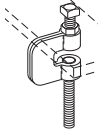
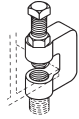


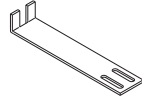
Beam Clamps & Upper Attachments



B351L
Steel C-Clamp
w/Locknut
MSS SP-58 Type 23
WW-H-171E Type 23



B3036L
Malleable Iron
C-Clamp w/Locknut
MSS SP-58 Type 23
WW-H-171E Type 23



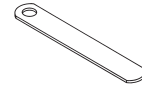
B3362-B3365
Retaining Strap For
B351L & B3036L



B3033
Wide Jaw Reversible
C-Clamp (Malleable Iron)
MSS SP-58 Type 19 & 23
WW-H-171E Type 19 & 23



B3034
C-Clamp
(Malleable Iron)
MS SP-58 Type 19 & 23
WW-H-171E Type 19 & 23



B3367
Retaining Straps
For
B3033 & B3034

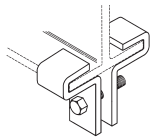
**SECTION 15140
PIPE HANGERS AND
SUPPORTS**

1.01 SECTION INCLUDES

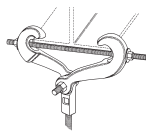
- A. The work covered under this section consists of the furnishing of all necessary labor, supervision, materials, equipment, and services to completely execute the pipe hanger and supports as described in this specification.

1.02 REFERENCES

- A. ASTM B 633 - Specification for Electrodeposited Coatings of Zinc on Iron and Steel.
- B. ASTM A 123 - Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
- C. ASTM A 653 - Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- D. ASTM A 1011 - Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, and High-Strength Low-Alloy with Improved Formability.
- E. MSS SP-58 - Manufacturers Standardization Society: Pipe Hangers and Supports - Materials, Design, and Manufacture.
- F. MSS SP-69 - Manufacturers Standardization Society: Pipe Hangers and Supports - Selection and Application.
- G. NFPA 13 - Installation of Sprinkler Systems.



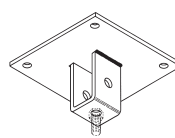
B3050
Beam Clamp
MSS SP-58 Type 21
WW-H-171E Type 21



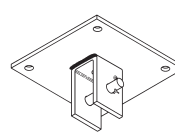
B3054
Malleable Iron
Beam Clamp
MSS SP-58 Type 30
WW-H-171E Type 30



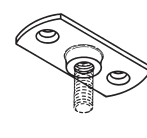
B3291-B3298
FS Beam Clamp
w/Weldless Eye Nut
(Forged Steel)
MSS SP-58 Type 28 & 29
WW-H-171E Type 28 & 29



B3085
Rod Attachment
Concrete Plate

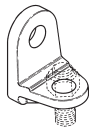


B3086
Clevis
Concrete Plate

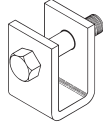


B3199
Malleable Iron
Ceiling Flange
B3199CT
Dura-Copper Finish

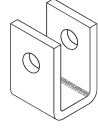
Hangers, Bands, & Straps



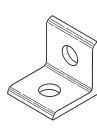
B3062
Side Beam Bracket
MSS SP-58 Type 34
WW-H-171E Type 34



B3083
Welded Beam
Attachment w/hdw.
MSS SP-58 Type 22
WW-H-171E Type 22



B3083WO
Welded Beam
Attachment w/hdw.
MSS SP-58 Type 22
WW-H-171E Type 22



B3060
Side Beam Angle Clip
MSS SP-58 Type 34
WW-H-171E Type 35



B3100
Standard Clevis Hanger
B3102
Clevis Hanger For
Ductile Iron Pipe
MSS SP-58 Type 1
WW-H-171E Type 1



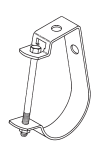
B3104
Light Duty
Clevis Hanger
B3104CT
For Copper Tubing
MSS SP-58 Type 1
WW-H-171E Type 1



B3170 NF
Adj. Swivel Ring
B3170 CT
For Copper Tubing
MSS SP-58 Type 10
WW-H-171E Type 10



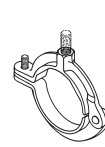
B3170NFF
Adj. Swivel Ring
Felt Lined
MSS SP-58 Type 22
WW-H-171E Type 22



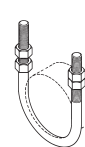
B3690
Adj. 'J' Hanger
MSS SP-58 Type 5
WW-H-171E Type 5



B3690F
Adj. 'J' Hanger
Felt Lined
MSS SP-58 Type 5
WW-H-171E Type 5

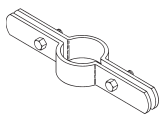


B31988H
Hinged Extension
Split Pipe Clamp
B3198HCT
For Copper Tubing
MSS SP-58 Type 1
WW-H-171E Type 1



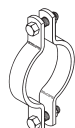
B3188
Standard U-Bolt
MSS SP-58 Type 24
WW-H-171E Type 24

Clamps & Guides

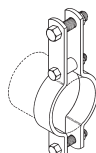


B3373
Riser Clamp
MSS SP-58 Type 8
WW-H-171E Type 8

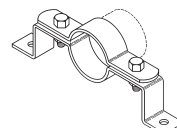
B3373CT
Riser Clamp For
Copper Tubing
B3373F
Felt Lined Riser Clamp
MSS SP-58 Type 8
WW-H-171E Type 8



B3140
Standard Pipe Clamp
MSS SP-58 Type 4
WW-H-171E Type 4



B3144
Double Bolt Pipe Clamp
MSS SP-58 Type 3
WW-H-171E Type 3



B3148
Standard U-Bolt
MSS SP-58 Type 24
WW-H-171E Type 24

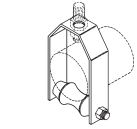
1.03 QUALITY ASSURANCE

- A. Hangers and supports used in fire protection piping systems shall be listed and labeled by Underwriters Laboratories.
- B. Steel pipe hangers and supports shall have the manufacturers name, part number, and applicable size stamped in the part itself for identification.
- C. Hangers and supports shall be designed and manufactured in conformance with MSS SP-58.
- D. Supports for sprinkler piping shall be in conformance with NFPA 13.

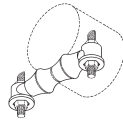
1.04 SUBMITTALS

- A. Submit product data on all hanger and support devices, including shields and attachment methods. Product data to include, but not limited to materials, finishes, approvals, load ratings, and dimensional information.

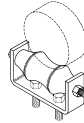
Pipe Rollers, Roller Stands, Saddles, & Shields



B3110
Adjustable Steel Yoke
Pipe Roll
MSS SP-58 Type 43
WW-H-171E Type 44



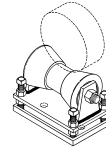
B3114
Pipe Roll w/Sockets
MSS SP-58 Type 41
WW-H-171E Type 42



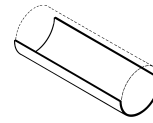
B3120
Roller Chair
MSS SP-58 Type 44
WW-H-171E Type 45



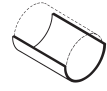
B3117SL
Steel Roller Stand
MSS SP-58 Type 44
WW-H-171E Type 45



B3118SL
Adjustable Roller Stand
w/Base Plate
MS SP-58 Type 46
WW-H-171E Type 47

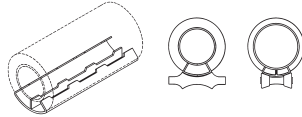


B3151
Insulation Protection
Shield
MSS SP-58 Type 40
WW-H-171E Type 41

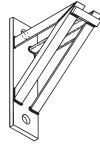


B3154
Short Insulation
Protection Shield

Brackets & Pipe Supports

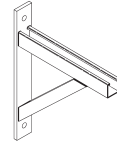


B3160 - B3165
Pipe Covering Protection Saddle
MSS SP-58 Type 39A & 39B
WW-H-171E Type 40A & 40B

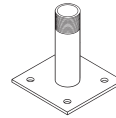


B3066
Medium Duty Bracket
MSS SP-58 Type 32
WW-H-171E Type 33

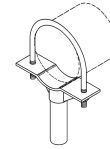
B3067
Heavy Duty Bracket
MSS SP-58 Type 33
WW-H-171E Type 34



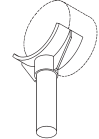
B3064
Adjustable Strut
Bracket



B3088
Base Stand
B3088T
Threaded Base Stand

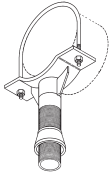


B3090
Pipe Support w/U-Bolt
MSS SP-58 Type 37
WW-H-171E Type 38

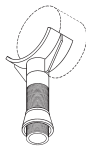


B3095
Pipe Saddle Support
MSS SP-58 Type 36
WW-H-171E Type 37

CPVC Pipe Straps



B3092
Adjustable Pipe Saddle
Support w/Yoke
MSS SP-58 Type 37
WW-H-171E Type 38



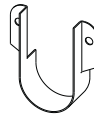
B3093
Adjustable Pipe
Saddle Support
MSS SP-58 Type 38
WW-H-171E Type 39



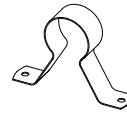
B3181
1-Hole Wrap
Around CPVC
Pipe Strap



B3182
2-Hole CPVC
Pipe Strap



B3183
2-Hole Side
Mount CPVC
Pipe Strap



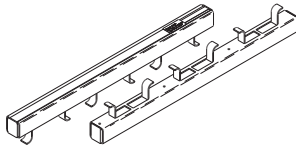
B3184
2-Hole Stand-Off
CPVC Pipe Strap

Snap N Shield

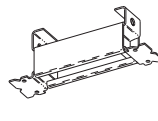


BPS_25B or BPS_25W
Snap N Shields

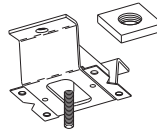
Concrete Inserts



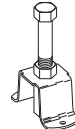
B22-I Series
B32-I Series
B52-I Series
Continuous Concrete Insert



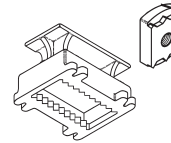
B2505-B2508
Channel Spot Insert
MSS SP-58 Type 18



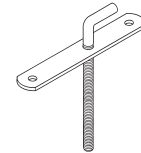
B2500
Light Duty Spot Insert
MSS SP-58 Type 18
WW-H-171E Type 19
N2500
Steel Insert Nut



B2501
Light Duty
Spot Insert



B3014
Malleable Iron Insert
MS SP-58 Type 18
WW-H-171E Type 18
B3014N
Malleable Iron Insert Nut



B3151
Adjustable Metal
Deck Ceiling Bolt

Hardware



B3202
Turnbuckle
MSS SP-58 Type 13
WW-H-171E Type 13



B3222
Eye Socket
MSS SP-58 Type 16
WW-H-171E Type 16



B3200
Weldless Eye Nut
MSS SP-58 Type 17
WW-H-171E Type 17



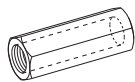
B3224
Hanger Adjuster
MSS SP-58 Type 15
WW-H-171E Type 15



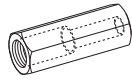
B3201
Forged Steel Clevis
MSS SP-58 Type 14
WW-H-171E Type 14



B3203
Extension Piece



B655
Steel Rod Coupling



B656
Steel Reducing Rod
Coupling



B3220
Malleable Iron
Rod Coupling

Armafix™ Clamps

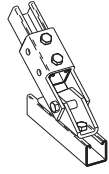


IPH Series
Insert
w/Clamps

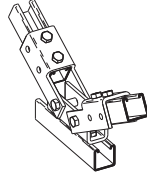
IPH WO Series
Insert Only



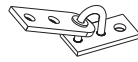
Seismic Brace Fittings



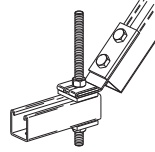
B634
Single Channel
Adjustable Brace



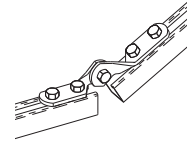
B635
Double Channel
Adjustable Brace



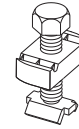
B633
Adjustable Seismic
Hinge Brace



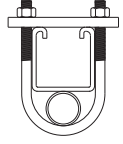
B650
Seismic Retrofit
Bracket



B335
4-Hole Adjustable Hinge

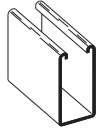


SC-228
Hanger Rod
Stiffener

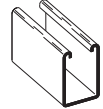


SC-UB
Hanger Rod
Stiffener

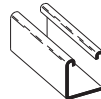
Channels - Solid, Hole Patterns, & Combinations



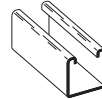
B11
3 1/4" x 1 5/8"
(12 Ga.)



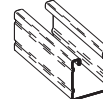
B12
2 7/16" x 1 5/8"
(12 Ga.)



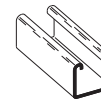
B22
1 5/8" x 1 5/8"
(12 Ga.)



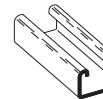
B24
1 5/8" x 1 5/8"
(14 Ga.)



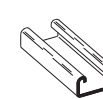
B26
1 5/8" x 1 5/8"
(16 Ga.)



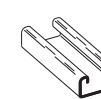
B32
1 3/8" x 1 5/8"
(12 Ga.)



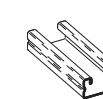
B42
1" x 1 5/8"
(12 Ga.)



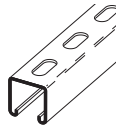
B52
1 3/16" x 1 5/8"
(12 Ga.)



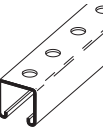
B54
1 3/16" x 1 5/8"
(14 Ga.)



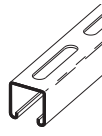
B56
1 3/16" x 1 5/8"
(16 Ga.)



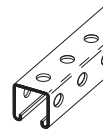
'SH'
Channel



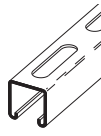
'H17/8'
Channel



'S'
Channel



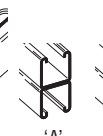
B22TH
Channel



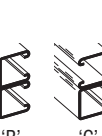
B22S58
Channel



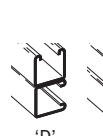
'SHA'
Channel



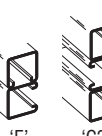
'A'



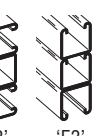
'B'



'C'



'D'



'E'



'C3'



'E3'



'AD3'



'A3'



'A4'



'LPL'



'PL'



'B3'



'B4'



Twirl Nut®



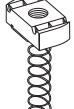
Nut Without Spring



N500 Series
Spring Nut



N200 Series
Spring Nut



N700 Series
Spring Nut

Channel Nuts

Channel Nut Sizing Chart									
Bolt Size	B11 & B12 Channels Channel Nut Catalog Numbers			B22, B24, B26 & B32 Channels Channel Nut Catalog Numbers			B42, B52, B54 & B56 Channels Channel Nut Catalog Numbers		
	Spring Nut	Twirl® Nut	Nut Without Spring	Spring Nut	Twirl® Nut	Nut Without Spring	Spring Nut	Twirl® Nut	Nut Without Spring
#8-32	N721	TN221	N221WO	N221	TN221	N221WO	N521	TN221	N221WO
#10-24	N722	TN222	N222WO	N222	TN222	N222WO	N522	TN222	N222WO
#10-32	N727	TN227	N227WO	N227	TN227	N227WO	N527	TN227	N227WO
1/4"-20	N724	TN224	N224WO	N224	TN224	N224WO	N524	TN224	N224WO
5/16"-18	N723	TN223	N223WO	N223	TN223	N223WO	N523	TN223	N223WO
3/8"-16	N728	TN228	N228WO	N228	TN228	N228WO	N528	TN228	N228WO
7/16"-14	N726	TN226	N226WO	N226	TN226	N226WO	N526	TN226	N226WO
1/2"-13	N725	TN225	N225WO	N225	TN225	N225WO	N525	TN225	N225WO
5/8"-11	N755	--	N255WO	N255	--	N255WO	N555	--	N555WO
3/4"-10	N775	--	N275WO	N275	--	N275WO	N575	--	N575WO
7/8"-9	N778	--	N278WO	N278	--	N278WO	--	--	--

Combo Nuts



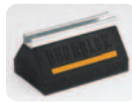
NW524
NW528
NW525

Buzznut™



SLWN1/4
SLWN3/8
SLWN1/2
SLWN5/8

Dura-Blok™ Rooftop Supports



DB Series



DB6 Series



DBM



DB10 Series



DBR Series



DB___DS Series



DBM Series

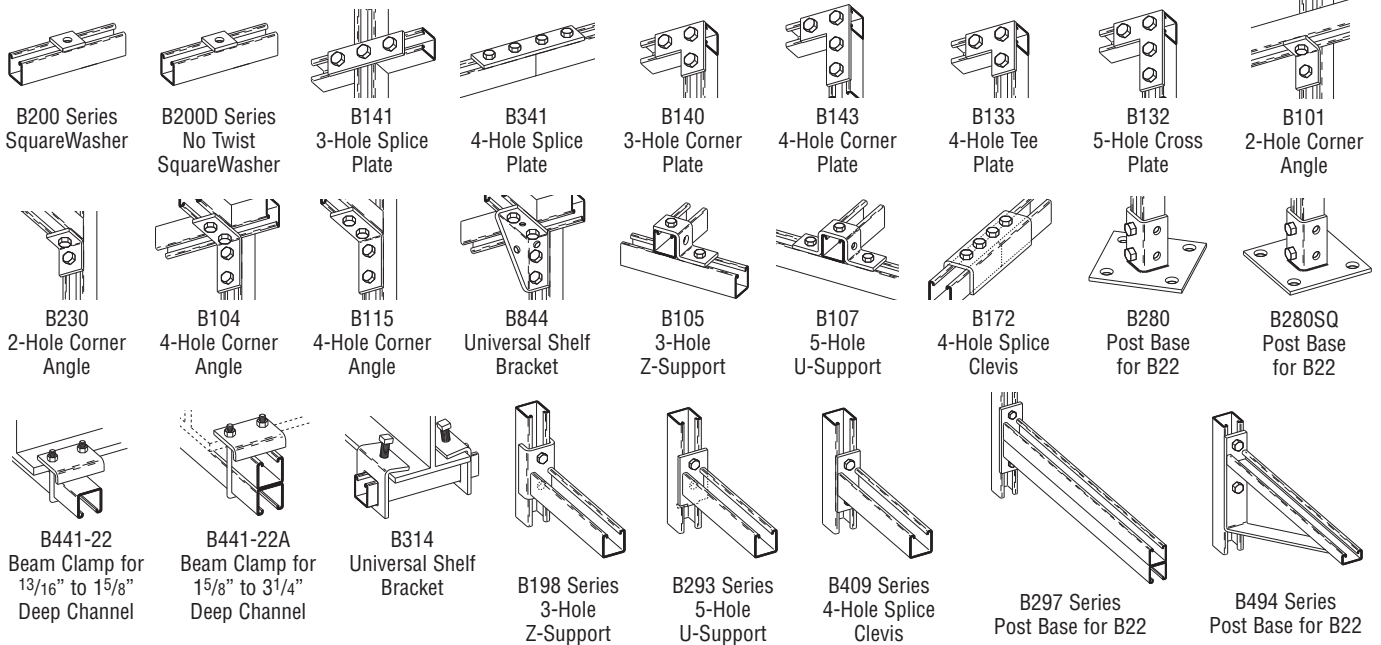


DBE Series



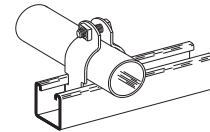
DBR Series

Strut Fittings

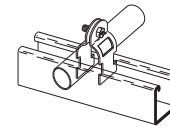


Pipe & Conduit Clamps

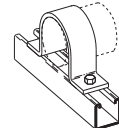
Pipe & Conduit Clamp Catalog Number Selection							
Pipe or Conduit Size	Pipe & Conduit (Rigid & Pipe)	Multi-Grip (Rigid)	Standard Pipe (Pipe & Conduit)	BVP VibraClamp™ (Pipe & Conduit)	O.D. Tubing Size	Dura-Copper (Copper Tubing)	BVT VirbaClamp™ (O.D. Tubing)
1/4"	--	--	--	BVP025	1/4"	--	BVT025
3/8"	B2001	B2207	--	BVP037	3/8"	B2024DCU	BVT037
1/2"	B2008	B2208	B2400-1/2	BVP050	1/2"	B2025DCU	BVT050
3/4"	B2009	B2209	B2400-3/4	BVP075	5/8"	B2026DCU	BVT062
1"	B2010	B2210	B2400-1	BVP100	3/4"	B2027DCU	BVT075
1 1/4"	B2011	B2211	B2400-1 1/4	BVP125	7/8"	B2008DCU	BVT087
1 1/2"	B2012	B2212	B2400-1 1/2	BVP150	1"	--	BVT100
2"	B2013	B2213	B2400-2	BVP200	1 1/8"	B2030DCU	BVT112
2 1/2"	B2014	--	B2400-2 1/2	BVP250	1 3/8"	B2032DCU	BVT137
3"	B2015	--	B2400-3	BVP300	1 5/8"	B2011DCU	BVT162
3 1/2"	B2016	--	B2400-3 1/2	--	2 1/8"	B2038DCU	BVT212
4"	B2017	--	B2400-4	BVP400	2 5/8"	B2042DCU	BVT262
5"	B2019	--	B2400-5	--	3 1/8"	B2046DCU	BVT312
6"	B2020	--	B2400-6	--	3 5/8"	B2050DCU	BVT362
8"	B2022	--	B2400-8	--	4 1/8"	B2054DCU	BVT412



Pipe & Conduit Clamps
 B2000 thru B2006
 B2007 thru B2022
 Dura-Copper™ Clamps B2000 Series



Multi-Grip Clamps
 B2207 thru B2213



Standard Pipe Clamps
 B2400 Series



BVT VibraClamp™ (Tubing)
 BVP VibraClamp™ (Pipe)
 BVT025 thru BVT412

Bolted Metal Framing Specification

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Continuous slot, bolted framing channels and all associated fittings and hardware.
- B. Trapeze type supports for cable tray, conduit, pipe and other similar systems.
- C. Use of bolted metal framing as a surface metal raceway.

1.02 REFERENCES

- A. ASTM A108 - Specification for Steel Bars, Carbon, Cold Finished, Structural Quality.
- B. ASTM A123 - Specification for Zinc (hot-dip galvanized) Coatings on Products Fabricated from Rolled, Pressed, and Forged Steel Shapes, Plates, Bars and Strips.

- C. ASTM A1011, 33,000 PSI min. yield - Specification for Steel, Sheet and Strip, Carbon, Hot-Rolled, Structural Quality.
- D. ASTM B633 - Specification for Electrodeposited Coatings of Zinc on Iron and Steel.
- E. ASTM A653 33,000 PSI min. yield G90 - Specification for Steel Sheet, Zinc Coated (Galvanized) by the Hot-Dip Process.
- F. ASTM A1018 - Standard Specification for Steel, Sheet and Strip, Heavy Thickness Coils, Carbon, Hot-Rolled, Structural Quality.
- G. MFMA - Metal Framing Standards Publication, MFMA-1.

1.03 QUALITY ASSURANCE

- A. Manufacturers : Firms regularly engaged in the manufacture of bolted metal framing of the types required, whose products have been in satisfactory use in similar service for not less than 5 years.
- B. A material heat code number shall be stamped on all strut and fittings. This is required to maintain traceability of the product to the material test reports to the ASTM standard.
- C. For stainless steel items, the part number shall contain a material designator (EXAMPLE: B-Line B22SS6 for type 316 or B22SS4 for type 304), or a separate

stamp shall be included to reference the type of material used.

- D. MFMA Compliance: comply with the latest revision of MFMA Standard Publication Number MFMA-3, "Metal Framing".
- E. NEC Compliance: Comply with the latest revision NFPA 70 - Article 352 "Surface Metal Raceways and Surface Nonmetallic Raceways".
- F. UL Compliance: Comply with UL "Standard for Surface Metal Raceway and Fittings".

Cooper B-Line • 509 West Monroe Street • Highland, IL 62249 • Phone: 800-851-7415 • Fax: 618-654-1917