple beam that is supported at one or more intermediate points is a continuous beam. A mezzanine joist that passes over three or more columns is an example of a continuous beam.

Support Conditions - Fixed-End Beam



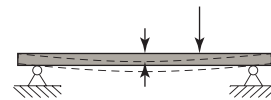
Supports that prevent the beam from rotating into a natural deflected curve produce a fixed-end beam. A welded end connection to a very rigid support produces a fixed-end beam.

Support Conditions - Cantilever Beam



A cantilever beam is a fixed-end beam that is supported at one end only, while the other end is unsupported. Brackets are examples of cantilever beams.

Deflection



All beams deflect under load. The amount of deflection is dependent on:

- (a) The amount of load,
- (b) The support conditions,
- (c) The stiffness of the beam's cross-sectional shape,
- (d) The stiffness of the beam material

The stiffness of the beam's cross-sectional shape is measured by its "Moment Of Inertia" or "I". The larger a beam's "I", the stiffer it is and the less it will deflect. A beam's "I" can change for each major axis. The "I" of both major axes (I 1-1 and I 2-2) are provided.

The stiffness of a beam's material is measured by its "Modulus of Elasticity" or "E". The larger a material's "E", the stiffer it is and the less it deflects. For example, steel is about three times stiffer than aluminum and as a result, deflects only one-third as much. Do not confuse stiffness with strength. Two materials may have identical strengths yet still have different "E's". A high-strength aluminum may be as strong as steel and still deflect three times as much.

The load charts and tables give calculated deflections for the loads shown. In many cases, a final design will be determined by the maximum deflection, not the maximum load.

Bending Moment

A beam must not only hold up the anticipated loads, but must also have sufficient additional capacity to safely hold unforeseen variations in applied loads and material strengths. This additional capacity is called a safety factor and is usually regulated by the various design codes and standards. A beam's strength is usually measured by an allowable bending moment or an allowable stress. The traditional approach is the allowable stress method, where a beam is determined to have a maximum allowable stress (in pounds per square inch) which is not to be exceeded.

The approach of the current AISI "Specification For The Design Of Cold-Formed Steel Structural Members" is to use a maximum allowable bending moment (in inch-pounds) which is not to be exceeded. Bending moment divided by a beam's section modulus or "S" equals stress.



Column - Design Fundamentals



Columns are structural members that are loaded parallel to their length. Most columns are vertical and are used to carry loads from a higher level to a lower level. However, any member subjected to compression loads, such as a diagonal or prop brace, is a column.

A column fails by “buckling”, which is a sudden loss of straightness and subsequent collapse. Allowable column load is dependent on:

- (a) The length of column
- (b) The type of loading
- (c) The support conditions
- (d) The column's cross-sectional shape and material.

Column Length

The column length is measured from braced point to braced point. A braced point is where the column is restrained from lateral movement (translation) in all directions.

Column Loading – Concentric Loading

Loads applied to the center of gravity of the column cross-section are considered concentric. A beam that passes over and rests on the top of a column is an example of concentric loading.

Column Loading – Eccentric Loading

Any load which is not concentric is eccentric. The amount of eccentricity (in inches) has a major effect on the load-carrying capacity of any particular column. A load that is transmitted to a column using a standard fitting bolted to the slot face, is considered eccentric.

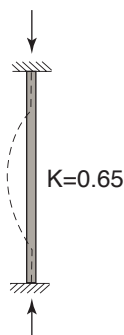
The load tables give allowable loads for both concentric (loaded at C G) and certain eccentric (loaded at slot face) loading. Allowable loads for other eccentric loading must be determined by a qualified design professional.

Support Conditions

Based on the support conditions, an appropriate “K” value is selected. This “K” value, which mathematically describes the column end conditions, is used in the column design equations. The most common support condition combinations are as follows:

Support Conditions - Fixed Top – Fixed Bottom

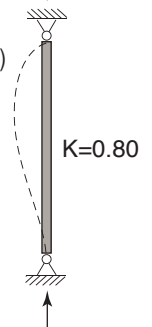
Both ends are restrained against rotation and lateral movement (translation).



Support Conditions - Pinned Top – Fixed Bottom

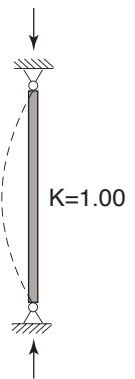
The top is restrained against lateral movement (translation) but is allowed to rotate. The bottom is restrained against rotation and lateral movement.

This is a common support condition and is used to construct the allowable column load applied at the Slot Face tables.



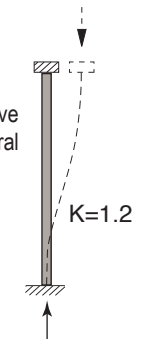
Support Conditions - Pinned Top – Pinned Bottom

Both ends are restrained against lateral movement (translation) but, are allowed to rotate.



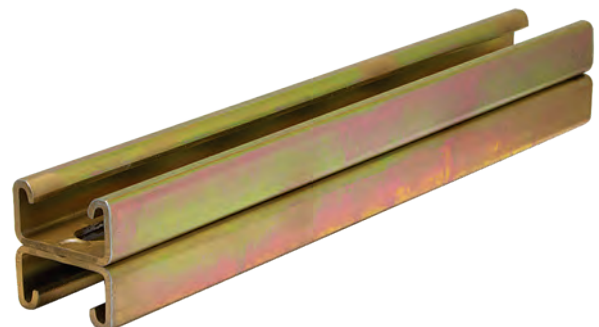
Support Conditions - Fixed / Free Top – Fixed Bottom

The top is restrained against rotation, but is allowed to move laterally. The bottom is restrained against rotation and lateral movement (translation).



Cross-Sectional Shape

The cross-sectional shape of a column member determines the value of its “Radius of Gyration” or “r”. In general, a member with a large “r” makes a better column than a member with a small “r”. Each axis of a column has a different “r”. Typically the axis with the smallest “r” determines the final design.





Materials & Manufacturing Details

General Information

Most Wesanco channels are produced in 10 and 20-foot lengths with a length tolerance of plus or minus $\frac{1}{16}$. Wesanco W600 and W700 are produced in 10 foot lengths only.

Channels

General

Wesanco channels are manufactured by the cold roll forming process which produces cross sections of uniform dimensions within tolerances established by the Metal Framing Manufacturer's Association, Metal Framing Standards Publication No. MFMA-1.

Material

Steel used in the manufacture of Wesanco channels conforms to the ASTM specifications in this catalog.

Design

Design is based on AISI "Specification for the Design of Cold-Formed Steel Structural Members." Maximum bending stress used in design is 25,000 pounds per square inch (PSI). This is based upon a virgin steel minimum yield stress of 33,000 psi cold worked to an average yield stress of 42,000 psi.

Welding

Welds meet the performance requirements of section 4 of AISI "Specification for the design of Cold-Formed Steel Structural Members." All multiple sections of two or more single Wesanco channels are resistance spot-welded approximately 2" to 3" on center.

Channel Nuts

General

Wesanco channel nuts are formed or stamped from steel bar stock and is case hardened after all forming and tapping operations have been completed. The nuts are coated with zinc to ASTM-B633 "Electrodeposited Coatings of Zinc on Iron and Steel."

Wesanco channel nuts have uniform and American coarse screw threads.

Channel nuts are available both with and without springs. Springs are made from Galvanized spring steel wire.

Material

The bar steel used in manufacture of Wesanco channel nuts conforms to ASTM A575 or ASTM A576.

Weights and Dimensions

All weights given for materials are approximate shipping weights. Weights will vary somewhat due to permissible tolerances and slight variations in material thickness.

We reserve the right to change design specifications or to add or discontinue specific items without notice.

Fittings

General

Wesanco fittings are manufactured by cold forming steel in punch press dies and conform to those tolerances listed in section 5.3 of Metal Framing Standards Publication No. MFMA-1.

Material

Steel used for Wesanco fittings is Hot-Rolled Pickled and Oiled strip steel or bar conforming to ASTM A 570 or ASTM A575.

Welding

Wesanco fittings having two or more component parts may be arc or resistance welded in accordance with the appropriate American Welding Society Standards.

Finishes

Electroplated Zinc or Electro-Galvanized (EG)

This coating is standard for most ZSi-Foster products. Electro-Galvanized products meet ASTM B633 SC1 or SC3, Type III. Electroplating deposits zinc on the surface of the steel by electrolysis from a bath of zinc salts. The thickness of zinc applied in this method is between 0.2 mils to 0.5 mils [5.1 μm to 12.7 μm].

Mill-Galvanized (Pre-Galvanized) (PG)

ASTM A653 G-90 Pre-galvanized zinc is produced by continuously rolling steel coils or sheets through molten zinc at the mills. The coils are slit to size and fabricated by forming, shearing or punching to produce the finished product. During fabrication cut edges are not generally zinc coated. However, the zinc near the uncoated metal becomes a sacrificial anode to protect the bare areas.

Paint-Green Powder Coating (GR)

A dark green low gloss powder coating is applied and thoroughly baked after steel has been cleaned and phosphatized.

Hot Dip Galvanized After Fabrication (HG)

Wesanco channel and fittings which are hot dip galvanized after fabrication conform to one of the following specifications. ASTM A 123, ASTM A153 or ASTM A386.

Silva-Guard (SG)

ZSi-Foster Silva-Guard coating is a multi-step process that meets the 1000 hour salt spray test per ASTM B117 and DIN 50021.

Silva-Guard coating is WEEE, ELV, and RoHS compliant.

SG Finish is approved for outdoor as well as indoor applications. It is a chrome free duplex coating system that combines an inorganic zinc-rich basecoat with an aluminum-rich organic topcoat.

Special Coatings

Other commercially available finishes can be supplied per specification when required to protect applications.

Material Specifications



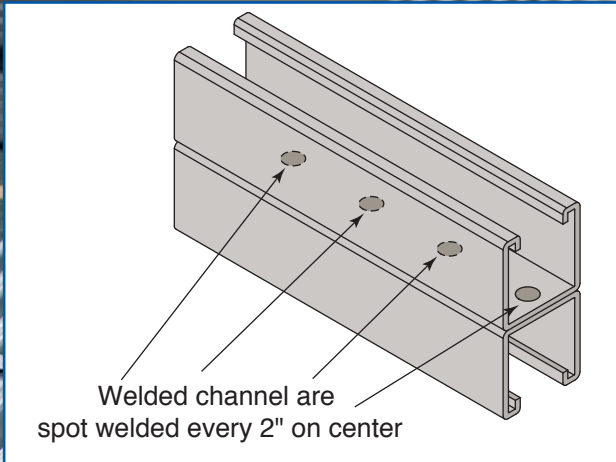
Channel Specifications			
Material	Current ASTM Designation	Previous ASTM Designation	ASTM Description
Hot Rolled: Channel	A 1011SS GR33	A 570 GR33	Hot rolled carbon steel sheet and strip, structural quality.
Cold Rolled: Channel	A 1008SS GR33, A 1008	A 611	Cold rolled carbon sheet steel.
Pregalvanized: Channel	A 653 SS GR33	A 653 GR33 G90	Steel sheet zinc-coated by hot dip process at mill, structural quality.
Stainless Steel: Channel	A 240 TYPE 304	A 240 TYPE 304	Heat resisting chromium and chromium-nickel stainless steel plate, sheet, strip for pressure vessel.
	A 240 TYPE 316	A 240 TYPE 316	
Aluminum: Channel	B 221 TYPE 6063 T6	B 221 TYPE 6063 TS	Aluminum alloy extruded bar, rod, wire, shape, and tube.

Fittings & Hardware Specifications			
Material	Current ASTM Designation	Previous ASTM Designation	ASTM Description
Bar Stock: Channel Nuts	A 36	A 575	Merchant quality hot rolled carbon steel bars. Steel bars, carbon, hot rolled special quality.
	A 29-03	A 576	
Cold Rolled: Closure Strip	A 1008 CS GR33	A 611	Cold rolled carbon sheet steel.
Pregalvanized: Closure Strip	A 653 GR33 G90	A 653 GR33 G90	Steel sheet, zinc coated (galvanized) by the hot dipped process, commercial quality.
Bar Stock	A 569	A 569	Merchant quality hot rolled carbon steel bars.
Hot Rolled Plate	A 575	A 575	Steel, sheet and strip, carbon drawing quality, special killed, hot rolled.
Fitting (Steel)	A 366	A 366	Steel carbon, cold rolled sheet, commercial quality structural steel.
	A 366	A 366	
	A 36	A 36	
Hardware	A 563	A 563	Carbon and alloy steel nuts. Carbon steel externally threaded standard fasteners.
	A 307	A 307	
Strip Steel: Pipe Clamps	A 569	A 569	Steel, sheet and strip, carbon drawing quality, special killed, hot rolled.
Hot Rolled: Shelf Brackets	A 569	A 569	Steel carbon, cold rolled sheet, commercial quality structural steel.



BACK-TO-BACK CHANNEL WELDS AND STEEL TRACEABILITY

Back-to-Back Channel Welds



Steel Traceability

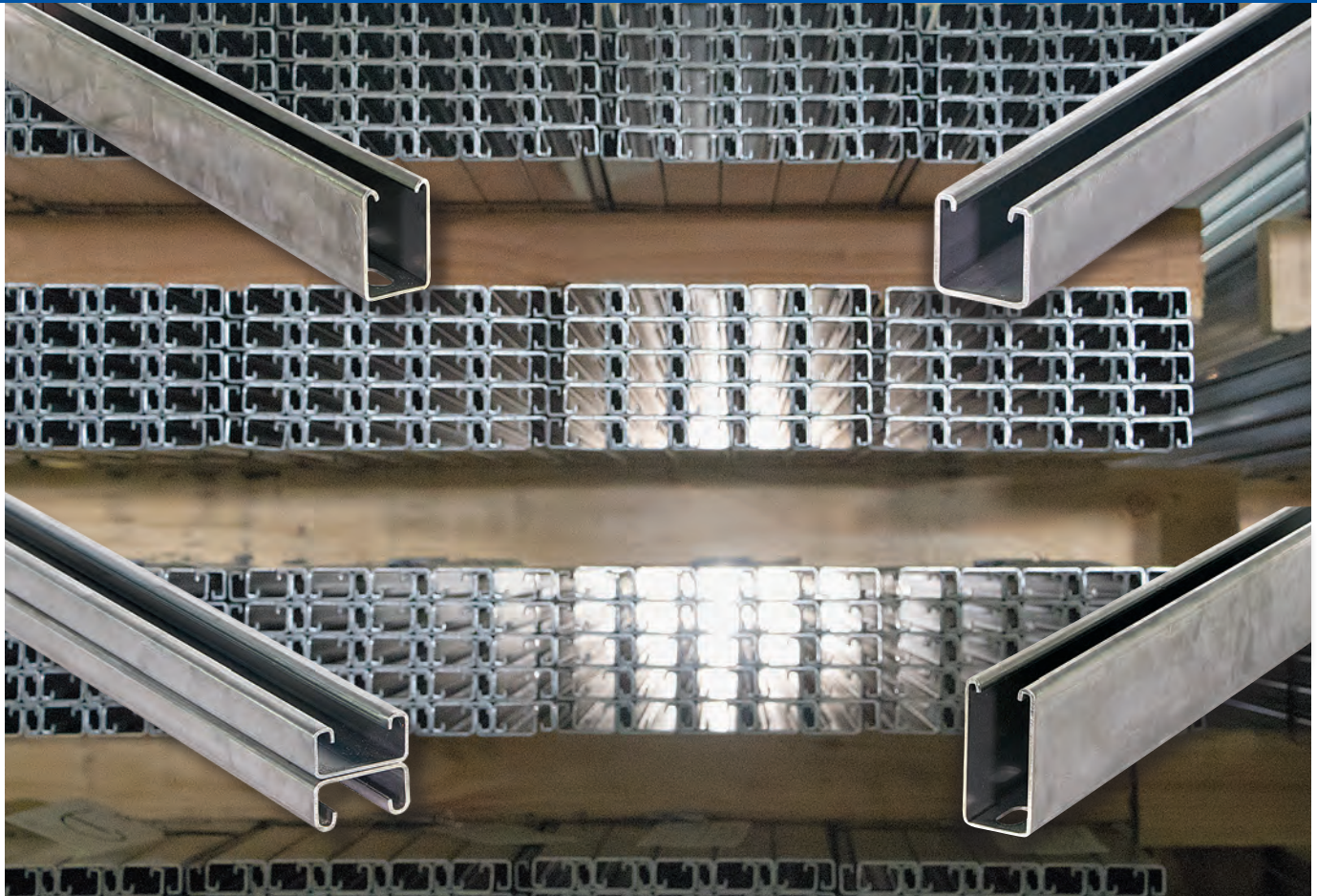
Wesanco Channel is stamped with a material code and a number code used for tracing the origin of the steel



Wesanco Channel is stamped with a material code and a number code used for tracing the origin of the steel



Channel Metal Framing



Channel Material Specifications			
Material	Material Code	ASTM Designation	ASTM Description
Hot Rolled: Channel	Use Finish Code	A 1011SS GR33	Hot rolled carbon steel sheet and strip, structural quality.
Cold Rolled: Channel		A 1008SS GR33, A 1008	Cold rolled carbon sheet steel.
Stainless Steel: Channel	ST304	A 240 TYPE 304	Heat resisting chromium and chromium-nickel stainless steel plate, sheet, strip for pressure vessel.
	ST316	A 240 TYPE 316	Heat resisting chromium and chromium-nickel stainless steel plate, sheet, strip for pressure vessel.
Aluminum: Channel	AL	B 221 TYPE 6063 T6	Aluminum alloy extruded bar, rod, wire, shape and tube.

Channel Finish Specifications		
Finish	Finish Code	Description
Paint-Green Powder Coating	GR	A dark green low gloss powder coating is applied and thoroughly baked after steel has been cleaned and phosphatized.
Electroplated	EG	Wesanco fittings and hardware supplied as "Electro-Galvanized" in accordance with ASTM B 633.
Mill-Galvanized (Pre-Galvanized)	PG	Galvanized steel used in the manufacture of Wesanco channel sections conforms to ASTM A 653 GR33 G90. Uncoated edges resulted from slitting, punching and channel cut off are present.
Hot Dip Galvanized After Fabrication	HG	Wesanco channel and fittings which are hot dip galvanized after fabrication conform to one of the following specifications. ASTM A 123, ASTM A153 or ASTM A386.
Special Coatings	PL, GOLD	Other commercially available finishes can be supplied per specification when required to protect applications.

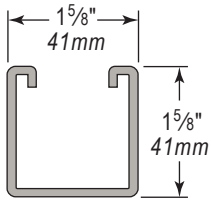
Call ZSi-Foster at (800) 323-7053 or order now at zsi-foster.com

12 Gauge Channel

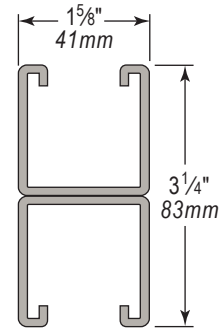
W200 & W201

(pages 34-39)

W200



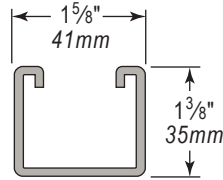
W201



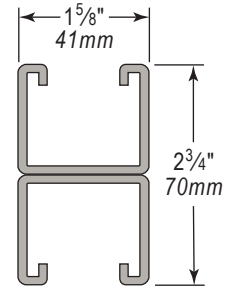
W300 & W301

(pages 44-46)

W300



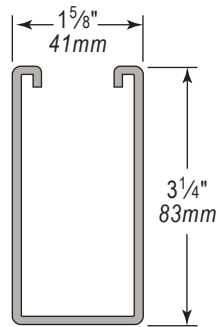
W301



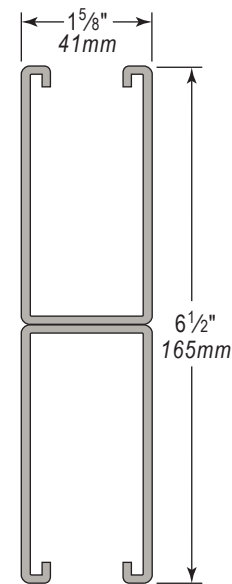
W150 & W151

(pages 67-70)

W150



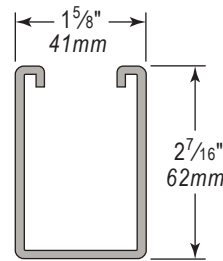
W151



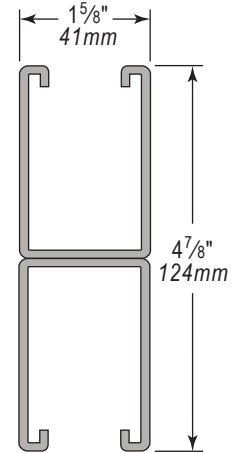
W100 & W101

(pages 63-66)

W100



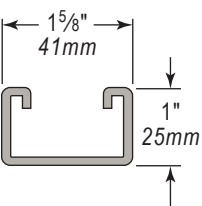
W101



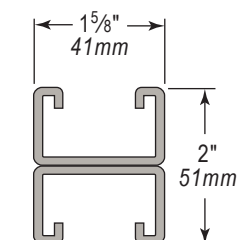
W800 & W801

(pages 47-50)

W800



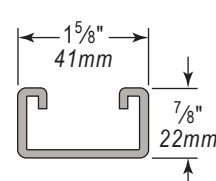
W801



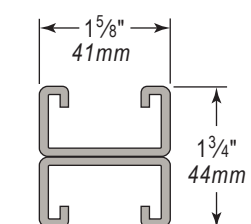
W900 & W901

(pages 51-54)

W900



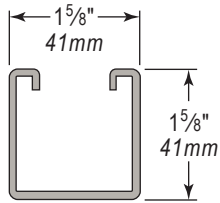
W901



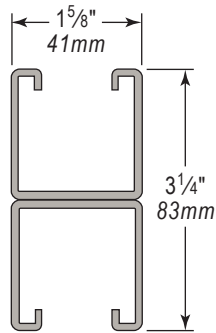
14 Gauge Channel

W210 & W211
(pages 40-43)

W210

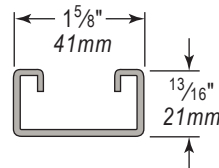


W211

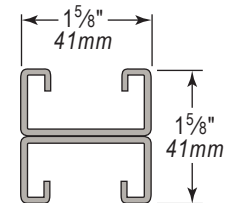


W500 & W501
(pages 55-59)

W500



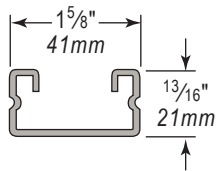
W501



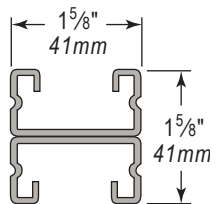
16 Gauge Channel

W400 & W401
(pages 60-62)

W400



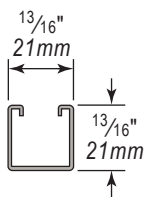
W401



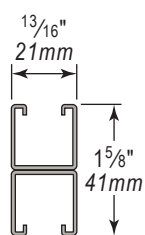
19 Gauge Channel

W600 & W601
(pages 71-73)

W600

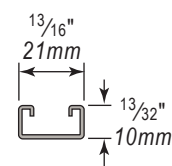


W601

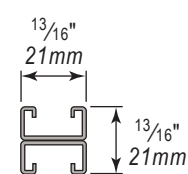


W700 & W701
(pages 74-75)

W700



W701



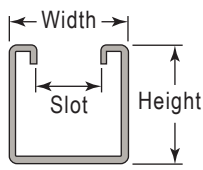


Channels in Descending Order of Strength

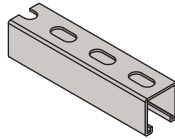
Channel	Channel Style	Area		Weight		I x		S x		Moment	
		In ²	(cm ²)	lbs / ft	(kg/m)	In ⁴	(cm ⁴)	In ³	(cm ³)	in-lbs	(N•m)
W151		1.804"	(11.64)	6.14	(9.1)	6.339"	(263.9)	1.951	(32.0)	48,180	(5,440)
W101		1.463"	(9.44)	4.98	(7.4)	2.867"	(119.3)	1.176	(19.3)	28,940	(3,270)
W150		0.902"	(5.82)	3.07	(4.6)	1.113"	(46.3)	0.639	(10.5)	15,770	(1,780)
W201		1.122"	(7.24)	3.82	(5.7)	0.954"	(39.7)	0.587	(9.6)	14,360	(1,620)
W301		1.017"	(6.56)	3.46	(5.1)	0.608"	(25.3)	0.443	(7.3)	10,810	(1,220)
W211		0.834"	(5.38)	2.84	(4.2)	0.739"	(30.8)	0.455	(7.5)	11,340	(1,280)
W100		0.732"	(4.72)	2.49	(3.7)	0.530"	(22.0)	0.400	(6.5)	9,820	(1,110)
W200		0.561"	(3.62)	1.91	(2.8)	0.188"	(7.8)	0.207	(3.4)	5,070	(570)
W901		0.807"	(5.21)	2.75	(4.1)	0.183"	(7.6)	0.209	(3.4)	5,060	(570)
W300		0.508"	(3.28)	1.73	(2.6)	0.123"	(5.1)	0.158	(2.6)	3,840	(430)
W210		0.417"	(2.69)	1.42	(2.1)	0.148"	(6.2)	0.169	(2.8)	4,060	(460)
W801		0.859"	(5.54)	2.92	(4.3)	0.261"	(10.9)	0.261	(4.3)	3,610	(410)
W501		0.590"	(3.81)	2.01	(3.0)	0.122"	(5.1)	0.150	(2.4)	3,610	(410)
W800		0.430"	(2.77)	1.46	(2.2)	0.054"	(2.2)	0.093	(1.5)	3,610	(410)
W401		0.487"	(3.14)	1.66	(2.5)	0.105"	(4.4)	0.129	(2.1)	3,210	(360)
W900		0.403"	(2.60)	1.37	(2.0)	0.038"	(1.6)	0.074	(1.2)	1,800	(200)
W500		0.295"	(1.90)	1.00	(1.5)	0.026"	(1.1)	0.056	(0.9)	1,360	(150)
W400		0.244"	(1.57)	0.83	(1.2)	0.023"	(1.0)	0.050	(0.8)	1,230	(140)
W601		0.214"	(1.38)	0.73	(1.1)	0.045"	(1.9)	0.056	(0.9)	1,390	(160)
W600		0.107"	(0.69)	0.36	(0.5)	0.009"	(0.4)	0.020	(0.3)	510	(60)
W701		0.149"	(0.96)	0.51	(0.8)	0.007"	(0.3)	0.018	(0.3)	450	(50)
W700		0.074"	(0.48)	0.25	(0.4)	0.002"	(0.1)	0.007	(0.1)	170	(20)



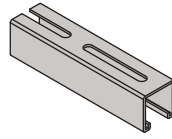
Wesanco® Channel Selection Chart



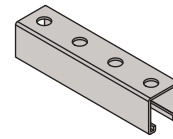
"SS" - Channel With Short Slots



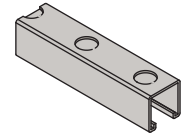
"SL" - Channel With Long Slots



"H" - Channel With Holes



"KO" - Channel With Knock-Outs



Channel	Channel Dimensions				Steel Gauge	Hole Patterns				Finish					Special Metals						
	Style	Width	Height	Slot Width		SS	SL	H	KO	PG	EG	HG	GR	PL	Gold	ST304	ST316	EA			
W100		1 5/8" (41mm)	2 7/16" (62mm)	7/8" (22mm)	12	◆	◆	◆	◆	■	-	■	■	■	■	■	■	-			
W101			4 7/8" (124mm)			◆	◆	◆	◆	■	-	■	■	■	■	■	■	■	■	-	
W150			3 1/4" (83mm)			◆	◆	◆	◆	■	-	■	■	■	■	■	■	■	■	-	
W151			6 1/2" (165mm)			◆	◆	◆	◆	■	-	■	■	■	■	■	■	■	■	-	
W200			1 5/8" (41mm)			◆	◆	◆	◆	■	-	■	■	■	■	■	■	■	■	■	
W201			3 1/4" (83mm)			◆	◆	◆	◆	■	-	■	■	■	■	■	■	■	■	■	
W210			1 5/8" (41mm)			◆	◆	◆	◆	■	-	■	■	■	■	■	■	■	■	-	
W211			3 1/4" (83mm)			◆	◆	◆	◆	■	-	■	■	■	■	■	■	■	■	-	
W300			1 3/8" (35mm)			◆	◆	◆	◆	■	-	■	■	■	■	■	■	■	■	-	
W301			2 3/4" (70mm)			◆	◆	◆	◆	■	-	■	■	■	■	■	■	■	■	-	
W400			1 3/16" (21mm)			◆	◆	◆	◆	■	-	■	■	■	■	■	■	■	■	-	
W401			1 5/8" (41mm)			◆	◆	◆	◆	■	-	■	■	■	■	■	■	■	■	-	
W500			1 3/16" (21mm)			◆	◆	◆	◆	■	-	■	■	■	■	■	■	■	■	■	
W501			1 5/8" (41mm)			◆	◆	◆	◆	■	-	■	■	■	■	■	■	■	■	■	
W600			1 3/16" (21mm)			1 3/16" (21mm)	7/16" (11mm)	19	-	-	-	-	-	■	■	■	■	■	-	-	-
W601						1 5/8" (41mm)			-	-	-	-	-	-	■	■	■	■	■	■	-
W700		1 3/32" (10mm)		-	-	-			-	-	-	■	■	■	■	■	■	-	-	-	
W701		1 3/16" (21mm)		-	-	-			-	-	-	■	■	■	■	■	■	-	-	-	
W800		1 5/8" (41mm)	1" (25mm)	7/8" (22mm)	12	◆	◆	◆	◆	■	-	■	■	■	■	■	■	-			
W801			2" (51mm)			◆	◆	◆	◆	■	-	■	■	■	■	■	■	■	-		
W900			7/8" (23mm)			◆	◆	◆	◆	■	-	■	■	■	■	■	■	■	■	-	
W901			1 3/4" (44mm)			◆	◆	◆	◆	■	-	■	■	■	■	■	■	■	■	-	

◆ Pierced Available

For finish and material specifications see pages 24 - 25

PG - Pre-Galvanized • EG - Electro-Galvanized • HG - Hot Dip Galvanized • GR - Paint-Green Powder Coating • PL - Uncoated Steel • GOLD - Yellow Zinc Dichromate
ST304 - Stainless Steel Type 304 • ST316 - Stainless Steel Type 316 • EA - Extruded Aluminum



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Introduction

Channel

Channel Nuts & Hardware

General Fittings

Pipe & Conduit Supports

Electrical Fittings

Spring Steel

Loop & Ring Clamps

Beta Clamps & Z-Clamps

Concrete Inserts

Rooftop Supports

Gamma Pads

Technical Data



Wesanco® Pierced Channel

Pierced Channel

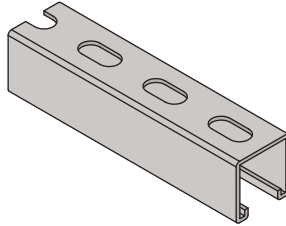
Channel with Short Slots

$\frac{9}{16}$ " x $1\text{-}\frac{1}{8}$ " (14mm x 29mm)

Slots are punched on 2" (51mm) centers.

Add "SS" to channel number.

Example: W200SS



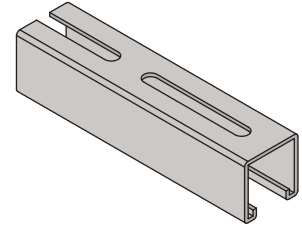
Channel with Long Slots

$\frac{13}{32}$ " x 3" (10mm x 76mm)

Slots are punched on 4" (102mm) centers.

Add "SL" to channel number.

Example: W200SL

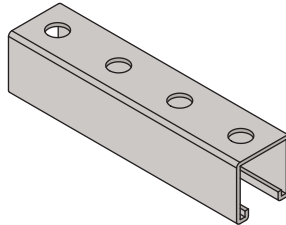


Channel with Holes

$\frac{9}{16}$ " (14mm) Holes are punched on $1\text{-}\frac{7}{8}$ " (48mm) centers.

Add "H" to channel number.

Example: W200H

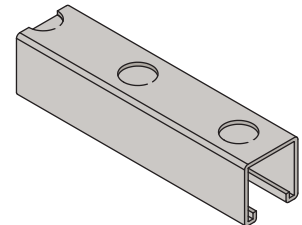


Channel with Knock-Outs

$\frac{7}{8}$ " (22mm) Knock-outs are punched on 6" (152mm) centers.

Add "KO" to channel number.

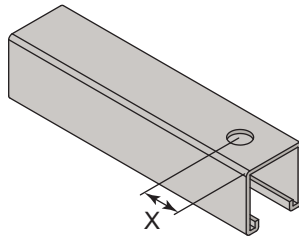
Example: W200KO



Channel with Specialty Custom Perforations

Designation is indicated by adding type of perforation from standard selection and pertinent dimensional information.

Example: W200H 1" from each end. If used as a trapeze reference page 246.

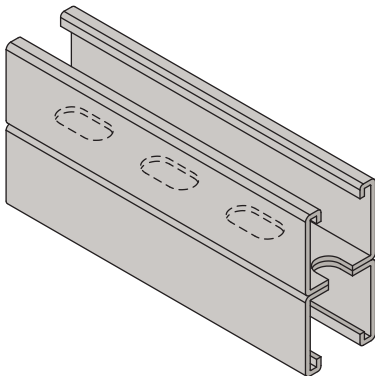


Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots	0.90
SL - Channel with Long Slots	0.90
H - Channel with Holes	0.95
KO - Knock-Out Channel	0.95

Pierced Combinations



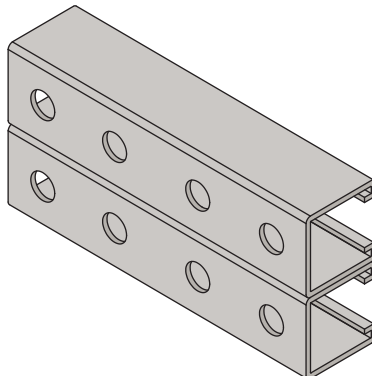
Channel with Short Slots

$\frac{9}{16}$ " x $1\text{-}\frac{1}{8}$ " (14mm x 29mm)

Slots are punched on 2" (51mm) centers.

Add "SS" to channel number.

Example: W201SS

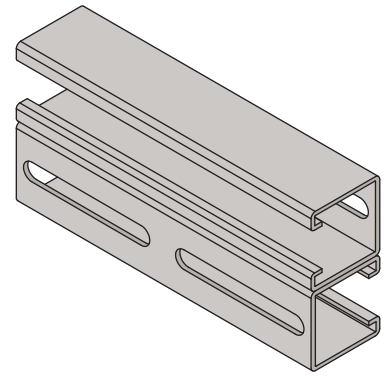


Channel with Holes

$\frac{9}{16}$ " (14mm) Holes are punched on $1\text{-}\frac{7}{8}$ " (48mm) centers.

Add "H" to channel number.

Example: W202H



Channel with Long Slots

$\frac{13}{32}$ " x 3" (10mm x 76mm)

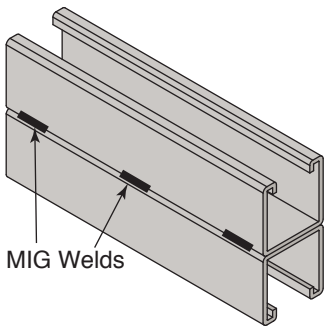
Slots are punched on 4" (102mm) centers.

Add "SL" to channel number.

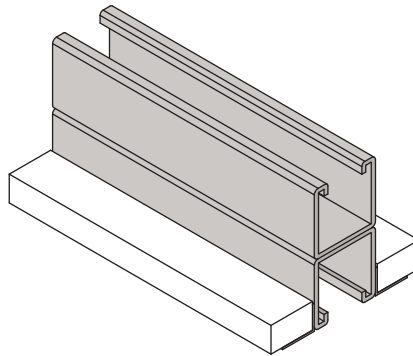
Example: W203SL



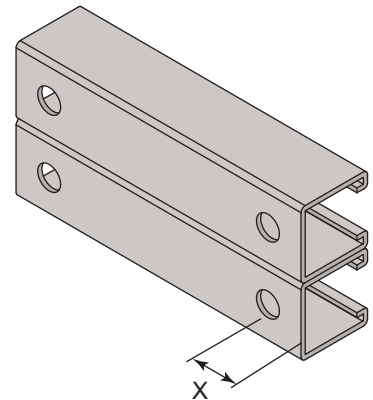
Specialty Combinations



MIG Welded To Meet Specific Engineering Request



Combination/Ceiling Support



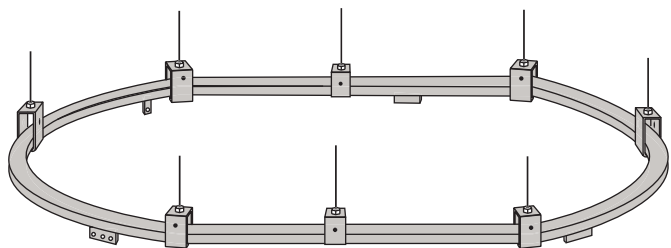
Channel Custom Pierced

Channel for Trolley Systems

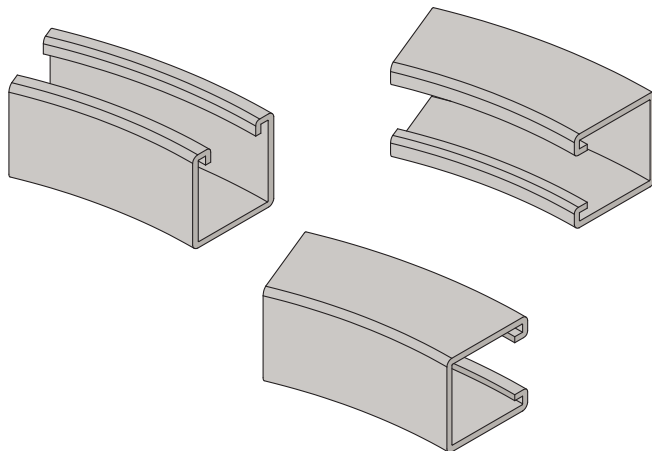
The Wesanco trolley system moves equipment from 10 to 600 lbs., with reliability, ease, and economy. Trolleys can be ganged to accommodate higher loads. Trolleys, featuring corrosion-free stainless steel wheel bearings and steel or acetyl wheels that require no lubrication, deliver built-in value and dependability for a wide range of applications. Throughout the system, famous Wesanco quality assures dependable, trouble-free performance.

Composed of three basic elements; trolleys, track, and supports. Wesanco trolley systems are efficient and economical. Different trolleys give users a wide range of weight capacities and suspension options, to allow tailoring of the system to exact application needs.

Track is available in 20 foot sections and can be easily field cut according to project requirements. Longer lengths and curved sections (shown below) are available on special order. A complete system of easy-to-use supports, including beam clamps, make installation a breeze.

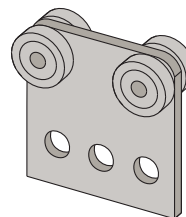


Radiused Channel for Trolleys



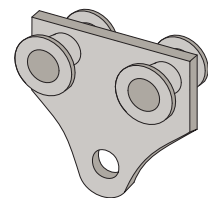
W6600

Four Wheel Trolley



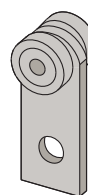
W6601 & W6605

Four Wheel Trolley



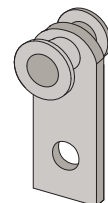
W6602

Two Wheel Trolley



W6606

Two Wheel Trolley



See page 97 for more trolley information

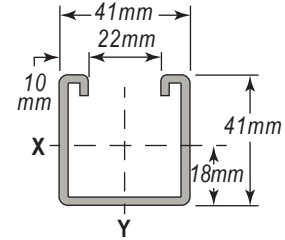
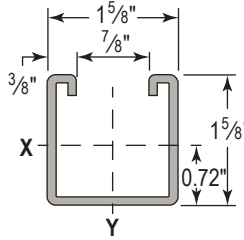
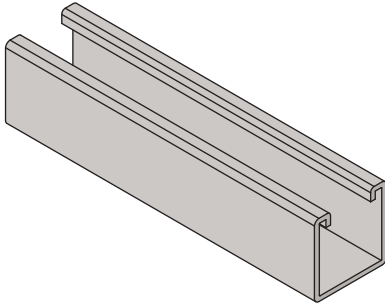




W200 & W201 - 12 Gauge Channel

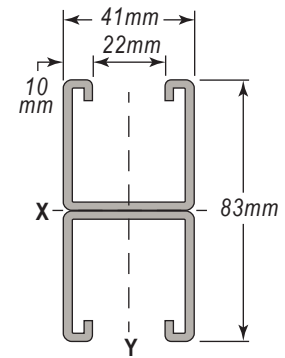
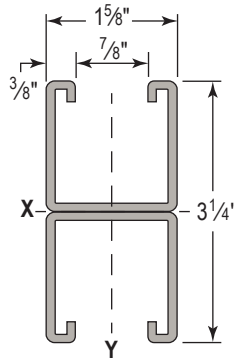
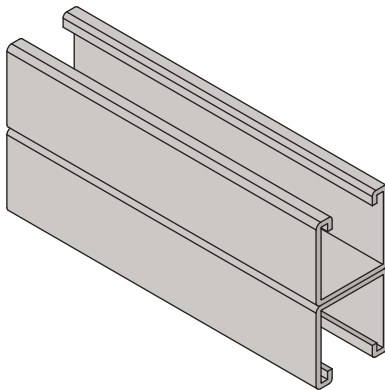
W200: 1⁵/₈" x 1⁵/₈" (41mm x 41mm) & W201: 1⁵/₈" x 3¹/₄" (41mm x 83mm)

W200: 1⁵/₈" x 1⁵/₈" (41mm x 41mm)



Available in 10', 20' & Pre-Cut lengths see page 36 • Finishes: PG, HG, GR, PL, Gold, EA, ST304, & ST316

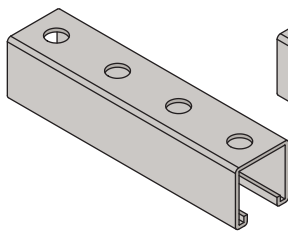
W201: 1⁵/₈" x 3¹/₄" (41mm x 83mm)



Available in 10', 20' & Pre-Cut lengths see page 37 • Finishes: PG, HG, GR, PL, Gold, EA, ST304, & ST316

Pierced Channel

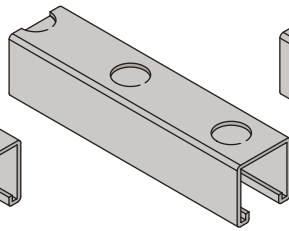
W200H



Channel With Holes

⁹/₁₆" Holes are punched on 1-⁷/₈" centers.

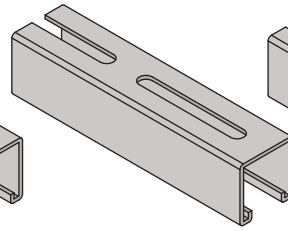
W200KO



Channel With Knock-Outs

⁷/₈" Knock-outs are punched on 6" centers.

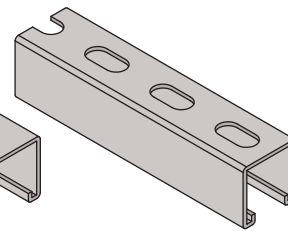
W200SL



Channel With Long Slots

¹/₂" x 3" Slots are punched on 4" centers.

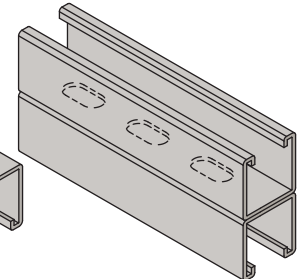
W200SS



Channel With Short Slots

⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

W201SS

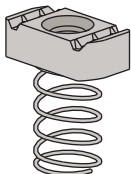


Channel With Short Slots

⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

Related Channel Nuts (See Pages 81 - 82)

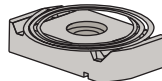
Channel Nut with Standard Spring



Channel Nut Without Spring



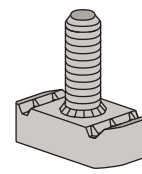
Channel Nut with Top-Lock Spring



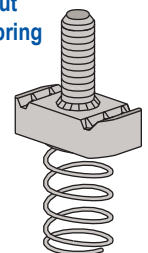
Rapid Strut Slide Nut



Stud Nut without Spring



Stud Nut with Spring

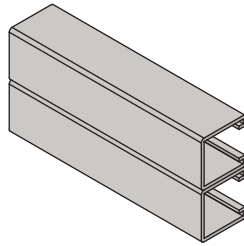


W200 Series Combination Channel



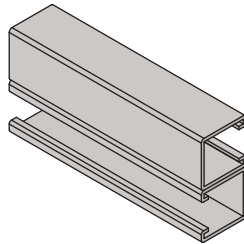
W202

1⁵/₈" x 3¹/₄"
(41mm x 83mm)



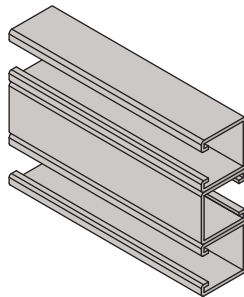
W203

1⁵/₈" x 3¹/₄"
(41mm x 83mm)



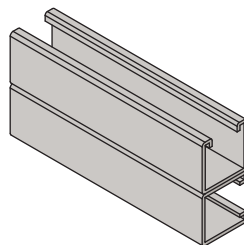
W203B3

1⁵/₈" x 4⁷/₈"
(41mm x 124mm)



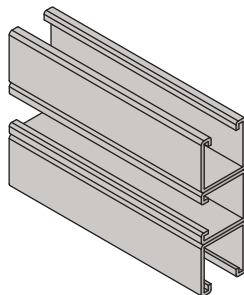
W204

1⁵/₈" x 3¹/₄"
(41mm x 83mm)



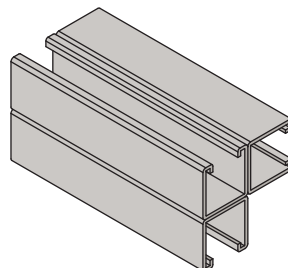
W204A3

1⁵/₈" x 4⁷/₈"
(41mm x 124mm)



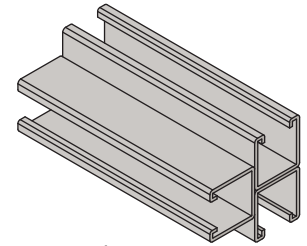
W205

3¹/₄" x 3¹/₄"
(83mm x 83mm)



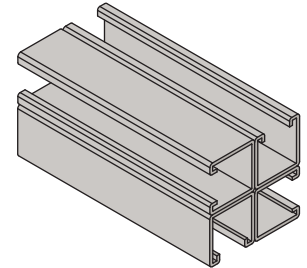
W206

3¹/₄" x 3¹/₄"
(83mm x 83mm)



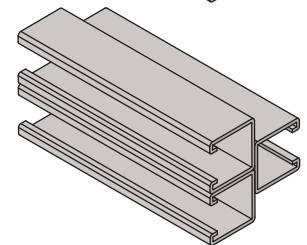
W207

3¹/₄" x 3¹/₄"
(83mm x 83mm)



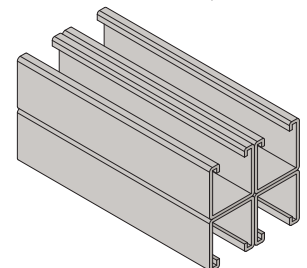
W208

3¹/₄" x 3¹/₄"
(83mm x 83mm)



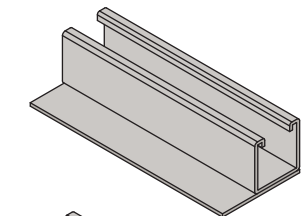
W209

3¹/₄" x 3¹/₄"
(83mm x 83mm)



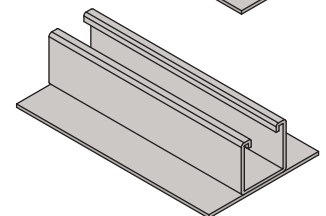
W220

2¹³/₁₆" x 1³/₄"
(71mm x 46mm)



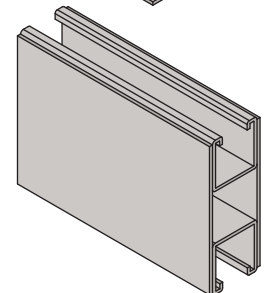
W221

4" x 1³/₄"
(102mm x 46mm)



W222

1⁷/₈" x 4⁷/₈"
(48mm x 124mm)



Introduction

Channel

Channel Nuts
& Hardware

General
Fittings

Pipe & Conduit
Supports

Electrical
Fittings

Spring
Steel

Loop & Ring
Clamps

Beta Clamps
& Z-Clamps

Concrete
Inserts

Rooftop
Supports

Gamma
Pads

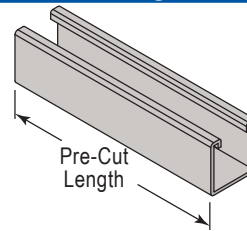
Technical
Data





W200 Pre-Cut Channel

W200: 1⁵/₈" x 1⁵/₈" (41mm x 41mm) - Solid Channel - Pre-Cut Lengths



W200 - 1 ⁵ / ₈ " x 1 ⁵ / ₈ " - 12 Gauge - Solid Channel			
Pre-Cut Length	Steel - PG	ST304	ST316
6" (15.2cm)	W200PG6IN	W200ST3046IN	W200ST3166IN
12" (0.31m)	W200PG12IN	W200ST30412IN	W200ST31612IN
18" (0.45m)	W200PG18IN	W200ST30418IN	W200ST31618IN
24" (0.61m)	W200PG24IN	W200ST30424IN	W200ST31624IN
30" (0.76m)	W200PG30IN	W200ST30430IN	W200ST31630IN
36" (0.91m)	W200PG36IN	W200ST30436IN	W200ST31636IN
42" (1.07m)	W200PG42IN	W200ST30442IN	W200ST31642IN
48" (1.22m)	W200PG48IN	W200ST30448IN	W200ST31648IN
54" (1.37m)	W200PG54IN	W200ST30454IN	W200ST31654IN
60" (1.52m)	W200PG60IN	W200ST30460IN	W200ST31660IN
72" (1.83m)	W200PG72IN	W200ST30472IN	W200ST31672IN
80" (2.03m)	W200PG80IN	W200ST30480IN	W200ST31680IN
96" (2.44m)	W200PG96IN	W200ST30496IN	W200ST31696IN
10' (3.05m)	W200PG10	W200ST30410	W200ST31610
20' (6.10m)	W200PG20	W200ST30420	W200ST31620

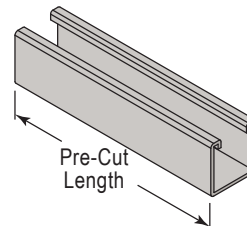
Note: Minimum order quantity is 100 pieces for any size under 10'.

W200SS: 1⁵/₈" x 1⁵/₈" (41mm x 41mm) - Channel with Short Slots - Pre-Cut Lengths



Channel With Short Slots

9/16" x 1-1/8" (14mm x 29mm) Slots
are punched on 2" (51mm) centers.



W200SS - 1 ⁵ / ₈ " x 1 ⁵ / ₈ " - 12 Gauge - Channel with Short Slots			
Pre-Cut Length	Steel - PG	ST304	ST316
6" (15.2cm)	W200SSPG6IN	W200SSST3046IN	W200SSST3166IN
12" (0.31m)	W200SSPG12IN	W200SSST30412IN	W200SSST31612IN
18" (0.45m)	W200SSPG18IN	W200SSST30418IN	W200SSST31618IN
24" (0.61m)	W200SSPG24IN	W200SSST30424IN	W200SSST31624IN
30" (0.76m)	W200SSPG30IN	W200SSST30430IN	W200SSST31630IN
36" (0.91m)	W200SSPG36IN	W200SSST30436IN	W200SSST31636IN
42" (1.07m)	W200SSPG42IN	W200SSST30442IN	W200SSST31642IN
48" (1.22m)	W200SSPG48IN	W200SSST30448IN	W200SSST31648IN
54" (1.37m)	W200SSPG54IN	W200SSST30454IN	W200SSST31654IN
60" (1.52m)	W200SSPG60IN	W200SSST30460IN	W200SSST31660IN
72" (1.83m)	W200SSPG72IN	W200SSST30472IN	W200SSST31672IN
80" (2.03m)	W200SSPG80IN	W200SSST30480IN	W200SSST31680IN
96" (2.44m)	W200SSPG96IN	W200SSST30496IN	W200SSST31696IN
10' (3.05m)	W200SSPG10	W200SSST30410	W200SSST31610
20' (6.10m)	W200SSPG20	W200SSST30420	W200SSST31620

Note: Minimum order quantity is 100 pieces for any size under 10'.



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

W201 & W202 Pre-Cut Channel



Introduction

Channel

Channel Nuts & Hardware

General Fittings

Pipe & Conduit Supports

Electrical Fittings

Spring Steel

Loop & Ring Clamps

Beta Clamps & Z-Clamps

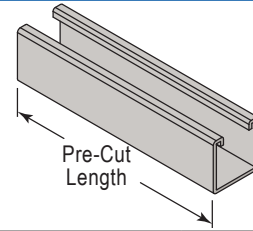
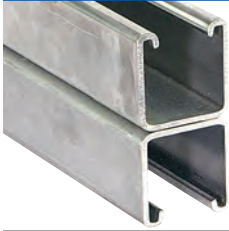
Concrete Inserts

Rooftop Supports

Gamma Pads

Technical Data

W201: 1⁵/₈" x 3¹/₄" (41mm x 83mm) - Solid Back-to-Back Channel - Pre-Cut Lengths

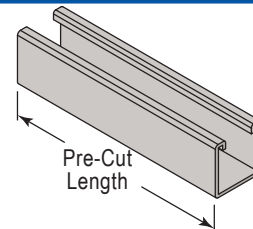
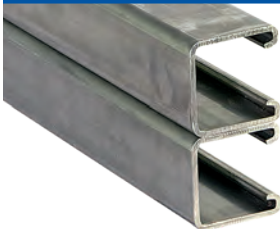


W201 - 1⁵/₈" x 3¹/₄" - 12 Gauge Solid Back-to-Back Channel

Pre-Cut Length	Steel - PG	ST304	ST316
6" (15.2cm)	W201PG6IN	W201ST3046IN	W201ST3166IN
12" (0.31m)	W201PG12IN	W201ST30412IN	W201ST31612IN
18" (0.45m)	W201PG18IN	W201ST30418IN	W201ST31618IN
24" (0.61m)	W201PG24IN	W201ST30424IN	W201ST31624IN
30" (0.76m)	W201PG30IN	W201ST30430IN	W201ST31630IN
36" (0.91m)	W201PG36IN	W201ST30436IN	W201ST31636IN
42" (1.07m)	W201PG42IN	W201ST30442IN	W201ST31642IN
48" (1.22m)	W201PG48IN	W201ST30448IN	W201ST31648IN
54" (1.37m)	W201PG54IN	W201ST30454IN	W201ST31654IN
60" (1.52m)	W201PG60IN	W201ST30460IN	W201ST31660IN
72" (1.83m)	W201PG72IN	W201ST30472IN	W201ST31672IN
80" (2.03m)	W201PG80IN	W201ST30480IN	W201ST31680IN
96" (2.44m)	W201PG96IN	W201ST30496IN	W201ST31696IN
10' (3.05m)	W201PG10	W201ST30410	W201ST31610
20' (6.10m)	W201PG20	W201ST30420	W201ST31620

Note: Minimum order quantity is 100 pieces for any size under 10'.

W202: 1⁵/₈" x 3¹/₄" (41mm x 83mm) - Solid Side-to-Side Channel - Pre-Cut Lengths



W202 - 1⁵/₈" x 3¹/₄" - 12 Gauge Solid Side-to-Side Channel

Pre-Cut Length	Steel - PG	ST304	ST316
6" (15.2cm)	W202PG6IN	W202ST3046IN	W202ST3166IN
12" (0.31m)	W202PG12IN	W202ST30412IN	W202ST31612IN
18" (0.45m)	W202PG18IN	W202ST30418IN	W202ST31618IN
24" (0.61m)	W202PG24IN	W202ST30424IN	W202ST31624IN
30" (0.76m)	W202PG30IN	W202ST30430IN	W202ST31630IN
36" (0.91m)	W202PG36IN	W202ST30436IN	W202ST31636IN
42" (1.07m)	W202PG42IN	W202ST30442IN	W202ST31642IN
48" (1.22m)	W202PG48IN	W202ST30448IN	W202ST31648IN
54" (1.37m)	W202PG54IN	W202ST30454IN	W202ST31654IN
60" (1.52m)	W202PG60IN	W202ST30460IN	W202ST31660IN
72" (1.83m)	W202PG72IN	W202ST30472IN	W202ST31672IN
80" (2.03m)	W202PG80IN	W202ST30480IN	W202ST31680IN
96" (2.44m)	W202PG96IN	W202ST30496IN	W202ST31696IN
10' (3.05m)	W202PG10	W202ST30410	W202ST31610
20' (6.10m)	W202PG20	W202ST30420	W202ST31620

Note: Minimum order quantity is 100 pieces for any size under 10'.



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W200 Channel Loads

12 Gauge - 1⁵/₈" x 1⁵/₈" (41mm x 41mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W200	1.91	0.561	0.188	0.207	0.579	0.238	0.293	0.652
	(2.84)	(3.62)	(7.83)	(3.39)	(1.47)	(9.91)	(4.80)	(1.66)

W200 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
In	Lbs	In	Lbs	Lbs	Lbs
12	3,480	0.01	3,480	3,480	3,480
24	1,740	0.06	1,740	1,740	1,740
36	1,160	0.13	1,160	1,160	910
48	870	0.23	870	770	510
60	700	0.35	660	490	330
72	580	0.51	460	340	230
84	500	0.70	340	250	170
96	430	0.89	260	190	130
108	390	1.15	200	150	100
120	350	1.42	160	120	80

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
mm	kN	mm	kN	kN	kN
300	15.7	0.35	15.7	15.7	15.7
600	7.9	1.39	7.9	7.9	7.9
900	5.2	3.13	5.2	5.2	4.2
1,200	3.9	5.53	3.9	3.6	2.4
1,500	3.2	8.72	3.0	2.3	1.5
1,800	2.6	12.52	2.1	1.6	1.1
2,100	2.2	16.85	1.6	1.2	0.8
2,400	2.0	22.13	1.2	0.9	0.6
2,700	1.7	27.93	0.9	0.7	0.4
3,000	1.6	34.39	0.8	0.6	0.4

W200 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	3,870	12,430	12,120	11,640	11,110
24	3,620	10,830	9,970	8,830	7,780
36	3,250	8,970	7,780	6,420	5,330
48	2,800	7,300	6,030	4,710	3,820
60	2,410	5,940	4,710	3,650	2,970
72	2,110	4,850	3,820	2,970	2,410
84	1,870	4,060	3,210	2,490	1,990
96	1,680	3,490	2,760	2,120	1,670
108	1,530	3,060	2,410	1,830	**
120	1,390	2,710	2,120	**	**

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	17.3	55.4	54.0	52.0	49.6
600	16.1	48.4	44.7	39.7	35.1
900	14.5	40.3	35.1	29.0	24.1
1,200	12.6	32.9	27.3	21.4	17.3
1,500	10.9	26.8	21.4	16.5	13.5
1,800	9.5	22.0	17.3	13.5	10.9
2,100	8.5	18.4	14.5	11.3	9.1
2,400	7.6	15.8	12.5	9.6	7.6
2,700	6.9	13.8	10.9	8.3	**
3,000	6.3	12.3	9.6	**	**

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

- SS - Channel with Short Slots 0.90
- SL - Channel with Long Slots 0.90
- H - Channel with Holes 0.95
- KO - Knock-Out Channel 0.95



W201 Channel Loads



12 Gauge - 1⁵/₈" x 3¹/₄" (41mm x 83mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W201	3.82	1.122	0.954	0.587	0.922	0.477	0.587	0.652
	(5.68)	(7.24)	(39.71)	(9.62)	(2.34)	(19.85)	(9.62)	(1.66)

W201 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
In	Lbs	In	Lbs	Lbs	Lbs
12	2,500 *	0.00	2,500 *	2,500 *	2,500 *
24	2,500 *	0.02	2,500 *	2,500 *	2,500 *
36	2,500 *	0.05	2,500 *	2,500 *	2,500 *
48	2,460	0.13	2,460	2,460	2,460
60	1,970	0.20	1,970	1,970	1,670
72	1,640	0.28	1,640	1,640	1,160
84	1,410	0.39	1,410	1,280	850
96	1,230	0.50	1,230	980	650
108	1,090	0.64	1,030	770	510
120	980	0.78	830	630	420

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
mm	kN	mm	kN	kN	kN
300	11.1 *	0.05	11.1 *	11.1 *	11.1 *
600	11.1 *	0.39	11.1 *	11.1 *	11.1 *
900	11.1 *	1.31	11.1 *	11.1 *	11.1 *
1,200	11.1 *	3.10	11.1 *	11.1 *	11.1 *
1,500	8.9	4.84	8.9	8.9	7.7
1,800	7.4	6.98	7.4	7.4	5.3
2,100	6.4	9.50	6.4	5.9	3.9
2,400	5.6	12.39	5.6	4.5	3.0
2,700	4.9	15.66	4.7	3.6	2.4
3,000	4.4	19.36	3.8	2.9	1.9

W201 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	6,700	25,700	25,480	25,120	24,720
24	6,580	24,510	23,830	22,900	22,010
36	6,430	23,020	22,010	20,810	19,820
48	6,290	21,580	20,450	18,860	16,320
60	6,130	20,370	18,860	15,680	12,520
72	5,730	19,160	16,320	12,520	9,040
84	5,270	17,120	13,760	9,570	6,640
96	4,770	15,040	11,310	7,320	5,090
108	4,240	12,980	9,040	5,790	4,020
120	3,750	11,010	7,320	4,690	**

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	29.8	114.4	113.4	111.9	110.1
600	29.3	109.2	106.3	102.2	98.3
900	28.6	102.7	98.3	92.9	88.5
1,200	28.0	96.4	91.4	84.7	73.7
1,500	27.4	91.0	84.7	70.9	57.0
1,800	25.7	86.1	73.7	57.0	41.5
2,100	23.7	77.2	62.5	43.9	30.5
2,400	21.5	68.1	51.6	33.6	23.4
2,700	19.2	59.0	41.5	26.6	18.5
3,000	17.0	50.3	33.6	21.5	**

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots. 0.90

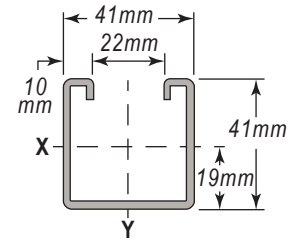
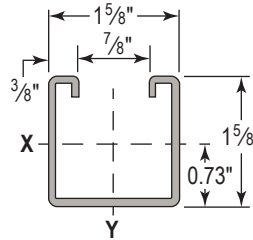
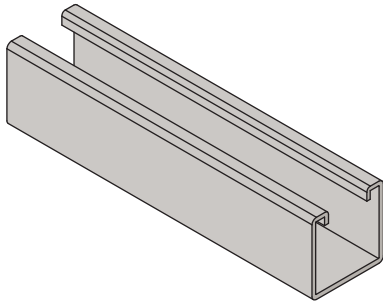




W210 & W211 - 14 Gauge Channel

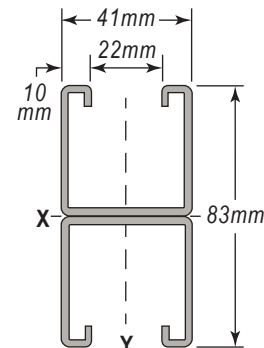
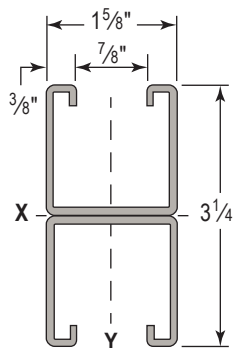
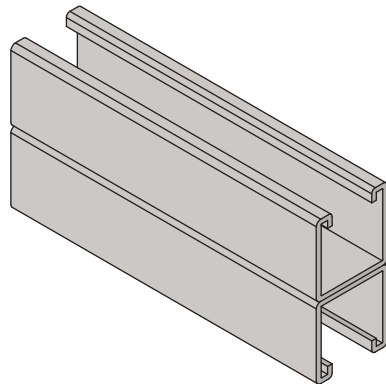
W210: 1⁵/₈" x 1⁵/₈" (41mm x 41mm) & W211: 1⁵/₈" x 3¹/₄" (41mm x 83mm)

W210: 1⁵/₈" x 1⁵/₈" (41mm x 41mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

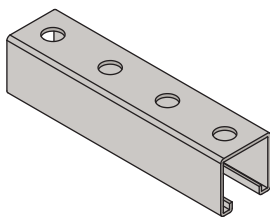
W211: 1⁵/₈" x 3¹/₄" (41mm x 83mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

Pierced Channel

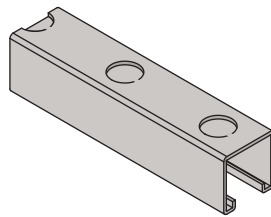
W210H



Channel With Holes

⁹/₁₆" Holes are punched on 1-¹/₂" centers.

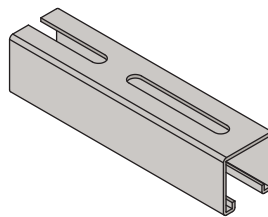
W210KO



Channel With Knock-Outs

⁷/₈" Knock-outs are punched on 6" centers.

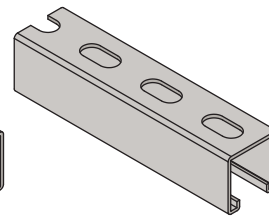
W210SL



Channel With Long Slots

¹/₂" x 3" Slots are punched on 4" centers.

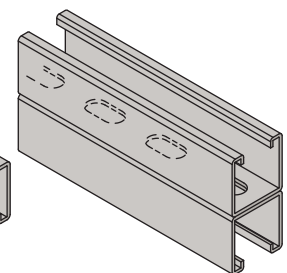
W210SS



Channel With Short Slots

⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

W211SS

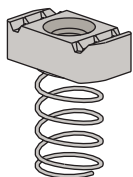


Channel With Short Slots

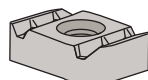
⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

Related Channel Nuts (See Pages 81 - 82)

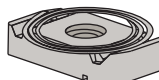
Channel Nut with Standard Spring



Channel Nut Without Spring



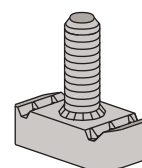
Channel Nut with Top-Lock Spring



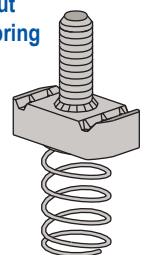
Rapid Strut Slide Nut



Stud Nut without Spring



Stud Nut with Spring

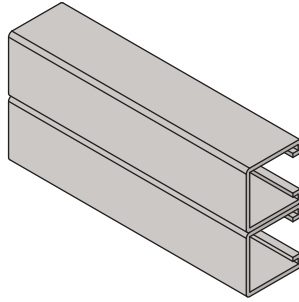


W210 Series Combination Channel



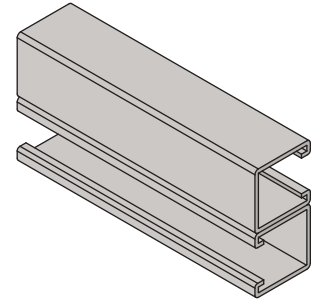
W212

1⁵/₈" x 3¹/₄"
(41mm x 83mm)



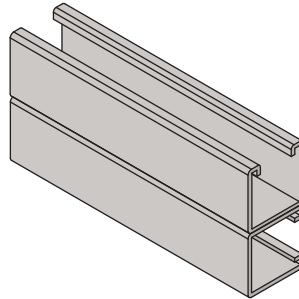
W213

1⁵/₈" x 3¹/₄"
(41mm x 83mm)



W214

1⁵/₈" x 3¹/₄"
(41mm x 83mm)



Note: Additional combinations are available upon request

Introduction

Channel

Channel Nuts
& Hardware

General
Fittings

Pipe & Conduit
Supports

Electrical
Fittings

Spring
Steel

Loop & Ring
Clamps

Beta Clamps
& Z-Clamps

Concrete
Inserts

Rooftop
Supports

Gamma
Pads

Technical
Data





W210 Channel Loads

14 Gauge - 1⁵/₈" x 1⁵/₈" (41mm x 41mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W210	1.42	0.417	0.148	0.169	0.596	0.183	0.225	0.662
	(2.11)	(2.69)	(6.16)	(2.77)	(1.51)	(7.62)	(3.69)	(1.68)

W210 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
In	Lbs	In	Lbs	Lbs	Lbs
12	2,840	0.01	2,840	2,840	2,840
24	1,420	0.06	1,420	1,420	1,420
36	950	0.13	950	950	720
48	710	0.23	710	610	400
60	570	0.37	520	390	260
72	470	0.52	360	270	180
84	410	0.72	260	200	130
96	350	0.92	200	150	100
108	320	1.20	160	120	80
120	280	1.44	130	100	60

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
mm	kN	mm	kN	kN	kN
300	12.8	0.36	12.8	12.8	12.8
600	6.4	1.44	6.4	6.4	6.4
900	4.3	3.24	4.3	4.3	3.3
1,200	3.2	5.75	3.2	2.8	1.9
1,500	2.6	9.05	2.4	1.8	1.2
1,800	2.1	12.94	1.6	1.2	0.8
2,100	1.8	17.55	1.2	0.9	0.6
2,400	1.6	23.01	0.9	0.7	0.4
2,700	1.4	29.12	0.7	0.5	0.4
3,000	1.3	36.20	0.6	0.4	0.3

W210 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	3,110	9,250	9,020	8,660	8,250
24	2,880	8,030	7,330	6,360	5,420
36	2,460	6,480	5,420	4,190	3,210
48	1,980	4,990	3,830	2,760	2,160
60	1,570	3,740	2,760	2,050	1,640
72	1,300	2,860	2,160	1,640	1,320
84	1,100	2,310	1,780	1,370	1,110
96	950	1,950	1,520	1,170	950
108	840	1,690	1,320	1,030	**
120	750	1,490	1,170	**	**

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	13.8	41.2	40.3	38.7	36.9
600	12.9	35.9	32.9	28.6	24.5
900	11.1	29.1	24.5	19.0	14.6
1,200	8.9	22.6	17.4	12.5	9.8
1,500	7.1	17.0	12.5	9.3	7.4
1,800	5.9	13.0	9.8	7.4	6.0
2,100	5.0	10.5	8.1	6.2	5.0
2,400	4.3	8.9	6.9	5.3	4.3
2,700	3.8	7.7	6.0	4.7	**
3,000	3.4	6.8	5.3	4.1	**

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

- SS - Channel with Short Slots 0.90
- SL - Channel with Long Slots 0.90
- H - Channel with Holes 0.95
- KO - Knock-Out Channel 0.95



W211 Channel Loads



14 Gauge - 1⁵/₈" x 3¹/₄" (41mm x 83mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W211	2.84	0.834	0.739	0.455	0.942	0.365	0.450	0.662
	(4.23)	(5.38)	(30.76)	(7.46)	(2.39)	(15.19)	(7.37)	(1.68)

W211 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
In	Lbs	In	Lbs	Lbs	Lbs
12	1,600 *	0.00	1,600 *	1,600 *	1,600 *
24	1,600 *	0.01	1,600 *	1,600 *	1,600 *
36	1,600 *	0.04	1,600 *	1,600 *	1,600 *
48	1,600 *	0.11	1,600 *	1,600 *	1,600 *
60	1,530	0.20	1,530	1,530	1,290
72	1,270	0.28	1,270	1,270	900
84	1,090	0.39	1,090	990	660
96	950	0.50	950	760	500
108	850	0.64	800	600	400
120	760	0.78	650	480	320

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
mm	kN	mm	kN	kN	kN
300	7.1 *	0.04	7.1 *	7.1 *	7.1 *
600	7.1 *	0.32	7.1 *	7.1 *	7.1 *
900	7.1 *	1.08	7.1 *	7.1 *	7.1 *
1,200	7.1 *	2.56	7.1 *	7.1 *	7.1 *
1,500	6.9	4.84	6.9	6.9	5.9
1,800	5.7	6.96	5.7	5.7	4.1
2,100	4.9	9.51	4.9	4.5	3.0
2,400	4.3	12.41	4.3	3.5	2.3
2,700	3.8	15.66	3.6	2.8	1.8
3,000	3.5	19.49	3.0	2.2	1.5

W211 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	5,140	19,130	18,970	18,700	18,390
24	5,040	18,230	17,670	16,860	16,010
36	4,890	16,970	16,010	14,760	13,610
48	4,720	15,590	14,360	12,920	11,740
60	4,500	14,260	12,920	11,480	9,280
72	4,230	13,080	11,740	9,280	6,690
84	3,890	12,080	10,210	7,080	4,920
96	3,490	11,150	8,380	5,420	3,770
108	3,060	9,620	6,690	4,280	2,980
120	2,690	8,160	5,420	3,470	**

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	22.9	85.1	84.4	83.3	82.0
600	22.4	81.2	78.8	75.3	71.6
900	21.8	75.8	71.6	66.1	61.0
1,200	21.1	69.7	64.3	57.9	52.7
1,500	20.1	63.9	57.9	51.5	42.2
1,800	18.9	58.7	52.7	42.2	30.7
2,100	17.5	54.2	46.3	32.5	22.6
2,400	15.7	50.4	38.3	24.9	17.3
2,700	13.9	43.8	30.7	19.7	13.7
3,000	12.2	37.3	24.9	15.9	**

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots 0.90

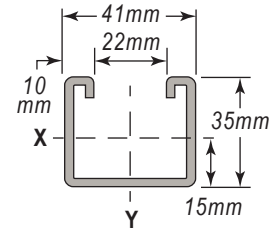
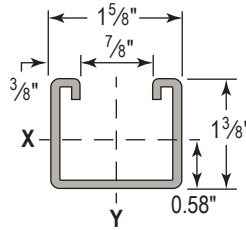
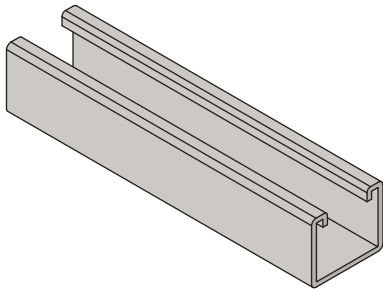




W300 & W301 - 12 Gauge Channel

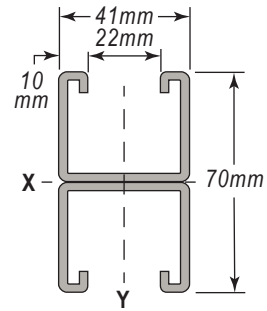
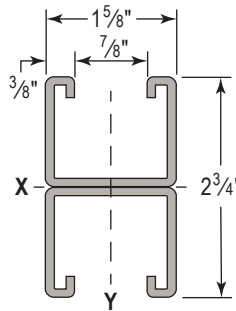
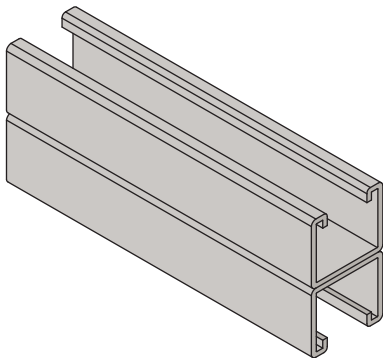
W300: 1⁵/₈" x 1³/₈" (41mm x 35mm) & W301: 1⁵/₈" x 2³/₄" (41mm x 70mm)

W300: 1⁵/₈" x 1³/₈" (41mm x 35mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

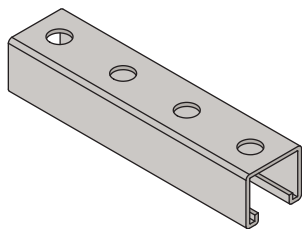
W301: 1⁵/₈" x 2³/₄" (41mm x 70mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

Pierced Channel

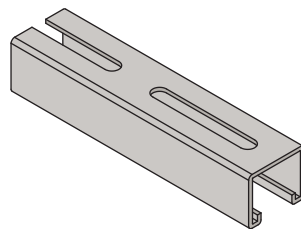
W300H



Channel With Holes

⁹/₁₆" Holes are punched on 1-¹/₈" centers.

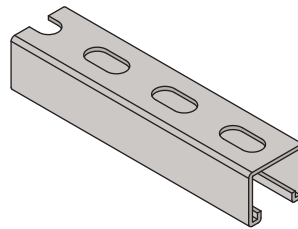
W300SL



Channel With Long Slots

¹³/₃₂" x 3" Slots are punched on 4" centers.

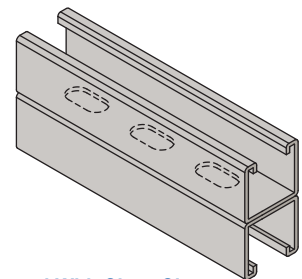
W300SS



Channel With Short Slots

⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

W301SS

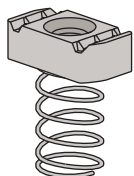


Channel With Short Slots

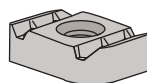
⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

Related Channel Nuts (See Pages 81 - 82)

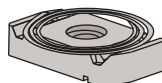
Channel Nut with Standard Spring



Channel Nut Without Spring



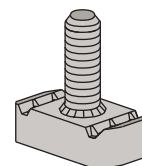
Channel Nut with Top-Lock Spring



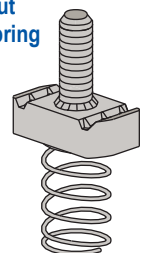
Rapid Strut Slide Nut



Stud Nut without Spring



Stud Nut with Spring



W300 Channel Loads



12 Gauge - 1⁵/₈" x 1³/₈" (41mm x 35mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W300	1.73	0.508	0.123	0.158	0.491	0.208	0.256	0.64
	(2.57)	(3.28)	(5.12)	(2.59)	(1.25)	(8.66)	(4.20)	(1.63)

W300 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
In	Lbs	In	Lbs	Lbs	Lbs
12	2,650	0.02	2,650	2,650	2,650
24	1,320	0.07	1,320	1,320	1,320
36	880	0.15	880	880	600
48	660	0.26	660	500	340
60	530	0.41	430	320	210
72	440	0.59	300	220	150
84	380	0.81	220	160	110
96	330	1.05	170	130	80
108	290	1.31	130	100	70
120	260	1.62	110	80	50

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
mm	kN	mm	kN	kN	kN
300	12.0	0.40	12.0	12.0	12.0
600	6.0	1.63	6.0	6.0	6.0
900	4.0	3.66	4.0	4.0	2.8
1,200	3.0	6.46	3.0	2.3	1.6
1,500	2.4	10.16	2.0	1.5	1.0
1,800	2.0	14.63	1.4	1.0	0.7
2,100	1.7	19.62	1.0	0.8	0.5
2,400	1.5	26.21	0.8	0.6	0.4
2,700	1.3	32.92	0.6	0.4	0.3
3,000	1.2	40.65	0.5	0.4	0.3

W300 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	3,480	11,260	10,980	10,550	10,080
24	3,260	9,830	9,100	8,150	7,280
36	2,980	8,260	7,280	6,180	5,280
48	2,640	6,890	5,860	4,760	3,890
60	2,340	5,780	4,760	3,720	3,010
72	2,080	4,880	3,890	3,010	2,330
84	1,860	4,130	3,270	2,470	**
96	1,680	3,550	2,790	1,890	**
108	1,480	3,110	2,330	**	**
120	1,280	2,740	1,890	**	**

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	15.5	50.1	48.9	47.1	45.0
600	14.5	43.9	40.7	36.6	32.7
900	13.3	37.1	32.7	27.8	23.8
1,200	11.8	31.0	26.4	21.5	17.6
1,500	10.5	26.1	21.5	16.8	13.7
1,800	9.3	22.1	17.6	13.7	10.7
2,100	8.4	18.7	14.8	11.3	**
2,400	7.6	16.1	12.6	8.7	**
2,700	6.8	14.1	10.7	**	**
3,000	5.8	12.4	8.7	**	**

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

- SS - Channel with Short Slots 0.90
- SL - Channel with Long Slots 0.90
- H - Channel with Holes 0.95
- KO - Knock-Out Channel 0.95





W301 Channel Loads

12 Gauge - 1⁵/₈" x 2³/₄" (41mm x 70mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W301	3.46	1.017	0.608	0.443	0.774	0.416	0.512	0.64
	(5.15)	(6.56)	(25.31)	(7.26)	(1.97)	(17.32)	(8.39)	(1.63)

W301 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
In	Lbs	In	Lbs	Lbs	Lbs
12	2,110 *	0.00	2,110 *	2,110 *	2,110 *
24	2,110 *	0.02	2,110 *	2,110 *	2,110 *
36	2,110 *	0.07	2,110 *	2,110 *	2,110 *
48	1,860	0.15	1,860	1,860	1,660
60	1,490	0.23	1,490	1,490	1,060
72	1,240	0.34	1,240	1,110	740
84	1,060	0.46	1,060	810	540
96	930	0.60	830	620	410
108	830	0.76	660	490	330
120	740	0.93	530	400	270

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
mm	kN	mm	kN	kN	kN
300	9.4 *	0.06	9.4 *	9.4 *	9.4 *
600	9.4 *	0.51	9.4 *	9.4 *	9.4 *
900	9.4 *	1.73	9.4 *	9.4 *	9.4 *
1,200	8.4	3.68	8.4	8.4	7.6
1,500	6.7	5.74	6.7	6.7	4.9
1,800	5.6	8.27	5.6	5.1	3.4
2,100	4.8	11.26	4.8	3.7	2.5
2,400	4.2	14.63	3.8	2.8	1.9
2,700	3.7	18.62	3.0	2.3	1.5
3,000	3.4	23.11	2.4	1.8	1.2

W301 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	6,000	23,260	23,040	22,700	22,330
24	5,890	22,130	21,520	20,730	20,000
36	5,770	20,830	20,000	19,080	17,990
48	5,670	19,670	18,820	16,850	14,500
60	5,470	18,750	16,850	13,900	10,990
72	5,150	17,140	14,500	10,990	7,860
84	4,740	15,240	12,140	8,320	5,770
96	4,280	13,310	9,890	6,370	4,420
108	3,800	11,420	7,860	5,030	**
120	3,370	9,620	6,370	4,070	**

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	26.7	103.5	102.6	101.1	99.5
450	26.5	101.3	99.5	96.8	94.2
600	26.2	98.6	95.9	92.5	89.3
750	25.9	95.7	92.5	88.5	85.1
900	25.7	92.9	89.3	85.1	80.7
1,050	25.4	90.2	86.4	81.9	73.3
1,200	25.2	87.8	84.0	75.8	65.5
1,500	24.4	83.7	75.8	62.9	50.1
1,800	23.1	77.0	65.5	50.1	36.1
2,100	21.3	68.7	55.1	38.2	26.5

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots 0.90

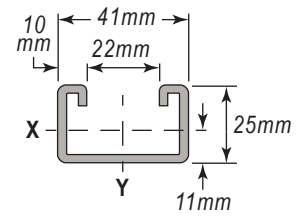
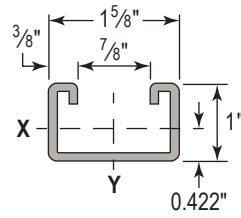
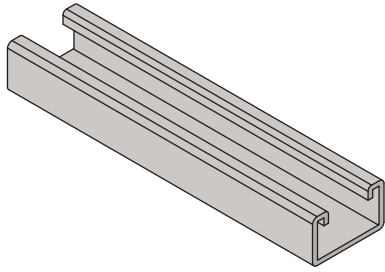


W800 & W801 - 12 Gauge Channel



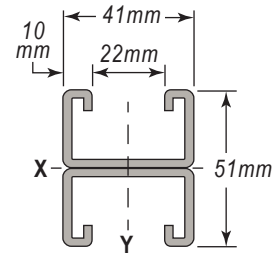
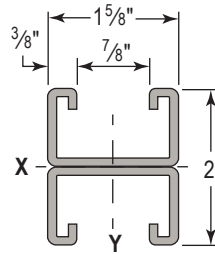
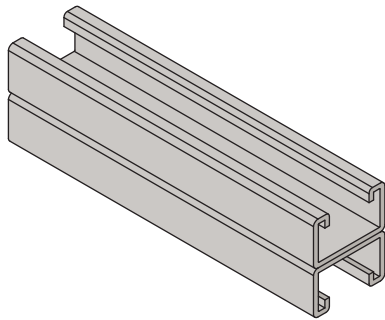
W800: 1⁵/₈" x 1" (41mm x 25mm) & W801: 1⁵/₈" x 2" (41mm x 51mm)

W800: 1⁵/₈" x 1" (41mm x 25mm)



Available in 10', 20' & Pre-Cut lengths see page 48 • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

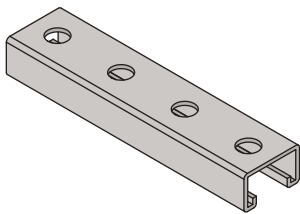
W801: 1⁵/₈" x 2" (41mm x 51mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

Pierced Channel

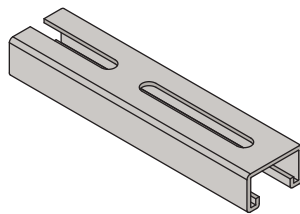
W800H



Channel With Holes

³/₁₆" Holes are punched on 1-⁷/₈" centers.

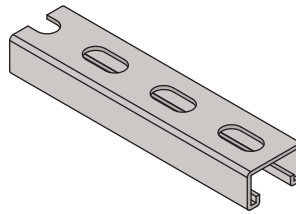
W800SL



Channel With Long Slots

¹/₂" x 3" Slots are punched on 4" centers.

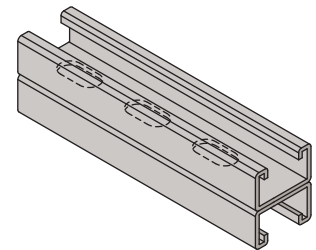
W800SS



Channel With Short Slots

³/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

W801SS

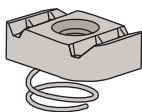


Channel With Short Slots

³/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

Related Channel Nuts (See Pages 81 - 82)

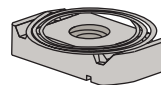
Channel Nut with Short Spring



Channel Nut Without Spring



Channel Nut with Top-Lock Spring



Rapid Strut Slide Nut

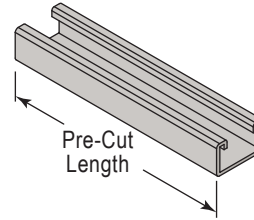




W800 Pre-Cut Channel

1⁵/₈" x 1" (41mm x 25mm) - 12 Gauge

W800: 1⁵/₈" x 1" (41mm x 25mm) - Solid Channel - Pre-Cut Lengths



W800 - 1 ⁵ / ₈ " x 1" - 12 Gauge - Solid Channel			
Pre-Cut Length	Steel - PG	ST304	ST316
6" (15.2cm)	W800PG6IN	W800ST3046IN	W800ST3166IN
12" (0.31m)	W800PG12IN	W800ST30412IN	W800ST31612IN
18" (0.45m)	W800PG18IN	W800ST30418IN	W800ST31618IN
24" (0.61m)	W800PG24IN	W800ST30424IN	W800ST31624IN
30" (0.76m)	W800PG30IN	W800ST30430IN	W800ST31630IN
36" (0.91m)	W800PG36IN	W800ST30436IN	W800ST31636IN
42" (1.07m)	W800PG42IN	W800ST30442IN	W800ST31642IN
48" (1.22m)	W800PG48IN	W800ST30448IN	W800ST31648IN
54" (1.37m)	W800PG54IN	W800ST30454IN	W800ST31654IN
60" (1.52m)	W800PG60IN	W800ST30460IN	W800ST31660IN
72" (1.83m)	W800PG72IN	W800ST30472IN	W800ST31672IN
80" (2.03m)	W800PG80IN	W800ST30480IN	W800ST31680IN
96" (2.44m)	W800PG96IN	W800ST30496IN	W800ST31696IN
10' (3.05m)	W800PG10	W800ST30410	W800ST31610
20' (6.10m)	W800PG20	W800ST30420	W800ST31620

Note: Minimum order quantity is 100 pieces for any size under 10'.



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

W800 Channel Loads



12 Gauge - 1⁵/₈" x 1" (41mm x 25mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W800	1.46	0.43	0.054	0.093	0.354	0.163	0.200	0.615
	(2.17)	(2.77)	(2.25)	(1.52)	(0.90)	(6.78)	(3.28)	(1.56)

W800 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
In	Lbs	In	Lbs	Lbs	Lbs
12	1,560	0.02	1,560	1,560	1,560
18	1,040	0.05	1,040	1,040	1,040
24	780	0.09	780	780	590
30	630	0.14	630	570	380
36	520	0.20	520	390	260
42	450	0.27	380	290	190
48	390	0.35	290	220	150
60	310	0.55	190	140	90
72	260	0.79	130	100	70
84	220	1.07	100	70	50

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
mm	kN	mm	kN	kN	kN
300	7.1	0.54	7.1	7.1	7.1
450	4.7	1.23	4.7	4.7	4.7
600	3.5	2.17	3.5	3.5	2.7
750	2.8	3.43	2.8	2.6	1.7
900	2.4	4.90	2.4	1.8	1.2
1,050	2.0	6.61	1.8	1.3	0.9
1,200	1.8	8.77	1.3	1.0	0.7
1,500	1.4	13.71	0.8	0.7	0.4
1,800	1.2	19.25	0.6	0.4	0.3
2,100	1.0	27.04	0.4	0.3	0.2

W800 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	2,220	9,730	9,590	9,350	9,070
18	2,190	9,390	9,070	8,580	8,010
24	2,150	8,920	8,400	7,600	6,730
30	2,090	8,350	7,600	6,500	5,370
36	2,020	7,700	6,730	5,370	4,090
42	1,930	7,000	5,820	4,290	3,010
48	1,820	6,280	4,930	3,320	2,310
60	1,540	4,820	3,320	2,120	**
72	1,280	3,490	2,310	**	**
84	1,060	2,570	1,690	**	**

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	9.9	43.3	42.7	41.7	40.5
450	9.7	41.8	40.5	38.3	35.9
600	9.6	39.8	37.5	34.1	30.3
750	9.3	37.4	34.1	29.3	24.4
900	9.0	34.6	30.3	24.4	18.7
1,050	8.6	31.5	26.3	19.6	13.8
1,200	8.2	28.3	22.4	15.3	10.6
1,500	7.0	21.9	15.3	9.7	**
1,800	5.8	16.1	10.6	**	**
2,100	4.8	11.8	7.8	**	**

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

- SS - Channel with Short Slots 0.90
- SL - Channel with Long Slots 0.90
- H - Channel with Holes 0.95
- KO - Knock-Out Channel 0.95





W801 Channel Loads

12 Gauge - 1⁵/₈" x 2" (41mm x 51mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W801	2.92	0.859	0.261	0.261	0.551	0.325	0.400	0.615
	(4.35)	(5.54)	(10.86)	(4.28)	(1.40)	(13.53)	(6.55)	(1.56)

W801 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
In	Lbs	In	Lbs	Lbs	Lbs
12	1,520 *	0.00	1,520 *	1,520 *	1,520 *
18	1,520 *	0.02	1,520 *	1,520 *	1,520 *
24	1,520 *	0.04	1,520 *	1,520 *	1,520 *
30	1,520 *	0.07	1,520 *	1,520 *	1,520 *
36	1,460	0.12	1,460	1,460	1,270
42	1,250	0.16	1,250	1,250	930
48	1,090	0.20	1,090	1,070	710
60	870	0.32	870	680	460
72	730	0.46	630	470	320
84	620	0.62	470	350	230

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
mm	kN	mm	kN	kN	kN
300	6.8 *	0.11	6.8 *	6.8 *	6.8 *
450	6.8 *	0.36	6.8 *	6.8 *	6.8 *
600	6.8 *	0.86	6.8 *	6.8 *	6.8 *
750	6.8 *	1.68	6.8 *	6.8 *	6.8 *
900	6.6	2.83	6.6	6.6	5.8
1,050	5.6	3.86	5.6	5.6	4.3
1,200	4.9	5.03	4.9	4.9	3.3
1,500	4.0	7.88	4.0	3.2	2.1
1,800	3.3	11.32	2.9	2.2	1.5
2,100	2.8	15.31	2.1	1.6	1.1

W801 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	5,660	19,300	18,950	18,430	17,870
18	5,560	18,500	17,870	17,000	16,160
24	5,440	17,580	16,720	15,640	14,720
30	5,320	16,650	15,640	14,510	13,590
36	5,210	15,770	14,720	13,590	11,460
42	5,110	14,990	13,940	11,810	9,360
48	4,920	14,310	12,880	10,050	7,400
60	4,320	12,710	10,050	6,820	4,730
72	3,660	10,400	7,400	4,730	3,290
84	3,030	8,200	5,430	3,480	2,420

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	25.2	85.9	84.4	82.2	79.7
450	24.8	82.5	79.7	75.9	72.2
600	24.2	78.5	74.7	69.9	65.8
750	23.7	74.4	69.9	64.9	60.9
900	23.2	70.5	65.8	60.9	51.9
1,050	22.8	67.0	62.4	53.4	42.6
1,200	22.0	64.0	58.1	45.7	33.9
1,500	19.4	57.3	45.7	31.3	21.8
1,800	16.5	47.2	33.9	21.8	15.1
2,100	13.8	37.5	25.0	16.0	11.1

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots 0.90

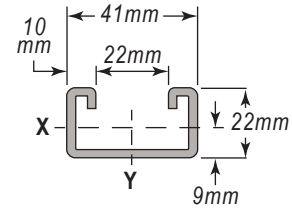
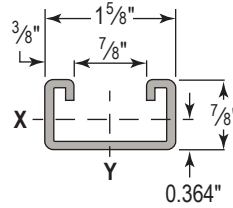
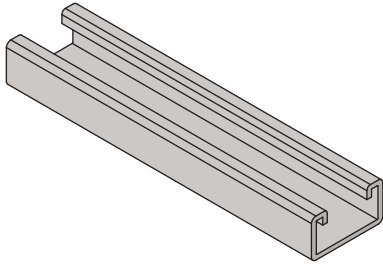


W900 & W901 - 12 Gauge Channel



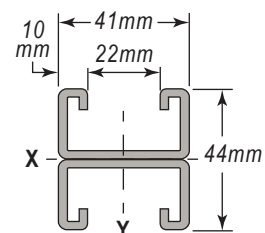
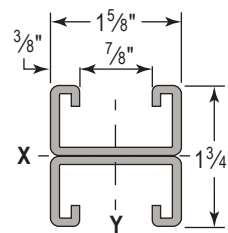
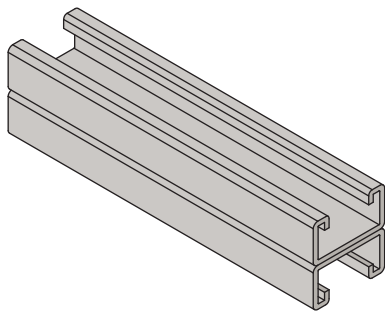
W900: 1⁵/₈" x 7⁷/₈" (41mm x 22mm) & W901: 1⁵/₈" x 1³/₄" (41mm x 44mm)

W900: 1⁵/₈" x 7⁷/₈" (41mm x 22mm)



Available in 10', 20' & Pre-Cut lengths see page 52 • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

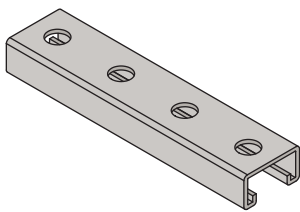
W901: 1⁵/₈" x 1³/₄" (41mm x 44mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

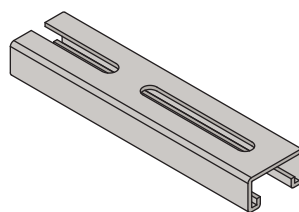
Pierced Channel

W900H



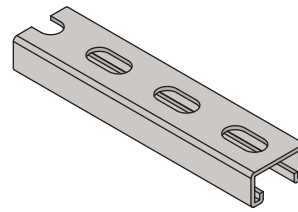
Channel With Holes
 9/16" Holes are punched on 1-7/8" centers.

W900SL



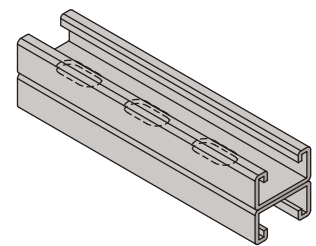
Channel With Long Slots
 1³/₂" x 3" Slots are punched on 4" centers.

W900SS



Channel With Short Slots
 9/16" x 1-1/8" Slots are punched on 2" centers.

W901SS



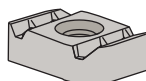
Channel With Short Slots
 9/16" x 1-1/8" Slots are punched on 2" centers.

Related Channel Nuts (See Pages 81 - 82)

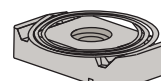
Channel Nut with Short Spring



Channel Nut Without Spring



Channel Nut with Top-Lock Spring



Rapid Strut Slide Nut

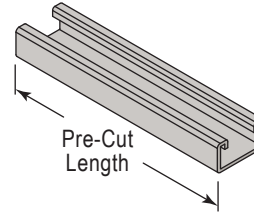




W900 Pre-Cut Channel

1⁵/₈" x 7⁷/₈" (41mm x 22mm) - 12 Gauge

W900: 1⁵/₈" x 7⁷/₈" (41mm x 22mm) - Solid Channel - Pre-Cut Lengths



W900 - 1 ⁵ / ₈ " x 7 ⁷ / ₈ " - 12 Gauge - Solid Channel			
Pre-Cut Length	Steel - PG	ST304	ST316
6" (15.2cm)	W900PG6IN	W900ST3046IN	W900ST3166IN
12" (0.31m)	W900PG12IN	W900ST30412IN	W900ST31612IN
18" (0.45m)	W900PG18IN	W900ST30418IN	W900ST31618IN
24" (0.61m)	W900PG24IN	W900ST30424IN	W900ST31624IN
30" (0.76m)	W900PG30IN	W900ST30430IN	W900ST31630IN
36" (0.91m)	W900PG36IN	W900ST30436IN	W900ST31636IN
42" (1.07m)	W900PG42IN	W900ST30442IN	W900ST31642IN
48" (1.22m)	W900PG48IN	W900ST30448IN	W900ST31648IN
54" (1.37m)	W900PG54IN	W900ST30454IN	W900ST31654IN
60" (1.52m)	W900PG60IN	W900ST30460IN	W900ST31660IN
72" (1.83m)	W900PG72IN	W900ST30472IN	W900ST31672IN
80" (2.03m)	W900PG80IN	W900ST30480IN	W900ST31680IN
96" (2.44m)	W900PG96IN	W900ST30496IN	W900ST31696IN
10' (3.05m)	W900PG10	W900ST30410	W900ST31610
20' (6.10m)	W900PG20	W900ST30420	W900ST31620

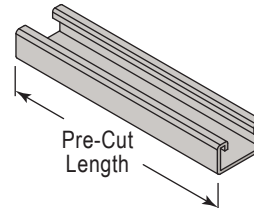
Note: Minimum order quantity is 100 pieces for any size under 10'.

W900SS: 1⁵/₈" x 7⁷/₈" (41mm x 22mm) - Channel with Short Slots - Pre-Cut Lengths



Channel With Short Slots

9¹/₁₆" x 1-1¹/₈" (14mm x 29mm) Slots are punched on 2" (51mm) centers.



W900SS - 1 ⁵ / ₈ " x 7 ⁷ / ₈ " - 12 Gauge - Channel with Short Slots			
Pre-Cut Length	Steel - PG	ST304	ST316
6" (15.2cm)	W900SSPG6IN	W900SSST3046IN	W900SSST3166IN
12" (0.31m)	W900SSPG12IN	W900SSST30412IN	W900SSST31612IN
18" (0.45m)	W900SSPG18IN	W900SSST30418IN	W900SSST31618IN
24" (0.61m)	W900SSPG24IN	W900SSST30424IN	W900SSST31624IN
30" (0.76m)	W900SSPG30IN	W900SSST30430IN	W900SSST31630IN
36" (0.91m)	W900SSPG36IN	W900SSST30436IN	W900SSST31636IN
42" (1.07m)	W900SSPG42IN	W900SSST30442IN	W900SSST31642IN
48" (1.22m)	W900SSPG48IN	W900SSST30448IN	W900SSST31648IN
54" (1.37m)	W900SSPG54IN	W900SSST30454IN	W900SSST31654IN
60" (1.52m)	W900SSPG60IN	W900SSST30460IN	W900SSST31660IN
72" (1.83m)	W900SSPG72IN	W900SSST30472IN	W900SSST31672IN
80" (2.03m)	W900SSPG80IN	W900SSST30480IN	W900SSST31680IN
96" (2.44m)	W900SSPG96IN	W900SSST30496IN	W900SSST31696IN
10' (3.05m)	W900SSPG10	W900SSST30410	W900SSST31610
20' (6.10m)	W900SSPG20	W900SSST30420	W900SSST31620

Note: Minimum order quantity is 100 pieces for any size under 10'.



W900 Channel Loads



12 Gauge - 1⁵/₈" x 7⁷/₈" (41mm x 22mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W900	1.37	0.403	0.038	0.074	0.307	0.147	0.181	0.604
	(2.04)	(2.60)	(1.58)	(1.21)	(0.78)	(6.12)	(2.97)	(1.53)

W900 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
In	Lbs	In	Lbs	Lbs	Lbs
12	1,250	0.03	1,250	1,250	1,250
18	830	0.06	830	830	740
24	620	0.10	620	620	420
30	500	0.16	500	400	270
36	420	0.23	370	280	180
42	360	0.31	270	200	140
48	310	0.40	210	160	100
60	250	0.63	130	100	70
72	210	0.91	90	70	50
84	180	1.24	70	50	30

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
mm	kN	mm	kN	kN	kN
300	5.6	0.62	5.6	5.6	5.6
450	3.7	1.38	3.7	3.7	3.4
600	2.8	2.45	2.8	2.8	1.9
750	2.3	3.87	2.3	1.8	1.2
900	1.9	5.51	1.7	1.3	0.8
1,050	1.6	7.50	1.2	0.9	0.6
1,200	1.4	9.96	0.9	0.7	0.5
1,500	1.1	15.19	0.6	0.4	0.3
1,800	0.9	22.05	0.4	0.3	0.2
2,100	0.8	30.01	0.3	0.2	0.1

W900 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	2,560	8,900	8,670	8,360	8,040
18	2,500	8,400	8,040	7,580	6,980
24	2,440	7,880	7,430	6,510	5,530
30	2,330	7,380	6,510	5,280	4,100
36	2,190	6,620	5,530	4,100	2,890
42	2,020	5,840	4,560	3,050	2,120
48	1,820	5,040	3,650	2,340	1,620
60	1,420	3,540	2,340	1,500	**
72	1,110	2,460	1,620	**	**
84	**	1,810	**	**	**

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	11.4	39.6	38.7	37.3	35.9
450	11.1	37.5	35.9	33.9	31.3
600	10.9	35.2	33.2	29.3	25.0
750	10.4	33.1	29.3	23.9	18.7
900	9.8	29.8	25.0	18.7	13.3
1,050	9.1	26.3	20.8	14.0	9.7
1,200	8.2	22.9	16.8	10.7	7.5
1,500	6.4	16.3	10.7	6.9	**
1,800	5.1	11.3	7.5	**	**
2,100	**	8.3	**	**	**

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

- SS - Channel with Short Slots 0.90
- SL - Channel with Long Slots 0.90
- H - Channel with Holes 0.95
- KO - Knock-Out Channel 0.95



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



W901 Channel Loads

12 Gauge - 1⁵/₈" x 1³/₄" (41mm x 44mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W901	2.75	0.807	0.183	0.209	0.476	0.295	0.363	0.604
	(4.09)	(5.21)	(7.62)	(3.42)	(1.21)	(12.28)	(5.95)	(1.53)

W901 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
In	Lbs	In	Lbs	Lbs	Lbs
12	1,310 *	0.01	1,310 *	1,310 *	1,310 *
18	1,310 *	0.02	1,310 *	1,310 *	1,310 *
24	1,310 *	0.04	1,310 *	1,310 *	1,310 *
30	1,310 *	0.09	1,310 *	1,310 *	1,280
36	1,170	0.13	1,170	1,170	890
42	1,000	0.18	1,000	980	650
48	880	0.23	880	750	500
60	700	0.37	640	480	320
72	580	0.52	440	330	220
84	500	0.72	330	240	160

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
mm	kN	mm	kN	kN	kN
300	5.8 *	0.13	5.8 *	5.8 *	5.8 *
450	5.8 *	0.45	5.8 *	5.8 *	5.8 *
600	5.8 *	1.06	5.8 *	5.8 *	5.8 *
750	5.8 *	2.07	5.8 *	5.8 *	5.8 *
900	5.3	3.25	5.3	5.3	4.1
1,050	4.5	4.42	4.5	4.5	3.0
1,200	4.0	5.76	4.0	3.4	2.3
1,500	3.2	8.97	2.9	2.2	1.5
1,800	2.6	12.88	2.0	1.5	1.0
2,100	2.3	17.68	1.5	1.1	0.8

W901 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	4,510	18,310	18,090	17,780	17,470
18	4,470	17,820	17,470	17,040	16,590
24	4,430	17,320	16,900	16,110	15,040
30	4,380	16,870	16,110	14,760	13,260
36	4,290	16,230	15,040	13,260	11,360
42	4,190	15,390	13,870	11,680	9,470
48	4,070	14,460	12,630	10,090	7,670
60	3,770	12,470	10,090	7,090	4,920
72	3,370	10,410	7,670	4,920	3,420
84	2,880	8,400	5,650	3,620	**

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	20.1	81.5	80.6	79.2	77.8
450	19.9	79.4	77.8	75.9	74.1
600	19.7	77.2	75.4	72.0	67.4
750	19.5	75.2	72.0	66.1	59.6
900	19.1	72.6	67.4	59.6	51.3
1,050	18.7	68.9	62.3	52.7	43.0
1,200	18.2	64.9	56.9	45.8	35.1
1,500	16.9	56.2	45.8	32.6	22.6
1,800	15.2	47.2	35.1	22.6	15.7
2,100	13.0	38.3	26.0	16.6	**

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots 0.90

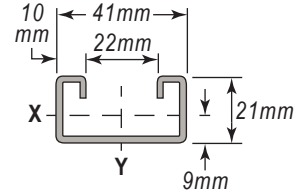
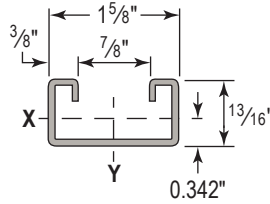
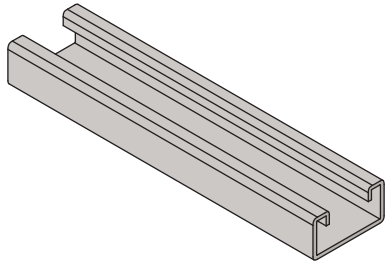


W500 & W501 - 14 Gauge Channel



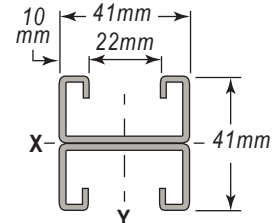
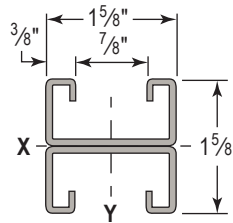
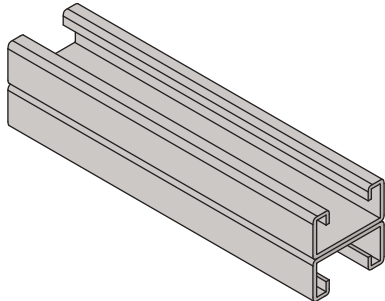
W500: 1⁵/₈" x 1³/₁₆" (41mm x 21mm) & W501: 1⁵/₈" x 1⁵/₈" (41mm x 41mm)

W500: 1⁵/₈" x 1³/₁₆" (41mm x 21mm)



Available in 10', 20' & Pre-Cut lengths see page 56 • Finishes: PG, HG, GR, PL, Gold, EA, ST304, & ST316

W501: 1⁵/₈" x 1⁵/₈" (41mm x 41mm)

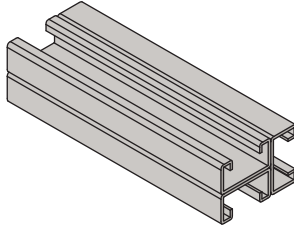


Available in 10', 20' & Pre-Cut lengths see page 57 • Finishes: PG, HG, GR, PL, Gold, EA, ST304, & ST316

W501 Series Combination Channel

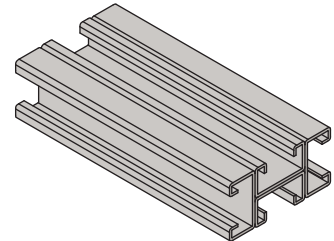
W503

1⁵/₈" x 2⁷/₁₆"
(41mm x 62mm)



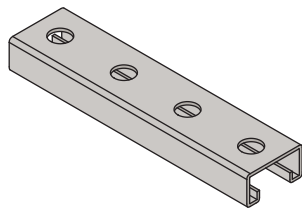
W504

3¹/₄" x 1⁵/₈"
(83mm x 41mm)



Pierced Channel

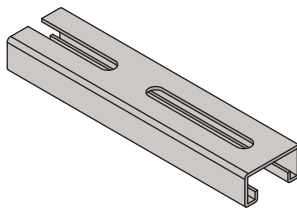
W500H



Channel With Holes

⁹/₁₆" Holes are punched on 1-⁷/₈" centers.

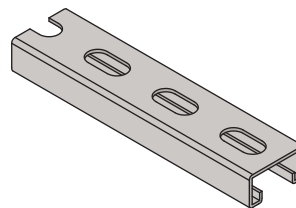
W500SL



Channel With Long Slots

¹/₂" x 3" Slots are punched on 4" centers.

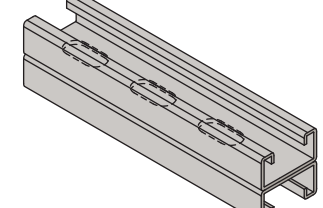
W500SS



Channel With Short Slots

⁹/₁₆" x 1-¹/₄" Slots are punched on 2" centers.

W501SS



Channel With Short Slots

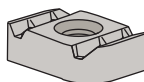
⁹/₁₆" x 1-¹/₄" Slots are punched on 2" centers.

Related Channel Nuts (See Pages 81 - 82)

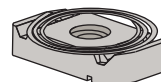
Channel Nut with Short Spring



Channel Nut Without Spring



Channel Nut with Top-Lock Spring



Rapid Strut Slide Nut

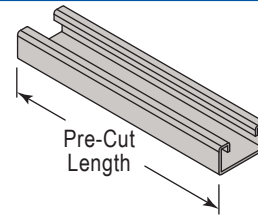




W500 Pre-Cut Channel

1⁵/₈" x 1³/₁₆" (41mm x 21mm) - 14 Gauge

W500: 1⁵/₈" x 1³/₁₆" (41mm x 21mm) - Solid Channel - Pre-Cut Lengths



W500 - 1 ⁵ / ₈ " x 1 ³ / ₁₆ " - 14 Gauge - Solid Channel			
Pre-Cut Length	Steel - PG	ST304	ST316
6" (15.2cm)	W500PG6IN	W500ST3046IN	W500ST3166IN
12" (0.31m)	W500PG12IN	W500ST30412IN	W500ST31612IN
18" (0.45m)	W500PG18IN	W500ST30418IN	W500ST31618IN
24" (0.61m)	W500PG24IN	W500ST30424IN	W500ST31624IN
30" (0.76m)	W500PG30IN	W500ST30430IN	W500ST31630IN
36" (0.91m)	W500PG36IN	W500ST30436IN	W500ST31636IN
42" (1.07m)	W500PG42IN	W500ST30442IN	W500ST31642IN
48" (1.22m)	W500PG48IN	W500ST30448IN	W500ST31648IN
54" (1.37m)	W500PG54IN	W500ST30454IN	W500ST31654IN
60" (1.52m)	W500PG60IN	W500ST30460IN	W500ST31660IN
72" (1.83m)	W500PG72IN	W500ST30472IN	W500ST31672IN
80" (2.03m)	W500PG80IN	W500ST30480IN	W500ST31680IN
96" (2.44m)	W500PG96IN	W500ST30496IN	W500ST31696IN
10' (3.05m)	W500PG10	W500ST30410	W500ST31610
20' (6.10m)	W500PG20	W500ST30420	W500ST31620

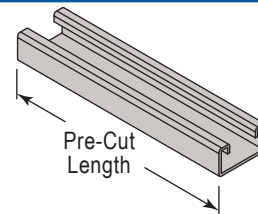
Note: Minimum order quantity is 100 pieces for any size under 10'.

W500SS: 1⁵/₈" x 1³/₁₆" (41mm x 21mm) - Channel with Short Slots - Pre-Cut Lengths



Channel With Short Slots

9/16" x 1-1/8" (14mm x 29mm) Slots are punched on 2" (51mm) centers.



W500SS - 1 ⁵ / ₈ " x 1 ³ / ₁₆ " - 14 Gauge - Channel with Short Slots			
Pre-Cut Length	Steel - PG	ST304	ST316
6" (15.2cm)	W500SSPG6IN	W500SSST3046IN	W500SSST3166IN
12" (0.31m)	W500SSPG12IN	W500SSST30412IN	W500SSST31612IN
18" (0.45m)	W500SSPG18IN	W500SSST30418IN	W500SSST31618IN
24" (0.61m)	W500SSPG24IN	W500SSST30424IN	W500SSST31624IN
30" (0.76m)	W500SSPG30IN	W500SSST30430IN	W500SSST31630IN
36" (0.91m)	W500SSPG36IN	W500SSST30436IN	W500SSST31636IN
42" (1.07m)	W500SSPG42IN	W500SSST30442IN	W500SSST31642IN
48" (1.22m)	W500SSPG48IN	W500SSST30448IN	W500SSST31648IN
54" (1.37m)	W500SSPG54IN	W500SSST30454IN	W500SSST31654IN
60" (1.52m)	W500SSPG60IN	W500SSST30460IN	W500SSST31660IN
72" (1.83m)	W500SSPG72IN	W500SSST30472IN	W500SSST31672IN
80" (2.03m)	W500SSPG80IN	W500SSST30480IN	W500SSST31680IN
96" (2.44m)	W500SSPG96IN	W500SSST30496IN	W500SSST31696IN
10' (3.05m)	W500SSPG10	W500SSST30410	W500SSST31610
20' (6.10m)	W500SSPG20	W500SSST30420	W500SSST31620

Note: Minimum order quantity is 100 pieces for any size under 10'.



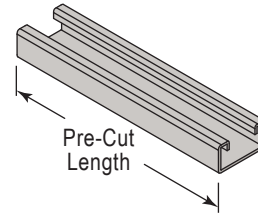
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

W501 Pre-Cut Channel



1⁵/₈" x 1⁵/₈" (41mm x 41mm) - 14 Gauge

W501: 1⁵/₈" x 1⁵/₈" (41mm x 41mm) - Solid Channel - Pre-Cut Lengths



W501 - 1⁵/₈" x 1⁵/₈" - 14 Gauge - Solid Back-to-Back Channel

Pre-Cut Length	Steel - PG	ST304	ST316
6" (15.2cm)	W501PG6IN	W501ST3046IN	W501ST3166IN
12" (0.31m)	W501PG12IN	W501ST30412IN	W501ST31612IN
18" (0.45m)	W501PG18IN	W501ST30418IN	W501ST31618IN
24" (0.61m)	W501PG24IN	W501ST30424IN	W501ST31624IN
30" (0.76m)	W501PG30IN	W501ST30430IN	W501ST31630IN
36" (0.91m)	W501PG36IN	W501ST30436IN	W501ST31636IN
42" (1.07m)	W501PG42IN	W501ST30442IN	W501ST31642IN
48" (1.22m)	W501PG48IN	W501ST30448IN	W501ST31648IN
54" (1.37m)	W501PG54IN	W501ST30454IN	W501ST31654IN
60" (1.52m)	W501PG60IN	W501ST30460IN	W501ST31660IN
72" (1.83m)	W501PG72IN	W501ST30472IN	W501ST31672IN
80" (2.03m)	W501PG80IN	W501ST30480IN	W501ST31680IN
96" (2.44m)	W501PG96IN	W501ST30496IN	W501ST31696IN
10' (3.05m)	W501PG10	W501ST30410	W501ST31610
20' (6.10m)	W501PG20	W501ST30420	W501ST31620

Note: Minimum order quantity is 100 pieces for any size under 10'.



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Introduction

Channel

Channel Nuts
& Hardware

General
Fittings

Pipe & Conduit
Supports

Electrical
Fittings

Spring
Steel

Loop & Ring
Clamps

Beta Clamps
& Z-Clamps

Concrete
Inserts

Rooftop
Supports

Gamma
Pads

Technical
Data



W500 Channel Loads

14 Gauge - 1⁵/₈" x 1³/₁₆" (41mm x 21mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W500	1.00	0.295	0.026	0.056	0.297	0.109	0.135	0.609
	(1.49)	(1.90)	(1.08)	(0.92)	(0.75)	(4.54)	(2.21)	(1.55)

W500 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
In	Lbs	In	Lbs	Lbs	Lbs
12	930	0.03	930	930	930
18	620	0.06	620	620	510
24	470	0.11	470	430	290
30	370	0.17	370	270	180
36	310	0.24	250	190	130
42	270	0.34	190	140	90
48	230	0.43	140	110	70
60	190	0.69	90	70	50
72	160	1.01	60	50	30
84	130	1.30	50	40	20

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
mm	kN	mm	kN	kN	kN
300	4.2	0.67	4.2	4.2	4.2
450	2.8	1.50	2.8	2.8	2.4
600	2.1	2.65	2.1	2.0	1.3
750	1.7	4.19	1.7	1.2	0.8
900	1.4	6.09	1.2	0.9	0.6
1,050	1.2	8.16	0.8	0.6	0.4
1,200	1.1	10.83	0.7	0.5	0.3
1,500	0.8	16.74	0.4	0.3	0.2
1,800	0.7	24.37	0.3	0.2	0.1
2,100	0.6	33.86	0.2	0.2	0.1

W500 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	2,010	6,530	6,360	6,110	5,840
18	1,950	6,140	5,840	5,420	5,010
24	1,890	5,700	5,280	4,650	3,910
30	1,800	5,250	4,650	3,720	2,840
36	1,680	4,740	3,910	2,840	1,980
42	1,510	4,140	3,180	2,100	1,460
48	1,330	3,540	2,510	1,610	1,110
60	1,020	2,430	1,610	**	**
72	780	1,690	1,110	**	**
84	**	1,240	**	**	**

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	8.9	29.1	28.3	27.3	26.1
450	8.7	27.4	26.1	24.3	22.5
600	8.4	25.5	23.7	20.9	17.7
750	8.1	23.5	20.9	16.9	13.0
900	7.5	21.3	17.7	13.0	9.1
1,050	6.8	18.7	14.5	9.6	6.7
1,200	6.0	16.1	11.5	7.4	5.1
1,500	4.6	11.2	7.4	4.7	**
1,800	3.6	7.7	5.1	**	**
2,100	**	5.7	**	**	**

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced. Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

- SS - Channel with Short Slots 0.90
- SL - Channel with Long Slots 0.90
- H - Channel with Holes 0.95
- KO - Knock-Out Channel 0.95



W501 Channel Loads



14 Gauge - 1⁵/₈" x 1⁵/₈" (41mm x 41mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W501	2.01	0.59	0.122	0.15	0.454	0.219	0.269	0.609
	(2.99)	(3.81)	(5.08)	(2.46)	(1.15)	(9.12)	(4.41)	(1.55)

W501 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
In	Lbs	In	Lbs	Lbs	Lbs
12	790 *	0.00	790 *	790 *	790 *
18	790 *	0.02	790 *	790 *	790 *
24	790 *	0.04	790 *	790 *	790 *
30	790 *	0.08	790 *	790 *	790 *
36	790 *	0.13	790 *	790 *	590
42	720	0.19	720	650	430
48	630	0.25	630	500	330
60	500	0.39	420	320	210
72	420	0.57	300	220	150
84	360	0.78	220	160	110

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
mm	kN	mm	kN	kN	kN
300	3.5 *	0.12	3.5 *	3.5 *	3.5 *
450	3.5 *	0.41	3.5 *	3.5 *	3.5 *
600	3.5 *	0.96	3.5 *	3.5 *	3.5 *
750	3.5 *	1.88	3.5 *	3.5 *	3.5 *
900	3.5 *	3.24	3.5 *	3.5 *	2.7
1,050	3.2	4.76	3.2	3.0	2.0
1,200	2.8	6.23	2.8	2.3	1.5
1,500	2.3	9.69	2.0	1.5	1.0
1,800	1.9	13.79	1.3	1.0	0.7
2,100	1.6	18.77	1.0	0.8	0.5

W501 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	3,430	13,420	13,250	13,000	12,720
18	3,390	13,030	12,720	12,300	11,880
24	3,350	12,580	12,160	11,590	10,740
30	3,310	12,120	11,590	10,520	9,340
36	3,230	11,680	10,740	9,340	7,870
42	3,150	11,010	9,820	8,110	6,430
48	3,040	10,290	8,850	6,900	5,080
60	2,760	8,730	6,900	4,680	3,250
72	2,370	7,140	5,080	3,250	2,260
84	2,000	5,630	3,730	2,390	**

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	15.3	59.7	59.0	57.9	56.7
450	15.1	58.0	56.7	54.8	53.0
600	14.9	56.1	54.2	51.8	48.1
750	14.7	54.1	51.8	47.2	42.0
900	14.4	52.1	48.1	42.0	35.6
1,050	14.1	49.3	44.1	36.7	29.3
1,200	13.6	46.2	39.9	31.4	23.3
1,500	12.4	39.4	31.4	21.5	14.9
1,800	10.7	32.4	23.3	14.9	10.4
2,100	9.1	25.8	17.1	11.0	**

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots 0.90

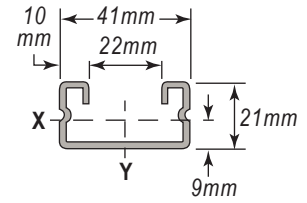
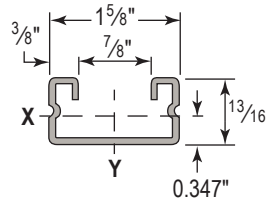
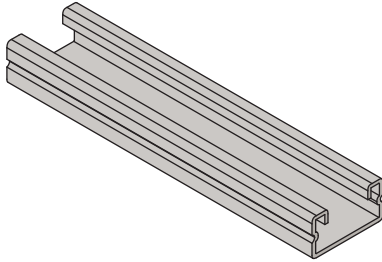




W400 & W401 - 16 Gauge Channel

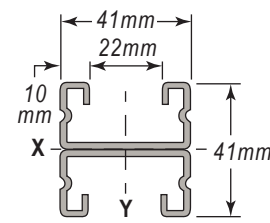
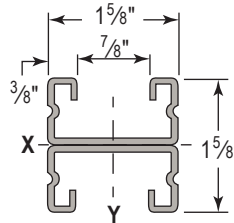
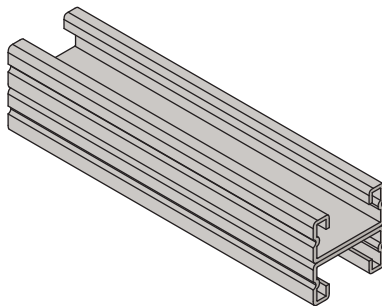
W400: 1⁵/₈" x 1³/₁₆" (41mm x 21mm) & W401: 1⁵/₈" x 1⁵/₈" (41mm x 41mm)

W400: 1⁵/₈" x 1³/₁₆" (41mm x 21mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

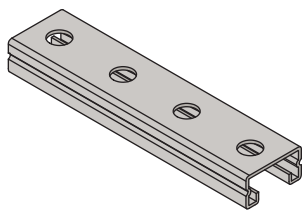
W401: 1⁵/₈" x 1⁵/₈" (41mm x 41mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

Pierced Channel

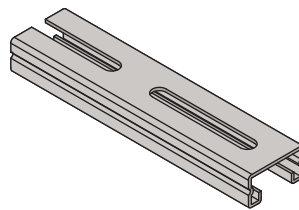
W400H



Channel With Holes

⁹/₁₆" Holes are punched on 1-⁷/₈" centers.

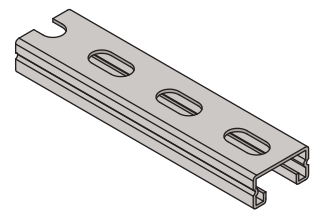
W400SL



Channel With Long Slots

¹³/₃₂" x 3" Slots are punched on 4" centers.

W400SS



Channel With Short Slots

⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

Related Channel Nuts (See Pages 81 - 82)

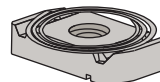
Channel Nut with Short Spring



Channel Nut Without Spring



Channel Nut with Top-Lock Spring



Rapid Strut Slide Nut



W400 Channel Loads



16 Gauge - 1⁵/₈" x 1³/₁₆" (41mm x 21mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W400	0.83	0.244	0.023	0.05	0.31	0.092	0.113	0.614
	(1.24)	(1.57)	(0.96)	(0.82)	(0.79)	(3.83)	(1.85)	(1.56)

W400 - Allowable Beam Loads

Span In	Max. Uniform Load (W) Lbs	Deflection at Load (W) In	Uniform Load at Deflection		
			Span /180 Lbs	Span /240 Lbs	Span /360 Lbs
12	840	0.03	840	840	840
18	560	0.06	560	560	450
24	420	0.11	420	380	260
30	330	0.17	330	250	160
36	280	0.25	230	170	110
42	240	0.34	170	130	80
48	210	0.44	130	100	60
60	170	0.69	80	60	40
72	140	0.99	60	40	30
84	120	1.34	40	30	20

Span mm	Max. Uniform Load (W) kN	Deflection at Load (W) mm	Uniform Load at Deflection		
			Span /180 kN	Span /240 kN	Span /360 kN
300	3.8	0.67	3.8	3.8	3.8
450	2.5	1.52	2.5	2.5	2.1
600	1.9	2.72	1.9	1.8	1.2
750	1.5	4.19	1.5	1.1	0.8
900	1.2	5.97	1.0	0.8	0.5
1,050	1.1	8.12	0.8	0.6	0.4
1,200	0.9	10.61	0.6	0.4	0.3
1,500	0.8	16.77	0.4	0.3	0.2
1,800	0.6	23.87	0.3	0.2	0.1
2,100	0.5	32.49	0.2	0.1	0.1

W400 - Allowable Column Loads

Unbraced Height In	Max. Slot Face Load Lbs	Max. Column Load Applied at C.G.			
		K = 0.65 Lbs	K = 0.80 Lbs	K = 1.0 Lbs	K = 1.2 Lbs
12	1,780	5,390	5,250	5,040	4,800
18	1,720	5,070	4,800	4,420	4,030
24	1,650	4,680	4,290	3,780	3,310
30	1,570	4,260	3,780	3,210	2,520
36	1,470	3,840	3,310	2,520	1,780
42	1,340	3,460	2,800	1,880	1,310
48	1,180	3,080	2,250	1,440	1,000
60	890	2,180	1,440	920	**
72	690	1,520	1,000	**	**
84	**	1,110	**	**	**

Unbraced Height mm	Max. Slot Face Load kN	Max. Column Load Applied at C.G.			
		K = 0.65 kN	K = 0.80 kN	K = 1.0 kN	K = 1.2 kN
300	7.9	24.0	23.4	22.5	21.4
450	7.7	22.6	21.4	19.8	18.1
600	7.4	20.9	19.2	17.0	14.9
750	7.0	19.1	17.0	14.5	11.5
900	6.6	17.3	14.9	11.5	8.2
1,050	6.0	15.6	12.7	8.6	6.0
1,200	5.3	14.0	10.3	6.6	4.6
1,500	4.0	10.0	6.6	4.2	**
1,800	3.2	6.9	4.6	**	**
2,100	**	5.1	**	**	**

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20-23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

- SS - Channel with Short Slots 0.90
- SL - Channel with Long Slots 0.90
- H - Channel with Holes 0.95
- KO - Knock-Out Channel 0.95





W401 Channel Loads

16 Gauge - 1⁵/₈" x 1⁵/₈" (41mm x 41mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W401	1.66	0.487	0.105	0.129	0.463	0.184	0.226	0.614
	(2.47)	(3.14)	(4.37)	(2.11)	(1.18)	(7.66)	(3.70)	(1.56)

W401 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
In	Lbs	In	Lbs	Lbs	Lbs
12	500 *	0.00	500 *	500 *	500 *
18	500 *	0.01	500 *	500 *	500 *
24	500 *	0.03	500 *	500 *	500 *
30	500 *	0.06	500 *	500 *	500 *
36	500 *	0.10	500 *	500 *	500 *
42	500 *	0.16	500 *	500 *	370
48	500 *	0.23	500 *	430	290
60	430	0.39	370	270	180
72	360	0.57	250	190	130
84	310	0.78	190	140	90

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
mm	kN	mm	kN	kN	kN
300	2.2 *	0.09	2.2 *	2.2 *	2.2 *
450	2.2 *	0.30	2.2 *	2.2 *	2.2 *
600	2.2 *	0.71	2.2 *	2.2 *	2.2 *
750	2.2 *	1.38	2.2 *	2.2 *	2.2 *
900	2.2 *	2.38	2.2 *	2.2 *	2.2 *
1,050	2.2 *	3.79	2.2 *	2.2 *	1.7
1,200	2.2 *	5.65	2.2 *	2.0	1.3
1,500	2.0	9.71	1.7	1.2	0.8
1,800	1.6	14.11	1.2	0.9	0.6
2,100	1.4	18.78	0.8	0.6	0.4

W401 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	2,920	11,090	10,960	10,750	10,520
18	2,890	10,780	10,520	10,140	9,740
24	2,850	10,390	10,000	9,470	8,960
30	2,800	9,970	9,470	8,810	7,870
36	2,760	9,540	8,960	7,870	6,700
42	2,690	9,120	8,260	6,900	5,530
48	2,600	8,630	7,490	5,920	4,440
60	2,350	7,390	5,920	4,090	2,840
72	2,030	6,110	4,440	2,840	1,970
84	1,710	4,880	3,260	2,090	**

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	13.0	49.4	48.8	47.9	46.9
450	12.9	48.0	46.9	45.2	43.5
600	12.7	46.4	44.7	42.3	40.1
750	12.5	44.5	42.3	39.5	35.4
900	12.3	42.6	40.1	35.4	30.3
1,050	12.0	40.7	37.1	31.1	25.2
1,200	11.6	38.7	33.7	26.9	20.3
1,500	10.5	33.3	26.9	18.8	13.0
1,800	9.2	27.7	20.3	13.0	9.1
2,100	7.7	22.3	15.0	9.6	**

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots 0.90

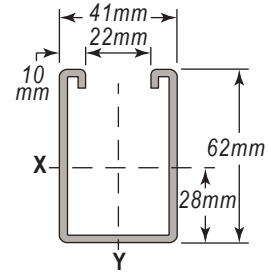
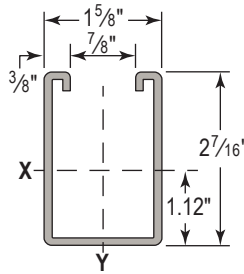
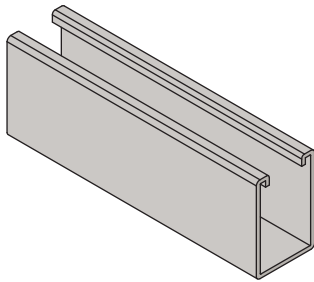


W100 & W101 - 12 Gauge Channel



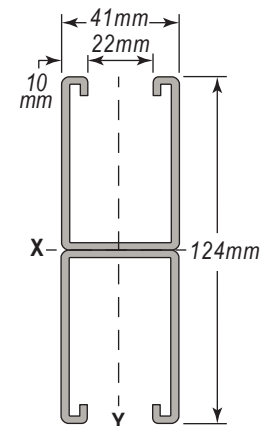
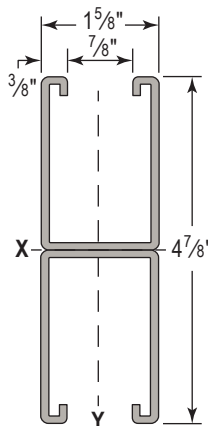
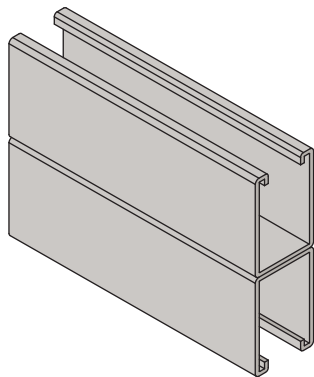
W100: 1⁵/₈" x 2⁷/₁₆" (41mm x 62mm) & W101: 1⁵/₈" x 4⁷/₈" (41mm x 124mm)

W100: 1⁵/₈" x 2⁷/₁₆" (41mm x 62mm)



Available in 10', 20' & Pre-Cut lengths see next page • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

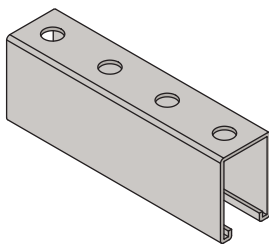
W101: 1⁵/₈" x 4⁷/₈" (41mm x 124mm)



Available in 10' & 20' lengths • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

Pierced Channel

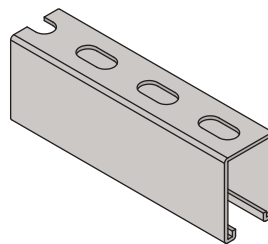
W100H



Channel With Holes

¹/₁₆" Holes are punched on 1-⁷/₈" centers.

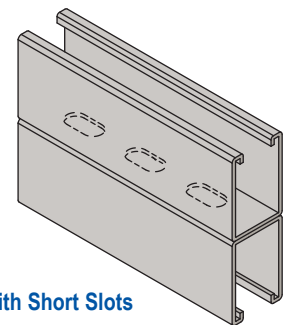
W100SS



Channel With Short Slots

⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

W101SS

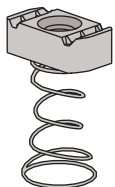


Channel With Short Slots

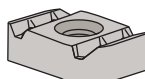
⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

Related Channel Nuts (See Pages 81 - 82)

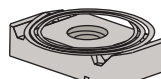
Channel Nut with Long Spring



Channel Nut Without Spring



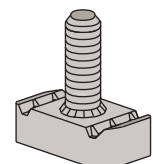
Channel Nut with Top-Lock Spring



Rapid Strut Slide Nut



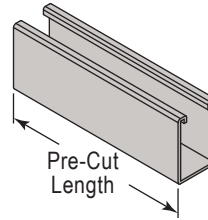
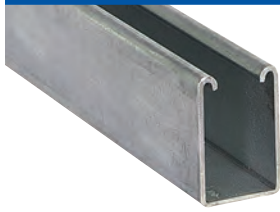
Stud Nut without Spring





W100 Pre-Cut Channel

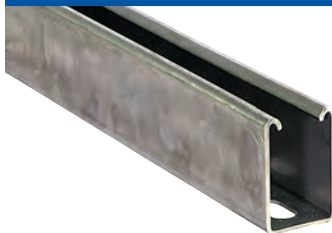
W100: 1⁵/₈" x 2⁷/₁₆" (41mm x 62mm) - Solid Channel - Pre-Cut Lengths



W100 - 1 ⁵ / ₈ " x 2 ⁷ / ₁₆ " - 12 Gauge Solid Channel			
Pre-Cut Length	Steel - PG	ST304	ST316
6" (15.2cm)	W100PG6IN	W100ST3046IN	W100ST3166IN
12" (0.31m)	W100PG12IN	W100ST30412IN	W100ST31612IN
18" (0.45m)	W100PG18IN	W100ST30418IN	W100ST31618IN
24" (0.61m)	W100PG24IN	W100ST30424IN	W100ST31624IN
30" (0.76m)	W100PG30IN	W100ST30430IN	W100ST31630IN
36" (0.91m)	W100PG36IN	W100ST30436IN	W100ST31636IN
42" (1.07m)	W100PG42IN	W100ST30442IN	W100ST31642IN
48" (1.22m)	W100PG48IN	W100ST30448IN	W100ST31648IN
54" (1.37m)	W100PG54IN	W100ST30454IN	W100ST31654IN
60" (1.52m)	W100PG60IN	W100ST30460IN	W100ST31660IN
72" (1.83m)	W100PG72IN	W100ST30472IN	W100ST31672IN
80" (2.03m)	W100PG80IN	W100ST30480IN	W100ST31680IN
96" (2.44m)	W100PG96IN	W100ST30496IN	W100ST31696IN
10' (3.05m)	W100PG10	W100ST30410	W100ST31610
20' (6.10m)	W100PG20	W100ST30420	W100ST31620

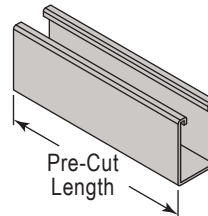
Note: Minimum order quantity is 100 pieces for any size under 10'.

W100SS: 1⁵/₈" x 2⁷/₁₆" (41mm x 62mm) - Channel with Short Slots - Pre-Cut Lengths



Channel With Short Slots

⁹/₁₆" x 1-¹/₈" (14mm x 29mm) Slots
are punched on 2" (51mm) centers.



W100SS - 1 ⁵ / ₈ " x 2 ⁷ / ₁₆ " - 12 Gauge - Channel with Short Slots			
Pre-Cut Length	Steel - PG	ST304	ST316
6" (15.2cm)	W100SSPG6IN	W100SSST3046IN	W100SSST3166IN
12" (0.31m)	W100SSPG12IN	W100SSST30412IN	W100SSST31612IN
18" (0.45m)	W100SSPG18IN	W100SSST30418IN	W100SSST31618IN
24" (0.61m)	W100SSPG24IN	W100SSST30424IN	W100SSST31624IN
30" (0.76m)	W100SSPG30IN	W100SSST30430IN	W100SSST31630IN
36" (0.91m)	W100SSPG36IN	W100SSST30436IN	W100SSST31636IN
42" (1.07m)	W100SSPG42IN	W100SSST30442IN	W100SSST31642IN
48" (1.22m)	W100SSPG48IN	W100SSST30448IN	W100SSST31648IN
54" (1.37m)	W100SSPG54IN	W100SSST30454IN	W100SSST31654IN
60" (1.52m)	W100SSPG60IN	W100SSST30460IN	W100SSST31660IN
72" (1.83m)	W100SSPG72IN	W100SSST30472IN	W100SSST31672IN
80" (2.03m)	W100SSPG80IN	W100SSST30480IN	W100SSST31680IN
96" (2.44m)	W100SSPG96IN	W100SSST30496IN	W100SSST31696IN
10' (3.05m)	W100SSPG10	W100SSST30410	W100SSST31610
20' (6.10m)	W100SSPG20	W100SSST30420	W100SSST31620

Note: Minimum order quantity is 100 pieces for any size under 10'.



W100 Channel Loads



12 Gauge - 1⁵/₈" x 2⁷/₁₆" (41mm x 62mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W100	2.49	0.732	0.530	0.400	0.851	0.337	0.415	0.679
	(3.71)	(4.72)	(22.06)	(6.55)	(2.16)	(14.03)	(6.80)	(1.72)

W100 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
In	Lbs	In	Lbs	Lbs	Lbs
12	6,700	0.01	6,700	6,700	6,700
24	3,350	0.04	3,350	3,350	3,350
36	2,230	0.09	2,230	2,230	2,230
48	1,670	0.15	1,670	1,670	1,450
60	1,340	0.24	1,340	1,340	930
72	1,120	0.35	1,120	960	640
84	960	0.47	940	710	470
96	840	0.62	720	540	360
108	740	0.78	570	430	290
120	670	0.96	460	350	230

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
mm	kN	mm	kN	kN	kN
300	30.3	0.24	30.3	30.3	30.3
600	15.1	0.95	15.1	15.1	15.1
900	10.1	2.14	10.1	10.1	10.1
1,200	7.6	3.79	7.6	7.6	6.6
1,500	6.0	5.93	6.0	6.0	4.3
1,800	5.0	8.51	5.0	4.4	2.9
2,100	4.3	11.60	4.3	3.2	2.2
2,400	3.8	15.18	3.3	2.5	1.6
2,700	3.4	19.32	2.6	2.0	1.3
3,000	3.0	23.71	2.1	1.6	1.1

W100 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	5,090	16,190	15,760	15,090	14,330
24	4,720	13,920	12,640	10,890	9,220
36	4,020	11,110	9,220	7,040	5,370
48	3,210	8,440	6,400	4,630	3,640
60	2,570	6,250	4,630	3,460	2,780
72	2,130	4,790	3,640	2,780	2,270
84	1,810	3,900	3,010	2,340	1,920
96	1,580	3,290	2,590	2,020	1,660
108	1,400	2,860	2,270	1,780	1,450
120	1,270	2,540	2,020	1,580	**

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	22.7	72.1	70.3	67.4	64.1
600	21.0	62.3	56.7	49.1	41.7
900	18.1	50.0	41.7	32.0	24.5
1,200	14.5	38.3	29.2	21.0	16.5
1,500	11.6	28.5	21.0	15.7	12.6
1,800	9.6	21.8	16.5	12.6	10.3
2,100	8.2	17.7	13.7	10.6	8.7
2,400	7.1	14.9	11.7	9.2	7.5
2,700	6.4	13.0	10.3	8.1	6.6
3,000	5.7	11.5	9.2	7.2	**

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

- SS - Channel with Short Slots 0.90
- SL - Channel with Long Slots 0.90
- H - Channel with Holes 0.95
- KO - Knock-Out Channel. 0.95





W101 Channel Loads

12 Gauge - 1⁵/₈" x 4⁷/₈" (41mm x 124mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W101	4.98	1.463	2.867	1.176	1.400	0.674	0.829	0.679
	(7.41)	(9.44)	(119.33)	(19.27)	(3.56)	(28.05)	(13.58)	(1.72)

W101 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
In	Lbs	In	Lbs	Lbs	Lbs
12	3,710 *	0.00	3,710 *	3,710 *	3,710 *
24	3,710 *	0.01	3,710 *	3,710 *	3,710 *
36	3,710 *	0.03	3,710 *	3,710 *	3,710 *
48	3,710 *	0.06	3,710 *	3,710 *	3,710 *
60	3,710 *	0.12	3,710 *	3,710 *	3,710 *
72	3,290	0.19	3,290	3,290	3,290
84	2,820	0.26	2,820	2,820	2,560
96	2,470	0.34	2,470	2,470	1,960
108	2,190	0.42	2,190	2,190	1,550
120	1,970	0.52	1,970	1,880	1,250

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
mm	kN	mm	kN	kN	kN
300	16.5 *	0.02	16.5 *	16.5 *	16.5 *
600	16.5 *	0.19	16.5 *	16.5 *	16.5 *
900	16.5 *	0.65	16.5 *	16.5 *	16.5 *
1,200	16.5 *	1.53	16.5 *	16.5 *	16.5 *
1,500	16.5 *	2.99	16.5 *	16.5 *	16.5 *
1,800	14.9	4.65	14.9	14.9	14.9
2,100	12.7	6.32	12.7	12.7	11.7
2,400	11.1	8.25	11.1	11.1	9.0
2,700	9.9	10.47	9.9	9.9	7.1
3,000	8.9	12.89	8.9	8.6	5.7

W101 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	8,890	33,570	33,290	32,840	32,320
24	8,730	32,030	31,100	29,720	28,280
36	8,490	29,900	28,280	26,150	24,190
48	8,220	27,560	25,470	23,020	21,020
60	7,840	25,310	23,020	20,590	17,300
72	7,370	23,300	21,020	17,300	12,800
84	6,870	21,600	18,880	13,530	9,410
96	6,210	20,180	15,750	10,370	7,200
108	5,510	17,890	12,800	8,190	5,690
120	4,850	15,370	10,370	6,640	**

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	39.6	149.4	148.2	146.3	144.0
600	38.9	142.7	138.7	132.7	126.4
900	37.8	133.4	126.4	117.0	108.4
1,200	36.7	123.2	114.1	103.2	94.3
1,500	35.0	113.3	103.2	92.3	78.6
1,800	33.0	104.4	94.3	78.6	58.8
2,100	30.9	96.8	85.6	62.0	43.2
2,400	28.0	90.5	71.8	47.6	33.1
2,700	25.0	81.2	58.8	37.6	26.1
3,000	22.0	70.1	47.6	30.5	**

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots 0.90

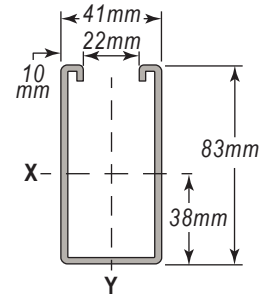
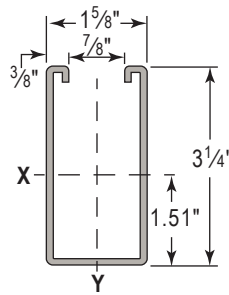
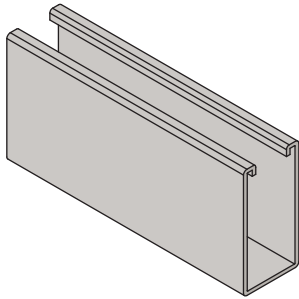


W150 & W151 - 12 Gauge Channel



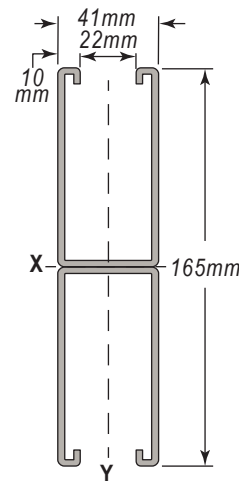
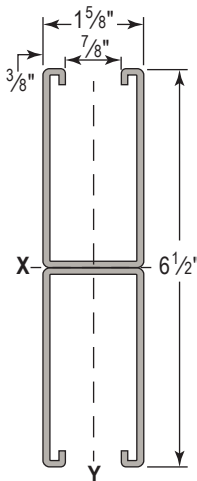
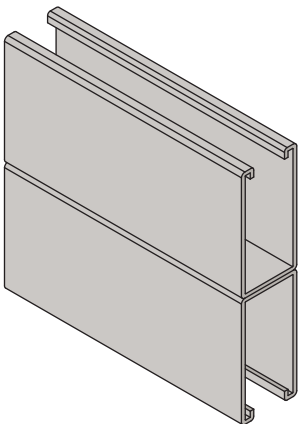
W150: 1⁵/₈" x 3¹/₄" (41mm x 83mm) & W151: 1⁵/₈" x 6¹/₂" (41mm x 165mm)

W150: 1⁵/₈" x 3¹/₄" (41mm x 83mm)



Available in 10', 20' & Pre-Cut lengths see next page • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

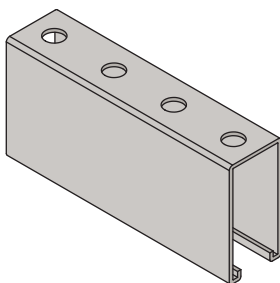
W151: 1⁵/₈" x 6¹/₂" (41mm x 165mm)



Available in 10' & 20' lengths • Finishes: PG, HG, GR, PL, Gold, ST304, & ST316

Pierced Channel

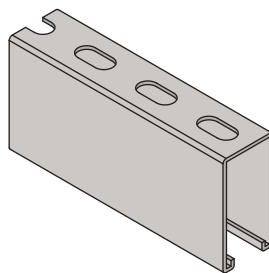
W150H



Channel With Holes

⁹/₁₆" Holes are punched on 1-⁷/₈" centers.

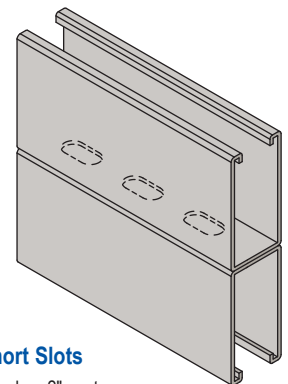
W150SS



Channel With Short Slots

⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

W151SS

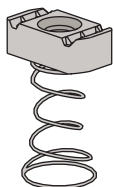


Channel With Short Slots

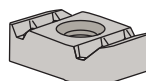
⁹/₁₆" x 1-¹/₈" Slots are punched on 2" centers.

Related Channel Nuts (See Pages 81 - 82)

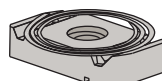
Channel Nut with Long Spring



Channel Nut Without Spring



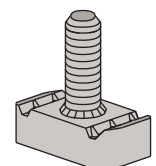
Channel Nut with Top-Lock Spring



Rapid Strut Slide Nut



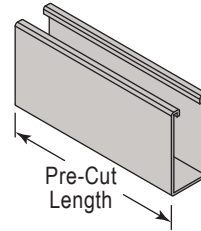
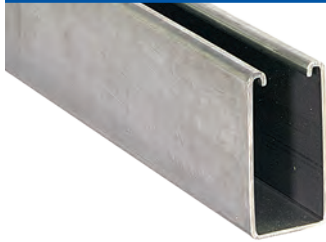
Stud Nut without Spring





W150 Pre-Cut Channel

W150: 1⁵/₈" x 3¹/₄" (41mm x 83mm) - Solid Channel - Pre-Cut Lengths



W150 - 1⁵/₈" x 3¹/₄" - 12 Gauge Solid Channel

Pre-Cut Length	Steel - PG	ST304	ST316
6" (15.2cm)	W150PG6IN	W150ST3046IN	W150ST3166IN
12" (0.31m)	W150PG12IN	W150ST30412IN	W150ST31612IN
18" (0.45m)	W150PG18IN	W150ST30418IN	W150ST31618IN
24" (0.61m)	W150PG24IN	W150ST30424IN	W150ST31624IN
30" (0.76m)	W150PG30IN	W150ST30430IN	W150ST31630IN
36" (0.91m)	W150PG36IN	W150ST30436IN	W150ST31636IN
42" (1.07m)	W150PG42IN	W150ST30442IN	W150ST31642IN
48" (1.22m)	W150PG48IN	W150ST30448IN	W150ST31648IN
54" (1.37m)	W150PG54IN	W150ST30454IN	W150ST31654IN
60" (1.52m)	W150PG60IN	W150ST30460IN	W150ST31660IN
72" (1.83m)	W150PG72IN	W150ST30472IN	W150ST31672IN
80" (2.03m)	W150PG80IN	W150ST30480IN	W150ST31680IN
96" (2.44m)	W150PG96IN	W150ST30496IN	W150ST31696IN
10' (3.05m)	W150PG10	W150ST30410	W150ST31610
20' (6.10m)	W150PG20	W150ST30420	W150ST31620

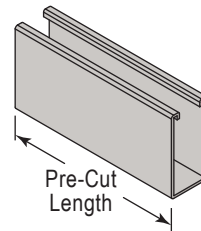
Note: Minimum order quantity is 100 pieces for any size under 10'.

W150SS: 1⁵/₈" x 3¹/₄" (41mm x 83mm) - Channel with Short Slots - Pre-Cut Lengths



Channel With Short Slots

⁹/₁₆" x 1-¹/₈" (14mm x 29mm) Slots
are punched on 2" (51mm) centers.



W150SS - 1⁵/₈" x 3¹/₄" - 12 Gauge - Channel with Short Slots

Pre-Cut Length	Steel - PG	ST304	ST316
6" (15.2cm)	W150SSPG6IN	W150SSST3046IN	W150SSST3166IN
12" (0.31m)	W150SSPG12IN	W150SSST30412IN	W150SSST31612IN
18" (0.45m)	W150SSPG18IN	W150SSST30418IN	W150SSST31618IN
24" (0.61m)	W150SSPG24IN	W150SSST30424IN	W150SSST31624IN
30" (0.76m)	W150SSPG30IN	W150SSST30430IN	W150SSST31630IN
36" (0.91m)	W150SSPG36IN	W150SSST30436IN	W150SSST31636IN
42" (1.07m)	W150SSPG42IN	W150SSST30442IN	W150SSST31642IN
48" (1.22m)	W150SSPG48IN	W150SSST30448IN	W150SSST31648IN
54" (1.37m)	W150SSPG54IN	W150SSST30454IN	W150SSST31654IN
60" (1.52m)	W150SSPG60IN	W150SSST30460IN	W150SSST31660IN
72" (1.83m)	W150SSPG72IN	W150SSST30472IN	W150SSST31672IN
80" (2.03m)	W150SSPG80IN	W150SSST30480IN	W150SSST31680IN
96" (2.44m)	W150SSPG96IN	W150SSST30496IN	W150SSST31696IN
10' (3.05m)	W150SSPG10	W150SSST30410	W150SSST31610
20' (6.10m)	W150SSPG20	W150SSST30420	W150SSST31620

Note: Minimum order quantity is 100 pieces for any size under 10'.



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

W150 Channel Loads



12 Gauge - 1⁵/₈" x 3¹/₄" (41mm x 83mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W150	3.07	0.902	1.113	0.639	1.111	0.435	0.536	0.695
	(4.57)	(5.82)	(46.33)	(10.47)	(2.82)	(18.11)	(8.78)	(1.77)

W150 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
In	Lbs	In	Lbs	Lbs	Lbs
12	10,720	0.01	10,720	10,720	10,720
24	5,360	0.03	5,360	5,360	5,360
36	3,570	0.07	3,570	3,570	3,570
48	2,680	0.12	2,680	2,680	2,680
60	2,140	0.18	2,140	2,140	1,940
72	1,790	0.27	1,790	1,790	1,350
84	1,530	0.36	1,530	1,490	990
96	1,340	0.47	1,340	1,140	760
108	1,190	0.59	1,190	900	600
120	1,070	0.73	970	730	490

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
mm	kN	mm	kN	kN	kN
300	48.4	0.18	48.4	48.4	48.4
600	24.2	0.72	24.2	24.2	24.2
900	16.1	1.63	16.1	16.1	16.1
1,200	12.1	2.89	12.1	12.1	12.1
1,500	9.7	4.52	9.7	9.7	8.9
1,800	8.1	6.53	8.1	8.1	6.2
2,100	6.9	8.88	6.9	6.9	4.5
2,400	6.0	11.56	6.0	5.2	3.5
2,700	5.4	14.64	5.4	4.1	2.8
3,000	4.8	18.10	4.4	3.3	2.2

W150 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	6,230	19,910	19,360	18,480	17,490
24	5,730	16,950	15,250	12,890	10,630
36	4,740	13,190	10,630	7,650	5,660
48	3,590	9,570	6,870	4,800	3,660
60	2,740	6,690	4,800	3,460	2,710
72	2,160	4,990	3,660	2,710	2,170
84	1,760	3,960	2,970	2,250	1,830
96	1,500	3,280	2,500	1,930	1,580
108	1,310	2,800	2,170	1,700	1,400
120	1,170	2,460	1,930	1,520	**

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	27.8	88.7	86.3	82.6	78.2
600	25.6	75.9	68.5	58.2	48.2
900	21.3	59.5	48.2	35.0	25.8
1,200	16.2	43.5	31.4	21.9	16.7
1,500	12.5	30.6	21.9	15.7	12.3
1,800	9.8	22.7	16.7	12.3	9.8
2,100	8.0	18.0	13.5	10.2	8.3
2,400	6.8	14.9	11.3	8.7	7.2
2,700	5.9	12.7	9.8	7.7	6.3
3,000	5.3	11.1	8.7	6.9	**

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

- SS - Channel with Short Slots 0.90
- SL - Channel with Long Slots 0.90
- H - Channel with Holes 0.95
- KO - Knock-Out Channel 0.95



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Introduction
Channel
Channel Nuts & Hardware
General Fittings
Pipe & Conduit Supports
Electrical Fittings
Spring Steel
Loop & Ring Clamps
Beta Clamps & Z-Clamps
Concrete Inserts
Rooftop Supports
Gamma Pads
Technical Data



W151 Channel Loads

12 Gauge - 1⁵/₈" x 6¹/₂" (41mm x 165mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W151	6.14	1.804	6.339	1.951	1.874	0.871	1.072	0.695
	(9.14)	(11.64)	(263.85)	(31.97)	(4.76)	(36.25)	(17.57)	(1.77)

W151 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
In	Lbs	In	Lbs	Lbs	Lbs
12	4,890 *	0.00	4,890 *	4,890 *	4,890 *
24	4,890 *	0.00	4,890 *	4,890 *	4,890 *
36	4,890 *	0.02	4,890 *	4,890 *	4,890 *
48	4,890 *	0.04	4,890 *	4,890 *	4,890 *
60	4,890 *	0.07	4,890 *	4,890 *	4,890 *
72	4,890 *	0.13	4,890 *	4,890 *	4,890 *
84	4,670	0.19	4,670	4,670	4,670
96	4,090	0.25	4,090	4,090	4,090
108	3,630	0.32	3,630	3,630	3,420
120	3,270	0.39	3,270	3,270	2,770

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
mm	kN	mm	kN	kN	kN
300	21.8 *	0.01	21.8 *	21.8 *	21.8 *
600	21.8 *	0.11	21.8 *	21.8 *	21.8 *
900	21.8 *	0.38	21.8 *	21.8 *	21.8 *
1,200	21.8 *	0.91	21.8 *	21.8 *	21.8 *
1,500	21.8 *	1.78	21.8 *	21.8 *	21.8 *
1,800	21.8 *	3.08	21.8 *	21.8 *	21.8 *
2,100	21.1	4.75	21.1	21.1	21.1
2,400	18.5	6.19	18.5	18.5	18.5
2,700	16.4	7.84	16.4	16.4	15.7
3,000	14.8	9.67	14.8	14.8	12.7

W151 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	11,040	41,400	41,060	40,490	39,830
24	10,820	39,460	38,240	36,400	34,410
36	10,490	36,640	34,410	31,330	28,370
48	10,080	33,380	30,320	26,520	23,250
60	9,400	30,070	26,520	22,520	19,410
72	8,650	26,970	23,250	19,410	16,540
84	7,930	24,210	20,560	17,050	12,160
96	7,280	21,830	18,390	13,400	9,310
108	6,660	19,820	16,540	10,590	7,350
120	5,800	18,150	13,400	8,580	**

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	49.1	184.2	182.8	180.3	177.5
600	48.2	175.9	170.6	162.6	153.9
900	46.8	163.7	153.9	140.4	127.4
1,200	45.0	149.4	136.0	119.2	104.7
1,500	42.1	134.9	119.2	101.4	87.5
1,800	38.8	121.2	104.7	87.5	75.1
2,100	35.6	109.0	92.7	76.9	55.8
2,400	32.7	98.4	82.9	61.5	42.7
2,700	30.1	89.4	75.1	48.6	33.8
3,000	26.4	81.8	61.5	39.4	**

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

Beam Loading of Punched Channels

Load for punched channel is obtained by multiplying the loads shown by the following reduction factors:

SS - Channel with Short Slots 0.90



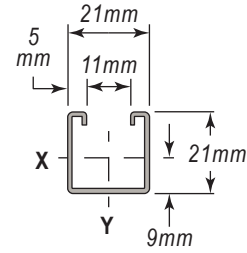
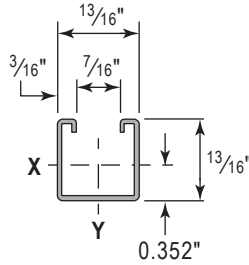
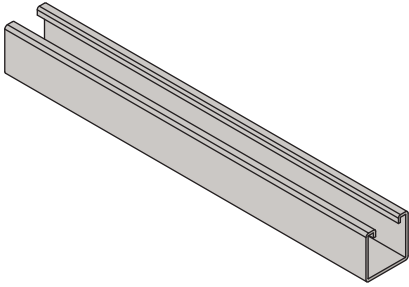
W600 & W601 - 19 Gauge Channel



W600: $1\frac{3}{16}'' \times 1\frac{3}{16}''$ (21mm x 21mm) & **W601:** $1\frac{3}{16}'' \times 1\frac{5}{8}''$ (21mm x 41mm)

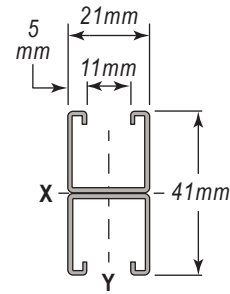
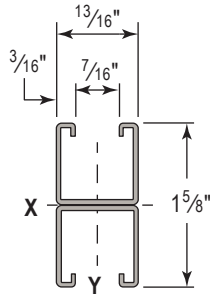
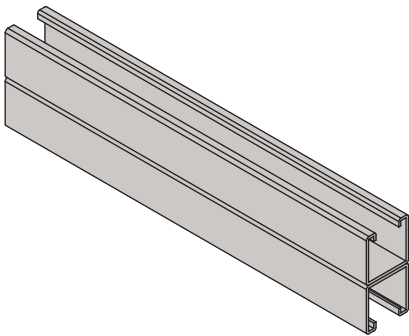
- Introduction
- Channel**
- Channel Nuts & Hardware
- General Fittings
- Pipe & Conduit Supports
- Electrical Fittings
- Spring Steel
- Loop & Ring Clamps
- Beta Clamps & Z-Clamps
- Concrete Inserts
- Rooftop Supports
- Gamma Pads
- Technical Data

W600: $1\frac{3}{16}'' \times 1\frac{3}{16}''$ (21mm x 21mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR & PL

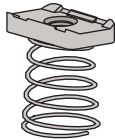
W601: $1\frac{3}{16}'' \times 1\frac{5}{8}''$ (21mm x 41mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR & PL

Related Channel Nuts (See Page 82)

Mini Nut with Standard Spring



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



W600 Channel Loads

19 Gauge - $1\frac{3}{16}$ " x $1\frac{3}{16}$ " (21mm x 21mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W600	0.36	0.107	0.009	0.020	0.295	0.012	0.029	0.333
	(0.54)	(0.69)	(0.37)	(0.33)	(0.75)	(0.50)	(0.48)	(0.85)

W600 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
In	Lbs	In	Lbs	Lbs	Lbs
12	340	0.03	340	340	340
18	230	0.06	230	230	180
24	170	0.11	170	150	100
30	140	0.18	130	100	70
36	110	0.24	90	70	50
42	100	0.35	70	50	30
48	80	0.42	50	40	30
60	70	0.72	NR	NR	NR
72	60	1.06	NR	NR	NR
84	50	1.41	NR	NR	NR

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
mm	kN	mm	kN	kN	kN
300	1.5	0.68	1.5	1.5	1.5
450	1.0	1.54	1.0	1.0	0.8
600	0.8	2.70	0.8	0.7	0.4
750	0.6	4.34	0.6	0.4	0.3
900	0.5	5.90	0.4	0.3	0.2
1,050	0.4	8.52	0.3	0.2	0.1
1,200	0.4	11.44	0.2	0.2	0.1
1,500	0.3	17.38	NR	NR	NR
1,800	0.3	25.74	NR	NR	NR
2,100	0.2	34.06	NR	NR	NR

W600 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	700	2,050	1,880	1,630	1,400
18	600	1,660	1,400	1,100	860
24	490	1,300	1,010	740	590
30	400	990	740	560	450
36	340	770	590	450	370
42	290	630	490	380	310
48	260	540	420	330	270
60	210	410	330	**	**
72	180	340	270	**	**
84	**	280	**	**	**

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	3.1	9.2	8.4	7.3	6.3
450	2.7	7.5	6.3	5.0	3.9
600	2.2	5.9	4.6	3.4	2.7
750	1.8	4.5	3.4	2.5	2.0
900	1.5	3.5	2.7	2.0	1.7
1,050	1.3	2.8	2.2	1.7	1.4
1,200	1.2	2.4	1.9	1.5	1.2
1,500	0.9	1.9	1.5	**	**
1,800	0.8	1.5	1.2	**	**
2,100	**	1.3	**	**	**

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.



W601 Channel Loads



19 Gauge - $1\frac{3}{16}$ " x $1\frac{5}{8}$ " (21mm x 41mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W600	0.36	0.107	0.009	0.020	0.295	0.012	0.029	0.333
	(0.54)	(0.69)	(0.37)	(0.33)	(0.75)	(0.50)	(0.48)	(0.85)

W601 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
			Lbs	Lbs	Lbs
12	280 *	0.00	280 *	280 *	280 *
18	280 *	0.02	280 *	280 *	280 *
24	280 *	0.04	280 *	280 *	280 *
30	280 *	0.07	280 *	280 *	280 *
36	280 *	0.13	280 *	280 *	220
42	270	0.20	270	240	160
48	230	0.25	230	180	120
60	190	0.40	160	120	80
72	160	0.58	110	80	50
84	130	0.75	80	60	40

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
			kN	kN	kN
300	1.2 *	0.11	1.2 *	1.2 *	1.2 *
450	1.2 *	0.39	1.2 *	1.2 *	1.2 *
600	1.2 *	0.92	1.2 *	1.2 *	1.2 *
750	1.2 *	1.79	1.2 *	1.2 *	1.2 *
900	1.2 *	3.10	1.2 *	1.2 *	1.0
1,050	1.2	4.74	1.2	1.1	0.8
1,200	1.1	6.29	1.1	0.8	0.6
1,500	0.8	9.73	0.7	0.5	0.4
1,800	0.7	14.16	0.5	0.4	0.3
2,100	0.6	19.67	0.4	0.3	0.2

W601 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	1,240	4,650	4,510	4,300	4,090
18	1,210	4,330	4,090	3,780	3,500
24	1,170	3,980	3,680	3,340	3,060
30	1,130	3,660	3,340	3,010	2,460
36	1,070	3,380	3,060	2,460	1,800
42	990	3,140	2,690	1,900	1,320
48	900	2,930	2,230	1,460	1,010
60	710	2,180	1,460	930	**
72	550	1,530	1,010	**	**
84	**	1,130	**	**	**

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	5.5	20.7	20.1	19.2	18.3
450	5.4	19.3	18.3	16.9	15.7
600	5.2	17.8	16.5	14.9	13.7
750	5.0	16.4	14.9	13.5	11.2
900	4.8	15.1	13.7	11.2	8.3
1,050	4.4	14.1	12.2	8.7	6.0
1,200	4.0	13.2	10.2	6.7	4.6
1,500	3.2	9.9	6.7	4.3	**
1,800	2.5	7.0	4.6	**	**
2,100	2.0	5.2	3.4	**	**

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.

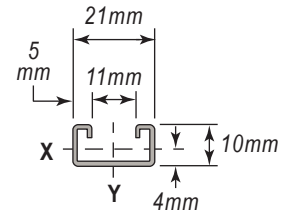
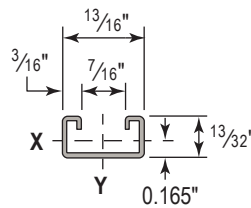
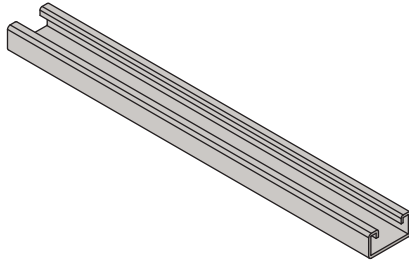




W700 & W701 - 19 Gauge Channel

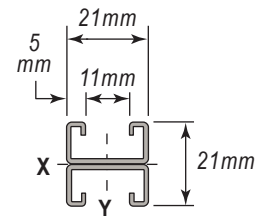
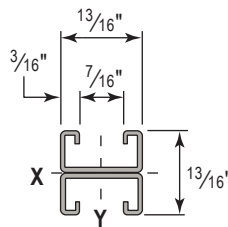
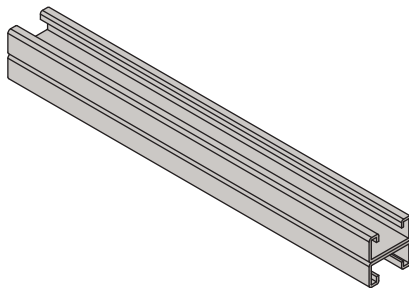
W700: $1\frac{3}{16}$ " x $1\frac{13}{32}$ " (21mm x 10mm) & **W701:** $1\frac{3}{16}$ " x $1\frac{13}{16}$ " (21mm x 21mm)

W700: $1\frac{3}{16}$ " x $1\frac{13}{32}$ " (21mm x 10mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR & PL

W701: $1\frac{3}{16}$ " x $1\frac{13}{16}$ " (21mm x 21mm)



Available in 10' & 20' Lengths • Finishes: PG, HG, GR & PL

Related Channel Nuts (See Page 82)

Mini Nut
with Short Spring



W700 Channel Loads



19 Gauge - $1\frac{3}{16}$ " x $1\frac{3}{32}$ " (21mm x 10mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W700	0.25	0.074	0.002	0.007	0.149	0.007	0.017	0.307
	(0.37)	(0.48)	(0.08)	(0.11)	(0.38)	(0.29)	(0.28)	(0.78)

W700 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
In	Lbs	In	Lbs	Lbs	Lbs
12	110	0.05	110	110	70
18	80	0.12	70	50	30
24	60	0.22	40	30	20
30	50	0.35	20	20	NR
36	40	0.48	20	NR	NR
42	30	0.58	NR	NR	NR
48	30	0.86	NR	NR	NR
60	20	1.12	NR	NR	NR
72	20	1.94	NR	NR	NR
84	20	3.08	NR	NR	NR

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
mm	kN	mm	kN	kN	kN
300	0.5	1.30	0.5	0.5	0.4
450	0.4	2.93	0.3	0.2	0.1
600	0.3	5.22	0.2	0.1	0.1
750	0.2	8.49	0.1	0.1	NR
900	0.2	11.74	0.1	NR	NR
1,050	0.1	13.98	NR	NR	NR
1,200	0.1	20.86	NR	NR	NR
1,500	0.1	27.16	NR	NR	NR
1,800	0.1	46.94	NR	NR	NR
2,100	0.1	74.54	NR	NR	NR

W700 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	460	1,430	1,330	1,170	990
18	410	1,190	990	720	500
24	330	890	630	410	280
30	260	620	410	**	**
36	200	430	280	**	**
42	**	310	**	**	**
48	**	**	**	**	**
60	**	**	**	**	**
72	**	**	**	**	**
84	**	**	**	**	**

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	2.0	6.4	6.0	5.3	4.4
450	1.8	5.4	4.4	3.3	2.3
600	1.5	4.0	2.9	1.9	1.3
750	1.2	2.8	1.9	1.2	**
900	0.9	2.0	1.3	**	**
1,050	**	1.4	**	**	**
1,200	**	**	**	**	**
1,500	**	**	**	**	**
1,800	**	**	**	**	**
2,100	**	**	**	**	**

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.





W701 Channel Loads

19 Gauge - $1\frac{3}{16}$ " x $1\frac{3}{16}$ " (21mm x 21mm)

Section Properties

Channel Part No.	Wt./Ft. Lbs. (Kg/M)	Area of Section Sq. in. (Sq. cm)	X-X Axis			Y-Y Axis		
			Ix in. ⁴ (Ix cm ⁴)	Sx in. ³ (Sx cm ³)	rx. in. (rx. cm)	Iy in. ⁴ (Iy cm ⁴)	Sy in. ³ (Sy cm ³)	ry in. (ry cm)
W701	0.51	0.149	0.007	0.018	0.222	0.014	0.034	0.307
	(0.76)	(0.96)	(0.29)	(0.29)	(0.56)	(0.58)	(0.56)	(0.78)

W701 - Allowable Beam Loads

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
In	Lbs	In	Lbs	Lbs	Lbs
12	140 *	0.01	140 *	140 *	140 *
18	140 *	0.05	140 *	140 *	140 *
24	140 *	0.12	140 *	120	80
30	120	0.20	100	80	50
36	100	0.28	70	50	40
42	90	0.40	50	40	30
48	80	0.53	40	30	NR
60	60	0.78	30	NR	NR
72	50	1.13	NR	NR	NR
84	40	1.43	NR	NR	NR

Span	Max. Uniform Load (W)	Deflection at Load (W)	Uniform Load at Deflection		
			Span /180	Span /240	Span /360
mm	kN	mm	kN	kN	kN
300	0.6 *	0.35	0.6 *	0.6 *	0.6 *
450	0.6 *	1.20	0.6 *	0.6 *	0.6 *
600	0.6 *	2.83	0.6 *	0.5	0.4
750	0.5	4.74	0.5	0.4	0.2
900	0.4	6.83	0.3	0.2	0.2
1,050	0.4	9.76	0.2	0.2	0.1
1,200	0.4	12.96	0.2	0.1	NR
1,500	0.3	18.98	0.1	NR	NR
1,800	0.2	27.33	NR	NR	NR
2,100	0.2	34.72	NR	NR	NR

W701 - Allowable Column Loads

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
In	Lbs	Lbs	Lbs	Lbs	Lbs
12	820	3,150	3,040	2,910	2,690
18	790	2,930	2,690	2,330	1,960
24	740	2,570	2,210	1,710	1,250
30	670	2,180	1,710	1,150	800
36	580	1,770	1,250	800	560
42	490	1,390	920	590	**
48	420	1,070	700	**	**
60	**	680	**	**	**
72	**	**	**	**	**
84	**	**	**	**	**

Unbraced Height	Max. Slot Face Load	Max. Column Load Applied at C.G.			
		K = 0.65	K = 0.80	K = 1.0	K = 1.2
mm	kN	kN	kN	kN	kN
300	3.6	14.1	13.6	13.0	12.1
450	3.5	13.1	12.1	10.5	8.9
600	3.3	11.6	10.0	7.8	5.7
750	3.0	9.8	7.8	5.3	3.7
900	2.6	8.1	5.7	3.7	2.5
1,050	2.2	6.4	4.2	2.7	**
1,200	1.9	4.9	3.2	**	**
1,500	**	3.2	**	**	**
1,800	**	**	**	**	**
2,100	**	**	**	**	**

* Load limited by spot weld shear

** KL/r > 200

NR = Not Recommended

Beam loads shown are total uniform load, including the channel weight, for a simple span supported at each end that is adequately laterally braced.

Refer to pages 20 -23 for other beam support conditions.

Refer to page 77 for load reduction factor for an unbraced beam length.



Lateral Bracing Load Reduction Charts



Lateral Bracing Load Reduction Charts

SPAN (in)	W100	W101	W150	W151	W200	W201	W210	W211	W300	W301	W400
12	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
24	0.99	1.00	0.98	1.00	1.00	1.00	0.99	1.00	1.00	1.00	1.00
36	0.88	1.00	0.85	1.00	0.93	1.00	0.88	1.00	0.96	1.00	0.94
48	0.77	0.98	0.70	0.96	0.87	1.00	0.77	0.98	0.91	1.00	0.88
60	0.66	0.92	0.54	0.90	0.82	0.96	0.66	0.93	0.87	0.98	0.82
72	0.57	0.87	0.44	0.83	0.77	0.92	0.57	0.87	0.84	0.95	0.78
84	0.50	0.81	0.37	0.75	0.74	0.88	0.50	0.81	0.81	0.91	0.74
96	0.45	0.75	0.33	0.68	0.70	0.85	0.45	0.76	0.78	0.88	0.71
108	0.42	0.69	0.29	0.60	0.67	0.81	0.41	0.70	0.76	0.85	0.68
120	0.39	0.64	0.27	0.53	0.65	0.77	0.38	0.64	0.74	0.82	0.65

SPAN (in)	W401	W500	W501	W600	W601	W700	W701	W800	W801	W900	W901
12	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
24	1.00	1.00	1.00	0.80	0.99	0.95	1.00	1.00	1.00	1.00	1.00
36	1.00	0.98	1.00	0.63	0.89	0.91	0.93	1.00	1.00	1.00	1.00
48	0.98	0.94	0.99	0.52	0.79	0.87	0.87	1.00	0.94	1.00	1.00
60	0.93	0.91	0.95	0.45	0.70	0.83	0.80	1.00	0.88	0.98	0.99
72	0.88	0.88	0.92	0.40	0.60	0.80	0.73	0.97	0.83	0.97	0.97
84	0.83	0.86	0.88	0.37	0.51	0.76	0.67	0.94	0.77	0.95	0.94
96	0.78	0.83	0.84	0.34	0.44	0.73	0.60	0.91	0.72	0.94	0.92
108	0.74	0.81	0.80	0.31	0.39	0.70	0.54	0.89	0.67	0.92	0.89
120	0.69	0.79	0.77	0.30	0.35	0.66	0.49	0.86	0.61	0.91	0.87

SPAN (mm)	W100	W101	W150	W151	W200	W201	W210	W211	W300	W301	W400
300	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
600	1.00	1.00	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
900	0.89	1.00	0.85	1.00	0.94	1.00	0.89	1.00	0.96	1.00	0.94
1,200	0.77	0.98	0.71	0.97	0.87	1.00	0.77	0.98	0.91	1.00	0.88
1,500	0.67	0.93	0.56	0.90	0.82	0.97	0.67	0.93	0.87	0.98	0.83
1,800	0.58	0.87	0.44	0.83	0.78	0.93	0.58	0.88	0.84	0.95	0.78
2,100	0.51	0.82	0.38	0.76	0.74	0.89	0.50	0.82	0.81	0.92	0.74
2,400	0.46	0.76	0.33	0.69	0.71	0.85	0.45	0.76	0.79	0.88	0.71
2,700	0.42	0.70	0.30	0.61	0.68	0.81	0.41	0.71	0.76	0.85	0.68
3,000	0.39	0.65	0.27	0.54	0.65	0.78	0.39	0.65	0.74	0.82	0.65

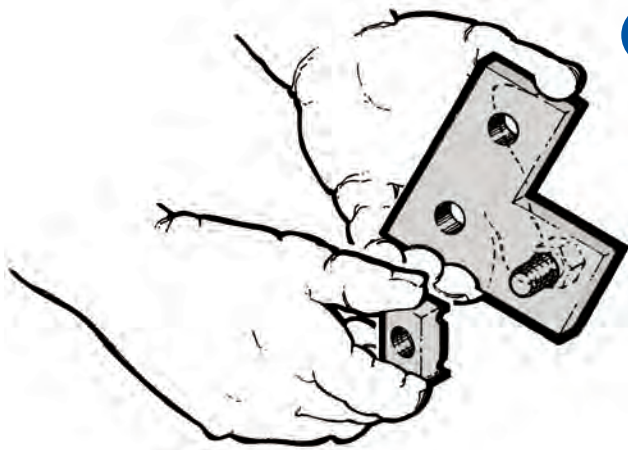
SPAN (mm)	W401	W500	W501	W600	W601	W700	W701	W800	W801	W900	W901
300	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
600	1.00	1.00	1.00	0.80	0.99	0.95	1.00	1.00	1.00	1.00	1.00
900	1.00	0.98	1.00	0.64	0.90	0.91	0.94	1.00	1.00	1.00	1.00
1,200	0.98	0.94	1.00	0.52	0.80	0.87	0.87	1.00	0.94	1.00	1.00
1,500	0.93	0.91	0.96	0.45	0.70	0.84	0.81	1.00	0.89	0.98	1.00
1,800	0.88	0.88	0.92	0.40	0.61	0.80	0.74	0.97	0.83	0.97	0.97
2,100	0.84	0.86	0.88	0.37	0.52	0.77	0.68	0.94	0.78	0.95	0.95
2,400	0.79	0.84	0.85	0.34	0.45	0.73	0.61	0.92	0.73	0.94	0.92
2,700	0.74	0.82	0.81	0.32	0.39	0.70	0.55	0.89	0.67	0.93	0.90
3,000	0.70	0.80	0.77	0.30	0.35	0.67	0.49	0.86	0.62	0.91	0.87



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Introduction
Channel
Channel Nuts & Hardware
General Fittings
Pipe & Conduit Supports
Electrical Fittings
Spring Steel
Loop & Ring Clamps
Beta Clamps & Z-Clamps
Concrete Inserts
Rooftop Supports
Gamma Pads
Technical Data

Channel Nut Without Spring Installation

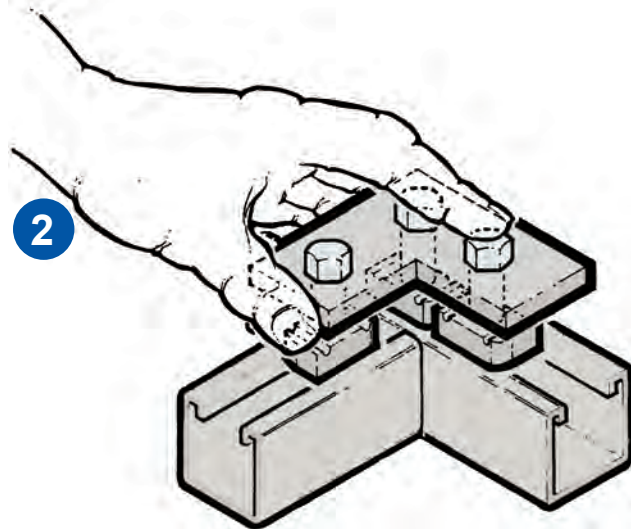


- 1** One at a time, bolts are inserted through the fitting's holes, held in place with a finger while an appropriate **Channel Nut without spring** is engaged to each bolt with one-and-a-half turns, (just enough to keep them attached).

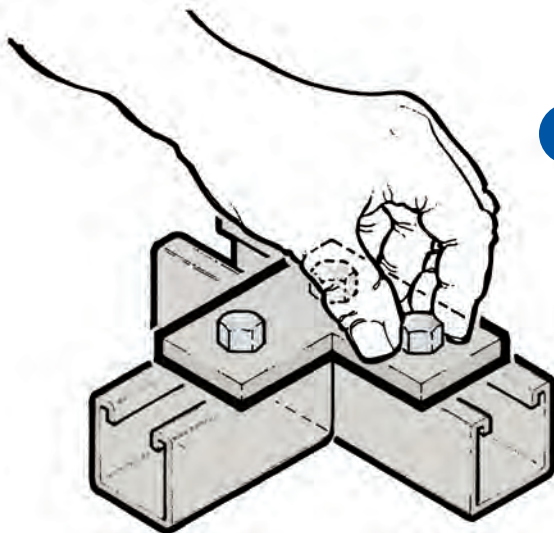
Use caution to select bolt lengths that will not bottom out in channel when fully tightened.

When the entire fitting (in at least one plane) is fitted with Channel Nuts and bolts, align Channel Nut direction (s) to correspond with channel arrangement; place fitting into position.

Channel Nuts without springs should hang below, clear of channel's in-turned edges prior to tightening the bolts.



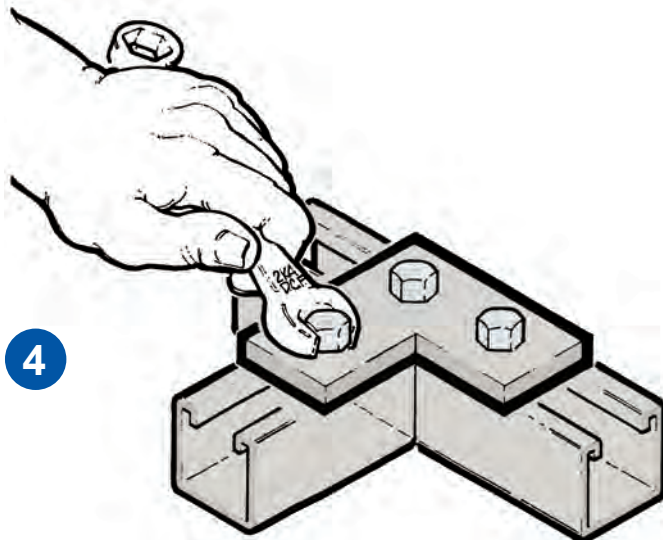
2



3

All Channel Nut/bolts are finger tightened by pressing down on bolt head, and turning clock-wise. Inserting fingers into channel to align is not required.

Do not tighten by grasping bolt with fingers under the head. If the bolt is grasped in this fashion, this will lift Channel Nut, allowing it to turn and "look" falsely into place between channel's in-turned lips.



4

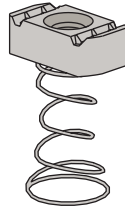
Adjust fitting to final position; check to make sure **Channel Nuts** are still installed correctly with pyramid enhanced grooves engaging the channel's in-turned edges. Finally, fasteners are wrench tightened.

Channel Nuts & Hardware



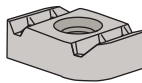
Channel Nuts with Spring

Pages 81 - 82



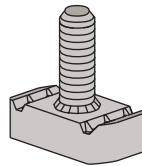
Channel Nuts without Spring

Pages 81 - 82



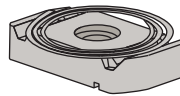
Stud Channel Nuts

Page 82



Channel Nut with Top-Lock Spring

Page 82



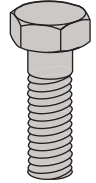
Rapid Strut Slide Nut

Page 82



Screws

Page 83



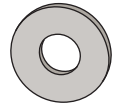
Nuts

Page 83



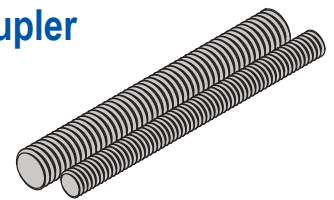
Washers

Page 83



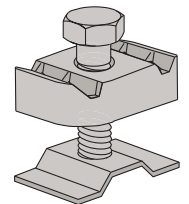
Threaded Rod & Coupler

Page 84



Seismic Rod Stiffener

Page 84



Hardware Material Specifications

Material	ASTM Designation	ASTM Description
Bar Stock: Channel Nuts	A 36	Merchant quality hot rolled carbon steel bars.
	A 29-03	Steel bars, carbon, hot rolled special quality.
Bar Stock	A 569	Merchant quality hot rolled carbon steel bars.
Hardware	A 563	Carbon and alloy steel nuts. Carbon steel externally threaded standard fasteners.
	A 307	
Channel Nuts	B783	Sintered 316 - "Domestic Nut"
Stainless Steel	A240	Bar Stock 316 - "Import Nut"
Aluminum Nuts	B221	Channel Nuts

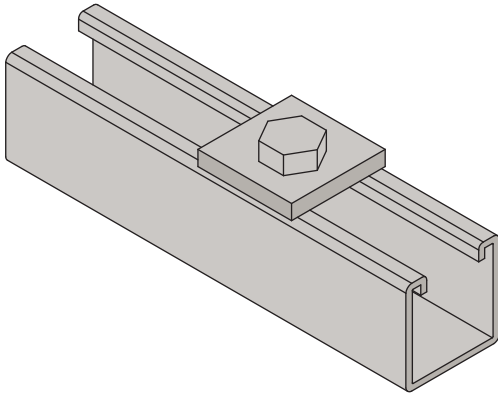
Hardware Finish Specifications

Finish	Finish Code	Description
Electroplated	EG	Fittings and hardware supplied as "Electro-Galvanized" in accordance with ASTM B 633.
Mill-Galvanized (Pre-Galvanized)	PG	Galvanized steel used in the manufacture of channel sections conforms to ASTM A 653 GR33 G90. Uncoated edges resulted from slitting, punching and channel cut off are present.
Hot Dip Galvanized After Fabrication (HDGAF)	HG	Channel and fittings which are hot dip galvanized after fabrication conform to one of the following specifications: ASTM A 123, ASTM A153, or ASTM A386.
Special Coatings	PL, GOLD	Other commercially available finishes can be supplied per specification when required to protect applications.



Channel Nuts

Standard Finish: Electro Galvanized (EG)



Slip And Pull-Out Load Data

Channel Part No.	Channel Nut	Resistance To Slip (Lbs./Bolt) Safety Factor		Resistance To Pull-Out (Lbs./Bolt) Safety Factor	
		3	5	3	5
		W200	W2-8	1,500	900
W210	W2-8	1,000	600	1,400	840
W300	W2-8	1,500	900	2,000	1,200
W500	W5-8	1,000	600	1,400	840

Apply Proper Torque

A Channel Nut installed within the last inch of Channel (center of bolt to extreme end of Channel) cannot develop full capacity.

REDUCE ULTIMATE DESIGN LOAD BY 50%.

When installing a Channel Nut near the end of a Channel section, especially within the last inch, remember to true the legs forming the continuous Channel slot before inserting and tightening the Channel Nut.

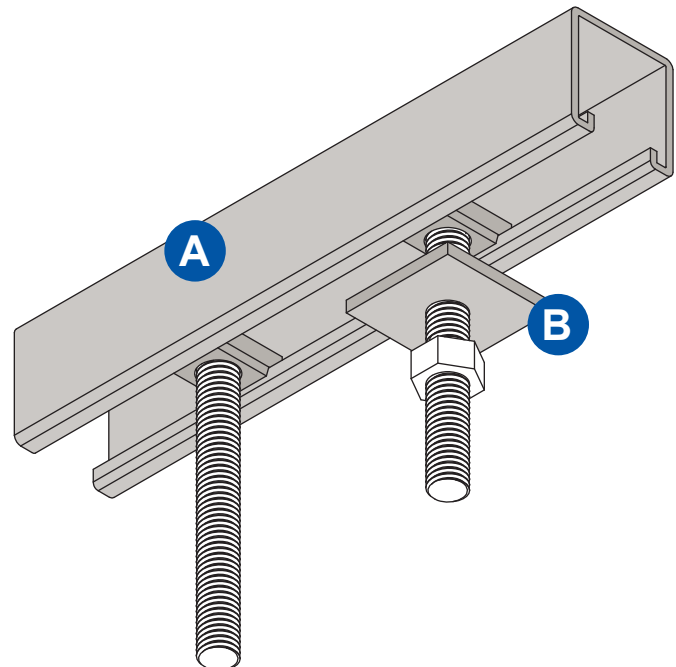
Channel Nuts or their matching threaded fastener that may have been contaminated with oil, wax, petroleum products or any friction reducing medium, will no longer develop a proper torque rating, and may be prone to loosening. To insure proper attachment load rating, properly clean and dry any such contaminated surfaces, paying specific attention to the threaded surfaces. If proper cleaning is not possible, replace the fasteners with uncontaminated stock.

Hanging a section of All Thread Rod directly from a Channel Nut within an overhead mounted section of Channel (without securing with a Fitting or Square Washer and a Hex or Jamb Nut) (Ref. A), does not allow the Channel Nut to function at its proper capacity and could result in the attachment slipping, twisting out or even jumping free of its confinement in a vibration situation. Always capture the Rod and Channel Nut at the face of the Channel as shown (Ref. B). Use proper torque value.

Bolt torque values are given to ensure the proper connection between components. It is important to understand that there is a direct, but not necessarily consistent, relationship between bolt torque and tension in the bolt. Too much tension in the bolt can cause it to break or crush the component parts. Too little tension in the bolt can prevent the connection from developing its full load capacity. The torque values given have been developed over many years of experience and testing.

Design Bolt Torque

Bolt Size	Foot Pounds
1/4" - 20	6
5/16" - 18	11
3/8" - 16	19
1/2" - 13	50
5/8" - 11	100
3/4" - 10	125



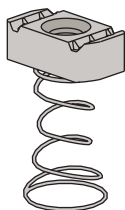
Channel Nuts



Standard Finish: Electro Galvanized (EG)

Channel Nut with Long Spring

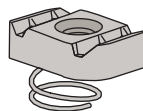
Use with W100 and W150



Part No.	Size	Thickness
W1-4	1/4" - 20	1/4" (6mm)
W1-6	3/8" - 16	3/8" (10mm)
W1-8	1/2" - 13	1/2" (13mm)
W1-10	5/8" - 11	7/16" (11mm)
W1-12	3/4" - 10	

Channel Nut with Short Spring

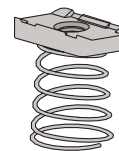
Use with W400, W500, W800, and W900



Part No.	Size	Thickness
W5-0832	#8 - 32	1/4" (6mm)
W5-1032	#10 - 32	
W5-1024	#10 - 24	
W5-4	1/4" - 20	3/8" (10mm)
W5-5	5/16" - 18	
W5-6	3/8" - 16	
W5-8	1/2" - 13	
W5-10	5/8" - 11	

Mini Nut with Standard Spring

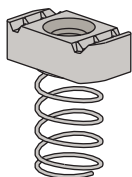
Use with W600



Part No.	Size	Thickness
W6-0836	#8 - 36	0.150" (4mm)
W6-0832	#8 - 32	
W6-1032	#10 - 32	
W6-1024	#10 - 24	
W6-4	1/4" - 20	

Channel Nut with Standard Spring

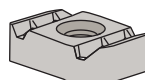
Use with W200, W210, and W300



Part No.	Size	Thickness
W2-0832	#8 - 32	1/4" (6mm)
W2-1032	#10 - 32	
W2-1024	#10 - 24	
W2-4	1/4" - 20	3/8" (10mm)
W2-5	5/16" - 18	
W2-6	3/8" - 16	1/2" (13mm)
W2-7	7/16" - 14	
W2-8	1/2" - 13	7/16" (11mm)
W2-10	5/8" - 11	
W2-12	3/4" - 10	
W2-14	7/8" - 9	

Channel Nut Without Spring

Use with W100, W150, W200, W210, W300, W400, W500, W800, and W900



Part No.	Use	Size	Thickness
W1-10WS	ccc	5/8" - 11	7/16" (11mm)
W2-0832WS		#8 - 32	1/4" (6mm)
W2-1032WS		#10 - 32	
W2-1024WS		#10 - 24	
W2-4WS		1/4" - 20	3/8" (10mm)
W2-5WS		5/16" - 18	
W2-6WS		3/8" - 16	1/2" (13mm)
W2-7WS		7/16" - 14	
W2-8WS	cc	1/2" - 13	7/16" (11mm)
W2-10WS	cc	5/8" - 11	
W2-12WS	cc	3/4" - 10	3/8" (10mm)
W5-8WS	c	1/2" - 13	
W5-10WS	c	5/8" - 11	

C = Use with W400 and W500
 CC = Not for Use with W400, W500, & W900
 CCC = Use with W100 and W150

Mini Nut with Short Spring

Use with W700



Part No.	Size	Thickness
W7-0836	#8 - 36	0.150" (4mm)
W7-0832	#8 - 32	
W7-1032	#10 - 32	
W7-1024	#10 - 24	
W7-4	1/4" - 20	

Channel Nut With Cone

Use with W100, W150, W200, W210, W300, W400, W500, W800 and W900



Part No.	Size	Thickness
W2-4CN	1/4" - 20	1/4" (6mm)
W2-6CN	3/8" - 16	3/8" (10mm)
W2-8CN	1/2" - 13	1/2" (13mm)



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

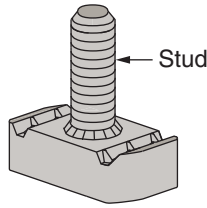


Channel Nuts

Standard Finish: Electro Galvanized (EG)

Stud Nut without Spring

Use with W200, W210, and W300

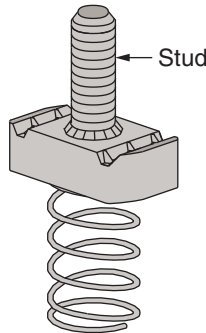


Part No.	Stud Size
W4-1SNWS	1/4" - 20 x 7/8"
W4-2SNWS	1/4" - 20 x 1-1/8"
W4-3SNWS	1/4" - 20 x 1-3/8"
W6-1SNWS	3/8" - 16 x 7/8"
W6-2SNWS	3/8" - 16 x 1-1/8"
W6-3SNWS	3/8" - 16 x 1-3/8"
W6-4SNWS	3/8" - 16 x 1-5/8"
W6-5SNWS	3/8" - 16 x 1-7/8"
W6-6SNWS	3/8" - 16 x 2-1/8"
W8-2SNWS	1/2" - 13 x 1-1/8"
W8-3SNWS	1/2" - 13 x 1-3/8"
W8-4SNWS	1/2" - 13 x 1-5/8"
W8-5SNWS	1/2" - 13 x 1-7/8"
W8-6SNWS	1/2" - 13 x 2-1/8"
W10-2SNWS	5/8" - 11 x 1-1/8"
W10-3SNWS	5/8" - 11 x 1-3/8"

For Applications In other Channels Consult Factory.

Stud Nut with Spring

Use with W200, W210, and W300



Part No.	Size
W4-1SN	1/4" - 20 x 7/8"
W4-2SN	1/4" - 20 x 1-1/8"
W4-3SN	1/4" - 20 x 1-3/8"
W6-1SN	3/8" - 16 x 7/8"
W6-2SN	3/8" - 16 x 1-1/8"
W6-3SN	3/8" - 16 x 1-3/8"
W6-4SN	3/8" - 16 x 1-5/8"
W6-5SN	3/8" - 16 x 1-7/8"
W6-6SN	3/8" - 16 x 2-1/8"
W8-2SN	1/2" - 13 x 1-1/8"
W8-3SN	1/2" - 13 x 1-3/8"
W8-4SN	1/2" - 13 x 1-5/8"
W8-5SN	1/2" - 13 x 1-7/8"
W8-6SN	1/2" - 13 x 2-1/8"
W10-2SN	5/8" - 11 x 1-1/8"
W10-3SN	5/8" - 11 x 1-3/8"

For Applications In other Channels Consult Factory.

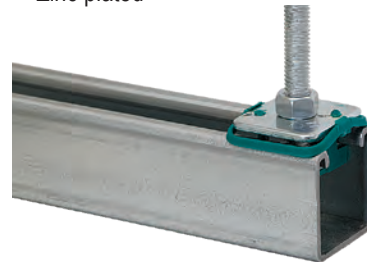
Rapid Strut Slide Nut

Use with W100, W150, W200, W210, W300, W400, W500, W800, and W900



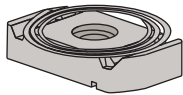
Features and Benefits

- Ready-to-use pre-assembled for a quick installation, that retains assembly in place before final tightening
- Replaces channel nut and fitting with single piece
- Material: metal parts made of steel 1.0332; spring(s) made of POM (polyoxymethylene), green
- Conforms to MFMA Metal Framing Standards (Metal Framing Manufacturers Association)
- Zinc plated



Channel Nut with Top-Lock Spring

Use with W100, W150, W200, W210, W300, W400, W500, W800, and W900

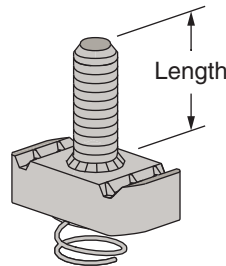


Part No.	Size	Thickness
W2-0832TL	#8 - 32	1/4" (6mm)
W2-1032TL	#10 - 32	
W2-1024TL	#10 - 24	
W2-4TL	1/4" - 20	3/8" (10mm)
W2-5TL	5/16" - 18	
W2-6TL	3/8" - 16	1/2" (13mm)
W2-8TL	c 1/2" - 13	
W5-8TL	1/2" - 13	

c = Not for use with W400 or W500

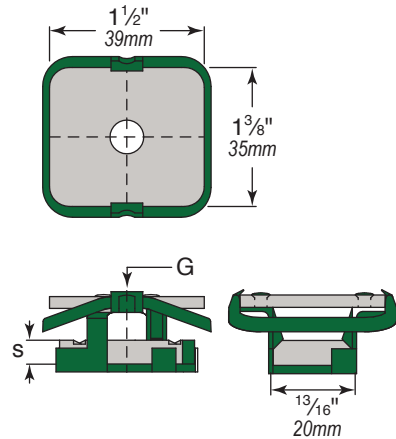
Stud Nut with Short Spring

Use with W400, W500, W800, and W900



Part No.	Size
W5-3SN	3/8" - 16 x 1-3/8"

For Applications In other Channels Consult Factory.



Part No.	Size	Thickness
TLCSW1/4	1/4" - 20	1/4" (6mm)
TLCSW3/8	3/8" - 16	
TLCSW1/2EG	1/2" - 13	3/8" (10mm)



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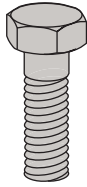
Hardware



Standard Finish: Electro Galvanized (EG)

W7400 - W7415

Hex Head Cap Screws

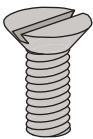


Part No.	Size UNC
W7400	1/4" x 1/2"
W7401	c 1/4" x 3/4"
W7402	c 1/4" x 1"
W7403	3/8" x 3/4"
W7404	3/8" x 1"
W7405	c 3/8" x 1-1/4"
W7406	3/8" x 1-1/2"
W7407	3/8" x 2"
W7408	3/8" x 2-1/4"
W7409	1/2" x 15/16"
W7410	1/2" x 1-1/4"
W7411	1/2" x 1-1/2"
W7412	1/2" x 1-3/4"
W7413	1/2" x 2"
W7414	1/2" x 2-1/4"
W7415	1/2" x 2-1/2"

c = Provided as slotted machine screw

W7420 - W7424

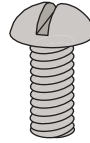
Flathead Machine Screws



Part No.	Size UNC
W7420	1/4" x 5/8"
W7421	5/16" x 1"
W7422	3/8" x 2"
W7423	3/8" x 2-1/4"
W7424	3/8" x 2-1/2"

W7470 - W7479

Roundhead Machine Screws



Part No.	Size UNC
W7470	1/4" x 3/4"
W7471	1/4" x 1"
W7472	1/4" x 1-1/4"
W7473	5/16" x 1"
W7474	5/16" x 1-1/4"
W7475	5/16" x 1-1/2"
W7476	3/8" x 1"
W7477	3/8" x 1-1/4"
W7478	3/8" x 1-1/2"
W7479	3/8" x 2-1/2"

W7490 - W7492

Keq Nuts



Part No.	Size UNC
W7490	1/4"
W7491	5/16"
W7492	3/8"

W7480 - W7483

Square Nuts



Part No.	Size UNC
W7480	1/4"
W7481	5/16"
W7482	3/8"
W7483	1/2"

W7460 - W7465

Hex Nuts



Part No.	Size UNC
W7460	1/4"
W7461	5/16"
W7462	3/8"
W7463	1/2"
W7464	5/8"
W7465	3/4"

W7430 - W7433

Lock Washers



Part No.	Size
W7430	1/4"
W7431	3/8"
W7432	1/2"
W7433	5/8"

W7440 - W7444

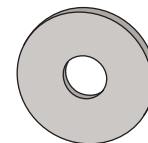
Flat Washers



Part No.	Size
W7440	1/4"
W7441	3/8"
W7442	1/2"
W7443	5/8"
W7444	3/4"

W7450 - W7452

Fender Washers



Part No.	Size
W7450	1/4" x 1-1/4"
W7451	3/8" x 1-1/2"
W7452	1/2" x 1-1/2"





Threaded Rod

Standard Finish: Electro Galvanized (EG)

W7124 - W7128

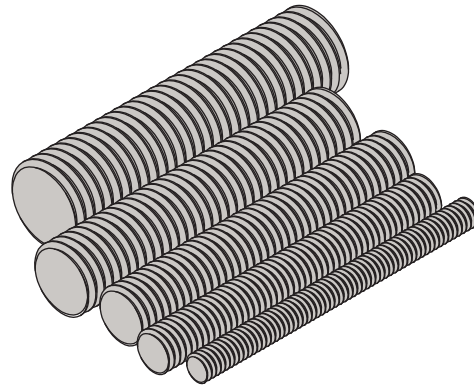
Threaded Rod

Standard Length 10' (3m)

Materials - ASTM A307 Grade A

Rod Loads based on MSS-SP-58

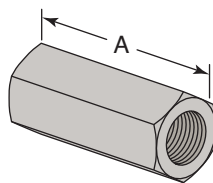
Threaded rod and rod couplers have unified and American coarse screw threads UNC.



Part No.	Nominal Rod Diameter In.	Rod Loads based on MSS-SP-58	
		Root Area of Thread	Max. Safe Load at Rod Temp of 650°F (343°C)
		Sq. In.	Pounds
W7124	1/4" - 20	0.03"	240
W7125	3/8" - 16	0.07"	730
W7126	1/2" - 13	0.13"	1,350
W7127	5/8" - 11	0.20"	2,160
W7128	3/4" - 10	0.30"	3,230

W7134 - W7138

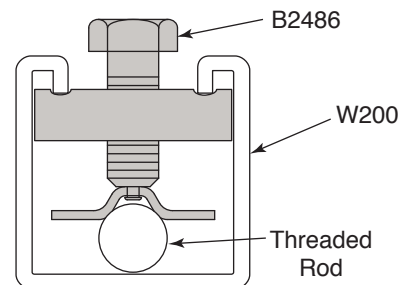
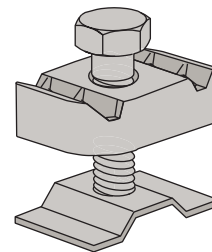
Rod Couplers



Part No.	Hole Size	A Length
W7134	1/4" - 20	7/8" (22mm)
W7134A	5/16" - 18	7/8" (22mm)
W7135	3/8" - 16	1-3/4" (44mm)
W7136	1/2" - 13	1-3/4" (44mm)
W7137	5/8" - 11	2-1/8" (54mm)
W7138	3/4" - 10	2-1/4" (57mm)

B2486

Seismic Rod Stiffener

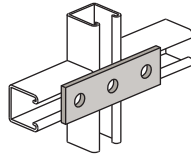


General Fittings



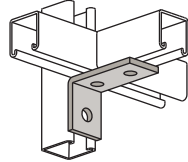
Flat Plate Fittings

Pages 86 - 87



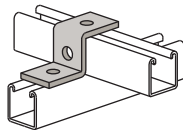
90° Angle Fittings

Pages 88 - 90



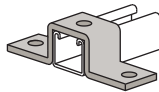
Zee Fittings

Page 91



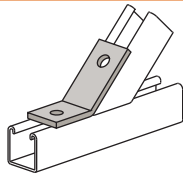
“U” Shape Fittings

Pages 91 - 93



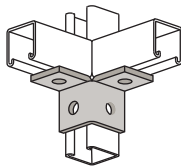
Bracing

Pages 94 - 95



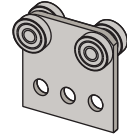
Wing Fittings

Pages 95 - 96



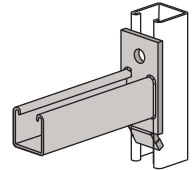
Trolley

Page 97



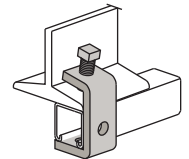
Brackets

Pages 98 - 108



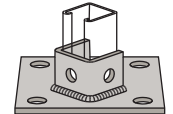
Beam Clamps

Pages 109 - 113



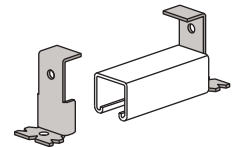
Post Bases

Pages 114 - 115



End Caps

Page 116



Fittings Specifications		
Material	ASTM	ASTM Description
Hot Rolled Plate	A 575, A 1011, A 1018, A 576, A638	Steel, sheet and strip, carbon drawing quality, special killed, hot rolled.
Fitting: Steel	A 366, A 36	Steel carbon, cold rolled sheet, commercial quality structural steel.
Strip Steel: Pipe Clamps	A 569	Steel, sheet and strip, carbon drawing quality, special killed, hot rolled.
Stainless Steel (ST304 or ST316)	A 240 TYPE 304	Heat resisting chromium and chromium-nickel stainless steel plate, sheet, strip for pressure vessel.
	A 240 TYPE 316	
Aluminum (AL)	B 221	Aluminum alloy extruded bar, rod, wire, shape and tube.

Fitting Finish Specifications		
Finish	Finish Code	Description
Paint-Green Powder Coating	GR	A dark green low gloss powder coating is applied and thoroughly baked after steel has been cleaned and phosphatized.
Electroplated	EG	Fittings and hardware supplied as "Electro-Galvanized" in accordance with ASTM B 633.
Mill-Galvanized (Pre-Galvanized)	PG	Galvanized steel used in the manufacture of channel sections conforms to ASTM A 653 GR33 G90. Uncoated edges resulted from slitting, punching and channel cut off are present.
Hot Dip Galvanized After Fabrication (HDGAF)	HG	Wesanco channel and fittings which are hot dip galvanized after fabrication conform to one of the following specifications. ASTM A 123, ASTM A153, or ASTM A386.
Special Coatings	PL, GOLD	Other commercially available finishes can be supplied per specification when required to protect applications.

Call ZSi-Foster at (800) 323-7053 or order now at zsi-foster.com

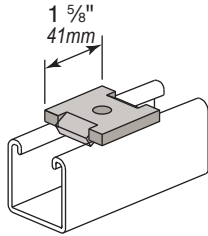


Flat Plate Fittings

Standard Finish: Electro Galvanized (EG)

W5002 to W5006

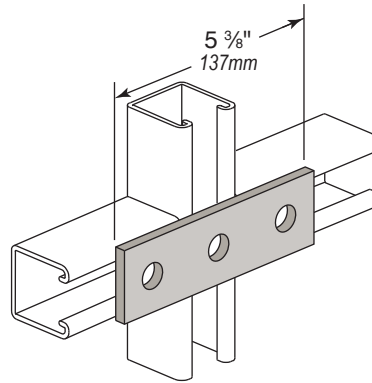
Anti-Rotation Square Washer



Part No.	Bolt	Hole
W5002	5/16"	11/32"
W5003	3/8"	7/16"
W5004	1/2"	9/16"
W5005	5/8"	11/16"
W5006	3/4"	13/16"

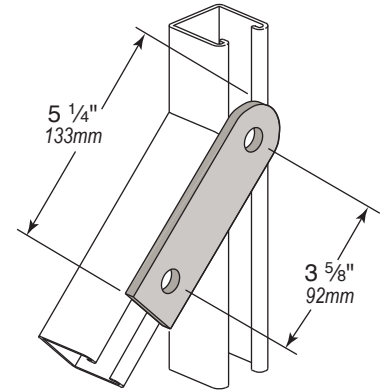
W5008

Three-Hole Splice Plate



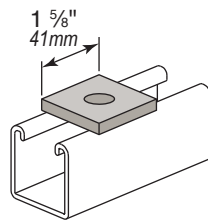
W5011

Two-Hole Swivel Plate



W5052 to W5056

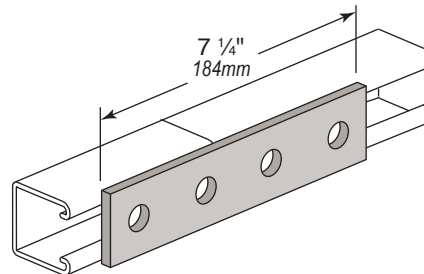
Square Washer



Part No.	Bolt	Hole
W5052	5/16"	11/32"
W5053	3/8"	7/16"
W5054	1/2"	9/16"
W5055	5/8"	11/16"
W5056	3/4"	13/16"

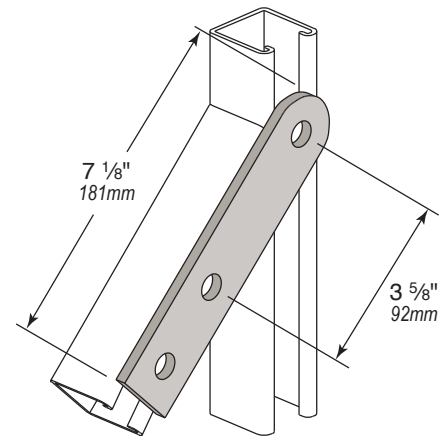
W5009

Four-Hole Splice Plate



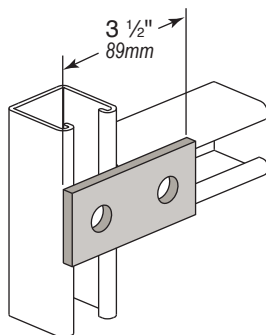
W5012

Three-Hole Swivel Plate



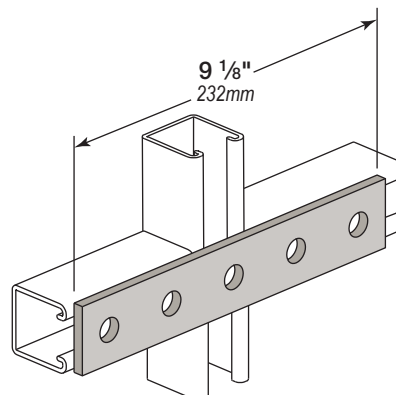
W5007

Two-Hole Splice Plate



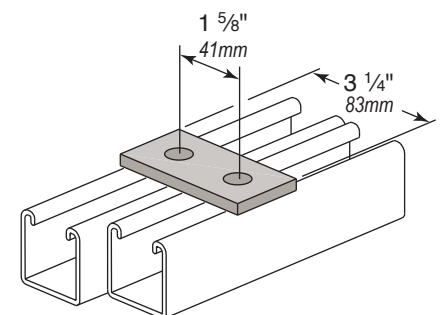
W5010

Five-Hole Splice Plate



W5013

Parallel Splice Plate



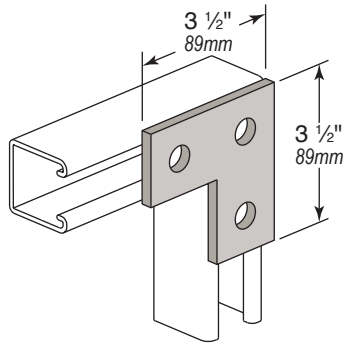
Flat Plate Fittings



Standard Finish: Electro Galvanized (EG)

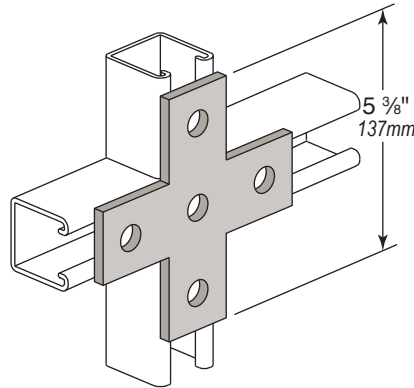
W5021

Three-Hole Flat Angle Plate



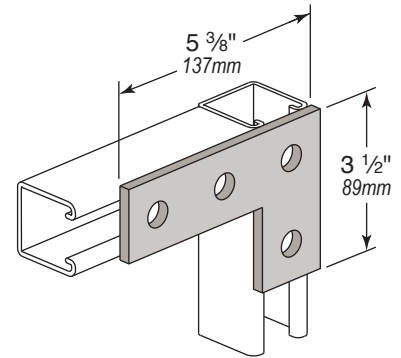
W5023

Five-Hole Cross Plate



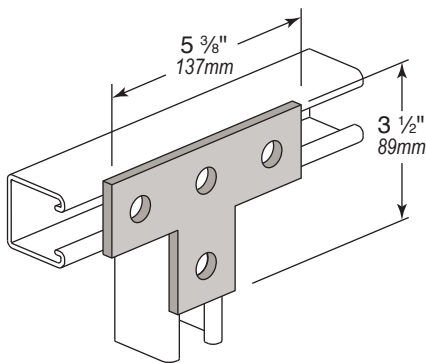
W5025

Four-Hole Extended Angle Flat Plate



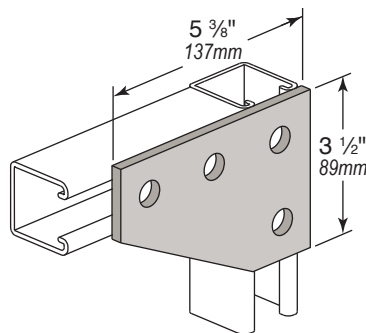
W5022

Four-Hole Tee Plate



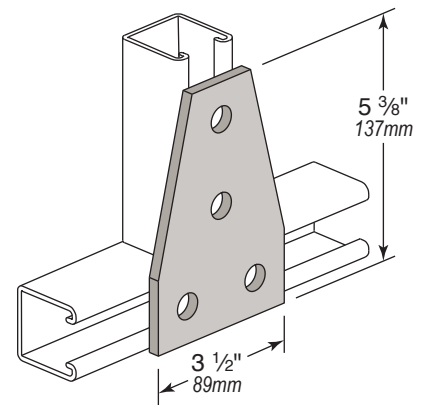
W5024

Four-Hole Corner Plate



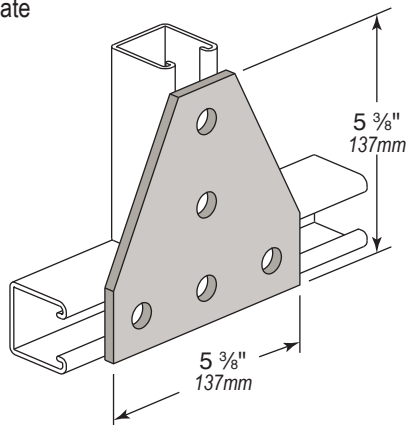
W5026

Four-Hole Gusset Plate



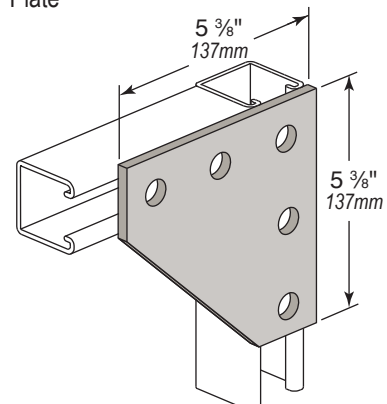
W5027

Five-Hole Gusset Plate



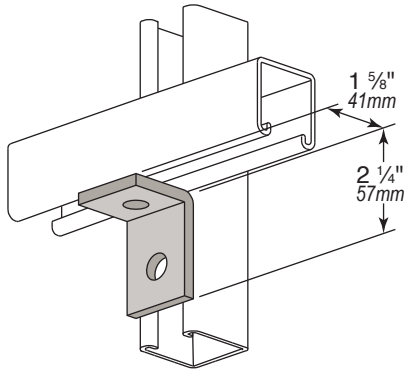
W5028

Five-Hole Corner Plate



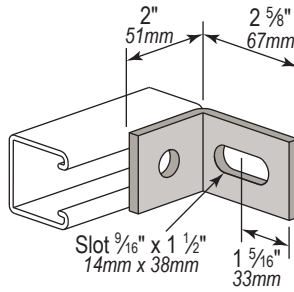
W5102

Two-Hole Rack Connector



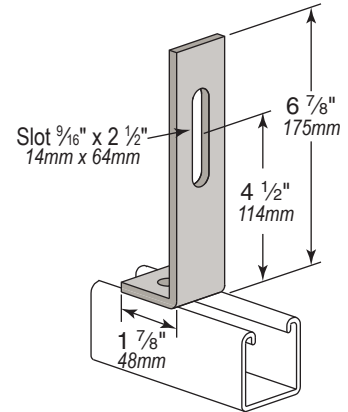
W5105

Two-Hole Horizontal Adjustment Angle



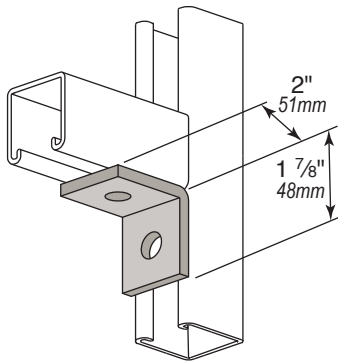
W5108

Two-Hole Adjustment Angle



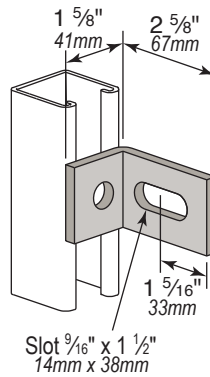
W5103

Two-Hole End Connector



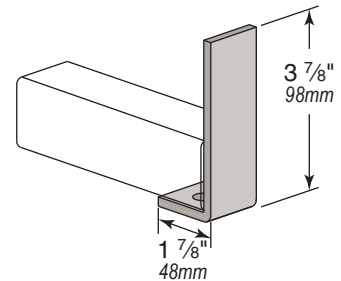
W5106

Two-Hole Vertical Adjustment Angle



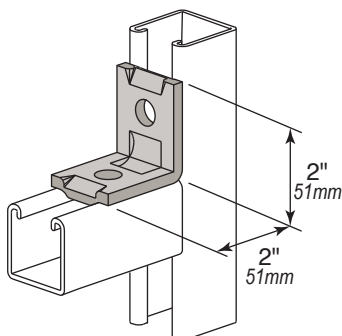
W5160

One-Hole Angle Fitting



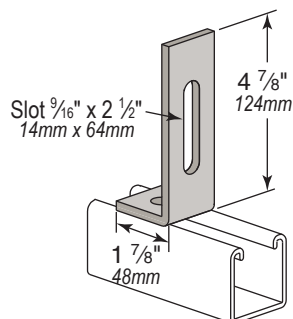
W5104

Two-Hole Angle (Indented)



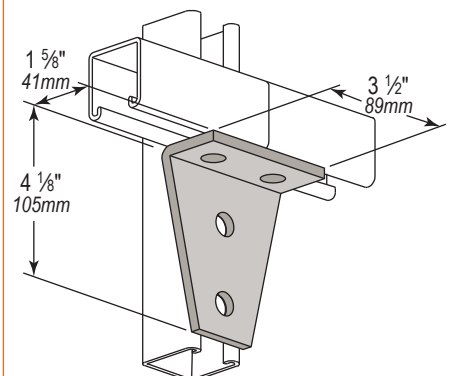
W5107

Two-Hole Adjustment Angle



W5109

Four-Hole Rack Splice Connector



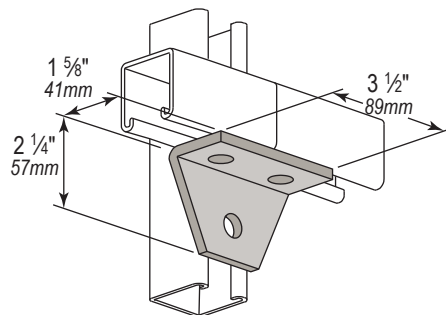
90° Angle Fittings



Standard Finish: Electro Galvanized (EG)

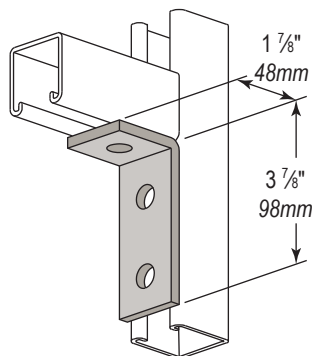
W5110

Three-Hole Rack Splice Connector



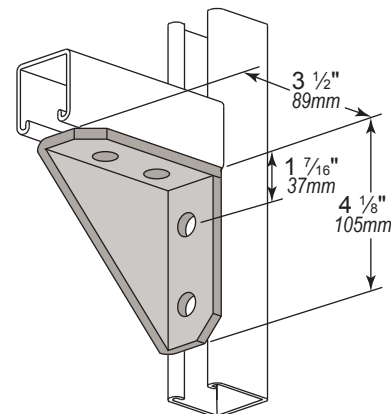
W5113

Three-Hole End Connector



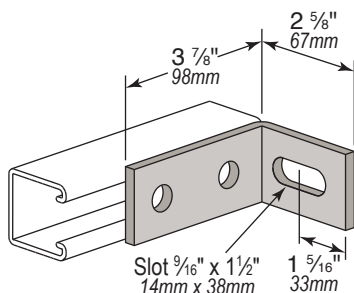
W5121 or W5122

Four-Hole Gusset Corner Angle



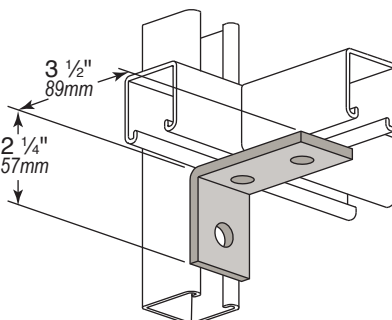
W5111

Three-Hole Adjustment Angle



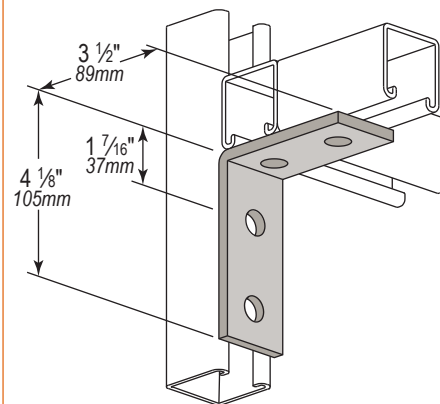
W5115

Three-Hole Rack Corner Angle



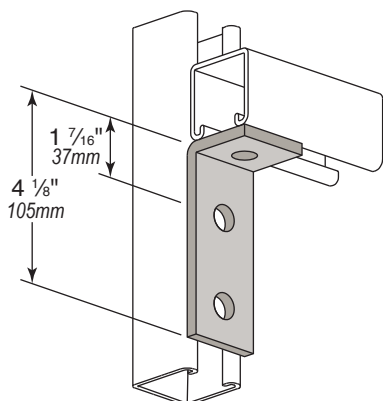
W5123

Four-Hole Rack Corner Angle



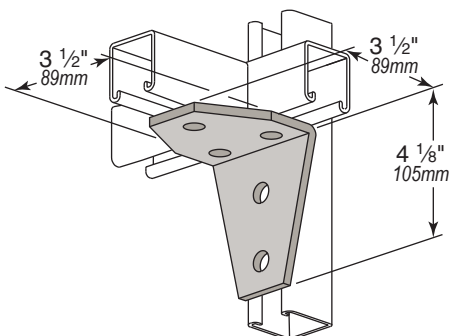
W5112

Three-Hole Rack Connector



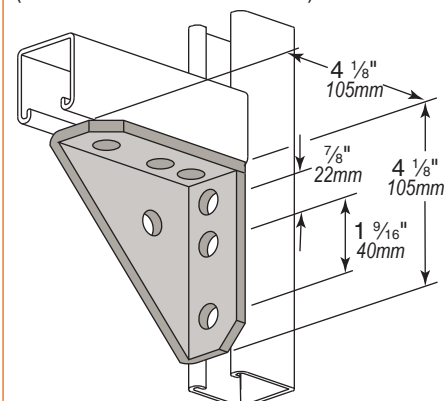
W5117

Five-Hole Corner Splice Connector



W5124 or W5124W

Universal Corner Angle
(W5124W has Welded Corner)



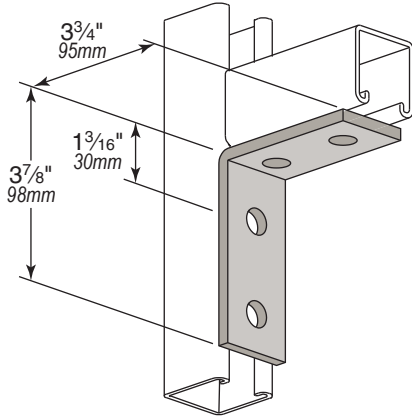


90° Angle Fittings

Standard Finish: Electro Galvanized (EG)

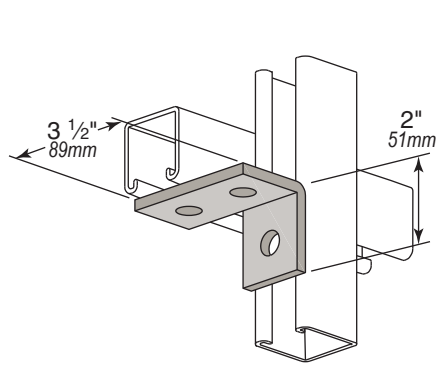
W5125

Four-Hole Corner Connector



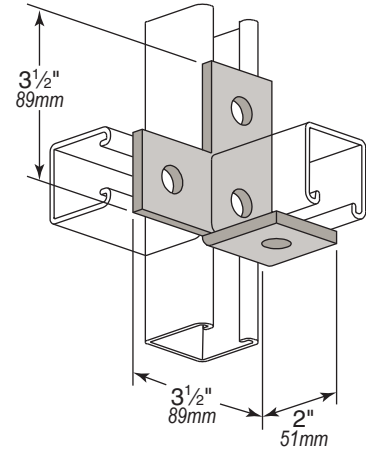
W5135

Three-Hole Left Hand Angle Connector



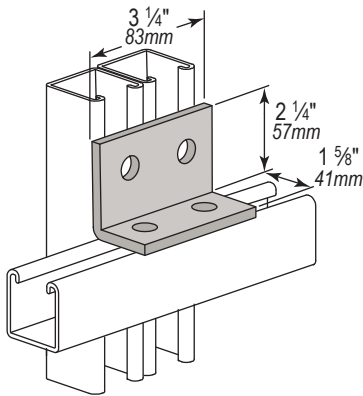
W5140

Four-Hole Left Hand Angle Connector



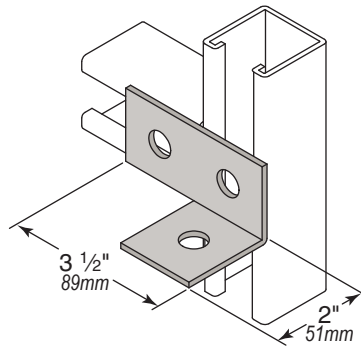
W5126

Four-Hole Connector



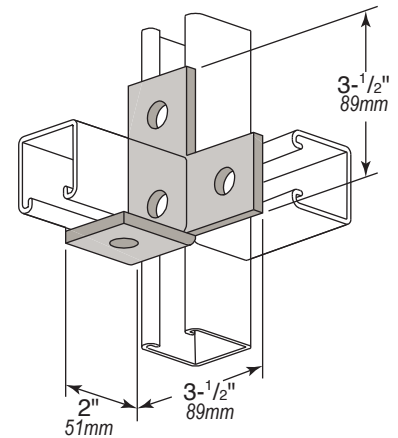
W5136

Three-Hole Right Hand Angle Connector



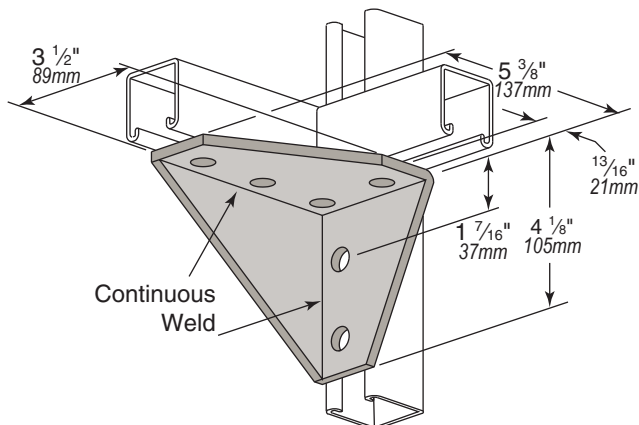
W5141

Four-Hole Right Hand Angle Connector



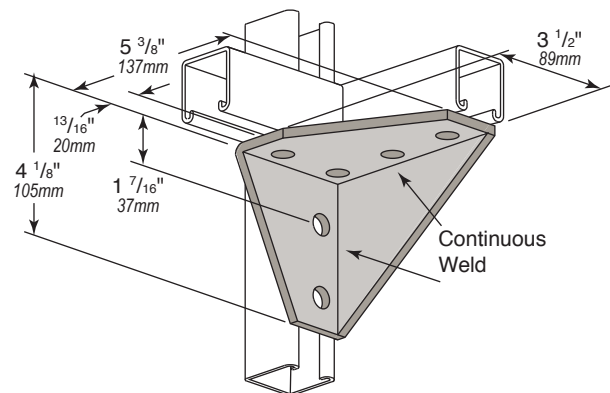
W5156

Six-Hole Left Hand Gusset Corner Angle



W5157

Six-Hole Right Hand Gusset Corner Angle



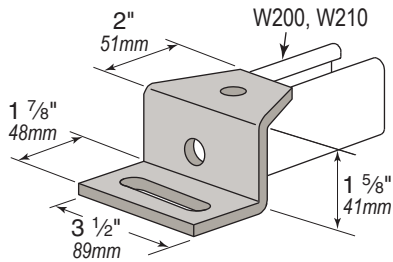
Zee & "U" Shape Fittings



Standard Finish: Electro Galvanized (EG)

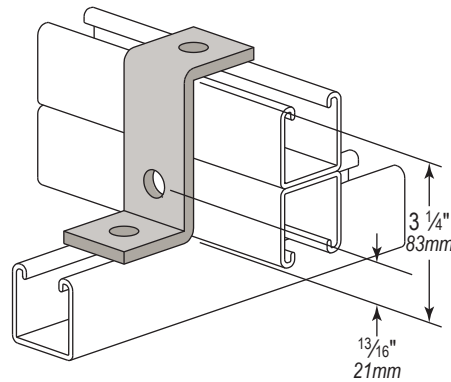
W5202

Slotted Adjustable Zee Connector



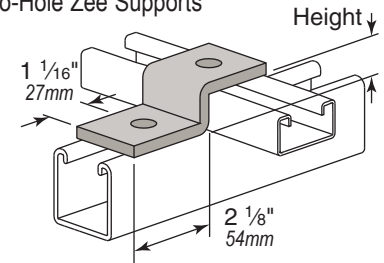
W5210

Three-Hole Zee Supports



W5209 thru W5218

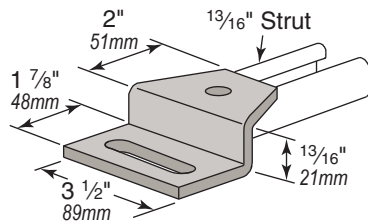
Two-Hole Zee Supports



Part No.	Use with	Channel Height
W5209	W101	4 ^{-7/8} " (124mm)
W5211	W100	2 ^{-7/16} " (62mm)
W5213	W300	1 ^{-3/8} " (35mm)
W5215	W400, W500	1 ^{3/16} " (21mm)
W5218	W800	1" (25mm)

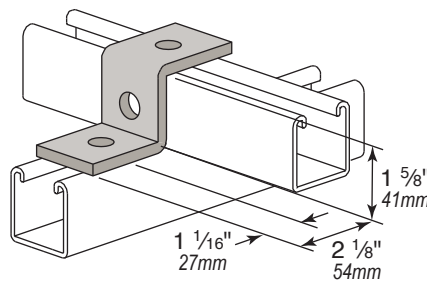
W5205

Slotted Adjustable Zee Connector



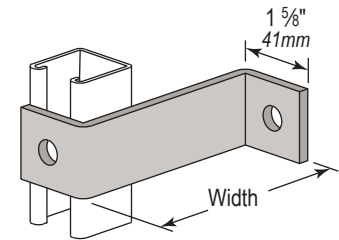
W5212

Three-Hole Zee Supports



W5224 thru W5228

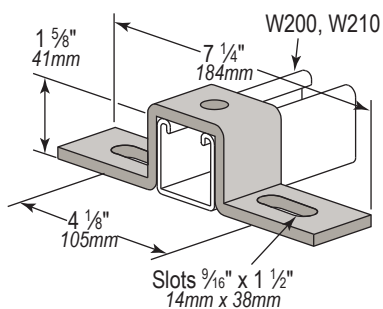
Two-Hole Zee Connectors



Part No.	Width
W5224	4" (102mm)
W5225	5" (127mm)
W5226	6" (152mm)
W5227	7" (178mm)
W5228	8" (203mm)

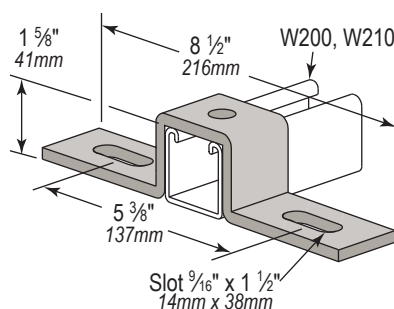
W5307

Slotted "U" Support



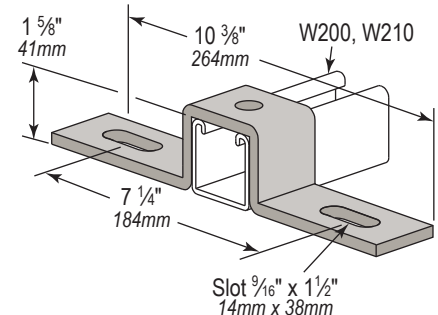
W5308

Slotted "U" Support



W5310

Slotted "U" Support



Introduction
Channel
Channel Nuts & Hardware
General Fittings
Pipe & Conduit Supports
Electrical Fittings
Spring Steel
Loop & Ring Clamps
Beta Clamps & Z-Clamps
Concrete Inserts
Rooftop Supports
Gamma Pads
Technical Data

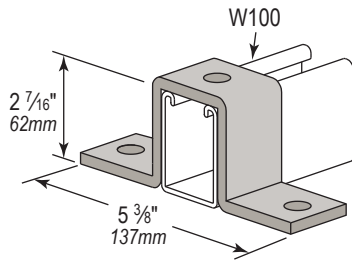


"U" Shape Fittings

Standard Finish: Electro Galvanized (EG)

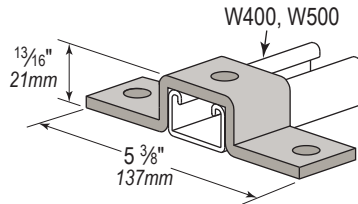
W5311

Three-Hole "U" Supports for W100



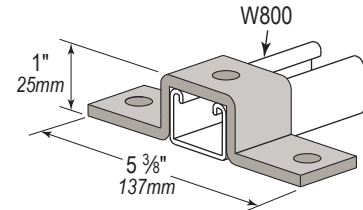
W5315

Three-Hole "U" Supports for W400 or W500



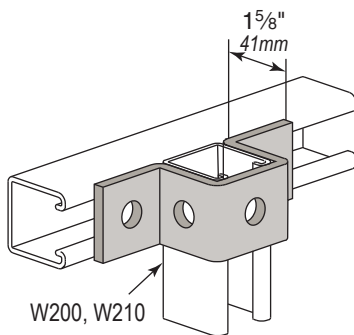
W5318

Three-Hole "U" Support for W800



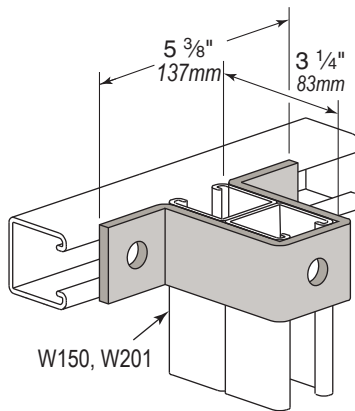
W5312

Five-Hole "U" Supports for W200 or W210



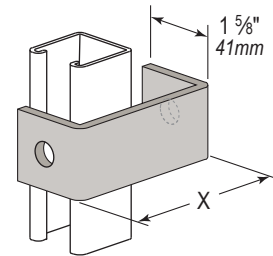
W5316

Three-Hole "U" Supports for W150 or W201



W5324 thru W5328

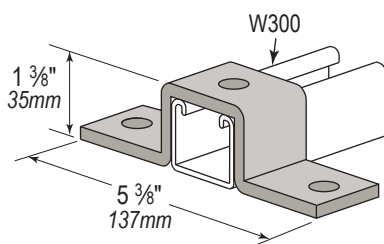
Two-Hole Clevis Connector



Part No.	X
W5324	4" (102mm)
W5325	5" (127mm)
W5326	6" (152mm)
W5327	7" (178mm)
W5328	8" (203mm)

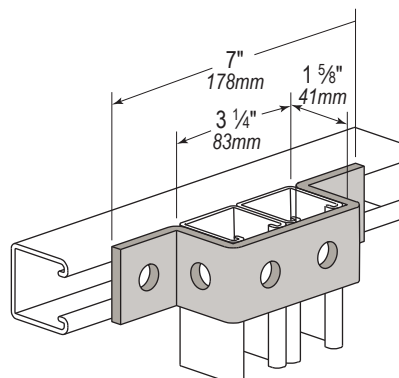
W5313

Three-Hole "U" Supports for W300



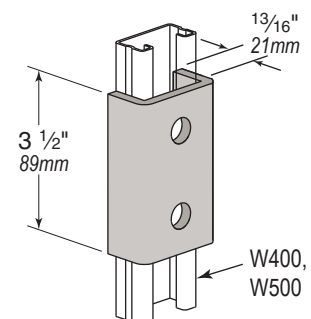
W5317

Six-Hole "U" Support (Double Channel)



W5342

Two-Hole Splice for W400 or W500



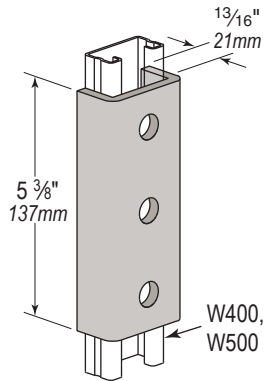
"U" Shape Fittings & Bracing



Standard Finish: Electro Galvanized (EG)

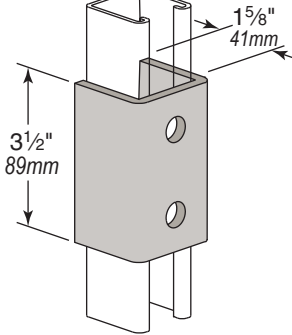
W5343

Three-Hole Splice for W400 or W500



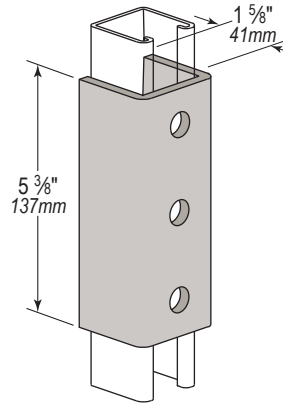
W5344

Two-Hole Splice for W200, W210, W401, or W501



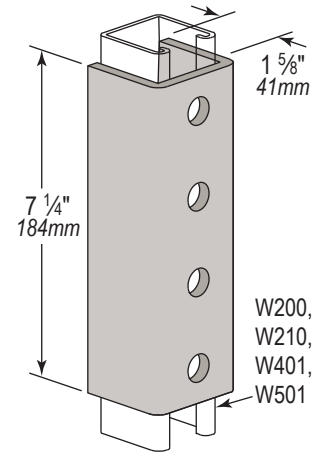
W5346

Three-Hole Splice for W200, W210, W401, or W501



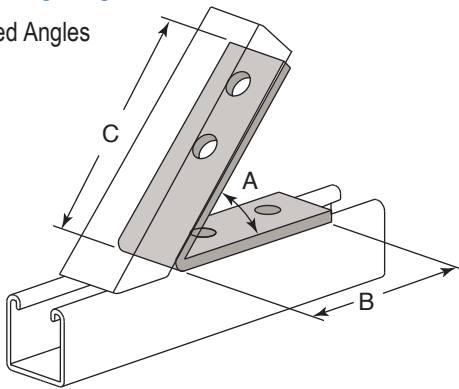
W5345

Four-Hole Splice for W200, W210, W401, or W501



W5413 & W5415

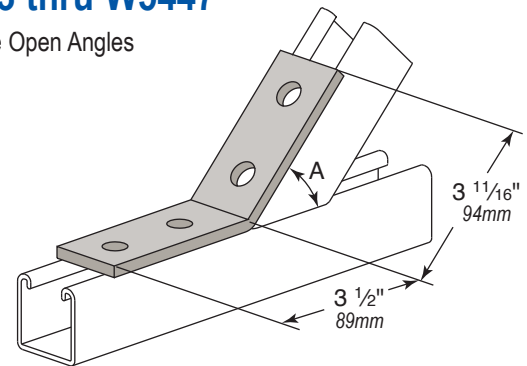
Four-Hole Closed Angles



Part No.	A	B	C
W5413	60°	4- ²¹ / ₃₂ " (118mm)	4- ⁵ / ₈ " (117mm)
W5415	45°	4- ¹⁵ / ₁₆ " (125mm)	4- ¹¹ / ₃₂ " (110mm)

W5443 thru W5447

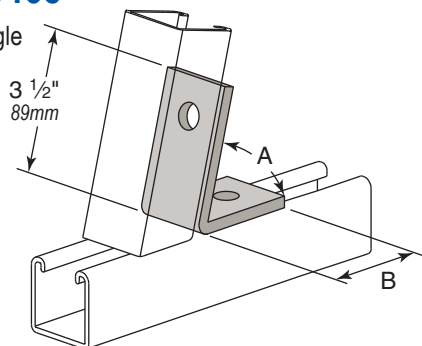
Four-Hole Open Angles



Part No.	A
W5443	60°
W5445	45°
W5447	30°

W5463 & W5465

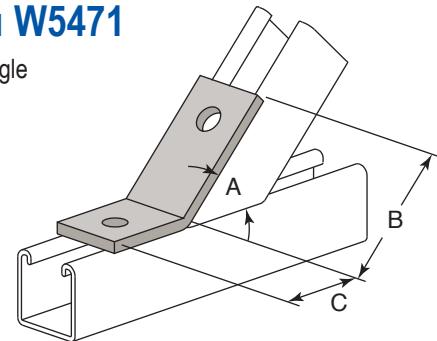
Two-Hole Closed Angle



Part No.	A	B
W5463	60°	2- ²⁵ / ₃₂ " (71mm)
W5465	45°	3- ¹ / ₁₆ " (78mm)

W5423 thru W5471

Two-Hole Open Angle



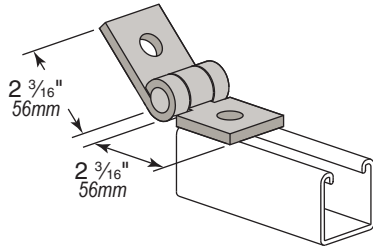
Part No.	A	B	C
W5423	60°	3- ³ / ₈ " (86mm)	1- ⁷ / ₈ " (48mm)
W5425	45°	3" (76mm)	2- ⁵ / ₁₆ " (59mm)
W5427	30°	3- ¹ / ₄ " (83mm)	2- ¹ / ₁₆ " (52mm)
W5471	15°	3- ⁵ / ₁₆ " (100mm)	2- ¹ / ₁₆ " (52mm)



Standard Finish: Electro Galvanized (EG)

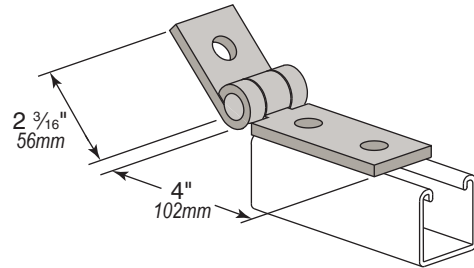
B5490

Two-Hole Adjustable Hinge Connection



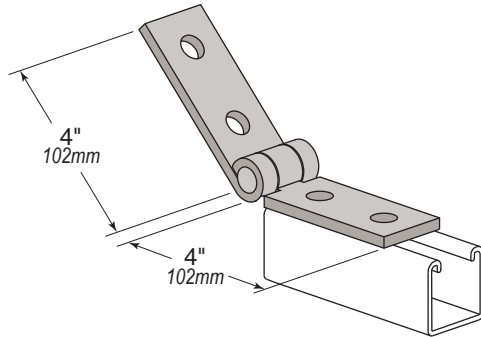
B5491

Three-Hole Adjustable Hinge Connection



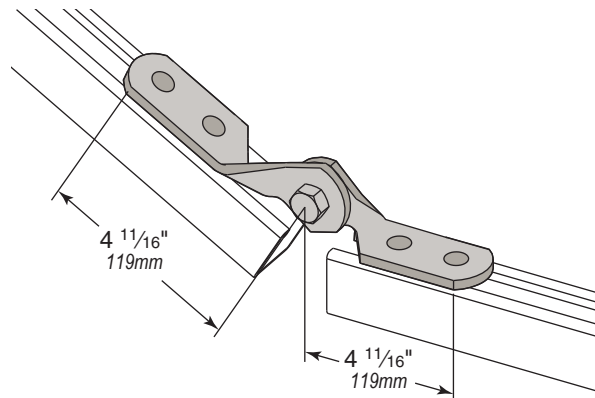
B5492

Four-Hole Adjustable Hinge Connection



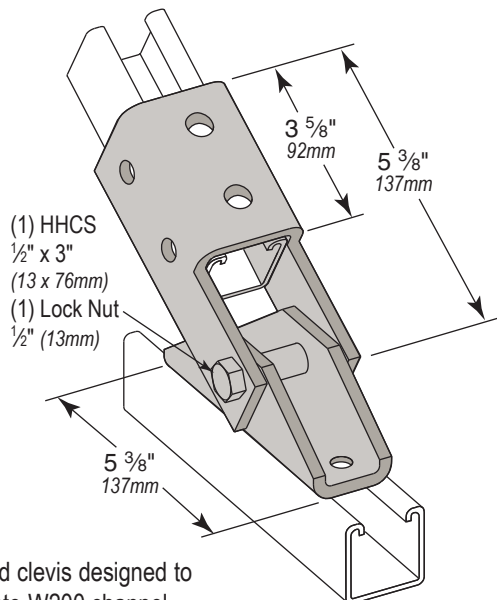
B5495

Four-Hole Adjustable Angle Fitting



W5480

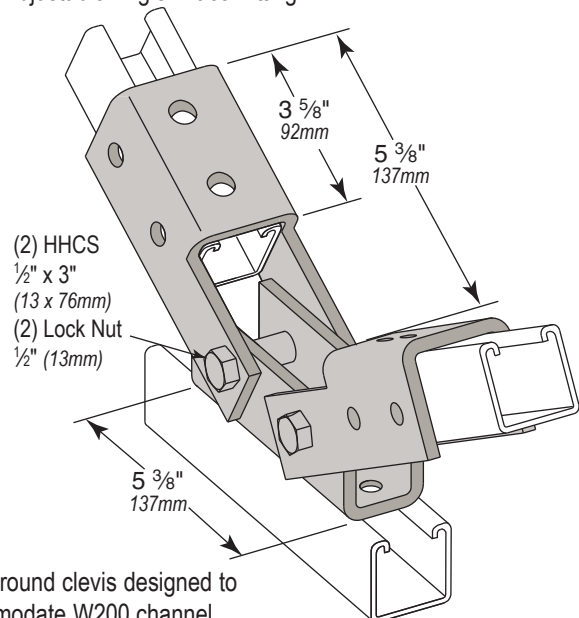
Single Adjustable Angle Brace Fitting



Wrap around clevis designed to accommodate W200 channel

W5485

Double Adjustable Angle Brace Fitting



Wrap around clevis designed to accommodate W200 channel



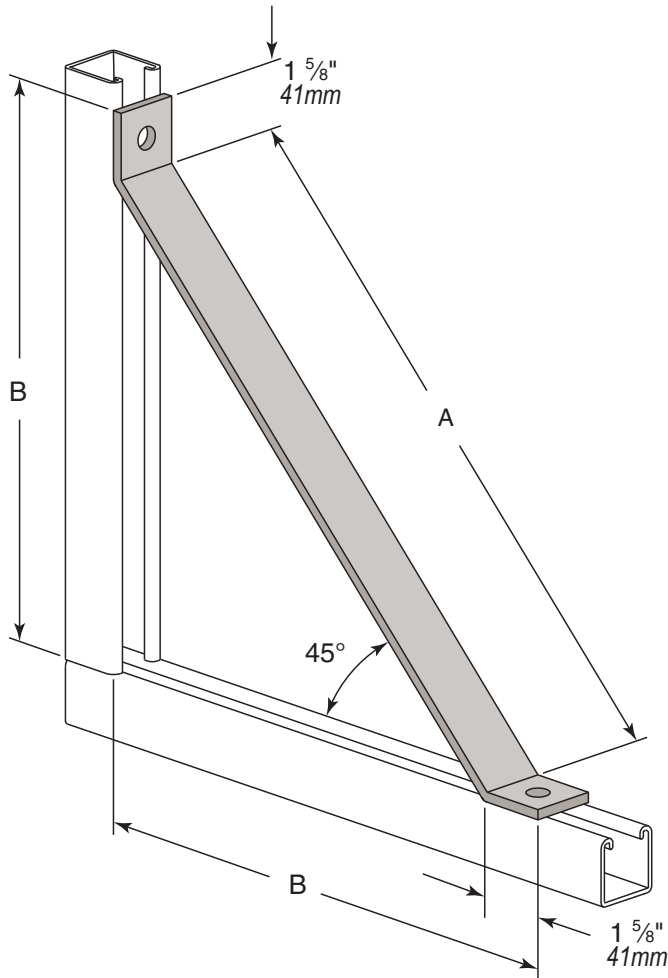
Bracing & Wing Fittings



Standard Finish: Electro Galvanized (EG)

W5472 thru W5475

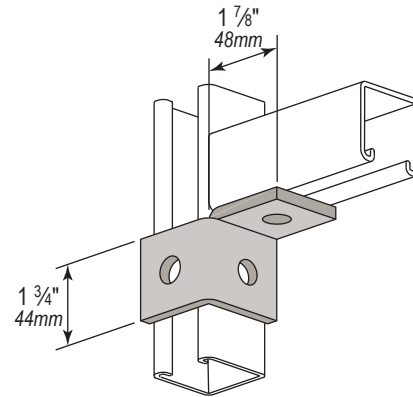
45° Angular Corner Brace



Part No.	A	B
W5472	12" (305mm)	10-1/8" (257mm)
W5473	16-5/8" (422mm)	13-3/8" (340mm)
W5474	18" (457mm)	14-3/8" (365mm)
W5475	24" (610mm)	18-5/8" (473mm)

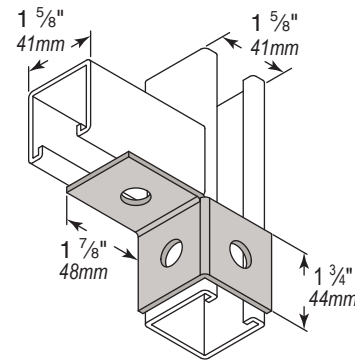
W5510

Three-Hole Right Corner Angle



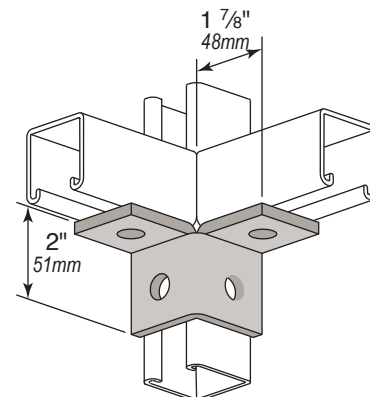
W5511

Three-Hole Left Corner Angle



W5512

Four-Hole 90 Degree Corner Angle

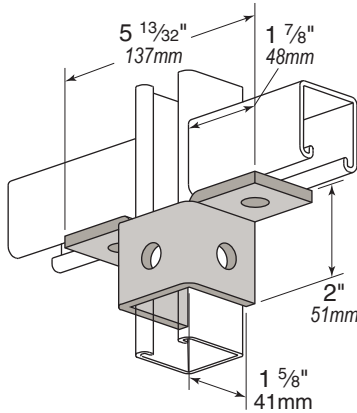


Wing Fittings

Standard Finish: Electro Galvanized (EG)

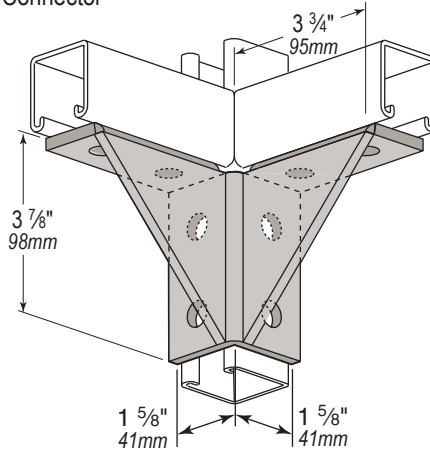
W5513

Five-Hole Two Side Angle Connector



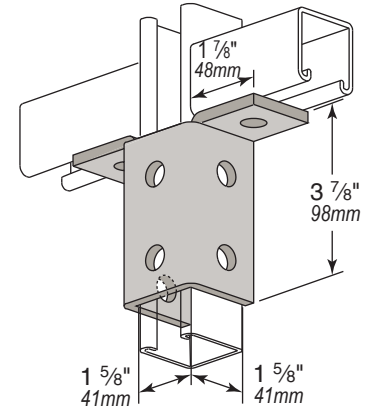
W5516

Eight-Hole Gusseted Corner Angle Connector



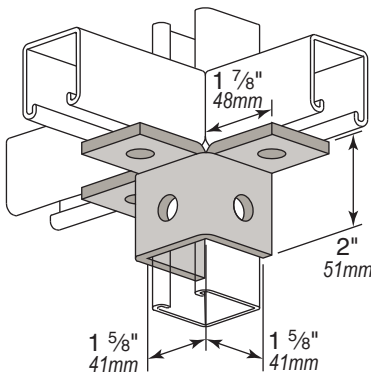
W5519

Eight-Hole Opposing Side Angle Connector



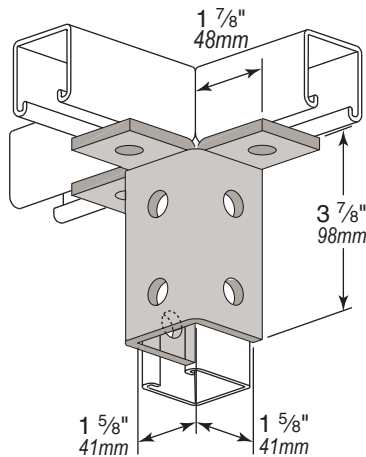
W5514

Six-Hole Three Side Corner Angle Connector



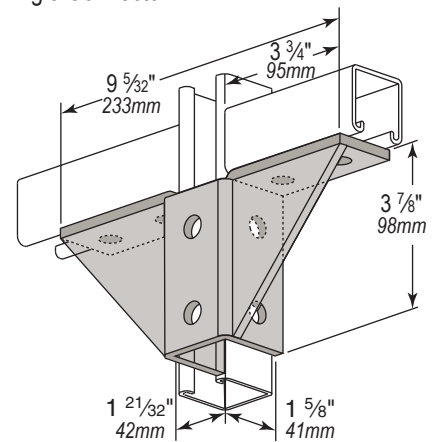
W5517

Nine-Hole Three Side Angle Connector



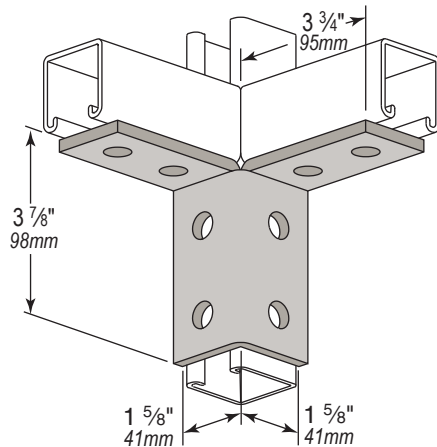
W5520

Ten-Hole Opposing Side Gusseted Angle Connector



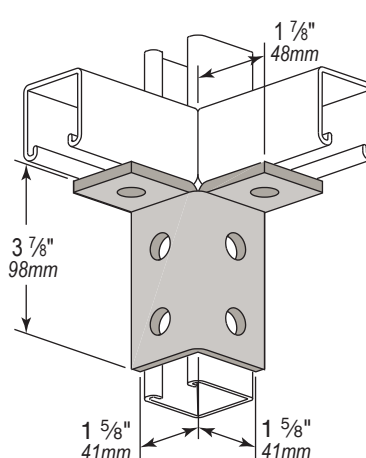
W5515

Eight-Hole 90° Corner Angle Connector



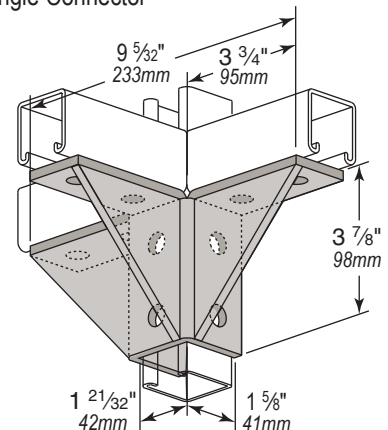
W5518

Six-Hole 90° Corner Angle Connector



W5521

Twelve-Hole Three Side Gusseted Angle Connector



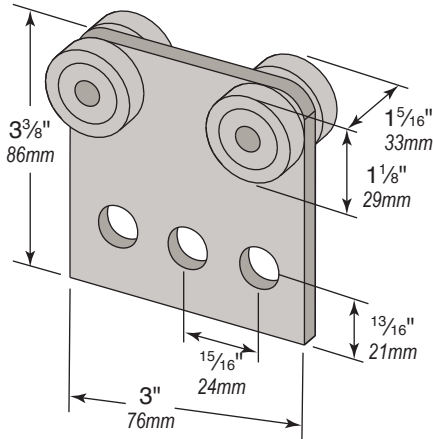
Trolleys



Standard Finish: Electro Galvanized (EG)

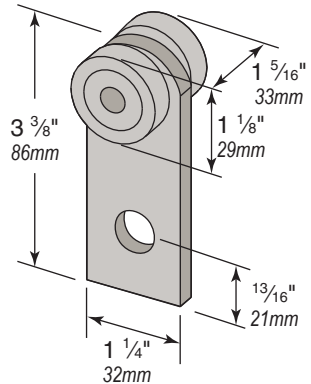
W6600

Four-Wheel Trolley
Allowable Load
600lbs (2.67 kN) max.



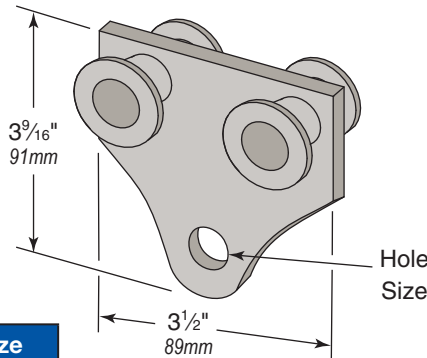
W6602

Two-Wheel Trolley
Allowable load
300lbs (2.00 kN) max.



W6601 & W6605

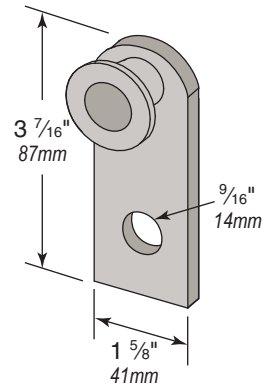
Four-Wheel Trolley
Allowable Load
600lbs (2.67 kN) max.



Part No.	Hole Size
W6601	1-1/8" (29mm)
W6605	9/16" (14mm)

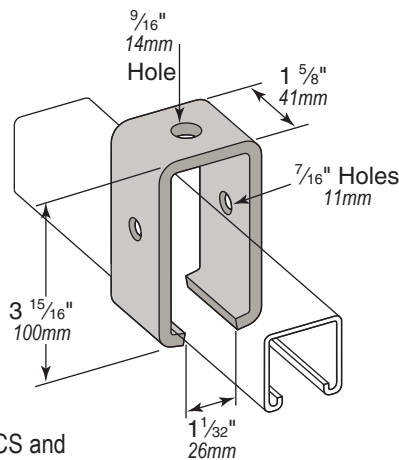
W6606

Two-Wheel Trolley
Allowable load
300lbs (2.00 kN) max.



W6604

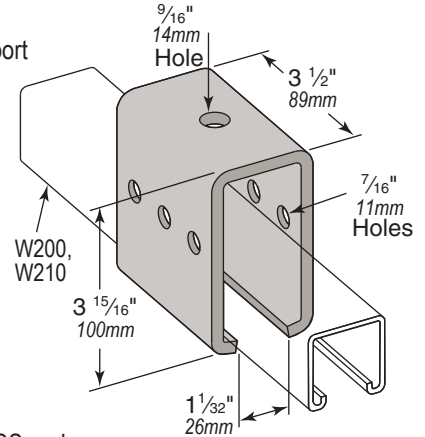
Trolley Beam
Intermediate Support
Allowable load
1,200lbs. (5.14 kN)



Requires 1/2" x 2-3/4" HHCS and 1/2" Nut and Washer (not included).

W6603

Trolley Beam Joint Support
Allowable load
2,500lbs. (11.12 kN)



Requires 1/2" x 2-3/4" HHCS and 1/2" Nut and Washers (not included).

Trolley designed to fit W200 and W210 series channel constructed with wear resistant hardened wheels and frictionless needle bearings. Industrial applications include conveyor systems, and work stations requiring the attachment of power tools.



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



Channel Brackets

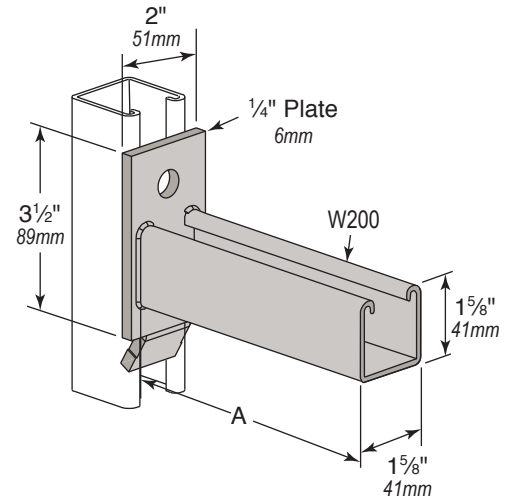
Standard Finish: Electro Galvanized (EG)

W5631 - W5634

One-Hole Anti-Rotation Channel Bracket, Slot Up

Part No.	A	Design Uniform Load Lbs. (kN)	
		W200	W210
W5631	6" (152mm)	1,200 (5.34 kN)	800 (13.56 kN)
W5632	12" (305mm)	600 (2.67 kN)	400 (1.78 kN)
W5633	18" (457mm)	400 (1.78 kN)	270 (1.20 kN)
W5634	24" (610mm)	300 (1.33 kN)	200 (0.89 kN)

Design Uniform Load when attached to listed upright column.
When installed in inverted position use 60% of loads shown.
Safety Factor: 2-1/2

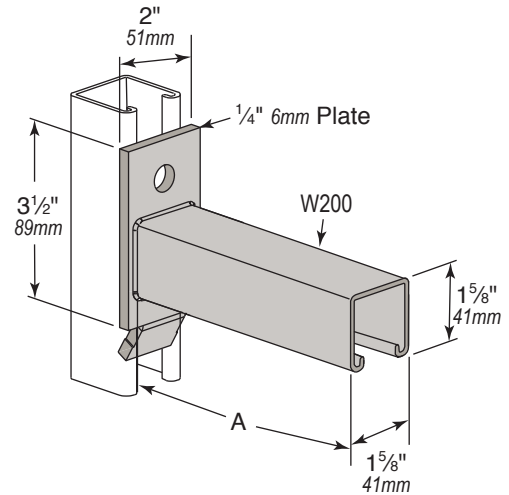


W5635 - W5638

One-Hole Anti-Rotation Channel Bracket, Slot Down

Part No.	A	Design Uniform Load Lbs. (kN)	
		W200	W210
W5635	6" (152mm)	1,200 (5.34 kN)	800 (3.56 kN)
W5636	12" (305mm)	600 (2.67 kN)	400 (1.78 kN)
W5637	18" (457mm)	400 (1.78 kN)	270 (1.20 kN)
W5638	24" (610mm)	300 (1.33 kN)	200 (0.89 kN)

Design Uniform Load when attached to listed upright column.
When installed in inverted position use 60% of loads shown.
Safety Factor: 2-1/2

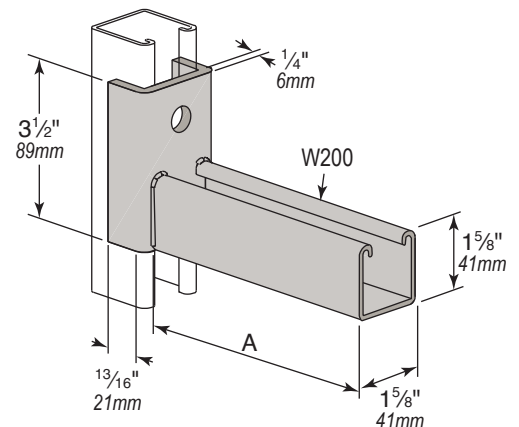


W5641 - W5642

One-Hole Wrap Around Channel Bracket, Slot Up

Part No.	A	Design Uniform Load Lbs. (kN)	
		W200	W210
W5641	6" (152mm)	1600 (7.12 kN)	1,200 (5.34 kN)
W5642	12" (305mm)	800 (3.56 kN)	600 (2.67 kN)

Design Uniform Load when attached to listed upright column.
Do not install in inverted position.
Safety Factor: 2-1/2



Note: When brackets are used for mechanical supports, load capacities should conform to American Standard Code for Pressure Piping.



Channel Brackets



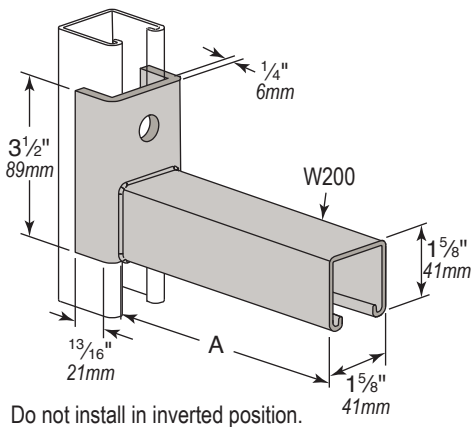
Standard Finish: Electro Galvanized (EG)

W5645 - W5646

One-Hole Wrap Around Channel Bracket, Slot Down

Part No.	A	Design Uniform Load Lbs. (kN)	
		W200	W210
W5645	6" (152mm)	1600 (7.12 kN)	1,200 (5.34 kN)
W5646	12" (305mm)	800 (3.56 kN)	600 (2.67 kN)

Design Uniform Load when attached to listed upright column.
Safety Factor: 2-1/2

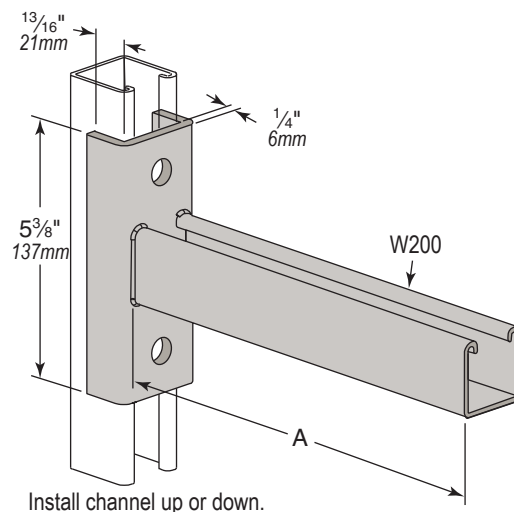


W5647 - W5648

Two-Hole Wrap Around Channel Bracket

Part No.	A	Design Uniform Load Lbs. (kN)	
		W200	W210
W5647	18" (457mm)	600 (2.67 kN)	450 (2.00 kN)
W5648	24" (610mm)	450 (2.00 kN)	330 (1.47 kN)

Design Uniform Load when attached to listed upright column.
Safety Factor: 2-1/2

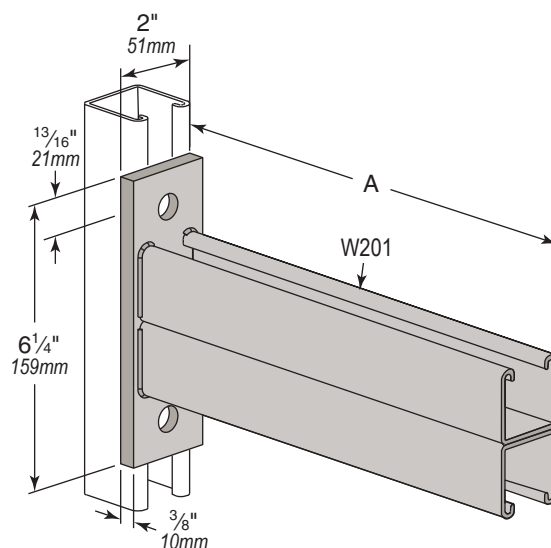


W5652 - W5656

Two-Hole Double Channel Bracket

Part No.	A	Design Uniform Load Lbs. (kN)	
		W200	W210
W5652	12" (305mm)	2,000 (8.90 kN)	1400 (6.23 kN)
W5653	18" (457mm)	1,300 (5.78 kN)	900 (4.00 kN)
W5654	24" (610mm)	1,000 (4.45 kN)	700 (3.11 kN)
W5655	30" (762mm)	800 (3.56 kN)	560 (2.49 kN)
W5656	36" (914mm)	650 (2.89 kN)	450 (2.00 kN)

Design Uniform Load when attached to listed upright column.
Safety Factor: 2-1/2



Note: When brackets are used for mechanical supports, load capacities should conform to American Standard Code for Pressure Piping.



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



Channel Brackets

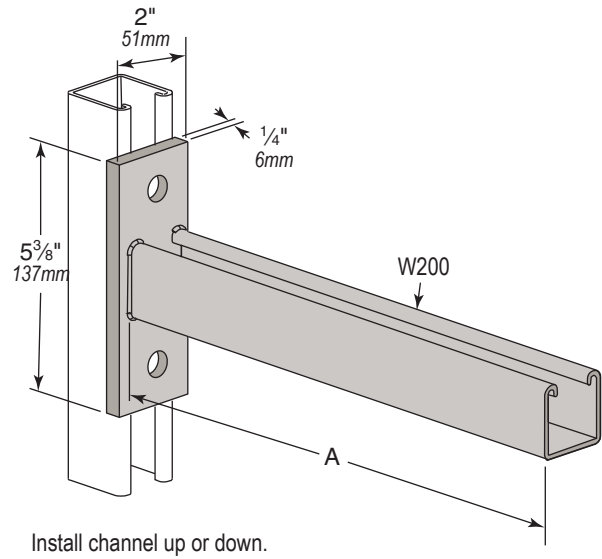
Standard Finish: Electro Galvanized (EG)

W5661 - W5664

Two-Hole Channel Bracket

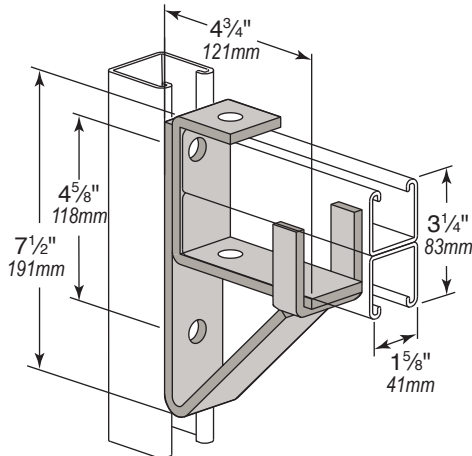
Part No.	A	Design Uniform Load Lbs. (kN)
		W200
W5661	6" (152mm)	1600 (7.12 kN)
W5662	12" (305mm)	800 (3.56 kN)
W5663	18" (457mm)	550 (2.45 kN)
W5664	24" (610mm)	400 (1.78 kN)

Design Uniform Load when attached to listed upright column.
Safety Factor: 2-1/2



W5650

Bracket Brace Adapter
For use with: W150, W201, or W211



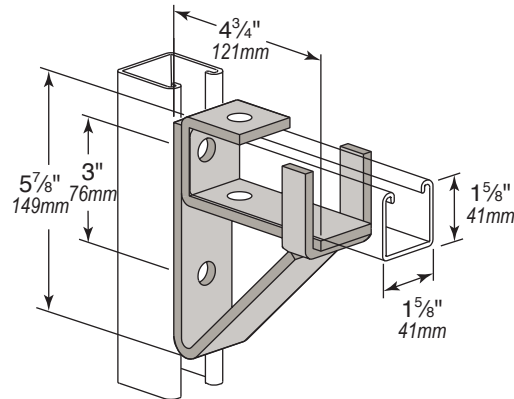
Secure Bracket Arm To Brace Using W2-8 and W7409.
Do Not Use Thru Bolt In Bracket W5650.

Part No.	Design Moment In/Lbs (N•M)	
	W201	W211
W5650	12,400 (1401 N•m)	8,600 (971 N•m)

Safety Factor: 2-1/2
Safety Factor Applies to Bracket Brace Adapter/Listed Upright Only and not to Strength of Arm.

W5651

Bracket Brace Adapter
For use with: W200, W210, W401, or W501



Secure Bracket Arm To Brace Using W2-8 and W7409.
Do Not Use Thru Bolt In Bracket W5651.

Part No.	Design Moment In/Lbs (N•M)	
	W200	W210
W5651	6,000 (678 N•m)	4,200 (474 N•m)

Safety Factor: 2-1/2
Safety Factor Applies to Bracket Brace Adapter/Listed Upright Only and not to Strength of Arm.

Note: When brackets are used for mechanical supports, load capacities should conform to American Standard Code for Pressure Piping.



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

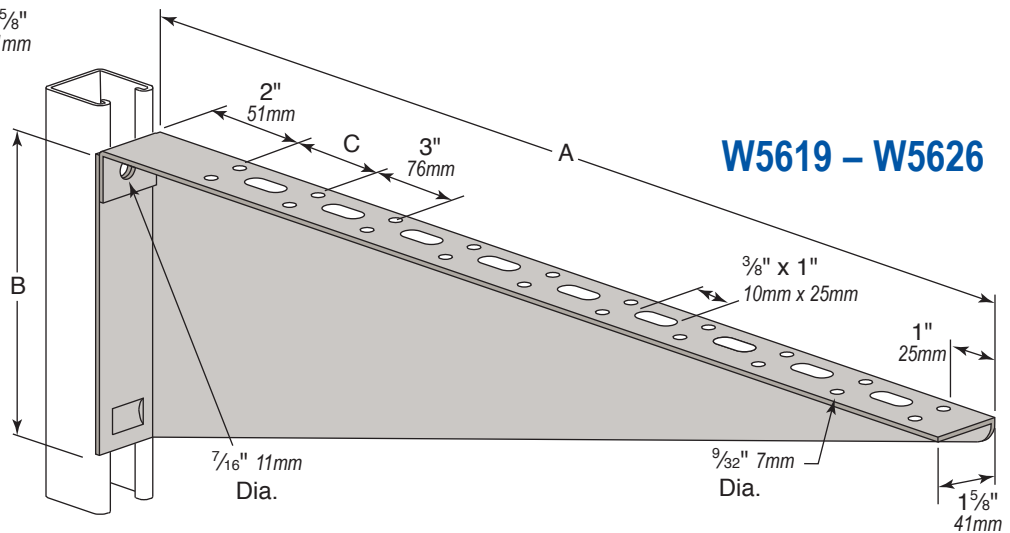
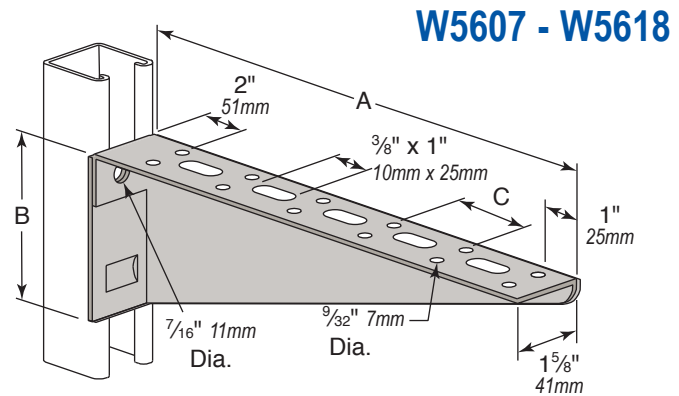
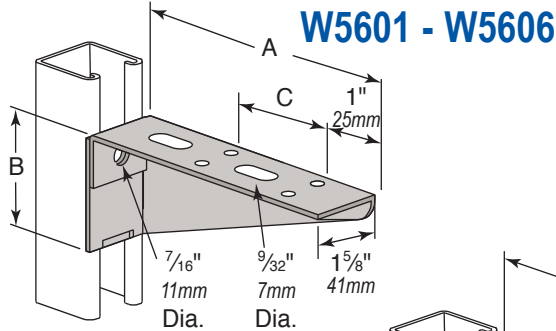
Shelf Brackets



Standard Finish: Electro Galvanized (EG)

Shelf Brackets

Shelf Bracket (Right Hand Illustrated)
 Brackets are 12ga steel, electro-galvanized.
 Furnished with $\frac{3}{8}$ " x 1" (10mm x 25mm) slotted holes
 and $\frac{9}{32}$ " (7mm) round holes



Part No.		A	B	C	Design Uniform Load Lbs. (kN)	
Left Hand	Right Hand				W200	W210
W5601	W5602	6" (152mm)	1- ¹⁵ / ₁₆ " (49mm)	3" (76mm)	300 (1.33 kN)	250 (1.11 kN)
W5603	W5604	8" (203mm)	2- ⁷ / ₁₆ " (62mm)	5" (127mm)		
W5605	W5606	10" (254mm)	2- ¹⁵ / ₁₆ " (75mm)	7" (178mm)		
W5607	W5608	12" (305mm)	3- ⁷ / ₁₆ " (87mm)	3" (76mm)	300 (1.33 kN)	250 (1.11 kN)
W5609	W5610	14" (356mm)	3- ¹⁵ / ₁₆ " (100mm)	4" (102mm)		
W5611	W5612	16" (406mm)	4- ⁷ / ₁₆ " (113mm)	5" (127mm)		
W5613	W5614	18" (457mm)	4- ¹⁵ / ₁₆ " (125mm)	6" (152mm)		
W5615	W5616	20" (508mm)	5- ⁷ / ₁₆ " (138mm)	7" (178mm)		
W5617	W5618	22" (559mm)	5- ¹⁵ / ₁₆ " (151mm)	8" (203mm)		
W5619	W5620	24" (610mm)	6- ⁷ / ₁₆ " (164mm)	5" (127mm)	300 (1.33 kN)	250 (1.11 kN)
W5621	W5622	26" (660mm)	6- ¹⁵ / ₁₆ " (176mm)	5- ¹¹ / ₁₆ " (144mm)		
W5623	W5624	28" (711mm)	7- ⁷ / ₁₆ " (189mm)	6- ⁵ / ₁₆ " (160mm)		
W5625	W5626	30" (762mm)	7- ¹⁵ / ₁₆ " (202mm)	7" (178mm)		

Design Uniform Load when attached to listed upright column.
 Safety Factor: 2-¹/₂

Note: When brackets are used for mechanical supports, load capacities should conform to American Standard Code for Pressure Piping.



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



Girder Style Brackets

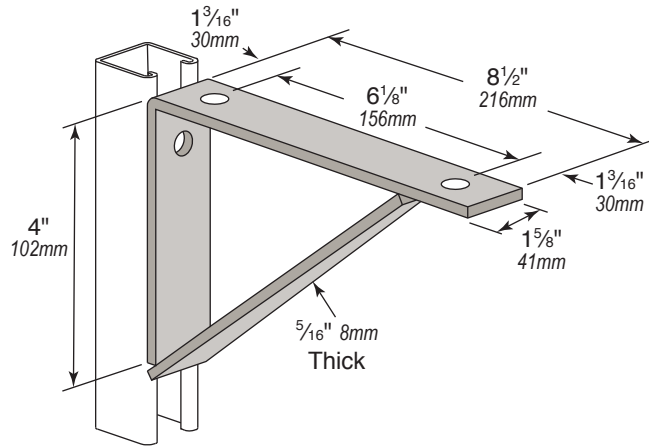
Standard Finish: Electro Galvanized (EG)

W5669

Girder Style Bracket

Part No.	Design Load Lbs. (kN)	
	W200 12 Gauge	W210 14 Gauge
W5669	800 (3.56 kN)	600 (2.67 kN)

Design Uniform Load when attached to listed upright column.
Safety Factor: 2-1/2

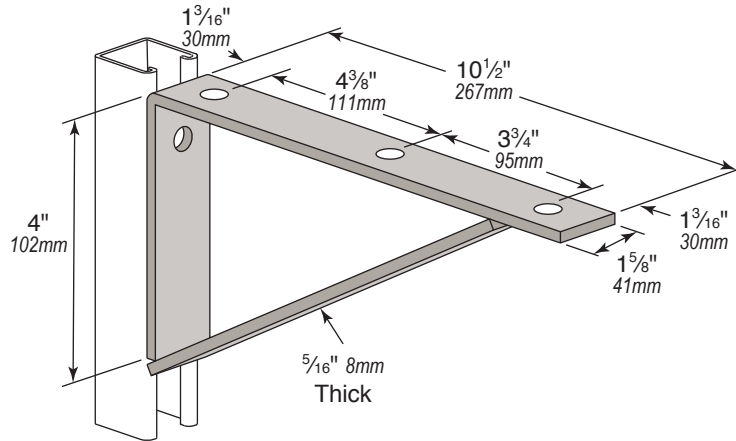


W5671

Girder Style Bracket

Part No.	Design Load Lbs. (kN)	
	W200 12 Gauge	W210 14 Gauge
W5671	800 (3.56 kN)	600 (2.67 kN)

Design Uniform Load when attached to listed upright column.
Safety Factor: 2-1/2

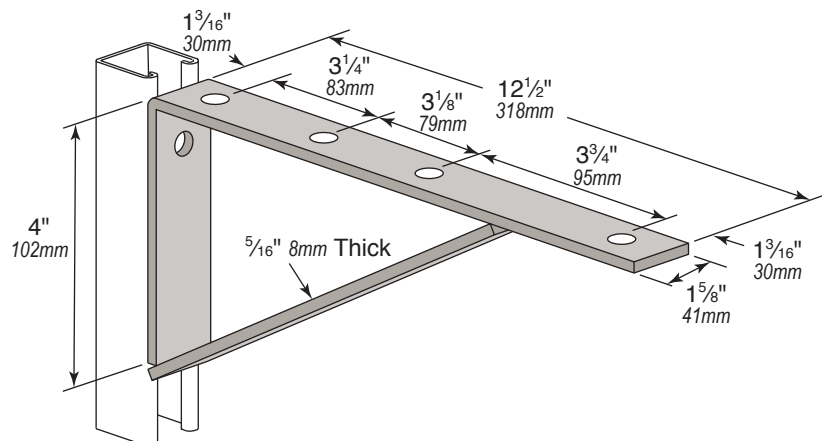


W5673

Girder Style Bracket

Part No.	Design Load Lbs. (kN)	
	W200 12 Gauge	W210 14 Gauge
W5673	900 (4.00 kN)	800 (3.56 kN)

Design Uniform Load when attached to listed upright column.
Safety Factor: 2-1/2



Note: When brackets are used for mechanical supports, load capacities should conform to American Standard Code for Pressure Piping.



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Girder Style and Utility Brackets



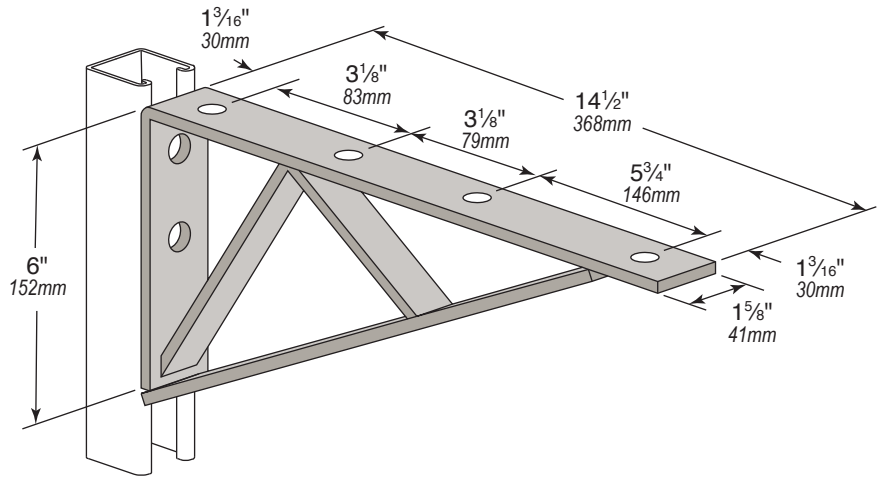
Standard Finish: Electro Galvanized (EG)

W5675

Girder Style Bracket

Part No.	Design Load Lbs. (kN)	
	W200 12 Gauge	W210 14 Gauge
W5675	900 (4.00 kN)	800 (3.56 kN)

Design Uniform Load when attached to listed upright column.
Safety Factor: 2-1/2

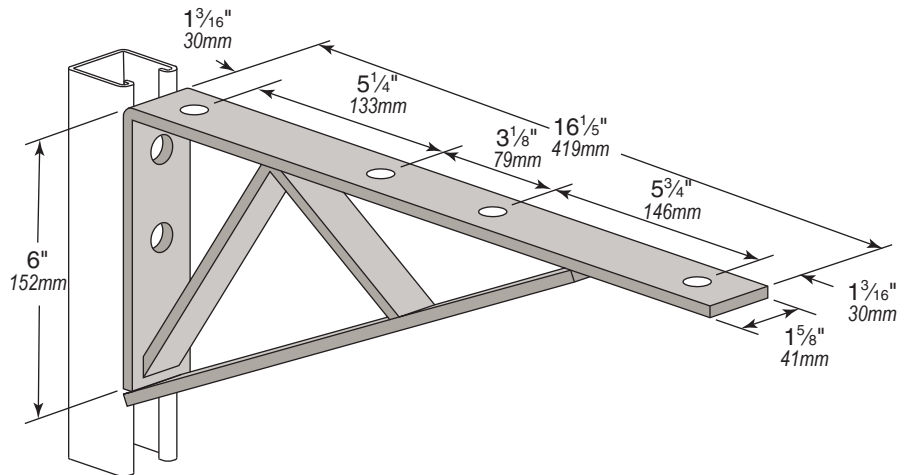


W5677

Girder Style Bracket

Part No.	Design Load Lbs. (kN)	
	W200 12 Gauge	W210 14 Gauge
W5677	1,200 (5.34 kN)	900 (4.00 kN)

Design Uniform Load when attached to listed upright column.
Safety Factor: 2-1/2

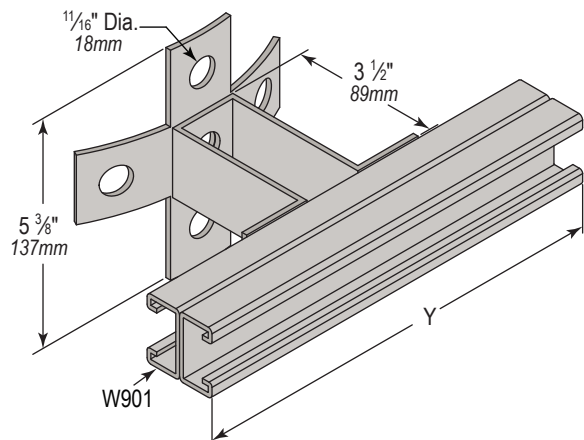


W1007-Y

Diamond Back Extended Riser Bracket with Horizontal Strut

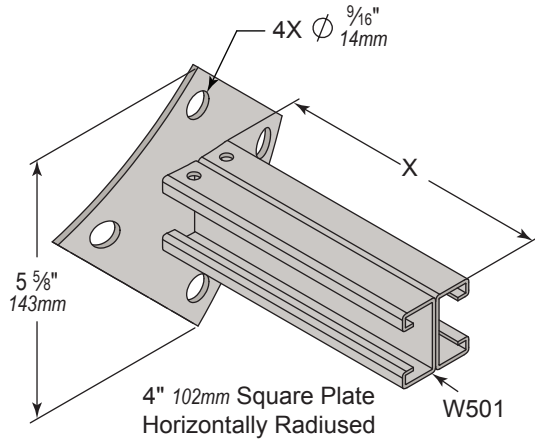
Standard Finish: Hot Dipped Galvanized (HG)
(also available W1007 E-Y with (3) W6162-HG; each clamp with Everdur hardware)

Part No.	Y
W1007-6	6" (152mm)
W1007-8	8" (203mm)
W1007-10	10" (254mm)
W1007-12	12" (305mm)
W1007-16	16" (406mm)
W1007-18	18" (457mm)
W1007-24	24" (610mm)



W1010-X

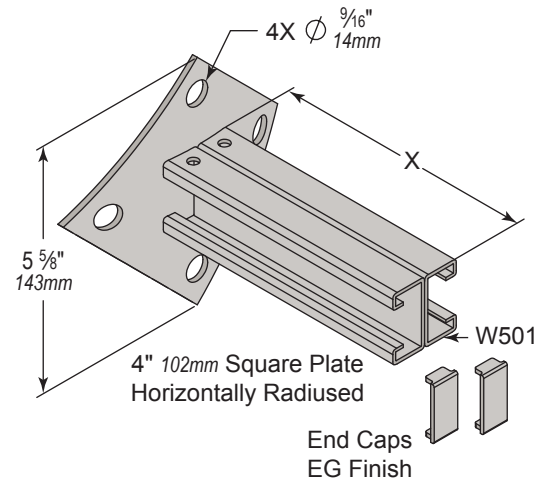
Diamond Back Extended Riser Bracket



Part No.	X
W1010-6	6" (152mm)
W1010-8	8" (203mm)
W1010-10	10" (254mm)
W1010-12	12" (305mm)
W1010-16	16" (406mm)
W1010-18	18" (457mm)
W1010-24	24" (610mm)

W1011-X

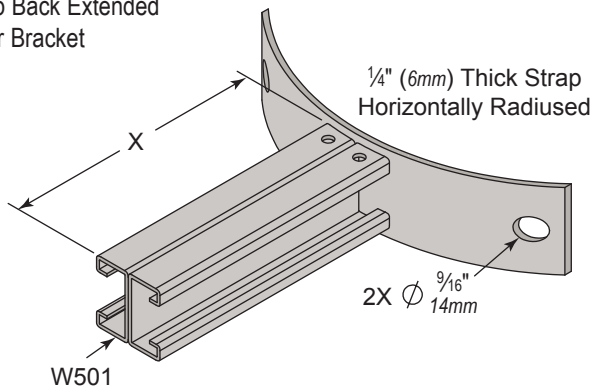
Diamond Back Extended Riser Bracket



Part No.	X
W1011-6	6" (152mm)
W1011-8	8" (203mm)
W1011-10	10" (254mm)
W1011-12	12" (305mm)
W1011-16	16" (406mm)
W1011-18	18" (457mm)
W1011-24	24" (610mm)

W1012-X

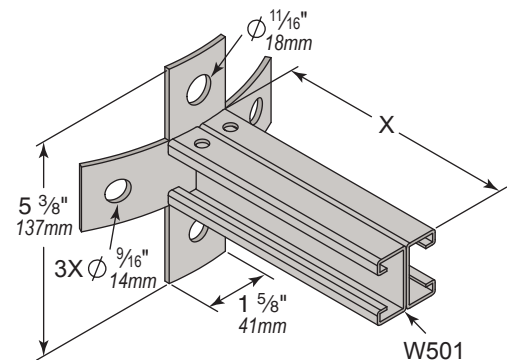
Strap Back Extended Riser Bracket



Part No.	X
W1012-6	6" (152mm)
W1012-8	8" (203mm)
W1012-10	10" (254mm)
W1012-12	12" (305mm)
W1012-16	16" (406mm)
W1012-18	18" (457mm)
W1012-24	24" (610mm)

W1015-X

Cross Back Extended Riser Bracket



Part No.	X
W1015-6	6" (152mm)
W1015-8	8" (203mm)
W1015-10	10" (254mm)
W1015-12	12" (305mm)
W1015-16	16" (406mm)
W1015-18	18" (457mm)
W1015-24	24" (610mm)

Typical: Weep Holes top and bottom (optional)



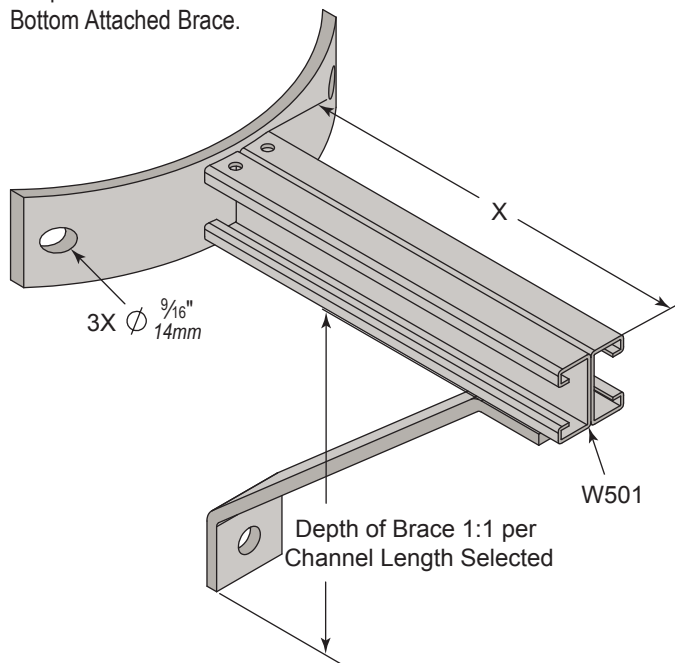
Utility Brackets



Standard Finish: Hot Dip Galvanized (HG)

W1013-X

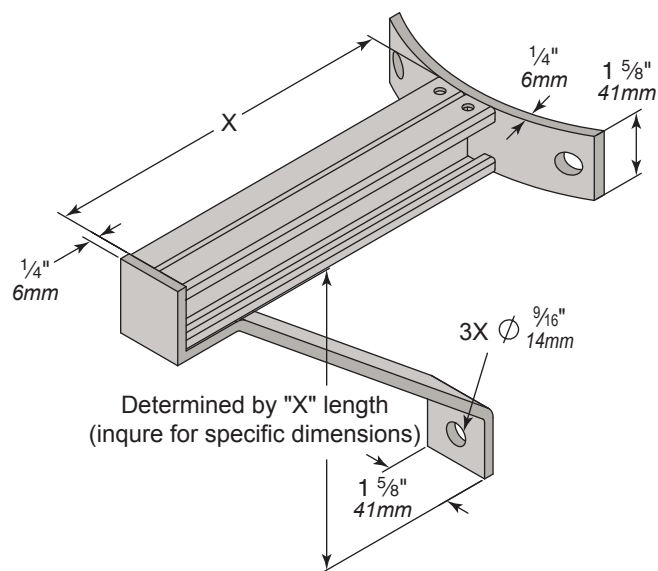
Strap Back Extended Riser Bracket with Bottom Attached Brace.



Part No.	X
W1013-6	6" (152mm)
W1013-8	8" (203mm)
W1013-10	10" (254mm)
W1013-12	12" (305mm)
W1013-16	16" (406mm)
W1013-18	18" (457mm)
W1013-24	24" (610mm)

W1016-X

Strap Back Extended Riser Bracket with End Wrap Brace



Part No.	X
W1016-6	6" (152mm)
W1016-8	8" (203mm)
W1016-10	10" (254mm)
W1016-12	12" (305mm)
W1016-16	16" (406mm)
W1016-18	18" (457mm)
W1016-24	24" (610mm)

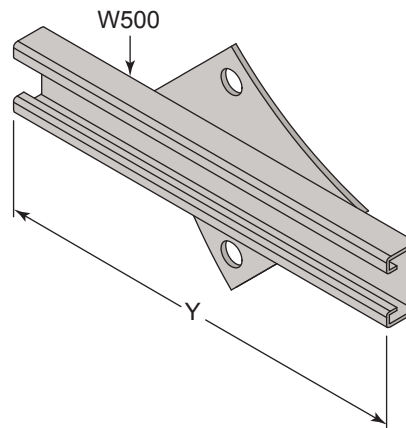
W1019-Y

Low Profile Diamond Back with Horizontal Strut Riser.

Standard channel 4" square plate horizontally radiused (5-5/8" nominal corner to corner).

Welded top and bottom at apex of radiused back plate.

Part No.	X
W1019-6	6" (152mm)
W1019-8	8" (203mm)
W1019-10	10" (254mm)
W1019-12	12" (305mm)
W1019-16	16" (406mm)
W1019-18	18" (457mm)
W1019-24	24" (610mm)



Typical: Weep Holes top and bottom (optional)
Appropriate (hot dipped galvanized) end caps available on any unit (optional)

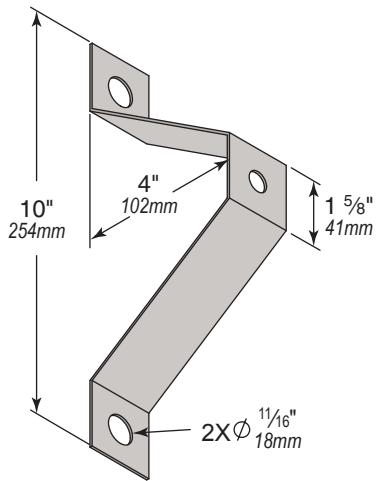




Utility Brackets

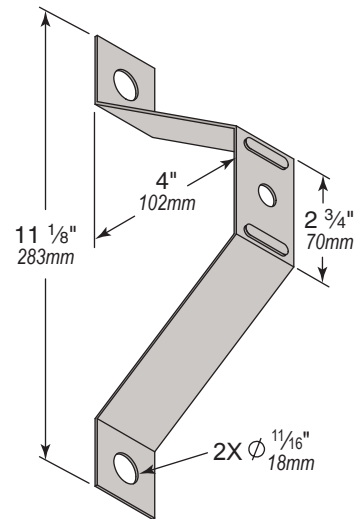
Standard Finish: Hot Dip Galvanized (HG)

W1017



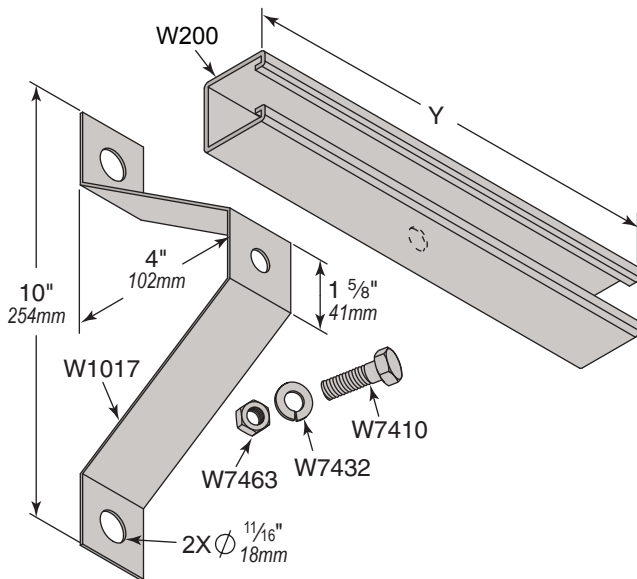
W1017AR

Anti-Rotation Bracket



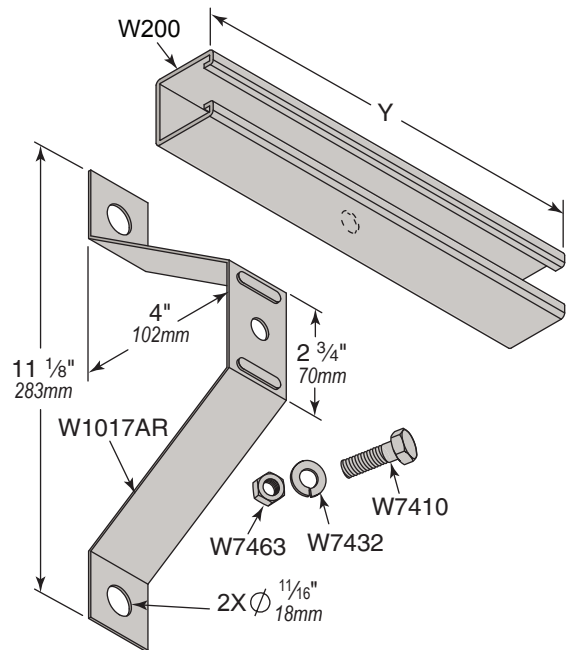
W1017A-Y

Bracket Assembly



W1017ARA-Y

Anti-Rotation Bracket Assembly



Part No.	Y
W1017A-6	6" (152mm)
W1017A-8	8" (203mm)
W1017A-10	10" (254mm)
W1017A-12	12" (305mm)
W1017A-16	16" (406mm)
W1017A-18	18" (457mm)
W1017A-24	24" (610mm)

Part No.	Y
W1017ARA-6	6" (152mm)
W1017ARA-8	8" (203mm)
W1017ARA-10	10" (254mm)
W1017ARA-12	12" (305mm)
W1017ARA-16	16" (406mm)
W1017ARA-18	18" (457mm)
W1017ARA-24	24" (610mm)



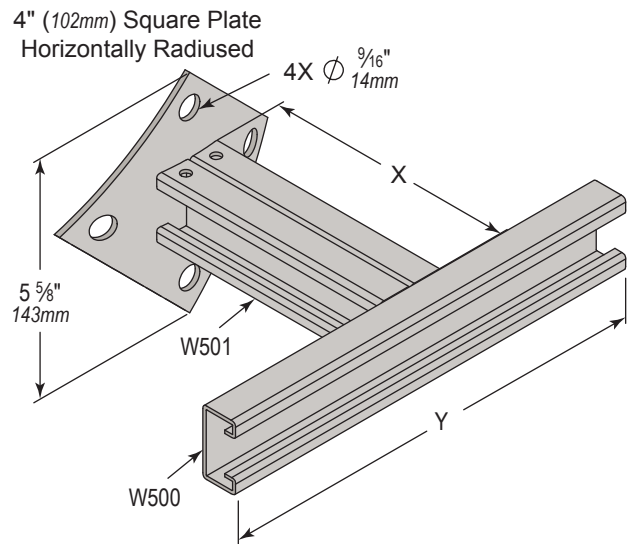
Utility Brackets



Standard Finish: Hot Dip Galvanized (HG)

W1021-X-Y

Extended Profile Diamond Back
with Horizontal Riser Strut



Part No.	X	Y
W1021-6-6	6" (152mm)	6" (152mm)
W1021-6-8		8" (203mm)
W1021-6-10		10" (254mm)
W1021-6-12		12" (305mm)
W1021-6-16		16" (406mm)
W1021-6-18		18" (457mm)
W1021-6-24		24" (610mm)
W1021-8-6	8" (203mm)	6" (152mm)
W1021-8-8		8" (203mm)
W1021-8-10		10" (254mm)
W1021-8-12		12" (305mm)
W1021-8-16		16" (406mm)
W1021-8-18		18" (457mm)
W1021-8-24		24" (610mm)
W1021-10-6	10" (254mm)	6" (152mm)
W1021-10-8		8" (203mm)
W1021-10-10		10" (254mm)
W1021-10-12		12" (305mm)
W1021-10-16		16" (406mm)
W1021-10-18		18" (457mm)
W1021-10-24		24" (610mm)
W1021-12-6	12" (305mm)	6" (152mm)
W1021-12-8		8" (203mm)
W1021-12-10		10" (254mm)
W1021-12-12		12" (305mm)
W1021-12-16		16" (406mm)
W1021-12-18		18" (457mm)
W1021-12-24		24" (610mm)

Part No.	X	Y
W1021-16-6	16" (406mm)	6" (152mm)
W1021-16-8		8" (203mm)
W1021-16-10		10" (254mm)
W1021-16-12		12" (305mm)
W1021-16-16		16" (406mm)
W1021-16-18		18" (457mm)
W1021-16-24		24" (610mm)
W1021-18-6	18" (457mm)	6" (152mm)
W1021-18-8		8" (203mm)
W1021-18-10		10" (254mm)
W1021-18-12		12" (305mm)
W1021-18-16		16" (406mm)
W1021-18-18		18" (457mm)
W1021-18-24		24" (610mm)
W1021-24-6	24" (610mm)	6" (152mm)
W1021-24-8		8" (203mm)
W1021-24-10		10" (254mm)
W1021-24-12		12" (305mm)
W1021-24-16		16" (406mm)
W1021-24-18		18" (457mm)
W1021-24-24		24" (610mm)

Typical: Weep Holes top and bottom (optional)
Appropriate (hot dipped galvanized) end caps available on any unit (optional)



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

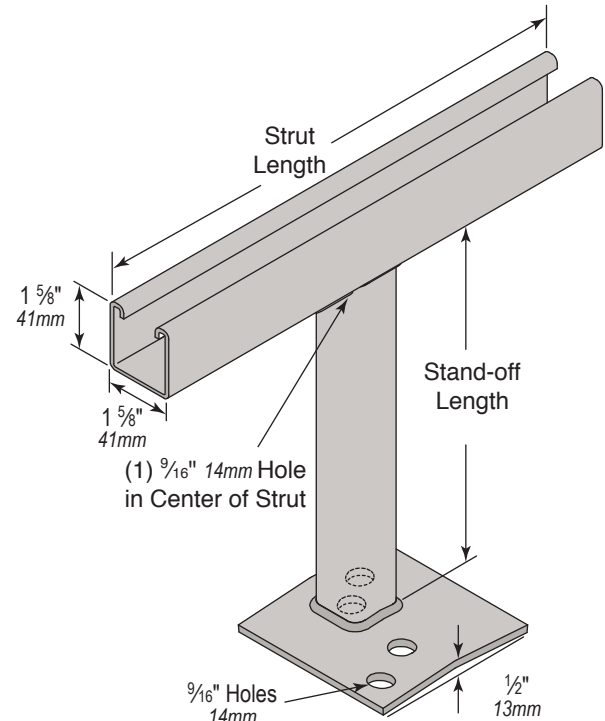
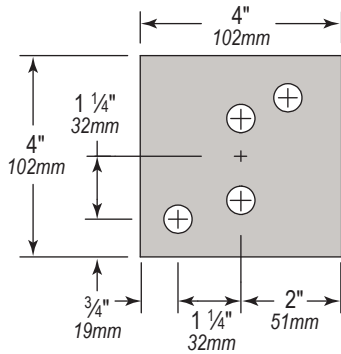


Utility Brackets

Standard Finish: Hot Dip Galvanized (HG)

W1022 Series

Square Tube Stand Off



Part No.	Stand-off Length	Strut Length
W1022-8-1/8 EG	8 ¹ / ₈ " (206mm)	12" (305mm)
W1022-8-1/8-M EG	8 ¹ / ₈ " (206mm)	16" (406mm)
W1022-10X12 EG	10" (254mm)	12" (305mm)
W1022-10X16 EG	10" (254mm)	16" (406mm)
W1022-12X12 EG	12" (305mm)	12" (305mm)

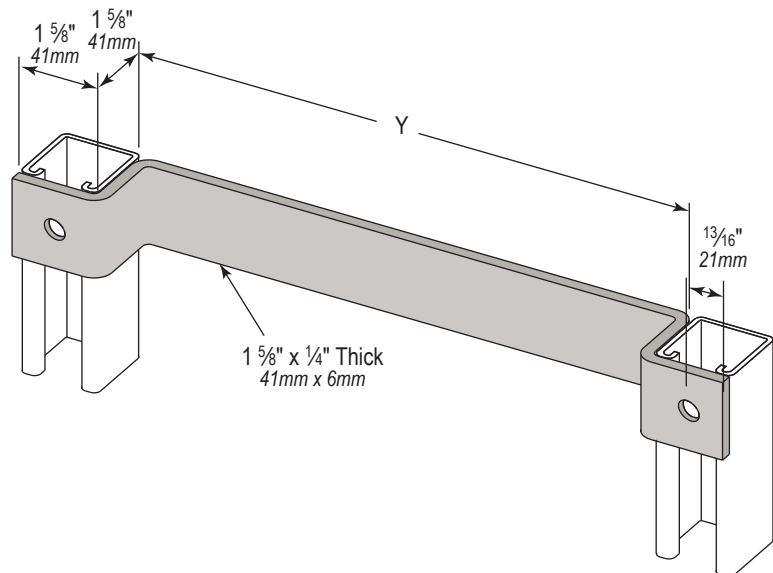
W1023-Y

Utility Vault Ladder Rung

Channel (handrail) type per design.

Note: use closure strip in all open channel (handrail) faces

Note: Use of W1017 stand off per design



Part No.	Y
W1023-6	6" (152mm)
W1023-8	8" (203mm)
W1023-10	10" (254mm)
W1023-12	12" (305mm)
W1023-16	16" (406mm)
W1023-18	18" (457mm)
W1023-24	24" (610mm)

Typical: Weep Holes top and bottom (optional)
Appropriate (hot dipped galvanized) end caps available on any unit (optional)



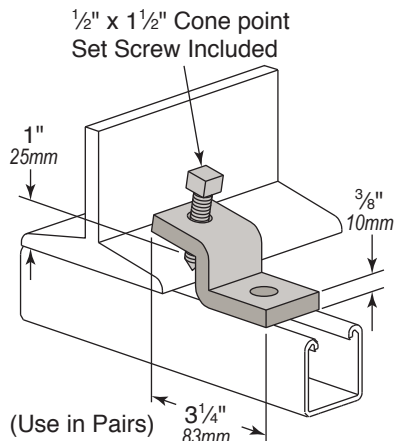
Beam Clamps



Standard Finish: Electro Galvanized (EG)

W5712

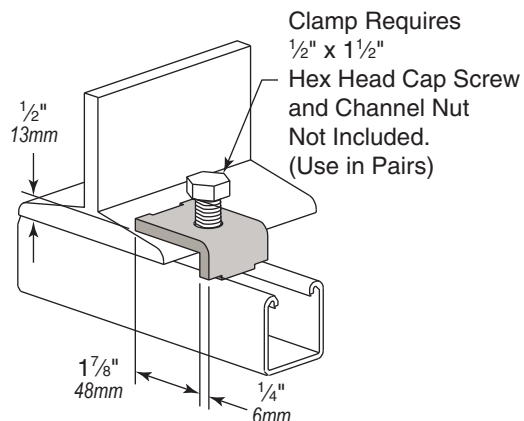
Off-Set Beam Clamp
Use in Pairs



Part No.	Design Load Lbs. (kN)	
	W200 1-5/8" x 1-5/8"	W500 1-5/8" x 1 3/16"
W5712	600 (2.67 kN)	500 (2.22 kN)

W5713

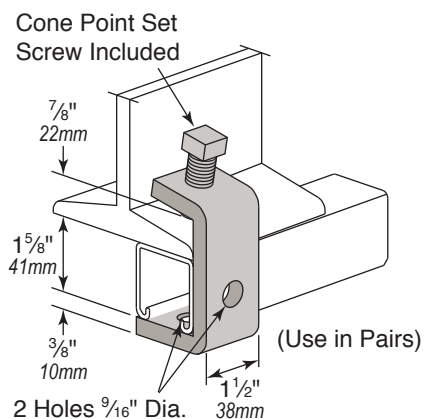
One-Hole Beam Clamp
Use in Pairs



Part No.	Design Load Lbs. (kN)	
	W200 1-5/8" x 1-5/8"	W500 1-5/8" x 1 3/16"
W5713	600 (2.67 kN)	500 (2.22 kN)

W5714

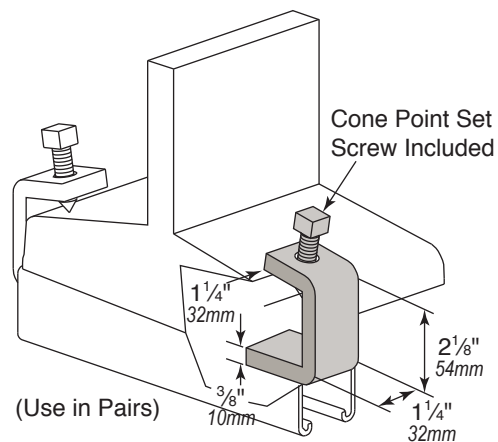
Two-Hole Beam Clamp
Use in Pairs



Part No.	Design Load Lbs. (kN)
W5714	500 (2.22 kN)

W5717

Channel Thick Flange Beam Clamp
Use in Pairs



Part No.	Design Load Lbs. (kN)
W5717	900 (4.00 kN)

Opposition type clamps to be used in pairs; position against flange(s) dimple beam at set screw (recommended).



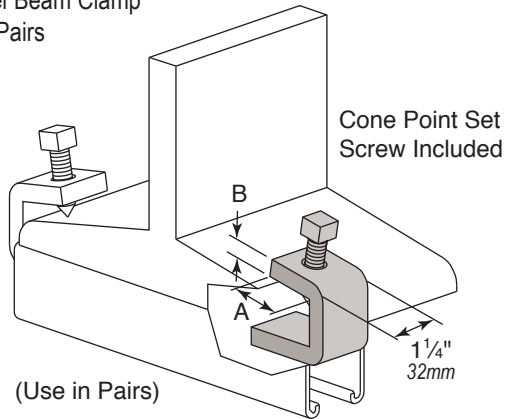


Beam Clamps

Standard Finish: Electro Galvanized (EG)

W5715 or W5716

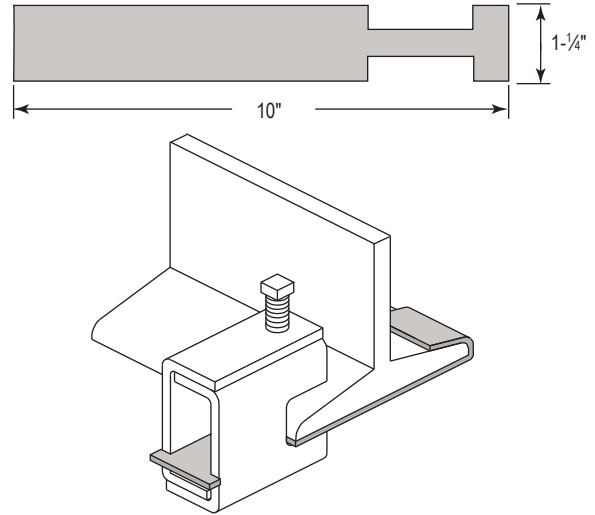
Channel Beam Clamp
Use in Pairs



Part No.	Duty	A	B	Design Load Lbs. (kN)
W5715	Light Duty	1-3/4" (44mm)	1/4" (6mm)	450 (2.00 kN)
W5716	Heavy Duty	1-1/2" (38mm)	3/8" (10mm)	1,000 (4.45 kN)

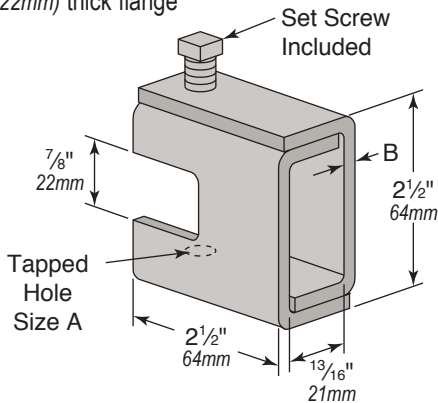
WBC0906

Beam Clamp Strap



W5721 to W5729

Beam Clamp
Up to 7/8" (22mm) thick flange

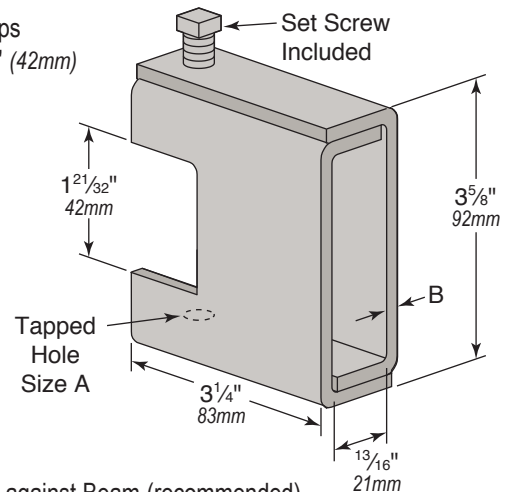


Bottom Rod against Beam (recommended)

Part No.	A	B	Set Screw	Allowable Load Lbs. (kN) (ea.)
W5721	1/4"-20	1/8" (3mm)	3/8" x 1-1/2"	650 (2.89 kN)
W5722	5/16"-18			
W5723	3/8"-16			
W5724	3/8"-16	3/16" (5mm)	1/2" x 1-1/2"	1,100 (4.89 kN)
W5725	1/2"-13			
W5726	1/2"-13	1/4" (6mm)	1/2" x 1-1/2"	1,600 (7.12 kN)
W5727	5/8"-11			
W5728	5/8"-11			
W5729	3/4"-10	5/16" (8mm)	5/8" x 1-1/2"	2,400 (10.68 kN)

W5731 to W5739

Beam Clamps
Up to 1-21/32" (42mm) thick flange



Bottom Rod against Beam (recommended)

Part No.	A	B	Set Screw	Allowable Load Lbs. (kN) (ea.)
W5731	1/4"-20	1/8" (3mm)	3/8" x 2"	800 (3.56 kN)
W5732	5/16"-18			
W5733	3/8"-16			
W5734	3/8"-16	3/16" (5mm)	1/2" x 2"	1,300 (5.78 kN)
W5735	1/2"-13			
W5736	1/2"-13	1/4" (6mm)	1/2" x 2"	1,900 (8.45 kN)
W5737	5/8"-11			
W5738	5/8"-11			
W5739	3/4"-10	5/16" (8mm)	5/8" x 2"	2,800 (12.46 kN)

Opposition type clamps to be used in pairs; position against flange(s) dimple beam at set screw (recommended).



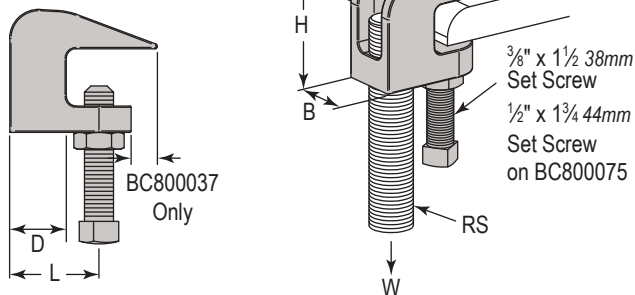
Beam Clamps



Material: Malleable Iron

BC80

Malleable Iron Universal Beam Clamp



Maximum flange thickness of $\frac{5}{8}$ " (16mm)

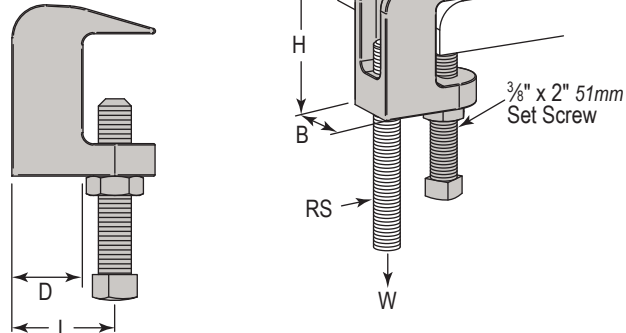
• **Finish:** Plain, Electrogalvanized

Catalog No.	Rod Size (RS)	Max Load W lbs (kN)	Max Pipe Size in	Dimensions in.			
				B	L	H	D
BC800037PL	$\frac{3}{8}$ " - 16	350 (1.56kN)	4"	$1\frac{3}{16}$ "	$1\frac{1}{4}$ "	$1\frac{9}{16}$ "	$\frac{9}{16}$ "
BC800037EG				(21mm)	(32mm)	(40mm)	
BC800050PL	$\frac{1}{2}$ " - 13	470 (2.09kN)	(102mm)	1"	$1\frac{3}{8}$ "	$1\frac{5}{8}$ "	$\frac{9}{16}$ "
BC800050EG				(25mm)	(35mm)	(41mm)	
BC800062PL	$\frac{5}{8}$ " - 11	550 (2.45kN)	5"	$1\frac{1}{8}$ "	$1\frac{1}{2}$ "	$1\frac{3}{4}$ "	$\frac{7}{8}$ "
BC800062EG				(29mm)	(38mm)	(45mm)	
BC800075PL	$\frac{3}{4}$ " - 10	700 (3.11kN)	6"	$1\frac{3}{8}$ "	$1\frac{13}{16}$ "	$1\frac{13}{16}$ "	$\frac{5}{8}$ "
BC800075EG				(35mm)	(46mm)	(46mm)	

Note: Do not over tighten set screw

BC81

Wide Mouth Malleable Iron Universal Beam Clamp



Maximum flange thickness of $1\frac{1}{16}$ " (27mm)

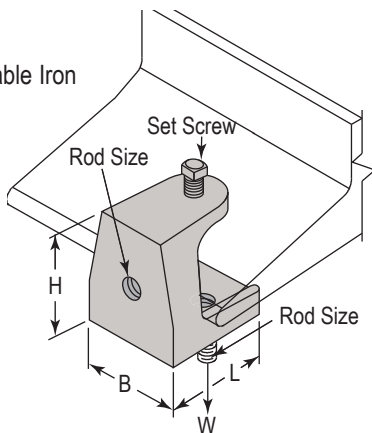
• **Finish:** Plain, Electrogalvanized

Part No.	Rod Size (RS)	Max Load W lbs (kN)	Max Pipe Size In	Dimensions in.			
				B	L	H	D
BC810037PL	$\frac{3}{8}$ " - 16	400 (1.78kN)	4"	$\frac{7}{8}$ "	$1\frac{1}{4}$ "	$1\frac{15}{16}$ "	$\frac{9}{16}$ "
BC810037EG						(22mm)	(32mm)
BC810050PL	$\frac{1}{2}$ " - 13	500 (2.22kN)	8"	$\frac{7}{8}$ "	$1\frac{3}{8}$ "	$2\frac{3}{16}$ "	$\frac{1}{2}$ "
BC810050EG						(203mm)	(48mm)
BC810062PL	$\frac{5}{8}$ " - 11	600 (2.67kN)	8"	$\frac{7}{8}$ "	$1\frac{7}{8}$ "	$2\frac{1}{4}$ "	$\frac{7}{8}$ "
BC810062EG						(203mm)	
BC810075PL	$\frac{3}{4}$ " - 10	800 (3.56kN)	8"	$\frac{7}{8}$ "	$2\frac{1}{16}$ "	$2\frac{1}{2}$ "	$\frac{7}{8}$ "
BC810075EG						(35mm)	

Note: Do not over tighten set screw

BC90

Electro-galvanized Malleable Iron Rod Support Beam Clamp

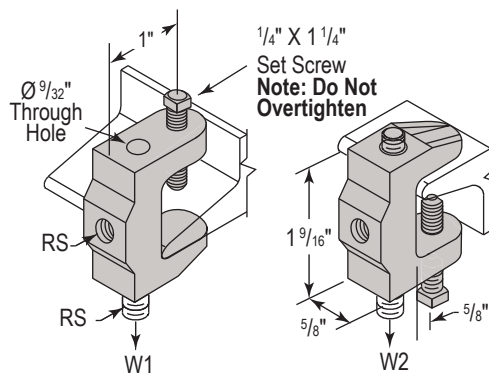


Maximum flange thickness of $\frac{1}{2}$ " (13mm)

Part No.	Rod Size	Set Screw Size	Dimensions in.			Max Load (W) lbs (kN)
			B	L	H	
BC9025EG	$\frac{1}{4}$ " - 20	$\frac{5}{16}$ " - 18	$1\frac{3}{16}$ " (33 mm)	$1\frac{3}{8}$ " (35 mm)	$1\frac{3}{8}$ " (35 mm)	335 (1.49kN)
BC9037EG	$\frac{3}{8}$ " - 16	$\frac{1}{2}$ " - 13	$2\frac{1}{16}$ " (52 mm)	$1\frac{7}{8}$ " (48 mm)	$1\frac{3}{4}$ " (44 mm)	525 (2.34kN)
BC9050EG	$\frac{1}{2}$ " - 13	$\frac{1}{2}$ " - 13	$2\frac{1}{2}$ " (64 mm)	$2\frac{3}{8}$ " (60 mm)	$2\frac{3}{16}$ " (56 mm)	750 (3.34kN)

BC91

Electro-galvanized Malleable Iron Universal Beam Clamps



Maximum flange thickness of $\frac{5}{8}$ " (16mm)

Part No.	Rod Size (RS)	Max Load W1 lbs (kN)	Max Load W2 lbs (kN)
BC91025EG	$\frac{1}{4}$ " - 20	100 (0.44kN)	250 (1.11kN)

Note: The threaded hole on the back side of the clamp is not load rated.



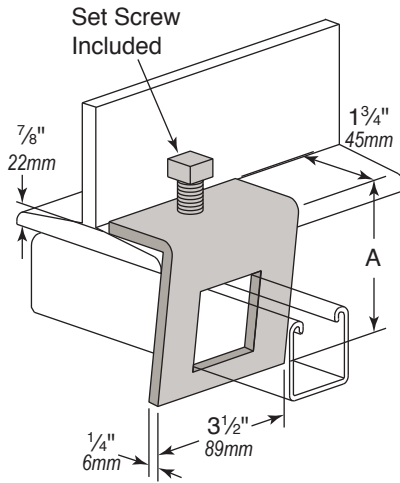


Beam Clamps

Standard Finish: Electro Galvanized (EG)

W5702 to W5705

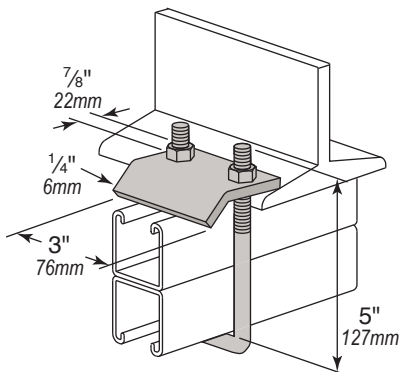
Beam Clamp
(Used In Pairs)



Part No.	A	Use With Channel	Allowable Loads Lbs. (kN)
W5702	3-1/2" (89mm)	W200, W210	480 (2.14 kN)
W5703	3-1/4" (83mm)	W300	
W5705	2-11/16" (68mm)	W500	

W5708

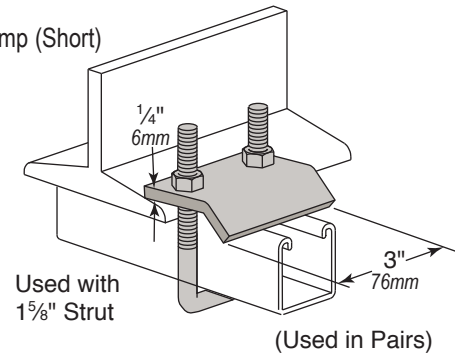
"U" Bolt Beam Clamp (Long)
(Used In Pairs)



Part No.	Use With Channel	Allowable Load Lbs. (kN)
W5708	W100, W150, W201	1,000 (4.45 kN)

W5709

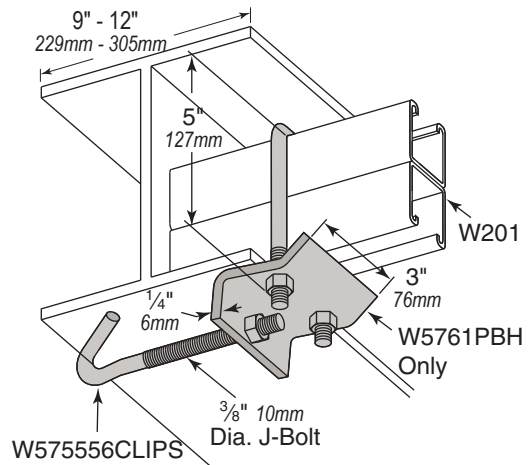
"U" Bolt Beam Clamp (Short)
(Used In Pairs)



Part No.	Use With Channel	Allowable Load Lbs. (kN)
W5709	W200, W210, W501, W300	1,000 (4.45 kN)

W5761 Series

U-Bolt Beam Clamp with J-Bolt



- 1" Max. Flange Thickness
- For use with 1-5/8" to 3-1/4" high channel (W150)
- Recommended Torques:
U-Bolt Nuts 150 in-lbs
J-Bolt Nut 60 in-lbs

Part No.	For Flange Width	Use With Channel
W5761	4" thru 5-7/8" (102 thru 149mm)	W150, W201
W5761-9	6" thru 9" (152 thru 229mm)	
W5761-12	9" thru 12" (229 thru 305mm)	

Uniform loads are based upon opposing style clamps **used in pairs**, installed against the flanges of the beam.
It is recommended that the beam be dimpled at set screw contact location(s)



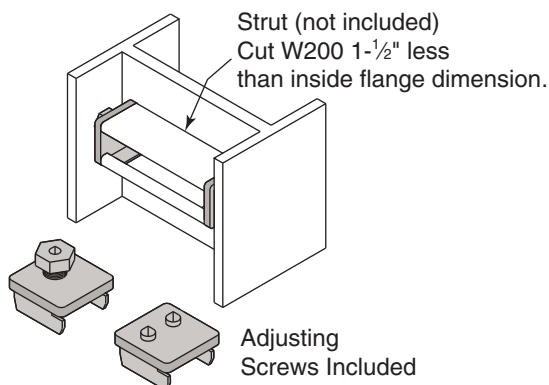
Beam Clamps



Standard Finish: Electro Galvanized (EG)

W5760

Flange To Flange Clamp



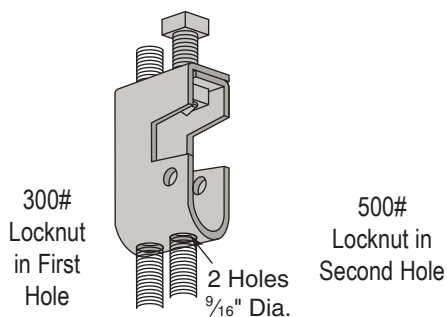
All Rods are shown with jamb nuts or "Locking" provision as recommended

Part No.	Wt. Lbs/C	Allowable Load Lbs. (kN)
W5760	53 (24 Kg)	800 (3.56 kN)

Allowable load capacity for both horizontal and vertical loads

W5750

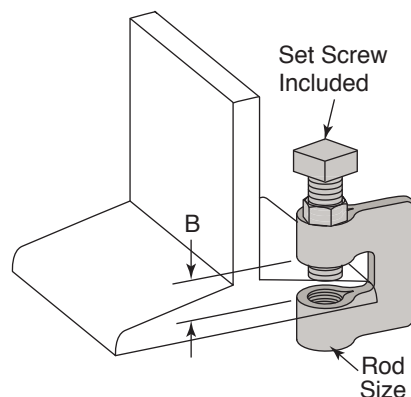
All Purpose Beam Clamp



Provides for hanging rod directly below set screw. Alternate use provides 1/4", 3/8" or 1/2" rod to be extended from the top to the bottom of the clamp on the end opposite the set screw. 1/4" flat washer must be used with 1/4" rod.

W5741 - W5745

Beam Clamps

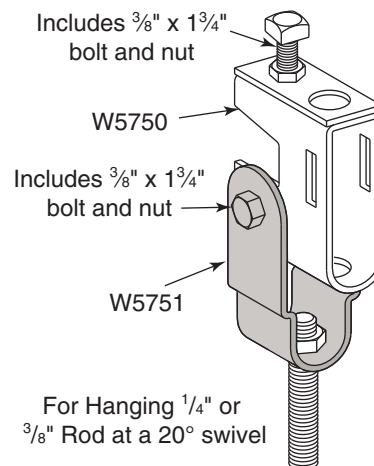


"Bottom Rod" Against Beam (Recommended)

Part No.	Rod Size	B	Allowable Load Lbs. (kN) (ea.)
W5741	3/8"	3/4" (19mm)	400 (1.78 kN)
W5742	1/2"		500 (2.22 kN)
W5743	5/8"		550 (2.45 kN)
W5744	3/4"		600 (2.67 kN)
W5745	7/8"	1-1/16" (27mm)	900 (4.00 kN)

W5751

Swivel Hanger



Provides for hanging 1/4" or 3/8" rod with 20° swivel or 1/2" rod without swivel. 1/4" flat washer must be used with 1/4" rod.

It is recommended that the beam be dimpled at set screw contact location(s)



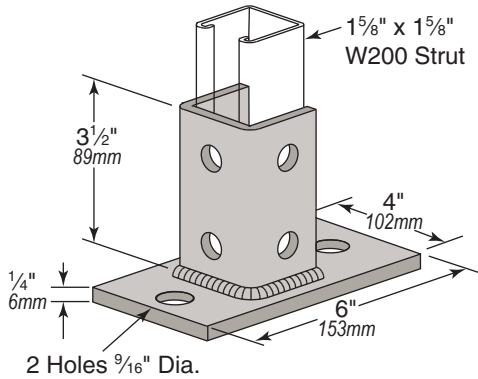


Post Bases

Standard Finish: Electro Galvanized (EG)

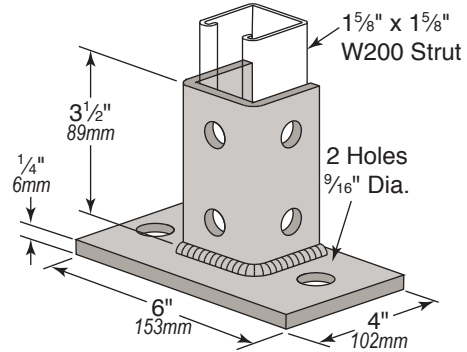
W5810

Rectangular Plate Eight-Hole Post Base
Single Channel Tall Clevis



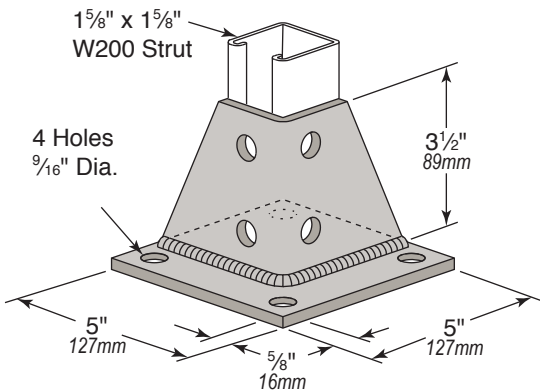
W5810FL

Rectangular Plate Eight-Hole Post Base
Single Channel Tall Clevis



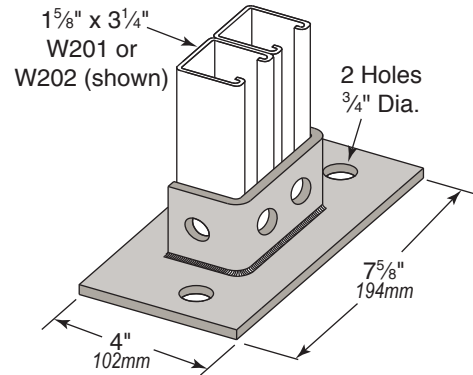
W5811

Eight-Hole Welded Corner Post Base



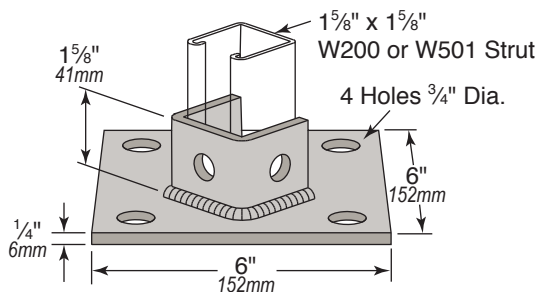
W5812

Rectangular Plate 6 Hole Post Base
Double Channel Short Clevis



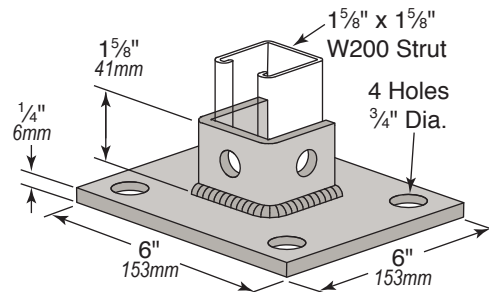
W5813

Seven-Hole Post Base Single Channel Short Clevis



W5813SQ

Seven-Hole Post Base Single Channel Short Clevis



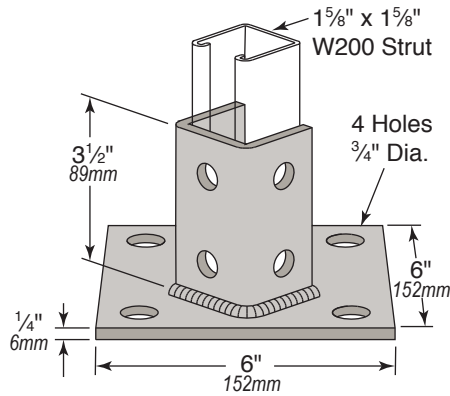
Post Bases



Standard Finish: Electro Galvanized (EG)

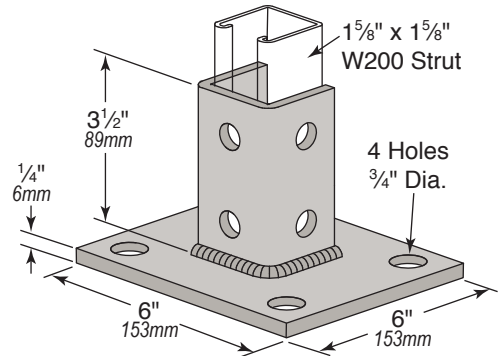
W5814

Ten-Hole Post Base Single Channel Tall Clevis



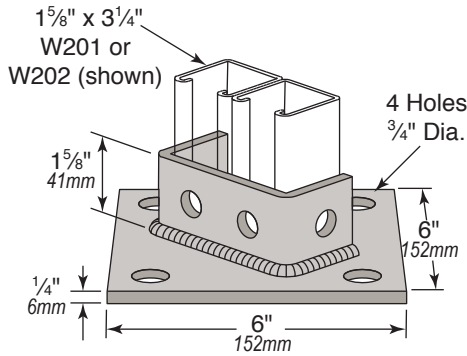
W5814SQ

Ten-Hole Post Base Single Channel Tall Clevis



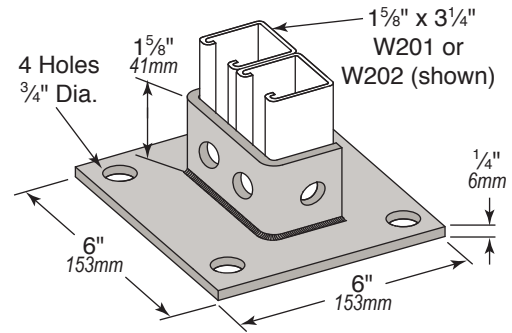
W5815

Eight-Hole Post Base Double Channel Short Clevis



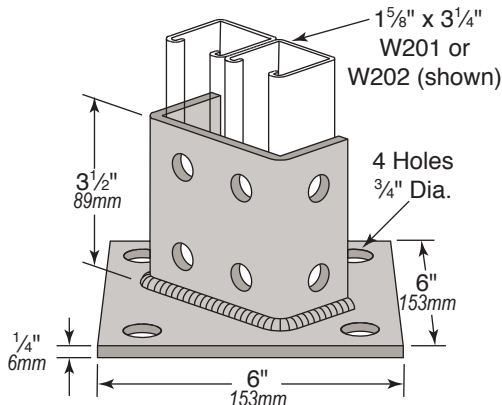
W5815SQ

Eight-Hole Post Base Double Channel Short Clevis



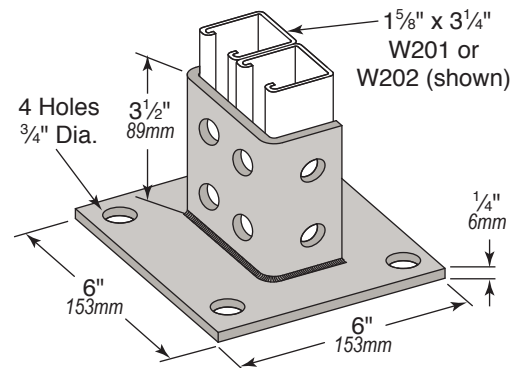
W5816

Twelve-Hole Post Base Double Channel Tall Clevis



W5816SQ

Twelve-Hole Post Base Double Channel Tall Clevis



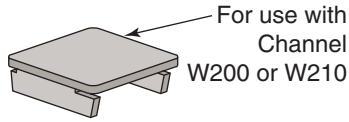


End Caps

Standard Finish: Electro Galvanized (EG)

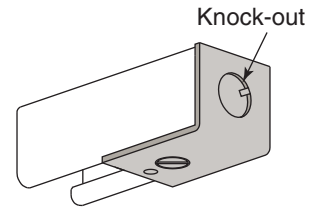
W5920

Wireway End Cap For W200 or W210 Channel



W5940 - W5943

End Cap with knock-outs



W5910 thru W5938

UL Listed End Caps

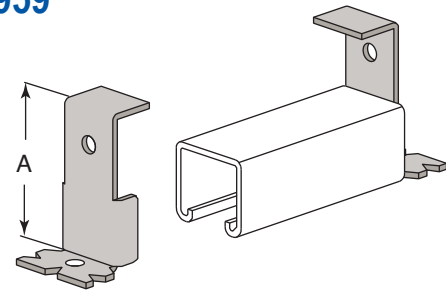


Part No.	Channel Usage
W5910	W100
W5930	W200
W5931	W210
W5933	W300
W5935	W500 & W900
W5938	W800

Part No.	Knock-out Size	Channel Usage
W5940	1/2"	W200
W5941	3/4"	
W5942	1/2"	W300
W5943	3/4"	

W5952 - W5959

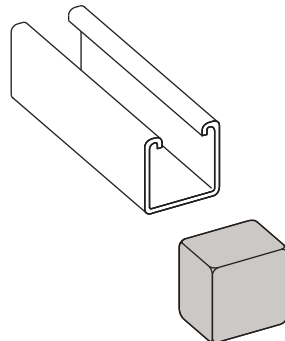
Anchor End Caps



Part No.	A Height	Channel Usage
W5952	3-1/8" (79mm)	W200
W5953	2-3/4" (70mm)	W300
W5958	2-3/8" (60mm)	W800
W5959	2-1/4" (57mm)	W900

W5900 thru W5935

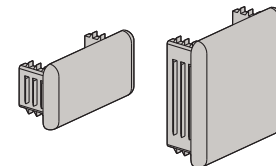
Cover Plastic End Caps



Part No. Cover	Channel Usage
W5900	W201
W5930	W200, W501
W5935	W500

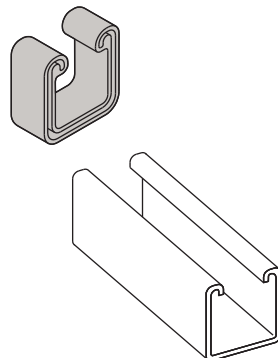
B5920 & B5925

Polyurethane End Caps



W5900-M thru W5935-M

Form Fit Plastic End Caps



Part No. Form Fit	Channel Usage
W5900-M	W201
W5930-M	W200 & W210
W5935-M	W500

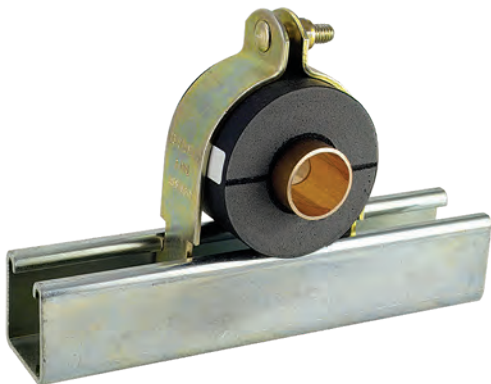
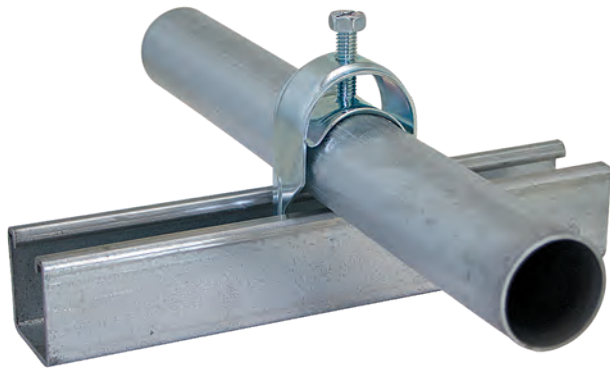
Part No.	Color	Size	Channel Usage
B5920PLASTICRED	Red	1-5/8" (41mm)	W200, W210
B5925PLASTICRED		13/16" (21mm) & 7/8" (22mm)	W500, W900
B5920PLASTICWHT	White	1-5/8" (41mm)	W200, W210
B5925PLASTICWHT		13/16" (21mm) & 7/8" (22mm)	W500, W900



Pipe, Tube, & Conduit Supports



Pipe Clamps, Cushioned & Insulated Clamps & Support Saddles



Pipe Clamp Specifications		
Material	ASTM	ASTM Description
Hot Rolled Plate	A 575	Steel, sheet and strip, carbon drawing quality, special killed, hot rolled.
Fitting (Steel)	A 366	Steel carbon, cold rolled sheet, commercial quality structural steel.
	A 366	
	A 36	
Strip Steel: Pipe Clamps	A 569	Steel, sheet and strip, carbon drawing quality, special killed, hot rolled.
Stainless Steel: (ST304 or ST316)	A 240 TYPE 304	Heat resisting chromium and chromium-nickel stainless steel plate, sheet, strip for pressure vessel.
	A 240 TYPE 316	
Aluminum: (AL)	B 221	Aluminum alloy extruded bar, rod, wire, shape and tube.

Pipe Clamp Finish Specifications		
Finish	Finish Code	Description
Paint-Green Powder Coating	GR	A dark green low gloss powder coating is applied and thoroughly baked after steel has been cleaned and phosphatized.
Electroplated	EG	Fittings and hardware supplied as "Electro-Galvanized" in accordance with ASTM B 633.
Mill-Galvanized (Pre-Galvanized)	PG	Galvanized steel used in the manufacture of channel sections conforms to ASTM A 653 GR33 G90. Uncoated edges resulted from slitting, punching and channel cut off are present.
Hot Dip Galvanized After Fabrication (HDGAF)	HG	Wesanco channel and fittings which are hot dip galvanized after fabrication conform to one of the following specifications. ASTM A 123, ASTM A153, or ASTM A386.
Special Coatings	PL, GOLD	Other commercially available finishes can be supplied per specification when required to protect applications. Plain, or Gold (Yellow Zinc Dichromate)

Call ZSi-Foster at (800) 323-7053 or order now at zsi-foster.com



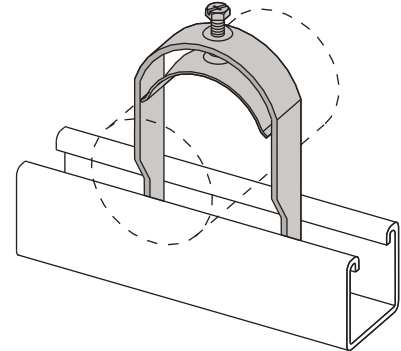
Strut Clamps

Standard Finish: Electro Galvanized (EG)

One-Piece Clamp

Rigid Conduit One Piece Pipe Clamp

Part No.	O.D. Size
BMU050	1/2" (13mm)
BMU075	3/4" (19mm)
BMU100	1" (25mm)
BMU125	1-1/4" (32mm)
BMU150	1-1/2" (38mm)
BMU200	2" (51mm)
BMU250	2-1/2" (64mm)
BMU300	3" (76mm)
BMU350	3-1/2" (89mm)
BMU400	4" (102mm)

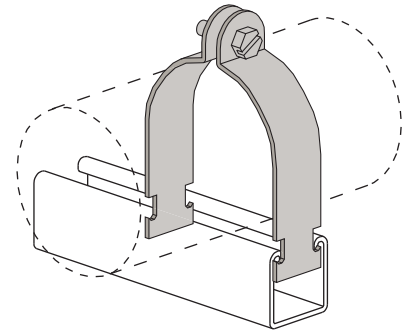


W6025A - W6038A

Thin Wall Conduit Series (E.M.T.)

Part No.	Nominal Size	O.D. Size	Gauge	Allowable Load Lbs. (kN) (ea.)	Slotted Indented Hex Cap Screw
W6025A	3/8" (10mm)	0.577"	16	400 (1.78 kN)	1/4" x 3/4"
W6026A	1/2" (13mm)	0.706"	16		1/4" x 3/4"
W6028A	3/4" (19mm)	0.922"	16		1/4" x 3/4"
W6030A	1" (25mm)	1.163"	14	600 (2.67 kN)	1/4" x 3/4"
W6032A	1-1/4" (32mm)	1.510"	14		1/4" x 3/4"
W6034A	1-1/2" (38mm)	1.740"	12	800 (3.56 kN)	5/16" x 1"
W6038A	2" (51mm)	2.197"	12		5/16" x 1"

Each clamp consists of two halves, one kept nut and one slotted hex head cap screw.

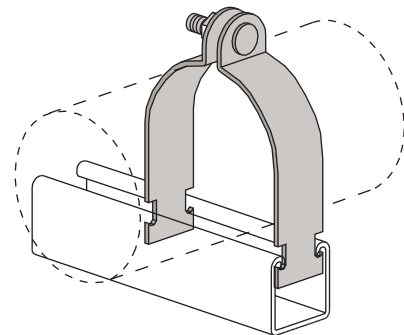


W6056AS - W6068AS

Universal Clamp Series With Welded Stud (E.M.T. Or Iron Pipe)

Part No.	EMT Size	EMT O.D.	Rigid Size	Rigid O.D.	Gauge	Allowable Load Lbs. (kN) (ea.)
W6056AS	1/2" (13mm)	0.706" (18mm)	1/2" (13mm)	0.840" (21mm)	16	400 (1.78 kN)
W6058AS	3/4" (19mm)	0.922" (23mm)	3/4" (19mm)	1.050" (27mm)	16	
W6060AS	1" (25mm)	1.163" (30mm)	1" (25mm)	1.315" (33mm)	14	600 (2.67 kN)
W6062AS	1-1/4" (32mm)	1.510" (38mm)	1-1/4" (32mm)	1.660" (42mm)	14	
W6064AS	1-1/2" (38mm)	1.740" (44mm)	1-1/2" (38mm)	1.900" (48mm)	14	800 (3.56 kN)
W6068AS	2" (51mm)	2.197" (56mm)	2" (51mm)	2.370" (60mm)	14	

Each clamp consists of: one kept nut and two halves; one with a secured stud.



Strut Clamps

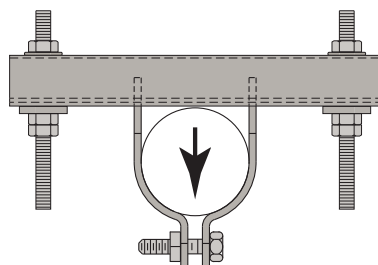
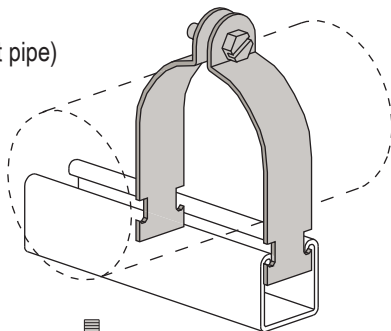


Standard Finish: Electro Galvanized (EG)

W6224A to W6282A

O.D. Tubing Series

(copper tubing, glass or ceramic tubes, and transit pipe)



Allowable Load (Safety Factor: 5)

Part No.	O.D. Size	Gauge	Allowable Load (ea.)	Slotted Indented Hex Screw
W6224A	1/4" (6mm)	16	400 (1.78 kN)	1/4" x 3/4"
W6225A	3/8" (10mm)			
W6226A	1/2" (13mm)			
W6227A	5/8" (16mm)			
W6228A	3/4" (19mm)			
W6229A	7/8" (22mm)			
W6230A	1" (25mm)	14	600 (2.67 kN)	1/4" x 3/4"
W6231A	1-1/8" (29mm)			
W6232A	1-1/4" (32mm)			
W6233A	1-3/8" (35mm)			
W6234A	1-1/2" (38mm)			
W6235A	1-5/8" (41mm)			
W6034A	1-3/4" (44mm)	12	800 (3.56 kN)	5/16" x 1"
W6237A	1-7/8" (48mm)			
W6238A	2" (51mm)			
W6239A	2-1/8" (54mm)			
W6240A	2-1/4" (57mm)			
W6138A	2-3/8" (60mm)			
W6242A	2-1/2" (64mm)			
W6243A	2-5/8" (67mm)			
W6244A	2-3/4" (70mm)			
W6142A	2-7/8" (73mm)			
W6246A	3" (76mm)			
W6247A	3-1/8" (79mm)			
W6248A	3-1/4" (83mm)			
W6249A	3-3/8" (86mm)			
W6146A	3-1/2" (89mm)			

Special Materials Pipe Clamps (Universal Clamps excluded)		
Material	Add Suffix to Part Number	Example
Steel Clamp Everdur Hardware	-E	W6130-E
Aluminum	AL	W6130 AL
Stainless steel type 304	st-304	W6130 st-304
Stainless steel type 316	st-316	W6130 st-316
For assembled clamps	-A	W6130-A
Stainless Uses: Slotted Ind. Hex Screw and Hex Nut		

Part No.	O.D. Size	Gauge	Allowable Load (ea.)	Slotted Indented Hex Screw			
W6251A	3-5/8" (92mm)	11	1,000 (4.45 kN)	3/8" x 1-1/4"			
W6252A	3-3/4" (95mm)						
W6253A	3-7/8" (98mm)						
W6150A	4" (102mm)						
W6255A	4-1/8" (105mm)						
W6256A	4-1/4" (108mm)						
W6257A	4-3/8" (111mm)						
W6154A	4-1/2" (114mm)						
W6259A	4-5/8" (118mm)						
W6260A	4-3/4" (121mm)						
W6261A	4-7/8" (124mm)						
W6262A	5" (127mm)						
W6263A	5-1/8" (130mm)						
W6264A	5-1/4" (133mm)						
W6265A	5-3/8" (137mm)						
W6266A	5-1/2" (140mm)						
W6267A	5-5/8" (143mm)				10	1,000 (4.45 kN)	3/8" x 1-1/4"
W6268A	5-3/4" (146mm)						
W6269A	5-7/8" (149mm)						
W6270A	6" (152mm)						
W6271A	6-1/4" (159mm)						
W6271BA	6-3/8" (162mm)						
W6271CA	6-1/2" (165mm)						
W6275A	6-5/8" (168mm)						
W6271DA	6-3/4" (171mm)						
W6279A	6-7/8" (175mm)						
W6272A	7" (177mm)						
W6281A	7-1/8" (181mm)						
W6280A	7-3/8" (187mm)						
W6281BA	7-7/8" (200mm)						
W6274A	8" (203mm)						
W6276A	8-1/8" (206mm)						
W6276BA	8-3/8" (213mm)						
W6277A	8-1/2" (222mm)						
W6277CA	8-3/4" (216mm)						
W6278A	10" (254mm)						
W6282A	12" (305mm)						



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



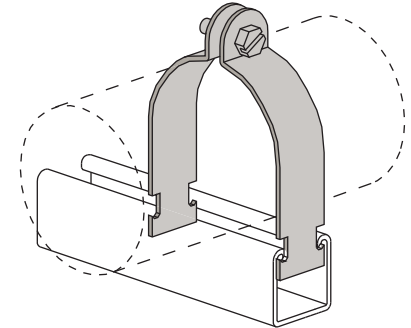
Strut Clamps & Pipe Straps

Standard Finish: Electro Galvanized (EG)

W6125A - W6178A

Rigid Steel Conduit Series (Iron Pipe)

Part No.	Nominal Size	O.D. Size	Gauge	Allowable Load Lbs. (kN) (ea.)	Slotted Indented Hex Cap Screw
W6125A	3/8" (10mm)	0.675"	16	400 (1.78 kN)	1/4" x 3/4"
W6126A	1/2" (13mm)	0.840"	16		1/4" x 3/4"
W6128A	3/4" (19mm)	1.050"	14	600 (2.67 kN)	1/4" x 3/4"
W6130A	1" (25mm)	1.315"	14		1/4" x 3/4"
W6132A	1-1/4" (32mm)	1.660"	14		1/4" x 1"
W6134A	1-1/2" (38mm)	1.900"	12	800 (3.56 kN)	5/16" x 1"
W6138A	2" (51mm)	2.375"	12		5/16" x 1"
W6142A	2-1/2" (64mm)	2.875"	12		5/16" x 1"
W6146A	3" (76mm)	3.500"	12	1,000 (4.45 kN)	5/16" x 1"
W6150A	3-1/2" (89mm)	4.000"	11		3/8" x 1-1/4"
W6154A	4" (102mm)	4.500"	11		3/8" x 1-1/4"
W6162A	5" (127mm)	5.563"	11		3/8" x 1-1/4"
W6170A	6" (152mm)	6.625"	10		3/8" x 1-1/4"
W6174A	8" (203mm)	8.625"	10		3/8" x 1-1/4"
W6176A	10" (254mm)	10.750"	10		3/8" x 1-1/4"
W6178A	12" (305mm)	12.750"	10	3/8" x 1-1/4"	

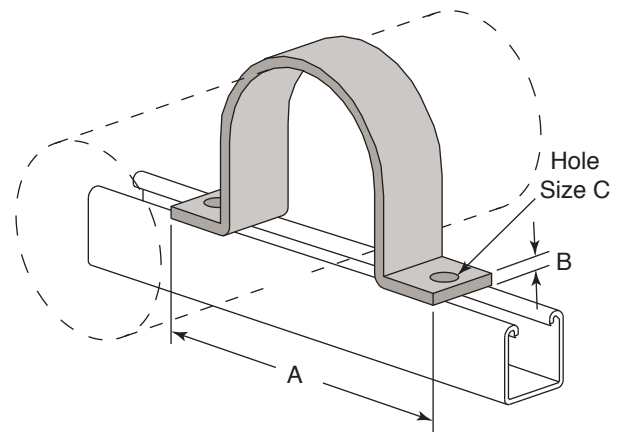


Each clamp consists of two halves, one kept nut and one slotted hex head cap screw.
Ref: page 240 for Special Materials Specification

W7826 - W7870

Standard Pipe Straps

Part No.	Pipe Size	A Length	B Material Thickness	C Hole Size
W7826	1/2"	3" (76mm)	1/8" (3.2mm)	9/32" (7.1mm)
W7828	3/4"	3-1/4" (83mm)		
W7830	1"	3-9/16" (90mm)		
W7832	1-1/4"	3-13/16" (97mm)		
W7834	1-1/2"	4-1/16" (103mm)		
W7838	2"	5-13/16" (148mm)	1/4" (6.4mm)	7/16" (11.1mm)
W7842	2-1/2"	6-1/4" (159mm)		
W7846	3"	7" (178mm)		
W7850	3-1/2"	7-7/8" (200mm)		
W7854	4"	8" (203mm)		
W7862	5"	9-1/8" (232mm)		
W7870	6"	10-5/16" (262mm)		



Requires machine screw and channel nuts (not included) order separately.



J-Hanger & Tube Clamps



Standard Finish: Electro Galvanized (EG)

W4050 to W4400

J-Hanger

Finish: Electro Galvanized (standard) or Stainless Steel

Size Range: 1/2" thru 4" (13mm to 102mm) Pipe

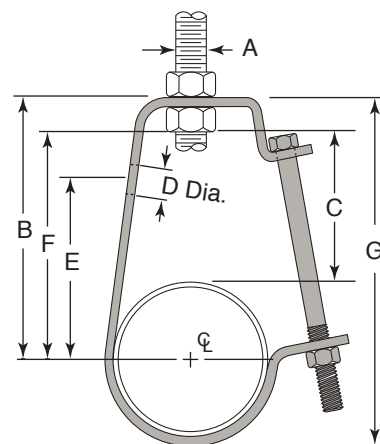
Material: Carbon Steel

Function: Can be suspended by hanger rod or attached to a wall. "T" slot in hanger permits side bolt to be installed after installation and setting of pipe.

Approvals: Conforms to Manufacturers Standardization Society SP-69, Type 5.

Maximum Temperature: 650° F (343°C)

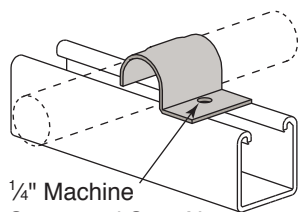
Finish: Carbon Steel



Part No.	Pipe Size	A Rod Size	B	C	D	E	F	Bolt Size	G	Stock Size	Max. Rec. Load Lbs. (kN)
W4050	1/2"	3/8"	2-5/8" (67 mm)	1-3/4" (44 mm)	7/16" (11 mm)	1-1/2" (38 mm)	1-15/16" (49 mm)	1/4"	3-5/32" (80 mm)	12 ga. x 3/4"	400 (1.78 kN)
W4075	3/4"		2-7/8" (73 mm)	1-7/8" (48 mm)		1-11/16" (43 mm)	2-1/8" (54 mm)		3-1/2" (89 mm)		
W4100	1"		2-15/16" (75 mm)	1-15/16" (49 mm)		1-13/16" (46 mm)	2-5/16" (59 mm)		3-1/16" (94 mm)		
W4125	1-1/4"		3-1/4" (83 mm)	2" (51 mm)		2-1/16" (52 mm)	2-5/8" (67 mm)		4-1/8" (105 mm)		
W4150	1-1/2"		3-9/16" (90 mm)	2-3/16" (56 mm)		2-7/16" (62 mm)	2-7/8" (73 mm)		4-5/8" (117 mm)		
W4200	2"		3-11/16" (94 mm)	2-1/8" (54 mm)		2-9/16" (65 mm)	3-1/16" (78 mm)		5" (127 mm)		
W4250	2-1/2"	1/2"	4-7/16" (113 mm)	2-7/16" (62 mm)	9/16" (14 mm)	3-3/16" (81 mm)	3-5/8" (92 mm)	3/8"	6" (152 mm)	12 ga. x 1-1/4"	500 (2.22 kN)
W4300	3"		4-13/16" (122 mm)	2-9/16" (65 mm)		3-1/2" (89 mm)	4-1/16" (103 mm)		6-21/32" (169 mm)		
W4350	3-1/2"		5-1/8" (130 mm)	2-5/8" (67 mm)		3-3/4" (95 mm)	4-3/8" (111 mm)		7-5/16" (186 mm)		
W4400	4"		5/8"	6-1/8" (156 mm)		3-3/16" (81 mm)	4-5/8" (117 mm)		5-3/16" (132 mm)		

W7724 - W7730

One-Hole Tubing Clamps

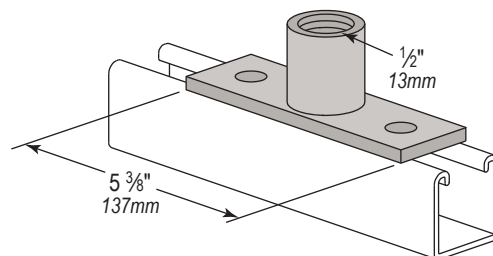


1/4" Machine Screw and Strut Nut Not Included

Part No.	O.D. Tube Size
W7724	1/4"
W7724A	5/16"
W7725	3/8"
W7726	1/2"
W7727	5/8"
W7728	3/4"
W7729	7/8"
W7730	1"

W2470-50

Pipe Coupling Fitting





Cush-A-Nator®

Cush-A-Nator®



Cush-A-Nator
Standard
-50°F to 275°F

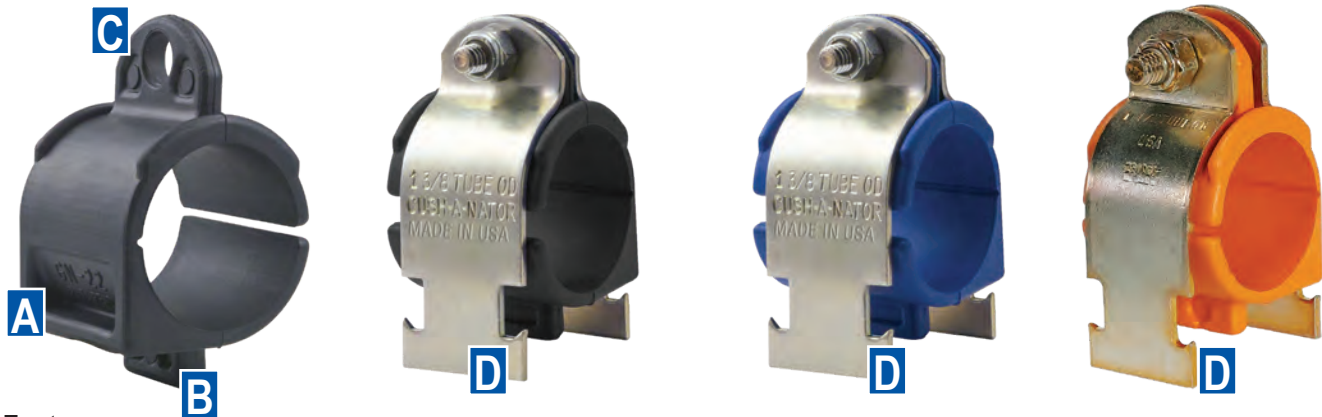
Cush-A-Nator
High Temp
-65°F to 340°F

Cush-A-Nator
High Intensity Temp
-65°F to 400°F



New Cush-A-Nator High Intensity Temp
has a service temperature of
-65°F to 400°F

The Cush-A-Nator® is designed to provide the user with a choice of the highest heat range resistance of any cushion on the market or simply the advanced features of a superior design. *The Cush-A-Nator is designed and manufactured in Michigan.*



Features

A Thumb Drive

The Cush-A-Nator has the exclusive "Thumb Drive" that provides the installer a gripping point to easily open the cushion with the help of leverage tabs and a living hinge. Easy and effortlessly to install.

B Self-Alignment

Cushion can be opened and placed over the pipe or tube and rotated into place while on the channel and automatically aligned with the channel opening ready for clamping.

Cush-A-Nator® is manufactured under U.S. patents #9074715, #D702113, #D710190, and European Community patents #0013843410001, #0013843410002, and a United Kingdom patent pending.

C Pressure Control

The Cush-A-Nator cushion has a built in squeeze control as part of the cushion design. The side opening and the squeeze control tab provides evenly distributed pressure around the tube or pipe.

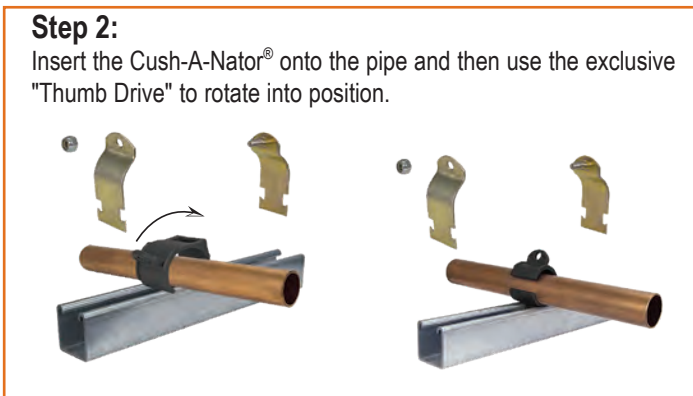
D Complete Clamping Unit

The Cush-A-Nator is the only strut mounted cushion that is mechanically connected to the supporting steel clamp because the bolt passes through the squeeze control tab forming the single unit connection. This design helps prevent the cushion from excess vibration by being attached directly to the clamp.

Installation examples shown on next page



Cush-A-Nator® – New Installations



Cush-A-Nator® – Retrofit / Replacement Applications

A key feature of the Cush-A-Nator is this ability to place the cushion and rotate into position. **Perfect for retrofit applications!**

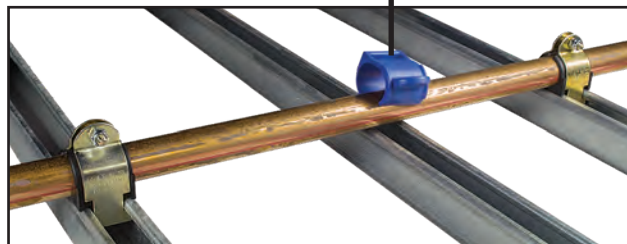
Retrofit - The Common Problem

Replacing a cushion within a long pipe run poses a problem. Clamps before and after the one to be replaced prohibit the pipe from being raised so that the new cushion can be installed correctly. All too often a work-around is used which compromises the connection.

Retrofit - The Perfect Solution

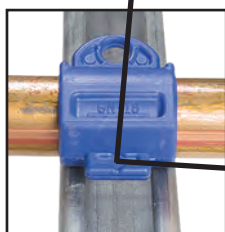
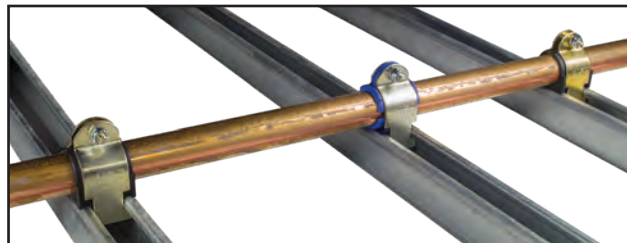
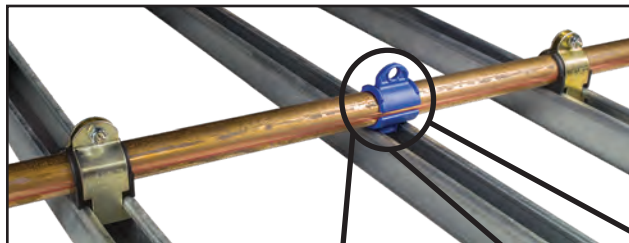
Step 1: Remove Bad Cushion.

Step 2: The Cush-A-Nator can be installed without raising the pipe. The unique "Thumb Drive" allows you to rotate the Cush-A-Nator into position.

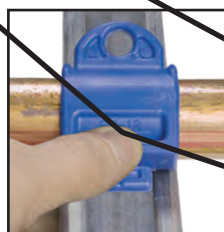


Step 3: Rotated into place while on the channel and the Self-Alignment tab automatically aligns with the channel opening ready for clamping.

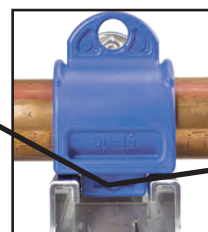
Step 3: Add Pipe Clamps and tighten the assembly.



Rotate into Position



Thumb Drive



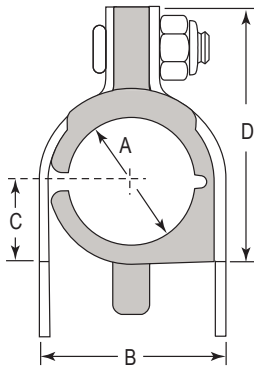
"Self-Alignment"





Cush-A-Nator®

Cush-A-Nator® Standard (CN) has an operating range of -50°F to 275°F (-45°C to 135°C).



Cush-A-Nator® Standard (CN) Tube Part No.			O.D. Tube Size	Dimensions (inches)			
Steel	SS304	SS316		A	B	C	D
CN04	CN04SS	CN04S6	1/4"	0.25" (6mm)	0.62" (16mm)	0.27" (7mm)	0.98" (25mm)
CN06	CN06SS	CN06S6	3/8"	0.37" (9mm)	0.82" (21mm)	0.33" (8mm)	1.13" (29mm)
CN08	CN08SS	CN08S6	1/2"	0.50" (13mm)	0.94" (24mm)	0.40" (10mm)	1.34" (34mm)
CN10	CN10SS	CN10S6	5/8"	0.62" (16mm)	1.06" (27mm)	0.46" (12mm)	1.54" (39mm)
CN12	CN12SS	CN12S6	3/4"	0.75" (19mm)	1.20" (30mm)	0.52" (13mm)	1.68" (43mm)
CN14	CN14SS	CN14S6	7/8"	0.87" (22mm)	1.31" (33mm)	0.58" (15mm)	1.82" (46mm)
CN16	CN16SS	CN16S6	1"	1.00" (25mm)	1.44" (37mm)	0.65" (17mm)	1.95" (50mm)
CN18	CN18SS	CN18S6	1 1/8"	1.12" (28mm)	1.57" (40mm)	0.70" (18mm)	2.08" (53mm)
CN20	CN20SS	CN20S6	1 1/4"	1.25" (32mm)	1.70" (43mm)	0.77" (20mm)	2.21" (56mm)
CN32M	CN32MSS	CN32MS6	32mm	32mm	1.51" (38mm)	0.76" (19mm)	2.55" (65mm)
CN22	CN22SS	CN22S6	1 3/8"	1.37" (35mm)	1.82" (46mm)	0.83" (21mm)	2.34" (59mm)
CN24	CN24SS	CN24S6	1 1/2"	1.50" (38mm)	1.95" (50mm)	0.90" (23mm)	2.47" (63mm)
CN26	CN26SS	CN26S6	1 5/8"	1.62" (41mm)	2.07" (53mm)	0.96" (24mm)	2.60" (66mm)
CN28	CN28SS	CN28S6	1 3/4"	1.75" (45mm)	2.20" (56mm)	1.02" (26mm)	2.73" (69mm)
CN30	CN30SS	CN30S6	1 7/8"	1.87" (48mm)	2.32" (59mm)	1.09" (28mm)	2.86" (73mm)
CN32	CN32SS	CN32S6	2"	2.00" (51mm)	2.45" (62mm)	1.15" (29mm)	3.04" (77mm)
CN34	CN34SS	CN34S6	2 1/8"	2.12" (54mm)	2.57" (65mm)	1.27" (32mm)	3.23" (82mm)
CN36	CN36SS	CN36S6	2 1/4"	2.25" (57mm)	2.82" (72mm)	1.41" (36mm)	3.67" (93mm)
CN38	CN38SS	CN38S6	2 3/8"	2.37" (60mm)	2.82" (72mm)	1.41" (36mm)	3.67" (93mm)
CN40	CN40SS	CN40S6	2 1/2"	2.50" (64mm)	2.94" (75mm)	1.46" (37mm)	3.79" (96mm)
CN42	CN42SS	CN42S6	2 5/8"	2.62" (66mm)	3.07" (78mm)	1.53" (39mm)	3.92" (100mm)
CN46	CN46SS	CN46S6	2 7/8"	2.87" (73mm)	3.32" (84mm)	1.66" (42mm)	4.17" (106mm)
CN75M	CN75MSS	CN75MS6	75mm	75mm	3.37" (86mm)	1.69" (43mm)	4.68" (119mm)
CN48	CN48SS	CN48S6	3"	3.00" (76mm)	3.57" (91mm)	1.78" (45mm)	4.42" (112mm)
CN50	CN50SS	CN50S6	3 1/8"	3.12" (79mm)	3.57" (91mm)	1.78" (45mm)	4.42" (112mm)
CN56	CN56SS	CN56S6	3 1/2"	3.50" (89mm)	3.95" (100mm)	1.97" (50mm)	4.79" (122mm)
CN90M	CN90MSS	CN90MS6	90mm	90mm	3.86" (98mm)	1.94" (49mm)	5.23" (133mm)
CN64	CN64SS	CN64S6	4"	4.00" (102mm)	4.45" (113mm)	2.28" (58mm)	5.11" (130mm)
CN66	CN66SS	CN66S6	4 1/8"	4.12" (105mm)	4.57" (116mm)	2.34" (59mm)	5.54" (141mm)
CN110M	CN110MSS	CN110MS6	110mm	110mm	4.99" (127mm)	2.81" (71mm)	6.38" (162mm)
CN72	CN72SS	CN72S6	4 1/2"	4.50" (114mm)	4.95" (126mm)	2.53" (64mm)	5.92" (150mm)
CN125M	CN125MSS	CN125MS6	125mm	125mm	5.61" (142mm)	2.81" (71mm)	7.00" (178mm)
CN96	CH96SS	CN96S6	6"	6.00" (152mm)	6.62" (168mm)	3.31" (84mm)	7.63" (194mm)
CN160M	CN160MSS	CN160MS6	160mm	160mm	6.62" (168mm)	3.31" (84mm)	7.63" (194mm)

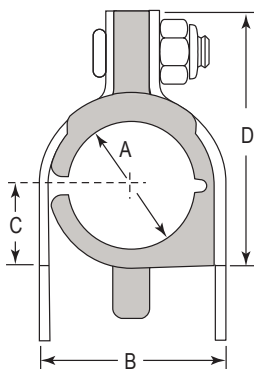
Cush-A-Nator® Standard (CN) Pipe Part No.			Pipe Size	Dimensions (inches)			
Steel	SS304	SS316		A	B	C	D
CN14P	CN14PSS	CN14PS6	1/2"	0.840" (21mm)	1.29" (33mm)	0.58" (15mm)	1.82" (46mm)
CN17P	CN17PSS	CN17PS6	3/4"	1.050" (27mm)	1.57" (40mm)	0.70" (18mm)	2.08" (53mm)
CN21P	CN21PSS	CN21PS6	1"	1.315" (33mm)	1.76" (45mm)	0.81" (21mm)	2.34" (59mm)
CN30P	CN30PSS	CN30PS6	1 1/2"	1.900" (48mm)	2.32" (59mm)	1.09" (28mm)	2.86" (73mm)
CN38P	CN38PSS	CN38PS6	2"	2.375" (60mm)	2.82" (72mm)	1.41" (36mm)	3.67" (93mm)
CN46P	CN46PSS	CN46PS6	2 1/2"	2.875" (73mm)	3.32" (84mm)	1.66" (42mm)	4.17" (106mm)
CN56P	CN56PSS	CN56PS6	3"	3.500" (89mm)	3.95" (100mm)	1.97" (50mm)	4.79" (122mm)
CN64P	CN64PSS	CN64PS6	3 1/2"	4.000" (102mm)	4.45" (113mm)	2.28" (58mm)	5.11" (130mm)
CN72P	CN72PSS	CN72PS6	4"	4.500" (114mm)	4.95" (126mm)	2.53" (64mm)	5.92" (150mm)

Contact Factory for Additional Sizes



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Cush-A-Nator® High Temp (HT) has service temperatures of -65°F to 340°F (-53°C to 170°C).



Cush-A-Nator® High Temp (HT) Tube Part No.			O.D. Tube Size	Dimensions (inches)			
Steel	SS304	SS316		A	B	C	D
HT04	HT04SS	HT04S6	1/4"	0.25" (6mm)	0.62" (16mm)	0.27" (7mm)	0.98" (25mm)
HT06	HT06SS	HT06S6	3/8"	0.37" (9mm)	0.82" (21mm)	0.33" (8mm)	1.13" (29mm)
HT08	HT08SS	HT08S6	1/2"	0.50" (13mm)	0.94" (24mm)	0.40" (10mm)	1.34" (34mm)
HT10	HT10SS	HT10S6	5/8"	0.62" (16mm)	1.06" (27mm)	0.46" (12mm)	1.54" (39mm)
HT12	HT12SS	HT12S6	3/4"	0.75" (19mm)	1.20" (30mm)	0.52" (13mm)	1.68" (43mm)
HT14	HT14SS	HT14S6	7/8"	0.87" (22mm)	1.31" (33mm)	0.58" (15mm)	1.82" (46mm)
HT16	HT16SS	HT16S6	1"	1.00" (25mm)	1.44" (37mm)	0.65" (17mm)	1.95" (50mm)
HT18	HT18SS	HT18S6	1 1/8"	1.12" (28mm)	1.57" (40mm)	0.70" (18mm)	2.08" (53mm)
HT20	HT20SS	HT20S6	1 1/4"	1.25" (32mm)	1.70" (43mm)	0.77" (20mm)	2.21" (56mm)
HT32M	HT32MSS	HT32MS6	32mm	32mm	1.51" (38mm)	0.76" (19mm)	2.55" (65mm)
HT22	HT22SS	HT22S6	1 3/8"	1.37" (35mm)	1.82" (46mm)	0.83" (21mm)	2.34" (59mm)
HT24	HT24SS	HT24S6	1 1/2"	1.50" (38mm)	1.95" (50mm)	0.90" (23mm)	2.47" (63mm)
HT26	HT26SS	HT26S6	1 5/8"	1.62" (41mm)	2.07" (53mm)	0.96" (24mm)	2.60" (66mm)
HT28	HT28SS	HT28S6	1 3/4"	1.75" (45mm)	2.20" (56mm)	1.02" (26mm)	2.73" (69mm)
HT30	HT30SS	HT30S6	1 7/8"	1.87" (48mm)	2.32" (59mm)	1.09" (28mm)	2.86" (73mm)
HT32	HT32SS	HT32S6	2"	2.00" (51mm)	2.45" (62mm)	1.15" (29mm)	3.04" (77mm)
HT34	HT34SS	HT34S6	2 1/8"	2.12" (54mm)	2.57" (65mm)	1.27" (32mm)	3.23" (82mm)
HT36	HT36SS	HT36S6	2 1/4"	2.25" (57mm)	2.82" (72mm)	1.41" (36mm)	3.67" (93mm)
HT38	HT38SS	HT38S6	2 3/8"	2.37" (60mm)	2.82" (72mm)	1.41" (36mm)	3.67" (93mm)
HT40	HT40SS	HT40S6	2 1/2"	2.50" (64mm)	2.94" (75mm)	1.46" (37mm)	3.79" (96mm)
HT42	HT42SS	HT42S6	2 5/8"	2.62" (66mm)	3.07" (78mm)	1.53" (39mm)	3.92" (100mm)
HT46	HT46SS	HT46S6	2 7/8"	2.87" (73mm)	3.32" (84mm)	1.66" (42mm)	4.17" (106mm)
HT75M	HT75MSS	HT75MS6	75mm	75mm	3.37" (86mm)	1.69" (43mm)	4.68" (119mm)
HT48	HT48SS	HT48S6	3"	3.00" (76mm)	3.57" (91mm)	1.78" (45mm)	4.42" (112mm)
HT50	HT50SS	HT50S6	3 1/8"	3.12" (79mm)	3.57" (91mm)	1.78" (45mm)	4.42" (112mm)
HT56	HT56SS	HT56S6	3 1/2"	3.50" (89mm)	3.95" (100mm)	1.97" (50mm)	4.79" (122mm)
HT90M	HT90MSS	HT90MS6	90mm	90mm	3.86" (98mm)	1.94" (49mm)	5.23" (133mm)
HT64	HT64SS	HT64S6	4"	4.00" (102mm)	4.45" (113mm)	2.28" (58mm)	5.11" (130mm)
HT66	HT66SS	HT66S6	4 1/8"	4.12" (105mm)	4.57" (116mm)	2.34" (59mm)	5.54" (141mm)
HT110M	HT110MSS	HT110MS6	110mm	110mm	4.99" (127mm)	2.81" (71mm)	6.38" (162mm)
HT72	HT72SS	HT72S6	4 1/2"	4.50" (114mm)	4.95" (126mm)	2.53" (64mm)	5.92" (150mm)
HT125M	HT125MSS	HT125MS6	125mm	125mm	5.61" (142mm)	2.81" (71mm)	7.00" (178mm)
HT96	HT96SS	HT96S6	6"	6.00" (152mm)	6.62" (168mm)	3.31" (84mm)	7.63" (194mm)
HT160M	HT160MSS	HT160MS6	160mm	160mm	6.62" (168mm)	3.31" (84mm)	7.63" (194mm)

Cush-A-Nator® High Temp (HT) Pipe Part No.			Pipe Size	Dimensions (inches)			
Steel	SS304	SS316		A	B	C	D
HT14P	HT14PSS	HT14PS6	1/2"	0.840" (21mm)	1.29" (33mm)	0.58" (15mm)	1.82" (46mm)
HT17P	HT17PSS	HT17PS6	3/4"	1.050" (27mm)	1.57" (40mm)	0.70" (18mm)	2.08" (53mm)
HT21P	HT21PSS	HT21PS6	1"	1.315" (33mm)	1.76" (45mm)	0.81" (21mm)	2.34" (59mm)
HT30P	HT30PSS	HT30PS6	1 1/2"	1.900" (48mm)	2.32" (59mm)	1.09" (28mm)	2.86" (73mm)
HT38P	HT38PSS	HT38PS6	2"	2.375" (60mm)	2.82" (72mm)	1.41" (36mm)	3.67" (93mm)
HT46P	HT46PSS	HT46PS6	2 1/2"	2.875" (73mm)	3.32" (84mm)	1.66" (42mm)	4.17" (106mm)
HT56P	HT56PSS	HT56PS6	3"	3.500" (89mm)	3.95" (100mm)	1.97" (50mm)	4.79" (122mm)
HT64P	HT64PSS	HT64PS6	3 1/2"	4.000" (102mm)	4.45" (113mm)	2.28" (58mm)	5.11" (130mm)
HT72P	HT72PSS	HT72PS6	4"	4.500" (114mm)	4.95" (126mm)	2.53" (64mm)	5.92" (150mm)

Contact Factory for Additional Sizes

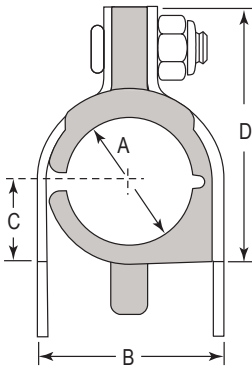


WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



Cush-A-Nator®

Cush-A-Nator® High Intensity Temp (HIT) has service temperatures of -65°F to 400°F (-53°C to 204°C).



Cush-A-Nator® High Intensity Temp (HIT) Tube Part No.			O.D. Tube Size	Dimensions (inches)			
Steel	SS304	SS316		A	B	C	D
HIT04	HIT04SS	HIT04S6	1/4"	0.25" (6mm)	0.62" (16mm)	0.27" (7mm)	0.98" (25mm)
HIT06	HIT06SS	HIT06S6	3/8"	0.37" (9mm)	0.82" (21mm)	0.33" (8mm)	1.13" (29mm)
HIT08	HIT08SS	HIT08S6	1/2"	0.50" (13mm)	0.94" (24mm)	0.40" (10mm)	1.34" (34mm)
HIT10	HIT10SS	HIT10S6	5/8"	0.62" (16mm)	1.06" (27mm)	0.46" (12mm)	1.54" (39mm)
HIT12	HIT12SS	HIT12S6	3/4"	0.75" (19mm)	1.20" (30mm)	0.52" (13mm)	1.68" (43mm)
HIT14	HIT14SS	HIT14S6	7/8"	0.87" (22mm)	1.31" (33mm)	0.58" (15mm)	1.82" (46mm)
HIT16	HIT16SS	HIT16S6	1"	1.00" (25mm)	1.44" (37mm)	0.65" (17mm)	1.95" (50mm)
HIT18	HIT18SS	HIT18S6	1 1/8"	1.12" (28mm)	1.57" (40mm)	0.70" (18mm)	2.08" (53mm)
HIT20	HIT20SS	HIT20S6	1 1/4"	1.25" (32mm)	1.70" (43mm)	0.77" (20mm)	2.21" (56mm)
HIT32M	HIT32MSS	HIT32MS6	32mm	32mm	1.51" (38mm)	0.76" (19mm)	2.55" (65mm)
HIT22	HIT22SS	HIT22S6	1 3/8"	1.37" (35mm)	1.82" (46mm)	0.83" (21mm)	2.34" (59mm)
HIT24	HIT24SS	HIT24S6	1 1/2"	1.50" (38mm)	1.95" (50mm)	0.90" (23mm)	2.47" (63mm)
HIT26	HIT26SS	HIT26S6	1 5/8"	1.62" (41mm)	2.07" (53mm)	0.96" (24mm)	2.60" (66mm)
HIT28	HIT28SS	HIT28S6	1 3/4"	1.75" (45mm)	2.20" (56mm)	1.02" (26mm)	2.73" (69mm)
HIT30	HIT30SS	HIT30S6	1 7/8"	1.87" (48mm)	2.32" (59mm)	1.09" (28mm)	2.86" (73mm)
HIT32	HIT32SS	HIT32S6	2"	2.00" (51mm)	2.45" (62mm)	1.15" (29mm)	3.04" (77mm)
HIT34	HIT34SS	HIT34S6	2 1/8"	2.12" (54mm)	2.57" (65mm)	1.27" (32mm)	3.23" (82mm)
HIT36	HIT36SS	HIT36S6	2 1/4"	2.25" (57mm)	2.82" (72mm)	1.41" (36mm)	3.67" (93mm)
HIT38	HIT38SS	HIT38S6	2 3/8"	2.37" (60mm)	2.82" (72mm)	1.41" (36mm)	3.67" (93mm)
HIT40	HIT40SS	HIT40S6	2 1/2"	2.50" (64mm)	2.94" (75mm)	1.46" (37mm)	3.79" (96mm)
HIT42	HIT42SS	HIT42S6	2 5/8"	2.62" (66mm)	3.07" (78mm)	1.53" (39mm)	3.92" (100mm)
HIT46	HIT46SS	HIT46S6	2 7/8"	2.87" (73mm)	3.32" (84mm)	1.66" (42mm)	4.17" (106mm)
HIT75M	HIT75MSS	HIT75MS6	75mm	75mm	3.37" (86mm)	1.69" (43mm)	4.68" (119mm)
HIT48	HIT48SS	HIT48S6	3"	3.00" (76mm)	3.57" (91mm)	1.78" (45mm)	4.42" (112mm)
HIT50	HIT50SS	HIT50S6	3 1/8"	3.12" (79mm)	3.57" (91mm)	1.78" (45mm)	4.42" (112mm)
HIT56	HIT56SS	HIT56S6	3 1/2"	3.50" (89mm)	3.95" (100mm)	1.97" (50mm)	4.79" (122mm)
HIT90M	HIT90MSS	HIT90MS6	90mm	90mm	3.86" (98mm)	1.94" (49mm)	5.23" (133mm)
HIT64	HIT64SS	HIT64S6	4"	4.00" (102mm)	4.45" (113mm)	2.28" (58mm)	5.11" (130mm)
HIT66	HIT66SS	HIT66S6	4 1/8"	4.12" (105mm)	4.57" (116mm)	2.34" (59mm)	5.54" (141mm)
HIT110M	HIT110MSS	HIT110MS6	110mm	110mm	4.99" (127mm)	2.81" (71mm)	6.38" (162mm)
HIT72	HIT72SS	HIT72S6	4 1/2"	4.50" (114mm)	4.95" (126mm)	2.53" (64mm)	5.92" (150mm)
HIT125M	HIT125MSS	HIT125MS6	125mm	125mm	5.61" (142mm)	2.81" (71mm)	7.00" (178mm)
HIT96	HIT96SS	HIT96S6	6"	6.00" (152mm)	6.62" (168mm)	3.31" (84mm)	7.63" (194mm)
HIT160M	HIT160MSS	HIT160MS6	160mm	160mm	6.62" (168mm)	3.31" (84mm)	7.63" (194mm)

Cush-A-Nator® High Intensity Temp (HIT) Pipe Part No.			Pipe Size	Dimensions (inches)			
Steel	SS304	SS316		A	B	C	D
HIT14P	HIT14PSS	HIT14PS6	1/2"	0.840" (21mm)	1.29" (33mm)	0.58" (15mm)	1.82" (46mm)
HIT17P	HIT17PSS	HIT17PS6	3/4"	1.050" (27mm)	1.57" (40mm)	0.70" (18mm)	2.08" (53mm)
HIT21P	HIT21PSS	HIT21PS6	1"	1.315" (33mm)	1.76" (45mm)	0.81" (21mm)	2.34" (59mm)
HIT30P	HIT30PSS	HIT30PS6	1 1/2"	1.900" (48mm)	2.32" (59mm)	1.09" (28mm)	2.86" (73mm)
HIT38P	HIT38PSS	HIT38PS6	2"	2.375" (60mm)	2.82" (72mm)	1.41" (36mm)	3.67" (93mm)
HIT46P	HIT46PSS	HIT46PS6	2 1/2"	2.875" (73mm)	3.32" (84mm)	1.66" (42mm)	4.17" (106mm)
HIT56P	HIT56PSS	HIT56PS6	3"	3.500" (89mm)	3.95" (100mm)	1.97" (50mm)	4.79" (122mm)
HIT64P	HIT64PSS	HIT64PS6	3 1/2"	4.000" (102mm)	4.45" (113mm)	2.28" (58mm)	5.11" (130mm)
HIT72P	HIT72PSS	HIT72PS6	4"	4.500" (114mm)	4.95" (126mm)	2.53" (64mm)	5.92" (150mm)

Contact Factory for Additional Sizes



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Cush-A-Clamp®



Gold Electro-Galvanized Steel

Stainless Steel



The "Living Hinge" allows the cushion to be spread apart for quick, easy installation.

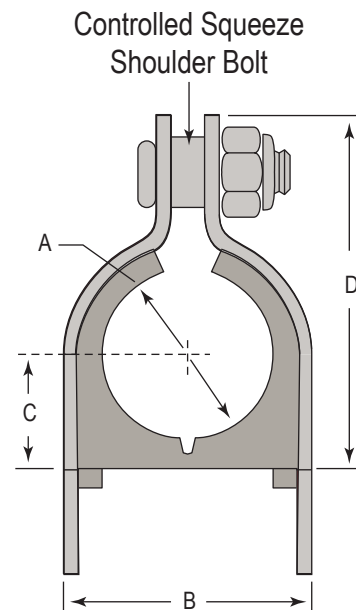
CUSH-A-CLAMP — Channel mounted clamping systems are ideal for multiple line runs, while absorbing shock and vibration, reducing unwanted noise, and preventing galvanic corrosion. Cush-A-Clamp fits any standard 1-5/8" wide channel.

Assembly consisting of steel clamp with locknut and thermoplastic elastomer cushion. All parts are marked for easy identification and packaged for small lot or bulk use. When specified, Cush-A-Clamp assemblies up to 2", are available individually packaged.

THE CLAMP — Features a unique shoulder stud which is securely fastened to one clamp half. Steel clamps for tube sizes up to 1-3/8" have the "Controlled Squeeze™" design which eliminates over-tightening and rotation while a nylon-insert nut assures a positive lock. Clamps are available in steel (with electro-dichromate finish), and stainless steel type 304. (Contact factory for type 316).

THE CUSHION — Made from a thermoplastic elastomer, it's built tough to withstand the effects of most oils, chemicals and industrial cleaning compounds, in temperatures from -50°F to 275°F. Interlock edges and channel locator legs ensure that the cushion remains in place.

INSTALLATION — One man, one tool time savings. Retrofits can be added without disassembly. The "Living Hinge" allows the cushion to be spread apart for quick, easy installation on sizes from 1/4" through 1-3/4".



Loading Values Mounted in Standard 12 Gage Channel					
Nut	Torque (in-lbs)	Products	Pullout (lbs)	Slip (lbs)	
				Along	Through
1/4"	40	004T008 - 022T026	1,000	100	100
5/16"	60	024T028 - 050N056	2,200	200	200
3/8"	150	053N050 - 106N114	3,600	600	350

Loads are the same for Stainless Steel Clamps (Example 024NS028)





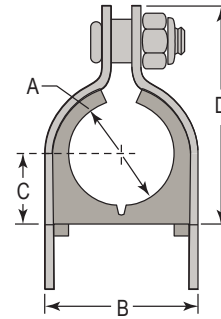
Cush-A-Clamp®



Gold Electro-Galvanized Steel



Stainless Steel



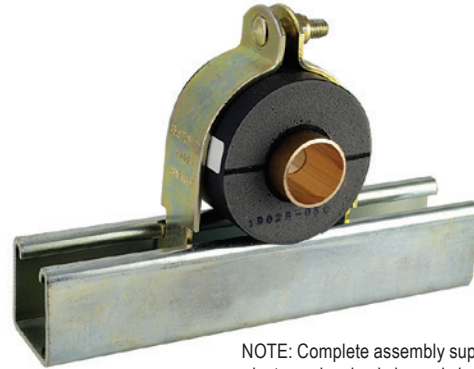
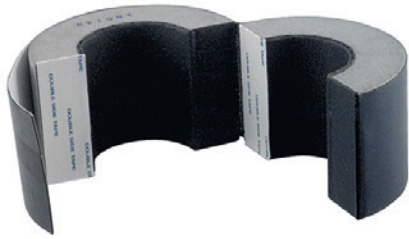
Steel Part No.	Stainless Steel Part No.	Dimension "A"			Dimensions (inches)			
		*Copper and Steel Tubing	Copper Water Pipe (Nom.)	Nom. Pipe Size	A	B	C	D
004T008	004NS008	1/4"	-	-	0.25" (6mm)	0.62" (16mm)	0.27" (7mm)	0.98" (25mm)
006T010	006NS010	3/8"	1/4"	-	0.37" (9mm)	0.82" (21mm)	0.33" (8mm)	1.13" (29mm)
008T012	008NS012	1/2"	3/8"	-	0.50" (13mm)	0.94" (24mm)	0.40" (10mm)	1.34" (34mm)
009N012	009NS012	-	-	1/4"	0.54" (14mm)	0.98" (25mm)	0.43" (11mm)	1.34" (34mm)
010T014	010NS014	5/8"	1/2"	-	0.62" (16mm)	1.06" (27mm)	0.46" (12mm)	1.54" (39mm)
011N014	011NS014	-	-	3/8"	0.67" (17mm)	1.13" (29mm)	0.49" (12mm)	1.54" (39mm)
012T016	012NS016	3/4"	5/8"	-	0.75" (19mm)	1.20" (30mm)	0.52" (13mm)	1.68" (43mm)
014N018	014NS018	-	-	1/2"	0.84" (21mm)	1.29" (33mm)	0.58" (15mm)	1.82" (46mm)
014T018	014NS018	7/8"	3/4"	-	0.87" (22mm)	1.31" (33mm)	0.58" (15mm)	1.82" (46mm)
016T020	016NS020	1"	-	-	1.00" (25mm)	1.44" (37mm)	0.65" (17mm)	1.95" (50mm)
017N022	017NS022	-	-	3/4"	1.05" (27mm)	1.57" (40mm)	0.70" (18mm)	2.08" (53mm)
018T022	018NS022	1-1/8"	1"	-	1.12" (28mm)	1.57" (40mm)	0.70" (18mm)	2.08" (53mm)
020T024	020NS024	1-1/4"	-	-	1.25" (32mm)	1.70" (43mm)	0.77" (20mm)	2.21" (56mm)
021N026	021NS026	-	-	1"	1.31" (33mm)	1.76" (45mm)	0.81" (21mm)	2.34" (59mm)
022T026	022NS026	1-3/8"	1-1/4"	-	1.37" (35mm)	1.82" (46mm)	0.83" (21mm)	2.34" (59mm)
024N028	024NS028	1-1/2"	-	-	1.50" (38mm)	1.95" (50mm)	0.90" (23mm)	2.47" (63mm)
026N030	026NS030	1-5/8"	1-1/2"	-	1.62" (41mm)	2.07" (53mm)	0.96" (24mm)	2.60" (66mm)
027N032	027NS032	-	-	1-1/4"	1.66" (42mm)	2.17" (55mm)	0.99" (25mm)	2.73" (69mm)
028N032	028NS032	1-3/4"	-	-	1.75" (44mm)	2.2" (56mm)	1.02" (26mm)	2.73" (69mm)
030N034	030NS034	1-7/8"	-	1-1/2"	1.90" (48mm)	2.32" (59mm)	1.09" (28mm)	2.86" (73mm)
032N036	032NS036	2"	-	-	2.00" (51mm)	2.45" (62mm)	1.15" (29mm)	3.04" (77mm)
034N040	034NS040	2-1/8"	2"	-	2.12" (54mm)	2.57" (65mm)	1.27" (32mm)	3.23" (82mm)
038N042	038NS042	2-1/4"	-	-	2.37" (60mm)	2.82" (72mm)	1.41" (36mm)	3.67" (93mm)
038N044	038NS044	2-3/8"	-	2"	2.37" (60mm)	2.82" (72mm)	1.41" (36mm)	3.67" (93mm)
040N046	040NS046	2-1/2"	-	-	2.50" (64mm)	2.94" (75mm)	1.46" (37mm)	3.79" (96mm)
042N048	042NS048	2-5/8"	2-1/2"	-	2.62" (67mm)	3.07" (78mm)	1.53" (39mm)	3.92" (100mm)
046N052	046NS052	2-7/8"	-	2-1/2"	2.87" (73mm)	3.32" (84mm)	1.66" (42mm)	4.17" (106mm)
050N054	050NS054	3"	-	-	3.00" (76mm)	3.57" (91mm)	1.78" (45mm)	4.42" (112mm)
050N056	050NS056	3-1/8"	3"	-	3.12" (79mm)	3.57" (91mm)	1.78" (45mm)	4.42" (112mm)
053N060	053NS060	3-5/16"	-	-	3.31" (84mm)	3.96" (101mm)	1.90" (48mm)	4.75" (121mm)
056N062	056NS062	3-1/2"	-	3"	3.50" (89mm)	3.95" (100mm)	1.97" (50mm)	4.79" (122mm)
058N064	058NS064	3-5/8"	3-1/2"	-	3.62" (92mm)	4.20" (107mm)	2.03" (52mm)	5.11" (130mm)
064N072	064NS072	4"	-	3-1/2"	4.00" (102mm)	4.45" (113mm)	2.28" (58mm)	5.11" (130mm)
066N074	066NS074	4-1/8"	4"	-	4.12" (105mm)	4.57" (116mm)	2.34" (59mm)	5.54" (141mm)
069N076	069NS076	4-5/16"	-	-	4.34" (110mm)	4.96" (126mm)	2.40" (61mm)	5.84" (148mm)
072N080	072NS080	4-1/2"	-	4"	4.50" (114mm)	4.95" (126mm)	2.53" (64mm)	5.92" (150mm)
082N090	082NS090	5-1/8"	5"	-	5.12" (130mm)	5.57" (141mm)	2.84" (72mm)	6.54" (166mm)
089N096	089NS096	-	-	5"	5.56" (141mm)	6.01" (153mm)	3.06" (78mm)	6.92" (176mm)
096N106	096NS106	6"	-	-	6.00" (152mm)	6.57" (167mm)	3.34" (85mm)	7.54" (192mm)
098N106	098NS106	6-1/8"	6"	-	6.12" (155mm)	6.57" (167mm)	3.34" (85mm)	7.54" (192mm)
106N114	106NS114	-	-	6"	6.62" (168mm)	7.07" (180mm)	3.59" (91mm)	8.23" (209mm)

*Tube O.D. is Cushion I.D. Design load deflection data available on request.



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Airtight Crush-Resistant Insulation Clamp



NOTE: Complete assembly supplied with gold electro-galvanized channel clamp and hardware

Cush-A-Therm Clamp is a perfect crush-resistant airtight seal for chilled refrigeration or mechanical pipe lines that require continuous insulation.

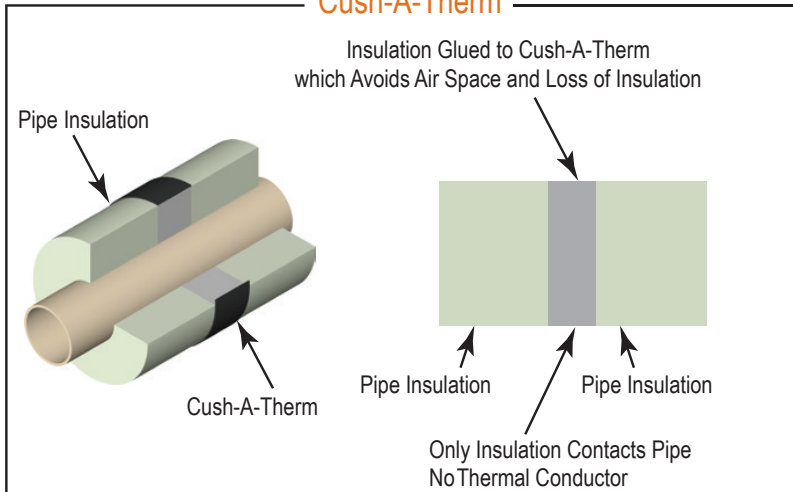
The rigid foam construction has an insulating tape inner lining which supports tube and absorbs vibration of operating pipe lines.

The outer cover consists of a special rubber coating which seals the cushion after installation in order to prevent condensation.

It's strong closed-cell structure is ideal for liquid cooling lines to prevent condensation, save energy, and maintain the vapor barrier.

- Temperature range: -70°F to +250°F (-56.7°C to +121°C)
- Flammability is Self-Extinguishing as tested under ASTM D 635
- Maintains thermal barrier protection
- Tested in Conformance with ASTM E84 (UL 723, NFPA 255) having results of 0 FSI (Flame Spread Index) and 50 SDI (Smoke Developed Index)
- Prevents condensation
- Properly supports pipe and tube
- Absorbs vibration
- Polyurethane foam laminated with a rubber lining

Cush-A-Therm



ASHRAE Insulation Recommendations

Cush-A-Therm is designed to meet the ASHRAE recommendations for insulation for mechanical systems which indicate that insulated pipe hangers should provide the following:

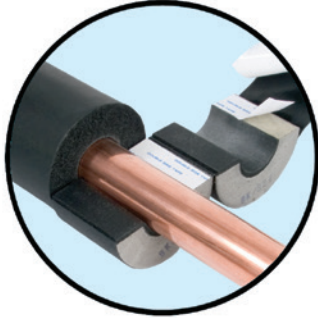
1. Complete sealing of pipe against water vapor ingress
2. No energy transfer of cold to supporting clamp to prevent condensation of water and possible growth of mold. If the support encasing the insulation is in contact with the pipe or tube and supported by a metallic clamp, which is not protected by insulation, below ambient temperatures will be transferred to the clamp causing energy transfer and condensation.
3. No interruption of the insulation envelope
4. Limit or avoid compression at support location

ASHRAE Section 23.13-23.14 further states "when the goal is avoiding compression of low-compressive-strength insulation products, it is recommended to use high-strength insulation inserts made of a product that offers the desired compressive strength and other necessary performance properties. Other higher-strength materials that are not thermal insulation material and interrupt the insulation envelope, or do not allow complete sealing of an insulation system against water vapor ingress are not recommended for supporting insulated piping on pipe hangers. Note that wood blocks have poor thermal conductivity and are not recommended, especially for cold pipe systems."

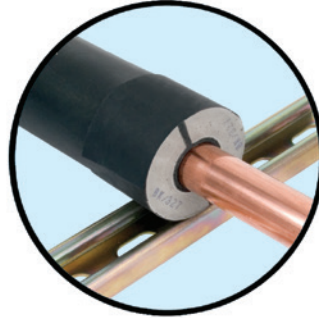
Insulated cold piping should receive special attention when exposed to ambient or unconditioned air. The Cush-A-Therm is a product that seals out air, and insulates the pipe/tube from the supporting clamp, and is therefore in compliance with the 2013 ASHRAE insulation recommendations.



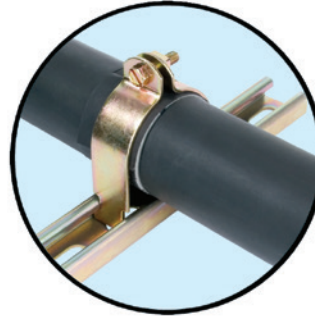
INSTALLATION IS AS EASY AS 1-2-3!



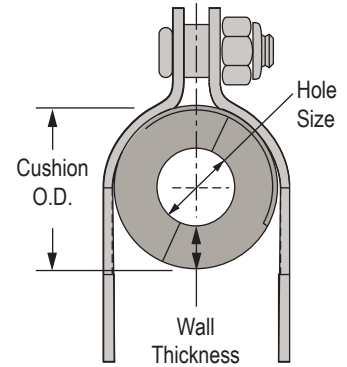
1. Insulation slides over pipes.
Self adhesive surfaces provide seal.



2 Put in place and glue to insulation.



3. Wrap and seal with ProTape.



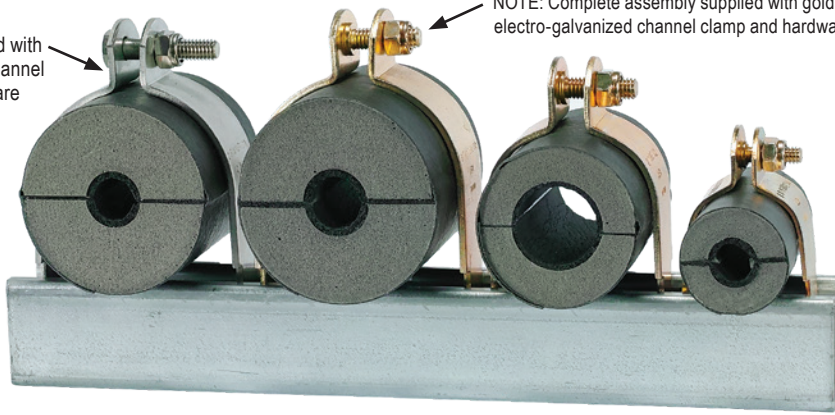
Dimensions (Inches)					Nominal 1/2" (13mm) Wall Thickness				Nominal 3/4" (19mm) Wall Thickness			
Hole Size	Copper I.D.	Pipe O.D.	IPS	Len.	Part No.			Cushion O.D.	Part No.			Cushion O.D.
					Steel	SS 304	SS 316		Steel	SS 304	SS 316	
1/4" (6mm)	-	1/4"	-	2.953" (75mm)	UX1412	UX1412SS	UX1412S6	1 1/4" (1.250") (32mm)	UX1434	UX1434SS	UX1434S6	1 3/4" (1.750") (45mm)
3/8" (10mm)	1/4"	3/8"	-		UX3812	UX3812SS	UX3812S6	1 3/8" (1.375") (35mm)	UX3834	UX3834SS	UX3834S6	1 7/8" (1.875") (48mm)
1/2" (13mm)	3/8"	1/2"	1/4"		UX1212	UX1212SS	UX1212S6	1 1/2" (1.500") (38mm)	UX1234	UX1234SS	UX1234S6	2" (2.000") (51mm)
5/8" (16mm)	1/2"	5/8"	3/8"	2.953" (75mm)	UX5812	UX5812SS	UX5812S6	1 5/8" (1.625") (41mm)	UX5834	UX5834SS	UX5834S6	2 1/8" (2.125") (54mm)
3/4" (19mm)	5/8"	3/4"	-		UX3412	UX3412SS	UX3412S6	1 3/4" (1.750") (45mm)	UX3434	UX3434SS	UX3434S6	2 1/4" (2.250") (57mm)
7/8" (22mm)	3/4"	7/8"	1/2"		UX7812	UX7812SS	UX7812S6	1 7/8" (1.875") (48mm)	UX7834	UX7834SS	UX7834S6	2 3/8" (2.375") (60mm)
1-1/8" (29mm)	1"	1 1/8"	3/4"	2.953" (75mm)	UX11812	UX11812SS	UX11812S6	2 1/8" (2.125") (54mm)	UX11834	UX11834SS	UX11834S6	2 5/8" (2.625") (67mm)
1-3/8" (35mm)	1 1/4"	1 3/8"	1"		UX13812	UX13812SS	UX13812S6	2 3/8" (2.375") (60mm)	UX13834	UX13834SS	UX13834S6	2 7/8" (2.875") (73mm)
1-5/8" (41mm)	1 1/2"	1 5/8"	1 1/4"		UX15812	UX15812SS	UX15812S6	2 5/8" (2.625") (67mm)	UX15834	UX15834SS	UX15834S6	3 1/8" (3.125") (79mm)
1-7/8" (48mm)	-	1 7/8"	-	2.953" (75mm)	UX17812	UX17812SS	UX17812S6	2 7/8" (2.875") (73mm)	UX17834	UX17834SS	UX17834S6	3 3/8" (3.375") (86mm)
2-1/8" (54mm)	2"	2 1/8"	-		UX21812	UX21812SS	UX21812S6	3 1/8" (3.125") (79mm)	UX21834	UX21834SS	UX21834S6	3 5/8" (3.625") (92mm)
2-3/8" (60mm)	2 1/4"	2 3/8"	2"		UX23812	UX23812SS	UX23812S6	3 3/8" (3.375") (86mm)	UX23834	UX23834SS	UX23834S6	3 7/8" (3.875") (98mm)
2-5/8" (67mm)	2 1/2"	2 5/8"	-	3.937" (100mm)	UX25812	UX25812SS	UX25812S6	3 5/8" (3.625") (92mm)	UX25834	UX25834SS	UX25834S6	4 1/8" (4.125") (105mm)
2-7/8" (73mm)	-	2 7/8"	2 1/2"		UX27812	UX27812SS	UX27812S6	3 7/8" (3.875") (98mm)	UX27834	UX27834SS	UX27834S6	4 3/8" (4.375") (111mm)
3-1/8" (79mm)	3"	3 1/8"	-		UX31812	UX31812SS	UX31812S6	4 1/8" (4.125") (105mm)	UX31834	UX31834SS	UX31834S6	4 5/8" (4.625") (118mm)
3-1/2" (89mm)	-	3 1/2"	3"	3.937" (100mm)	UX31212	UX31212SS	UX31212S6	4 1/2" (4.500") (114mm)	UX31234	UX31234SS	UX31234S6	5" (5.000") (127mm)
3-5/8" (92mm)	3 1/2"	3 5/8"	-		UX35812	UX35812SS	UX35812S6	4 5/8" (4.625") (118mm)	UX35834	UX35834SS	UX35834S6	5 1/8" (5.125") (130mm)
4-1/8" (105mm)	4"	4-1/8"	3 1/2"		UX41812	UX41812SS	UX41812S6	5 1/8" (5.125") (130mm)	UX41834	UX41834SS	UX41834S6	5 5/8" (5.625") (143mm)



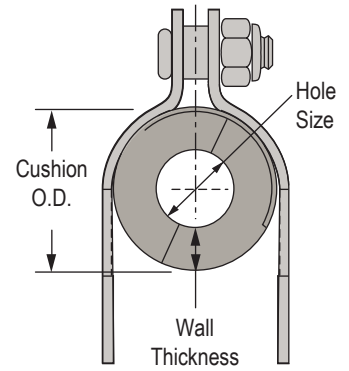
Cush-A-Therm®



NOTE: Complete assembly supplied with Stainless Steel channel clamp and hardware



NOTE: Complete assembly supplied with gold electro-galvanized channel clamp and hardware



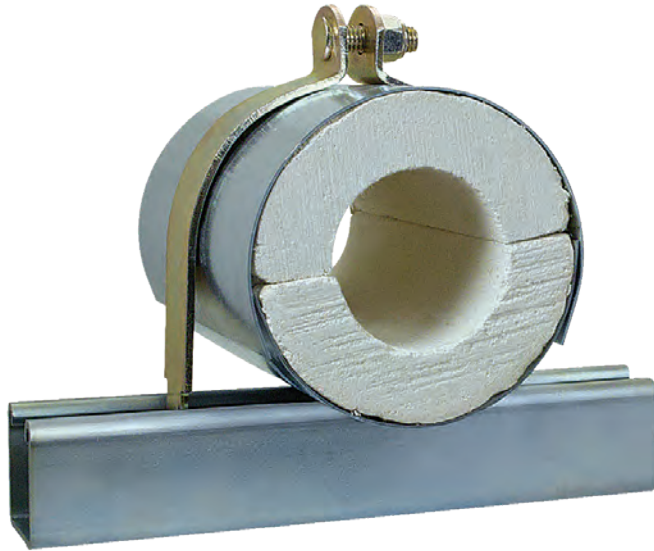
Hole Size	Nominal 1" (25mm) Wall Thickness				Nominal 1-1/2" (38mm) Wall Thickness				Nominal 2" (51mm) Wall Thickness			
	Part No.			Cushion O.D.	Part No.			Cushion O.D.	Part No.			Cushion O.D.
Steel	SS 304	SS 316	Steel		SS 304	SS 316	Steel		SS 304	SS 316		
1/4" (6mm)	UX1410	UX1410SS	UX1410S6	2 1/4" (2.250") (57mm)	UX1415	UX1415SS	UX1415S6	3 1/4" (3.250") (83mm)	-	-	-	-
3/8" (10mm)	UX3810	UX3810SS	UX3810S6	2 3/8" (2.375") (60mm)	UX3815	UX3815SS	UX3815S6	3 3/8" (3.375") (86mm)	-	-	-	-
1/2" (13mm)	UX1210	UX1210SS	UX1210S6	2 1/2" (2.500") (64mm)	UX1215	UX1215SS	UX1215S6	3 1/2" (3.500") (89mm)	-	-	-	-
5/8" (16mm)	UX5810	UX5810SS	UX5810S6	2 5/8" (2.625") (67mm)	UX5815	UX5815SS	UX5815S6	3 5/8" (3.625") (92mm)	UX5820	UX5820SS	UX5820S6	4 5/8" (4.625") (118mm)
3/4" (19mm)	UX3410	UX3410SS	UX3410S6	2 3/4" (2.750") (70mm)	UX3415	UX3415SS	UX3415S6	3 3/4" (3.750") (95mm)	UX3420	UX3420SS	UX3420S6	4 3/4" (4.750") (121mm)
7/8" (22mm)	UX7810	UX7810SS	UX7810S6	2 7/8" (2.875") (73mm)	UX7815	UX7815SS	UX7815S6	3 7/8" (3.875") (98mm)	UX7820	UX7820SS	UX7820S6	4 7/8" (4.875") (124mm)
1-1/8" (29mm)	UX11810	UX11810SS	UX11810S6	3 1/8" (3.125") (79mm)	UX11815	UX11815SS	UX11815S6	4 1/8" (4.125") (105mm)	UX11820	UX11820SS	UX11820S6	5 1/8" (5.125") (130mm)
1-3/8" (35mm)	UX13810	UX13810SS	UX13810S6	3 3/8" (3.375") (86mm)	UX13815	UX13815SS	UX13815S6	4 3/8" (4.375") (111mm)	UX13820	UX13820SS	UX13820S6	5 3/8" (5.375") (137mm)
1-5/8" (41mm)	UX15810	UX15810SS	UX15810S6	3 5/8" (3.625") (92mm)	UX15815	UX15815SS	UX15815S6	4 5/8" (4.625") (118mm)	UX15820	UX15820SS	UX15820S6	5 5/8" (5.625") (143mm)
1-7/8" (48mm)	UX17810	UX17810SS	UX17810S6	3 7/8" (3.875") (98mm)	UX17815	UX17815SS	UX17815S6	4 7/8" (4.875") (124mm)	UX17820	UX17820SS	UX17820S6	5 7/8" (5.875") (149mm)
2-1/8" (54mm)	UX21810	UX21810SS	UX21810S6	4 1/8" (4.125") (105mm)	UX21815	UX21815SS	UX21815S6	5 1/8" (5.125") (130mm)	UX21820	UX21820SS	UX21820S6	6 1/8" (6.125") (156mm)
2-3/8" (60mm)	UX23810	UX23810SS	UX23810S6	4 3/8" (4.375") (111mm)	UX23815	UX23815SS	UX23815S6	5 3/8" (5.375") (137mm)	UX23820	UX23820SS	UX23820S6	6 3/8" (6.375") (162mm)
2-5/8" (67mm)	UX25810	UX25810SS	UX25810S6	4 5/8" (4.625") (118mm)	UX25815	UX25815SS	UX25815S6	5 5/8" (5.625") (143mm)	UX25820	UX25820SS	UX25820S6	6 5/8" (6.625") (168mm)
2-7/8" (73mm)	UX27810	UX27810SS	UX27810S6	4 7/8" (4.875") (124mm)	UX27815	UX27815SS	UX27815S6	5 7/8" (5.875") (149mm)	UX27820	UX27820SS	UX27820S6	6 7/8" (6.875") (175mm)
3-1/8" (79mm)	UX31810	UX31810SS	UX31810S6	5 1/8" (5.125") (130mm)	UX31815	UX31815SS	UX31815S6	6 1/8" (6.125") (156mm)	UX31820	UX31820SS	UX31820S6	7 1/8" (7.125") (181mm)
3-1/2" (89mm)	UX31210	UX31210SS	UX31210S6	5 1/2" (5.500") (140mm)	UX31215	UX31215SS	UX31215S6	6 1/2" (6.500") (165mm)	UX31220	UX31220SS	UX31220S6	7 1/2" (7.500") (191mm)
3-5/8" (92mm)	UX35810	UX35810SS	UX35810S6	5 5/8" (5.625") (143mm)	UX35815	UX35815SS	UX35815S6	6 5/8" (6.625") (168mm)	UX35820	UX35820SS	UX35820S6	7 5/8" (7.625") (197mm)
4-1/8" (105mm)	UX41810	UX41810SS	UX41810S6	6 1/8" (6.125") (156mm)	UX41815	UX41815SS	UX41815S6	7 1/8" (7.125") (181mm)	UX41820	UX41820SS	UX41820S6	8 1/8" (8.125") (206mm)



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

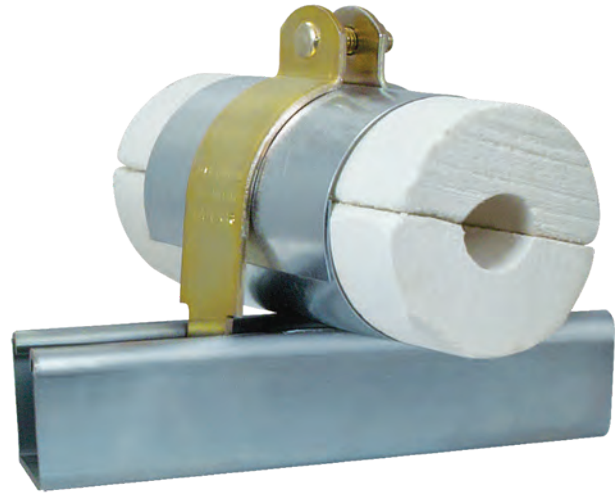
Introduction
Channel
Channel Nuts & Hardware
General Fittings
Pipe & Conduit Supports
Electrical Fittings
Spring Steel
Loop & Ring Clamps
Beta Clamps & Z-Clamps
Concrete Inserts
Rooftop Supports
Gamma Pads
Technical Data

Cal-Clamp Crush Resistant Insulation



MODEL "HWP" & "HWT" - For Hot or Cold applications

- Works equally well on both hot and cold lines.
- Includes the strut clamps required for installation with strut.
- Special order insulation lengths, double sheet metal wrap, load bearing plates, and alternate sheet metal gauges are available upon request.



MODEL "CWP" & "CWT" - For applications requiring a wet lag insulation

- Insulations extends 1" beyond sheet metal.
- The minimum length for our "CWP" insert is 6" .
- Includes the strut clamps required for installation with strut.
- Special order insulation lengths, double sheet metal wrap, load bearing plates, and alternate sheet metal gauges are available upon request.

Maximum Allowable Load (lbs)	
Pipe Size	HW/CWP
1/2"	51
3/4"	62
1"	72
1-1/4"	92
1-1/2"	123
2"	164
2-1/2"	225
3"	276
4"	388
5"	500
6"	612
8"	827
10"	1102
12"	1326

Insulation Length Specification (in.)						
I.P.S. NOMINAL	Insulation Thickness					
	1" (25mm)	1 1/2" (38mm)	2" (51mm)	2 1/2" (64mm)	3" (76mm)	4" (102mm)
1/2" to 1 1/2"	4" (102mm)			6" (152mm)		
2"	6" (152mm)					
2-1/2" to 6"	6" (152mm)			9" (229mm)		
8" to 10"	9" (229mm)					
12" to 18"	12" (305mm)					

*CWP Model Inserts have a minimum length of 6" (152mm)

**Larger Sizes Available Upon Request

Material:

- Asbestos Free Calcium Silicate (Cellular Glass and Polyurethane also available upon request), treated for water resistance, encased in a 360 degree A-653 Galvanized Sheet Metal jacket (304SS and 316SS available upon request).
- Minimum 140 psi (9.65 bar) compressive strength. Working Temperature is 42°F to 1200°F. (5.6°C to 649°C) Lower temps upon request.

Sheet Metal Gauge ¹						
I.P.S. NOMINAL	Insulation Thickness					
	1" (25mm)	1 1/2" (38mm)	2" (51mm)	2 1/2" (64mm)	3" (76mm)	4" (102mm)
1/2" to 1-1/2"	24 ga.			20 ga.		
2" to 5"	20 ga.					
6"	20 ga.			16 ga.		
8" to 24"	16 ga.					

¹A double thickness of sheet metal is recommended on the lower half when used with rollers or when hanger span exceeds ten feet.



Cal-Clamp Insulation



Hot or Cold Applications - Model HWP & HWT

Model "HWP" Pipe Sizes

For Hot or Cold applications. (Strut Clamp included)

Model HWP, Pipe Sizes, Insulation and Strut Clamps													
IPS	Pipe OD	1/2" (13mm)		1" (25mm)		1 1/2" (38mm)		2" (51mm)		2 1/2" (64mm)		3" (76mm)	
		Part No.	Insul. O.D.	Part No.	Insul. O.D.	Part No.	Insul. O.D.	Part No.	Insul. O.D.	Part No.	Insul. O.D.	Part No.	Insul. O.D.
3/4"	1.05" (27mm)	HWP3412	2.16" (55mm)	HWP3410	2.82" (72mm)	HWP3415	3.95" (100mm)	HWP3420	4.95" (126mm)	HWP3425	5.95" (151mm)	HWP3430	6.95" (177mm)
1"	1.315" (33mm)	HWP112	2.41" (61mm)	HWP110	3.45" (88mm)	HWP115	4.45" (113mm)	HWP120	5.51" (140mm)	HWP125	6.51" (165mm)	HWP130	7.51" (191mm)
1 1/4"	1.66" (42mm)	HWP11412	2.72" (69mm)	HWP11410	3.45" (88mm)	HWP11415	4.95" (126mm)	HWP11420	5.51" (140mm)	HWP11425	6.51" (165mm)	HWP11430	7.51" (191mm)
1 1/2"	1.99" (51mm)	HWP11212	2.99" (76mm)	HWP11210	3.95" (100mm)	HWP11215	4.95" (126mm)	HWP11220	6.57" (167mm)	HWP11225	7.57" (192mm)	HWP11230	8.57" (218mm)
2"	2.375" (60mm)	HWP212	3.42" (87mm)	HWP210	4.45" (113mm)	HWP215	5.51" (140mm)	HWP220	6.57" (167mm)	HWP225	7.57" (192mm)	HWP230	8.57" (218mm)
2 1/2"	2.875" (73mm)	HWP21212	3.93" (100mm)	HWP21210	4.95" (126mm)	HWP21215	6.57" (167mm)	HWP21220	7.57" (192mm)	HWP21225	8.57" (218mm)	HWP21230	9.57" (243mm)
3"	3.5" (89mm)	HWP312	4.56" (116mm)	HWP310	5.51" (140mm)	HWP315	6.57" (167mm)	HWP320	7.57" (192mm)	HWP325	8.57" (218mm)	HWP330	9.57" (243mm)
3 1/2"	4" (102mm)	HWP31212	5.07" (129mm)	HWP31210	6.57" (167mm)	HWP31215	7.57" (192mm)	HWP31220	8.57" (218mm)	HWP31225	9.57" (243mm)	HWP31230	10.7" (272mm)
4"	4.5" (114mm)	HWP412	5.57" (141mm)	HWP410	6.57" (167mm)	HWP415	7.57" (192mm)	HWP420	8.57" (218mm)	HWP425	9.57" (243mm)	HWP430	10.7" (272mm)
5"	5.563" (141mm)	HWP512	6.64" (169mm)	HWP510	7.57" (192mm)	HWP515	8.57" (218mm)	HWP520	9.57" (243mm)	HWP525	10.7" (272mm)	HWP530	11.7" (297mm)
6"	6.625" (168mm)	HWP612	7.71" (196mm)	HWP610	8.57" (218mm)	HWP615	9.57" (243mm)	HWP620	10.7" (272mm)	HWP625	11.7" (297mm)	HWP630	12.7" (323mm)
8"	8.625" (219mm)	HWP812	9.74" (247mm)	HWP810	10.7" (272mm)	HWP815	11.7" (297mm)	HWP820	12.7" (323mm)	HWP825	13.95" (354mm)	HWP830	14.95" (380mm)
10"	10.75" (273mm)	HWP1012	11.87" (301mm)	HWP1010	12.7" (323mm)	HWP1015	13.95" (354mm)	HWP1020	14.95" (380mm)	HWP1025	15.95" (405mm)	HWP1030	16.95" (431mm)
12"	12.75" (324mm)	HWP1212	13.88" (353mm)	HWP1210	14.95" (380mm)	HWP1215	15.95" (405mm)	HWP1220	16.95" (431mm)	HWP1225	17.95" (456mm)	HWP1230	18.95" (481mm)

Model "HWT" Tube Sizes

For Hot or Cold applications. (Strut Clamp included)

Model HWT, Copper Tube Sizes, Insulation and Strut Clamps													
Copper Tube	Tube OD	1/2" (13mm)		1" (25mm)		1 1/2" (38mm)		2" (51mm)		2 1/2" (64mm)		3" (76mm)	
		Part No.	Insul. O.D.	Part No.	Insul. O.D.	Part No.	Insul. O.D.	Part No.	Insul. O.D.	Part No.	Insul. O.D.	Part No.	Insul. O.D.
1/2"	5/8"	HWT5812	1.66" (42mm)	HWT5810	2.82" (72mm)	HWT5815	3.45" (88mm)	-	-	-	-	-	-
3/4"	7/8"	HWT7812	1.92" (49mm)	HWT7810	2.82" (72mm)	HWT7815	3.95" (100mm)	HWT7820	4.95" (126mm)	-	-	-	-
1"	1-1/8"	HWT11812	2.16" (55mm)	HWT11810	2.82" (72mm)	HWT11815	3.95" (100mm)	HWT11820	4.95" (126mm)	-	-	-	-
1 1/4"	1-3/8"	HWT13812	2.41" (61mm)	HWT13810	3.45" (88mm)	HWT13815	4.45" (113mm)	HWT13820	5.51" (140mm)	-	-	-	-
1 1/2"	1-5/8"	HWT15812	2.72" (69mm)	HWT15810	3.45" (88mm)	HWT15815	4.95" (126mm)	HWT15820	5.51" (140mm)	-	-	-	-
2"	2-1/8"	HWT21812	3.16" (80mm)	HWT21810	3.95" (100mm)	HWT21815	4.95" (126mm)	HWT21820	6.57" (167mm)	HWT21825	7.57" (192mm)	HWT21830	8.57" (218mm)
2 1/2"	2-5/8"	HWT25812	3.66" (93mm)	HWT25810	4.45" (113mm)	HWT25815	5.51" (140mm)	HWT25820	6.57" (167mm)	HWT25825	7.57" (192mm)	HWT25830	8.57" (218mm)
3"	3-1/8"	HWT31812	4.16" (106mm)	HWT31810	4.95" (126mm)	HWT31815	6.57" (167mm)	HWT31820	7.57" (192mm)	HWT31825	8.57" (218mm)	HWT31830	9.57" (243mm)
4"	4-1/8"	HWT41812	5.16" (131mm)	HWT41810	6.57" (167mm)	HWT41815	7.57" (192mm)	HWT41820	8.57" (218mm)	HWT41825	9.57" (243mm)	HWT41830	10.7" (272mm)
5"	5-1/8"	HWT51812	6.16" (156mm)	HWT51810	7.57" (192mm)	HWT51815	8.57" (218mm)	HWT51820	9.57" (243mm)	HWT51825	10.7" (272mm)	HWT51830	11.7" (297mm)
6"	6-1/8"	HWT61812	7.16" (182mm)	HWT61810	8.57" (218mm)	HWT61815	9.57" (243mm)	HWT61820	10.7" (272mm)	HWT61825	11.7" (297mm)	HWT61830	12.7" (323mm)



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Introduction

Channel

Channel Nuts & Hardware

General Fittings

Pipe & Conduit Supports

Electrical Fittings

Spring Steel

Loop & Ring Clamps

Beta Clamps & Z-Clamps

Concrete Inserts

Rooftop Supports

Gamma Pads

Technical Data



Cal-Clamp Insulation

Wet Lag Applications - Model CWP & CWT

Model "CWP" Pipe Sizes

For applications requiring a wet lag insulation. Insulations extends 1" beyond metal. (Strut Clamp included)

Model CWP, Pipe Sizes, Insulation and Strut Clamps													
IPS	Pipe OD	1/2" (13mm)		1" (25mm)		1 1/2" (38mm)		2" (51mm)		2 1/2" (64mm)		3" (76mm)	
		Part No.	Insul. O.D.	Part No.	Insul. O.D.	Part No.	Insul. O.D.	Part No.	Insul. O.D.	Part No.	Insul. O.D.	Part No.	Insul. O.D.
3/4"	1.05" (27mm)	CWP3412	2.16" (55mm)	CWP3410	2.82" (72mm)	CWP3415	3.95" (100mm)	CWP3420	4.95" (126mm)	-	-	-	-
1"	1.315" (33mm)	CWP112	2.41" (61mm)	CWP110	3.45" (88mm)	CWP115	4.45" (113mm)	CWP120	5.51" (140mm)	-	-	-	-
1 1/4"	1.66" (42mm)	CWP11412	2.72" (69mm)	CWP11410	3.45" (88mm)	CWP11415	4.95" (126mm)	CWP11420	5.51" (140mm)	-	-	-	-
1 1/2"	1.99" (51mm)	CWP11212	2.99" (76mm)	CWP11210	3.95" (100mm)	CWP11215	4.95" (126mm)	CWP11220	6.57" (167mm)	CWP11225	7.57" (192mm)	CWP11230	8.57" (218mm)
2"	2.375" (60mm)	CWP212	3.42" (87mm)	CWP210	4.45" (113mm)	CWP215	5.51" (140mm)	CWP220	6.57" (167mm)	CWP225	7.57" (192mm)	CWP230	8.57" (218mm)
2 1/2"	2.875" (73mm)	CWP21212	3.93" (100mm)	CWP21210	4.95" (126mm)	CWP21215	6.57" (167mm)	CWP21220	7.57" (192mm)	CWP21225	8.57" (218mm)	CWP21230	9.57" (243mm)
3"	3.5" (89mm)	CWP312	4.56" (116mm)	CWP310	5.51" (140mm)	CWP315	6.57" (167mm)	CWP320	7.57" (192mm)	CWP325	8.57" (218mm)	CWP330	9.57" (243mm)
3 1/2"	4" (102mm)	CWP31212	5.07" (129mm)	CWP31210	6.57" (167mm)	CWP31215	7.57" (192mm)	CWP31220	8.57" (218mm)	CWP31225	9.57" (243mm)	CWP31230	10.7" (272mm)
4"	4.5" (114mm)	CWP412	5.57" (141mm)	CWP410	6.57" (167mm)	CWP415	7.57" (192mm)	CWP420	8.57" (218mm)	CWP425	9.57" (243mm)	CWP430	10.7" (272mm)
5"	5.563" (141mm)	CWP512	6.64" (169mm)	CWP510	7.57" (192mm)	CWP515	8.57" (218mm)	CWP520	9.57" (243mm)	CWP525	10.7" (272mm)	CWP530	11.7" (297mm)
6"	6.625" (168mm)	CWP612	7.71" (196mm)	CWP610	8.57" (218mm)	CWP615	9.57" (243mm)	CWP620	10.7" (272mm)	CWP625	11.7" (297mm)	CWP630	12.7" (323mm)
8"	8.625" (219mm)	CWP812	9.74" (247mm)	CWP810	10.7" (272mm)	CWP815	11.7" (297mm)	CWP820	12.7" (323mm)	CWP825	13.95" (354mm)	CWP830	14.95" (380mm)
10"	10.75" (273mm)	CWP1012	11.87" (301mm)	CWP1010	12.7" (323mm)	CWP1015	13.95" (354mm)	CWP1020	14.95" (380mm)	CWP1025	15.95" (405mm)	CWP1030	16.95" (431mm)
12"	12.75" (324mm)	CWP1212	13.88" (353mm)	CWP1210	14.95" (380mm)	CWP1215	15.95" (405mm)	CWP1220	16.95" (431mm)	CWP1225	17.95" (456mm)	CWP1230	18.95" (481mm)

Model "CWT" Tube Sizes

For applications requiring a wet lag insulation. Insulations extends 1" beyond metal. (Strut Clamp included)

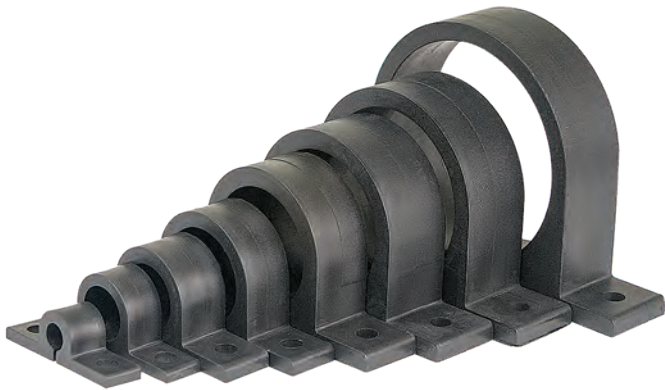
Model CWT, Copper Tube Sizes, Insulation and Strut Clamps													
Copper Tube	Tube OD	1/2" (13mm)		1" (25mm)		1 1/2" (38mm)		2" (51mm)		2 1/2" (64mm)		3" (76mm)	
		Part No.	Insul. O.D.	Part No.	Insul. O.D.	Part No.	Insul. O.D.	Part No.	Insul. O.D.	Part No.	Insul. O.D.	Part No.	Insul. O.D.
1/2"	5/8"	CWT5812	1.66" (42mm)	CWT5810	2.82" (72mm)	CWT5815	3.45" (88mm)	-	-	-	-	-	-
3/4"	7/8"	CWT7812	1.92" (49mm)	CWT7810	2.82" (72mm)	CWT7815	3.95" (100mm)	CWT7820	4.95" (126mm)	-	-	-	-
1"	1 1/8"	CWT11812	2.16" (55mm)	CWT11810	2.82" (72mm)	CWT11815	3.95" (100mm)	CWT11820	4.95" (126mm)	-	-	-	-
1 1/4"	1 3/8"	CWT13812	2.41" (61mm)	CWT13810	3.45" (88mm)	CWT13815	4.45" (113mm)	CWT13820	5.51" (140mm)	-	-	-	-
1 1/2"	1 5/8"	CWT15812	2.72" (69mm)	CWT15810	3.45" (88mm)	CWT15815	4.95" (126mm)	CWT15820	5.51" (140mm)	-	-	-	-
2"	2 1/8"	CWT21812	3.16" (80mm)	CWT21810	3.95" (100mm)	CWT21815	4.95" (126mm)	CWT21820	6.57" (167mm)	CWT21825	7.57" (192mm)	CWT21830	8.57" (218mm)
2 1/2"	2 5/8"	CWT25812	3.66" (93mm)	CWT25810	4.45" (113mm)	CWT25815	5.51" (140mm)	CWT25820	6.57" (167mm)	CWT25825	7.57" (192mm)	CWT25830	8.57" (218mm)
3"	3 1/8"	CWT31812	4.16" (106mm)	CWT31810	4.95" (126mm)	CWT31815	6.57" (167mm)	CWT31820	7.57" (192mm)	CWT31825	8.57" (218mm)	CWT31830	9.57" (243mm)
4"	4 1/8"	CWT41812	5.16" (131mm)	CWT41810	6.57" (167mm)	CWT41815	7.57" (192mm)	CWT41820	8.57" (218mm)	CWT41825	9.57" (243mm)	CWT41830	10.7" (272mm)
5"	5 1/8"	CWT51812	6.16" (156mm)	CWT51810	7.57" (192mm)	CWT51815	8.57" (218mm)	CWT51820	9.57" (243mm)	CWT51825	10.7" (272mm)	CWT51830	11.7" (297mm)
6"	6 1/8"	CWT61812	7.16" (182mm)	CWT61810	8.57" (218mm)	CWT61815	9.57" (243mm)	CWT61820	10.7" (272mm)	CWT61825	11.7" (297mm)	CWT61830	12.7" (323mm)



Cush-a-Glide™

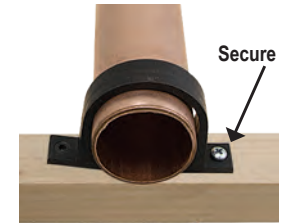
Cush-A-Glide is designed for fast installation of copper tube or pipe, and can be easily installed in seconds with fasteners of your choice. Just spread the clamp apart placing it over the top of a tube or pipe and fasten one side. Push in the opposite side to the desired tightness, allowing for expansion and contraction, then fasten the other side.

- Allows for expansion and contraction of copper tube and pipe
- Excellent alternative to stainless or galvanized clamps
- Fits tightly and securely against mounting surfaces
- Made from trusted high quality TPE material
- One piece molded split ring design
- Suitable for indoor or outdoor applications
- Temperature range of -50°F to 275°F (-45°C to 135°C)
- Will not rust and prevents and eliminates galvanic corrosion
- Made in the USA



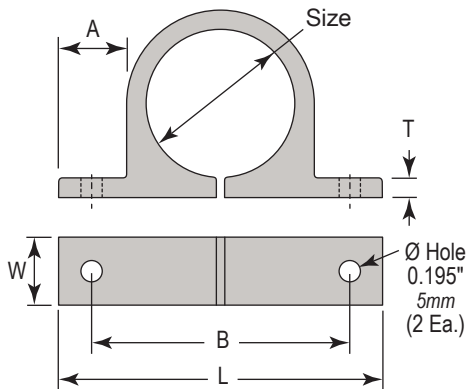
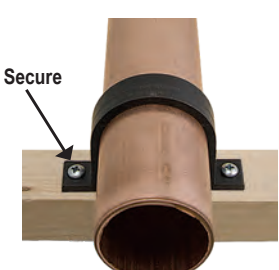
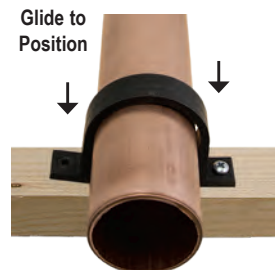
Step 1: Spread open Cush-a-Glide, and place it over tube, pipe, or hose

Step 2: Secure one side of Cush-a-Glide with a fastener of your choice



Step 3: Simply glide tube or pipe through the Cush-a-Glide to desired position

Step 4: Fasten second side of the Cush-a-Glide



Part No.	Pipe, Hose or Tube Size	Size	Dimensions – inches				
			A	B	L	T Thickness	W
CAGB04	1/4"	0.245" (6mm)	0.500" (13mm)	1.000" (25mm)	1.465" (37mm)	0.110" (3mm)	0.375" (10mm)
CAGB06	3/8"	0.370" (9mm)		1.125" (29mm)	1.590" (40mm)		
CAGB08	1/2"	0.495" (13mm)		1.250" (32mm)	1.715" (44mm)		
CAGB10	5/8"	0.620" (16mm)	0.563" (14mm)	1.500" (38mm)	2.045" (52mm)	0.150" (4mm)	0.500" (13mm)
CAGB14	7/8"	0.870" (22mm)		1.750" (44mm)	2.295" (58mm)		
CAGB18	1 1/8"	1.120" (28mm)	0.625" (16mm)	2.125" (54mm)	2.730" (69mm)	0.180" (5mm)	0.625" (16mm)
CAGB20	1 1/4"	1.250" (32mm)		2.250" (57mm)	2.855" (73mm)		
CAGB22	1 3/8"	1.370" (35mm)		2.375" (60mm)	2.980" (76mm)		
CAGB26	1 5/8"	1.620" (41mm)		2.625" (67mm)	3.230" (82mm)		
CAGB34	2 1/8"	2.120" (54mm)		3.125" (79mm)	3.730" (95mm)		0.750" (19mm)





Omega Series™

Omega Series™

The Omega Series™ clamp assembly retains, guides, protects, and uniformly spaces line runs. Attached with two standard fasteners to any flat surface, the Omega Series™ clamp eliminates the use of special channels, providing a savings in both space and cost. They go up fast, lines are rigid, and look neat.

THE CLAMP — Steel with gold electro-dichromate finish, or stainless steel type 304.

THE CUSHION — Manufactured from a thermoplastic elastomer, it's built tough to withstand the effects of most oils, chemicals and industrial cleaning compounds. Interlock edge ensures that the cushion remains in place.



Stainless Steel



Assembly consists of clamp and thermoplastic elastomer cushion. Fasteners not included.

Standard Temperature: -50°F to 275°F (-45°C to 135°C)

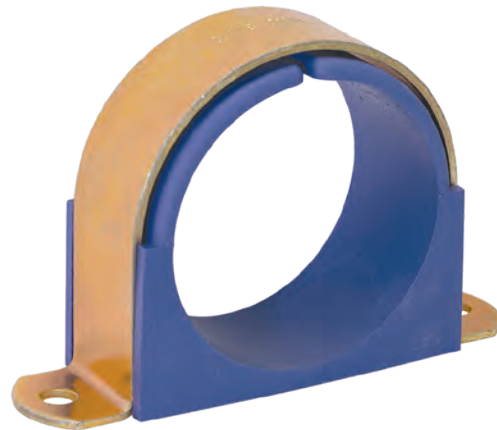
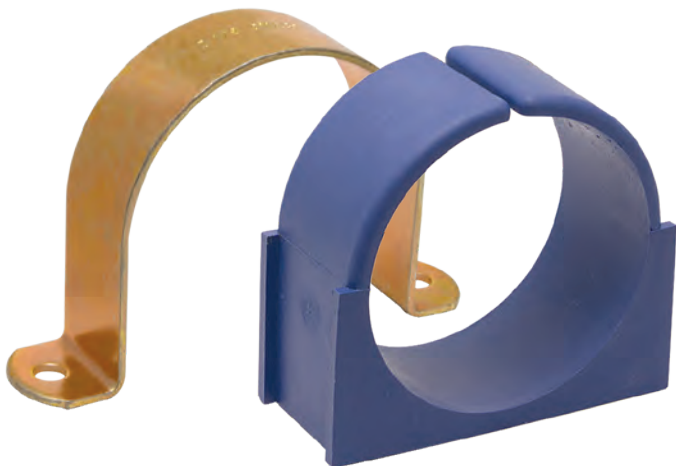
Stainless Steel



Gold Electro-Galvanized Steel



Omega Series Extreme Temperature: -65°F to 340°F (-53°C to 170°C)

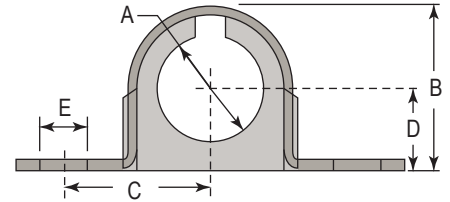
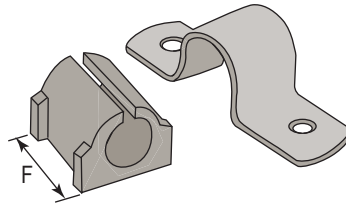


Omega Series™



Standard

Extreme Temp



Steel Part No.		Stainless Steel Part No.		Copper & Steel Tubing O.D.	Copper Water Pipe (Nom.)	Pipe Size (Nom.)	Dimensions (inches)						Hanging Design Load	
Standard Black	Extreme Blue	Standard Black	Extreme Blue				A	B	C	D	E	F		
004M007	HT004M007	004MS007	HT004MS007	1/4"	-	-	0.25" (6mm)	0.48" (12mm)	0.60" (15mm)	0.22" (6mm)	0.26" (7mm)	0.78"	50 (0.22 kN)	
006M008	HT006M008	006MS008	HT006MS008	3/8"	1/4"	-	0.37" (9mm)	0.62" (16mm)	0.66" (17mm)	0.31" (8mm)		0.81"		
008M011	HT008M011	008MS011	HT008MS011	1/2"	3/8"	1/4"	0.50" (13mm)	0.81" (21mm)	0.83" (21mm)	0.40" (10mm)		0.98" (25mm)		200 (0.89 kN)
010M013	HT010M013	010MS013	HT010MS013	5/8"	1/2"	3/8"	0.62" (16mm)	0.93" (24mm)	0.85" (22mm)	0.46" (12mm)				
012M015	HT012M015	012MS015	HT012MS015	3/4"	5/8"	-	0.75" (19mm)	1.02" (26mm)	0.90" (23mm)	0.50" (13mm)				
014M017	HT014M017	014MS017	HT014MS017	7/8"	3/4"	1/2"	0.87" (22mm)	1.12" (28mm)	1.03" (26mm)	0.53" (13mm)				
016M019	HT016M019	016MS019	HT016MS019	1"	-	-	1.00" (25mm)	1.24" (31mm)	1.04" (26mm)	0.59" (15mm)				
018M020	HT018M020	018MS020	HT018MS020	-	-	3/4"	1.05" (27mm)	1.40" (36mm)	1.11" (28mm)	0.70" (18mm)				
018M021	HT018M021	018MS021	HT018MS021	1-1/8"	1"	-	1.12" (28mm)	1.40" (36mm)	1.17" (30mm)	0.70" (18mm)				
020M024	HT020M024	020MS024	HT020MS024	1-1/4"	-	-	1.25" (32mm)	1.60" (41mm)	1.20" (30mm)	0.77" (20mm)				
021M026	HT021M026	021MS026	HT021MS026	-	-	1"	1.31" (33mm)	1.71" (43mm)	1.28" (33mm)	0.81" (21mm)				
022M026	HT022M026	022MS026	HT022MS026	1-3/8"	1-1/4"	-	1.37" (35mm)	1.71" (43mm)	1.28" (33mm)	0.83" (21mm)				
024M028	HT024M028	024MS028	HT024MS028	1-1/2"	-	-	1.50" (38mm)	1.85" (47mm)	1.36" (35mm)	0.90" (23mm)	0.34" (9mm)	400 (1.78 kN)		
026M030	HT026M030	026MS030	HT026MS030	1-5/8"	1-1/2"	-	1.62" (41mm)	1.98" (50mm)	1.43" (36mm)	0.96" (24mm)				
027M032	HT027M032	027MS032	HT027MS032	-	-	1-1/4"	1.66" (42mm)	2.12" (54mm)	1.55" (39mm)	0.99" (25mm)				
028M032	HT028M032	028MS032	HT028MS032	1-3/4"	-	-	1.75" (44mm)	2.12" (54mm)	1.55" (39mm)	1.02" (26mm)				
030M034	HT030M034	030MS034	HT030MS034	1-7/8"	-	1-1/2"	1.87" (47mm)	2.25" (57mm)	1.64" (42mm)	1.09" (28mm)				
032M036	HT032M036	032MS036	HT032MS036	2"	-	-	2.00" (51mm)	2.38" (60mm)	1.69" (43mm)	1.15" (29mm)				
034M040	HT034M040	034MS040	HT034MS040	2-1/8"	-	-	2.12" (54mm)	2.62" (67mm)	1.86" (47mm)	1.27" (32mm)				
038M044	HT038M044	038MS044	HT038MS044	2-3/8"	-	2"	2.37" (60mm)	2.88" (73mm)	1.94" (49mm)	1.41" (36mm)				
040M046	HT040M046	040MS046	HT040MS046	2-1/2"	-	-	2.50" (64mm)	3.00" (76mm)	2.00" (51mm)	1.47" (37mm)				
042M048	HT042M048	042MS048	HT042MS048	2-5/8"	2-1/2"	-	2.62" (67mm)	3.13" (80mm)	2.07" (53mm)	1.53" (39mm)				
046M052	HT046M052	046MS052	HT046MS052	2-7/8"	-	2-1/2"	2.87" (73mm)	3.38" (86mm)	2.19" (56mm)	1.65" (42mm)	0.43" (11mm)	700 (3.11 kN)		
050M056	HT050M056	050MS056	HT050MS056	3-1/8"	3"	-	3.12" (79mm)	3.68" (93mm)	2.32" (59mm)	1.78" (45mm)				
056M062	HT056M062	056MS062	HT056MS062	3-1/2"	-	3"	3.50" (89mm)	4.06" (103mm)	2.50" (64mm)	1.97" (50mm)				
058M064	HT058M064	058MS064	HT058MS064	3-5/8"	3-1/2"	-	3.62" (92mm)	4.19" (106mm)	2.57" (65mm)	2.03" (52mm)				
064M072	HT064M072	064MS072	HT064MS072	4"	-	3-1/2"	4.00" (102mm)	4.68" (119mm)	2.82" (72mm)	2.28" (58mm)				
066M074	HT066M074	066MS074	HT066MS074	4-1/8"	4"	-	4.12" (105mm)	4.84" (123mm)	3.05" (77mm)	2.34" (59mm)				
072M080	HT072M080	072MS080	HT072MS080	4-1/2"	-	4"	4.50" (114mm)	5.22" (133mm)	3.24" (82mm)	2.53" (64mm)				
082M090	HT082M090	082MS090	HT082MS090	5-1/8"	5"	-	5.12" (130mm)	5.82" (148mm)	3.55" (90mm)	2.84" (72mm)				
089M096	HT089M096	089MS096	HT089MS096	-	-	5"	5.56" (141mm)	6.31" (160mm)	4.00" (102mm)	3.06" (78mm)				
098M106	HT098M106	098MS106	HT098MS106	6-1/8"	6"	-	6.12" (155mm)	6.90" (175mm)	4.31" (109mm)	3.34" (85mm)			0.56" (14mm)	1,200 (5.34 kN)
106M114	HT106M114	106MS114	HT106MS114	-	-	6"	6.62" (168mm)	7.39" (188mm)	4.56" (116mm)	3.58" (91mm)				
PART NO. SUFFIX				Cushions			Example							
NONE				Thermoplastic elastomer			004M007 (STEEL) - 004MS007 (STAINLESS STEEL)							
N	-	N	-				004M007N (STEEL) - 004MS007N (STAINLESS STEEL)							
NH	-	NH	-				004M007NH (STEEL) - 004MS007NH (STAINLESS STEEL)							

Note: Fasteners not included.



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Introduction
Channel
Channel Nuts & Hardware
General Fittings
Pipe & Conduit Supports
Electrical Fittings
Spring Steel
Loop & Ring Clamps
Beta Clamps & Z-Clamps
Concrete Inserts
Rooftop Supports
Gamma Pads
Technical Data



Alpha Series™ Standard & Extreme Temp

Alpha Series™

Designed for the tough jobs, the **Alpha Series™** U-Bolt Assembly secures pipe runs to any flat surface. The cushion design provides total load distribution, allowing the U-Bolt to become a full contact hanger, eliminating knife-edge loading. The U-Bolt traps and secures the cushion in place to prevent lateral movement, while nylon insert locknuts provide a positive lock.

Standard

Extreme Temp

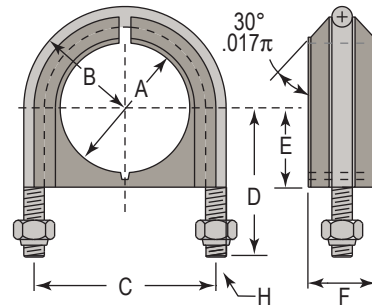


-50°F to 275°F
(-45°C to 135°C)



-65°F to 340°F
(-53°C to 170°C)

Alpha Series™ U-Bolt Assembly conforms to MIL-S-901D for shock testing.



½" thru 6" assembly

Assembly Part No.		Tube Size (O.D.)	Dimensions (Inches)							Torque	Design Load Lbs. (kN)	Slip Thru
Standard Black	Extreme Blue		A Dia.	B Radius	C	D	E	F	H Bolt Size			
UB7/8TA	HTUB7/8TA	7/8"	0.875" (22mm)	0.80" (20mm)	1.60" (41mm)	1.50" (38mm)	0.67" (17mm)	0.68" (17mm)	1/4"-20 UNC-2B	100	485 (2.16 kN)	500
UB1TA	HTUB1TA	1"	1.00" (25mm)	0.90" (23mm)	1.80" (46mm)	1.60" (41mm)	0.78" (20mm)	0.68" (17mm)	1/4"-20 UNC-2B			
UB11/4TA	HTUB1-1/4TA	1-1/4"	1.25" (32mm)	1.02" (26mm)	2.05" (52mm)	1.70" (43mm)	0.91" (23mm)	0.68" (17mm)	1/4"-20 UNC-2B			
UB13/8TA	HTUB1-3/8TA	1-3/8"	1.375" (35mm)	1.02" (26mm)	2.05" (52mm)	1.70" (43mm)	0.91" (23mm)	0.68" (17mm)	1/4"-20 UNC-2B			
UB2TA	HTUB2TA	2"	2.00" (51mm)	1.40" (36mm)	2.80" (71mm)	2.20" (56mm)	1.19" (30mm)	1.24" (31mm)	3/8"-16 UNC-2B	150	1,220 (5.43 kN)	500
UB3TA	HTUB3TA	3"	3.00" (76mm)	1.95" (50mm)	3.90" (99mm)	3.00" (76mm)	1.69" (43mm)	1.24" (31mm)	1/2"-13 UNC-2B	200	2,260 (10.05 kN)	500
UB4TA	HTUB4TA	4"	4.00" (102mm)	2.52" (64mm)	5.05" (128mm)	3.70" (94mm)	2.25" (57mm)	1.24" (31mm)	1/2"-13 UNC-2B			
UB5TA	HTUB5TA	5"	5.00" (127mm)	3.25" (83mm)	6.56" (167mm)	4.50" (114mm)	3.03" (77mm)	1.24" (31mm)	1/2"-13 UNC-2B			
UB6TA	HTUB6TA	6"	6.00" (152mm)	3.87" (98mm)	7.75" (197mm)	5.40" (137mm)	3.56" (90mm)	1.44" (37mm)	5/8"-11 UNC-2B	250	3,620 (16.10 kN)	500
SUFFIX		Clamp	Cushion							Example		
NONE		Electro-galvanized	Thermoplastic elastomer							UB½PA		
6		Stainless Steel, Type 316	Thermoplastic elastomer							UB½PA6		
N6		Stainless Steel, Type 316								UB½PAN6		
N		Electro-galvanized								UB½PAN		
NH		Electro-galvanized								UB½PANH		
NH6		Stainless Steel, Type 316								UB½PANH6		



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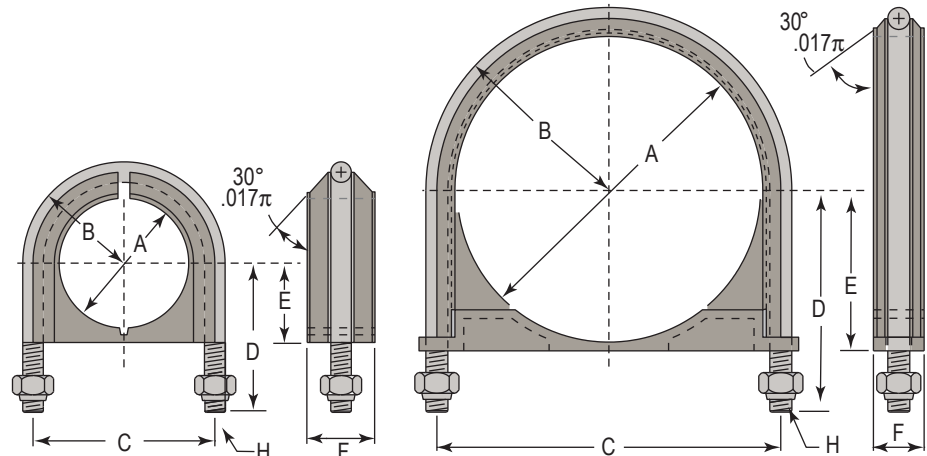
Alpha Series™ Standard & Extreme Temp



Standard



Extreme Temp



1/2" thru 6" assembly

8" thru 12" assembly – Two piece cushion design

Assembly Part No.		Pipe Size (Nom.)	Dimensions (Inches)							Torque	Design Load Lbs. (kN)	Slip Thru
Standard Black	Extreme Blue		A Dia.	B Radius	C	D	E	F	H			
UB1/2PA	HTUB1/2PA	1/2"	0.84" (21mm)	0.80" (20mm)	1.60 (41mm)	1.50" (38mm)	0.67" (17mm)	0.68" (17mm)	1/4"-20 UNC-2B	100	485 (2.16 kN)	500
UB3/4PA	HTUB3/4PA	3/4"	1.05" (27mm)	0.90" (23mm)	1.80 (46mm)	1.60" (41mm)	0.78" (20mm)	0.68" (17mm)	1/4"-20 UNC-2B			
UB1PA	HTUB1PA	1"	1.31" (33mm)	1.02" (26mm)	2.05 (52mm)	1.70" (43mm)	0.91" (23mm)	0.68" (17mm)	1/4"-20 UNC-2B			
UB1-1/4PA	HTUB1-1/4PA	1-1/4"	1.66" (42mm)	1.27" (32mm)	2.55 (65mm)	2.10" (53mm)	1.08" (27mm)	1.24" (31mm)	3/8"-16 UNC-2B	150	1,220 (5.43 kN)	500
UB1-1/2PA	HTUB1-1/2PA	1-1/2"	1.90" (48mm)	1.40" (36mm)	2.80 (71mm)	2.20" (56mm)	1.19" (30mm)	1.24" (31mm)	3/8"-16 UNC-2B			
UB2PA	HTUB2PA	2"	2.37" (60mm)	1.67" (42mm)	3.35 (85mm)	2.50" (64mm)	1.45" (37mm)	1.24" (31mm)	3/8"-16 UNC-2B			
UB2-1/2PA	HTUB2-1/2PA	2-1/2"	2.87" (73mm)	1.95" (50mm)	3.90 (99mm)	3.00" (76mm)	1.69" (43mm)	1.24" (31mm)	1/2"-13 UNC-2B	200	2,260 (10.05 kN)	500
UB3PA	HTUB3PA	3"	3.50" (89mm)	2.27" (58mm)	4.55 (116mm)	3.30" (84mm)	2.00" (51mm)	1.24" (31mm)	1/2"-13 UNC-2B			
UB3-1/2PA	HTUB3-1/2PA	3-1/2"	4.00" (102mm)	2.52" (64mm)	5.05 (128mm)	3.70" (94mm)	2.25" (57mm)	1.24" (31mm)	1/2"-13 UNC-2B			
UB4PA	HTUB4PA	4"	4.50" (114mm)	2.50" (64mm)	5.50 (140mm)	3.90" (99mm)	2.50" (64mm)	1.24" (31mm)	1/2"-13 UNC-2B	250	3,620 (16.10 kN)	500
UB5PA	HTUB5PA	5"	5.56" (141mm)	3.25" (83mm)	6.56 (167mm)	4.50" (114mm)	3.03" (77mm)	1.24" (31mm)	1/2"-13 UNC-2B			
UB6PA	HTUB6PA	6"	6.62" (168mm)	3.87" (98mm)	7.75 (197mm)	5.40" (137mm)	3.56" (90mm)	1.44" (37mm)	5/8"-11 UNC-2B			
UB8PA	HTUB8PA	8"	8.62" (219mm)	4.85" (123mm)	9.82 (249mm)	6.40" (163mm)	4.56" (116mm)	1.44" (37mm)	5/8"-11 UNC-2B	275	5,420 (25.11 kN)	500
UB10PA	HTUB10PA	10"	10.75" (273mm)	6.08" (154mm)	12.16 (309mm)	7.70" (196mm)	5.68" (144mm)	1.65" (42mm)	3/4"-10 UNC-2B			
UB12PA	HTUB12PA	12"	12.75" (324mm)	7.13" (181mm)	14.25 (362mm)	8.7" (221mm)	6.68" (170mm)	1.65" (42mm)	3/4"-10 UNC-2B			
<p>▼ SUFFIX</p>			Clamp		Cushion				Example			
NONE			Electro-galvanized		Thermoplastic elastomer				UB1/2PA			
6			Stainless Steel, Type 316		Thermoplastic elastomer				UB1/2PA6			
N6		-	Stainless Steel, Type 316						UB1/2PAN6			
N		-	Electro-galvanized						UB1/2PAN			
NH		-	Electro-galvanized						UB1/2PANH			
NH6		-	Stainless Steel, Type 316						UB1/2PANH6			



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Introduction

Channel

Channel Nuts & Hardware

General Fittings

Pipe & Conduit Supports

Electrical Fittings

Spring Steel

Loop & Ring Clamps

Beta Clamps & Z-Clamps

Concrete Inserts

Rooftop Supports

Gamma Pads

Technical Data



Cush-A-Claw®

Cush-A-Claw®



Strut Mounted

Insert	Twist & Lock	Position Pipe	Snap In



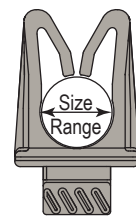
Surface Mounted

Position	Mount w/Screw	Position Pipe	Snap In
Side grooves provide Centering guide	Counter-sunk hole allows tightening of any type of #10 fastener		

The **Cush-A-Claw** Grabs on to your Tube, Pipe, or Hose and holds it in place. The unique one piece patented design allows for quick, simple, and easy installation. It will not rust because it's molded from the same choice TPE Material of some of our other products that you've come to know and trust.

- Easy Snap-in Installation of Tube, Pipe, or Hose
- Sure Grip Strut Base easily rotates into strut
- Will not rust
- Non Conducting
- Saves Time and Money
- Temp Range: -50° to 275° F (-45°C to 135°C)
- Works Great Indoors or Outdoors
- Seven Sizes of Tube and Three Sizes of EMT
- Designed for Light Duty Loads and Applications
- Prevents Galvanic Corrosion of Dissimilar Metals
- An Excellent Alternative to Steel, Stainless Steel, or Galvanized Clamps.

O.D. Tube Size			EMTS Conduit Sizes		
Strut Mount Part #	Surface Mount Part #	Size	Strut Mount Part #	Surface Mount Part #	Size
		O.D.			O.D.
CL-04	CLS-04	1/4" (6mm)	EMT-1/2	EMTS-1/2	1/2" (18mm)
CL-06	CLS-06	3/8" (10mm)	EMT-3/4	EMTS-3/4	3/4" (23mm)
CL-08	CLS-08	1/2" (13mm)	EMT-1	EMTS-1	1" (30mm)
CL-10	CLS-10	5/8" (16mm)			
CL-12	CLS-12	3/4" (19mm)			
CL-14	CLS-14	7/8" (22mm)			
CL-18	CLS-18	1 1/8" (29mm)			



75 Lbs. Load
(Safety Factor: 3)



Cush-A-Claw® is manufactured under U.S. patent #D631739, #D679177, and European Community patent #0011520030001, #0011520030002, #0011520030003, #0011520030004, #0011520030005, #0011520030006, #0011520030007



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Cush-A-Clip® & Cush-A-Click

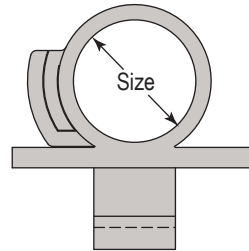


Cush-A-Clip®



A Simple, Economical, Lightweight Hanger For Supporting Tubing

- Manufactured from polyamide alloy
- U.L. Rated
- Sizes from 3/8" to 1 1/8"
- One piece design makes installation a snap.
- No nuts to tighten, no parts to lose.
- Temperatures from -40°F to 275°F (-40°C to 135°C)
- Secure but non-tightening design allows for expansion, greatly reducing joint fractures



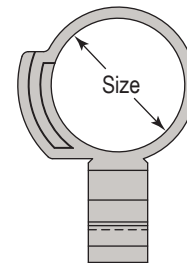
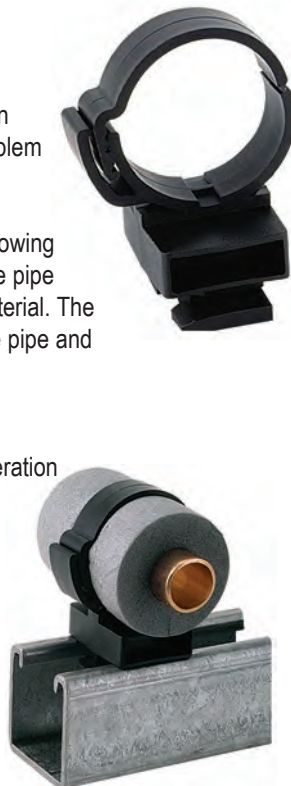
Part No.	Tube O.D.
RPC-3/8	3/8" (10mm)
RPC-1/2	1/2" (13mm)
RPC-5/8	5/8" (16mm)
RPC-3/4	3/4" (19mm)
RPC-7/8	7/8" (22mm)
RPC-1-1/8	1-1/8" (29mm)

Cush-A-Click

The great advantage with the **Cush-A-Click** is it retains an unbroken vapor barrier seal, eliminating the problem of sweating on metal fittings.

The Cush-A-Click is ideal for the installation of refrigeration systems allowing the barrier seal to run the length of the pipe work without cutting the insulation material. The Cush-A-Click quickly secures both the pipe and the insulation.

- Time and labor savings
- Simple, secure installation of refrigeration and plumbing pipe work
- No break insulation material
- Corrosion resistance
- Light weight



Part No.	Standard Copper	Metric Copper	Copper Tube		Condensate Drain
	(no insulation)		with 3/8" (10mm) Insulation	with 1/2" (13mm) Insulation	
CAC12	3/4"	-	-	-	-
CAC14	7/8"	22mm	-	-	yes
CAC16	1"	-	1/4" tube	-	-
CAC18	1 1/8"	28mm	3/8" tube	-	-
CAC20	1 1/4"	-	1/2" tube	1/4" tube	-
CAC22	1 3/8"	-	5/8" tube	3/8" tube	yes
CAC24	1 1/2"	-	7/8" tube	5/8" tube	-
CAC26	1 5/8"	42mm	1 1/8" tube	3/4" tube	yes
CAC32	2"	-	-	7/8" tube	-
CAC34	2 1/8"	54mm	1 3/8" tube	1 1/8" tube	yes

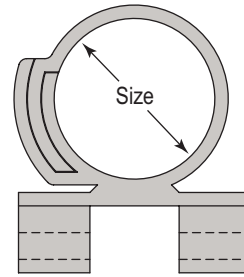
Inside diameter: Certain clips have two or more positions to accommodate both metric and standard sizes





Quick-Clip

Quick-Clip



Quick-Clip's unique one-piece composite polyamide alloy design combines strength with light weight. It will overcome the problems of using cable ties for piping, electrical, optical and network cabling.

- Quick-Clip locates easily on $\frac{3}{8}$ " rod
- No breaks in insulation material
- Fast and easy installation, saves time and money
- Single handed installation
- Manufactured from a composite polyamide, tested from -40°F to $+275^{\circ}\text{F}$, (-40°C to $+135^{\circ}\text{C}$) makes it ideal for network cables
- Studding panel inserts.



CLAMPING RANGE					
Part No.	Standard Copper	Metric Copper	Copper Tube		Condensate Drain
	(no insulation)		with $\frac{3}{8}$ " (10mm) Insulation	with $\frac{1}{2}$ " (13mm) Insulation	
QC12	$\frac{3}{4}$ "	-	-	-	-
QC14	$\frac{7}{8}$ "	22mm	-	-	yes
QC16	1"	-	$\frac{1}{4}$ " tube	-	-
QC18	$1\frac{1}{8}$ "	28mm	$\frac{3}{8}$ " tube	-	-
QC20	$1\frac{1}{4}$ "	-	$\frac{1}{2}$ " tube	$\frac{1}{4}$ " tube	-
QC22	$1\frac{3}{8}$ "	-	$\frac{5}{8}$ " tube	$\frac{3}{8}$ " tube	yes
QC24	$1\frac{1}{2}$ "	-	$\frac{7}{8}$ " tube	$\frac{5}{8}$ " tube	-
QC26	$1\frac{5}{8}$ "	42mm	$1\frac{1}{8}$ " tube	$\frac{3}{4}$ " tube	yes
QC32	2"	-	-	$\frac{7}{8}$ " tube	-
QC34	$2\frac{1}{8}$ "	54mm	$1\frac{3}{8}$ " tube	$1\frac{1}{8}$ " tube	yes

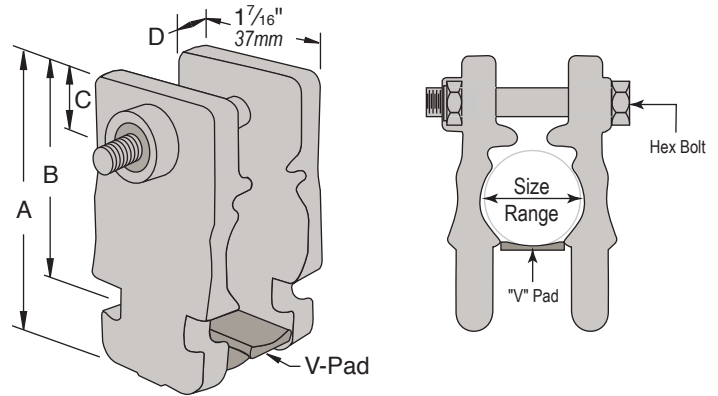
Inside diameter: Certain clips have two or more positions to accommodate both metric and standard sizes



Slide onto threaded rod, twist to engage.
Insert pipe and clip to lock.



Cush-A-Grip



FEATURES:

- Ten sizes of tube, five sizes of pipe
- Diameters from .25" to 1.31"

ADVANTAGES:

- Reduces inventory SKU's
- Simplifies take-offs and requirements on projects using both tube and pipe sizes
- Easy installation, non-conducting
- Permissible outdoors
- Temp. range: -40°F to +380°F (-40°C to 193°C)
- No galvanic reaction, Will not rust

BENEFITS:

- Lowers overall inventory costs
- Works with screw or nut driver
- Resists vibration
- Use in place of steel clamps with steel tube
- Multi-environmental
- Covers a wide range of applications and maintains thermal barrier
- For use on copper tube
- Use in place of stainless, aluminum, PVC or hot dipped galvanized clamps

Part No.	O.D. Tube Sizes			Pipe Sizes	Metric Sizes	Diameters (in)
CG-10	1/4"	3/8"	1/2"	1/4"	6mm – 14mm	0.25 – 0.54
CG-20	5/8"	3/4"	7/8"	3/8" – 1/2"	15mm – 22mm	0.62 – 0.87
CG-30	7/8"	1"	1-1/8"	3/4"	22mm – 28mm	0.87 – 1.12
CG-40	1"	1-1/8"	1-1/4"	3/4" – 1"	26mm – 32mm	1.00 – 1.31

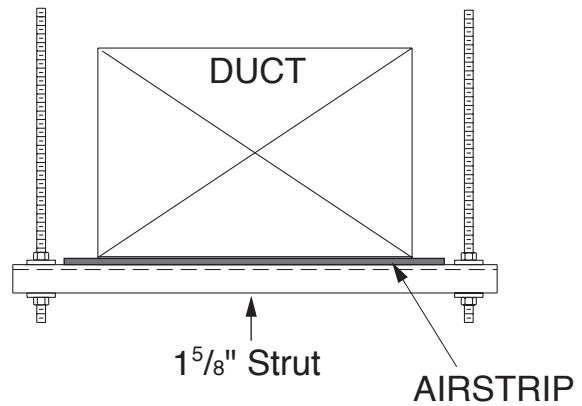
Part No.	Nominal Pipe Size	Dimensions				Hex Head Cap Screw & Lock Nut
		"A"	"B"	"C"	"D"	
CG-10	1/4"	1-15/16" (49mm)	1-3/8" (35mm)	3/8" (10mm)	3/16" (5mm)	1/4"-20 x 1-1/2"
CG-20	3/8"	2-3/8" (60mm)	1-5/8" (41mm)	7/16" (11mm)	1/4" (6mm)	1/4"-20 x 2"
CG-30	1/2"	2-9/16" (65mm)	1-13/16" (46mm)	7/16" (11mm)	5/16" (8mm)	1/4"-20 x 2"
CG-40	3/4"	2-11/16" (68mm)	1-15/16" (49mm)	7/16" (11mm)	5/16" (8mm)	1/4"-20 x 2"





AIRSTRIP®

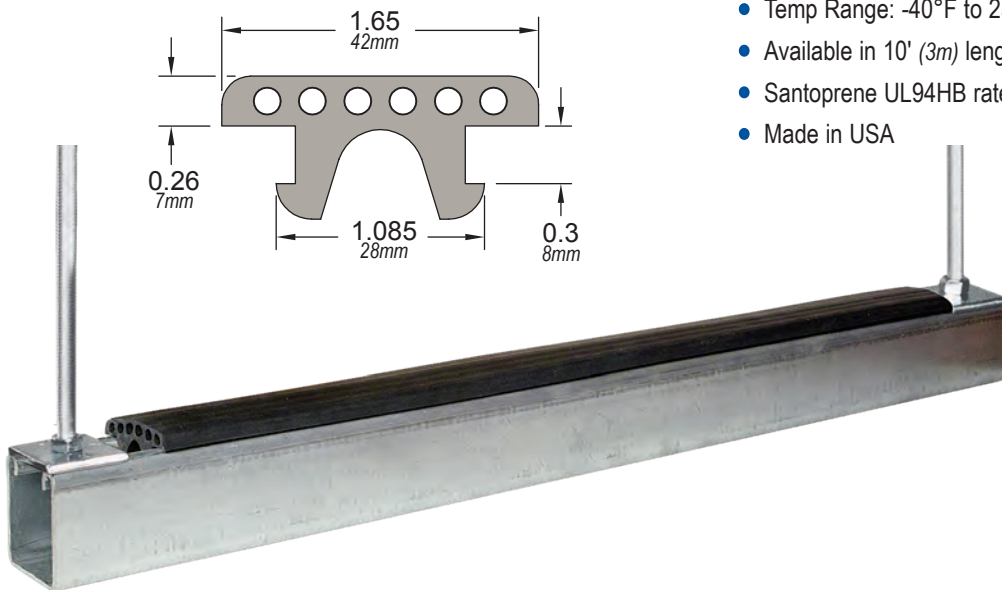
AIRSTRIP®



The AIRSTRIP is designed to dampen the noise and vibration that can occur between piping or duct work and the supporting channel. Made from 64 Durometer Santoprene, the AIRSTRIP 1 is light weight, dependable, and long-lasting.

Part No.	Max. Load Lbs. per Lineal In.		Length	
	Lbs.	(kg/25.4mm)	Ft.	(m)
AS1	40	18.1	10	3.05

- Temp Range: -40°F to 250°F (-40°C to 121°C)
- Available in 10' (3m) lengths
- Santoprene UL94HB rated
- Made in USA



Installs simply by pushing into place

To remove, squeeze the tabs at the end and push up



Cush-A-Strip™

- Manufactured from a thermoplastic elastomer, Cush-A-Strip is designed for use from -50°F to 275°F.
- Easy Stocking – Packaged in 20 foot rolls in an E-Z dispenser box for convenience in handling and storage. **Cush-A-Strip roll part number is S-716**
- Easy Measuring – Marked in ¼" increments for fast measuring and cutting, while eliminating waste.
- Lock-lip edges ensure that Cush-A-Strip will remain in place with a balanced grip.
- Clamps ordered separately. They are available with a standard bolt and nylon lock nut in steel (electro-dichromate), and stainless steel, in sizes ranging from ¼" tube to 6" pipe.



(1) Cut appropriate length strip using the cutting schedule shown on right.



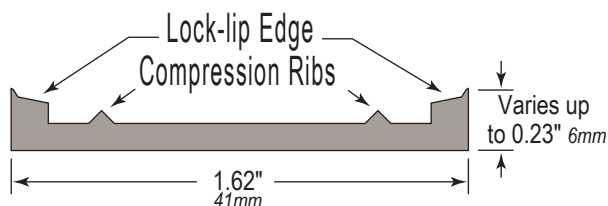
(2) Place the pipe on the Cush-A-Strip



(3) Insert the clamps in the strut



(4) Tighten the clamps.



Cush-A-Strip™ Cutting Guide					
Clamp Part No.		Dimensions (Inches)			
Gold Plated Steel	Stainless Steel Type 304	Clamp Size O.D.	Tube Size O.D.	Pipe Size (Nom.)	Cutting Schedule
TG008C	NS008	1/2"	1/4"	-	7/8"
TG010C	NS010	5/8"	3/8"	-	1-1/8"
TG012C	NS012	3/4"	1/2"	1/4"	1-1/2"
TG014C	NS014	7/8"	5/8"	3/8"	2"
TG016C	NS016	1"	3/4"	-	2-1/4"
TG018C	NS018	1-1/8"	7/8"	1/2"	3"
TG020C	NS020	1-1/4"	1"	3/4"	3-1/4"
TG022C	NS022	1-3/8"	1-1/8"	-	3-5/8"
TG024C	NS024	1-1/2"	1-3/16"	-	3-7/8"
TG024C	NS024	1-1/2"	1-1/4"	1"	4"
TG026C	NS026	1-5/8"	1-3/8"	-	4-1/2"
NG028C	CS028	1-3/4"	1-1/2"	-	4-7/8"
NG030C	CS030	1-7/8"	1-5/8"	1-1/4"	5-1/4"
NG032C	CS032	2"	1-3/4"	-	5-1/2"
NG034C	CS034	2-1/8"	1-7/8"	1-1/2"	6"
NG036C	CS036	2-1/4"	2"	-	6-3/8"
NG038C	CS038	2-3/8"	2-1/8"	-	6-3/4"
NG040C	CS040	2-1/2"	2-1/4"	-	7-1/4"
NG042C	CS042	2-5/8"	2-3/8"	2"	7-1/2"
NG044C	CS044	2-3/4"	2-1/2"	-	8"
NG048C	CS048	3"	2-3/4"	-	8-3/4"
NG050C	CS050	3-1/8"	2-7/8"	2-1/2"	9-1/4"
NG054C	CS054	3-1/4"	3"	-	9-1/2"
NG060C	CS060	3-3/4"	3-1/2"	3"	11"
NG068C	CS068	4-1/4"	4"	3-1/2"	12-1/4"
NG076C	CS076	4-3/4"	4-1/2"	4"	14"
NG092C	CS092	5-3/4"	-	5"	15-1/2"
NG110C	CS110	6-7/8"	-	6"	18-1/2"

* Gold Plated Steel Clamps Supplied with Fixed Stud and Nylon Lock Nut
 * Stainless Steel Clamps Supplied with Fixed Stud and Nylon Lock Nut from 1/2" through 1-3/4" Sizes and 1-7/8" through 6-7/8" Sizes are supplied with a Loose Bolt and Hex Nut





Saddle-Up

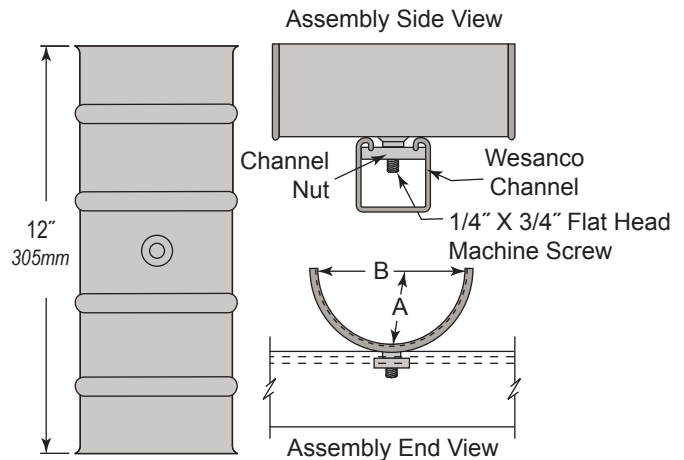
Saddle-Up

Insulation Saddle

The Saddle-Up Pipe Insulation Saddle is a formed metal shield designed to allow insulated refrigeration pipe or tubing to pass through the support without need to compromise the vapor barrier and protects from crushing or damage at hanger and support locations. Made from 20 gage electro-galvanized steel the ribbed design along its 12" (305mm) length offers the superior support needed to spread out loading on insulation which reduces the potential for internal cavity creation between the pipe and insulation. The Z-Strut mounting option provides a time tested secure and safe attachment method so there is no need for other tie downs to the support.

FEATURES:

- Shipped with all necessary hardware to attach to Z-Strut or any other industry standard 1 5/8" (41mm) wide strut channel.
- Features flared edges to protect pipe insulation jacketing.
- Each Saddle individually marked with part number
- Counter Sunk attachment Hole and Flat Head Machine Screw prevent possible damage to insulation.
- Electro-Galvanized Steel provides excellent rust protection and has no exposed fabricated edges.



Dimensions (Inches)			1/2" (13mm) Insulation		3/4" (19mm) Insulation		1" (25mm) Insulation		1 1/2" (38mm) Insulation	
Part No.	B Width	A Radius	OD Tube Size	OD With Insulation	OD Tube Size	OD With Insulation	OD Tube Size	OD With Insulation	OD Tube Size	OD With Insulation
SD150	1 1/2" (38mm)	3/4" (19mm)	3/8"	1 3/8" (35mm)	-	-	-	-	-	-
			1/2"	1 1/2" (38mm)	-	-	-	-	-	-
SD200	2" (51mm)	1" (25mm)	5/8"	1 5/8" (41mm)	3/8"	1 7/8" (48mm)	-	-	-	-
			3/4"	1 3/4" (45mm)	1/2"	2" (51mm)	-	-	-	-
			7/8"	1 7/8" (48mm)	-	-	-	-	-	-
SD250	2 1/2" (64mm)	1 1/4" (32mm)	1 1/8"	2 1/8" (54mm)	5/8"	2 1/8" (54mm)	3/8"	2 3/8" (60mm)	-	-
			1 3/8"	2 3/8" (60mm)	3/4"	2 1/4" (57mm)	1/2"	2 1/2" (64mm)	-	-
			-	-	7/8"	2 3/8" (60mm)	-	-	-	-
SD300	3" (76mm)	1 1/2" (38mm)	1 5/8"	2 5/8" (67mm)	1 1/8"	2 5/8" (67mm)	5/8"	2 5/8" (67mm)	-	-
			-	-	1 3/8"	2 7/8" (73mm)	3/4"	2 3/4" (70mm)	-	-
			-	-	-	-	7/8"	2 7/8" (73mm)	-	-
SD350	3 1/2" (89mm)	1 3/4" (45mm)	2 1/8"	3 1/8" (79mm)	1 5/8"	3 1/8" (79mm)	1 1/8"	3 1/8" (79mm)	3/8"	3 3/8" (86mm)
			2 3/8"	3 3/8" (86mm)	-	-	1 3/8"	3 3/8" (86mm)	1/2"	3 1/2" (89mm)
SD450	4 1/2" (114mm)	2 1/4" (57mm)	2 5/8"	3 5/8" (86mm)	2 1/8"	3 5/8" (92mm)	1 5/8"	3 5/8" (92mm)	5/8"	3 5/8" (92mm)
			-	-	2 3/8"	3 7/8" (98mm)	-	-	3/4"	3 3/4" (95mm)
			-	-	-	-	-	-	7/8"	3 7/8" (98mm)
			3 1/8"	4 1/8" (105mm)	2 5/8"	4 1/8" (105mm)	2 1/8"	4 1/8" (105mm)	1 1/8"	4 1/8" (105mm)
SD550	5 1/2" (140mm)	2 3/4" (70mm)	3 5/8"	4 5/8" (118mm)	3 1/8"	4 5/8" (118mm)	2 5/8"	4 5/8" (118mm)	1 5/8"	4 5/8" (118mm)
			4 1/8"	5 1/8" (130mm)	3 5/8"	5 1/8" (130mm)	3 1/8"	5 1/8" (130mm)	2 1/8"	5 1/8" (130mm)
			-	-	-	-	-	-	2 3/8"	5 3/8" (143mm)
SD650	6 1/2" (165mm)	3 1/4" (83mm)	-	-	4 1/8"	5 5/8" (143mm)	3 5/8"	5 5/8" (143mm)	2 5/8"	5 5/8" (143mm)
			-	-	-	-	4 1/8"	6 1/8" (156mm)	3 1/8"	6 1/8" (156mm)

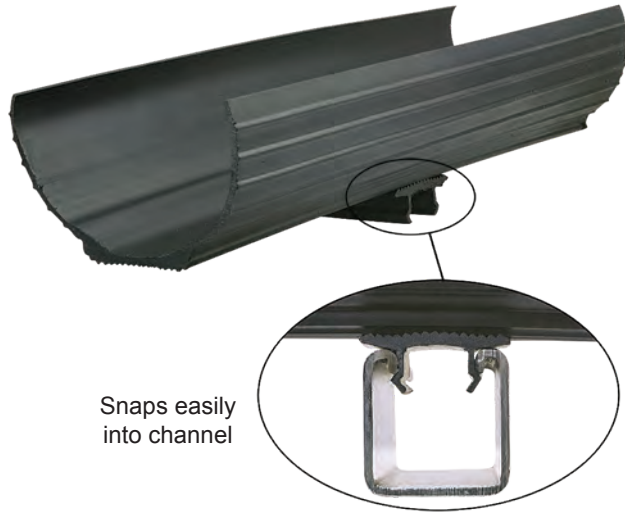


Snap-A-Saddle®

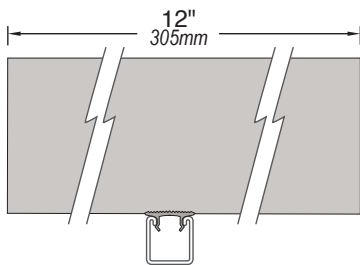
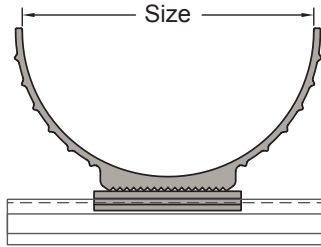


Snap-A-Saddle®

Strut Mount Plastic Insulation Saddle



Snaps easily into channel



Part No.		Nominal Inside Opening
Black	White	
SB225	SW225	2 ¹ / ₄ " (57mm)
SB325	SW325	3 ¹ / ₄ " (83mm)
SB425	SW425	4 ¹ / ₄ " (108mm)
SB525	SW525	5 ¹ / ₄ " (133mm)
SB625	SW625	6 ¹ / ₄ " (159mm)
SB825	SW825	8 ⁵ / ₈ " (219mm)

The Snap-A-Saddle provides an easy way to attach insulated pipes to support channel, with one step, tool-free installation.



- Temp Range: -50° to 275°F (-46° to 135° C)
- Available in both black and white
- UL94-HB1 Rated TPV Material
- Made in USA
- Easy Installation
- Standard 12" (305mm) lengths. Special lengths available upon request



Snap-A-Saddle Size Guide - Copper Tubing					
Tubing Size	Insulation Thickness				
	1/2" (13mm)	3/4" (19mm)	1" (25mm)	1 1/2" (38mm)	2" (51mm)
1/4"	S*225	S*225	S*325	S*425	S*525
3/8"					
1/2"					
5/8"					
3/4"					
1"	S*325	S*425	S*525	S*625	
1 1/4"					
1 1/2"	S*325	S*425	S*525	S*625	
2"					
2 1/2"					
3"	S*425	S*525	S*625	S*825	
3 1/2"					
4"	S*525	S*625	S*625	S*825	

* Add "B" for Black or "W" for White

Snap-A-Saddle Size Guide - Schedule 40/80 Pipe					
Pipe Size	Insulation Thickness				
	1/2" (13mm)	3/4" (19mm)	1" (25mm)	1 1/2" (38mm)	2" (51mm)
1/4"	S*225	S*225	S*325	S*425	S*525
3/8"					
1/2"					
3/4"					
1"					
1 1/4"	S*325	S*425	S*525	S*625	
1 1/2"					
2"	S*425	S*525	S*525	S*625	
2 1/2"					
3"					
3 1/2"	S*525	S*625	S*625	S*825	
4"					

* Add "B" for Black or "W" for White

Snap-A-Saddle® is manufactured under U.S. patents #D753468 and Canadian patents #163550



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Introduction
Channel
Channel Nuts & Hardware
General Fittings
Pipe & Conduit Supports
Electrical Fittings
Spring Steel
Loop & Ring Clamps
Beta Clamps & Z-Clamps
Concrete Inserts
Rooftop Supports
Gamma Pads
Technical Data



Snap-A-Saddle Pro™

Insulated Pipe Saddle for Mounting on Strut

Its revolutionary design allows for pipe movement within the support, eliminating common problems related to traditional pipe saddles: rotation, displacement and thermal insulation damages.



Breakthrough Innovation

Snap-a-Saddle Pro™ is designed to accommodate movement of the pipes generated by thermal expansion and vibration. With its unique sliding design at each end, Snap-a-Saddle Pro easily and effectively cradles and protects pipes allowing them to expand and vibrate without damaging their insulation.

Snap-a-Saddle Pro permanently eliminates insulation tears, refrigerant leaks, condensing, and freezing. It holds up to the highest quality standards of the industry.

Setting the Standard

Made of high quality, ultra-resistant polypropylene, Snap-a-Saddle Pro™ is today's most practical and economical solution to standardize pipe installations, improve appearance, and completely eliminate premature insulation tears, costly leaks, and loss of refrigerated merchandise caused by inadequate suspension systems.

Fastest Installation In The Industry

- 60% faster than metal or plastic shields
- 80% faster than clamps and collars

Keeps Thermal Bridge Intact

Eliminates insulation compression

Tool-Free Installation

One simple click is all it takes

Maintains Pipe Insulation Properties

Eliminates displacement and/or failing of pipe support, leading to refrigerant leaks

Maintains Liquid Line In Place

Eliminates refrigerant leaks



Snap-A-Saddle Pro™



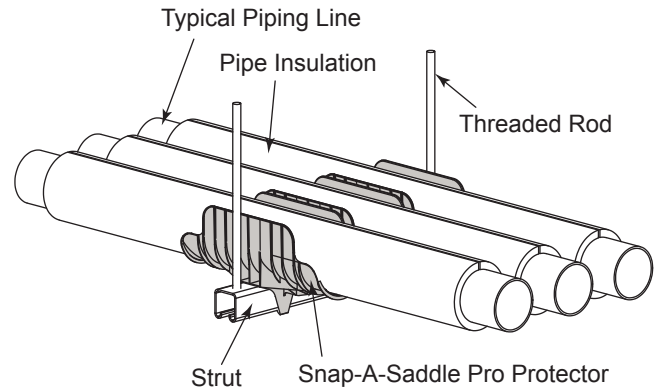
Insulated Pipe Saddle for Mounting on Strut

Snap-A-Saddle Pro™

Insulated Pipe Saddle



Introduction
Channel
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Gamma Pads
Technical Data



Applications:

Refrigeration, Air Conditioning and Plumbing

Installation:

Tool-Free, "Clips" directly on standard 1-5/8" x 1-5/8" (41mm x 41mm) strut channel.

Suited for horizontal pipe installation.

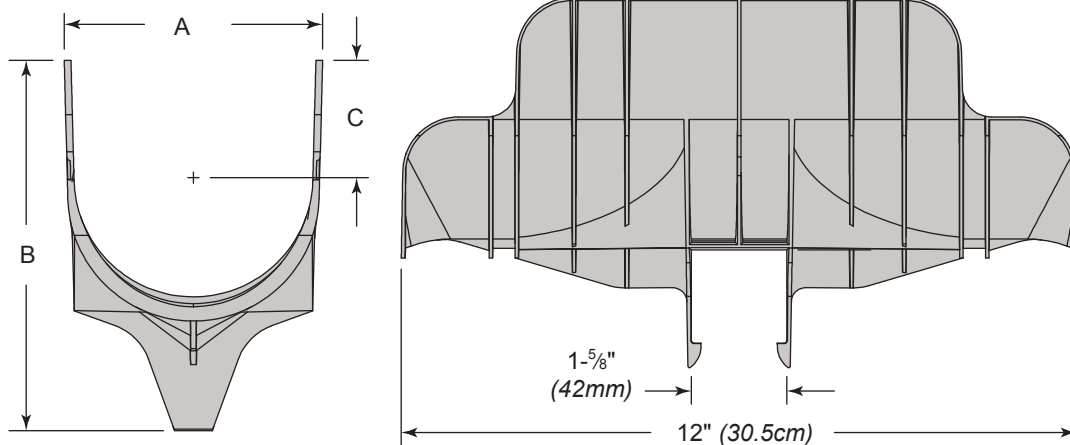
Certification:

UL classified for USA (UL-723 (ASTM E 84)) and ULC listed for Canada (ULC-S102.2).

Material:

Polypropylene copolymer

- UV resistant
- Operating temperature -40° to 178°F (-40° to 81°C)
- Paintable (preserves mechanical properties even after painting)
- Non-adhesive surface for linear expansion of thermal insulation. SAS825B & SAS825W have 20% glass filled material for additional strength.



Part No.		A	B	C
Black	White			
SAS225B	SAS225W	2.25" (57mm)	4.56" (116mm)	1.09" (28mm)
SAS325B	SAS325W	3.25" (82mm)	5.57" (140mm)	1.59" (40mm)
SAS425B	SAS425W	4.25" (108mm)	6.59" (167mm)	2.09" (53mm)
SAS525B	SAS525W	5.25" (133mm)	7.57" (192mm)	2.58" (66mm)
SAS625B	SAS625W	6.25" (159mm)	8.57" (218mm)	3.09" (78mm)
SAS825B	SAS825W	8.25" (204mm)	11.04" (280mm)	4.27" (108mm)

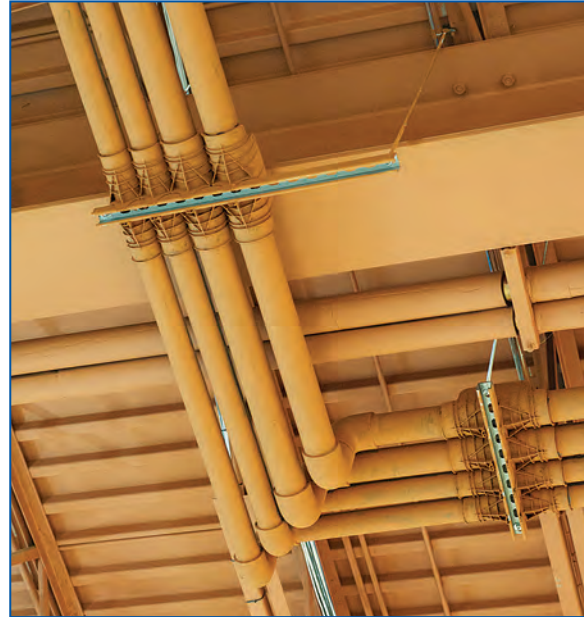


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Snap-A-Saddle Pro™

Insulated Pipe Saddle for Mounting on Strut



Copper Tube Size	Insulation Thickness				
	1/2" (13mm)	3/4" (19mm)	1" (25mm)	1 1/2" (38mm)	2" (50mm)
1/4" (6.4 mm)	SAS225	SAS225	SAS325	SAS425	SAS525
3/8" (9.5 mm)					
1/2" (13 mm)					
5/8" (16 mm)					
3/4" (19 mm)					
7/8" (22 mm)	SAS325	SAS325	SAS425	SAS525	SAS625
1-1/8" (29 mm)					
1-3/8" (35 mm)	SAS425	SAS425	SAS525	SAS625	SAS825
1-5/8" (41 mm)					
2-1/8" (54 mm)					
2-5/8" (67 mm)	SAS525	SAS525	SAS625	SAS825	SAS825
4-1/8" (105 mm)					
5-1/8" (130 mm)	SAS525	SAS825	SAS825	SAS825	-

Schedule 40/80 Pipe Size	Insulation Thickness				
	1/2" (13mm)	3/4" (19mm)	1" (25mm)	1 1/2" (38mm)	2" (50mm)
1/4" (6.4 mm)	SAS225	SAS225	SAS325	SAS425	SAS525
3/8" (9.5 mm)					
1/2" (13 mm)					
3/4" (19 mm)					
1" (25 mm)					
1-1/4" (31 mm)	SAS325	SAS325	SAS425	SAS525	SAS625
1-1/2" (38 mm)					
2" (50 mm)	SAS425	SAS425	SAS525	SAS625	SAS825
2-1/2" (63 mm)					
3" (75 mm)					
3-1/2" (88 mm)	SAS525	SAS525	SAS625	SAS825	SAS825
4" (100 mm)					
5" (127 mm)	SAS625	SAS625	SAS825	SAS825	SAS825
6" (152 mm)					
	SAS825	SAS825	-	-	-



Snap-A-Saddle Pro Multi™



Adaptable Insulated Pipe Saddle

Snap-A-Saddle Pro Multi™ Adapts To Your Needs!

Allows use on various sizes of strut, H-Beam, floor-mount, Clevis and steel angle mountings
Adapts to different suspension systems, simply by swapping clipping adapters.



Breakthrough Innovation

Piping installations require different types of suspension systems, which vary in size. This new design adapts to various sizes of strut, H-Beam, floor-mount, clevis hangers, and steel angles. Thanks to the interchangeable bottom adapters, Snap-a-Saddle Pro Multi eliminates the hassle and headaches of compatibility problems you've been dealing with for so long!

Standardize Your Installation

Snap-a-Saddle Pro Multi™ makes the installer's job easier while standardizing piping installations and improving appearance. Whether you are looking at new or existing installations, the Snap-a-Saddle Pro Multi clip-on adapters will adapt to both the suspension system and the selected size of saddle core.

One Part Suits Multiple Uses

Simply change adapters

Fastest Installation In The Industry

40% Faster than metal or plastic shields

80% Faster than clamps and collars

Keeps Thermal Bridge Intact

Prevents insulation damage and compression

Tool-Free Installation

One simple click is all it takes

Maintains Pipe Insulation Properties

Permanent solution to displacement and/or falling of pipe support

Maintains Liquid Line In Place

Eliminates refrigerant leaks



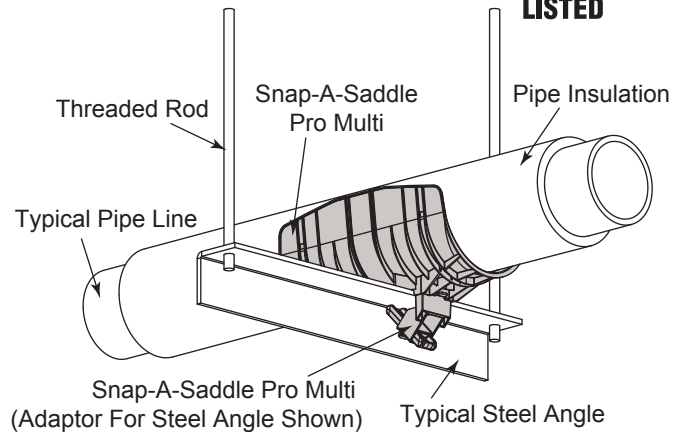


Snap-A-Saddle Pro Multi™

Adaptable Insulated Pipe Saddle

Snap-A-Saddle Pro Multi™

Adaptable Insulated Pipe Saddle



Applications:

Plumbing, Mechanical, Refrigeration, and Air Conditioning

Installation:

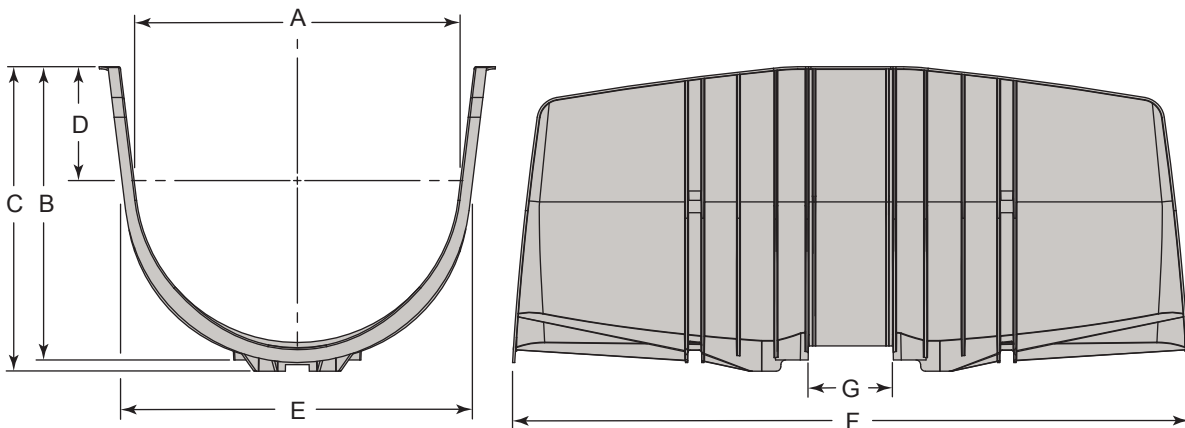
Tool-Free, suited for horizontal pipe installation.

Certification:

UL classified for USA (UL-723 (ASTM E 84)) and ULC listed for Canada (ULC-S102.2).

Material:

- Polypropylene 20% glass filled
- UV resistant
- Operating temperature -40° to 178°F (-40° to 81°C)
- Paintable (preserves mechanical properties even after painting)
- Non-adhesive surface for linear expansion of thermal insulation.



Part No. Grey	A	B	C	D	E	F Length	G
SASM250G	2.34" (60mm)	1.92" (49mm)	2.33" (59mm)	0.40" (10mm)	2.45" (62mm)	12" (305mm)	1.20" (30mm)
SASM350G	3.45" (88mm)	3.17" (81mm)	3.58" (91mm)	1.09" (28mm)	3.56" (90mm)		1.48" (38mm)
SASM450G	4.50" (114mm)	3.89" (99mm)	4.19" (106mm)	1.17" (30mm)	4.61" (117mm)		1.75" (44mm)
SASM550G	5.56" (140mm)	4.90" (124mm)	5.20" (132mm)	1.66" (42mm)	5.75" (146mm)		1.78" (45mm)
SASM650G	6.46" (165mm)	5.96" (151mm)	6.26" (159mm)	2.18" (55mm)	6.75" (171mm)		2.08" (53mm)
SASM850G	8.65" (219mm)	7.83" (199mm)	8.13" (207mm)	3.04" (77mm)	8.75" (222mm)	18" (457mm)	2.26" (57mm)
SASM1050G	10.65" (271mm)	7.80" (198mm)	8.10" (206mm)	1.76" (45mm)	10.59" (269mm)	23" (584mm)	
SASM1250G	12.65" (321mm)	9.18" (233mm)	9.48" (241mm)	2.14" (54mm)	12.52" (318mm)		

The use of the Stabilizer Adapter with 10" SASM1050G and 12" SASM1250G Saddles is suggested for additional support.



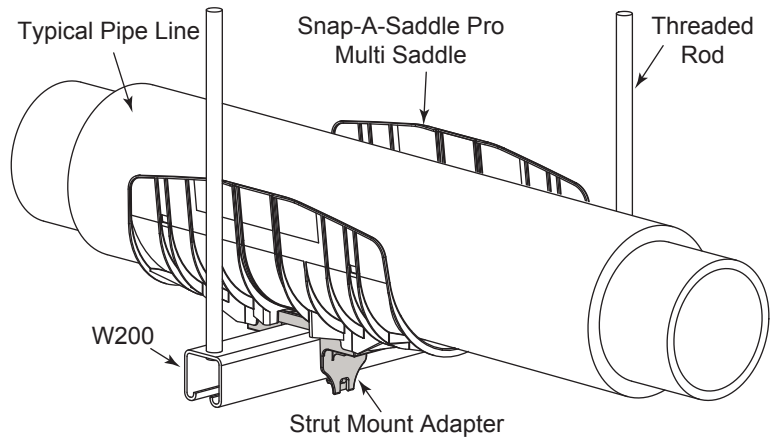
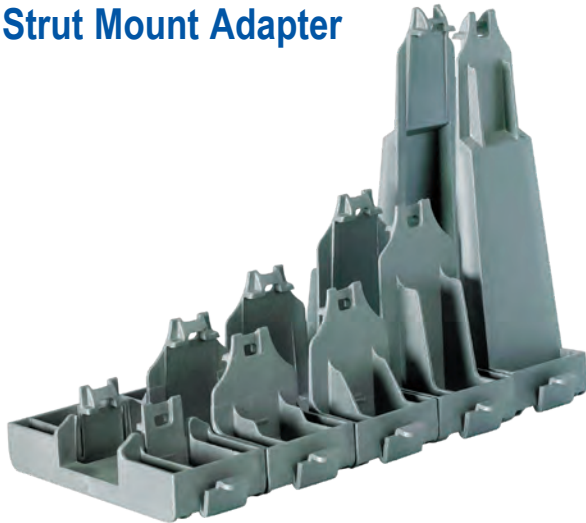
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Snap-A-Saddle Pro Multi™ - Adapters

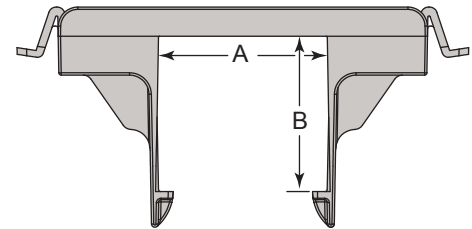


Adaptable Insulated Pipe Saddle

Strut Mount Adapter



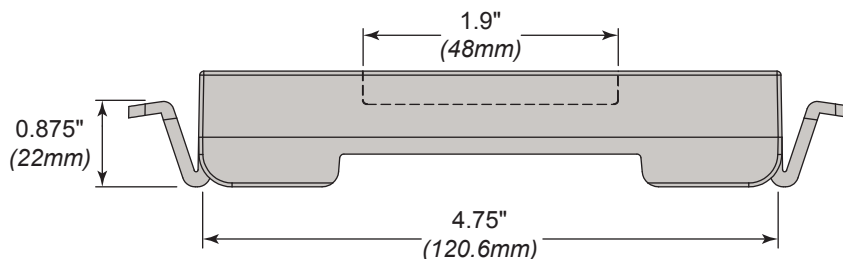
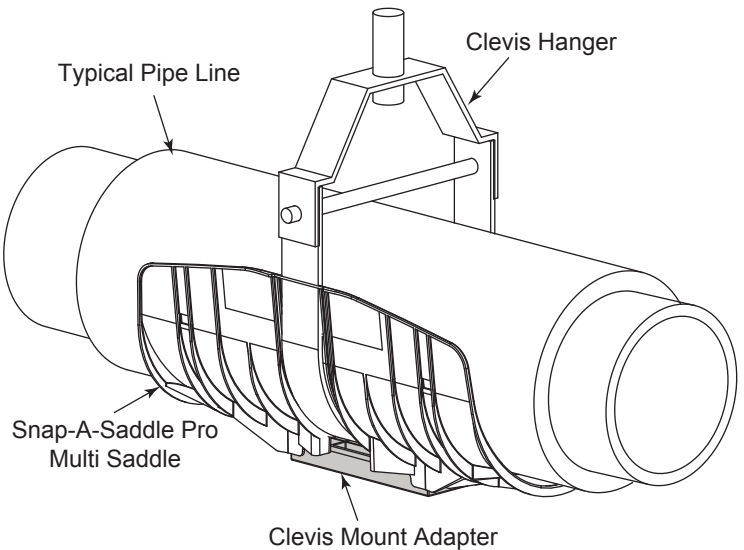
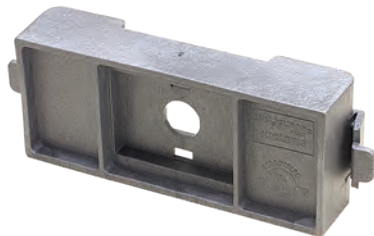
Part No.	A	B	Use with Wesanco Channel
SASM30X30G	1-3/16" (30mm)	1-3/16" (30mm)	-
SASM31X43G	1-5/64" (31mm)	1-11/16" (43mm)	-
SASM40X38G	1-9/16" (40mm)	1-1/2" (38mm)	-
SASM42X20G	1-5/8" (41mm)	13/16" (21mm)	W400, W500
SASM42X42G		1-5/8" (41mm)	W200, W210, W401, W501
SASM42X84G		3-1/4" (165mm)	W201, W211, W150
SASM42X166G		6-1/2" (165mm)	W151
SASM4D21G	2-1/8" (54mm)	1-1/16" (27mm)	-
SASM4D22G		2-1/8" (54mm)	-



The use of the Stabilizer Adapter with 10" SASM1050G and 12" SASM1250G Saddles is suggested for additional support.

SASMCLEVISG

Clevis Mount Adapter



SnapShock™ can be attached to Clevis Mount Adapter.

Stabilizer can be attached with Clevis Mount Adapter

Clevis Mount Adapter is utilized with Floor Adapter assembly.



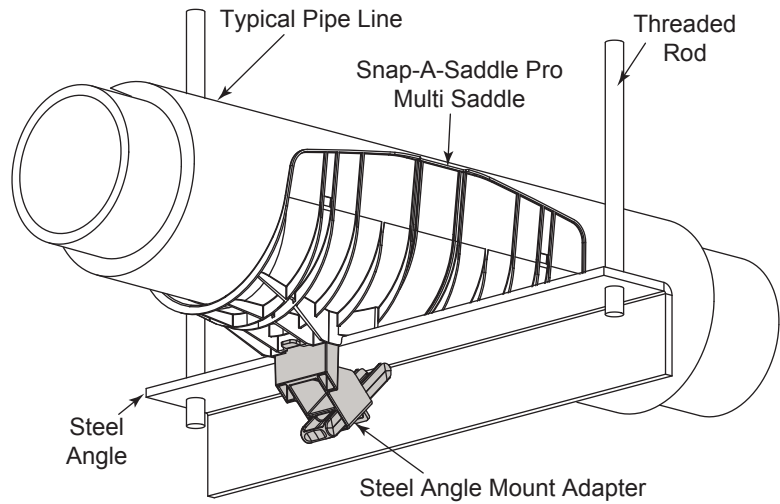
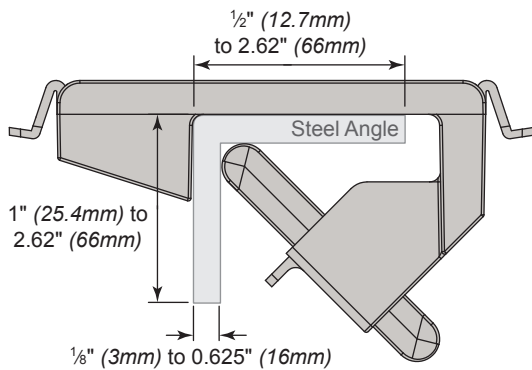


Snap-A-Saddle Pro Multi™ - Adapters

Adaptable Insulated Pipe Saddle

SASM2-5/8G

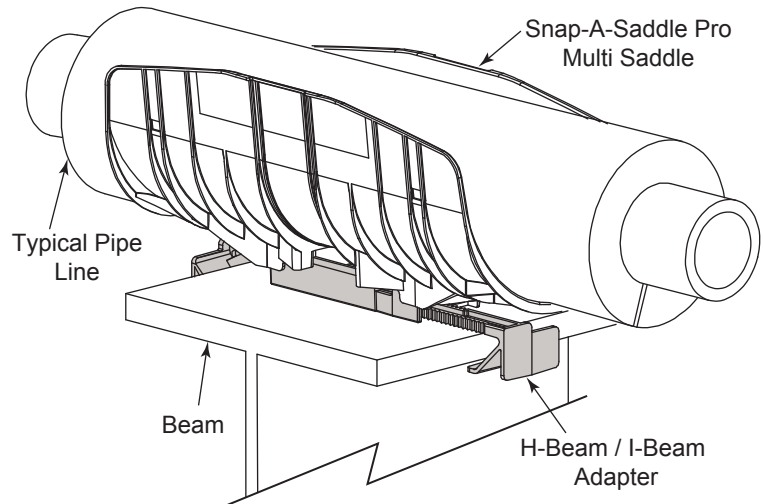
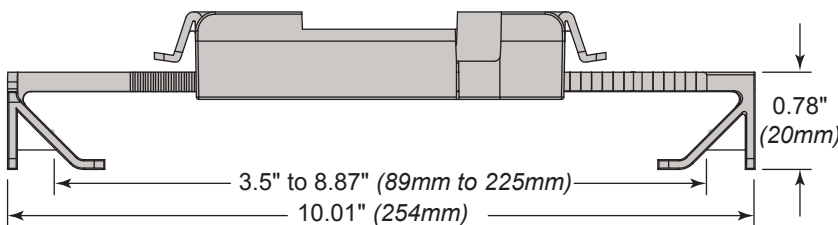
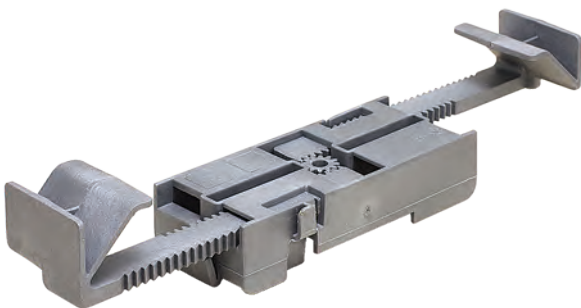
Steel Angle Mount Adapter



The use of the Stabilizer Adapter with 10" SASM1050G and 12" SASM1250G Saddles is suggested for additional support.

SASMHBEAMG

H-Beam / I-Beam Adapter



The use of the Stabilizer Adapter with 10" SASM1050G and 12" SASM1250G Saddles is suggested for additional support.

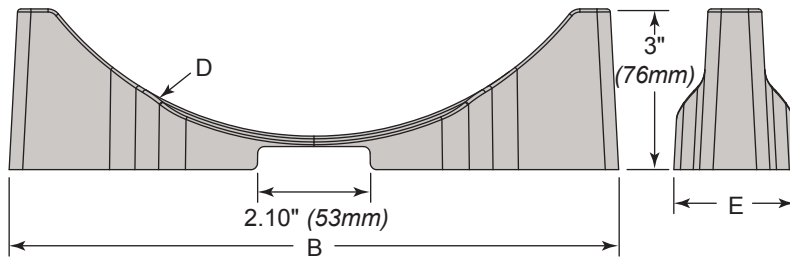
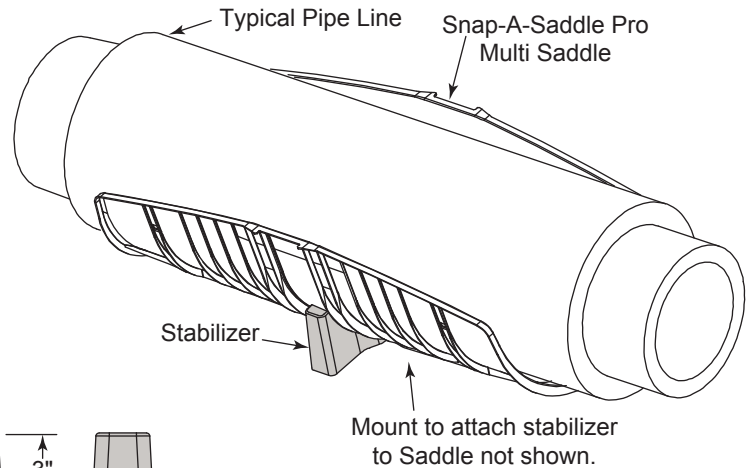


Snap-A-Saddle Pro Multi™ - Adapters



Adaptable Insulated Pipe Saddle

Stabilizer

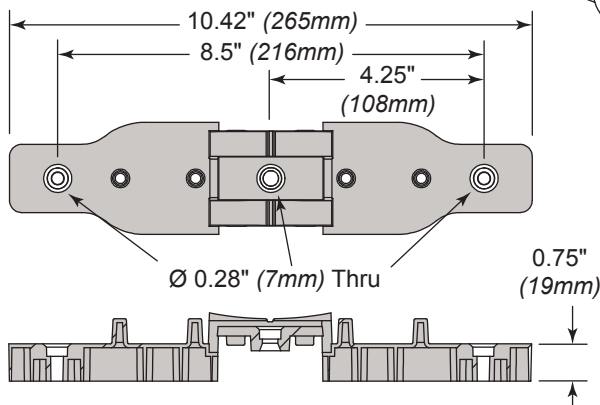
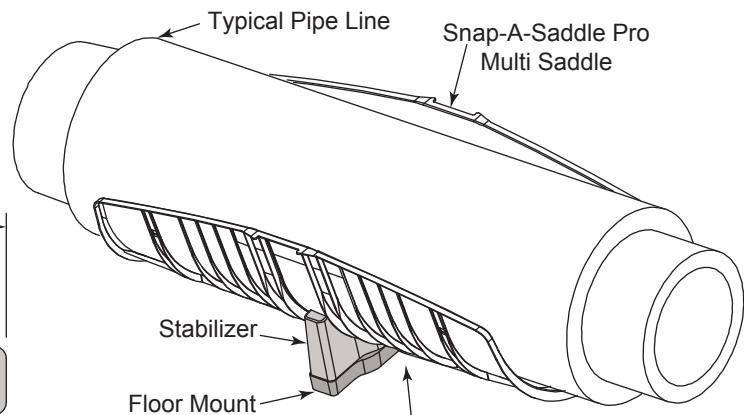


Part Number	B	D	E	Compatible Only with Saddle
SASMSTAB1050G	10.34" (263mm)	R5.13	2.24" (57mm)	SASM1050G
SASMSTAB1250G	11.38" (289mm)	R6.13	2.28" (58mm)	SASM1250G

Stabilizer is attached to Saddle with Strut Mount, Steel Angle, H & I-Beam and Clevis Mount adapters.

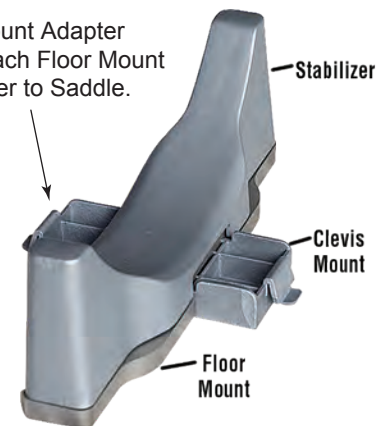
The use of this Stabilizer Adapter with 10" SASM1050G and 12" SASM1250G Saddles is suggested for additional support.

Floor Adapter



Floor Mount works with 10" SASM1050G and 12" SASM1250G Saddles. Requires the Stabilizer and Clevis Mount Adapters as shown in photo to the right.

Part Number	Compatible Only with Saddle	Requires a Stabilizer	Requires a Clevis Mount
SASMFLOOR10-12G	SASM1050G & SASM1250G	SASMSTAB1050G & SASMSTAB1250G	SASMCLEVISG



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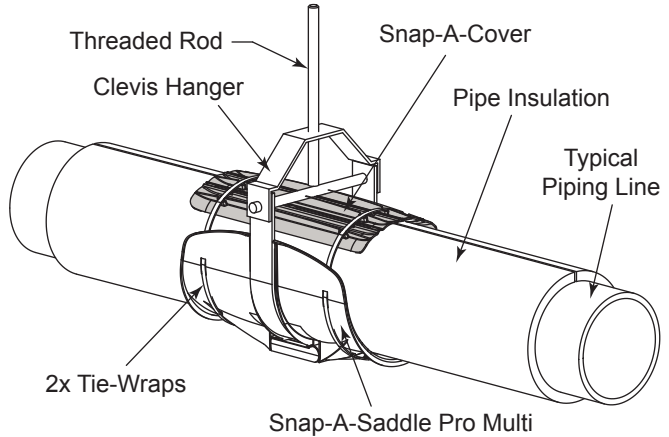


Snap-A-Cover™

Cover for Insulated Pipe Saddle

Snap-A-Cover™

Insulated Pipe Saddle Cover



Applications:

Refrigeration, Air Conditioning and Plumbing

Installation:

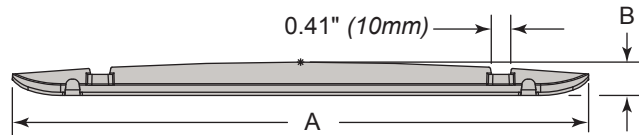
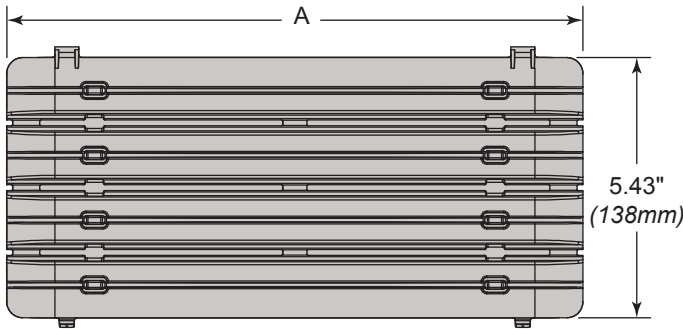
Tool-Free, Suited for vertical or horizontal pipe installation.

Certification:

UL classified for USA (UL-723 (ASTM E 84)) and ULC listed for Canada (ULC-S102.2).

Material:

- Polypropylene
- UV resistant
- Operating temperature -40° to 178°F (-40° to 81°C)
- Paintable (preserves mechanical properties even after painting)
- Non-adhesive surface for linear expansion of thermal insulation.



Part Number	Color	Use With Snap-A-Saddle Pro Part Numbers	A	B
SACX25B	Black	SAS225B, SAS325B, SAS425B, SAS525B, SAS625B	12" (305mm)	0.83" (21mm)
SACX25W	White	SAS225W, SAS325W, SAS425W, SAS525W, SAS625W		
SAC825B	Black	SAS825B		
SAC825W	White	SAS825W		

Part Number	Color	Use With Snap-A-Saddle Pro Multi Part Numbers	A	B
SACX50G	Grey	SASM250G, SASM350G, SASM450G, SASM550G, SASM650G	12" (305mm)	0.83" (21mm)
SACL50G	Grey	SASM850G, SASM1050G, SASM1250G	18" (457mm)	0.77" (19.5mm)



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SnapShock™



Magnetic Shock Detection Device

SnapShock™

Applications:

Refrigeration, Air Conditioning and Plumbing

Installation:

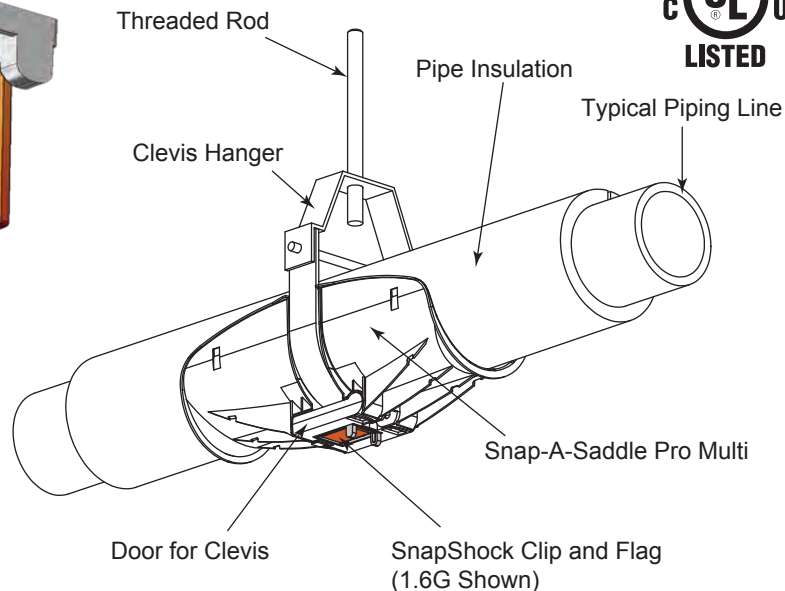
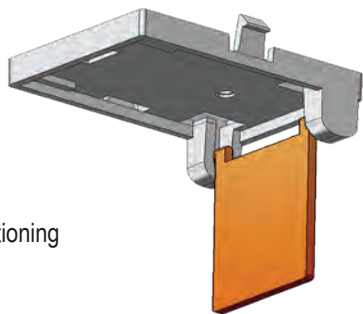
Tool-Free, clips directly into the Clevis adapter of the Snap-A-Saddle Pro Multi™

Certification:

UL classified for USA (UL-723 (ASTM E 84) and ULC listed for Canada (ULC-S102.2).

Material:

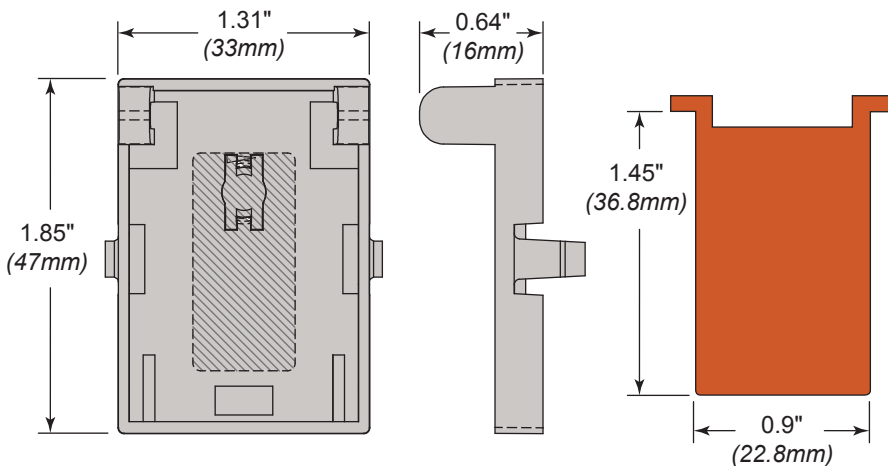
- Polypropylene 20% glass filled
- UV resistant
- Operating temperature -40° to 178°F (-40° to 81°C)



Each color coded flag will trigger at a different shock intensity. Flags are easily interchangeable for different shock tolerance. Flag thickness varies by shock intensity.

- 1.8G (Downward Allowable Stress Design)
- 1.6G (Downward Allowable Stress Design)
- 1.4G (Downward Allowable Stress Design)

SnapShock is sold by the set. Each set is supplied complete with all three flags.



Install Flag



Set Flag to Arm



Activated Flag Indicates Shock Issue



Introduction

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Rooftop Supports

Gamma Pads

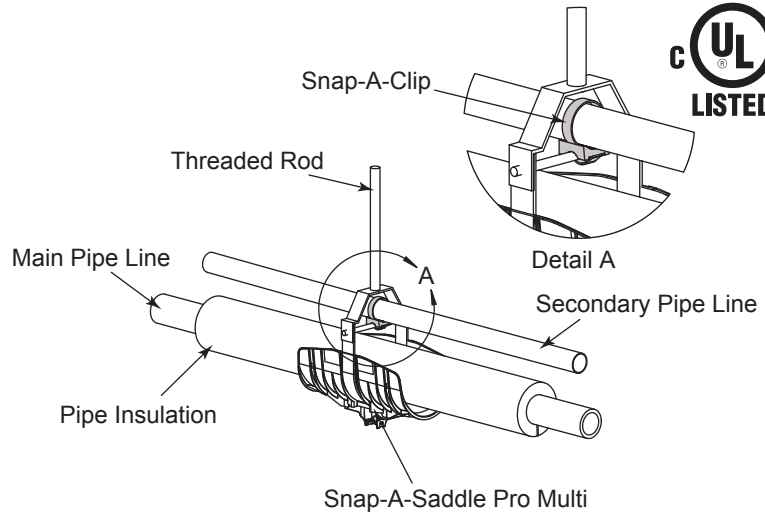
Technical Data



Snap-A-Clip™

Dual-Strap Fastener for Clevis Hanger Cross-Bolt

Snap-A-Clip™



Applications:

Refrigeration, Air Conditioning, Plumbing, Electrical and Communication

Installation:

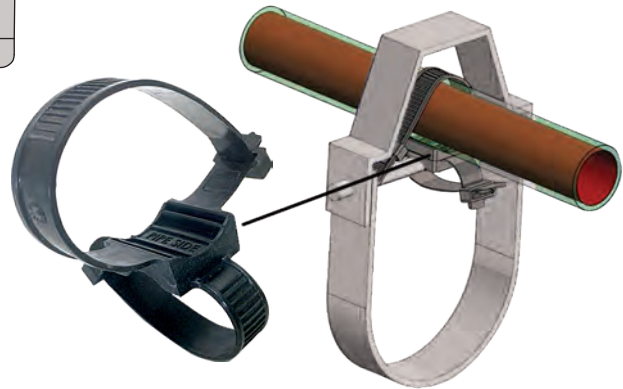
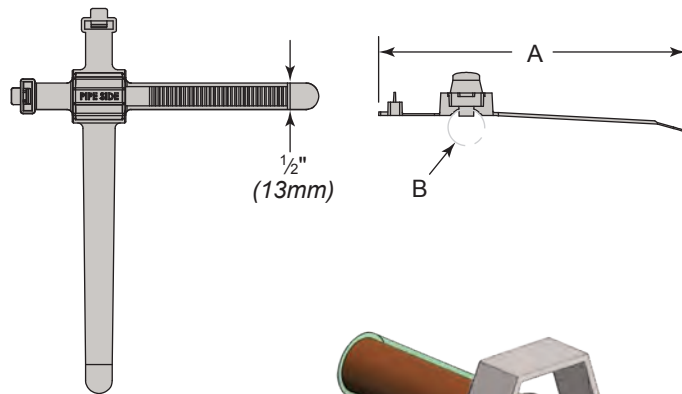
Tool-Free, Tie-wrap style

Certification:

UL classified for USA (UL-723 (ASTM E 84)) and ULC listed for Canada (ULC-S102.2).

Material:

- Polypropylene
- UV resistant
- Operating temperature -40° to 178°F (-40° to 81°C)
- Paintable (preserves mechanical properties even after painting)



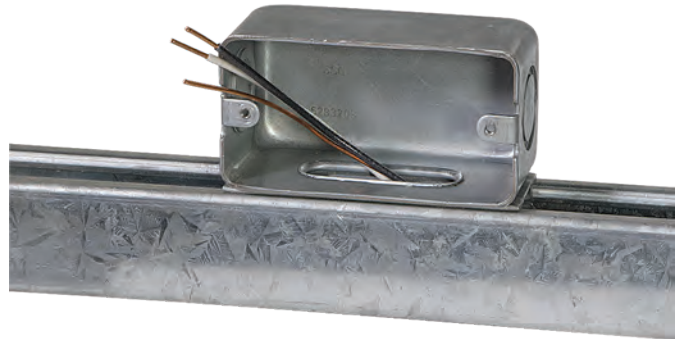
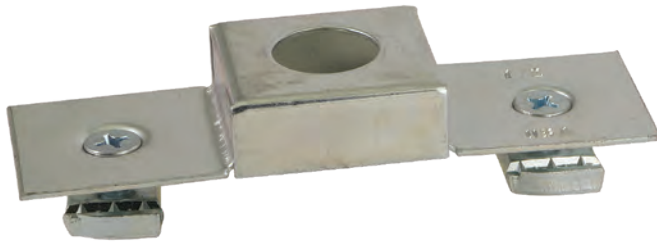
Part Number	For Pipe OD	A	B
SASP050B	1/4" - 1/2"	5.62" (143mm)	0.68" (17mm)
SASP125B	5/8" - 1-1/4"	5.77" (147mm)	1.25" (32mm)
SASP175B	1-5/16" - 1-3/4"	6.20" (158mm)	1.75" (45mm)
SASP225B	1-3/4" - 2-1/4"	6.20" (158mm)	1.71" (44mm)

Bolt Diameter	Pipe Diameter										
	1/4" (6mm)	1/2" (13mm)	5/8" (16mm)	3/4" (19mm)	1" (25mm)	1-1/4" (39mm)	1-1/2" (38mm)	1-3/4" (45mm)	2" (51mm)	2-1/4" (57mm)	
1/4" (6.3mm)	SASP050B	SASP050B	-	-	-	-	-	-	-	-	
5/16" (7.9mm)			-	-	-	-	-	-	-	-	
3/8" (9.5mm)			SASP125B	SASP125B	SASP125B	SASP125B	SASP175B	SASP225B	SASP225B	-	-
1/2" (12.7mm)			-	-	-	-				-	-
11/16" (17.5mm)			-	-	-	-				-	-



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Electrical Fittings



Channel Raceways



W200, W210, W300, W500, W200KO, W210KO, W300KO, W500KO, W200SS, W210SS, W300SS, W500SS, W200SL, W210SL, W300SL, W500SL, W200H, W210H, W300H, and W500H

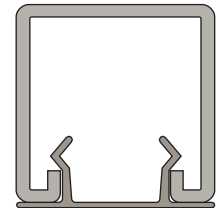
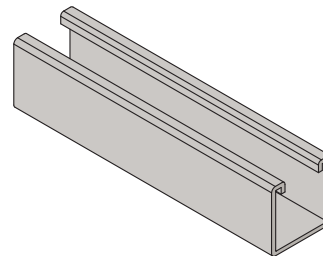
Maximum Number of Wires

Also suitable for the number of wires in table below when installed to support and supply electric discharge type lighting fixtures when raceway wiring is suitable for at least 70°C and clearance between fixture and raceway is at least 1/8". In all cases, a snap-in cover is required to complete the raceway enclosure.

Wire Types: R, RH, RU, RW, T, or TW

Wire Size AWG	W200, W200KO, W210, W210KO	W300, W300KO	W500, W500KO
14	10	10	6
12	10	10	6
10	8	6	-
8	6	4	-
6	3	2	-

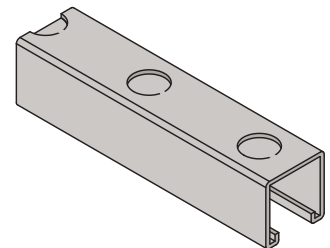
Electrical Specifications		
Material	ASTM	ASTM Description
Hot Rolled Plate	A 575	Steel, sheet and strip, carbon drawing quality, special killed, hot rolled.
Fitting (Steel)	A 366	Steel carbon, cold rolled sheet, commercial quality structural steel.
	A 366	
	A 36	



Channel with Knock-Outs

7/8" (22mm) Knock-outs are punched on 6" (152mm) centers.

Add "KO" to channel number.
Example: W200KO



Electrical Finish Specifications		
Finish	Finish Code	Description
Paint-Green Powder Coating	GR	A dark green low gloss powder coating is applied and thoroughly baked after steel has been cleaned and phosphatized.
Electroplated	EG	Fittings and hardware supplied as "Electro-Galvanized" in accordance with ASTM B 633.
Mill-Galvanized (Pre-Galvanized)	PG	Galvanized steel used in the manufacture of Wesanco channel sections conforms to ASTM A 653 GR33 G90. Uncoated edges resulted from slitting, punching and channel cut off are present.
Hot Dip Galvanized After Fabrication (HDGAF)	HG	Wesanco channel and fittings which are hot dip galvanized after fabrication conform to one of the following specifications.: ASTM A 123, ASTM A153, or ASTM A386.
Special Coatings	PL, GOLD	Other commercially available finishes can be supplied per specification when required to protect applications.

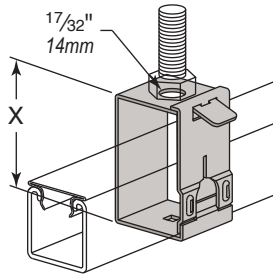


Electrical Accessories

Standard Finish: Electro-Galvanized

W6420 & W6422

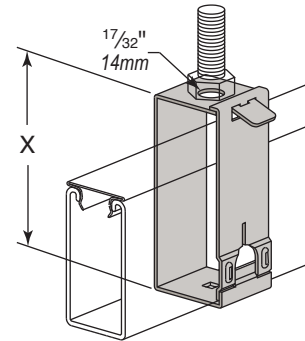
Single Channel Fixture Hanger



Part No.	I.D. X
W6420	3" (76mm)
W6422	4" (102mm)

W6424 & W6426

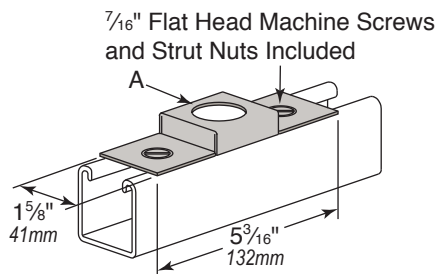
Double Channel Fixture Hanger



Part No.	I.D. "X"
W6424	4- ¹⁵ / ₁₆ " (125mm)
W6426	5- ¹⁵ / ₁₆ " (151mm)

W6442 & W6443

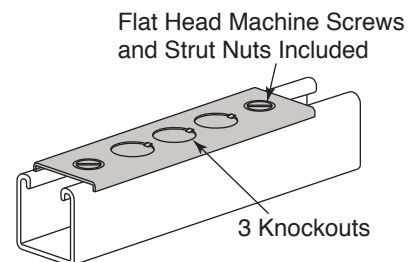
Conduit Connector



Part No.	Use with Conduit	I.D. "A"
W6442	1/2"	7/8" (22 mm)
W6443	3/4"	1- ³ / ₃₂ " (28 mm)

W6449

Outlet Box Connection Fitting



Assembly includes Wesanco nuts and Flat Head Machine Screws



Electrical Accessories



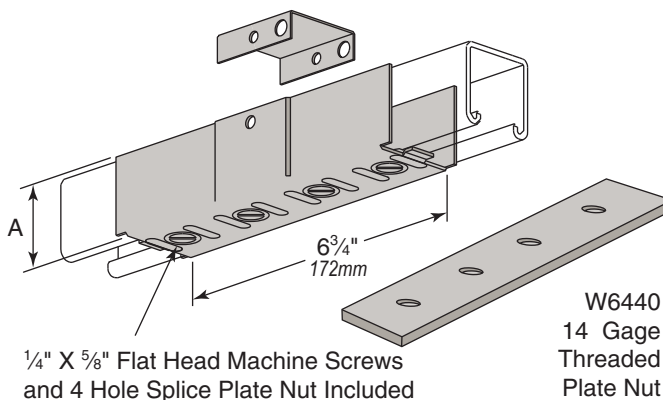
Standard Finish: Electro-Galvanized

W6432 to W6435

Four-Hole Raceway Splice Fitting
(With W6439/40 Attachment Plates)

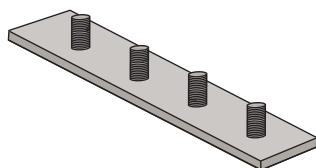


Part No.	A	Use with Channel
W6432	1-5/8" (41mm)	W200, W210
W6433	1-3/8" (35mm)	W300
W6435	13/16" (21mm)	W400, W500



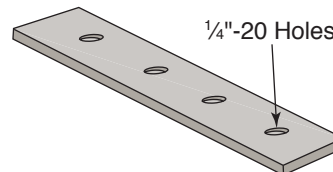
W6439

Standard Raceway Stud Plate



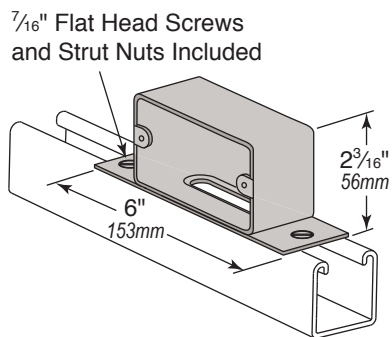
W6440

Four-hole Tapped Splice Plate
(opt.) with 4 Screws



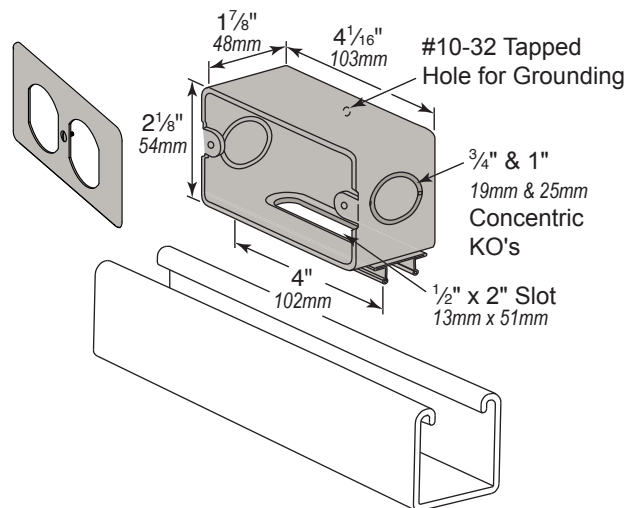
W6445

Receptacle Box



B6445S

Snap-A-Box



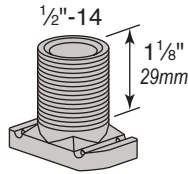


Electrical Accessories

Standard Finish: Electro-Galvanized

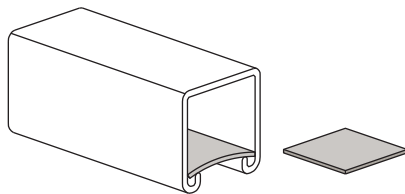
W6462

Aluminum Wiring Stud $\frac{1}{2}$ "-14 Thread 1- $\frac{1}{8}$ " Long



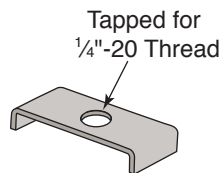
W6469

Fiber Wire Retainer



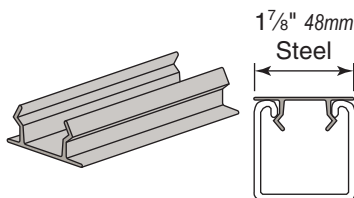
W6461

Fixture Nut



W6500

Closure Strip (19 Ga.)

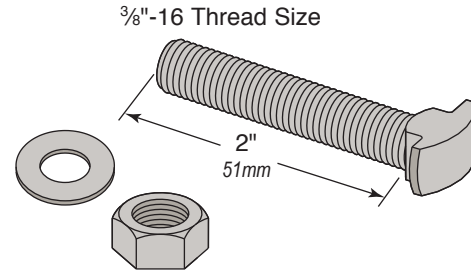


Use of W6500 Closure Strip with UL listed channel completes UL Listed surface metal raceway.

Standard finish: PG

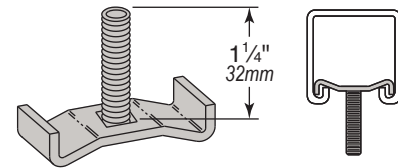
W6463

Shoulder Bolt $\frac{3}{8}$ " x 2"



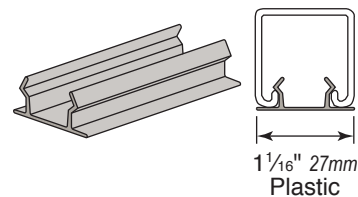
W6460

Fixture Stud



W6500PLASTIC

Plastic Closure Strip



W6518 Plastic not UL listed



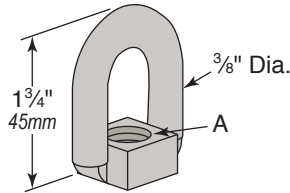
Swivel Hangers



Standard Finish: Electro-Galvanized

W6905 & W6906

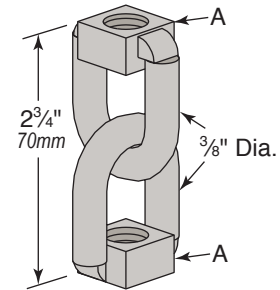
Eyelet



Part No.	A Size
W6905	3/8"-16
W6906	1/2"-13

W6915 & W6916

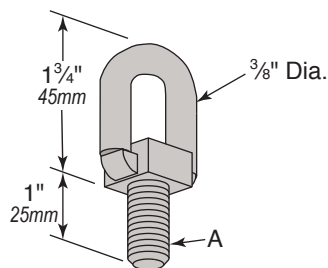
Swivel Joint



Part No.	A Size
W6915	3/8"-16
W6916	1/2"-13

W6910 & W6911

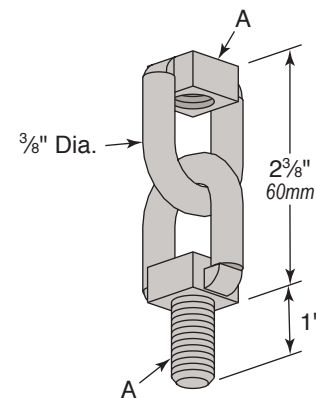
Eyelet With Stud



Part No.	A Size
W6910	3/8"-16
W6911	1/2"-13

W6920 & W6921

Swivel Joint with Stud



Part No.	A Size
W6920	3/8"-16
W6921	1/2"-13





Porce-A-Clamp®

Porce-A-Clamp®

Cable Clamp

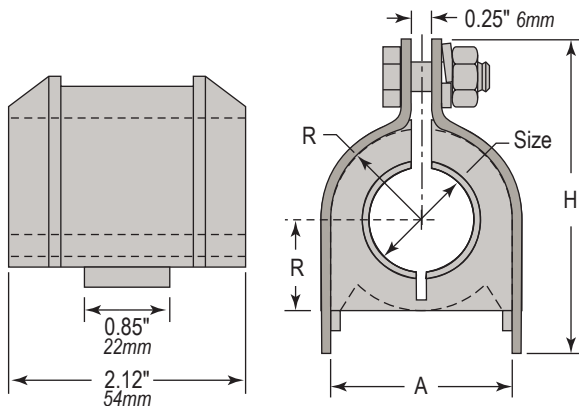


The hinged cushion allows easy installation of the wire, but the components will not get separated and lost or broken.

Replaces Porcelain and Maple Cable Clamp. Assembly consists of thermoplastic elastomer cushion with plated or stainless steel clamp. Plated steel and stainless are both supplied with Silicon Bronze bolt and nut.

- Non-breakable material
- Chemical and UV resistant
- **U.L. Listed** - Burning stops within 10 seconds after two applications of ten seconds each of a flame to a test bar with no flaming drips.
- Plated Steel, or Stainless steel clamps
- Tapered flange to protect cable
- Dielectric strength 640 volts per mil
- One piece cushion design, available with Flame retardant / Halogen Free cushions
- Silicon Bronze Hardware used to Breakup the Magnetic field around the Cable at the Clamping Location.

Part No.	Dimensions (In.)			Total Assy. Height - H
	Hole Dia.	A	R	
006CC018	3/8"	1.12" (28mm)	0.56" (14mm)	1.82" (46mm)
008CC018	1/2"			
010CC018	5/8"			
012CC026	3/4"	1.62" (41mm)	0.81" (21mm)	2.34" (59mm)
014CC026	7/8"			
016CC026	1"			
018CC026	1-1/8"			
020CC034	1-1/4"	2.12" (54mm)	1.06" (27mm)	2.86" (73mm)
022CC034	1-3/8"			
024CC034	1-1/2"			
026CC034	1-5/8"			
028CC042	1-3/4"	2.62" (67mm)	1.31" (33mm)	3.50" (89mm)
030CC042	1-7/8"			
032CC042	2"			
034CC042	2-1/8"			
036CC050	2-1/4"	3.12" (79mm)	1.56" (40mm)	4.05" (103mm)
038CC050	2-3/8"			
040CC050	2-1/2"			
042CC050	2-5/8"			
044CC058	2-3/4"	3.62" (92mm)	1.81" (46mm)	4.75" (121mm)
046CC058	2-7/8"			
048CC058	3"			
050CC058	3-1/8"			
052CC066	3-1/4"	4.12" (105mm)	2.06" (52mm)	5.125" (130mm)
054CC066	3-3/8"			
056CC066	3-1/2"			
058CC066	3-5/8"			
060CC074	3-3/4"	4.62" (117mm)	2.31" (59mm)	5.54" (141mm)
062CC074	3-7/8"			
064CC074	4"			
066CC074	4-1/8"			
068CC080	4-1/4"	5.00" (127mm)	2.50" (64mm)	5.92" (150mm)
070CC080	4-3/8"			
072CC080	4-1/2"			



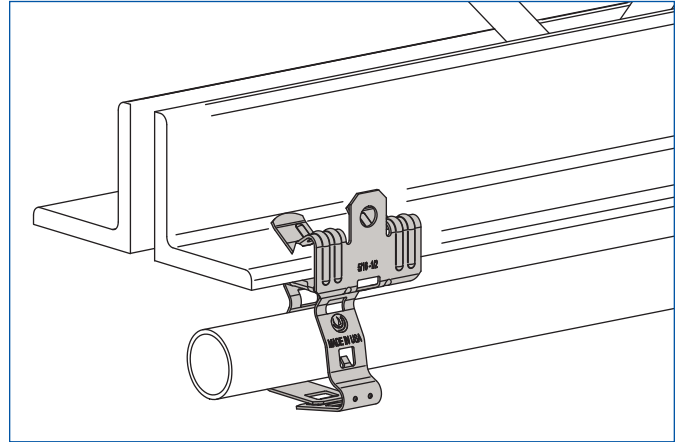
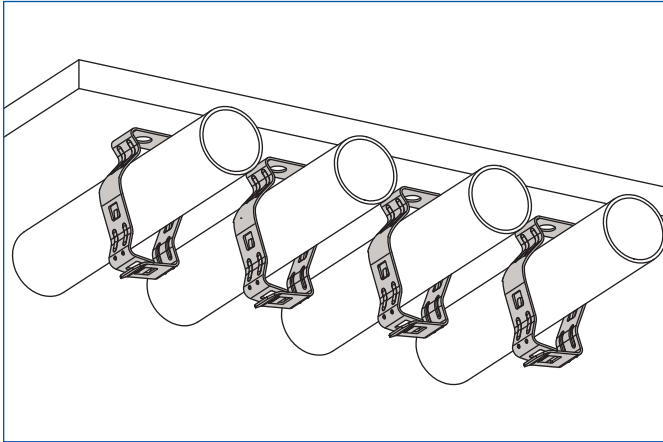
Note: All clamps have Silicon Bronze Hardware			
SUFFIX	Clamp	Cushion	Example
Z	Plated Steel	Flame Retardant	006CC018Z
S	Stainless Steel	Flame Retardant	006CC018S
ZH	Plated Steel	Flame Retardant Halogen Free	006CC018ZH
SH	Stainless Steel	Flame Retardant Halogen Free	006CC018SH



Spring Steel



Electrical Positioning and Support Products




The ZSi-Foster Silva-Guard Finish

Superior Corrosion Resistance

The ZSi-Foster Silva-Guard finish provides one of the highest levels of corrosion resistance for spring steel fasteners available on the market. ZSi-Foster Silva-Guard coating is extremely consistent providing a finish that combines superior appearance and outstanding protection.

This aesthetically pleasing appearance is particularly important for installations in highly visible areas, such as open ceilings.

SG Finish is  Listed for indoor, outdoor, wet, and dry applications.

Innovative Three Step Coating System

The ZSi-Foster Silva-Guard finish is a three step coating system that is RoHS, WEEE, and ELV compliant.

- The first step is surface preparation involving a process designed to improve the coating adhesion.
- The second step is a base coat designed to self-heal from nicks and scratches as well as sacrifice itself instead of the fastener base material.
- The third step is a topcoat designed to be an additional protective barrier.

Spring Steel Specifications	
Material	ASTM Description
Spring Steel	Cold Roll, ASTM A684 Grade 1055 Spring Steel
Carbon Steel	ASTM A1011-00 SS GR 33 or ASTM A1011-00CS Type B

Spring Steel Finish Specifications		
Finish	Finish Code	Description
ZSi-Foster Silva-Guard	SG	ZSi-Foster Silva-Guard coating is a multi-step process that meets the 1000 hour salt spray test per ASTM B117 and DIN 50021. Silva-Guard coating is WEEE, ELV and RoHS compliant. SG Finish is approved for outdoor as well as indoor applications. It is a chrome free duplex coating system that combines an inorganic zinc-rich basecoat with an aluminum-rich organic topcoat.
Electroplated Zinc or Electro-Galvanized	EG	This coating is standard for most ZSi-Foster products. Electro-Galvanized products meet ASTM B633 SC1 or SC3, Type III. Electroplating deposits zinc on the surface of the steel by electrolysis from a bath of zinc salts.
Pre-galvanized Zinc	PG	ASTM A653 G-90 Pre-galvanized zinc is produced by continuously rolling steel coils or sheets through molten zinc at the mills.

Call ZSi-Foster at (800) 323-7053 or order now at zsi-foster.com



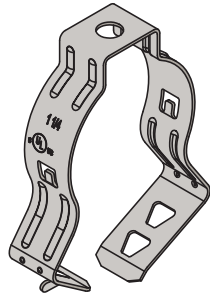
Conduit and Cable Support

Standard Finish: Silva-Guard (SG)

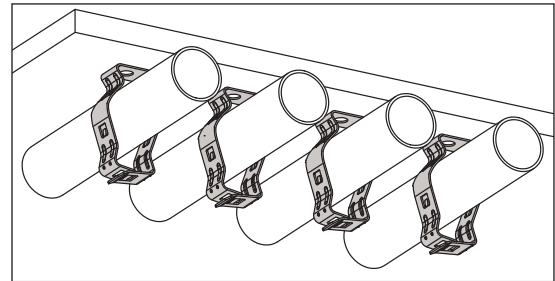


CC/CCT

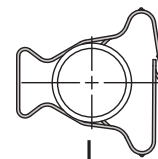
Conduit Clips



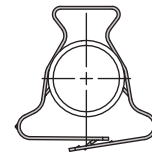
- For vertical or horizontal conduit and pipe applications.
- Threaded version can be used with 1/4"-20 threaded rods.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



Part No.	Mounting Hole	Conduit Size
CC812	9/32" Thru Hole	1/2" or 3/4" EMT, Rigid
CCT812	1/4"-20 Thread Form	
CC16	9/32" Thru Hole	1" EMT, Rigid
CCT16	1/4"-20 Thread Form	
CC20	9/32" Thru Hole	1-1/4" EMT, Rigid
CCT20	1/4"-20 Thread Form	
CC24	9/32" Thru Hole	1-1/2" EMT, Rigid
CCT24	1/4"-20 Thread Form	
CC32	9/32" Thru Hole	2" EMT, Rigid
CCT32	1/4"-20 Thread Form	



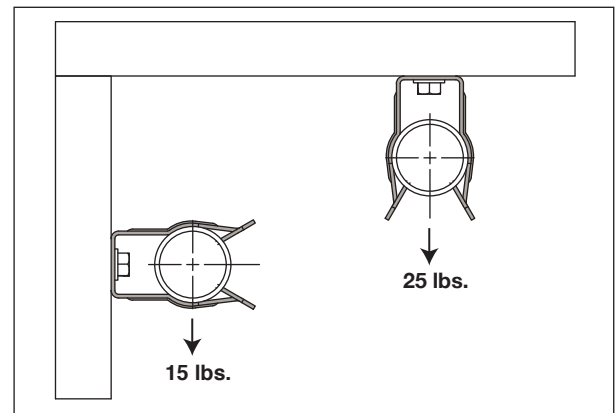
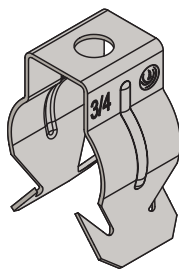
30 lbs



120 lbs

CCP

Conduit "Push In" Clips



- Eliminates need for conduit offset bending.
- For vertical or horizontal conduit and pipe applications.
- Simple Push-in design
- **Material:** Spring Steel
- **Finish:** Silva-Guard

Part No.	Mounting Hole	Conduit Size
CCP8	9/32" Thru Hole	1/2" EMT
CCP12		3/4" EMT, 1/2", Rigid
CCP16		1" EMT, 3/4" Rigid



Conduit and Cable Support

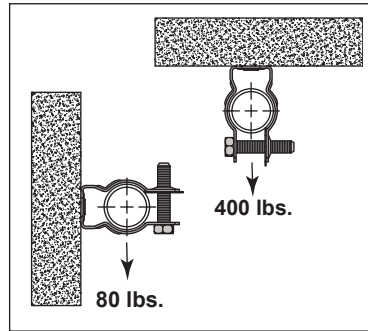
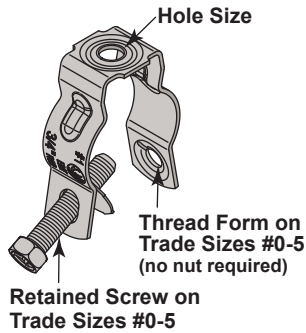


Standard Finish: Silva-Guard (SG)



PCH

Pipe and Conduit Hanger



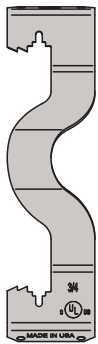
Part No.	Trade Size	Conduit Size		Hole Size
		EMT	Rigid	
PCH0	0	1/2"	3/8", 1/2"	1/4"
PCH1	1	3/4"	3/4"	1/4"
PCH2	2	1"	1"	1/4"
PCH2.5	2.5	1-1/4"	-	1/4"
PCH3	3	1-1/2"	1-1/4"	1/4"
PCH4	4	-	1-1/2"	5/16"
PCH5	5	2"	2"	5/16"
PCH6 *	6	2-1/2"	2-1/2"	5/16"
PCH7 *	7	3"	3"	5/16"
PCH8 *	8	3-1/2"	3-1/2"	5/16"
PCH9 *	9	4"	4"	5/16"

* EG finish and pan head, hex nut hardware.

- PCH #0-5 come with retained combo head screw and thread form.
- Combo head screw allows Robertson, Phillips, Slotted and Hex drivers.
- Supports vertical and horizontal installations of 3/8" - 4" Pipe and Conduit.
- 1/4"-20 Thread Form Hole Size available. Add suffix TF to Catalog Number.
- Also available in 304 and 316 Stainless Steel.
- **Material:** Steel
- **Finish:** Pregalvanized

WC/WCBW

Wing Clip Conduit Hanger



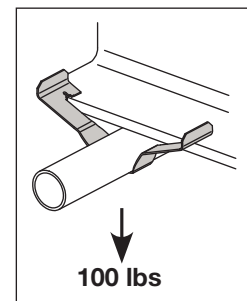
Conduit Size	#12 & #10 Wire	#9 & #8 Wire	3/16" & 1/4" Rod	1/8" Thru 1/4" Flange	5/16" Thru 3/8" Flange	7/16" Thru 1/2" Flange
1/2" EMT	WC8	WC8	WC8	WC8	WC12	WC12
1/2" RIGID		WC12	WC12	WC12		WC16
3/4" EMT	WC12			WC12	WC16	
3/4" RIGID		-	WC16		WC16	WC20
1" EMT	-			WC16	-	
1" RIGID		-	WC20			WC20
1-1/4" EMT	-			WC20	WC20	

WC clip shown

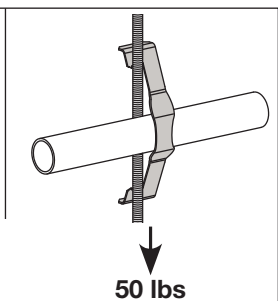
MC/AC Cable Size	#12, #10, #9 & #8 Wire
14 - 2 (.433-.475 O.D.)	WCBW
14 - 3 (.453-.500 O.D.)	WCBW
12 - 2 (.467-.475 O.D.)	WCBW
12 - 3 (.489-.535 O.D.)	WCBW
WCBW For Position Only	

- Supports conduit and pipe to a rod, wire, or flange.
- No installation tools required.
- Box Qty 100 for all sizes.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

Flange Installation



Wire or Rod Installation



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

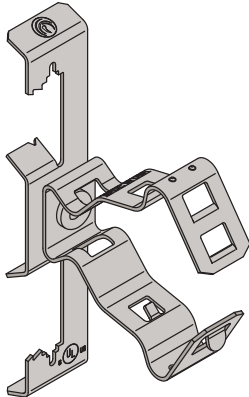


Conduit and Cable Support

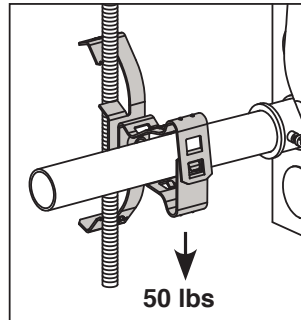
Standard Finish: Silva-Guard (SG)

MFC

Multi-Function Clip with Assemblies



Wire or Rod Installation

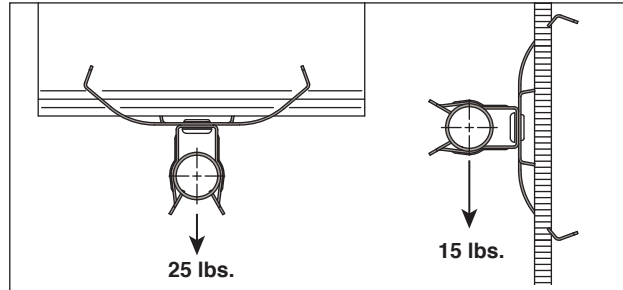
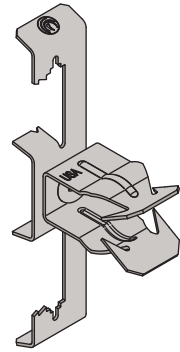


- Supports conduit and pipe to a rod, wire or flange.
- No tools required. Easy adjustment after installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

Part No.	Flange Size	Threaded Rod Size	Conduit Size or Threads
MFC812	1/8" - 3/8"	1/4" Threaded Rod	1/2" EMT, Rigid
MFC16			3/4" EMT, Rigid
			1" EMT, Rigid

MFCCCP

Multi-Function Clip with Conduit "Push In" Clip

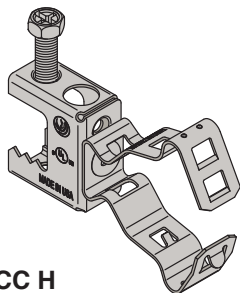


- No tools required for installation of conduit.
- Supports conduit to a rod, wire or flange.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

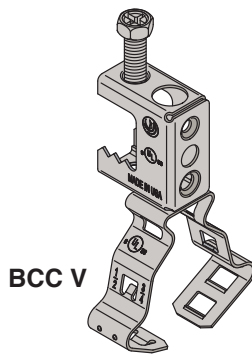
Part No.	Flange Size	Wire or Rod Size	Conduit Size
MFCCCP8	1/8" - 3/8"	#12 - 1/4" wire or rod with or without Threads	1/2" EMT
MFCCCP12			3/4" EMT, 1/2" Rigid
MFCCCP16			1" EMT, 3/4" Rigid

BCC

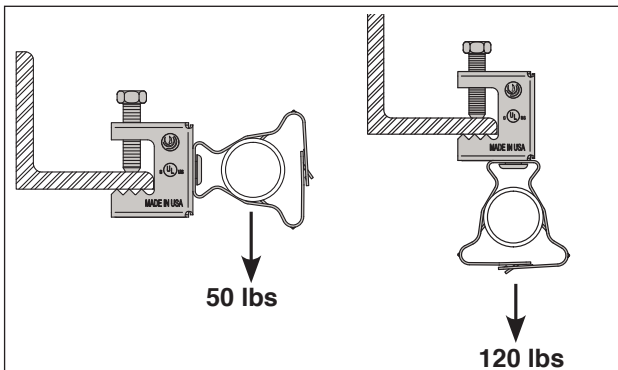
Beam Clamp with Conduit Clip



BCC H



BCC V



Part No.	Conduit Size
BCC812HM	1/2" & 3/4" EMT, Rigid
BCC16HM	1" EMT, Rigid
BCC20HM	1-1/4" EMT, Rigid
BCC24HM	1-1/2" EMT, Rigid
BCC32HM	2" EMT, Rigid
BCC812VM	1/2" & 3/4" EMT, Rigid
BCC16VM	1" EMT, Rigid
BCC20CM	1-1/4" EMT, Rigid
BCC24VM	1-1/2" EMT, Rigid
BCC32VM	2" EMT, Rigid



- Eliminates offset bending of conduit.
- For installation on 1/2" maximum flanges.
- Included combo head screw allows Robertson, Phillips/Slotted and Hex drivers.
- Conduit clip rotates 360 degrees.
- For support of conduit per NEC 344.30(B).
- **Material:** Spring Steel
- **Finish:** Silva-Guard



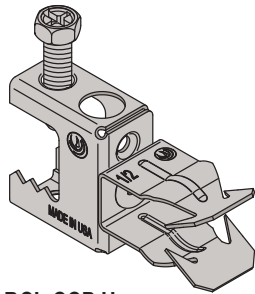
Conduit and Cable Support



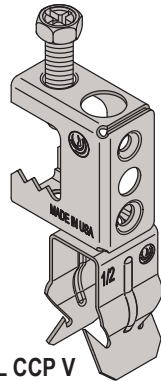
Standard Finish: Silva-Guard (SG)

BCL CCP

Beam Clamp with Conduit "Push In" Clip

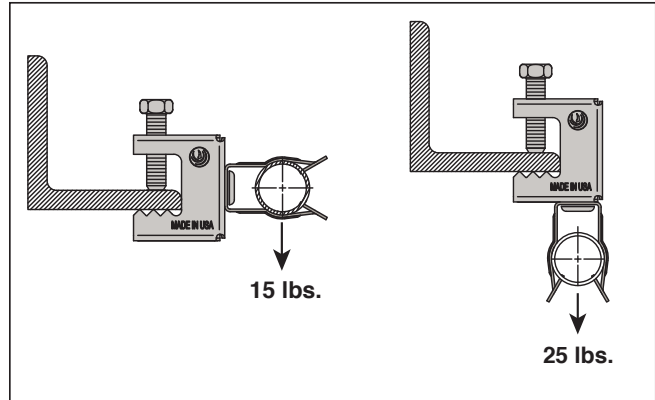


BCL CCP H



BCL CCP V

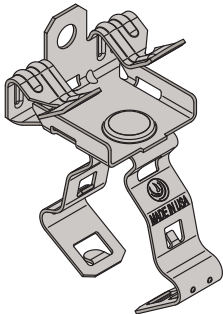
- Eliminates offset bending of conduit.
- For installation on 1/2" maximum flanges.
- Included combo head screw allows Robertson, Phillips/Slotted and Hex drivers.
- Conduit clip rotates 360 degrees.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



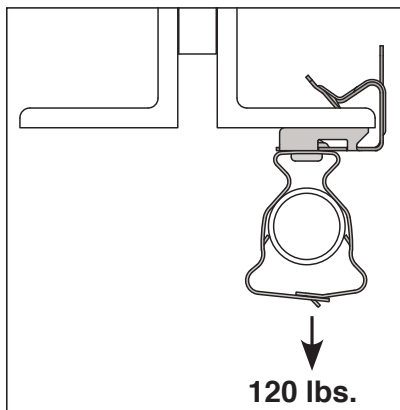
Part No.	Conduit Size
BCLCCP8HM	1/2" EMT
BCLCCP12HM	3/4" EMT, 1/2" Rigid
BCLCCP16HM	1" EMT, 3/4" Rigid
BCLCCP8VM	1/2" EMT
BCLCCP12VM	3/4" EMT, 1/2" Rigid
BCLCCP16VM	1" EMT, 3/4" Rigid

FH C

Flange Clip with Conduit Clip



- Supports pipe and conduit from beam flanges.
- Conduit clip rotates 360 degrees.
- Flange thickness range stamped on part.
- Only a hammer required for installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



Part No.	Min. - Max. Flange Thickness	Conduit Size
FH24CC812	1/8" - 1/4" (3mm - 6mm)	1/2" & 3/4" EMT, Rigid
FH58CC812	5/16" - 1/2" (8mm - 13mm)	
FH912CC812	9/16" - 3/4" (14mm - 19mm)	
FH24CC16	1/8" - 1/4" (3mm - 6mm)	1" EMT, Rigid
FH58CC16	5/16" - 1/2" (8mm - 13mm)	
FH912CC16	9/16" - 3/4" (14mm - 19mm)	
FH23CC20	1/8" - 1/4" (3mm - 6mm)	1-1/4" EMT, Rigid
FH58CC20	5/16" - 1/2" (8mm - 13mm)	
FH912CC20	9/16" - 3/4" (14mm - 19mm)	
FH24CC24	1/8" - 1/4" (3mm - 6mm)	1-1/2" EMT, Rigid
FH58CC24	5/16" - 1/2" (8mm - 13mm)	
FH912CC24	9/16" - 3/4" (14mm - 19mm)	
FH24CC32	1/8" - 1/4" (3mm - 6mm)	2" EMT, Rigid
FH58CC32	5/16" - 1/2" (8mm - 13mm)	
FH912CC32	9/16" - 3/4" (14mm - 19mm)	



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Introduction
Channel
Channel Nuts & Hardware
General Fittings
Pipe & Conduit Supports
Electrical Fittings
Spring Steel
Loop & Ring Clamps
Beta Clamps & Z-Clamps
Concrete Inserts
Rooftop Supports
Gamma Pads
Technical Data

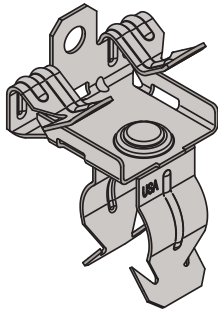


Conduit and Cable Support

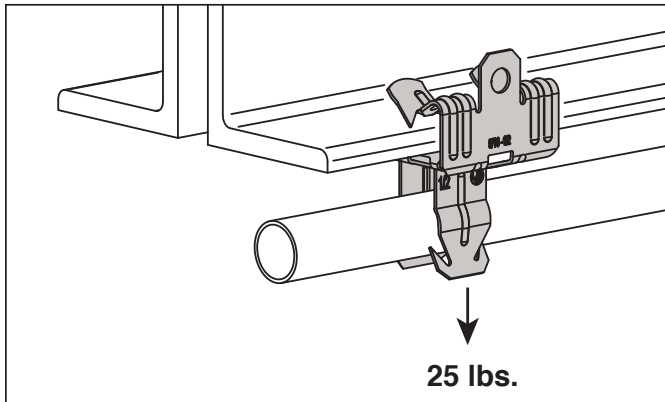
Standard Finish: Silva-Guard (SG)

FH CCP

Flange Clip with
Conduit "Push In" Clip



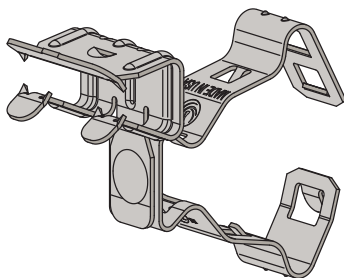
- Supports conduit from beam flanges.
- Conduit clip rotates 360 degrees.
- Flange thickness range stamped on part.
- Only a hammer required for installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



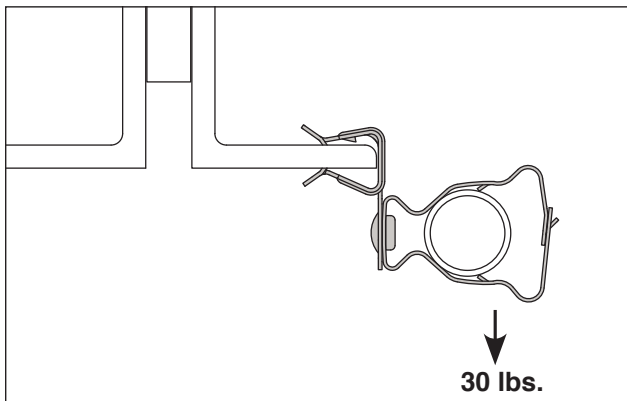
Part No.	Min. - Max. Flange Thickness	Conduit Size
FH24CCP8	1/8" - 1/4" (3mm - 6mm)	1/2" EMT
FH58CCP8	5/16" - 1/2" (8mm - 13mm)	
FH912CCP8	9/16" - 3/4" (14mm - 19mm)	
FH24CCP12	1/8" - 1/4" (3mm - 6mm)	3/4" EMT, 1/2" Rigid
FH58CCP12	5/16" - 1/2" (8mm - 13mm)	
FH912CCP12	9/16" - 3/4" (14mm - 19mm)	
FH24CCP16	1/8" - 1/4" (3mm - 6mm)	1" EMT, 3/4" Rigid
FH58CCP16	5/16" - 1/2" (8mm - 13mm)	
FH912CCP16	9/16" - 3/4" (14mm - 19mm)	

FHS C

Flange Clip Side Mount with Conduit Clip



- Supports pipe and conduit from beam flanges.
- Flange thickness range stamped on part.
- Only a hammer required for installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



Part No.	Min. - Max. Flange Thickness	Conduit Size
FHS24CC812	1/8" - 1/4" (3mm - 6mm)	1/2" & 3/4" EMT, Rigid
FHS58CC812	5/16" - 1/2" (8mm - 13mm)	
FHS912CC812	9/16" - 3/4" (14mm - 19mm)	
FHS24CC16	1/8" - 1/4" (3mm - 6mm)	1" EMT, Rigid
FHS58CC16	5/16" - 1/2" (8mm - 13mm)	
FHS912CC16	9/16" - 3/4" (14mm - 19mm)	
FHS24CC20	1/8" - 1/4" (3mm - 6mm)	1-1/4" EMT, Rigid
FHS58CC20	5/16" - 1/2" (8mm - 13mm)	
FHS912CC20	9/16" - 3/4" (14mm - 19mm)	
FHS24CC24	1/8" - 1/4" (3mm - 6mm)	1-1/2" EMT, Rigid
FHS58CC24	5/16" - 1/2" (8mm - 13mm)	
FHS912CC24	9/16" - 3/4" (14mm - 19mm)	
FHS24CC32	1/8" - 1/4" (3mm - 6mm)	2" EMT, Rigid
FHS58CC32	5/16" - 1/2" (8mm - 13mm)	
FHS912CC32	9/16" - 3/4" (14mm - 19mm)	



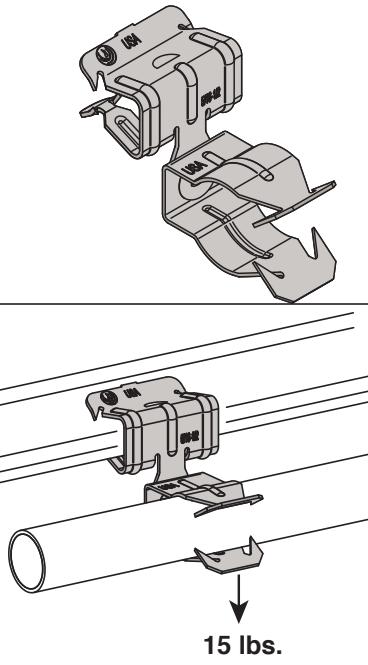
Conduit and Cable Support



Standard Finish: Silva-Guard (SG)

FHS CCP

Flange Clip Side Mount with Conduit "Push In" Clip

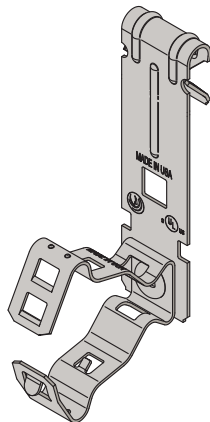


- Supports conduit from beam flanges.
- Flange thickness range stamped on part.
- Only a hammer required for installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

Part No.	Min. - Max. Flange Thickness	Conduit Size
FHS24CCP8	1/8" - 1/4" (3mm - 6mm)	1/2" EMT
FHS58CCP8	5/16" - 1/2" (8mm - 13mm)	
FHS912CCP8	9/16" - 3/4" (14mm - 19mm)	
FHS24CCP12	1/8" - 1/4" (3mm - 6mm)	3/4" EMT, 1/2" Rigid
FHS58CCP12	5/16" - 1/2" (8mm - 13mm)	
FHS912CCP12	9/16" - 3/4" (14mm - 19mm)	
FHS24CCP16	1/8" - 1/4" (3mm - 6mm)	1" EMT, 3/4" Rigid
FHS58CCP16	5/16" - 1/2" (8mm - 13mm)	
FHS912CCP16	9/16" - 3/4" (14mm - 19mm)	

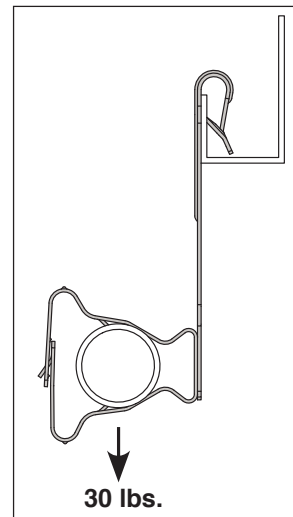
FHV CC

Flange Hanger with Conduit Clip



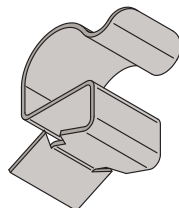
- Supports pipe and conduit from bar joist's and "C" purlin's.
- Compatible with many industry standard installation tools.
- 1/16"-1/4" flange thickness range.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

Part No.	Min. - Max. Flange Thickness	Conduit Size
FHV3CC812	1/16" - 1/4"	1/2" & 3/4" EMT, Rigid
FHV3CC16	1/16" - 1/4"	1" EMT, Rigid

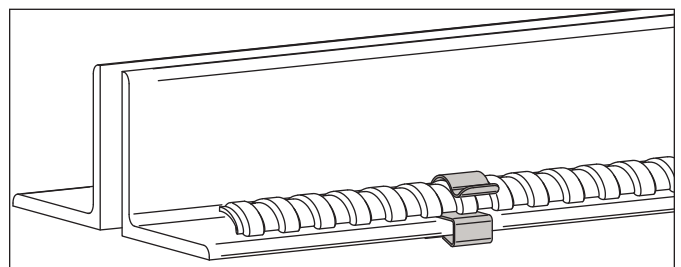


CFC

Conduit Clip to Flange



Part No.	Flange Thickness	Cable O.D.
CFC2D	1/16" - 3/16"	0.46 - 0.56
CFC4D	3/16" - 9/32"	0.46 - 0.56
CFC4E		0.50 - 0.72
CFC8D	5/16" - 1/2"	0.46 - 0.56
CFC8E		0.50 - 0.72



- Supports flexible conduit and cable from flanges.
- Simple Push-in clip design.
- **Material:** Steel
- **Finish:** Electro-Galvanized





Conduit and Cable Support

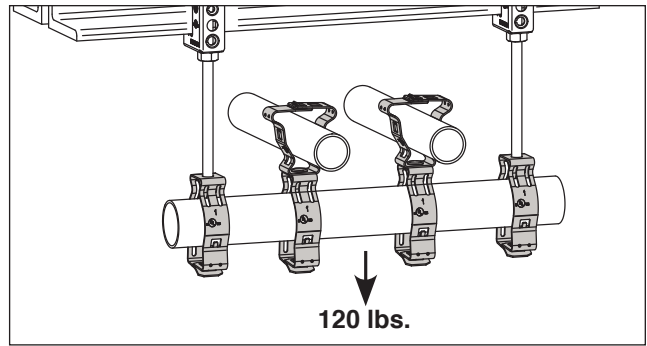
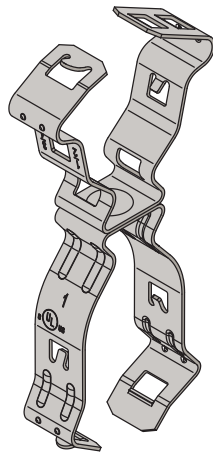
Standard Finish: Silva-Guard (SG)

CC CC

Conduit Clip
with Conduit Clip



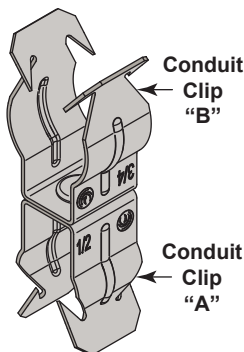
- No screws or bolts required.
- For lightweight trapeze systems.
- Conduit clip rotates 360 degrees.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



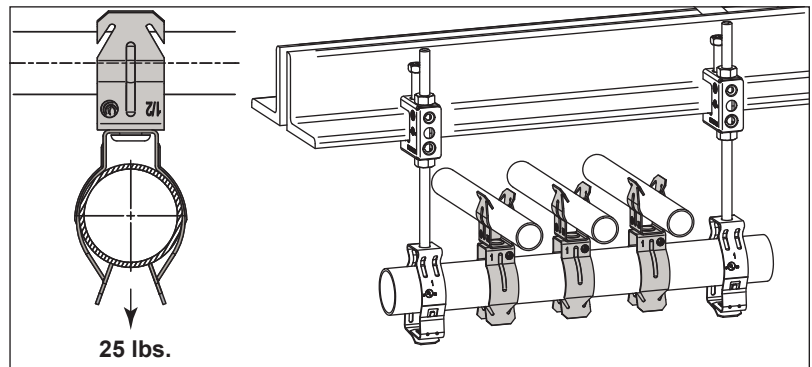
Part No.	Conduit Clip
CC16CC812	1/2" or 3/4" EMT, Rigid
CC16CC16	1" EMT, Rigid
CC16CC20	1-1/4" EMT, Rigid
CC16CC24	1-1/2" EMT, Rigid
CC16CC32	2" EMT, Rigid

CCP CCP

Conduit "Push In" Clip with Conduit "Push In" Clip



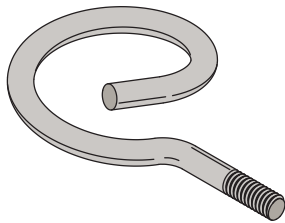
- No tools required for conduit installation.
- For lightweight trapeze systems.
- Conduit clips rotate 360 degrees.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



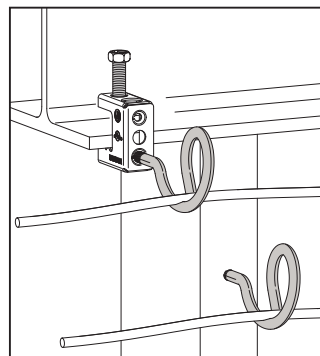
Part No.	Conduit Clip "A"	Conduit Clip "B"
CCP8CCP8		1/2" EMT
CCP8CCP12	1/2" EMT	3/4" EMT, 1/2" Rigid
CCP8CCP16		1" EMT, 3/4" Rigid
CCP12CCP12	3/4" EMT, 1/2" Rigid	3/4" EMT, 1/2" Rigid
CCP12CCP16		1" EMT, 3/4" Rigid
CCP16CCP16	1" EMT, 3/4" Rigid	1" EMT, 3/4" Rigid

BR

Bridle Ring



- Supports low voltage communication cable.
- Compatible with many other fasteners for support from purlin, T-grid, drop wire, and beam flanges.
- **Material:** Steel
- **Finish:** Electro-galvanized



Part No.	Ring Size I.D.	Thread Size
BR1012	3/4"	#10-24
BR1020		#10-24
BR2520	1-1/4"	1/4"-20
BR2520WS		1/4" Wood Screw
BR1032		#10-24
BR2532	2"	1/4"-20
BR2532WS		1/4" Wood Screw



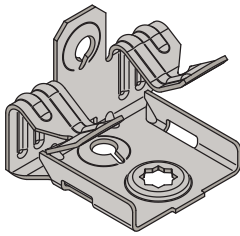
Structural Attachment

Standard Finish: Silva-Guard (SG)

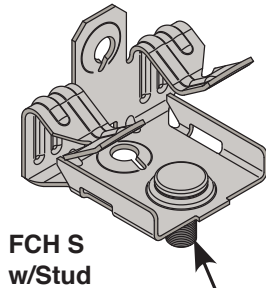


FCH

Flange Clip



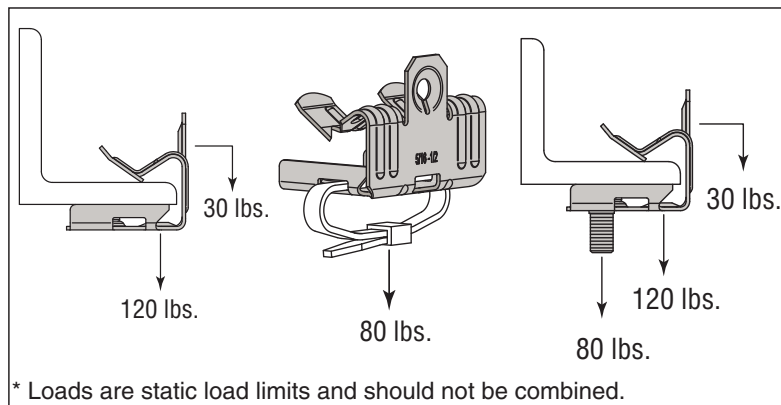
FCH



FCH S
w/Stud

1/4"-20 x
3/8" Stud

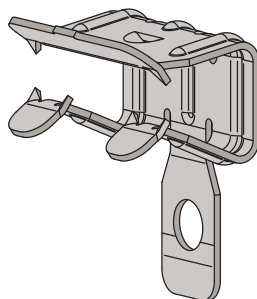
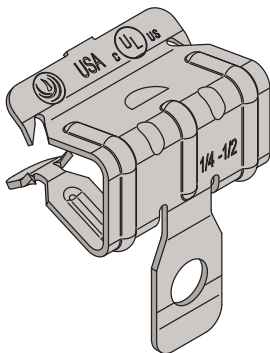
- Multi use beam clamp used to support threaded rod, electrical boxes, and bridal rings from beam flanges.
- Beam clamp with stud is for supporting electrical boxes from beam flanges.
- Punched holes provided for zip tie applications.
- 1/4"-20 thread forms permit threaded rod applications.
- Only a hammer required for installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



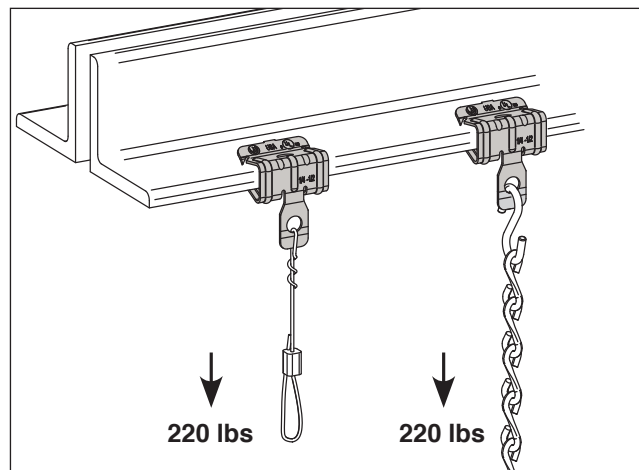
Part No.	Flange Thickness
FCH24	1/8" - 1/4" (3mm - 6mm)
FCH58	5/16" - 1/2" (8mm - 13mm)
FCH912	9/16" - 3/4" (14mm - 19mm)
FCH24S	1/8" - 1/4" (3mm - 6mm)
FCH58S	5/16" - 1/2" (8mm - 13mm)
FCH912S	9/16" - 3/4" (14mm - 19mm)

FSM

Flange Clip Side Mount



Part No.	Flange Thickness	Hole Size
FSM24	1/8" - 1/4" (3mm - 6mm)	9/32" (7.1mm)
FSM58	5/16" - 1/2" (8mm - 13mm)	
FSM912	9/16" - 3/4" (14mm - 19mm)	



- Beam clamp with hole for supporting tie wire and jack chain to beam flanges.
- Only a hammer required for installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



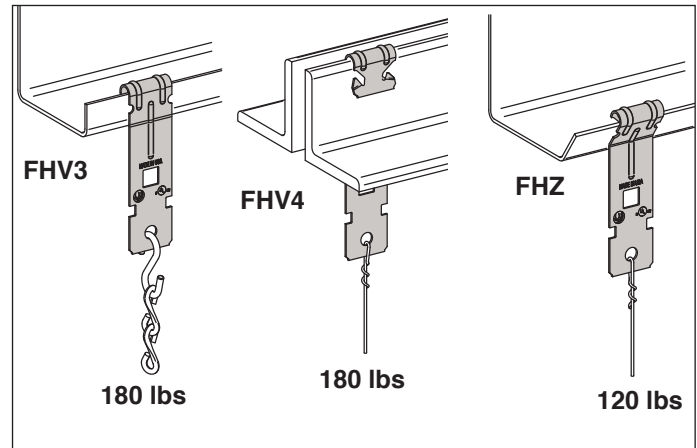
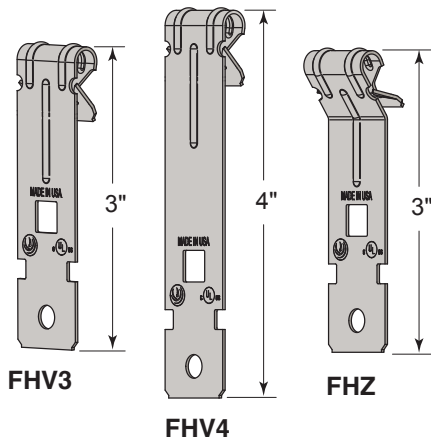


Structural Attachment

Standard Finish: Silva-Guard (SG)

FVZ, FHZ

Flange Hanger for Purlins and Bar Joists

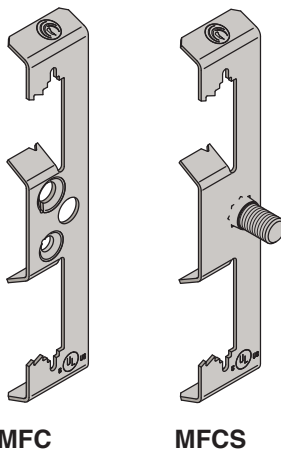


- **FHV3:** Flange clip with hole for supporting tie wire and jack chain to bar joist's and "C" purlin's.
- **FHV4:** Extra long flange clip with hole for supporting tie wire and jack chain to tall bar joist's and "C" purlin's.
- **FHZ:** Angled flange clip with hole for supporting tie wire and jack chain to "Z" purlin's.
- Compatible with many industry standard installation tools.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

Part No.	Min. - Max. Flange Thickness	Hole Size
FHV3	1/16" - 1/4" (2mm - 6mm)	9/32" (7.1mm)
FHV4		
FHZ		

MFC

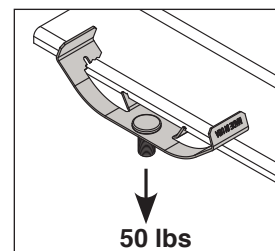
Multi-Function Clip with Assemblies



Part No.	Flange Size	Threaded Rod Size	Conduit Size or Threads
MFC	1/8" - 3/8"	1/4" Threaded Rod	3/32" - hole, 1/4" - 20 and 10-24 thread form
MFCS	1/8" - 3/8"	1/4" Threaded Rod	1/4" - 20 staked stud with nut (UL listed box support)

- **MFC:** Supports #10-24 and 1/4"-20 bridal rings to rod and wire.
- **MFCS:** Supports electrical boxes to rod and wire.
- No tools required. Easy adjustment after installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

Flange Installation



Structural Attachment

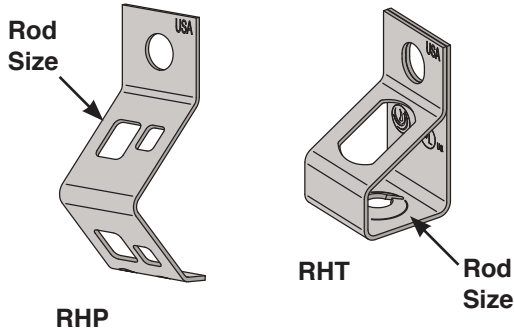
Standard Finish: Silva-Guard (SG)



RHP RHT

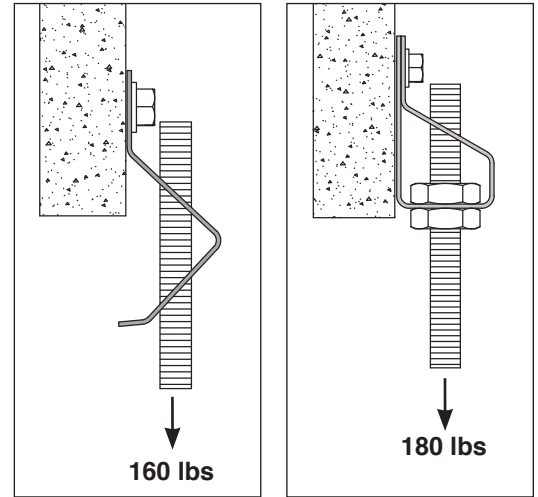
Rod Hanger Push Install or Rod Hanger Thread Install

- **RHP:** Suspends plain and threaded rod from vertical surfaces, and provides easy adjustment of rod after installation.
- **RHT:** Suspends threaded rod from vertical surfaces.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



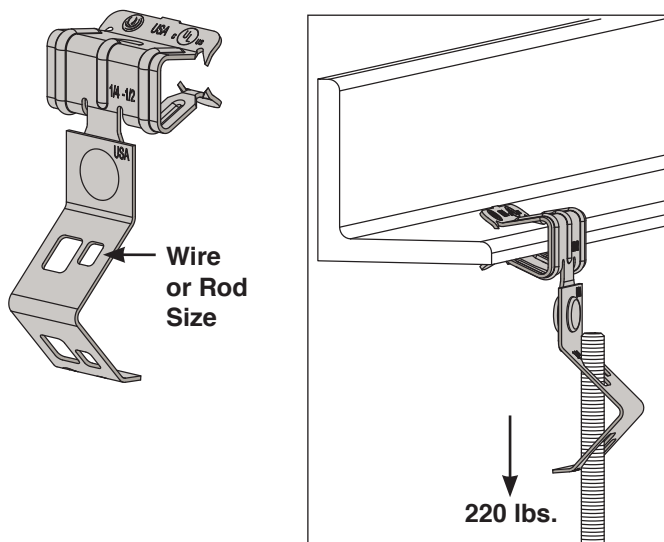
Part No.	Rod Size
RHP4	#8 Wire or 1/4" Plain or Threaded Rod
RHP6	3/8" Plain or Threaded Rod
RHT4T	1/4" - 20 Thread Form
RHT6T	3/8" - 16 Thread Form
RHT6 *	1 3/32" Thru Hole for 1/4" or 3/8" Threaded Rod

* Nuts sold separately



FH P

Flange Clip Side Mount with Rod Hanger Push Install



- Suspends plain and threaded rod from beam flanges.
- Easy adjustment of rod after installation.
- Flange thickness range stamped on part.
- Only a hammer required for installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

Part No.	Minimum - Maximum Flange Thickness	Wire/ Rod Size
FH24RHP4	1/8" - 1/4" (3mm - 6mm)	#8 Wire or 1/4" Rod
FH58RHP4	5/16" - 1/2" (8mm - 13mm)	
FH912RHP4	9/16" - 3/4" (14mm - 19mm)	
FH24RHP6	1/8" - 1/4" (3mm - 6mm)	3/8" Rod
FH58RHP6	5/16" - 1/2" (8mm - 13mm)	
FH912RHP6	9/16" - 3/4" (14mm - 19mm)	

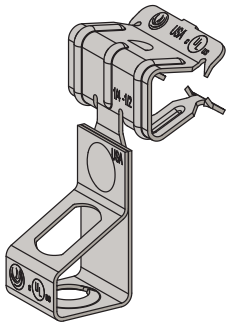


Structural Attachment

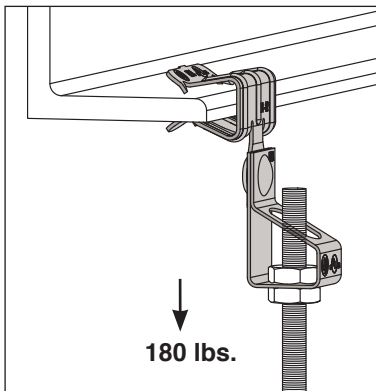
Standard Finish: Silva-Guard (SG)

FH RHT

Flange Clip Side Mount with Rod Hanger Thread Install



- Suspends threaded rod from beam flanges.
- Flange thickness range stamped on part.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

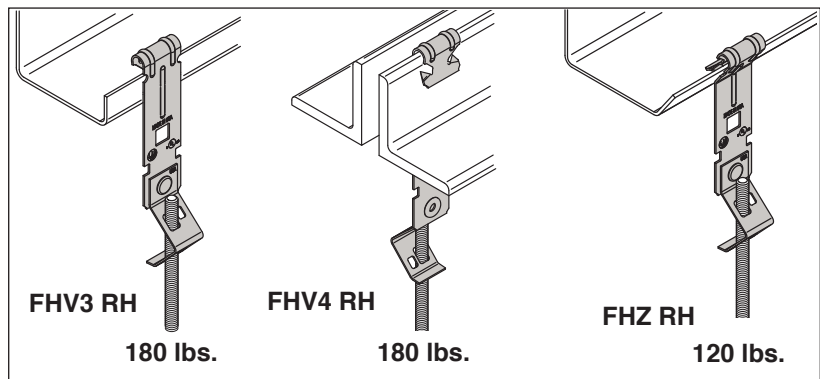
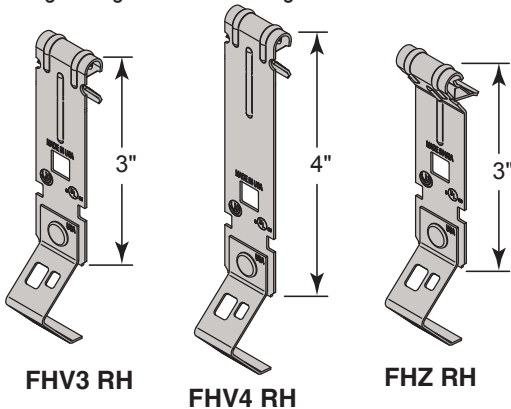


Part No.	Min. - Max. Flange Thickness	Hole Size
FH24RH4T	1/8" - 1/4" (3mm - 6mm)	1/4" - 20 Thread Form
FH58RH4T	5/16" - 1/2" (8mm - 13mm)	
FH912RH4T	9/16" - 3/4" (14mm - 19mm)	
FH24RH6T	1/8" - 1/4" (3mm - 6mm)	3/8" - 16 Thread Form
FH58RH6T	5/16" - 1/2" (8mm - 13mm)	
FH912RH6T	9/16" - 3/4" (14mm - 19mm)	
FH24RH6 *	1/8" - 1/4" (3mm - 6mm)	13/32" thru hole for 1/4" or 3/8" Threaded Rod
FH58RH6 *	5/16" - 1/2" (8mm - 13mm)	
FH912RH6 *	9/16" - 3/4" (14mm - 19mm)	

* 2 nuts required (sold separately)

FVZ RH

Flange hanger with Rod Hanger Push Install



- **FHV3:** Suspends plain and threaded rod from bar joist's and "C" purlin's.
- **FHV4:** Extra long clip suspends plain and threaded rod from bar joist's.
- **FHZ:** Angled clip suspends plain and threaded rod from "Z" purlin's.
- Easy adjustment of rod after installation.
- Compatible with many industry standard installation tools.

- **Material:** Spring Steel
- **Finish:** Silva-Guard

Part No.	Wire / Rod Size	Min. - Max. Flange Thickness
FHV3RH4	#8 Wire or 1/4" Plain or Threaded Rod	1/16" - 1/4"
FHV3RH6	3/8" Plain or Threaded Rod	
FHV4RH4	#8 Wire or 1/4" Plain or Threaded Rod	1/16" - 1/4"
FHV4RH6	3/8" Plain or Threaded Rod	
FHZRH4	#8 Wire or 1/4" Plain or Threaded Rod	1/16" - 1/4"
FHZRH6	3/8" Plain or Threaded Rod	



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

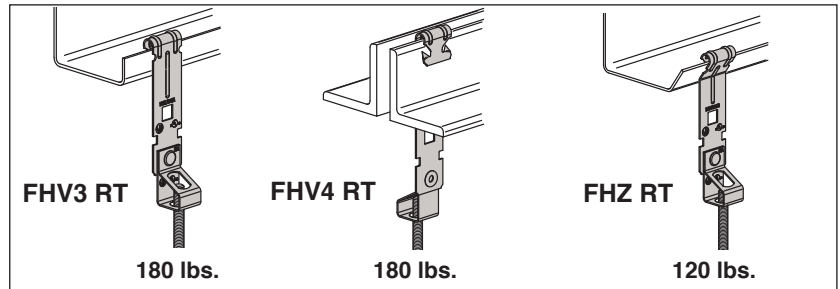
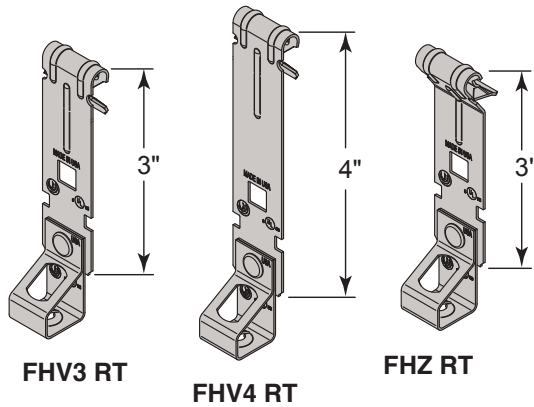
Structural Attachment

Standard Finish: Silva-Guard (SG)



FVZ RT

Flange Hanger with Rod Hanger Threaded Install



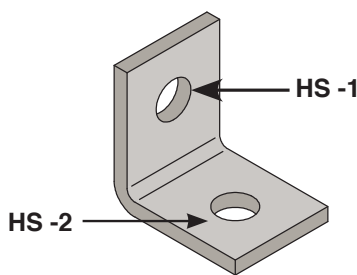
- **FHV3 RT:** Suspends threaded rod from bar joist's and "C" purlin's.
- **FHV4 RT:** Extra long clip suspends threaded rod from bar joist's.
- **FHZ RT:** Angled clip suspends threaded rod from "Z" purlin's.
- Compatible with many industry standard installation tools.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

Part No.	Rod Size	Min. - Max. Flange Thickness
FHV3RH4T	1/4"-20 Thread Form	1/16" - 1/4"
FHV3RH6T	3/8"-16 Thread Form	
FHV3RH6 *	1 3/32" Thru Hole for 1/4" or 3/8" Threaded Rod	1/16" - 1/4"
FHV4RH4T	1/4"-20 Thread Form	
FHV4RH6T	3/8"-16 Thread Form	1/16" - 1/4"
FHV4RH6 *	1 3/32" Thru Hole for 1/4" or 3/8" Threaded Rod	
FHZRH4T	1/4"-20 Thread Form	1/16" - 1/4"
FHZRH6T	3/8"-16 Thread Form	
FHZRTH6 *	1 3/32" Thru Hole for 1/4" or 3/8" Threaded Rod	

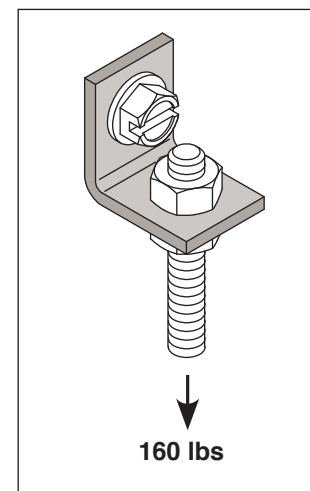
* Nuts sold separately

AB

Angle Bracket



- Accepts wire, chain and rod drops from concrete or wood.
- **Material:** Steel
- **Finish:** Pregalvanized



Part No.	HS - 1	HS - 2
AB04	9/32" (7.1mm)	9/32" (7.1mm)
AB06	9/32" (7.1mm)	13/32" (10.3mm)



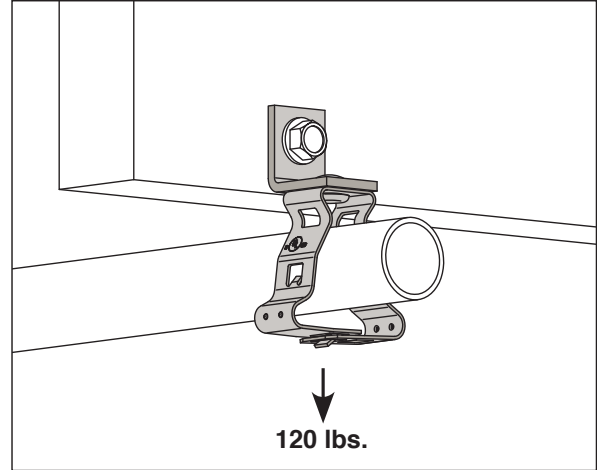
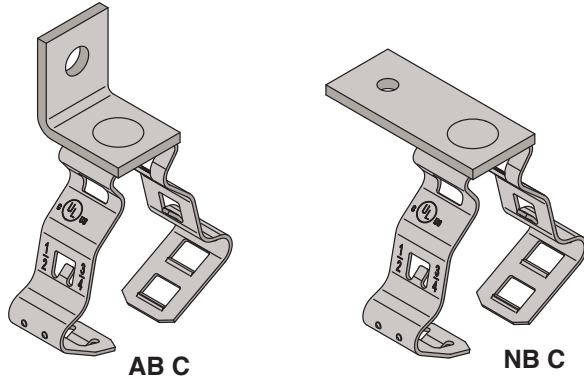
Structural Attachment

Standard Finish: Silva-Guard (SG)



AB C, NB C

Angle Bracket and Nail Bracket with Conduit Clip

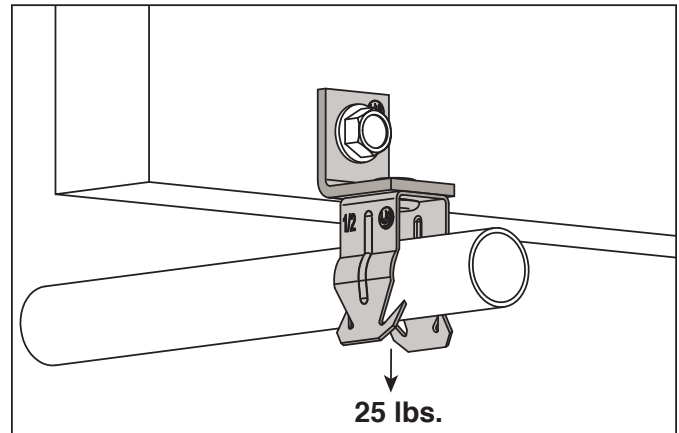
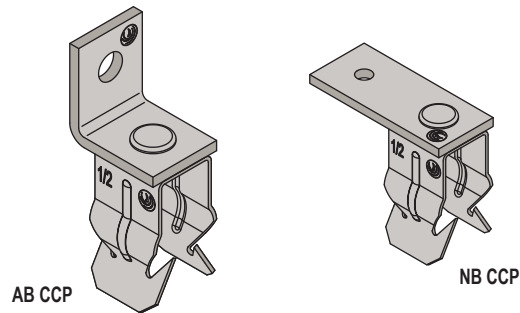


- **AB C:** Supports horizontal runs of conduit through metal studs and prevents conduit from rattling in wall.
- **NB C:** Attaches conduit to wood, concrete and steel, works with power tools and nails.
- Conduit clip rotates 360 degrees.
- **Material:** Steel & Spring Steel
- **Finish:** Pregalvanized & Silva-Guard

Part No.	Conduit Size	Hole Size
ABCC812	1/2" or 3/4" EMT, Rigid	9/32"
NBCC812	1/2" or 3/4" EMT, Rigid	3/16"

AB CCP, NB CCP

Angle and Nail Bracket with Conduit "Push In" Clip



- **AB CCP:** Supports horizontal runs of conduit through metal studs and prevents conduit from rattling in wall.
- **NB CCP:** Attaches conduit to wood, concrete and steel, works with power tools and nails.
- Conduit clip rotates 360 degrees.
- **Material:** Steel & Spring Steel
- **Finish:** Pregalvanized & Silva-Guard

Part No.	Conduit Size	Hole Size
ABCCP8	1/2" EMT	9/32"
ABCCP12	3/4" EMT, 1/2", Rigid	
NBCCP8	1/2" EMT	3/16"
NBCCP12	3/4" EMT, 1/2" Rigid	



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Structural Attachment

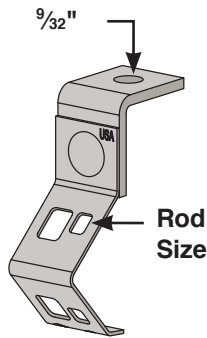


Standard Finish: Silva-Guard (SG)

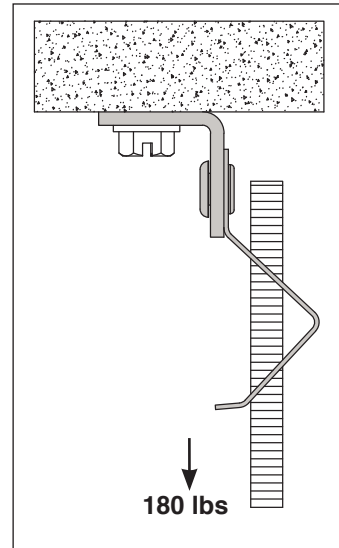


ABR

Angle Bracket with Rod Hanger Push Install



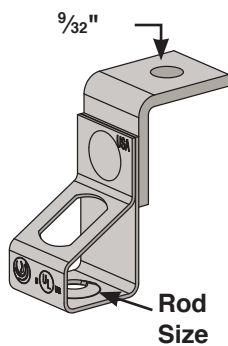
- Attaches to concrete, wood and steel.
- Suspends plain and threaded rod from horizontal surfaces.
- Easy adjustment of rod after installation.
- **Material:** Steel & Spring Steel
- **Finish:** Pregalvanized & Silva-Guard



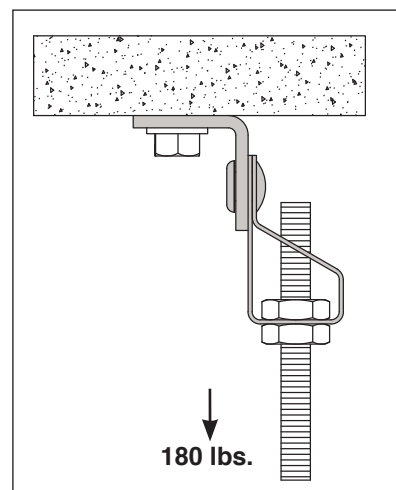
Part No.	Rod Size
ABRH4	#8 Wire or 1/4" Plain or Threaded Rod
ABRH6	3/8" Plain or Threaded Rod

ABR T

Angle Bracket with Rod Hanger Thread Install



- Attaches to concrete, wood and steel.
- Suspends threaded rod from horizontal surfaces.
- **Material:** Steel & Spring Steel
- **Finish:** Pregalvanized & Silva-Guard



Part No.	Rod Size
ABRH4T	1/4 - 20 Thread Form
ABRH6T	3/8 - 16 Thread Form
ABRTH6*	1 3/32" Thru Hole for 1/4" or 3/8" Threaded Rod

* Nuts sold separately



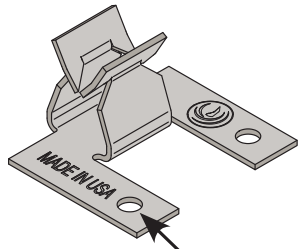


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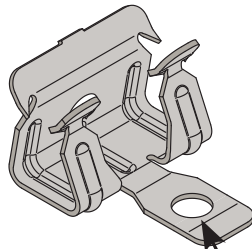
Standard Finish: Silva-Guard (SG) or Electrogalvanized (EG)

PSP, FSM

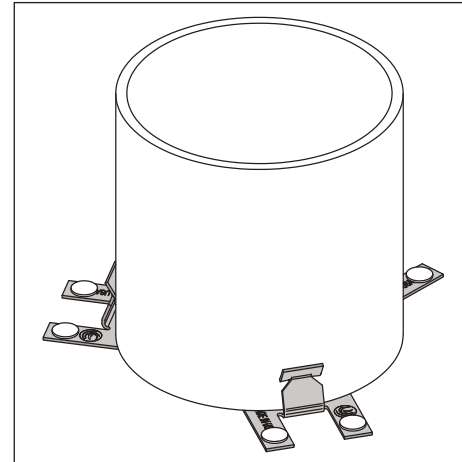
Pipe Sleeve Positioner



PSP
For 1/8" screw or nail



FSM
For 1/4" screw or nail



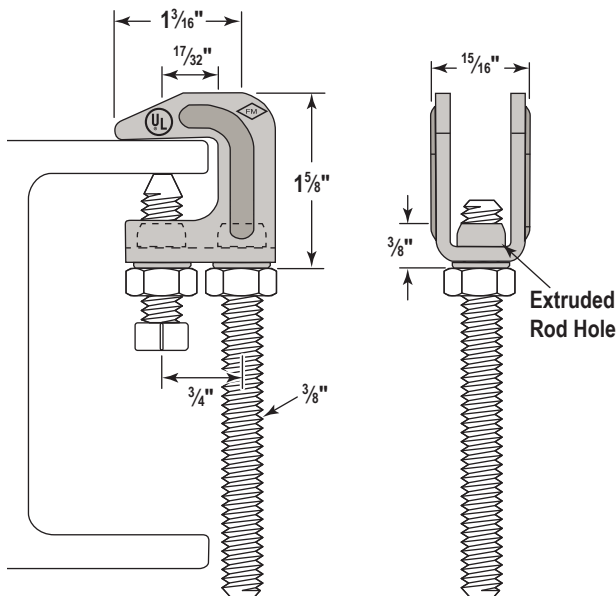
- Use to position pipe sleeves during concrete pours.
- Only a hammer required for installation.

- **Material:** Spring Steel
- **Finish:** Silva-Guard

Part No.	Sleeve Diameter	Pipe Wall Thickness	Min./Max. Sleeve Thickness Range
PSP2-6	2" - 6" (51mm - 152mm)	Schedule #40 Pipe	0" - 5/16" (0 - 8mm)
PSPA	Any Dia.	Up to 5/16" (8mm)	
FSM58	6" (152mm)	Schedule #80 Pipe	1/4" - 1/2" (6mm - 13mm)
FSM58	8" - 10" (203mm - 254mm)	Schedule #40 Pipe	1/2" - 3/4" (13mm - 19mm)
FSM912	9" - 14" (229mm - 356mm)	Schedule #80 Pipe	

Silver Claw

Beam Clamp



- Carbon Steel - Avoids Hydrogen Embrittlement
- Extruded Rod Hole - More Threads Captured
- Made in USA - Meets Requirements for Buy America
- Handles 3/8" Threaded Rod
- Attaches to 3/4" (19mm) Beam or Bar Joist
- Open Back for Easy Inspection and Adjustment
- 3/4" (19mm) Flange Beam
- Zinc Electroplate
- Installs in Upright Position
- Torque Value = 60 in-lbs
- Made in USA
- UL Listed for Top of Beam
- FM Approved for NFPA 13, Maximum Rated Pipe Size
- Complies with Manufacturers Standardization Society SP-69 (Type 19 & 23) and Federal Specification WW-H-171E



Part No.	Rod Size	Max. Load
SCL037EG	3/8"	400 Lbs.



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Structural Attachment

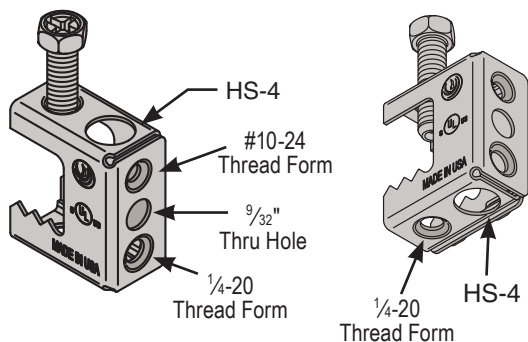


Standard Finish: Silva-Guard (SG) or Electrogalvanized (EG)



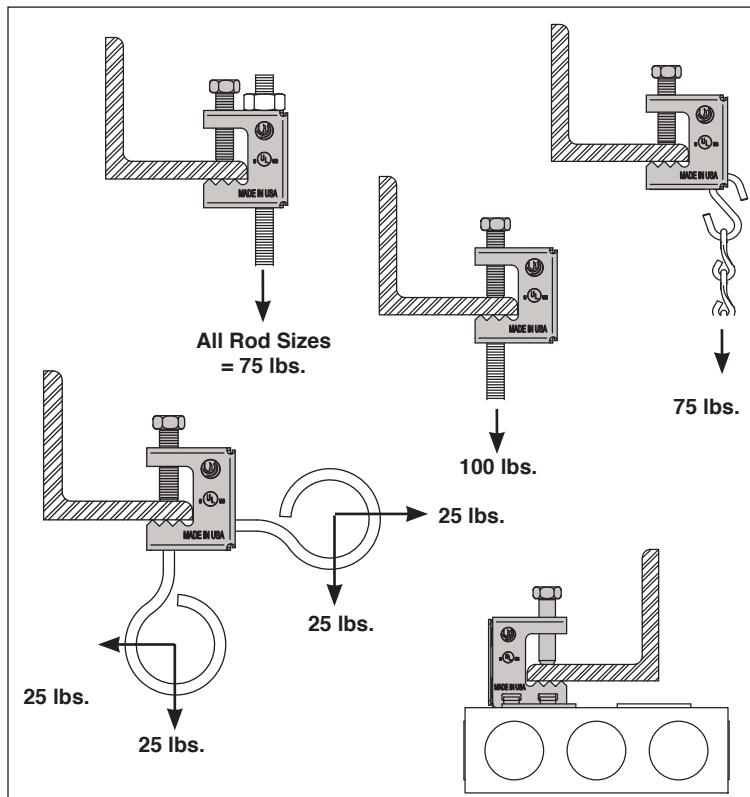
BCL

Beam Clamp



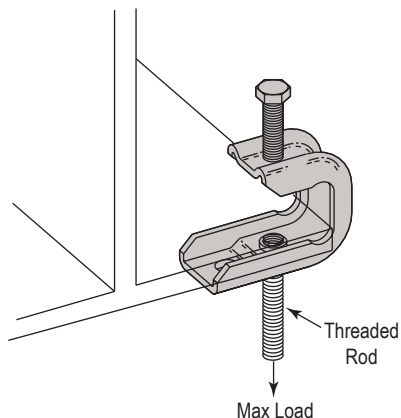
- UL Listed for box support.
- For installation on 1/2" maximum beam flanges.
- Included combo head set screw allows Robertson, Phillips/Slotted and Hex drivers.
- Accepts "S" hooks, threaded rod and bridal rings.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

Part No.	Max. Flange Thickness	HS-4
BCL	1/2"	13/32" Thru Hole for 1/4" or 3/8" Rod



BC92

Light Duty – Beam Clamps



- **Material:** Carbon Steel
- **Finish:** Electrogalvanized

Part No.	Rod Size	Max Flange Thickness	Max Load (W) lbs
BC92025EG	1/4"-20	5/8" (16 mm)	100 (0.44kN)
BC92037EG	3/8"-16	3/4" (19 mm)	200 (0.89kN)



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

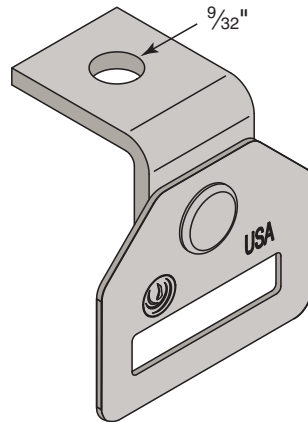


Structural Attachment

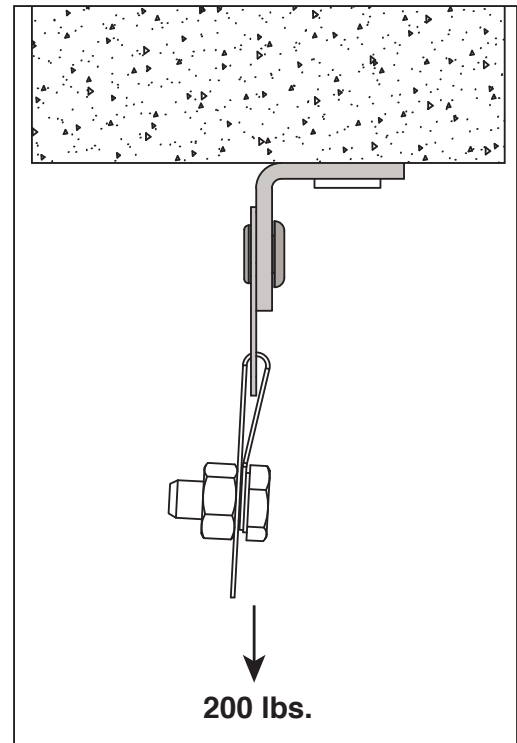
Standard Finish: Silva-Guard (SG)

ABSHP

Angle Bracket with Strap Hanger

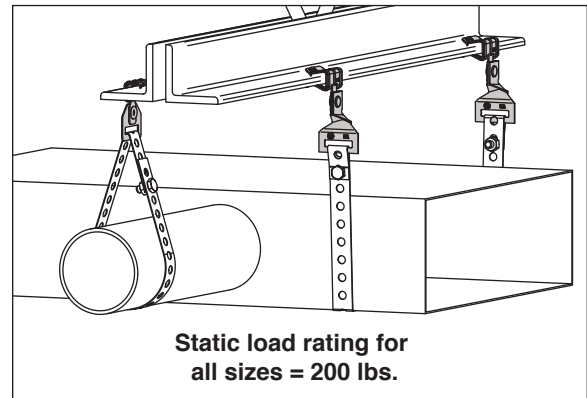
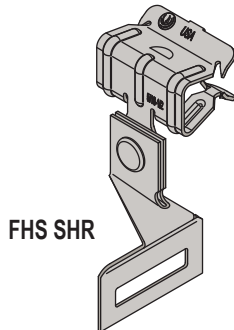
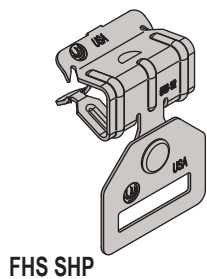


- Supports pipe or duct with strapping.
- Fits strap up to 1" wide.
- **Material:** Steel & Spring Steel
- **Finish:** Pregalvanized & Silva-Guard



FHS SH

Flange Clip Side Mount with Strap Hanger



- Supports pipe or duct with strapping from beam flanges.
- Fits strap up to 1" wide.
- Flange thickness range stamped on part.
- Only a hammer required for installation.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

Part No.	Min. - Max. Flange Thickness
FHS24SHP	1/8" - 1/4" (3mm - 6mm)
FHS58SHP	5/16" - 1/2" (8mm - 13mm)
FHS912SHP	9/16" - 3/4" (14mm - 19mm)
FHS24SHR	1/8" - 1/4" (3mm - 6mm)
FHS58SHR	5/16" - 1/2" (8mm - 13mm)
FHS912SHR	9/16" - 3/4" (14mm - 19mm)



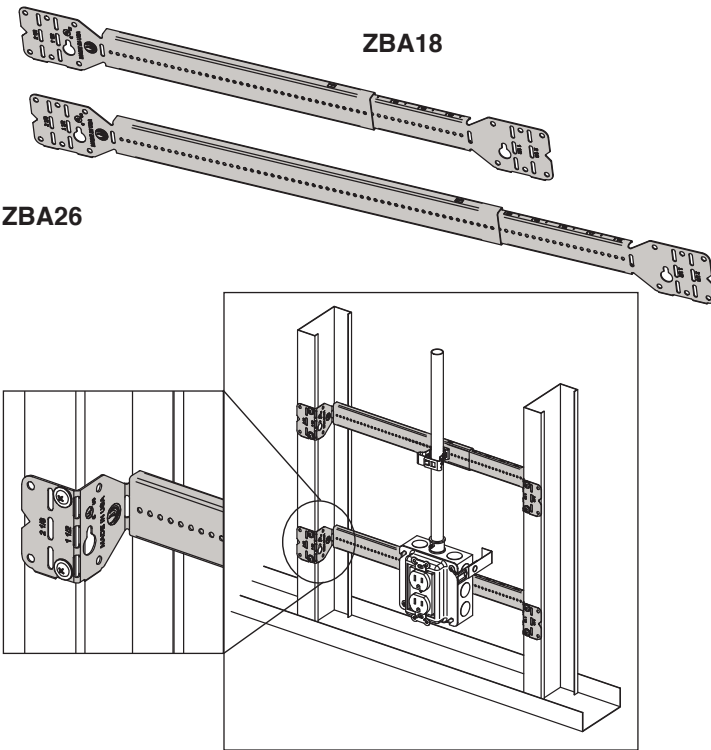
Stud Wall Applications

Standard Finish: Pregalvanized (PG)



ZBA Z-Bracket

Adjustable Screw Gun Bracket for Wood or Metal Studs

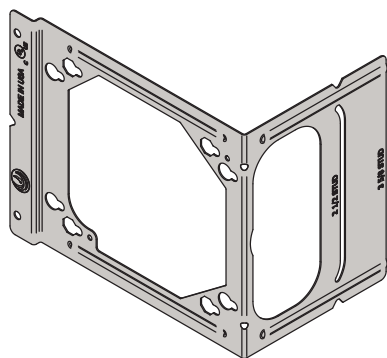


- Complete adjustability for infinite stud spacings.
- Requires only a screw gun to install.
- Pre-punched holes allow easy box or conduit attachment.
- Stud spacing scale stamped on bracket for precise preassembly.
- Locking tabs prevent disassembly.
- Use with SDTSLP8X1/2 screws, see page 187.
- **Material:** Steel
- **Finish:** Pregalvanized

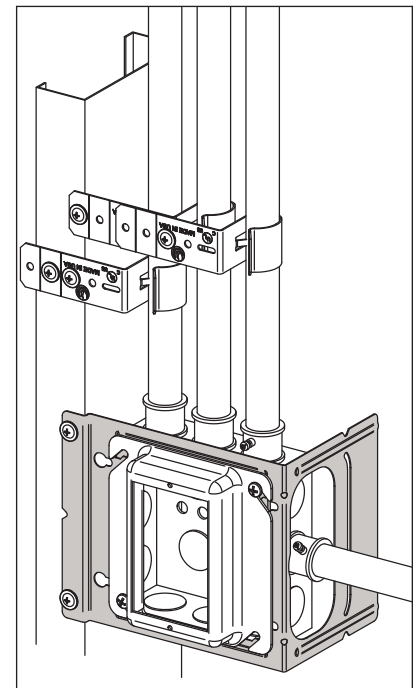
Part No.	Stud Centers	Distance Between Studs	Box Depth
ZBA18PG	11" to 18" (279mm to 457mm)	10" to 16-3/4" (254mm to 425mm)	1-1/2" or 2-1/8" (38mm or 54mm)
ZBA26PG	16" to 26" (406mm to 660mm)	14" to 25-1/4" (356mm to 641mm)	

BBSM

Electrical Box Bracket for Wood or Metal Studs



- Used to attach 4" and 4-11/16" outlet boxes to wood or metal studs.
- Large cutouts provided for conduit and fittings.
- Integral farside support prevents outlet box movement.
- Use with SDTSLP8X1/2 screws, see page 187
- **Material:** Steel
- **Finish:** Pregalvanized



Part No.	Outlet Boxes	Box Depths	Stud Depths
BBSM	4" (102mm) Square, 4-11/16" (119mm) Square and Low Voltage Plaster Rings	1-1/4", 1-1/2", and 2-1/8" Deep (32mm, 38mm, and 54mm)	2-1/2", 3-5/8" (64 mm, 92 mm)



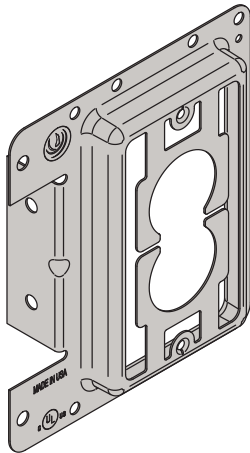


Stud Wall Applications

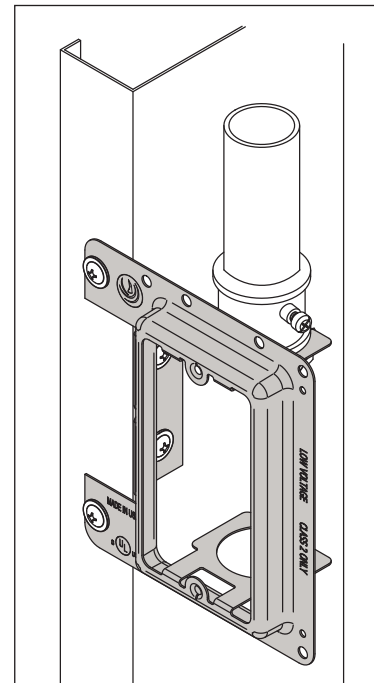
Standard Finish: Pregalvanized (PG)

LVMN

Low Voltage Mounting Plate for New Construction



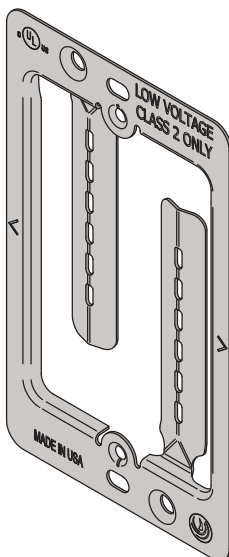
- Wood or Metal Studs
- New work design requires a screw gun for installation.
- Inner tabs allow 3/4" EMT or 1/2" EMT with reducer fitting for conduit applications if required.
- Can be mounted vertically or horizontally on wood or metal studs.
- Replaces electrical box in Class 2 low voltage installations.
- Use with SDTSLP8X1/2 screws, see page 187
- **Material:** Steel
- **Finish:** Pregalvanized



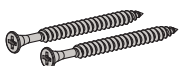
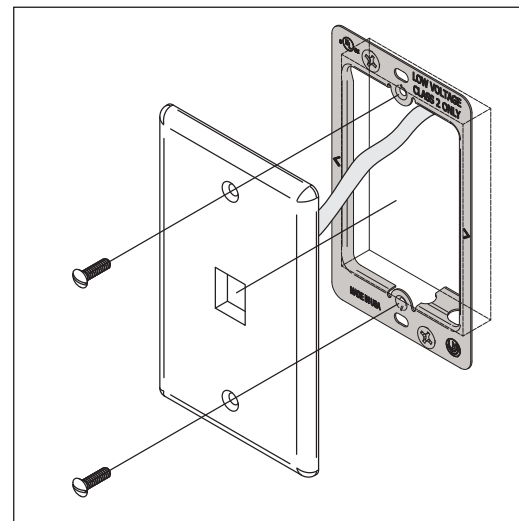
Part No.	Drywall Thickness
LVMN	1/2" thru 5/8" (13mm to 16mm)

LVMS

Low Voltage Mounting Plate with Screws for Existing Construction



- Old work design requires a drywall saw and screw driver for installation.
- Provided screws make a more secure bracket installation.
- Replaces electrical box in Class 2 low voltage installations.
- **Material:** Steel
- **Finish:** Pregalvanized



Part No.	Drywall Thickness
LVMS	1/2" thru 1-1/4" (13mm to 32mm)



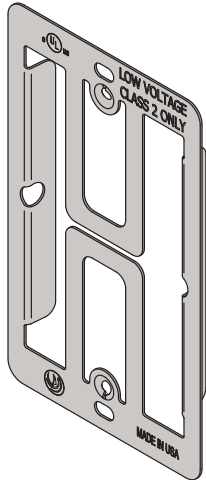
Stud Wall Applications



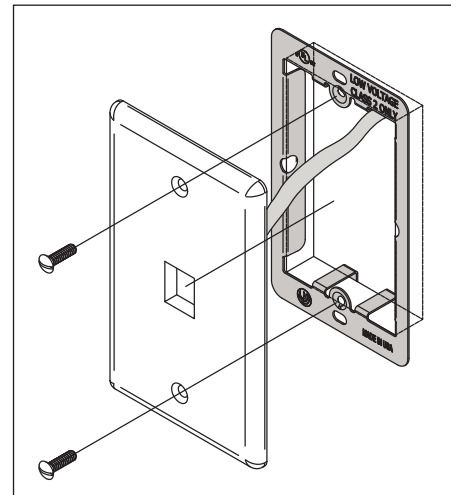
Standard Finish: Pregalvanized (PG) or Silva-Guard (SG)

LVMP

Low Voltage Mounting Plate for Existing Construction



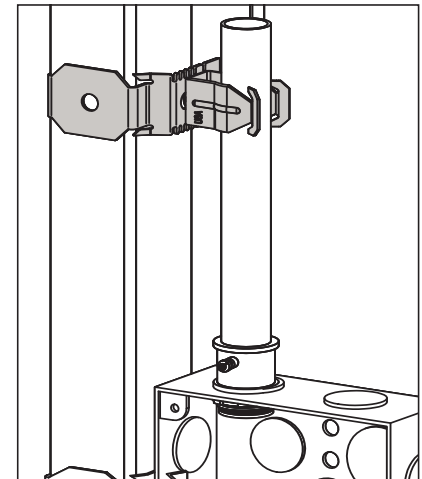
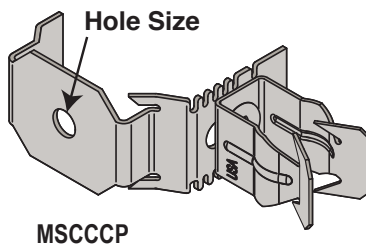
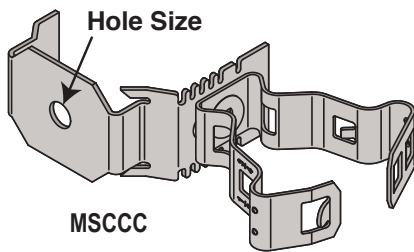
- Old work design requires a drywall saw and screw driver for installation.
- Replaces electrical box in Class 2 low voltage installations.
- **Material:** Steel
- **Finish:** Pregalvanized



Part No.	Drywall Thickness
LVMP	1/2" thru 1-1/4" (13mm to 32mm)

MSC CC CCP

Metal Stud Clip with Conduit Clip & Conduit "Push In" Clip



- Supports pipe and conduit to studs.
- Hole provided for additional support.
- Use with SDTSLP8X1/2 screws, see page 187
- **Material:** Spring Steel
- **Finish:** Silva-Guard

Part No.	Hole Size	Conduit Size
* MSCCC8-12	9/32"	1/2" or 3/4" EMT, Rigid
* MSCCC16		1" EMT, Rigid
* MSCCC20		1-1/4" EMT, Rigid
MSCCCP8	9/32"	1/2" EMT
MSCCCP12		3/4" EMT, 1/2" Rigid
MSCCCP16		1" EMT, 3/4" Rigid

* NOTE: UL Listed



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

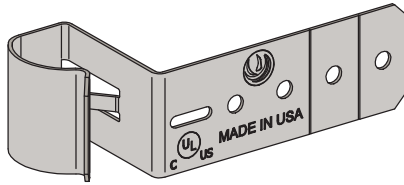


Stud Wall Applications

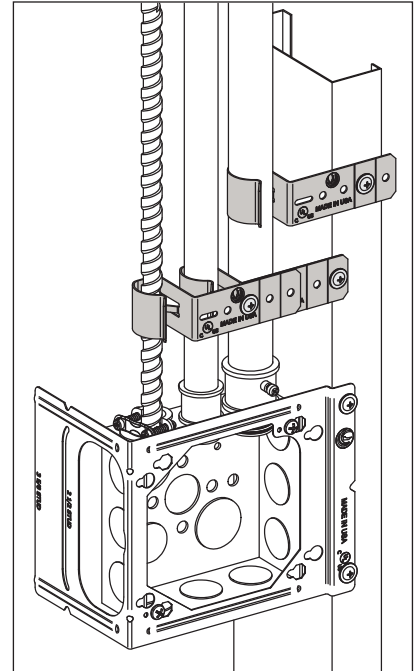
Standard Finish: Pregalvanized (PG) or Silva-Guard (SG)

CTS

Conduit Clip to Wood or Metal Stud



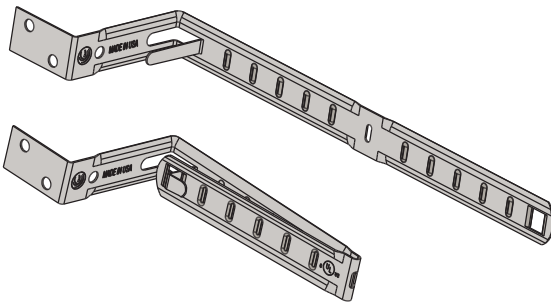
- Eliminates offset bending of conduit.
- Aligns conduit with standard knockouts.
- Accommodates EMT and MC/AC cable.
- Complies with NEC 358.30(A), conduit support within 36" of an electrical box.
- For use with wood and metal studs. Use with SDTSLP8X1/2 screws, see page 187
- **Material:** Spring Steel
- **Finish:** Silva-Guard



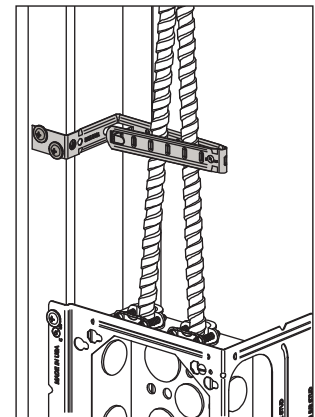
Part No.	Box Depth	MC/AC Cable Size	Conduit Size
CTS812	1-1/2" (38mm)	14-2, 14-3, 12-2, 12-3	1/2" or 3/4" EMT MC/AC (13mm or 19mm)

CSSTS

Cable Support Strap for Wood or Metal Studs



- Integral ribs used to maintain cable separation.
- Complies with NEC 300.4(D).
- For use with wood and metal studs.
- Use with SDTSLP8X1/2 screws, see page 187
- **Material:** Steel
- **Finish:** Pregalvanized



Part No.	Cable Type	Cable Size	Cables per Fastener	Description
CSSTS	Romex™ and Non-Metallic Sheathed Cable	14-2, 12-2, 10-2, 14-3, 12-3, and 10-3 with ground	6 Max.	To Attach Romex Non-Metallic Sheathed Cable, AC, BX, and MC Cable to Wood or Metal Stud
		8-2 and 6-2 with ground	4 Max.	
	Metal Clad (MC) Cable	14-2, 12-2, 10-2, 14-3, 12-3, 10-3, 14-4, 12-4, and 10-4 with ground	4 Max.	



Stud Wall Applications

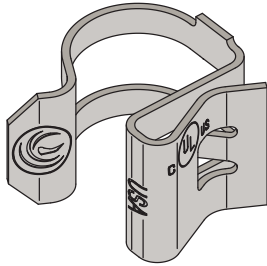


Standard Finish: Silva-Guard (SG) or Electrogalvanized (EG)

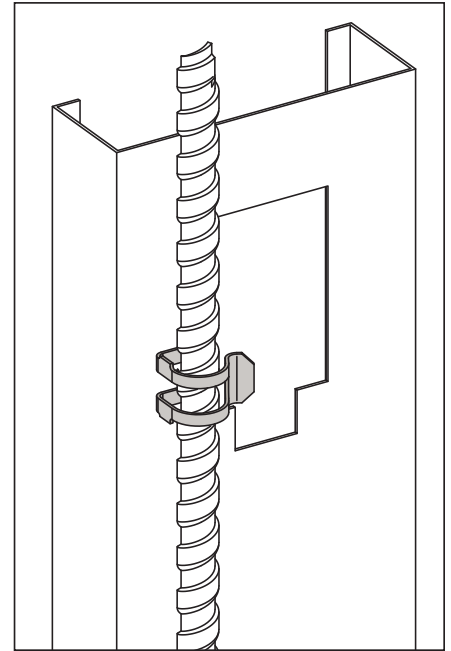


CCMS

MC/AC Cable Clip to Metal Stud



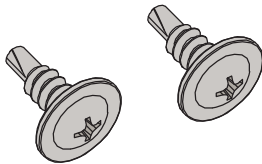
- Cable clip attaches MC/AC cable to metal studs.
- No tools required for application.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



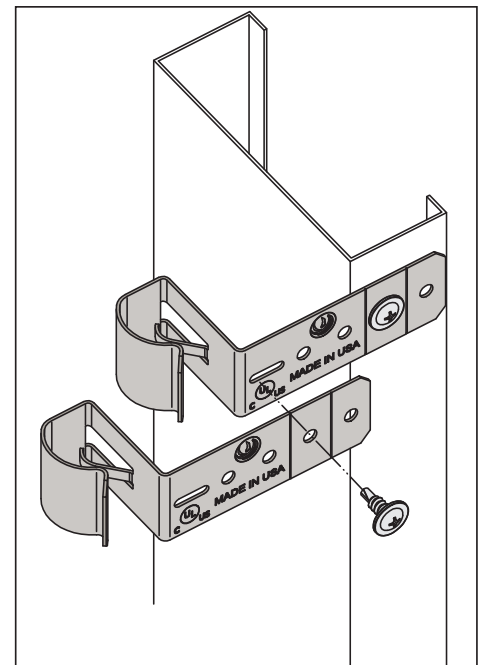
Part No.	Cable Type	Cable Size	Description
CCMS	MC/AC Cable	14-2, 14-3, 12-2, 12-3	MC/AC Cable Clip to Metal Stud

SDTSLP8X1/2

Self Drilling and Tapping Screw



- #8 x 1/2" Long Self drilling and tapping, low profile screws
- Thin head prevents drywall bulge.
- #2 phillips driver for screw gun use.
- **Material:** Steel
- **Finish:** Electrogalvanized



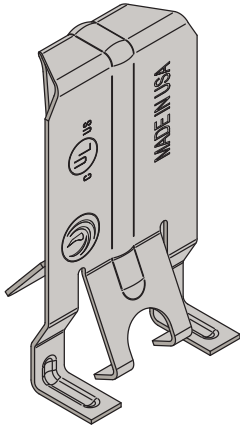


Ceiling and Acoustical Applications

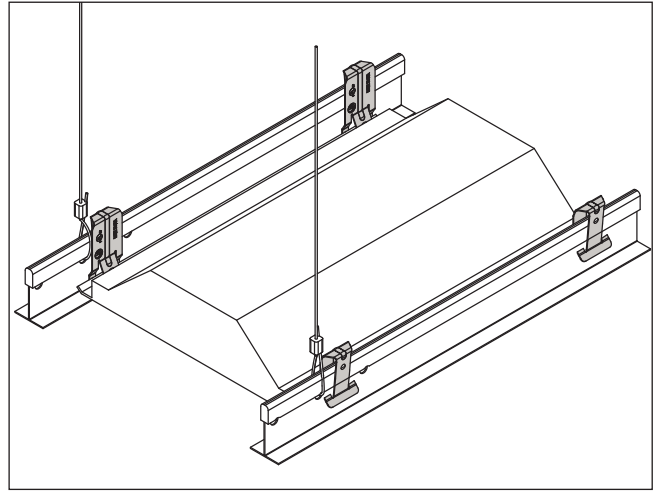
Standard Finish: Silva-Guard (SG)

SCT

Support Clip for Troffer Lights & Lay-Ins



- Four clips per fixture required per UL listing.
- Compatible with straight lip or upturned lip fixtures.
- Tall grid compatible.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



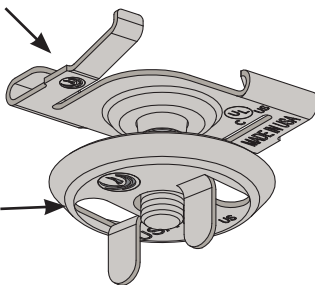
Part No.	Description
SCT15	Support clip for securing troffers, lay-ins and air diffusers to T-Grid

TCB, TCS

Twist Clip with Wing Nut

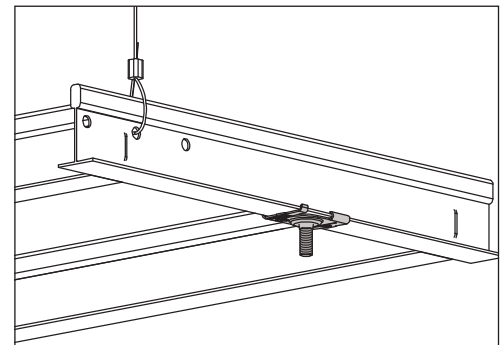


TCB16



TCW4

- Use to attach lighting to main T-bars.
- Simple twist on design eliminates the need for installation tools.
- Will not damage T-grid.
- **Material:** Spring Steel
- **Finish:** Silva-Guard



Part No.	Stud Length	Description	Static Load Limit per Fastener
TCB16	5/8"	15/16" Tee Twist Clip with Stud	50 Lbs.
TCW4	-	1/4"-20 Twist Clip Wing Nut	100 Lbs.
TCS16	5/8"	15/16" Tee Twist Clip and Wing Nut	50 Lbs.



Ceiling and Acoustical Applications

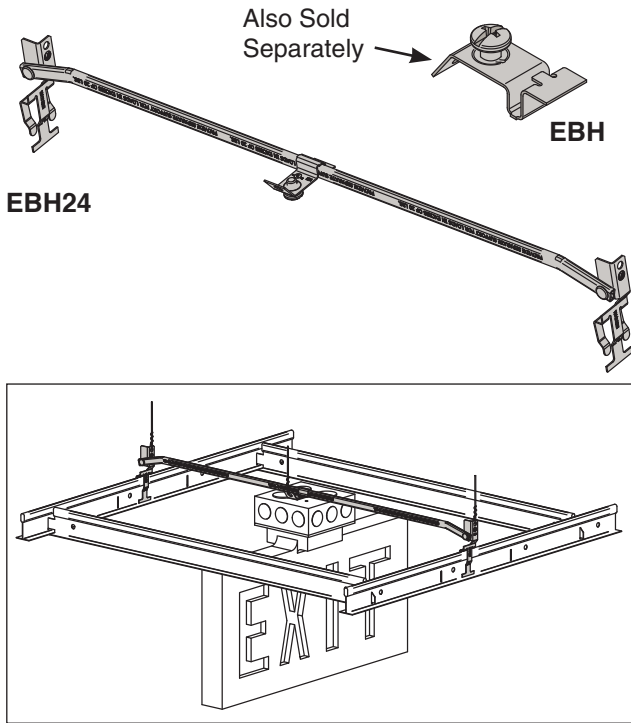


Standard Finish: Silva-Guard (SG)



EBH

Electrical Box Hanger with Box Mounting Clip

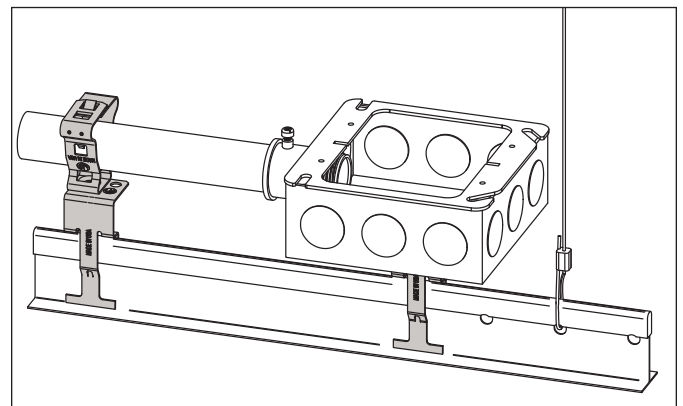
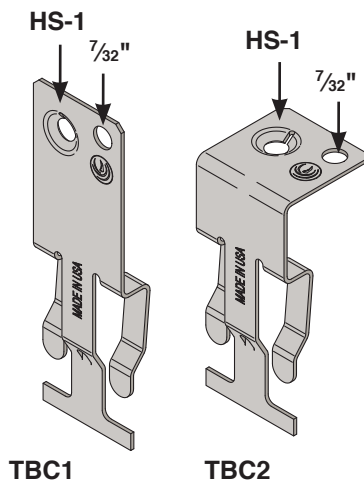


Part No.	Description
EBH24	Complete assembly to flush mount a 1-1/2" box with or without 3/4" device ring or 2-1/8" box to ceiling tile. Used for 24" on center T-grid spacing.
EBH	Box mounting clip and screw for attaching one or multiple boxes to EB 24 assembly.

- Complete hanger assembly for supporting an electrical box above T-grid.
- Multiple holes provided for drop wire securement to building structure.
- Dual height feature permits 1-1/2" electrical box with or without 3/4" device ring and 2-1/8" box to be flush mounted with ceiling tile.
- Included mounting clip and 1/4" screw is compatible with standard knock-out configurations.
- **Material:** Steel & Spring Steel
- **Finish:** Pregalvanized & Silva-Guard

TBC

T-Bar Clip



- Attaches outlet boxes and conduit clips above T-grid.
- 7/32" hole provided for drop wire.
- Clip snaps onto T-bar. No tools required.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

Part No.	HS-1
TBC1	1/4" x 20 Thread Form
TBC2	1/4" x 20 Thread Form



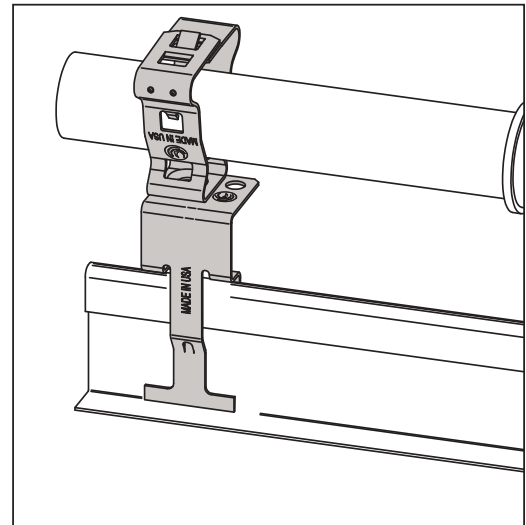
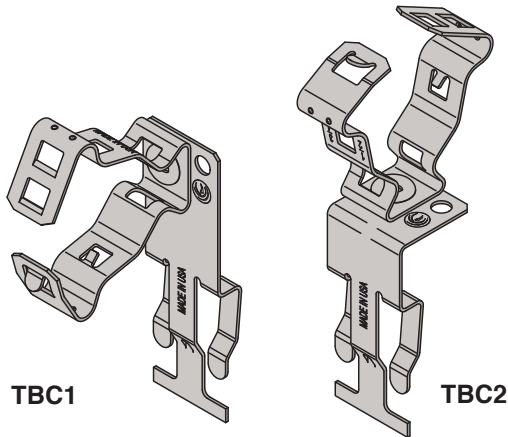


Ceiling and Acoustical Applications

Standard Finish: Silva-Guard (SG)

TB C

T-Bar Clip with Conduit Clip

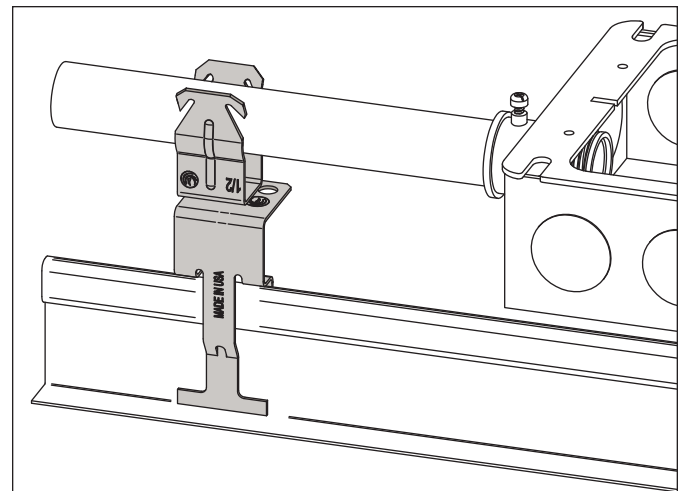
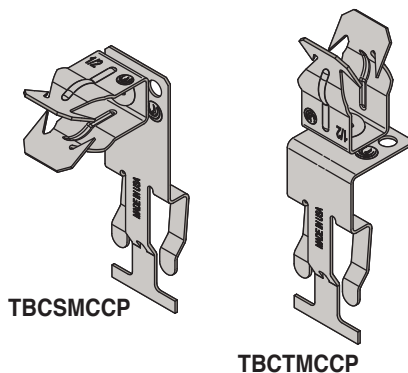


- Supports pipe and conduit above T-bars. Conduit clip rotates 360 degrees.
- No screws or bolts required. No installation tools required.
- 7/32" Hole provided for drop wire.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

Part No.	Conduit Size
TBC1C812	1/2" or 3/4" EMT, Rigid
TBC1C16	1" EMT, Rigid
TBC2C812	1/2" or 3/4" EMT, Rigid
TBC2C16	1" EMT, Rigid

TBC SMCCP, TMCCP

T-Bar Clip with Conduit "Push In" Clip



- Supports pipe and conduit above T-bars.
- Conduit clip rotates 360 degrees.
- No screws, bolts or installation tools required.
- 7/32" hole provided for drop wire.
- **Material:** Spring Steel
- **Finish:** Silva-Guard

Part No.	Mount	Conduit Size
TBCSMCCP8	Side Mount	1/2" EMT
TBCSMCCP12		3/4" EMT, 1/2" Rigid
TBCSMCCP16		1" EMT, 3/4" Rigid
TBCTMCCP8	Top Mount	1/2" EMT
TBCTMCCP12		3/4" EMT, 1/2" Rigid
TBCTMCCP16		1" EMT, 3/4" Rigid



Loop and Ring Clamps



ZSi-Foster Offers a Full Range of Loop, Ring & Cable Clamps

SPN Loop Clamps

Plated Steel $\frac{1}{2}$ " (13mm) Wide
Page 192



SPW Loop Clamps

Plated Steel $\frac{3}{4}$ " (19mm) Wide
Page 193



SPD Loop Clamps

2-Tube Cushioned Cable Clamps,
Plated Steel $\frac{3}{4}$ " (19mm) Wide
Page 193



SPH Cush-A-Ring Clamps

SPH Cush-A-Ring Clamp for
Copper Tube or Steel Tube or Pipe
Page 194



SPP Cush-A-Ring Clamps

SPP Cush-A-Ring Clamp for
PEX, CPVC, or PVC Pipe
Page 195



SVN Loop Clamps

Vinyl Dipped - Galvanized Steel
 $\frac{1}{2}$ " (13mm) Wide
Page 196



LVZ Loop Clamps

Vinyl Dipped Galvanized Steel
1" (24mm) Wide
Page 197



SVW Loop Clamps

Vinyl Dipped Galvanized Steel
 $\frac{3}{4}$ " (19mm) Wide
Page 196



SSN Loop Clamps

Stainless Steel $\frac{1}{2}$ " (13mm) Wide
Page 198



Cable Clamps

Plastic Cable Clamps
Page 198



HVN Loop Clamps

Vinyl Dipped Galvanized Steel
 $\frac{1}{2}$ " (13mm) Wide
Page 199



HSN Loop Clamps

Stainless Steel $\frac{1}{2}$ " (13mm) Wide
Page 199



Python Series

Zinc Plated Steel
Page 200



Python II Series

Stainless Steel Type 316
Page 200





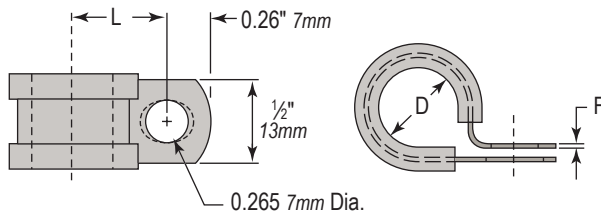
SPN Loop Clamps

SPN Loop Clamps

Plated Steel Loop Clamps 1/2" (13mm) Wide



- Light to medium duty steel clamp
- E.P.D.M. cushion for electrical insulation and vibration absorption
- Steel clamps are zinc electroplated for corrosion resistance
- Some sizes available in aluminum. Contact factory for details.
- Temperature range -50°F to +275°F (-45°C to 135°C)



Plated Steel Part No.	Stainless Steel Part No.	Dimensions (in)		
		D Size	L	F
SPN-03	SPN-03SS	3/16" (5mm)	0.499" (13mm)	0.032" (1mm)
SPN-04	SPN-04SS	1/4" (6mm)	0.530" (13mm)	
SPN-05	SPN-05SS	5/16" (8mm)	0.561" (14mm)	
SPN-06	SPN-06SS	3/8" (10mm)	0.592" (15mm)	
SPN-07	SPN-07SS	7/16" (11mm)	0.623" (16mm)	
SPN-08	SPN-08SS	1/2" (13mm)	0.655" (17mm)	
SPN-09	SPN-09SS	9/16" (14mm)	0.749" (19mm)	
SPN-10	SPN-10SS	5/8" (16mm)	0.780" (20mm)	
SPN-11	SPN-11SS	11/16" (17mm)	0.811" (21mm)	
SPN-12	SPN-12SS	3/4" (19mm)	0.840" (21mm)	
SPN-14	SPN-14SS	7/8" (22mm)	0.889" (23mm)	
SPN-16	SPN-16SS	1" (25mm)	0.952" (24mm)	
SPN-18	SPN-18SS	1-1/8" (29mm)	1.030" (26mm)	
SPN-20	SPN-20SS	1-1/4" (32mm)	1.093" (28mm)	
SPN-22	SPN-22SS	1-3/8" (35mm)	1.155" (29mm)	
SPN-24	SPN-24SS	1-1/2" (38mm)	1.218" (31mm)	
SPN-26	SPN-26SS	1-5/8" (41mm)	1.280" (33mm)	
SPN-28	SPN-28SS	1-3/4" (44mm)	1.343" (34mm)	
SPN-30	SPN-30SS	1-7/8" (48mm)	1.405" (36mm)	
SPN-32	SPN-32SS	2" (51mm)	1.476" (37mm)	0.040" (1mm)
SPN-34	SPN-34SS	2-1/8" (53mm)	1.538" (39mm)	
SPN-36	SPN-36SS	2-1/4" (57mm)	1.661" (42mm)	
SPN-38	SPN-38SS	2-3/8" (60mm)	1.663" (42mm)	
SPN-40	SPN-40SS	2-1/2" (64mm)	1.728" (44mm)	
SPN-42	SPN-42SS	2-5/8" (67mm)	1.788" (45mm)	
SPN-48	SPN-48SS	3" (76mm)	1.976" (50mm)	
SPN-52	SPN-52SS	3-1/4" (83mm)	2.100" (53mm)	
SPN-56	SPN-56SS	3-1/2" (89mm)	2.226" (57mm)	
SPN-64	SPN-64SS	4" (102mm)	2.476" (63mm)	



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

SPW & SPD Loop Clamps



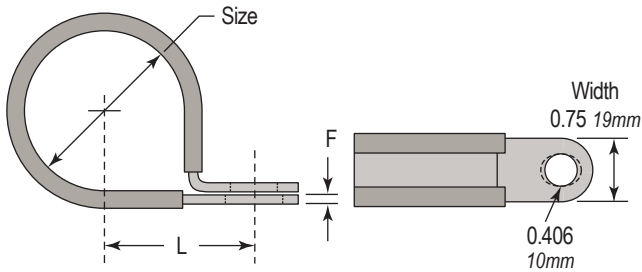
SPW Loop Clamps

Plated Steel 3/4" (19mm) Wide



- Light to medium duty steel clamp
- E.P.D.M. cushion for electrical insulation and vibration absorption
- Steel clamps are zinc electroplate for corrosion resistance
- Color - Silver with black durable cushion.
- Temperature range -50°F to +275°F (-45°C to 135°C)

Available in stainless steel. Some sizes available in aluminum. Contact factory for details.

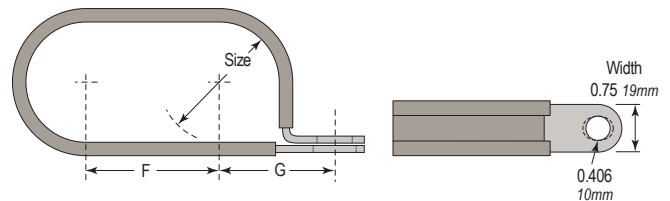


Part No.	Size in	Dimensions (in)	
		L	F
SPW-04	1/4" (6 mm)	0.639" (16 mm)	0.031" (1mm)
SPW-06	3/8" (10 mm)	0.702" (18 mm)	
SPW-07	7/16" (11 mm)	0.732" (19 mm)	
SPW-08	1/2" (13 mm)	0.764" (19 mm)	
SPW-09	9/16" (14 mm)	0.795" (20 mm)	
SPW-10	5/8" (16 mm)	0.827" (21 mm)	
SPW-12	3/4" (19 mm)	0.889" (23 mm)	
SPW-14	7/8" (22 mm)	0.952" (24 mm)	
SPW-16	1" (25 mm)	1.014" (26 mm)	
SPW-18	1-1/8" (29 mm)	1.090" (28 mm)	
SPW-20	1-1/4" (32 mm)	1.159" (29 mm)	
SPW-24	1-1/2" (38 mm)	1.284" (33 mm)	
SPW-26	1-5/8" (41 mm)	1.346" (34 mm)	
SPW-28	1-3/4" (44 mm)	1.409" (36 mm)	
SPW-30	1-7/8" (48 mm)	1.471" (37 mm)	
SPW-32	2" (51 mm)	1.534" (39 mm)	
SPW-36	2-1/4" (57 mm)	1.659" (42 mm)	
SPW-40	2-1/2" (64 mm)	1.784" (45 mm)	
SPW-48	3" (76 mm)	2.034" (52 mm)	

SPD Loop Clamps

2-Tube Cushioned Cable Clamps, Plated Steel 3/4" (19mm) Wide

- Medium duty steel clamp that can be slipped over two tubes or multiple wires and closed with a bolt at assembly.
- Steel clamps are zinc electroplate for corrosion resistance
- E.P.D.M. cushion for electrical insulation and vibration absorption
- Temperature range -50°F to +275°F (-45°C to 135°C)



Part No.	Size In.	Dimensions (in)	
		F	G
SPD-08	1/2" (13 mm)	0.50" (13 mm)	0.764" (19 mm)
SPD-12	3/4" (19 mm)	0.75" (19 mm)	0.889" (23 mm)
SPD-16	1" (25 mm)	1.00" (25 mm)	1.014" (26 mm)
SPD-20	1-1/4" (29 mm)	1.125" (29 mm)	1.159" (29 mm)

Available in stainless steel. Some sizes available in aluminum. Contact factory for details.



Introduction
Channel
Channel Nuts & Hardware
General Fittings
Pipe & Conduit Supports
Electrical Fittings
Spring Steel
Loop & Ring Clamps
Beta Clamps & Z-Clamps
Concrete Inserts
Rooftop Supports
Gamma Pads
Technical Data

SPH Cush-A-Ring Clamps

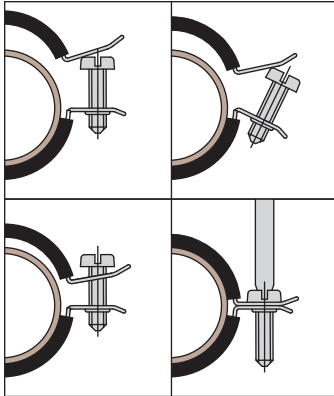
SPH Cush-A-Ring Clamp for Copper Tube or Steel Tube or Pipe



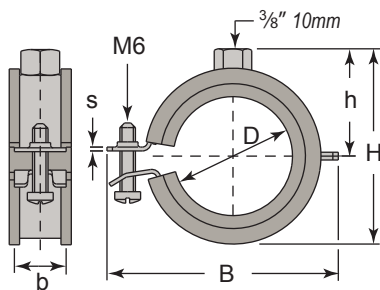
The **Cush-A-Ring** is a unique rubber lined hanger for copper and steel tube or pipe. The SPH-1 thru SPH-10 is a two-part clamp that has a hinged side with a single screw locking system. The quick locking system is easy to close with one hand, which makes it easier and faster for installation.

The noise insulating rubber lining is made of UV-resistant EPDM rubber. The Cush-A-Ring is zinc plated for corrosion resistance.

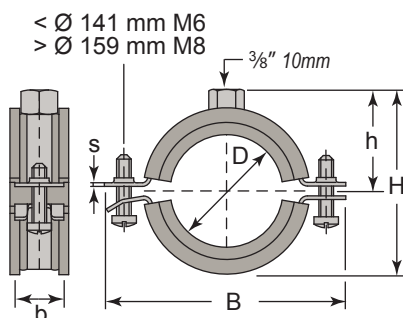
- Rubber lined, noise insulated
- With quick locking system
- Clamp easy to close with one hand
- UV-resistant black EPDM rubber lining
- Zinc plated
- ASTM E-84
- Meets - Buy America Act



SPH-1 thru SPH-10



SPH-11 thru SPH-14



Part No.	Dimensions (in)						
	D (mm)	IP	CT	B	H	h	b x s (mm)
SPH-1	11 – 14	1/4" (6mm)	3/8" (10mm)	1.9" (48mm)	1.4" (36mm)	0.87" (22mm)	20 x 1.25
SPH-2	15 – 18	3/8" (10mm)	1/2" (13mm)	1.9" (48mm)	1.4" (36mm)	0.87" (22mm)	
SPH-3	20 – 23	1/2" (13mm)	3/4" (19mm)	2.2" (56mm)	1.6" (41mm)	0.94" (24mm)	
SPH-4	25 – 28	3/4" (19mm)	1" (25mm)	2.4" (61mm)	1.8" (46mm)	1.10" (28mm)	
SPH-5	31 – 35	1" (25mm)	1-1/4" (32mm)	2.6" (66mm)	2.0" (51mm)	1.20" (30mm)	
SPH-6	40 – 43	1-1/4" (32mm)	1-1/2" (38mm)	3.0" (76mm)	2.4" (61mm)	1.30" (33mm)	
SPH-7	48 – 53	1-1/2" (38mm)	-	3.3" (84mm)	2.6" (66mm)	1.50" (38mm)	
SPH-8	54 – 56	-	2" (51mm)	3.5" (89mm)	2.8" (71mm)	1.60" (41mm)	
SPH-9	57 – 63	2" (51mm)	-	3.7" (94mm)	3.1" (79mm)	1.70" (43mm)	
SPH-10	64-70	-	2-1/2" (64mm)	4.5" (114mm)	3.9" (99mm)	2.20" (56mm)	
Below parts have 2 bolt configurations							
SPH-11	73-80	2-1/2" (64 mm)	3" (76 mm)	5.0" (127 mm)	4.3" (109 mm)	2.40" (61 mm)	23 x 2.00
SPH-12	83-91	3" (76 mm)	-	5.4" (137 mm)	4.8" (122 mm)	2.60" (66 mm)	25 x 2.50
SPH-13	100- 105	-	4" (102 mm)	6.0" (152 mm)	5.3" (135 mm)	2.90" (74 mm)	
SPH-14	108-114	4" (102 mm)	-	6.3" (160 mm)	5.7" (145 mm)	3.10" (79 mm)	



SPP Cush-A-Ring Clamps



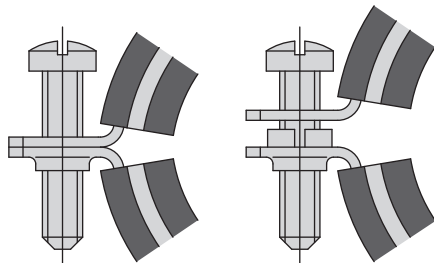
SPP Cush-A-Ring Clamps

SPP Cush-A-Ring Clamp for PEX, CPVC, or PVC Pipe

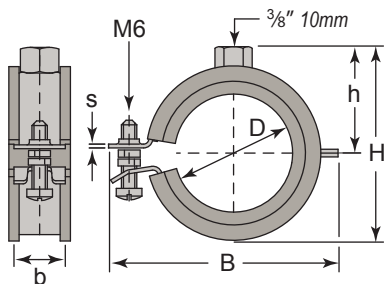


The **Cush-A-Ring** is a unique rubber lined hanger for PEX, CPVC, and PVC pipe. The SPP-1 thru SPP-10 has a two-part clamp with a hinged side and a single screw locking system. The quick locking system is easy to close with one hand, which makes it easier and faster for installation. The noise insulating rubber lining is made of UV-resistant EPDM rubber. The Cush-A-Ring is zinc plated for corrosion resistance.

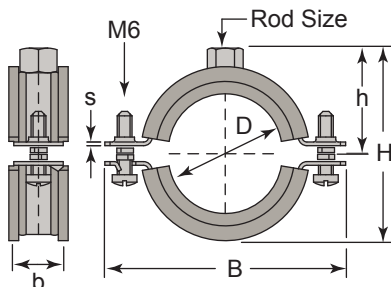
- With quick locking system
- Clamp easy to close with one hand
- Specially formulated, green, UV, and age resistant EPDM rubber lining
- Perfect for PEX, Fusion, CPVC, and PVC pipe
- ASTM E-84
- Complies with MSS SP-58 and SP-69
- Material steel, zinc plated



SPP-1 thru SPP-9



SPP-10 thru SPP-14



Part No.	Dimensions (in)						
	D	IP	CT	B	H	h	Rod Size
SPP-2	15 – 18	3/8" (10mm)	1/2" (13mm)	1.9" (48mm)	1.4" (36mm)	0.87" (22mm)	3/8" (10mm)
SPP-3	20 – 23	1/2" (13mm)	3/4" (19mm)	2.2" (56mm)	1.7" (43mm)	0.94" (24mm)	
SPP-4	25 – 28	3/4" (19mm)	1" (25mm)	2.4" (61mm)	1.9" (48mm)	1.0" (25mm)	
SPP-5	31 – 35	1" (25mm)	1-1/4" (32mm)	2.6" (66mm)	2.2" (56mm)	1.2" (30mm)	
SPP-6	40 – 43	1-1/4" (32mm)	1-1/2" (38mm)	3.0" (76mm)	2.6" (66mm)	1.3" (33mm)	
SPP-7	48 – 53	1-1/2" (38mm)	-	3.3" (84mm)	3.0" (76mm)	1.5" (38mm)	
SPP-8	54 – 56	-	2" (51mm)	3.5" (89mm)	3.0" (76mm)	1.6" (41mm)	
SPP-9	60 – 65	2" (51mm)	-	4.3" (109mm)	3.4" (86mm)	1.7" (43mm)	
SPP-10	70 – 76	2-1/2" (64mm)	-	4.9" (124mm)	4.1" (104mm)	2.2" (56mm)	
Below parts have 2 bolt configurations							
SPP-11	86 – 91	3" (76mm)	-	5.4" (137mm)	4.6" (117mm)	2.4" (61mm)	3/8" (10mm)
SPP-12	110 – 114	4" (102mm)	-	6.3" (160mm)	5.8" (147mm)	2.9" (74mm)	
SPP-13	124 – 132	-	-	6.8" (173mm)	5.9" (150mm)	3.1" (79mm)	1/2" (13mm)
SPP-14	155 – 160	-	-	8.0" (203mm)	7.4" (188mm)	3.9" (99mm)	



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Introduction

Channel

Channel Nuts & Hardware

General Fittings

Pipe & Conduit Supports

Electrical Fittings

Spring Steel

Loop & Ring Clamps

Beta Clamps & Z-Clamps

Concrete Inserts

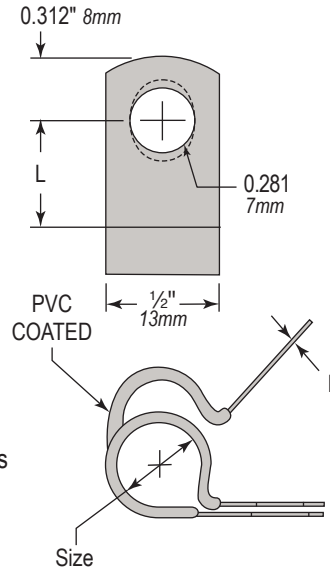
Rooftop Supports

Gamma Pads

Technical Data

SVN Loop Clamps

Vinyl Dipped - Galvanized Steel $\frac{1}{2}$ " (13mm) Wide

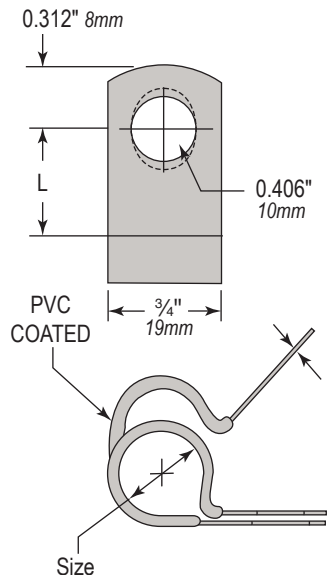


- Medium duty steel clamp that can be slipped over a tube or wire and closed with a bolt at assembly. Holes provide easy alignment. Its pre-developed shape allows for proper closing and excellent fit of the clamp.
- Galvanized Steel
- PVC coated, black color
- Temperature range -25°F to +160°F (-32°C to +71°C)

Part No.	Size in.	Dimensions (in)	
		L	F
SVN-03	$\frac{3}{16}$ " (5mm)	0.500" (13mm)	0.032" (1mm)
SVN-04	$\frac{1}{4}$ " (6mm)	0.531" (13mm)	
SVN-05	$\frac{5}{16}$ " (8mm)	0.562" (14mm)	
SVN-06	$\frac{3}{8}$ " (10mm)	0.593" (15mm)	
SVN-08	$\frac{1}{2}$ " (13mm)	0.656" (17mm)	0.048" (1mm)
SVN-09	$\frac{9}{16}$ " (14mm)	0.687" (17mm)	
SVN-10	$\frac{5}{8}$ " (16mm)	0.718" (18mm)	
SVN-12	$\frac{3}{4}$ " (19mm)	0.781" (20mm)	
SVN-14	$\frac{7}{8}$ " (22mm)	0.843" (21mm)	
SVN-16	1" (25mm)	0.906" (23mm)	
SVN-18	1- $\frac{1}{8}$ " (29mm)	0.968" (25mm)	

SVW Loop Clamps

Vinyl Dipped Galvanized Steel $\frac{3}{4}$ " (19mm) Wide



- Medium duty steel clamp that can be slipped over a tube or wire and closed with a bolt at assembly. Holes provide easy alignment. Its pre developed shape allows for proper closing and excellent fit of the clamp..
- Galvanized Steel
- PVC coated, black color
- Temperature range -25°F to +160°F (-32°C to +71°C)

Part No.	Size in.	Dimensions (in)	
		L	F
SVW-04	$\frac{1}{4}$ " (6mm)	0.656" (17mm)	0.032" (1mm)
SVW-05	$\frac{3}{16}$ " (8mm)	0.562" (14mm)	
SVW-06	$\frac{3}{8}$ " (10mm)	0.0718" (2mm)	
SVW-08	$\frac{1}{2}$ " (13mm)	0.781" (20mm)	0.048" (1mm)
SVW-09	$\frac{9}{16}$ " (14mm)	0.812" (21mm)	
SVW-10	$\frac{5}{8}$ " (16mm)	0.843" (21mm)	
SVW-12	$\frac{3}{4}$ " (19mm)	0.906" (23mm)	
SVW-13	$\frac{13}{16}$ " (21mm)	0.937" (24mm)	
SVW-14	$\frac{7}{8}$ " (22mm)	0.968" (25mm)	
SVW-15	$\frac{15}{16}$ " (24mm)	1.000" (25mm)	
SVW-16	1" (25mm)	1.031" (26mm)	
SVW-18	1- $\frac{1}{8}$ " (29mm)	1.092" (28mm)	
SVW-20	1- $\frac{1}{4}$ " (32mm)	1.156" (29mm)	
SVW-22	1- $\frac{3}{8}$ " (35mm)	1.218" (31mm)	



LVZ Loop Clamps

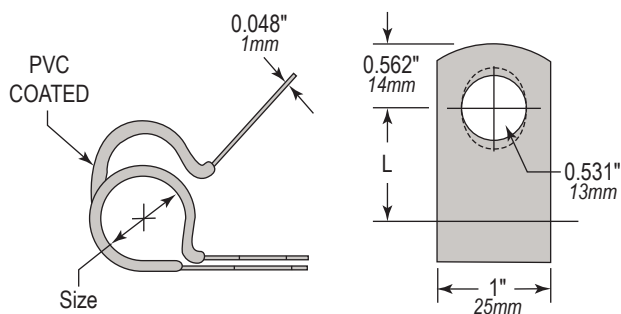


LVZ Loop Clamps

Vinyl Dipped Galvanized Steel 1" (25mm) Wide



- Heavy duty steel clamp
- Galvanized Steel
- PVC coated, black color
- Temperature range -25°F to +160°F (-32°C to +71°C)



Part No.	Size in.	L
LVZ-18	1-1/8" (29mm)	1.218" (31mm)
LVZ-19	1-3/16" (30mm)	1.250" (32mm)
LVZ-20	1-1/4" (32mm)	1.281" (33mm)
LVZ-21	1-5/16" (33mm)	1.312" (33mm)
LVZ-24	1-1/2" (38mm)	1.406" (36mm)
LVZ-25	1-9/16" (40mm)	1.437" (36mm)
LVZ-28	1-3/4" (44mm)	1.531" (39mm)
LVZ-29	1-13/16" (46mm)	1.562" (40mm)
LVZ-32	2" (51mm)	1.687" (43mm)
LVZ-33	2-1/16" (52mm)	1.718" (44mm)
LVZ-36	2-1/4" (57mm)	1.812" (46mm)
LVZ-40	2-1/2" (64mm)	1.937" (49mm)
LVZ-42	2-5/8" (67mm)	2.000" (51mm)
LVZ-44	2-3/4" (70mm)	2.062" (52mm)
LVZ-46	2-7/8" (73mm)	2.125" (54mm)
LVZ-57	3-9/16" (90mm)	2.437" (62mm)





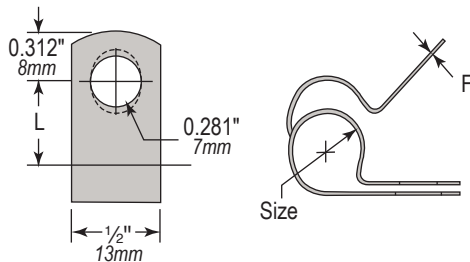
SSN & Cable Loop Clamps

SSN Loop Clamps

Stainless Steel 1/2" (13mm) Wide



- Medium duty steel clamp that can be slipped over a tube or wire and closed with a bolt at assembly. Holes provide easy alignment. Its pre-developed shape allows for proper closing and excellent fit.
- Stainless steel, type 301 or 304

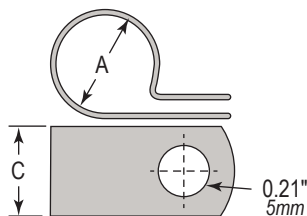


Part No.	Size in.	Dimensions (in)	
		L	F
SSN-03	3/16" (5mm)	0.500" (13mm)	0.032" (1mm)
SSN-04	1/4" (6mm)	0.531" (13mm)	
SSN-05	5/16" (8mm)	0.562" (14mm)	
SSN-06	3/8" (10mm)	0.593" (15mm)	
SSN-08	1/2" (13mm)	0.656" (17mm)	0.048" (1mm)
SSN-09	9/16" (14mm)	0.687" (17mm)	
SSN-10	5/8" (16mm)	0.718" (18mm)	
SSN-12	3/4" (19mm)	0.781" (20mm)	
SSN-14	7/8" (22mm)	0.843" (21mm)	
SSN-16	1" (25mm)	0.906" (23mm)	
SSN-18	1-1/8" (29mm)	0.968" (25mm)	

Cable Clamps



Cable Clamps are perfect for securing wires and cables in the electric, automotive and aircraft industries.



Part No.	A (in.)	C (in.)
CC3-1/8	0.130" (3mm)	0.358" (9mm)
CC3-3/16	0.189" (5mm)	
CC3-1/4	0.260" (7mm)	
CC3-5/16	0.307" (8mm)	
CC3-3/8	0.382" (10mm)	0.362" (9mm)
CC5-1/8	0.114" (3mm)	0.500" (13mm)
CC5-1/4	0.232" (6mm)	
CC5-3/8	0.358" (9mm)	
CC5-1/2	0.480" (12mm)	
CC5-9/16	0.543" (14mm)	
CC5-3/4	0.732" (19mm)	
CC5-7/8	0.858" (22mm)	
CC5-1-1/8	1.100" (28mm)	

UV Black also available upon request Closed Bottom



HVN & HSN Loop Clamps

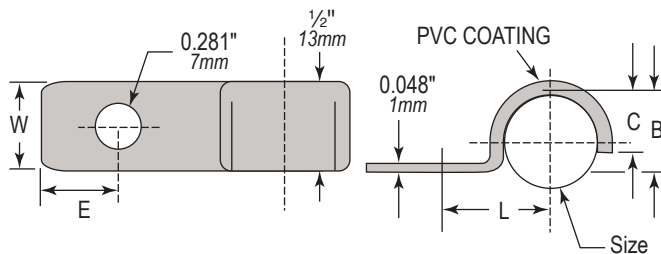


HVN Loop Clamps

Vinyl Dipped Galvanized Steel



- Black vinyl plastic coated (PVC)
- Galvanized Steel for corrosion resistance
- Temperature range -25°F to +160°F (-32°C to +71°C)



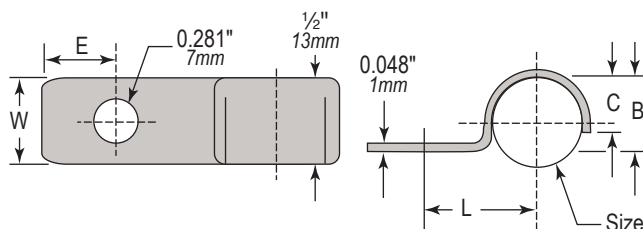
Part No.	Size in.	Dimensions (in)				
		L	E	B	C	W
HVN-04	1/4" (6mm)	0.500" (13mm)	0.250" (6mm)	0.250" (6mm)	0.188" (5mm)	1/2" (13mm)
HVN-05	5/16" (8mm)	0.531" (13mm)	0.312" (8mm)	0.312" (8mm)	0.218" (6mm)	5/8" (16mm)
HVN-06	3/8" (10mm)	0.562" (14mm)	0.312" (8mm)	0.375" (10mm)	0.281" (7mm)	
HVN-08	1/2" (13mm)	0.687" (17mm)	0.312" (8mm)	0.500" (13mm)	0.343" (9mm)	
HVN-09	9/16" (14mm)	0.750" (19mm)	0.312" (8mm)	0.562" (14mm)	0.437" (11mm)	
HVN-10	5/8" (16mm)	0.812" (21mm)	0.312" (8mm)	0.625" (16mm)	0.406" (10mm)	
HVN-12	3/4" (19mm)	0.875" (22mm)	0.312" (8mm)	0.750" (19mm)	0.468" (12mm)	

HSN Loop Clamps

Stainless Steel



- Stainless steel, Type 301 or 304



Part No.	Size in.	Dimensions (in)				
		L	E	B	C	W
HSN-04	1/4" (6mm)	0.500" (13mm)	0.250" (6mm)	0.250" (6mm)	0.188" (5mm)	1/2" (13mm)
HSN-05	5/16" (8mm)	0.531" (13mm)	0.312" (8mm)	0.312" (8mm)	0.218" (6mm)	5/8" (16mm)
HSN-06	3/8" (10mm)	0.562" (14mm)	0.312" (8mm)	0.375" (10mm)	0.281" (7mm)	
HSN-08	1/2" (13mm)	0.687" (17mm)	0.312" (8mm)	0.500" (13mm)	0.343" (9mm)	
HSN-09	9/16" (14mm)	0.750" (19mm)	0.312" (8mm)	0.562" (14mm)	0.437" (11mm)	
HSN-10	5/8" (16mm)	0.812" (21mm)	0.312" (8mm)	0.625" (16mm)	0.406" (10mm)	
HSN-12	3/4" (19mm)	0.875" (22mm)	0.312" (8mm)	0.750" (19mm)	0.468" (12mm)	





Python Cable Clamps

Python Series

STRONG: Load is applied at right angles to ensure tight fit. Python hose clamps keep their grip on the hose and can be reused. Rolled up band edges ensure a smooth transition between band and hose. Hexagonal screw head with drive slot makes for easy accessibility.



The **Python II** provides greater clamping force with less trouble than heavy-duty T-Bolt type clamps.

- Lower cost than T-Bolts with superb performance.
- Thicker band for greater tensile strength.
- Greater clamping range than T-Bolt 1½" clamping range over 2" diameter
- 316 stainless steel
- Non perforated band with embossed threads safely seals without cutting the hose.

Python – Zinc Plated		
Zinc Plated Part No.	SAE Size	Clamping Range
		in.
PY-3	3	5/16" – 9/16" (8mm – 14mm)
PY-4	4	7/16" – 11/16" (11mm – 17mm)
PY-6	6	1/2" – 13/16" (13mm – 20mm)
PY-8	8	5/8" – 15/16" (15mm – 24mm)
PY-10	10	3/4" – 1-1/8" (19mm – 28mm)
PY-12	12	7/8" – 1-1/4" (22mm – 32mm)
PY-16	16	1-1/16" – 1-1/2" (26mm – 38mm)
PY-20	20	1-1/4" – 1-3/4" (32mm – 44mm)
PY-24	24	1-1/2" – 2" (38mm – 50mm)
PY-28	28	1-3/4" – 2-1/4" (44mm – 56mm)
PY-32	32	2" – 2-9/16" (50mm – 65mm)
PY-40	40	2-5/16" – 3" (58mm – 75mm)
PY-44	44	2-11/16" – 3-3/8" (68mm – 85mm)
PY-52	52	3" – 3-3/4" (77mm – 95mm)
PY-64	64	3-7/16" – 4-7/16" (87mm – 112mm)
PY-80	80	4-1/8" – 5-7/16" (104mm – 138mm)
PY-96	96	5-1/8" – 6-1/2" (130mm – 165mm)
PY-104	104	5-7/8" – 7-1/8" (150mm – 180mm)
PY-122	122	6-3/8" – 8-1/8" (175mm – 205mm)
PY-138	138	7-7/8" – 9-1/8" (200mm – 231mm)
PY-154	154	8-7/8" – 10-1/16" (226mm – 256mm)
PY-170	170	9-7/8" – 11-1/8" (251mm – 282mm)
PY-186	186	10-7/8" – 12-1/8" (277mm – 307mm)

PYTHON II – Stainless Steel Type 316	
Part No.	Clamping Range
	in.
PY-331	5/16" – 9/16" (8mm – 14mm)
PY-431	7/16" – 11/16" (11mm – 17mm)
PY-631	1/2" – 13/16" (13mm – 20mm)
PY-831	5/8" – 15/16" (15mm – 24mm)
PY-1031	3/4" – 1-1/8" (19mm – 28mm)
PY-1231	7/8" – 1-1/4" (22mm – 32mm)
PY-1631	1-1/16" – 1-1/2" (26mm – 38mm)
PY-2031	1-1/4" – 1-3/4" (32mm – 44mm)
PY-2431	1-1/2" – 2" (38mm – 50mm)
PY-2831	1-3/4" – 2-1/4" (32 – 57mm)
PY-3231	1-1/2" – 2-1/2" (38 – 64mm)
PY-3631	1-3/4" – 2-3/4" (44 – 70mm)
PY-4031	2" – 3" (51 – 76mm)
PY-4431	2-3/4" – 3-1/4" (57 – 83mm)
PY-4831	2-1/2" – 3-1/2" (64 – 89mm)
PY-5231	2-3/4" – 3-3/4" (70 – 95mm)
PY-5631	3" – 4" (76 – 102mm)
PY-6031	3-1/4" – 4-1/4" (83 – 108mm)
PY-6431	3-1/2" – 4-1/2" (89 – 114mm)
PY-7231	3-1/2" – 5" (89 – 127mm)
PY-8031	4" – 5-1/2" (102 – 140mm)
PY-8831	4-1/2" – 6" (114 – 152mm)
PY-9631	5" – 6-1/2" (127 – 165mm)
PY-10431	5-1/2" – 7" (140 – 178mm)
PY-11231	6" – 7-1/2" (152 – 191mm)
PY-12031	6-1/2" – 8" (165 – 203mm)
PY-12831	7" – 8-1/2" (178 – 216mm)
PY-13831	7-5/8" – 9-1/8" (194 – 232mm)
PY-15431	8-5/8" – 10-1/8" (219 – 257mm)
PY-17031	9-5/8" – 11-1/8" (244 – 282mm)
PY-18631	10-5/8" – 12-1/8" (270 – 307mm)



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Beta Clamps and Z-Clamps



Ideal for Clamping Pipe, Tube, Hose, & Electrical Cables



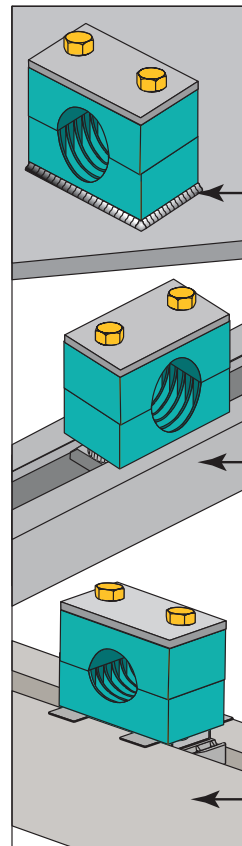
Beta Clamps are ideal for clamping pipe, tube, hose, and electric cables. They are an economical and easy way of securing them in all types of terrestrial, marine, O.E.M. and Industrial applications. Thanks to the advanced features and the breadth and depth of our product offering, Beta Clamps are used in all areas of industrial, mobile and marine hydraulics, general industrial pipe construction, the field of press technology, instrumentation and control technology, and many more.

- Beta Clamps offer shock-absorption, vibration dampening and noise reducing properties.
- Beta Clamps feature a practical and economical design which make for quick, easy pipe installation and layout.
- Upper and lower clamp half are identical.
- Ribs in clamp bore are designed to absorb shock and vibration in the direction of the tube axis.
- Clamp Body Standard – Polypropylene (Green Color) -22°F to 194°F (-30°C to +90°C)
- Aluminum Clamp Body is available for use in high heat applications.

CLAMP COMPONENTS – The other metallic components of the clamps are manufactured in:

- Lower and upper plates: steel, stainless steel type 304
- Screw bolts: steel, S40C, stainless steel type 304

ZSi-Foster's Beta Clamps offer an installation option for all of your application needs.



Common Welded Method

Install by welding the weld plate to existing steel

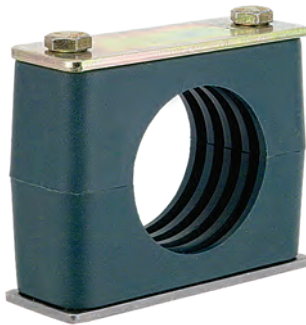
Din Rail Mounted

Attach to C-Rail using ZSi C-Rail Nuts

Strut Mounted

Attach to Wesanco Channel using our exclusive Channel Adapter Nut

Beta Standard (Pages 204 - 205)



- For standard hydraulics and systems with less than 1,500 psi (103 bar) without dynamic loads
- Polypropylene cushion
- Steel components

Beta Heavy (Pages 206 - 207)



- For systems with greater than 1,500 psi (103 bar) operating pressure, operations with pressure surges, and applications with wide temperature fluctuations.
- Absorbs high levels of shock, noise, and vibration
- Polypropylene cushion & steel components

Beta Twin (Pages 208 - 209)



- For standard hydraulics, general pipe construction and electrical cables
- Polypropylene cushion
- Steel components

Beta Smoothie (Page 210)



- Reduces wear on hose connection caused by vibration and surge.
- Chamfered and smooth core protects hose cover and extends hose life.
- Uses Beta Standard hardware
- Polypropylene cushion
- Steel components

Beta Smoothie Twin (Page 211)



- Reduces wear on hose connection caused by vibration and surge.
- Chamfered and smooth core protects hose cover and extends hose life.
- Uses Beta Twin hardware
- Polypropylene cushion
- Steel components

Beta Special Metals (Pages 204, 205, 208)



- Aluminum cushions with steel components are used in high heat applications up to 500°F (260°C)
- Stainless steel clamp hardware with polypropylene cushion are used in applications where external corrosion is a concern.

Beta Rubber Inserts (Pages 212 - 213)



- Available in standard and heavy
- One cushion block provides flexible size range of cushioning.
- Smooth bore core can be used on hose, or for vibration reduction

Beta Adapter (Page 214)



- Allows a clamping junction to be inserted into hydraulic lines.
- The adapter body is offered in two sizes for use with the Z-Clamp adapter inserts.



Z-Clamp - Overview



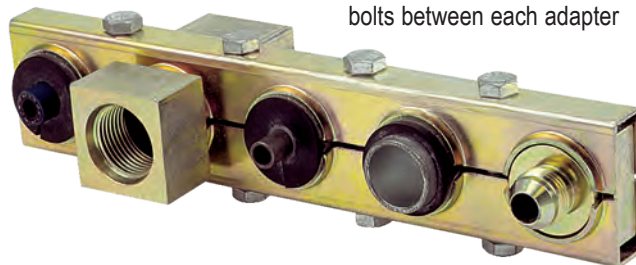
Z-Clamp Units

The **Z-Clamp** is designed to maintain a consistent center line dimension for horizontal clamping or vertical stackable clamping applications. The Z-Clamp maintains that center line while accommodating the same, or different diameter tubing, hose or pipe. Suited for all types of hydraulic hose, tubing, and pipe clamping applications, the Z-Clamp provides yet another alternative to the broadest cushion clamping product line in the world.

A Z-Clamp consists of an adapter framework which is offered in two versions. One has mounting bolts between each adapter insert and the other has two additional mounting bolts at each end of the frame.

Z-Clamps (Pages 215 - 216)

Standard framework, bolts between each adapter



Z-Clamps can be stacked for even more line clamping ability.



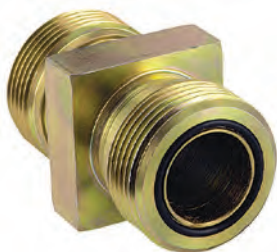
Outside hole framework, bolts between each adapter and two additional bolts at each end

Z-Clamp and Beta Adapters

Optional Adapters

Beta Adapters (Page 214)

Female Junction Adapter (Page 218)

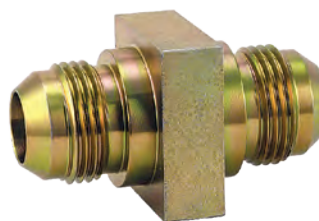


The Z-Clamp inserts are also used with the Beta Adapter.

O-Ring Face Seal (Page 217)



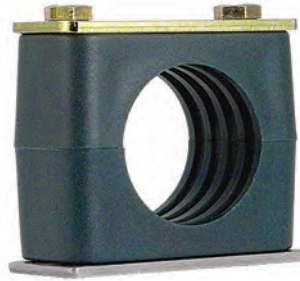
Rubber Split Bushings (Page 218)



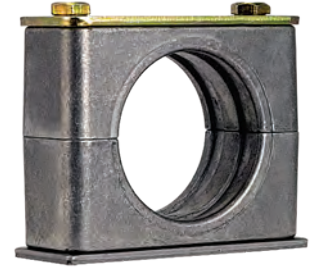
37° Flare Male Junction Adapter (Page 218)



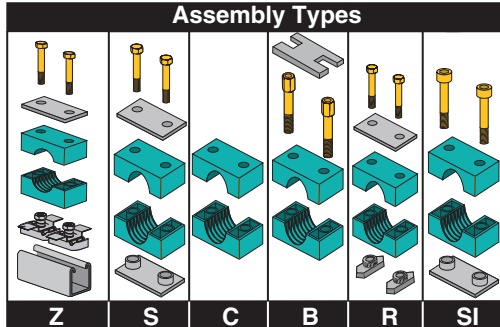
Standard Series Beta Clamps



Steel with Polypropylene Cushion

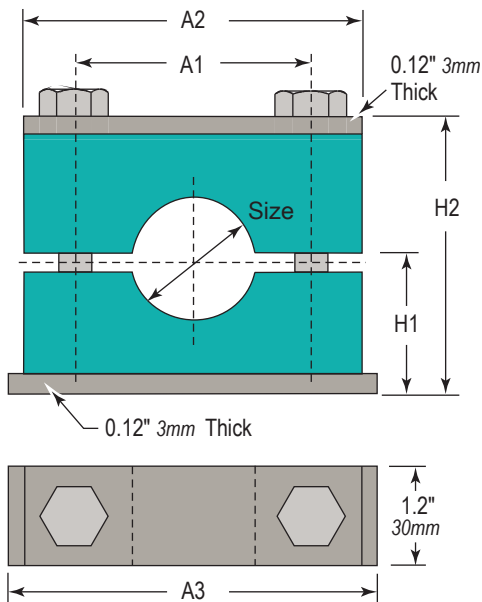


Steel with Aluminum Cushion



- Cushions are Polypropylene (Green Color)
- Recommended for systems with less than 1,500 psi (103 bar) without dynamic loads.
- Use for standard hydraulics, general pipe construction, electrical cables, and general duty piping applications subject to moderate levels of shock and vibration.
- Aluminum cushions are used in higher heat applications up to 500°F (260°C).

INSTALLATION - Refer to pages 253 - 256 for complete installation guide.



Group	Part No. *	Tube Size	Pipe Size	Metric Size	Dimensions - inch (mm)					Bolt
					A1	A2	A3	H1	H2	
S1	S1004	¼" (0.250)	-	-	0.78" (20)	1.34" (34)	1.41" (36)	0.62" (16)	1.25" (32)	½"-20 x 1½"
	S1006	⅜" (0.375)	-	-						
	SM1006	-	-	6mm						
	S1007	-	⅛" (0.405)	-						
	SM1008	-	-	8mm						
	SM1012	-	-	12mm						
S2	S2008	½" (0.500)	-	-	1.02" (26)	1.57" (40)	1.65" (42)	0.76" (19.5)	1.54" (39)	½"-20 x 1⅜"
	S2009	-	¼" (0.540)	-						
	S2010	⅝" (0.625)	-	-						
	S2011	-	⅜" (0.675)	-						
	SM2014	-	-	14mm						
	SM2015	-	-	15mm						
	SM2018	-	-	18mm						
S3	S3012	¾" (0.750)	-	-	1.29" (33)	1.96" (50)	2.04" (52)	0.80" (20.5)	1.61" (41)	½"-20 x 1½"
	S3014	-	½" (0.840)	-						
	S3015	⅞" (0.875)	-	-						
	S3016	1" (1.000)	-	-						
	SM3020	-	-	20mm						
	SM3025	-	-	25mm						
S4	S4017	-	¾" (1.050)	-	1.57" (40)	2.28" (58)	2.36" (60)	0.94" (24)	1.88" (48)	½"-20 x 1½"
	S4018	1⅛" (1.125)	-	-						
	SM4030	-	-	30mm						
S5	S5020	1¼" (1.250)	-	-	2.04" (52)	2.75" (70)	2.83" (72)	1.25" (32)	2.52" (64)	½"-20 x 2½"
	S5021	-	1" (1.315)	-						
	S5024	1½" (1.500)	-	-						
	S5027	-	1¼" (1.660)	-						
	SM5035	-	-	35mm						
S6	S6028	1¾" (1.750)	-	-	2.59" (66)	3.38" (86)	3.46" (88)	1.41" (36)	2.83" (72)	½"-20 x 2¾"
	S6030	-	1½" (1.900)	-						
	S6032	2" (2.000)	-	-						
S7	S7038	-	2" (2.375)	-	3.70" (94)	4.75" (121)	4.81" (122)	2.00" (51)	4.05" (103)	½"-20 x 4"
	S7036	2¼" (2.250)	-	-						
	S7040	2½" (2.500)	-	-						
	S7044	2¾" (2.750)	-	-						
	S7048	3" (3.000)	-	-						



*For additional sizes contact factory.

Note: Add assembly type to part number. Example: **S1004S-SS** provides the complete assembly as shown with stainless steel components.

NOTE: SM (metric) only available in Steel with Polypropylene (green) cushion.

SUFFIX	Components	Cushion	Example
none	Steel	Polypropylene (green)	S1004S
-AL	Steel	Aluminum	S1004S-AL
-SS	Stainless Steel	Polypropylene (green)	S1004S-SS



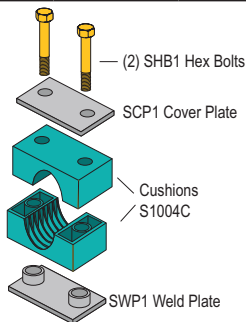
Beta Clamps - Standard



STANDARD SERIES COVER PLATE			STANDARD SERIES SAFETY PLATE		
	SCP1	Use with Group S1		SP1	Use with Group S1
	SCP2	Use with Group S2		SP2	Use with Group S2
	SCP3	Use with Group S3		SP3	Use with Group S3
	SCP4	Use with Group S4		SP4	Use with Group S4
	SCP5	Use with Group S5		SP5	Use with Group S5
	SCP6	Use with Group S6		SP6	Use with Group S6
	SCP7	Use with Group S7		SP7	Use with Group S7
HEX BOLT (Two required per assembly)			STANDARD SERIES CAP SCREW (Two required per assembly)		
	SHB1	Use with Group S1		SC1	Use with Group S1
	SHB2	Use with Group S2		SC2	Use with Group S2
	SHB3	Use with Group S3		SC3	Use with Group S3
	SHB4	Use with Group S4		SC4	Use with Group S4
	SHB5	Use with Group S5		SC5	Use with Group S5
	SHB6	Use with Group S6		SC6	Use with Group S6
	SHB7	Use with Group S7		SC7	Use with Group S7
STANDARD SERIES WELD PLATE			STACKING BOLTS - (Two required per assembly)		
	SWP1	Use with Group S1		SB1	Use with Group S1
	SWP2	Use with Group S2		SB2	Use with Group S2
	SWP3	Use with Group S3		SB3	Use with Group S3
	SWP4	Use with Group S4		SB4	Use with Group S4
	SWP5	Use with Group S5		SB5	Use with Group S5
	SWP6	Use with Group S6		SB6	Use with Group S6
	SWP7	Use with Group S7		SB7	Use with Group S7
STRUT NUT - For connection to Wesanco Channel (Two required per assembly)			WESANCO CHANNEL		
	ZSA1-8	Use with Groups S1-S7		W200, W210	1 ⁵ / ₈ " x 1 ⁵ / ₈ " (41mm x 41mm)
				W400, W500	1 ⁵ / ₈ " x 1 ³ / ₁₆ " (41mm x 11mm)
				W800	1 ⁵ / ₈ " x 1" (41mm x 25mm)
				W900	1 ⁵ / ₈ " x 7/ ₈ " (41mm x 22mm)
See Pages 28 - 77 for channel information					
C-RAIL NUTS - (Two required per single assembly)			C-RAIL		
	SRN1-6	1/4" Nut Use with SCR-1 & SCR-2		SCR-1	39" (1 meter)
				SCR-2	78" (2 meter)
			<p>1.1" 28mm 0.4" 11mm 0.08" 2mm 0.4" 11mm</p>		

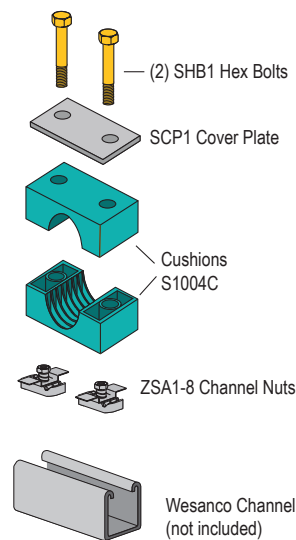
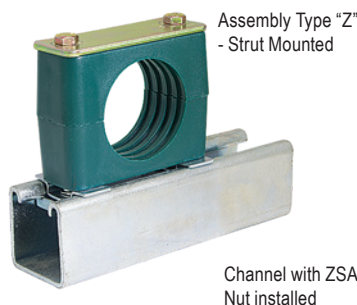
Welded Ordering Example - S1004S

"S" Assembly Includes		
Quantity	Part No.	Description
1 Each	SWP1	Weld Plate
1 Each	SCP1	Cover Plate
2 Each	SHB1	Hex Bolts
1 Set	S1004C	Cushions

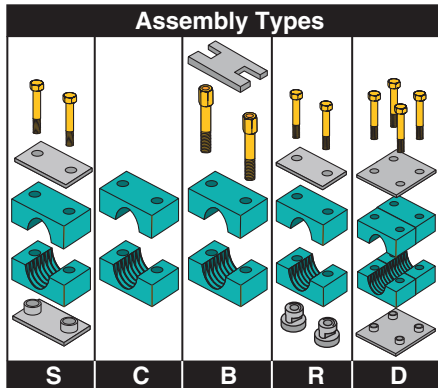


Strut Mounted Ordering Example - S1004Z

"Z" Assembly Includes		
Quantity	Part No.	Description
2 Each	SHB1	Hex Bolts
1 Each	SCP1	Cover Plate
1 Set	S1004C	Cushions
2 Each	ZSA1-8	Channel Nuts

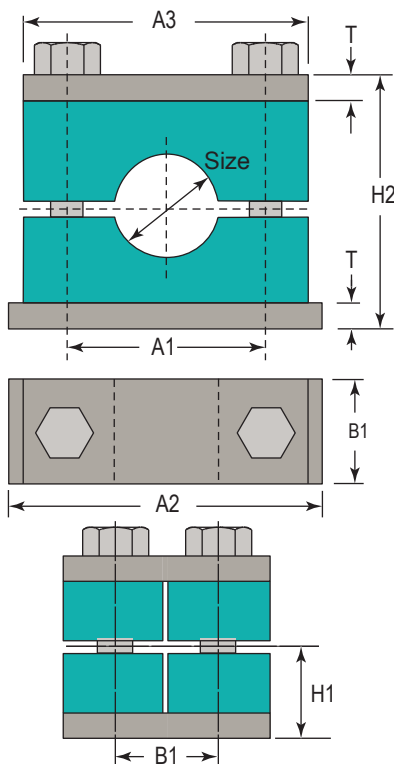


Heavy Series Beta Clamps



- Recommended systems with greater than 1,500 psi (103 bar) operating pressure, operations with pressure surges, and applications with wide temperature fluctuations.
- Absorbs high levels of shock, noise, and vibration
- Cushions are polypropylene (Green color) or Aluminum.
- Aluminum cushions are used in higher heat applications up to 500°F (260°C).

INSTALLATION - Refer to pages 253 - 256 for complete installation guide.



Steel with Polypropylene Cushion



Steel with Aluminum Cushion

Group	Part No.	Tube Size	Pipe Size	Dimensions-inch(mm)							Hex Bolt
				A1	A2	A3	B1	H1	H2	T	
H3	H3004	1/4" (0.250)	-	1.29" (33)	2.87" (73)	2.16" (55)	1.18" (30)	0.94" (24)	1.88" (48)	0.31" (8)	3/8"-16 x 1-3/4"
	H3006	3/8" (0.375)	-								
	H3007	-	1/8" (0.405)								
	H3008	1/2" (0.500)	-								
	H3009	-	1/4" (0.540)								
	H3010	5/8" (0.625)	-								
H4	H3011	-	3/8" (0.675)	1.77" (45)	3.34" (85)	2.75" (70)	1.18" (30)	1.25" (32)	2.51" (64)	0.31" (8)	3/8"-16 x 2-1/4"
	H4012	3/4" (0.750)	-								
	H4014	-	1/2" (0.840)								
	H4015	7/8" (0.875)	-								
	H4016	1" (1.000)	-								
H5	H4017	-	3/4" (1.050)	2.36" (60)	3.93" (100)	3.30" (84)	1.18" (30)	1.49" (38)	2.99" (76)	0.31" (8)	3/8"-16 x 2-3/4"
	H5020	1 1/4" (1.250)	-								
	H5021	-	1" (1.315)								
	H5024	1 1/2" (1.500)	-								
H6	H5027	-	1 1/4" (1.660)	3.54" (90)	5.90" (150)	4.52" (115)	1.77" (45)	2.16" (55)	4.33" (110)	0.39" (10)	1/2"-13 x 4"
	H6028	1 3/4" (1.750)	-								
	H6030	-	1 1/2" (1.900)								
	H6032	2" (2.000)	-								
	H6034	2 1/4" (2.250)	-								
H7	H6038	2 3/8" (2.375)	2" (2.375)	4.80" (122)	7.08" (180)	5.98" (152)	2.36" (60)	2.75" (70)	5.51" (140)	0.39" (10)	5/8"-11 x 5-1/4"
	H6040	2 1/2" (2.500)	-								
	H7044	2 3/4" (2.750)	-								
	H7046	-	2 1/2" (2.870)								
H8	H7050	3" (3.000)	-	6.61" (168)	8.86" (225)	8.07" (205)	3.15" (80)	3.94" (100)	7.87" (200)	0.59" (15)	M20 x 190mm
	H7056	-	3" (3.500)								
	H7057	3 1/2" (3.500)	-								
H9	H8072	-	4" (4.500)	8.07" (221)	10.63" (270)	9.92" (252)	3.54" (90)	4.53" (115)	9.06" (230)	0.59" (15)	M24 x 220mm
	H9089	-	5" (5.563)								
H10	H9106	-	6" (6.625)	10.43" (265)	13.39" (340)	12.60" (320)	4.72" (120)	6.30" (160)	12.60" (320)	0.98" (25)	M30 x 300mm
	H10137	-	8" (8.625)								
H11	H11170	-	10" (10.750)	15.55" (395)	20.47" (520)	18.35" (466)	6.30" (160)	9.25" (235)	18.50" (470)	1.18" (30)	M30 x 450mm

*For additional sizes contact factory.
 Note: Add assembly type to part number. Example: **H3004S-SS** provides the complete assembly as shown with stainless steel components.

SUFFIX	Components	Cushion	Example (complete assembly):
NONE	Steel	Polypropylene (green)	H3004S
-AL	Steel	Aluminum	H3004S-AL
-SS	Stainless Steel	Polypropylene (green)	H3004S-SS



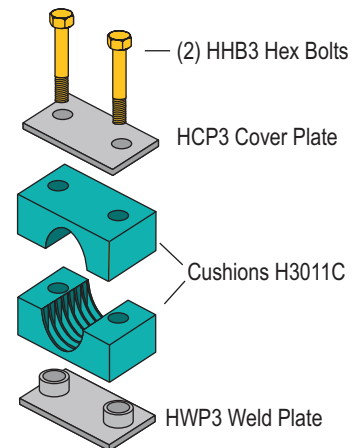
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Beta Clamps - Heavy



HEAVY SERIES COVER PLATE			HEAVY SERIES SAFETY PLATE			C-RAIL NUTS (Two required per single assembly)					
	HCP3	Use w/Group H3		HSP3	Use w/Group H3		HRN-3-5	3/8" Nut, Use w/Groups H3-H5			
	HCP4	Use w/Group H4		HSP4	Use w/Group H4		HRN-6	7/16" Nut, Use w/Group H6			
	HCP5	Use w/Group H5		HSP5	Use w/Group H5		Note: Rail mounted stacking kit is only available on groups H3, H4, and H5				
	HCP6	Use w/Group H6		HSP6	Use w/Group H6						
	HCP7	Use w/Group H7		HSP7	Use w/Group H7						
	HCP8	Use w/Group H8		HSP8	Use w/Group H8						
	HCP9	Use w/Group H9		HSP9	Use w/Group H9						
	HEAVY SERIES HEX BOLTS (Two required per single assembly)			HEAVY SERIES STACKING BOLTS (Two required per single assembly)			C-RAIL				
		HHB3		Use w/Group H3			HSB3	Use w/Group H3		HCR-1	39" (1 meter)
HHB4		Use w/Group H4	HSB4	Use w/Group H4		HCR-2	78" (2 meter)				
HHB5		Use w/Group H5	HSB5	Use w/Group H5		1.6" 40mm					
HHB6		Use w/Group H6	HSB6	Use w/Group H6		0.5" 13mm					
HHB7		Use w/Group H7	HSB7	Use w/Group H7		0.20" 5mm					
HHB8		Use w/Group H8	HSB8	Use w/Group H8		0.87" 22mm					
HHB9		Use w/Group H9	HSB9	Use w/Group H9							
HEAVY SERIES WELD PLATE			HEAVY SERIES DOUBLE WELD PLATE			HEAVY SERIES DOUBLE COVER PLATE					
		HWP3	Use w/Group H3			HDP3	Use w/Group H3			DCP3	Use w/Group H3
	HWP4	Use w/Group H4	HDP4		Use w/Group H4	DCP4	Use w/Group H4				
	HWP5	Use w/Group H5	HDP5		Use w/Group H5	DCP5	Use w/Group H5				
	HWP6	Use w/Group H6	HDP6		Use w/Group H6	DCP6	Use w/Group H6				
	HWP7	Use w/Group H7	HDP7		Use w/Group H7	DCP7	Use w/Group H7				
	HWP8	Use w/Group H8									
	HWP9	Use w/Group H9									

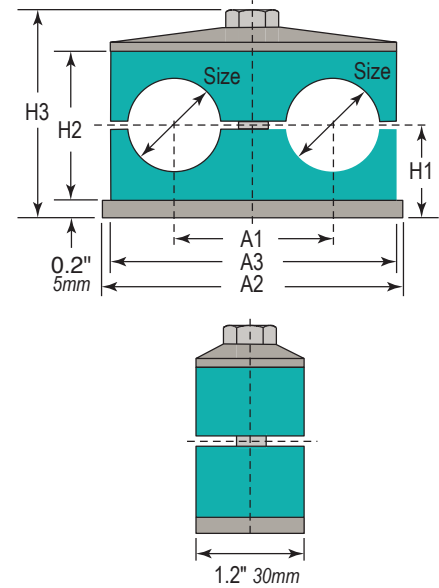
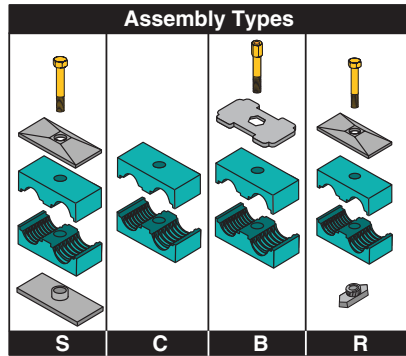
Welded Ordering Example		
H3004S		
Assembly Includes		
Quantity	Part No.	Description
1 Each	HWP3	Weld Plate
1 Each	HCP3	Cover Plate
2 Each	HHB3	Hex Bolts
1 Set	H3011C	Cushions





Beta Clamps - Twin

Twin Series Beta Clamps



BETA CLAMPS TWIN SERIES are ideal for general-duty applications subject to moderate levels of shock and vibration. Cushions in this series are Polypropylene (Green Color).

Call factory for additional sizes and cushion materials.

INSTALLATION - Refer to pages 253 - 256 for complete installation guide.

Group	Steel Part No.	Tube Size	Pipe Size	Dimensions - inch (mm)						WT/100	Hex Bolt
				A1	A2	A3	H1	H2	H3		
T1	T1004	1/4" (0.250)		0.78" (20)	1.45" (37)	1.41" (36)	0.72" (18.5)	1.06" (27)	1.69" (43)	21 (9.5 Kg)	1/4"-20 x 1-3/8"
	T1006	3/8" (0.375)								21 (9.5 Kg)	
	T1007		1/8" (0.405)							21 (9.5 Kg)	
T2	T2008	1/2" (0.500)		1.14" (29)	2.16" (55)	2.08" (53)	0.70" (18)	1.02" (26)	1.71" (43.5)	31 (14 Kg)	5/16"-18 x 1-3/8"
	T2009		1/4" (0.540)							31 (14 Kg)	
	T2010		5/8" (0.625)							31 (14 Kg)	
	T2011		3/8" (0.675)							31 (14 Kg)	
T3	T3012	3/4" (0.750)		1.41" (36)	2.75" (70)	2.63" (67)	0.92" (23.5)	1.45" (37)	2.14" (54.5)	40 (18 Kg)	5/16"-18 x 1-3/4"
	T3014		1/2" (0.840)							39 (17.6 Kg)	
	T3015		7/8" (0.875)							39 (17.6 Kg)	
	T3016		1" (1.000)							38 (17.2 Kg)	
T4	T4017		3/4" (1.050)	1.77" (45)	3.34" (85)	3.22" (82)	1.02" (26)	1.65" (42)	2.34" (59.5)	49 (22.2 Kg)	5/16"-18 x 2"
	T4018		1-1/8" (1.125)							49 (22.2 Kg)	
T5	T5020	1-1/4" (1.250)		2.20" (56)	4.33" (110)	4.17" (106)	1.25" (32)	2.12" (54)	2.81" (71.5)	65 (29.4 Kg)	5/16"-18 x 2-3/8"
	T5021		1" (1.315)							65 (29.4 Kg)	
	T5024		1-1/2" (1.500)							64 (29 Kg)	
	T5027		1-1/4" (1.660)							62 (28.1 Kg)	



* For additional sizes contact factory.
 Note: Add assembly type to part number.
 Example: **T1004S-SS** provides the complete assembly as shown with stainless steel components.

SUFFIX	Components	Cushion	Example
none	Steel	Polypropylene (green)	T1004S
SS	Stainless Steel	Polypropylene (green)	T1004S-SS



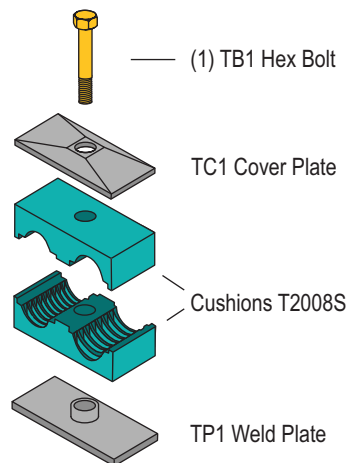
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Beta Clamps - Twin



TWIN SERIES COVER PLATE			TWIN SERIES SAFETY PLATE		
	TC1	Use with Group T1		TSP1	Use with Group T1
	TC2	Use with Group T2		TSP2-5	Use with Group T2 thru T5
	TC3	Use with Group T3			
	TC4	Use with Group T4			
	TC5	Use with Group T5			
TWIN HEX BOLT			C-RAIL NUT		
	TB1	Use with Group T1		SRN1-6	1/4" Nut, Use with Group T1
	TB2	Use with Group T2		TRN2-5	5/16" Nut, Use with Group T2 to T5
	TB3	Use with Group T3			
	TB4	Use with Group T4			
	TB5	Use with Group T5			
TWIN STACKING BOLT			C-RAIL		
	TSB1	Use with Group T1		SCR1	39" (1 meter)
	TSB2	Use with Group T2		SCR2	78" (2 meter)
	TSB3	Use with Group T3			
	TSB4	Use with Group T4			
	TSB5	Use with Group T5			
TWIN SERIES WELD PLATE					
	TP1	Use with Group T1			
	TP2	Use with Group T2			
	TP3	Use with Group T3			
	TP4	Use with Group T4			
	TP5	Use with Group T5			

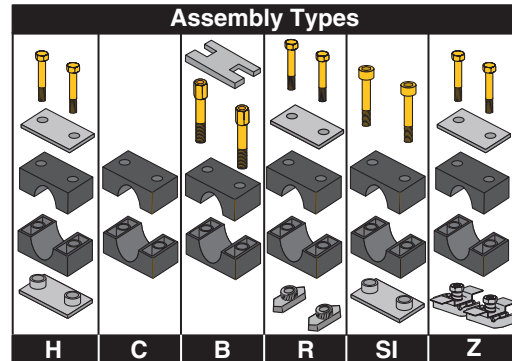
Welded Ordering Example		
T2008S		
Assembly Includes		
Quantity	Part No.	Description
1 Each	TP1	Weld Plate
1 Each	TC1	Cover Plate
1 Each	TB1	Hex Bolts
1 Set	T2008S	Cushions





Beta Clamps - "Smoothie"

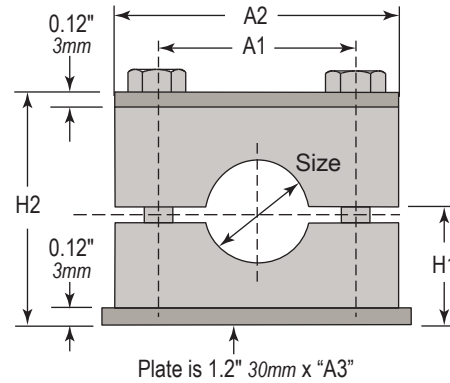
"Smoothie" Standard Series Beta Clamp



Beta "Smoothie" is ideal for general-duty applications where there is a need to reduce wear on hose connection caused by vibration and surge.

- Chamfered and smooth core protects hose cover and extends the life of the hose
- Uses Standard Beta hardware
- Reduces wear on hose connection caused by vibration and surge

INSTALLATION - Refer to pages 253 - 256 for complete installation guide.



Group	Part No.	SAE 100R1 Hose Size	Dimensions (Inches)					WT/100	Bolt
			A1	A2	A3	H1	H2		
S2	S2004H	1/4" (0.53)	1.02" (26mm)	1.57" (40mm)	1.65" (42mm)	0.76" (19mm)	1.535" (39mm)	20 (9 Kg)	1/4" - 20 x 1 3/8"
	S2006H	3/8" (0.69)	1.02" (26mm)	1.57" (40mm)	1.65" (42mm)	0.76" (19mm)	1.535" (39mm)	20 (9 Kg)	
S3	S3008H	1/2" (0.81)	1.29" (33mm)	1.96" (50mm)	2.04" (52mm)	0.80" (20mm)	1.61" (41mm)	25 (11.3 Kg)	1/4" - 20 x 1 1/2"
	S3010H	5/8" (0.93)	1.29" (33mm)	1.96" (50mm)	2.04" (52mm)	0.80" (20mm)	1.61" (41mm)	25 (11.3 Kg)	
S4	S4012H	3/4" (1.10)	1.57" (40mm)	2.28" (58mm)	2.36" (60mm)	0.94" (24mm)	1.88" (48mm)	29 (13.1 Kg)	1/4" - 20 x 1 3/4"
S5	S5016H	1" (1.42)	2.05" (52mm)	2.75" (70mm)	2.83" (72mm)	1.25" (32mm)	2.52" (64mm)	39 (17.6 Kg)	1/4" - 20 x 2 1/2"

*For additional sizes and stainless steel contact factory.

Note: For configurations other than "H", Add Assembly type to Part No.

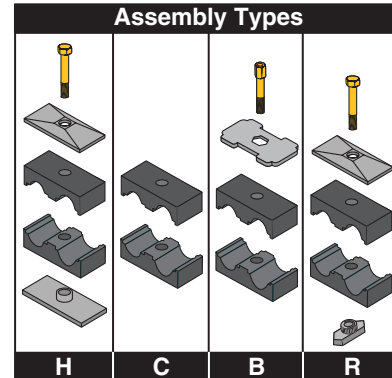
Example: **S2004H** provides the complete assembly as shown and **S2004H-Z** provides the "Z" assembly as shown



Beta Clamps - "Smoothie"



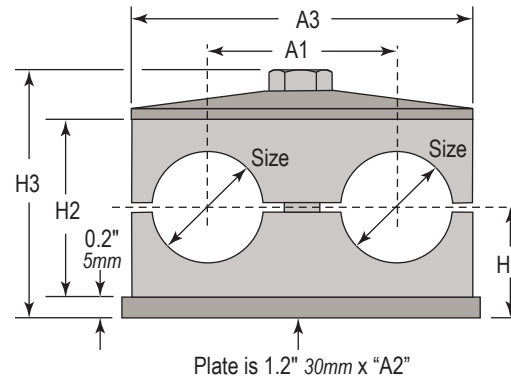
"Smoothie" Twin Series Beta Clamp



Beta "Smoothie" is ideal for general-duty applications where there is a need to reduce wear on hose connection caused by vibration and surge.

- Chamfered and smooth core protects hose cover and extends the life of the hose
- Uses Standard Beta Twin hardware
- Reduces wear on hose connection caused by vibration and surge

INSTALLATION - Refer to pages 253 - 256 for complete installation guide.



Group	Part No.	SAE 100R1 Hose Size	Dimensions (Inches)						WT/ 100	Bolt
			A1	A2	A3	H1	H2	H3		
T2	T2004H	1/4" (0.53)	1.14" (29mm)	2.16" (55mm)	2.08" (53mm)	0.70" (18mm)	1.02" (26mm)	1.71" (43mm)	31 (14 Kg)	5/16" - 18 x 1 3/8"
	T2006H	3/8" (0.69)	1.14" (29mm)	2.16" (55mm)	2.08" (53mm)	0.70" (18mm)	1.02" (26mm)	1.71" (43mm)	31 (14 Kg)	
T3	T3008H	1/2" (0.81)	1.41" (36mm)	2.75" (70mm)	2.63" (67mm)	0.92" (23mm)	1.45" (37mm)	2.14" (54mm)	39 (17.6 Kg)	5/16" - 18 x 1 3/4"
T4	T4010H	5/8" (0.93)	1.77" (45mm)	3.34" (85mm)	3.22" (82mm)	1.02" (26mm)	1.65" (42mm)	2.34" (59mm)	49 (22.2 Kg)	5/16" - 18 x 2"
	T4012H	3/4" (1.10)	1.77" (45mm)	3.34" (85mm)	3.22" (82mm)	1.02" (26mm)	1.65" (42mm)	2.34" (59mm)	49 (22.2 Kg)	
T5	T5016H	1" (1.42)	2.2" (56mm)	4.33" (110mm)	4.17" (106mm)	1.25" (32mm)	2.12" (54mm)	2.81" (71mm)	65 (29.4 Kg)	5/16" - 18 x 2 3/8"

*For additional sizes and stainless steel contact factory.

Note: For configurations other than "H", Add Assembly type to Part No.

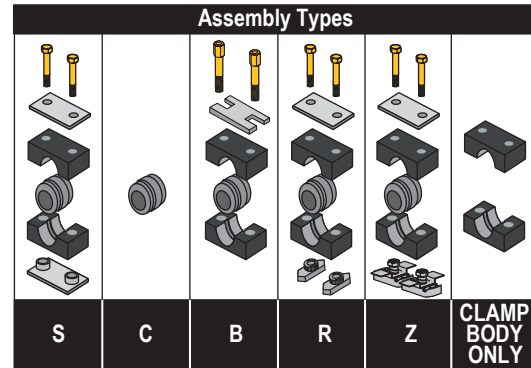
Example: T2004H provides the complete assembly as shown and T2004H-B provides the "B" assembly as shown





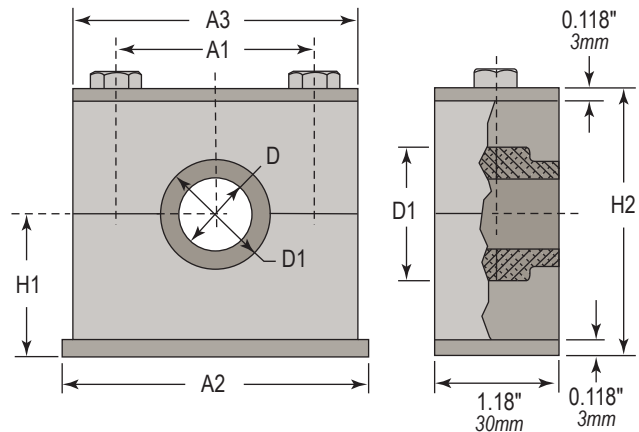
Beta Clamps - Rubber Insert

Standard Rubber Insert Beta Clamps



- One cushion block provides flexible size range of cushioning.
- Smooth bore core can be used on hose, or for vibration reduction
- Broad range of metric sizes.
- Maintains center line when used in groups.

INSTALLATION - Refer to pages 253 - 256 for complete installation guide.



Group	Part No.	Bore Size Ø D		Tube O.D.	Pipe Size	Nom. Size Hose O.D. Min - Max	Dimensions – inches (mm)						Bolt Size	
		in	(mm)				D	D1	H1	H2	A1	A2		A3
S4	SM4006RI	0.24"	6	-	-	0.22" - 0.24"	1.00" (25.5)	1.22" (31)	0.925" (23.5)	1.85" (47)	1.57" (40)	2.32" (59)	2.24" (57)	1/4"-20 x 13/4"
	SM4008RI	0.32"	8	1/16"	-	0.30" - 0.32"								
	S4007RI	0.39"	10	-	1/8"	0.37" - 0.39"								
	SM4012RI	0.47"	12	-	-	0.45" - 0.47"								
	S4008RI	0.50"	12.7	1/2"	-	0.48" - 0.50"								
	SM4014RI	0.55"	14	-	-	0.53" - 0.55"								
	SM4015RI	0.59"	15	-	-	0.57" - 0.59"								
	S4010RI	0.63"	16	5/8"	-	0.61" - 0.63"								
	S4011RI	0.68"	17.2	-	3/8"	0.66" - 0.68"								
	S4012RI	0.75"	19	3/4"	-	0.73" - 0.75"								
	S4C	Clamp Body Only (Group S4)												
S6	S6014RI	0.79"	20	-	1/2"	0.77" - 0.79"	1.54" (39)	1.81" (46)	1.40" (35.5)	2.80" (71)	2.60" (66)	3.46" (88)	3.39" (86)	1/4"-20 x 2-3/4"
	S6015RI	0.87"	22	7/8"	-	0.85" - 0.87"								
	S6016RI	0.98"	25	1"	-	0.96" - 0.98"								
	S6017RI	1.06"	26.9	-	3/4"	1.04" - 1.06"								
	SM6028RI	1.10"	28	-	-	1.08" - 1.10"								
	SM6030RI	1.18"	30	-	-	1.16" - 1.18"								
	S6020RI	1.26"	32	1 1/4"	-	1.24" - 1.26"								
	S6C	Clamp Body Only (Group S5)												

*For additional sizes and stainless steel contact factory.

Note: Add Assembly type to Part No.- Example: **SM4006RIS** provides the complete assembly as shown

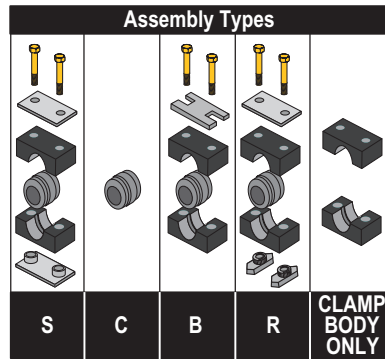
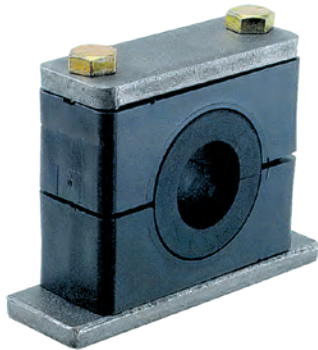


WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Beta Clamps - Heavy Rubber Insert

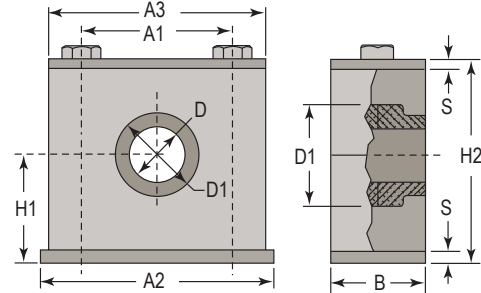


Heavy Rubber Insert Beta Clamps



INSTALLATION - Refer to pages 253 - 256 for complete installation guide.

- One block provides flexible size range of cushioning.
- Smooth bore core for hose, or vibration reduction.
- Broad range of metric sizes.
- Maintains center line when used in groups.
- For high pressure hydraulics and heavy duty operations.
- Used for intermittent load and high oil speeds.
- Increase size range over standard series.



Group	Part No.	Bore Ø D in. (mm)	Tube O.D.	Pipe Size	Nom. Size Hose O.D	Dimensions -inches (mm)									Bolt Size
						D	D1	B	H1	H2	A1	A2	A3	S	
H4	HM4006RI	0.24" (6)	-	-	0.22" - 0.24"	1.00" (25.5)	1.24" (31.5)	1.18" (30)	1.22" (31)	2.44" (62)	1.77" (45)	3.35" (85)	2.76" (70)	0.32" (8)	3/8"-16x 2-1/4"
	HM4008RI	0.32" (8)	1/16"	-	0.30" - 0.32"										
	H4007RI	0.39" (10)	-	1/8"	0.37" - 0.39"										
	HM4012RI	0.47" (12)	-	-	0.45" - 0.47"										
	H4008RI	0.50" (12.7)	1/2"	-	0.48" - 0.50"										
	HM4014RI	0.55" (14)	-	-	0.53" - 0.55"										
	HM4015RI	0.59" (15)	-	-	0.57" - 0.59"										
	H4010RI	0.63" (16)	5/8"	-	0.61" - 0.63"										
	H4011RI	0.68" (17.2)	-	3/8"	0.66" - 0.68"										
	H4012RI	0.75" (19)	3/4"	-	0.73" - 0.75"										
	H4C	Clamp Body Only (Group H4)													
H5	H5014RI	0.79" (20)	-	1/2"	0.77" - 0.79"	1.54" (39)	1.83" (46.5)	1.18" (30)	1.46" (37)	2.91" (74)	2.36" (60)	3.94" (100)	3.35" (85)	0.32" (8)	3/8"-16x 2-3/4"
	H5015RI	0.87" (22)	7/8"	-	0.85" - 0.87"										
	H5016RI	0.98" (25)	1"	-	0.96" - 0.98"										
	H5017RI	1.06" (26.9)	-	3/4"	1.04" - 1.06"										
	HM5028RI	1.10" (28)	-	-	1.08" - 1.10"										
	HM5030RI	1.18" (30)	-	-	1.16" - 1.18"										
	H5020RI	1.26" (32)	1 1/4"	-	1.24" - 1.26"										
	H5C	Clamp Body Only (Group H5)													
H6	H6021RI	1.33" (33.7)	-	1"	1.31" - 1.33"	2.56" (65)	2.91" (74)	1.77" (45)	2.11" (53.5)	4.21" (107)	3.56" (90.5)	5.51" (140)	4.53" (115)	0.39" (10)	1/2"-13x 4"
	HM6035RI	1.38" (35)	-	-	1.36" - 1.38"										
	H6024RI	1.50" (38)	1 1/2"	-	1.48" - 1.50"										
	HM6040RI	1.58" (40)	-	-	1.56" - 1.58"										
	H6027RI	1.65" (42)	-	1 1/4"	1.63" - 1.65"										
	HM6045RI	1.79" (45.5)	-	-	1.77" - 1.79"										
	H6030RI	1.89" (48)	-	1 1/2"	1.87" - 1.89"										
	H6032RI	2.01" (51)	-	2"	1.99" - 2.01"										
	H6034RI	2.10" (53.4)	2 1/8"	-	2.08" - 2.10"										
	HM6056RI	2.22" (56.4)	-	-	2.2" - 2.22"										
	H6C	Clamp Body Only (Group H6)													
H7	H7038RI	2.36" (60)	-	2"	2.34" - 2.36"	3.50" (89)	3.86" (98)	2.36" (60)	2.70" (68.5)	5.39" (137)	4.80" (122)	7.09" (180)	5.98" (152)	0.39" (10)	5/8"-11x 5-1/2"
	HM7065RI	2.56" (65)	-	-	2.54" - 2.56"										
	HM7070RI	2.76" (70)	-	-	2.74" - 2.76"										
	H7046RI	2.87" (73)	-	2 1/2"	2.85" - 2.87"										
	H7050RI	2.99" (76)	-	3"	2.97" - 2.99"										
	H7C	Clamp Body Only (Group H7)													
H8	HM8083RI	3.27" (83)	-	-	3.19" - 3.27"	4.57" (116)	5.20" (132)	3.15" (80)	3.88" (98.5)	7.76" (197)	6.61" (168)	8.86" (225)	8.07" (205)	0.59" (15)	3/4"-10x 7-1/2"
	H8056RI	3.50" (89)	3 1/2"	3"	3.43" - 3.50"										
	H8C	Clamp Body Only (Group H8)													

*For additional sizes and stainless steel contact factory.

Note: Add Assembly type to Part No.- Example: **HM4006RIS** provides the complete assembly as shown

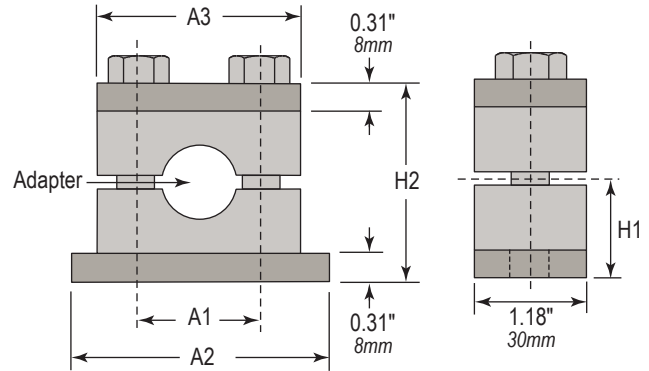


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Beta Adapter

Beta Adapter




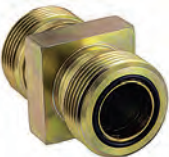




Group	A1	A2	A3	H1	H2	Hex Bolt
Group 1 H4 BETA	1.77" (45mm)	3.34" (85mm)	2.75" (70mm)	1.25" (32mm)	2.51" (64mm)	3/8"-16 x 2-1/4"
Group 2 H5 BETA	2.36" (60mm)	3.93" (100mm)	3.30" (84mm)	1.49" (38mm)	2.99" (76mm)	3/8"-16 x 2-3/4"

The **BETA-ADAPTER** allows a clamping junction to be inserted into virtually any hydraulic line. The exclusive square bodied junction adapter design can be used with metallic tubing or hydraulic hose ends. It provides a point of union for hydraulic runs which transition from one form of conveyance to another (i.e. hose to tubing). Once inserted into the customized Beta-Adapter clamp body, the junction point is securely clamped fighting the effects of vibration, insuring a leak-free system.

- Beta-Adapter cushions can also be used with rubber inserts.
- Z-Clamp split bushings from Group 1 can be utilized with the basic Beta-Adapter Group 4 cushion.
- Z-Clamp bushings from Group 2 coincide with Group 5 Beta-Adapter assemblies.
- The split bushings provide extra vibration absorption for delicate clamping surfaces.

INSTALLATION - Refer to page 257 for complete installation guide.



		Tube Size	Group 1 (H4) Part No.	Group 2 (H5) Part No.
	37° JIC	1/4"	H4MJA1-4-S	H5MJA2-4-S
		3/8"	H4MJA1-6-S	H5MJA2-6-S
		1/2"	H4MJA1-8-S	H5MJA2-8-S
		5/8"	H4MJA1-10S	H5MJA2-10S
		3/4"	-	H5MJA2-12S
		5/8"	-	H5MJA2-14S
	O-Ring Face Seal	3/8"	H4MJO1-6-S	H5MJO2-6-S
		1/2"	H4MJO1-8-S	H5MJO2-8-S
		5/8"	H4MJO1-10S	H5MJO2-10S
		3/4"	-	H5MJO2-12S
		1"	-	H5MJO2-16S
	Female Junction	1/2"	H4FJA1-8-S	-
		3/4"	-	H5FJA2-12S
	Female Pipe	3/8" NPT	H4FJA1-6P-S	H5FJA2-12P-S
	Beta Cushions Only (Set of Two)	-	H4JCN-C	H5JCN-C
	Z-Clamp Split Bushing	-	HAC-1 (1-1/2" Series) Can be used	HAC-2 (2" Series) Can be used

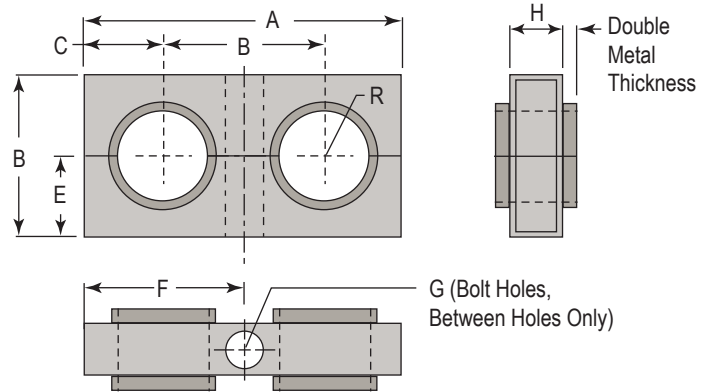


Z-Clamp - Standard



Z-CLAMP

Inside Hole Clamp Units
Multiple Line Clamping System



The standard Z-Clamp unit features an anchor bolt between each of the adapter inserts.

The junction adapter provides break points in lines allowing for shorter hose and tubing runs reducing leaks at connection points by securing the adapter against vibration within the Z-Clamp units. These break points may also serve as securely clamped changeover points between hose and tube, and vice versa.

- Stackable for space conservation
- Maintains consistent center line dimensions between lines both horizontally and vertically (in a stacking application)
- Mix and match pipe, tube, hose and junction adapters
- Suited for all types of hydraulic applications
- Available in standard and outside hole mounting configurations

INSTALLATION - Refer to page 257 for complete installation guide.

Note: Adapters and Hardware are ordered separately. Please see pages 217 - 220 for selection of these items.



Part No.	# Adapter Holes	# Bolts	A	B	C	E	F	G	H	R
HAC1 Series 1½" 14 Gauge										
HAC1-2	2	1	2.938" (75mm)	1.5" (38mm)	0.719" (18mm)	0.75" (19mm)	1.469" (37mm)	0.344" (9mm)	0.550" (14mm)	0.422" (11mm)
HAC1-3	3	2	4.406" (112mm)		0.719" (18mm)		1.469" (37mm)			
HAC1-4	4	3	5.940" (151mm)		0.719" (18mm)		1.469" (37mm)			
HAC1-5	5	4	7.140" (181mm)		0.594" (15mm)		1.343" (34mm)			
HAC1-6	6	5	8.938" (227mm)		0.719" (18mm)		1.469" (37mm)			
HAC1-7	7	6	10.188" (259mm)		0.594" (15mm)		1.343" (34mm)			
HAC1-32	32	31	48.000" (1219mm)		-		-			
HAC2 Series 2" 14 Gauge										
HAC2-2	2	1	3.875" (98 mm)	2" (51 mm)	0.938" (24 mm)	1" (25mm)	1.938" (49 mm)	0.344" (9mm)	0.550" (14mm)	0.594" (15 mm)
HAC2-3	3	2	5.641" (143 mm)		0.844" (22 mm)		1.844" (47 mm)			
HAC2-4	4	3	7.891" (200 mm)		0.938" (24 mm)		1.938" (49 mm)			
HAC2-5	5	4	9.672" (246 mm)		0.844" (22 mm)		1.844" (47 mm)			
HAC2-6	6	5	11.672" (296 mm)		0.813" (21 mm)		1.813" (46 mm)			
HAC2-7	7	6	13.625" (346 mm)		0.813" (21 mm)		1.813" (46 mm)			
HAC2-24	24	23	48.000" (1219mm)		-		-			
HAC3 Series 3" 11 Gauge										
HAC3-2	2	1	6.766" (172 mm)	3" (76 mm)	1.875" (48 mm)	1.5" (38 mm)	3.375" (86 mm)	0.406" (10 mm)	0.750" (19 mm)	1.063" (27 mm)
HAC3-3	3	2	8.703" (221 mm)		1.406" (36 mm)		2.984" (76 mm)			
HAC3-4	4	3	11.703" (297 mm)		1.406" (36 mm)		2.797" (71 mm)			
HAC3-5	5	4	14.703" (373 mm)		1.406" (36 mm)		2.859" (73 mm)			
HAC3-6	6	5	17.703" (450 mm)		1.406" (36 mm)		2.859" (73 mm)			
HAC3-16	16	15	48.000" (1219 mm)		-		-			
			-		-		-			

NOTE: Hardware & Adapters not included.



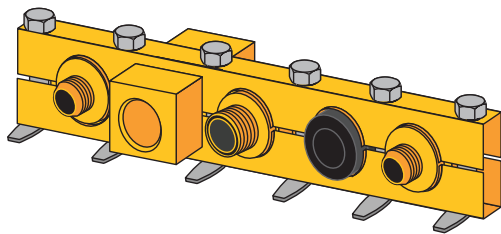
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



Z-Clamp - Outside Holes

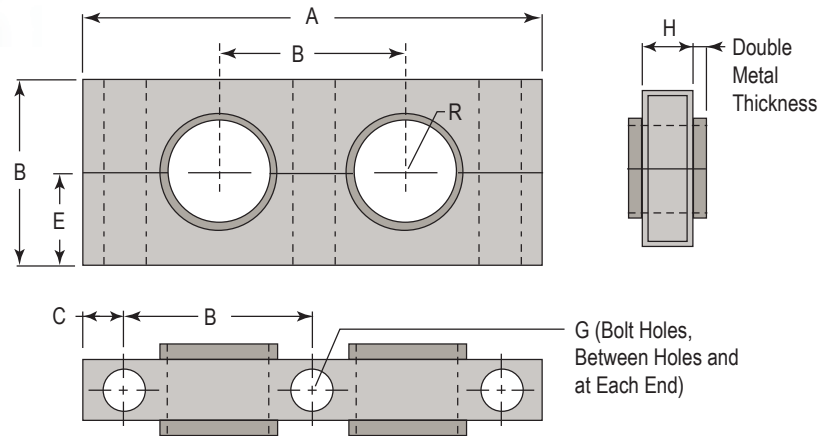
Z-CLAMP

Outside Hole Clamp Units



- Stackable for space conservation
- Maintains consistent center line dimensions between lines both horizontally and vertically (in a stacking application)
- Mix and match pipe, tube, hose, and junction adapters
- Suited for all types of hydraulic applications
- Available in standard and outside hole mounting configurations

INSTALLATION - Refer to page 257 for complete installation guide.



Part No.	# Adapter Holes	# Bolts	A	B	C	E	G	H	R
HAC1 Series 1½"									
HAC1-1-2	1	2	2.188" (56 mm)	1.5" (38 mm)	0.344" (9 mm)	0.75" (19 mm)	0.344" (9 mm)	0.550" (14 mm)	0.422" (11 mm)
HAC1-2-3	2	3	3.797" (96 mm)		0.391" (10 mm)				
HAC1-3-4	3	4	5.297" (135 mm)		0.391" (10 mm)				
HAC1-4-5	4	5	6.797" (173 mm)		0.391" (10 mm)				
HAC1-5-6	5	6	8.297" (211 mm)		0.391" (10 mm)				
HAC2 Series 2"									
HAC2-1-2	1	2	2.656" (67 mm)	2" (51 mm)	0.328" (8 mm)	1" (25 mm)	0.344" (9 mm)	0.550" (14 mm)	0.594" (15 mm)
HAC2-2-3	2	3	4.766" (121 mm)		0.391" (9 mm)				
HAC2-3-4	3	4	6.797" (173 mm)		0.391" (9 mm)				
HAC2-4-5	4	5	8.297" (211 mm)		0.391" (9 mm)				
HAC3 Series 3"									
HAC3-1-2	1	2	4.000" (102 mm)	3" (76 mm)	0.500" (13 mm)	1.5" (38 mm)	0.406" (10 mm)	0.750" (19 mm)	1.063" (27 mm)
HAC3-2-3	2	3	6.859" (174 mm)		0.422" (11 mm)				
HAC3-3-4	3	4	9.859" (250 mm)		0.422" (11 mm)				
HAC3-4-5	4	5	12.859" (327 mm)		0.422" (11 mm)				

Note: Adapters and Hardware are ordered separately. Please see pages 217 - 220 for selection of these items.



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Z-Clamp - Adapters

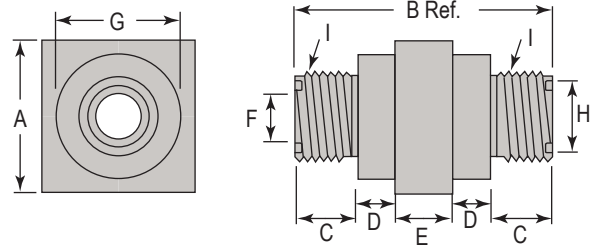


O-Ring Face Seal



For use with Beta Adapters and Z-Clamps

- Offered in a wide range of sizes in JIC, NPT, SAE, and ORFS thread configurations.
- Zinc plated to prevent corrosion
- Clamping at the fitting prevents loosening and other vibration related leaks

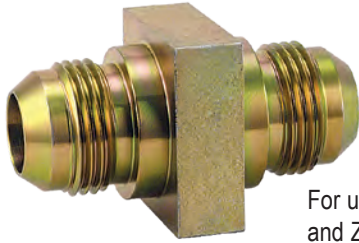


Part No.	Tube Size	Dimensions – inches								
		A	B.	C	D	E	F.	G	I (Thread)	H
MJO-1-6	3/8"	1.00" (25 mm)	1.96" (50 mm)	0.43" (11 mm)	0.28" (7 mm)	0.54" (14 mm)	0.26" (7 mm)	0.84" (21 mm)	11/16"-16	0.496" (13 mm)
MJO-1-8	1/2"	1.00" (25 mm)	2.10" (53 mm)	0.50" (13 mm)	0.28" (7 mm)	0.54" (14 mm)	0.38" (10 mm)	0.84" (21 mm)	13/16"-16	0.621" (16 mm)
MJO-1-10	5/8"	1.00" (25 mm)	2.30" (58 mm)	10.60" (15 mm)	0.28" (7 mm)	0.54" (14 mm)	0.48" (12 mm)	0.84" (21 mm)	1"-14	0.748" (19 mm)
MJO-2-6	3/8"	1.50" (38 mm)	2.08" (53 mm)	0.43" (11 mm)	0.34" (9 mm)	0.54" (14 mm)	0.26" (7 mm)	1.20" (31 mm)	11/16"-16	0.496" (13mm)
MJO-2-8	1/2"	1.50" (38 mm)	2.22" (56 mm)	0.50" (13 mm)	0.34" (9 mm)	0.54" (14 mm)	0.38" (10 mm)	1.20" (31 mm)	13/16"-16	0.621" (16 mm)
MJO-2-10	5/8"	1.50" (38 mm)	2.42" (61 mm)	0.60" (15 mm)	0.34" (9 mm)	0.54" (14 mm)	0.48" (12 mm)	1.20" (31 mm)	1"-14	0.748" (19 mm)
MJO-2-12	3/4"	1.50" (38 mm)	2.52" (64 mm)	0.65" (17 mm)	0.34" (9 mm)	0.54" (14 mm)	0.61" (15 mm)	1.20" (31 mm)	1-3/16"-12	0.873" (22 mm)
MJO-2-16	1"	1.50" (38 mm)	2.58" (66 mm)	0.68" (17 mm)	0.34" (9 mm)	0.54" (14 mm)	0.81" (21 mm)	1.20" (31 mm)	1-7/16"-12	1.058" (27 mm)
MJO-3-20	1-1/4"	2.25" (57 mm)	2.98" (76 mm)	0.68" (17 mm)	0.437" (11 mm)	0.75" (19 mm)	1.02" (26 mm)	2.12" (54 mm)	1-11/16"-12	1.309" (33 mm)
MJO-3-24	1-1/2"	2.25" (57 mm)	2.98" (78 mm)	0.68" (17 mm)	0.437" (11 mm)	0.75" (19 mm)	1.26" (32 mm)	2.12" (54 mm)	2"-12	1.621" (41 mm)



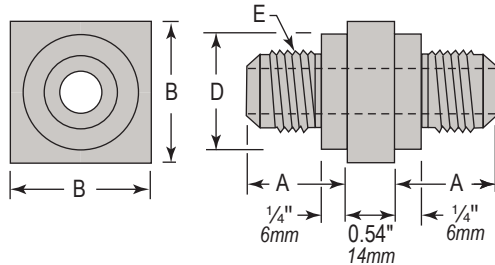
WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

37° Flare Male Junction Adapter



For use with Beta Adapters and Z-Clamps

- Offered in a wide range of sizes in JIC, NPT, SAE, and ORFS thread configurations.
- Zinc plated to prevent corrosion
- Clamping at the fitting prevents loosening and other vibration related leaks



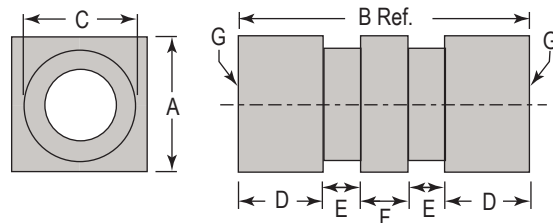
Part No.	Tube Size	Dimensions – Inches			E (Thread)
		A	B	D	
1½" Series					
MJA-1-4	¼"	0.76" (19 mm)	1" (25 mm)	0.84" (21 mm)	7/16"-20
MJA-1-6	3/8"	0.76" (19 mm)	1" (25 mm)	0.84" (21 mm)	9/16"-18
MJA-1-8	½"	0.87" (22 mm)	1" (25 mm)	0.84" (21 mm)	¾"-16
MJA-1-10	5/8"	0.96" (24 mm)	1" (25 mm)	0.84" (21 mm)	7/8"-14
2" Series					
MJA-2-4	¼"	0.76" (19 mm)	1½" (38 mm)	1.20" (30 mm)	7/16"-20
MJA-2-6	3/8"	0.76" (19 mm)	1½" (38 mm)	1.20" (30 mm)	9/16"-18
MJA-2-8	½"	0.87" (22 mm)	1½" (38 mm)	1.20" (30 mm)	¾"-16
MJA-2-10	5/8"	0.96" (24 mm)	1½" (38 mm)	1.20" (30 mm)	7/8"-14
MJA-2-12	¾"	1.07" (27 mm)	1½" (38 mm)	1.20" (30 mm)	1 1/16"-12
MJA-2-14	7/8"	1.10" (28 mm)	1½" (38 mm)	1.20" (30 mm)	1 3/16"-12
MJA-2-16	1"	1.10" (28 mm)	1½" (38 mm)	1.20" (30 mm)	1 5/16"-12

Female Junction Adapter



For Use With Beta Adapters & Z-CLAMPS

- Offered in a wide range of sizes in JIC, NPT, SAE, and ORFS thread configurations.
- Zinc plated to prevent corrosion
- Clamping at the fitting prevents loosening and other vibration related leaks



Part No.	Dimensions – Inches						G (Thread)
	A	B	C	D	E	F	
FJA-1-6-P	1" (25 mm)	2-13/16" (71 mm)	0.84" (21 mm)	0.84" (21 mm)	0.30" (8 mm)	0.54" (13 mm)	3/8" N.P.T.
FJA-2-12-P	1-½" (38 mm)	3-1/8" (79 mm)	1.20" (30 mm)	0.97" (25 mm)	0.32" (8 mm)	0.54" (13 mm)	¾" N.P.T.
FJA-3-20-P	2-¼" (57 mm)	2-5/8" (67 mm)	2.12" (54 mm)	0.49" (12 mm)	0.45" (11 mm)	0.74" (19 mm)	1 ¼" N.P.T.
FJA-1-8	1" (25 mm)	2-13/16" (71 mm)	0.84" (21 mm)	0.84" (21 mm)	0.30" (8 mm)	0.54" (13 mm)	¾"-16 SAE
FJA-2-12	1-½" (38 mm)	3-1/8" (79 mm)	1.20" (30 mm)	0.97" (25 mm)	0.32" (8 mm)	0.54" (13 mm)	1-1/16"-12 SAE
FJA-3-20	2-¼" (57 mm)	2-5/8" (67 mm)	2.12" (54 mm)	0.49" (12 mm)	0.45" (11 mm)	0.74" (19 mm)	1-5/8"-12 SAE



Z-Clamp - Adapters

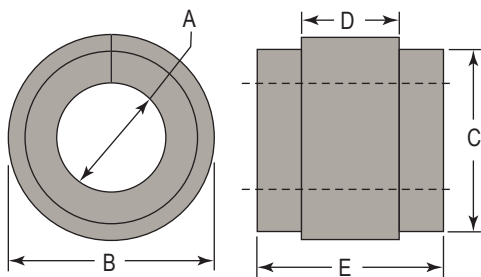


Anti-Vibration Split Rubber Bushings



For use with Beta Adapters and Z-Clamps

- Unique “grip” design secures cushion in place
- High quality EPDM rubber provides superior vibration damping with excellent oil resistance.



Part No.	Tube Size	Pipe Size	A	B	C	D	E
HAC-1 Series 1½"							
G-1-4	¼"	–	0.235" (6 mm)	0.975" (25 mm)	0.875" (22 mm)	0.50" (13 mm)	1.312" (33 mm)
G-1-6	⅜"	–	0.360" (9 mm)				
G-1-8	½"	–	0.485" (12 mm)				
G-1-10	⅝"	–	0.610" (15 mm)				
G-1-12	¾"	–	0.735" (19 mm)				
HAC-2 Series 2"							
G-2-4	¼"	–	0.235" (6 mm)	1.350" (34 mm)	1.250" (32 mm)	0.50" (13 mm)	1.312" (33 mm)
G-2-6	⅜"	–	0.360" (9 mm)				
G-2-8	½"	–	0.485" (12 mm)				
G-2-4P	–	¼"	0.525" (13 mm)				
G-2-10	⅝"	–	0.610" (15 mm)				
G-2-6P	–	⅜"	0.660" (17 mm)				
G-2-12	¾"	–	0.735" (19 mm)				
G-2-8P	–	½"	0.825" (21 mm)				
G-2-14	⅞"	–	0.860" (22 mm)				
G-2-16	1"	–	0.985" (25 mm)				
G-2-12P	–	¾"	1.035" (26 mm)				
HAC-3 Series 3"							
G-3-4	¼"	–	0.234" (6 mm)	2.287" (58 mm)	2.187" (56 mm)	0.750" (19 mm)	1.750" (44 mm)
G-3-6	⅜"	–	0.360" (9 mm)				
G-3-8	½"	–	0.485" (12 mm)				
G-3-4P	–	¼"	0.525" (13 mm)				
G-3-10	⅝"	–	0.610" (15 mm)				
G-3-6P	–	⅜"	0.660" (17 mm)				
G-3-12	¾"	–	0.735" (19 mm)				
G-3-8P	–	½"	0.825" (21 mm)				
G-3-14	⅞"	–	0.860" (22 mm)				
G-3-16	1"	–	0.985" (25 mm)				
G-3-12P	–	¾"	1.035" (26 mm)				
G-3-20	1-¼"	–	1.235" (31 mm)				
G-3-16P	–	1"	1.300" (33 mm)				
G-3-24	1-½"	–	1.485" (38 mm)				
G-3-20P	–	1-¼"	1.645" (42 mm)				
G-3-24P	–	1-½"	1.885" (48 mm)				
G-3-32	2"	–	1.985" (50 mm)				



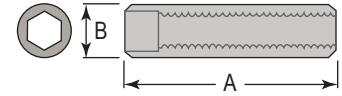


Z-Clamp - Hardware

Socket Head Stacking Nut



Part No.	HAC Series	A	B Dia.	Thread Size
S-1	1	1.335" (34 mm)	1/2" (13 mm)	5/16"-18
S-2	2	1.800" (46 mm)	1/2" (13 mm)	5/16"-18
S-3	3	2.780" (71 mm)	11/16" (17 mm)	3/8"

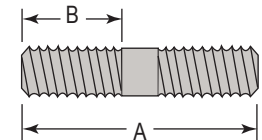


Thread Adapter

(Install Or Stack)



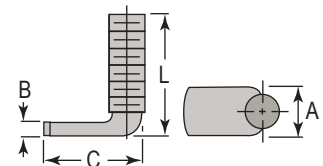
Part No.	HAC Series	A	B	Thread Size
T-1	1 & 2	1.38" (35 mm)	0.63" (16 mm)	5/16"-18
T-3	3	2.00" (51 mm)	0.88" (22 mm)	3/8"-16



Weld Nut



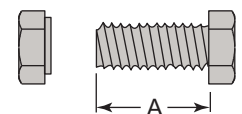
Part No.	HAC Series	Thread Size	A	B	C	L
W-1/W-2	HAC 1	5/16"-18	0.437" (11 mm)	0.12" (3 mm)	0.875" (22 mm)	3/4" (19 mm)
W-1/W-2	HAC 2	5/16"-18	0.437" (11 mm)	0.12" (3 mm)	0.875" (22 mm)	3/4" (19 mm)
W-3	HAC 3	3/8"-16	0.531" (13 mm)	0.151" (4 mm)	1.00" (25 mm)	1.00" (25 mm)



Hex Bolt and Hex Nut



Part No.	Type	HAC Series	Thread Size	A
HB-1	Bolt	HAC 1 & 2	5/16"-18	3/4" (19 mm)
HN-1	Nut			-
HB-3	Bolt	HAC 3	3/8"-16	1" (25 mm)
HN-3	Nut			-



Lock Washer



Part No.	HAC Series	Size
HW-1	HAC 1 & 2	5/16" (8 mm)
HW-3	HAC 3	3/8" (10 mm)



Concrete Inserts



Channel Material Specifications			
Material	Material Code	ASTM Designation	ASTM Description
Hot Rolled: Channel	Use Finish Code	A 1011SS GR33	Hot rolled carbon steel sheet and strip, structural quality.
Cold Rolled: Channel		A 1008SS GR33	Cold rolled carbon sheet steel.
Stainless Steel: Channel	ST304	A 240 TYPE 304	Heat resisting chromium and chromium-nickel stainless steel plate, sheet, strip for pressure vessel.
	ST316	A 240 TYPE 316	
Aluminum: Channel	AL	B 221 TYPE 6063 T6	Aluminum alloy extruded bar, rod, wire, shape and tube.

Channel Finish Specifications		
Finish	Finish Code	Description
Paint-Green Powder Coating	GR	A dark green low gloss powder coating is applied and thoroughly baked after steel has been cleaned and phosphatized.
Electroplated	EG	Fittings and hardware supplied as "Electro-Galvanized" in accordance with ASTM B 633.
Mill-Galvanized (Pre-Galvanized)	PG	Galvanized steel used in the manufacture of Wesanco channel sections conforms to ASTM A 653 GR33 G90. Uncoated edges resulted from slitting, punching and channel cut off are present.
Hot Dip Galvanized After Fabrication	HG	Wesanco channel and fittings which are hot dip galvanized after fabrication conform to one of the following specifications: ASTM A 123, ASTM A153, or ASTM A386.
Special Coatings	PL, GOLD	Other commercially available finishes can be supplied per specification when required to protect applications.

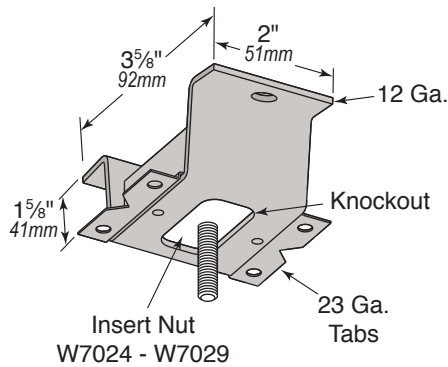
Call ZSi-Foster at (800) 323-7053 or order now at zsi-foster.com



Concrete Inserts

W7000

Spot Concrete Insert



Standard Finish:
Electro Galvanized

Designed to be used with spot concrete insert nuts W7024 - W7029

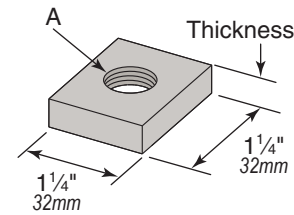
A $\frac{7}{8}$ " x $1\frac{5}{8}$ " knock-out is removed after concrete pour. The spot concrete insert nut is placed in the slot, and then the rod is screwed into the nut. The nut is secured in place by turning the rod. Lateral adjustment is made by loosening the nut and relocating. When selecting rod size, refer to "Load Ratings" of Thread Hanger Rods" chart on page 84.

Part No.	Allowable Load Lbs. (kN)
W7000	800 (3.56 kN)

Safety Factor: 5 based on adequate concrete

W7024 to W7029

Spot Concrete Insert Nuts



Standard Finish:
Electro Galvanized

Part No.	Thickness	Tapped "A" Size
W7024	1/4"	1/4"-20
W7025	3/8"	3/8"-16
W7026	Specify 3/8" or 1/2"	1/2"-13
W7027		5/8"-11
W7028	Standard is 1/2"	3/4"-10

Continuous Concrete Insert Part Number Selection Chart

For All Inserts on Pages 223 thru 226

Continuous Concrete Insert Part Number Descriptions				
Base Profile Part Number	Add Option Code	Description of Options	Add Finish Code	Completed Part Number
W7270	N	Insert Only	PG	W7270NPG
W7270	C	Insert and End Caps Only	PG	W7270CPG
W7270	F	Insert, Tape, and Foam Only	PG	W7270FPG
W7270	FC	Insert, Tape, Foam and End Caps	PG	W7270FCPG
W7270	E	Insert, Tape, and Ethafoam Only	PG	W7270EPG
W7270	EC	Insert, Tape, Ethafoam, and End Caps	PG	W7270ECPG
W7270	W	Insert and Welded Strip Only	PG	W7270WPG
W7270	WC	Insert, Welded Strip, and End Caps **	PG	W7270WCPG
W7270	WCC	Insert, Welded Strip, Closure Strip, and End Caps **	PG	W7270WCCPG

** Note: When using welded strip, plastic end caps will be used.



Continuous Concrete Inserts



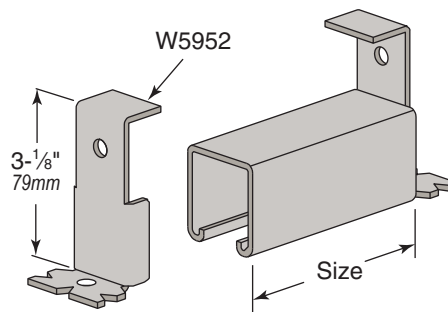
W200 - 1-5/8" x 1-5/8" - 12 Gauge

W7250 to W7252

Concrete Insert

Part No.	Size	Allowable Load Lbs. (kN)
W7250	4" (102mm)	800 (3.56 kN)
W7251	6" (152mm)	1,000 (4.45 kN)
W7252	8" (203mm)	1,200 (5.34 kN)

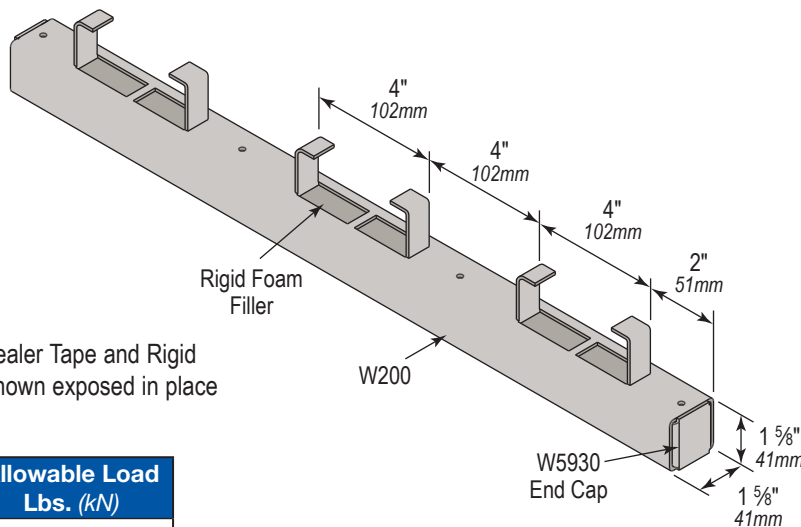
Comes with either Foam Filler or a W6500Plastic Closure Strip.



W7253 to W7270

Continuous Inserts

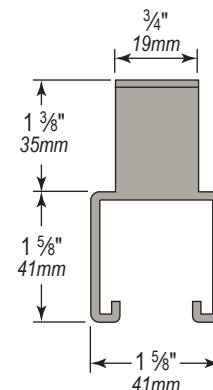
When ordering specify finish. Available in plain, pre-galvanized, hot dip galvanized after fabrication, type 304 and 316 stainless steel.



Waterproof Sealer Tape and Rigid Foam Filler shown exposed in place

Part No.	Size	End Cap	Allowable Load Lbs. (kN)
W7253 *	12' (305mm)	W5952	2,000 (8.90 kN)
W7254	16' (406mm)	W5930	
W7255	20' (508mm)		
W7256	24' (610mm)		
W7257	32' (813mm)		
W7257A	36' (914mm)		
W7258	40' (1016mm)		
W7259	4' (1.2m)		
W7260	5' (1.5m)		
W7261	6' (1.8m)		
W7262	7' (2.1m)		
W7263	8' (2.4m)		
W7264	9' (2.7m)		
W7265	10' (3m)		
W7266	12' (3.6m)		
W7267	14' (4.2m)		
W7268	16' (4.8m)		
W7269	18' (5.4m)		
W7270	20' (6.1m)		

* W7253 utilizes tab channel (punched & anchor caps)



Concentrated load on the end 2" (51mm) of W7252 thru W7270 should not exceed 1000#. Inserts must be surrounded by sufficient concrete to conform to design shear stress. Concrete insert should be nailed to form every 16" to 24" (406mm to 635mm).

Refer to page 222 for continuous concrete insert part number selection chart to build complete part number based on desired options.





Continuous Concrete Inserts

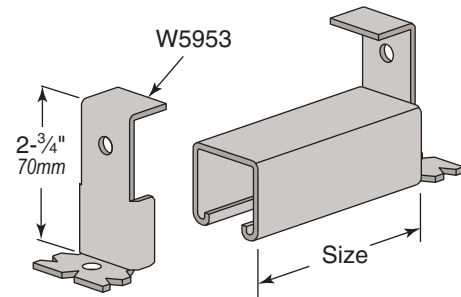
W300 - 1-5/8" x 1-3/8" - 12 Gauge

W7350 to W7352

Concrete Insert

Part No.	Size	Allowable Load Lbs. (kN)
W7350	4" (102mm)	800 (3.56 kN)
W7351	6" (152mm)	1,000 (4.45 kN)
W7352	8" (203mm)	1,200 (5.34 kN)

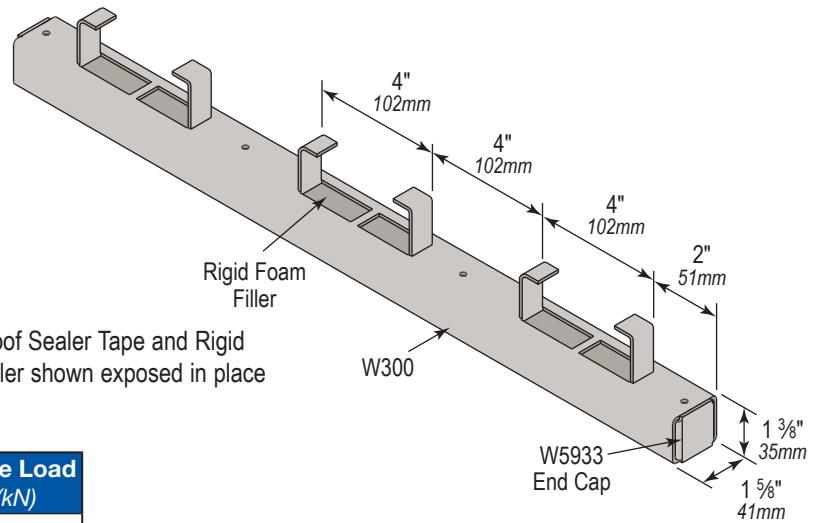
Comes with either Foam Filler or a W6500Plastic Closure Strip.



W7353 to W7370

12 Gauge, Continuous Concrete Inserts

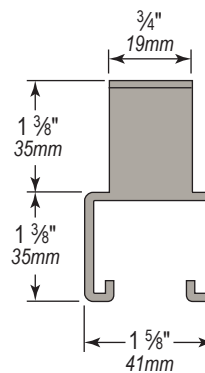
When ordering specify finish. Available in plain, pre-galvanized, hot dip galvanized after fabrication, 304 and 316 stainless steel.



Waterproof Sealer Tape and Rigid Foam Filler shown exposed in place

Part No.	Size	End Caps	Allowable Load Lbs. (kN)
W7353 *	12" (305mm)	W5953	2,000 (8.90 kN)
W7354	16" (406mm)	W5933	
W7355	20" (508mm)		
W7356	24" (610mm)		
W7357	32" (813mm)		
W7357A	36" (914mm)		
W7358	40" (1016mm)		
W7359	4' (1.2m)		
W7360	5' (1.5m)		
W7361	6' (1.8m)		
W7362	7' (2.1m)		
W7363	8' (2.4m)		
W7364	9' (2.7m)		
W7365	10' (3m)		
W7366	12' (3.6m)		
W7367	14' (4.2m)		
W7368	16' (4.8m)		
W7369	18' (5.4m)		
W7370	20' (6.1m)		

* W7353 utilizes tab channel (punched & anchor caps)



Concentrated load on the end 2" (51mm) of W7352 thru W7370 should not exceed 1,000#. Inserts must be surrounded by sufficient concrete to conform to design shear stress. Concrete insert should be nailed to form every 16" to 24" (406mm to 635mm).

Refer to page 222 for continuous concrete insert part number selection chart to build complete part number based on desired options.



Continuous Concrete Inserts



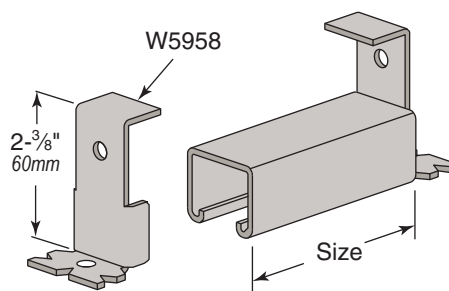
W800 - 1-5/8" x 1" - 12 Gauge

W7550 to W7552

Concrete Insert

Part No.	Size	Allowable Load Lbs. (kN)
W7550	4" (102mm)	500 (2.22 kN)
W7551	6" (152mm)	750 (3.34 kN)
W7552	8" (203mm)	1,000 (4.45 kN)

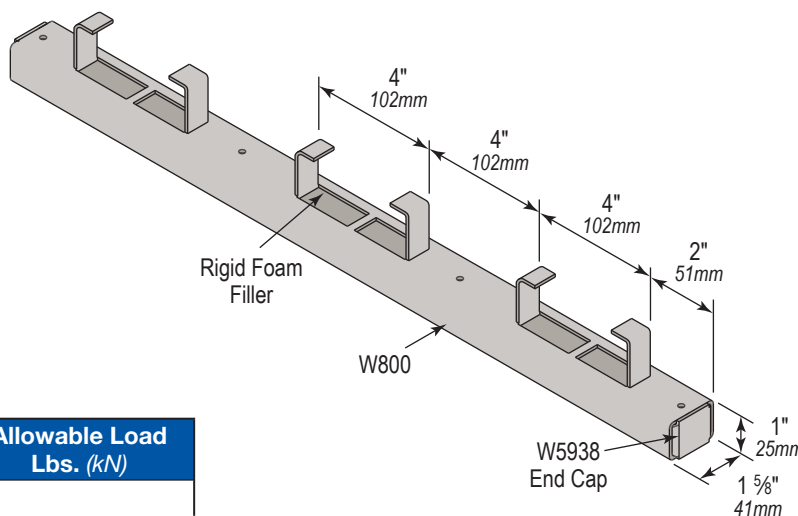
Comes with either Foam Filler or a W6500Plastic Closure Strip.



W7553 to W7570

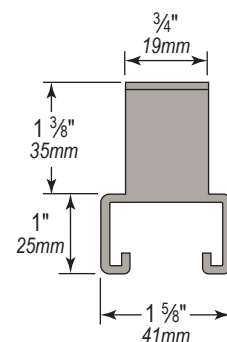
12 Gauge, Continuous Concrete Inserts

When ordering specify finish. Available in plain, pre-galvanized, hot dip galvanized after fabrication, 304 and 316 stainless steel.



Part No.	Size	End Caps	Allowable Load Lbs. (kN)
W7553 *	12" (305mm)	W5958	1,500 (6.67 kN)
W7554	16" (406mm)	W5938	
W7555	20" (508mm)		
W7556	24" (610mm)		
W7557	32" (813mm)		
W7557A	36" (914mm)		
W7558	40" (1016mm)		
W7559	4' (1.2m)		
W7560	5' (1.5m)		
W7561	6' (1.8m)		
W7562	7' (2.1m)		
W7563	8' (2.4m)		
W7564	9' (2.7m)		
W7565	10' (3m)		
W7566	12' (3.6m)		
W7567	14' (4.2m)		
W7568	16' (4.8m)		
W7569	18' (5.4m)		
W7570	20' (6.1m)		

* W7553 utilizes tab channel (punched & anchor caps)



Concentrated load on the end 2" (51mm) of W7552 thru W7570 should not exceed 750#. Inserts must be surrounded by sufficient concrete to conform to design shear stress. Concrete insert should be nailed to form every 16" to 24" (406mm to 635mm).

Refer to page 222 for continuous concrete insert part number selection chart to build complete part number based on desired options.





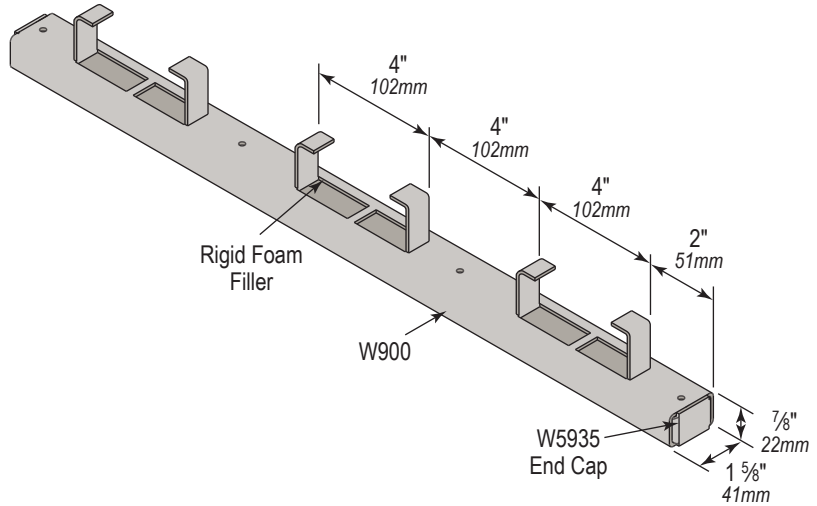
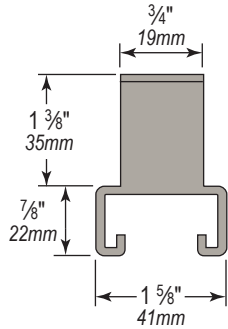
Continuous Concrete Inserts

W900 - 1-5/8" x 7/8" - 12 Gauge

W7954 to W7970

12 Gauge, Continuous Concrete Inserts

When ordering specify finish. Available in plain, pre-galvanized, hot dip galvanized after fabrication, 304 and 316 stainless steel.



Part No.	Size	Allowable Load Lbs. (kN)
W7954	16" (406mm)	1,500 (6.67 kN)
W7955	20" (508mm)	
W7956	24" (610mm)	
W7957	32" (813mm)	
W7957A	36" (914mm)	
W7958	40" (1016mm)	
W7959	4' (1.2m)	
W7960	5' (1.5m)	
W7961	6' (1.8m)	
W7962	7' (2.1m)	
W7963	8' (2.4m)	
W7964	9' (2.7m)	
W7965	10' (3m)	
W7966	12' (3.6m)	
W7967	14' (4.2m)	
W7968	16' (4.8m)	
W7969	18' (5.4m)	
W7970	20' (6.1m)	

* W79553 utilizes tab channel (punched & anchor caps)

Concentrated load on the end 2" (51mm) of W7954 thru W7970 should not exceed 750#. Inserts must be surrounded by sufficient concrete to conform to design shear stress. Concrete insert should be nailed to form every 16" to 24" (406mm to 635mm).

Refer to page 222 for continuous concrete insert part number selection chart to build complete part number based on desired options.

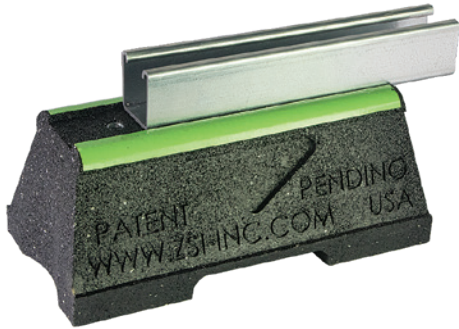


Cush-A-Block® Rooftop Supports



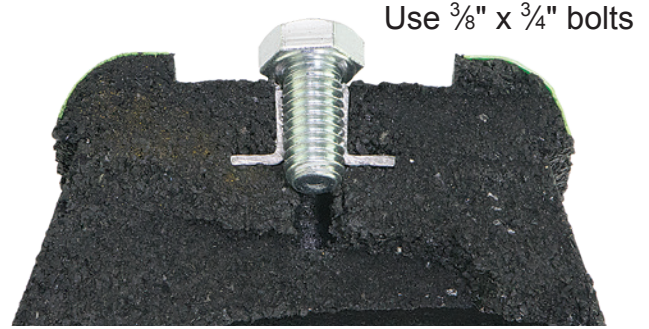
75% Faster Strut Install and Change-Out

Built-in Channel Guide



Straight Strut Installation

Embedded Fasteners



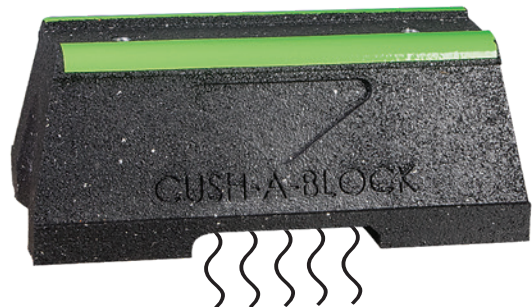
No Rust on the Roof

Easy-carry Hand Grip



Simple to Lift and Carry

Water Flow-through



Helps Prevent Mold and Ice Dams

- 100% Recycled Rubber Qualifies for LEED Credits
- Meets the Buy America Act and American Reinvestment Recovery Act
- Resistant to Freeze and Thaw

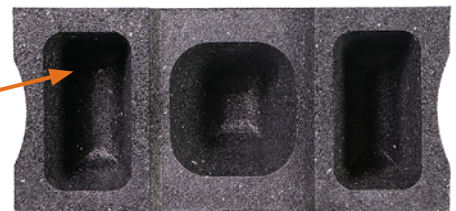
- Dampens Vibrations
- Compatible with Most Rooftop Materials
- Eco-Green Reflective Safety Strip Won't Peel or Flake

Cush-A-Block is manufactured under U.S. patent D824749 and one pending, and Canadian patents #175942 and one pending

Solar Racking | Pipe & Conduit | HVAC | Rooftop Walkways

The channel for Cush-A-Block support assemblies includes a variety of options. The strut can be made in special lengths, finishes, and alloys including Aluminum, Stainless Steel both 304 & 316, PVC coated, Powder coated, Zinc Trivalent Chromium, Pre-Galvanized and Hot Dipped Galvanized.

Embedded nut eliminates any thru holes and prevents leaks or any rust from forming on the underside of the fastener.



Call ZSi-Foster at (800) 323-7053 or order now at zsi-foster.com



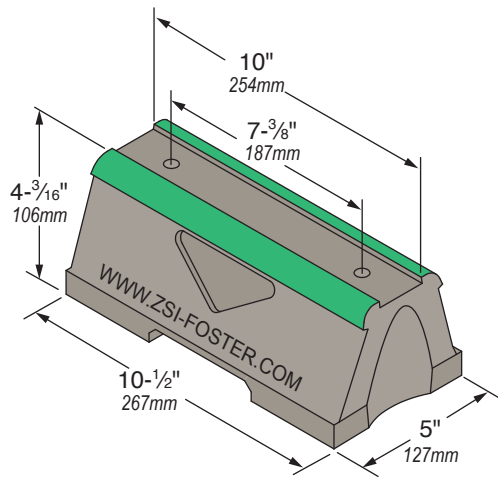
Cush-A-Block® Rooftop Supports

Standard Finish: Pre-galvanized (PG) or Hot Dipped Galvanized (HG)



CBN Series

Plain Base



Note: The embedded fasteners are conveniently spaced to allow attachment of slotted channel.

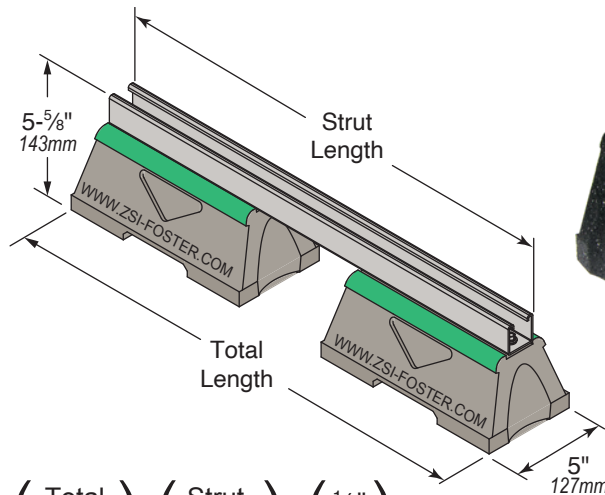
The CBN-Base Rooftop Support is UV resistant and suitable for installation on most types of roofing material or other flat surfaces. Can be used as a curb (sleeper) replacement. Screw fasteners can be used to attach one or two hole pipe straps or a piece of strut (not included).

CBN-Base Series	
Part No.	Uniform Load Capacity Lbs (kN)*
CBN	2,500 * (11.12 kN)

* This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.

CBN-BR Bridge Series

Support With Channel



$$\left(\text{Total Length} \right) = \left(\text{Strut Length} \right) + \left(\frac{1}{2} \text{ inch} \right)$$

13mm

Like all of the Cush-A-Block supports, the CBN-BR Bridge Rooftop Supports are perfect for supporting natural gas and refrigeration piping systems, cable tray, electrical conduit, multiple lines, HVAC equipment and many other applications.

The CBN-BR Series provides a longer mounting surface with strut lengths up to 60" (1.5m). Custom lengths are available upon request.

Standard strut mount pipe clamps are used to secure the pipes.

CBN-BR Bridge Series Supports with 1-5/8" (41mm) Pre-Galv. or Hot Dip Galv. Steel Channel			
Part No.	Strut Length	Total Length	Uniform Load Lbs (kN)*
CBN28BR	28" (711mm)	28-1/2" (724mm)	1,491* (6.63 kN)
CBN36BR	36" (914mm)	36-1/2" (927mm)	1,160* (5.15 kN)
CBN42BR	42" (1m)	42-1/2" (1.08m)	994* (4.42 kN)
CBN50BR	50" (1.2m)	50-1/2" (1.28m)	835* (3.71 kN)
CBN60BR	60" (1.5m)	60-1/2" (1.54m)	696* (3.09 kN)

* This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Cush-A-Block® Rooftop Supports

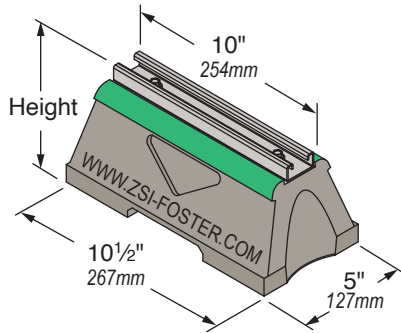


Standard Finish: Pre-galvanized (PG) or Hot Dipped Galvanized (HG)

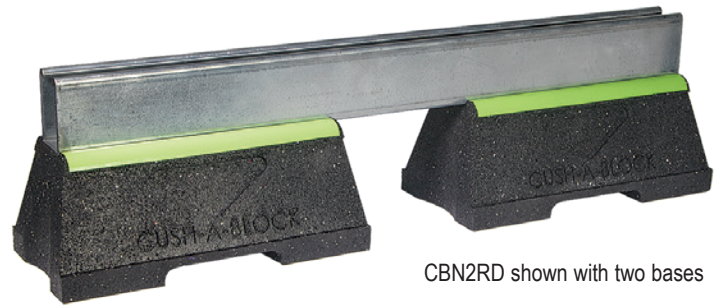
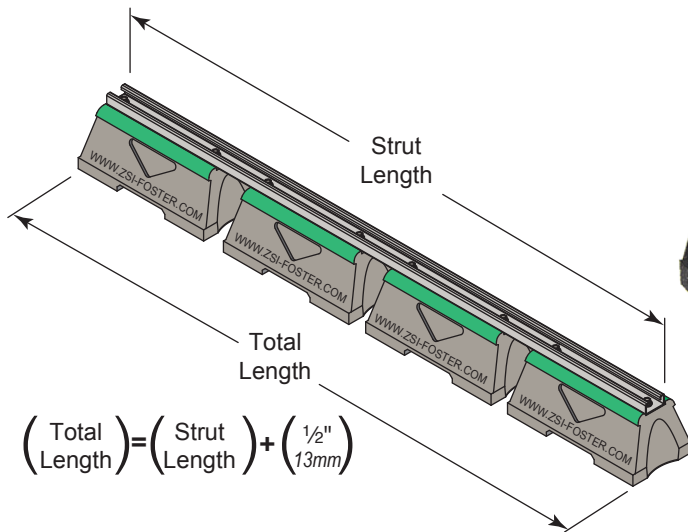


CBN Series

Support With Metal Channel



Shown with 1³/₁₆" Strut



CBN2RD shown with two bases

The CBN Series provides a longer mounting surface with strut lengths up to 46.82" (1.2m). Custom lengths are available upon request

Part No.	No. of Bases	Height	Strut Length	Total Length	Uniform Load Lbs (kN)*
CBN-Support With 1³/₁₆" (21mm) Pre-Galv. or Hot Dip Galv. Steel Channel					
CBN1S	1	4- ¹³ / ₁₆ " (122mm)	10" (254mm)	10- ¹ / ₂ " (267mm)	2,500 * (11.12 kN)
CBN2S	2		23- ¹ / ₂ " (597mm)	24" (610mm)	5,000 * (22.24 kN)
CBN3S	3		35- ¹ / ₂ " (902mm)	36" (914mm)	7,500 * (33.36 kN)
CBN4S	4		47- ¹ / ₂ " (1.2m)	48" (1.2m)	10,000 * (44.48 kN)
CBN-Support With 1-⁵/₁₆" (41mm) Pre-Galv. or Hot Dip Galv. Steel Channel					
CBN1D	1	5- ⁵ / ₁₆ " (143mm)	10" (254mm)	10- ¹ / ₂ " (267mm)	2,500 * (11.12 kN)
CBN2D	2		23- ¹ / ₂ " (597mm)	24" (610mm)	5,000 * (22.24 kN)
CBN3D	3		35- ¹ / ₂ " (902mm)	36" (914mm)	7,500 * (33.36 kN)
CBN4D	4		47- ¹ / ₂ " (1.2m)	48" (1.2m)	10,000 * (44.48 kN)
CBN Support With 2-⁷/₁₆" (62mm) Pre-Galv. or Hot Dip Galv. Steel Channel					
CBN1RD	1	6- ⁷ / ₁₆ " (164mm)	10" (254mm)	10- ¹ / ₂ " (267mm)	2,500 * (11.12 kN)
CBN2RD	2		23- ¹ / ₂ " (597mm)	24" (610mm)	5,000 * (22.24 kN)
CBN3RD	3		35- ¹ / ₂ " (902mm)	36" (914mm)	7,500 * (33.36 kN)
CBN4RD	4		47- ¹ / ₂ " (1.2m)	48" (1.2m)	10,000 * (44.48 kN)
* This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.					



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Cush-A-Block® Rooftop Supports

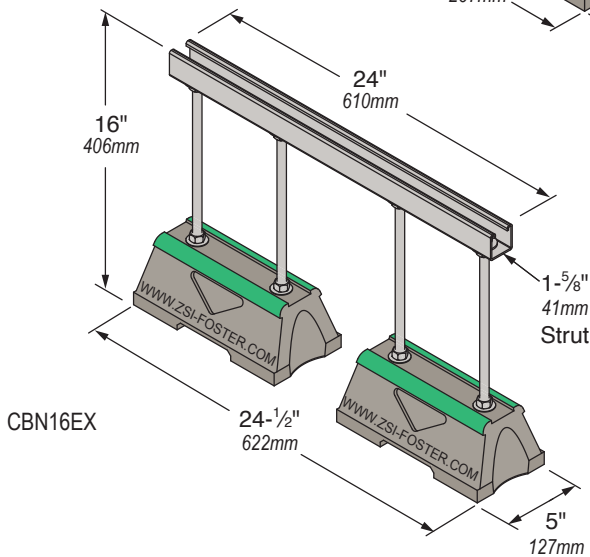
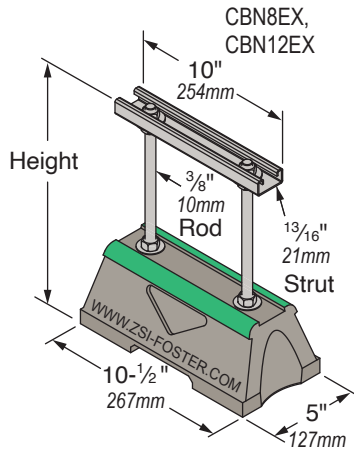
Standard Finish: Pre-galvanized (PG) or Hot Dipped Galvanized (HG)

CBN-EX Series

Support With Raised Channel

CBN-BR Extension Rooftop Supports are perfect for supporting natural gas and refrigeration piping systems, cable tray, electrical conduit, multiple lines, HVAC equipment and many other applications.

Standard strut mount pipe clamps are used to secure the pipes. Custom lengths are available upon request.



CBN-EX Extension Series Support with 3/8" Threaded Rod Extension and Pre-Galv. or Hot Dip Galv. Steel Channel

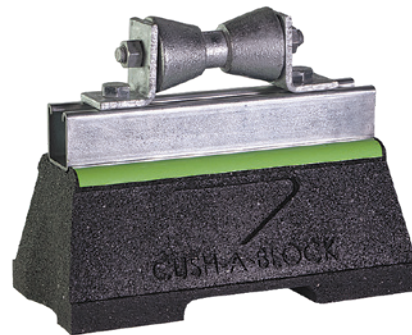
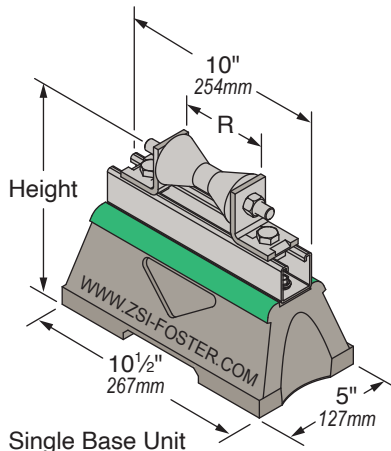
Part No.	Height	Strut Size	Uniform Load Lbs (kN) *
CBN8EX	8" (203mm)	1 3/16" (21mm)	1,000 * (4.44 kN)
CBN12EX	12" (305mm)		1,000 * (4.44 kN)
CBN16EX	16" (406mm)	1 5/8" (41mm)	2,000 * (8.89 kN)

* This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.

CBN-PRB Series

Support With Pipe Roller

The CBN-PRB Rooftop Supports are designed for superior support of natural gas and refrigeration pipes. The roller allows for longitudinal movements of the pipe. This support is suitable for most types of roofing material or other flat surfaces.



CBN-PRB Roller-Series With 1 5/8" (41mm) Pre-Galv or Hot Dip Galv. Steel Channel with Rollers

Part No.	R Pipe Size (O.D.)	Height	Height to Roller Center	Base Length	Strut Length	Uniform Load Lbs (kN) *
CBN1PRB	1" to 2"	8" (203mm)	7" (178mm)	10 1/2" (1-Base)	10" (254mm)	2,500 * (11.12 kN)
CBN2PRB	2" to 3 1/2"					
CBN3PRB	4" to 6"					
CBN4PRB	8" to 10"	10 5/16" (262mm)	8 1/4" (210mm)	24" (2-Bases)	23 1/2" (597mm)	2,500 * (11.12 kN)

* This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.



Cush-A-Block® Rooftop Supports

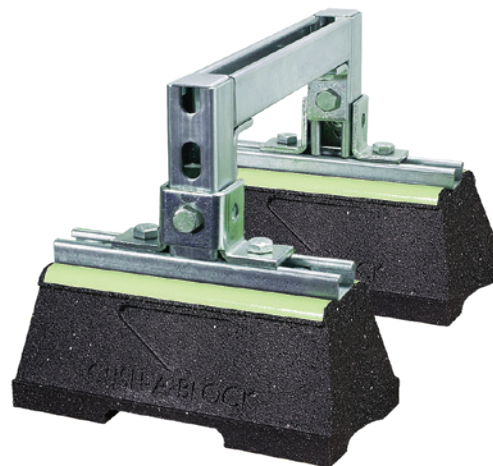
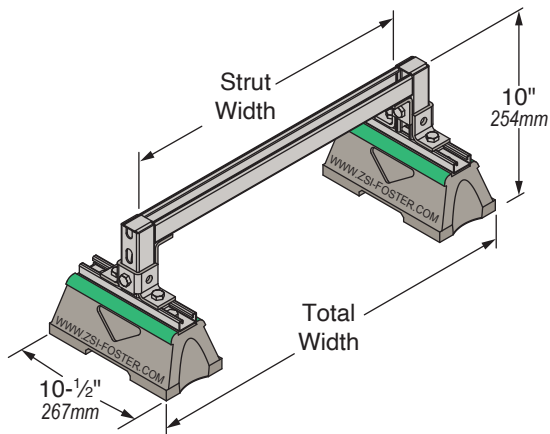


Standard Finish: Pre-galvanized (PG) or Hot Dipped Galvanized (HG)



CBN-RB Series

Support With Raised Bridge Medium Support



The CBN-RB Medium Rooftop Supports can support natural gas and refrigeration piping systems, cable tray, electrical conduit, multiple lines, HVAC equipment and many other applications. They are designed for rooftop applications requiring a heavier load bearing capacity, and are suitable for most types of roofing material or other flat surfaces. Custom lengths are available upon request.

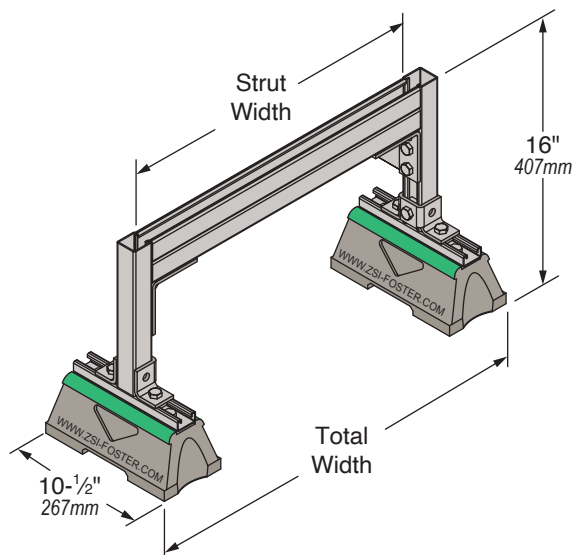
Standard strut mount pipe clamps are used to secure the pipes.

Raised Bridge Medium Support with 2 CBN Bases & 1-5/8" (41mm) Pre-Galv or Hot Dip Galv. Steel Channel			
Part No.	Total Width	Strut Width	Uniform Load Lbs (kN)*
CBN1RB	18.65" (474mm)	12" (305mm)	3,000 * (13.34 kN)
CBN2RB	30.65" (779mm)	24" (610mm)	1,500 * (6.67 kN)

* This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.

CBN-RB Series

Support With Raised Channel Heavy Support



The CBN-RB Heavy Rooftop Supports is designed for rooftop applications requiring a heavier load bearing capacity. It is suitable for most types of roofing material or other flat surfaces. Custom lengths are available upon request.

Standard strut mount pipe clamps are used to secure the pipes.

Raised Bridge Heavy Support with 2 CBN Bases & 3-1/4" (83mm) Back-to-Back Pre-Galv or Hot Dip Galv. Steel Channel			
Part No.	Total Width	Strut Width	Uniform Load Lbs (kN)*
CBN3RB	30.65" (779mm)	24" (610mm)	2,500†* (15.56 kN)
CBN4RB	42.65" (1.1m)	36" (914mm)	2,500†* (14.45 kN)

* This load is only for the capacity of the components in this assembly.
 † Beam load is limited by weld shear
 Please consult roofing manufacturer or engineer for roof load capacity.



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Introduction

Channel

Channel Nuts & Hardware

General Fittings

Pipe & Conduit Supports

Electrical Fittings

Spring Steel

Loop & Ring Clamps

Beta Clamps & Z-Clamps

Concrete Inserts

Rooftop Supports

Gamma Pads

Technical Data



Cush-A-Block® Rooftop Supports

Standard Finish: Pre-galvanized (PG) or Hot Dipped Galvanized (HG)

CBN-DS Series

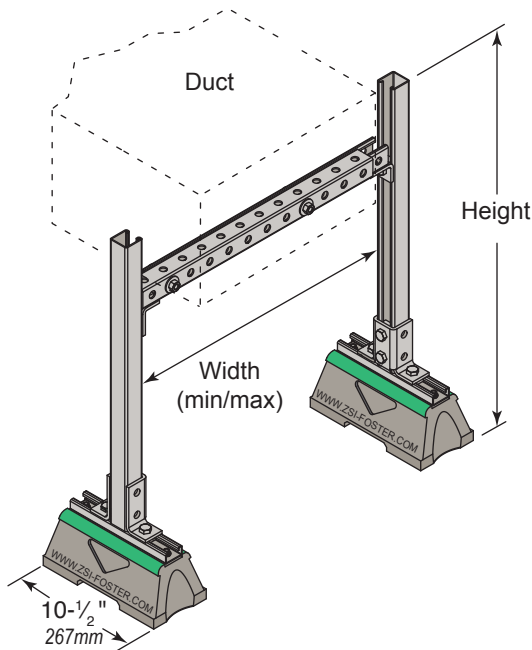
Adjustable Width Duct Support



The CBN-DS Series is designed specifically for supporting duct work. The telescopic cross beam provides easy width and height adjustments.

A wide range of support widths are provided from 19-1/4" to 103-5/8" (489mm to 2.6m)

Standard strut mount pipe clamps are used to secure the pipes.



CBN-DS Duct Support Series With Adjustable Width and Height with 1-5/8" (41mm) Pre-Galv or Hot Dip Galv. Steel Channel

Part No.	Width		Height	Uniform Load at Min. Width Lbs(kN) *
	Min.	Max.		
CBN1DS	19-1/4" (489mm)	26-3/4" (679mm)	28.813" (732mm)	1,909 * (8.49 kN)
CBN2DS	24-7/8" (632mm)	39-7/8" (1m)		1,477 * (6.57 kN)
CBN3DS	38" (987mm)	62-3/8" (1.6m)		967 * (4.30 kN)
CBN4DS	62-3/8" (1.6m)	103-5/8" (2.6m)		589 * (2.62 kN)
CBN5DS	19-1/4" (489mm)	26-3/4" (679mm)	36" (914mm)	1,909 * (8.49 kN)
CBN6DS	24-7/8" (632mm)	39-7/8" (1m)		1,477 * (6.57 kN)
CBN7DS	38" (987mm)	62-3/8" (1.6m)		967 * (4.30 kN)
CBN8DS	62-3/8" (1.6m)	103-5/8" (2.6m)		589 * (2.62 kN)

* This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.



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Cush-A-Block® Rooftop Supports



Standard Finish: Pre-galvanized (PG) or Hot Dipped Galvanized (HG)

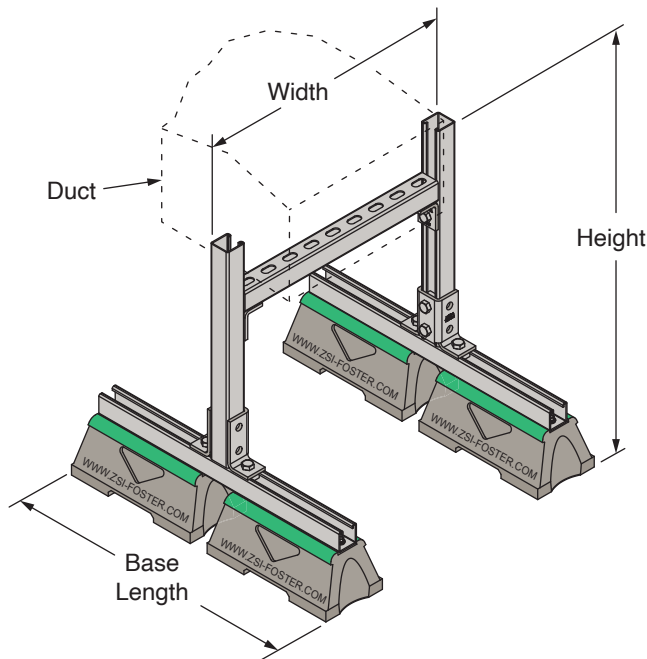


CBN-DSFW Series

Fixed Width Duct Support

The CBN-DSFW Series is designed specifically for supporting duct work. The cross beam provides easy size adjustments. Custom lengths are available upon request.

Standard strut mount pipe clamps are used to secure the pipes.



CBN-DSFW Duct Support Series With Fixed Width & Adjustable Height with 1-5/8" (41mm) Pre-Galv or Hot Dip Galv. Steel Channel					
Model No.	Height	Width	Base Length	No. of Bases	Uniform Load Capacity Lbs(kN) *
CBN1-DSFW	23" (584mm)	18" (457mm)	24" (610mm)	4	2042 * (9.08 kN)
CBN2-DSFW		24" (610mm)			1531 * (6.81 kN)
CBN3-DSFW		36" (914mm)			1021 * (4.54 kN)
CBN4-DSFW		48" (1.2m)			766 * (3.40 kN)
CBN5-DSFW	29" (737mm)	18" (457mm)	24" (610mm)	4	2042 * (9.08 kN)
CBN6-DSFW		24" (610mm)			1531 * (6.81 kN)
CBN7-DSFW		36" (914mm)			1021 * (4.54 kN)
CBN8-DSFW		48" (1.2m)			766 * (3.40 kN)
CBN9-DSFW	41" (1m)	18" (457mm)	24" (610mm)	4	2042 * (9.08 kN)
CBN10-DSFW		24" (610mm)			1531 * (6.81 kN)
CBN11-DSFW		36" (914mm)			1021 * (4.54 kN)
CBN12-DSFW		48" (1.2m)			766 * (3.40 kN)
CBN13-DSFW	53" (1.3m)	18" (457mm)	36" (914mm)	6	2042 * (9.08 kN)
CBN14-DSFW		24" (610mm)			1531 * (6.81 kN)
CBN15-DSFW		36" (914mm)			1021 * (4.54 kN)
CBN16-DSFW		48" (1.2m)			766 * (3.40 kN)

* This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.



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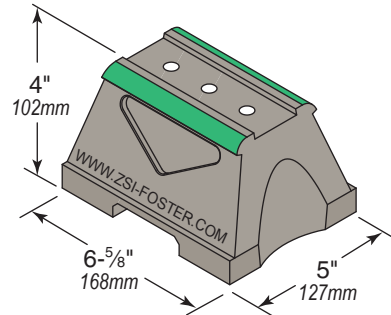


Cush-A-Block® Mini Rooftop Supports

Standard Finish: Pre-galvanized (PG) or Hot Dipped Galvanized (HG)

CBM

Cush-A-Block Mini

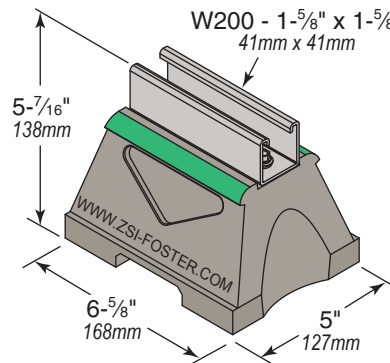
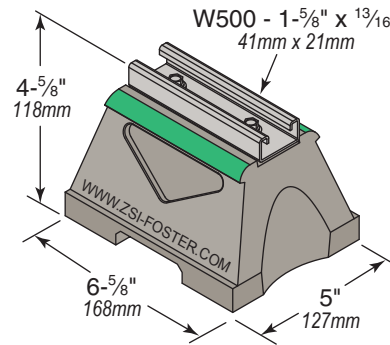


CBM-Base Series	
Part No.	Uniform Load Capacity (Lbs) *
CBM	400 (1.78 kN)

* This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.

CBM Series

Support with Metal Channel



Part No.	Uniform Load Capacity (Lbs) *
CBM-Support with ¹³ / ₁₆ " (21mm) Pre-Galv or Hot Dip Galv. Steel Channel	
CBM1S	400 (1.78 kN)
CBM-Support with 1- ⁵ / ₈ " (41mm) Pre-Galv or Hot Dip Galv. Steel Channel	
CBM1D	400 (1.78 kN)

* This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.



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Cush-A-Block® Mini Rooftop Supports

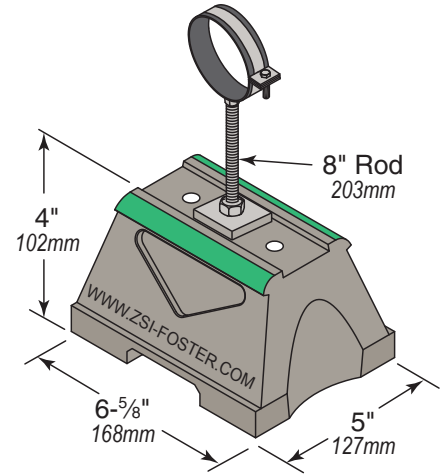
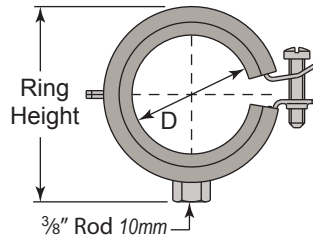


Standard Finish: Electro-Galvanized (EG)



CBMPH Series

Support with Raised SPH Cush-A-Ring Clamp for Copper Tube or Steel Tube or Pipe



CBMPH Series Cush-A-Block Mini with Raised SPH Cush-A-Ring Clamp for Copper or Steel Tube or Pipe					
Part No.	D	IP	CT	Ring Height	Uniform Load Lbs (kN) *
CBMPH1	0.433" - 0.551" (11 - 14mm)	1/4"	3/8"	1.4" (36mm)	125 (0.56 kN)
CBMPH2	0.591" - 0.709" (15 - 18mm)	3/8"	1/2"	1.4" (36mm)	
CBMPH3	0.787" - 0.906" (20 - 23mm)	1/2"	3/4"	1.6" (41mm)	
CBMPH4	0.984" - 1.102" (25 - 28mm)	3/4"	1"	1.8" (46mm)	
CBMPH5	1.22" - 1.378" (31 - 35mm)	1"	1 1/4"	2.0" (51mm)	
CBMPH6	1.575" - 1.693" (40 - 43mm)	1 1/4"	1 1/2"	2.4" (61mm)	
CBMPH7	1.89" - 2.087" (48 - 53mm)	1 1/2"	-	2.6" (66mm)	
CBMPH8	2.126" - 2.205" (54 - 56mm)	-	2"	2.8" (71mm)	
CBMPH9	2.244" - 2.48" (57 - 63mm)	2"	-	3.1" (79mm)	
CBMPH10	2.52" - 2.756" (64 - 70mm)	-	2 1/2"	3.9" (99mm)	
Below parts have 2 bolt configuration SPH Clamps					
CBMPH11	2.874" - 3.15" (73 - 80mm)	2 1/2"	3"	4.3" (109 mm)	125 (0.56 kN)
CBMPH12	3.268" - 3.583" (83 - 91mm)	3"	-	4.8" (122 mm)	
CBMPH13	3.937" - 4.134" (100 - 105 mm)	-	4"	5.3" (135 mm)	
CBMPH14	4.252" - 4.488" (108 - 114mm)	4"	-	5.7" (145 mm)	

* This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.

See Page 194 for more information on the SPH Cush-A-Ring Clamps



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Introduction

Channel

Channel Nuts & Hardware

General Fittings

Pipe & Conduit Supports

Electrical Fittings

Spring Steel

Loop & Ring Clamps

Beta Clamps & Z-Clamps

Concrete Inserts

Rooftop Supports

Gamma Pads

Technical Data

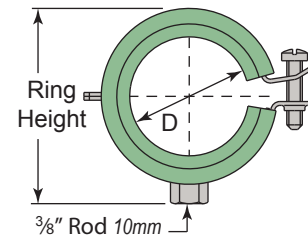
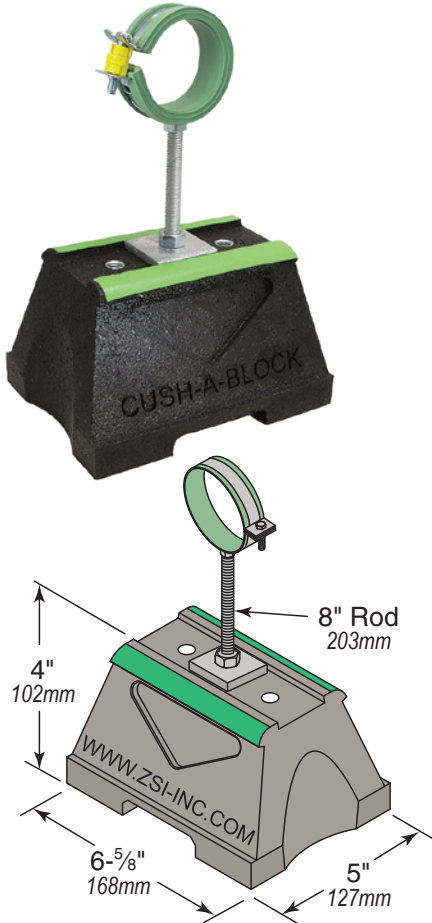


Cush-A-Block® Mini Rooftop Supports

Standard Finish: Electro-Galv. (EG), Pre-Galv. (PG), or Hot Dip Galv. (HG)

CBMPP Series

Support with Raised SPP Cush-A-Ring Clamp for PEX, CPVC, or PVC Pipe



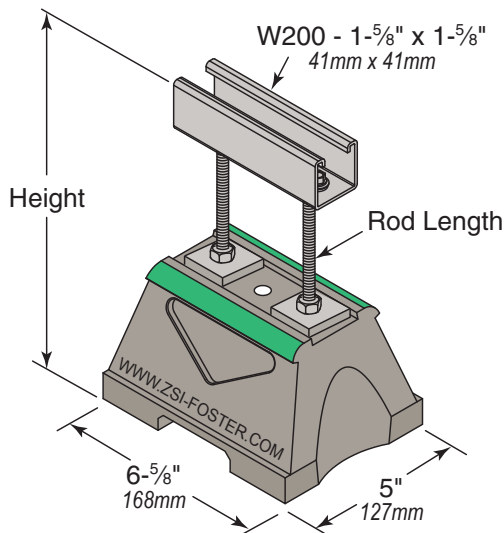
CBMPP Series Cush-A-Block Mini with Raised SPP Cush-A-Ring Clamp for PEX, CPVC or PVC Pipe					
Part No.	D (mm)	PVC / CPVC	PEX	Ring Height	Load Capacity (Lbs) *
CBMPP2	0.591" - 0.709" (15 - 18mm)	3/8"	1/2"	1.4" (36mm)	125 (0.56 kN)
CBMPP3	0.787" - 0.906" (20 - 23mm)	1/2"	3/4"	1.7" (43mm)	
CBMPP4	0.984" - 1.102" (25 - 28mm)	3/4"	1"	1.9" (48mm)	
CBMPP5	1.22" - 1.378" (31 - 35mm)	1"	1 1/4"	2.2" (56mm)	
CBMPP6	1.575" - 1.693" (40 - 43mm)	1 1/4"	1 1/2"	2.6" (66mm)	
CBMPP7	1.89" - 2.087" (48 - 53mm)	1 1/2"	-	3.0" (76mm)	
CBMPP8	2.126" - 2.205" (54 - 56mm)	-	2"	3.0" (76mm)	
CBMPP9	2.362" - 2.559" (60 - 65mm)	2"	-	3.4" (86mm)	
CBMPP10	2.756" - 2.992" (70 - 76mm)	2 1/2"	-	4.1" (104mm)	
Below parts have 2 bolt configuration SPP Clamps					
CBMPP11	3.386" - 3.583" (86 - 91mm)	3"	-	4.6" (117mm)	125 (0.56 kN)
CBMPP12	4.331" - 4.488" (110 - 114mm)	4"	-	5.8" (147mm)	

* This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.

See Page 195 for more information on the SPP Cush-A-Ring Clamps

CBM REX Series

Support with Raised 1-5/8" Metal Channel



CBM-Support Extension with 3/8" Threaded Rod Extension & 1-5/8" (41mm) Pre-Galv or Hot Dip Galv. Steel Channel			
Part No.	Height	Rod Length	Uniform Load Lbs (kN) *
CBM10REX	10" (254mm)	6" (152mm)	175 (0.78 kN)
CBM12REX	12" (305mm)	8" (203mm)	175 (0.78 kN)

* This load is only for the capacity of the components in this assembly. Please consult roofing manufacturer or engineer for roof load capacity.



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

GAMMA Anti-Vibration Pads



Vibration Isolation Products from ZSi-Foster

When installing pipe, tube, hose, or equipment the effects of vibration, shock, surge, galvanic corrosion and unwanted noise are a major concern. Improperly cushioned equipment, pipe, tube, or hose invites failure and potential problems. New developments in cushioned clamping and vibration isolation products from ZSi-Foster provide the proper solutions to combat these effects.

ZSi-Foster's products have earned a well-deserved reputation for unparalleled quality and effectiveness. As industry develops new needs, ZSi-Foster can and will respond with superior quality products and innovative solutions.



EXTREME



STANDARD

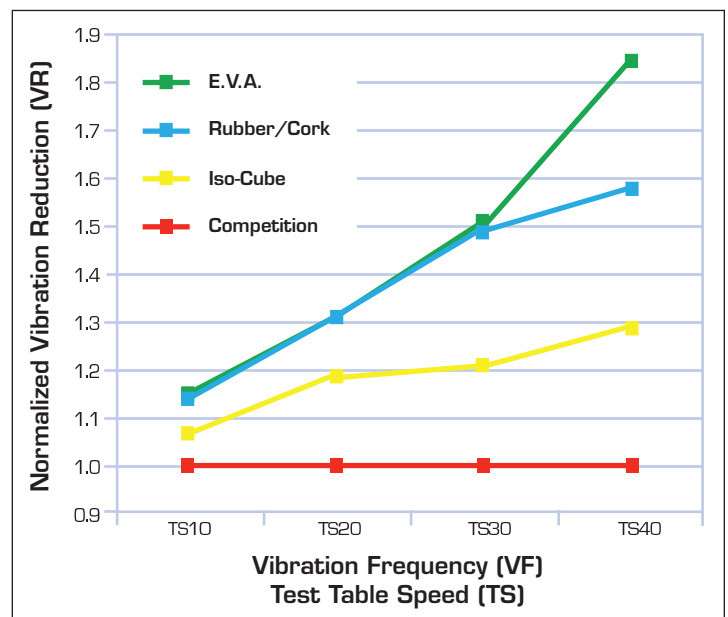


ISO-CUBE



SHIELD

ANTI-VIBRATION PAD PERFORMANCE



Call ZSi-Foster at (800) 323-7053 or order now at zsi-foster.com



GAMMA Anti-Vibration Pads

GAMMA Shield

Rubber Mat

Shields equipment from vibration and movement when lesser amounts of vibration absorption is needed.



Part No.	Description
AR-2	2" x 2" x 3/8" (51mm x 51mm x 10mm) All Rubber AV Pad
AR-3	3" x 3" x 3/8" (76mm x 76mm x 10mm) All Rubber AV Pad
AR-4	4" x 4" x 3/8" (102mm x 102mm x 10mm) All Rubber AV Pad
AR-6	6" x 6" x 3/8" (152mm x 152mm x 10mm) All Rubber AV Pad
AR-18	18" x 18" x 3/8" (457mm x 457mm x 10mm) All Rubber AV Pad

ISO - Cube

Solid Rubber Tough

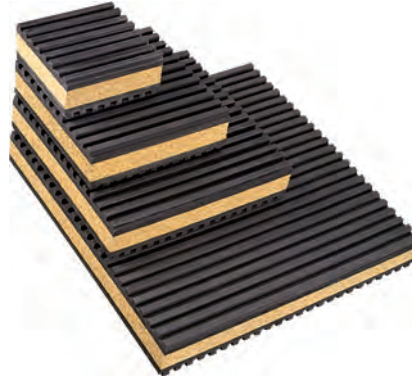
Natural rubber pads designed to reduce vibration and noise emanating from refrigeration or AC equipment. Circular design offers a suction cup effect eliminating the need to bolt the pads down. A standard 18" (457mm) pad divides into eighty-one 2" (51mm) segments which may be cut or torn into smaller pads. The 50 durometer pads will withstand a load of 180 psi (12.4 bar) with great resiliency.



Part No.	Description
AS-2	2" x 2" x 3/4" (51mm x 51mm x 19mm) ISO-Cube
AS-18	18" x 18" x 3/4" (457mm x 457mm x 19mm) ISO-Cube

GAMMA Standard Pad

The Industry Standard Highest quality elastomeric oil resistant padding. Designed to withstand 50 psi (3.4 bar). The rubber pads are corrugated on both sides and laminated to the cork center.



Part No.	Description
AC-2	2" x 2" x 7/8" (51mm x 51mm x 22mm) Cork / Rubber AV Pad
AC-3	3" x 3" x 7/8" (76mm x 76mm x 22mm) Cork / Rubber AV Pad
AC-4	4" x 4" x 7/8" (102mm x 102mm x 22mm) Cork / Rubber AV Pad
AC-6	6" x 6" x 7/8" (152mm x 152mm x 22mm) Cork / Rubber AV Pad
AC-18	18" x 18" x 7/8" (457mm x 457mm x 22mm) Cork / Rubber AV Pad

GAMMA Extreme Pad

The **BEST** Performer E.V.A. (Extreme Vibration Attenuation) is the latest generation in vibration dampening technology. In the most severe vibration extremes, testing shows the E.V.A. pad outperforms cork and rubber by greater than 3:1 and outperforms our competitor's "waffle" pad by greater than 8:1! The enhanced performance comes from the special composite foam center which is structurally more sound than cork. E.V.A. is not affected by oils or chemicals that can break down cork and is much more effective at vibration dampening than solid rubber. Designed to withstand 50 psi (3.4 bar). Choose E.V.A. to get the best of both worlds!



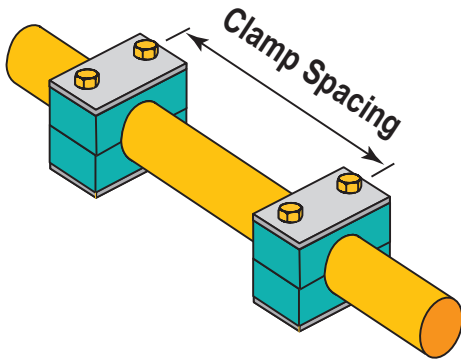
Part No.	Description
AV-2	2" x 2" x 7/8" (51mm x 51mm x 22mm) E.V.A. Pad
AV-3	3" x 3" x 7/8" (76mm x 76mm x 22mm) E.V.A. Pad
AV-4	4" x 4" x 7/8" (102mm x 102mm x 22mm) E.V.A. Pad
AV-6	6" x 6" x 7/8" (152mm x 152mm x 22mm) E.V.A. Pad
AV-18	18" x 18" x 7/8" (457mm x 457mm x 22mm) E.V.A. Pad



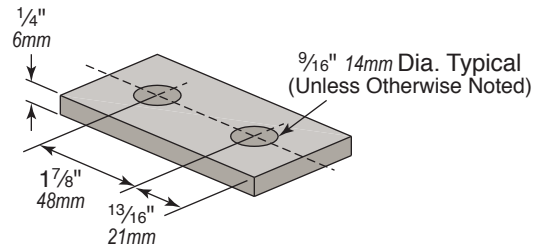
Technical Data



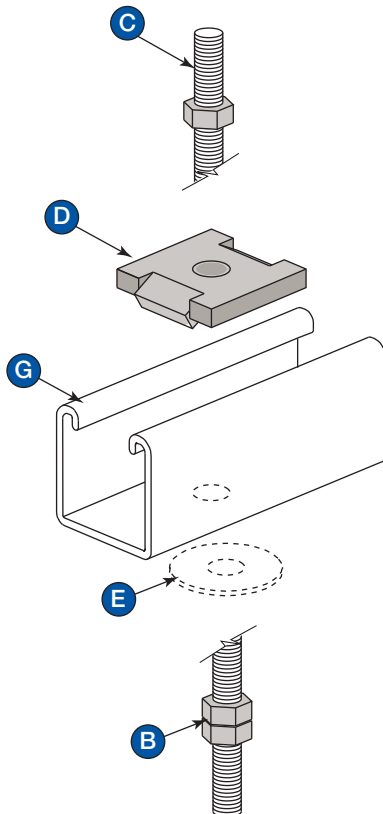
Beta Clamp Technical Data



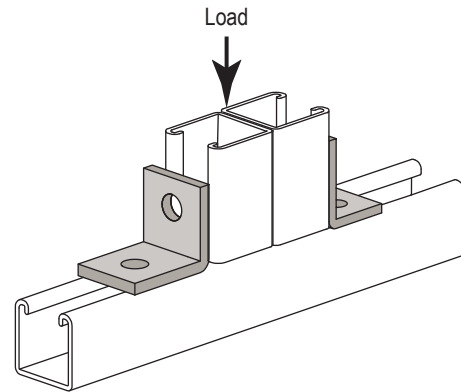
Design & Dimensional Information



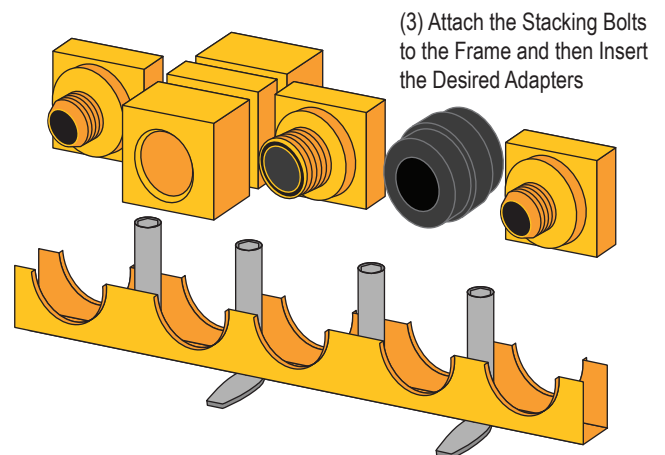
Safe Thru-Bolting and Trapeze Information



Channel Engineering Data Crush Load for Channel



Installation Instructions





Material Specifications - Special Metals

Stainless Steel Channel

Wesanco Channels W100, W150, W200, W210, W500, W800, and W900 are available as roll formed sections in stainless steel, conforming to ASTM A 240 Type 304, or ASTM A 240 Type 316.

To order add "ST304" or "ST316" to channel designation.

Examples: W500SSST304, W200ST316.

Aluminum Channel

Wesanco Channels W200, W201, and W500 are available as extruded aluminum sections type 6063T6, conforming to ASTM B221. To order add "AL" to channel designation.

Example: W201AL.

Stainless Steel Nuts (Channel Type)

Wesanco Channel Nuts W2-4, W2-6 and W2-8 are available in Type 316 Stainless Steel.

- Sintered 316 - "Domestic Nut" ASTM: B783

- Bar Stock 316 - "Import Nut" ASTM: A240

To order add "ST" to nut designation. Example: W2-8ST316

Aluminum Nuts (Channel Type)

Available by special order. Consult factory for details. ASTM B221.

Aluminum Stainless and Copper Plated Pipe Clamps

Wesanco Pipe Clamps are available from stock in Stainless Steel Types 304 and 316 and by special order in Aluminum and Copper Plated. Consult factory for details.

Aluminum Engineering Data

To determine the appropriate beam load capacity for extruded Aluminum Channel Sections, refer to Channel Engineering Data, page 27 thru 77 in this catalog and multiply published values by 40%. To determine the approximate pull out slip load of Wesanco Channel Nuts in extruded Aluminum Channel sections, refer to page 80 in this catalog and multiply the resistance to slip value by 75% and the resistance to pull out value by 50%.

Stainless Steel Engineering Data

The properties of section for stainless steel channels are the same as shown starting on page 27 of this catalog for mild steel channel. Load ratings for stainless steel channel meet or exceed corresponding mild steel ratings published throughout this catalog.

Design & Dimension Information

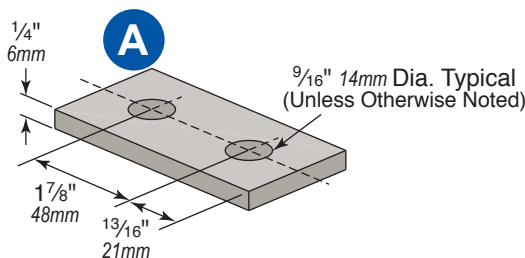


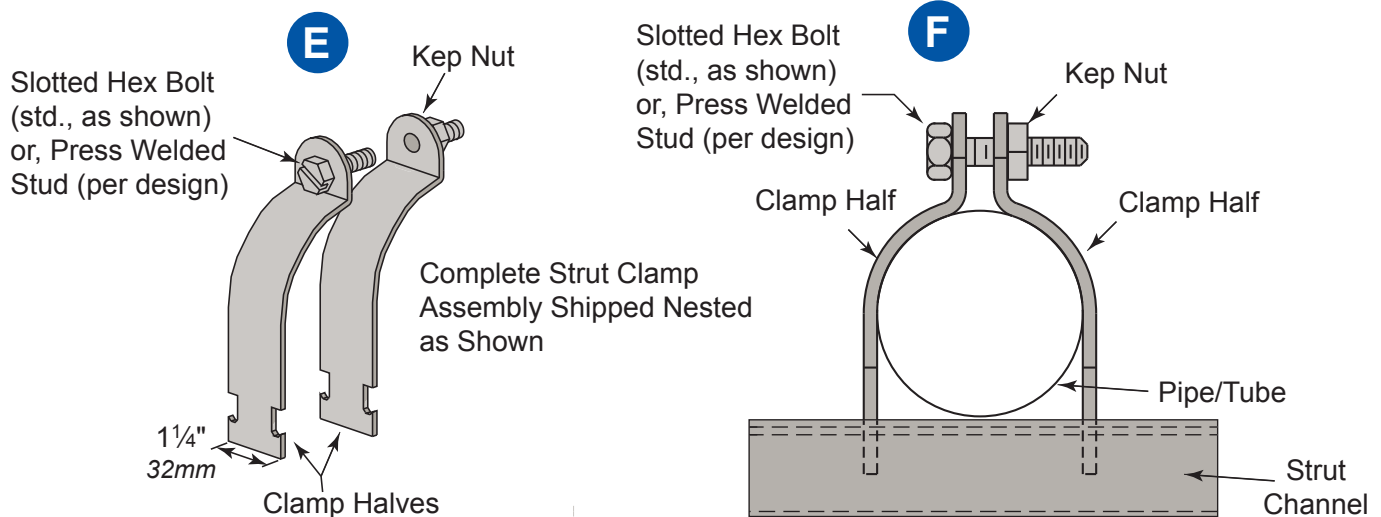
The majority of fittings, are designed to engage at the face of continuous slot channel sections, anywhere along this 1-5/8" surface. Incorporation of either the "H" (9/16" holes, 1-7/8" on center) or the "SS" (9/16" x 1-1/8" - 2" on center short slot) configuration has been considered in the fittings' design, especially in hole spacing and placement.

TYPICAL FITTING DIMENSIONS AND CONTROL DATA (BAR STOCK AND PLATE FABRICATED COMPONENTS)

Unless otherwise indicated:

- **Width:** 1-5/8" (1.625") unless otherwise specified.
- **Thickness:** 1/4" (material utilized is within nominal tolerance range).
- **Lengths:** As specified on drawing(s).
- **Hole Dimension:** 9/16" (unless specified otherwise).
- **Hole Placement:** 9/16" Diameter holes are aligned along a single or single intersecting centerline (ϕ), which bisects the 1-5/8" (1.625") wide material (flat stock) dimension.
- **Hole Lead-In/Centering:** The 9/16" Diameter holes are located in from leading edges (leading edge to hole center) 13/16" (0.813"). This lead-in dimension controls subsequent center to center positioning and unless otherwise specified or controlled by a fittings gross dimension along a specific axis, field holes are 1-7/8" (1.875") center to center along the material's centerline (ϕ). Dimension from trailing hole center to trailing edge will also be 13/16" (0.813"). (ref drawing: **A**)
- **Bend Design:** Design of each individual bend in this wide selection of fittings has been developed to maximize the material's strength while reducing stress at those bend points. This allows for cohesive nesting with the formed edge radiuses of the channel sections. This design detail provides a minimum tolerance envelope to assure a clean accurate fit and ease of assembly into structural strut/fitting elements.
- **Flat Fittings:** Without any bend from that single plane: For use with channel sections: arranged and co-dependently utilized in a double axis or parallel single axis, single plane situation.





Clamp halves are pushed laterally into place. Ninety degrees to the channel face and touching the pipe element sides. The bolt and nut are installed. The grip design at the channel lips tightens during assembly, securely holding the Strut Clamp assembly in-place.

FITTING DIMENSIONS AND CONTROL DATA (STRIP I GAUGE MATERIAL FORMED PIPE CLAMP HALVES):

Unless otherwise indicated:

- **Materials width:** 1- $\frac{1}{4}$ " (1.250") side to side, forming two identically matching strut clamp sides. (Ref: E and F)
- **Thickness:** Gauge dimensional material is utilized, specific to each individual strut clamp size. Ref. Part Number I Size chart for each style clamp. (Ref: E)
- **Material length:** Specific lengths of material required to fabricate each size strut clamp is not provided. The bolt tang also varies from clamp size to size and style to style.
- **Channel twist-grip feature:** Each clamp half is formed with an in-line, twist-on feature, allowing close proximity installation with a simple insert-twist maneuver. The clamp halves are pushed laterally into place, ninety degrees to the channel face and touching the pipe element sides, and the bolt / nut is installed. The grip design at the channel lip's tightens during assembly, securely holding the strut clamp assembly in place. (Ref: E and F)
- **Hole dimension / Placement:** The receiving hole and bolt pass-thru hole(s) positioned in the punched tang(s), (except in the studded version clamps) are identical sized with standard practice clearance tolerances. Placement and size of holes to accommodate the mechanical studs are similarly positioned for strength and utilization in an appropriately sized punched tang.
- **Bolt dimensions:** National Coarse Sized threaded mild steel hex head/slotted bolts are utilized; dimensions vary from clamp size to clamp size. Ref: Number / Size chart for each style clamp. (Ref: E)
- **Stud attachment:** The mild steel, ASTM conformant National Coarse Size threaded studs, are press fit into an appropriately sized receiving hole and then high resistance welded in place to further secure them against accidental loosening while the Kep nuts are turned into position (use per specific part data call-out).
- **Kep hex nuts** are utilized on all direct contact clamps; .

NOTE: Illustrations of Components throughout are representational. Utilize specific data as shown.

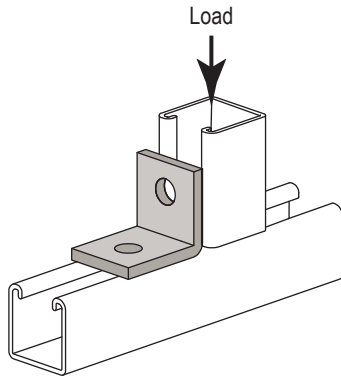
Channel Engineering Data

Crush Load for Channel

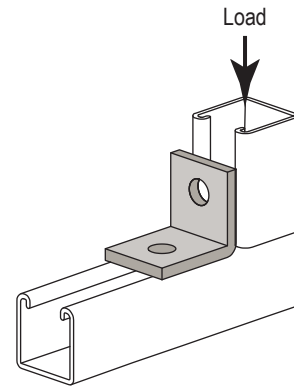


Load Data for Channel Sections, Subject to Crushing Loads

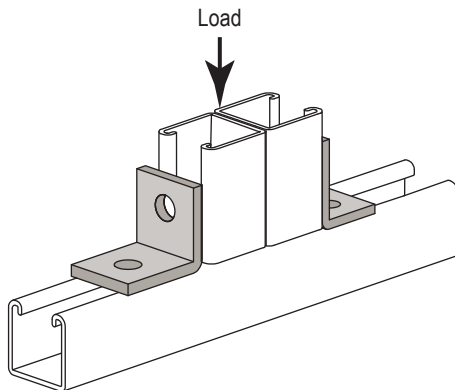
These values are based on a minimum yield point of 33,000 PSI at safety factor of 1.85.



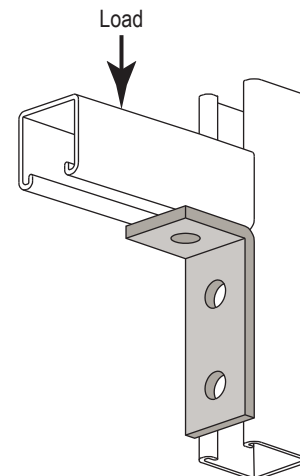
Part No.	Channel Gauge	Reaction Load Lbs. (kN)
W200	12	7,000# (31.14 kN)
W210	14	3,600# (16.01 kN)
W300	12	6,900# (30.69 kN)
W500	14	3,400# (15.12 kN)



Part No.	Channel Gauge	Reaction Load Lbs. (kN)
W200	12	2,900# (12.90 kN)
W210	14	1,500# (6.67 kN)
W300	12	2,800# (12.46 kN)
W500	14	1,400# (6.23 kN)



Part No.	Channel Gauge	Reaction Load Lbs. (kN)
W200	12	7,000# (31.14 kN)
W210	14	3,600# (16.01 kN)
W300	12	6,900# (30.69 kN)
W500	14	3,400# (15.12 kN)



Part No.	Channel Gauge	Reaction Load Lbs. (kN)
W200	12	2,900# (12.90 kN)
W210	14	1,500# (6.67 kN)
W300	12	2,800# (12.46 kN)
W500	14	1,400# (6.23 kN)

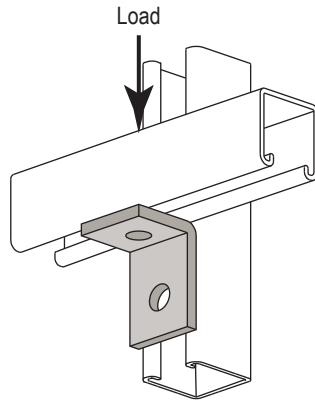
Design Load Data for Wesanco Channel Connections

Load diagrams indicate two design loads;
 one for 12 gage sections (listed as W200) and
 one for 14 gage sections (listed as W210)
 Safety factor = 2-1/2 based on ultimate strength of connection.

90° Fittings

(When used in position shown)

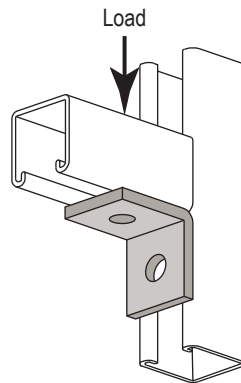
W5102



Part No.	Design Load Lbs. (kN)
W200	500# (2.22 kN)

W5103

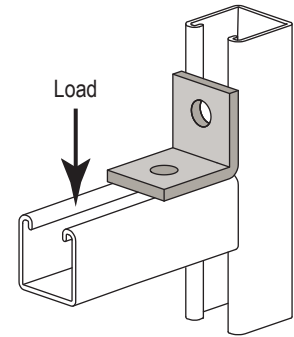
Both Ends Supported



Part No.	Design Load Lbs. (kN)
W200	1,500# (6.67 kN)
W210	1,000# (4.45 kN)

W5103

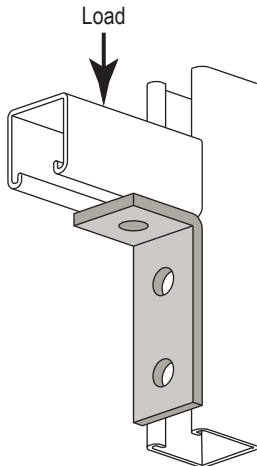
Both Ends Supported



Part No.	Design Load Lbs. (kN)
W200	1,000# (4.45 kN)
W210	650# (2.89 kN)

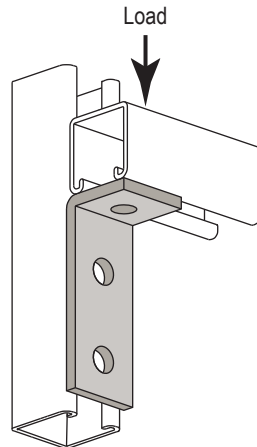
W5113

Both Ends Supported



Part No.	Design Load in LBS.
W200	2,000# (8.90 kN)
W210	1,500# (6.67 kN)

W5112

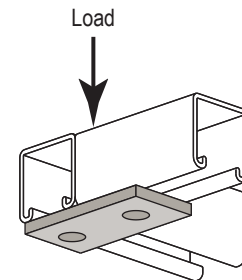


Part No.	Design Load Lbs. (kN)
W200	500# (2.22 kN)

Flat Plate Fittings

W5007

Both Ends Supported



Part No.	Design Load in LBS.
W200	1,000# (4.45 kN)
W210	800# (3.56 kN)

Channel Engineering Data

Uniform Load - 90° Fittings

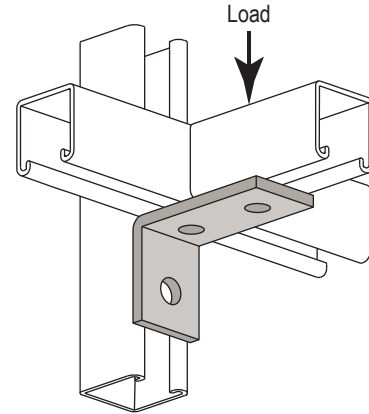


Design Load Data for Wesanco Channel Connections

Load diagrams indicate two design loads;
 one for 12 gage sections (listed as W200) and
 one for 14 gage sections (listed as W210)
 Safety factor = 2-1/2 based on ultimate strength of
 connection.

W5115

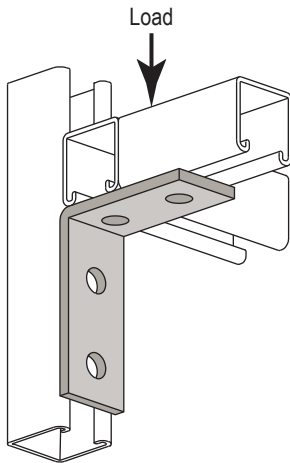
Both Ends Supported



Part No.	Channel Gauge	Design Load Lbs. (kN)
W200	12	1,500#
W210	14	1,000#

W5123

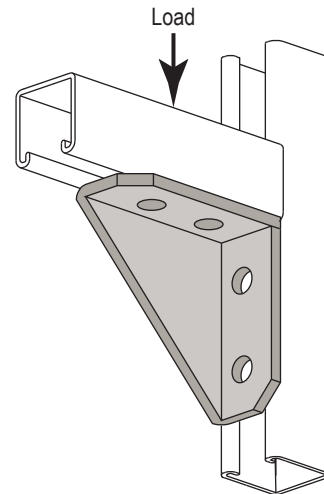
Both Ends Supported



Part No.	Channel Gauge	Design Load Lbs. (kN)
W200	12	2,000#
W210	14	2,000#

W5121 - W5122

Both Ends Supported



Part No.	Channel Gauge	Design Load Lbs. (kN)
W200	12	2,000#
W210	14	2,000#

Introduction

Channel

Channel Nuts
& Hardware

General
Fittings

Pipe & Conduit
Supports

Electrical
Fittings

Spring
Steel

Loop & Ring
Clamps

Beta Clamps
& Z-Clamps

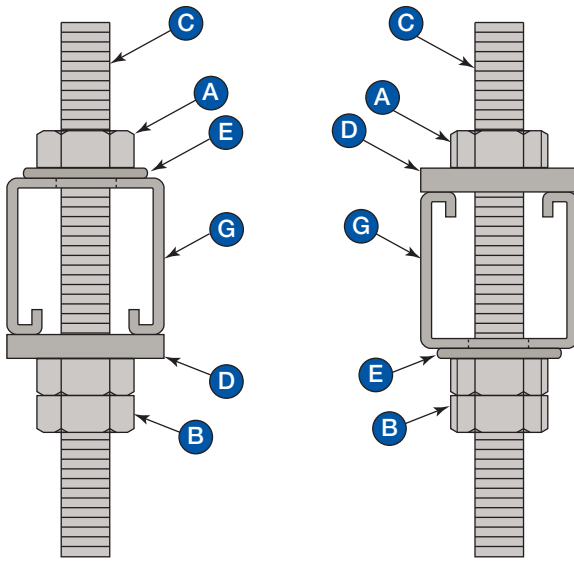
Concrete
Inserts

Rooftop
Supports

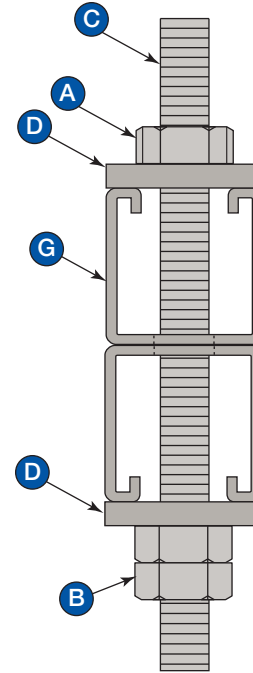
Gamma
Pads

Technical
Data

Safe Thru-Bolting and Trapeze Information



Single Section Perforated Channel



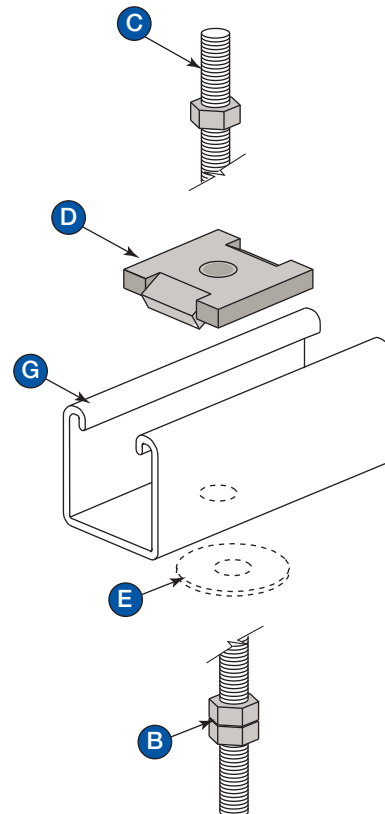
Double Section Perforated Channel

Common Components

- A: Top Hex Nut
- B: Bottom Double Hex Nuts
- C: All Thread Rod
- D: Flat Fitting (W5004 With Indents Shown).
- E: Fender or "Cut" Washer. (Recommended).
- F: (Not Shown) Lock Washer (S), Kep Nut(S), or Other Security Measures as Required.
- G: Perforated Strut (Recommended).

Over tightening face supported through bolted all thread rod or other mechanical fasteners can distort the channel section beyond its intended maximum safe configuration causing serious distortion and possible failure.

Utilize bolting security measures to prevent accidental loosening.

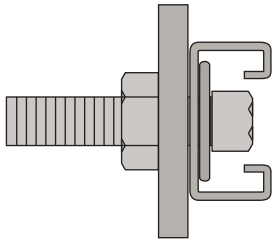


Bolted Channel

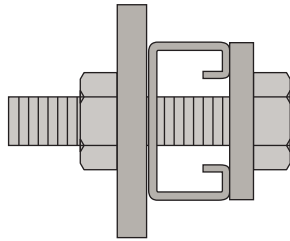
Attachment Information



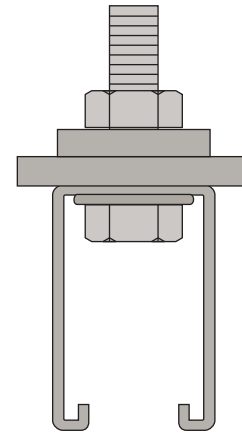
- Introduction
- Channel
- Channel Nuts & Hardware
- General Fittings
- Pipe & Conduit Supports
- Electrical Fittings
- Spring Steel
- Loop & Ring Clamps
- Beta Clamps & Z-Clamps
- Concrete Inserts
- Rooftop Supports
- Gamma Pads
- Technical Data



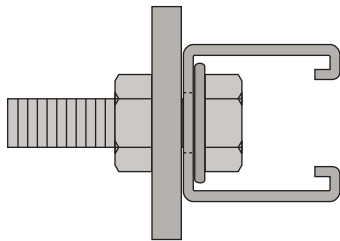
Shallow channel bolted thru from inside to backing plate with $\frac{1}{2}$ " dia. Allen head bolt and washer; hex nut behind.



Shallow channel bolted thru from face to backing plate with $\frac{1}{4}$ " face fitting and $\frac{1}{2}$ " hex bolt; hex nut behind.



Deep style channel bolted thru from inside to beam flange utilizing $\frac{1}{2}$ " dia. hex bolt washer (inside channel), beveled washer and hex nut on top of flange.

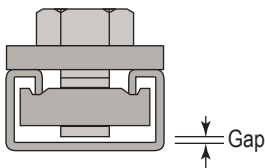


1- $\frac{5}{8}$ " Deep channel type bolted thru from inside to backing plate with $\frac{3}{8}$ " dia. hex bolt, and washer; hex nut behind.

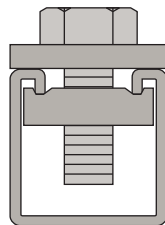
**Do not over tighten faced thru bolts.
Utilize bolting security measures to prevent accidental loosening.**

OVER TIGHTENING CAUTION

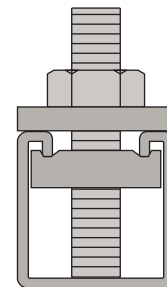
Over tightening "bottoming" a threaded fastener against the bottom of a channel section will result in serious damage and possible failure. Use proper length fasteners and leave a slight gap; fastener face to channel surface.



Shallow channel with $\frac{1}{4}$ " thick fitting and $\frac{15}{16}$ " max. bolt length.



1- $\frac{5}{8}$ " Channel with $\frac{1}{4}$ " fitting and 1- $\frac{1}{4}$ " working length bolt.



1- $\frac{5}{8}$ " Deep Channel with $\frac{1}{4}$ " thick fitting and $\frac{1}{2}$ " all thread.



Electrical Installation

Instructions

These surface metal raceways are intended for use in the installation of electrical wiring using external joiners. The number, type and size of conductors, which may be installed in these raceways, are tabulated in table below.

Fluorescent and Incandescent Lighting

Consult your local, state and federal electrical code for all installations

While the metal wire raceway cover provides electrical continuity to the base and ground wires, if screws are required, they are to be installed in the field. Installation shall conform to Strut-Type Channel Raceway and Fittings UL5B.O

Wire		Maximum Number of Electrical Wires (at 40% fill)					
Type	Gauge	W150 1 5/8" x 3 1/4" 12 gauge	W100 1 5/8" x 2 7/16" 12 gauge	W200 1 5/8" x 1 5/8" 12 gauge	W210 1 5/8" x 1 5/8" 14 gauge	W300 1 5/8" x 1 3/8" 12 gauge	W400 1 5/8" x 1 3/16" 16 gauge
FEP, FEPB	14	172	127	81	81	67	36
	12	126	92	59	59	49	26
	10	90	66	42	42	35	19
	8	51	38	24	24	20	11
	6	24	17	11	12	9	5
RH, RHH, RHW	14	52	38	24	26	20	12
	12	45	33	21	22	17	10
	10	37	27	17	18	14	8
	8	20	14	9	10	7	4
	6	14	10	6	7	5	3
T, TW	14	124	91	58	58	48	26
	12	95	70	45	45	37	20
	10	69	51	33	33	27	14
	8	36	26	17	18	14	8
	6	21	15	9	10	8	5
THHN, THWN	14	178	131	84	84	69	37
	12	130	95	61	61	50	27
	10	82	60	38	38	32	17
	8	46	34	21	22	17	10
	6	33	24	15	16	12	7
THW	14	82	61	39	39	32	17
	12	66	49	31	31	26	14
	10	52	38	24	24	20	11
	8	29	21	13	14	11	6
	6	21	15	10	10	8	5
XHHW	14	124	91	58	58	48	26
	12	95	70	45	45	37	20
	10	71	52	33	33	28	15
	8	37	27	17	19	14	8
	6	27	20	13	14	10	6

Maximum Number Of Wires

Also suitable for the number of wires in table below when installed to support and supply electric discharge type lighting fixtures when raceway wiring is suitable for at least 70°C and clearance between fixture and raceway is at least 1/8". In all cases, a snap-in cover is required to complete the raceway enclosure.

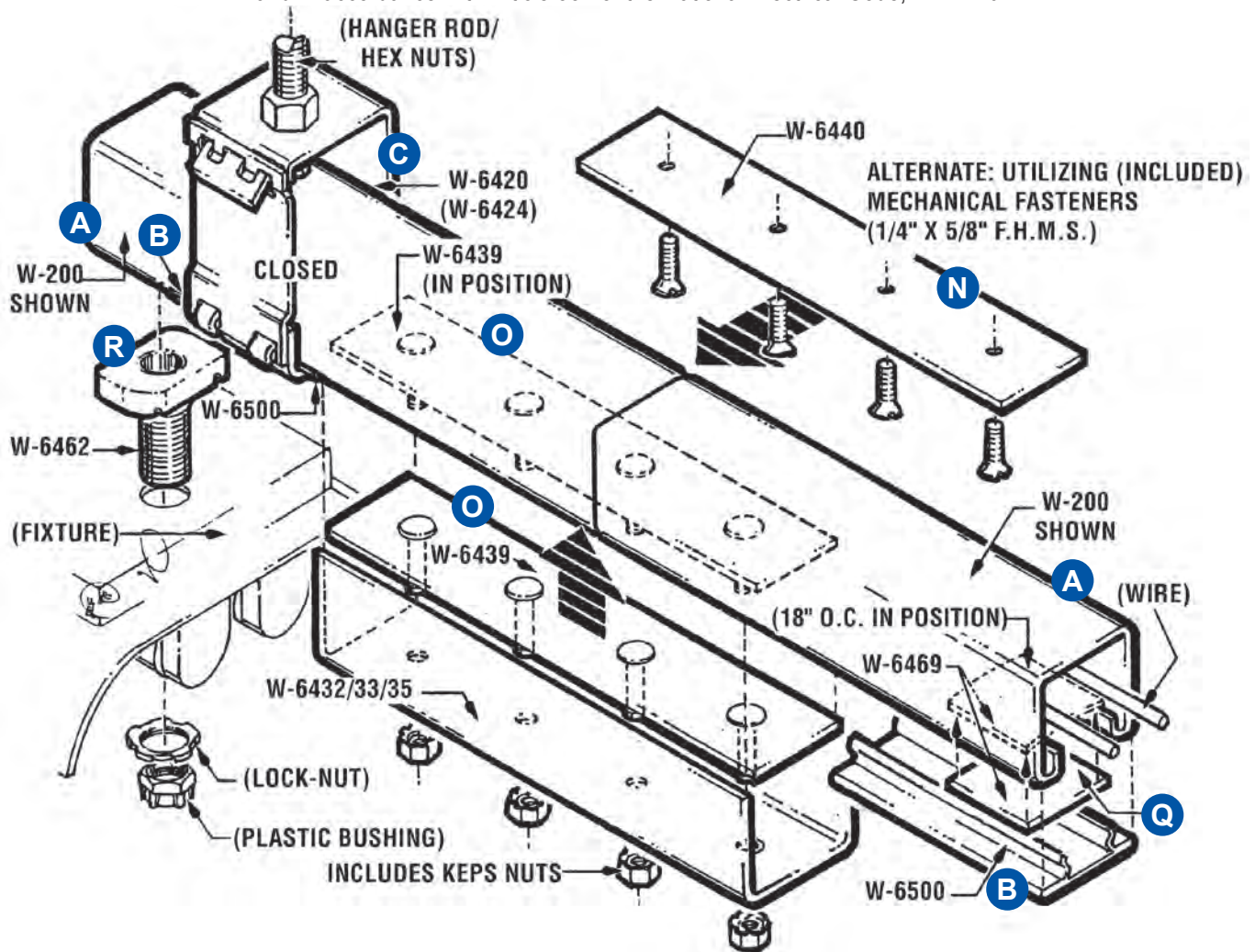
Wire Types - R, RH, T, THW, TW, TF, RUH, and RUW

Wire Size AWG	W200, W200KO W210, W210KO	W300, W300KO	W500, W500KO
14	10	10	6
12	10	10	6
10	8	6	-
8	6	4	-
6	3	2	-

Electrical Installation Instructions



These installation instructions cover strut-type channel raceway and fittings for use only in dry locations, and in accordance with Article 352 of the National Electrical Code, NFPA 70



A.... W200 (shown) Raceway Base (pages 34-39)

Also included are Catalog Numbers W210, W300, W500, W210KO, W300KO, and W500KO.

B.... W6500 (shown) Wire Raceway Cover (page 162)

Snap-on type (0.04" thick). Cover must be used to close $\frac{7}{8}$ " slot in raceway base to comply with Underwriters Laboratories® approved installation

C.... W6420 (W6422) Channel Hanger (page 160)

1. Attach hanger from hanger rod using hex nuts (not included)
2. Place wiring in raceway base
3. Install raceway base into pre-hung fixture hanger
4. Lock fixture hanger by snapping the door closed
5. Install wire raceway cover

N.... W6440 - Four Hole Tapped Raceway Plat for Flush Mounting. (page 161)

Install as illustrated using $\frac{1}{4}$ " x $\frac{5}{8}$ " flat head machine screws included.

O.... W6439 - Standard Raceway Stud Plate (page 161)

For use with four hole raceway splice fitting (W6432 - W6435). Install with $\frac{1}{4}$ " KEP nuts supplied.

P.... W6432, W6433, W6435 - Four Hole Raceway Splice Fitting. (page 161)

Use with either standard Raceway stud plate W6439 or retainers as required to provide adequate support; no greater than $\frac{1}{8}$ " on center

Q.... W6469 - Fiber Wire Retainers. (page 162)

Use retainers as required to provide adequate support; no greater than $\frac{1}{8}$ " on center

R.... W6462 - Aluminum Wiring Stud

($\frac{1}{8}$ " (29mm) long $\frac{1}{2}$ "-14 Thread) (page 162)

Fits channel open slot. Install with lock nut and plastic bushing, align and tighten securely.

Introduction

Channel

Channel Nuts
& Hardware

General
Fittings

Pipe & Conduit
Supports

Electrical
Fittings

Spring
Steel

Loop & Ring
Clamps

Beta Clamps
& Z-Clamps

Concrete
Inserts

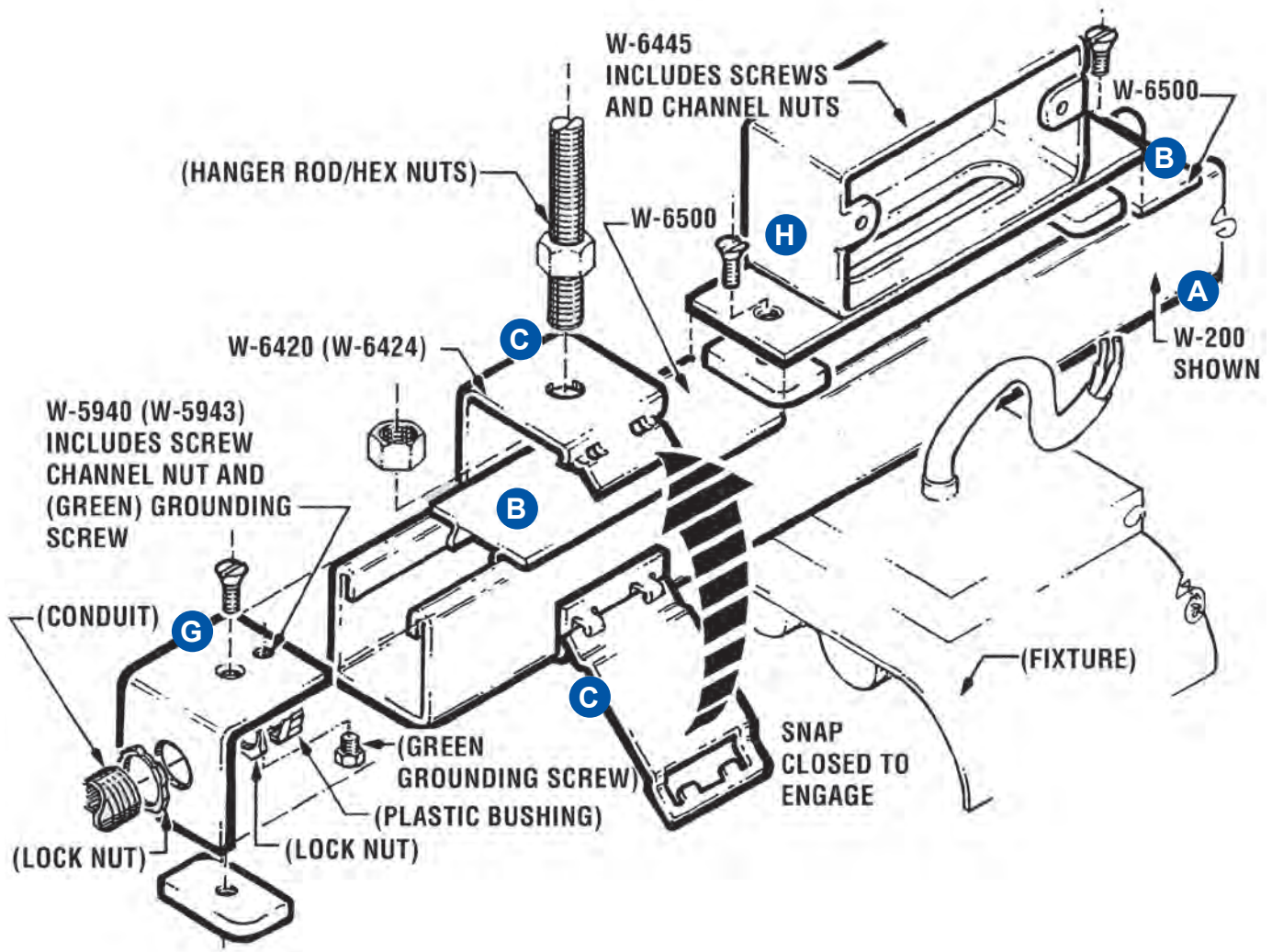
Rooftop
Supports

Gamma
Pads

Technical
Data

See maximum number of wires tables on page 248. – Always Consult your local, state and federal electrical code for all installations

Electrical Installation Instructions



A.... W200 (shown) Raceway Base (pages 34-39)

Also included are Catalog Numbers W210, W300, W500, W210KO, W300KO, and W500KO.

B.... W6500 (shown) Wire Raceway Cover (page 162)

Snap-on type (0.040" thick). Cover must be used to close $\frac{7}{8}$ " slot in raceway base to comply with Underwriters Laboratories® approved installation

C.... W6420 (W6422) Channel Hanger (page 160)

1. Attach hanger from hanger rod using hex nuts (not included)
2. Place wiring in raceway base
3. Install raceway base into pre-hung fixture hanger
4. Lock fixture hanger by snapping the door closed
5. Install wire raceway cover.

G.... W5940 End Cap with Knockout (page 116) (W5941, W5942 and W5943)

1. Position end cap as shown
2. Affix with screw and channel nut supplied
3. Attach grounding wire with green #10 screw (supplied).

H.... W6445 Receptacle Box (page 161)

Assembly includes channel nuts and flat head machine screw. Install as shown. Does not include receptacle cover or outlet component.

Introduction

Channel

Channel Nuts
& Hardware

General
Fittings

Pipe & Conduit
Supports

Electrical
Fittings

Spring
Steel

Loop & Ring
Clamps

Beta Clamps
& Z-Clamps

Concrete
Inserts

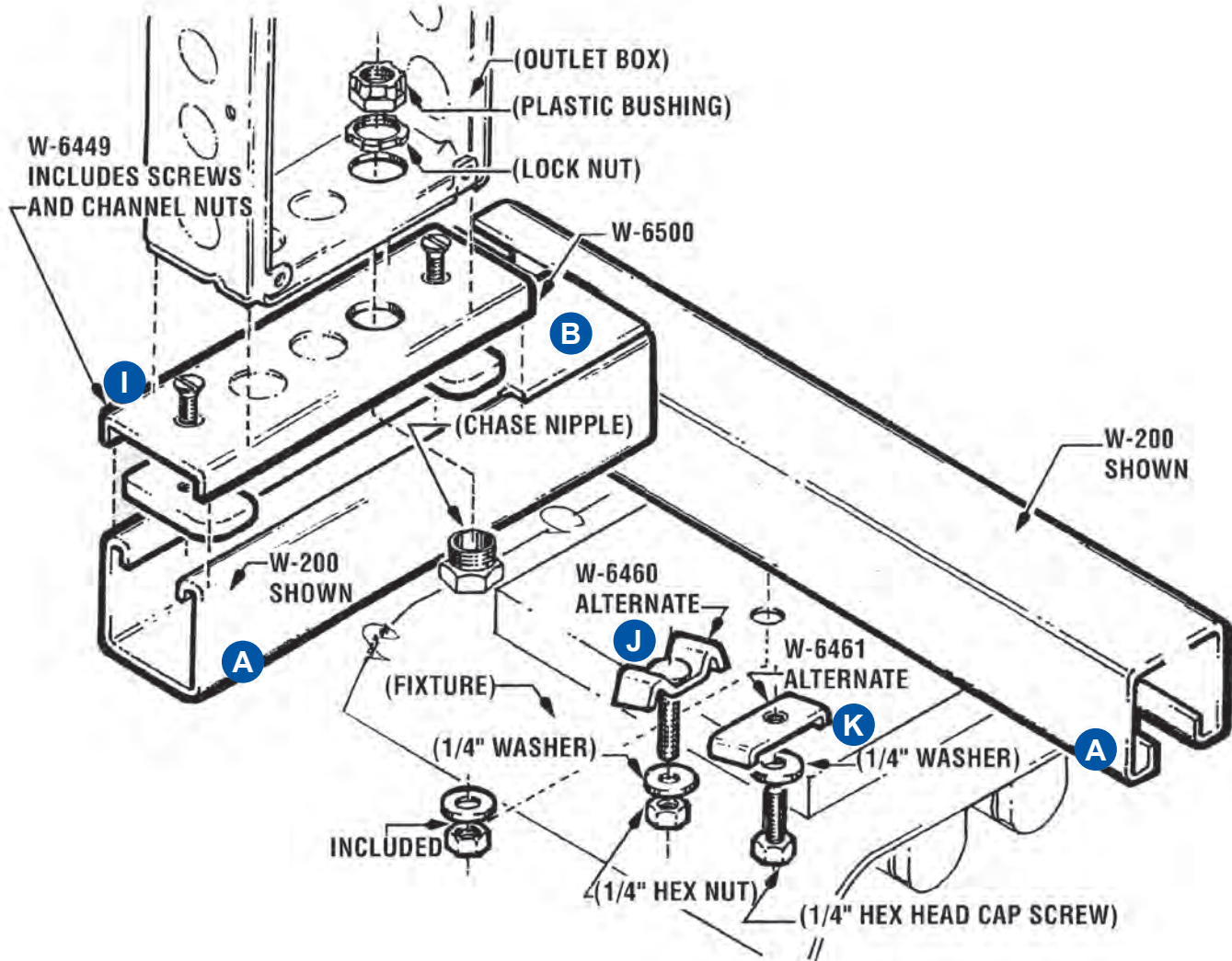
Rooftop
Supports

Gamma
Pads

Technical
Data

See maximum number of wires tables on page 248. – Always Consult your local, state and federal electrical code for all installations

Electrical Installation Instructions



A.... W200 (shown) Raceway Base (pages 34-39)

Also included are Catalog Numbers W210, W300, W500, W210KO, W300KO, and W-500KO.

B.... W6500 (shown) Wire Raceway Cover (page 162)

Snap-on type (0.040" thick). Cover must be used to close 7/8" slot in raceway base to comply with Underwriters Laboratories® approved installation

I..... W6449 - Outlet Box Connection Fitting (page 160)

Install as shown using flat head machine screws and channel nuts (supplied), use chase nipple, plastic bushing and lock nut to attach electrical box to connection fitting.

J..... W6460 - Fixture Stud (page 162)

This fixture stud offers an alternative means of attaching fixture to the slot side of support channel. Install with washers and hex nuts.

K.... W6461 - Fixture Nut (1/4"-20) (page 162)

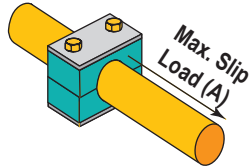
Provides optional method of attaching fixture. Install with 1/4" washer and hex head cap screws supplied.

See maximum number of wires tables on page 248. – Always Consult your local, state and federal electrical code for all installations

Beta Clamp Technical Data



Maximum Slip Load



Max. Pipe Slip indicates that Sliding starts when the specified values (A) are reached.

Beta Standard Series

ZSI (DIN)	Hex Head Bolt UNC Thread (Metric ISO)	Polypropylene		Polyamide		Aluminium	
		Tightening Torque ft•lb (N•m)	Max. Pipe Slip lbf (kN)	Tightening Torque ft•lb (N•m)	Max. Pipe Slip lbf (kN)	Tightening Torque ft•lb (N•m)	Max. Pipe Slip lbf (kN)
S1 (1)	1/4" - 20 UNC (M6)	6 (8)	247 (11)	7 (10)	157 (7)	9 (12)	944 (42)
S2 (2)			292 (13)		180 (8)		967 (43)
S3 (3)			315 (14)		360 (16)		1,101 (49)
S4 (4)			337 (15)		382 (17)		1,124 (50)
S5 (5)			427 (19)		450 (20)		1,641 (73)
S6 (6)			450 (20)		562 (25)		2,000 (89)
S7 (7)			517 (23)		719 (32)		-

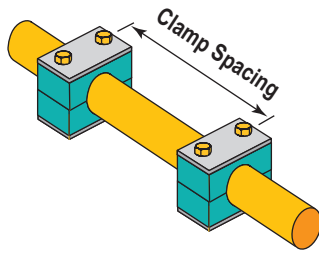
Beta Heavy Series

ZSI (DIN)	Hex Head Bolt UNC Thread (Metric ISO)	Polypropylene		Polyamide		Aluminium	
		Tightening Torque ft•lb (N•m)	Max. Pipe Slip lbf (kN)	Tightening Torque ft•lb (N•m)	Max. Pipe Slip lbf (kN)	Tightening Torque ft•lb (N•m)	Max. Pipe Slip lbf (kN)
H3 (1)	3/8" - 16 (M10)	9 (12)	360 (16)	15 (20)	944 (42)	22 (30)	2,720 (121)
H4 (2)		9 (12)	652 (29)	15 (20)	1,044 (45)	22 (30)	3,395 (151)
H5 (3)		11 (15)	742 (33)	18 (25)	1,146 (51)	26 (35)	3,485 (155)
H6 (4)	7/16" - 14 (M12)	22 (30)	1,843 (82)	30 (40)	2,090 (93)	41 (55)	6,609 (295)
H7 (5)	5/8" - 11 (M16)	33 (45)	2,472 (110)	41 (55)	3,551 (158)	86 (120)	7,845 (349)
H8 (6)	3/4" - 10 (M20)	59 (80)	3,147 (140)	111 (150)	4,720 (210)	162 (220)	11,240 (500)
H9 (7)	7/8" - 9 (M24)	81 (110)	6,300 (280)	148 (200)	7,193 (320)	184 (250)	15,871 (706)
H10 (8)	1-1/8" - 7 (M30)	133 (180)	8,992 (400)	258 (350)	10,790 (480)	369 (500)	18,996 (845)
H11 (9)		148 (200)	26,752 (1,190)	273 (370)	27,650 (1,250)	369 (500)	40,802 (1,815)

Beta Twin Series

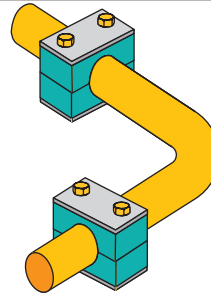
ZSI (DIN)	Hex Head Bolt UNC Thread (Metric ISO)	Polypropylene		Polyamide	
		Tightening Torque ft•lb (N•m)	Max. Pipe Slip lbf (kN)	Tightening Torque ft•lb (N•m)	Max. Pipe Slip lbf (kN)
T1 (1)	1/4" - 20 (M6)	4 (5)	202 (09)	4 (5)	202 (09)
T2 (2)	5/16" - 18 (M8)	9 (12)	472 (21)	9 (12)	495 (22)
T3 (3)	5/16" - 18 (M10)	9 (12)	427 (19)	9 (12)	450 (20)
T4 (4)	5/16" - 18 (M12)	9 (12)	607 (27)	9 (12)	652 (29)
T5 (5)	5/16" - 18 (M16)	6 (8)	382 (17)	6 (8)	562 (25)

Recommended Pipe Clamp Spacing



Pipe OD in (mm)	Spacing ft - in. (m)
0.24" - 0.5" (6 - 12.7)	3' - 3" (1)
0.5" - 0.87" (12.7 - 22)	3' - 11" (1.2)
0.87" - 1.26" (22 - 32)	4' - 11" (1.5)
1.26" - 1.5" (32 - 38)	6' - 7" (2)
1.5" - 2.24" (38 - 57)	8' - 10" (2.7)
2.24" - 2.95" (57 - 75)	9' - 10" (3)
2.95" - 3" (75 - 76.1)	11' - 6" (3.5)
3" - 3.5" (76.1 - 88.9)	12' - 2" (3.7)
3.5" - 4" (88.9 - 102)	13' - 1" (4)
4" - 4.5" (102 - 114)	14' - 9" (4.5)
4.5" - 6.6" (114 - 168)	16' - 5" (5)
6.6" - 8.6" (168 - 219)	19' - 8" (6)
8.6" - 12.8" (219 - 324)	21' - 12" (6.7)
12.8" - 14" (324 - 356)	22' - 12" (7)
14" - 16" (356 - 406)	24' - 7" (7.5)
16" - 16.5" (406 - 419)	26' - 11" (8.2)
16.5" - 20" (419 - 508)	27' - 11" (8.5)
20" - 20.5" (508 - 521)	29' - 6" (9)
20.5" - 22" (521 - 558)	32' - 10" (10)
22" - 31.5" (558 - 800)	41' - 0" (12.5)

Recommended Clamping for Bends



Bends in the line should be clamped on BOTH sides of the bend as shown.

BETA CLAMP MATERIAL PROPERTIES Polypropylene (PP) Cushion

Material Properties		
Density	-	0.906 g/cm ³
Tensile strength	DIN 53454	25-35 N/mm ²
Flexure stress limit	DIN 53452	36N N/mm ²
Compressive strength	DIN 53454	90 N/mm ²
Impact strength	DIN 53453	No break
Thermo Properties		
Max. temp. resistance	-30 to 90°C	
Thermal conductivity	15 x 10 ⁻⁵ /°C	
Linear expansion coeff.	0.22 W/[mk]	
Electrical Properties		
Specific volume	DIN 53482	1016 ohm x cm
Chemical Properties		
Consistent for weak acids, solvents, mineral oils and seawater.		

Beta Bolt Tightening Torque

Clamp	Group	Bolt Size	Aluminum Cushion		Polypropylene Cushion		Polyamide Cushion	
			Lbf	Nm	Lbf	Nm	Lbf	Nm
Beta Standard	S1 - S7	1/4"-20	7	10	6	8	6	8
Beta Heavy	H3, H4	3/8"-16	22	30	9	12	15	20
	H5	3/8"-16	26	35	11	15	18	25
	H6	1/2"-13	41	55	29	30	30	40
	H7	5/8"-11	89	120	33	45	41	55
Beta Twin	T1	1/4"-20	-	-	4	6	4	6
	T2 - T5	5/16"-18	-	-	9	12	9	12

The outlined particulars are approximate values and are only valid as references, which are not binding, also with regard to possible protection of third parties, and they do not exempt you from your own examination of suitability of the products delivered by us. Therefore, these values can only be used in a limited sense for construction purposes. The application of the products is carried out outside our control possibilities and, therefore, is exclusively subject to your own area of responsibility. If, however, liability should be possible, it would be limited for all damages to the value of the goods supplied by us and in use by you. It goes without saying, that we guarantee the perfect quality of our products according to our general sales and delivery conditions.

Beta Clamp Installation

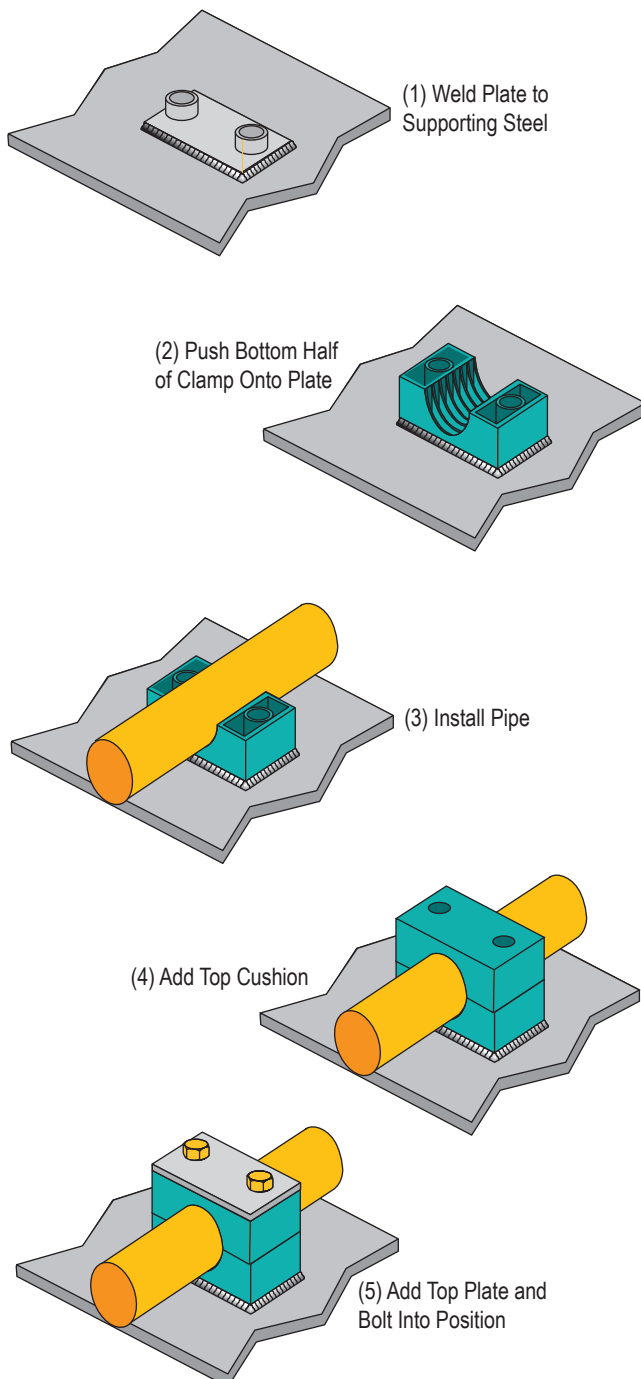


Installation on Weld Plates

ZSi weld plates are available for the following Series:

- Standard-Series
- Heavy-Series
- Twin-Series
- Beta Adapters

For best alignment of ZSi clamps we recommend that you mark their location before welding.



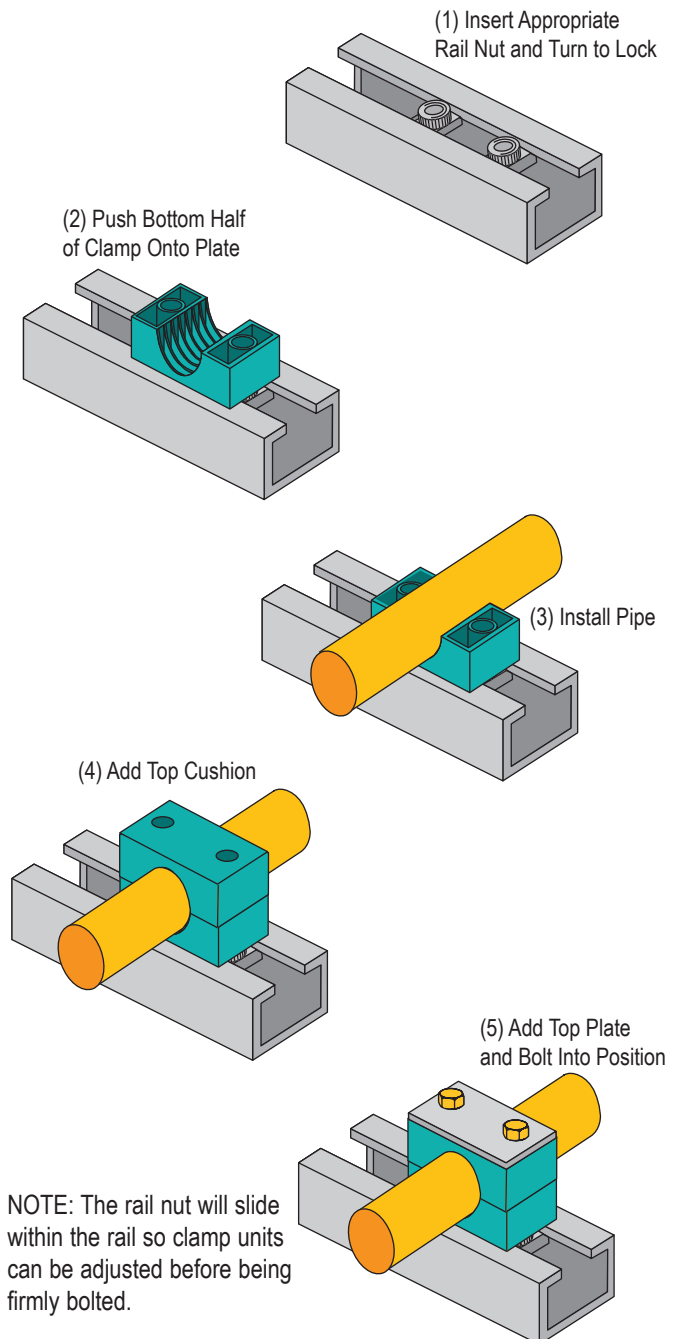
Installation on Mounting Rails

ZSi mounting rails can be used with the following Series:

- Standard-Series
- Heavy-Series (Group H3 to H6)
- Twin-Series
- Beta Adapters

ZSi mounting rails are available in two different height sizes and are either welded or bolted to the supporting construction.

For Standard-Series and Twin-Series insert hexagon rail nut and turn to lock. For Heavy-Series slide in rail nut.



NOTE: The rail nut will slide within the rail so clamp units can be adjusted before being firmly bolted.

Introduction

Channel

Channel Nuts & Hardware

General Fittings

Pipe & Conduit Supports

Electrical Fittings

Spring Steel

Loop & Ring Clamps

Beta Clamps & Z-Clamps

Concrete Inserts

Rooftop Supports

Gamma Pads

Technical Data

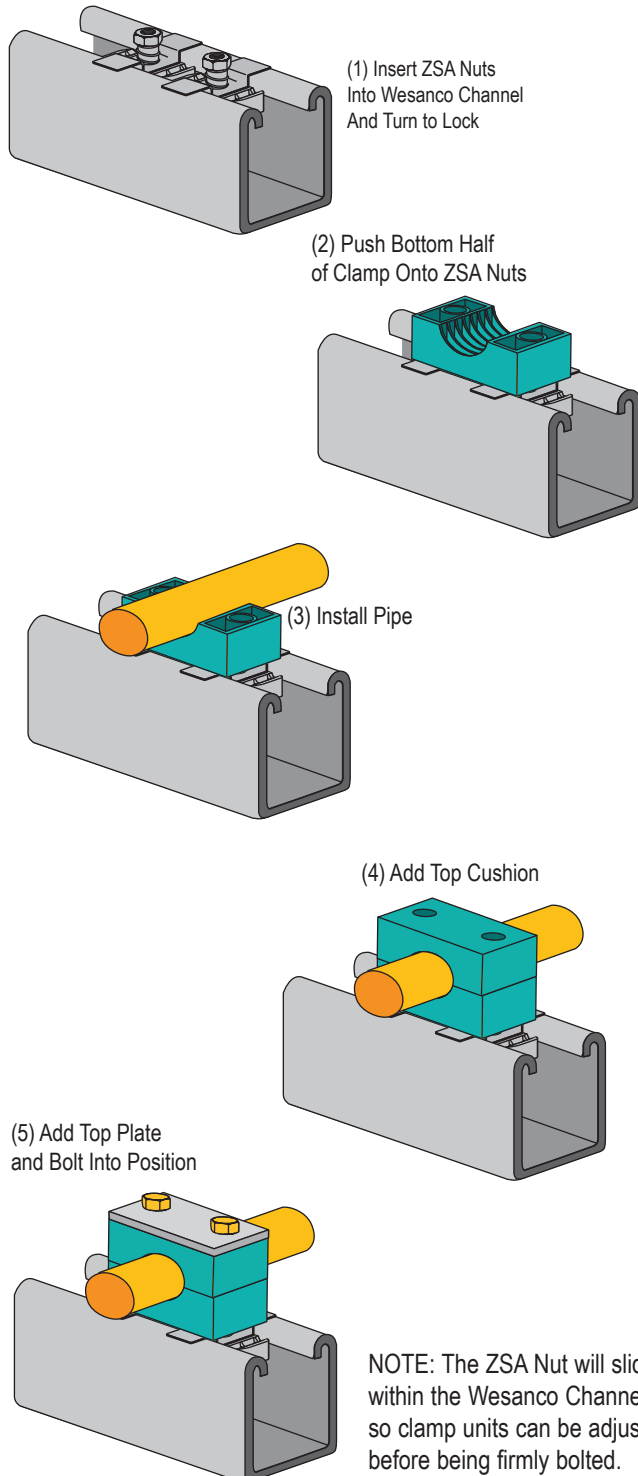


Beta Clamp Installation

Installation on Wesanco Channel

The ZSA Nuts can be used with any clamp using a 1/4-20 mounting bolt. This includes:

- Standard-Series
- Twin-Series (T1 Only)
- Beta Rubber Inserts

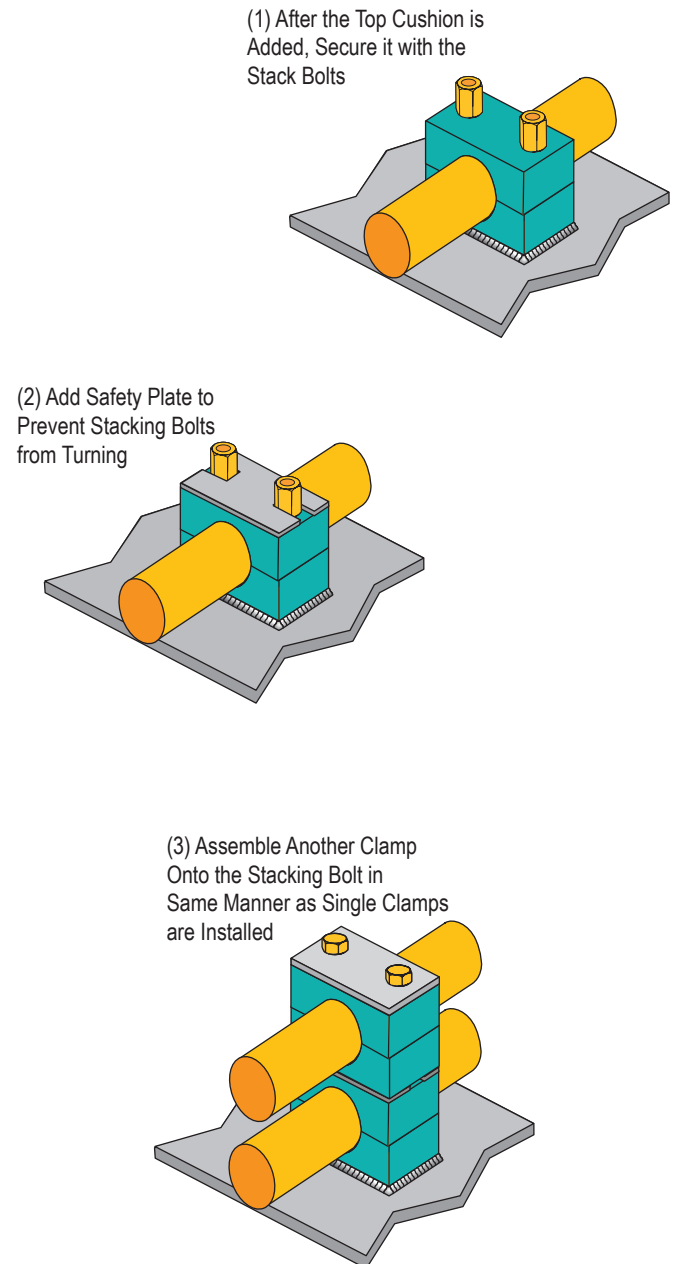


Multi-Level Assembly

ZSi multi-level pipe clamps permit easy stacking of several tubes or pipes of the same group. The clamps are connected by stacking bolts.

Safety plates are inserted between the clamps to prevent the stacking bolts from turning.

The example below shows a stacking clamp added to a welded clamp, however, ZSi stacking assemblies can be fitted to weld plates, rails, or strut in the same manner.

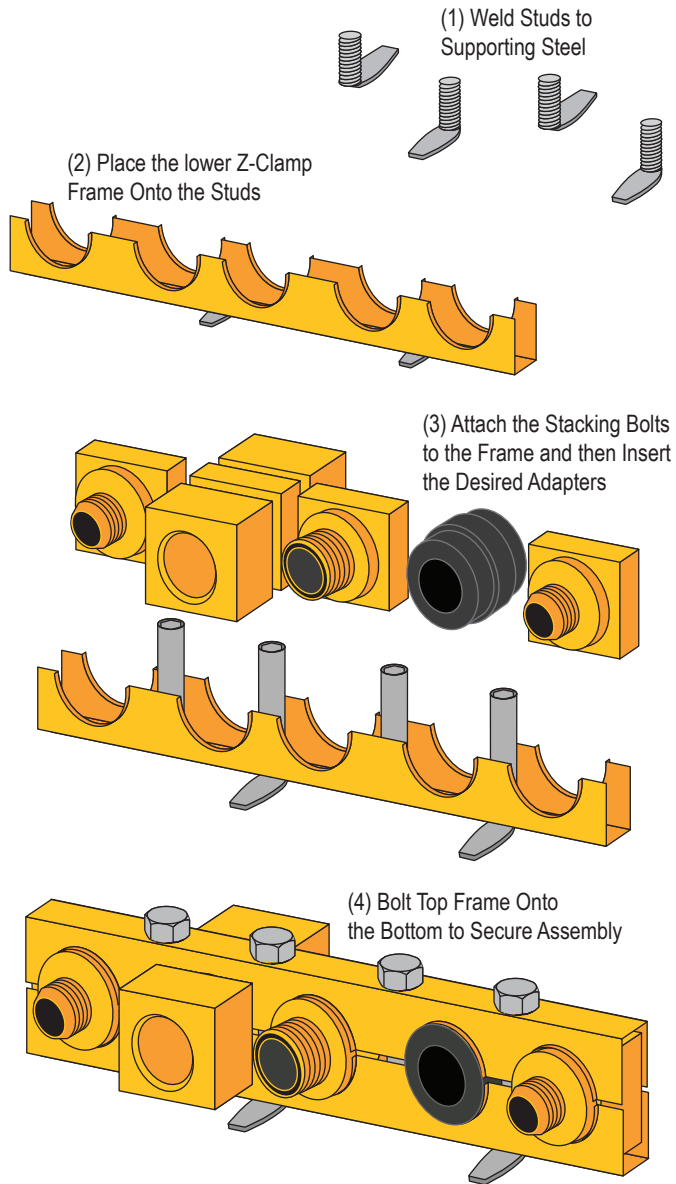


Z-Clamp & Beta Adapter Installation



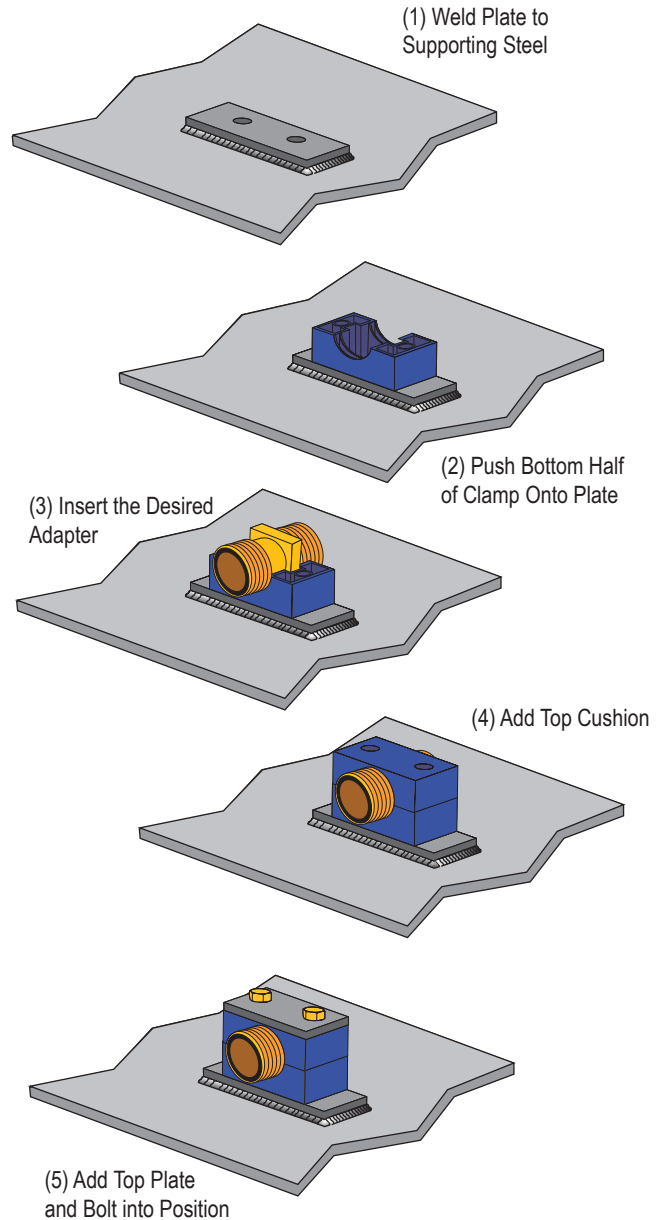
Installation of Z-Clamps

Z-Clamps are installed in much the same manner as Beta Clamps. The weld studs are welded onto existing structure and the clamp assembled onto them.



Installation of Beta Adapter

Beta Adapters are installed in much the same manner as Beta Clamps. The weld plate is welded onto existing structure and the Beta cushion and adapter is assembled onto it.



Z-Clamp & Beta Adapter Optional Adapters



FEMALE JUNCTION ADAPTER



O-RING FACE SEAL



37° FLARE MALE JUNCTION ADAPTER



RUBBER SPLIT BUSHINGS



TECHNICAL DATA

Drill Sizes for NPT Pipe Taps		
Tap Size (In.)	Threads/Inch	Drill Dia. (In.)
1/8"	27	R
1/4"	18	7/16"
3/8"	18	37/64"
1/2"	14	23/32"
3/4"	14	59/64"
1"	11 1/2	1 5/32"
1 1/4"	11 1/2	1 1/2"
1 1/2"	11 1/2	1 47/64"
2"	11 1/2	2 1/32"
2 1/2"	8	2 5/8"
3"	8	3 1/4"
3 1/2"	8	3 3/4"
4"	8	4 1/4"

Tap & Drill Sizes (Unified National Coarse)		
Tap Size (In.)	Threads/Inch	Drill Size (In.)
1/4"	20	7
5/16"	18	F
3/8"	16	5/16"
7/16"	14	U
1/2"	13	27/64"
9/16"	12	31/64"
5/8"	11	17/32"
3/4"	10	21/32"
7/8"	9	49/64"
1"	8	7/8"
1 1/8"	7	63/64"
1 1/4"	7	1 7/64"
1 3/8"	6	1 1/32"
1 1/2"	6	1 11/32"
1 3/4"	5	1 9/16"
2"	4 1/2	1 25/32"

Standard Weight Pipe Data					
Pipe	Nom. Diameter (In.)		Nom. Wt./Ft. (lbs.)	Length Containing One Cu. Ft.	Gallons / Linear Ft. (Gallons)
	Inside	Outside			
1/8"	0.269"	0.405"	0.245	2,526.000	0.0030
1/4"	0.364"	0.540"	0.425	1,383.800	0.0054
3/8"	0.493"	0.675"	0.568	754.360	0.0099
1/2"	0.622"	0.840"	0.851	473.910	0.0158
3/4"	0.824"	1.050"	1.131	270.030	0.0277
1"	1.049"	1.315"	1.679	166.620	0.0449
1 1/4"	1.380"	1.660"	2.273	96.275	0.0777
1 1/2"	1.610"	1.900"	2.718	70.733	0.1058
2"	2.067"	2.375"	3.653	49.913	0.1743
2 1/2"	2.469"	2.875"	5.793	30.077	0.2487
3"	3.068"	3.500"	7.580	19.479	0.3840
3 1/2"	3.548"	4.000"	9.110	14.565	0.5136
4"	4.026"	4.500"	10.790	11.312	0.6613
5"	5.047"	5.563"	14.620	7.198	1.0393
6"	6.065"	6.625"	18.970	4.984	1.5008
8"	7.981"	8.625"	28.550	2.878	2.5988
10"	10.020"	10.750"	40.480	1.826	4.0963

Copper Tube Data - Type L					
Size (In.)	O.D. (In.)	O.D. (In.)	Wall Thick. (In.)	Weight per Foot (lbs)	Weight of Water / Ft. (lbs)
1/4"	3/8"	0.375"	0.030"	0.126	0.034
3/8"	1/2"	0.500"	0.035"	0.198	0.062
1/2"	5/8"	0.625"	0.040"	0.285	0.100
5/8"	3/4"	0.750"	0.042"	0.362	0.151
3/4"	7/8"	0.875"	0.045"	0.455	0.209
1"	1 1/8"	1.125"	0.050"	0.655	0.357
1 1/4"	1 3/8"	1.375"	0.055"	0.884	0.546
1 1/2"	1 5/8"	1.625"	0.060"	1.140	0.767
2"	2 1/8"	2.125"	0.070"	1.750	1.341
2 1/2"	2 5/8"	2.625"	0.080"	2.480	2.064
3"	3 1/8"	3.125"	0.090"	3.330	2.949
3 1/2"	3 5/8"	3.625"	0.100"	4.290	3.989
4"	4 1/8"	4.125"	0.110"	5.380	5.188
5"	5 1/8"	5.125"	0.125"	7.610	8.081
6"	6 1/8"	6.125"	0.140"	10.200	11.616
8"	8 1/8"	8.125"	0.200"	19.290	20.289
10"	10 1/8"	10.125"	0.250"	30.100	31.590
12"	12 1/8"	12.125"	0.280"	40.400	45.426

Copper Tube Data - Type K					
Size (In.)	O.D. (In.)	O.D. (In.)	Wall Thick. (In.)	Weight per Foot (lbs)	Weight of Water / Ft. (lbs)
1/4"	3/8"	0.375"	0.035"	0.145	0.032
3/8"	1/2"	0.500"	0.049"	0.269	0.055
1/2"	5/8"	0.625"	0.049"	0.344	0.094
5/8"	3/4"	0.750"	0.049"	0.418	0.144
3/4"	7/8"	0.875"	0.065"	0.641	0.188
1"	1 1/8"	1.125"	0.065"	0.839	0.337
1 1/4"	1 3/8"	1.375"	0.065"	1.040	0.527
1 1/2"	1 5/8"	1.625"	0.072"	1.360	0.743
2"	2 1/8"	2.125"	0.083"	2.060	1.310
2 1/2"	2 5/8"	2.625"	0.095"	2.920	2.000
3"	3 1/8"	3.125"	0.109"	4.000	2.960
3 1/2"	3 5/8"	3.625"	0.120"	5.120	3.900
4"	4 1/8"	4.125"	0.134"	6.510	5.060
5"	5 1/8"	5.125"	0.160"	9.670	8.000
6"	6 1/8"	6.125"	0.192"	13.870	11.200
8"	8 1/8"	8.125"	0.271"	25.900	19.500
10"	10 1/8"	10.125"	0.338"	40.300	30.423
12"	12 1/8"	12.125"	0.405"	57.800	43.675

Steel Pipe Data — Schedule No 40 & 80					
Nominal Size (In.)	O.D. (In.)	Schedule No.	Wall Thick. (In.)	Weight per Foot (lbs)	Weight of Water per Foot (lbs)
3/8"	0.675"	40	0.091"	0.567	0.083
		80	0.126"	0.738	0.061
1/2"	0.840"	40	0.109"	0.850	0.132
		80	0.147"	1.087	0.101
3/4"	1.050"	40	0.113"	1.130	0.230
		80	0.154"	1.473	0.186
1"	1.315"	40	0.133"	1.678	0.374
		80	0.179"	2.171	0.311
1 1/4"	1.660"	40	0.140"	2.272	0.647
		80	0.191"	2.996	0.555
1 1/2"	1.900"	40	0.145"	2.717	0.882
		80	0.200"	3.631	0.765
2"	2.375"	40	0.154"	3.652	1.452
		80	0.218"	5.022	1.279
2 1/2"	2.875"	40	0.203"	5.790	2.072
		80	0.276"	7.660	1.834
3"	3.500"	40	0.216"	7.570	3.200
		80	0.300"	10.250	2.860
3 1/2"	4.000"	40	0.226"	9.110	4.280
		80	0.318"	12.510	3.850
4"	4.500"	40	0.237"	10.790	5.510
		80	0.337"	14.980	4.980
5"	5.563"	40	0.258"	14.620	8.660
		80	0.375"	20.780	7.870
6"	6.625"	40	0.280"	18.970	12.510
		80	0.432"	28.570	11.290
8"	8.625"	40	0.322"	28.550	21.600
		80	0.500"	43.390	19.800
10"	10.750"	40	0.365"	40.480	34.100
		80	0.593"	64.400	31.100
12"	12.75"	40	0.406"	53.600	48.500
		80	0.687"	88.600	44.000
14"	14.000"	40	0.437"	63.000	58.500
		80	0.750"	107.000	51.200
16"	16.000"	40	0.500"	83.000	76.500
		80	0.843"	137.000	69.700
18"	18.000"	40	0.563"	105.000	97.200
		80	0.937"	171.000	88.500
20"	20.000"	40	0.593"	123.000	120.400
		80	1.031"	209.000	109.400



PVC and CPVC Pipes - Schedule 40 (inches)					
Nominal Pipe Size	Outside Diameter	Minimum Wall Thickness	Nominal Inside Diameter	Weight (lb/100 ft)	
				PVC	CPVC
1/2"	0.840"	0.109"	0.622"	16	17
3/4"	1.050"	0.113"	0.824"	21	23
1"	1.315"	0.133"	1.049"	32	34
1 1/4"	1.660"	0.140"	1.380"	43	46
1 1/2"	1.900"	0.145"	1.610"	51	55
2"	2.375"	0.154"	2.067"	68	74
2 1/2"	2.875"	0.203"	2.469"	107	118
3"	3.500"	0.216"	3.068"	141	154
4"	4.500"	0.237"	4.026"	201	220
5"	5.563"	0.258"	5.047"	273	-
6"	6.625"	0.280"	6.065"	353	386
8"	8.625"	0.322"	7.981"	539	581
10"	10.750"	0.365"	10.020"	755	824
12"	12.750"	0.406"	11.938"	1001	1089
14"	14.000"	0.438"	13.124"	1180	-
16"	16.000"	0.500"	15.000"	1543	-

PVC and CPVC Pipes - Schedule 80 (inches)					
Nominal Pipe Size	Outside Diameter	Minimum Wall Thickness	Nominal Inside Diameter	Weight (lb/100 ft)	
				PVC	CPVC
1/2"	0.840"	0.147"	0.546"	20	22
3/4"	1.050"	0.154"	0.742"	27	30
1"	1.315"	0.179"	0.957"	41	44
1 1/4"	1.660"	0.191"	1.278"	52	61
1 1/2"	1.900"	0.200"	1.500"	67	74
2"	2.375"	0.218"	1.939"	95	102
2 1/2"	2.875"	0.276"	2.323"	145	156
3"	3.500"	0.300"	2.900"	194	209
4"	4.500"	0.337"	3.826"	275	305
5"	5.563"	0.375"	4.813"	387	-
6"	6.625"	0.432"	5.761"	542	582
8"	8.625"	0.500"	7.625"	805	883
10"	10.750"	0.593"	9.564"	1200	1309
12"	12.750"	0.687"	11.376"	1650	180
14"	14.000"	0.750"	12.500"	1930	-
16"	16.000"	0.843"	14.314"	2544	-

PVC - Wall Schedule 40 - Support Spacing (feet)			
NPS (inches)	Operating Temperature (°F)		
	60	100	140
1/2"	4 1/2	4	2 1/2
3/4"	5	4	2 1/2
1"	5 1/2	4 1/2	2 1/2
1 1/4"	5 1/2	5	3
1 1/2"	6	5	3
2"	6	5	3
3"	7	6	3 1/2
4"	7 1/2	6 1/2	4
6"	8 1/2	7 1/2	4 1/2
8"	9	8	4 1/2

PVC - Wall Schedule 80 - Support Spacing (feet)			
NPS (inches)	Operating Temperature (°F)		
	60	100	140
1/2"	5	4 1/2	2 1/2
3/4"	5 1/2	4 1/2	2 1/2
1"	6	5	3
1 1/4"	6 1/2	5 1/2	3 1/2
1 1/2"	7	6	3 1/2
2"	8	7	4
3"	9	7 1/2	4 1/2
4"	10	9	5
6"	11	9 1/2	5 1/2
8"	9	8	4 1/2

Hydraulic Hose - No Skive SAE 100R1 Type AT				
SAE Number	Hose I.D.		Hose O.D.	
	(in.)	(mm)	(in.)	(mm)
SAE-3	3/16"	5.0	0.46"	12
SAE-4	1/4"	6.3	0.53"	13
SAE-5	5/16"	8.0	0.59"	15
SAE-6	3/8"	10.0	0.68"	17
SAE-8	1/2"	12.5	0.81"	21
SAE-10	5/8"	16.0	0.94"	24
SAE-12	3/4"	19.0	1.09"	28
SAE-16	1"	25.0	1.41"	36
SAE-20	1-1/4"	31.5	1.79"	45
SAE-24	1-1/2"	38.0	2.00"	51
SAE-32	2"	51.0	2.54"	64

Hydraulic Hose - No Skive SAE 100R2 Type AT - ISO 1436 Type 2AT - EN 853 Type 2SN				
SAE Number	Hose I.D.		Hose O.D.	
	(in.)	(mm)	(in.)	(mm)
SAE-4	1/4"	6.3	0.53"	13
SAE-5	5/16"	8.0	0.59"	15
SAE-6	3/8"	10.0	0.68"	17
SAE-8	1/2"	12.5	0.81"	21
SAE-10	5/8"	16.0	0.94"	24
SAE-12	3/4"	19.0	1.09"	28
SAE-16	1"	25.0	1.41"	36
SAE-20	1-1/4"	31.5	1.79"	45
SAE-24	1-1/2"	38.0	2.00"	51
SAE-32	2"	51.0	2.54"	64

Hydraulic Hose - SAE 100R16 Type AT				
SAE Number	Hose I.D.		Hose O.D.	
	(in.)	(mm)	(in.)	(mm)
SAE-4	1/4"	6.3	0.53"	13
SAE-5	5/16"	8.0	0.59"	15
SAE-6	3/8"	10.0	0.68"	17
SAE-8	1/2"	12.5	0.81"	21
SAE-10	5/8"	16.0	0.94"	24
SAE-12	3/4"	19.0	1.09"	28
SAE-16	1"	25.0	1.41"	36

Hydraulic Hose - No Skive SAE 100R17 Abrasion Resistant "Tough Cover" and "Super Tough" Cover				
SAE Number	Hose I.D.		Hose O.D.	
	(in.)	(mm)	(in.)	(mm)
SAE-4	1/4"	6.3	0.53"	13
SAE-6	3/8"	10.0	0.68"	17
SAE-8	1/2"	12.5	0.81"	21
SAE-10	5/8"	16.0	0.94"	24
SAE-12	3/4"	19.0	1.09"	28
SAE-16	1"	25.0	1.41"	36
SAE-20	1-1/4"	31.5	1.79"	45

Introduction
Channel
Channel Nuts & Hardware
General Fittings
Pipe & Conduit Supports
Electrical Fittings
Spring Steel
Loop & Ring Clamps
Beta Clamps & Z-Clamps
Concrete Inserts
Rooftop Supports
Gamma Pads
Technical Data



Fraction Conversion Table

Fractions	Decimal (in)	Metric (mm)
1/64	0.016"	0.40
1/32	0.031"	0.79
	0.039"	1
3/64	0.047"	1.19
1/16	0.063"	1.59
5/64	0.078"	1.98
	0.079"	2
3/32	0.094"	2.38
7/64	0.109"	2.78
	0.118"	3
1/8	0.125"	3.18
9/64	0.141"	3.57
5/32	0.156"	3.97
	0.157"	4
11/64	0.172"	4.37
3/16	0.188"	4.76
	0.197"	5
13/64	0.203"	5.16
7/32	0.219"	5.56
15/64	0.234"	5.95
	0.236"	6
1/4	0.250"	6.35
17/64	0.266"	6.75
	0.276"	7
9/32	0.281"	7.14
19/64	0.297"	7.54
5/16	0.313"	7.94
	0.315"	8
21/64	0.328"	8.33
11/32	0.344"	8.73
	0.354"	9
23/64	0.359"	9.13
3/8	0.375"	9.53
25/64	0.391"	9.92
	0.394"	10
13/32	0.406"	10.32
27/64	0.422"	10.72
	0.433"	11
7/16	0.438"	11.11
29/64	0.453"	11.51
15/32	0.469"	11.91
	0.472"	12
31/64	0.484"	12.30
1/2	0.500"	12.70
	0.512"	13
33/64	0.516"	13.10
17/32	0.531"	13.49
35/64	0.547"	13.89
	0.551"	14
9/16	0.563"	14.29
37/64	0.578"	14.68
	0.591"	15
19/32	0.594"	15.08
39/64	0.609"	15.48
5/8	0.625"	15.88
	0.630"	16
41/64	0.641"	16.27
21/32	0.656"	16.67
	0.669"	17
43/64	0.672"	17.07
11/16	0.688"	17.46
45/64	0.703"	17.86
	0.709"	18
23/32	0.719"	18.26
47/64	0.734"	18.65
	0.748"	19
3/4	0.750"	19.05
49/64	0.766"	19.45

Fractions	Decimal (in)	Metric (mm)
25/32	0.781"	19.84
	0.787"	20
51/64	0.797"	20.24
13/16	0.813"	20.64
53/64	0.828"	21.03
27/32	0.844"	21.43
55/64	0.859"	21.83
7/8	0.875"	22.23
57/64	0.891"	22.62
29/32	0.906"	23
59/64	0.922"	23.42
15/16	0.938"	23.81
61/64	0.953"	24.21
31/32	0.969"	24.61
63/64	0.984"	25
1	1"	25.40
1 1/32	1.031"	26.19
1 1/16	1.063"	26.99
1 3/32	1.094"	27.78
1 1/8	1.125"	28.58
1 5/32	1.156"	29.37
	1.181"	30
1 3/16	1.188"	30.16
1 7/32	1.219"	30.96
1 1/4	1.250"	31.75
1 9/32	1.281"	32.54
1 5/16	1.313"	33.34
1 11/32	1.344"	34.13
1 3/8	1.375"	34.93
	1.378"	35
1 13/32	1.406"	35.72
1 7/16	1.438"	36.51
1 15/32	1.469"	37.31
1 1/2	1.500"	38.10
1 17/32	1.531"	38.89
1 9/16	1.563"	39.69
	1.575"	40
1 19/32	1.594"	40.48
1 5/8	1.625"	41.28
1 21/32	1.656"	42.07
1 11/16	1.688"	42.86
1 23/32	1.719"	43.66
1 3/4	1.750"	44.45
	1.772"	45
1 25/32	1.781"	45.24
1 13/16	1.813"	46.04
1 27/32	1.844"	46.83
1 7/8	1.875"	47.63
1 29/32	1.906"	48.42
1 15/16	1.938"	49.21
	1.969"	50
1 31/32	1.969"	50.01
2	2"	50.80
2 1/32	2.031"	51.59
2 1/16	2.063"	52.39
2 3/32	2.094"	53.18
2 1/8	2.125"	53.98
2 5/32	2.156"	54.77
	2.165"	55
2 3/16	2.188"	55.56
2 7/32	2.219"	56.36
2 1/4	2.250"	57.15
2 9/32	2.281"	57.94
2 5/16	2.313"	58.74
2 11/32	2.344"	59.53
	2.362"	60
2 3/8	2.375"	60.33
2 13/32	2.406"	61.12

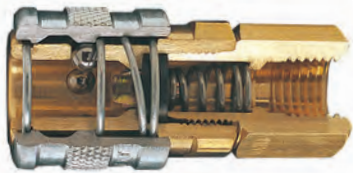
Fractions	Decimal (in)	Metric (mm)
2 7/16	2.438"	61.91
2 15/32	2.469"	62.71
2 1/2	2.500"	63.50
2 17/32	2.531"	64.29
	2.559"	65
2 9/16	2.563"	65.09
2 19/32	2.594"	65.88
2 5/8	2.625"	66.68
2 21/32	2.656"	67.47
2 11/16	2.688"	68.26
2 23/32	2.719"	69.06
2 3/4	2.750"	69.85
	2.756"	70
2 25/32	2.781"	70.64
2 13/16	2.813"	71.44
2 27/32	2.844"	72.23
2 7/8	2.875"	73.03
2 29/32	2.906"	73.82
2 15/16	2.938"	74.61
	2.953"	75
2 31/32	2.969"	75.41
3	3"	76.20
3 1/32	3.031"	76.99
3 1/16	3.063"	77.79
3 3/32	3.094"	78.58
3 1/8	3.125"	79.38
	3.150"	80
3 5/32	3.156"	80.17
3 3/16	3.188"	80.96
3 7/32	3.219"	81.76
3 1/4	3.250"	82.55
3 9/32	3.281"	83.34
3 5/16	3.313"	84.14
3 11/32	3.344"	84.93
	3.346"	85
3 3/8	3.375"	85.73
3 13/32	3.406"	86.52
3 7/16	3.438"	87.31
3 15/32	3.469"	88.11
3 1/2	3.500"	88.90
3 17/32	3.531"	89.69
	3.543"	90
3 9/16	3.563"	90.49
3 19/32	3.594"	91.28
3 5/8	3.625"	92.08
3 21/32	3.656"	92.87
3 11/16	3.688"	93.66
3 23/32	3.719"	94.46
	3.740"	95
3 3/4	3.750"	95.25
3 25/32	3.781"	96.04
3 13/16	3.813"	96.84
3 27/32	3.844"	97.63
3 7/8	3.875"	98.43
3 29/32	3.906"	99.22
	3.937"	100
3 15/16	3.938"	100.01
3 31/32	3.969"	100.81
4	4"	101.60
4 1/16	4.063"	103.19
4 1/8	4.125"	104.78
4 3/16	4.188"	106.36
4 1/4	4.250"	107.95
4 5/16	4.313"	109.54
	4.331"	110
4 3/8	4.375"	111.13
4 7/16	4.438"	112.71
4 1/2	4.500"	114.30

Fractions	Decimal (in)	Metric (mm)
4 9/16	4.563"	115.89
4 5/8	4.625"	117.48
4 11/16	4.688"	119.06
	4.724"	120
4 3/4	4.750"	120.65
4 13/16	4.813"	122.24
4 7/8	4.875"	123.83
4 15/16	4.938"	125.41
5	5"	127.00
	5.118"	130
5 1/4	5.250"	133.35
5 1/2	5.500"	139.70
	5.512"	140
5 3/4	5.750"	146.05
	5.906"	150
6	6"	152.40
6 1/4	6.250"	158.75
	6.299"	160
6 1/2	6.500"	165.10
	6.693"	170
6 3/4	6.750"	171.45
7	7"	177.80
	7.087"	180
	7.480"	190
7 1/2	7.500"	190.50
	7.874"	200
8	8"	203.20
8 1/2	8.500"	215.90
9	9"	228.60
9 1/2	9.500"	241.30
	9.843"	250
10	10"	254.00
11	11"	279.40
	11.811"	300
12	12"	304.80
13	13"	330.20
	13.780"	350
14	14"	355.60
15	15"	381.00
	15.748"	400
16	16"	406.40
17	17"	431.80
	17.717"	450
18	18"	457.20
19	19"	482.60
	19.685"	500
20	20"	508.00

Quick Disconnects

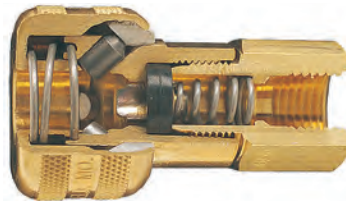


Manual



Manual sockets require manual retraction of the sleeve to both connect and disconnect the plug. Ball Lock (BL) is an optional feature available on manual sockets. After connection, the sleeve is rotated locking the coupler against accidental disconnect.

Automatic



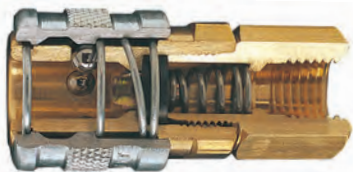
Automatic sockets accept the plug by simple insertion into the socket and do not require retraction of the sleeve to connect. Sleeve Lock (SL) is an optional feature on automatic sockets to prevent accidental disconnect. It is functionally the same as the Ball Lock (BL) on manual sockets.

Safety Coupler



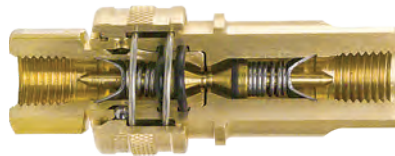
Safety sockets are a variation of automatic operation. The socket accepts the plug by insertion. The sleeve is moved straight forward to lock and turn on the air. The sleeve is moved back by rotating first to the left and then to the right. This shuts off the supply line, exhausts the downstream line, and then releases the plug.

One-Way Shut-Off



In a "One-Way Shut-Off," only the socket has valving to shut off the flow when disconnected; it is, therefore, installed on the pressure side of the line. The plug has no valving and exhausts the downstream line at disconnect.

Two-Way Shut-Off



The "Two-Way Shut-Off" provides valving in both the socket and the plug, thereby shutting off flow at both of the disconnected ends. Originally developed for hydraulic lines, they are suitable for many other media because of the variety of metals and seal compounds offered.

Straight-Thru



"Straight-Thru" couplers, as the name implies, do not have valving in either the socket or the plug. Therefore, both ends of the line are exhausted at disconnect.

How To Select – Proper quick disconnects selection is important because of the variety of media for which they are used.

Four basic factors should be considered to assure proper selection: **Type – Operation – Flow – Media**

Type – All quick disconnects consist of two basic components – a socket and a plug. The type of coupler varies by the valving arrangements in these two components.

Operation: Operation refers to the action required to connect and disconnect a coupler. Operation is a function of sockets only and does not vary for plugs.

Flow: The most important factor in properly sizing couplers is flow. Flow data is given throughout the catalog for industrial interchange design couplers, as well as many of Foster's interchanges for competitors' non-standard designs. Where

flow information is not shown, it is the same as the originating competitors' non-standard design. Most One-Way Shut-Off non-standard couplers have the same flow as the same basic size industrial interchange design. All flows shown are for FPT couplers.

Media: The media flowing through the coupler will usually determine the type. Compressed air, many other gasses, and some liquids can be handled by One-Way Shut-Off couplers. Hydraulic fluids as well as many other liquids and some gasses require Two-Way Shut-Off. Straight-Thru couplers are suitable where there is no pressure in the line at connect or disconnect and loss of media at disconnect does not matter.

Call ZSi-Foster at (866) 918-3003 or order now at zsi-foster.com



Think Safety First

Pressurized lines employing quick-disconnect couplers should be considered potentially hazardous and **must be used with safety in mind**. Proper selection and use of Foster products will help you maintain a safe working environment for your personnel, your equipment, and your products.

Foster's quick-disconnect couplers are precision devices—do not modify, strike, or otherwise abuse the coupling halves. Never exceed their pressure or temperature limits and always protect the hose and coupler assembly from moving equipment.

Be cautious when moving pressurized hoses as some types of quick-disconnect couplers may unintentionally disconnect if the coupler encounters an obstacle as the hose is dragged. The pressurized media subsequently escaping from the freed line can force the hose assembly to violently whip about, possibly causing personal injury, equipment/product damage, and economic loss. Foster couplers and plugs designed to

minimize hose-whip hazards should be used whenever the risk is present, and personnel must be instructed to maintain a firm grip on both coupler halves when connecting or disconnecting pressurized lines.

Above all, always wear appropriate personal-protection equipment and safety glasses when working with, or near, pressurized lines utilizing quick-disconnect couplers.

Described below are several products offered by Foster Manufacturing Company that are designed to minimize the possibility of inadvertent disconnection and dangerous hose-whip:

- Couplers -

Sleeve Guard Sockets:

Sleeve guard sockets (models SG3 and TF3) employ a rigid flange at the nose of the socket that protects the sleeve from accidental retraction if the coupler encounters an obstacle while the hose is being dragged or moved.

Sleeve Locking Options:

BL and SL options employ a ball or pin to restrict sleeve retraction and are available on all Foster manual and automatic couplers having retractable sleeves. Couplers with the BL or SL designation are constructed with sleeves having a slot that must be aligned with a ball or pin before the sleeve is allowed to retract. Rotating the sleeve 180 degrees so the slot is not aligned with the ball or pin will minimize the chance of accidental sleeve retraction.

Twist-lock Sockets:

Our twist-lock couplers (FRL series and SHD series) offer another option for minimizing the chance of hose-whip. These models are very resistant to accidental disconnection because the sleeves must be rotated, rather than retracted, to release the plug. In addition, the FRL and SHD couplers are push-to-connect automatic models designed for easy operation when using gloved hands.

Safety Vent Sockets:

Foster SV series safety-vent sockets are "zero pressure" connect/disconnect type couplers designed to safely vent downstream pressure prior to disengaging the plug. Besides being nearly effortless to connect and great for hose use, SV sockets are especially useful for single-hand operation when they are mounted to hard lines such as an overhead air drop. Once inserted into the SV socket, the plug is lightly gripped and will stay in place allowing the operator to use the same hand to actuate the sleeve to the "on" position. As the sleeve is being moved to the "on" position, the SV socket will securely lock the plug in place before flow begins. Foster SV sockets can also be used as a 3-way valve to turn off the flow of air and exhaust the downstream pressure without disengaging the plug. By turning and sliding the sleeve to the "exhaust" position, downstream air pressure is relieved, but the plug remains locked in place. Foster SV series sockets are the ultimate solution to accidental-disconnect hose-whip dangers.

- Plugs -

Ball Check Plugs

Ball check plugs are offered in several sizes of Industrial Interchange and FRL plugs. Ball-check plugs have a free-floating internal ball that acts as a check valve when the plug is disconnected from the coupler. The check-valve action minimizes hose-whip by causing the pressurized gas to escape slowly from the disconnected hose.

- Air Blowguns -

Foster manufactures several types of air blowgun products designed for cleaning, blow-off, inflation, and other operations. The blowguns are available with zinc or nylon bodies and we offer a variety of optional tips for nearly any use. Foster blowguns are available in OSHA* compliant and non-compliant** models to suit your particular needs.

* *Blowguns that comply with OSHA regulations will limit the pressure of air exiting the gun to less than 30 psig when the tip is dead-headed. All Foster blowguns using "standard" and "safety" tips are OSHA compliant and are available with either removable threaded tips or tamper resistant crimped tips.*

** *Note: If a non-compliant blowgun/tip assembly is being used, air pressure to the gun's inlet must be regulated to less than 30 psig to meet OSHA regulations.*

- Product Selection and Training -

We strongly recommend that the end user obtain proper training before using quick-disconnect couplers, air blowguns, and other Foster products. Thoughtful analysis of the user's needs and application must be given before selecting a product.

Our dedicated employees and distributors are eager to explain the features, benefits, and proper selection of Foster products, and answer your questions regarding their correct application and safe use.



Be Safe When Selecting Quick Couplings!

! Quick disconnect couplings can fail without warning! Prior to the operation of quick coupling products, be sure to inspect and replace worn out fittings and safety devices. If a leak is detected during operation, release the pressure from the circuit before investigating the cause of the fluid leak. Do not use your fingers or skin to check for leaks, high pressure leaks of fluids can easily penetrate the skin and can cause serious injury or death.

Safe Quick Coupling Practices

- !**
1. Always wipe the coupling cavities and faces clean before connecting a coupling.
 2. Connect coupling before installation to ensure that it works properly.
 3. Always check the body seals before connecting a coupling.
 4. Shut-off power source before connecting a coupling.
 5. Always install a safety check valve on a pneumatic line and/or compressor.
 6. Always use a safety cable on large air lines (½" lines and larger).
 7. Always use a whip hose on hydraulic or air tools.
 8. Use dust caps or plugs when couplings are not in use.
 9. If the locking sleeve is inoperable, check the safety lock.
 10. Wear eye protection while connecting or disconnecting a coupling.
 11. Connect and disconnect at zero pressure for personal safety and maximum product life.

Unsafe Quick Coupling Practices

- !**
1. Never hit coupling valves to release trapped pressure.
 2. Never leave couplings in the path of moving equipment.
 3. Never use couplings near a welder, flash heat, or fire / flame sources.
 4. Never use API modified sealants or over apply PTFE tape during installation.
 5. Use care if you must install quick couplings onto black iron pipe.
 6. Never hit a coupling sleeve with a hammer or blunt object.
 7. Never overtighten a coupling connection.
 8. Never rotate a quick disconnect coupling under pressure.
 9. Do not overpressurize quick disconnect couplings.
 10. Never use a hose with a quick disconnect coupling to lift a tool.

OSHA Regulations Ensure Operator Safety



Safety Cables



Safety Check Valves

Standard - 29 CFR, 1926.302 (partial):

(b)(1) Pneumatic power tools shall be secured to the hose or whip by some positive means to prevent the tool from becoming accidentally disconnected.

(b)(2) Safety Clips or retainers shall be securely installed and maintained on pneumatic impact (percussion) tools to prevent attachments from being accidentally expelled.

(b)(4) Compressed air shall not be used for cleaning purposes except where reduced to 30 PSI and then only with effective chip guarding and personal protective equipment which meets the requirements of Subpart E of this part. The 30 PSI requirement does not apply for concrete form, mill scale, and similar cleaning purposes.

(b)(5) The manufacturer's safe operating pressure for hoses, pipes, valves, filters and other fittings shall not be exceeded.

(b)(6) The use of hoses for hoisting or lowering tools shall not be permitted.

(b)(7) All hoses exceeding ½" inside diameter shall have a safety device at the source of supply or branch line to reduce pressure in case of hose failure.

Standard - 29 CFR, 1926.603 (partial):

(a)(9) Steam hose leading to a steam hammer or jet pipe shall be securely attached to the hammer with an adequate length of at least ¼" diameter chain or cable to prevent whipping in the event the joint at the hammer is broken. Air hammer hoses shall be provided with the same protection as required for steam lines.

(a)(10) Safety chains, or equivalent means, shall be provided for each hose connection to prevent the line from thrashing around in case the coupling becomes disconnected.





ISO 9001:2015 Certification

The Springfield, MO facility of ZSi-Foster is certified to ISO 9001:2015. This covers all product manufactured in this location. A copy of the certificate can be downloaded from the company website; resources - literature tab. For questions please contact either your Regional Sales Manager (RSM) or Customer Service at 866-918-3003.



Canadian Registration Number (CRN) Certification

The following product series have Canadian Registration Numbers: FHK (ISO B), FST (straight-thru), and pneumatic industrial interchange (2-6 One-Way Shut-off).

Ontario Province – CRN No. 0H20062.5

Quebec Province – CRN No. 0H20062.56

British Columbia Province – CRN No. 0H20062.51

Saskatchewan Province – CRN No. 0H20062.56

Maritimes Province – CRN No. 0H20062.59870YTN

For questions please contact either your Regional Sales Manager (RSM) or Customer Service at 866-918-3003.



Pneumatic Quick Disconnects



Pneumatic QD Selection Chart

Foster / Breco Coupling Series	Page	Coupling Style				Interchange							Body Size					Body Material				Locking			Flow Type		
		Manual	Automatic	Push	Safety	ARO	Industrial	Lincoln Long Nose	DME, Jiffy-Tite, Parker Moldmate	Eaton Hansen	Schrader	Tru-Flate	Rectus 21	1/8"	1/4"	3/8"	1/2"	3/4"	Aluminum	Brass	Steel	Stainless Steel	Ball Lock	Stainless Steel Pins	Sleeve Lock	One-Way Shut-Off	Two-Way Shut-Off
Series 2	266-268	◆				◆							◆					◆	◆	◆	◆				◆		◆
Series 3 & B,C,D	269-275	◆	◆			◆								◆				◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Series 4 & B,C,D	276-280	◆	◆			◆									◆			◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Series 5 & B,C,D	281-286	◆	◆			◆				◆					◆			◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Series 6 & B	287-288		◆			◆										◆		◆	◆		◆	◆	◆	◆	◆	◆	◆
210 & O	289-290	◆	◆			◆								◆				◆	◆	◆	◆	◆			◆		
310 & O	291-292	◆	◆			◆									◆			◆	◆	◆	◆	◆			◆		
TF & J	293-296		◆								◆			◆	◆	◆		◆	◆						◆		
SHD & TL	297-299		◆							◆				◆			◆		◆	◆					◆		
O60-A70	300-301	◆							◆					◆				◆			◆				◆		
FRL	302-303		◆						◆					◆	◆				◆						◆		
LN & L	304-305	◆	◆			◆								◆				◆	◆			◆			◆		
F180	306	◆							◆					◆				◆							◆		
DR	307		◆									◆	◆					◆							◆		
U	308		◆			◆	◆				◆			◆				◆	◆						◆		
USV	309				◆	◆	◆				◆			◆					◆						◆		
SV	310-313				◆		◆							◆	◆	◆	◆			◆					◆		
Push Buttons	314			◆	◆		◆							◆					◆						◆		
Safety 210	314				◆	◆								◆					◆						◆		
FJT	315-322	◆					◆							◆	◆	◆			◆	◆		◆			◆	◆	◆

CAUTION: It is important that users of the Quick Release Couplers read the safety guidelines on pages 262 - 263. Improper use of products can lead to severe injury and damage to equipment.

Call ZSi-Foster at (866) 918-3003 or order now at zsi-foster.com



One Way Shut-Off – Series 2 thru 6

(Industrial Interchange)

Type: One Way Shut-Off – Socket is valved, shutting off supply line at disconnect. Plug is un-valved, exhausting downstream line at disconnect. Install socket on pressure side of line.

Interchangeability: Standard industrial interchange design, most widely used in industry. 3 and 5 Series Automatic water service comply with A-A-59439 (formerly MIL-C-4109F). 3-4-5-6 SERIES MEET ISO 6150-B, ANSI(NFPA)T3.20.14-1990. IN ADDITION, SV SOCKETS MEET ISO 4414.

Rated Pressure: 300 PSIG; Vacuum to 27" Hg (connected)
Contact Foster for higher pressure applications.

Manual: Socket sleeve must be manually retracted to connect and disconnect.

- Low cost, general purpose coupler
- Positive locking mechanism
- 65% more ball retention
- Precision leak-proof seal and heavy steel sleeve.

Automatic: Inserting the plug into the socket automatically retracts the sleeve to connect. Manually retract the sleeve to disconnect.

- One hand operation
- One piece sleeve with rear crimp
- Precision leak-proof seal
- Long wearing pin type locking mechanism
- Greater plug contact

Features:

- High flow capability for small coupler
- Precision leak-proof seal
- Positive locking mechanism
- Sockets other than standard have color coded seals:
Water (Blue), Steam (Black), Silicon (White), and Heat (Red)

Safety: To connect, insert plug and pull sleeve forward. To disconnect, push sleeve back while rotating first counter clockwise and then clockwise. As sleeve goes back, supply line is shut off, downstream line is exhausted, and plug is released. Remove plug.

- 100% safety
- Connect and disconnect at "0" pressure
- Plug locked before air is turned on and downstream line is exhausted before plug is released, completely eliminating hose whip
- Tested to 1,000,000 operations with no leakage
- Special lubrication eliminates dry breakaway

Connection Sizes:

- 1/8" to 1" NPT
- 1/8" to 1" Hose Barb (Hose clamp required. See page 200 for Python hose clamps)
- 1/4" to 1/2" Push-on Hose Barb (Clamps not required when used with Push-On Hose. See page 369 for Push-On Hose)

Options:

Ball Lock (BL) – Locks manual socket against accidental disconnect. To connect, align ball with slot. After connection, rotate sleeve to lock. To disconnect, realign ball with slot and retract sleeve.

Sleeve Lock (SL) – Locks automatic socket against accidental disconnect. To connect, align notch with slot. After connection, rotate sleeve to lock. To disconnect, realign notch with slot and retract sleeve.

BALL CHECK PLUG – Eliminates hose-whip at disconnect by checking the rapid flow of downstream exhaust air.

SWIVEL PLUGS – Free swivel under pressure. Eliminates hose twist on end drop applications such as blow guns, air tools, etc.

Performance Data:

Foster Series	Body Size	Psig Rated Pressure, Coupled (Body / Sleeve)				Pressure Drop					
						Air Flow – CFM				Water Flow	
		Brass / Steel	Brass / Brass	Steel / Steel	S.S. / S.S.	100 PSIG		80 PSIG		GPM 60 PSIG	
						10 PSIG	5 PSIG	10 PSIG	5 PSIG	10 PSIG	5 PSIG
Series 2	1/8"	300*	300*	n/a	300*	16	12	14	11	1.8	1.2
Series 3	1/4"	300*	300*	300	300*	36	26	33	24	3.7	2.5
Series 4	3/8"	300*	300	300	300*	68	50	62	45	6.8	5
Series 5	1/2"	300*	300	300	300*	118	90	107	82	11	8
Series 6	3/4"	300	300	300	n/a	190	135	172	122	22	16

* Contact factory for higher pressure applications.



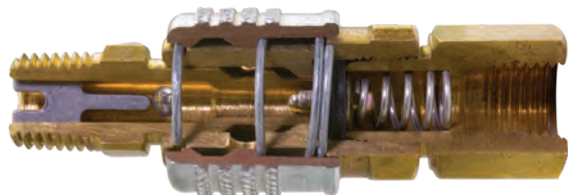
One Way Shut-Off – Series 2 thru 6



(Industrial Interchange)

Features:

- High flow metal valves.
- Precision molded seals form a "bubble tight" seal for reliable operation within rated working pressures. Nitrile (Buna-N) seals are standard. EPDM, Viton and Neoprene seals are available as options.
- Proven ball locking mechanism with large numbers of stainless steel locking balls evenly distribute the load to resist wear and provide positive connections and allow a swiveling action to reduce hose torque.
- **Integral sleeve guard protects the sleeve and resists accidental disconnects for the "SG" series.**
- Knurling and/or grooves on the sleeve provide a gripping surface for ease of operation.
- Wide range of body sizes, materials, options and end terminations are available to meet specific needs.
- Accepts Industrial Interchange Plug.



Operation: Sleeve type couplings are widely used to connect air and low pressure fluid lines. Their compact and economical design uses a ball locking mechanism consisting of captive stainless steel balls that engage the locking groove on the mating plug. The sliding spring loaded sleeve on the socket must be manually retracted in order to connect or disconnect the plug.

Material: Brass body and socket end, zinc-plated steel sleeve

Working Pressure: 300 PSIG; vacuum to 27" Hg

Interchangeability: Complies with ANSI/NFPA T3.20.14-1990 & ISO 6150-B

Specifications	Body Size		
	1/4"	3/8"	1/2"
Rated Pressure (psig)	300	300	300
Temp. Range (Buna-N Seal)	-40° to +250° F		
Locking Device	Stainless Steel Balls		
Vacuum Data (inches Hg)			
-- Disconnected (coupler only)	Not Recommended		
-- Connected	27.4	27.4	27.4
Approximate CFM at 100 (psi)	37	70	150

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

Fittings & Accessories


Hoses & Fittings

Technical Data

Indexes

2 Series 1/8" Sockets - Foster

Female Thread		Part No.	FPT	Description
		2302	1/8"	Brass/Steel
		BL2302		Ball Lock
		2302H		Brass/Steel For Heat, Viton Seal
		2302HW		Brass/SS For Hot Water, Viton Seal
		2302S/S		303 Stainless
		BL2302S/S		Ball Lock, 303 Stainless
		2302S/SH		303 Stainless For Heat, Viton Seal
		2302W	1/4"	Brass/SS For Water, Buna-N Seal
		2702		Brass/Steel
		BL2702		Ball Lock
		2702H		Brass/Steel For Heat, Viton Seal
		2702HW		Brass/SS For Hot Water, Viton Seal

Male Thread		Part No.	MPT	Description
		2202	1/8"	Brass/Steel
		BL2202		Ball Lock
		2202S/S		303 Stainless
		BL2202S/S		Ball Lock, 303 Stainless
		2202H		For Heat, Viton Seal
		2202S		For Steam, Brass/SS, EPDM Seal
		2202W		For Water, Brass/SS, Buna-N Seal
		2402	1/4"	Brass/Steel
		BL2402		Ball Lock
		2402H		For Heat, Viton Seal







1/8" One Way Shut-Off – 2 Series


(Industrial Interchange)

2 Series 1/8" Sockets - Foster


Hose Stem		Part No.	I.D.	Description
		2022	1/8"	Brass/Steel
		BL2022		Ball Lock
		2022W	3/16"	For Water, Brass/SS, Buna-N Seal
		2032		Brass/Steel
		BL2032	Ball Lock	
		2032HW	3/16"	For Hot Water, Brass/SS, Viton Seal
		2032S		For Steam, Brass/SS, EPDM Seal
		2042	1/4"	Brass/Steel
		BL2042		Ball Lock
2042HW	For Hot Water, Brass/SS, Viton Seal			


Requires Hose Clamp (See page 200 for typical hose clamps)


Plastic and Metal Tubing		Part No.	Size	Description
		SJ8-2	.170" x 1/4"	Plastic
		BLSJ8-2		Ball Lock, 1/4" Plastic
		SJ8-2M	1/4"	Soft Metal
		BLSJ8-2M		Ball Lock, Soft Metal
SJ8-2S/S	303 Stainless			

Plastic & Metal Tubing Panel Mount		Part No.	Size	Description
		SJ8P-2	.170" x 1/4"	Plastic
		BLSJ8P-2		Ball Lock, Plastic
		SJ8P-2HW		Plastic for Hot Water
		SJ8P-2W	1/4"	Plastic, for Water
		SJ8P-2M		Soft Metal
BLSJ8P-2M	Ball Lock, Soft Metal			


2 Series 1/8" Plugs - Foster

Female Thread		Part No.	FPT	Description
		23-2	1/8"	Steel
		27-2	1/4"	

Male Thread		Part No.	MPT	Description
		22-2	1/8"	Steel
		22-2B	1/8"	Brass
		22-2S/S	1/8"	303 Stainless
24-2	1/4"	Steel		

Hose Stem		Part No.	I.D.	Description
		02-2	1/8"	Steel
		03-2	3/16"	
		04-2	1/4"	

Requires Hose Clamp (See page 200 for typical hose clamps)

Plastic and Metal Tubing		Part No.	Size	Description
		PJ8-2	0.170" x 1/4"	Plastic
		PJ8-2V	0.170" x 1/4"	Plastic - Valve Core Brass
		PJ8-2VLV	0.170" x 1/4"	Plastic - Less Valve
		PJ8-2M	1/4"	Soft Metal
		PJ8-2S/S	1/4"	Stainless Steel
PJ8-2VM	1/4"	Soft Metal - Valve Core Brass		



One Way Shut-Off – 3 thru 6 & B, C, D Series



(Industrial Interchange)

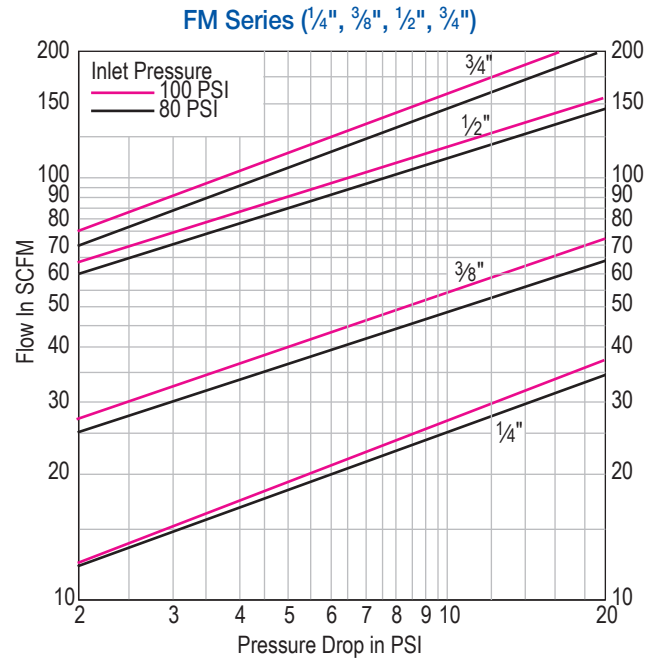
Foster 3 thru 6 Series couplers are designed for rigid mounting that allows a simple push-to-connect operation, constructed of a solid brass body and a steel valve. The "FM" Series are mechanically interchangeable with similar industrial interchange couplings made by other manufacturers and accept plugs that conform to MIL-C4109-F. Plugs used with the "FM" Series are the Industrial Interchange plugs that are found on pages 275, 280, 286, and 288 of this catalog. FM Series 3 and 5 couplers comply with A-A-59439.

Sleeve-Lock Option:

Sleeve-Lock feature locks automatic socket against accidental disconnect. To connect, align ball with slot. After connection, rotate sleeve to lock. To disconnect, realign ball with slot and retract sleeve. Sizes available with sleeve lock are shown in the tables on following pages.



Performance:



Specifications	Body Size			
	1/4"	3/8"	1/2"	3/4"
Rated Pressure (psig)	300 PSIG; vacuum to 27" Hg			
Temperature Range (std seals)	-40° to +250° F			
Locking Device	3 pins	4 pins	6 pins	6 pins
Vacuum Data				
-- Disconnected (coupler only)	Not Recommended			
-- Connected	27" Hg			
Approximate CFM at 100 (psig)	37	70	150	190

Optional Seal [Ordering]:

Buna-N seal is standard. Alternate seals are specified by adding the appropriate suffix to the catalog number. For example, 3003 socket with Heat Adder is 3003H

Service	Construction	Seal	Temperature	Suffix
Air, Vacuum, Grease, & Oil	Brass & Steel	Buna-N	-40° to +250°F	none
Water	Brass & S/S	Buna-N	+32° to +100°F	W
Hot Water	Brass & S/S	Viton	-15° to +400°F	HW
Steam	Brass Body, Brass Sleeve, & Stainless Steel Valve	Ethylene Propylene	-40° to +300°F	S
Heat	Brass & Steel	Viton	-15° to +400°F	H
Less Valve	Brass & Steel	Buna-N	-40° to +250°F	LV
Dill Valve Series 3 Only	Brass & Steel	Buna-N	-40° to +250°F	D







1/4" One Way Shut-Off – 3 & C Series

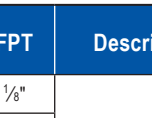
(Industrial Interchange)

3 & C Series 1/4" 1-Way Manual Sleeve Guard Sockets


Female Thread		Part No.	Brand	FPT	Description
		SG2803	F	1/8"	Brass
		SG3003	F	1/4"	
		B-2CF2-B	B	1/4"	Brass, less Valve
		SG3003LV	F		Stainless Steel
		B-2CF2-SS	B	3/8"	Brass
		SG3203	F		
B-2CF3-B	B				

Hose Stem		Part No.	Brand	I.D.	Description
		SG3603	F	1/4"	Brass
		B-2CS2-B	B		
		B-2CS25-B	B	5/16"	3/8"
		SG3703	F		
		B-2CS3-B	B		


Requires Hose Clamp (See page 200 for typical hose clamps)

Male Thread		Part No.	Brand	MPT	Description
		SG2903	F	1/8"	Brass
		SG3103	F	1/4"	
		B-2CM2-B	B	1/4"	Brass w/Dill Valve
		SG3103D	F		Stainless Steel
		B-2CM2-SS	B	3/8"	Brass
		SG3303	F		
B-2CM3-B	B				

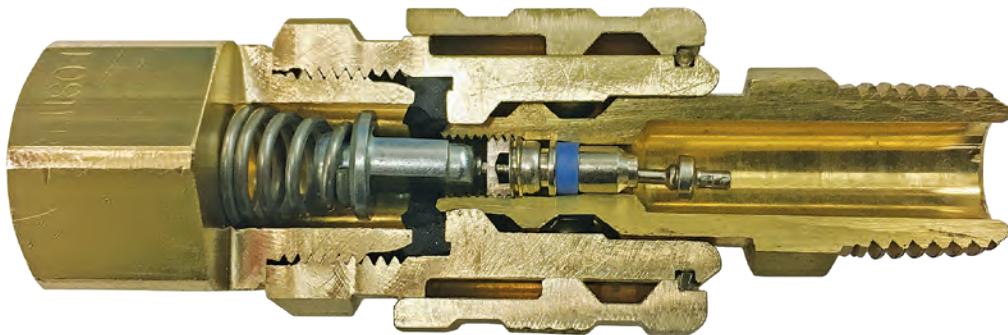
Sockets with modified valves are recommended for use with valve core plugs. Suffix-D to socket Cat. No.

Push-On Hose Stem		Part No.	Brand	I.D.	Description
		SG1513	F	1/4"	Brass
		B-2CPS2-B	B		
		SG1713	F	3/8"	
		B-2CPS3-B	B		

Hose clamps not required when used with "Push On" hose. See page 369.

Reusable Hose Fittings		Part No.	Brand	I.D.	Description
		B-2CE2-B	B	1/2"	Brass w/Brass Sleeve
		B-2CG2-B		9/16"	
B-2CH2-B	5/8"				

Sockets with modified valves require a plug with a dill valve.



Sockets with modified valves (Dill Valve)

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

1/4" One Way Shut-Off – 3 & D Series



(Industrial Interchange)

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

Fittings & Accessories

Hoses & Fittings

Technical Data

Indexes

3 & D Series 1/4" 1-Way Manual Sockets

Female Thread	Part No.	Brand	FPT	Description
		2803	F	1/8"
	D320	B		
	BL2803	F	Ball Lock	
	D320BL	B		
	2803H	F	Steel, For Heat, Viton Seal	
	2803S		Brass/SS, For Steam, EPDM Seal	
	2803S/S		303 Stainless	
	BL2803S/S		Ball Lock, 303 Stainless	
	2803W		Brass/SS, For Water, Buna-N Seal	
	3003	F	1/4"	
	D340	B		
	BL3003	F		Ball Lock
	D340BL	B		
	3003D	F		w/Dill Valve
	3003H			Steel, For Heat, Viton Seal
	3003HW			Brass/SS, For Hot Water, Viton Seal
	3003LV			Steel, Less Valve
	3003S			Brass/SS, For Steam, EPDM Seal
	3003S/S	303 Stainless		
	BL3003S/S	Ball Lock, 303 Stainless		
	3003S/SH	303 Stainless, For Heat, Viton Seal		
	3003W	Brass/SS, For Water, Buna-N Seal		
	BL3003W	Brass/SS, Ball Lock, For Water, Buna-N Seal		
	3203	F	3/8"	Brass/Steel
	D360	B		
	BL3203	F		Ball Lock
	D360BL	B		
	3203H	F		Steel, For Heat, Viton Seal
	3203LV			Steel, Less Valve
	3203S/S			303 Stainless
	BL3203S/S			Ball Lock, 303 Stainless
	3203S/SLV			Less Valve, 303 Stainless
	3203W	Brass/SS, For Water, Buna-N Seal		



Male Thread	Part No.	Brand	MPT	Description	
		2903	F	1/8"	Brass/Steel
	D321	B			
	BL2903	F	Ball Lock		
	D321BL	B			
	2903H	F	Steel, For Heat, Viton Seal		
	2903S		Brass/SS, For Steam, EPDM Seal		
	2903S/S		303 Stainless		
	BL2903S/S		Ball Lock, 303 Stainless		
	3103		F		1/4"
	D341	B			
	BL3103	F	Brass/Steel, Ball Lock		
	D341BL	B			
	3103D	F	Brass/Steel, w/Dill Valve		
	3103H		Brass/Steel, For Heat, Viton Seal		
	3103LV		Brass/Steel, Less Valve		
	3103S		Brass/SS, For Steam, EPDM Seal		
	3103S/S		303 Stainless		
	BL3103S/S	Ball Lock, 303 Stainless			
	BL3103S/S-104	Ball Lock, 303 Stainless, w/Silicone Seal			
	3103S/SH	303 Stainless, For Heat, Viton Seal			
	3103S/SLV	303 Stainless, Less Valve			
	3103W	Brass/SS, For Water, Buna-N Seal			
	BL3103W	Ball Lock, For Water, Brass/SS, Buna-N Seal			
	3303	F	3/8"	Brass/Steel	
	D361	B			
	BL3303	F		Ball Lock	
	D361BL	B			
	3303H	F		Steel, For Heat, Viton Seal	
	3303S/S			303 Stainless	
	BL3303S/S			Ball Lock, 303 Stainless	
	3303W			Brass/SS, For Water, Buna-N Seal	



Brand - Designates **F**=Foster or **B**=Breco Part
ZSi-Foster Engineering Catalog

See page 380 for full size templates




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1/4" One Way Shut-Off – 3 & D Series


(Industrial Interchange)

3 & D Series 1/4" 1-Way Manual Sockets (Continued)

Hose Stem		Part No.	Brand	I.D.	Description
		3603	F	1/4"	
D342	B				
BL3603	F	1/4"		Ball Lock	
D342BL	B				
3603S	F	1/4"		Brass/SS, For Steam, EPDM Seal	
3603S/S				303 Stainless	
BL3603S/S				Ball Lock, 303 Stainless	
3603W				Brass/SS, For Water, Buna-N Seal	
3653	F	5/16"		Brass/Steel	
D352	B				
BL3653	F			Ball Lock	
D352BL	B				
3703	F	3/8"		Brass/Steel	
D362			B		
BL3703			F		Ball Lock
D362BL			B		
3703S	F	3/8"		Brass/SS, For Steam, EPDM Seal	
3703S/S				303 Stainless	
BL3703S/S				Ball Lock, 303 Stainless	
3703W				Brass/SS, For Water, Buna-N Seal	

Requires Hose Clamp (See page 200 for typical hose clamps)

Reusable Hose Clamp		Part No.	I.D. x O.D.	Description
		SB3-3	1/4" x 1/2"	
BLSB3-3W		Ball Lock, For Water, Brass/SS, Buna-N Seal		
SB3-3S/S		303 Stainless		
SB3-3W	1/4" x 9/16"		For Water, Brass/SS, Buna-N Seal	
SB5-3			Brass/Steel	
BLSB5-3			Ball Lock	
BLSB5-3W	1/4" x 5/8"		Ball Lock, For Water, Brass/SS, Buna-N Seal	
SB7-3			Brass/Steel	
BLSB7-3			Ball Lock	
SB7-3S/S	1/4" x 5/8"		303 Stainless	
BLSB7-3S/S			Ball Lock, 303 Stainless	
SB7-3W			For Water, Brass/SS, Buna-N Seal	
BLSB7-3W	5/16" x 9/16"		Ball Lock, For Water, Brass/SS, Buna-N Seal	
SC5-3			Brass/Steel	
BLSC5-3			Ball Lock	
SC7-3	5/16" x 5/8"		Brass/Steel	
BLSC7-3			Ball Lock	
SD7-3			Brass/Steel	
BLSD7-3	3/8" x 5/8"		Ball Lock	
SD9-3			Brass/Steel	
BLSD9-3			Ball Lock	
SD11-3	3/8" x 11/16"		Brass/Steel	
BLSD11-3			Ball Lock	
SD13-3			Brass/Steel	
BLSD13-3	3/8" x 13/16"		Ball Lock	

Push-On Hose Stem		Part No.	Brand	I.D.	Description
		1513	F	1/4"	
D344	B				
BL1513	F	1/4"		Ball Lock	
D344BL	B				
1513W	F	1/4"		For Water, Brass/SS, Buna-N Seal	
1713	F		3/8"		Brass/Steel
D364	B				
BL1713	F			Ball Lock	
D364BL	B				
1713W	F	3/8"		For Water, Brass/SS, Buna-N Seal	

Hose clamps not required when used with "Push On" hose. See page 369.

Dust Caps - Foster

Dust Caps, Sockets		Part No.	Size	Description
		3SDC	1/4"	For Manual 1/4" only

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

www.zsi-foster.com




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1/4" One Way Shut-Off – 3 & B Series




(Industrial Interchange)


3 & B Series 1/4" 1-Way Automatic Sockets

Female Thread		Part No.	Brand	FPT	Description	
		FM2803	F	1/8"	Brass	
		B-2BF1-B	B			
		FM2803S	F			For Steam, Brass/SS, EPDM Seal
		SL2803	F			Sleeve Lock
		B-2BF1-B-SL	B			
		FM2803W	F	For Water, Brass/SS, Buna-N Seal		
		FM3003	F	1/4"	Brass	
		B-2BF2-B	B			
		SL3003	F			Sleeve Lock
		B-2BF2-B-SL	B			
		FM3003HW	F			For Hot Water, Brass/SS, Viton Seal
		FM3003S	F	For Steam, Brass/SS, EPDM Seal		
		FM3003W	F	For Water, Brass/SS, Buna-N Seal		
		SL3003W	F	Sleeve Lock, For Water, Brass/SS, Buna-N Seal		
FM3203	F	3/8"	Brass			
B-2BF3-B	B					
SL3203	F			Sleeve Lock		
B-2BF3-B-SL	B					
FM3203H	F			For Heat, Viton Seal		
FM3203W	F	For Water, Brass/SS, Buna-N Seal				

Male Thread		Part No.	Brand	MPT	Description	
		FM2903	F	1/8"	Brass	
		B-2BM1-B	B			
		SL2903	F			Sleeve Lock, Brass
		B-2BM1-B-SL	B	1/4"	Brass	
		FM3103	F			
		B-2BM2-B	B			
		SL3103	F			Sleeve Lock, Brass
		B-2BM2-B-SL	B			
		FM3103D	F	w/Dill Valve		
		SL3103D	F	Sleeve Lock, w/Dill Valve, Brass		
		FM3103H	F	For Heat, Viton Seal		
		FM3103HW	F	For Hot Water, Brass/SS, Viton Seal		
		SL3103HW	F	Sleeve Lock, For Hot Water, Brass/SS, Viton Seal		
		FM3103S	F	For Steam, Brass/SS, EPDM Seal		
FM3103W	F	For Water, Brass/SS, Buna-N Seal				
SL3103W	F	Sleeve Lock, For Water, Brass/SS, Buna-N Seal				
FM3303	F	3/8"	Brass			
B-2BM3-B	B					
SL3303	F			Sleeve Lock, Brass		
B-2BM3-B-SL	B					
FM3303W	F	For Water, Brass/SS, Buna-N Seal				

Hose Stem		Part No.	Brand	I.D.	Description	
		FM3603	F	1/4"	Brass	
		B-2BS2-B	B			
		SL3603	F			Sleeve Lock, Brass
		B-2BS2-B-SL	B	5/16"	Brass	
		FM3603S	F			For Steam, Brass/SS, EPDM Seal
		FM3653	F			
		B-2BS5-B	B	3/8"	Brass	
		SL3653	F			Sleeve Lock, Brass
		B-2BS5-B-SL	B			
		FM3703	F	3/8"	Brass	
		B-2BS3-B	B			
		SL3703	F			Sleeve Lock, Brass
		B-2BS3-B-SL	B			
		FM3703S	F	For Steam, Brass/SS, EPDM Seal		

Sockets with modified valves (Dill Valve) are recommended for use with valve core plugs.

Push-On Hose Stem		Part No.	Brand	I.D.	Description
		FM1513	F	1/4"	Brass
		B-2BPS2-B	B		
		SL1513	F	3/8"	Sleeve Lock, Brass
		B-2BPS2-B-SL	B		
		FM1713	F	3/8"	Brass
		B-2BPS3-B	B		
		SL1713	F		
		B-2BPS3-B-SL	B	3/8"	Sleeve Lock, Brass
		FM1713W	F		

Hose clamps not required when used with "Push On" hose. See page 369.

Brand - Designates **F**=Foster or **B**=Breco Part
ZSi-Foster Engineering Catalog

See page 380 for full size templates


WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.




1/4" One Way Shut-Off – 3 & B Series


(Industrial Interchange)


3 & B Series 1/4" 1-Way Automatic Sockets

Reusable Hose Clamp		Part No.	Brand	I.D. x O.D.	Description
		FMSB3-3	F	1/4" x 1/2"	Brass
		B-2BE2-B	B		
		FMSB5-3	F	1/4" x 9/16"	
		B-2BG2-B	B		
		FMSB7-3	F	1/4" x 5/8"	
		B-2BH2-B	B		
		FMSC5-3	F	5/16" x 9/16"	
		FMSC7-3		5/16" x 5/8"	
		FMSD7-3	F	3/8" x 5/8"	
		FMSD9-3		3/8" x 11/16"	
		FMSD11-3	F	3/8" x 3/4"	
		FMSD13-3		3/8" x 13/16"	


Reusable Hose Clamp with Sleeve Lock		Part No.	Brand	I.D. x O.D.	Description
		SLSB3-3	F	1/4" x 1/2"	Sleeve Lock, Brass
		SLSB5-3		1/4" x 9/16"	
		SLSB7-3	F	1/4" x 5/8"	
		B-2BH2-B-SL			
		SLSB7-3W	F		Sleeve Lock, For Water, Brass/SS, Buna-N Seal
		SLSC5-3			
		SLSC7-3	F	5/16" x 5/8"	
		SLSD7-3		F	
		SLSD9-3	F		3/8" x 11/16"
		SLSD11-3		F	3/8" x 3/4"
		SLSD13-3	F		3/8" x 13/16"


3 Series 1/4" 1-Way USA Automatic Slim Profile Sockets - Foster

Female Thread		Part No.	FPT	Description
		2803GB	1/8"	Brass
		2803GS		Steel
		3003GB	1/4"	Brass
		3003GS		Steel
		3203GB	3/8"	Brass
		3203GS		Steel


Hose Stem		Part No.	I.D.	Description
		3603GB	1/4"	Brass
		3603GS		Steel
		3653GB	5/16"	Brass
		3653GS		Steel
		3703GB	3/8"	Brass
		3703GS		Steel

Requires Hose Clamp (See page 200 for typical hose clamps)

Male Thread		Part No.	MPT	Description
		2903GB	1/8"	Brass
		2903GS		Steel
		3103GB	1/4"	Brass
		3103GS		Steel
		3303GB	3/8"	Brass
3303GS	Steel			

Push-On Hose Stem		Part No.	I.D.	Description
		1513GB	1/4"	Brass
		1713GB	3/8"	Brass

Hose clamps not required when used with "Push On" hose. See page 369.

Reusable Hose Clamp		Part No.	I.D. x O.D.	Description
		SB3-3GB	1/4" x 1/2"	Brass
		SB3-3GS		Steel
		SB5-3GB	1/4" x 9/16"	Brass
		SB5-3GS		Steel
		SB7-3GB	1/4" x 5/8"	Brass
		SB7-3GS		Steel
		SD7-3GB	3/8" x 5/8"	Brass
		SD7-3GS		Steel
		SD11-3GB	3/8" x 3/4"	Brass
		SD11-3GS		Steel

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates



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1/4" One Way Shut-Off – 3 Series

(Industrial Interchange)



Pneumatic QD

Hydraulic QD

Blow Guns & Accessories


Fittings & Accessories


Hoses & Fittings

Technical Data


Indexes


3 Series 1/4" Plugs

Female Thread		Part No.	Brand	FPT	Description
		13-3	F	1/8"	Steel
		B-B2F1-S	B		Brass
		13-3B 13-3S/S	F		303 Stainless
		11-3	F	1/4"	Steel
		B-B2F2-S	B		Brass
		11-3B	F		
		B-B2F2-B	B		
		11-3S/S	F		303 Stainless
		B-B2F2-SS	B		
		15-3	F	3/8"	Steel
		B-B2F3-S	B		


Hose Stem		Part No.	Brand	I.D.	Description
		16-3	F	1/4"	Steel
		B-B2S2-S	B		Brass
		16-3B	F		303 Stainless
		16-3S/S	F	5/16"	Steel
		165-3	F		
		B-B2S25-S	B	3/8"	Steel
		17-3	F		
		B-B2S3-S	B		
		17-3B	F		
17-3S/S	F	303 Stainless			


Requires Hose Clamp (See page 200 for typical hose clamps)

Male Thread		Part No.	Brand	MPT	Description	
		12-3	F	1/8"	Steel	
		B-B2M1-S	B		Brass	
		12-3B 12-3S/S	F		303 Stainless	
		10-3	F	1/4"	Steel	
		B-B2M2-S	B		Brass	
		10-3B	F			
		B-B2M2-B	B			
		10-3S/S	F		303 Stainless	
		B-B2M2-SS	B			
		10-3D	F	w/Dill Valve Steel		
		10-3G		Ball Check, Steel		
		10-3GB		Ball Check, Brass		
		10-3GS		Ball Check, Spring Loaded Steel		
		10-3GS/S		Ball Check, 303 Stainless		
		10-3DB		Brass, Valve Core Plug		
		14-3		F	3/8"	Steel
		B-B2M3-S		B		
		14-3B	F	Brass		
		14-3GB	F	Ball Check, Brass		


Push-On Hose Stem		Part No.	Brand	I.D.	Description
		51-3	F	1/4"	Steel
		B-B2PS2-S	B		
		71-3	F	3/8"	Steel
B-B2PS3-S	B				

Hose clamps not required when used with "Push On" hose. See page 369.

Reusable Hose Clamp		Part No.	Brand	I.D. x O.D.	Description
		PB3-3	F	1/4" x 1/2"	Steel
		B-B2E2-S	B		Brass
		PB3-3B	F		303 Stainless
		PB3-3S/S	F	1/4" x 9/16"	Steel
		PB5-3	F		Brass
		PB5-3B	F	1/4" x 5/8"	Steel
		PB7-3	F		
		B-B2H2-S	B		
		PB7-3B	F	1/4" x 5/8"	Brass
		PB7-3S/S	F		303 Stainless
		PC5-3	F	5/16" x 9/16"	Steel
		PC7-3	F		
		PD7-3	F	3/8" x 5/8"	Steel
		B-B2H3-S	B		
		PD9-3	F	3/8" x 11/16"	Steel
		B-B2K3-S	B		
		PD11-3	F	3/8" x 3/4"	Steel
PD13-3	3/8" x 13/16"	Steel			

Male Thread Free Swivel - Under Pressure		Part No.	MPT	Description
		12S-3	1/8"	Brass / Steel
		10S-3	1/4"	
		14S-3	3/8"	

Swivel Plugs – Eliminates hose twist on end drop applications such as blow guns, air tools, etc.

Dust Cap		Part No.	Size	Description
		3PDC	1/4"	Plastic

Ball check plugs eliminate hose whip at disconnect by checking the rapid flow of downstream exhaust air
Swivel Plugs – Eliminates hose twist on end drop applications like blow guns, air tools, etc.
See page 380 for full size templates

Brand - Designates **F**=Foster or **B**=Breco Part

ZSi-Foster Engineering Catalog


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3/8" One Way Shut-Off – 4 & C, D Series


(Industrial Interchange)


4 & C Series 3/8" 1-Way Manual Sleeve Guard Sockets - Breco

Female Thread		Part No.	FPT	Description
		B-3CF3-B	3/8"	Brass w/Brass Sleeve
		B-3CF3-S		Steel
B-3CF4-S	1/2"	Steel		


Male Thread		Part No.	FPT	Description
		B-3CM2-S	1/4"	Steel
		B-3CM3-B	3/8"	Brass w/Brass Sleeve
		B-3CM3-S		Steel
B-3CM4-S	1/2"	Steel		


Hose Stem		Part No.	FPT	Description
		B-3CS3-S	3/8"	Steel
Requires Hose Clamp (See page 200 for typical hose clamps)				

Push-On Hose Stem		Part No.	I.D.	Description
		B-3CPS3-S	3/8"	Steel
Hose clamps not required when used with "Push On" hose. See page 369.				

Reusable Hose Fittings		Part No.	I.D.	Description
		B-2CH3-B	5/8"	Brass w/Brass Sleeve
B-2CK3-B	11/16"			

4 & D Series 3/8" 1-Way Manual Sockets

Push-On Hose Stem		Part No.	Brand	I.D.	Description
		1714	F	3/8"	Brass/Steel
		D464	B		
		BL1714	F		
		D464BL	B		
		1714W	F	1/2"	For Water, Brass/SS, Buna-N Seal
		1814	F		
		D484	B		
		BL1814	F		
		D484BL	B	1/2"	Ball Lock
		1814W	F		
		Hose clamps not required when used with "Push On" hose. See page 369.			

Reusable Hose Clamp		Part No.	I.D. x O.D.	Description
		SB3-4	1/4" x 1/2"	Brass/Steel
		BLSB3-4		Ball Lock, Brass/Steel
		SB5-4	1/4" x 9/16"	Brass/Steel
		BLSB5-4		Ball Lock, Brass/Steel
		SB7-4	1/4" x 5/8"	Brass/Steel
		BLSB7-4		Ball Lock, Brass/Steel
		SD7-4	3/8" x 5/8"	Brass/Steel
		B LSD7-4		Ball Lock, Brass/Steel
		SD9-4	3/8" x 11/16"	Brass/Steel
		B LSD9-4		Ball Lock, Brass/Steel
		SD11-4	3/8" x 3/4"	Brass/Steel
		B LSD11-4		Ball Lock, Brass/Steel
SD13-4	3/8" x 13/16"	Brass/Steel		
B LSD13-4		Ball Lock, Brass/Steel		

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates



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3/8" One Way Shut-Off – 4 & D Series



(Industrial Interchange)

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories


Fittings & Accessories


Hoses & Fittings


Technical Data

Indexes

4 & D Series 3/8" 1-Way Manual Sockets (Continued)

Female Thread		Part No.	Brand	FPT	Description
		4004	F	1/4"	Brass/Steel
		D440	B		
		BL4004	F		Ball Lock, Brass/Steel
		D440BL	B		
		4204	F	3/8"	Brass/Steel
		D460	B		
		BL4204	F		Ball Lock, Brass/Steel
		D460BL	B		
		4204H	F	3/8"	For Heat, Viton Seal, Brass/Steel
		4204S			For Steam, Brass/SS, EPDM Seal
		4204S/S			303 Stainless
		BL4204S/S			Ball Lock, 303 Stainless
		4204W	F	1/2"	For Water, Brass/SS, Buna-N Seal
		4404			F
D480	B				
BL4404	F	Ball Lock, Brass/Steel			
D480BL	B				

Male Thread		Part No.	Brand	MPT	Description
		4104	F	1/4"	Brass/Steel
		D441	B		
		BL4104	F		Ball Lock, Brass/Steel
		D441BL	B		
		4104H	F	3/8"	For Heat, Viton Seal, Brass/Steel
		4104S			For Steam, Brass/SS, EPDM Seal
		4104W			For Water, Brass/SS, Buna-N Seal
		4304			F
		D461	B	3/8"	
		BL4304	F		Ball Lock, Brass/Steel
		D461BL	B		
		4304S	F		1/2"
		4304S/S		303 Stainless	
		BL4304S/S		Ball Lock, 303 Stainless	
4304W	For Water, Brass/SS, Buna-N Seal				
4504	F	1/2"	Brass/Steel		
D481	B				
BL4504	F		Ball Lock, Brass/Steel		
D481BL	B				
4504H	F	1/2"	For Heat, Viton Seal, Brass/Steel		
4504S			For Steam, Brass/SS, EPDM Seal		
4504W			For Water, Brass/SS, Buna-N Seal		

Hose Stem		Part No.	Brand	I.D.	Description
		4604	F	1/4"	Brass/Steel
		D442	B		
		BL4604	F		Ball Lock, Brass/Steel
		D442BL	B		
		4604W	F	5/16"	For Water, Brass/SS, Buna-N Seal
		4704	F		Brass/Steel
		D452	B		
		BL4704	F		Ball Lock, Brass/Steel
		D452BL	B	3/8"	
		4804	F		Brass/Steel
		D462	B		
		BL4804	F		Ball Lock, Brass/Steel
		D462BL	B	1/2"	
		4804S/S	F		303 Stainless
4804S	For Steam, Brass/SS, EPDM Seal				
4804W	For Water, Brass/SS, Buna-N Seal				
4904	F	Brass/Steel			
D482	B	1/2"			
BL4904	F		Ball Lock, Brass/Steel		
D482BL	B				
4904S	F		For Steam, Brass/SS, EPDM Seal		

Requires Hose Clamp (See page 200 for typical hose clamps)

Products for steam are brass body, brass sleeve and stainless steel valve.

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

ZSi-Foster Engineering Catalog




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3/8" One Way Shut-Off – 4 & B Series

(Industrial Interchange)

4 & B Series 3/8" 1-Way Automatic Sockets

Female Thread		Part No.	Brand	FPT	Description
		FM4004	F	1/4"	Brass
		B-3BF2-B	B		
		SL4004	F		Sleeve Lock Brass
		B-3BF2-B-SL	B		
		FM4204	F	3/8"	Brass
		B-3BF3-B	B		
		SL4204	F		Sleeve Lock, Brass
		B-3BF3-B-SL	B		
		FM4204H	F		For Heat, Viton Seal
		FM4204W			For Water, Brass/SS, Buna-N Seal
		FM4404	F	1/2"	Brass
		B-3BF4-B	B		
		SL4404	F		Sleeve Lock, Brass
		B-3BF4-B-SL	B		
FM4404S	F	For Steam, Brass/SS, EPDM Seal			
FM4404W		For Water, Brass/SS, Buna-N Seal			

Male Thread		Part No.	Brand	MPT	Description
		FM4104	F	1/4"	Brass
		B-3BM2-B	B		
		SL4104	F		Sleeve Lock, Brass
		B-3BM2-B-SL	B		
		FM4104S	F	For Steam, Brass/SS, EPDM Seal	
		FM4104W		For Water, Brass/SS, Buna-N Seal	
		FM4304	F	3/8"	Brass
		B-3BM3-B	B		
		SL4304	F		Sleeve Lock, Brass
		B-3BM3-B-SL	B		
		FM4304S	F		For Steam, Brass/SS, EPDM Seal
		FM4304W			For Water, Brass/SS, Buna-N Seal
		FM4504	F	1/2"	Brass
		B-3BM4-B	B		
SL4504	F	Sleeve Lock, Brass			
B-3BM4-B-SL	B				
FM4504S	F	For Steam, Brass/SS, EPDM Seal			
FM4504W		For Water, Brass/SS, Buna-N Seal			

Hose Stem		Part No.	Brand	I.D.	Description
		FM4604	F	1/4"	Brass
		B-3BS2-B	B		
		SL4604	F		Sleeve Lock, Brass
		B-3BS2-B-SL	B		
		FM4704	F	5/16"	Brass
		B-3BS5-B	B		
		SL4704	F		Sleeve Lock, Brass
		B-3BS5-B-SL	B		
		FM4804	F	3/8"	Brass
		B-3BS3-B	B		
		SL4804	F		Sleeve Lock, Brass
		B-3BS3-B-SL	B		
		FM4804H	F		For Heat, Viton Seal
		FM4804W			For Water, Brass/SS, Buna-N Seal
FM4904	F	1/2"	Brass		
B-3BS4-B	B				
SL4904	F		Sleeve Lock, Brass		
B-3BS4-B-SL	B				
FM4904W	F	For Water, Brass/SS, Buna-N Seal			

Requires Hose Clamp (See page 200 for typical hose clamps)

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates



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3/8" One Way Shut-Off – 4 & B Series



(Industrial Interchange)

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

Fittings & Accessories

Hoses & Fittings

Technical Data

Indexes

4 & B Series 3/8" 1-Way Automatic Sockets

Push-On Hose Stem	Part No.	Brand	I.D.	Description
	FM1714	F	3/8"	Brass
	B-3BPS3-B	B		
	SL1714	F		Sleeve Lock, Brass
	B-3BPS3-B-SL	B		
	FM1814	F	1/2"	Brass
	B-3BPS4-B	B		
	SL1814	F		Sleeve Lock, Brass
	B-3BPS4-B-SL	B		
	FM1814W	F		For Water, Brass/SS, Buna-N Seal

Hose clamps not required when used with "Push On" hose. See page 369.

Ball Lock (BL) – Locks manual socket against accidental disconnect.

Sleeve Lock (SL) – Locks automatic socket against accidental disconnect..

Reusable Hose Clamp	Part No.	Brand	I.D. x O.D.	Description
	FMSB3-4	F	1/4" x 1/2"	Brass
	SLSB3-4			Sleeve Lock, Brass
	FMSB5-4		1/4" x 9/16"	Brass
	SLSB5-4			Sleeve Lock, Brass
	FMSB7-4	1/4" x 5/8"	Brass	Brass
	SLSB7-4			Sleeve Lock, Brass
	FMSD7-4	F	3/8" x 5/8"	Brass
	B-3BH3-B	B		
	SLSD7-4	F		Sleeve Lock, Brass
	B-3BH3-B-SL	B	3/8" x 11/16"	
	FMSD9-4	F		Brass
	B-3BK3-B	B		
	SLSD9-4	F		Sleeve Lock, Brass
	B-3BK3-B-SL	B	3/8" x 3/4"	
	FMSD11-4	F		Brass
	SLSD11-4			Sleeve Lock, Brass
	FMSD13-4			Brass
	SLSD13-4		Sleeve Lock, Brass	

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates




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3/8" One Way Shut-Off – 4 Series


(Industrial Interchange)


4 Series 3/8" Plugs

Female Thread		Part No.	Brand	FPT	Description	
		41-4	F	1/4"	Steel	
		B-B3F2-S	B			
		43-4	F	3/8"	Steel	
		B-B3F3-S	B			
		B-B3F3-B	B			Brass
		43-4S/S	F			303 Stainless
		45-4	F	1/2"	Steel	
		B-B3F4-S	B			


Hose Stem		Part No.	Brand	I.D.	Description		
		46-4	F	1/4"	Steel		
		B-B3S2-S	B				
		47-4	F	5/16"	Steel		
		48-4	F				
		B-B3S3-S	B			3/8"	Steel
		48-4B	F				Brass
		48-4S/S	F	1/2"	Steel		
		49-4	F				
		B-B3S4-S	B				

Requires Hose Clamps (See page 200 for typical hose clamps)


Male Thread		Part No.	Brand	MPT	Description	
		38-4	F	1/8"	Steel	
		40-4	F			
		B-B3M2-S	B	1/4"	Steel	
		40-4B	F			Brass
		40-4S/S	F			303 Stainless
		42-4	F	3/8"	Steel	
		B-B3M3-S	B			
		42-4B	F			Brass
		B-B3M3-B	B			303 Stainless
		42-4S/S	F			
		44-4	F	1/2"	Steel	
		B-B3M4-S	B			

Push-On Hose Stem		Part No.	Brand	I.D.	Description
		51-4	F	1/4"	Steel
		B-B3PS2-S	B		
		71-4	F	3/8"	Steel
		B-B3PS3-S	B		
		71-4B	F		
		81-4	F	1/2"	Steel
		B-B3PS4-S	B		

Hose clamps not required when used with "Push On" hose. See page 369.

Male Thread Free Swivel - Under Pressure		Part No.	MPT	Description
		40S-4	1/4"	Brass /Steel
		42S-4	3/8"	
		44S-4	1/2"	

Swivel Plugs – Eliminates hose twist on end drop applications such as blow guns, air tools, etc.

Reusable Hose Clamp		Part No.	I.D. x O.D.	Description
		PB3-4	1/4" x 1/2"	Steel
		PB5-4	1/4" x 9/16"	Steel
		PB7-4	1/4" x 5/8"	Steel
		PD7-4	3/8" x 5/8"	Steel
		PD9-4	3/8" x 11/16"	Steel
		PD11-4	3/8" x 3/4"	Steel
PD13-4	3/8" x 13/16"	Steel		

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

www.zsi-foster.com




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1/2" One Way Shut-Off – 5 & C Series





(Industrial Interchange)

5 & C Series 1/2" 1-Way Manual Sleeve Guard Sockets - Breco

Female Thread		Part No.	FPT	Description
		B-4CF3-S	3/8"	Steel
		B-4CF4-B	1/2"	Brass w/Brass Sleeve
		B-4CF4-S		Steel
B-4CF6-S	3/4"	Steel		

Male Thread		Part No.	FPT	Description
		B-4CM3-S	3/8"	Steel
		B-4CM4-B	1/2"	Brass w/Brass Sleeve
		B-4CM4-S		Steel
B-4CM6-S	3/4"	Steel		

Hose Stem		Part No.	FPT	Description
		B-4CS3-S	3/8"	Steel
		B-4CS4-S	1/2"	Steel
		B-4CS6-S	3/4"	Steel
Requires Hose Clamp (See page 200 for typical hose clamps)				

Push-On Hose Stem		Part No.	I.D.	Description
		B-4CPS3-S	3/8"	Steel
		B-4CPS4-S	1/2"	Steel
Hose clamps not required when used with "Push On" hose. See page 369.				

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

Fittings & Accessories

Hoses & Fittings

Technical Data

Indexes





1/2" One Way Shut-Off – 5 & D Series

(Industrial Interchange)

5 & D Series 1/2" 1-Way Shut-Off Sockets

Female Thread	Part No.	Brand	FPT	Description
	4015	F	1/4"	Brass/Steel
	D540	B		
	BL4015	F	1/4"	Ball Lock, Brass/Steel
	D540BL	B		
	5005	F	3/8"	Brass/Steel
	D560	B		
	BL5005	F	3/8"	Ball Lock, Brass/Steel
	D560BL	B		
	5005H	F	3/8"	For Heat, Viton Seal
	5005W	F		For Water, Brass/SS, Buna-N Seal
	5205	F	1/2"	Brass/Steel
	D580	B		
	BL5205	F	1/2"	Ball Lock, Brass/Steel
	D580BL	B		
	5205H	F	1/2"	For Heat, Viton Seal
	5205LV	F		Less Valve
	5205S/S	F	1/2"	303 Stainless
	5205W	F		For Water, Brass/SS, Buna-N Seal
	5405	F	3/4"	Brass/Steel
D5120	B			
BL5405	F	3/4"	Ball Lock, Brass/Steel	
D5120BL	B			
5405W	F	3/4"	For Water, Brass/SS, Buna-N Seal	



Male Thread	Part No.	Brand	MPT	Description
	4905	F	1/4"	Brass/Steel
	D541	B		
	BL4905	F	1/4"	Ball Lock, Brass/Steel
	D541BL	B		
	5105	F	3/8"	Brass/Steel
	D561	B		
	BL5105	F	3/8"	Ball Lock, Brass/Steel
	D561BL	B		
	5305	F	1/2"	Brass/Steel
	D581	B		
	BL5305	F	1/2"	Ball Lock, Brass/Steel
	D581BL	B		
	5305H	F	1/2"	For Heat, Viton Seal
	5305S/S	F		303 Stainless
	5305W	F	1/2"	For Water, Brass/SS, Buna-N Seal
	5505	F		3/4"
	D5121	B		
	BL5505	F	3/4"	Ball Lock, Brass/Steel
	D5121BL	B		



Push-On Hose Stem	Part No.	Brand	I.D.	Description
	1815	F	1/2"	Brass/Steel
	D584	B		
	1815W	F	1/2"	For Water, Brass/SS, Buna-N Seal
	BL1815	F		
	D584BL	B	1/2"	Ball Lock, Brass/Steel

Hose clamps not required when used with "Push On" hose. See page 369.



Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates



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1/2" One Way Shut-Off – 5 & D Series

(Industrial Interchange)



5 & D Series 1/2" 1-Way Shut-Off Sockets

Hose Stem	Part No.	Brand	I.D.	Description
		5605	F	1/4"
	D542	B	Ball Lock, Brass/Steel	
	BL5605	F	3/8"	Brass/Steel
	D542BL	B		Ball Lock, Brass/Steel
	5705	F	3/8"	Brass/Steel
	D562	B		Ball Lock, Brass/Steel
	BL5705	F	3/8"	Brass/Steel
	D562BL	B		Ball Lock, Brass/Steel
	5705H	F	3/8"	For Heat, Viton Seal
	5805	F		Brass/Steel
	D582	B	1/2"	Ball Lock, Brass/Steel
	BL5805	F		Ball Lock, Brass/Steel
	D582BL	B	1/2"	For Hot Water, Brass/SS, Viton Seal
	5805H	F		For Hot Water, Brass/SS, Viton Seal
	5805HW	F	1/2"	For Water, Brass/SS, Buna-N Seal
	5805W	F		For Water, Brass/SS, Buna-N Seal
	5905	F	3/4"	Brass/Steel
	D5122	B		Ball Lock, Brass/Steel
	BL5905	F	3/4"	For Water, Brass/SS, Buna-N Seal
	D5122BL	B		For Water, Brass/SS, Buna-N Seal
	5905W	F		For Water, Brass/SS, Buna-N Seal

Requires Hose Clamp (See page 200 for typical hose clamps)



Reusable Hose Clamp	Part No.	Brand	I.D. x O.D.	Description
		SD7-5	F	3/8" x 5/8"
	BLS7-5	Ball Lock, Brass/Steel		
	SD7-5W	F	3/8" x 11/16"	For Water, Brass/SS, Buna-N Seal
	SD9-5			Brass/Steel
	BLS9-5	F	3/8" x 11/16"	Ball Lock, Brass/Steel
	SD9-5W			For Water, Brass/SS, Buna-N Seal
	SD11-5	F	3/8" x 3/4"	Brass/Steel
	BLS11-5			Ball Lock, Brass/Steel
	SD13-5	F	3/8" x 13/16"	Brass/Steel
	BLS13-5			Ball Lock, Brass/Steel
	SP13-5	F	1/2" x 13/16"	Brass/Steel
	BLS13-5			Ball Lock, Brass/Steel
	SP13-5W	F	1/2" x 7/8"	For Water, Brass/SS, Buna-N Seal
	SP15-5			Brass/Steel
	BLS15-5	F	1/2" x 15/16"	Ball Lock, Brass/Steel
	SP17-5			Brass/Steel
	BLS17-5	F	1/2" x 1"	Ball Lock, Brass/Steel
	SP19-5			Brass/Steel
	BLS19-5	F		Ball Lock, Brass/Steel





1/2" One Way Shut-Off – 5 & B Series

(Industrial Interchange)

5 & B Series 1/2" 1-Way Automatic Sockets

Female Thread	Part No.	Brand	FPT	Description
	FM4015	F	1/4"	Brass
B-4BF2-B	B			
SL4015	F	Sleeve Lock, Brass		
B-4BF2-B-SL	B			
FM5005	F	3/8"	Brass	
B-4BF3-B	B			
SL5005	F			Sleeve Lock, Brass
B-4BF3-B-SL	B			
FM5005H	F	For Heat, Viton Seal, Brass		
FM5005S		For Steam, Brass/SS, EPDM Seal		
FM5005W		For Water, Brass/SS, Buna-N Seal		
FM5205	F	1/2"	Brass	
B-4BF4-B	B			
SL5205	F			Sleeve Lock, Brass
B-4BF4-B-SL	B			
FM5205H	F	For Heat, Viton Seal, Brass		
FM5205LV		Less Valve, Brass		
FM5205S		For Steam, Brass/SS, EPDM Seal		
FM5205W		For Water, Brass/SS, Buna-N Seal		
FM5405		F	3/4"	Brass
B-4BF6-B	B			
SL5405	F	Sleeve Lock, Brass		
B-4BF6-B-SL	B			
FM5405W	F	For Water, Brass/SS, Buna-N Seal		



Male Thread	Part No.	Brand	MPT	Description
	FM4905	F	1/4"	Brass
B-4BM2-B	B			
SL4905	F	Sleeve Lock, Brass		
B-4BM2-B-SL	B			
FM5105	F	3/8"	Brass	
B-4BM3-B	B			
SL5105	F			Sleeve Lock, Brass
B-4BM3-B-SL	B			
FM5305	F	1/2"	Brass	
B-4BM4-B	B			
SL5305	F			Sleeve Lock, Brass
B-4BM4-B-SL	B			
FM5305S	F	For Steam, Brass/SS, EPDM Seal		
FM5305W		For Water, Brass/SS, Buna-N Seal		
FM5505	F	3/4"	Brass	
B-4BM6-B	B			
SL5505	F			Sleeve Lock, Brass
B-4BM6-B-SL	B			
FM5505S	F	For Steam, Brass/SS, EPDM Seal		



Ball Lock (BL) – Locks manual socket against accidental disconnect.
 Sleeve Lock (SL) – Locks automatic socket against accidental disconnect.

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates



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1/2" One Way Shut-Off – 5 & B Series



(Industrial Interchange)

5 & B Series 1/2" 1-Way Automatic Sockets

Hose Stem	Part No.	Brand	I.D.	Description
	FM5605	F	1/4"	Brass
	B-4BS2-B	B		
	SL5605	F		Sleeve Lock, Brass
	B-4BS2-B-SL	B		
	FM5705	F	3/8"	Brass
	B-4BS3-B	B		
	SL5705	F		Sleeve Lock, Brass
	B-4BS3-B-SL	B		
	FM5705H	F	1/2"	For Heat, Viton Seal, Brass
	FM5805	F		Brass
	B-4BS4-B	B		Sleeve Lock, Brass
	SL5805	F		
	B-4BS4-B-SL	B	3/4"	For Heat, Viton Seal, Brass
	FM5805H	F		For Heat, Sleeve Lock, Viton Seal
	SL5805H	F		For Water, Brass/SS, Buna-N Seal
	FM5805W	F		
	FM5905	F	3/4"	Brass
	B-4BS6-B	B		
	SL5905	F		Sleeve Lock, Brass
B-4BS6-B-SL	B			

Requires Hose Clamp (See page 200 for typical hose clamps)



Push-On Hose Stem	Part No.	Brand	I.D.	Description
	FM1815	F	1/2"	Brass
	B-4BPS4-B	B		
	B-4BPS4-B-SL	B		Sleeve Lock, Brass

Hose clamps not required when used with "Push On" hose. See page 369.



Reusable Hose Clamp	Part No.	I.D. x O.D.	Description
	FMSD7-5	3/8" x 5/8"	Brass
	SLSD7-5		Sleeve Lock, Brass
	FMSD7-5H		For Heat, Viton Seal, Brass
	FMSD9-5	3/8" x 11/16"	Brass
	SLSD9-5		Sleeve Lock, Brass
	FMSD11-5	3/8" x 3/4"	Brass
	SLSD11-5		Sleeve Lock, Brass
	FMSD13-5	3/8" x 13/16"	Brass
	SLSD13-5		Sleeve Lock, Brass
	FMSP13-5	1/2" x 13/16"	Brass
	SLSP13-5		Sleeve Lock, Brass
	FMSP13-5H		For Heat, Viton Seal, Brass
	FMSP15-5	1/2" x 7/8"	Brass
	SLSP15-5		Sleeve Lock, Brass
	FMSP17-5	1/2" x 15/16"	Brass
	SLSP17-5		Sleeve Lock, Brass
	FMSP19-5	1/2" x 1"	Brass
	SLSP19-5		Sleeve Lock, Brass







1/2" One Way Shut-Off – 5 Series


(Industrial Interchange)


5 Series 1/2" Plugs

Female Thread		Part No.	Brand	FPT	Description
		B-B4F2-S	B	1/4"	Steel
		53-5	F	3/8"	Steel
		B-B4F3-S	B		Steel
		55-5	F	1/2"	Steel
		B-B4F4-S	B		Brass
		B-B4F4-B	B		303 Stainless
		55-5S/S	F	3/4"	Steel
		57-5	F		Steel
		B-B4F6-S	B		


Hose Stem		Part No.	Brand	I.D.	Description
		59-5	F	3/8"	Steel
		B-B4S3-S	B		Steel
		59-5B	F	3/8"	Brass
		60-5	F	1/2"	Steel
		B-B4S4-S	B		Steel
		60-5G	F	1/2"	Ball Check, Steel
		60-5B	F	1/2"	Brass
		61-5	F	3/4"	Steel
		B-B4S6-S	B		Steel
		61-5B	F	3/4"	Brass

Requires Hose Clamps (See page 200 for typical hose clamps)


Male Thread		Part No.	Brand	MPT	Description
		50-5	F	1/4"	Steel
		B-B4M2-S	B		Steel
		52-5	F	3/8"	Steel
		B-B4M3-S	B		Brass
		52-5B	F		Ball Check, Brass
		54-5GB	F	1/2"	Steel
		54-5	F		Ball Check, Steel
		B-B4M4-S	B		Brass
		54-5G	F		303 Stainless
		54-5B	F	3/4"	Steel
		B-B4M4-B	B		303 Stainless
		54-5S/S	F	3/4"	Steel
		56-5	F		Steel
		B-B4M6-S	B		303 Stainless
		56-5S/S	F		

Push-On Hose Stem		Part No.	Brand	I.D.	Description
		71-5	F	3/8"	Steel
		B-B4PS3-S	B		Steel
		81-5	F	1/2"	Steel
		B-B4PS4-S	B		Brass
		81-5B	F	1/2"	Brass

Hose clamps not required when used with "Push On" hose. See page 369.

Male Thread Swivel Under Pressure		Part No.	MPT	Description
		52S-5	3/8"	Brass /Steel
		54S-5	1/2"	

Swivel Plugs – Eliminates hose twist on end drop applications such as blow guns, air tools, etc.

Reusable Hose Clamp		Part No.	I.D. x O.D.	Description
		PB3-5	1/4" x 1/2"	Steel
		PB5-5	1/4" x 9/16"	
		PB7-5	1/4" x 5/8"	
		PD7-5	3/8" x 5/8"	Steel
		PD9-5	3/8" x 11/16"	
		PD11-5	3/8" x 3/4"	
		PD13-5	3/8" x 13/16"	
		PP13-5	1/2" x 13/16"	Steel
		PP15-5	1/2" x 7/8"	
		PP17-5	1/2" x 15/16"	
PP19-5	1/2" x 1"			

Ball check plugs eliminate hose whip at disconnect by checking the rapid flow of downstream exhaust air

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates




WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

3/4" One Way Shut-Off – 6 & B Series





(Industrial Interchange)

6 & B Series 3/4" 1-Way Automatic Sockets

Female Thread		Part No.	Brand	FPT	Description
		FM6206	F	1/2"	Brass
		B-6BF4-B	B		Brass
		SL6206	F	1/2"	Sleeve Lock, Brass
		B-6BF4-B-SL	B		Sleeve Lock, Brass
		FM6206W	F	1/2"	For Water, Brass/SS, Buna-N Seal
		FM6406	F		Brass
		B-6BF6-B	B	3/4"	Brass
		SL6406	F		Sleeve Lock, Brass
		B-6BF6-B-SL	B	3/4"	Sleeve Lock, Brass
		FM6406H	F		For Heat, Viton Seal
		SL6406H		For Heat, Sleeve Lock, Viton Seal, Brass	
		FM6406S		For Steam, Brass/SS, EPDM Seal	
		FM6406W		For Water, Brass/SS, Buna-N Seal	
		FM6606	F	1"	Brass
B-6BF8-B	B	Brass			
SL6606	F	1"	Sleeve Lock, Brass		
B-6BF8-B-SL	B		Sleeve Lock, Brass		
FM6606W	F	1"	For Water, Brass/SS, Buna-N Seal		

Sleeve Lock (SL) – Locks automatic socket against accidental disconnect.

Male Thread		Part No.	Brand	MPT	Description
		FM6306	F	1/2"	Brass
		B-6BM4-B	B		Brass
		SL6306	F	1/2"	Sleeve Lock, Brass
		B-6BM4-B-SL	B		Sleeve Lock, Brass
		FM6306S	F	1/2"	For Steam, Brass/SS, EPDM Seal
		FM6306W			For Water, Brass/SS, Buna-N Seal
		FM6506	F	3/4"	Brass
		B-6BM6-B	B		Brass
		SL6506	F	3/4"	Sleeve Lock, Brass
		B-6BM6-B-SL	B		Sleeve Lock, Brass
		FM6506S	F	3/4"	For Steam, Brass/SS, EPDM Seal
		FM6506W			For Water, Brass/SS, Buna-N Seal
		FM6706	F	1"	Brass
		B-6BM8-B	B		Brass
SL6706	F	1"	Sleeve Lock, Brass		
B-6BM8-B-SL	B		Sleeve Lock, Brass		

Hose Stem		Part No.	Brand	I.D.	Description
		FM6806	F	1/2"	Brass
		B-6BS4-B	B		Brass
		SL6806	F	1/2"	Sleeve Lock, Brass
		B-6BS4-B-SL	B		Sleeve Lock, Brass
		FM6806W	F	1/2"	For Water, Brass/SS, Buna-N Seal
		FM6906	F		3/4"
		B-6BS6-B	B	Brass	
		SL6906	F	3/4"	Sleeve Lock, Brass
		B-6BS6-B-SL	B		Sleeve Lock, Brass
		FM6906W	F	3/4"	For Water, Brass/SS, Buna-N Seal
		FM7006	F		1"
		B-6BS8-B	B	Brass	
		SL7006	F	1"	Sleeve Lock, Brass
		B-6BS8-B-SL	B		Sleeve Lock, Brass

Requires Hose Clamp (See page 200 for typical hose clamps)







3/4" One Way Shut-Off – 6 Series


(Industrial Interchange)


6 Series 3/4" Plugs

Female Thread		Part No.	Brand	FPT	Description
		65-6	F	1/2"	Steel
		B-B6F4-S	B		
		67-6	F	3/4"	Steel
		B-B6F6-S	B		
		69-6	F	1"	Steel
		B-B6F8-S	B		

Hose Stem		Part No.	Brand	I.D.	Description
		70-6	F	1/2"	Steel
		B-B6S4-S	B		
		71-6	F	3/4"	Steel
		B-B6S6-S	B		
		72-6	F	1"	Steel
		B-B6S8-S	B		

Requires Hose Clamps (See page 200 for typical hose clamps)

Male Thread		Part No.	Brand	MPT	Description
		64-6	F	1/2"	Steel
		B-B6M4-S	B		
		66-6	F	3/4"	Steel
		B-B6M6-S	B		
		B-B6M6-B			
		68-6	F	1"	Steel
B-B6M8-S	B				

Male Thread Swivel Under Pressure		Part No.	MPT	Description
		66S-6	3/4"	Brass /Steel

Swivel Plugs – Eliminates hose twist on end drop applications such as blow guns, air tools, etc.

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

1/4" - 210 & O Series



(Interchange with ARO 210 Series)

Foster 210 Series couplings are available manual or automatic to connect designs and interchange with 1/4" body size ARO 210 series plugs.

Specifications:

Type: One-Way Shut-Off

Rated Pressure: 300 psig

Temperature Range (Buna seal): -40° to +250°F.

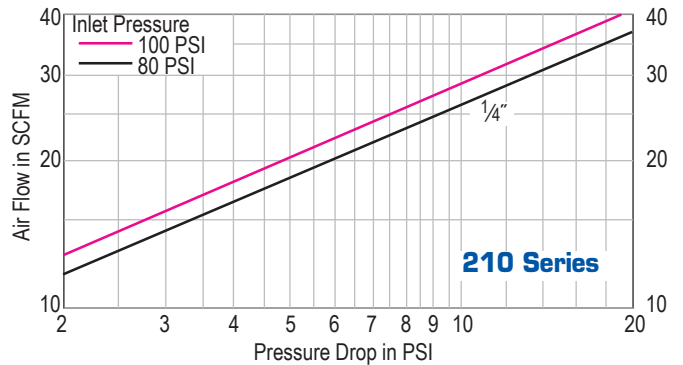
Locking Device: Stainless Steel pins

Operation:


Manual - Socket sleeve must be retracted to connect and disconnect


Automatic - Push to Connect, retract socket sleeve to disconnect


Performance:




210 & O Series 1/4" Manual Sockets

Female Thread		Part No.	Brand	FPT	Description
		210M-2803	F	1/8"	Brass/Steel
		210M-2803NP			Nickel Plated
		210M-2803S/S			303 Stainless
		B-20F2-B	B	1/4"	Brass
		210M-3003	F		Brass/Steel
		B-20F2-S	B		Steel
		210M-3003NP	F		Nickel Plated
		210M-3003S/S			303 Stainless
		B-20F3-B	B		3/8"
		210M-3203	F	Brass/Steel	
		210M-3203S/S		303 Stainless	

Male Thread		Part No.	Brand	MPT	Description
		210M-2903	F	1/8"	Brass/Steel
		210M-2903NP			Nickel Plated
		210M-2903S/S			303 Stainless
		B-20M2-B	B	1/4"	Brass
		210M-3103	F		Brass/Steel
		B-20M2-S	B		Steel
		210M-3103NP	F		Nickel Plated
		210M-3103S/S			303 Stainless
		B-20M3-B	B		3/8"
		210M-3303	F	Brass/Steel	
		210M-3303S/S		303 Stainless	

Hose Stem		Part No.	Brand	I.D.	Description
		B-20S2-B	B	1/4"	Brass
		210M-3603	F		Brass/Steel
		210M-3603NP			Nickel Plated
		210M-3603S/S		303 Stainless	
		210M-3653	5/16"	Brass/Steel	
		210M-3653S/S		303 Stainless	
		B-20S3-B	B	3/8"	Brass
		210M-3703	F		Brass/Steel
210M-3703S/S	303 Stainless				

Requires Hose Clamp (See page 200 for typical hose clamps)

Push-Lock Hose Barb		Part No.	I.D.	Description
		B-20PS2-B	1/4"	Brass
		B-20PS3-B	3/8"	Brass

Hose clamps not required when used with "Push On" hose. See page 369.




WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.





1/4" - 210 & O Series


(Interchange with ARO 210 Series)


210 Series 1/4" Automatic Sockets - Foster

Female Thread		Part No.	FPT	Description
		210-2803	1/8"	Brass/Steel
		210-2803S/S	1/8"	303 Stainless
		210-3003	1/4"	Brass/Steel
		210-3003S/S	1/4"	303 Stainless
		210-3203	3/8"	Brass/Steel
	210-3203S/S	3/8"	303 Stainless	


Push-On Hose Stem		Part No.	I.D.	Description
		210-1513	1/4"	Brass/Steel
		210-1713	3/8"	
Hose clamps not required when used with "Push On" hose. See page 369.				


Male Thread		Part No.	MPT	Description
		210-2903	1/8"	Brass/Steel
		210-2903S/S	1/8"	303 Stainless
		210-3103	1/4"	Brass/Steel
		210-3103S/S	1/4"	303 Stainless
		210-3303	3/8"	Brass/Steel
	210-3303S/S	3/8"	303 Stainless	


Reusable Hose Clamp		Part No.	I.D. x O.D.	Description
		210-SB3	1/4" x 1/2"	Brass/Steel
		210-SB3S/S	1/4" x 1/2"	303 Stainless
		210-SB5	1/4" x 9/16"	Brass/Steel
		210-SB7	1/4" x 5/8"	
		210-SB7S/S	1/4" x 5/8"	303 Stainless
		210-SC5	5/16" x 9/16"	Brass/Steel
		210-SC7	5/16" x 5/8"	
		210-SD7	3/8" x 5/8"	
		210-SD9	3/8" x 11/16"	
	210-SD11	3/8" x 3/4"		
	210-SD13	3/8" x 13/16"		


Hose Stem		Part No.	I.D.	Description
		210-3603	1/4"	Brass/Steel
		210-3603S/S	1/4"	303 Stainless
		210-3653	5/16"	Brass/Steel
		210-3703	3/8"	Brass/Steel
		210-3703S/S	3/8"	303 Stainless
Requires Hose Clamp (See page 200 for typical hose clamps)				

210 & O Series 1/4" Plugs

Female Thread		Part No.	Brand	FPT	Description
		210-11	F	1/4"	Steel
		B-O2F2-S	B		
		210-11NP	F		
		210-11S/S	F	303 Stainless	
		B-O2F3-S	B	3/8"	Steel

Male Thread		Part No.	Brand	MPT	Description	
		210-12	F	1/8"	Steel	
		B-O2M1-S	B			
		210-12NP	F			Nickel Plated
		210-10	F	1/4"	Steel	
		B-O2M2-S	B			
		210-10NP	F			Nickel Plated
		210-10S/S	F			303 Stainless
	B-O2M3-S	B	3/8"	Steel		

Hose Stem		Part No.	I.D.	Description
		210-16	1/4"	Steel
		210-16NP		Nickel Plated
		210-165	5/16"	Steel
		210-165NP		Nickel Plated
	210-17	3/8"	Steel	
Requires Hose Clamp (See page 200 for typical hose clamps)				

Push-On Hose Stem		Part No.	I.D.	Description
		210-51	1/4"	Steel
Hose clamps not required when used with "Push On" hose. See page 369.				

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

www.zsi-foster.com



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

3/8" - 310 & O Series



(Interchange with ARO 310 Series)

Type: One Way Shut-Off


Rated Pressure: 300 PSIG


Operation:


Manual - Retract socket sleeve to connect and disconnect

Automatic - Push to Connect, retract socket sleeve to disconnect

310 & O Series 3/8" Manual Sockets


Female Thread		Part No.	Brand	FPT	Description
		310M-4004	F	1/4"	Brass/Steel
		B-30F3-B	B	3/8"	Brass
		310M-4204	F		Brass/Steel
		B-30F3-S	B	Steel	
		310M-4204NP	F	1/2"	Nickel Plated
		310M-4404			Brass/Steel


Male Thread		Part No.	Brand	MPT	Description
		310M-4104	F	1/4"	Brass/Steel
		310M-4304NP		Nickel Plated	
		310M-4304		3/8"	Brass/Steel
		B-30M3-S	B	Steel	
		310M-4504	F	1/2"	Brass/Steel

Hose Stem		Part No.	I.D.	Description
		310M-4604	1/4"	Brass/Steel
		310M-4704	5/16"	
		310M-4804	3/8"	Nickel Plated
		310M-4804NP		
310M-4904	1/2"	Brass/Steel		


Requires Hose Clamp (See page 200 for typical hose clamps)


310 Series 3/8" Automatic Sockets - Foster


Female Thread		Part No.	FPT	Description
		310-4004	1/4"	Brass/Steel
		310-4204	3/8"	Brass/Steel
310-4404	1/2"	Brass/Steel		

Push-On Hose Stem		Part No.	I.D.	Description
		310-1714	3/8"	Brass/Steel
		310-1814	1/2"	Brass/Steel

Hose clamps not required when used with "Push On" hose. See page 369.

Male Thread		Part No.	MPT	Description
		310-4104	1/4"	Brass/Steel
		310-4304	3/8"	Brass/Steel
310-4504	1/2"	Brass/Steel		

Reusable Hose Clamp		Part No.	I.D. x O.D.	Description
		310-SB3	1/4" x 1/2"	Brass/Steel
		310-SB5	1/4" x 9/16"	
		310-SB7	1/4" x 5/8"	
		310-SD7	3/8" x 5/8"	Brass/Steel
		310-SD9	3/8" x 11/16"	
		310-SD11	3/8" x 3/4"	
310-SD13	3/8" x 13/16"			

Hose Stem		Part No.	I.D.	Description
		310-4604	1/4"	Brass/Steel
		310-4704	5/16"	Brass/Steel
		310-4804	3/8"	Brass/Steel
		310-4904	1/2"	Brass/Steel

Requires Hose Clamp (See page 200 for typical hose clamps)

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates

ZSi-Foster Engineering Catalog



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

Fittings & Accessories

Hoses & Fittings

Technical Data


Indexes





3/8" - 310 & O Series

(Interchange with ARO 310 Series)

310 & O Series 3/8" Plugs

Female Thread		Part No.	Brand	FPT	Description
		310-43	F	3/8"	Steel
		B-O3F3-S	B		
		310-43NP	F		

Male Thread		Part No.	Brand	MPT	Description
		310-42	F	3/8"	Steel
		B-O3M3-S	B		
		310-42NP	F		

Hose Stem		Part No.	I.D.	Description
		310-48	3/8"	Steel
		310-48NP		Nickel Plated
		310-49	1/2"	Steel

Requires Hose Clamp (See page 200 for typical hose clamps)

Brand - Designates **F**=Foster or **B**=Breco Part

Call factory for nickel plating on additional items
 See page 380 for full size templates
 See page 373 - 374 for optional seal compounds



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

1/4" - TF & J Series



(Interchange with Tru-Flate Series)

TF Series Couplers (pneumatic) up to 300 psig connect with Tru-Flate design, commonly called the automotive interchange. They have manual sleeves and are single shut off quick couplings. The steel tubular valve delivers high air flow with minimal pressure drop. Couplers and Nipples are available in a wide range of sizes and materials for use in a variety of applications with air or fluid.

Type: One Way Shut-Off

Rated Pressure: 300 PSIG

Operation:

Automatic - Push to Connect, retract socket sleeve to disconnect

Sizes: Sizes: 1/4", 3/8", (For 1/2" use Industrial Interchange product)


Features:


- Developed for the automotive industry
- High flow valves with minimal pressure drop
- Integral Sleeve guard helps prevent accidental disconnect
- Grip-ring sleeve version has a larger knurled diameter to provide easy operation when gloves are worn

Applications:


- Air compressors, Pneumatic Tools
- Grease guns, Paint applicators


TF & J Series 1/4" Automatic Sockets

Female Thread		Part No.	Brand	FPT	Description
		B-2JF1-B	B	1/8"	Brass
		TF2803	F		Brass/Steel
		B-2JF2-B	B	1/4"	Brass
		TF3003	F		Brass/Steel
		SGTF3003	F		Brass w/Steel Valve w/Sleeve Guard
		B-2JF3-B	B	3/8"	Brass
		TF3203	F		Brass/Steel


Hose Stem		Part No.	Brand	I.D.	Description
		B-2JS2-B	B	1/4"	Brass
		TF3603	F		Brass/Steel
		TF3653	F	5/16"	Brass/Steel
		B-2JS3-B	B	3/8"	Brass
		TF3703	F		Brass/Steel

Requires Hose Clamps (See page 200 for typical hose clamps)

Male Thread		Part No.	Brand	MPT	Description
		TF2903	F	1/8"	Brass/Steel
		B-2JM2-B	B		Brass
		TF3103	F	1/4"	Brass/Steel
		SGTF3103	F		Brass w/Steel Valve w/Sleeve Guard
		B-2JM3-B	B	3/8"	Brass
		TF3303	F		Brass/Steel

Push-On Hose Stem		Part No.	Brand	I.D.	Description
		B-2JPS2-B	B	1/4"	Brass
		TF1513	F		Brass/Steel
		B-2JPS3-B	B	3/8"	Brass
		TF1713	F		Brass/Steel

Hose clamps not required when used with "Push On" hose. See page 369.

Reusable Hose Clamp		Part No.	I.D. x O.D.	Description
		TFSB3	1/4" x 1/2"	Brass/Steel
		TFSB5	1/4" x 9/16"	
		TFSB7	1/4" x 5/8"	
		TFSC5	5/16" x 9/16"	
		TFSC7	5/16" x 5/8"	
		TFSD7	3/8" x 5/8"	
		TFSD9	3/8" x 11/16"	
		TFSD11	3/8" x 3/4"	
TFSD13	3/8" x 13/16"			




WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.





1/4" - TF & J Series

(Interchange with Tru-Flate Series)


TF & J Series 1/4" Plugs

Female Thread		Part No.	Brand	FPT	Description
		TF13	F	1/8"	Steel
		B-J2F1-S	B		Brass
		B-J2F2-B	B	1/4"	Steel
		TF11	F		Steel
		B-J2F2-S	B		Steel
		TF15	F	3/8"	Steel
B-J2F3-S	B	Steel			


Male Thread		Part No.	Brand	MPT	Description
		TF12	F	1/8"	Steel
		B-J2M2-B	B		Brass
		TF10	F	1/4"	Steel
		B-J2M2-S	B		Steel
TF14	F	3/8"	Steel		

Hose Stem		Part No.	I.D.	Description
		TF16	1/4"	Steel
		TF165	15/16"	Steel
		TF17	3/8"	Steel

Requires Hose Clamps (See page 200 for typical hose clamps)

Push-On Hose Stem		Part No.	Brand	I.D.	Description
		TF51	F	1/4"	Steel
		B-J2PS2-S	B		
		TF71	F	3/8"	Steel

Hose clamps not required when used with "Push On" hose. See page 369.

Reusable Hose Clamp		Part No.	I.D. x O.D.	Description
		TFPB3	1/4" x 1/2"	Steel
		TFPB5	1/4" x 9/16"	
TFPB7	1/4" x 5/8"			

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates




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3/8" - TF4 & J Series




(Interchange with Tru-Flate Series)


TF4 & J Series 3/8" Automatic Sockets

Female Thread		Part No.	Brand	FPT	Description
		TF4004	F	1/4"	Brass/Steel
		B-3JF2-S	B		Steel
		TF4204	F	3/8"	Brass/Steel
		B-3JF3-S	B		Steel
		TF4404	F	1/2"	Brass/Steel
		B-3JF4-S	B		Steel


Male Thread		Part No.	Brand	MPT	Description
		TF4104	F	1/4"	Brass/Steel
		B-3JM2-S	B		Steel
		B-3JM3-B	B	3/8"	Brass
		TF4304	F		Brass/Steel
		B-3JM3-S	B	Steel	
		TF4504	F	1/2"	Brass/Steel
B-3JM4-S	B	Steel			

Hose Stem		Part No.	Brand	I.D.	Description
		TF4604	F	1/4"	Brass/Steel
		TF4704	F	5/16"	Brass/Steel
		TF4804	F	3/8"	Brass/Steel
		B-3JS3-S	B		Steel
		TF4904	F	1/2"	Brass/Steel
		B-3JS4-S	B		Steel


Requires Hose Clamps (See page 200 for typical hose clamps)


Push-On Hose Stem		Part No.	Brand	I.D.	Description
		TF1714	F	3/8"	Brass/Steel
		B-3JPS3-S	B		Steel
		TF1814	F	1/2"	Brass/Steel


Hose clamps not required when used with "Push On" hose. See page 369.

Reusable Hose Clamp		Part No.	I.D. x O.D.	Description
		TF5B34	1/4" x 1/2"	Brass/Steel
		TF5B54	1/4" x 3/16"	
		TF5B74	1/4" x 5/8"	
		TF5D74	3/8" x 5/8"	
		TF5D94	3/8" x 11/16"	
		TF5D114	3/8" x 3/4"	
TF5D134	3/8" x 13/16"			


TF4 & J Series 3/8" Plugs

Female Thread		Part No.	FPT	Description
		TF41	1/4"	Steel
		TF43	3/8"	Steel

Male Thread		Part No.	Brand	MPT	Description
		TF40	F	1/4"	Steel
		TF42	F	3/8"	Steel
		B-J3M3-S	B		

Hose Stem		Part No.	Brand	I.D.	Description
		TF48	F	3/8"	Steel
		B-J3S3-S	B		

Requires Hose Clamps (See page 200 for typical hose clamps)

Push-On Hose Stem		Part No.	I.D.	Description
		B-J3PS3-S	3/8"	Steel

Hose clamps not required when used with "Push On" hose. See page 369.

See page 380 for full size templates

Brand - Designates **F**=Foster or **B**=Breco Part

ZSi-Foster Engineering Catalog




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1/2" - TF & J Series

(Interchange with Tru-Flate Series)


J Series 1/2" Manual Sockets - Breco

Female Thread		Part No.	FPT	Description
		B-4CF3-S	3/8"	Steel
		B-4CF4-B	1/2"	Brass
		B-4CF4-S		Steel
B-4CF6-S	3/4"	Steel		

Male Thread		Part No.	MPT	Description
		B-4CM3-S	3/8"	Steel
		B-4CM4-B	1/2"	Brass
		B-4CM4-S		Steel
B-4CM6-S	3/4"	Steel		


Hose Stem		Part No.	I.D.	Description
		B-4CS3-S	3/8"	Steel
		B-4CS4-S	1/2"	Steel
		B-4CS6-S	3/4"	Steel


Requires Hose Clamps (See page 200 for typical hose clamps)


Push-On Hose Stem		Part No.	I.D.	Description
		B-4CPS3-S	3/8"	Steel
B-4CPS4-S	1/2"	Steel		

Hose clamps not required when used with "Push On" hose. See page 369.


J Series 1/2" Plugs - Breco

Female Thread		Part No.	FPT	Description
		B-B4F3-S	3/8"	Steel
		B-B4F4-S	1/2"	Steel
B-B4F6-S	3/4"	Steel		

Male Thread		Part No.	MPT	Description
		B-B4M3-S	3/8"	Steel
		B-B4M4-S	1/2"	Steel
B-B4M6-S	3/4"	Steel		

Hose Stem		Part No.	I.D.	Description
		B-B4S3-S	3/8"	Steel
		B-B4S4-S	1/2"	Steel
		B-B4S6-S	3/4"	Steel

Requires Hose Clamps (See page 200 for typical hose clamps)

Push-On Hose Stem		Part No.	I.D.	Description
		B-B4PS3-S	3/8"	Steel
B-B4PS4-S	1/2"	Steel		

Hose clamps not required when used with "Push On" hose. See page 369.

Brand - Designates **F**=Foster or **B**=Breco Part

See page 380 for full size templates



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SHD & TL Series



(Interchange with Schrader Standard & Heavy Duty)

Features:

- Engineered for speedy coupling and uncoupling.
To lock - push in; To unlock - rotate sleeve 1/8 turn.
- Designed to protect against accidental uncoupling. A variety of types and sizes are available to meet specific needs.
- Standard Twist-Lock couplings are ideal for low to medium air flows, such as air tools.

Specifications:

Temperature Range (Nitrile seal): -40° to +250°F

Locking Device: Twist-Lock

Vacuum Service: 27" HG

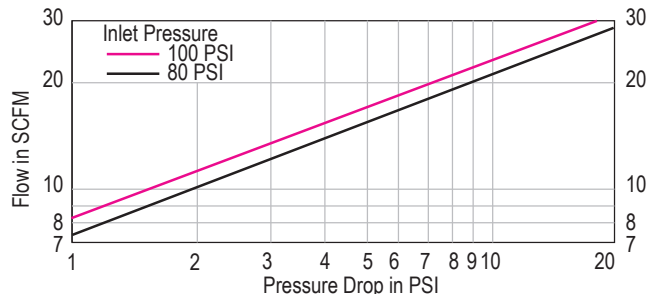
Type: One Way Shut-Off

Rated Pressure: 300 PSIG


Operation: Automatic Push to Connect; Twist-to-release


Materials: Aluminum bodies and zinc plated steel sleeves.
Buna-N seals. Brass adapters.


Performance:



SHD & TL Series Automatic 1/4" Sockets


Female Thread		Part No.	Brand	Size	FPT	Description	
		SHD2803	F	1/8"	1/8"	Aluminum/Steel/ Brass	
		B-2TLF1-S	B				
		SHD2803S/S	F				303 Stainless
		SHD3003	F	1/4"	1/4"	Aluminum/Steel/ Brass	
		B-2TLF2-S	B				
		SHD3003-104	F				Aluminum/Steel/ Brass w/Silicone Seal
		SHD3003LV	F	1/4"	1/4"	Aluminum/Steel/ Brass Less Valve	
		SHD3003S/S	F				303 Stainless
		SHD3203	F				3/8"
		B-2TLF3-S	B				
		SHD3203S/S	F	303 Stainless			

Male Thread		Part No.	Brand	Size	MPT	Description	
		SHD2903	F	1/8"	1/8"	Aluminum/Steel/ Brass	
		SHD2903S/S	F				303 Stainless
		SHD3103	F	1/4"	1/4"	Aluminum/Steel/ Brass	
		B-2TLM2-S	B				
		SHD3103-104	F				Aluminum/Steel/ Brass w/Silicone Seal
		SHD3103S/S	F	1/4"	1/4"	Aluminum/Steel/ Brass w/Silicone Seal	
		SHD3303	F				303 Stainless
		B-2TLM3-S	B				3/8"
		SHD3303S/S	F	303 Stainless			

Hose Stem		Part No.	Size	I.D.	Description
		SHD3603	1/4"	1/4"	Aluminum/Steel/Brass
		SHD3603S/S			
		SHD3653	1/4"	5/16"	Aluminum/Steel/Brass
		SHD3703		3/8"	Aluminum/Steel/Brass
		SHD3703S/S	F		303 Stainless

Requires Hose Clamp (See page 200 for typical hose clamps)

Reusable Hose Clamp		Part No.	Size	I.D. x O.D.	Description
		SHDSB33	1/4"	1/4" x 1/2"	Aluminum/Steel/ Brass
		SHDSB33S/S			
		SHDSB53	1/4"	1/4" x 9/16"	Aluminum/Steel/ Brass
		SHDSB73			
		SHDSB73S/S	F	303 Stainless	
		SHDSC53	1/4"	5/16" x 9/16"	Aluminum/Steel/ Brass
		SHDSC73		5/16" x 5/8"	
		SHDSD73	1/4"	3/8" x 5/8"	Aluminum/Steel/ Brass
		SHDSD93		3/8" x 11/16"	
		SHDSD113		3/8" x 3/4"	
		SHDSD133		3/8" x 13/16"	

Push-On Hose Stem		Part No.	Size	I.D.	Description
		SHD1513	1/4"	1/4"	Aluminum/ Steel/Brass
		SHD1713		3/8"	

Hose clamps not required when used with "Push On" hose. See page 369.

See page 381 for full size templates
See page 373 - 374 for optional seal compounds

Brand - Designates **F**=Foster or **B**=Breco Part




WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.




SHD & TL Series


(Interchange with Schrader Standard & Heavy Duty)


SHD Series Automatic 1/2" Sockets - Foster


Female Thread		Part No.	Brand	Size	FPT	Description
		SHD4015	F	1/2"	1/4"	Aluminum/Steel/ Brass
		B-4TLF2-S	B			
		SHD5005	F	3/8"		
		B-4TLF3-S	B			
		SHD5205	F	1/2"		
		B-4TLF4-S	B			
		SHD5405	F	3/4"		
		B-4TLF6-S	B			


Male Thread		Part No.	Brand	Size	MPT	Description
		SHD4905	F	1/2"	1/4"	Aluminum/Steel/ Brass
		B-4TLM2-S	B			
		SHD5105	F	3/8"		
		B-4TLM3-S	B			
		SHD5305	F	1/2"		
		B-4TLM4-S	B			
SHD5505	F	3/4"				

SHD Series Dust Plugs - Foster

Dust Plug		Part No.	Size	Description
		SHD-DP	1/4"	Aluminum w/Lanyard

Hose Stem		Part No.	Size	I.D.	Description
		SHD5605	1/2"	1/4"	Aluminum/Steel/Brass
		SHD5705		3/8"	
		SHD5805		1/2"	
		SHD5905		3/4"	
Requires Hose Clamp (See page 200 for typical hose clamps)					

Push-On Hose Stem		Part No.	Size	I.D.	Description
		SHD1815	1/2"	1/2"	Aluminum/Steel/ Brass
Hose clamps not required when used with "Push On" hose. See page 369.					

Reusable Hose Clamp		Part No.	Size	I.D. x O.D.	Description
		SHDSD75	1/2"	3/8" x 5/8"	Aluminum/Steel/ Brass
		SHDSD95		3/8" x 11/16"	
		SHDSD115		3/8" x 3/4"	
		SHDSD135		3/8" x 13/16"	
		SHDSP135		1/2" x 13/16"	
		SHDSP155		1/2" x 7/8"	
		SHDSP175		1/2" x 15/16"	
		SHDSP195		1/2" x 1"	

Brand - Designates **F**=Foster or **B**=Breco Part

See page 381 for full size templates
See page 373 - 374 for optional seal compounds




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SHD & TL Series




(Interchange with Schrader Standard & Heavy Duty)


SHD & TL Series 1/4" Plugs

Female Thread		Part No.	Size	FPT	Description
		SHD13	1/4"	1/8"	Steel
		SHD11		1/4"	Steel
		SHD11S/S		1/4"	303 Stainless

Male Thread		Part No.	Size	MPT	Description
		SHD12	1/4"	1/8"	Steel
		SHD10		1/4"	Steel
		SHD10S/S		1/4"	303 Stainless


Hose Stem		Part No.	Brand	Size	I.D.	Description
		SHD16	F	1/4"	1/4"	Steel
		B-TL2S2-S	B			
		SHD17	F			


Requires Hose Clamp (See page 200 for typical hose clamps)


Push-On Hose Stem		Part No.	Size	I.D.	Description
		SHD51	1/4"	1/4"	Steel

Hose clamps not required when used with "Push On" hose. See page 369.

SHD & TL Series 1/2" Plugs

Female Thread		Part No.	Brand	Size	FPT	Description
		B-TL4F2-S	B	1/2"	1/4"	Steel
		SHD53	F		3/8"	

Male Thread		Part No.	Brand	Size	MPT	Description
		SHD50	F	1/2"	1/4"	Steel
		SHD52	F		3/8"	
		SHD54	F		1/2"	
		B-TL4M6-S	B		3/4"	

Hose Stem		Part No.	Brand	Size	I.D.	Description
		SHD59	F	1/2"	3/8"	Steel
		SHD60			1/2"	

Requires Hose Clamp (See page 200 for typical hose clamps)

Brand - Designates **F**=Foster or **B**=Breco Part
ZSi-Foster Engineering Catalog

See page 381 for full size templates
 See page 373 - 374 for optional seal compounds



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1/4" - O60 & A70 Series

(Interchange with Hansen 600 & 700 Series)

Type: One Way Shut-Off

Rated Pressure: 300 PSIG

Safety: Sleeve must be retracted to connect and disconnect

Applications & Markets:

- Designed for use with compressed air and other gases
- General Pneumatics • Breathing Equipment • Welding • Shipyards • Construction
- Series O60 couplings used with oxygen at 100 psig or less
- Series A70 couplings used with acetylene at 15 psig or less

COLOR CODED SOCKETS

■ **O60 – GREEN SLEEVE BAND • OXYGEN SERVICE**

■ **A70 – RED SLEEVE BAND • ACETYLENE SERVICE**

When used for oxygen/acetylene service, order with Ball Lock (BL) to comply with OSHA Std. 1915.55(f)(5).

O60 Series 1/4" Standard Sockets - Foster

Female Thread		Part No.	FPT	Description
		O-2803	1/8"	Brass
		O-3003	1/4"	
		O-3003LV	1/4"	Less Valve, Brass
		O-3203	3/8"	Brass
		BLO-2803	1/8"	Ball Lock, Brass
		BLO-3003	1/4"	
		BLO-3203	3/8"	

Male Thread		Part No.	MPT	Description
		O-2903	1/8"	Brass
		O-3103	1/4"	
		O-3303	3/8"	Ball Lock, Brass
		BLO-2903	1/8"	
		BLO-3103	1/4"	
		BLO-3303	3/8"	

Hose Stem		Part No.	I.D.	Description
		O-3603	1/4"	Brass
		O-3653	5/16"	
		O-3703	3/8"	
		BLO-3603	1/4"	Ball Lock, Brass
		BLO-3653	5/16"	
		BLO-3703	3/8"	

Requires Hose Clamp (See page 200 for typical hose clamps)

Reusable Hose Clamp		Part No.	I.D. x O.D.	Description
		O-SB3	1/4" x 1/2"	Brass
		O-SB5	1/4" x 9/16"	
		O-SB7	1/4" x 5/8"	
		O-SC5	5/16" x 9/16"	
		O-SC7	5/16" x 5/8"	
		O-SD7	3/8" x 5/8"	
		O-SD9	3/8" x 11/16"	
		O-SD11	3/8" x 3/4"	Ball Lock, Brass
		O-SD13	3/8" x 13/16"	
		BLO-SB3	1/4" x 1/2"	
		BLO-SB5	1/4" x 9/16"	
		BLO-SB7	1/4" x 5/8"	
		BLO-SC5	5/16" x 9/16"	
		BLO-SC7	5/16" x 5/8"	
		BLO-SD7	3/8" x 5/8"	
BLO-SD9	3/8" x 11/16"			

Push-On Hose Stem		Part No.	I.D.	Description
		O-1513	1/4"	Brass
		O-1713	3/8"	
		BLO-1513	1/4"	Ball Lock, Brass
		BLO-1713	3/8"	

Hose clamps not required when used with "Push On" hose. See page 369.

O60 Series 1/4" Plugs - Foster

Female Thread		Part No.	FPT	Description
		O-11	1/4"	Brass

Male Thread		Part No.	MPT	Description
		O-12	1/8"	Brass
O-10	1/4"			

Hose Stem		Part No.	I.D.	Description
		O-16	1/4"	Brass
O-17	3/8"			

Requires Hose Clamp (See page 200 for typical hose clamps)

See page 381 for full size templates
 See page 373 - 374 for optional seal compounds
 Brand - Designates **F**=Foster or **B**=Breco Part



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1/4" - A70 Series





(Interchange with Hansen 700 Series)


Features:

- Safety sleeve lock prevents accidental disconnections
- Non-Interchangeable design prevents crossing of lines
- Color coded sleeves for easy identification:
O60 - green, A70 - red
- OSHA compliant
- Construction: Brass w/Buna-N seal


A70 Series 1/4" Standard Sockets - Foster

Female Thread		Part No.	FPT	Description
		A-2803	1/8"	Brass
		A-3003	1/4"	
		A-3203	3/8"	
		BLA-2803	1/8"	Ball Lock, Brass
		BLA-3003	1/4"	
		BLA-3203	3/8"	


Male Thread		Part No.	MPT	Description
		A-2903	1/8"	Brass
		A-3103	1/4"	
		A-3303	3/8"	
		BLA-2903	1/8"	Ball Lock, Brass
		BLA-3103	1/4"	
		BLA-3303	3/8"	


Hose Stem		Part No.	I.D.	Description
		A-3603	1/4"	Brass
		A-3653	5/16"	
		A-3703	3/8"	
		BLA-3603	1/4"	Ball Lock, Brass
		BLA-3653	5/16"	
		BLA-3703	3/8"	


Requires Hose Clamp (See page 200 for typical hose clamps)

Reusable Hose Clamp		Part No.	I.D. x O.D.	Description
		A-SB3	1/4" x 1/2"	Brass
		A-SB5	1/4" x 9/16"	
		A-SB7	1/4" x 5/8"	
		A-SC5	5/16" x 9/16"	
		A-SC7	5/16" x 5/8"	
		A-SD7	3/8" x 5/8"	
		A-SD9	3/8" x 11/16"	
		A-SD11	3/8" x 3/4"	Ball Lock, Brass
		A-SD13	3/8" x 13/16"	
		BLA-SB3	1/4" x 1/2"	
		BLA-SB5	1/4" x 9/16"	
		BLA-SB7	1/4" x 5/8"	
		BLA-SC5	5/16" x 9/16"	
		BLA-SC7	5/16" x 5/8"	
		BLA-SD7	3/8" x 5/8"	
		BLA-SD9	3/8" x 11/16"	
BLA-SD11	3/8" x 3/4"			
BLA-SD13	3/8" x 13/16"			

A70 Series 1/4" Plugs - Foster

Female Thread		Part No.	FPT	Description
		A-11	1/4"	Brass

Male Thread		Part No.	MPT	Description
		A-12	1/8"	Brass
A-10	1/4"			

Hose Stem		Part No.	I.D.	Description
		A-16	1/4"	Brass
		A-17	3/8"	

Requires Hose Clamp (See page 200 for typical hose clamps)

See page 381 for full size templates
See page 373 - 374 for optional seal compounds

Brand - Designates **F**=Foster or **B**=Breco Part



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2FRL Series

(Interchange with Hansen 1/4" 2RL)

Type: One Way Shut-Off

Rated Pressure: 300 PSIG

Operation: Automatic Push to Connect; Twist-to-release


Features:


- High flow capacity
 - Ring lock
- Push to Connect, retract socket sleeve to disconnect
- Will not disconnect when hose is dragged on the ground
- Rotate locking sleeve approximately 20° to disconnect
- Optional seal materials available


Standard Materials:

- Socket
 - Zinc Plated Steel Body
 - Brass Socket End
 - Zinc Plated Steel Sleeve
 - Zinc Plated Steel Valve
 - Buna-N (Nitrile) Seal
 - Spring is Zinc Plated Music Wire
 - Zinc Plated Steel Locking Ring
- Plug
 - Zinc Plated Case-Hardened Steel


3/8" - 2FRL Series Automatic Sockets - Foster

Female Thread		Part No.	Size	FPT	Description
		2R4004	3/8"	1/4"	Brass/Steel
		2R4204		3/8"	
		2R4404		1/2"	


Male Thread		Part No.	Size	MPT	Description
		2R4104	3/8"	1/4"	Brass/Steel
		2R4304		3/8"	
		2R4504		1/2"	

Hose Stem		Part No.	Size	I.D.	Description
		2R4604	3/8"	1/4"	Brass/Steel
		2R4704		5/16"	
		2R4804		3/8"	
		2R4904		1/2"	


Requires Hose Clamp (See page 200 for typical hose clamps)


Push-On Hose Stem		Part No.	Size	I.D.	Description
		2R1714	3/8"	3/8"	Brass/Steel
		2R1814		1/2"	


Hose clamps not required when used with "Push On" hose. See page 369.

Reusable Hose Clamp		Part No.	Size	I.D. x O.D.	Description
		2RSD7	3/8"	3/8" x 5/8"	Brass/Steel
		2RSD9		3/8" x 11/16"	
		2RSD11		3/8" x 3/4"	
		2RSD13		3/8" x 13/16"	


3/8" - 2FRL Series Plugs - Foster

Female Thread		Part No.	Size	FPT	Description
		2L41	3/8"	1/4"	Steel
		2L43		3/8"	
		2L45		1/2"	

Male Thread		Part No.	Size	MPT	Description
		2L38	3/8"	1/8"	Steel
		2L40		1/4"	
		2L42		3/8"	
		2L44		1/2"	

Hose Stem		Part No.	Size	I.D.	Description
		2L46	3/8"	1/4"	Steel
		2L48		3/8"	
		2L49		1/2"	

Requires Hose Clamp (See page 200 for typical hose clamps)

Reusable Hose Clamp		Part No.	Size	I.D. x O.D.	Description
		2LPD7	3/8"	3/8" x 5/8"	Steel
		2LPD9		3/8" x 11/16"	
		2LPD11		3/8" x 3/4"	
		2LPD13		3/8" x 13/16"	
		2LPP13		1/2" x 13/16"	
		2LPP15		1/2" x 7/8"	
		2LPP17		1/2" x 15/16"	
		2LPP19		1/2" x 1"	

See page 381 for full size templates
See page 373 - 374 for optional seal compounds

Brand - Designates **F**=Foster or **B**=Breco Part




WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.


3FRL Series




(Interchange with Hansen 3/8" 3RL)


1/2" - 3FRL Series Automatic Sockets - Foster

Female Thread		Part No.	Size	FPT	Description
		3R4015	1/2"	1/4"	Brass/Steel
		3R5005		3/8"	
		3R5205		1/2"	
		3R5405		3/4"	


Male Thread		Part No.	Size	MPT	Description
		3R4905	1/2"	1/4"	Brass/Steel
		3R5105		3/8"	
		3R5305		1/2"	
		3R5505		3/4"	

Hose Stem		Part No.	Size	I.D.	Description
		3R5605	1/2"	1/4"	Brass/Steel
		3R5705		3/8"	
		3R5805		1/2"	
		3R5905		3/4"	


Requires Hose Clamp (See page 200 for typical hose clamps)


Push-On Hose Stem		Part No.	Size	I.D.	Description
		3R1815	1/2"	1/2"	Brass/Steel


Hose clamps not required when used with "Push On" hose. See page 369.

Reusable Hose Clamp		Part No.	Size	I.D. x O.D.	Description
		3RSD7	1/2"	3/8" x 5/8"	Brass/Steel
		3RSD9		3/8" x 11/16"	
		3RSD11		3/8" x 3/4"	
		3RSD13		3/8" x 13/16"	
		3RSP13		1/2" x 13/16"	
		3RSP15		1/2" x 7/8"	
		3RSP17		1/2" x 15/16"	
		3RSP19		1/2" x 1"	

1/2" - 3FRL Series Plugs - Foster

Female Thread		Part No.	Size	FPT	Description	
		3L51	1/2"	1/4"	Steel	
		3L55		1/2"		
		3L55G		1/2"		Steel, Ball Check
		3L57		3/4"		Steel

Male Thread		Part No.	Size	MPT	Description
		3L50	1/2"	1/4"	Steel
		3L52		3/8"	
		3L52G			
		3L54		1/2"	Steel
		3L54G		1/2"	Steel, Ball Check
		3L56		3/4"	Steel

Hose Stem		Part No.	Size	I.D.	Description
		3L58	1/2"	1/4"	Steel
		3L59		3/8"	
		3L59G		3/8"	Steel, Ball Check
		3L60		1/2"	Steel
		3L60G		1/2"	Steel, Ball Check
		3L61		3/4"	Steel
		3L61G		3/4"	Steel, Ball Check

Requires Hose Clamp (See page 200 for typical hose clamps)



1/4" - LN & L Series

(Interchange with Lincoln Long Nose)

Foster LN Series couplings are interchangeable with Lincoln's "Long Nose" series couplings and offer quick coupling of all air-operated equipment. They are only available in 1/4" body size, brass and steel construction.

- Locking feature prevents accidental coupler detachment
- Increased air flow due to a larger air passage
- Automatic air check valve shuts off air instantly when uncoupled, providing leak-proof seal.
- Corrosion resistant steel for long service life
- Free swivel helps prevent kinking or curling of air hoses

Specifications:

Type: One Way Shut-Off

Rated Pressure: 300 PSIG

Temperature Range (std seals): -40° to +250°F.

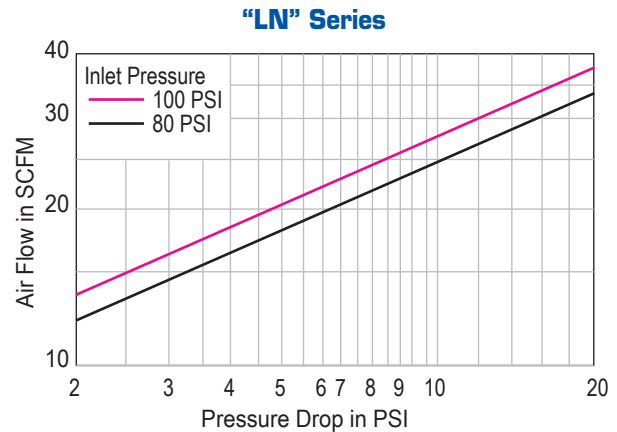
Locking Device: Balls or pins

Operation:


Manual - socket sleeve must be retracted to connect and disconnect


Automatic - Push to Connect, retract socket sleeve to disconnect

Performance:





LN & L Series Automatic 1/4" Sockets


Female Thread		Part No.	Brand	FPT	Description
		LN2803	F	1/8"	Brass/Steel
		LN3003		1/4"	
		B-2LF2-B	B	1/4"	
		LN3203	F	3/8"	

Push-On Hose Stem		Part No.	I.D.	Description
		LN1513	1/4"	Brass/Steel
		LN1713	3/8"	

Hose clamps not required when used with "Push On" hose. See page 369.

Male Thread		Part No.	Brand	MPT	Description
		LN2903	F	1/8"	Brass/Steel
		LN3103		1/4"	
		B-2LM2-B	B	1/4"	
		LN3303	F	3/8"	

Reusable Hose Clamp		Part No.	I.D. x O.D.	Description
		LNSB3	1/4" x 1/2"	Brass/Steel
		LNSB5	1/4" x 9/16"	
		LNSB7	1/4" x 5/8"	
		LN5C5	15/16" x 9/16"	
		LN5C7	15/16" x 5/8"	
		LN5D11	3/8" x 5/8"	
		LN5D13	3/8" x 11/16"	
		LN5D7	3/8" x 3/4"	
		LN5D9	3/8" x 13/16"	

Hose Stem		Part No.	I.D.	Description
		LN3603	1/4"	Brass/Steel
		LN3653	5/16"	
		LN3703	3/8"	

Requires Hose Clamp (See page 200 for typical hose clamps)

Brand - Designates **F**=Foster or **B**=Breco Part

- 304 -

See page 381 for full size templates
See page 373 - 374 for optional seal compounds

www.zsi-foster.com




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1/4" - LN & L Series




(Interchange with Lincoln Long Nose)


LN Series Manual 1/4" Sockets - Foster


Female Thread		Part No.	FPT	Description
		LN2803M	1/8"	Brass/Steel
		LN3003M	1/4"	
		LN3203M	3/8"	


Male Thread		Part No.	MPT	Description
		LN2903M	1/8"	Brass/Steel
		LN3103M	1/4"	
		LN3303M	3/8"	

Hose Stem		Part No.	I.D.	Description
		LN3603M	1/4"	Brass/Steel
		LN3703M	3/8"	
		Requires Hose Clamp (See page 200 for typical hose clamps)		

LN & L Series Plugs - 1/4" - Foster

Female Thread		Part No.	FPT	Description
		LN13	1/8"	Steel
		LN11	1/4"	

Male Thread		Part No.	MPT	Description
		LN12	1/8"	Steel
		LN10	1/4"	

Hose Barb		Part No.	Hose I.D.	Description
		LN16	1/4"	Steel
Requires Hose Clamp (See page 200 for typical hose clamps)				



1/8" - F180 Series

(Interchange with Hansen 180 Series)

The F180 miniature ball-lock quick disconnect coupling/plug offers great performance in a very small size with high flow and minimal pressure drop. Designed for use with compressed air, gases, and liquids. It's perfect for breathable air, lab, medical, and pharmaceutical applications. It's a preferred choice anywhere high flow is required within a very tight space, such as boat lifts.


Performance:


- **Temperature Range (std Buna-N seals):** -40° to +225° F.
- **Max. Operating Pressure:** 700 psig (48 bar)
- **Min. Burst Pressure:** 2,800 psig (193 bar)
- **Flow Rate:** 2.5 scfm (71 lpm)

Features:


- Miniature Ball-Lock Quick Disconnect Coupling
- Designed for use with Compressed Air, Gasses, and Liquids
- Hansen 180 Series Interchange
- Standard Brass Body, Optional Plating Available
- F180 Series Utilizes a Tire Valve
- Can Be Used in Laboratory, Medical, Pharmaceutical, Food, and Beverage
- Offered with 1/8" Male NPT or 3/16" I.D. Hose Barb
- Standard Buna-N, Flexible Seal


F180 Sockets - 1/8" - Foster

Male Thread	F180 Socket			
	Part No.	Thread	Body Size	Description
	F180	1/8" Male NPT	1/8"	Brass, with Valve

Hose Barb	F184LV Socket			
	Part No.	Thread	Body Size	Description
	F184LV	3/16" I.D. Hose Barb	1/8"	Brass, without Valve
Requires Hose Clamp (See page 200 for typical hose clamps)				

F180 Plugs - 1/8" - Foster

Male Thread	F185 Plug			
	Part No.	Thread	Body Size	Description
	F185	1/8" Male NPT	1/8"	Brass

Hose Barb	F189 Plug			
	Part No.	Thread	Body Size	Description
	F189	3/16" I.D. Hose Barb	1/8"	Brass
Requires Hose Clamp (See page 200 for typical hose clamps)				

Brand - Designates **F**=Foster or **B**=Breco Part



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1/8" - DR Series



(Interchange with Rectus 21 KA)

BRECO DR Series couplers are designed to interchange with Rectus 21 KA couplers using un-valved plugs. The DR Series products provide automatic push-to-connect ease and high flow in a 1/8" connection size.

Features:

- Maximized flow path allows greater flow than other 1/8" NPT coupler designs
- 6 retaining balls versus 5 in the Rectus 21 KA provides greater plug retention
- 9/16" Wrench flats versus 14mm on Rectus 21 KA
- Ball-holes with corner radius have 65% more ball-to-body contact area and provides longer life and increased reliability
- Precision molded leak-proof seal
- Quick, easy push-to-connect design
- Brass construction for corrosion resistance

Specifications

Material: Brass plugs & sockets

Seal: Buna-N

Air Flow: 17 CFM @ 100 PSIG @ 5.0 PSIG Pressure Drop


Working Pressure: 300 PSIG


Body Sizes: 1/8"

Connection Sizes: 1/8" NPT


Interchangeability: Rectus 21 KA, Tomco SC, Camozzi 5000, and CEJN 223 Series


DR Series Sockets - Breco

Female Thread		Part No.	Size	NPT	Description
		DR21-1F	1/8"	1/8"	Brass

Male Thread		Part No.	Size	NPT	Description
		DR21-1M	1/8"	1/8"	Brass

DR Series Plugs - Breco

Female Thread		Part No.	Size	NPT	Description
		DR21-1PF	1/8"	1/8"	Brass

Male Thread		Part No.	Size	NPT	Description
		DR21-1PM	1/8"	1/8"	Brass





U Series

(Universal Coupler)

BRECO PNEUMATIC UNIVERSAL COUPLER ACCEPTS MULTIPLE SERIES NIPPLES

Features:

- The 1/4" Universal Coupler will accept the Industrial Interchange series, "J" series (Tru-Flate) & "O" Series (ARO-210) Plugs.
- The coupler features automatic push-to-connect operation, high flow machined "window valve" and a sleeve guard which helps prevent accidental disconnects and protects the sleeve from damage.
- While the best quick coupling performance is obtained by matching like series sockets and plugs, the universal coupler permits multiple series plugs to mate with one socket.



"J" Series
(see pages 294-296)

"O" Series
ARO-210
(see page 290)

"B" Series
(see pages 275, 280)

Specifications:


Rated Pressure (psig): 150


Temperature Range (Nitrile seal): -40° to +250°F.


Locking Device: Stainless Steel balls

Vacuum Service: Not Recommended

U Series Universal Couplers - Breco

Female Thread		Part No.	Size	FPT	Description
		B-2UF2-B	1/4"	1/4"	Brass
		DW340A			Steel
		DW360A			Steel
		DW440A	3/8" *	1/4"	Steel
		DW460A			Steel

Male Thread		Part No.	Size	MPT	Description
		B-2UM2-B	1/4"	1/4"	Brass
		DW341A			Steel
		DW361A			Steel
		DW441A	3/8" *	1/4"	Steel
		DW461A			Steel

Hose Stem		Part No.	Size	MPT	Description
		DW342A	1/4"	1/4"	Steel
		DW362A		3/8"	Steel
		DW462A	3/8" *	3/8"	Steel

Requires Hose Clamps (See page 200 for typical hose clamps)

* 3/8" size accept industrial interchange and "J" series (Tru-Flate) plugs only.



1/4" - USV Series

(Universal Coupler)



Technical Specifications:

- Maximum Psig:** 215 psig (14.8 bar)
- Media:** Compressed Air
- Seal Material:** Buna-N
- Temperature Range:** 20° to 180°F (-6.6° to 82°C)
- Body Material:** Chrome-Plated Steel
- Number of Balls:** 6



#USV3103 1/4" Socket Shown

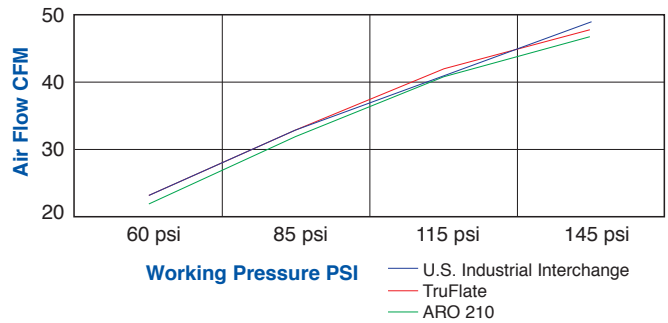
Industrial
3 Series
(#11-3 1/4")
(see page 275)

TruFlate
TF Series
(#TF11 1/4")
(see page 294)


ARO
210 Series
(#210-11 1/4")
(see page 290)


Air Flow Chart

	Cubic Feet/Minute Flow Rates			
	60 psig	85 psig	115 psig	145 psig
U.S. Industrial Interchange (MIL-C4109-F)	23	33	41	49
TruFlate (Automotive)	23	33	42	48
ARO 210	22	32	41	47

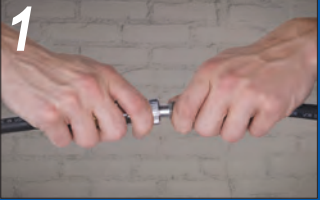


USV Series Universal Safety Couplers - Foster

Female Thread		Part No.	Size	FPT	Description
		USV3003	1/4"	1/4"	Steel


Male Thread		Part No.	Size	MPT	Description
		USV3103	1/4"	1/4"	Steel

1 Grip



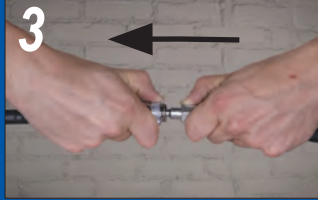
Hold hose steady

2 Twist




Rotate sleeve to fully exhaust

3 Pull



Pull back sleeve to release

4 Separate



Safely disconnect



Safety Vent Series

Zero Pressure Connect and Disconnect Design



Foster SV and SVPC Series Safety Vent couplings are designed for maximum user and equipment safety. Foster SV and SVPC Series couplings allow for safe and easy connection/disconnection under zero line pressure to minimize the possibility of inadvertent disconnection and potential hose whip.

The fully encapsulated non-marring models significantly reduce the risk of surface nicks and scratches. Ideal for use in paint booth applications or for air lines used around finished surfaces, such as fiberglass, painted metal or glass surfaces.

Features:

- Made in the USA
- Rubber or polyurethane hose connections available
- Extra thick heat-treated steel walls extend service life
- Zero pressure connect/disconnect design vents down stream pressure for safe, easy connect/disconnect. It also minimizes possible inadvertent disconnection and potentially dangerous hose whip
- "O-ring" plug seal for leak-free performance
- No valve, spring, or washer that could block flow of air.
- Silicone-free assembly.
- Meets ISO 4414, 9.6 Quick-Action Couplings requirements: Quick-Action (quick release) couplings shall be selected so that when they are coupled or uncoupled
 - a) the coupling shall not be forced apart in a hazardous manner
 - b) compressed air particles shall not be expelled in a hazardous manner
 - c) a controlled pressure-release system shall be provided where a hazard may exist.

Specifications:

Material: Zinc-plated steel, Acetal Copolymer outside cover, Steel internals

Seal: Buna-N

Working Pressure: 300 PSIG; vacuum to 26"Hg

Body Sizes: 1/4" to 3/4" Industrial Interchange Design

Connection Sizes: 1/4" to 1" NPT; 1/4" to 3/4" Hose Barb

Interchangeability: Complies with ANSI/NFPA T3.20.14-1990, ISO 6150-B, & ISO 4414

Industrial Interchange profile, Series 3 – 6, pages 275, 280, 286, & 288

Rated Pressure: 300 psig

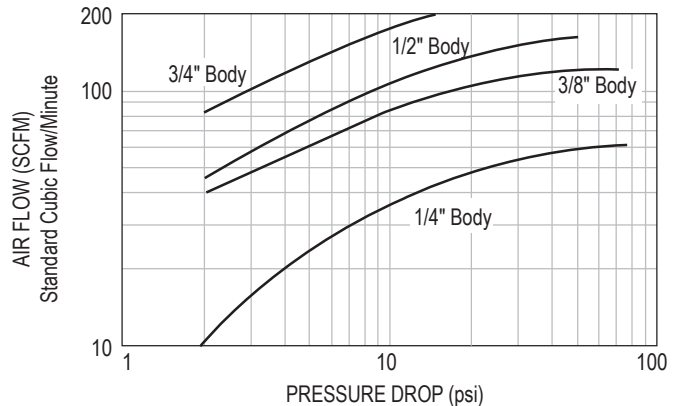
Temperature Range (std seals): 0° to +150° F

Locking Device: Stainless Steel Balls

Force required to Connect: Less than 10 lbs

Performance:

"SV", "SVPC" Series (1/4", 3/8", 1/2", 3/4") Pressure Drop/Flow Performance Curves @ 100 PSIG Inlet



PC = Protective Cover



Zero Pressure Connect and Disconnect Design

Insert Plug – Output is Zero Pressure

① Make sure sleeve is fully retracted to allow insertion of the plug. Output pressure is zero at this point.

Plug is Locked in Place, Now Restore Output Pressure

② Make sure sleeve is fully extended to allow pressure on the output plug

System Under Pressure (both source and Output)

③

Remove Pressure From Output -- Acts as a Shut-Off Valve --

④ Twist grip up & slide back to release pressure
Vent Holes release pressure to eliminate "Hose Whip", and make the coupler "Self Cleaning"
Output Pressure is Released

Remove Plug – Output Pressure is Automatically Zero

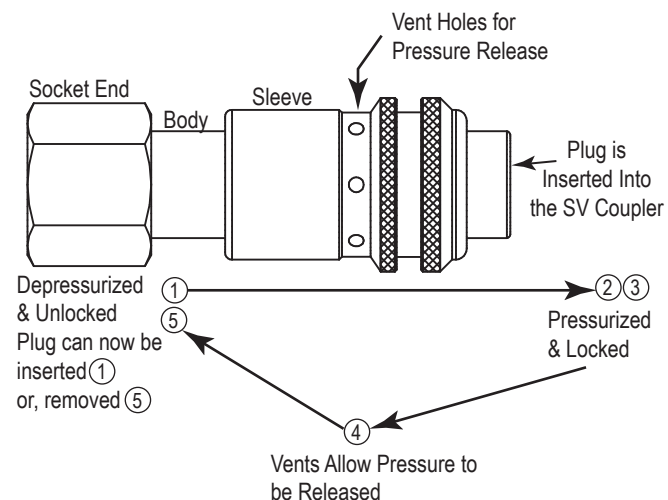
⑤ When Output=0 pressure turn slightly down & forward to allow release. Coupler automatically prevents this action if pressure not yet released
Since output pressure is zero, and coupler is in release position, Plug can be removed

Operation: SV and SVPC Series Safety Vent couplers are nearly effortless to connect and great for hose use. They are also especially useful for single-hand operation when they are mounted to hard lines such as an overhead air drop.

Once inserted into the SV or SVPC socket, the plug is lightly gripped and will stay in place allowing the operator to use the same hand to slide the sleeve straight forward to the "on" position.

SV or SVPC Series sockets can also be used as a 3-way valve to turn off the flow of air and exhaust the downstream pressure without disengaging the plug. By turning and sliding the sleeve to the "exhaust" position, downstream air pressure is relieved but the plug remains locked in place.

Foster SV or SVPC Series couplers are the ultimate solution to accidental disconnect hose whip dangers.








Safety Vent Series


Zero Pressure Connect and Disconnect Design


SV & SVPC Series Safety Vent Couplers (Industrial Interchange) - Foster

Female Pipe Thread		Part No.	Body	FPT	Description
		SV3003	1/4"	1/4"	Steel Safety Coupler,
		SV3203		3/8"	
		SV4004	3/8"	1/4"	
		SV4204		3/8"	
		SV4404		1/2"	
		SV5005	1/2"	3/8"	
		SV5205		1/2"	
		SV5405		3/4"	
		SV6406	3/4"	3/4"	
		SV6606		1"	


Female Pipe Thread with Protective Cover		Part No.	Body	FPT	Description
		SVPC3003	1/4"	1/4"	Steel with Protective Covered Body*
		SVPC3203		3/8"	
		SVPC4004	3/8"	1/4"	
		SVPC4204		3/8"	
		SVPC4404		1/2"	
		SVPC5005	1/2"	3/8"	
		SVPC5205		1/2"	
		SVPC5405		3/4"	
		SVPC6406	3/4"	3/4"	

Male Pipe Thread		Part No.	Body	MPT	Description
		SV3103	1/4"	1/4"	Steel Safety Coupler,
		SV3303		3/8"	
		SV4104	3/8"	1/4"	
		SV4304		3/8"	
		SV4504		1/2"	
		SV5105	1/2"	3/8"	
		SV5305		1/2"	
		SV5505		3/4"	
		SV6506	3/4"	3/4"	
		SV6706		1"	


Male Pipe Thread with Protective Cover		Part No.	Body	MPT	Description
		SVPC3103	1/4"	1/4"	Steel with Protective Covered Body*
		SVPC3303		3/8"	
		SVPC4104	3/8"	1/4"	
		SVPC4304		3/8"	
		SVPC4504		1/2"	
		SVPC5105	1/2"	3/8"	
		SVPC5305		1/2"	
		SVPC5505		3/4"	
		SVPC6506	3/4"	3/4"	
		SVPC6706		1"	

Hose Barb		Part No.	Body	Hose I.D.	Description
		SV3603	1/4"	1/4"	Steel, Safety Coupler
		SV3703		3/8"	
		SV4604	3/8"	1/4"	
		SV4804		3/8"	
		SV4904		1/2"	
		SV5705	1/2"	3/8"	
		SV5805		1/2"	
		SV5905		3/4"	
		SV6906	3/4"	3/4"	


Requires Hose Clamp (See page 200 for typical hose clamps)

Hose Barb with Protective Cover		Part No.	Body	Hose I.D.	Description
		SVPC3603	1/4"	1/4"	Steel with Protective Covered Body*
		SVPC3703		3/8"	
		SVPC4604	3/8"	1/4"	
		SVPC4804		3/8"	
		SVPC4904		1/2"	
		SVPC5705	1/2"	3/8"	
		SVPC5805		1/2"	
		SVPC5905		3/4"	
		SVPC6906	3/4"	3/4"	

Requires Hose Clamp (See page 200 for typical hose clamps)

Push-On Hose Stem		Part No.	Body	Hose I.D.	Description
		SV1513	1/4"	1/4"	Steel, Safety Coupler
		SV1713		3/8"	
		SV1714	3/8"	3/8"	
		SV1814		1/2"	
SV1815	1/2"	1/2"			

Hose clamps not required when used with "Push On" hose. See page 369.

Push-On Hose Stem with Protective Cover		Part No.	Body	Hose I.D.	Description
		SVPC1513	1/4"	1/4"	Steel with Protective Covered Body*
		SVPC1713		3/8"	
		SVPC1714	3/8"	3/8"	
		SVPC1814		1/2"	
SVPC1815	1/2"	1/2"			

Hose clamps not required when used with "Push On" hose. See page 369.

Brand - Designates **F**=Foster or **B**=Breco Part

* All SV, SVPC Sockets feature a Silicone-free assembly.
See pages 383 - 384 for full size templates




WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Safety Vent Series




Zero Pressure Connect and Disconnect Design

SVPC Series Safety Vent Couplers (Industrial Interchange) - Foster

Hose Barb		Part No.	Body	Hose I.D.	Description
		SVPCA62.R	3/8"	3/8"	Fully Protective Cover*, for Rubber Hose
		SVPCA62.P		3/8"	Fully Protective Cover*, for Poly Hose
		SVPC262.R	1/2"	3/8"	Fully Protective Cover*, for Rubber Hose
		SVPC262.P		3/8"	Fully Protective Cover*, for Poly Hose
Requires Hose Clamp (See page 200 for typical hose clamps)					

* All SV, SVPC Sockets feature a Silicone-free assembly.

Hose Barb with Strain Relief		Part No.	Body	Hose I.D.	Description
		SVPCA66.R	3/8"	3/8"	Fully Protective Cover*, w/Strain Rellief for Rubber Hose
		SVPCA66.P		3/8"	Fully Protective Cover*, w/Strain Rellief for Poly Hose
		SVPC266.R	1/2"	3/8"	Fully Protective Cover*, w/Strain Rellief for Rubber Hose
		SVPC266.P		3/8"	Fully Protective Cover*, w/Strain Rellief for Poly Hose
Requires Hose Clamp (See page 200 for typical hose clamps)					

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories


Fittings & Accessories


Hoses & Fittings


Technical Data

Indexes


1/2" - 5 Series Coaxial Plug/Coupler - Foster


Female Thread Coupler		Part No.	I.D.	Description
		SV5205CA	1/2"	Steel, Safety Coupler


Male Thread Plug		Part No.	I.D.	Description
		54-5CA	1/2"	Steel

Male Thread Coupler		Part No.	I.D.	Description
		SV5305CA	1/2"	
		SV5505CA	3/4"	
Steel, Safety Coupler				

3/4" - 6 Series Coaxial Plug/Coupler - Foster

Female Thread Coupler		Part No.	I.D.	Description
		SV6406CA	3/4"	Steel, Safety Coupler

Male Thread Plug		Part No.	I.D.	Description
		64-6CA	1/2"	
		66-6CA	3/4"	
Steel				

Male Thread Coupler		Part No.	I.D.	Description
		SV6506CA	3/4"	Steel, Safety Coupler

* All SV, SVPC Sockets feature a Silicone-free assembly.
See pages 383 - 384 for full size templates

Brand - Designates **F**=Foster or **B**=Breco Part
ZSi-Foster Engineering Catalog




WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.





Safety Vent Series


Zero Pressure Connect and Disconnect Design

Series 210 1/4" Safety Vent Sockets - Foster

Female Thread		Part No.	FPT	Description
		SV210-3003	1/4"	Steel, Safety Coupler
		SV210-3203	3/8"	

Male Thread		Part No.	MPT	Description
		SV210-3103	1/4"	Steel, Safety Coupler
		SV210-3303	3/8"	

Hose Stem		Part No.	I.D.	Description
		SV210-3603	1/4"	Steel, Safety Coupler
		SV210-3703	3/8"	
Requires Hose Clamp (See page 200 for typical hose clamps)				

Push-On Hose Stem		Part No.	I.D.	Description
		SV210-1513	1/4"	Steel, Safety Coupler
		SV210-1713	3/8"	
Hose clamps not required when used with "Push On" hose. See page 369.				

Push-Button Safety Vent Series

Zero Pressure Connect and Disconnect Design

Features:

- Industrial Interchange, Pneumatic Application
- Anodized Aluminum Body for long life
- Swivel body to keep hose untangled
- Push twice for release. First push vents, second releases
- Button, Valve & Venting Ring: Hardened zinc plated steel
- **Springs, Balls:** Stainless Steel
- ISO 4414 Norm
- **Flow capacity:** 37SCFM (at 90 psig with connected insert)
- **Max working pressure:** 175 psig (safety factor 4:1)
- **Recommended Working Temperature:** 0° to 160°F

Push-Button Safety Vent Series - Foster

Female Pipe Thread Industrial Interchange		Part No.	Size	Description
		SPB3003	1/4"	1/4" Body, Safety Push Button
		SPB4204	3/8"	3/8" Body, Safety Push Button

Male Pipe Thread Industrial Interchange		Part No.	MPT	Description
		SPB3103	1/4"	1/4" Body, Safety Push Button
		SPB4304	3/8"	3/8" Body, Safety Push Button

Brand - Designates **F**=Foster or **B**=Breco Part



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

FJT Series



(Interchange with DME, Jiffy-Tite, Jiffy-Matic, Parker Moldmate)

Specifications & Layouts FJT Series

Foster FJT Series couplers are designed to connect coolant lines to plastic molds and die casting dies. FJT Series plugs are mounted in the mold. They can be threaded directly into the mold coolant ports or recessed into the mold for a flush surface during storage. Sockets have hose stems, either standard hose or "Push-on" type, for direct connection to the coolant line going to the manifold. Seal compound is silicone for use with water, ethylene glycol, or air.

Type: Straight-Thru, One Way or Two Way

Interchangeability: DME Jiffy-Tite and Jiffy-Matic and Parker Moldmate couplers

Operation: Manual – Socket sleeve must be manually retracted to connect and disconnect

Options:

Ball Lock (BL) - Locks manual socket against accidental disconnect. To connect, align ball with slot.

After connection, rotate sleeve to lock.

To disconnect, realign ball with slot and retract sleeve.

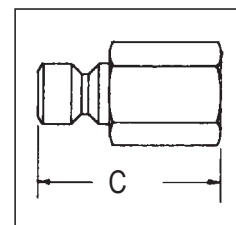
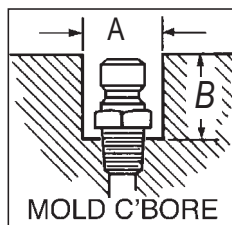
Features:

- Precision leakproof seal is silicone
- Two piece construction on straight stem sockets
- Double knurl on socket sleeve for easier grip
- Sockets have six balls.

Specifications:

Temperature Range: -90° to +440° F

Rated Pressure: 200 PSIG

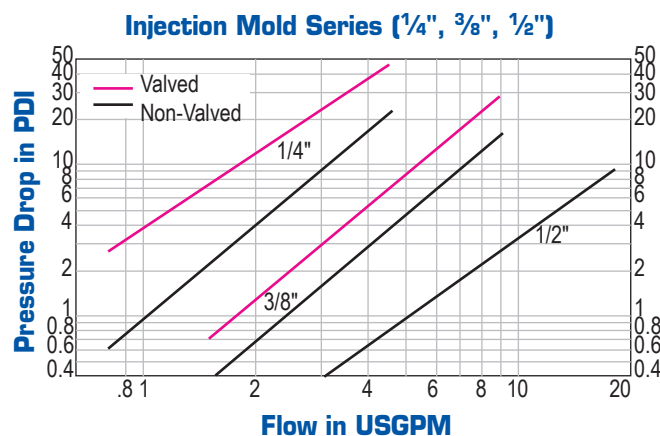


Cat. No.	NPT	A	B	C
FP251 (F)	1/8	0.687	0.687	1.000
FP252 (F)	1/4	0.843	0.937	1.278
FP352 (F)		1.000	1.092	1.450
FP253	3/8	1.000	0.937	1.373
FP253 (F)		1.000	1.125	1.574
FP353 (F)			1.187	1.250
FP354	1/2	1.250	1.500	1.750
FP554 (F)		1.500	1.562	1.750
FP556 (F)	3/4	1.500	1.562	1.750

(F) – Suffix F for female pipe thread

PERFORMANCE DATA		FLOW
		Water – GPM 10 PSIG Pressure Drop
FJT 1/4"	Straight-Thru	4.5
FJT 1/4" V	One Way (valved)	2.3
FJT 3/8"	Straight-Thru	10.0
FJT 3/8" HF	High Flow	13.8
FJT 3/8" V	One Way (valved)	5.9
FJT 1/2"	Straight-Thru	28.2

Performance:



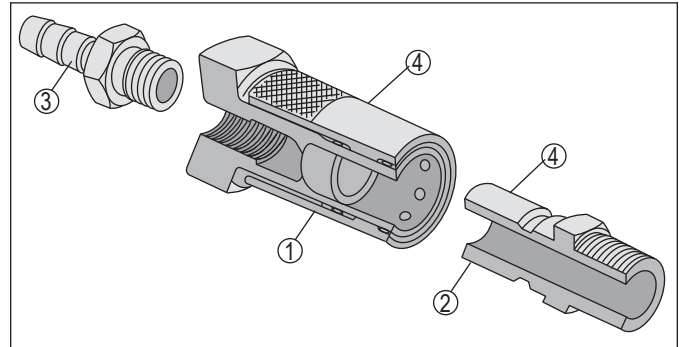


FJT Series

(Interchange with DME, Jiffy-Tite, Jiffy-Matic, Parker Moldmate)

Features:

1. Available with or without valves in the coupler. Non-valved couplers have minimum flow resistance for maximum cooling. Valved couplers shut off automatically upon disconnect. Valved couplers must be used with valved nipples.
2. Nipples are designed to be recessed below mold surfaces to provide more efficient storage of molds and prevent damage to the nipple.
3. Widest choice of end fittings available, including straight, 45° or 90° with standard hose barb or Push-Lock barbs for easy installation.
4. Couplers and nipples are made of corrosion resistant steel and brass.



Applications: Injection Mold Series couplings are specifically designed for connecting coolant lines to molds and dies, on injection molding machinery in the plastics and die casting industries. Injection Mold Series couplings significantly reduce machine downtime by providing fast and easy connection of coolant lines during mold changes. Their short nipples can be recessed below the surface of the mold for more efficient storage of molds. Injection Mold Series couplers are available with or without valves in the female half. Non-valved couplers provide maximum flow for efficient cooling. Valved couplers shut off when disconnected.

Selection Guidelines: Injection Mold Series couplings are designed for a maximum working pressure of 200 Psig. Most thermoplastic and thermostat heat transfer systems have pumps which provide relatively high flow rates at relatively low pressures. Water and water glycol (anti-freeze) systems usually have capacities ranging from 10 to 40 gpm, with most from 10 to 15 gpm. Normal medial opening pressures are 20 to 60 Psig for these systems. Heat transfer systems using oil generally operate from 10 to 30 Psig. However, their flow rates are usually much higher, requiring the total volume of oil to be circulated at least once per minute.

The number of hose connections in a single mold system results in a cumulative pressure drop. Please note the Pressure Drop vs. Flow Rate chart provided, to select the appropriate size.

Temperature is another important consideration. Injection Mold Series couplings with their standard Silicone seal have a temperature capability of -90° to +440°F. Rapid deterioration of the seal and leaking may result if used beyond these limits.

External conditions of temperature, corrosive atmospheres, and other abnormalities may affect coupling performance and must be considered when selection is made. Consult factory with questions.

FJT Series Brass Extension Plugs



- One piece construction for fast assembly, positive removal
- Installation problems associated with pipe nipple extensions on standard plugs are eliminated
- One-piece brass construction eliminates a potential leak point and ensures removability
- A variety of pipe sizes and lengths are available per the enclosed table
- Lengths available: 2.5" thru 13" Standard, Call factory for available lengths
- To Order: Add desired length to the end of the part number; i.e. FP251x2.5.





1/4" - FJT Series





(Interchange with DME, Jiffy-Tite, Jiffy-Matic, Parker Moldmate)


FJT 1/4" Series Straight Thru Sockets - Foster


Straight Hose Stem		Part No.	I.D.	Description
		FS204	1/4"	Brass
		BLFS204		Ball Lock, Brass
		FS205	5/16"	Brass
		BLFS205		Ball Lock, Brass
		FS206	3/8"	Brass
		BLFS206		Ball Lock, Brass
Requires Hose Clamp (See page 200 for typical hose clamps)				


Straight Push-On Hose Stem		Part No.	I.D.	Description
		FS204P	1/4"	Brass
		FS206P	3/8"	Brass
Hose clamps not required when used with "Push On" hose. See page 369.				

90° Hose Stem		Part No.	I.D.	Description
		FS214	1/4"	Brass
		BLFS214		Ball Lock, Brass
		FS215	5/16"	Brass
		BLFS215		Ball Lock, Brass
		FS216	3/8"	Brass
		BLFS216		Ball Lock, Brass
Requires Hose Clamp (See page 200 for typical hose clamps)				

90° Push-On Hose Stem		Part No.	I.D.	Description
		FS214P	1/4"	Brass
		BLFS214P		Ball Lock, Brass
		FS216P	3/8"	Brass
		BLFS216P		Ball Lock, Brass
Hose clamps not required when used with "Push On" hose. See page 369.				

45° Hose Stem		Part No.	I.D.	Description
		FS224	1/4"	Brass
		BLFS224		Ball Lock, Brass
		FS225	5/16"	Brass
		BLFS225		Ball Lock, Brass
		FS226	3/8"	Brass
		BLFS226		Ball Lock, Brass
Requires Hose Clamp (See page 200 for typical hose clamps)				

45° Push-On Hose Stem		Part No.	I.D.	Description
		FS224P	1/4"	Brass
		BLFS224P		Ball Lock, Brass
		FS226P	3/8"	Brass
		BLFS226P		Ball Lock, Brass
Hose clamps not required when used with "Push On" hose. See page 369.				

Socket w/o Stem		Part No.	FPT	Description
		FS200	1/8"	Brass
		BLFS200		Ball Lock, Brass








1/4" - FJT Series


(Interchange with DME, Jiffy-Tite, Jiffy-Matic, Parker Moldmate)


FJT 1/4" Series One Way Valved Sockets - Foster


Straight Hose Stem		Part No.	I.D.	Description
		FS204V	1/4"	Brass
		BLFS204V		Ball Lock, Brass, Valved
		FS205V	5/16"	Brass
		BLFS205V		Ball Lock, Brass, Valved
		FS206V	3/8"	Brass
BLFS206V	Ball Lock, Brass, Valved			
Requires Hose Clamp (See page 200 for typical hose clamps)				


Straight Push-On Hose Stem		Part No.	I.D.	Description
		FS204VP	1/4"	Brass
		BLFS204VP		Ball Lock, Brass, Valved
		FS206VP	3/8"	Brass
Hose clamps not required when used with "Push On" hose. See page 369.				

90° Hose Stem		Part No.	I.D.	Description
		FS214V	1/4"	Brass
		BLFS214V		Ball Lock, Brass
		FS215V	5/16"	Brass
		BLFS215V		Ball Lock, Brass
		FS216V	3/8"	Brass
BLFS216V	Ball Lock, Brass			
Requires Hose Clamp (See page 200 for typical hose clamps)				

90° Push-On Hose Stem		Part No.	I.D.	Description
		FS214VP	1/4"	Brass
		BLFS214VP		Ball Lock, Brass
		FS216VP	3/8"	Brass
		BLFS216VP		Ball Lock, Brass
		Hose clamps not required when used with "Push On" hose. See page 369.		

45° Hose Stem		Part No.	I.D.	Description
		FS224V	1/4"	Brass
		BLFS224V		Ball Lock, Brass
		FS225V	5/16"	Brass
		BLFS225V		Ball Lock, Brass
		FS226V	3/8"	Brass
BLFS226V	Ball Lock, Brass			
Requires Hose Clamp (See page 200 for typical hose clamps)				

45° Push-On Hose Stem		Part No.	I.D.	Description
		FS224VP	1/4"	Brass
		BLFS224VP		Ball Lock, Brass, Valved
		FS226VP	3/8"	Brass
		BLFS226VP		Ball Lock, Brass, Valved
		Hose clamps not required when used with "Push On" hose. See page 369.		

Socket w/o Stem		Part No.	FPT	Description
		FS200V	1/8"	Brass Valved
		BLFS200V		Ball Lock, Brass





3/8" - FJT Series





(Interchange with DME, Jiffy-Tite, Jiffy-Matic, Parker Moldmate)


FJT 3/8" Series Straight Thru Sockets - Foster


Straight Hose Stem		Part No.	I.D.	Description
		FS306	3/8"	Brass
		BLFS306		Ball Lock, Brass
		FS308	1/2"	Brass
		BLFS308		Ball Lock, Brass
Requires Hose Clamp (See page 200 for typical hose clamps)				


Straight Push-On Hose Stem		Part No.	I.D.	Description
		FS306P	3/8"	Brass
		BLFS306P		Ball Lock, Brass
		FS308P	1/2"	Brass
		BLFS308P		Ball Lock, Brass
Hose clamps not required when used with "Push On" hose. See page 369.				

90° Hose Stem		Part No.	I.D.	Description
		FS316	3/8"	Brass
		BLFS316		Ball Lock, Brass
		FS318	1/2"	Brass
		BLFS318		Ball Lock, Brass
Requires Hose Clamp (See page 200 for typical hose clamps)				

90° Push-On Hose Stem		Part No.	I.D.	Description
		FS316P	3/8"	Brass
		BLFS316P		Ball Lock, Brass
		FS318P	1/2"	Brass
		BLFS318P		Ball Lock, Brass
Hose clamps not required when used with "Push On" hose. See page 369.				

45° Hose Stem		Part No.	I.D.	Description
		FS326	3/8"	Brass
		BLFS326		Ball Lock, Brass
		FS328	1/2"	Brass
		BLFS328		Ball Lock, Brass
Requires Hose Clamp (See page 200 for typical hose clamps)				

45° Push-On Hose Stem		Part No.	I.D.	Description
		FS326P	3/8"	Brass
		BLFS326P		Ball Lock, Brass
		FS328P	1/2"	Brass
		BLFS328P		Ball Lock, Brass
Hose clamps not required when used with "Push On" hose. See page 369.				

Socket w/o Stem		Part No.	FPT	Description
		FS300	1/4"	Brass
		BLFS300		Ball Lock, Brass

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

Fittings & Accessories

Hoses & Fittings

Technical Data

Indexes




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3/8" - FJT Series


(Interchange with DME, Jiffy-Tite, Jiffy-Matic, Parker Moldmate)


FJT 3/8" Series One Way Valved Sockets - Foster


Straight Hose Stem		Part No.	I.D.	Description
		FS306V	3/8"	Brass
		BLFS306V		Ball Lock, Brass
		FS308V	1/2"	Brass
BLFS308V	Ball Lock, Brass			
Requires Hose Clamp (See page 200 for typical hose clamps)				


Straight Push-On Stem		Part No.	I.D.	Description
		FS306VP	3/8"	Brass
		BLFS306VP		Ball Lock, Brass
		FS308VP	1/2"	Brass
BLFS308VP	Ball Lock, Brass			
Hose clamps not required when used with "Push On" hose. See page 369.				

90° Hose Stem		Part No.	I.D.	Description
		FS316V	3/8"	Brass
		BLFS316V		Ball Lock, Brass
		FS318V	1/2"	Brass
BLFS318V	Ball Lock, Brass			
Requires Hose Clamp (See page 200 for typical hose clamps)				

90° Push-On Hose Stem		Part No.	I.D.	Description
		FS316VP	3/8"	Brass, Valved
		BLFS316P		Ball Lock, Brass
		BLFS316VP		Ball Lock, Brass, Valved
		FS318VP	1/2"	Brass, Valved
		BLFS318P		Ball Lock, Brass, Valved
BLFS318VP	Ball Lock, Brass, Valved			
Hose clamps not required when used with "Push On" hose. See page 369.				

45° Hose Stem		Part No.	I.D.	Description
		FS326V	3/8"	Brass
		BLFS326V		Ball Lock, Brass
		FS328V	1/2"	Brass
BLFS328V	Ball Lock, Brass			
Requires Hose Clamp (See page 200 for typical hose clamps)				

45° Push-On Hose Stem		Part No.	I.D.	Description
		FS326VP	3/8"	Brass
		BLFS326VP		Ball Lock, Brass
		FS328VP	1/2"	Brass
BLFS328VP	Ball Lock, Brass			
Hose clamps not required when used with "Push On" hose. See page 369.				

Socket w/o Stem		Part No.	FPT	Description
		FS300V	1/4"	Brass
		BLFS300V		Ball Lock, Brass



3/8" - FJT Series



(Interchange with DME, Jiffy-Tite, Jiffy-Matic, Parker Moldmate)

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

Fittings & Accessories

Hoses & Fittings

Technical Data

Indexes

FJT 3/8" Series Two Way (Valved) Sockets - Foster

Straight Hose Stem		Part No.	I.D.	Description
		FS306V2	3/8"	Brass
		BLFS306V2		Ball Lock, Brass
		FS308V2	1/2"	Brass
BLFS308V2	Ball Lock, Brass			
Requires Hose Clamp (See page 200 for typical hose clamps)				

Straight Push-On Hose Stem		Part No.	I.D.	Description
		FS306VP2	3/8"	Brass
		BLFS306VP2		Ball Lock, Brass
		FS308VP2	1/2"	Brass
BLFS308VP2	Ball Lock, Brass			
Hose clamps not required when used with "Push On" hose. See page 369.				

90° Hose Stem		Part No.	I.D.	Description
		FS316V2	3/8"	Brass
		BLFS316V2		Ball Lock, Brass
		FS318V2	1/2"	Brass
BLFS318V2	Ball Lock, Brass			
Requires Hose Clamp (See page 200 for typical hose clamps)				

90° Push-On Hose Stem		Part No.	I.D.	Description
		FS316VP2	3/8"	Brass
		BLFS316VP2		Ball Lock, Brass
		FS318VP2	1/2"	Brass
BLFS318VP2	Ball Lock, Brass			
Hose clamps not required when used with "Push On" hose. See page 369.				

45° Hose Stem		Part No.	I.D.	Description
		FS326V2	3/8"	Brass
		BLFS326V2		Ball Lock, Brass
		FS328V2	1/2"	Brass
BLFS328V2	Ball Lock, Brass			
Requires Hose Clamp (See page 200 for typical hose clamps)				

45° Push-On Hose Stem		Part No.	I.D.	Description
		FS326VP2	3/8"	Brass
		BLFS326VP2		Ball Lock, Brass
		FS328VP2	1/2"	Brass
BLFS328VP2	Ball Lock, Brass			
Hose clamps not required when used with "Push On" hose. See page 369.				

Socket w/o Hose Stem		Part No.	FPT	Description
		FS300V2	1/4"	Brass
BLFS300V2	Ball Lock, Brass,			

Male Thread		Part No.	Size	MPT	Description
		FP353V	3/8"	3/8"	Brass, Valved Plug, for Two Way sockets

FJT 3/8" Series High Flow Straight-Thru Sockets - Foster

Straight Hose Stem		Part No.	I.D.	Description
		FS308HF	1/2"	Brass
BLFS308HF	Ball Lock, Brass			
Requires Hose Clamp (See page 200 for typical hose clamps)				

Straight Push-On Hose Stem		Part No.	I.D.	Description
		FS308HFP	1/2"	Brass
BLFS308HFP	Ball Lock, Brass			
Hose clamps not required when used with "Push On" hose. See page 369.				

90° Hose Stem		Part No.	I.D.	Description
		FS318HF	1/2"	Brass
BLFS318HF	Ball Lock, Brass			
Requires Hose Clamp (See page 200 for typical hose clamps)				

90° Push-On Hose Stem		Part No.	I.D.	Description
		FS318HFP	1/2"	Brass
BLFS318HFP	Ball Lock, Brass			
Hose clamps not required when used with "Push On" hose. See page 369.				

Socket w/o Hose Stem		Part No.	FPT	Description
		FS300HF	3/8"	Brass High Flow
BLFS300HF	Ball Lock, Brass, High Flow			

See page 382 for full size templates

Brand - Designates **F**=Foster or **B**=Breco Part




WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.





1/2" - FJT Series & FJT Series - Plugs


(Interchange with DME, Jiffy-Tite, Jiffy-Matic, Parker Moldmate)


FJT 1/2" Series Straight-Thru Sockets - Foster


Straight Hose Stem		Part No.	I.D.	Description
		FS504	1/2"	Brass
		BLFS504		Ball Lock, Brass
		FS506	3/4"	Brass
		BLFS506		Ball Lock, Brass
		Requires Hose Clamp (See page 200 for typical hose clamps)		


Straight Push-On Hose Stem		Part No.	I.D.	Description
		FS504P	1/2"	Brass
		BLFS504P		Ball Lock, Brass
		FS506P	3/4"	Brass
		BLFS506P		Ball Lock, Brass
		Hose clamps not required when used with "Push On" hose. See page 369.		

90° Hose Stem		Part No.	I.D.	Description
		FS514	1/2"	Brass
		BLFS514		Ball Lock, Brass
		FS516	3/4"	Brass
		BLFS516		Ball Lock, Brass
		Requires Hose Clamp (See page 200 for typical hose clamps)		


90° Push-On Hose Stem		Part No.	I.D.	Description
		FS514P	1/2"	Brass
		BLFS514P		Ball Lock, Brass
		FS516P	3/4"	Brass
		BLFS516P		Ball Lock, Brass
		Hose clamps not required when used with "Push On" hose. See page 369.		


45° Hose Stem		Part No.	I.D.	Description
		FS524	1/2"	Brass
		BLFS524		Ball Lock, Brass
		FS526	3/4"	Brass
		BLFS526		Ball Lock, Brass
		Requires Hose Clamp (See page 200 for typical hose clamps)		


45° Push-On Hose Stem		Part No.	I.D.	Description
		FS524P	1/2"	Brass
		BLFS524P		Ball Lock, Brass
		FS526P	3/4"	Brass
		BLFS526P		Ball Lock, Brass
		Hose clamps not required when used with "Push On" hose. See page 369.		

Socket w/o Hose Stem		Part No.	FTP	Description
		FS500	1/2"	Brass
		BLFS500		Ball Lock, Brass

FJT Series - Plugs - 1/4" Thru 1/2" - Foster

Female Thread		Part No.	Size	FPT	Description
		FP251F	1/4"	1/8"	Steel
		FP251FB			Brass
		FP252F		1/4"	Steel
		FP252FB			Brass
		FP253F	3/8"	3/8"	Steel
		FP352F		1/4"	Steel
		FP352FB			Brass
		FP353F	3/8"	Steel	
		FP353FB		Brass	
		FP554F	1/2"	1/2"	Steel
		FP556F		3/4"	Steel

Male Thread		Part No.	Size	MPT	Description
		FP251	1/4"	1/8"	Brass
		FP252		1/4"	Brass
		FP252S			Steel
		FP253	3/8"	3/8"	Brass
		FP351		1/8"	Brass
		FP352			Brass
		FP352S	1/4"	Steel	
		FP353		3/8"	Brass
		FP354	1/2"	1/2"	Brass
		FP554		1/2"	Brass
		FP556		3/4"	Brass

Male Extension Plug		Part No.	Size	Pipe Size	Description
		FP251X	1/4"	1/8"	Call with length, material, and thread requirements
		FP252X		1/4"	
		FP253X		3/8"	
		FP352X	3/8"	1/4"	Lengths available: 2.5" - 13"
		FP353X		3/8"	
		FP354X		1/2"	
		FP554X	1/2"	1/2"	To Order: Add length to part number: i.e. FP251x2.5

See page 382 for full size templates

Brand - Designates **F**=Foster or **B**=Bresco Part



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Hydraulic Quick Disconnects



Hydraulic QD Selection Chart

Foster / Breco Coupling Series	Page	Coupling Style			Interchange								Body Size						Body Material				Locking		Flow Type						
		Manual	Automatic	Thread	Enerpac	ISO 16028	Snap-Tite H & IH	ISO 7241-1 Series A	ISO 7241-1 Series B	VEP Series	Pioneer AG	Industrial Interchange	Wing Nut	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	Brass	Steel	303 SS	316 SS	Ball Lock	Sleeve Lock	One-Way Shut-Off	Two-Way Shut-Off	Straight Thru	
FHK & DS Series	324-332	◆						◆					◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Carpet Cleaning	333	◆						◆						◆							◆									◆	
6600 Series	334	◆					◆							◆	◆	◆	◆	◆				◆								◆	
FF Plus Series, Flat Face	335-338		◆			◆							◆	◆	◆	◆	◆	◆	◆			◆	◆	◆		◆				◆	
FF Series, Flush Face	339		◆			◆							◆	◆	◆	◆	◆	◆				◆	◆			◆				◆	
FVEP Series	340			◆					◆							◆	◆	◆	◆			◆								◆	
FH & FIH Series	341-343	◆				◆								◆	◆	◆	◆				◆	◆			◆		◆	◆	◆	◆	◆
4000 Series	344	◆								◆				◆	◆	◆	◆	◆				◆								◆	
6100 Series	345-346			◆							◆					◆	◆	◆	◆		◆									◆	
W Series	347			◆	◆									◆	◆						◆					◆			◆	◆	
FST & ST Series	348-350	◆									◆		◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆		◆					◆	

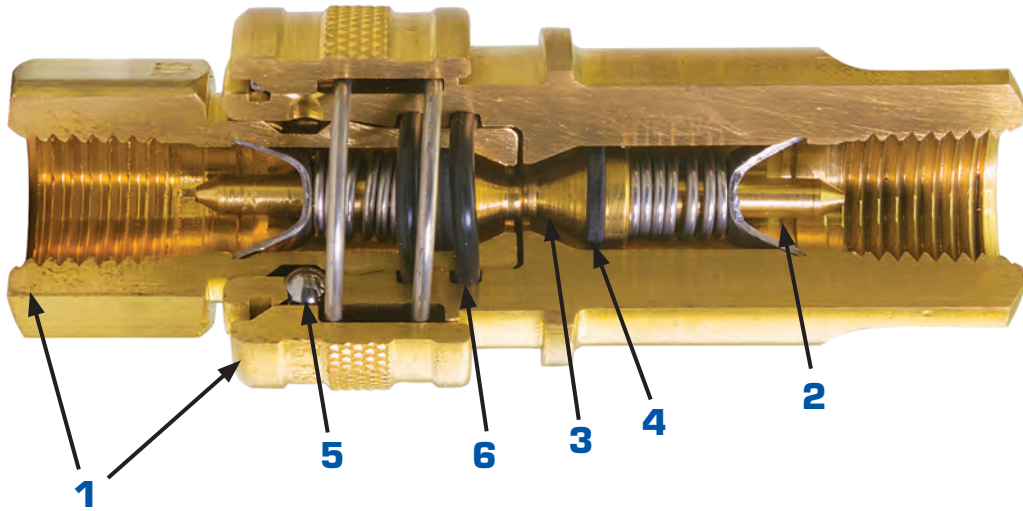
CAUTION: It is important that users of the Quick Release Couplers read the safety guidelines on pages 262 - 263. Improper use of products can lead to severe injury and damage to equipment.

Call ZSi-Foster at (866) 918-3003 or order now at zsi-foster.com



1/8" to 1" - FHK & DS Series

(Compatible with ISO 7241-1, Series B)



- 1** ISO B in steel has hardened plugs and sleeves constructed from solid bar stock ensures long service life and maximum resistance to damage from hydraulic and mechanical shock.
- 2** High flow capacity.
- 3** Foster's conical valve with its 360° metal to metal valve stop maintains valve alignment and ensures that poppets open fully every time.
- 4** Captive valve seal ensures "bubble tight" poppet sealing since seal is positively captured by the metal poppet to minimize seal washout or damage from high fluid velocity.
- 5** Ball locking mechanism ensures reliable connections every time. Many ball bearings distribute the load while providing alignment and excellent swiveling action to reduce hose torque and prolong hose life.
- 6** Broad range of metals and seal materials allow the use of most fluids.

Performance Data								
Body Size	Rated Pressure Coupled psig (Non Shock Service)			Air Flow – CFM				Oil Flow GPM MIL-H5606-125°F Pressure Drop
				100 PSIG		80 PSIG		
	Steel	Brass	Stainless Steel	Pressure Drop PSIG				
				10	5	10	5	10 PSIG
1/8"	4,000	3000	5000	22	17	20	15	1.8
1/4"	3,700	2700	3700	32	22	29	20	3.6
3/8"	3,700	2200	3700	58	42	53	38	6.7
1/2"	5,000	2250	4250	130	88	118	80	11.0
3/4"	4,000	2000	3500	305	207	277	188	26.3
1"	4,000	1500	3000	372	252	338	229	31.8

Brand - Designates **F**=Foster or **B**=Breco Part



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1/8" to 1" - FHK & DS Series

(Compatible with ISO 7241-1, Series B)



Applications: FHK Series sockets incorporate valves in both socket and plug halves to prevent fluid loss when the socket is disconnected. These sockets are normally referred to as "hydraulic couplings", but they are used extensively with other media where objectionable.

Vacuum Service: 27" Hg. maximum Rated pressures as defined by ANSI/B93.2-1986 based on 4:1 Safety Factor and non-shock service.

Type: FHK, Two-Way Shutoff, Both socket and plug are sealed at disconnect.

Interchangeability: Standard, most widely used, industrial interchange design. Within each series, only sockets and plugs of the same size will couple together. Compatible with ISO 7241-1, Series B.

Operation: Manual - Socket sleeve must be manually retracted to connect and disconnect.

Connect and disconnect at zero pressure for personal safety and maximum product life.

Seal Compound: Standard seals are Buna-N.

Options:

- One Way Shut-Off: Add suffix VA to either socket or plug catalog number for valve actuator.
- Straight-Thru: Add suffix LV to both socket and plug catalog number for less valve.
- Ball Lock (BL): Locks against accidental disconnect. To connect, align ball with slot. After connection, rotate sleeve to lock. To disconnect, realign ball with slot and retract sleeve.

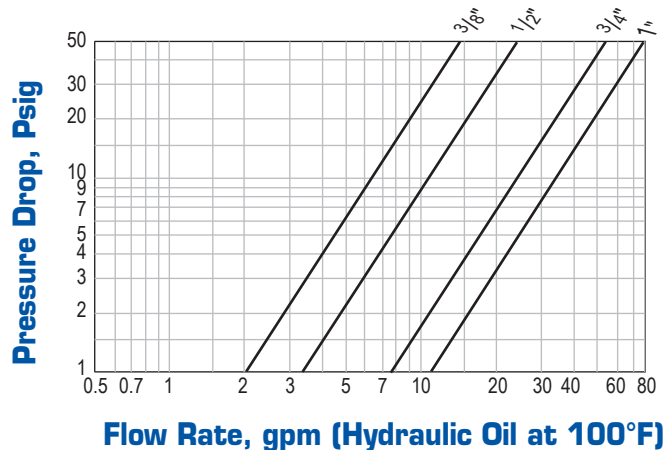
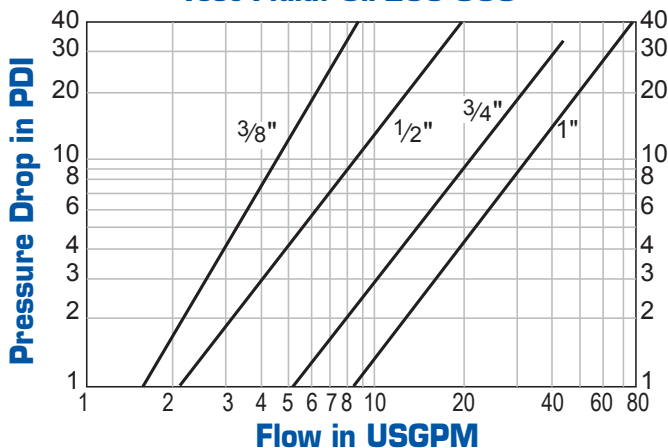
Ordering information:

FHK Series couplings are available in RoHS compliant plated steel, brass, and 303/316 Stainless as standard. Brass couplings have double O-Ring seals (excluding 1/8") and stainless locking balls. Standard seals are Buna-N (Nitrile). Consult factory for optional seals.

All sizes can be furnished with locking sleeves designated by "BL" (Ball Lock) prefix after regular catalog numbers.

Performance:

FHK Series 3/8" to 1"
Test Fluid: Oil-200 SUS







1/8" - FHK & DS Series

(Compatible with ISO 7241-1, Series B)

FHK & DS Series 1/8" Two Way Shut-Off, Plugs and Sockets

Sockets		Part No.	Brand	Thread	Description
		H1S	F		1/8"
1DSF1-S	B		Steel		
H1S-101	F		Steel w/Viton Seal		
H1B	F		Brass		
1DSF1-B	B		Brass		
H1B-101	F		Brass, w/Viton Seal		
1DSF1-B-Y	B		Brass, w/Viton Seal		
H1B-103	F		Brass, w/Ethylene Propylene Seal		
H1BLV	F		Brass Less Valve		
H1S/S	F		303 Stainless		
1DSF1-SS	B		303 Stainless		
H1S/S-101	F		303 Stainless, w/Viton Seal		
H1S/S-104	F		303 Stainless, w/Silicone Seal		
BLH1S	F		Steel Ball Lock		
BLH1B	F		Brass Ball Lock		
BLH1S/S	F		303 Stainless Ball Lock		
H1S4	F		7/16-20*	Steel	
BLH1S4	F		7/16-20*	Steel Ball Lock	

Plugs		Part No.	Brand	Thread	Description
		K1S	F		1/8"
DS1F1-S	B		Steel		
K1S-101	F		Steel w/Viton Seal		
K1B	F		Brass		
DS1F1-B	B		Brass		
K1B-101	F		Brass, w/Viton Seal		
K1B-103	F		Brass, w/EPDM Seal		
K1BLV	F		Brass Less Valve		
K1S/S	F		303 Stainless		
DS1F1-SS	B		303 Stainless		
K1S/S-101	F		303 Stainless, w/Viton Seal		
K1S4	F		7/16-20*	Steel	

Brand - Designates **F**=Foster or **B**=Breco Part

*SAE straight thread O-ring seal boss
See page 385 for full size templates
See page 373 - 374 for optional seal compounds




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1/4" - FHK & DS Series



(Compatible with ISO 7241-1, Series B)

FHK & DS Series 1/4" Two Way Shut-Off, Plugs and Sockets

Sockets		Part No.	Brand	Thread	Description
		H2S	F		
2DSF2-S	B				
H2S-101	F			Steel w/Viton Seal	
2DSF2-SY	B				
H2S-103				Steel w/EPDM Seal	
H2S-104	F			Steel w/Silicone Seal	
H2B					
2DSF2-B	B			Brass	
H2B-101	F			Brass, w/Viton Seal	
2DSF2-BY	B				
H2B-102				Brass, w/Neoprene Seal	
H2B-103	F			Brass, w/EPDM Seal	
H2BLV				Brass Less Valve	
H2S/S	F			303 Stainless	
2DSF2-SS	B				
2DSF2-SS316	B			316 Stainless Steel	
H2S/S316	F				
H2S/S-101				303 Stainless, w/Viton Seal	
H2S/S316-101				316 Stainless, w/Viton Seal	
H2S/S-103				303 Stainless, w/EPDM Seal	
H2S/S-104	F			303 Stainless, w/Silicone Seal	
H2S/SLV				303 Stainless Less Valve	
BLH2S				Steel Ball Lock	
BLH2B				Brass Ball Lock	
2DSF2-S-SL				Steel Sleeve Lock	
2DSF2-B-SL				Brass Sleeve Lock	
2DSF2-SS-SL	B			303 Stainless Sleeve Lock	
2DSF2-BY-SL				Brass, w/Viton Seal Sleeve Lock	
BLH2S/S	F			303 Stainless Ball Lock	
H2S6	F			Steel	
BLH2S6				Steel Ball Lock	

Plugs		Part No.	Brand	Thread	Description
		K2S	F		
DS2F2-S	B				
K2S-101				Steel w/Viton Seal	
K2S-103	F			Steel w/EPDM Seal	
K2S-104				Steel w/Silicone Seal	
K2SLV				Steel Less Valve	
K2B	F			Brass	
DS2F2-B	B				
K2B-101				Brass, w/Viton Seal	
K2B-102	F			Brass, w/Neoprene Seal	
K2B-103				Brass, w/EPDM Seal	
K2B-104				Brass, w/Silicone Seal	
K2BLV				Brass Less Valve	
K2S/S	F			303 Stainless	
DS2F2-SS	B				
K2S/S316	F			316 Stainless Steel	
DS2F2-SS316	B				
K2S/S-101				303 Stainless, w/Viton Seal	
K2S/S316-101				316 Stainless, w/Viton Seal	
K2S/S-103	F			303 Stainless, w/EPDM Seal	
K2S/S-104				303 Stainless, w/Silicone Seal	
K2S/SLV				303 Stainless Less Valve	
K2S6	F			9/16-18* Steel	

Brand - Designates **F**=Foster or **B**=Breco Part
ZSi-Foster Engineering Catalog

*SAE straight thread O-ring seal boss
 See page 385 for full size templates
 See page 373 - 374 for optional seal compounds

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3/8" - FHK & DS Series

(Compatible with ISO 7241-1, Series B)

FHK & DS Series 3/8" Two Way Shut-Off, Plugs and Sockets

	Part No.	Brand	Thread	Description	
Sockets	H3S	F	3/8"	Steel	
	3DSF3-S	B			
	H3S-101	F		Steel w/Viton Seal	
	H3S-102			Steel w/Neoprene Seal	
	H3S-103			Steel w/EPDM Seal	
	H3S-104			Steel w/Silicone Seal	
	H3B			Brass	
	3DSF3-B	B			
	H3B-101	F		Brass, w/Viton Seal	
	3DSF3-BY	B			
	H3B-102	F		Brass, w/Neoprene Seal	
	H3B-103			Brass, w/Ethylene Propylene Seal	
	H3B-104			Brass, w/Silicone Seal	
	H3S/S			F	303 Stainless
	3DSF3-SS	B			
	H3S/S316	F		316 Stainless Steel	
	3DSF3-SS316	B			
	H3S/S-101	F		303 Stainless, w/Viton Seal	
	H3S/S316-101			316 Stainless, w/Viton Seal	
	BLH3S			Steel Ball Lock	
	BLH3B			Brass Ball Lock	
	BLH3S/S			303 Stainless Ball Lock	
	3DSF3-SS-SL	B		303 Stainless Sleeve Lock	
	BLH3S/S316	F		316 Stainless Ball Lock	
	H3S8			3/4-16*	Steel
	BLH3S8				Steel Ball Lock



	Part No.	Brand	Thread	Description	
Plugs	K3S	F	3/8"	Steel	
	DS3F3-S	B			
	K3S-101	F		Steel w/Viton Seal	
	K3S-102			Steel w/Neoprene Seal	
	K3S-103			Steel w/EPDM Seal	
	K3S-104			Steel w/Silicone Seal	
	K3SLV			Steel Less Valve	
	K3B	F		Brass	
	DS3F3-B	B			
	K3B-101	F		Brass, w/Viton Seal	
	K3B-102			Brass, w/Neoprene Seal	
	K3B-103			Brass, w/EPDM Seal	
	K3S/S	F		303 Stainless	
	DS3F3-SS	B			
	K3S/S316	F		316 Stainless Steel	
	DS3F3-SS316	B			
	K3S/S-101	F		303 Stainless, w/Viton Seal	
	K3S/S316-101			316 Stainless, w/Viton Seal	
	K3S/S-103			303 Stainless, w/EPDM Seal	
	K3S8	F		3/4-16*	Steel



Brand - Designates **F**=Foster or **B**=Breco Part

*SAE straight thread O-ring seal boss
See page 385 for full size templates
See page 373 - 374 for optional seal compounds



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1/2" - FHK & DS Series

(Compatible with ISO 7241-1, Series B)



Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

Fittings & Accessories

Hoses & Fittings

Technical Data

Indexes

FHK & DS Series 1/2" Two Way Shut-Off, Plugs and Sockets

Sockets	Part No.	Brand	Thread	Description	
	H4S	F	1/2"	Steel	
	4DSF4-S	B			
	H4S-101	F		Steel w/Viton Seal	
	4DSF4-SY	B			
	H4S-103	F		Steel w/EPDM Seal	
	H4B	F		Brass	
	4DSF4-B	B			
	H4B-101	F			Brass, w/Viton Seal
	H4B-102			Brass, w/Neoprene Seal	
	H4B-103			Brass, w/Ethylene Propylene Seal	
	H4S/S	F		303 Stainless	
	4DSF4-SS	B		316 Stainless Steel	
	H4S/S316	F			
	4DSF4-SS316	B		303 Stainless, w/Viton Seal	
	H4S/S-101	F			316 Stainless, w/Viton Seal
	H4S/S316-101				
	H4S/S-103			303 Stainless, w/EPDM Seal	
	BLH4S	F		Steel Ball Lock	
	BLH4B		Brass Ball Lock		
BLH4S/S	303 Stainless Ball Lock				
BLH4S/S316	316 Stainless Ball Lock				
H4S10	F		Steel		
BLH4S10			Steel Ball Lock		



Plugs	Part No.	Brand	Thread	Description	
	K4S	F	1/2"	Steel	
	DS4F4-S	B			
	K4S-101	F		Steel w/Viton Seal	
	K4S-103			Steel w/EPDM Seal	
	K4SLV			Steel Less Valve	
	K4B	F		Brass	
	DS4F4-B	B			
	K4B-101	F		Brass, w/Viton Seal	
	K4B-102			Brass, w/Neoprene Seal	
	K4B-103			Brass, w/EPDM Seal	
	K4BLV	F		Brass Less Valve	
	K4S/S			303 Stainless	
	DS4F4-SS	B		316 Stainless Steel	
	K4S/S316	F			
	DS4F4-SS316	B		303 Stainless, w/Viton Seal	
	K4S/S-101	F			316 Stainless, w/Viton Seal
	K4S/S316-101				
	K4S/S-103			303 Stainless, w/EPDM Seal	
	K4S/SLV	F	303 Stainless Less Valve		
K4S10	7/8-14*		Steel		



Brand - Designates **F**=Foster or **B**=Breco Part
ZSi-Foster Engineering Catalog

*SAE straight thread O-ring seal boss
 See page 385 for full size templates
 See page 373 - 374 for optional seal compounds



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3/4" - FHK & DS Series

(Compatible with ISO 7241-1, Series B)

FHK & DS Series 3/4" Two Way Shut-Off, Plugs and Sockets

Sockets	Part No.	Brand	Thread	Description	
	H6S	F	3/4"	Steel	
	6DSF6-S	B		Steel	
	H6S-101	F		Steel w/Viton Seal	
	H6S-102	F		Steel w/Neoprene Seal	
	H6S-103	F		Steel w/EPDM Seal	
	H6SLV	F		Steel Less Valve	
	H6B	F		Brass	
	6DSF6-B	B			
	H6B-101	F			Brass, w/Viton Seal
	H6B-103	F			Brass, w/Ethylene Propylene Seal
	H6B-104	F		Brass, w/Silicone Seal	
	H6S/S	F		303 Stainless	
	6DSF6-SS	B			
	H6S/S316	F			
	6DSF6-SS316	B			
	H6S/S-101	F			
	6DSF6-SS-Y	B			
	H6S/S316-101	F			
	H6S/S-103	F			
H6S/SLV	F				
BLH6S	F				
BLH6B	F				
BLH6S/S	F				
BLH6S/S316	F				
6DSF6-SS-SL	B	303 Stainless Sleeve Lock			
H6S12	F	1-1/16-12*	Steel		
BLH6S12	F		Steel Ball Lock		



Plugs	Part No.	Brand	Thread	Description	
	K6S	F	3/4"	Steel	
	DS6F6-S	B		Steel	
	K6S-101	F		Steel w/Viton Seal	
	K6S-102	F		Steel w/Neoprene Seal	
	K6S-103	F		Steel w/EPDM Seal	
	K6SLV	F		Steel Less Valve	
	K6B	F		Brass	
	DS6F6-B	B			
	K6B-101	F			Brass, w/Viton Seal
	K6B-103	F			Brass, w/Ethylene Propylene Seal
	K6S/S	F		303 Stainless	
	DS6F6-SS	B			
	K6S/S316	F			
	DS6F6-SS316	B			
	K6S/S-101	F			
	K6S/S316-101	F			
	K6S/S-103	F			
	K6S/SLV	F			
	K6S12	F	1-1/16-12*		Steel



Brand - Designates **F**=Foster or **B**=Breco Part

*SAE straight thread O-ring seal boss
See page 385 for full size templates
See page 373 - 374 for optional seal compounds



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1" - FHK & DS Series

(Compatible with ISO 7241-1, Series B)



FHK & DS Series 1" Two Way Shut-Off, Plugs and Sockets

Sockets	Part No.	Brand	Thread	Description
	H8S	F	1"	Steel
	8DSF8-S	B		Steel
	H8S-101	F		Steel w/Viton Seal
	H8SLV	F		Steel Less Valve
	H8B	F		Brass
	8DSF8-B	B		Brass
	H8B-101	F		Brass, w/Viton Seal
	H8B-103	F		Brass, w/Ethylene Propylene Seal
	H8S/S	F		303 Stainless
	8DSF8-SS	B		303 Stainless
	H8S/S316	F		316 Stainless Steel
	8DSF8-SS316	B		316 Stainless Steel
	H8S/S-101	F		303 Stainless, w/Viton Seal
	H8S/S316-101			316 Stainless, w/Viton Seal
	H8S/S-103			303 Stainless, w/EPDM Seal
	BLH8S			Steel Ball Lock
	BLH8B			Brass Ball Lock
	BLH8S/S			303 Stainless Ball Lock
	BLH8S/S316			316 Stainless Ball Lock
8DSF8-SS-SL	B			303 Stainless Sleeve Lock
H8S16	F		1 ⁵ / ₁₆ -12*	Steel
BLH8S16			Steel Ball Lock	



Plugs	Part No.	Brand	Thread	Description
	K8S	F	1"	Steel
	DS8F8-S	B		Steel
	K8S-101	F		Steel w/Viton Seal
	K8SLV	F		Steel Less Valve
	K8B	F		Brass
	DS8F8-B	B		Brass
	K8B-101	F		Brass, w/Viton Seal
	K8B-103	F		Brass, w/Ethylene Propylene Seal
	K8S/S	F		303 Stainless
	DS8F8-SS	B		303 Stainless
	K8S/S316	F		316 Stainless Steel
	DS8F8-SS316	B		316 Stainless Steel
	K8S/S-101	F		303 Stainless, w/Viton Seal
	K8S/S316-101			316 Stainless, w/Viton Seal
	K8S/S-103			303 Stainless, w/EPDM Seal
	K8S16			1 ⁵ / ₁₆ -12*



Brand - Designates **F**=Foster or **B**=Breco Part
ZSi-Foster Engineering Catalog

*SAE straight thread O-ring seal boss
 See page 385 for full size templates
 See page 373 - 374 for optional seal compounds


WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.




1-1/2" & 2-1/2" - FHK & DS Series


(Compatible with ISO 7241-1, Series B)


FHK & DS Series 1-1/2" Two Way Shut-Off, Plugs and Sockets - Breco

Sockets		Part No.	Type	Finish	Body Size		Thread Size	Hex Wrench Area	Max. Working Pressure	Hydraulic Oil Rated Flow at 100°F
					In.	ISO mm				
		12DSF12-B	Socket	Brass	1-1/2"	40mm	1-1/2" NPTF	2.36"	1,500 psi	100 gpm

Plugs		Part No.	Type	Finish	Body Size		Thread Size	Hex Wrench Area	Max. Working Pressure	Hydraulic Oil Rated Flow at 100°F
					In.	ISO mm				
		DS12F12-B	Plug	Brass	1-1/2"	40mm	1-1/2" NPTF	2.36"	1,500 psi	100 gpm

FHK & DS Series 2-1/2" Two Way Shut-Off, Plugs and Sockets - Breco

Sockets		Part No.	Type	Finish	Body Size		Thread Size	Hex Wrench Area	Max. Working Pressure	Hydraulic Oil Rated Flow at 100°F
					In.	ISO mm				
		16DSF16-B	Socket	Brass	2-1/2"	50mm	2" NPTF	3.74"	700 psi	200 gpm

Plugs		Part No.	Type	Finish	Body Size		Thread Size	Hex Wrench Area	Max. Working Pressure	Hydraulic Oil Rated Flow at 100°F
					In.	ISO mm				
		DS16F16-B	Plug	Brass	2-1/2"	50mm	2" NPTF	3.74"	700 psi	200 gpm

Brand - Designates **F**=Foster or **B**=Breco Part



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FHK & DS Series Dust Plugs & Caps



DS Series Carpet Cleaning

FHK & DS Series Dust Plugs and Caps

Protective dust plugs and caps play a crucial role in the use of hydraulic quick couplings. Dust plugs and caps keep the mating surface clean and free of contamination and protect the critical mating elements of the coupling halves when they are disconnected. The plug is protected from damage that would make the total coupling unusable.

Note: When ordering the dust cap/plug body size must correspond to that of the socket or plug.

Dust Cap Part No.	Dust Plug Part No.		Brand	Size
	NPT Thread	SAE Thread		
-	H1DP	H1DP4	F	1/8"
BH1-66	BH1-65	-	B	1/8"
-	H2DP	H2DP6	F	1/4"
BH2-66	BH2-65	-	B	1/4"
-	H3DP	H3DP8	F	3/8"
BH3-66	BH3-65	-	B	3/8"
-	H4DP	H4DP10	F	1/2"
BH4-66	BH4-65	-	B	1/2"
-	H6DP	H6DP12	F	3/4"
BH6-66	BH6-65	-	B	3/4"
-	H8DP	H8DP16	F	1"
BH8-66	BH8-65	-	B	1"



Part No.	Brand	Size	Description
B1DC	F	1/8"	Dust Cap
B1DP			Dust Plug
BH1-66M	B	1/8"	Dust Cap
BH1-65M			Dust Plug
B2DC-DP	F	1/4"	Dust Cap and Plug
BH2-66M			Dust Cap
BH2-65M	B	1/4"	Dust Plug
B3DC-DP			Dust Cap and Plug
B3DC	F	3/8"	Dust Cap
B3DC-BLUE			Dust Plug
B3DP	B	3/8"	Dust Cap
B3DP-BLUE			Dust Plug
BH3-66M	B	1/2"	Dust Cap
BH3-65M			Dust Plug
B4DC-DP	F	1/2"	Dust Cap and Plug
B4DC			Dust Cap
B4DC-BLUE	B	1/2"	Dust Plug
B4DP			Dust Cap
B4DP-BLUE	B	1/2"	Dust Plug
BH4-66M			Dust Cap
BH4-65M	F	3/4"	Dust Cap
B6DC			Dust Plug
B6DP	B	3/4"	Dust Cap
BH6-66M			Dust Plug
BH6-65M	F	1"	Dust Cap
B8DC-DP			Dust Cap and Plug
B8DC	B	1"	Dust Cap
B8DC-BLUE			Dust Plug
B8DP	B	1"	Dust Cap
B8DP-BLUE			Dust Plug
BH8-66M	B	1"	Dust Cap
BH8-65M			Dust Plug

Dust Caps & Plugs Rubber



Black Combo

DS Series Carpet Cleaning Plugs and Sockets - Breco

Female Thread	Part No.	Size	Thread Size NPTF	Description
	DS2F2-BI	1/4"	1/4-18	Brass

Female Thread	Part No.	Size	Thread Size NPTF	Description
	2DSF2-BI	1/4"	1/4-18	Brass

Newly designed to exacting standards, our latest Carpet Cleaning ISO-B quick disconnect includes a redesigned stainless steel valve with EPDM Seal and internal components, specifically engineered to offer strong airflow, high psig and efficient performance. Field tested and subjected to rigorous cleaning applications, it has been proven to perform under pressure without leaking or failing. It is ideal for carpet cleaning equipment, car washes, pressure washers and water based hydraulic applications.

Contact factory for specific information. Socket is available with a protective cover in three different color options.



Brand - Designates **F**=Foster or **B**=Breco Part

ZSi-Foster Engineering Catalog



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6600 ISO A Series

(Conforms with ISO 7241-1, Series A)

- The 6600 Series couplings feature poppet valves with solid metal perch that maintains valve alignment and prevents flow checking. Both the sleeves of the socket and plug are case hardened to make the couplings resistant to damage from brinelling and mechanical shock.
- The durable ball-locking mechanism ensures a reliable connection every time.
- These couplings have female pipe and straight thread end configurations as standard. The dimensional requirements of Series A in ISO 7241-1. Socket and plug are interchangeable with other parts compatible with ISO 7241-1.

Specifications:

	Size				
	1/4"	3/8"	1/2"	3/4"	1"
	Rated Pressure (Psig)				
Working Pressure	5000	4000	4000	4000	4000
Temperature Range (std seals)	-10° to +250° F.				

"6600" Series Sockets - Breco

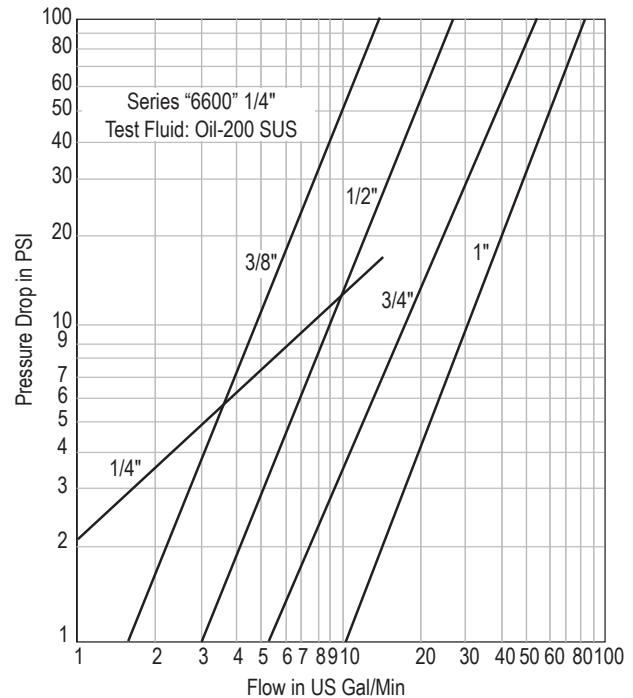
Female Thread	Part No. Steel	Size	Thread Size	
			NPTF	ORB
			B-6601-2-4	1/4"
B-6601-4-4	1/4"	1/4-18	-	
B-6601-6-6	3/8"	3/8-18	-	
B-6601-8-10	1/2"	1/2-14	-	
B-6601-12-10		3/4-14	-	
B-6608-8-10		-	3/4-16	
B-6608-10-10	1/2"	-	7/8-14	
B-6608-12-10		-	1 1/16-12	
B-6601-12-12		3/4"	3/4-14	-
B-6608-12-12	3/4"	-	1 1/16-12	
B-6601-16-16		1"	1 - 11 1/2	
B-6608-16-16		-	1 5/16-12	

"6600" Series Plugs - Breco

Female Thread	Part No. Steel	Size	Thread Size	
			NPTF	ORB
			B-6602-2-4	1/4"
B-6602-4-4	1/4"	1/4-18	-	
B-6602-6-6	3/8"	3/8-18	-	
B-6602-8-10	1/2"	1/2-14	-	
B-6602-12-10		3/4-14	-	
B-6610-8-10		-	3/4-16	
B-6610-10-10	1/2"	-	7/8-14	
B-6610-12-10		-	1 1/16-12	
B-6602-12-12		3/4"	3/4-14	-
B-6610-12-12	3/4"	-	1 1/16-12	
B-6602-16-16		1"	1 - 11 1/2	
B-6610-16-16		-	1 5/16-12	

Applications:

The versatile "6600" Series couplings are used in a wide range of hydraulic applications including construction equipment, manufacturing machinery, and in-plant systems. They can be found anywhere the fluid transfer lines need to be connected and disconnected for operation or maintenance of equipment. Rugged construction makes it a good choice for mobile applications including dump trucks, snow plows, refuse hauling, mining, asphalt paving, truck trailer connections and many more. In-plant machinery applications include hydraulic fluid, chemicals and gas lines for paper mills, steel production, and many varieties of plant maintenance and production equipment.



Dust Caps & Dust Plugs - Breco

Dust Cap	Part No.	Dust Plug	Part No.	Size
	B-6657-4		B-6659-4	1/4"
	B-6657-6		B-6659-6	3/8"
	B-6657-10		B-6659-10	1/2"
	B-6657-12		B-6659-12	3/4"
	B-6657-16		B-6659-16	1"

Dust Cap & Plug Combo	Part No.	Size	Description
	A04DC-DP	1/4"	Combo
	A06DC-DP	3/8"	Combo
	A08DC	1/2"	Dust Cap
	A08DP		Dust Plug
	A12DC-DP	3/4"	Combo
	A16DC-DP	1"	Combo

Brand - Designates **F**=Foster or **B**=Breco Part See page 396 for full size templates



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FF Plus Series



(Flat Face, Meets ISO 16028 Standard)



Nickel Plated Steel



316 Stainless Steel

Construction

(Sizes 06 to 25) - Carbon steel with zinc nickel plating fitted with Nitrile seals (Viton seals available)
 1200 hours with no white or red rust in salt spray tests
 AISI 316 stainless steel fitted with Viton seals (Other seals available on request)

Features

- Safety locking sleeve to prevent accidental disconnection
- Flat faces are easily wiped clean
- Minimal inclusion of air and contaminants during connection
- Flat face design prevents fluid loss during disconnection
- Bidirectional flow
- Offered nickel plated steel & 316 Stainless Steel
- Manufactured to ISO 16028 Standard
- Bi-directional Flow
- Multiple Thread Types: NPT and ORB
- Connect Under Pressure Series, see page 338
- Tested to 1,200 Hours of Protection from White & Red Rust

Accessories

Dust Caps and Plugs are available

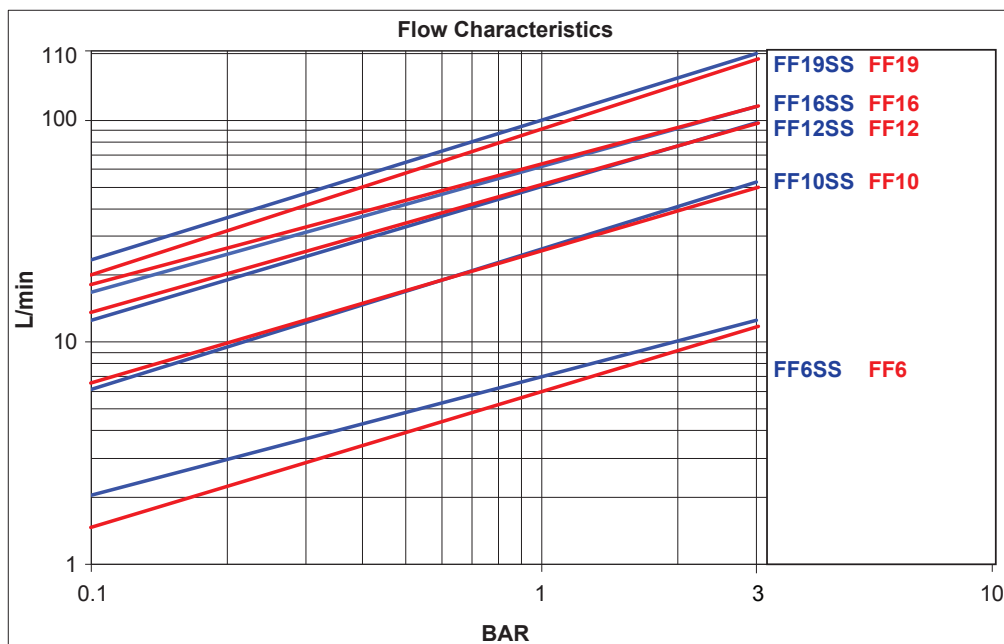
Specifications

Couplers have been tested to the ISO 7241-2 Standard
 Operating temperatures - Nickel Plated Steel:
 (With Nitrile seals): -40° to 223°F (-40° to 106°C),
 (With Viton seals): -4° to 392°F (-20° to 200°C)
 Operating temperatures - Stainless Steel:
 (With Viton seals): -4° to 392°F (-20° to 200°C)

Flow Characteristics

Contact ZSi-Foster for detailed information

	SIZE				
	1/4"	3/8"	1/2"	3/4"	1
Rated Flow (gpm)	3	6	12	26	50
Temperature Range	-10°F to +250° F				
Spillage (ML) (max. per disconnect)	.015	.015	.020	.150	.200
Air Inclusion (max. per disconnect)	.020	.020	.070	.100	.150



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FF Plus Series

(Flat Face, Meets ISO 16028 Standard)

FF Plus Series Sockets - Foster

Female Thread	Part No.	ISO 16028 Size	Body Size	Thread	Max. Working Pressure Psig	Burst Pressure (Coupled) Psig	Burst Pressure (each) Psig	Description
	FF6S-04	06	1/4"	1/4" Female NPT	5,800	24,650	21,750	Nickel Plated Steel
	FF6S-04SS				5,075	18,850	23,200	Stainless Steel - 316
	FF10S-06	10	3/8"	3/8" Female NPT	5,075	21,750	15,950	Nickel Plated Steel
	FF10S-06SS				5,075	27,550	14,500	Stainless Steel - 316
	FF10S-08			1/2" Female NPT	5,075	21,750	15,950	Nickel Plated Steel
	FF10S-08SS				5,075	27,550	14,500	Stainless Steel - 316
	FF10S-75ORB			3/4" -16 Female ORB	5,075	27,550	15,225	Nickel Plated Steel
	FF12S-08			12	1/2"	1/2" Female NPT	5,075	17,400
	FF12S-08SS	1/2" Female NPT	5,075			23,200	14,500	Stainless Steel - 316
FF12S-12	3/4" Female NPT	5,075	17,400			15,225	Nickel Plated Steel	
FF12S-12SS		5,075	23,200			14,500	Stainless Steel - 316	
FF12S-75ORB	3/4" - 16 Female ORB	5,075	23,200			15,950	Nickel Plated Steel	
FF12S-87ORB	7/8" - 14 Female ORB	5,075	23,200			15,950		
FF12S-106ORB	1-1/16" - 12 Female ORB	5,075	23,200			15,950		
FF16S-12	16	5/8"	3/4" Female NPT			5,075	17,400	15,950
FF16S-12SS				5,075	20,300	14,500	Stainless Steel - 316	
FF19S-12	19	3/4"	3/4" Female NPT	5,075	21,025	15,950	Nickel Plated Steel	
FF19S-12SS				5,075	20,300	14,500	Stainless Steel - 316	
FF19S-16			1" Female NPT	5,075	21,025	15,225	Nickel Plated Steel	
FF19S-16SS				5,075	20,300	14,500	Stainless Steel - 316	
FF19S-131ORB			1-5/16" - 12 Female ORB	5,075	21,025	15,950	Nickel Plated Steel	
FF25S-16	25	1"	1" Female NPT	5,075	11,600	15,225	Nickel Plated Steel	
FF25S-16SS				5,075	14,500	14,500	Stainless Steel - 316	
FF25S-20			1-1/4" Female NPT	3,770	11,600	11,600	Nickel Plated Steel	
FF25S-20SS				5,075	14,500	14,500	Stainless Steel - 316	
FF25S-162ORB			1-5/8" - 12 Female ORB	5,075	11,600	15,225	Nickel Plated Steel	
FF32S-24	32	1-1/4"	1-1/2" Female NPT	3,600	15,950	11,600	Nickel Plated Steel	
FF40S-32	40	1-1/2"	2" Female NPT	3,600	14,500	11,600	Nickel Plated Steel	



FF Plus Series Socket Dust Caps - Foster

Socket - Dust Caps	Part No.	Size	Description
	6FFSDC	1/4"	Dust Cap - PVC
	10FFSDC	3/8"	Dust Cap - PVC
	12FFSDC	1/2"	Dust Cap - PVC
	16FFSDC	5/8"	Dust Cap - PVC
	19FFSDC	3/4"	Dust Cap - PVC
	25FFSDC	1"	Dust Cap - PVC



CAUTION: It is important that users of the Quick Release Couplers read the safety guidelines on pages 262 - 263. Improper use of products can lead to severe injury and damage to equipment.

Brand - Designates **F**=Foster or **B**=Breco Part

- 336 -

www.zsi-foster.com



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FF Plus Series

(Flat Face, Meets ISO 16028 Standard)



FF Plus Series Plugs - Foster

Female Thread	Part No.	ISO 16028 Size	Body Size	Thread	Max. Working Pressure Psig	Burst Pressure (Coupled) Psig	Burst Pressure (each) Psig	Description
	FF6P-04	06	1/4"	1/4" Female NPT	5,800	24,650	17,690	Nickel Plated Steel
	FF6P-04SS				5,075	18,850	37,7002	Stainless Steel - 316
	FF10P-06	10	3/8"	3/8" Female NPT	5,075	21,750	15,225	Nickel Plated Steel
	FF10P-06SS				5,075	27,550	20,300	Stainless Steel - 316
	FF10P-08			1/2" Female NPT	5,075	21,750	15,225	Nickel Plated Steel
	FF10P-08SS				5,075	27,550	18,850	Stainless Steel - 316
	FF10P-75ORB			3/4" -16 Female ORB	5,075	21,750	14,500	Nickel Plated Steel
	FF12P-08			12	1/2"	1/2" Female NPT	5,075	17,400
	FF12P-08SS	5,075	23,200				15,950	Stainless Steel - 316
	FF12P-12	3/4" Female NPT	5,075			17,400	14,500	Nickel Plated Steel
	FF12P-12SS		5,075			23,200	15,950	Stainless Steel - 316
	FF12P-75ORB	3/4" - 16 Female ORB	5,075			17,400	15,225	Nickel Plated Steel
	FF12P-87ORB	7/8" - 14 Female ORB	5,075			17,400	15,225	
	FF12P-106ORB	1-1/16" - 12 Female ORB	5,075			17,400	15,225	
FF16P-12	16	5/8"	3/4" Female NPT			5,075	17,400	15,950
FF16P-12SS				5,075	20,300	15,950	Stainless Steel - 316	
FF19P-12	19	3/4"	3/4" Female NPT	5,075	21,025	15,950	Nickel Plated Steel	
FF19P-12SS				5,075	20,300	15,950	Stainless Steel - 316	
FF19P-16			1" Female NPT	5,075	21,025	15,225	Nickel Plated Steel	
FF19P-16SS				5,075	20,300	15,950	Stainless Steel - 316	
FF19P-131ORB			1-5/16" - 12 Female ORB	5,075	21,025	15,950	Nickel Plated Steel	
FF25P-16	25	1"	1" Female NPT	5,075	11,600	15,225	Nickel Plated Steel	
FF25P-16SS				5,075	14,500	15,950	Stainless Steel - 316	
FF25P-20			1-1/4" Female NPT	3,770	11,600	11,600	Nickel Plated Steel	
FF25P-20SS				5,075	14,500	14,500	Stainless Steel - 316	
FF25P-162ORB			1-5/8" - 12 Female ORB	5,075	11,600	15,225	Nickel Plated Steel	
FF32P-24	32	1-1/4"	1-1/2" Female NPT	3,600	15,950	11,600	Nickel Plated Steel	
FF40P-32	40	1-1/2"	2" Female NPT	3,600	14,500	11,600	Nickel Plated Steel	



FF Plus Series Plug Dust Caps - Foster

Plug - Dust Caps	Part No.	Size	Description
	6FFPDC	1/4"	Dust Cap - PVC
	10FFPDC	3/8"	Dust Cap - PVC
	12FFPDC	1/2"	Dust Cap - PVC
	16FFPDC	5/8"	Dust Cap - PVC
	19FFPDC	3/4"	Dust Cap - PVC
	25FFPDC	1"	Dust Cap - PVC



Brand - Designates **F**=Foster or **B**=Breco Part
ZSi-Foster Engineering Catalog

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FF Plus Series - Connect Under Pressure

(Flat Face, Meets ISO 16028 Standard)



FF10CUP



FF12CUP



FF19CUP

Connects under pressure by hand, with up to 5,067 psig (350 bar) locked in the male half. The ideal choice for applications where the ability to connect under pressure is essential.

Features

- Designed to connect with the flat face sockets
- Flat faces are easily wiped clean
- Allows for minimal inclusion of air and contaminants during connection
- Flat face design prevents fluid loss during disconnection
- Bidirectional flow
- Connect under pressure with up to 5,067 psig (350 bar) locked in the plugs
- Sockets must have zero pressure when connecting plugs under pressure

Construction

- (Sizes 10 to 19) - Carbon steel with zinc nickel plating fitted with Nitrile seals
- (1200 hours with no white or red rust in salt spray tests)

Accessories

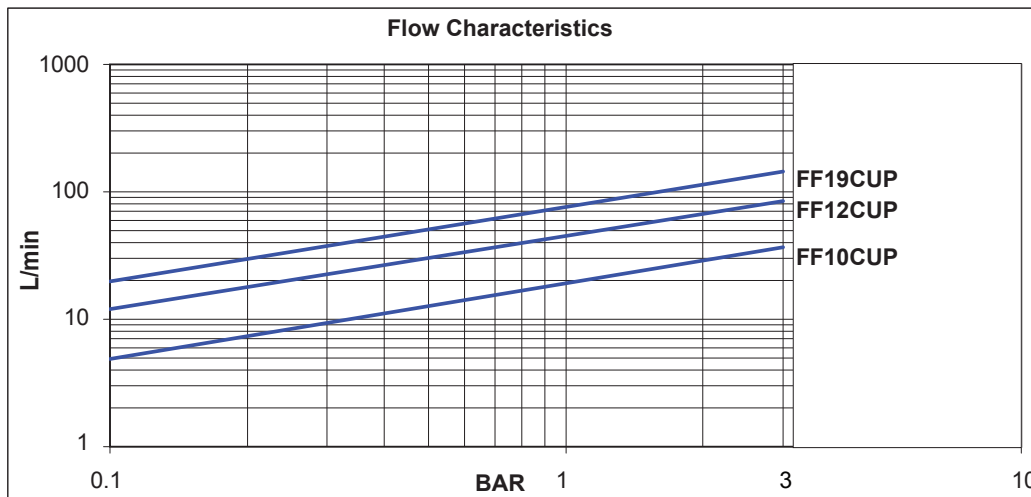
- Dust Caps are available for connect under pressure series

Specifications

- Operating temperatures:
(With Nitrile seals): -40°F to 223°F (-40°C to 106°C)

Flow Characteristics

Contact ZSi-Foster for detailed information



FF Plus Series - Connect Under Pressure Plugs - Foster

Female Thread		Part No.	ISO 16028 Size	Body Size	Thread	Max. Working Pressure Psig	Burst Pressure (Coupled) Psig	Burst Pressure (each) Psig	Description
		FF10CUPP-06	10	3/8"	3/8" Female NPT	5,075	21,750	21,750	Nickel Plated Steel
		FF10CUPP-08			1/2" Female NPT				
		FF12CUPP-08	12	1/2"	1/2" Female NPT	5,075	17,400	21,750	Nickel Plated Steel
		FF12CUPP-12			3/4" Female NPT				
FF19CUPP-16	19	3/4"	1" Female NPT	5,075	21,025	23,200	Nickel Plated Steel		

Brand - Designates **F**=Foster or **B**=Breco Part



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FF Series



(Flush Face, Meets ISO 16028 Standard)

The FF Series couplers are a two-way shut-off hydraulic coupler. Typical applications include portable hydraulic tools, railway and construction maintenance equipment, utility company field equipment and general purpose hydraulic service. The flush face technology provides for ease of cleaning, minimal air inclusion and minimal fluid loss. The arrow stamped on the coupler indicates the direction of flow for installation purposes.

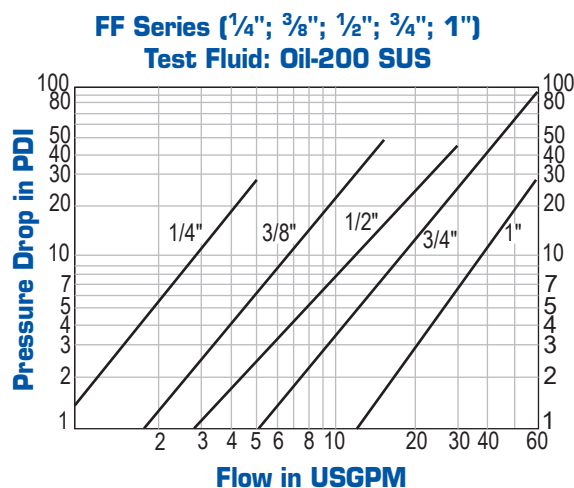
Features:

- Meets dimensional and performance standards of ISO 16028 as well as HTMA* and NFPA.
- "FF" Series style double shut-off hydraulic couplings are intended for use on medium pressure hydraulic systems up to 2500 psig operating pressures.
- Combines dual flush face valving, push-to-connect operation, minimum fluid loss upon disconnect, low air inclusion and sleeve lock.
- Primary applications are with hydraulic tools where cleaner automatic connections are needed and in machine tool line connections where minimum fluid leaks can be tolerated.

*Hydraulic Tool Mfg. Assoc. and National Fluid Power Assoc.

Specifications	Size				
	1/4"	3/8"	1/2"	3/4"	1"
Rated Pressure (psig)	5,000	5,000	5,000	5,000	5,000
Minimum Burst pressure, Male half (psig)	27,000	22,000	24,000	23,000	21,000
Minimum Burst pressure, Female half (psig)	27,000	25,000	23,000	20,000	20,000
Minimum Burst pressure, Coupled (psig)	27,000	23,000	25,000	22,000	22,000
Rated Flow (gpm)	3	6	12	26	50
Temperature Range	-10° F to +250° F				
Spillage (ML) (max. per disconnect)	.015	.015	.020	.150	.200
Air Inclusion (max. per disconnect)	.020	.020	.070	.100	.150

Performance:



FF Series Sockets - Breco

Female Thread	Part No. Steel	Size	Dust Plug	Thread Size NPT
				B-2FF2-FP
B-2FF2-FP-SAE	9/16-18 SAE			
B-3FF3-FP	3/8"	SDC-3	3/8-18 FPT	
B-3FF4-FP			1/2-14 FPT	
B-4FF4-FP	1/2"	SDC-4	1/2-14 FPT	
B-4FF4-FP-SAE			3/4-16 SAE	
B-4FF6-FP			3/4-14 FPT	
B-4FF6-FP-SAE			1/16-12-SAE	
B-6FF6-FP	3/4"	SDC-6	3/4-14 FPT	
B-6FF6-FP-SAE			1/16-12-SAE	
B-8FF8-FP	1"	SDC-8	1-11 1/2 FPT	

FF Series Plugs - Breco

Female Thread	Part No. Steel	Size	Dust Plug	Thread Size NPT
				B-FF2F2-FP
B-FF2F2-FP-SAE	9/16-18 SAE			
B-FF3F3-FP	3/8"	PDC-3	3/8-18 FPT	
B-FF3F4-FP			1/2-14 FPT	
B-FF4F4-FP	1/2"	PDC-4	1/2-14 FPT	
B-FF4F4-FP-SAE			3/4-16 SAE	
B-FF4F6-FP			3/4-14 FPT	
B-FF4F6-FP-SAE			1/16-12-SAE	
B-FF6F6-FP	3/4"	PDC-6	3/4-14 FPT	
B-FF6F6-FP-SAE			1/16-12-SAE	
B-FF8F8-FP	1"	PDC-8	1-11 1/2 FPT	





FVEP Screw Couplings

For High Pressure Applications

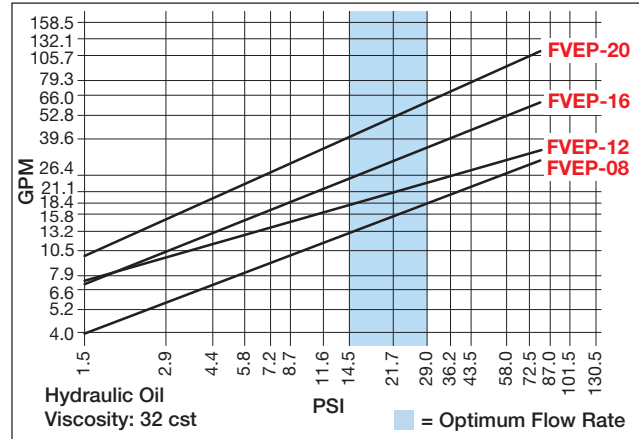
Mobile Hydraulic Equipment
OEMs & Aftermarket

Connect and Disconnect with
up to 5,075 psi Residual Pressure




- Zinc Nickel Plated Carbon Steel
- Rated for 1,200 Hours Protection Against White & Red Rust
- Large body size – ½" to 1-¼"
- Operating temperatures with Nitrile Seals:
-40°F to 223°F (-40°C to 106°C)
- Screw Thread Connection Eliminates Brinelling
- Orange Seal for Proper Connection Verification
- Socket Sleeve can be Pushed Back for Access to the Mating Face
- Flat Face Design Prevents Fluid Loss During Disconnection


PRESSURE DROP CHARACTERISTICS



FVEP Series Sockets - Foster

Female Thread	Part No.	Finish	Body Size	Thread Size	Max. Working Pressure Psi	Socket Burst Pressure Psi	Plug Burst Pressure Psi	Combined Burst Pressure Psi
	FVEP-08S-08	Zinc Nickel Plated Steel	½"	½" Female NPT	7,975	14,500	20,300	20,300
	FVEP-12S-12	Zinc Nickel Plated Steel	¾"	¾" Female NPT	7,975	14,500	20,300	20,300
	FVEP-12S-12ORB			1-¹⁄₁₆"-12 Female ORB				
	FVEP-16S-12	Zinc Nickel Plated Steel	1"	¾" Female NPT	7,250	15,225	20,300	20,300
	FVEP-16S-12ORB			1-¹⁄₁₆"-12 Female ORB				
	FVEP-16S-16			1" Female NPT				
	FVEP-16S-16ORB			1-⁵⁄₁₆"-12 Female ORB				
	FVEP-20S-20	Zinc Nickel Plated Steel	1-¼"	1-¼" Female NPT	6,815	14,500	18,850	18,850
	FVEP-20S-20ORB			1-⁵⁄₈"-12 Female ORB				

FVEP Series Plugs - Foster

Female Thread	Part No.	Finish	Body Size	Thread Size	Max. Working Pressure Psi	Socket Burst Pressure Psi	Plug Burst Pressure Psi	Combined Burst Pressure Psi
	FVEP-08P-08	Zinc Nickel Plated Steel	½"	½" Female NPT	7,975	14,500	20,300	20,300
	FVEP-12P-12	Zinc Nickel Plated Steel	¾"	¾" Female NPT	7,975	14,500	20,300	20,300
	FVEP-12P-12ORB			1-¹⁄₁₆"-12 Female ORB				
	FVEP-16P-12	Zinc Nickel Plated Steel	1"	¾" Female NPT	7,250	15,225	20,300	20,300
	FVEP-16P-12ORB			1-¹⁄₁₆"-12 Female ORB				
	FVEP-16P-16			1" Female NPT				
	FVEP-16P-16ORB			1-⁵⁄₁₆"-12 Female ORB				
	FVEP-20P-20	Zinc Nickel Plated Steel	1-¼"	1-¼" Female NPT	6,815	14,500	18,850	18,850
	FVEP-20P-20ORB			1-⁵⁄₈"-12 Female ORB				

Brand - Designates **F**=Foster or **B**=Breco Part

- 340 -

www.zsi-foster.com



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FH & FIH Series



(Interchange with Snap-Tite H & IH Series)

FH & FIH Series Quick Disconnect has provided years of reliable service on hydraulic/pneumatic applications in the handling of gases and fluids. The FH & FIH Series couplings are engineered to meet or exceeds MIL-C-51234. Options are available for static pressure hydraulic systems and also for pneumatic air tool use.

Type:

- FH – Two Way Shut-Off and Straight-Thru
- FIH – One Way Shut-Off

Interchangeability:

- FH Series interchanges with Snap-Tite “H” Series.
- FIH Series interchanges with Snap-Tite “IH” Series.
- Within each series, only sockets and plugs of the same size will couple together.

Operation: Manual – Socket sleeve must be manually retracted to connect and disconnect.

Options: Ball Lock (BL prefix) – Locks against accidental disconnect. To connect align ball with slot. After connection, rotate sleeve to lock. To disconnect, realign ball with slot and retract sleeve.

Seal Compound: Standard seals are Buna-N.

Rated Pressure: Rated Pressure as defined by ANSI/B93.2 – 1986, non-shock service.

Socket Features:

- Latch Mechanism
 - Manual connect and disconnect
 - Sleeves are hardened to provide maximum service life
- Material and Finish
 - Machined from solid bar stock
 - Steel components are zinc plated
- Coupled Seal
- Valved units incorporate a Teflon back-up ring to with-stand dynamic impulse

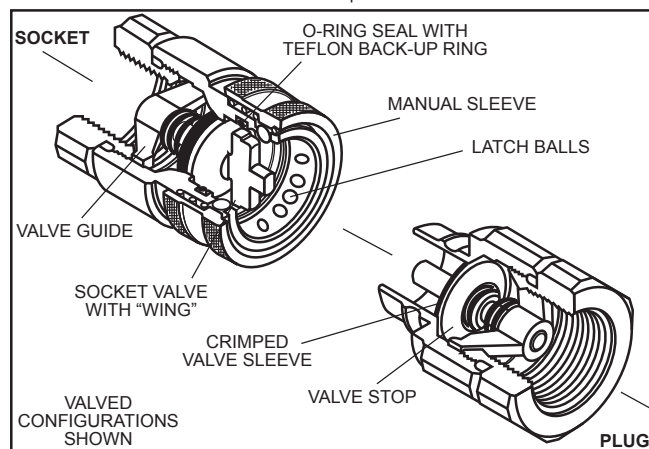
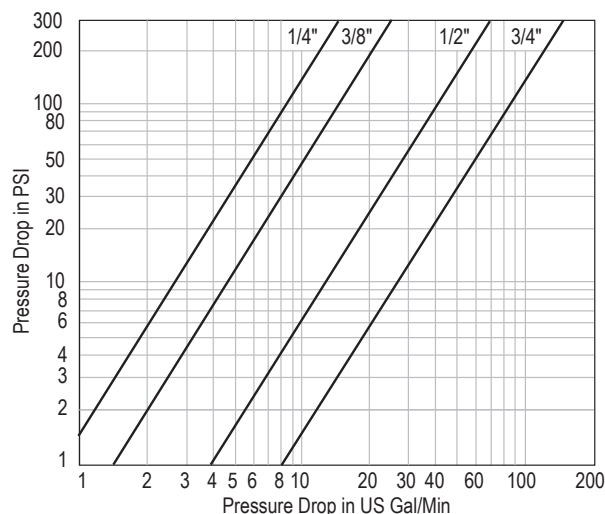
Plug Features:

- Machined from solid bar stock
- Steel plugs are hardened and zinc plated to provide heavy duty performance
- Flow - Large diameters provide for higher flow than other double shut-off quick disconnects
- Seals
 - Buna-N (Nitrile) seals are standard
 - Valve seals are crimped in place to maintain integrity during excessive flow conditions

Body Size	FH Series, Two Way		FH, Straight Thru		FIH Series, One Way
	Steel PSIG	Brass PSIG	Steel PSIG	Brass PSIG	Steel PSIG
1/4"	3250	2000	3000	3000	3000
3/8"	2250	1200	4000	3500	2250
1/2"	1800	1200	4000	2500	2000
3/4"	1750	1000	4500	1750	1750

Performance:

Series “FH & FIH” - Valved or Non-Valved
Test Fluid: Hydraulic Oil at 100°F



The FIH Series sockets & plugs are for pneumatic applications. The FIH sockets have a valve with 360° contact with plug.

FIH Series, One Way Valved Sockets - Foster

Female Thread		Part No.	FPT	Description
		FIS2F2	1/4"	Steel
		BLFIS2F2		Ball Lock, Steel
		FIS3F3	3/8"	Steel
		BLFIS3F3		Ball Lock, Steel
		FIS4F4	1/2"	Steel
		BLFIS4F4		Ball Lock, Steel

Male Thread		Part No.	MPT	Description
		FIS2M2	1/4"	Steel
		BLFIS2M2		Ball Lock, Steel
		FIS3M3	3/8"	Steel
		BLFIS3M3		Ball Lock, Steel
		FIS4M4	1/2"	Steel
		BLFIS4M4		Ball Lock, Steel




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FH & FIH Series


(Interchange with Snap-Tite H & IH Series)


FH Series, Two Way Valved Sockets

Female Thread		Part No.	Brand	FPT	Description
		FHS2F2	F	1/4"	Steel
B-VHC4-4F	B	Ball Lock, Steel			
BLFHS2F2	F	Steel w/Viton Seal			
FHS2F2-101	F				
FHS3F3	F	3/8"	Steel		
B-VHC6-6F	B		Ball Lock, Steel		
BLFHS3F3	F				
FHS4F4	F	1/2"	Steel		
B-VHC8-8F	B		Ball Lock, Steel		
BLFHS4F4	F				
B-VHC12-12F	B		Steel		
FHS2F2B	F	1/4"	Brass		
B-VHC4-4F-B	B		Ball Lock, Brass		
BLFHS2F2B	F		Brass, w/Viton Seal		
FHS2F2B-101	F		Brass w/EPDM Seal		
FHS3F3B	F	3/8"	Brass		
B-VHC6-6F-B	B		Ball Lock, Brass		
BLFHS3F3B	F				
FHS4F4B	F	1/2"	Brass		
B-VHC8-8F-B	B		Ball Lock, Brass		
BLFHS4F4B	F				
B-VHC12-12F-B	B		Brass		

Male Thread		Part No.	Brand	MPT	Description
		FHS2M2	F	1/4"	Steel
B-VHC4-4M	B	Steel w/Viton Seal			
FHS2M2-101	F	Ball Lock, Steel			
BLFHS2M2	F				
FHS3M3	F	3/8"	Steel		
B-VHC6-6M	B		Ball Lock, Steel		
BLFHS3M3	F				
FHS4M4	F	1/2"	Steel		
B-VHC8-8M	B		w/Viton Seal		
FHS4M4-101	F		Ball Lock, Steel		
BLFHS4M4	F				
B-VHC12-12M	B	3/4"	Steel		
FHS2M2B	F	1/4"	Brass		
B-VHC4-4M-B	B		Ball Lock, Brass		
BLFHS2M2B	F				
FHS3M3B	F	3/8"	Brass		
B-VHC6-6M-B	B		Ball Lock, Brass		
BLFHS3M3B	F				
FHS4M4B	F	1/2"	Brass		
B-VHC8-8M-B	B		Ball Lock, Brass		
BLFHS4M4B	F		Brass w/EPDM Seal		
FHS4M4B-103	F				
B-VHC12-12M-B	B	3/4"	Brass		

FH Series, Two Way Valved Plugs

Female Thread		Part No.	Brand	FPT	Description
		FHP2F2	F	1/4"	Steel
B-VHN4-4F	B	Steel w/Viton Seal			
FHP2F2-101	F	Brass			
FHP2F2B	F	Brass			
B-VHN4-4F-B	B	Brass, w/Viton Seal			
FHP2F2B-101	F				
FHP3F3	F	3/8"	Steel		
B-VHN6-6F	B		Brass		
FHP3F3B	F		Brass		
B-VHN6-6F-B	B				
FHP4F4	F	1/2"	Steel		
B-VHN8-8F	B		Brass		
FHP4F4B	F		Brass		
B-VHN8-8F-B	B				
B-VHN12-12F	B	3/4"	Steel		
B-VHN12-12F-B	B		Brass		

Male Thread		Part No.	Brand	MPT	Description
		FHP2M2	F	1/4"	Steel
B-VHN4-4M	B	Steel w/Ethylene Prop. Seal			
FHP2M2-103	F	Brass			
FHP2M2B	F	Brass			
B-VHN4-4M-B	B	Brass w/EPDM Seal			
FHP2M2B-103	F				
FHP3M3	F	3/8"	Steel		
B-VHN6-6M	B		Brass		
FHP3M3B	F		Brass		
B-VHN6-6M-B	B				
FHP4M4	F	1/2"	Steel		
B-VHN8-8M	B		Steel w/Viton Seal		
FHP4M4-101	F		Brass		
FHP4M4B	F		Brass		
B-VHN8-8M-B	B	3/4"	Steel		
B-VHN12-12M	B		Steel		
B-VHN12-12M-B	B		Brass		

Brand - Designates **F**=Foster or **B**=Breco Part

See page 387 for full size templates
See page 373 - 374 for optional seal compounds



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FH & FIH Series



(Interchange with Snap-Tite H & IH Series)

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories


Fittings & Accessories


Hoses & Fittings

Technical Data


Indexes


FH Series, Straight-Thru Sockets

Female Thread		Part No.	Brand	FPT	Description (no valve)
		FHS2	F	1/4"	Steel
B-PHC4-4F	B	Brass			
BLFHS2	F	1/4"	Ball Lock, Steel		
FHS2B	F		Brass		
B-PHC4-4F-B	B	1/4"	Ball Lock, Brass		
BLFHS2B	F		Brass, w/Viton Seal		
FHS3	F	3/8"	Steel		
B-PHC6-6F	B		Brass, w/Viton Seal		
BLFHS3	F	3/8"	Ball Lock, Steel		
FHS3-101	F		Brass		
FHS3B	F	3/8"	Ball Lock, Brass		
B-PHC6-6F-B	B		Steel		
BLFHS3B	F	1/2"	Ball Lock, Steel		
FHS4	F		Brass		
B-PHC8-8F	B	1/2"	Ball Lock, Brass		
BLFHS4	F		Steel		
FHS4B	F	1/2"	Ball Lock, Steel		
B-PHC8-8F-B	B		Brass		
BLFHS4B	F	3/4"	Ball Lock, Brass		
B-PHC12-12F	B		Steel		
B-PHC12-12F-B	B	Brass			

Male Thread		Part No.	FPT	Description (no valve)
		B-PHC4-4M	1/4"	Steel
B-PHC4-4M-B	Brass			
B-PHC6-6M	3/8"	Steel		
B-PHC6-6M-B		Brass		
B-PHC8-8M	1/2"	Steel		
B-PHC8-8M-B		Brass		
B-PHC12-12M	3/4"	Steel		
B-PHC12-12M-B		Brass		

FIH Series, Unvalved Plugs (Use with both FH Straight Thru & FIH Sockets)

Female Thread		Part No.	Brand	FPT	Description
		FH21F	F	1/4"	Steel
FH22F	F	Steel			
B-PHN4-4F	B	1/4"	Brass		
FH22FB	F		Steel		
B-PHN4-4F-B	B	3/8"	Brass		
FH33F	F		Steel		
B-PHN6-6F	B	3/8"	Brass		
FH33FB	F		Steel		
B-PHN6-6F-B	B	1/2"	Steel		
FH44F	F		Brass		
B-PHN8-8F	B	1/2"	Steel		
FH44FB	F		Brass		
B-PHN8-8F-B	B	3/4"	Steel		
B-PHN12-12F	B		Brass		
B-PHN12-12F-B	B				

Male Thread		Part No.	Brand	MPT	Description
		FH22M	F	1/4"	Steel
B-PHN4-4M	B	Brass			
FH22MB	F	3/8"	Steel		
B-PHN4-4M-B	B		Brass		
FH33M	F	1/2"	Steel		
B-PHN6-6M	B		Brass		
FH33MB	F	3/4"	Steel		
B-PHN6-6M-B	B		Brass		
FH44M	F	1/2"	Steel		
B-PHN8-8M	B		Brass		
FH44MB	F	3/4"	Steel		
B-PHN8-8M-B	B		Brass		
B-PHN12-12M	B	3/4"	Steel		
B-PHN12-12M-B			Brass		

Brand - Designates **F**=Foster or **B**=Breco Part
ZSi-Foster Engineering Catalog

See page 387 for full size templates
 See page 373 - 374 for optional seal compounds



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4000 Series

(Pioneer AG Interchange)

Features:

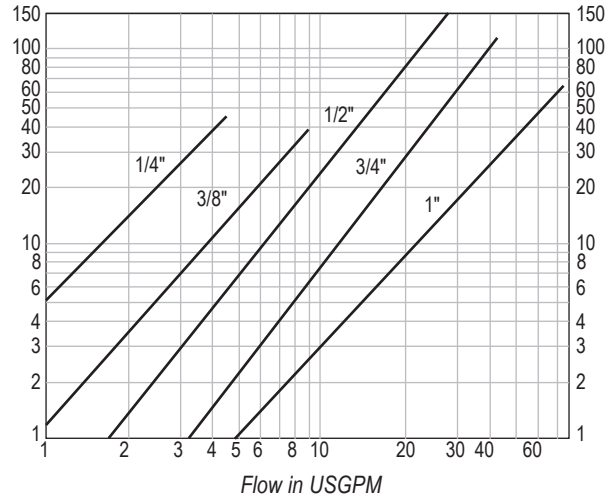
- The "4000" Series is a proven design for use on construction equipment, agricultural machinery, oil tools, steel mill machinery, and other demanding hydraulic applications.
- Couplings feature steel ball check valves for dependability in heavy-duty hydraulic applications, within rated working pressures.
- Socket and plug are precision machined from solid barstock. A ball-locking mechanism holds the mating halves together, and critical parts are induction hardened for durability.

Specifications:

Body Size	1/4"	3/8"	1/2"	3/4"	1"
Rated Pressure (Psig)	3000	3000	3000	3000	3000
Rated Flow (GPM)	3	6	12	28	50
Temperature Range (Std seals)	-40° to +250°F				

Performance:

"4000" Series (1/4" to 1")
Test Fluid: OIL-200 SUS



4000 Series Sockets - Breco

Female Thread	Part No. Steel	Size	Thread Size	
			NPTF	ORB
			B-4050-2	1/4"
B-4050-3	3/8"	3/8"-18	-	
B-4050-4	1/2"	1/2"-14	-	
B-4050-5		3/4"-14	-	
B-4050-15		-	3/4"-16	
B-4050-16	-	-	7/8"-14	
B-4150-5	3/4"	3/4"-14	-	
B-4050-6	1"	1-11 1/2"	-	
Female Thread	Part No. Steel Poppet Style	Size	Thread Size NPTF	
	B-4050-2P	1/4"	1/4"-18	
	B-4050-3P	3/8"	3/8"-18	
	B-4050-4P	1/2"	1/2"-14	
	B-4050-6P	1"	1-11 1/2"	

4000 Series Plugs - Breco

Female Thread	Part No. Steel	Size	Thread Size	
			NPTF	ORB
			B-4010-2	1/4"
B-4010-3	3/8"	3/8"-18	-	
B-8010-4	1/2"	1/2"-14	-	
B-8010-5		3/4"-14	-	
B-8010-15		-	3/4"-16	
B-8010-16	-	-	7/8"-14	
B-4110-5	3/4"	3/4"-14	-	
B-4010-6	1"	1-11 1/2"	-	
Female Thread	Part No. Steel Poppet Style	Size	Thread Size NPTF	
	B-4010-2P	1/4"	1/4"-18	
	B-4010-3P	3/8"	3/8"-18	
	B-8010-4P	1/2"	1/2"-14	
	B-4010-6P	1"	1-11 1/2"	

Dust Plugs & Dust Caps - Breco

Dust Caps & Plugs	Dust Plug Part No.	Dust Cap Part No.	Size
	Rubber	Rubber	
		B-5205-2M	B-5209-2M
	B-5205-3	B-5209-3	3/8"
	B-5205-4M	B-5209-4M	1/2"
	B-5205-5	B-5209-5	3/4"
	B-5205-6	B-5209-6	1

Brand - Designates **F**=Foster or **B**=Breco Part



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6100 Series



Features:

- For use on hydraulic applications with operating pressure up to 3,000 Psig
- Heavy duty, double shutoff coupler
- Connect/disconnect under pressure with minimal air inclusion and fluid loss
- Interchangeable with manufacturers' couplings
- Plugs can be bulkhead mounted

Construction:

- Brass body resists corrosion
- Zinc plated steel wing nut
- Stainless steel springs
- Buna-N Seals

Temperature Range:

- -40° to +250° F

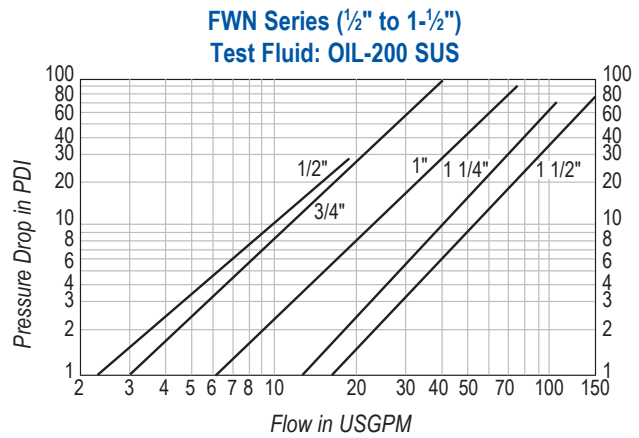
Specifications:

	Size				
	3/4"	3/4"	1	1 1/4"	1 1/2"
Dash Number	-08	-12	-16	-20	-24
* Rated Pressure (Psig)					
Female Half	3000	3000	3000	2750	2000
Male Half	3000	3000	3000	2500	2500
Complete Coupling Assembly	3000	3000	3000	2750	2500
Rated Flow (GPM)	12	28	50	76	100

* Minimum burst pressure is equal to three times the rated pressure.

Not recommended for continuous hydraulic impulse applications at rated pressures.

Performance:



Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

Fittings & Accessories

Hoses & Fittings

Technical Data

Indexes

6100 Series, Couplings - Breco

Wing Nut with Plug	Part No.		Size	Thread Size NPTF
	With Flange	Without Flange		
	B-6100-08	B-6120-08	3/4"	1/2-14
	B-6100-12	B-6120-12		3/4-14
	B-6100-16	B-6120-16	1"	1 - 11-1/2
	B-6100-20	B-6120-20	1-1/4"	1 1/4 - 11-1/2
	B-6100-24	B-6120-24	1-1/2"	1 1/2 - 11-1/2

Hex Nut with Plug	Part No.		Size	Thread Size NPTF
	With Flange	Without Flange		
	B-6110-08	B-6130-08	3/4"	1/2-14
	B-6110-12	B-6130-12		3/4-14
	B-6110-16	B-6130-16	1"	1 - 11-1/2
	B-6110-20	B-6130-20	1-1/4"	1 1/4 - 11-1/2
	B-6110-24	B-6130-24	1-1/2"	1 1/2 - 11-1/2


Brand - Designates **F**=Foster or **B**=Breco Part


ZSi-Foster Engineering Catalog




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6100 Series, Sockets - Breco

Wing Nut		Part No. Brass		Size	Thread Size NPTF
		B-6125-08	B-6125-12	3/4"	1/2-14
		B-6125-16	B-6125-20		1"
		B-6125-24		1-1/4"	1 1/4 - 11-1/2
				1-1/2"	1 1/2 - 11-1/2


Hex Nut		Part No. Brass		Size	Thread Size NPTF
		B-6135-08	B-6135-12	3/4"	1/2-14
		B-6135-16	B-6135-20		1"
		B-6135-24		1-1/4"	1 1/4 - 11-1/2
				1-1/2"	1 1/2 - 11-1/2


6100 Series, Plugs - Breco

Plugs		Part No.		Size	Thread Size NPTF
		With Flange	Without Flange		
		B-6115-08	B-6105-08	3/4"	1/2-14
		B-6115-12	B-6105-12		3/4-14
		B-6115-16	B-6105-16	1"	1 - 11-1/2
		B-6115-20	B-6105-20	1-1/4"	1 1/4 - 11-1/2
		B-6115-24	B-6105-24	1-1/2"	1 1/2 - 11-1/2

Optional Flange		Part No.	Size
		B-6107-08	3/4"
		B-6107-16	1"
		B-6107-20	1-1/4"
		B-6107-24	1-1/2"

Dust Plugs & Dust Caps - Breco

Dust Plugs		Part No.	Size	NPTF Thread	Description
		B-6109-08	3/4"	3/4-14	Brass Dust Plug
		B-6109-16	1"	1 - 11-1/2	
		B-6109-20	1-1/4"	1 1/4 - 11-1/2	
		B-6109-24	1-1/2"	1 1/2 - 11-1/2	

Dust Caps		Part No.	Size	NPTF Thread	Description
		B-6108-08	3/4"	3/4-14	Brass Dust Cap
		B-6108-16	1"	1 - 11-1/2	
		B-6108-20	1-1/4"	1 1/4 - 11-1/2	
		B-6108-24	1-1/2"	1 1/2 - 11-1/2	



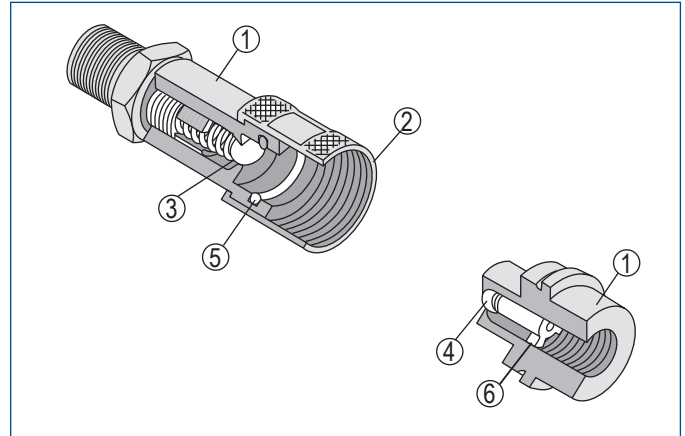
W Series



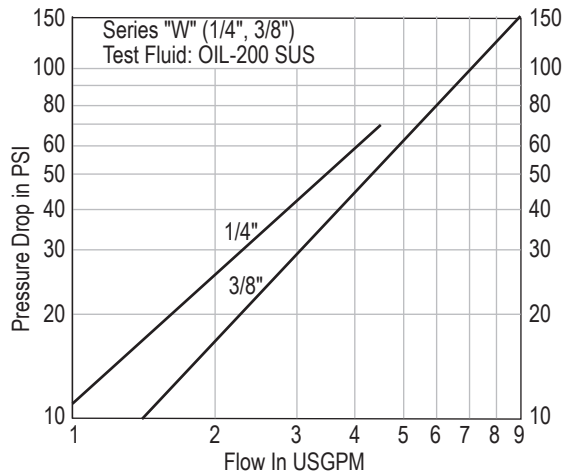
[High Pressure Coupling, Enerpac Interchange]

Features:

1. Machined from solid steel bar stock for durability.
2. The "W" Series has a threaded sleeve locking mechanism, mates with matching male threads on the plug. The two halves must be manually threaded together for connection.
3. Hard, chrome alloy balls are used for valving. They are spring loaded for positive sealing of the valve.
4. The valve provides a metal-to-metal seal between the ball and a coined seat.
5. The body seal is polyurethane which resists high pressure extrusion.
6. A threaded valve retainer provides a valve stop that assures positive valve alignment.



Performance:



Applications:

The "W" Series couplings with their threaded union locking system and precision ball-type check valves, are designed for extreme high pressure applications such as found on portable hydraulic rams.


Specifications:


	SIZE
Rated Pressure (psig) Static	10,000
Temperature Range (std seals)	-10° to +250°F.

Note:


Protective dust plugs and caps play a crucial role in the life of a quick coupling and no purchase of a hydraulic quick coupling is complete without the selection of an appropriate dust plug and cap.

W Series Sockets - Breco

Male Thread		Part No.		Size	Thread Size
		Valve	Non-Valve		
		B-2WM2-S	B-2WEM2-S	1/4"	1/4-18
		B-3WM3-S	B-3WEM3-S	3/8"	3/8-18

Female Thread		Part No.		Size	Thread Size
		Valve	Non-Valve		
		B-3WF3-S	B-3WEF3-S	3/8"	3/8-18

W Series Plugs - Breco

Female Thread		Part No.		Size	Thread Size NPFT
		Valve	Non-Valve		
		B-W2F2-S	B-W2EF2-S	1/4"	1/4-18
		B-W3F3-S	B-W3EF3-S	3/8"	3/8-18

Dust Plugs & Dust Caps - Breco

Dust Plug Part No. Steel	Dust Cap Part No. Steel	Size
B-3005-2	B-3009-2	1/4"
B-3005-3	B-3009-3	3/8"

Brand - Designates **F**=Foster or **B**=Breco Part

ZSi-Foster Engineering Catalog



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FST & ST Series

(Straight-Thru Industrial Interchange)

Type: FST Straight-Thru, No valve in either socket or plug.

Interchangeability: Standard industrial interchange design, most widely used in industry. Within each series, only sockets and plugs of the same size will couple together.

Operation: Manual – Socket sleeve must be manually retracted to connect and disconnect.

Options: Ball Lock (BL) – Locks socket against accidental disconnect. To connect, align ball with slot. After connection, rotate sleeve to lock. To disconnect, realign ball with slot and retract sleeve.

Seal Compound: Standard seals are Buna-N

Temperature Range: -40° to +250°F.

Performance Data Flow: Couplers have same inside diameter as nominal pipe.

Rated Pressure: Rated pressures as defined by ANSI/B93.2-1986, based on 4:1 Safety Factor and non-shock service.

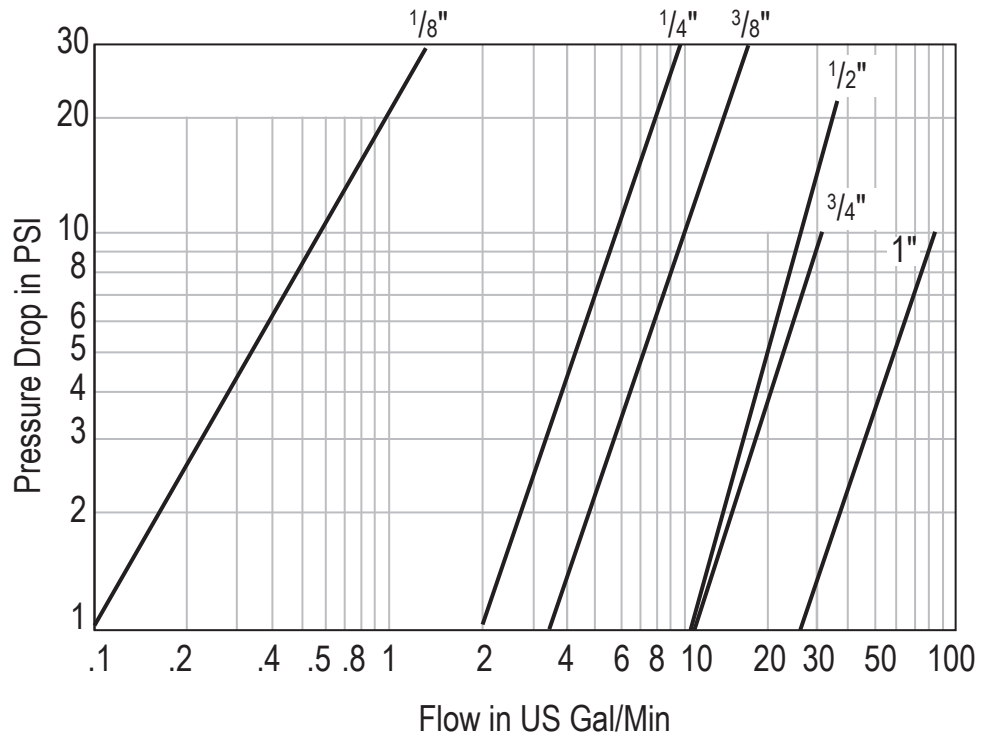
Vacuum Service: 27" Hg maximum

Only Sockets & Plugs with same prefix digits connect together.
Example: 25FS & 25MPB

Body Size	Brass Socket w/ Brass Plug	Brass Socket w/ Steel Plug	S/S Socket w/ S/S Plug
	PSIG	PSIG	PSIG
1/8"	2500	2600	4200
1/4"	5200	5500	6700
3/8"	2700	3500	5500
1/2"	2200	2700	3000
3/4"	1700	2700	3000
1"	1700	2000	1700
1 1/4"	1700	2700	-
1 1/2"	1400	2200	-

Performance:

Series "ST"
Test Fluid: OIL-200 SUS



Brand - Designates **F**=Foster or **B**=Breco Part



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FST & ST Series

(Straight-Thru Industrial Interchange)



FST & ST Series Sockets, Straight Thru

Part No.	Brand	FPT	Description	
12FS	F	1/8"	Brass	
12FS-101			Brass, w/Viton Seal	
BL12FS			Ball Lock, Brass	
12FSS			303 Stainless	
12FSS-101			303 Stainless, w/Viton Seal	
12FSS-103			303 Stainless, w/EPDM Seal	
BL12FSS			Ball Lock, 303 Stainless Steel	
25FS			F	1/4"
2STF2-B	303 Stainless			
25FS-101		Brass, w/Viton Seal		
BL25FS	Ball Lock, Brass			
25FSS	303 Stainless, w/Viton Seal			
2STF2-SS		303 Stainless		
25FSS-101	303 Stainless, w/EPDM Seal			
25FSS-103	Ball Lock, 303 Stainless Steel			
BL25FSS	Brass			
38FS		Brass, w/Viton Seal		
3STF3-B		Brass, w/EPDM Seal		
38FS-101		Ball Lock, Brass		
38FS-103		303 Stainless		
BL38FS		303 Stainless, w/Viton Seal		
38FSS		303 Stainless, w/EPDM Seal		
38FSS-101		Ball Lock, 303 Stainless Steel		
38FSS-103	Brass			
BL38FSS		Brass, w/Viton Seal		
50FS		Brass, w/EPDM Seal		
50FS-101		Ball Lock, Brass		
50FS-103		303 Stainless		
BL50FS			303 Stainless, w/Viton Seal	
50FSS		303 Stainless, w/EPDM Seal		
4STF4-SS		Ball Lock, 303 Stainless Steel		
50FSS-101	Brass			
50FSS-103		Brass, w/Viton Seal		
BL50FSS		Ball Lock, Brass		



Female Thread

Part No.	Brand	FPT	Description
75FS	F	3/4"	Brass
BL75FS			Ball Lock, Brass
75FS-101			Brass, w/Viton Seal
75FS-103			Brass, w/EPDM Seal
75FS-104			303 Stainless
75FSS			303 Stainless, w/Viton Seal
75FSS-101			303 Stainless, w/EPDM Seal
75FSS-103			Ball Lock, 303 Stainless Steel
BL75FSS			Brass
100FS			
100FS-101	Ball Lock, Brass		
100FSS	303 Stainless		
BL100FSS	Ball Lock, 303 Stainless Steel		
125FS	F	1-1/4"	Brass
BL125FS			Ball Lock, Brass
125FS-103	F	1-1/2"	Brass, w/EPDM Seal
150FS			Brass
BL150FS	Ball Lock, Brass		



Female Thread

Part No.	Brand	MPT	Description
12MS	F	1/8"	Brass
BL12MS			Ball Lock, Brass
1STM1-SS			303 Stainless
25MS	F	1/4"	Brass
2STM2-B			Ball Lock, Brass
BL25MS			Brass, w/Viton Seal
25MS-101			303 Stainless
25MSS			
2STM2-SS			Brass
38MS	Brass, w/Viton Seal		
3STM3-B	Ball Lock, Brass		
38MS-101	303 Stainless		
BL38MS			
38MSS			
3STM3-SS			
50MS	F	1/2"	Brass
4STM4-B			Brass, w/Viton Seal
50MS-101			Ball Lock, Brass
BL50MS			303 Stainless
50MSS			
4STM4-SS	Brass		
75MS		Ball Lock, Brass	
BL75MS		303 Stainless	
6STM6-SS			
100MS	F	1"	Brass
BL100MS			Ball Lock, Brass
8STM8-SS			303 Stainless



Male Thread

Part No.	I.D.	Description
38HS	3/8"	Brass
BL38HS		Ball Lock, Brass
50HS	1/2"	Brass
BL50HS		Ball Lock, Brass

Requires Hose Clamp (See page 200 for typical hose clamps)



Hose Stem

Brand - Designates **F**=Foster or **B**=Breco Part
ZSi-Foster Engineering Catalog

See page 388 for full size templates
 See page 373 - 374 for optional seal compounds

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Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

Fittings & Accessories

Hoses & Fittings

Technical Data


Indexes





FST & ST Series

(Straight-Thru Industrial Interchange)

FST Series Plugs, Straight Thru

Female Thread		Part No.	Brand	FPT	Description
		ST1F1-S	B	1/8"	Steel
12FPB	F	Brass			
ST1F1-B	B	303 Stainless			
12FPS	F	1/4"	Steel		
ST1F1-SS	B		Steel, Extended Plug		
25FP	F		Brass		
ST2F2-S	B	3/8"	303 Stainless		
25FPB	F		Steel		
25FPS	F		Brass		
ST3F3-S	B	1/2"	Steel		
38FPB	F		Brass		
38FPS	F		303 Stainless		
50FP	F	3/4"	Steel		
ST4F4-S	B		Brass		
50FPB	F		303 Stainless		
50FPS	F	1"	Steel		
ST4F4-SS	B		Brass		
75FP	F		303 Stainless		
ST6F6-S	B	1-1/4"	Steel		
75FPB	F		Brass		
75FPS	F		303 Stainless		
100FP	F	1-1/2"	Steel		
ST8F8-S	B		Brass		
100FPB	F		303 Stainless		
100FPS	F	1-1/2"	Steel		
125FP	F		Brass		
125FPB	F		303 Stainless		
150FP	F	1-1/2"	Steel		
150FPB	F		Brass		

Male Thread		Part No.	Brand	MPT	Description
		12MP	F	1/8"	Steel
ST1M1-S	B	Brass			
12MPB	F	303 Stainless			
12MPS	F	1/4"	Steel		
25MP	F		Brass		
ST2M2-S	B		303 Stainless		
25MPB	F	3/8"	Steel		
25MPS	F		Brass		
38MP	F		303 Stainless		
ST3M3-S	B	1/2"	Steel		
38MPB	F		Brass		
38MPS	F		303 Stainless		
50MP	F	3/4"	Steel		
ST4M4-S	B		Brass		
50MPB	F		303 Stainless		
50MPS	F	1"	Steel		
ST4M4-SS	B		Brass		
75MP	F		303 Stainless		
ST6M6-S	B	1-1/4"	Steel		
75MPB	F		Brass		
75MPS	F		303 Stainless		
100MP	F	1"	Steel		
ST8M8-S	B		Brass		
100MPB	F		303 Stainless		
100MPS	F	1-1/4"	Steel		
125MP	F		Brass		
125MPB	F		303 Stainless		
150MP	F	1-1/2"	Steel		
150MPB	F		Brass		

Hose Stem		Part No.	I.D.	Description
		25HP	1/4"	Steel
		38HPB	3/8"	Brass
		75HPB	3/4"	

Requires Hose Clamp (See page 200 for typical hose clamps)

Brand - Designates **F**=Foster or **B**=Breco Part

See page 388 for full size templates
See page 373 - 374 for optional seal compounds

- 350 -

www.zsi-foster.com



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Blow Guns & Accessories



BG Series Blow Guns

Lever Operation
Page 352



BG Series Blow Gun

Pistol Grip
Page 352



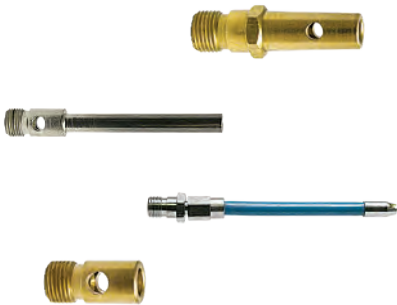
Blow Guns Kits

Page 352



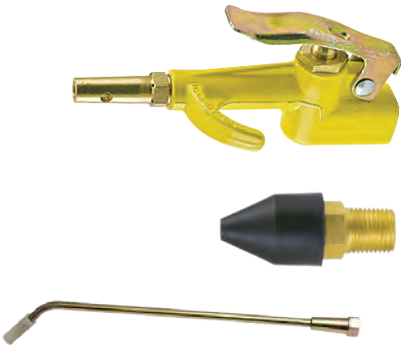
Blow Gun Accessories

For BG Series Blow Guns
Page 353



Handy-Air® Blow Guns & Accessories

Page 354



Blow Guns Air Chucks

Page 353





Blow Guns & Accessories

BG Series Lever Op. Blow Guns - Breco

BRECO BG Series Blowguns combine durability, performance, and safety to meet your specific cleaning or drying applications.

- Lever activation
- 10 different nozzle choices
- Blow gun kit provides versatility
- Quick-disconnect nozzle adapter
- 1/4" NPT inlet
- OSHA Compliant* @ Max 150 Psig inlet Pressure

BG Series Lever Operated		Part No.	Description
		116482	Lever Action Gun Only- NO TIPS INCLUDED
		BG-CPLR	Shown w/optional Quick Change Adapter

BG Series: Pistol Grip Blow Gun - Breco

Pistol grip blow gun is ergonomically designed for comfort and safety.

- Lightweight nylon body insulates from refrigerated air
- Lever style trigger with comfortable grip for variable air flow
- 1/4" NPT brass female inlet
- 125 PSIG inlet maximum

BG Series Pistol Grip		Part No.	Description
		301804	Pistol Grip Gun with 3-3/4" extension nozzle

Blow Gun Kits - Breco



BG-KIT-F1 – The versatile BRECO blow gun kit BG-KIT-F1 contains three of the most popular nozzles for industrial and automotive uses as well as a 1/4" standard plug for easy air hose connection. This kit includes a high quality, lever-operated heavy duty blow gun featuring a quick disconnect coupler which allows users to switch nozzles quickly and easily. Also included are a high flow safety nozzle, six inch extension safety nozzle, rubber tip nozzle and quick connector plug for connecting blow gun to shop air supply. The kit comes ready for hanging display in a clear clamshell package.

The BRECO **BGQKIT** contains five of the most popular nozzles for industrial and automotive uses. This kit includes a high quality, lever-operated heavy-duty blow gun featuring a quick disconnect nozzle adapter which allows users to switch nozzles quickly and easily. This multi-use kit contains a high flow safety nozzle, six inch extension safety nozzle, rubber tip nozzle, needle tip nozzle, and air-screen safety nozzle. For handy storage, a clear vinyl compartmented snap pouch is included.



To Order Complete Kit Use Part Number - **BGQKIT**



WARNING: Blowguns that comply with OSHA regulations will limit the pressure of air exiting the gun to less than 30 psig when the tip is dead-headed. All Foster blowguns using "standard" and "safety" tips are OSHA compliant and are available with either removable threaded tips or tamper resistant crimped tips.

Brand - Designates **F**=Foster or **B**=Breco Part














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Blow Guns & Accessories



Blow Guns Accessories - Breco

	Gun w/Nozzle Shown	Nozzle Only	Description	Performance @100 PSIG		
				Flow CFM	Outlet Blocked	Noise Level dbA
Blow Gun Accessories	BG21 LEVER GUN W/NOZZLE	BGN1	 Standard nozzle for general blowing and drying applications	17.5	20	89.5
	BG2B5 LEVER GUN W/NOZZLE	BGNB5	 Air Screen nozzle reduces chip fly back	5	18	85
	BG25 LEVER GUN W/NOZZLE	BGN5	 High flow safety nozzle for general dusting and chip removal	20	20	89
	BG45 PISTOL GUN W/NOZZLE					
	BG26 (*) LEVER GUN W/NOZZLE	BGN6	 Needle tip nozzle for fine flow and for small holes	(*)	-	-
	BG27 (*) LEVER GUN W/NOZZLE	BGN7	 Rubber tipped nozzle for delicate surfaces and for blowing out fluid lines	(*)	-	-
	BG2X3 LEVER GUN W/NOZZLE	BGX3	 Extension nozzle - 3"	15	21	85.5
	BG2X6 LEVER GUN W/NOZZLE	BGX6	 Extension nozzle - 6"	14.1	22	84
	BG2X12 LEVER GUN W/NOZZLE	BGX12	 Extension nozzle - 12"	13.3	24	85.5
	BG4X12 PISTOL GUN W/NOZZLE					
	-	BGN2	 Flexible Extension Nozzle - 4"	-	-	-
	-	BGN3	 Flexible Extension Nozzle - 12"	-	-	-
	BG-CPLR LEVER GUN W/NOZZLE	BGADP	 Quick change nozzle adapter	-	-	-

* WARNING: To be OSHA compliant, non-relieving nozzles may only be used when the blowgun's inlet pressure is regulated to 30 Psig maximum.

Air Chucks - Breco

Three BRECO Air Chucks are available: a right angle heavy-duty air chuck, a heavy duty straight body air chuck, and a dual air chuck for all your air fill needs. All three air chucks have 1/4" FPT inlets.



PART NO.	DESCRIPTION
AC40	1/4" FPT 150 psig Right Angle Air Chuck,
AC45	1/4" FPT 300 psig Straight Body Air Chuck

Brand - Designates **F**=Foster or **B**=Breco Part

Pneumatic QD
Hydraulic QD
Blow Guns & Accessories
Fittings & Accessories
Hoses & Fittings
Technical Data
Indexes



Handy-Air® Blow Guns & Accessories

Handy-Air® Blow Guns - Foster

		Part No.	Description
Handy-Air® Lever Operated		BG2L-30P	Pressed – Standard Tip
		BG2L-30STP	Pressed – Safety Tip
		BG2L-30STT	Threaded – Safety Tip
		BG2L-30T	Threaded – Standard Tip
Handy-Air® Button Operated		BG2-30P	Pressed – Standard Tip
		BG2-30STP	Pressed – Safety Tip
		BG2-30STT	Threaded – Safety Tip
		BG2-30T	Threaded – Standard Tip
Handy-Air® Pistol Grip		PG2P	Pressed – Safety Tip
		PG2T	Threaded – Safety Tip

		Part No.	Description
Handy-Air® Blow Gun Accessories		EX10DH	Extension (10")
		EX12	Extension (12")
		EX2	High Flow Safety Nozzle
		EX2RT	Rubber Tip
		EX2RT-104 w/Silicone Seal	
		EX2ST	Safety Air Screen Tip

WARNING: Blowguns that comply with OSHA regulations will limit the pressure of air exiting the gun to less than 30 psig when the tip is dead-headed. All Foster blowguns using "standard" and "safety" tips are OSHA compliant and are available with either removable threaded tips or tamper resistant crimped tips.

Brand - Designates **F**=Foster or **B**=Breco Part



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Fittings & Accessories



T-Valves

3,000 psig Ball Valve
Page 356



3-Way Sleeves

Page 356



Drain Cocks

Brass Fittings
Page 356



Garden Hose Couplings

Page 356



Brass Bushings, Adapters & Nipples

Page 357



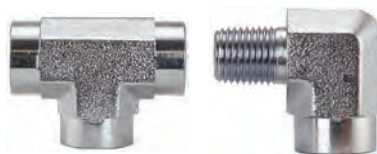
Hose Barb Fittings

Pages 358 - 359



Steel Pipe Fittings

Page 360



Brass Fittings

Page 361



Reusable Hose Fittings

Pages 361 - 363



Swivel Fittings

Page 364





T-Valve, 3-Way Sleeves, Drain Cocks & Garden Hose Couplings

T-Valve Series Plug Valve - Breco

Inlet: 1/4"-18 Female or Male NPT


Outlet: 1/4"-18 Male NPT


Rated Pressure: 3,000 PSIG

Flow: 5 GPM (water at 100psig)

Seat Material: EPDM or Viton
(Contact ZSi-Foster for seal options)

Temperature: EPDM: -40° to +300°F
Viton: -15° to +400°F

Female x Male		T-Valve Part No.	NPT FxM	Description
		B-7500-2	1/4"-18	Female x Male Quarter-Turn Valve Brass with EPDM Seal

Male x Male		T-Valve Part No.	NPT MxM	Description
		B-7500-2MXMV	1/4"-18	Male x Male Quarter-Turn Valve Brass with Viton Seal


3-Way Sleeve w/Optional Lockout - Foster


- Provides low cost ON-OFF-EXHAUST operation
- Slide the sleeve to the ON position. Exhaust ports are closed, valve is open. Reversing the sleeve, opens exhaust ports, shuts off flow
- Ports covered for protection against exhaust flow

- Body detent secures sleeve position
- Valve with lockout complies with OSHA Standard 29 CFR, Part 1910

Rated Pressure: to 200 PSIG

Temperature: -25° to +200°F

"Fost-Air" Three Way Sleeve Valve		Part No.	NPT	Description
		3W125	1/8"	Brass
		3W250	1/4"	
		3W375	3/8"	
		3W500	1/2"	

"Fost-Air" Three Way Sleeve Valve Lockout		Part No.	NPT	Description
		LO250	1/4"	Valve Lockout With Chain
		LO375	3/8"	
		LO500	1/2"	

Drain Cocks - Brass Fittings - Breco

The design of the drain cock uses metal-to-metal seal which requires only hand tightening to assure positive leak-proof performance.

Materials: Brass bodies/steel handles except where noted.

Pressure: 150 psig max. (does not include hose or plastic tubing).

Used With: Copper, aluminum, steel hose and plastic tubing where applicable.

Temperature: -65° to +250°F

Conformance: Designed for automotive or industrial use. Not intended for natural gas, LPG, nuclear or aircraft application, except as noted.

Male Pipe Thread		PART No.	SIZE
		DC-1	1/8"
		DC-2	1/4"
		DC-3	3/8"

Garden Hose Couplings - Breco


The Garden Hose couplings are used anywhere water hoses are connected and disconnected frequently. They are used on a wide variety of applications including garden hoses, wash down system, and mobile water tank lines. The non-valved design permits maximum flow with minimum pressure drop.


- Brass and stainless steel construction for heavy duty service.
- Durable 4-ball locking mechanism for secure connections.
- Temperature-resistant BUNA seals for a leak-free service life.
- Provides secure nipple-to-hose clamping. Made from bar stock.

Specifications:

Rated Pressure: 200 psig

Temperature Range (BUNA seals): -40° to +250° F.

Socket		Part No.	Size	Thread Size NH
		B-7455	3/4"	3/4-11 1/2

Plug		Part No.	Size	Thread Size NH
		B-7465	3/4"	3/4-11 1/2

Brand - Designates **F**=Foster or **B**=Breco Part





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Brass Bushings, Adapters & Nipples




Brass Bushings, Adapters & Nipples


Female Reducer Bushing		Part No.	NPT Thread External	NPTF Thread Internal
		PRB-2-1	1/4"	1/8"
		PRB-3-1	3/8"	1/8"
		PRB-3-2	3/8"	1/4"
		PRB-4-1	1/2"	1/8"
		PRB-4-2	1/2"	1/4"
		PRB-4-3	1/2"	3/8"
		PRB-6-3	3/4"	3/8"
		PRB-6-4	3/4"	1/2"
		PRB-8-4	1"	1/2"
PRB-8-6	1"	3/4"		


Male Reducing Hex Nipple		Part No.	NPTF Thread External	NPTF Thread External
		B-379-0402	1/4"	1/8"
		B-379-0602	3/8"	1/8"
		B-379-0604	3/8"	1/4"
		B-379-0804	1/2"	1/4"
		B-379-0806	1/2"	3/8"

Male - Female Adapter		Part No.	NPT Thread External	NPTF Thread Internal
		AD-1-1	1/8"	1/8"
		AD-1-2	1/8"	1/4"
		AD-2-2	1/4"	1/4"
		AD-2-3	1/4"	3/8"
		AD-3-3	3/8"	3/8"
		AD-3-4	3/8"	1/2"
		AD-4-4	1/2"	1/2"
		AD-4-6	1/2"	3/4"
		AD-6-6	3/4"	3/4"

Female Hex Coupler		Part No.	NPT Thread
		B-371-0202	1/8"
		B-371-0404	1/4"
		B-371-0606	3/8"
B-371-0808	1/2"		

Male Hex Nipple		Part No.	Brand	NPT Thread
		B-370-0202	B	1/8"
		1M1M	F	
		1M2M	F	1/8" x 1/4"
		B-370-0404	B	1/4"
		2M2M	F	
		2M3M	F	1/4" x 3/8"
		B-370-0606	B	3/8"
		3M3M	F	
		3M4M	F	3/8" x 1/2"
		B-370-0808	B	1/2"
		4M4M	F	
B-370-1212	B	3/4"		
6M6M	F			

Reducing Adapter		Part No.	NPT Thread Internal	NPTF Thread Internal
		B-377-0402	1/8"	1/4"
		B-377-0604	1/4"	3/8"
B-377-0806	3/8"	1/2"		


Hex Head Plugs		Part No.	NPT Thread
		SHP-1	1/8"
		SHP-2	1/4"
		SHP-3	3/8"
SHP-4	1/2"		


Close Nipples		Part No.	NPT Thread
		N-1	1/8"
		N-2	1/4"
		N-3	3/8"
		N-4	1/2"
N-6	3/4"		


Brand - Designates **F**=Foster or **B**=Breco Part
ZSi-Foster Engineering Catalog


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Brass Fittings


Hose Splicer		Part No.	I.D. x O.D.
		HS-B3	1/4" x 1/2"
		HS-B5	1/4" x 9/16"
		HS-B7	1/4" x 5/8"
		HS-D7	3/8" x 5/8"
		HS-D9	3/8" x 11/16"
		HS-D11	3/8" x 3/4"
	HS-D13	3/8" x 13/16"	


Male Hose Stem Swivel		Part No.	MPT x I.D. STEM
		M7S	1/4" x 1/4"
		M13S	3/8" x 3/8"
		M17S	1/2" x 1/2"
Requires Hose Clamp (See page 200 for typical hose clamps)			

Push-On Swivel Fitting		Part No.	Male NPT x I.D.
		PM7S	1/4" x 1/4"
		PM13S	3/8" x 3/8"
		PM17S	1/2" x 1/2"
Hose clamps not required when used with "Push On" hose. See page 369.			

Hose Splicer Standard Hose Barb		Part No.	Brand	Hose I.D.
		BHS81	F	3/16"
		BHS82	F	1/4"
		HS-2-2	B	
		BHS83	F	5/16"
		BHS84	F	3/8"
		HS-3-3	B	
		BHS85	F	1/2"
		HS-4-4	B	
Requires Hose Clamp (See page 200 for typical hose clamps)				

Hose Splicer Push-Lock		Part No.	Brand	Hose I.D.
		PHS82	F	1/4"
		POS-2-2	B	
		PHS84	F	3/8"
		POS-3-3	B	
		PHS85	F	1/2"
		POS-4-4	B	
	POS-6-6	B	3/4"	
Hose clamps not required when used with "Push On" hose. See page 369.				

Female (Ball End)		Part No.	Female NPT x Hose ID
		SB55	1/4" x 1/4"
		SB57	1/4" x 3/8"
		SB58	3/8" x 3/8"
Requires Hose Clamp (See page 200 for typical hose clamps)			

Female Pipe Thread Hose Barb		Part No.	Brand	Hose I.D.	NPT Thread Size
		HBF-1-1	B	1/8"	1/8-27
		HBF-1-2	B		1/4-18
		HBF-25-1	B	3/16"	1/8-27
		HBF-25-2			1/4-18
		F33	F	1/4"	1/8-27
		HBF-2-1	B		1/4-18
		F36	F		
		HBF-2-2	B	5/16"	3/8-18
		HBF-2-3			1/8-27
		HBF-5-1	B	5/16"	1/4-18
		HBF-5-2			3/8-18
		HBF-5-3			1/8-27
		HBF-3-1	B	3/8"	1/8-27
		F38	F		1/4-18
		HBF-3-2	B		3/8-18
		F40	F		
		HBF-3-3	B	1/2"	1/2-14
		HBF-3-4			1/4-18
		HBF-4-2	B	1/2"	1/4-18
	F41	F	3/8-18		
	HBF-4-3	B	1/2-14		
	F42	F			
	HBF-4-4	B	3/4"	3/4-14	
	HBF-6-6	B			
Requires Hose Clamp (See page 200 for typical hose clamps)					

Brand - Designates **F**=Foster or **B**=Breco Part



Hose Barb Fittings



Brass Fittings

Part No.	Brand	Hose I.D.	NPT Thread Size
M1	F	1/8"	1/8-27
HBM-1-1	B		1/4-18
HBM-1-2	B		1/4-18
M2	F	3/16"	1/8-27
HBM-25-1	B		1/4-18
M6	F		1/4-18
HBM-25-2	B	1/4"	1/8-27
M3	F		1/4-18
HBM-2-1	B		3/8-18
M7	F	1/2"	1/8-27
HBM-2-2	B		1/4-18
M12	F		3/8-18
HBM-2-3	B	5/16"	1/8-27
HBM-5-1	B		1/4-18
M8	F		3/8-18
HBM-5-2	B	3/8"	1/8-27
HBM-5-3	B		1/4-18
M4	F		3/8-18
M5	F	1/2"	1/8-27
HBM-3-1	B		1/4-18
M9	F		3/8-18
HBM-3-2	B	3/4"	1/4-18
M13	F		1/2-14
HBM-3-3	B		3/4-14
M16	F	1"	1/4-18
HBM-3-4	B		3/8-18
HBM-3-6	B		1/2-14
M11	F	3/4"	1/4-18
HBM-4-2	B		1/2-14
M14	F		3/4-14
HBM-4-3	B	5/8"	1/4-18
M17	F		3/8-18
HBM-4-4	B		1/2-14
HBM-4-6	B	3/4"	3/8-18
HBM-7-3	B		1/2-14
HBM-7-4	B		3/4-14
HBM-7-6	B	1"	1/2-14
M19	F		3/4-14
HBM-6-4	B		3/4-14
M22	F	1"	3/4-14
HBM-6-6	B		1-11 1/2"
HBM-8-6	B		1-11 1/2"
HBM-8-8	B		

Requires Hose Clamp (See page 200 for typical hose clamps)



Male Pipe Thread Hose Barb

Part No.	Brand	Hose I.D.	NPT Thread
POF-2-1	B	1/4"	1/8-27
PF36	F		1/4-18
POF-2-2	B		3/8-18
POF-2-3	B	3/8"	1/8-27
POF-3-1	B		1/4-18
POF-3-2	B		3/8-18
PF40	F	1/2"	1/2-14
POF-3-3	B		1/4-18
POF-3-4	B		3/8-18
POF-4-2	B	3/4"	1/4-18
POF-4-3	B		1/2-14
POF-4-4	B		3/4-14
PF42	F	3/4"	1/2-14
POF-6-6	B		3/4-14

Hose clamps not required when used with "Push On" hose. See page 369.



Female Pipe Thread Push-Lock Hose Barb

Part No.	Brand	Hose I.D.	NPT Thread
PM3	F	1/4"	1/8-27
POM-2-1	B		1/4-18
PM7	F		3/8-18
POM-2-2	B	3/8"	1/8-27
POM-2-3	B		1/4-18
PM5	F		3/8-18
POM-3-1	B	1/2"	1/8-27
PM9	F		1/4-18
POM-3-2	B		3/8-18
PM13	F	3/4"	1/4-18
POM-3-3	B		1/2-14
PM16	F		3/4-14
POM-3-4	B	1"	1/4-18
POM-3-6	B		3/8-18
PM11	F		1/2-14
POM-4-2	B	3/4"	1/4-18
PM14	F		3/8-18
POM-4-3	B		1/2-14
PM17	F	1"	1/2-14
POM-4-4	B		3/4-14
POM-4-6	B		3/4-14
PM19	F	1"	1/2-14
POM-6-4	B		3/4-14
POM-6-6	B		3/4-14

Hose clamps not required when used with "Push On" hose. See page 369.



Male Pipe Thread Push-Lock Hose Barb


Brand - Designates **F**=Foster or **B**=Breco Part


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Steel Pipe Fittings - Breco


Pipe Coupling		Part No.	Female Pipe 1	Female Pipe 2
		B-5000-2	1/8"	1/8"
		B-5000-4-2	1/4"	1/8"
		B-5000-4	1/4"	1/4"
		B-5000-6-2	3/8"	1/8"
		B-5000-6-4	3/8"	1/4"
		B-5000-6-6	3/8"	3/8"
		B-5000-8-4	1/2"	1/4"
		B-5000-8-6	1/2"	3/8"
		B-5000-8	1/2"	1/2"


Hex Pipe Nipple		Part No.	Male Pipe 1	Male Pipe 2
		B-5404-2	1/8"	1/8"
		B-5404-4-2	1/4"	1/8"
		B-5404-4	1/4"	1/4"
		B-5404-6	3/8"	3/8"
		B-5404-8-4	1/2"	1/4"
		B-5404-8-6	1/2"	3/8"
		B-5404-8	1/2"	1/2"

Expanding Pipe Adapter		Part No.	Male Pipe 1	Female Pipe 2
		B-5405-2-4	1/8"	1/4"
		B-5405-2-6	1/8"	3/8"
		B-5405-2-8	1/8"	1/2"
		B-5405-4-4	1/4"	1/4"
		B-5405-4-6	1/4"	3/8"
		B-5405-4-8	1/4"	1/2"
		B-5405-4-12	1/4"	3/4"
		B-5405-6-6	3/8"	3/8"
		B-5405-6-8	3/8"	1/2"
B-5405-8-8	1/2"	1/2"		

Clamps		Part No.	Size	Hose O.D.
		B-1113	1/2"	1/4"
		B-1315	9/16"	5/16"
		B-1518	5/8"	3/8"

Female Pipe Tee		Part No.	Female Pipe Connections
		B-5605-2	1/8"
		B-5605-4	1/4"
		B-5605-6	3/8"
		B-5605-8	1/2"

90° Street Elbow		Part No.	Male Pipe 1	Female Pipe 2
		B-5502-2	1/8"	1/8"
		B-5502-2-4	1/8"	1/4"
		B-5502-2-6	1/8"	3/8"
		B-5502-4-2	1/4"	1/8"
		B-5502-4	1/4"	1/4"
		B-5502-4-6	1/4"	3/8"
		B-5502-6-4	3/8"	1/4"
		B-5502-6	3/8"	3/8"
		B-5502-6-8	3/8"	1/2"
		B-5502-8-4	1/2"	1/4"
		B-5502-8-6	1/2"	3/8"
		B-5502-8-8	1/2"	1/2"

Male Elbow		Part No.	Male Pipe 1	Male Pipe 2
		B-5500-2	1/8"	1/8"
		B-5500-4-2	1/4"	1/8"
		B-5500-4	1/4"	1/4"
		B-5500-6-4	3/8"	1/4"
		B-5500-6	3/8"	3/8"
		B-5500-8-4	1/2"	1/4"
		B-5500-8-6	1/2"	3/8"
		B-5500-8	1/2"	1/2"

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Brass Fittings & Reusable Hose Fittings





Brass Fittings - Breco

45° Street Elbow		Part No.	NPT Thread
		SE45-1-1	1/8"
		SE45-2-2	1/4"
		SE45-3-3	3/8"
		SE45-4-4	1/2"

Male Branch Tee		Part No.	NPT Thread
		B-324-0202	1/8"
		B-324-0404	1/4"
		B-324-0606	3/8"
		B-324-0808	1/2"


90° Street Elbow		Part No.	NPT Thread
		SE90-1-1	1/8"
		SE90-2-2	1/4"
		SE90-3-3	3/8"
		SE90-4-4	1/2"


Female Pipe Cross		Part No.	NPT Thread
		C-1	1/8"
		C-2	1/4"
		C-3	3/8"
		C-4	1/2"


Female Pipe Tee		Part No.	NPT Thread
		PT-1	1/8"
		PT-2	1/4"
		PT-3	3/8"
		PT-4	1/2"

90° Internal Pipe Union		Part No.	NPT Thread
		FPE90-1-1	1/8"
		FPE90-2-2	1/4"
		FPE90-3-3	3/8"
		FPE90-4-4	1/2"

Swivel Under Pressure Adapters - Foster

1/4" MPT Swivel Free Swivel Under Pressure		Part No.	I.D. x O.D.	Description
		2B3MS	1/4" x 1/2"	Brass
		2B5MS	1/4" x 3/16"	
		2B7MS	1/4" x 5/8"	

1/2" MPT Swivel Free Swivel Under Pressure		Part No.	I.D. x O.D.	Description
		6P13MS	1/2" x 13/16"	Brass
		6P15MS	1/2" x 7/8"	
		6P17MS	1/2" x 15/16"	
		6P19MS	1/2" x 1"	

3/8" MPT Swivel Free Swivel Under Pressure		Part No.	I.D. x O.D.	Description
		4D7MS	3/8" x 5/8"	Brass
		4D9MS	3/8" x 11/16"	
		4D11MS	3/8" x 3/4"	
		4D13MS	3/8" x 13/16"	

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Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

Fittings & Accessories

Hoses & Fittings


Technical Data


Indexes





Reusable Hose Fittings

Non Swivel Adapters - Foster

1/8" MPT Non-Swivel		Part No.	I.D. x O.D.	Description
		1B3	1/4" x 1/2"	Brass
		1B5	1/4" x 9/16"	
		1B7	1/4" x 5/8"	

1/4" MPT Non-Swivel		Part No.	Brand	I.D. x O.D.	Description
		2B3	F	1/4" x 1/2"	Brass
		B-183-4084	B		
		2B5	F	1/4" x 9/16"	Brass
		B-183-4094	B		
		2B7	F	1/4" x 5/8"	303 Stainless
		B-183-4104	B		
		2B7S/S	F	5/16" x 9/16"	Brass
		2C5	F		
		2C7	F	5/16" x 5/8"	Brass
		B-183-5104	B		
		B-183-5114	B	5/16" x 11/16"	Brass
		2D7	F	3/8" x 5/8"	
		B-183-6104	B		
		2D9	F	3/8" x 11/16"	Brass
		B-183-6114	B		
		2D11	F	3/8" x 3/4"	Brass
		B-183-6124	B		
		2D13	F	3/8" x 13/16"	Brass
		2P13		1/2" x 13/16"	
2P15	1/2" x 7/8"				
2P17	1/2" x 15/16"				
2P19	1/2" x 1"				

3/8" MPT Non-Swivel		Part No.	Brand	I.D. x O.D.	Description
		4B3	F	1/4" x 1/2"	Brass
		B-183-4086	B		
		4B5	F	1/4" x 9/16"	
		4B7	F	1/4" x 5/8"	
		B-183-5116	B	5/16" x 11/16"	
		4D7	F	3/8" x 5/8"	
		B-183-6106	B		
		4D9	F	3/8" x 11/16"	
		B-183-6116	B		
		4D11	F	3/8" x 3/4"	
		B-183-6126	B		
		4D13	F	3/8" x 13/16"	
		4P13	F	1/2" x 13/16"	
		4P15	F	1/2" x 7/8"	
		B-183-8146	B		
4P17	F	1/2" x 15/16"			
4P19	F	1/2" x 1"			

1/2" MPT Non-Swivel		Part No.	Brand	I.D. x O.D.	Description
		6D7	F	3/8" x 5/8"	Brass
		B-183-6108	B		
		6D9	F	3/8" x 11/16"	
		6D11	F	3/8" x 3/4"	
		B-183-6128	B		
		6D13	F	3/8" x 13/16"	
		6P13	F	1/2" x 13/16"	
		6P15	F	1/2" x 7/8"	
		B-183-8148	B		
		6P17	F	1/2" x 15/16"	
		B-183-8158	B		
		6P19	F	1/2" x 1"	

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Reusable Hose Fittings





Female Swivel w/Nut - Foster

Female Swivel No. 1 Nut – 9/16-20 NS		Part No.	I.D. x O.D.	Description
		1B3-S	1/4" x 1/2"	Brass/Steel
		1B5-S	1/4" x 9/16"	
		1B7-S	1/4" x 5/8"	
		1C5-S	5/16" x 9/16"	
		1C7-S	5/16" x 5/8"	
		1D7-S	3/8" x 5/8"	
		1D9-S	3/8" x 11/16"	
		1D11-S	3/8" x 3/4"	
1D13-S	3/8" x 13/16"			


Female Swivel No. 2 Nut – 5/8-18 NF		Part No.	I.D. x O.D.	Description
		2B3-S	1/4" x 1/2"	Brass/Steel
		2B5-S	1/4" x 9/16"	
		2B7-S	1/4" x 5/8"	
		2D7-S	3/8" x 5/8"	
		2D9-S	3/8" x 11/16"	
		2D11-S	3/8" x 3/4"	
		2D13-S	3/8" x 13/16"	


Female Swivel No. 5 Nut – 1/4-18 NPS		Part No.	I.D. x O.D.	Description
		5B3-S	1/4" x 1/2"	Brass/Steel
		5B5-S	1/4" x 9/16"	
		5B7-S	1/4" x 5/8"	
		5C5-S	5/16" x 9/16"	
		5C7-S	5/16" x 5/8"	
		5D7-S	3/8" x 5/8"	
		5D9-S	3/8" x 11/16"	
		5D11-S	3/8" x 3/4"	
		5D13-S	3/8" x 13/16"	


Female Swivel No. 8 Nut – 3/8-18 NPS		Part No.	I.D. x O.D.	Description
		8D7-S	3/8" x 5/8"	Brass/Steel
		8D9-S	3/8" x 11/16"	
		8D11-S	3/8" x 3/4"	
		8D13-S	3/8" x 13/16"	

Female Swivel No. 10 Nut – 1/2-14 NPS		Part No.	I.D. x O.D.	Description
		10P13-S	1/2" x 13/16"	Brass/Steel
		10P15-S	1/2" x 7/8"	
		10P17-S	1/2" x 15/16"	
		10P19-S	1/2" x 1"	

Male Adapter for Female Swivel - Foster

Female Swivel Adapter No. 1 Nut – 9/16-20 NS		Part No.	Size	Description
		1-2M	1/4"	Brass
		1-3M	3/8"	

Female Swivel Adapter No. 5 Nut – 1/4-18 NPS		Part No.	Size	Description
		5-2M	1/4"	Brass

Female Swivel Adapter No. 10 Nut – 1/2-14 NPS		Part No.	Size	Description
		10-3M	3/8"	Brass
		10-4M	1/2"	

Brand - Designates **F**=Foster or **B**=Breco Part



WARNING: These products can expose you to chemicals including lead, which is known to the State of California to cause cancer, and which is known to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



Swivel Fittings

Foster Swivel Fittings improve maneuverability and ergonomics when using air tools and spray guns. Functioning like a universal joint, swivel fittings allow the hose to remain vertical at all times, which reduces operator fatigue, repetitive motion trauma, and fitting chafe. The non-marring series (plastic encapsulated) is ideal for applications where non-marring and scratch reduction is needed.

Features:


- Steel body ($\frac{1}{4}$ " and $\frac{3}{8}$ "), Aluminum body ($\frac{1}{2}$ ")
- High flow capacity, low pressure drop
- More sizes for simplified plumbing
- Plastic encapsulation (non-marring Series)


Benefits:


- Swivels 360 degrees in two independent planes
- Allows air hose to hang straight down when used with air tools
- Reduces operator fatigue
- Reduces the possibility of carpal tunnel syndrome
- Increases air hose life.


Materials of Construction:


- Body: Brass, plated steel or aluminum with plastic covering
- Seals: Buna N


90° Swivel		Part No.	FPT x MPT	Max. Working Pressure	Desc.
		25US90	$\frac{1}{4}$ " x $\frac{1}{4}$ "	300 psig	Brass
		25US90-101			Brass, w/Viton Seal
When used with percussion tools, a minimum of 18" of hose between tool and swivel is required.					

Non-Marring Swivel		Part No.	FPT x MPT	Max. Working Pressure	Desc.
		190040	$\frac{3}{8}$ " x $\frac{1}{4}$ "	150 psig	Steel/ Aluminum with Plastic Covering
		190041	$\frac{3}{8}$ " x $\frac{3}{8}$ "		
		190042	$\frac{1}{2}$ " x $\frac{1}{2}$ "		
When used with percussion tools, a minimum of 18" of hose between tool and swivel is required.					

Male to Female Pipe		Part No.	FPT x MPT	Max. Working Pressure	Desc.
		25US	$\frac{1}{4}$ " x $\frac{1}{4}$ "	300 psig	Brass/Steel
		38US	$\frac{3}{8}$ " x $\frac{3}{8}$ "		
		50US	$\frac{1}{2}$ " x $\frac{1}{2}$ "		
When used with percussion tools, a minimum of 18" of hose between tool and swivel is required.					

Standard Swivel		Part No.	FPT x MPT	Max. Working Pressure	Desc.
		190026A	$\frac{1}{4}$ " x $\frac{1}{4}$ "	150 psig	Steel/ Aluminum
		190029A	$\frac{3}{8}$ " x $\frac{1}{4}$ "		
		190027A	$\frac{3}{8}$ " x $\frac{3}{8}$ "		
		190028	$\frac{1}{2}$ " x $\frac{1}{2}$ "		
Without Plastic Covering When used with percussion tools, a minimum of 18" of hose between tool and swivel is required.					

Brass / Steel Dual Swivel		Part No.	FPT x MPT	Max. Working Pressure	Desc.
		25US36	$\frac{1}{4}$ " x $\frac{1}{4}$ "	300 psig	Brass/Steel
When used with percussion tools, a minimum of 18" of hose between tool and swivel is required.					

Non-Marring Dual Swivel		Part No.	FPT x MPT	Max. Working Pressure	Desc.
		190010A	$\frac{3}{8}$ " x $\frac{1}{4}$ "	150 psig	Steel/ Aluminum with Plastic Covering
		190011A	$\frac{3}{8}$ " x $\frac{3}{8}$ "		
		190012	$\frac{1}{2}$ " x $\frac{1}{2}$ "		
When used with percussion tools, a minimum of 18" of hose between tool and swivel is required.					

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Hoses & Accessories



Hytrek Hose & Fittings

Pages 366 - 367



Polyurethane Recoil Hose

Page 368



"Push On" Hose

Page 369



3-Way Hose Manifolds

Page 370



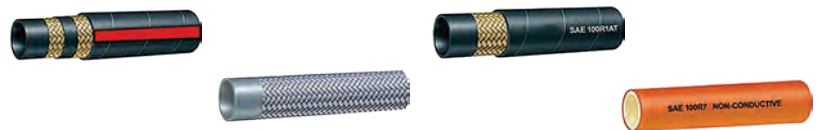
3-Way Hose Manifolds with Sockets

Page 370



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Hytrel Hose

Hytrel Hose Assemblies - Foster

Hytrel Recoil Hose Benefits:


- Impervious to oil, very abrasion resistant
- Recoil memory superior to Nylon
- Working length is approximately 60% of hose length
- Coiled length is 1/30th of hose length


Temperature Range: -40°F to +125°F


Rated Pressure: 170 psig @ 76°F


Options:


- Color - Light Blue (Suffix - B) and Yellow (Suffix Y for Yellow)
- Available in 100' lengths


Hytrel Recoil Hose		Part No. Blue	Part No. Yellow	Hose Size	Description
		FR25B-100	FR25Y-100	1/4"	Wound as 3-3/4" Dia. Loop
—	FR50Y-100	1/2"	Wound as 8" Dia. Loop		

Hytrel Recoil Hose Assemblies W/(2) Male FTGS		Part No. Blue	Part No. Yellow	Hose Size	Length
		FR25-6MB	FR25-6MY	1/4"	6 FT
FR25-12MB	FR25-12MY	12 FT			
FR25-25MB	FR25-25MY	25 FT			
FR25-50MB	FR25-50MY	50 FT			
—	FR50-12MY	1/2"	12 FT		
—	FR50-25MY		25 FT		
—	FR50-50MY		50 FT		

Hytrel Recoil Hose Assemblies W/(2) Swivel FTGS		Part No. Blue	Part No. Yellow	Hose Size	Length
		FR25-6SB	FR25-6SY	1/4"	6 FT
FR25-12SB	FR25-12SY	12 FT			
FR25-25SB	FR25-25SY	25 FT			
FR25-50SB	FR25-50SY	50 FT			
—	FR50-12SY	1/2"	12 FT		
—	FR50-25SY		25 FT		
—	FR50-50SY		50 FT		

Hytrel Recoil Hose Assemblies W/(1) Swivel (1) Male FTG		Part No. Blue	Part No. Yellow	Hose Size	Length
		FR25-6SMB	FR25-6SMY	1/4"	6 FT
		FR25-12SMB	FR25-12SMY		12 FT
		FR25-25SMB	FR25-25SMY		25 FT
		FR25-50SMB	FR25-50SMY		50 FT
		—	FR50-12SMY	1/2"	12 FT
		—	FR50-25SMY		25 FT
—	FR50-50SMY	50 FT			

Hytrel Recoil Hose Assemblies W/(2) Elbow FTGS		Part No. Blue	Part No. Yellow	Hose Size	Length
		FR25-6LB	FR25-6LY	1/4"	6 FT
		FR25-12LB	FR25-12LY		12 FT
		FR25-25LB	FR25-25LY		25 FT
		FR25-50LB	FR25-50LY		50 FT

Blue Hytrel Recoil Hose Assemblies W/(2) Female FTGS		Part No. Blue	Part No. Yellow	Hose Size	Length
		FR25-6FB	FR25-6FY	1/4"	6 FT
		FR25-12FB	FR25-12FY		12 FT
		FR25-25FB	FR25-25FY		25 FT
		FR25-50FB	FR25-50FY		50 FT

LIMITED SIZES AND COLOR SELECTION

Brand - Designates **F**=Foster or **B**=Breco Part




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Hytrell Hose Fittings




Hytrell Hose Fittings - Foster

Spare Reusable Fittings - Male MPT		Part No.	I.D. x O.D.	MPT	Description
		PSM53204	5/32" x 1/4"	1/4"	Swivel
		PRM0404	1/4" x 3/8"	1/4"	Rigid
		PSM0404			Swivel
		PRM0606	3/8" x 9/16"	3/8"	Rigid
		PSM0606			Swivel

Hytrell Recoil Hose Fittings - Male MPT		Part No.	Hose Size x NPT Thread	Description
		FR25M	1/4" x 1/4"	Kit
		FR50M	1/2" x 1/2"	

Hytrell Recoil Straight Hose Fittings Free Swivel Under Pressure, Male NPT		Part No.	Hose Size x NPT Thread	Description
		FR25S	1/4" x 1/4"	Kit
		FR50S	1/2" x 1/2"	

Hytrell Recoil Elbow Hose Fittings Male NPT		Part No.	Hose Size x NPT Thread	Description
		FR25L	1/4" x 1/4"	Kit

Hytrell Recoil Straight Hose Fittings Female NPT		Part No.	Hose Size x NPT Thread	Description
		FR25F	1/4" x 1/4"	Kit

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ZSi-Foster Engineering Catalog



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Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

Fittings & Accessories

Hoses & Fittings

Technical Data

Indexes



Polyurethane Recoil Hose

Fully Assembled and Ready to Use Configurations with and without DW-Series Universal Sockets Includes Swivel NPT Fitting End Pre-Installed with Thread Compound 15' and 25' Lengths

BRECO Polyurethane Recoil Hose has greater durability than other types of hose due to exceptional wear characteristics. Polyurethane Recoil Hose is kink resistant and has exceptional memory characteristics due to elastic properties of the polyurethane hose. Hoses are pre-assembled with reusable brass fittings for reduced assembly time.

Two assembly configurations include BRECO DW Series Universal Sockets ready for connection to air tools or other accessories. The BRECO Polyurethane Recoil Hose products are pre-bagged for convenience. Ideally suited as counter sale products.

Specifications:

Polyurethane Recoil Hose Benefits:

- Greater durability than Nylon or Hytrel recoil hoses due to exceptional wear characteristics
- Longer life expectancy due to kink resistant properties
- Superior recoil memory due to elastic properties
- Working length is approximately 80-90% of hose length
- Hoses are pre-assembled with reusable brass fittings reducing assembly time
- $\frac{5}{32}$ " ID hose is ideal for use with Foster blow guns

Rated Pressure: 125 psig @ 75°F

Options: Available in Transparent Blue & Yellow



Polyurethane Recoil Hose T=Transparent Blue, Y=Yellow		Part No.	Brand	I.D. x O.D. x Length	Description
		FPR532-10B-T	F	$\frac{5}{32}$ " x $\frac{1}{4}$ " x 10 Ft.	Blue, Rigid x Swivel
		FPR532-10B-Y			Yellow, Rigid x Swivel
		FPR14-15A-T	F	$\frac{1}{4}$ " x $\frac{3}{8}$ " x 15 Ft.	Blue, Rigid x Swivel
		FPR14-15A-Y			Yellow, Rigid x Swivel
		DCPOLY15	B		
		FPR14-25A-T	F	$\frac{1}{4}$ " x $\frac{3}{8}$ " x 25 Ft.	Blue, Rigid x Swivel
		FPR14-25A-Y			Yellow, Rigid x Swivel
		DCPOLY25	B		
		DCPOLY15ASSY	B	$\frac{1}{4}$ " x $\frac{3}{8}$ " x 15 Ft.	DW340A Universal Socket x $\frac{1}{4}$ " Swivel
		DCPOLY25ASSY	B	$\frac{1}{4}$ " x $\frac{3}{8}$ " x 25 Ft.	DW340A Universal Socket x $\frac{1}{4}$ " Swivel
		FPR38-15A-T	F	$\frac{3}{8}$ " x $\frac{9}{16}$ " x 15 Ft.	Blue, Rigid x Swivel
		FPR38-15A-Y			Yellow, Rigid x Swivel
		FPR38-25A-T	F	$\frac{3}{8}$ " x $\frac{9}{16}$ " x 25 Ft.	Blue, Rigid x Swivel
		FPR38-25A-Y			Yellow, Rigid x Swivel

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“Push On” Hose



Push-On Hose - Foster


Features:

- “Push-On” fittings do not require hose clamps. Hose grips barb through distortion of braid. Forms leak proof grip with “Push-On” fitting. “Push-On” hose used with standard barbed fittings requires hose clamp.
- For shop air, pneumatic tools, petroleum base hydraulic oils, anti-freeze compounds, gasoline, water, lubricating oils, and diesel fuels.

Construction:

Foster “Push-On” hose is constructed with a synthetic rubber tube, fiber braid reinforcement and a synthetic rubber cover, resistant to abrasion, oil and mildew.

- Temperature range: -40° to +212°F.

Bulk Hose		Part No.	Size	Description
		PO25	1/4" x 9/16"	Fiber Braid Reinforced Synthetic Rubber
		PO38	3/8" x 11/16"	Fiber Braid Reinforced Synthetic Rubber
		PO50	1/2" x 13/16"	Fiber Braid Reinforced Synthetic Rubber

**** Hose can be purchased by the reel or cut-to-length 50 feet or less.**
 Note: When used with Push-On fittings, hose clamps are not required.

1 Trim the end of the hose as square as possible.



2 Grip the Plug or socket firmly and Push On hose.



3 Completed connection, ensure that the hose is completely inserted.



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ZSi-Foster Engineering Catalog



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Hose Manifolds

3-WAY Hose Manifold - Breco

Add versatility to your compressed air systems and simplify multiple tool operations. The BRECO 3-Way Hose Manifolds allow three work stations to use the same air supply. Featuring a port design to maximize air flow through the body for less restriction on flow than other similar products on the market. Each manifold accepts three quick couplers or outlet hoses. Manifold has female NPT inlet and three female NPT outlets. Manifolds are available in three different inlet/outlet sizes.



3-Way Manifold



3-Way Flat Manifold

Part No.	Inlet	Outlet	Description
B-3404	1/4"	1/4"	3-Way Manifold
B-3406	3/8"	1/4"	
6124-A	1/4"	1/4"	3-Way Flat Manifold

3-WAY Hose Manifold with Sockets or Swivel Plugs - Breco

An expanded style of our 3-Way Hose Manifold is available pre-assembled with a choice of three D Series manual sockets or three swivel plugs. This operational versatility allows three independent work stations to function with the same air supply. The port design

of the BRECO 3-Way Hose Manifold maximizes air flow through the body and is less restrictive on flow than other similar products on the market. The flexibility of quick disconnects, swivel plugs, or outlet hoses maximize air operations while improving efficiencies.



3-Way Manifold Shown



Free swivel under pressure eliminates hose twist

Part No.	Description	Inlet	Outlet
MAN2525A	3-Way Manifold with three D341 Sockets	1/4" FPT	Sockets 1/4" Industrial Interchange
MAN3825A	3-Way Manifold with three D341 Sockets	3/8" FPT	Sockets 1/4" Industrial Interchange
6124	Flat Manifold w/ 3 sockets & 1 plug (Industrial)	1/4" plug	1/4" sockets
MF-2	Manifold w/ 3 sockets & 1 plug (Industrial)	1/4" plug	1/4" sockets
MF-3	Manifold w/ 3 sockets & 1 plug (Industrial)	3/8" plug	3/8" sockets

Part No.	Description	Inlet	Outlet
MAN2525S*	3-Way Manifold with three Swivel Plugs	1/4" FPT	Swivel Plug 1/4" Industrial Interchange
MAN3825S*		3/8" FPT	Swivel Plug 1/4" Industrial Interchange

* Note: Swivel Plugs are OPEN. Connection is needed to avoid leak path.

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- 370 -

www.zsi-foster.com



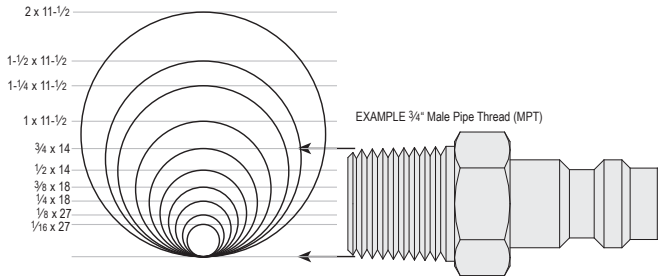
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Technical Data



Pipe Thread Identification

Page 372



Seal & Fluid Compatibility Guide

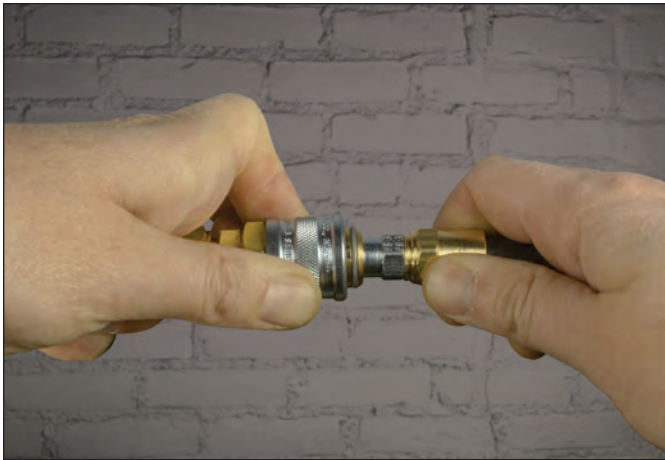
Pages 373 - 374



Seal Material

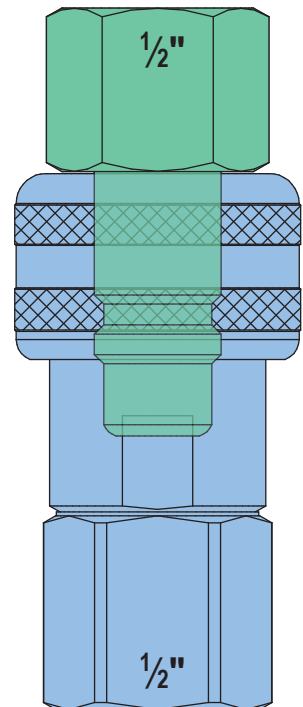
Quick Coupling Installation

Pages 375 - 379



Actual Size Layouts

Pages 380 - 388



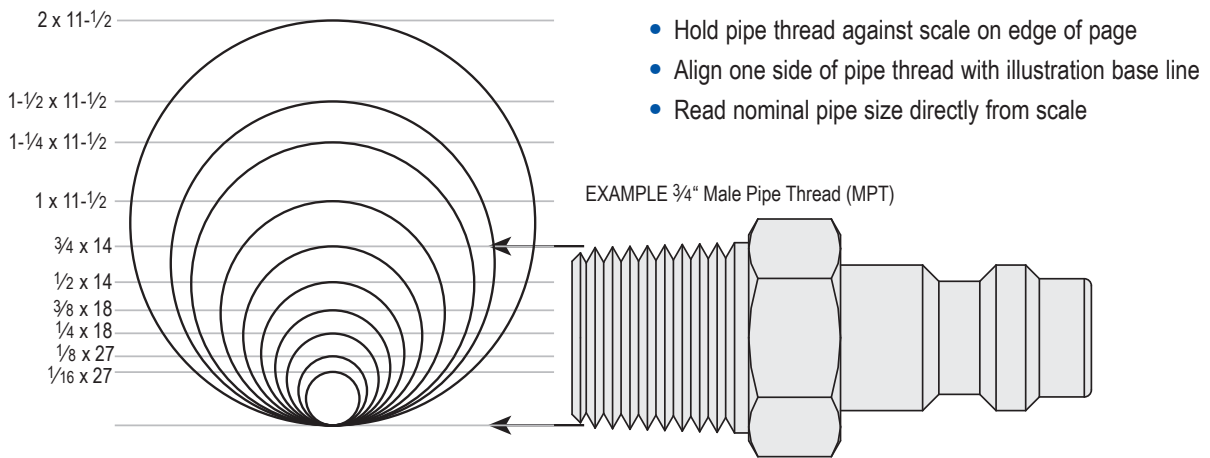
Think Safety First

Pages 262 - 263

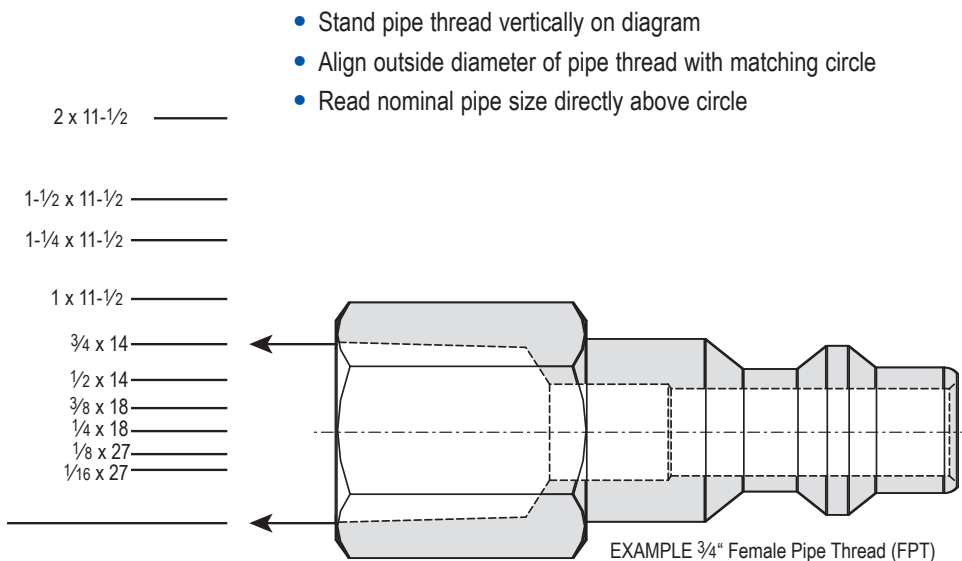
CAUTION: It is important that users of the Quick Release Couplers read the safety guidelines. Improper use of products can lead to severe injury and damage to equipment.

Nominal Pipe Size (inches)	Actual Pipe Size (inches)	Nominal Thread Size (inches)
1/8"	0.41"	1/8" - 27
1/4"	0.54"	1/4" - 18
3/8"	0.68"	3/8" - 18
1/2"	0.84"	1/2" - 14
3/4"	1.05"	3/4" - 14
1"	1.32"	1" - 11-1/2
1-1/4"	1.66"	1-1/4" - 11-1/2
1-1/2"	1.90"	1-1/2" - 11-1/2
2"	2.38"	2" - 11-1/2
2-1/2"	2.88"	2-1/2" - 8
3"	3.50"	3" - 8

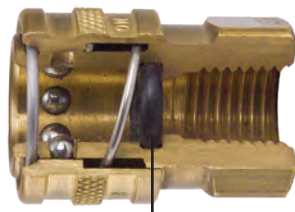
Female Pipe Thread Gauge



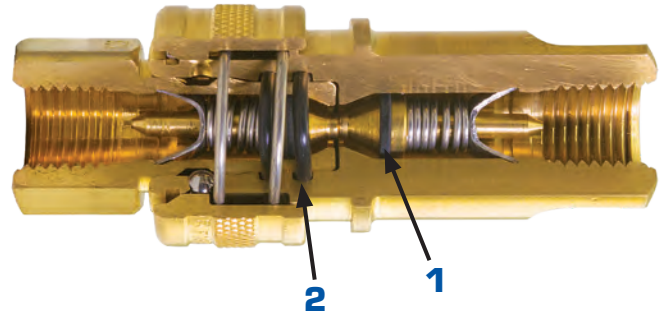
Male Pipe Thread Gauge



Seal & Fluid Compatibility Guide



Seal Material



- 1** Captive valve seal ensures “bubble tight” poppet sealing since seal is positively captured by the metal poppet to minimize seal washout or damage from high fluid velocity.
- 2** Broad range of metals and seal materials allow the use of most fluids.

Seal Compound Data		
Seal Material	Part No. Suffix	Color Code
Nitrile (Buna-N)	Std.	None
Viton (product of DuPont)	-101	Blue
Neoprene	-102	Red
Ethylene Propylene	-103	Black
Silicone	-104	White

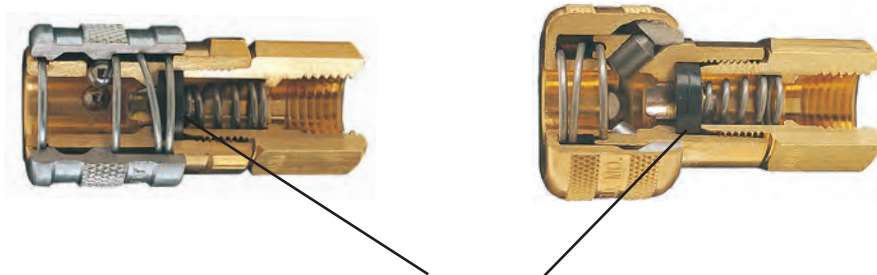
To Order: Add seal compound part number to the end of coupling part number.

Example: H4S-103, 1/2" NPT, FHK Series, steel socket with ethylene propylene seals (-103).

Note: Please consult with your Foster representative or the factory for any media not listed.

Optional Seal [Ordering]:

Buna-N seal is standard. Alternate seals are specified by adding the appropriate suffix to the catalog number. For example, 3003 socket with Heat Adder is 3003H



Optional Seal Material

Service	Construction	Seal	Temperature	Suffix
Air, Vacuum, Grease & Oil	Brass & Steel	Buna-N	-40° to +250°F	none
Water	Brass & S/S	Buna-N	+32° to +100°F	W
Hot Water	Brass & S/S	Viton	-15° to +400°F	HW
Steam	Brass Body, Brass Sleeve, & Stainless Steel Valve	Ethylene Propylene	-40° to +300°F	S
Heat	Brass & Steel	Viton	-15° to +400°F	H
Less Valve	Brass & Steel	Buna-N	-40° to +250°F	LV
Dill Valve Series 3 Only	Brass & Steel	Buna-N	-40° to +250°F	D



Seal & Fluid Compatibility Guide

Media	Body	Seal
Acetic Acid (5%)	SS	Viton
Acetone	B, SS	EPDM
Acetophenone	SS	EPDM
Acetylene	SS	Standard
Air (up to 200°F)	B, SS	Standard
Air (up to 400°F)	B, SS	Viton, Silicone
Ammonia (Anhydrous)	SS	Neoprene
Ammonia (Cold, Gas)	SS	EPDM
Ammonium Nitrite	SS	Standard
Amyl Chloride	SS	Viton
Arsenic Acid	SS	Standard
Asphalt	SS	Viton
Brine (Sodium Chloride)	SS	Standard
Butane	SS	Standard
Butanol (Butyl Alcohol)	SS	Standard
Calcium Acetate	B, STD	EPDM
Carbon Dioxide	B, SS	Standard
Carbon Tetrachloride	B	Viton
Castor Oil	B, STD, SS	Standard
China Wood Oil (Tung Oil)	SS	Standard
Chloroform	SS	Viton
Corn Oil	B, STD, SS	Standard
Creosote	SS	Standard
Crude Oil	SS	Viton
Cutting Oil	STD, SS	Standard
Detergent, Water Solution	SS	Standard
Diesel Fuel	B, SS	Standard
Diethylene Glycol	STD, SS	Standard
Dimethyl Formamide	SS	EPDM
Ethanol	B	EPDM
Freon 11	B	Viton
Freon 12	B, STD, SS	Neoprene
Freon 22	B, SS	Neoprene
Freon R134a	B, STD, SS	Neoprene
Fuel Oil	SS	Standard
Gas, Liquid Propane (LPG)	B, SS	Standard
Gas, Natural	B, SS	Standard
Gasoline (unleaded)	B, SS	Viton
Glucose	B, STD, SS	Standard
Glycerine (Glycercol)	STD, SS	Standard
Glycols	STD, SS	Standard
Helium	B, STD, SS	Standard
Heptane	B, STD, SS	Standard
Hydraulic Oil (Petroleum Base)	B, STD, SS	Standard
Hydraulic Oil (Water Base)	STD, SS	EPDM
Hydrazine	SS	EPDM
Hydrogen Gas	B, STD, SS	Standard
Isobutyl Alcohol	SS	Viton
Isopropyl Alcohol	B, STD, SS	Viton
Isopropyl Ether	B, STD, SS	Standard
Isocyanate	STD	Viton
Kerosene	B, SS	Standard
Linseed Oil	STD, SS	Standard
Lubricating Oil (SAE 10 thru 50)	B, STD, SS	Standard
Mercury	SS	Standard
Methane	B, SS	Standard
Methanol	B, SS	Standard
Methyl Bromide	STD, SS	Viton
Methyl Chloride (wet)	B	Viton
Methyl Ethyl Ketone (MEK)	B, STD, SS	EPDM
Mineral Oils	B, STD, SS	Standard
Potassium Acetate	STD	EPDM
Potassium Dichromate	STD	Standard
Potassium Nitrate	STD, SS	Standard
Potassium Sulfate	SS	Standard

Media	Body	Seal
Propane	B, SS	Standard
Propyl Alcohol	B, STD, SS	Standard
Propylene	B, STD, SS	Viton
Pydraul 10E	STD, SS	EPDM
Pydraul A-200, C-Series	STD, SS	Viton
Pydraul, 3 Series	STD, SS	Viton
Sea Water / Salt Water	SS	Standard
Silicone Greases	B, STD, SS	Standard
Skydrol 500, Type 2	STD, SS	EPDM
Skydrol 7000, type 2	STD, SS	EPDM
Soap Solutions	SS	Standard
Sodium Acetate	B, STD, SS	EPDM
Sodium Carbonate (Soda Ash)	STD, SS	Standard
Sodium Cyanide	STD, SS	Standard
Sodium Metaphosphate	STD	Standard
Sodium Nitrate	SS	EPDM
Sodium Perborate	SS	Viton
Sodium Peroxide	STD	Viton
Sodium Phosphates	B, SS	Standard
Sodium Sulfate	SS	Standard
Soybean Oil	STD, SS	Standard
Steam (below 400°F)	B, SS	EPDM
Sucrose Solutions	B, STD, SS	Standard
Tannic Acid (10%)	B	Standard
Tertiary Butyl Alcohol	B, STD, SS	Viton
Tetraethyl Lead	B, STD, SS	Viton
Tetraethyl Lead (blend)	B, STD, SS	Viton
Titanium Tetrachloride	STD	Viton
Toluene	B, STD, SS	Viton
Transmission Fluid (Type A)	B, STD, SS	Standard
Turbine Oil #15	SS	Viton
Turpentine	SS	Standard
Varnish	B, STD, SS	Viton
Water (below 100°F)	B, SS	Standard
Water (above 100°F)	B, SS	EPDM
Xylene	B, SS	Viton
Naphtha	STD	Viton
Naphthalene	STD	Viton
Napthenic Acid	STD	Viton
Nickel, Acetate	SS	EPDM
Nickel Sulfate	SS	Standard
Nitrogen	B, STD, SS	Standard
Nitrous Oxide	SS	Standard
Octyl Alcohol	B, STD, SS	Viton
Oxalic Acid	SS	Viton
Oxygen (200-400°F)	B, SS	Viton
Oxygen (below 200°F)	B, SS	Standard
Ozone	SS	Viton
Palmitic Acid	B, SS	Standard
Para-Dichlorobenzene	STD	Viton
Peanut Oil	STD, SS	Standard
Petrolatum	B, STD, SS	Standard
Petroleum Oil (below 200°F)	B, STD, SS	Standard
Phenol	B, STD, SS	Viton
Phosphorous Trichloride	SS	Viton
Plating Solutions (Chrome)	B, SS	Viton
Plating Solutions (other)	SS	Viton

Disclaimer: Data is only to be used as a guideline, please test individual parts thoroughly for each application.

Body Material Data	
Brass	B
Steel (Standard)	STD
303 / 316 Stainless Steel	SS

Be Safe When Installing Quick Couplings Installation Of Reusable Hose Couplings



1 Trim the end of the hose as square as possible.



2 Insert Hose completely into ferrule and make note of how deep the hose goes.



3 Mark the point of full hose insertion depth with a piece of tape.



4 Verify tape line is correct for full insertion.



5 Add a bit of lubricant to the reusable hose barb before inserting into the ferrule.



6 Turn reusable hose barb into ferrule ensuring hose stays completely inserted.



7 Tighten reusable hose barb into ferrule ensuring hose stays completely inserted.



8 Completed connection, Use marker applied in **step [3]** to ensure hose is completely inserted.

Be Safe When Installing Quick Couplings Installation “Push-On” Hose



1 Trim the end of the hose as square as possible.



2 Grip the Plug or socket firmly and Push On hose.



3 Completed connection, ensure that the hose is completely inserted.

Be Safe When Installing Quick Couplings Inspection and Maintenance



Plugs:

- Inspect for cracks, chips, dings or other damage.
- Clean as necessary using water and a mild detergent. External buildup may be removed using a wire brush, taking care not to mar the surface of the plug.
- Replace any damaged plug.

Assemblies:

- Install the plug into the socket, making sure the parts connect easily and hold firmly.
- Disconnect coupler, check that the plug and socket release easily and smoothly, with no scraping or binding.
- On BL (ball lock) and SL Series (with locking sleeve), rotate sleeve to the locked position and attempt to disconnect, pulling firmly to ensure the coupler stays connected.
- Rotate sleeve to the unlocked position, and ensure the coupler disconnects easily.
- If any damage, binding or unintended disconnecting is found, both the coupler and plug should be replaced.



Sockets:

- Inspect overall for cracks, dents or other damage.
- Inspect inside socket for damage or debris.
- Actuate all moving parts to ensure they operate freely with no scraping or binding.
- Clean as necessary using water and a mild detergent.
- Replace any damaged socket.



Be Safe When Installing Quick Couplings Installation of Tapered Thread Connections



1 Apply 1½ to 2 wraps of PTFE tape, starting one or two threads from the lead edge, in a clockwise direction. For type 316 stainless steel, be sure to use stainless grade tape.



2 Check threads to make sure there is no damage and that tape is properly installed. Align threaded connections and carefully begin threading the two halves together.



3 Finger tighten the connection.



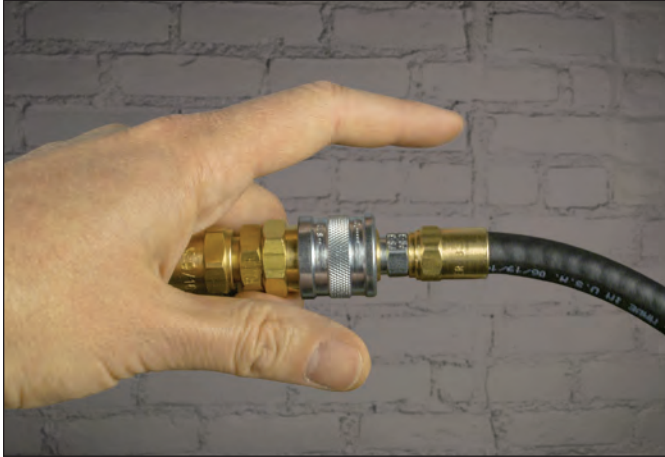
4 With **even and smooth** force applied, wrench tighten according to the "Turns From Finger Tight" values listed in the table below.
DO NOT OVERTIGHTEN!



5 Coupling is ready for use.

SAE Size	NPFE Thread Size	Turns from Finger Tight
-4	¼" - 18	2
-6	⅜" - 18	2
-8	½" - 14	2
-12	¾" - 14	1.5
-16	1" - 11½	1.5
Do Not Overtighten!		

Be Safe When Installing Quick Couplings Safety Exhausting Coupler Operation



- 1** To Disconnect;
Begin by holding the hose with three of your fingers leaving your thumb and index finger free.



- 3** After pulling the sleeve, the plug will move out of the couple slightly. Continue to hold the hose and coupling sleeve until **all air is fully exhausted**.

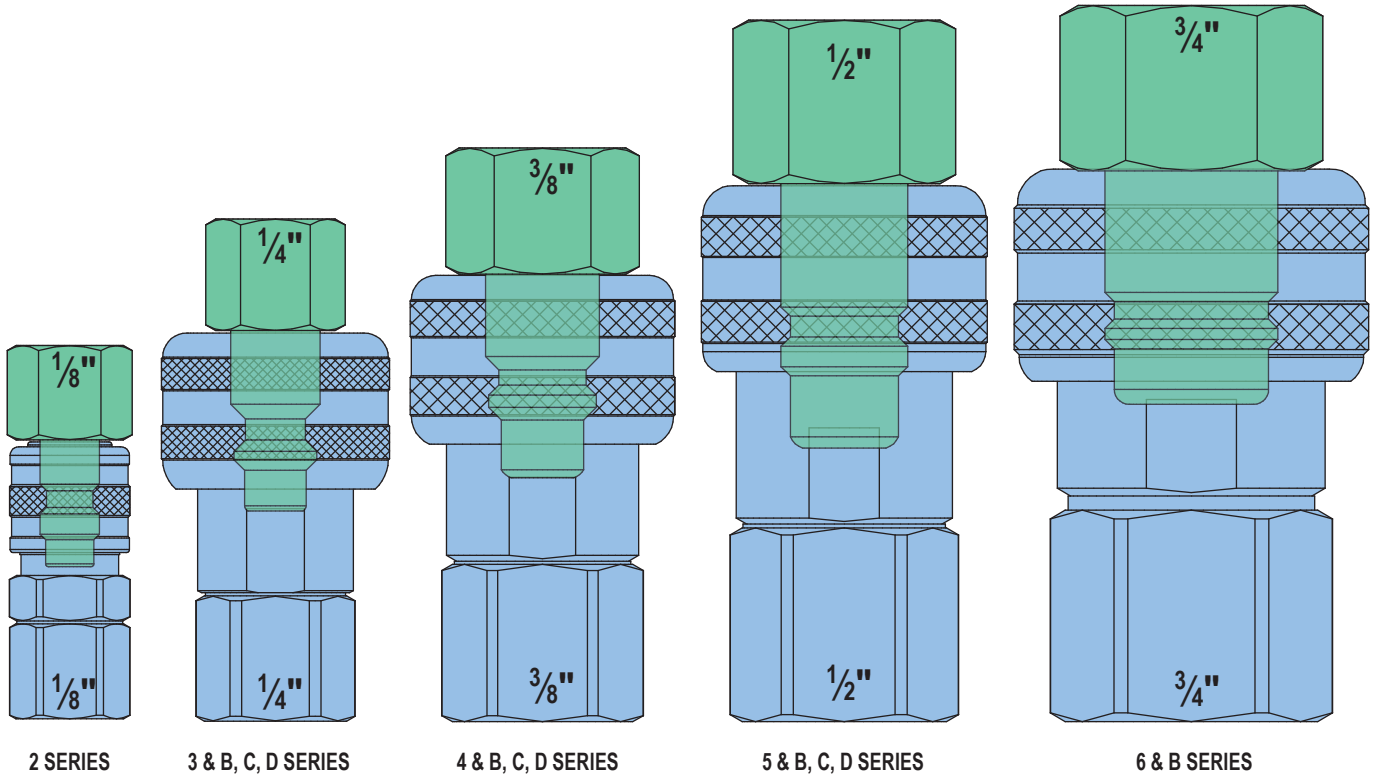


- 2** Grab the sleeve with your thumb and index finger and begin to pull the sleeve towards the palm of your hand.



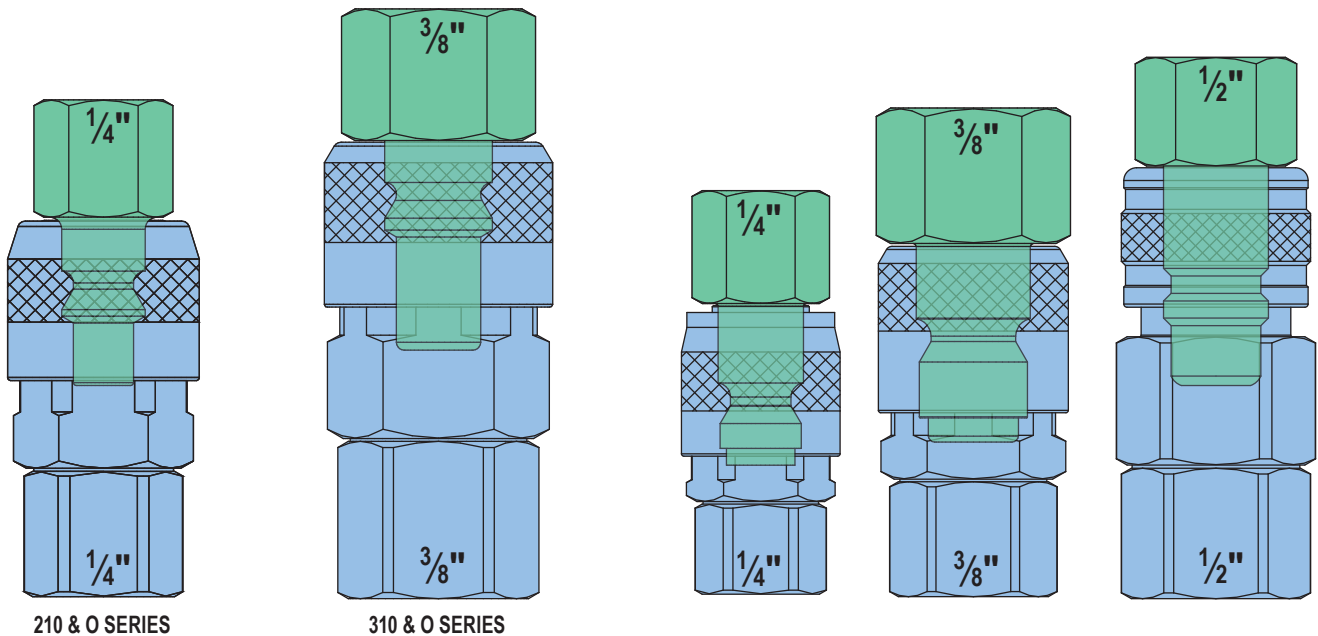
- 4** After the line is fully exhausted, you are able to safely separate the plug from the coupler.

2 thru 6 & B, C & D Series Industrial Interchange



210, 310 & O Series

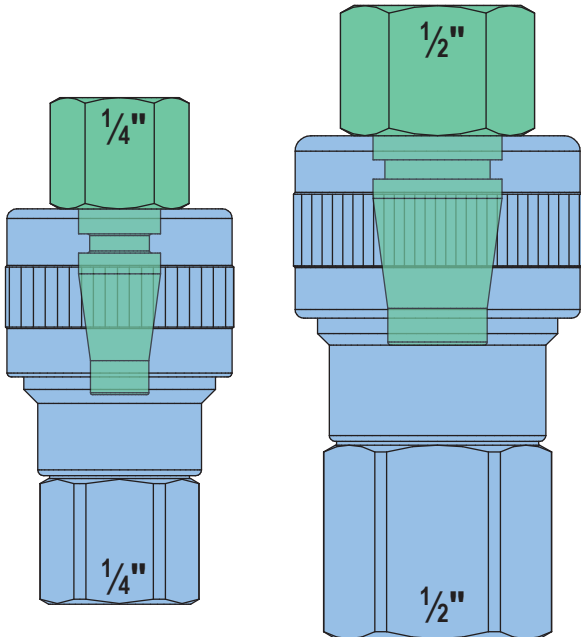
TF & J Series



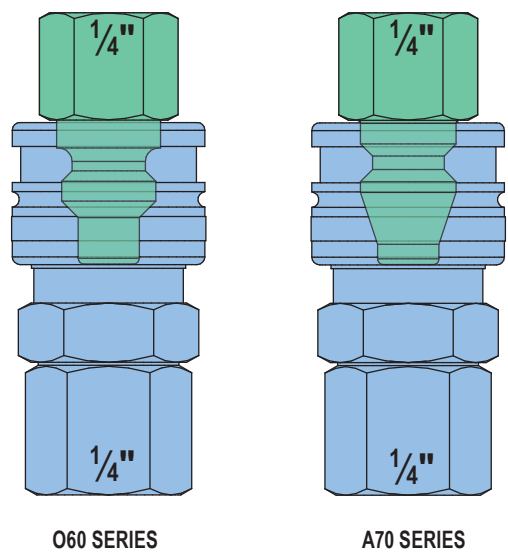
Actual Size Layouts



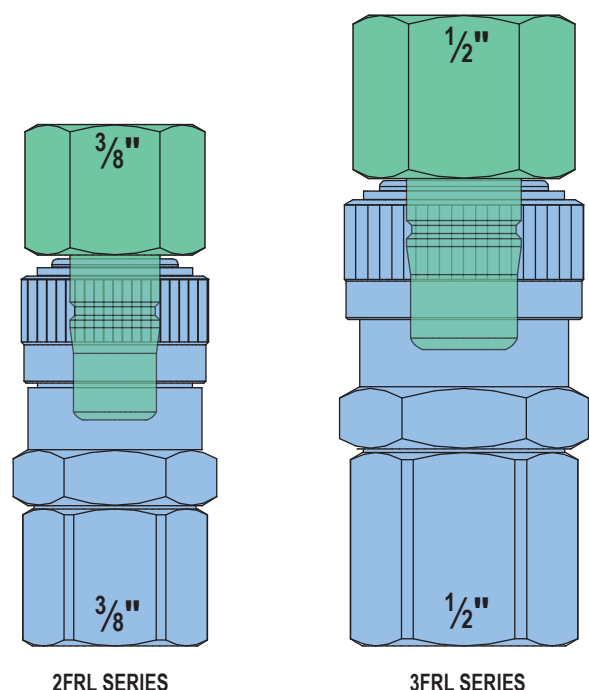
SHD & TL Series



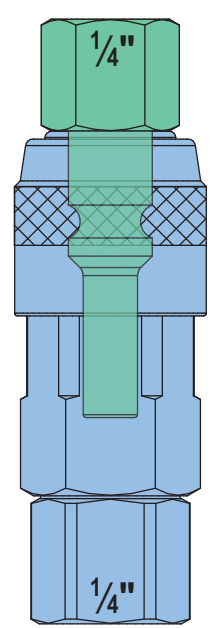
O60 & A70 Series



2FRL & 3FRL Series

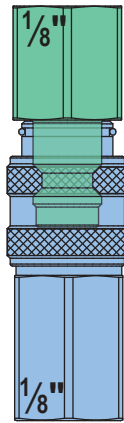


LN & L Series

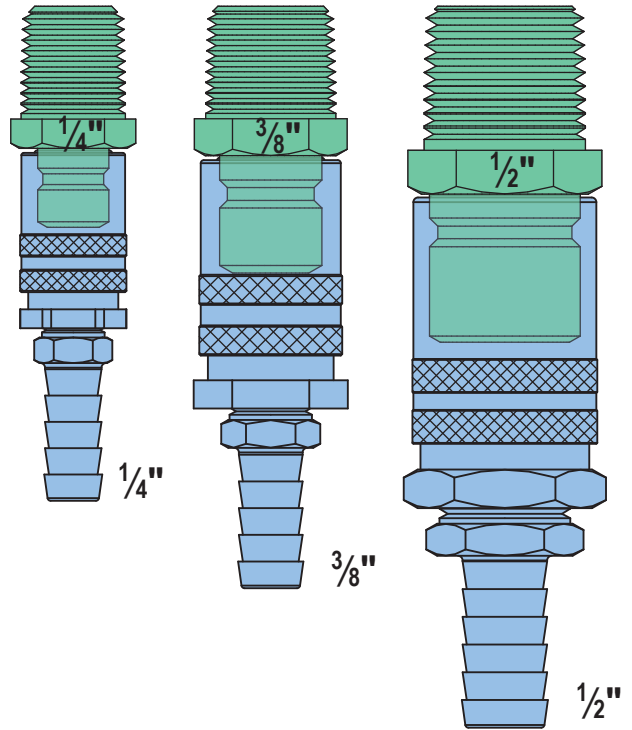


Pneumatic QD
Hydraulic QD
Blow Guns & Accessories
Fittings & Accessories
Hoses & Fittings
Technical Data
Indexes

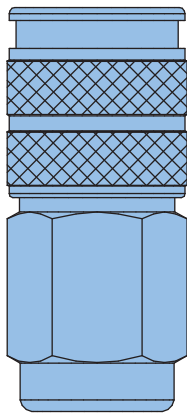
DR Series



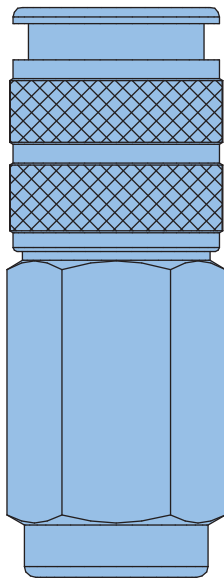
FJT Series



U Series



U 1/4"
Socket

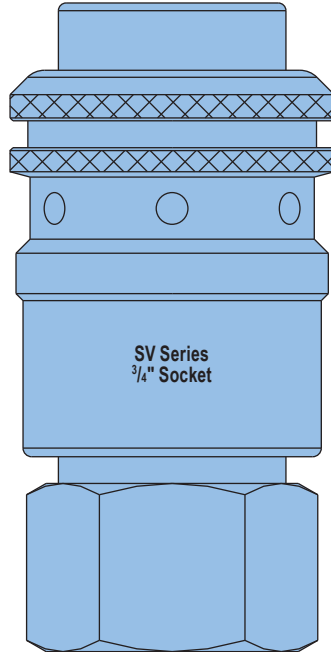
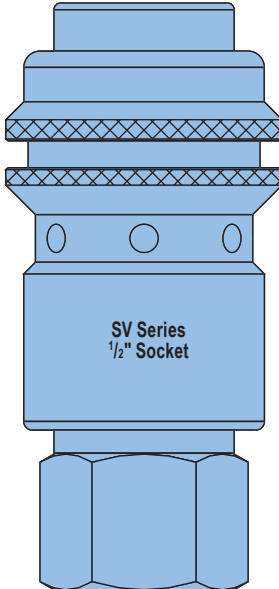
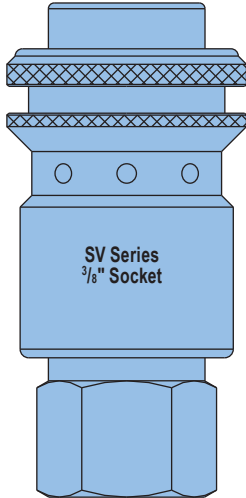
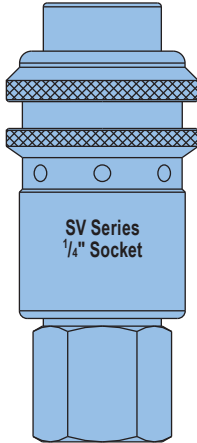


U 3/8"
Socket

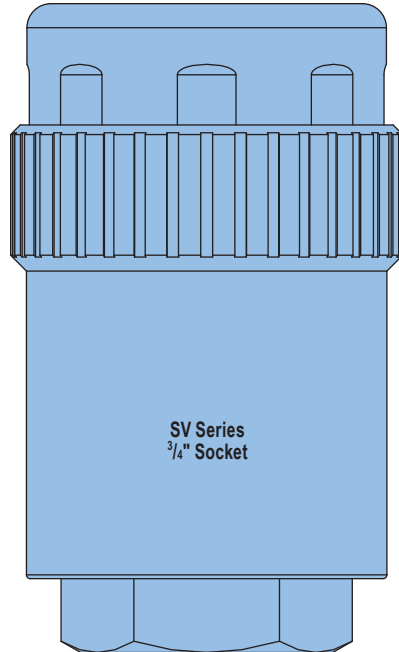
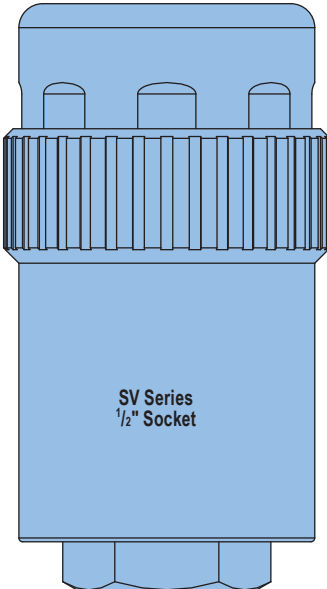
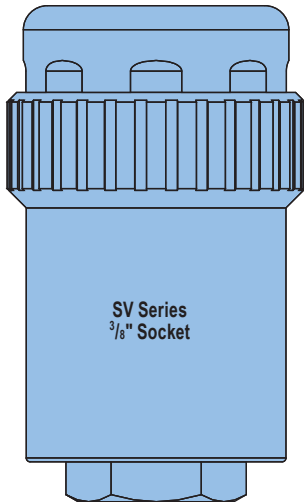
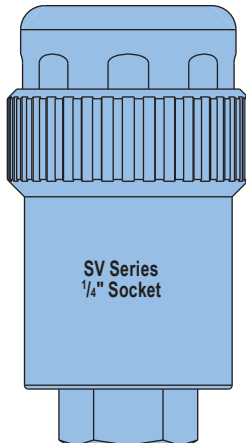
Actual Size Layouts



SV Series



SVPC Series



Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

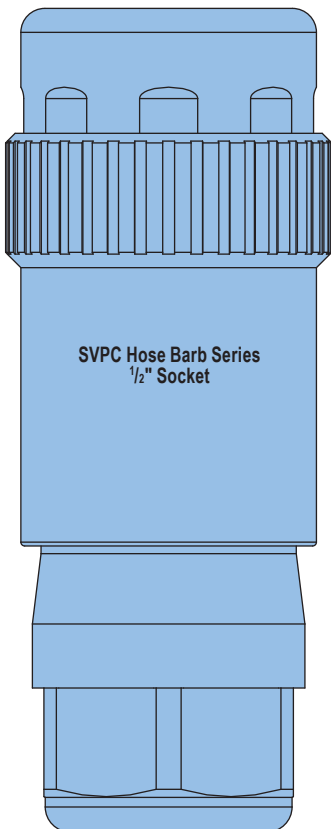
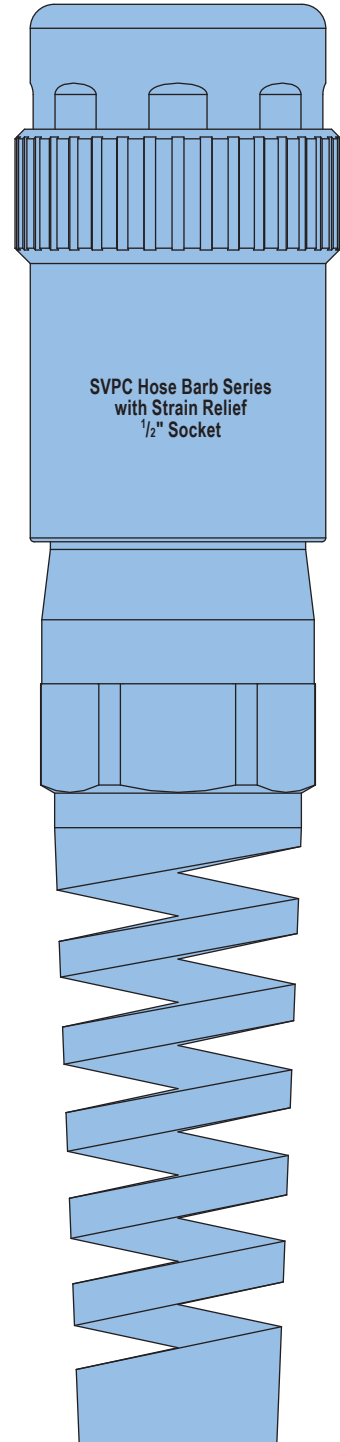
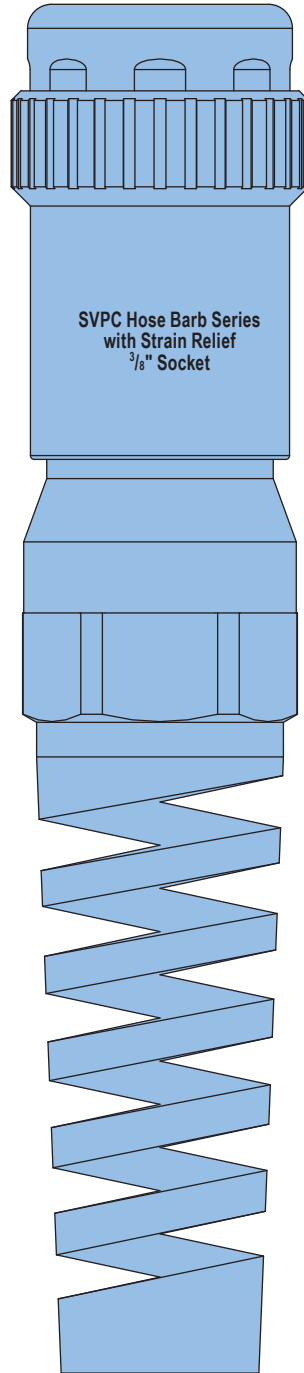
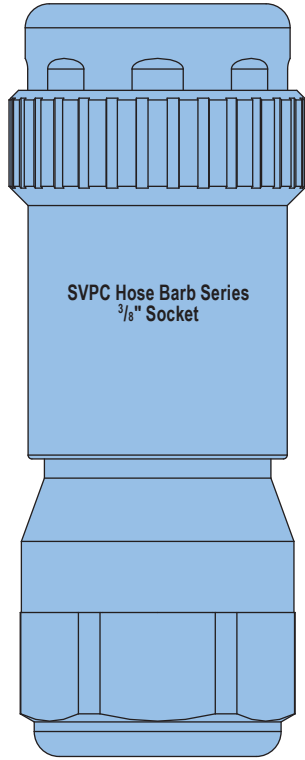
Fittings & Accessories

Hoses & Fittings

Technical Data

Indexes

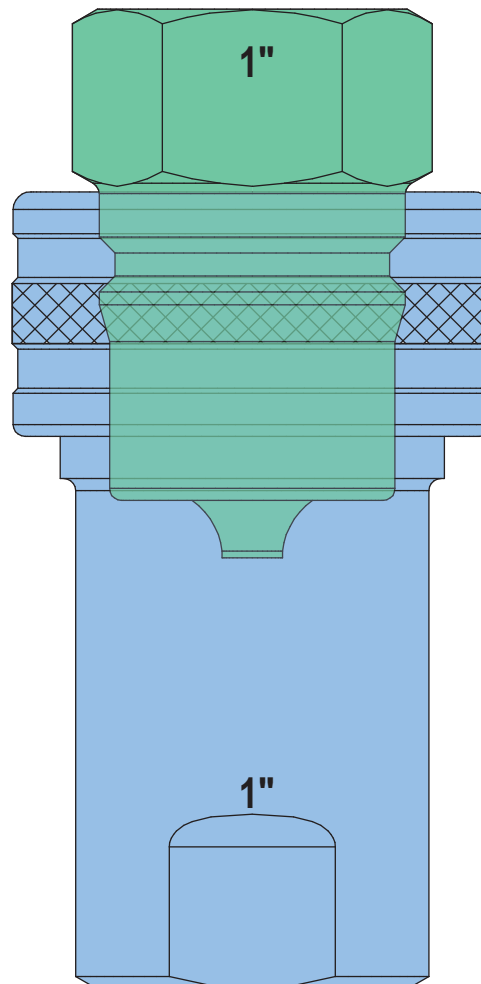
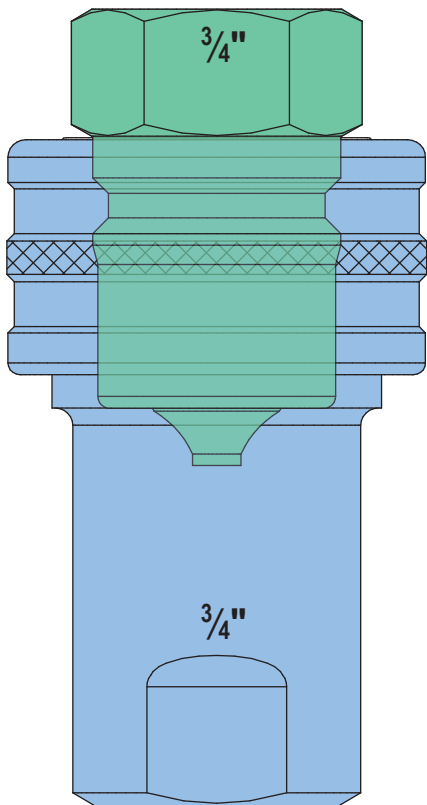
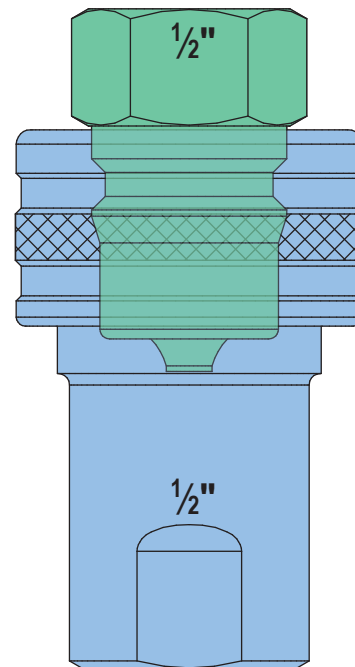
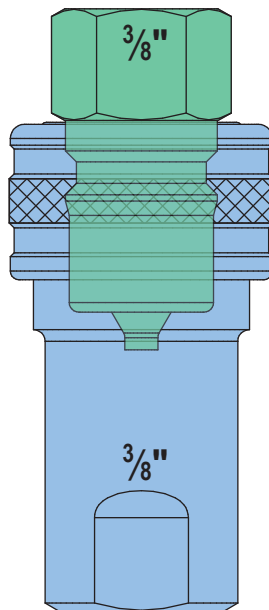
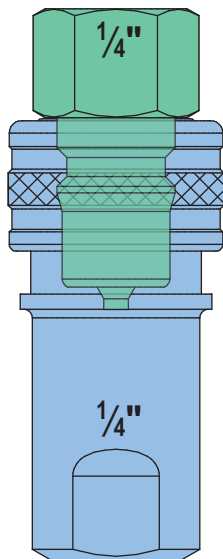
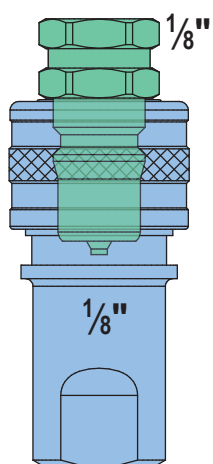
SVPC Series



Actual Size Layouts



FHK & DS Series



Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

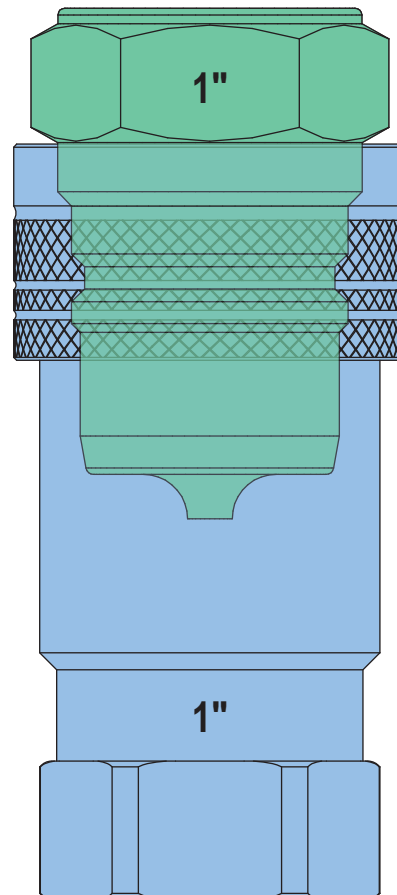
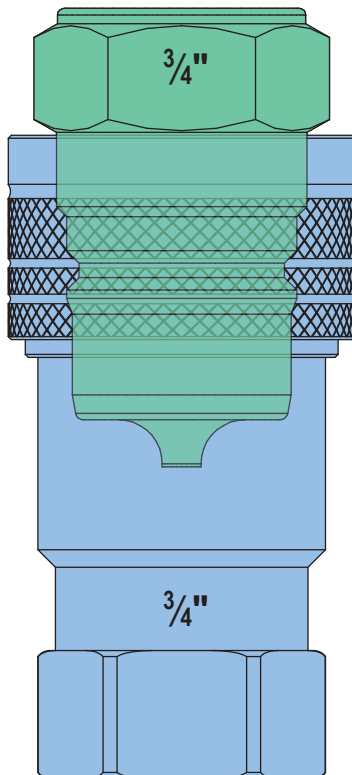
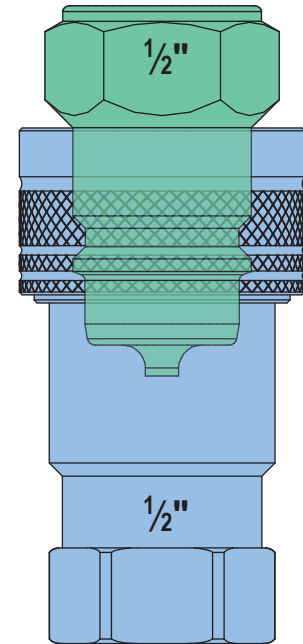
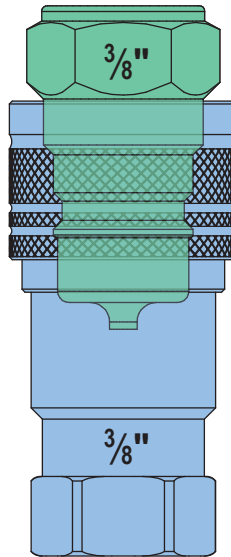
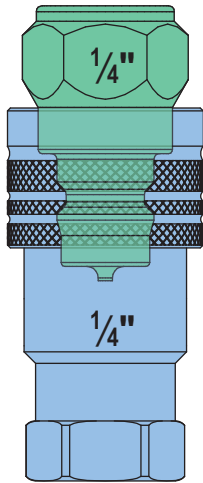
Fittings & Accessories

Hoses & Fittings

Technical Data

Indexes

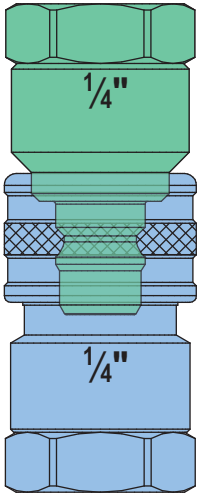
6600 Series



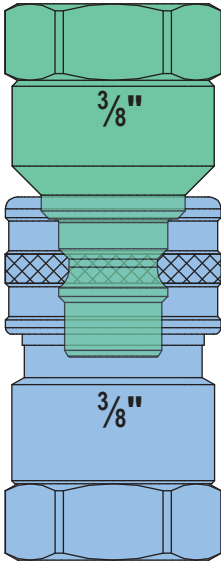
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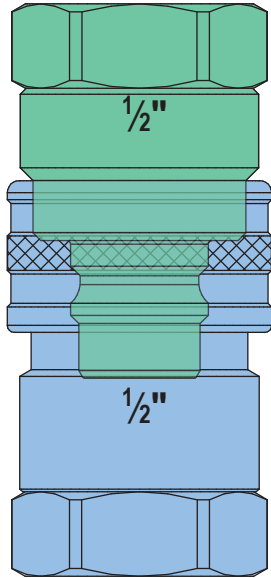
Series FH & FIH



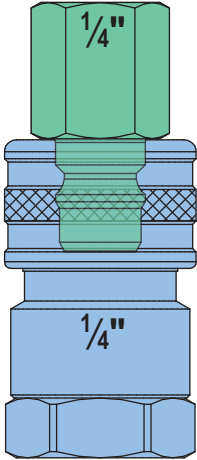
FH 1/4"
Two Way Valved Plug



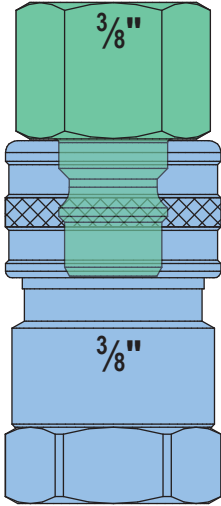
FH 3/8"
Two Way Valved Plug



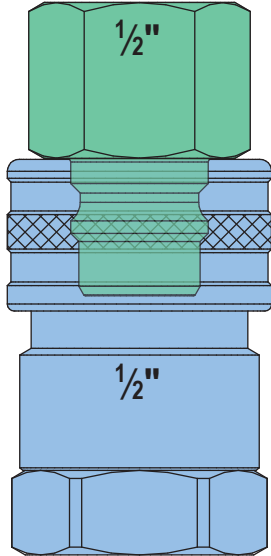
FH 1/2"
Two Way Valved Plug



FH/FIH 1/4"
Un-valved Plug



FH/FIH 3/8"
Un-valved Plug



FH/FIH 1/2"
Un-valved Plug

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

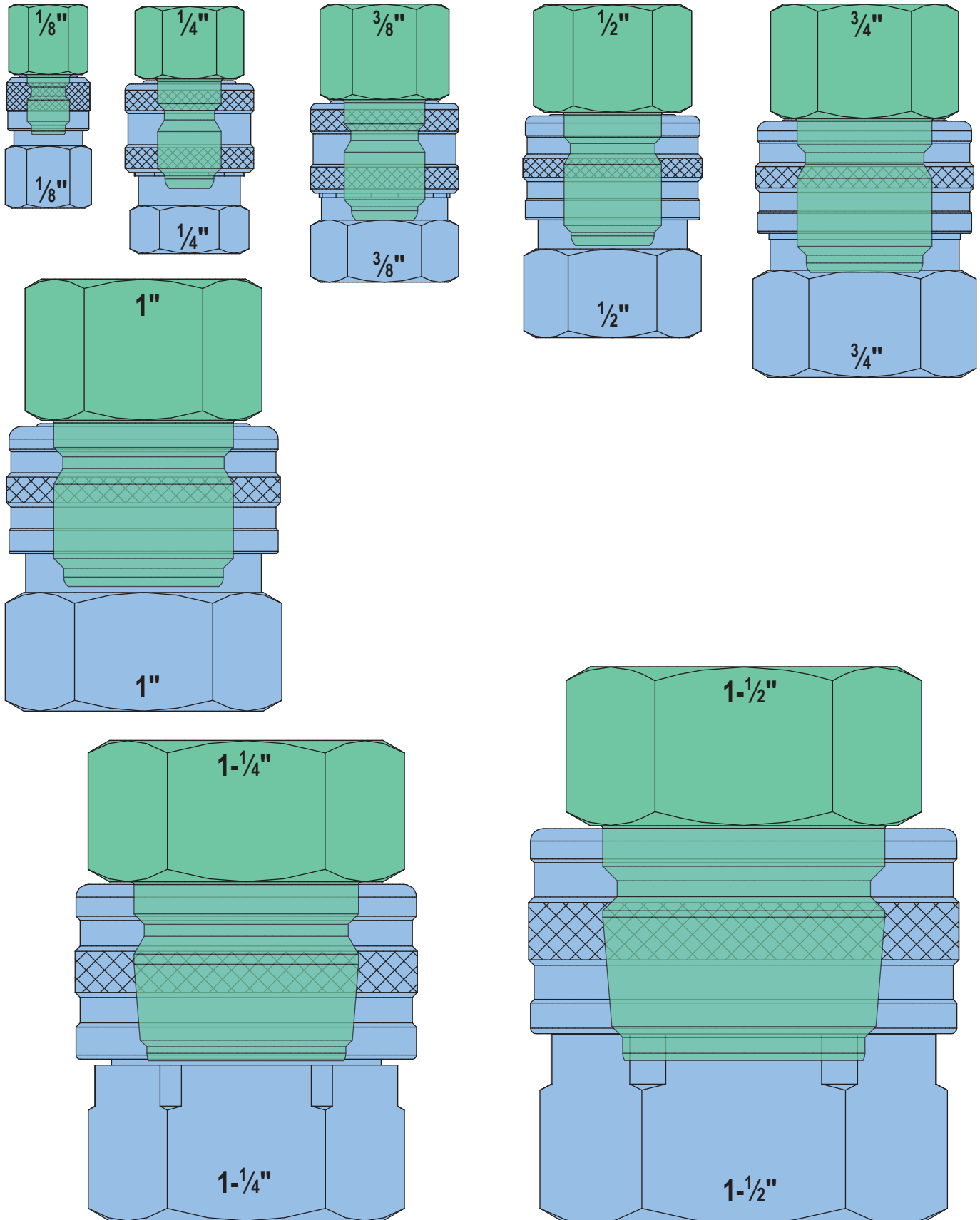
Fittings & Accessories

Hoses & Fittings

Technical Data

Indexes

FST & ST Series



Keyword Index



Keyword	Page	Keyword	Page	Keyword	Page
"Smoothie" Standard Series Beta Clamp	210	Combination/Ceiling Support	33	Flange Clips	169 - 176, 182
"Smoothie" Twin Series Beta Clamp	211	Common Components	246	Flange Hangers	171, 174, 176, 177
"U" Shape Fittings	92 - 93	Common Welded Method	201	Flange To Flange Clamp	113
2-Tube Cushioned Cable Clamps	191 - 193	Concrete Insert	222 - 225	Flat Plate Fittings	85 - 87, 244
37° Flare Male Junction Adapter	218	Conduit "Push In" Clips	166, 172	Flat Washers	83
45° Angular Corner Brace	95	Conduit and Cable Support	166 - 172	Flathead Machine Screws	83
90° Angle Fittings	88 - 90	Conduit Clip with Conduit Clip	172	Floor Adapter	155
Adaptable Insulated Pipe Saddle	151 - 155	Conduit Clip to Flange	171	Form Fit Plastic End Caps	116
Adjustable Screw Gun Bracket	183	Conduit Clip to Wood or Metal Stud	186	Four Wheel Trolley	33
Adjustable Width Duct Support	232	Conduit Clips	166	Four-Hole 90 Degree Corner Angle	95
AIRSTRIP	144	Conduit Connector	160	Four-Hole Adjustable Angle Fitting	94
Airtight Crush-Resistant Insulation Clamp	129	Continuous Concrete Inserts	222 - 226	Four-Hole Closed Angles	93
All Purpose Beam Clamp	113	Cover for Insulated Pipe Saddle	156	Four-Hole Connector	90
Alpha Series™	138 - 139	Cover Plastic End Caps	116	Four-Hole Corner Connector	90
Aluminum Channel	240	Cross Back Extended Riser Bracket	104	Four-Hole Corner Plate	87
Aluminum Nuts	79	Cross-Sectional Shape	23	Four-Hole Extended Angle Flat Plate	87
Aluminum, Stainless, & Copper Pipe Clamps	240	Cush-A-Block Mini Rooftop Supports	234 - 236	Four-Hole Gusset Corner Angle	89
Anchor End Caps	116	Cush-A-Block Rooftop Supports	228 - 233	Four-Hole Gusset Plate	87
Angle and Nail Bracket	178	Cush-A-Clamp	127 - 128	Four-Hole Left Hand Angle Connector	90
Angle Bracket	177 - 179, 182	Cush-A-Claw	140	Four-Hole Open Angles	93
Anti-Rotation Bracket	106	Cush-A-Click	141	Four-Hole Raceway Splice Fitting	161
Anti-Rotation Square Washer	86	Cush-A-Clip	141	Four-Hole Rack Corner Angle	89
Anti-Vibration Split Rubber Bushings	219	Cush-A-Glide	135	Four-Hole Rack Splice Connector	88
Back-to-Back Channel Welds	26	Cush-A-Grip	143	Four-Hole Right Hand Angle Connector	90
Beam - Design Fundamentals	22	Cush-A-Nator	122 - 126	Four-Hole Splice	93
Beam Clamp	109 - 113, 168, 169, 180, 181	Cush-A-Strip	145	Four-Hole Splice Plate	86
Beam Load Support Formulas	20 - 21	Cush-A-Therm	129 - 131	Four-hole Tapped Splice Plate	161
Beam Loading - Point Load	22	Custom Channel	33	Four-Hole Tee Plate	87
Beam Loading - Uniform Load	22	Deflection	22	Four-Wheel Trolley	97
Bending Moment	22	Design	24	Fraction Conversion Table	260
Beta Adapter	214	Design & Dimension Information	239 - 242	GAMMA Anti-Vibration Pads	238
Beta Clamp Installation	255 - 256	Design Bolt Torque	80	General Information	24
Beta Clamp Technical Data	253 - 254	Design Load Data for Channel	244 - 245	Girder Style and Utility Brackets	103
Beta Clamps - "Smoothie"	210 - 211	Diamond Back Extended Riser Bracket	103 - 104	Girder Style Bracket	102 - 103
Beta Clamps - Heavy	206 - 207	Double Adjustable Angle Brace Fitting	94	H - Channel With Holes	31
Beta Clamps - Heavy Rubber Insert	213	Double Channel Fixture Hanger	160	Hardware	83
Beta Clamps - Overview	202	Double Section Perforated Channel	246	Heavy Rubber Insert Beta Clamps	213
Beta Clamps - Rubber Insert	212	Dual-Strap Fastener for Clevis Hanger	158	Heavy Series Beta Clamps	206
Beta Clamps - Standard	204 - 205	Eight-Hole 90° Corner Angle Connector	96	Hex Bolt and Hex Nut	220
Beta Clamps - Twin	208 - 209	Eight-Hole Gusseted Corner Angle Connector	96	Hex Head Cap Screws	83
Bolted Channel Attachment Information	247	Eight-Hole Opposing Side Angle Connector	96	Hex Nuts	83
Bracing	93 - 95	Eight-Hole Post Base, Short Clevis	115	HSN Loop Clamps	199
Bracket Assembly	106	Eight-Hole Welded Corner Post Base	114	HVN Loop Clamps	199
Bracket Brace Adapter	100	Electrical Accessories	160 - 162	Inside Hole Clamp Units	215
Bridle Ring	172	Electrical Box Bracket	183	Insulated Pipe Saddle	149
Cable Clamps	164, 191, 198	Electrical Box Hanger	189	Insulated Pipe Saddle Cover	156
Cable Support Strap	186	Electrical Installation Instructions	248 - 252	Insulated Pipe Saddle for Strut	148 - 150
Cal-Clamp Insulation	132 - 134	End Cap with knock-outs	116	Insulation Saddle	146
Ceiling and Acoustical Applications	188 - 190	End Caps	116	J-Hanger	121
Channel Beam Clamp Use in Pairs	110	Extended Profile Diamond Back w/Riser Strut	107	Kep Nuts	83
Channel Brackets	98 - 100	Eyelets	163	Knock-Out Channel	32
Channel Custom Pierced	33	Female Junction Adapter	218	KO - Channel With Knock-Outs	31
Channel Engineering Data	239, 243 - 245	Fender Washers	83	Lateral Bracing Load Reduction Charts	77
Channel for Trolley Systems	33	Fiber Wire Retainer	162	Light Duty - Beam Clamps	181
Channel Nut Installation	78	Five-Hole "U" Supports	92	Load Data for Channel Sections	243
Channel Nuts	81 - 82	Five-Hole Corner Plate	87	Lock Washers	83, 220
Channel Raceways	159	Five-Hole Corner Splice Connector	89	Low Profile Diamond Back w/Strut Riser	105
Channel with Specialty Custom Perforations	32	Five-Hole Cross Plate	87	Low Voltage Mounting Plates	184 - 185
Channels	24	Five-Hole Gusset Plate	87	LVZ Loop Clamps	197
Channels in Descending Order of Strength	30	Five-Hole Splice Plate	86	Magnetic Shock Detection Device	157
Clevis Mount Adapter	153	Five-Hole Two Side Angle Connector	96	Malleable Iron Universal Beam Clamp	111
Closure Strip	162	Fixed Width Duct Support	233	Maximum Number of Wires	159, 248
Column - Design Fundamentals	23	Fixture Nut	162	MC/AC Cable Clip to Metal Stud	187
Column Length	23	Fixture Stud	162	Metal Stud Clip with Conduit Clip	185



Keyword Index

Keyword	Page	Keyword	Page	Keyword	Page
Mini Channel Nuts	81	Slip And Pull-Out Load Data	80	Three-Hole Splice	86, 93
Model "CWP" Pipe Sizes	134	Slotted "U" Support	91	Three-Hole Swivel Plate	86
Model "CWT" Tube Sizes	134	Slotted Adjustable Zee Connector	91	Three-Hole Zee Supports	91
Model "HWP" Pipe Sizes	133	Snap-A-Box	161	Three-Hole"U" Supports for W100	92
Model "HWT" Tube Sizes	133	Snap-A-Clip	158	Torque, Apply Proper	80
Multi-Function Clip with "Push In" Clip	168	Snap-A-Cover	156	Trolley Beam Intermediate Support	97
Multi-Function Clip with Assemblies	168, 174	Snap-A-Saddle Pro Multi	151 - 155	Trolley Beam Joint Support	97
Multiple Line Clamping System	215	Snap-A-Saddle Pro	148 - 150	Trolleys	97
Nine-Hole Three Side Angle Connector	96	Snap-A-Saddle	147	Tube Clamps	121
O-Ring Face Seal	217	SnapShock	153, 157	Twelve-Hole Post Base Tall Clevis	115
Off-Set Beam Clamp Use in Pairs	109	Socket Head Stacking Nut	220	Twelve-Hole Three Side Gusseted Angle	96
Omega Series™	136 - 137	Solid Rubber Tough	238	Twin Series Beta Clamps	208
One-Hole Angle Fitting	88	SPD Loop Clamps	193	Twist Clip with Wing Nut	188
One-Hole Anti-Rotation Channel Bracket	98	Specialty Combinations	33	Two Wheel Trolley	33
One-Hole Beam Clamp Use in Pairs	109	SPH Cush-A-Ring Clamps	194	Two-Hole Adjustable Hinge Connection	94
One-Hole Tubing Clamps	121	SPN Loop Clamps	192	Two-Hole Adjustment Angle	88
One-Hole Wrap Around Channel Bracket	98	Spot Concrete Insert	222	Two-Hole Angle (Indented)	88
One-Piece Clamp	118	SPP Cush-A-Ring Clamps	195	Two-Hole Beam Clamp Use in Pairs	109
Outlet Box Connection Fitting	160	SPW Loop Clamps	193	Two-Hole Channel Bracket	100
Outside Hole Clamp Units	216	Square Nuts	83	Two-Hole Clevis Connector	92
Over Tightening Caution	247	Square Tube Stand Off	108	Two-Hole Closed Angle	93
Parallel Splice Plate	86	Square Washer	86	Two-Hole Double Channel Bracket	99
Pictorial Table of Contents	2 - 5	SSN Loop Clamps	198	Two-Hole End Connector	88
Pierced Channel	32 - 67	Stabilizer	155	Two-Hole Horizontal Adjustment Angle	88
Pierced Combinations	32	Stainless Steel Channel	240	Two-Hole Open Angle	93
Pipe and Conduit Hanger	167	Standard Pipe Straps	120	Two-Hole Rack Connector	88
Pipe Coupling Fitting	121	Standard Raceway Stud Plate	161	Two-Hole Splic	92 - 93
Pipe Sleeve Positioner	180	Standard Rubber Insert Beta Clamps	212	Two-Hole Splice Plate	86
Plain Base	228	Standard Series Beta Clamps	204	Two-Hole Swivel Plate	86
Plastic Closure Strip	162	Steel Angle Mount Adapter	154	Two-Hole Vertical Adjustment Angle	88
Polyurethane End Caps	116	Steel Traceability	26	Two-Hole Wrap Around Channel Bracket	99
Porce-A-Clamp	164	Strap Back Extended Riser Bracket	104 - 105	Two-Hole Zee Connectors	91
Post Bases	114 - 115	Structural Attachments	173 - 182	Two-Hole Zee Supports	91
Python Cable Clamps	200	Strut Clamps	118 - 120	Two-Wheel Trolley	97
Python Series	200	Strut Mount Adapter	153	U Bolt Beam Clamps	112
Quick-Clip	142	Strut Mount Plastic Insulation Saddle	147	UL Listed End Caps	116
Radiused Channel for Trolleys	33	Stud Channel Nuts	82	Universal Clamp Series	118
Rapid Strut Slide Nut	82	Stud Wall Applications	183 - 188	Universal Corner Angle	89
Receptacle Box	161	Support Clip for Troffer Lights & Lay-Ins	188	Utility Brackets	104 - 108
Rigid Conduit One Piece Pipe Clamp	118	Support Conditions	22 - 23	Utility Vault Ladder Rung	108
Rigid Steel Conduit Series	120	SVN Loop Clamps	196	Weights and Dimensions	24
Rod Couplers	84	SVW Loop Clamps	196	Weld Nut	220
Rod Hanger Push Install or Thread Install	175	Swivel Hangers	113, 163	Welding	24
Rod Loads based on MSS-SP-58	84	Swivel Joint	163	Wesanco Channel Profiles	28 - 29
Rooftop Supports	228 - 236	T-Bar Clips	189 - 190	Wesanco Channel Selection Chart	31
Roundhead Machine Screws	83	Table of Contents	18	Wesanco Pierced Channel	32
Rubber Mat	238	Ten-Hole Opposing Side Gusseted Angle	96	Wet Lag Applications - Model CWP & CWT	134
Saddle-Up	146	Ten-Hole Post Base Tall Clevis	115	Wide Mouth Universal Beam Clamp	111
Safe Thru-Bolting and Trapeze Information	246	The Metal Framing System	19	Wing Clip Conduit Hanger	167
Seismic Rod Stiffener	84	Thread Adapter	220	Wing Fittings	96
Self Drilling and Tapping Screw	187	Threaded Rod	84	Wireway End Cap	116
Seven-Hole Post Base Short Clevis	114	Three-Hole "U" Support	92	Z-Bracket	183
Shelf Brackets	101	Three-Hole Adjustable Hinge Connection	94	Z-CLAMP	215 - 216
Shoulder Bolt	162	Three-Hole Adjustment Angle	89	Z-Clamp & Beta Adapter Installation	257
Silva-Guard (SG)	24	Three-Hole End Connector	89	Z-Clamp - Adapters	217 - 219
Silver Claw	180	Three-Hole Flat Angle Plate	87	Z-Clamp - Hardware	220
Single Adjustable Angle Brace Fitting	94	Three-Hole Left Corner Angle	95	Z-Clamp - Outside Holes	216
Single Channel Fixture Hanger	160	Three-Hole Left Hand Angle Connector	90	Z-Clamp - Overview	203
Six-Hole "U" Support (Double Channel)	92	Three-Hole Rack Connector	89	Z-Clamp - Standard	215
Six-Hole 90° Corner Angle Connector	96	Three-Hole Rack Corner Angle	89	Zee Fittings	91
Six-Hole Left Hand Gusset Corner Angle	90	Three-Hole Rack Splice Connector	89		
Six-Hole Right Hand Gusset Corner Angle	90	Three-Hole Right Corner Angle	95		
Six-Hole Three Side Corner Angle Connector	96	Three-Hole Right Hand Angle Connector	90		

Foster & Breco Part Number Indexes



Part Number	Page	Part Number	Page	Part Number	Page	Part Number	Page	Part Number	Page
1-2M	363	19FF	336, 337	3653	272, 274	4DSF4	329	6P15	361, 362
1-3M	363	1B3	362, 363	3703	272, 274	4M4M	357	6P17	361, 362
10-3B	275	1B5	362, 363	38-4	280	4P	362	6P19	361, 362
10-3D	275	1B7	362, 363	38FP	350	4ST	349	70-6	288
10-3DB	275	1C5-S	363	38FS	349	5-2M	363	71-3	275
10-3G	275	1C7-S	363	38FSS	349	50-5	286	71-4	280
10-3M	363	1D11-S	363	38HPB	350	5005	282	71-4B	280
10-3S/S	275	1D13-S	363	38HS	349	50FP	350	71-5	286
10-4M	363	1D7-S	363	38MP	350	50FS	349	71-6	288
100FP	350	1D9-S	363	38MS	349	50FSS	349	72-6	288
100FS	349	1DSF1	326	38US	364	50HS	349	75FP	350
100MP	350	1M	357	3DSF3	328	50MS	349	75FS	349
100MS	349	1STM1-SS	349	3L5	303	50US	364	75HPB	350
10FF	336 - 337	2022 - 2042	268	3L6	303	51-3	275	75MP	350
10P	363	210-1	290	3M	357	51-4	280	75MS	349
10S-3	275	210-10	290	3PDC	275	5105	282	81-4	280
11-3B	275	210-2	290	3R	303	52-5	286	81-5	286
11-3S/S	275	210-3	290	3SDC	272	52-5B	286	81-5B	286
116482	352	210-5	290	3ST	349	5205	282	8D1	363
12-3B	275	210-S	290	3W	356	52S-5	286	8D7-S	363
12-3S/S	275	210M	289	40-4	280	53-5	286	8D9-S	363
125FP	350	22-2	268	4004	277	5305	282	8DSF	331
125FS	349	2202	267	4015	282	54-5	286	8STM8-SS	349
125MP	350	23-2	268	40S-4	280	54-5CA	313	A-1	301
12FF	336 - 337	2302	267	41-4	280	5405	282	A-2	301
12FPB	350	24-2	268	4104	277	54S-5	286	A-3	301
12FPS	350	2402	267	42-4	280	55-5	286	A-S	301
12FS	349	25FF	336, 337	4204	277	5505	282	A0	334
12MP	350	25FP	350	42S-4	280	56-5	286	A1	334
12MS	349	25FS	349	43-4	280	5605	283	AC	353
12S-3	275	25HP	350	4304	277	57-5	286	AD	357
13-3	275	25MP	350	43498	268	5705	283	B-1	360, 362
14-3	275	25MS	349	43526	268	5805	283	B-2B	273, 274
14S-3	275	25US	364	43557	268	59-5	286	B-2C	270, 276
15-3	275	27-2	268	43741	275	5905	283	B-2F	339
150FP	350	2702	267	43772	275	5B	363	B-2J	293
150FS	349	2803	271, 274	43802	275	5C	363	B-2L	304
150MP	350	2903	271, 274	44-4	280	5D	363	B-2O	289
1513	272	2B	361 - 363	4404	277	60-5	286	B-2T	297
1513GB	274	2C5	362	44S-4	280	61-5	286	B-2U	308
1513W	272	2C7	362	45-4	280	6124	370	B-2W	347
16-3	275	2D	362	4504	277	64-6	288	B-300	347
165-3	275	2DSF	327	46-4	280	64-6CA	313	B-324	361
16FF	336, 337	2L	302	4604	277	65-6	288	B-34	370
17-3	275	2M	357	47-4	280	66-6	288	B-37	357
1713	272	2P	362	4704	277	66-6CA	313	B-3BF	278
1713GB	274	2R	302	48-4	280	66S-6	288	B-3BH	279
1714	276	2ST	349	4804	277	67-6	288	B-3BK	279
1814	276	3003	271, 274	49-4	280	68-6	288	B-3BM	278
1815	282	301804	352	4904	277	69-6	288	B-3BP	279
190010A	364	310-1	291	4905	282	6D11	362	B-3BS	278
190011A	364	310-4	291, 292	4B3	362	6D13	362	B-3BS2-B	278
190012	364	310-S	291	4B5	362	6D7	362	B-3C	276
190026A	364	3103	271, 274	4B7	362	6D9	362	B-3FF	339
190027A	364	310M-4	291	4D11	361, 362	6DS	330	B-3J	295
190028	364	3203	271, 274	4D13	361, 362	6FF	337	B-3O	291
190029A	364	3303	271, 274	4D7	361, 362	6M6M	357	B-3W	347
190040 - 190042	364	3603	272, 274	4D9	361, 362	6P13	361, 362	B-4	344

NOTE: Just match the first few digits of the part number to the index. For example, B-2JF1-B matches B-2J in the index and is on page 293.



Foster & Breco Part Number Indexes

Part Number.....Page	Part Number.....Page	Part Number.....Page	Part Number.....Page	Part Number.....Page
B-4BF..... 284	BLFI..... 341	FR25..... 366, 367	O-2..... 300	SC7-3..... 272
B-4BM..... 284	BLFS..... 317 - 322	FR5..... 366, 367	O-3..... 300	SD11-3..... 272
B-4BP..... 285	BLH..... 326 - 331	FS2..... 317, 318	O-S..... 300	SD11-4..... 276
B-4BS..... 285	BLO..... 300	FS3..... 319 - 321	PB3-3..... 275	SD11-5..... 283
B-4C..... 281, 296	BLSB..... 272, 276	FS5..... 322	PB3-4..... 280	SD13-3..... 272
B-4FF..... 339	BLSC..... 272	H1B..... 326	PB3-5..... 286	SD13-4..... 276
B-4TL..... 298	BLSLD..... 272, 276, 283	H1DP..... 333	PB5-3..... 275	SD13-5..... 283
B-50..... 360	BLSJ..... 268	H1S..... 326	PB5-4..... 280	SD7-3..... 272, 274
B-52..... 344	BLSP..... 283	H2BA..... 327	PB5-5..... 286	SD7-4..... 276
B-54..... 360	C-1 - C-4..... 361	H2DP..... 333	PB7-3..... 275	SD7-5..... 283
B-55..... 360	D3..... 271, 272	H2S..... 327	PB7-4..... 280	SD9-3..... 272
B-56..... 360	D4..... 276, 277	H3B..... 328	PB7-5..... 286	SD9-4..... 276
B-61..... 346	D5..... 282, 283	H3DP..... 333	PC5-3..... 275	SD9-5..... 283
B-66..... 334	DC..... 356	H3S..... 328	PC7-3..... 275	SDC..... 339
B-6B..... 287	DCPOLY..... 368	H4B..... 329	PD11-3..... 275	SE..... 361
B-6F..... 339	DR21..... 307	H4DP..... 333	PD11-4..... 280	SG..... 270
B-7..... 356	DS1F1..... 326	H4S..... 329	PD11-5..... 286	SGTF..... 293
B-80..... 344	DS2F2-B..... 327, 333	H6B..... 330	PD13-3..... 275	SHD..... 297 - 299
B-8FF8-FP..... 339	DS3F3..... 328	H6DP..... 333	PD13-4..... 280	SHP..... 357
B-B2..... 275	DS4F4..... 329	H6S..... 330	PD13-5..... 286	SJ8..... 268
B-B3..... 280	DS6F6..... 330	H8B..... 331	PD7..... 275	SJ8-2..... 268
B-B4..... 286, 296	DS8F8..... 331	H8S..... 331	PD9..... 275	SL1..... 273, 279
B-B6..... 288	DW..... 308	HBF..... 358	PDC..... 339	SL2..... 273
B-FF..... 339	EX..... 354	HBM..... 359	PF..... 359	SL3..... 273
B-J2..... 294	F18..... 306	HS..... 358	PG2P..... 354	SL4004..... 278, 284
B-J3..... 295	F33 - F42..... 358	K1B..... 326	PG2T..... 354	SL5..... 284, 285
B-O2..... 290	FF1..... 336 - 338	K1S..... 326	PHS82..... 358	SL6..... 287
B-O3..... 292	FF25..... 336 - 337	K2B..... 327	PHS84..... 358	SL7..... 287
B-PHC..... 343	FF32..... 336 - 337	K2S..... 327	PHS85..... 358	SLSB..... 274, 279
B-PHN..... 343	FF40..... 336 - 337	K3B..... 328	PJ8-2..... 268	SLSC..... 274
B-TL2..... 299	FF6P..... 337	K3S..... 328	PM1..... 385, 359	SLSD..... 274, 279, 285
B-VHC..... 342	FF6S..... 336	K4B..... 329	PM3..... 359	SLSP..... 285
B-VHN..... 342	FH2..... 343	K4S..... 329	PM5..... 359	SP1..... 283
B-W..... 347	FH3..... 343	K6B..... 330	PM7..... 359	SPB..... 314
B1D..... 333	FH4..... 343	K6S..... 330	PM7S..... 358	ST1..... 350
B2D..... 333	FHP2..... 342	K8B..... 331	PM9..... 359	ST2..... 350
B3D..... 333	FHP3..... 342	K8S..... 331	PO25..... 369	ST3..... 350
B4D..... 333	FHP4..... 342	LN1..... 304, 305	PO38..... 369	ST4..... 350
BG..... 352 - 354	FHS2..... 342, 343	LN2..... 304, 305	PO50..... 369	ST6..... 350
BG-CPLR..... 352 - 353	FHS3..... 342, 343	LN3..... 304, 305	POF..... 359	ST8..... 350
BGN..... 352 - 353	FHS4..... 342, 343	LNS..... 304	POM..... 359	SV1..... 312
BGX..... 352 - 353	FIS..... 341	LO..... 356	POS..... 358	SV210..... 314
BH..... 333	FM1..... 273, 279, 285	M1..... 358, 359	PP1..... 286	SV3..... 312
BHS..... 358	FM2..... 273	M2..... 359	PRB..... 357	SV4..... 312
BL1..... 272, 276, 282, 349	FM3..... 273	M3..... 359	PRM..... 367	SV5..... 312
BL2..... 267, 268	FM4..... 278, 284	M4..... 359	PSM..... 367	SV6..... 312
BL25..... 349	FM5..... 284 - 285	M5..... 359	PT..... 361	SVPC..... 312
BL2702..... 267	FM6..... 287	M6..... 359	SB3-3..... 272, 274	SVPCA..... 313
BL28..... 271	FM7006..... 287	M7..... 359	SB3-4..... 276	TF..... 293 - 295
BL29..... 271	FMS..... 274, 279	M7S..... 358	SB5-3..... 272, 274	USV..... 309
BL3..... 271, 272	FMSD..... 274, 279, 285	M8..... 359	SB5-4..... 276	
BL38..... 349	FMSP..... 285	M9..... 359	SB55..... 358	
BL4..... 277, 282	FP2..... 322	MAN..... 370	SB57..... 358	
BL5..... 282, 283, 349	FP3..... 321, 322	MF-2..... 370	SB58..... 358	
BL7..... 349	FP5..... 322	MF-3..... 370	SB7-3..... 272, 274	
BLA..... 301	FPE90..... 361	N-1 - N-6..... 357	SB7-4..... 276	
BLFH..... 342, 343	FPR..... 368	O-1..... 300	SC5-3..... 272	

NOTE: Just match the first few digits of the part number to the index. For example, B-2JF1-B matches B-2J in the index and is on page 293.

ZSi & Wesanco Part Number Indexes



Part Number	Page	Part Number	Page	Part Number	Page	Part Number	Page
004M007 - 106M114	137	CCP	166	HRN-6	207	SHB1 - SHB7	205
004MS007 - 106MS114	137	CCP CCP	172	HSB3 - HSB9	207	SM1006	204
004NS008 - 106NS114	128	CFC	171	HSN-04 - HSN-12	199	SM1008	204
004T008 - 022T026	127	CG-10 - CG-40	143	HSP3 - HSP9	207	SM1012	204
006CC018 - 072CC080	164	CL-04 - CLS-18	140	HT004M007 - HT106M114	137	SM2014	204
009N012 - 106N114	128	CN04 - CN160M	124	HT004MS007 - HT106MS114	137	SM2015	204
024T028 - 050N056	127	CN04S6 - CN160MS6	124	HT04 - HT160M	125	SM2018	204
053N050 - 106N114	127	CN04SS - CN160MSS	124	HT04S6 - HT160MS6	125	SM3020	204
AB	177	CN14P - CN72P	124	HT04SS - HT160MSS	125	SM3025	204
AB C	178	CN14PS6 - CN72PS6	124	HT14P - HT72P	125	SM4006RI	212
AB CCP	178	CN14PSS - CN72PSS	124	HT14PS6 - HT72PS6	125	SM4008RI	212
ABR	179	CS028 - CS110	145	HT14PSS - HT72PSS	125	SM4012RI	212
ABR T	179	CSSTS	186	HTUB xx PA	139	SM4014RI	212
ABSHP	182	CTS	186	HTUB xx TA	138	SM4015RI	212
AC-2 - AC-18	238	CWP	134	HVN-04 - HVN-12	199	SM4030	204
AR-2 - AR-18	238	CWT	134	HW-1	220	SM5035	204
AS-2 - AS-18	238	DCP3 - DCP7	207	HW-3	220	SM6028RI	212
AS1	144	EBH	189	HWP	133	SM6030RI	212
AV-2 - AV-18	238	EMT	140	HWP3 - HWP9	207	SP1 - SP6	205
B2486	84	FCH	173	ISO - Cube	238	SPD-08 - SPD-20	193
B5490	94	FH C	169	LVMN	184	SPH-1 - SPH-14	194
B5491	94	FH CCP	170	LVMP	185	SPN-03 - SPN-64	192
B5492	94	FH P	175	LVMS	184	SPN-03SS - SPN-64SS	192
B5495	94	FH RHT	176	LVZ-18 - LVZ-57	197	SPP-2 - SPP-14	195
B5920 & B5925	116	FHS C	170	MFC	168, 174	SPW-04 - SPW-48	193
B5920PLASTIC	116	FHS CCP	171	MFCS	174	SRN1-6	209
B6445S	161	FHS SH	182	MJA	218	SSN-03 - SSN-18	198
BBSM	183	FHV CC	171	MJO	217	SVN-03 - SVN-18	196
BC80	111	FHV3	174	MSC CC CCP	185	SVW-04 - SVW-22	196
BC81	111	FHV4	174	NB C	178	SW225 - SW825	147
BC90	111	FHZ	174	NB CCP	178	SWP1 - SWP7	205
BC91	111	FJA	218	NG028C - NG110C	145	T-1 - T-3	220
BC92	181	FSM	180	PCH	167	T1004 - T5027	208
BCC	168	FVZ	174	PSP	180	T2004H - T5016H	211
BCL	181	FVZ RH	176	PY-3 - PY-186	200	TB C	190
BCL CCP	169	FVZ RT	177	PY-331 - PY-18631	200	TB1 - TB5	209
BMU	118	G-1-4 - G-1-12	219	QC12 - QC34	142	TBC	189
BR	172	G-2-4 - G-2-16	219	RHP RHT	175	TBC SMCCP	190
CAC	141	G-3-4 - G-3-32	219	RPC	141	TBC1	189
CAGB	135	H3004 - H11170	206	S-1 - S-3	220	TBC2	189
CBM	234	H4007RI - H8056RI	213	S1004 - S7048	204	TB1 - TC5	209
CBM REX Series	236	H4C	213	S2004H - S5016H	210	TCB	188
CBM Series	234	H4FJ	214	S4007RI - S6020RI	212	TCS	188
CBM1D	234	H4JCN-C	214	S4C	212	TG008C - TG026C	145
CBM1S	234	H4MJ	214	S6C	212	TLCSW	82
CBMPH Series	235	H5C	213	SAC	156	TMCCP	190
CBMPP Series	236	H5FJ	214	SAS225	149, 150, 156	TP1 - TP5	209
CBN	228	H5JCN-C	214	SASM	153	TRN2-5	209
CBN Series	228 - 229	H5MJ	214	SASM1050G	152, 155, 156	TSB1 - TSB5	209
CBN-BR	228	H6C	213	SASM2-5/8G	154	TSP1 - TSP5	209
CBN-DS Series	232	H7C	213	SASM250G - SASM1250G	152	UB xx PA	139
CBN-DSFW Series	233	H8C	213	SASMCLEVISG	153, 155	UB xx TA	138
CBN-EX Series	230	HAC1	216	SASMFLOOR10-12G	155	UX xx	130 - 131
CBN-PRB Series	230	HAC2	216	SASMHBEAMG	154	UX xx S6	130 - 131
CBN-RB Series	231	HAC3	216	SASMSTAB	155	UX xx SS	130 - 131
CBN1D - CBN4D	229	HB-1	220	SASP	158	W-1 - W-3	220
CBN1DS - CBN8DS	232	HB-3	220	SB1 - SB6	205	W1-10WS	81
CBN1PRB - CBN4PRB	230	HCP	207	SB225 - SB825	147	W1-4 - W1-12	81
CBN1RB - CBN4RB	231	HCR-1 - HCR-2	207	SC-1 - SC-6	205	W10	82
CBN1RD - CBN4RD	229	HDP3 - HDP7	207	SCL037EG	180	W100	28, 30, 31, 63-66, 91
CBN1S - CBN4S	229	HHB3 - HHB9	207	SCP1 - SCP7	205	W1007-Y	103
CBN2-DSFW - CBN9-DSFW	233	HIT04 - HIT160M	126	SCR1	209	W101	28, 30, 31, 63-66, 91
CBN28BR - CBN60BR	228	HIT04S6 - HIT160MS6	126	SCR2	209	W1010-X	104
CC CC	172	HIT04SS - HIT160MSS	126	SCT	188	W1011-X	104
CC/CCT	166	HM4006RI - HM8083RI	213	SCT15	188	W1012-X	104
CC3	198	HN-1 - HN-3	220	SD150 - SD650	146	W1013-X	105
CCMS	187	HRN-3-5	207	SDTSLP8X1/2	187	W1015-X	104

Pneumatic QD

Hydraulic QD

Blow Guns & Accessories

Fittings & Accessories

Hoses & Fittings

Technical Data

Indexes



ZSi & Wesanco Part Number Indexes

Part Number	Page	Part Number	Page	Part Number	Page	Part Number	Page
W1016-X	105	W5117	89	W5661 - W5664	100	W6460	162, 252
W1017	106	W5121 or W5122	89, 245	W5669	102	W6461	162, 252
W1017A-Y	106	W5123	89, 245	W5671	102	W6462	162, 249
W1017AR	106	W5124 or W5124W	89	W5673	102	W6463	162
W1017ARA-Y	106	W5125	90	W5675	103	W6469	162, 249
W1019-Y	105	W5126	90	W5677	103	W6500	162
W101SS	63	W5135	90	W5702 to W5705	112	W6500PLASTIC	162
W1021-X-Y	107	W5136	90	W5708	112	W6600	33, 97
W1022 Series	108	W5140	90	W5709	112	W6601 & W6605	33, 97
W1023-Y	108	W5141	90	W5712	109	W6602	33, 97
W150	28, 30, 31, 67-70	W5156	90	W5713	109	W6603	33, 97
W151	28, 30, 31, 67-70, 153	W5157	90	W5714	109	W6604	33, 97
W2-xx	81	W5160	88	W5715 or W5716	110	W6606	33, 97
W2-xx CN	81	W5202	91	W5717	109	W6905 & W6906	163
W2-xx TL	82	W5205	91	W5721 to W5729	110	W6910 & W6911	163
W2-xx WS	81	W5209 thru W5218	91	W5731 to W5739	110	W6915 & W6916	163
W200	28, 30, 31, 34-39, 80, 205, 243-245	W5210	91	W5741 - W5745	113	W6920 & W6921	163
W201	28, 30, 31, 34-39, 153, 205	W5212	91	W5750	113	W7-XX	81
W203 - W209	35	W5224 thru W5228	91	W5751	113	W700	29, 30, 31, 74-76
W210	29, 30, 31, 40-43, 80, 243-245	W5307	91	W5760	113	W7000	222
W211	29, 30, 31, 40-43	W5308	91	W5761 Series	112	W701	29, 30, 31, 74-76
W212 - W214	41	W5310	91	W5810	114	W7024	222
W220 - W222	35	W5311	92	W5810FL	114	W7024 to W7029	222
W2470-50	121	W5312	92	W5811	114	W7124 - W7128	84
W300	28, 30, 31, 44-46, 243	W5313	92	W5812	114	W7134 - W7138	84
W301	28, 30, 31, 44-46	W5315	92	W5813	114	W7134A	84
W4-xx SN	82	W5316	92	W5813SQ	114	W7250 to W7252	223
W4-xx SNWS	82	W5317	92	W5814	115	W7253 to W7270	223
W400	29, 30, 31, 60-62, 91, 153, 205	W5318	92	W5814SQ	115	W7350 to W7352	224
W401	29, 30, 31, 60-62	W5324 thru W5328	92	W5815	115	W7353 to W7370	224
W4050 to W4400	121	W5342	92	W5815SQ	115	W7400 - W7415	83
W5-xx	81	W5343	93	W5816	115	W7420 - W7424	83
W5-xx SN	82	W5344	93	W5816SQ	115	W7430 - W7433	83
W5-xx TL	82	W5345	93	W5900	116	W7440 - W7444	83
W5-xx WS	81	W5346	93	W5900 thru W5935	116	W7450 - W7452	83
W500	29, 30, 31, 55-59, 80, 243	W5413 & W5415	93	W5900-M	116	W7460 - W7465	83
W5002 to W5006	86	W5423 thru W5471	93	W5900-M thru W5935-M	116	W7470 - W7479	83
W5007	86, 244	W5443 thru W5447	93	W5910	116	W7480 - W7483	83
W501	29, 30, 31, 55-59	W5445	93	W5910 thru W5938	116	W7490 - W7492	83
W5010	86	W5463 & W5465	93	W5920	116, 250	W7550 to W7552	225
W5011	86	W5472 thru W5475	95	W5930	116, 223	W7553 to W7570	225
W5012	86	W5480	94	W5930-M	116	W7724 - W7730	121
W5013	86	W5485	94	W5931	116	W7724A	121
W5021	87	W5510	95	W5933	116, 224	W7826 - W7870	120
W5022	87	W5511	95	W5935	116	W7954 to W7970	226
W5023	87	W5512	95	W5935-M	116	W8-XX SN	82
W5024	87	W5513	96	W5938	116, 225	W8-XX SNWS	82
W5025	87	W5514	96	W5940	116, 251	W800	28, 30, 31, 47-50, 91, 205
W5026	87	W5515	96	W5940 - W5943	116	W801	28, 30, 31, 47-50, 205
W5027	87	W5516	96	W5952 - W5959	116, 224-225	W900	28, 30, 31, 51-54, 205
W5028	87	W5517	96	W6-xx	81	W901	28, 30, 31, 51-54
W503 - W504	55	W5518	96	W6-xx NWS	82	WBC0906	110
W5052 to W5056	86	W5519	96	W6-xx SN	82	WC	167
W5102	88, 244	W5520	96	W600	29, 30, 31, 71-73	WCBW	167
W5103	88, 244	W5521	96	W601	29, 30, 31, 71-73	ZBA	183
W5104	88	W5601 - W5606	101	W6025A - W6038A	118	ZSA1-8	205
W5105	88	W5607 - W5618	101	W6056AS - W6068AS	118		
W5106	88	W5619 - W5626	101	W6125A - W6178A	120		
W5107	88	W5631 - W5634	98	W6224A to W6282A	119		
W5108	88	W5634	98	W6420 & W6422	160		
W5109	88	W5635 - W5638	98	W6424 & W6426	160		
W5110	89	W5641 - W5642	98	W6432 to W6435	161		
W5111	89	W5645 - W5646	99	W6439	161, 249		
W5112	89, 244	W5647 - W5648	99	W6440	161, 249		
W5113	89, 244	W5650	100	W6442 & W6443	160		
W5115	89, 245	W5651	100	W6445	161, 251		
		W5652 - W5656	99	W6449	160, 252		



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