

Special Metals and Finishes

Properties for Design — Stainless Steel (Suffix SS/Type 304 and 6SS/Type 316)

Superstrut® stainless steel products are made from high-quality austenitic Type 304 and Type 316 material. Stainless steel contains large amounts of chromium and nickel, is non magnetic and offers superior corrosion resistance. Tolerant to high-temperature environments, Superstrut's stainless steel framing provides dependable support, resulting in reduced maintenance cost. The channel is roll-formed to shape when cold, enhancing its structural strength for the most rigid of applications.

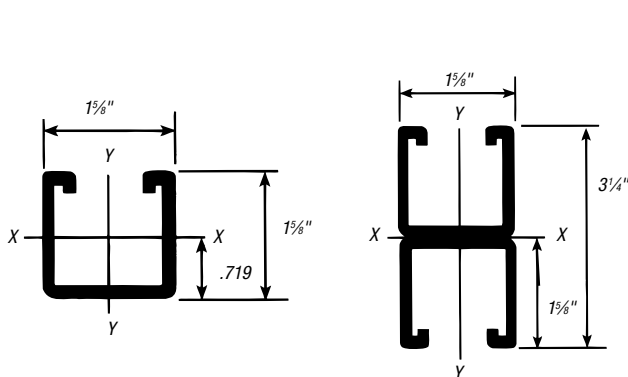
Stainless Steel Channel

Elements of sections are the same as shown on **pages B-200–B-210** for standard steel channel. Load ratings meet or exceed ratings for standard steel channel shown elsewhere in this catalog.

Additional stainless steel and aluminum items are available. Contact your local Superstrut® representative.



Properties for Design Aluminum Channel (Suffix AL)



Span (IN.): 12, 18, 24, 30, 36, 42, 48, 54, 60, 72, 84, 96, 108 & 120.

12 ga. = .105"

I — Moment of Inertia

S — Section of Modulus

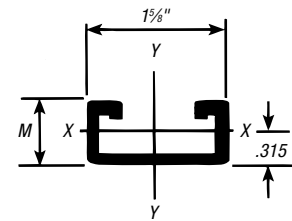
r — Radius of Gyration

A — Area

Calculations based on maximum fiber stress of 10,000 psi, maximum 1/360th span deflection. For concentrated loads, multiply load by 0.50.

Specifications

- Alloy and Temper: 6063-T6
- Tensile Strength: Yield — 25,000 PSI
Ultimate — 30,000 PSI
- Shear — Ultimate: 19,000 PSI
- Elongation: (Percent in 2 inches) -12
- Density: .098 Lbs./Cu. Inch
- Modules of Elasticity: 10 x 106 PSI



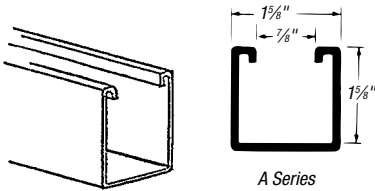
SECTION MEMBER	X - X AXIS				Y - Y AXIS		
	A IN. ²	I IN. ⁴	S IN. ³	R IN.	I IN. ⁴	S IN. ³	R IN.
A-1200	.563	.198	.224	.594	.274	.338	.698
B-1200	.400	.041	.082	.320	.150	.185	.612
A-1202	1.126	1.001	.620	.942	.548	.676	.698

Safe Uniform Total Load Table (X-X AXIS)

SPAN (IN.)	B-1200-AL (LBS.)	A-1200-AL (LBS.)	A-1202-AL (LBS.)
12	540	1,490	4,130
18	270	990	2,760
24	150	730	2,070
30	90	470	1,650
36	60	320	1,370
42	50	240	1,180
48	—	180	930
54	—	140	730
60	—	110	590
72	—	80	410
84	—	60	300
96	—	40	230
108	—	30	180
120	—	20	140

Special Metals and Finishes

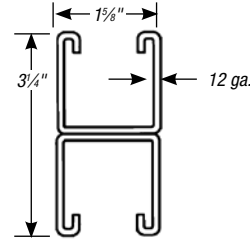
Aluminum Products (AL Suffix)



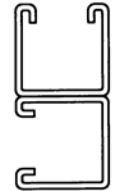
A Series

A-1200_AL

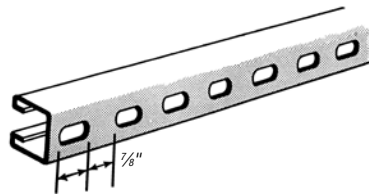
1 5/8" deep channel and combination



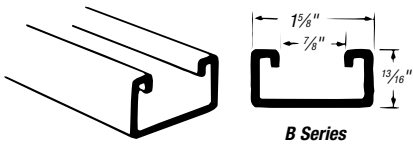
A-1202_AL



A-1202-C_AL

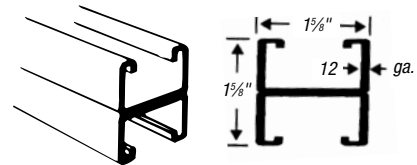


A-1200-HS_AL
Slots 2" on center.
Slot size 3/16" x 1 1/8"

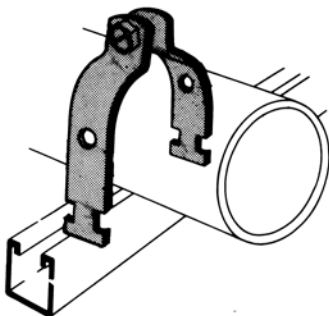


B Series

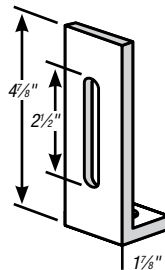
B-1200_AL



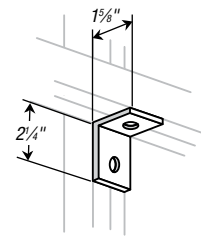
B-1202_AL



702_AL
Rigid Conduit Pipe Strap



X201_AL



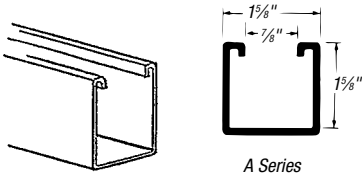
AB201_AL

Special Metals and Finishes

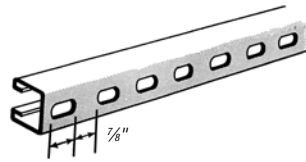
Stainless Steel Products

Available in:

- Type 304 Stainless Steel — SS Suffix
- Type 316 Stainless Steel — T316SS Suffix



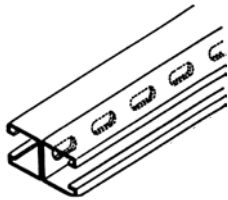
A-1200_SS
A-1200_T316SS



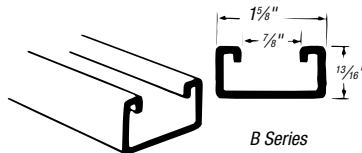
A-1200-HS_SS
A-1200-HS_T316SS



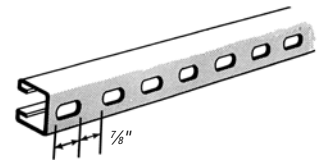
A-1202_SS
A-1202-T316SS



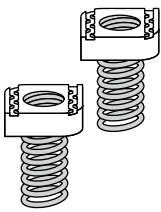
A-1202-HS_SS
A-1202-HS_T316SS



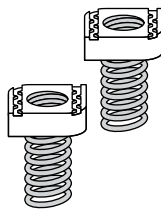
12 gauge
B-1200_SS
B-1200_T316SS
14 gauge
B-1400_SS
B-1400_T316SS



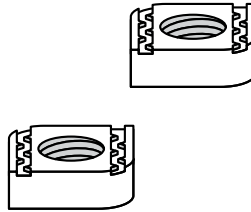
B-1400-HS_SS
B-1400-HS_T316SS



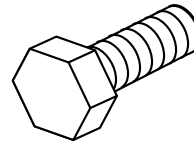
A-100
Regular Spring Nut



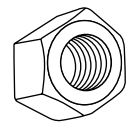
B-100
Short Spring Nut



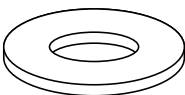
AB-100
Springless Nut



E-142
Hex Head Cap Screw



E-145
Standard Hex Nut



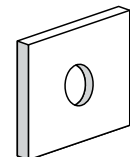
EF-147
Fender Washer



E-147
Flat Steel Washer

AB-241 Square Washer

CAT. NO.	ROD SIZE (IN.)	STD. CTN.
AB-241-1/4	1/4	100
AB-241-3/8	3/8	100
AB-241-1/2	1/2	100

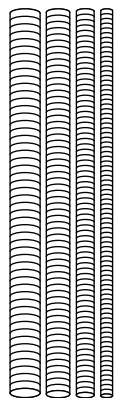
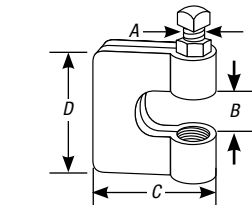
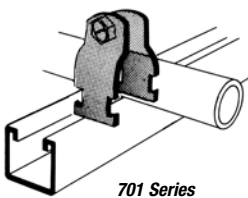
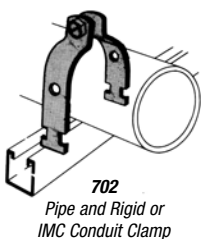
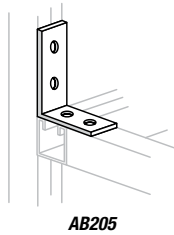
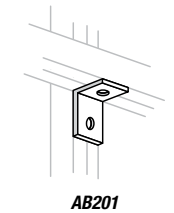
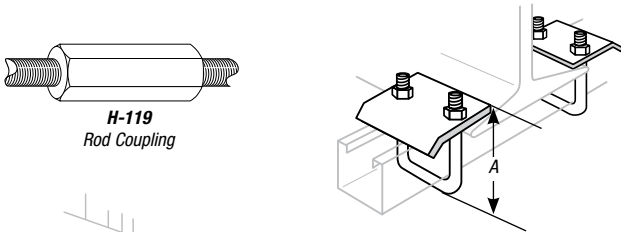


Special Metals and Finishes

Stainless Steel Products (continued)

Available in:

- Type 304 Stainless Steel — SS Suffix
- Type 316 Stainless Steel — SS6 Suffix



U501, U502

CAT. NO.	FOR CHANNEL	A (IN.)	STD. CTN.
U501	A-1200 A-1400	3 ³ / ₁₆	20
	B-1200 B-1400		
	C-1200 B-1402		
U502	A-1202 A-1402	4 ¹ / ₁₆	20
	C-1202 H-1200		

Furnished complete

Design Load U501 — 2150 lbs.

U502 — 3000 lbs.

C-775L — Clamp with Lock Nut

CAT. NO.	ROD SIZE (IN.)	DIMENSIONS (IN.)				DESIGN LOAD (LBS.)	STD. CTN.
		A	B	C	D		
C-775L	3/8	3/8	3/4	2 ³ / ₁₆	2 ³ / ₁₆	400	100
	1/2	2 ³ / ₁₆	2 ⁵ / ₁₆	2 ⁵ / ₁₆	2 ³ / ₁₆	500	100

H-104

- Hanger rod
- Continuous threaded

NATIONAL COARSE THREAD

CAT. NO.	SIZE (IN.)	THREADS PER INCH	DESIGN LOAD (LBS.)	STD. CTN.
H-104-1-1/4	1 ¹ / ₄	20	150	500
H-104-3/8	3/8	16	610	500
H-104-1/2	1/2	13	1,130	500
H-104-5/8	5/8	11	1,810	500
H-104-3/4	3/4	10	2,710	500
H-104-7/8	7/8	9	3,770	500
H-104-1	1	8	4,960	500

Standard lengths 12' only

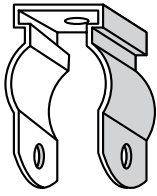
Cobra® Clamp

CAT. NO.	FOR EMT AND RIGID CONDUIT	CABLE O.D. RANGE (IN.)	STATIC LOAD LIMIT (LB)	STD. CTN.
	TRADE SIZE (IN.)		SAFETY FACTOR = 4	
316 Stainless Steel				
CPC050SS6	1/2	.650-.890	200	100
CPC075SS6	3/4	.860-1.110	200	100
CPC100SS6	1	1.100-1.400	200	100
CPC125SS6	1 ¹ / ₄	1.400-1.725	200	50
CPC150SS6	1 ¹ / ₂	1.690-1.980	200	50
CPC200SS6	2	1.980-2.576	200	50
CPC250SS6	2 ¹ / ₂	2.576-3.060	350	25
CPC300SS6	3	3.060-3.626	350	25
CPC350SS6	3 ¹ / ₂	3.626-4.126	350	25
CPC400SS6	4	4.126-4.626	350	25

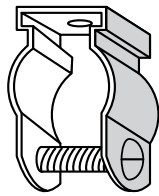
Special Metals and Finishes

Type 304 Stainless Steel Products (SS Suffix)

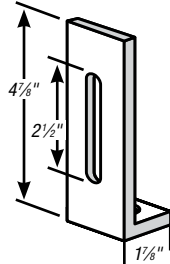
Metal Framing & Cable Tray — Superstrut® Metal Framing System



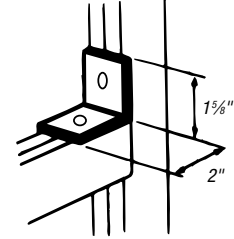
6H Series



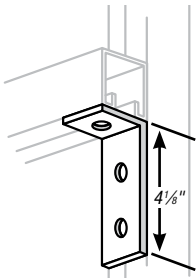
6H-B Series
Conduit and Pipe Hanger



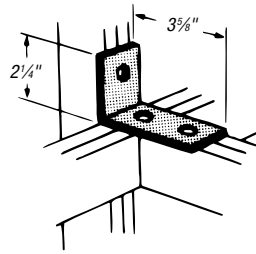
X201



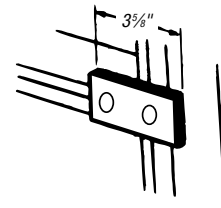
AB202



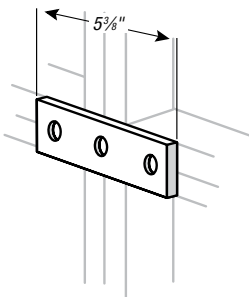
AB203



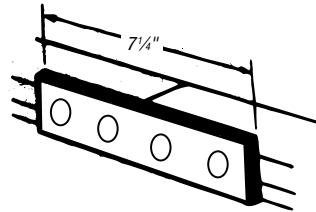
AB204



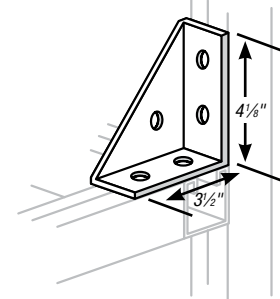
AB206



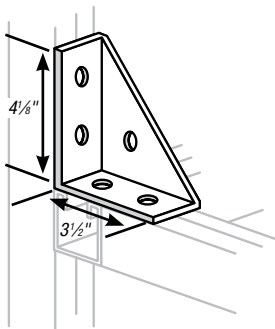
AB207



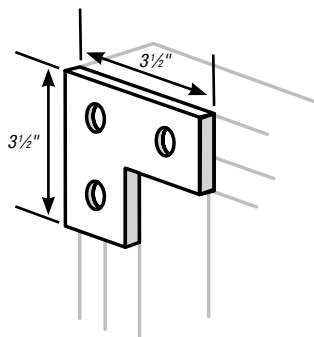
X207



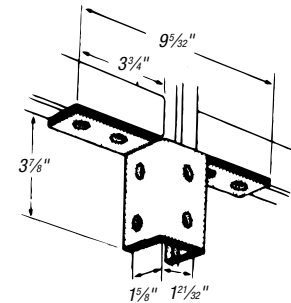
AB213



AB214



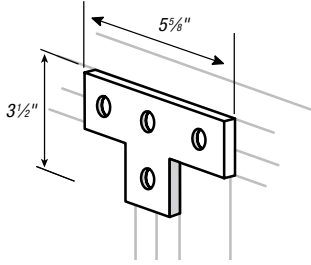
AB219



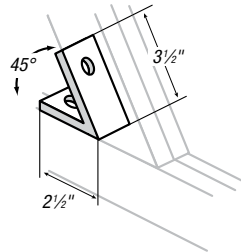
AW219

Special Metals and Finishes

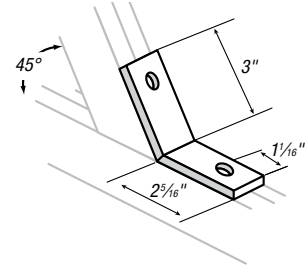
Type 304 Stainless Steel Products (SS Suffix) (continued)



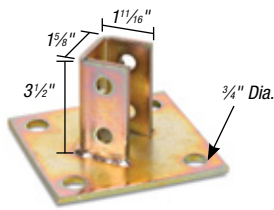
AB220



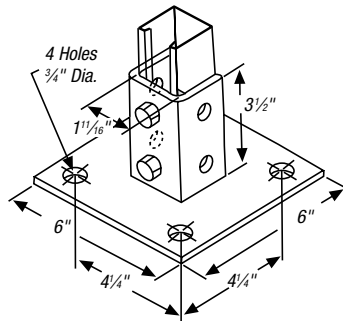
AB225



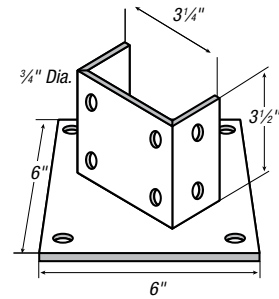
SPAB-227



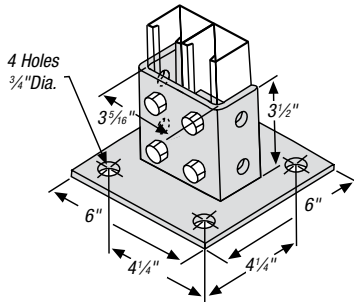
AP-232



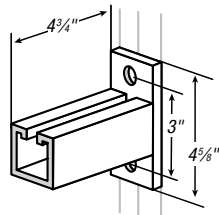
AP-232SQ



AP-235

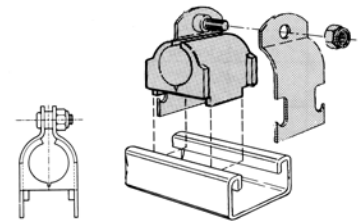


AP-235SQ

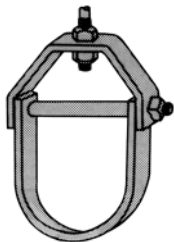


S-250

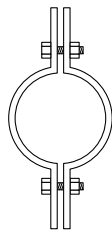
A is in lengths: 6, 12, 18 & 24.
May be installed inverted with no change
in load ratings. Strut section made from
half slot channel.



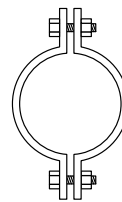
A-716
Cushioned Clamp Tube Series



C-710 Series
Standard Clevis



C-720



C-725

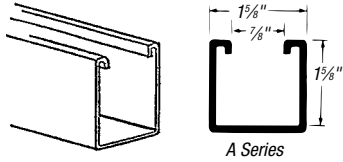


C-727
Standard Ring Hanger

Special Metals and Finishes

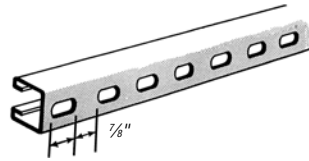
White Painted Products (WH Suffix)

Metal Framing & Cable Tray — Superstrut® Metal Framing System

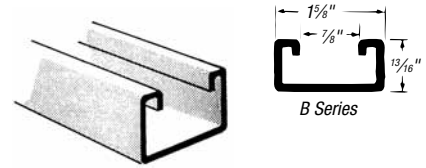


A Series

A-1200

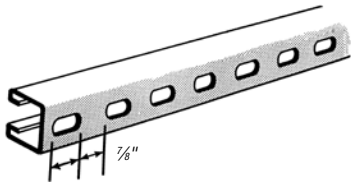


A-1200-HS

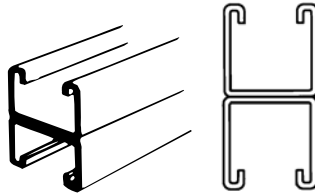


B Series

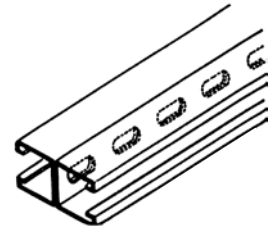
B-1400



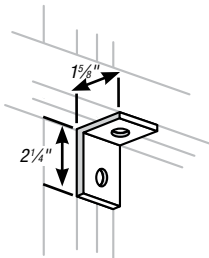
B-1400-HS



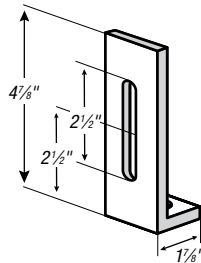
A-1202



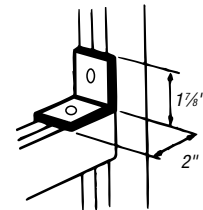
A-1202-HS



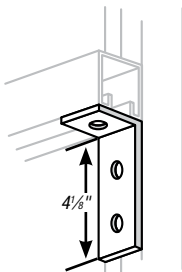
AB201



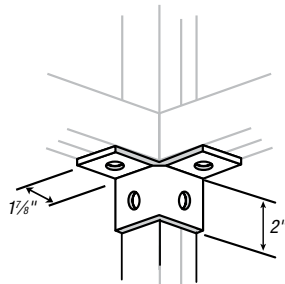
X201



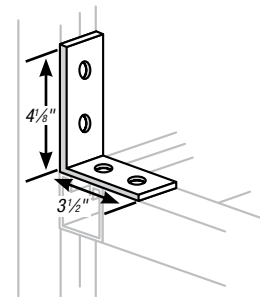
AB219



AB203



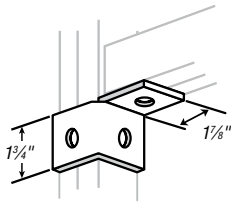
AW204



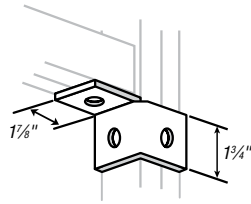
AB205

Special Metals and Finishes

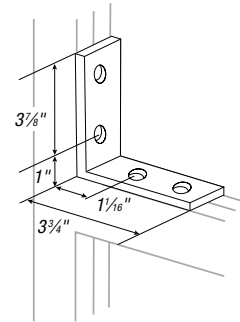
White Painted Products (WH Suffix) (continued)



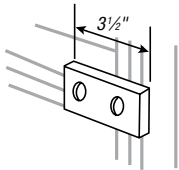
AW205 L



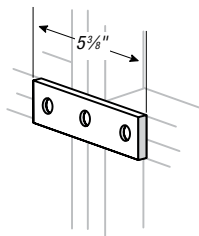
AW-205-R



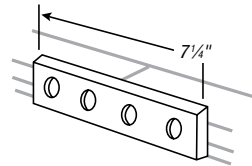
N-205



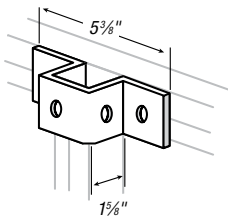
AB-206



AB-207

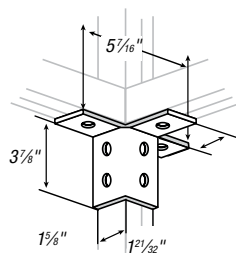


X-207

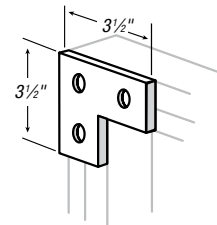


A210

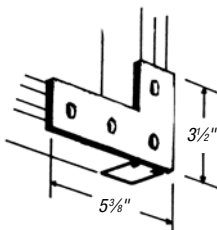
For attaching A Series channel



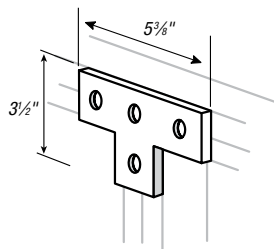
A218



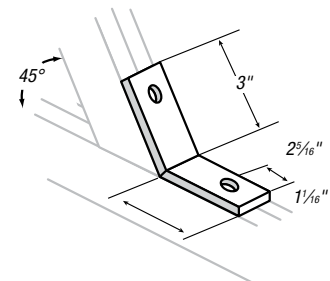
AB-219



N-219



AB-220



AB-227-WH

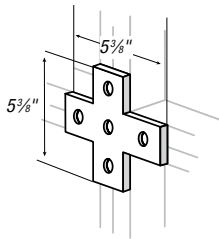
Special Metals and Finishes

White Painted Products (WH Suffix) (continued)

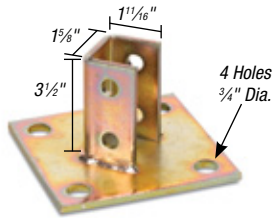


AB-241

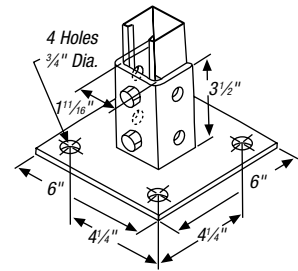
CAT. NO.	ROD SIZE (IN.)	STD. CTN.
AB-241-1/4	1/4	100
AB-241-3/8	3/8	100
AB-241-1/2	1/2	100



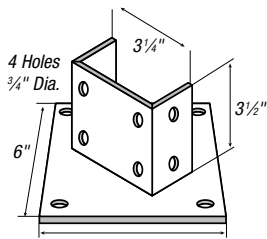
AB253



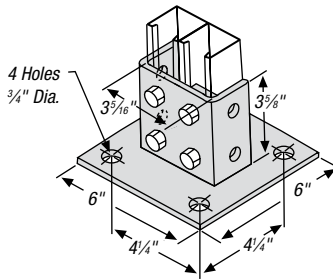
AP-232



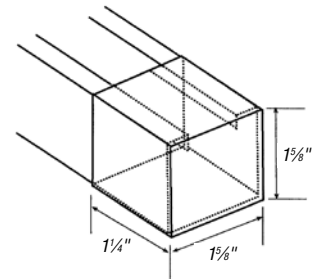
AP-232SQ



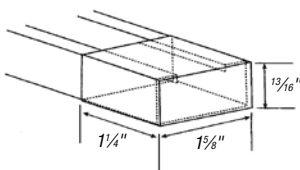
AP-235



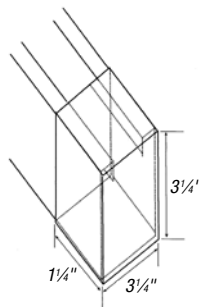
AP-235SQ



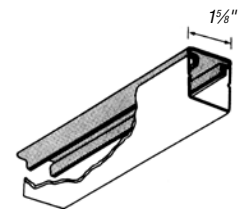
A804 NEOP WH
1 5/8" x 1 5/8"
White Plastisol End-Cap



B 804 NEOP WH
1 5/8" x 1 3/16"
White End-Cap



H804 NEOP WH
1 5/8" x 3 1/4"
White Plastisol End-Cap

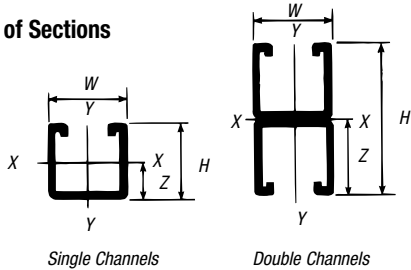


SPAB-844-PC — WHITE
White Closure Strip
For all channels

Technical Information

Design Data — Metal Framing Channel

Elements of Sections



Nominal Thickness (IN.)

12 ga. = .105
 14 ga. = .075
 16 ga. = .060

I — Moment of Inertia
 S — Section of Modulus
 r — Radius of Gyration
 Z — Nominal Axis
 A — Area

Table 1 — Properties for Design: Single Channel

CAT. NO.	H IN.	W IN.	A IN.2	I IN.4	S IN.3	R IN.	X-X AXIS			Y-Y AXIS R IN.
							Z IN.	I IN.4	S IN.3	
A-1200	1.625	1.625	.557	.192	.212	.587	.719	.237	.292	.652
B-1200	.813	1.625	.381	.031	.063	.283	.331	.137	.168	.600
C-1200	1.375	1.625	.500	.121	.155	.492	.595	.205	.252	.640
E-1200	2.438	1.625	.726	.529	.399	.853	1.112	.335	.413	.679
H-1200	3.250	1.625	.897	1.100	.635	1.107	1.507	.436	.536	.697
A-1400	1.625	1.625	.401	.134	.146	.577	.707	.184	.226	.677
B-1400	.813	1.625	.280	.024	.051	.295	.338	.103	.127	.607

Table 1 — Properties for Design: Double Channel

CAT. NO.	H IN.	W IN.	A IN.2	I IN.4	S IN.3	R IN.	X-X AXIS			Y-Y AXIS R IN.
							Z IN.	I IN.4	S IN.3	
A-1202	3.250	1.625	1.114	.948	.583	.992	1.625	.474	.584	.652
B-1202	1.626	1.625	.762	.147	.181	.439	.813	.274	.337	.600
C-1202	2.750	1.625	1.000	.595	.433	.772	1.375	.409	.504	.640
E-1202	4.876	1.625	1.450	2.854	1.171	1.402	2.438	.672	.827	.680
H-1202	6.500	1.625	1.794	6.273	1.930	1.870	3.250	.871	1.072	.697
A-1402	3.250	1.625	.801	.668	.411	.913	1.625	.367	.452	.677
B-1402	1.626	1.625	.560	.112	.138	.447	.813	.206	.254	.607

Table 2 — Load Ratings for 1/2" Strut Nuts used in Superstrut® Channel

CHANNEL NO.	SLIP RESISTANCE (LBS.)	PULL-OUT STRENGTH (LBS.)
A-1200	1,500	2,000
C-1200	1,500	2,000
B-1200	1,400	1,400
A-1400	1,000	1,400
B-1400	1,000	1,400

Safety Factor of 3

If connections will be subjected to dynamic or seismic loading conditions, contact Thomas & Betts Technical Services for design assistance.

Technical Information

Design Data — Metal Framing Channel (continued)

Design Loads for Channel Used as Beam or Column.

Table 3

Beam Loads

Table 3 contains simple beam, uniformly-distributed loads calculated at 25,000 psi fiber stress. Beam loads are based on channel being loaded across the x-x axis. Loads are also listed at reduced deflections for long spans.

Maximum Loads @ 25,000 psi Stress

Maximum allowable deflections and maximum uniform loads for all spans @ 25,000 psi fiber stress.

Reduced Load for all 1/180 Span Deflection

For moderate deflections on the longer spans, reduced loads are listed which will produce a deflection equal to 1/180 of the span. When maximum loads do not induce deflections exceeding 1/180 x the span length, reduced loads are not required.

Reduced Load for 1/360 Span Deflection

For very slight deflections on the longer spans, reduced loads are listed which will produce a deflection equal to 1/360 of the span. When maximum loads do not induce deflections exceeding 1/360 x the span length, reduced loads are not required.

Concentrated Loads

To obtain values for concentrated loads from Table 3, multiply uniform load by .5 and deflection by 1.25.

Slotted, Punched or KO Channel

Reduce load rating 5%.

Long Span Deep Beams

Support in a manner to prevent rotation at supports and tie between supports to prevent twist.

Column Loads

Allowable column loads given are for uniform axial loading with pinned ends. For eccentric loading or other end conditions, reduce allowable loads according to standard engineering practice.

Dynamic Loads

Allowable dynamic loads may be calculated by dividing the static loads shown in Table 3, by 2.08.



Technical Information

Table 3 — Single Channel

CAT. NO.	DEPTH (IN.)	GA.	MAXIMUM UNIFORM		1/180 SPAN		1/360 SPAN		COL. LOAD
			LOAD	DEFL.	LOAD	DEFL.	LOAD	DEFL.	
12" Beam or Column									
A-1200	1½	12	3,534	.014	—	.067	—	.033	10,533
B-1200	1¾	12	1,050	.026	—	.067	—	.033	6,683
C-1200	1¾	12	2,584	.016	—	.067	—	.033	9,345
E-1200	2¼	12	6,650	.010	—	.067	—	.033	13,830
H-1200	¾	12	10,583	.008	—	.067	—	.033	17,106
A-1400	1½	14	2,434	.015	—	.067	—	.033	7,575
B-1400	1¾	14	850	.028	—	.067	—	.033	4,950
18" Beam or Column									
A-1200	1½	12	2,355	.033	—	.100	—	.050	10,210
B-1200	1¾	12	700	.059	—	.100	—	.050	6,058
C-1200	1¾	12	1,723	.038	—	.100	—	.050	8,970
E-1200	2¼	12	4,434	.023	—	.100	—	.050	13,482
H-1200	¾	12	7,055	.016	—	.100	—	.050	16,693
A-1400	1½	14	1,623	.031	—	.100	—	.050	7,334
B-1400	1¾	14	566	.063	—	.100	453	.050	4,150
24" Beam or Column									
A-1200	1½	12	1,766	.058	—	.133	—	.067	9,842
B-1200	1¾	12	525	.105	—	.133	333	.067	5,315
C-1200	1¾	12	1,291	.066	—	.133	—	.067	8,545
E-1200	2¼	12	3,325	.039	—	.133	—	.067	13,082
H-1200	¾	12	5,291	.030	—	.133	—	.067	16,277
A-1400	1½	14	1,216	.056	—	.133	—	.067	7,058
B-1400	1¾	14	425	.110	—	.133	258	.067	4,000
30" Beam or Column									
A-1200	1½	12	1,414	.089	—	.167	—	.083	9,419
B-1200	1¾	12	420	.164	—	.167	266	.083	4,465
C-1200	1¾	12	1,034	.104	—	.167	1,040	.083	8,060
E-1200	2¼	12	2,660	.063	—	.167	—	.083	12,640
H-1200	¾	12	4,234	.046	—	.167	—	.083	15,698
A-1400	1½	14	974	.088	—	.167	—	.083	6,753
B-1400	1¾	14	340	.172	—	.167	165	.083	3,420

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.

Technical Information

Design Data — Metal Framing Channel (continued)

Table 3 — Double Channel (Single Channels Welded Back-to-Back)

CAT. NO.	DEPTH (IN.)	GA.	MAXIMUM UNIFORM		1/180 SPAN		1/360 SPAN		COL. LOAD	
			LOAD	DEFL.	LOAD	DEFL.	LOAD	DEFL.		
12" Beam or Column										
A-1202	3/4	12	—	.008	—	.067	—	.033	21,177	
B-1202	1 1/8	12	3,016	.016	—	.067	—	.033	14,110	
C-1202	2 1/4	12	—	.010	—	.067	—	.033	18,990	
E-1202	4 1/8	12	—	.005	—	.067	—	.033	27,623	
H-1202	6 1/2	12	—	.004	—	.067	—	.033	34,210	
A-1402	3/4	14	—	.008	—	.067	—	.033	15,250	
B-1402	1 1/8	14	2,300	.016	—	.067	—	.033	10,390	
18" Beam or Column										
A-1202	3/4	12	—	.018	—	.100	—	.050	20,609	
B-1202	1 1/8	12	2,011	.036	—	.100	—	.050	13,440	
C-1202	2 1/4	12	4,811	.021	—	.100	—	.050	18,470	
E-1202	4 1/8	12	—	.013	—	.100	—	.050	16,926	
H-1202	6 1/2	12	—	.009	—	.100	—	.050	33,390	
A-1402	3/4	14	—	.018	—	.100	—	.050	14,867	
B-1402	1 1/8	14	1,534	.036	—	.100	—	.050	9,910	
24" Beam or Column										
A-1202	3/4	12	4,858	.031	—	.133	—	.067	19,974	
B-1202	1 1/8	12	1,509	.064	—	.133	—	.067	12,670	
C-1202	2 1/4	12	3,609	.038	—	.133	—	.067	17,890	
E-1202	4 1/8	12	—	.021	—	.133	—	.067	26,143	
H-1202	6 1/2	12	—	.016	—	.133	—	.067	32,435	
A-1402	3/4	14	3,425	.033	—	.133	—	.067	14,426	
B-1402	1 1/8	14	1,150	.064	—	.133	—	.067	9,350	
30" Beam or Column										
A-1202	3/4	12	3,886	.049	—	.167	—	.083	19,261	
B-1202	1 1/8	12	1,206	.100	—	.167	—	.083	11,803	
C-1202	2 1/4	12	2,886	.059	—	.167	—	.083	17,230	
E-1202	4 1/8	12	7,806	.034	—	.167	—	.083	25,259	
H-1202	6 1/2	12	—	.025	—	.167	—	.083	31,395	
A-1402	3/4	14	2,740	.050	—	.167	—	.083	13,937	
B-1402	1 1/8	14	920	.100	—	.167	—	.083	8,730	

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.

Technical Information

Table 3 — Single Channel

CAT. NO.	DEPTH (IN.)	GA.	MAXIMUM UNIFORM		1/180 SPAN		1/360 SPAN		COL. LOAD
			LOAD	DEFL.	LOAD	DEFL.	LOAD	DEFL.	
A-1200	1½	12	1,178	.129	—	.200	917	.100	8,962
B-1200	1¾	12	350	.236	—	.200	148	.100	3,498
C-1200	1⅝	12	861	.149	—	.200	578	.100	7,525
E-1200	2⅞	12	2,216	.088	—	.200	—	.100	12,160
H-1200	3¼	12	3,528	.068	—	.200	—	.100	15,132
A-1400	1⅝	14	811	.126	—	.200	640	.100	6,416
B-1400	1¾	14	284	.248	—	.200	115	.100	2,755
42" Beam or Column									
A-1200	1½	12	1,010	.175	—	.233	674	.117	8,466
B-1200	1¾	12	300	.323	217	.233	109	.117	2,579
C-1200	1⅝	12	738	.203	—	.233	425	.117	6,945
E-1200	2⅞	12	1,900	.120	—	.233	—	.117	11,698
H-1200	3¼	12	3,024	.091	—	.233	—	.117	14,514
A-1400	1⅝	14	695	.160	—	.233	470	.117	6,051
B-1400	1¾	14	243	.336	168	.233	84	.117	2,060
48" Beam or Column									
A-1200	1½	12	884	.228	—	.267	516	.133	7,943
B-1200	1¾	12	263	.420	167	.267	83	.133	1,981
C-1200	1⅝	12	646	.265	—	.267	325	.133	6,325
E-1200	2⅞	12	1,663	.156	—	.267	—	.133	11,092
H-1200	3¼	12	2,646	.120	—	.267	—	.133	13,850
A-1400	1⅝	14	609	.120	—	.267	360	.133	5,658
B-1400	1¾	14	213	.440	129	.267	64	.133	1,580
54" Beam or Column									
A-1200	1½	12	785	.289	—	.300	408	.150	7,369
B-1200	1¾	12	234	.533	132	.300	66	.150	1,555
C-1200	1⅝	12	574	.335	—	.300	257	.150	5,650
E-1200	2⅞	12	1,478	.198	—	.300	1,123	.150	10,505
H-1200	3¼	12	2,351	.151	—	.300	—	.150	13,150
A-1400	1⅝	14	541	.286	—	.300	284	.150	5,241
B-1400	1¾	14	189	.556	102	.300	51	.150	1,250

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.

Technical Information

Design Data — Metal Framing Channel (continued)

Table 3 — Double Channel (Single Channels Welded Back-to-Back)

CAT. NO.	DEPTH (IN.)	GA.	MAXIMUM UNIFORM		1/180 SPAN		1/360 SPAN		COL. LOAD
			LOAD	DEFL.	LOAD	DEFL.	LOAD	DEFL.	
36" Beam or Column									
A-1202	3/4	12	3,239	.071	—	.200	—	.100	18,470
B-1202	1%	12	1,005	.144	—	.200	702	.100	10,840
C-1202	2%	12	2,400	.085	—	.200	—	.100	16,500
E-1202	4%	12	6,505	.048	—	.200	—	.100	24,316
H-1202	6 1/2	12	—	.036	—	.200	—	.100	30,265
A-1402	3/4	14	2,284	.071	—	.200	—	.100	13,416
B-1402	1%	14	766	.144	—	.200	535	.100	8,050
42" Beam or Column									
A-1202	3/4	12	2,776	.098	—	.233	—	.117	17,635
B-1202	1%	12	863	.195	—	.233	516	.117	9,790
C-1202	2%	12	2,063	.115	—	.233	—	.117	15,730
E-1202	4%	12	5,576	.065	—	.233	—	.117	23,272
H-1202	6 1/2	12	9,190	.049	—	.233	—	.117	29,025
A-1402	3/4	14	1,958	.225	—	.233	—	.117	12,832
B-1402	1%	14	658	.195	—	.233	393	.117	7,300
48" Beam or Column									
A-1202	3/4	12	2,429	.128	—	.267	—	.133	16,730
B-1202	1%	12	754	.255	—	.267	395	.133	8,640
C-1202	2%	12	1,804	.151	—	.267	—	.133	14,890
E-1202	4%	12	4,879	.085	—	.267	—	.133	22,170
H-1202	6 1/2	12	8,041	.064	—	.267	—	.133	27,700
A-1402	3/4	14	1,713	.128	—	.267	—	.133	12,223
B-1402	1%	14	575	.255	—	.267	301	.133	6,480
54" Beam or Column									
A-1202	3/4	12	2,159	.161	—	.300	—	.150	15,763
B-1202	1%	12	670	.323	—	.300	312	.150	7,405
C-1202	2%	12	1,604	.190	—	.300	1,263	.150	13,990
E-1202	4%	12	4,338	.108	—	.300	—	.150	20,980
H-1202	6 1/2	12	7,149	.081	—	.300	—	.150	16,280
A-1402	3/4	14	1,523	.161	—	.300	—	.150	11,566
B-1402	1%	14	511	.323	—	.300	238	.150	5,580

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.

Technical Information

Table 3 — Single Channel

CAT. NO.	DEPTH (IN.)	GA.	MAXIMUM UNIFORM		1/180 SPAN		1/360 SPAN		COL. LOAD
			LOAD	DEFL.	LOAD	DEFL.	LOAD	DEFL.	
60" Beam or Column									
A-1200	1 $\frac{5}{8}$	12	706	.358	—	.333	330	.167	6,762
B-1200	1 $\frac{3}{8}$	12	210	.658	107	.333	53	.167	—
C-1200	1 $\frac{1}{8}$	12	516	.414	—	.333	208	.167	4,920
E-1200	2 $\frac{1}{8}$	12	1,330	.244	—	.333	909	.167	9,874
H-1200	3 $\frac{1}{4}$	12	2,116	.186	—	.333	—	.167	12,406
A-1400	1 $\frac{5}{8}$	14	486	.353	—	.333	231	.167	4,792
B-1400	1 $\frac{3}{8}$	14	170	.687	82	.333	41	.167	—
66" Beam or Column									
A-1200	1 $\frac{5}{8}$	12	643	.432	—	.367	273	.183	6,127
B-1200	1 $\frac{3}{8}$	12	191	.795	88	.367	44	.183	—
C-1200	1 $\frac{1}{8}$	12	470	.501	344	.367	172	.183	4,145
E-1200	2 $\frac{1}{8}$	12	1,210	.295	—	.367	753	.183	9,211
H-1200	3 $\frac{1}{4}$	12	1,924	.226	—	.367	—	.183	11,616
A-1400	1 $\frac{5}{8}$	14	443	.426	—	.367	190	.183	4,311
B-1400	1 $\frac{3}{8}$	14	155	.831	68	.367	35	.183	—
72" Beam or Column									
A-1200	1 $\frac{5}{8}$	12	589	.514	459	.400	299	.200	5,436
B-1200	1 $\frac{3}{8}$	12	175	.946	74	.400	37	.200	—
C-1200	1 $\frac{1}{8}$	12	430	.595	289	.400	144	.200	3,485
E-1200	2 $\frac{1}{8}$	12	1,108	.351	—	.400	632	.200	8,509
H-1200	3 $\frac{1}{4}$	12	1,839	.269	—	.400	1,313	.200	10,782
A-1400	1 $\frac{5}{8}$	14	405	.506	320	.400	160	.200	3,809
B-1400	1 $\frac{3}{8}$	14	141	.989	57	.400	29	.200	—
84" Beam or Column									
A-1200	1 $\frac{5}{8}$	12	505	.700	337	.467	168	.233	4,061
B-1200	1 $\frac{3}{8}$	12	—	—	54	.467	27	.233	—
C-1200	1 $\frac{1}{8}$	12	369	.811	212	.467	106	.233	2,565
E-1200	2 $\frac{1}{8}$	12	950	.479	—	.467	464	.233	6,991
H-1200	3 $\frac{1}{4}$	12	1,513	.366	—	.467	965	.233	8,988
A-1400	1 $\frac{5}{8}$	14	348	.691	235	.467	118	.233	2,827
B-1400	1 $\frac{3}{8}$	14	—	—	42	.467	21	.233	—

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.

Technical Information

Design Data — Metal Framing Channel (continued)

Table 3 — Double Channel (Single Channels Welded Back-to-Back)

CAT. NO.	DEPTH (IN.)	GA.	MAXIMUM UNIFORM		1/180 SPAN		1/360 SPAN		COL. LOAD
			LOAD	DEFL.	LOAD	DEFL.	LOAD	DEFL.	
60" Beam or Column									
A-1202	3/4	12	1,944	.199	—	.333	—	.167	14,738
B-1202	1½	12	604	.398	—	.333	253	.167	6,100
C-1202	2¾	12	1,444	.235	—	.333	1,023	.167	13,050
E-1202	4¾	12	3,904	.133	—	.333	—	.167	19,734
H-1202	6½	12	6,434	.100	—	.333	—	.167	24,810
A-1402	3/4	14	1,370	.199	—	.333	—	.167	10,878
B-1402	1½	14	460	.399	—	.333	193	.167	4,640
66" Beam or Column									
A-1202	3/4	12	1,766	.240	—	.367	1,347	.183	13,646
B-1202	1½	12	549	.481	418	.367	209	.183	5,055
C-1202	2¾	12	1,313	.285	—	.367	846	.183	12,030
E-1202	4¾	12	3,549	.180	—	.367	—	.183	18,415
H-1202	6½	12	5,849	.120	—	.367	—	.183	23,230
A-1402	3/4	14	1,245	.241	—	.367	949	.183	10,133
B-1402	1½	14	419	.483	318	.367	159	.183	3,840
72" Beam or Column									
A-1202	3/4	12	1,620	.286	—	.400	1,132	.200	12,500
B-1202	1½	12	503	.574	351	.400	176	.200	4,230
C-1202	2¾	12	1,203	.339	—	.400	710	.200	10,980
E-1202	4¾	12	3,253	.191	—	.400	—	.200	17,023
H-1202	6½	12	5,361	.143	—	.400	—	.200	21,560
A-1402	3/4	14	1,141	.286	—	.400	798	.200	9,340
B-1402	1½	14	384	.574	267	.400	134	.200	3,220
84" Beam or Column									
A-1202	3/4	12	1,388	.390	—	.467	832	.233	9,992
B-1202	1½	12	431	.780	258	.467	129	.233	3,100
C-1202	2¾	12	1,031	.461	—	.467	522	.233	8,670
E-1202	4¾	12	2,788	.260	—	.467	—	.233	13,993
H-1202	6½	12	4,595	.195	—	.467	—	.233	17,975
A-1402	3/4	14	979	.390	—	.467	586	.233	7,682
B-1402	1½	14	329	.781	197	.467	98	.233	2,370

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.

Technical Information

Table 3 — Single Channel

CAT. NO.	DEPTH (IN.)	GA.	MAXIMUM UNIFORM		1/180 SPAN		1/360 SPAN		COL. LOAD
			LOAD	DEFL.	LOAD	DEFL.	LOAD	DEFL.	
96" Beam or Column									
A-1200	1½	12	441	.914	258	.533	129	.267	3,108
B-1200	1¾	12	—	—	42	.533	21	.267	—
C-1200	1⅝	12	323	1.059	163	.533	81	.267	1,960
E-1200	2¼	12	831	.730	—	.533	355	.267	5,423
H-1200	3¼	12	1,323	.478	—	.533	739	.267	7,059
A-1400	1½	14	304	.903	180	.533	90	.267	2,615
B-1400	1¾	14	—	—	32	.533	16	.267	—
108" Beam or Column									
A-1200	1½	12	393	1.156	204	.600	102	.300	2,456
B-1200	1¾	12	—	—	33	.600	16	.300	—
C-1200	1⅝	12	288	1.350	128	.600	64	.300	—
E-1200	2¼	12	739	.790	561	.600	281	.300	4,291
H-1200	3¼	12	1,176	.605	—	.600	584	.300	5,579
A-1400	1½	14	270	1.141	142	.600	71	.300	1,708
B-1400	1¾	14	—	—	25	.600	13	.300	—
120" Beam or Column									
A-1200	1½	12	354	1.425	165	.667	83	.333	—
B-1200	1¾	12	—	—	27	.667	13	.333	—
C-1200	1⅝	12	259	1.663	104	.667	52	.333	—
E-1200	2¼	12	665	.976	455	.667	227	.333	3,478
H-1200	3¼	12	1,059	.746	—	.667	473	.333	4,521
A-1400	1½	14	244	1.413	114	.667	57	.333	—
B-1400	1¾	14	—	—	21	.667	10	.333	—
144" Beam or Column									
A-1200	1½	12	—	—	115	.800	57	.400	—
C-1200	1⅝	12	—	—	72	.800	36	.400	—
E-1200	2¼	12	554	1.400	315	.800	158	.400	—
H-1200	3¼	12	883	1.075	657	.800	328	.400	—
A-1400	1½	14	—	—	80	.800	40	.400	—

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.

Technical Information

Design Data — Metal Framing Channel (continued)

Table 3 — Double Channel (Single Channels Welded Back-to-Back)

CAT. NO.	DEPTH (IN.)	GA.	MAXIMUM UNIFORM		1/180 SPAN		1/360 SPAN		COL. LOAD	
			LOAD	DEFL.	LOAD	DEFL.	LOAD	DEFL.		
96" Beam or Column										
A-1202	3/4	12	1,215	.509	—	.533	637	.267	7,675	
B-1202	1 1/8	12	378	1.019	197	.533	99	.267	—	
C-1202	2 1/4	12	903	.603	—	.533	400	.267	6,640	
E-1202	4 1/8	12	2,440	.340	—	.533	1,917	.267	10,875	
H-1202	6 1/2	12	4,021	.255	—	.533	—	.267	14,120	
A-1402	3/4	14	856	.509	—	.533	449	.267	5,951	
B-1402	1 1/8	14	288	1.020	150	.533	75	.267	—	
108" Beam or Column										
A-1202	3/4	12	1,080	.644	—	.600	503	.300	6,071	
B-1202	1 1/8	12	355	1.290	156	.600	78	.300	—	
C-1202	2 1/4	12	801	.763	632	.600	316	.300	5,250	
E-1202	4 1/8	12	2,169	.430	—	.600	1,515	.300	8,599	
H-1202	6 1/2	12	3,574	.323	—	.600	—	.300	11,160	
A-1402	3/4	14	761	.644	—	.600	355	.300	4,702	
B-1402	1 1/8	14	255	1.290	119	.600	59	.300	—	
120" Beam or Column										
A-1202	3/4	12	971	.795	—	.667	408	.333	—	
B-1202	1 1/8	12	301	1.588	126	.667	63	.333	—	
C-1202	2 1/4	12	721	.941	512	.667	256	.333	4,250	
E-1202	4 1/8	12	1,951	.531	—	.667	1,227	.333	6,946	
H-1202	6 1/2	12	3,216	.398	—	.667	—	.333	9,040	
A-1402	3/4	14	685	.796	—	.667	287	.333	3,805	
B-1402	1 1/8	14	230	1.600	96	.667	48	.333	—	
144" Beam or Column										
A-1202	3/4	12	810	1.145	566	.800	283	.400	—	
B-1202	1 1/8	12	—	—	88	.800	44	.400	—	
C-1202	2 1/4	12	601	1.350	355	.800	178	.400	—	
E-1202	4 1/8	12	1,626	.764	—	.800	852	.400	—	
H-1202	6 1/2	12	2,680	.573	—	.800	1,873	.400	—	
A-1402	3/4	14	571	1.146	399	.800	199	.400	—	
B-1402	1 1/8	14	—	—	67	.800	33	.400	—	

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.

Technical Information

Table 3 — Single Channel

CAT. NO.	DEPTH (IN.)	GA.	MAXIMUM UNIFORM		1/180 SPAN		1/360 SPAN		COL. LOAD
			LOAD	DEFL.	LOAD	DEFL.	LOAD	DEFL.	
168" Beam or Column									
A-1200	1½	12	—	—	84	.933	42	.467	—
C-1200	1½	12	—	—	53	.933	27	.467	—
E-1200	2¼	12	475	1.912	233	.933	116	.467	—
H-1200	3¼	12	756	1.463	482	.933	241	.467	—
A-1400	1½	14	—	—	60	.933	30	.467	—
192" Beam or Column									
E-1200	2¼	12	—	—	178	1.07	89	.533	—
H-1200	3¼	12	661	1.910	369	1.07	185	.533	—
216" Beam or Column									
E-1200	2¼	12	—	—	140	1.20	70	.600	—
H-1200	3¼	12	—	—	292	1.20	146	.600	—
240" Beam or Column									
E-1200	2¼	12	—	—	114	.334	57	.667	—
H-1200	3¼	12	—	—	236	.334	118	.667	—

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.

Technical Information

Design Data — Metal Framing Channel (continued)

Table 3 — Double Channel (Single Channels Welded Back-to-Back)

CAT. NO.	DEPTH (IN.)	GA.	MAXIMUM UNIFORM		1/180 SPAN		1/360 SPAN		COL. LOAD
			LOAD	DEFL.	LOAD	DEFL.	LOAD	DEFL.	
168" Beam or Column									
A-1202	3¼	12	694	1.563	916	.933	208	.467	—
B-1202	1½	12	—	—	64	.933	32	.467	—
C-1202	2¾	12	515	1.850	261	.933	130	.467	—
E-1202	4¾	12	1,394	1.040	1,255	.933	626	.467	—
H-1202	6½	12	2,298	.780	—	.933	1,326	.467	—
A-1402	3¼	14	489	1.563	293	.933	147	.467	—
B-1402	1½	14	—	—	49	.933	25	.467	—
192" Beam or Column									
A-1202	3¼	12	—	—	318	1.07	159	.533	—
—	—	—	—	—	—	—	—	—	—
C-1202	2¾	12	—	—	200	1.07	100	.533	—
E-1202	4¾	12	1,220	1.363	958	1.07	479	.533	—
H-1202	6½	12	2,010	1.019	—	1.07	1,053	.533	—
A-1402	3¼	14	—	—	224	1.07	112	.533	—
—	—	—	—	—	—	—	—	—	—
216" Beam or Column									
A-1202	3¼	12	—	—	252	1.20	126	.600	—
—	—	—	—	—	—	—	—	—	—
C-1202	2¾	12	—	—	158	1.20	79	.600	—
E-1202	4¾	12	1,084	1.725	757	1.20	379	.600	—
H-1202	6½	12	1,788	1.288	—	1.20	832	.600	—
A-1402	3¼	14	—	—	177	1.20	89	.600	—
—	—	—	—	—	—	—	—	—	—
240" Beam or Column									
A-1202	3¼	12	—	—	204	1.33	102	.667	—
—	—	—	—	—	—	—	—	—	—
C-1202	2¾	12	—	—	128	1.33	64	.667	—
E-1202	4¾	12	—	—	613	1.33	307	.667	—
H-1202	6½	12	1,609	1.588	—	1.33	674	.667	—
A-1402	3¼	14	—	—	144	1.33	72	.667	—
—	—	—	—	—	—	—	—	—	—

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.

Technical Information

Table 4 — Safe Bearing Loads for 1½" Channel and Combinations

SECTION	RECOMMENDED LOAD IN LBS.	SECTION	RECOMMENDED LOAD IN LBS.	SECTION	RECOMMENDED LOAD IN LBS.
A-1200	5,000	A-1200	3,500	A-1200	8,000
A-1400	3,500	A-1400	2,500	A-1400	5,500
B-1200	6,000	B-1200	4,000	B-1200	9,000
B-1400	3,400	B-1400	2,600	B-1400	4,800
C-1200	5,000	C-1200	3,500	C-1200	8,000
E-1200	5,000	E-1200	3,500	E-1200	8,000
H-1200	4,000	H-1200	2,000	H-1200	5,500

Safety factor of 2½

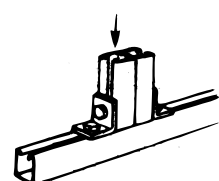
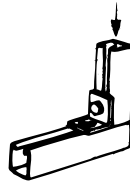
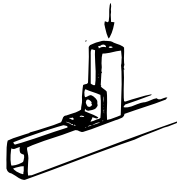
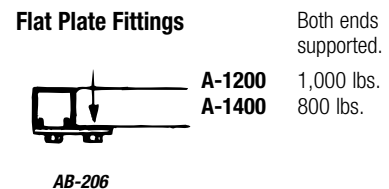
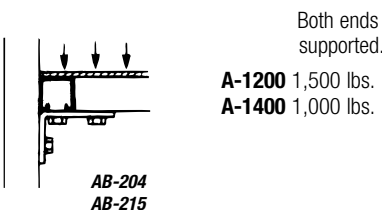
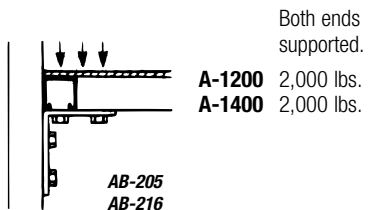
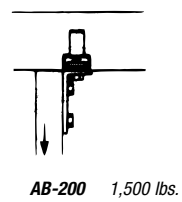
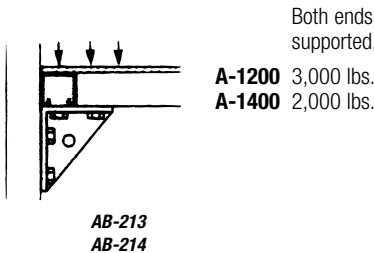
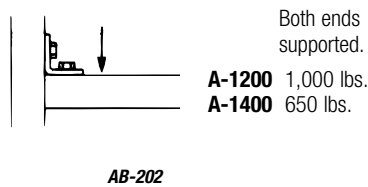
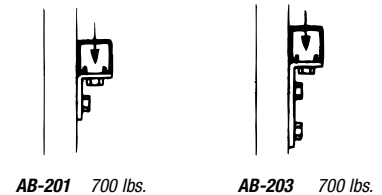
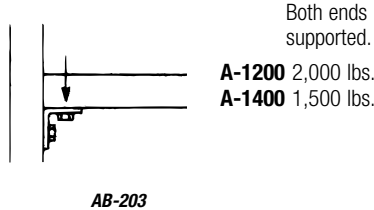
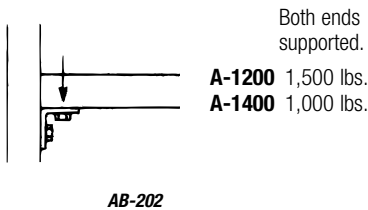


Table 5 — Design Load Table for Typical Channel Connections

Safety factor of 2½ based on ultimate strength of the connection. Load diagrams indicate up to three design loads, for 12 gauge, 14 gauge and 16 gauge channel applications.

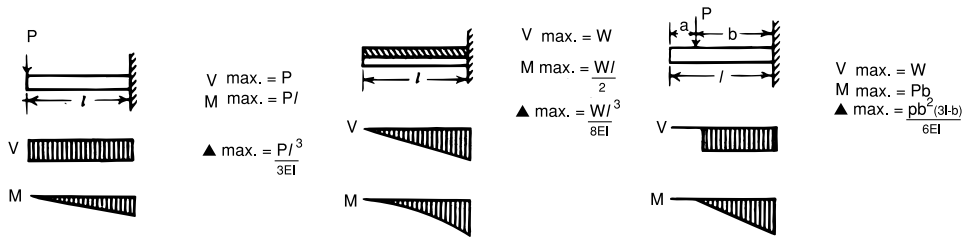
90° Fittings (when used in position shown).



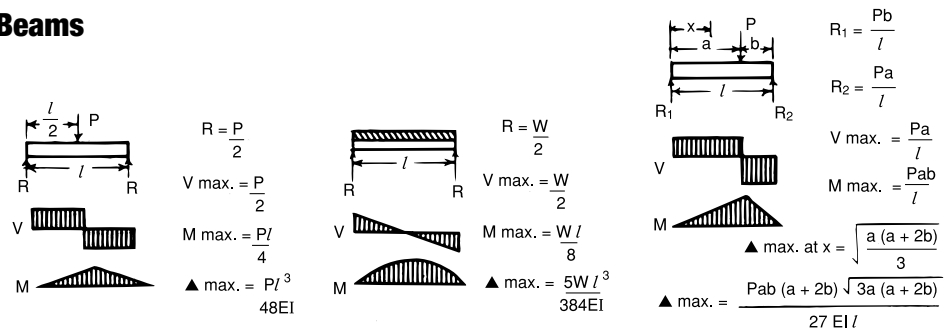
Technical Information

Design Applications

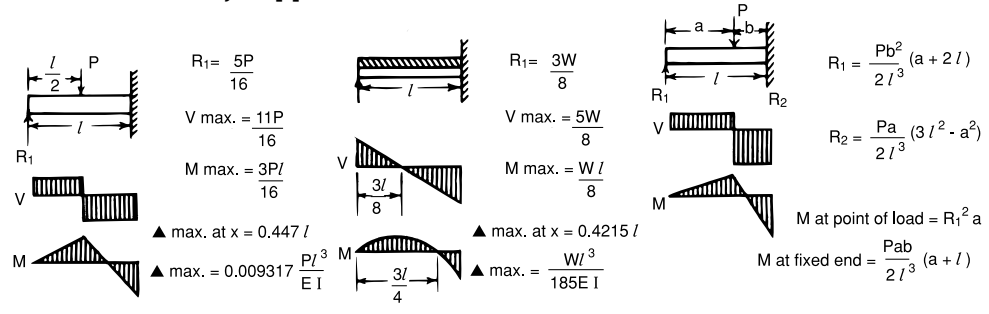
Cantilever Beams



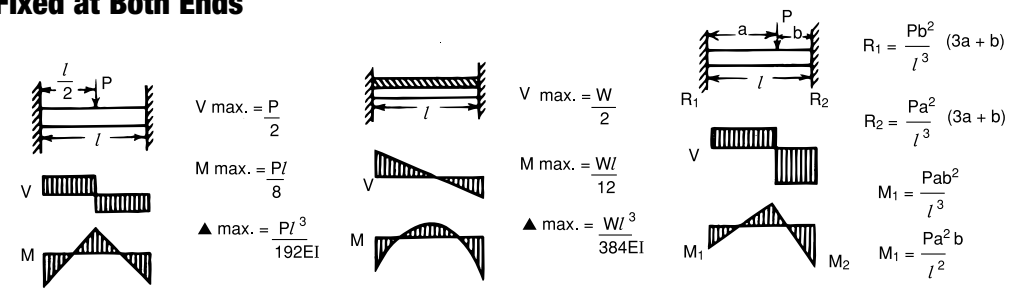
Simple Beams



Beams Fixed on One End, Supported at Other



Beams Fixed at Both Ends


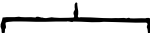




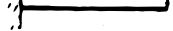






R – Reaction
 M – Moment
 P – Concentrated load
 W – Total uniform load
 V – Shear
 Δ – Deflection
 E – Modulus of Elasticity
 I – Moment of Inertia

Technical Information

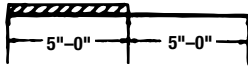
Load tables on pages B-200–B-210 for A, B, C, E and H series channel are for single span beams supported at the ends. These can be used in the majority of cases. There are times when it is necessary to know what happens with other loading and support conditions. Some common arrangements are shown in Table 6. Simply multiply the loads from the Design Load Tables times the factors given in Table 6. Examples shown on page B-214.

Table 6 — Conversion Factors for Beams with Various Static Loading Conditions

LOAD AND SUPPORT CONDITION			LOAD FACTOR	DEFLECTION FACTOR
1.	Simple Beam — Uniform Load		1.00	1.00
2.	Simple Beam — Concentrated Load at Center		.50	1.25
3.	Simple Beam — Two Equal Concentrated Loads at ¼ Points		1.00	1.10
4.	Beam Fixed at Both Ends — Uniform Load		1.50	.30
5.	Beam Fixed at Both Ends — Concentrated Load at Center		1.00	.40
6.	Cantilever Beam — Uniform Load		.25	2.40
7.	Cantilever Beam — Concentrated Load at End		.12	3.20
8.	Continuous Beam — Two Equal Spans — Uniform Load on One Span		1.30	.92
9.	Continuous Beam — Two Equal Spans		1.00	.42
10.	Continuous Beam — Two Equal Spans — Concentrated Load at Center of One Span		.62	.71
11.	Continuous Beam — Two Equal Spans — Concentrated Load at Center of Both Spans		.67	.48

Technical Information

Design Applications (continued)



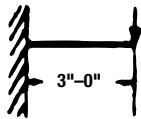
Example I

Problem:

Determine the load and deflection of an A-1200 beam continuous over one support and loaded uniformly on one span.

Solution:

- A. From load table 3 for A-1200 the load for a 5'0" span is 706 lbs. and deflection is .358".
- B. Multiply by factors from Table 6.
 $Load = 706 \text{ lbs.} \times 1.30 = 917.8 \text{ lbs.}$
 $Deflection = .358 \times .92 = .329"$



Example II

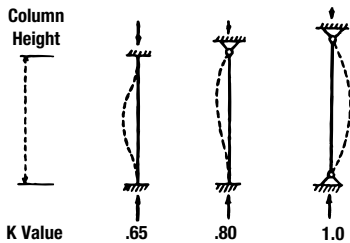
Problem:

Determine load and deflection of an E-1200 cantilever beam with a concentrated load on the end.

Solution:

- A. From load table 3 for E-1200 the load for a 3'0" span is 2216 lbs. and deflection is .088".
- B. Multiply by factors from Table 6.
 $Load = 2216 \text{ lbs.} \times .12 = 265.9 \text{ lbs.}$
 $Deflection = .088 \times 3.20 = .282"$

Illustration 1

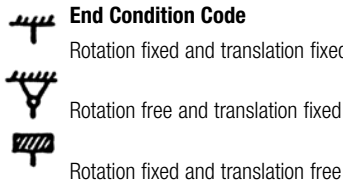


Column Loading

The load bearing capacity of column or compression members is a function of the inherent configurational strength, the unbraced length and design of the end connections.

Values of axial column loading given in Table 3 were calculated using a rotationally free and translation fixed correction at each end (see illustration I). This gives an end condition constant (K) of 1.

If other end conditions are used, axial loading should be calculated using procedures in the AISI specification for the design of cold formed steel structural members (SG671) and the engineering values for Superstrut channel given in Table 1.



Technical Information

Table 7 — Load Carrying Capacities of Hot-Rolled Steel Rod

DIMENSIONS (IN.) — LOADS	
NOMINAL ROD DIA.	ROOT AREA THREAD
1/8	.068
1/2	.126
5/8	.202
3/4	.302
7/8	.419

Safety factor of 5.

Table 8 — Rod Size Determined by Pipe Size for Fire Protection

DIMENSIONS (IN.) — LOADS	
NOMINAL ROD DIA.	ROOT AREA THREAD
3/4 to 2	1/8
2 1/2 to 3 1/2	1/2
4 to 5	5/8
6	3/4
8 to 12	7/8

Safety factor of 5.

Table 9 — Maximum Spacing between Pipe Supports

Steel Pipe																			
Nom. Pipe Size (IN.)	1/2	3/4	1	1 1/2	2	2 1/2	3	3 1/2	4	5	6	8	10	12	14	16	18	20	24
Max. Spacing (FT.)	5	6	7	9	10	11	12	13	14	16	17	19	22	23	25	27	28	30	32
Copper Size																			
Nom. Pipe Size (IN.)	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4									
Max. Spacing (FT.)	5	6	6	7	8	9	10	10	11	12									

Table 10 — Minimum Spacing (IN.) between Centers of Standard Pipe When Using Superstrut #702 Pipe Straps

NOM. PIPE SIZE	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6	8
1/2	1 1/16	—	—	—	—	—	—	—	—	—	—	—	—
3/4	1 1/16	1 1/16	—	—	—	—	—	—	—	—	—	—	—
1	1 1/2	1 5/8	1 3/4	—	—	—	—	—	—	—	—	—	—
1 1/4	1 3/4	1 7/8	2	2 1/4	—	—	—	—	—	—	—	—	—
1 1/2	1 15/16	2 1/16	2 3/16	2 7/16	2 9/16	—	—	—	—	—	—	—	—
2	2 3/16	2 5/16	2 1/2	2 3/4	2 7/8	3 1/8	—	—	—	—	—	—	—
2 1/2	2 7/16	2 9/16	2 3/4	3	3 1/8	3 1/4	3 3/8	—	—	—	—	—	—
3	2 13/16	2 11/16	3 1/16	3 3/16	3 1/2	3 3/4	4	4 1/16	—	—	—	—	—
3 1/2	3 1/8	3 1/4	3 3/8	3 5/8	3 3/4	4 1/16	4 1/8	4 3/8	4 1/16	—	—	—	—
4	3 1/16	3 3/16	3 15/16	4 1/16	4 1/8	4 5/8	4 15/16	5 1/4	5 5/16	—	—	—	—
6	4 3/4	4 7/8	5	5 1/4	5 1/2	5 5/8	5 7/8	6 3/16	6 1/2	6 3/16	7 1/16	8 1/8	—
8	5 1/16	6	6 1/8	6 1/4	6 1/2	6 3/4	7	7 1/16	7 5/16	8	8 5/16	9 1/4	10 1/8

Technical Information

Design Applications (continued)

Table 11 — Standard Dimensions and Weights of Piping Materials and Conduit

MECHANICAL (SCHEDULE 40)		
NOMINAL STD. PIPE SIZE (IN.)	PIPE O.D. (IN.)	COUPLING O.D. (IN.)
1/2	.84	1.06
3/4	1.05	1.31
1	1.32	1.58
1 1/4	1.66	1.90
1 1/2	1.90	2.20
2	2.38	2.75
2 1/2	2.88	3.25
3	3.50	4.00
3 1/2	4.00	4.63
4	4.50	5.00
5	5.56	6.30
6	6.63	7.39
8	8.63	9.23
10	10.75	—
12	12.75	—
14	14.00	—
16	16.00	—
18	18.00	—
20	20.00	—
22	22.00	—
24	24.00	—
26	26.00	—
28	28.00	—
30	30.00	—

NOMINAL CONDUIT SIZE (IN.)	ELECTRICAL CONDUIT	
	RIGID STEEL CONDUIT O.D. (IN.)	THIN WALL (EMT) CONDUIT O.D. (IN.)
1/2	.84	.71
3/4	1.05	.92
1	1.32	1.16
1 1/4	1.66	1.51
2	2.38	2.20
2 1/2	2.88	2.88
3	3.50	3.50
4	4.50	4.50

* Includes weight of heaviest conductor combination

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Table 12 — Extra Strong Pipe (Schedule 80)

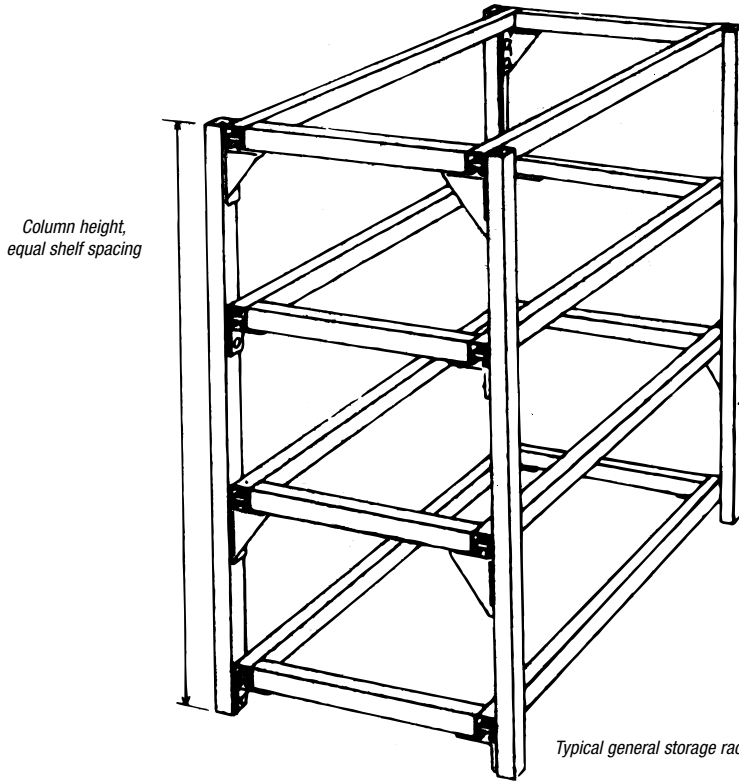
A.S.A. B36.10 SCHEDULE NOS. AND NOMINAL WALL THICKNESS DESIGNATIONS	NOMINAL PIPE SIZE (IN.)	OUTSIDE DIAMETER (IN.)	WALL THICKNESS (IN.)	INSIDE DIAMETER (IN.)
EXTRA STRONG PIPE AND SCHEDULE 80 PIPE (THROUGH 8")	3/8	.675	.126	.423
	1/2	.840	.147	.546
	3/4	1.050	.154	.742
	1	1.315	.179	.957
	1 1/4	1.660	.191	1.278
	1 1/2	1.900	.200	1.500
	2	2.375	.218	1.939
	2 1/2	2.875	.276	2.323
	3	3.500	.300	2.900
	3 1/2	4.000	.318	3.364
	4	4.500	.337	3.826
	5	5.563	.375	4.813
	6	6.625	.432	5.761
	8	8.625	.500	7.625
10	10.750	.500	9.750	
EXTRA STRONG PIPE (10" THROUGH 24" OD)	12	12.750	.500	11.750
	14 OD	14.000	.500	13.000
	16 OD	16.000	.500	15.000
	18 OD	18.000	.500	17.000
	20 OD	20.000	.500	19.000
	24 OD	24.000	.500	23.000
	10	10.750	.593	9.564
SCHEDULE 80 PIPE (10" THROUGH 24" OD)	12	12.750	.687	11.376
	14 OD	14.000	.750	12.500
	16 OD	16.000	.842	14.314
	18 OD	18.000	.937	16.126
	20 OD	20.000	1.031	17.938
24 OD	24.000	1.218	21.564	

Table 13 — Pipe Covering Weights Thickness (Intended as Guide Only) and Weight of Calcium Silicate Covering

NOMINAL PIPE SIZE	260° THICK. (IN.)	360° THICK. (IN.)	440° THICK. (IN.)	525° THICK. (IN.)	600° THICK. (IN.)	700° THICK. (IN.)	800° THICK. (IN.)
1	1	1	1	1	1 1/2	1 1/2	1 1/2
1 1/4	1	1	1	1	1 1/2	1 1/2	2
1 1/2	1	1	1	1	1 1/2	1 1/2	2
2	1	1	1	1 1/2	1 1/2	2	2
2 1/2	1	1	1	1 1/2	1 1/2	2	2 1/2
3	1	1	1	1 1/2	1 1/2	2	2 1/2
3 1/2	1	1	1 1/2	1 1/2	2	2	2 1/2
4	1	1	1 1/2	1 1/2	2	2	2 1/2
5	1	1	1 1/2	1 1/2	2	2	2 1/2
6	1 1/2	1 1/2	1 1/2	1 1/2	2	2	2 1/2
8	1 1/2	1 1/2	1 1/2	1 1/2	2	2	2 1/2

Technical Information

Design Applications (continued)



- General Storage Racks
- Pallet Racks
- Barrel Racks
- Bulk Furniture Racks
- Cable Racks
- Bar Stock Racks
- Display Racks
- Special Purpose Racks
- For Uniform Loads on Horizontal Members, See Table 3 (pages B-200–B-210)

Typical general storage rack for use with plywood or other decking

Table 14 — Column Loading for Rack Construction

COLUM HEIGHT	CAT. NO.	ALLOWABLE LOAD IN LBS. PER UPRIGHT NUMBER OF SHELVES PER UPRIGHT								
		2	3	4	5	6	7	8	9	10
6'	A-1200	2,237	1,925	1,650	1,437	1,290	—	—	—	—
	A-1202	4,170	3,580	3,100	2,730	2,450	—	—	—	—
	B-1400	800	820	790	700	630	—	—	—	—
	B-1402	1,930	1,700	1,500	1,300	1,190	—	—	—	—
7'	A-1200	2,150	1,850	1,630	1,425	1,280	1,150	—	—	—
	A-1202	4,000	3,525	3,000	2,700	2,430	2,200	—	—	—
	B-1400	650	790	760	685	615	550	—	—	—
	B-1402	1,800	1,650	1,450	1,300	1,180	750	—	—	—
8'	A-1200	2,000	1,820	1,600	1,400	1,250	1,150	1,050	—	—
	A-1202	3,900	3,475	3,000	2,700	2,400	2,185	2,000	—	—
	B-1400	580	750	730	660	610	540	510	—	—
	B-1402	1,650	1,610	1,450	1,300	1,160	940	970	—	—
9'	A-1200	1,950	1,780	1,575	1,400	1,250	1,130	1,030	950	—
	A-1202	3,800	3,400	3,020	2,675	2,400	2,180	1,975	1,800	—
	B-1400	—	600	665	600	580	540	500	475	—
	B-1402	1,500	1,500	1,430	1,275	1,160	1,000	900	800	—
10'	A-1200	1,870	1,700	1,500	1,300	1,200	1,100	1,000	900	800
	A-1202	3,600	3,300	3,000	2,650	2,350	2,000	1,975	1,800	1,650
	B-1400	—	550	650	625	580	535	490	450	425
	B-1402	1,450	1,480	1,400	1,250	1,140	1,040	960	885	825

Technical Information

Federal Specifications (WW-H-171)/ Manufacturers Society Specifications (MSS SP69)



C-710
Adj. Steel Clevis
Sizes 3/4" through 20" IPS
Federal Type 1
SP69 Type 1



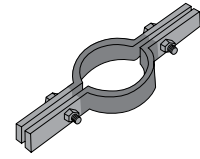
C-726
Steel Double Bolt Pipe Clamp
Sizes 1 1/2" through 24" IPS
Federal Type 3
SP69 Type 3



C-725
Steel Pipe Clamp
Sizes 1 1/2" through 24" IPS
Federal Type 4
SP69 Type 4



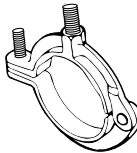
CF-710
Adj. Steel Band Hanger
Sizes 1/2" through 8"
IPS 3/4" through 4" tube
Federal Type 7



C-720/CT-720
Extension Pipe or Riser Clamp
Sizes 3/4" through 20"
IPS 1/2" through 6" tube
Federal Type 8
SP69 Type 8



C-727/CT-727
Adj. Swivel Ring Hanger
Sizes 1/2" through 8" IPS
1/2" through 4" tube
Federal Type 10
SP69 Type 10



M-718/MT-718
MI Split Pipe Ring
w/wo turnbuckle adj.
Sizes 1/2" through 8" IPS
1/2" through 4" tube
Federal Type 11
SP69 Type 12



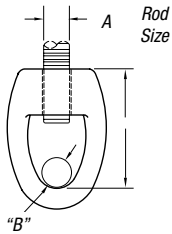
CL-710
Light-Duty Clevis Hanger
Sizes 1/2" through 4"
Federal Type 12



F-112
Forged Steel Turnbuckle
Sizes 3/8" through 1 1/2" rod
Federal Type 13
SP69 Type 13



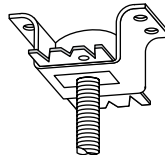
F-111
Forged Steel Clevis
Sizes 3/8" through 1 1/2" rod
Federal Type 14
SP69 Type 13



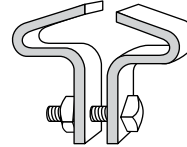
M-117
MI Socket only for
S Split Ring Hanger
Sizes 3/8" through 1 1/2" Rod
Federal Type 16
SP69 Type 16



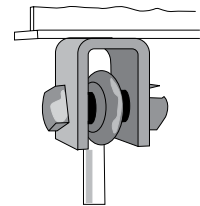
E-120-A
Forged Steel Weldless Eye Nut
Sizes 3/8" through 1 1/2" rod
Federal Type 17
SP69 Type 17



452
Steel Concrete Insert
Federal Type 19
SP69 Type 18



C-755 T/C-757 T
Center I-Beam Clamp
Federal Type 21
SP69 Type 21



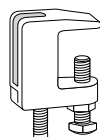
C-780
Welded attachment as
shown or inverted less bolt
Federal Type 22
SP69 Type 22



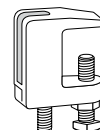
M-775-L/C-775-L
MI or Steel C-Clamp
Sizes 3/8" through 1 1/2"
Federal Type 23
SP69 Type 23



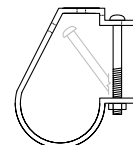
H-115
U-Bolt
Sizes 1/2" through 24" IPS
Federal Type 24
SP69 Type 24



M-778
Top Beam C-Clamp
Sizes 3/8" through 3/4" rod
SP69 Type 19



M-777
Junior Top Beam C-Clamp
Sizes 3/8" through 1/2" rod
SP69 Type 18



C-711
'J' Pipe Hanger
Sizes 1/2" through 8" pipe
SP69 Type 5

Technical Information

Federal Specifications (WW-H-171)/ Manufacturers Society Specifications (MSS SP69) (continued)



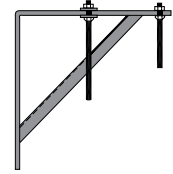
C-704-A
Offset J-Hook
Sizes ½" through 3" IPS
Federal Type 27



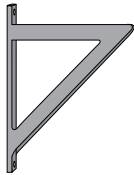
M-732-H
I-Beam w/Eye Nut
Federal w/o links Type 28
Federal w/links Type 29
SP69 Type 28



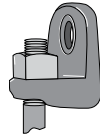
M-732/M-732 Ext
I-Beam Clamp
w/Swing Nut
Sizes ¾" through ¾" Rod
Federal Type 30
SP69 Type 30



C-736
Light Welded Steel Bracket
Federal Type 32
SP69 Type 31



C-739-H
Heavy Welded Steel Bracket
Max. Load 3,000 lbs.
Federal Type 34
SP69 Type 33



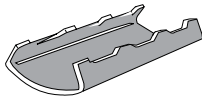
M-750
Side Beam Bracket
Sizes ¾" through ¾" Rod
Federal Type 35
SP69 Type 34



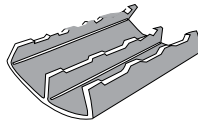
C-785-A
Pipe Stanchion Saddle
Sizes 4" through 36" IPS
Federal Type 38
SP69 Type 37



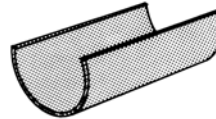
C-786
Adj. Pipe Saddle Support
Sizes 2½" through 36" IPS
Federal Type 39
SP69 Type 38



C-789
Steel Pipe Covering
Protection Saddle
Sizes up to and including
10" IPS
Federal Type 40A
SP69 Type 39



C-789-AL
Steel Pipe Covering
Protection Saddle
Sizes 12" IPS and larger
Federal Type 40B
SP69 Type 39



C-790
Insulation Protection Shield
for Vapor sealed pipe lines and
insulated copper tubing
Sizes ¾" through 12" IPS
Federal Type 41
SP69 Type 40



RC-729A
Single Pipe Roll
Sizes 1" through 24" IPS
Federal Type 42
SP69 Type 41



C-729
Adj. Roller Hanger
Sizes 1" through 20" IPS
Federal Type 44
SP69 Type 43



S-730-C
Pipe Roll Complete
Federal Type 45
SP69 Type 44



S-730-D
Adj. Pipe Roll & Base
Federal Type 47
SP69 Type 46