

# Metal Framing Channels

## Channel

Cooper B-Line's metal framing channel is cold formed on our modern rolling mills from 12 Ga. (2.6mm), 14 Ga. (1.9mm), and 16 Ga. (1.5mm) low carbon steel strips. A continuous slot with intumed lips provides the ability to make attachments at any point.

## Lengths & Tolerances

All channels excluding 'SH' style  
 $\pm 1/8"$  (3.2mm) on 10' (3.05m) and  
 $\pm 3/16"$  (4.76mm) on 20' (6.09m)

All 'SH' channels only  
 $\pm 1/4"$  (6.35mm) on 10' (3.05m) and  
 $\pm 1/2"$  (12.70mm) on 20' (6.09m)

Custom lengths are available upon request.

## Slots

Cooper B-Line's slotted series of channels offer full flexibility. A variety of pre-punched slot patterns eliminate the need for precise field measuring for hole locations. Slots offer wide adjustments in the alignment and bolt sizing.

## Holes

A variety of pre-punched  $9/16"$  (14.3 mm) diameter hole patterns are available in Cooper B-Line channels. These hole patterns provide an economical alternative to costly field drilling required for many applications.

## Knockouts

When used with series B217-20 Closure Strips, Cooper B-Line's knockout channels can be used to provide an economical U.L. listed surface raceway. Channels are furnished with  $7/8"$  (22.2 mm) knockouts on 6" (152 mm) centers, allowing for perfect fixture alignment on spans up to 20' (6.09 m).

## Materials & Finishes (Unless otherwise noted)

### Steel: Plain & Pre-galvanized

12 Ga. (2.6), 14 Ga. (1.9) and 16 Ga. (1.5)

Finish Code	Finish	Specification
PLN	Plain	ASTM A1011, 33,000 PSI min. yield
GRN	Dura-Green	
GLV	Pre-Galvanized	ASTM A653 33,000 PSI min. yield
HDG	Hot-Dipped Galvanized	ASTM A123
YZN	Yellow Zinc Chromate	ASTM B633 SC3 Type II
SS4	Stainless Steel Type 304	ASTM A240
SS6	Stainless Steel Type 316	ASTM A240
AL	Aluminum	Aluminum 6063-T6

Note: A minimum order may apply on special material and finishes.

## Design Load (Steel & Stainless Steel)

The design loads given for strut beam loads are based on a simple beam condition using an allowable stress of 25,000 psi. This allowable stress results in a safety factor of 1.68. This is based upon virgin steel minimum yield strength of 33,000 psi cold worked during rolling to an average yield stress of 42,000 psi.

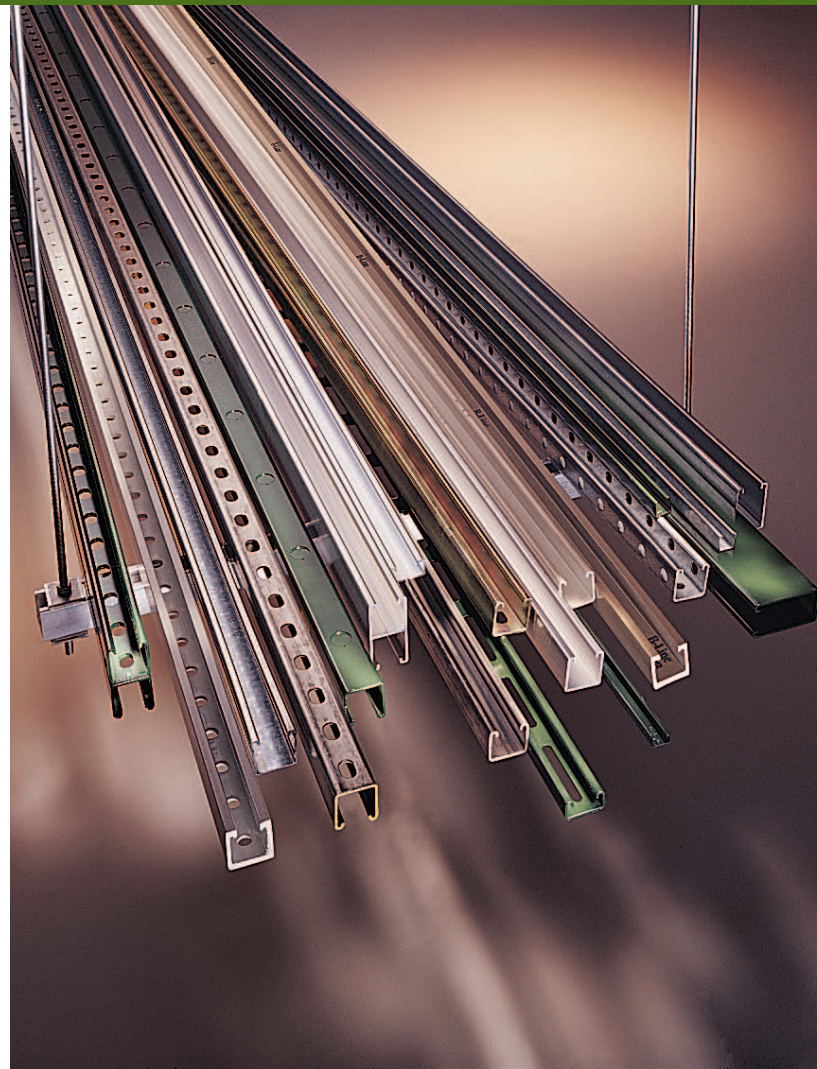
For aluminum channel loading multiple steel loading by a factor of 0.38.

## Welding

Weld spacing is maintained between 2 $1/2$  inches (63.5 mm) and 4 inches (101.6 mm) on center. Through high quality control testing of welded channels and continuous monitoring of welding equipment, Cooper B-Line provides the most consistent combination channels available today.

## Metric

Metric dimensions are shown in parentheses. Unless noted, all metric dimensions are in millimeters.



## SELECTION CHART

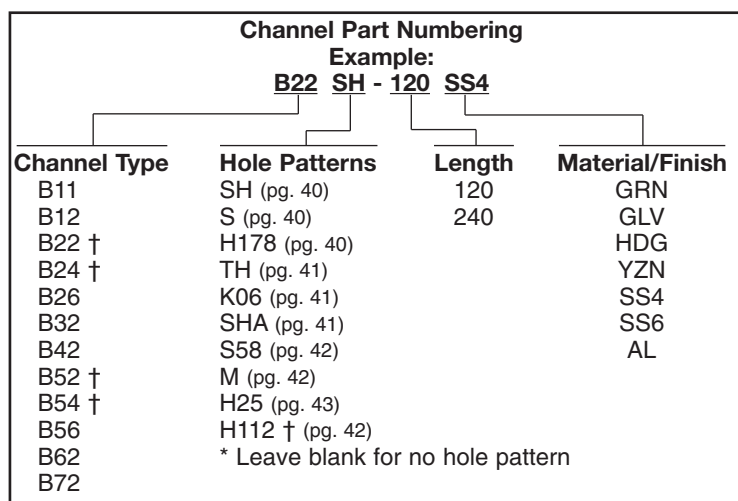
for Channels, Materials and Hole Patterns

Channel Type	Channel Dimensions				Material & Thickness *				Channel Hole Pattern **				
	Height		Width		Steel	Alum.	Stainless Steel		SH 9/16" x 1 1/8" slots on 2" centers	S 13/32" x 3" slots	H17/8 9/16" diameter holes	TH 9/16" diameter on 1 7/8" centers	KO6 7/8" diameter knockouts
							Type 304	Type 316					
				<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>						
<b>B11</b>	3 1/4"	(82.5)	1 5/8"	(41.3)	12 Ga.	.105	-	-	<u>1</u>	<u>1</u>	<u>1</u>	-	<u>1</u>
<b>B12</b>	2 7/16"	(61.9)	1 5/8"	(41.3)	12 Ga.	.105	-	-	<u>1 2</u>	<u>1</u>	<u>1 2</u>	-	<u>1 2</u>
<b>B22</b>	1 5/8"	(41.3)	1 5/8"	(41.3)	12 Ga.	.105	12 Ga.	12 Ga.	<u>1 2 3 4</u>	<u>1 3</u>	<u>1 2 3</u>	<u>1</u>	<u>1 2</u>
<b>B24</b>	1 5/8"	(41.3)	1 5/8"	(41.3)	14 Ga.	.080	14 Ga.	14 Ga.	<u>1 2 3 4</u>	<u>1</u>	<u>1 2 3</u>	-	<u>1 2</u>
<b>B26</b>	1 5/8"	(41.3)	1 5/8"	(41.3)	16 Ga.	-	-	-	<u>1</u>	<u>1</u>	<u>1</u>	-	<u>1</u>
<b>B32</b>	1 3/8"	(34.9)	1 5/8"	(41.3)	12 Ga.	-	12 Ga.	-	<u>1 3</u>	<u>1</u>	<u>1 3</u>	-	<u>1</u>
<b>B42</b>	1"	(25.4)	1 5/8"	(41.3)	12 Ga.	-	12 Ga.	-	<u>1 3</u>	<u>1</u>	<u>1 3</u>	-	<u>1</u>
<b>B52</b>	1 3/16"	(20.6)	1 5/8"	(41.3)	12 Ga.	-	12 Ga.	-	<u>1</u>	<u>1</u>	<u>1</u>	-	<u>1</u>
<b>B54</b>	1 3/16"	(20.6)	1 5/8"	(41.3)	14 Ga.	.080	14 Ga.	14 Ga.	<u>1 2 3 4</u>	<u>1</u>	<u>1 2 3 4</u>	-	<u>1 2</u>
<b>B56</b>	1 3/16"	(20.6)	1 5/8"	(41.3)	16 Ga.	-	-	-	<u>1</u>	<u>1</u>	<u>1</u>	-	<u>1</u>
<b>B62</b>	1 3/16"	(20.6)	1 3/16"	(20.6)	18 Ga.	-	-	-	-	-	-	-	-
<b>B72</b>	1 3/32"	(10.3)	1 3/16"	(20.6)	18 Ga.	-	-	-	-	-	-	-	-

The selection has been prepared to provide a reference for available channel, materials and hole patterns. Material types available for various hole patterns are defined by numbers 1 thru 4. Some stainless steel channels with hole patterns are available on special order only.

\*Metric equivalent for thicknesses shown in chart.      \*\*1 - Steel  
 12 Ga. = 2.6 mm                      18 Ga. = 1.2 mm                      2 - Aluminum  
 14 Ga. = 1.9 mm                      .105 = 2.6 mm                      3 - Type 304 Stainless Steel  
 16 Ga. = 1.5 mm                      .080 = 2.0 mm                      4 - Type 316 Stainless Steel

Properties may vary due to commercial tolerances of the material.

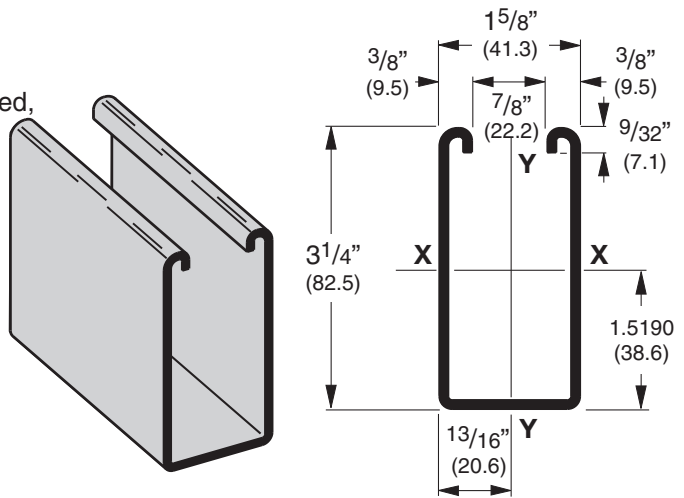


Reference page 14 for general fitting and standard finish specifications.

# B11 Channel, Combinations & Load Data

## B11

- Thickness: 12 Gauge (2.6 mm)
- Standard lengths: 10' (3.05 m) & 20' (6.09 m)
- Standard finishes: Plain, Dura-Green, Pre-Galvanized, Hot-Dipped Galvanized, Aluminum
- Weight: 3.05 Lbs./Ft. (4.54 kg/m)



## SECTION PROPERTIES

Channel	Weight		Areas of Section		Moment of Inertia (I)		Section Modulus (S)		Radius of Gyration (r)		Moment of Inertia (I)		Section Modulus (S)		Radius of Gyration (r)	
	lbs./ft.	kg/m	sq. in.	cm <sup>2</sup>	in. <sup>4</sup>	cm <sup>4</sup>	in. <sup>3</sup>	cm <sup>3</sup>	in.	cm	in. <sup>4</sup>	cm <sup>4</sup>	in. <sup>3</sup>	cm <sup>3</sup>	in.	cm
<b>B11</b>	3.059	(4.55)	.900	(5.81)	1.1203	(46.63)	.6472	(10.61)	1.116	(2.83)	.4357	(18.14)	.5362	(8.79)	.696	(1.77)
<b>B11A</b>	6.119	(9.11)	1.800	(11.61)	6.3931	(266.10)	1.9671	(32.24)	1.885	(4.79)	.8714	(36.27)	1.0725	(17.58)	.696	(1.77)

Calculations of section properties are based on metal thicknesses as determined by the AISI Cold-Formed Steel Design Manual.

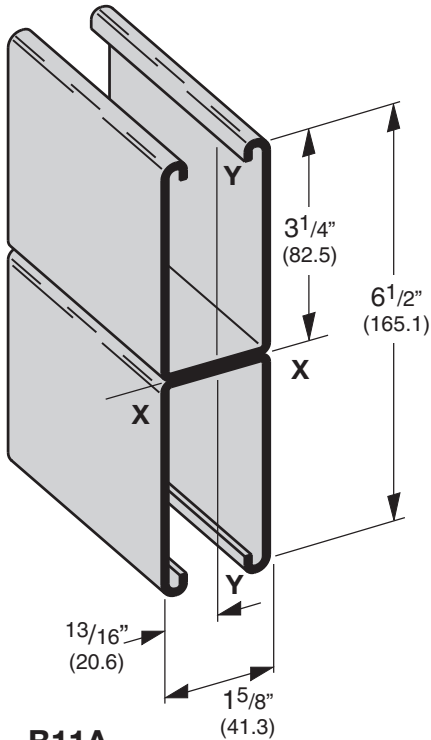
## BEAM LOADING

Beam Span		Channel Style	Uniform Load and Deflection				Uniform Load @ Deflection =			
In.	mm		Lbs.	N	In.	mm	1/240 Span	N	1/360 Span	N
24	(609)	<b>B11</b>	5130	(22819)	.029	(.73)	5130	(22819)	5130	(22819)
		<b>B11A</b>	5130*	(22819)	.005	(.13)	5130*	(22819)	5130*	(22819)
36	(914)	<b>B11</b>	3488	(15515)	.065	(1.65)	3488	(15515)	3488	(15515)
		<b>B11A</b>	5130*	(22819)	.017	(.43)	5130*	(22819)	5130*	(22819)
48	(1219)	<b>B11</b>	2616	(11636)	.117	(2.97)	2616	(11636)	2616	(11636)
		<b>B11A</b>	5130*	(22819)	.040	(1.01)	5130*	(22819)	5130*	(22819)
60	(1524)	<b>B11</b>	2093	(9310)	.183	(4.65)	2093	(9310)	1908	(8487)
		<b>B11A</b>	5130*	(22819)	.079	(2.00)	5130*	(22819)	5130*	(22819)
72	(1829)	<b>B11</b>	1744	(7757)	.263	(6.68)	1744	(7757)	1325	(5894)
		<b>B11A</b>	5130*	(22819)	.136	(3.45)	5130*	(22819)	5130*	(22819)
84	(2133)	<b>B11</b>	1495	(6650)	.358	(9.09)	1460	(6494)	974	(4332)
		<b>B11A</b>	4552	(20248)	.191	(4.85)	4552	(20248)	4552	(20248)
96	(2438)	<b>B11</b>	1308	(5818)	.468	(11.89)	1118	(4973)	745	(3314)
		<b>B11A</b>	3983	(17717)	.250	(6.35)	3983	(17717)	3983	(17717)
108	(2743)	<b>B11</b>	1163	(5173)	.592	(15.03)	884	(3932)	589	(2620)
		<b>B11A</b>	3541	(15751)	.317	(8.05)	3541	(15751)	3353	(14915)
120	(3048)	<b>B11</b>	1046	(4653)	.731	(18.57)	716	(3185)	477	(2122)
		<b>B11A</b>	3187	(14176)	.391	(9.93)	3187	(14176)	2716	(12081)
144	(3657)	<b>B11</b>	872	(3879)	1.053	(26.74)	497	(2211)	331	(1472)
		<b>B11A</b>	2656	(11814)	.563	(14.30)	2656	(11814)	1886	(8389)
168	(4267)	<b>B11</b>	747	(3323)	1.433	(36.40)	365	(1623)	243	(1081)
		<b>B11A</b>	2276	(10124)	.766	(19.45)	2078	(9243)	1386	(6165)
192	(4877)	<b>B11</b>	654	(2909)	1.871	(47.52)	280	(1245)	186	(827)
		<b>B11A</b>	1992	(8861)	1.001	(25.42)	1591	(7077)	1061	(4719)
216	(5486)	<b>B11</b>	581	(2584)	2.368	(60.15)	221	(983)	147	(654)
		<b>B11A</b>	1770	(7873)	1.267	(32.18)	1257	(5591)	838	(3727)
240	(6096)	<b>B11</b>	523	(2326)	2.924	(74.27)	179	(796)	119	(529)
		<b>B11A</b>	1593	(7086)	1.564	(39.72)	1018	(4528)	679	(3020)

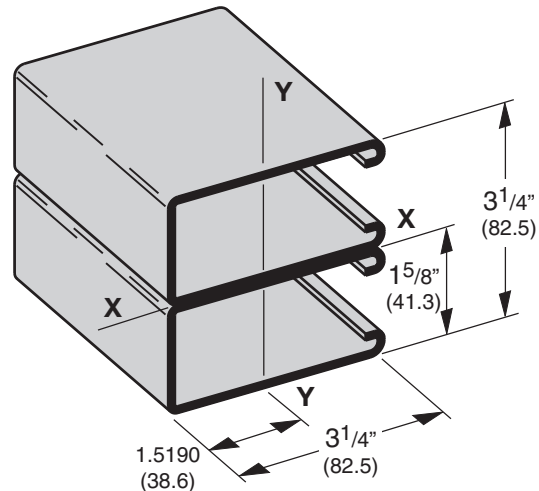
Based on simple beam condition using an allowable design stress of 25,000 psi (172 MPa) in accordance with MFMA, with adequate lateral bracing (see page 11 for further explanation). Actual yield point of cold rolled steel is 42,000 psi. To determine concentrated load capacity at mid span, multiply uniform load by 0.5 and corresponding deflection by 0.8. \*Failure determined by weld shear.

Reference page 14 for general fitting and standard finish specifications.

# B11 Beam & Column Loading Data



**B11A**  
Wt. 6.10 Lbs./Ft. (9.08 kg/m)



**B11B**  
Wt. 6.10 Lbs./Ft. (9.08 kg/m)

## COLUMN LOADING

Unbraced Height		Channel Style	Max. Column Loading K = .80				Max. Column Loading (Loaded @ C.G.)					
			Loaded @ C.G.		Loaded @ Slot Face		K = .65		K = 1.0		K = 1.2	
In.	mm		Lbs.	N	Lbs.	N	Lbs.	N	Lbs.	N	Lbs.	N
24	(609)	<b>B11</b>	8190	(36431)	4477	(19914)	8446	(37569)	7783	(34620)	7311	(32521)
		<b>B11A</b>	17701	(78738)	8267	(36773)	17778	(79080)	17572	(78164)	17416	(77470)
36	(914)	<b>B11</b>	7311	(32521)	4183	(18607)	7838	(34865)	6503	(28927)	5612	(24963)
		<b>B11A</b>	17416	(77470)	8189	(36426)	17590	(78244)	17127	(76184)	16774	(74614)
48	(1219)	<b>B11</b>	6214	(27641)	3783	(16827)	7053	(31373)	4988	(22188)	3816	(16974)
		<b>B11A</b>	17016	(75691)	8079	(35937)	17327	(77074)	16503	(73409)	15876	(70620)
60	(1524)	<b>B11</b>	4988	(22188)	3279	(14586)	6140	(27312)	3595	(15991)	2790	(12410)
		<b>B11A</b>	16503	(73409)	7727	(34371)	16988	(75566)	15701	(69841)	14721	(65478)
72	(1829)	<b>B11</b>	3816	(16974)	2444	(10871)	5146	(22890)	2790	(12410)	2213	(9844)
		<b>B11A</b>	15876	(70620)	6160	(27401)	16574	(73724)	14721	(65482)	13310	(59206)
84	(2133)	<b>B11</b>	3063	(13625)	1897	(8438)	4133	(18384)	2291	(10191)	1846	(8211)
		<b>B11A</b>	15135	(67324)	4961	(22067)	16084	(71545)	13563	(60331)	11642	(51786)
96	(2438)	<b>B11</b>	2564	(11405)	1532	(6814)	3398	(15115)	1953	(8687)	1591	(7077)
		<b>B11A</b>	14279	(63516)	4045	(7993)	15520	(69036)	12226	(54384)	9717	(43223)
108	(2743)	<b>B11</b>	2213	(9844)	1273	(5662)	2886	(12837)	1708	(7597)	1401	(6232)
		<b>B11A</b>	13310	(59206)	3337	(14844)	14880	(66189)	10712	(47649)	7725	(34362)
120	(3048)	<b>B11</b>	1953	(8687)	1081	(4808)	2514	(11183)	1522	(6770)	1251**	(5565)
		<b>B11A</b>	12226	(54384)	2784	(12384)	14164	(63004)	9019	(40118)	6257**	(27832)
144	(3657)	<b>B11</b>	1591	(7077)	816	(3630)	2011	(8945)	1251**	(5565)	1026**	(4564)
		<b>B11A</b>	9717	(43223)	1990	(8852)	12508	(55638)	6257**	(27832)	4345**	(19327)
168	(4267)	<b>B11</b>	1347	(5992)	642	(2856)	1687	(7504)	1058**	(4706)	859**	(3821)
		<b>B11A</b>	7183	(31951)	1464	(6512)	10550	(46929)	4597**	(20448)	3192**	(14199)
192	(4877)	<b>B11</b>	1167**	(5191)	519	(2308)	1459	(6490)	910**	(4048)	-	-
		<b>B11A</b>	5499**	(24461)	1121	(4986)	8330	(37053)	3520**	(15658)	-	-
216	(5486)	<b>B11</b>	1026**	(4564)	429	(1908)	1285**	(5716)	-	-	-	-
		<b>B11A</b>	4345**	(19327)	885	(3936)	6582**	(29278)	-	-	-	-
240	(6096)	<b>B11</b>	910**	(4048)	360	(1601)	1148**	(5106)	-	-	-	-
		<b>B11A</b>	3520**	(15658)	717	(3189)	5331**	(23713)	-	-	-	-

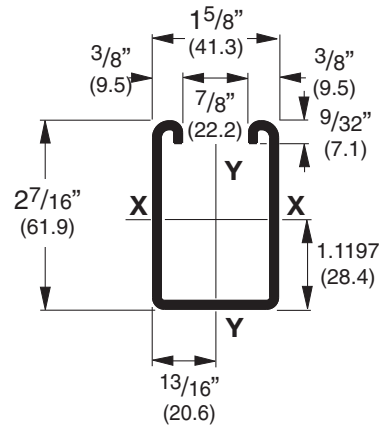
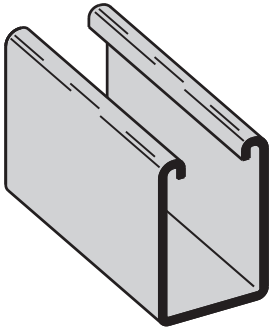
\*\*Where the slenderness ratio  $\frac{KL}{r}$  exceeds 200, and K = end fixity factor, L = actual length and r = radius of gyration.

Reference page 14 for general fitting and standard finish specifications.

# B12 Channel & Combinations

## B12

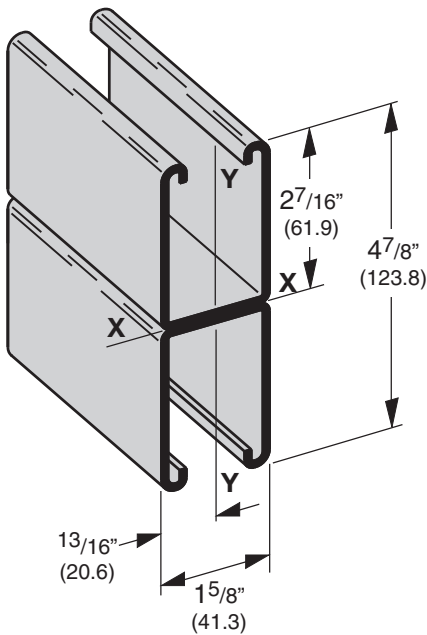
- Thickness: 12 Gauge (2.6 mm)
- Standard lengths: 10' (3.05 m) & 20' (6.09 m)
- Standard finishes: Plain, Dura-Green, Pre-Galvanized, Hot-Dipped Galvanized, Aluminum
- Weight: 2.47 Lbs./Ft. (3.67 kg/m)



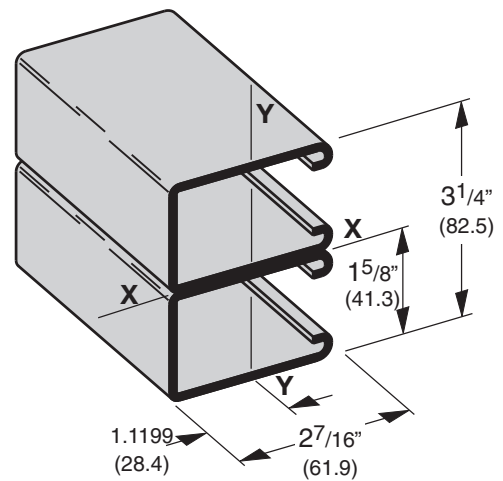
### SECTION PROPERTIES

Channel	Weight lbs./ft. kg/m	Areas of Section		Moment of Inertia (I)		Section Modulus (S)		Radius of Gyration (r)		Moment of Inertia (I)		Section Modulus (S)		Radius of Gyration (r)	
		sq. in.	cm <sup>2</sup>	in. <sup>4</sup>	cm <sup>4</sup>	in. <sup>3</sup>	cm <sup>3</sup>	in.	cm	in. <sup>4</sup>	cm <sup>4</sup>	in. <sup>3</sup>	cm <sup>3</sup>	in.	cm
<b>B12</b>	2.484 (3.70)	.731 (4.71)	.5349 (22.26)	.4061 (6.65)	.856 (2.17)	.3377 (14.06)	.4156 (6.81)	.680 (1.73)							
<b>B12A</b>	4.969 (7.40)	1.462 (9.43)	2.9036 (120.86)	1.1915 (19.52)	1.409 (3.58)	.6756 (28.12)	.8315 (13.63)	.680 (1.73)							

Calculations of section properties are based on metal thicknesses as determined by the AISI Cold-Formed Steel Design Manual.



**B12A**  
Wt. 4.94 Lbs./Ft. (7.35 kg/m)



**B12B**  
Wt. 4.94 Lbs./Ft. (7.35 kg/m)

Reference page 14 for general fitting and standard finish specifications.

# B12 Beam & Column Loading Data

## BEAM LOADING

Beam Span In. mm		Channel Style	Uniform Load and Deflection				Uniform Load @ Deflection =			
			1/240 Span		1/360 Span		1/240 Span		1/360 Span	
In.	mm		Lbs.	N	In.	mm	Lbs.	N	Lbs.	N
12	(305)	<b>B12</b>	3880	(17259)	.009	(.23)	3880	(17259)	3880	(17259)
		<b>B12A</b>	3880*	(17259)	.001	(.02)	3880*	(17259)	3880*	(17259)
24	(609)	<b>B12</b>	3273	(14559)	.038	(.96)	3273	(14559)	3273	(14559)
		<b>B12A</b>	3880*	(17259)	.008	(.20)	3880*	(17259)	3880*	(17259)
36	(914)	<b>B12</b>	2182	(9706)	.086	(2.18)	2182	(9706)	2182	(9706)
		<b>B12A</b>	3880*	(17259)	.028	(.71)	3880*	(17259)	3880*	(17259)
48	(1219)	<b>B12</b>	1636	(7277)	.153	(3.88)	1636	(7277)	1421	(6321)
		<b>B12A</b>	3880*	(17259)	.067	(1.70)	3880*	(17259)	3880*	(17259)
60	(1524)	<b>B12</b>	1309	(5823)	.240	(6.09)	1309	(5823)	909	(4043)
		<b>B12A</b>	3847*	(17112)	.130	(3.30)	3847*	(17112)	3847*	(17112)
72	(1829)	<b>B12</b>	1091	(4853)	.345	(8.76)	947	(4212)	632	(2811)
		<b>B12A</b>	3206	(14261)	.188	(4.77)	3206	(14261)	3206	(14261)
84	(2133)	<b>B12</b>	935	(4159)	.470	(11.94)	696	(3096)	464	(2064)
		<b>B12A</b>	2748	(12224)	.255	(6.48)	2748	(12224)	2509	(11160)
96	(2438)	<b>B12</b>	818	(3638)	.614	(15.59)	533	(2371)	355	(1579)
		<b>B12A</b>	2404	(10693)	.334	(8.48)	2404	(10693)	1921	(8545)
108	(2743)	<b>B12</b>	727	(3234)	.777	(19.73)	421	(1873)	281	(1250)
		<b>B12A</b>	2137	(9506)	.422	(10.72)	2137	(9506)	1518	(6752)
120	(3048)	<b>B12</b>	655	(2913)	.959	(24.36)	341	(1517)	227	(1010)
		<b>B12A</b>	1924	(8558)	.521	(13.23)	1844	(8202)	1229	(5467)

Based on simple beam condition using an allowable design stress of 25,000 psi (172 MPa) in accordance with MFMA, with adequate lateral bracing (see page 11 for further explanation). Actual yield point of cold rolled steel is 42,000 psi. To determine concentrated load capacity at mid span, multiply uniform load by 0.5 and corresponding deflection by 0.8. \*Failure determined by weld shear.

## COLUMN LOADING

Unbraced Height In. mm		Channel Style	Max. Column Loading K = .80				Max. Column Loading (Loaded @ C.G.)					
			Loaded@ C.G.		Loaded@ Slot Face		K = .65		K = 1.0		K = 1.2	
In.	mm		Lbs.	N	Lbs.	N	Lbs.	N	Lbs.	N	Lbs.	N
12	(305)	<b>B12</b>	10140	(45105)	4752	(21138)	10247	(45581)	9965	(44326)	9756	(43397)
		<b>B12A</b>	20820	(92612)	8023	(35688)	20854	(92763)	20763	(92358)	20694	(92051)
24	(609)	<b>B12</b>	9244	(41119)	4514	(20079)	9639	(42876)	8629	(38384)	7933	(35288)
		<b>B12A</b>	20519	(91273)	7956	(35390)	20655	(91878)	20293	(90268)	20017	(89040)
36	(914)	<b>B12</b>	7933	(35288)	4137	(18402)	8711	(35748)	6786	(30185)	5572	(24785)
		<b>B12A</b>	20017	(89040)	7844	(34892)	20324	(90405)	19509	(86780)	18889	(84022)
48	(1219)	<b>B12</b>	6386	(28406)	3638	(16182)	7562	(33637)	4785	(21285)	3717	(16534)
		<b>B12A</b>	19315	(85917)	7688	(34198)	19861	(88346)	18412	(81900)	17309	(76994)
60	(1524)	<b>B12</b>	4785	(21285)	2963	(13180)	6285	(27957)	3523	(15671)	2806	(12482)
		<b>B12A</b>	18412	(81900)	6941	(30875)	19265	(85695)	17002	(75628)	15278	(67960)
72	(1829)	<b>B12</b>	3717	(16534)	2197	(9773)	4964	(22081)	2806	(12482)	2271	(10102)
		<b>B12A</b>	17309	(76994)	5334	(23727)	18536	(82452)	15278	(67960)	12795	(56915)
84	(2133)	<b>B12</b>	3052	(13576)	1717	(7637)	3994	(17766)	2345	(10431)	1913	(8509)
		<b>B12A</b>	16005	(71194)	4176	(18576)	17675	(78622)	13240	(58894)	9884	(43966)
96	(2438)	<b>B12</b>	2600	(11565)	1391	(6187)	3350	(14901)	2019	(8981)	1650	(7339)
		<b>B12A</b>	14500	(64499)	3328	(14803)	16682	(74205)	10889	(48436)	7567	(33659)
108	(2743)	<b>B12</b>	2271	(10102)	1155	(5137)	2893	(12869)	1773	(7886)	1446	(6432)
		<b>B12A</b>	12795	(56915)	2692	(11974)	15556	(69196)	8610	(38299)	5979	(26596)
120	(3048)	<b>B12</b>	2019	(8981)	977	(4346)	2553	(11356)	1577	(7015)	1279**	(5689)
		<b>B12A</b>	10889	(48436)	2202	(9795)	14298	(63600)	6974	(31022)	4843**	(21543)

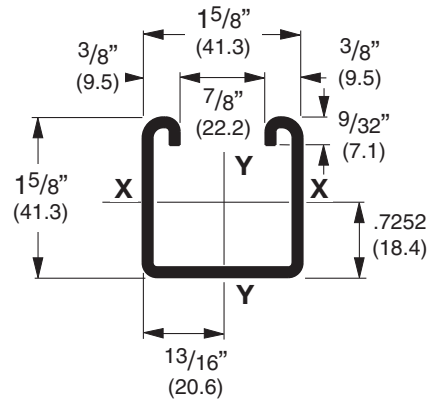
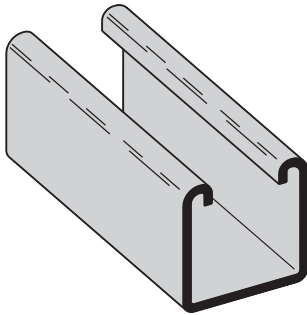
\*\*Where the slenderness ratio  $\frac{KL}{r}$  exceeds 200, and K = end fixity factor, L = actual length and r = radius of gyration.

Reference page 14 for general fitting and standard finish specifications.

# B22 Channel

## B22

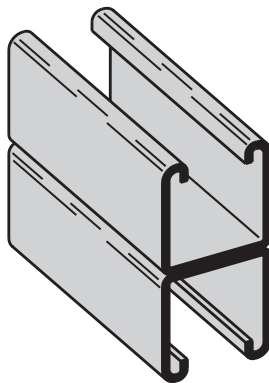
- Thickness: 12 Gauge (2.6 mm)
- Standard lengths: 10' (3.05 m) & 20' (6.09 m)
- Standard finishes: Plain, Dura-Green, Pre-Galvanized, Hot-Dipped Galvanized, Stainless Steel Type 304 or 316, Aluminum
- Weight: 1.90 Lbs./Ft. (2.83 kg/m)



## SECTION PROPERTIES

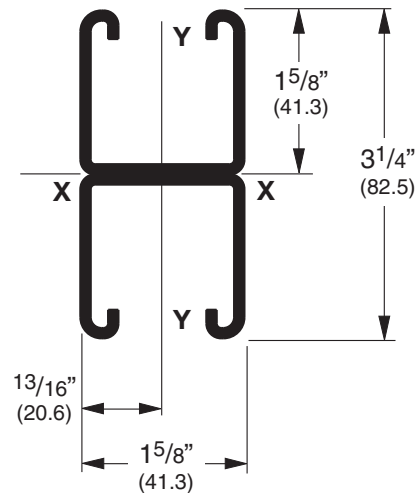
Channel	Weight lbs./ft. kg/m	Areas of Section		Moment of Inertia (I)		Section Modulus (S)		Radius of Gyration (r)		Moment of Inertia (I)		Section Modulus (S)		Radius of Gyration (r)	
		sq. in.	cm <sup>2</sup>	in. <sup>4</sup>	cm <sup>4</sup>	in. <sup>3</sup>	cm <sup>3</sup>	in.	cm	in. <sup>4</sup>	cm <sup>4</sup>	in. <sup>3</sup>	cm <sup>3</sup>	in.	cm
<b>B22</b>	1.910 (2.84)	.562 (3.62)	.1912 (7.96)	.2125 (3.48)	.583 (1.48)	.2399 (9.99)	.2953 (4.84)	.653 (1.66)							
<b>B22A</b>	3.820 (5.69)	1.124 (7.25)	.9732 (40.51)	.5989 (9.81)	.931 (2.36)	.4798 (19.97)	.5905 (9.68)	.653 (1.66)							
<b>B22X</b>	6.649 (9.89)	1.956 (12.62)	4.1484 (172.67)	1.7019 (27.89)	1.456 (3.70)	1.1023 (45.88)	1.2027 (19.71)	.751 (1.91)							

Calculations of section properties are based on metal thicknesses as determined by the AISI Cold-Formed Steel Design Manual.



## B22A

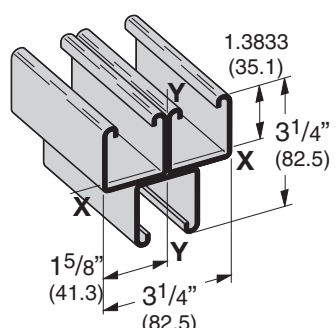
Wt. 3.80 Lbs./Ft. (5.65 kg/m)



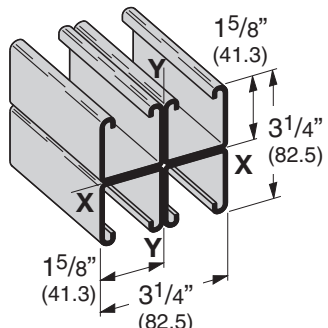
Reference page 14 for general fitting and standard finish specifications.

# B22 Combinations

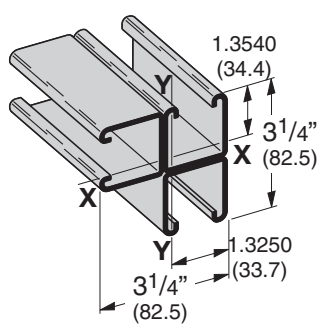
Channel & Combinations



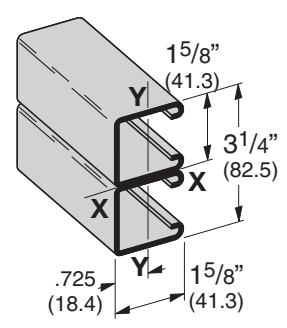
**B22A3**  
Wt. 5.70 Lbs./Ft. (8.48 kg/m)



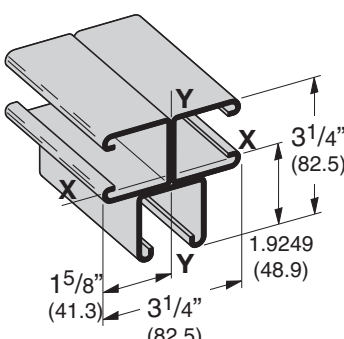
**B22A4**  
Wt. 7.60 Lbs./Ft. (11.31 kg/m)



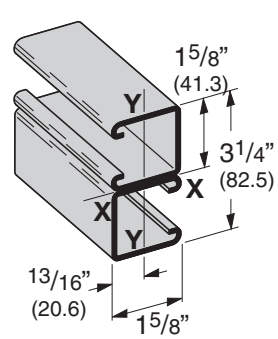
**B22AD3**  
Wt. 5.70 Lbs./Ft. (8.48 kg/m)



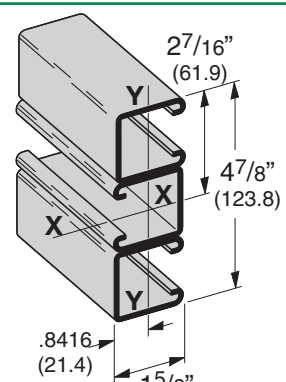
**B22B**  
Wt. 3.80 Lbs./Ft. (5.65 kg/m)



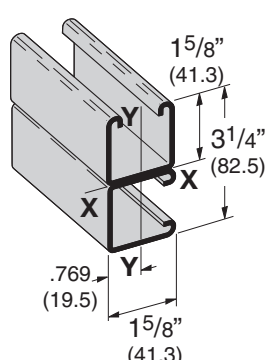
**B22B3**  
Wt. 5.70 Lbs./Ft. (8.48 kg/m)



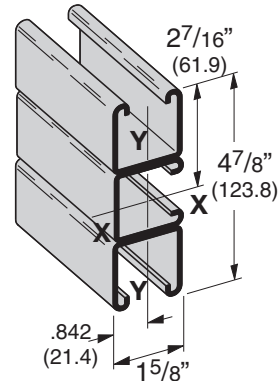
**B22C**  
Wt. 3.80 Lbs./Ft. (5.65 kg/m)



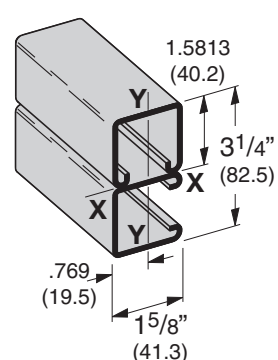
**B22C3**  
Wt. 5.70 Lbs./Ft. (8.48 kg/m)



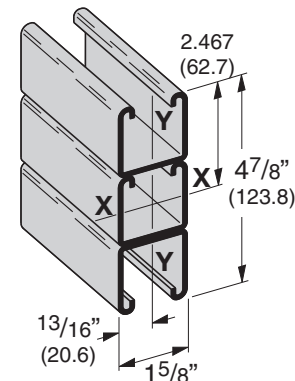
**B22D**  
Wt. 3.80 Lbs./Ft. (5.65 kg/m)



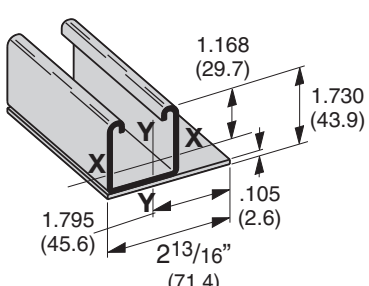
**B22D3**  
Wt. 5.70 Lbs./Ft. (8.48 kg/m)



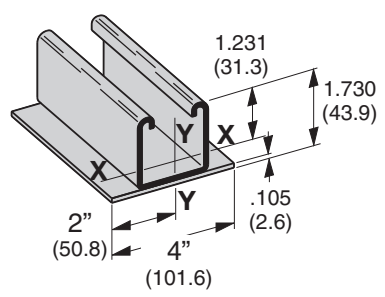
**B22E**  
Wt. 3.80 Lbs./Ft. (5.65 kg/m)



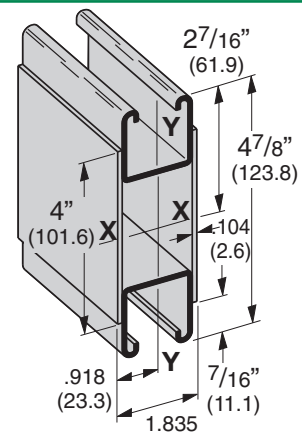
**B22E3**  
Wt. 5.70 Lbs./Ft. (8.48 kg/m)



**B22LPL**  
Wt. 2.90 Lbs./Ft. (4.31 kg/m)



**B22PL**  
Wt. 3.35 Lbs./Ft. (4.98 kg/m)



**B22X**  
Wt. 6.70 Lbs./Ft. (9.97 kg/m)

Reference page 14 for general fitting and standard finish specifications.

# B22 Beam Loading Data

Beam Span In.      mm		Channel Style	Uniform Load and Deflection				Uniform Load @ Deflection = 1/240 Span 1/360 Span			
			Lbs.	N	In.	mm	Lbs.	N	Lbs.	N
12	(305)	<b>B22</b>	2610	(11610)	.014	(.35)	2610	(11610)	2610	(11610)
		<b>B22A</b>	2610*	(11610)	.002	(.05)	2610*	(11610)	2610*	(11610)
		<b>B22X</b>	5790*	(25755)	.001	(.02)	5790*	(25755)	5790*	(25755)
18	(457)	<b>B22</b>	2269	(10093)	.031	(.79)	2269	(10093)	2269	(10093)
		<b>B22A</b>	2610*	(11610)	.007	(.18)	2610*	(11610)	2610*	(11610)
		<b>B22X</b>	5790*	(25755)	.003	(.07)	5790*	(25755)	5790*	(25755)
24	(609)	<b>B22</b>	1702	(7571)	.056	(1.42)	1702	(7571)	1702	(7571)
		<b>B22A</b>	2610*	(11610)	.017	(.43)	2610*	(11610)	2610*	(11610)
		<b>B22X</b>	5790*	(25755)	.008	(.20)	5790*	(25755)	5790*	(25755)
30	(762)	<b>B22</b>	1361	(6054)	.087	(2.21)	1361	(6054)	1294	(5756)
		<b>B22A</b>	2610*	(11610)	.033	(.84)	2610*	(11610)	2610*	(11610)
		<b>B22X</b>	5790*	(25755)	.017	(.73)	5790*	(25755)	5790*	(25755)
36	(914)	<b>B22</b>	1135	(5049)	.126	(3.20)	1135	(5049)	899	(3999)
		<b>B22A</b>	2610*	(11610)	.057	(1.45)	2610*	(11610)	2610*	(11610)
		<b>B22X</b>	5790*	(25755)	.029	(.73)	5790*	(25755)	5790*	(25755)
42	(1067)	<b>B22</b>	972	(4323)	.172	(4.37)	972	(4323)	660	(2936)
		<b>B22A</b>	2610*	(11610)	.091	(2.31)	2610*	(11610)	2610*	(11610)
		<b>B22X</b>	5790*	(25755)	.046	(1.17)	5790*	(25755)	5790*	(25755)
48	(1219)	<b>B22</b>	851	(3785)	.224	(5.69)	758	(3372)	505	(2246)
		<b>B22A</b>	2405	(10698)	.125	(3.17)	2405	(10698)	2405	(10698)
		<b>B22X</b>	5790*	(25755)	.068	(1.73)	5790*	(25755)	5790*	(25755)
54	(1371)	<b>B22</b>	756	(3363)	.284	(7.21)	599	(2664)	399	(1775)
		<b>B22A</b>	2138	(9510)	.158	(4.01)	2138	(9510)	2024	(9003)
		<b>B22X</b>	5790*	(25755)	.097	(2.46)	5790*	(25755)	5790*	(25755)
60	(1524)	<b>B22</b>	681	(3029)	.351	(8.91)	485	(2157)	323	(1437)
		<b>B22A</b>	1924	(8558)	.195	(4.95)	1924	(8558)	1640	(7295)
		<b>B22X</b>	5645	(25110)	.130	(3.30)	5645	(25110)	5645	(25110)
66	(1676)	<b>B22</b>	619	(2753)	.424	(10.77)	401	(1784)	267	(1187)
		<b>B22A</b>	1749	(7780)	.236	(5.99)	1749	(7780)	1355	(6027)
		<b>B22X</b>	5132	(22828)	.158	(4.01)	5132	(22828)	5132	(22828)
72	(1829)	<b>B22</b>	567	(2522)	.505	(12.83)	337	(1499)	225	(1001)
		<b>B22A</b>	1603	(7130)	.281	(7.14)	1603	(7130)	1139	(5066)
		<b>B22X</b>	4704	(20924)	.188	(4.77)	4704	(20924)	4704	(20924)
78	(1981)	<b>B22</b>	524	(2331)	.593	(15.06)	287	(1276)	191	(849)
		<b>B22A</b>	1480	(6583)	.330	(8.38)	1455	(6472)	970	(4315)
		<b>B22X</b>	4342	(19314)	.220	(5.59)	4342	(19314)	4270	(18994)
84	(2133)	<b>B22</b>	486	(2162)	.687	(17.45)	248	(1103)	165	(734)
		<b>B22A</b>	1374	(6112)	.383	(9.73)	1255	(5582)	837	(3723)
		<b>B22X</b>	4032	(17935)	.255	(6.48)	4032	(17935)	3682	(16378)
90	(2286)	<b>B22</b>	454	(2019)	.789	(20.04)	216	(961)	144	(640)
		<b>B22A</b>	1283	(5707)	.440	(11.17)	1093	(4862)	729	(3243)
		<b>B22X</b>	3763	(16738)	.293	(7.44)	3763	(16738)	3207	(14265)
96	(2438)	<b>B22</b>	425	(1890)	.898	(22.81)	190	(845)	126	(560)
		<b>B22A</b>	1202	(5347)	.500	(12.70)	961	(4275)	640	(2847)
		<b>B22X</b>	3528	(15693)	.334	(8.48)	3528	(15693)	2819	(12539)
102	(2591)	<b>B22</b>	400	(1779)	1.013	(25.73)	168	(747)	112	(498)
		<b>B22A</b>	1132	(5035)	.565	(14.35)	851	(3785)	567	(2522)
		<b>B22X</b>	3320	(14768)	.377	(9.57)	3320	(14768)	2497	(11107)
108	(2743)	<b>B22</b>	378	(1681)	1.136	(28.85)	150	(667)	100	(445)
		<b>B22A</b>	1069	(4755)	.633	(16.08)	759	(3376)	506	(2251)
		<b>B22X</b>	3136	(13949)	.422	(10.72)	3136	(13949)	2227	(9906)
114	(2895)	<b>B22</b>	358	(1592)	1.266	(32.15)	134	(596)	90	(400)
		<b>B22A</b>	1013	(4506)	.706	(17.93)	681	(3029)	454	(2019)
		<b>B22X</b>	2971	(13215)	.471	(11.96)	2971	(13215)	1999	(8892)
120	(3048)	<b>B22</b>	340	(1512)	1.403	(35.63)	121	(538)	81	(360)
		<b>B22A</b>	962	(4279)	.782	(19.86)	615	(2735)	410	(1824)
		<b>B22X</b>	2822	(12553)	.521	(13.23)	2706	(12037)	1804	(8024)

Based on simple beam condition using an allowable design stress of 25,000 psi (172 MPa) in accordance with MFMA, with adequate lateral bracing (see page 11 for further explanation). Actual yield point of cold rolled steel is 42,000 psi. To determine concentrated load capacity at mid span, multiply uniform load by 0.5 and corresponding deflection by 0.8. \*Failure determined by weld shear.

Reference page 14 for general fitting and standard finish specifications.

# B22 Column Loading Data

Unbraced Height		Channel Style	Max. Column Loading K = .80				Max. Column Loading (Loaded @ C.G.)					
			Loaded@ C.G.		Loaded@ Slot Face		K = .65		K = 1.0		K = 1.2	
			Lbs.	N	Lbs.	N	Lbs.	N	Lbs.	N	Lbs.	N
In.	mm											
12	(305)	<b>B22</b>	10454	(46502)	4276	(19120)	10598	(47142)	10222	(45470)	9950	(44260)
		<b>B22A</b>	21625	(96193)	7002	(31146)	21677	(96424)	21539	(95810)	21433	(95339)
		<b>B22X</b>	46948	(208835)	18975	(84405)	47061	(209338)	46761	(208003)	46531	(206980)
18	(457)	<b>B22</b>	9950	(44260)	4153	(18473)	10253	(45607)	9481	(42173)	8955	(39834)
		<b>B22A</b>	21433	(95339)	6959	(30955)	21551	(95863)	21239	(94476)	21001	(93417)
		<b>B22X</b>	46531	(206980)	18859	(83899)	46787	(208119)	46110	(205107)	45593	(202808)
24	(609)	<b>B22</b>	9311	(41417)	3993	(17762)	9801	(43597)	8582	(38174)	7801	(34700)
		<b>B22A</b>	21164	(94142)	6898	(30684)	21373	(95072)	20819	(92607)	20397	(90730)
		<b>B22X</b>	45947	(204382)	18693	(84440)	46401	(206402)	45198	(201051)	44282	(196976)
30	(762)	<b>B22</b>	8582	(38174)	3802	(16912)	9268	(41226)	7601	(33811)	6595	(29336)
		<b>B22A</b>	20819	(92607)	6821	(30341)	21145	(94057)	20279	(90205)	19619	(87269)
		<b>B22X</b>	45198	(201051)	18485	(82225)	45906	(204200)	44026	(195837)	42593	(189463)
36	(914)	<b>B22</b>	7801	(34700)	3589	(15964)	8676	(38593)	6595	(28336)	5392	(23985)
		<b>B22A</b>	20397	(90730)	6728	(29927)	20866	(92816)	19619	(87269)	18669	(83044)
		<b>B22X</b>	44282	(196976)	18233	(81104)	45300	(201504)	42593	(189463)	40530	(180286)
42	(1067)	<b>B22</b>	6998	(31128)	3360	(14946)	8048	(35799)	5595	(24888)	4444	(19768)
		<b>B22A</b>	19898	(88511)	6620	(29447)	20537	(91353)	18840	(83804)	17546	(78048)
		<b>B22X</b>	43198	(192154)	17940	(79801)	44586	(198328)	40901	(181937)	38092	(169441)
48	(1219)	<b>B22</b>	6193	(27548)	3118	(13869)	7401	(32921)	4718	(20987)	3791	(16863)
		<b>B22A</b>	19322	(85948)	6496	(28895)	20157	(89663)	17940	(79801)	16251	(72288)
		<b>B22X</b>	41948	(186594)	17604	(78306)	43761	(194568)	38948	(173254)	35281	(156938)
54	(1371)	<b>B22</b>	5392	(23985)	2864	(12740)	6746	(30008)	4090	(18193)	3310	(14723)
		<b>B22A</b>	18669	(83044)	6263	(27859)	19276	(87745)	16920	(75264)	14782	(65753)
		<b>B22X</b>	40530	(180286)	16973	(75499)	42825	(190495)	36733	(163396)	32092	(142752)
60	(1524)	<b>B22</b>	4718	(20987)	2631	(11703)	6093	(27103)	3616	(16085)	2936	(13060)
		<b>B22A</b>	17940	(79801)	5340	(23753)	19244	(85601)	15781	(70197)	13141	(58454)
		<b>B22X</b>	38948	(173249)	14471	(64370)	41779	(185842)	34260	(152396)	28529	(126903)
66	(1676)	<b>B22</b>	4202	(18691)	2434	(10827)	5441	(24203)	3242	(14421)	2634	(11716)
		<b>B22A</b>	17134	(76216)	4587	(20404)	18712	(83235)	14521	(64592)	11328	(50389)
		<b>B22X</b>	37198	(165465)	12431	(55296)	40624	(180704)	31525	(140230)	24593	(109395)
72	(1829)	<b>B22</b>	3791	(16863)	2264	(10071)	4869	(21658)	2936	(13060)	2381	(10591)
		<b>B22A</b>	16251	(72288)	3968	(17650)	18129	(80642)	13141	(58454)	9524	(42365)
		<b>B22X</b>	35281	(156938)	10753	(47832)	39358	(175073)	28529	(126903)	20676	(91971)
78	(1981)	<b>B22</b>	3456	(15373)	2116	(9412)	4412	(19625)	2680	(11921)	2166	(9635)
		<b>B22A</b>	15291	(68018)	3456	(15373)	17496	(77826)	11642	(51786)	8115	(36097)
		<b>B22X</b>	33197	(147667)	9366	(41662)	37984	(168961)	25275	(112429)	17617	(78364)
84	(2133)	<b>B22</b>	3176	(14127)	1984	(8825)	4037	(17957)	2461	(10947)	1980	(8807)
		<b>B22A</b>	14255	(63409)	3028	(13469)	16812	(74783)	10076	(44820)	6998	(31128)
		<b>B22X</b>	30947	(137659)	8206	(36502)	36499	(162355)	21875	(97305)	15192	(67577)
90	(2286)	<b>B22</b>	2936	(13060)	1867	(8305)	3724	(16565)	2270	(10097)	1816	(8078)
		<b>B22A</b>	13141	(58454)	2667	(11863)	16077	(71514)	8778	(39046)	6096	(27116)
		<b>B22X</b>	28529	(126903)	7227	(32147)	34903	(155256)	19057	(84770)	13234	(58868)
96	(2438)	<b>B22</b>	2728	(16583)	1761	(7833)	3456	(15373)	2101	(9346)	1671	(7433)
		<b>B22A</b>	11951	(53160)	2359	(10493)	15291	(68018)	7715	(34318)	5357	(23829)
		<b>B22X</b>	25945	(115409)	6393	(28437)	33197	(147667)	16749	(74503)	11630	(51733)
102	(2591)	<b>B22</b>	2545	(11321)	1664	(7402)	3225	(14345)	1951	(8678)	1542**	(6343)
		<b>B22A</b>	10678	(47498)	2093	(9310)	14455	(64299)	6834	(30399)	4746	(21111)
		<b>B22X</b>	23182	(103118)	5672	(25230)	31382	(139594)	14836	(65994)	10303	(45830)
108	(2743)	<b>B22</b>	2381	(10591)	1575	(7006)	3022	(13442)	1816	(8078)	1426**	(68599)
		<b>B22A</b>	9524	(42365)	1867	(8305)	13568	(60353)	6096	(27116)	4233	(18829)
		<b>B22X</b>	20676	(91971)	5059	(22503)	29456	(131027)	13234	(58868)	9190	(40879)
114	(2895)	<b>B22</b>	2234	(9937)	1494	(6645)	2842	(12642)	1694	(7535)	1322**	(5880)
		<b>B22A</b>	8548	(38023)	1675	(7451)	12630	(56181)	5471	(24336)	3799**	(16899)
		<b>B22X</b>	18558	(82550)	4539	(20190)	27420	(121970)	11877	(52831)	8247	(36684)
120	(3048)	<b>B22</b>	2101	(9346)	1418	(6307)	2680	(11921)	1583**	(7041)	1228**	(5462)
		<b>B22A</b>	7715	(34318)	1512	(6726)	11642	(51786)	4937	(21961)	3429**	(15253)
		<b>B22X</b>	16749	(74503)	4097	(18224)	25275	(112429)	10718	(47676)	7444	(33112)

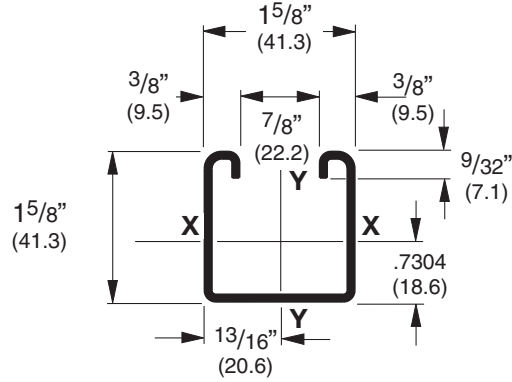
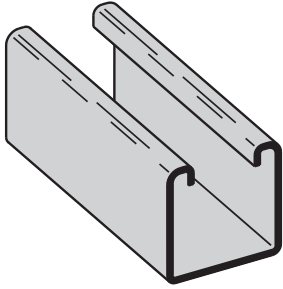
\*\*Where the slenderness ratio  $\frac{KL}{r}$  exceeds 200, and K = end fixity factor, L = actual length and r = radius of gyration.

Reference page 14 for general fitting and standard finish specifications.

# B24 Channel & Combinations

## B24

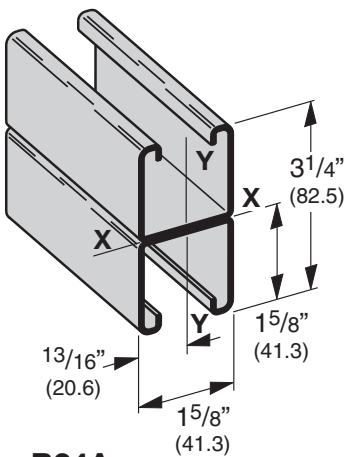
- Thickness: 14 Gauge (1.9 mm)
- Standard lengths: 10' (3.05 m) & 20' (6.09 m)
- Standard finishes: Plain, Dura-Green, Pre-Galvanized, Hot-Dipped Galvanized, Stainless Steel Type 304 or 316, Aluminum
- Weight: 1.40 Lbs./Ft. (2.08 kg/m)



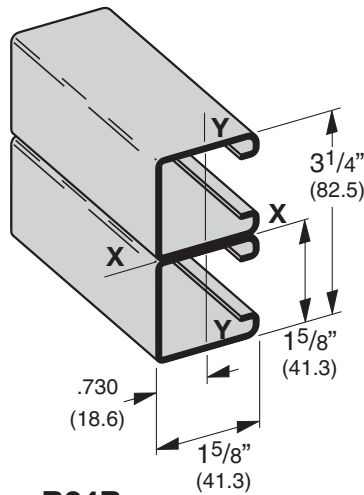
### SECTION PROPERTIES

Channel	Weight lbs./ft. kg/m	Areas of Section sq. in. cm <sup>2</sup>		X - X Axis						Y - Y Axis					
				Moment of Inertia (I) in. <sup>4</sup> cm <sup>4</sup>		Section Modulus (S) in. <sup>3</sup> cm <sup>3</sup>		Radius of Gyration (r) in. cm		Moment of Inertia (I) in. <sup>4</sup> cm <sup>4</sup>		Section Modulus (S) in. <sup>3</sup> cm <sup>3</sup>		Radius of Gyration (r) in. cm	
<b>B24</b>	1.442 (2.15)	.424 (2.74)		.1494 (6.22)		.1670 (2.74)		.594 (1.51)		.1857 (7.73)		.2286 (3.75)		.662 (1.68)	
<b>B24A</b>	2.884 (4.29)	.848 (5.47)		.7514 (31.28)		.4624 (7.58)		.941 (2.39)		.3713 (15.45)		.4570 (7.49)		.662 (1.68)	

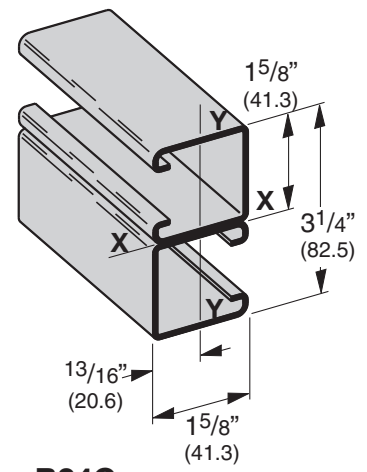
Calculations of section properties are based on metal thicknesses as determined by the AISI Cold-Formed Steel Design Manual.



**B24A**  
Wt. 2.80 Lbs./Ft. (4.16 kg/m)



**B24B**  
Wt. 2.80 Lbs./Ft. (4.16 kg/m)



**B24C**  
Wt. 2.80 Lbs./Ft. (4.16 kg/m)

Reference page 14 for general fitting and standard finish specifications.

# B24 Beam & Column Loading Data

## BEAM LOADING

Beam Span In. mm		Channel Style	Uniform Load and Deflection				Uniform Load @ Deflection =			
			Lbs. N		In. mm		1/240 Span		1/360 Span	
			Lbs.	N	In.	mm	Lbs.	N	Lbs.	N
12	(305)	B24	1750	(7784)	.014	(.35)	1750	(7784)	1750	(7784)
		B24A	1750*	(7784)	.002	(.05)	1750*	(7784)	1750*	(7784)
24	(609)	B24	1379	(6134)	.057	(1.45)	1379	(6134)	1379	(6134)
		B24A	1750*	(7784)	.014	(.35)	1750*	(7784)	1750*	(7784)
36	(914)	B24	919	(4088)	.128	(3.25)	919	(4088)	720	(3203)
		B24A	1750*	(7784)	.048	(1.22)	1750*	(7784)	1750*	(7784)
48	(1219)	B24	689	(3065)	.227	(5.76)	607	(2700)	405	(1801)
		B24A	1750*	(7784)	.115	(2.92)	1750*	(7784)	1750*	(7784)
60	(1524)	B24	551	(2451)	.355	(9.02)	389	(1730)	259	(1152)
		B24A	1518	(6752)	.195	(4.95)	1518	(6752)	1294	(5756)
72	(1829)	B24	460	(2046)	.511	(12.98)	270	(1201)	180	(800)
		B24A	1265	(5627)	.281	(7.14)	1265	(5627)	898	(3994)
84	(2133)	B24	394	(1752)	.695	(17.65)	198	(881)	132	(587)
		B24A	1084	(4822)	.383	(9.73)	990	(4404)	660	(2936)
96	(2438)	B24	345	(1534)	.908	(23.06)	152	(676)	101	(449)
		B24A	949	(4221)	.500	(12.70)	758	(3372)	505	(2246)
108	(2743)	B24	306	(1361)	1.149	(29.18)	120	(534)	80	(356)
		B24A	843	(3750)	.633	(16.08)	599	(2664)	399	(1775)
120	(3048)	B24	276	(1228)	1.419	(36.04)	97	(431)	65	(289)
		B24A	759	(3376)	.782	(19.86)	485	(2157)	323	(1437)

Based on simple beam condition using an allowable design stress of 25,000 psi (172 MPa) in accordance with MFMA, with adequate lateral bracing (see page 11 for further explanation). Actual yield point of cold rolled steel is 42,000 psi. To determine concentrated load capacity at mid span, multiply uniform load by 0.5 and corresponding deflection by 0.8. \*Failure determined by weld shear.

## COLUMN LOADING

Unbraced Height In. mm		Channel Style	Max. Column Loading K = .80				Max. Column Loading (Loaded @ C.G.)					
			Loaded@ C.G.		Loaded@ Slot Face		K = .65		K = 1.0		K = 1.2	
			Lbs.	N	Lbs.	N	Lbs.	N	Lbs.	N	Lbs.	N
12	(305)	B24	6441	(28651)	3077	(13687)	6509	(28953)	6330	(28157)	6198	(27570)
		B24A	13212	(58770)	4988	(22188)	13237	(58881)	13171	(58587)	13121	(58365)
24	(609)	B24	5874	(26129)	2896	(12882)	6124	(27241)	5483	(24389)	5038	(22410)
		B24A	12993	(57796)	4924	(21903)	13092	(58236)	12828	(57062)	12627	(56167)
36	(914)	B24	5038	(22410)	2619	(11650)	5535	(24621)	4302	(19136)	3516	(15640)
		B24A	12627	(56167)	4819	(21436)	12851	(57164)	12256	(54517)	11804	(52507)
48	(1219)	B24	4043	(17984)	2272	(10106)	4800	(21351)	3008	(13380)	2324	(10337)
		B24A	12115	(53890)	4675	(20795)	12512	(55656)	11456	(50959)	10651	(47378)
60	(1524)	B24	3008	(13380)	1873	(8331)	3978	(17695)	2200	(9786)	1740	(7740)
		B24A	11456	(50959)	4020	(17882)	12078	(53725)	10427	(46381)	9169	(40786)
72	(1829)	B24	2324	(10337)	1562	(6948)	3123	(13892)	1740	(7740)	1397	(6214)
		B24A	10651	(47378)	3048	(13558)	11546	(51359)	9169	(40786)	7358	(32730)
84	(2133)	B24	1898	(8443)	1340	(5960)	2502	(11129)	1444	(6423)	1168	(5195)
		B24A	9700	(43148)	2362	(10506)	10918	(48565)	7683	(34175)	5464	(24305)
96	(2438)	B24	1608	(7153)	1175	(5226)	2089	(9292)	1236	(5498)	1000	(4448)
		B24A	8602	(38263)	1866	(8300)	10194	(45345)	6024	(26796)	4184	(18611)
108	(2743)	B24	1397	(6214)	1046	(4653)	1796	(7989)	1078	(4795)	870**	(3870)
		B24A	7358	(32730)	1498	(6663)	9373	(41693)	4760	(21173)	3306	(14706)
120	(3048)	B24	1236	(5498)	942	(4190)	1578	(7019)	953**	(4239)	764**	(3398)
		B24A	6024	(26796)	1216	(5409)	8455	(37610)	3856	(17152)	2677**	(11908)

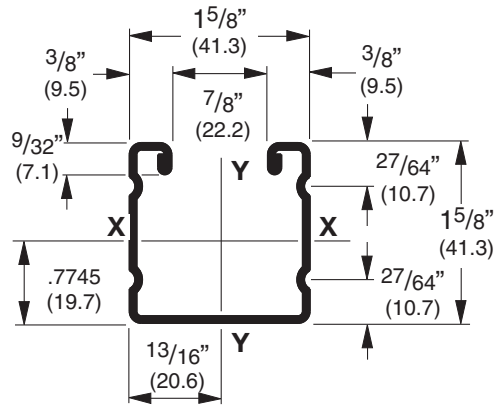
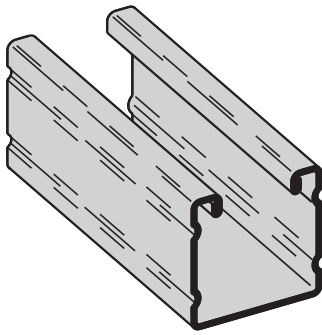
\*\*Where the slenderness ratio  $\frac{KL}{r}$  exceeds 200, and K = end fixity factor, L = actual length and r = radius of gyration.

Reference page 14 for general fitting and standard finish specifications.

# B26 Channel & Combinations

## B26

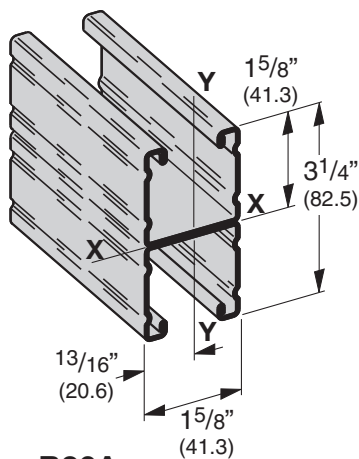
- Thickness: 16 Gauge (1.5 mm)
- Standard lengths: 10' (3.05 m) & 20' (6.09 m)
- Standard finishes: Plain, Dura-Green, Pre-Galvanized
- Weight: 1.12 Lbs./Ft. (1.66 kg/m)



## SECTION PROPERTIES

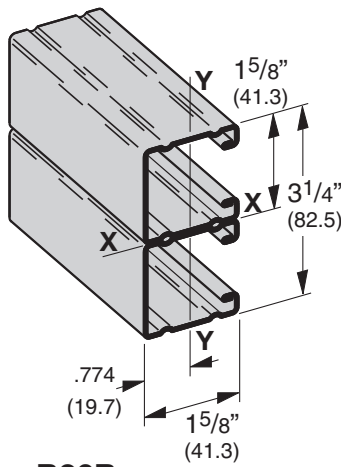
Channel	Weight lbs./ft. kg/m		Areas of Section sq. in. cm <sup>2</sup>		Moment of Inertia (I) in. <sup>4</sup> cm <sup>4</sup>		X - X Axis		Y - Y Axis		Moment of Inertia (I) in. <sup>4</sup> cm <sup>4</sup>		Section Modulus (S) in. <sup>3</sup> cm <sup>3</sup>		Radius of Gyration (r) in. cm	
							in. <sup>3</sup>	cm <sup>3</sup>	in. <sup>4</sup>	cm <sup>4</sup>	in. <sup>3</sup>	cm <sup>3</sup>	in.	cm		
<b>B26</b>	1.234	(1.84)	.363	(2.34)	.1337	(5.57)	.1581	(2.59)	.607	(1.54)	.1564	(6.51)	.1925	(3.15)	.656	(1.67)
<b>B26A</b>	2.467	(3.67)	.726	(4.68)	.7086	(29.49)	.4361	(7.15)	.988	(2.51)	.3128	(13.02)	.3850	(6.31)	.656	(1.67)

Calculations of section properties are based on metal thicknesses as determined by the AISI Cold-Formed Steel Design Manual.



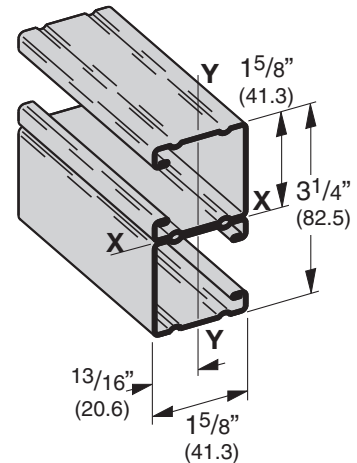
### B26A

Wt. 2.24 Lbs./Ft. (3.33 kg/m)



### B26B

Wt. 2.24 Lbs./Ft. (3.33 kg/m)



### B26C

Wt. 2.24 Lbs./Ft. (3.33 kg/m)

Reference page 14 for general fitting and standard finish specifications.

# B26 Beam & Column Loading Data

## BEAM LOADING

Beam Span In. mm		Channel Style	Uniform Load and Deflection				Uniform Load @ Deflection =			
			Lbs. N		In. mm		1/240 Span		1/360 Span	
			Lbs.	N	In.	mm	Lbs.	N	Lbs.	N
12	(305)	B26	1220	(5427)	.014	(.35)	1220	(5427)	1220	(5427)
		B26A	1220*	(5427)	.001	(.02)	1220*	(5427)	1220*	(5427)
24	(609)	B26	1163	(5173)	.057	(1.45)	1163	(5173)	1163	(5173)
		B26A	1220*	(5427)	.012	(.30)	1220*	(5427)	1220*	(5427)
36	(914)	B26	775	(3447)	.128	(3.25)	775	(3447)	603	(2682)
		B26A	1220*	(5427)	.040	(1.01)	1220*	(5427)	1220*	(5427)
48	(1219)	B26	581	(2584)	.228	(5.79)	509	(2264)	339	(1508)
		B26A	1220*	(5427)	.096	(2.44)	1220*	(5427)	1220*	(5427)
60	(1524)	B26	465	(2068)	.357	(9.07)	326	(1450)	217	(965)
		B26A	1220*	(5427)	.188	(4.77)	1220*	(5427)	1076	(4786)
72	(1829)	B26	388	(1726)	.514	(13.05)	226	(1450)	151	(965)
		B26A	1052	(4679)	.281	(7.14)	1052	(4679)	747	(3323)
84	(2133)	B26	332	(1477)	.699	(17.75)	166	(738)	111	(494)
		B26A	902	(4012)	.383	(9.73)	824	(3665)	549	(2442)
96	(2438)	B26	291	(1294)	.913	(23.19)	127	(565)	85	(378)
		B26A	789	(3509)	.500	(12.70)	631	(2807)	420	(1868)
108	(2743)	B26	258	(1147)	1.156	(29.36)	101	(449)	67	(298)
		B26A	702	(3122)	.633	(16.08)	498	(2215)	332	(1477)
120	(3048)	B26	233	(1036)	1.427	(36.24)	81	(360)	54	(240)
		B26A	631	(2807)	.782	(19.86)	404	(1797)	269	(1196)

Based on simple beam condition using an allowable design stress of 25,000 psi (172 MPa) in accordance with MFMA, with adequate lateral bracing (see page 11 for further explanation). Actual yield point of cold rolled steel is 42,000 psi. To determine concentrated load capacity at mid span, multiply uniform load by 0.5 and corresponding deflection by 0.8. \*Failure determined by weld shear.

## COLUMN LOADING

Unbraced Height In. mm		Channel Style	Max. Column Loading K = .80				Max. Column Loading (Loaded @ C.G.)					
			Loaded@ C.G.		Loaded@ Slot Face		K = .65		K = 1.0		K = 1.2	
			Lbs.	N	Lbs.	N	Lbs.	N	Lbs.	N	Lbs.	N
12	(305)	B26	4002	(17802)	2216	(9857)	4032	(17935)	3952	(17579)	3891	(17308)
		B26A	8151	(36257)	3630	(16147)	8163	(36311)	8133	(36177)	8109	(36070)
24	(609)	B26	3740	(16636)	2109	(9381)	3857	(17157)	3554	(15809)	3336	(14838)
		B26A	8051	(35812)	3591	(15973)	8096	(36013)	7975	(35474)	7883	(35065)
36	(914)	B26	3336	(14839)	1941	(8634)	3579	(15920)	2962	(13175)	2546	(11325)
		B26A	7883	(35065)	3528	(15693)	7986	(35523)	7713	(34309)	7505	(33384)
48	(1219)	B26	2828	(12579)	1725	(7613)	3217	(14310)	2251	(10013)	1705	(7584)
		B26A	7648	(34020)	3441	(15306)	7831	(34834)	7346	(32676)	6977	(31035)
60	(1524)	B26	2251	(10013)	1469	(6534)	2793	(12424)	1603	(7130)	1233	(5484)
		B26A	7346	(32676)	3066	(13638)	7631	(33944)	6874	(30577)	6298	(28015)
72	(1829)	B26	1705	(7584)	1203	(5351)	2326	(10346)	1233	(5484)	967	(4301)
		B26A	6977	(31035)	2385	(10609)	7388	(32863)	6298	(28015)	5467	(24318)
84	(2133)	B26	1358	(6040)	1011	(4497)	1851	(8233)	1003	(4461)	797	(3545)
		B26A	6541	(29096)	1884	(8380)	7100	(31582)	5616	(24981)	4486	(19955)
96	(2438)	B26	1129	(5022)	871	(3874)	1513	(6730)	847	(3767)	680	(3025)
		B26A	6038	(26858)	1512	(6726)	6767	(30101)	4830	(21485)	3463	(15404)
108	(2743)	B26	967	(4301)	766	(3407)	1277	(5680)	734	(3265)	592**	(2633)
		B26A	5467	(24318)	1231	(5476)	6391	(28428)	3940	(17526)	2736	(12170)
120	(3048)	B26	847	(3767)	684	(3042)	1105	(4915)	648	(2882)	523**	(2326)
		B26A	4830	(21485)	1015	(4515)	5970	(26556)	3192	(14199)	2216**	(9857)

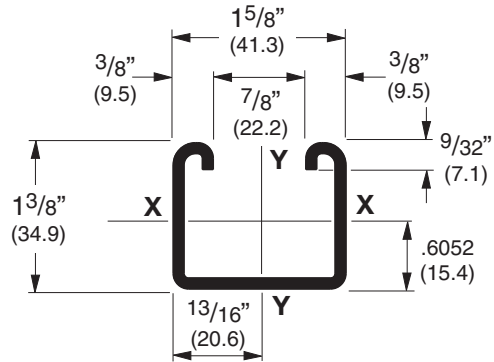
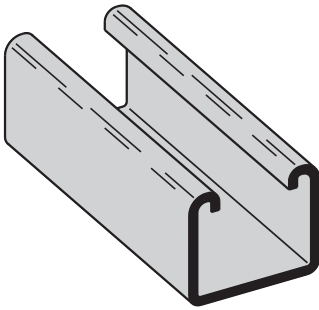
\*\*Where the slenderness ratio  $\frac{KL}{r}$  exceeds 200, and K = end fixity factor, L = actual length and r = radius of gyration.

Reference page 14 for general fitting and standard finish specifications.

# B32 Channel & Combinations

## B32

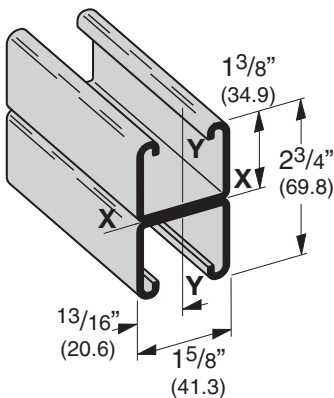
- Thickness: 12 Gauge (2.6 mm)
- Standard lengths: 10' (3.05 m) & 20' (6.09 m)
- Standard finishes: Plain, Dura-Green, Pre-Galvanized, Hot-Dipped Galvanized, Stainless Steel Type 304
- Weight: 1.70 Lbs./Ft. (2.53 kg/m)



## SECTION PROPERTIES

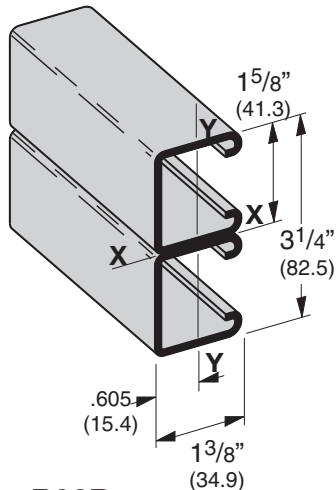
Channel	Weight		Areas of Section		Moment of Inertia (I)		Section Modulus (S)		Radius of Gyration (r)		X - X Axis				Y - Y Axis			
											Moment of Inertia (I)		Section Modulus (S)		Radius of Gyration (r)			
	lbs./ft.	kg/m	sq. in.	cm <sup>2</sup>	in. <sup>4</sup>	cm <sup>4</sup>	in. <sup>3</sup>	cm <sup>3</sup>	in.	cm	in. <sup>4</sup>	cm <sup>4</sup>	in. <sup>3</sup>	cm <sup>3</sup>	in.	cm		
<b>B32</b>	1.733	(2.58)	.510	(3.29)	.1252	(5.21)	.1626	(2.67)	.496	(1.26)	.2098	(8.73)	.2582	(4.23)	.642	(1.63)		
<b>B32A</b>	3.467	(5.16)	1.020	(6.58)	.6238	(25.96)	.4537	(7.43)	.782	(1.99)	.4195	(17.46)	.5163	(8.46)	.642	(1.63)		

Calculations of section properties are based on metal thicknesses as determined by the AISI Cold-Formed Steel Design Manual.



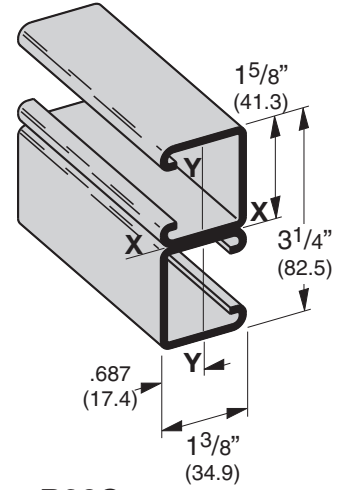
### B32A

Wt. 3.40 Lbs./Ft. (5.06 kg/m)



### B32B

Wt. 3.40 Lbs./Ft. (5.06 kg/m)



### B32C

Wt. 3.40 Lbs./Ft. (5.06 kg/m)

Reference page 14 for general fitting and standard finish specifications.

# B32 Beam & Column Loading Data

## BEAM LOADING

Beam Span In. mm		Channel Style	Uniform Load and Deflection				Uniform Load @ Deflection =			
			Lbs.		N		1/240 Span		1/360 Span	
In.	mm		Lbs.	N	In.	mm	Lbs.	N	Lbs.	N
12	(305)	B32 B32A	2210	(9830)	.016	(.40)	2210	(9830)	2210	(9830)
			2210*	(9830)	.003	(.07)	2210*	(9830)	2210*	(9830)
24	(609)	B32 B32A	1299	(5778)	.065	(1.65)	1299	(5778)	1299	(5778)
			2210*	(9830)	.022	(.56)	2210*	(9830)	2210*	(9830)
36	(914)	B32 B32A	866	(3852)	.147	(3.73)	866	(3852)	587	(2611)
			2210*	(9830)	.076	(1.93)	2210*	(9830)	2210*	(9830)
48	(1219)	B32 B32A	649	(2887)	.262	(6.65)	495	(2202)	330	(1468)
			1817	(8082)	.148	(3.76)	1817	(8082)	1638	(7286)
60	(1524)	B32 B32A	520	(2313)	.410	(10.41)	317	(1410)	211	(938)
			1454	(6468)	.231	(5.87)	1454	(6468)	1048	(4662)
72	(1829)	B32 B32A	433	(1926)	.590	(14.98)	220	(978)	147	(654)
			1211	(5387)	.333	(8.46)	1092	(4857)	728	(3238)
84	(2133)	B32 B32A	371	(1650)	.803	(20.39)	162	(720)	108	(480)
			1038	(4617)	.453	(11.50)	802	(3567)	535	(2380)
96	(2438)	B32 B32A	325	(1445)	1.049	(26.64)	124	(551)	83	(369)
			909	(4043)	.591	(15.01)	614	(2731)	410	(1824)
108	(2743)	B32 B32A	289	(1285)	1.327	(33.70)	98	(436)	65	(289)
			808	(3594)	.749	(19.02)	485	(2157)	324	(1441)
120	(3048)	B32 B32A	260	(1156)	1.639	(41.63)	79	(351)	53	(236)
			727	(3234)	.924	(23.47)	393	(1748)	262	(1165)

Based on simple beam condition using an allowable design stress of 25,000 psi (172 MPa) in accordance with MFMA, with adequate lateral bracing (see page 11 for further explanation). Actual yield point of cold rolled steel is 42,000 psi. To determine concentrated load capacity at mid span, multiply uniform load by 0.5 and corresponding deflection by 0.8. \*Failure determined by weld shear.

## COLUMN LOADING

Unbraced Height In. mm		Channel Style	Max. Column Loading K = .80				Max. Column Loading (Loaded @ C.G.)					
			Loaded@ C.G.		Loaded@ Slot Face		K = .65		K = 1.0		K = 1.2	
In.	mm		Lbs.	N	Lbs.	N	Lbs.	N	Lbs.	N	Lbs.	N
12	(305)	B32 B32A	10278	(45719)	4036	(17953)	10432	(46404)	10035	(44638)	9753	(43383)
			21320	(94836)	6557	(29167)	21378	(95094)	21224	(94409)	21106	(93884)
24	(609)	B32 B32A	9104	(40496)	3732	(16601)	9600	(42702)	8387	(37307)	7640	(33984)
			20806	(92550)	6431	(28606)	21039	(93586)	20421	(90837)	19950	(88742)
36	(914)	B32 B32A	7640	(33984)	3323	(14781)	8479	(37716)	6520	(29002)	5425	(24131)
			19950	(88742)	6228	(27703)	20474	(91073)	19083	(84885)	18023	(80170)
48	(1219)	B32 B32A	6151	(27361)	2877	(12797)	7265	(32316)	4778	(21253)	3870	(17214)
			18751	(83408)	5954	(26485)	19682	(87550)	17210	(76554)	15326	(68173)
60	(1524)	B32 B32A	4778	(21253)	2435	(10831)	6060	(26956)	3693	(16427)	2994	(13318)
			17210	(76554)	4692	(20871)	18665	(83026)	14801	(65838)	11858	(52747)
72	(1829)	B32 B32A	3870	(17214)	2089	(9292)	4923	(21898)	2994	(13318)	2403	(10689)
			15326	(68173)	3448	(15337)	17421	(77492)	11858	(52747)	8316	(36991)
84	(2133)	B32 B32A	3243	(14425)	1817	(8082)	4114	(18300)	2489	(11071)	1807**	(8038)
			13100	(58272)	2609	(11605)	15951	(70953)	8798	(39135)	6110	(27178)
96	(2438)	B32 B32A	2774	(12339)	1594	(7090)	3531	(15706)	1993	(8865)	1384**	(6156)
			10525	(46817)	2014	(8959)	14256	(63414)	6736	(29963)	4678	(20809)
108	(2743)	B32 B32A	2403	(10689)	1407	(6258)	3083	(13714)	1574**	(7001)	1093**	(4862)
			8316	(36991)	1592	(7081)	12334	(54864)	5322	(23673)	3696**	(16440)
120	(3048)	B32 B32A	1993	(8865)	1221	(5431)	2723	(12112)	1275**	(5671)	886**	(3941)
			6736	(29963)	1289	(5734)	10203	(45385)	4311	(19176)	2994**	(13318)

\*\*Where the slenderness ratio  $\frac{KL}{r}$  exceeds 200, and K = end fixity factor, L = actual length and r = radius of gyration.

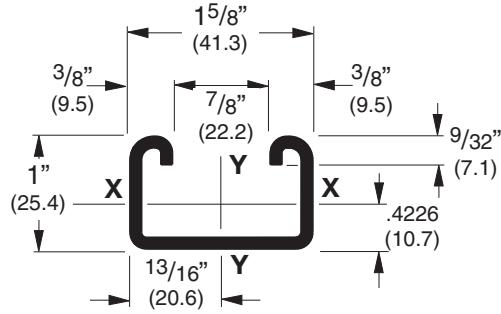
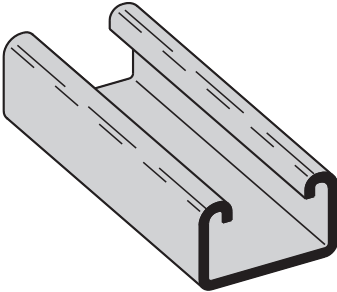
Reference page 14 for general fitting and standard finish specifications.

# B42 Channel & Combinations

## B42

- Thickness: 12 Gauge (2.6 mm)
- Standard lengths: 10' (3.05 m) & 20' (6.09 m)
- Standard finishes: Plain, Dura-Green, Pre-Galvanized, Hot-Dipped Galvanized, Stainless Steel Type 304
- Weight: 1.44 Lbs./Ft. (2.14 kg/m)

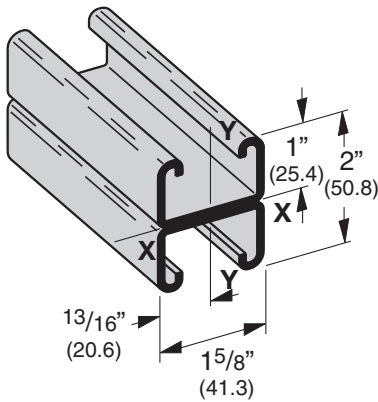
Note: Also available in 14 gauge (1.9mm) material as B44



## SECTION PROPERTIES

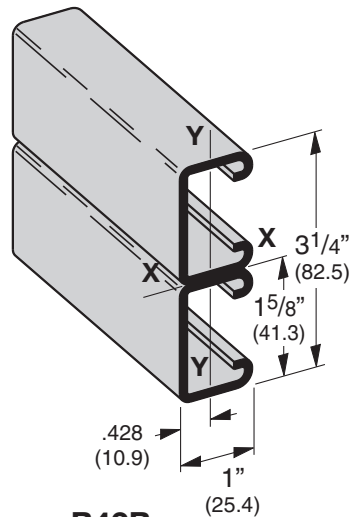
Channel	Weight		Areas of Section		Moment of Inertia (I)		Section Modulus (S)		Radius of Gyration (r)		Moment of Inertia (I)		Section Modulus (S)		Radius of Gyration (r)	
	lbs./ft.	kg/m	sq. in.	cm <sup>2</sup>	in. <sup>4</sup>	cm <sup>4</sup>	in. <sup>3</sup>	cm <sup>3</sup>	in.	cm	in. <sup>4</sup>	cm <sup>4</sup>	in. <sup>3</sup>	cm <sup>3</sup>	in.	cm
<b>B42</b>	1.468	(2.18)	.432	(2.79)	.0554	(2.31)	.0968	(1.59)	.358	(.91)	.1645	(6.85)	.2025	(3.32)	.617	(1.57)
<b>B42A</b>	2.936	(4.37)	.864	(5.57)	.2689	(11.19)	.2689	(4.41)	.558	(1.42)	.3292	(13.70)	.4052	(6.64)	.617	(1.57)

Calculations of section properties are based on metal thicknesses as determined by the AISI Cold-Formed Steel Design Manual.



## B42A

Wt. 2.88 Lbs./Ft. (4.28 kg/m)



## B42B

Wt. 2.88 Lbs./Ft. (4.28 kg/m)

Reference page 14 for general fitting and standard finish specifications.

# B42 Beam & Column Loading Data

## BEAM LOADING

Beam Span In. mm		Channel Style	Uniform Load and Deflection				Uniform Load @ Deflection =			
			Lbs.		N		1/240 Span		1/360 Span	
In.	mm		Lbs.	N	In.	mm	Lbs.	N	Lbs.	N
12	(305)	B42	1538	(6841)	.022	(.56)	1538	(6841)	1538	(6841)
		B42A	1590*	(7072)	.005	(.13)	1590*	(7072)	1590*	(7072)
24	(609)	B42	769	(3420)	.088	(2.23)	769	(3420)	582	(2589)
		B42A	1590*	(7072)	.038	(.96)	1590*	(7072)	1590*	(7072)
36	(914)	B42	513	(2282)	.198	(5.03)	388	(1726)	259	(1152)
		B42A	1428	(6352)	.114	(2.89)	1428	(6352)	1248	(5551)
48	(1219)	B42	384	(1708)	.352	(8.94)	218	(970)	145	(645)
		B42A	1071	(4764)	.203	(5.15)	1053	(4684)	702	(3122)
60	(1524)	B42	308	(1370)	.550	(13.97)	140	(623)	93	(413)
		B42A	857	(3812)	.318	(8.08)	674	(2998)	449	(1997)
72	(1829)	B42	256	(1139)	.792	(20.11)	97	(431)	65	(289)
		B42A	714	(3176)	.457	(11.61)	468	(2082)	312	(1388)
84	(2133)	B42	220	(978)	1.079	(27.40)	71	(316)	48	(213)
		B42A	612	(2722)	.623	(15.82)	344	(1530)	229	(1018)
96	(2438)	B42	192	(854)	1.409	(35.79)	55	(244)	36	(160)
		B42A	535	(2380)	.813	(20.65)	263	(1170)	176	(783)
108	(2743)	B42	171	(760)	1.783	(45.29)	43	(191)	29	(129)
		B42A	476	(2117)	1.029	(26.13)	208	(925)	139	(618)
120	(3048)	B42	154	(685)	2.202	(55.93)	35	(155)	23	(102)
		B42A	428	(1904)	1.271	(32.28)	168	(747)	112	(498)

Based on simple beam condition using an allowable design stress of 25,000 psi (172 MPa) in accordance with MFMA, with adequate lateral bracing (see page 11 for further explanation). Actual yield point of cold rolled steel is 42,000 psi. To determine concentrated load capacity at mid span, multiply uniform load by 0.5 and corresponding deflection by 0.8. \*Failure determined by weld shear.

## COLUMN LOADING

Unbraced Height In. mm		Channel Style	Max. Column Loading K = .80				Max. Column Loading (Loaded @ C.G.)					
			Loaded@ C.G.		Loaded@ Slot Face		K = .65		K = 1.0		K = 1.2	
			Lbs.	N	Lbs.	N	Lbs.	N	Lbs.	N	Lbs.	N
12	(305)	B42	9138	(40648)	3493	(15537)	9283	(41293)	8916	(39660)	8670	(38566)
		B42A	21094	(93831)	5834	(25951)	21304	(94765)	20793	(92492)	20469	(91050)
24	(609)	B42	8137	(36195)	3145	(13989)	8540	(37988)	7589	(33757)	7050	(31360)
		B42A	19757	(87883)	5585	(24843)	20299	(90294)	18964	(84356)	18094	(80486)
36	(914)	B42	7050	(31360)	2722	(12108)	7657	(34060)	5925	(26356)	4335	(19283)
		B42A	18094	(80486)	5237	(23295)	19067	(84814)	16654	(74080)	15057	(66977)
48	(1219)	B42	5405	(24042)	2227	(9906)	6786	(30185)	3512	(15622)	2439	(10849)
		B42A	16139	(71790)	4818	(21431)	17632	(78431)	13906	(61857)	11387	(50652)
60	(1524)	B42	3512	(15622)	1718	(7642)	5272	(23451)	2247	(9995)	1561**	(6943)
		B42A	13906	(61857)	4352	(19358)	16008	(71207)	10710	(47640)	7531	(33499)
72	(1829)	B42	2439	(10849)	1351	(6009)	3694	(16432)	1561**	(6943)	1084**	(4822)
		B42A	11387	(50652)	3856	(17152)	14200	(64165)	7531	(33499)	5230	(23264)
84	(2133)	B42	1792	(7971)	1087	(4835)	2714	(12072)	1147**	(5102)	796**	(3541)
		B42A	8645	(38455)	3332	(14821)	12206	(54295)	5533	(24612)	3842	(17090)
96	(2438)	B42	1372**	(6103)	891	(3963)	2078	(9243)	878**	(3905)	-	-
		B42A	6619	(29443)	2873	(12780)	10012	(44535)	4236	(18842)	2942**	(13086)
108	(2743)	B42	1084**	(4822)	743	(3305)	1642	(7304)	-	-	-	-
		B42A	5230	(23264)	2495	(11098)	7922	(35239)	3347	(14888)	2324**	(10337)
120	(3048)	B42	878**	(3905)	628	(2793)	1330**	(5916)	-	-	-	-
		B42A	4236	(18842)	2182	(9706)	6417	(28544)	2711**	(12059)	1883**	(8376)

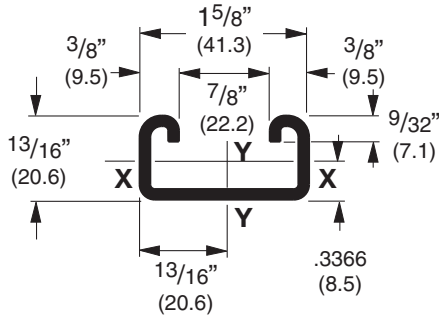
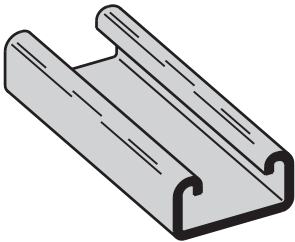
\*\*Where the slenderness ratio  $\frac{KL}{r}$  exceeds 200, and K = end fixity factor, L = actual length and r = radius of gyration.

Reference page 14 for general fitting and standard finish specifications.

# B52 Channel & Combinations

## B52

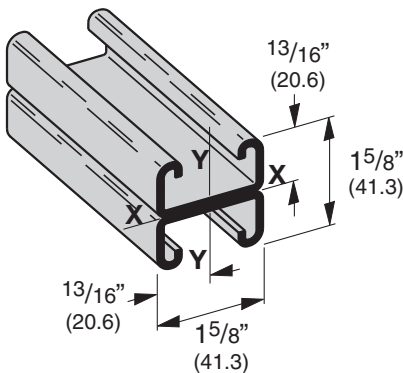
- Thickness: 12 Gauge (2.6 mm)
- Standard lengths: 10' (3.05 m) & 20' (6.09 m)
- Standard finishes: Plain, Dura-Green, Pre-Galvanized, Hot-Dipped Galvanized
- Weight: 1.27 Lbs./Ft. (1.89 kg/m)



## SECTION PROPERTIES

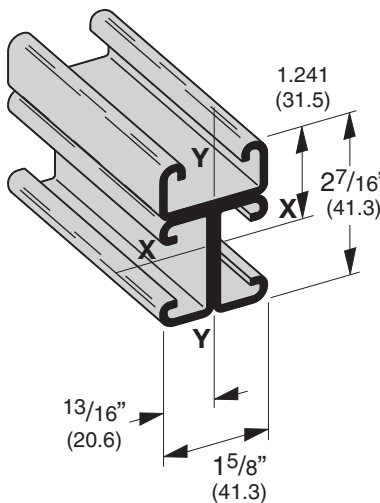
Channel	Weight		Areas of Section		Moment of Inertia (I)		Section Modulus (S)		Radius of Gyration (r)		Moment of Inertia (I)		Section Modulus (S)		Radius of Gyration (r)	
	lbs./ft.	kg/m	sq. in.	cm <sup>2</sup>	in. <sup>4</sup>	cm <sup>4</sup>	in. <sup>3</sup>	cm <sup>3</sup>	in.	cm	in. <sup>4</sup>	cm <sup>4</sup>	in. <sup>3</sup>	cm <sup>3</sup>	in.	cm
<b>B52</b>	1.313	(1.95)	.386	(2.49)	.0320	(1.33)	.0673	(1.10)	.288	(.73)	.1404	(5.84)	.1728	(2.83)	.603	(1.53)
<b>B52A</b>	2.627	(3.91)	.773	(4.99)	.1517	(6.31)	.1868	(3.06)	.443	(1.13)	.2809	(11.69)	.3457	(5.67)	.603	(1.53)

Calculations of section properties are based on metal thicknesses as determined by the AISI Cold-Formed Steel Design Manual.



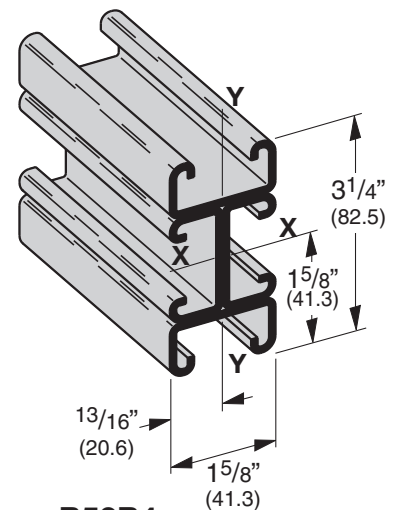
### B52A

Wt. 2.54 Lbs./Ft. (3.78 kg/m)



### B52B3

Wt. 3.81 Lbs./Ft. (5.67 kg/m)



### B52B4

Wt. 5.08 Lbs./Ft. (7.56 kg/m)

Reference page 14 for general fitting and standard finish specifications.

# B52 Beam & Column Loading Data

## BEAM LOADING

Beam Span In. mm		Channel Style	Uniform Load and Deflection				Uniform Load @ Deflection =			
			Lbs.		N		1/240 Span		1/360 Span	
In.	mm		Lbs.	N	In.	mm	Lbs.	N	Lbs.	N
12	(305)	<b>B52</b> <b>B52A</b>	1079 1270*	(4799) (5649)	.026 .006	(.66) (.15)	1079 1270*	(4799) (5649)	1079 1270*	(4799) (5649)
24	(609)	<b>B52</b> <b>B52A</b>	539 1270*	(2397) (5649)	.106 .052	(2.69) (1.32)	506 1270*	(2251) (5649)	337 1270*	(1499) (5649)
36	(914)	<b>B52</b> <b>B52A</b>	360 1013	(1601) (4506)	.240 .141	(6.09) (3.58)	225 1013	(1001) (4506)	150 719	(667) (3198)
48	(1219)	<b>B52</b> <b>B52A</b>	270 759	(1201) (3376)	.427 .250	(10.84) (6.35)	126 607	(560) (2700)	84 404	(373) (1797)
60	(1524)	<b>B52</b> <b>B52A</b>	216 608	(961) (2704)	.667 .391	(16.94) (9.93)	81 388	(360) (1726)	54 259	(240) (1152)
72	(1829)	<b>B52</b> <b>B52A</b>	180 506	(800) (2251)	.960 .563	(24.38) (14.30)	56 270	(249) (1201)	37 180	(164) (800)
84	(2133)	<b>B52</b> <b>B52A</b>	154 434	(685) (1930)	1.307 .766	(33.20) (19.45)	41 198	(182) (881)	28 132	(124) (587)
96	(2438)	<b>B52</b> <b>B52A</b>	135 380	(600) (1690)	1.707 1.001	(43.36) (25.42)	32 152	(142) (676)	21 101	(93) (449)
108	(2743)	<b>B52</b> <b>B52A</b>	120 338	(534) (1503)	2.160 1.267	(54.86) (32.18)	25 120	(111) (534)	17 80	(75) (356)
120	(3048)	<b>B52</b> <b>B52A</b>	108 304	(480) (1352)	2.667 1.564	(67.74) (39.72)	20 97	(89) (431)	13 65	(58) (289)

Based on simple beam condition using an allowable design stress of 25,000 psi (172 MPa) in accordance with MFMA, with adequate lateral bracing (see page 11 for further explanation). Actual yield point of cold rolled steel is 42,000 psi. To determine concentrated load capacity at mid span, multiply uniform load by 0.5 and corresponding deflection by 0.8. \*Failure determined by weld shear.

## COLUMN LOADING

Unbraced Height In. mm		Channel Style	Max. Column Loading K = .80				Max. Column Loading (Loaded @ C.G.)					
			Loaded@ C.G.		Loaded@ Slot Face		K = .65		K = 1.0		K = 1.2	
In.	mm		Lbs.	N	Lbs.	N	Lbs.	N	Lbs.	N	Lbs.	N
12	(305)	<b>B52</b> <b>B52A</b>	8407 19160	(37396) (85228)	3162 5290	(14065) (23531)	8543 19425	(38001) (86407)	8205 18777	(36497) (83524)	7989 18363	(35537) (81682)
24	(609)	<b>B52</b> <b>B52A</b>	7519 17444	(33446) (77595)	2755 4955	(12255) (22041)	7879 18144	(35047) (80708)	6521 16412	(29007) (73004)	5397 15275	(24007) (67946)
36	(914)	<b>B52</b> <b>B52A</b>	5397 15275	(24007) (67946)	2152 4496	(9572) (19999)	6653 16547	(29594) (73605)	3616 13376	(16085) (59499)	2511 11243	(11169) (50011)
48	(1219)	<b>B52</b> <b>B52A</b>	3178 12692	(14136) (56457)	1560 3963	(6939) (17628)	4785 14667	(21285) (65242)	2034 9683	(9047) (43072)	1412** 6780	(6281) (30159)
60	(1524)	<b>B52</b> <b>B52A</b>	2034 9683	(9047) (43072)	1159 3383	(5155) (15048)	3081 12516	(13705) (55674)	1302** 6248	(5791) (27792)	904** 4339	(4021) (19301)
72	(1829)	<b>B52</b> <b>B52A</b>	1412** 6780	(6281) (30159)	891 2799	(3963) (12450)	2139 10084	(9515) (44856)	904** 4339	(4021) (19301)	- 3013	- (13402)
84	(2133)	<b>B52</b> <b>B52A</b>	1038** 4981	(4617) (22156)	704 2337	(3131) (10395)	1572 7545	(6992) (33562)	664** 3188	(2953) (14181)	- 2214**	- (9848)
96	(2438)	<b>B52</b> <b>B52A</b>	794** 3814	(3532) (16965)	570 1973	(2535) (8776)	1203** 5777	(5351) (25697)	- 2441**	- (10858)	- 1695**	- (7540)
108	(2743)	<b>B52</b> <b>B52A</b>	- 3013	- (13402)	470 1684	(2090) (7491)	951** 4564	(4230) (20301)	- 1928**	- (8576)	- 1339**	- (5956)
120	(3048)	<b>B52</b> <b>B52A</b>	- 2441**	- (10858)	394 1452	(1752) (6459)	770** 3697	(3425) (16445)	- 1562**	- (6948)	- -	- -

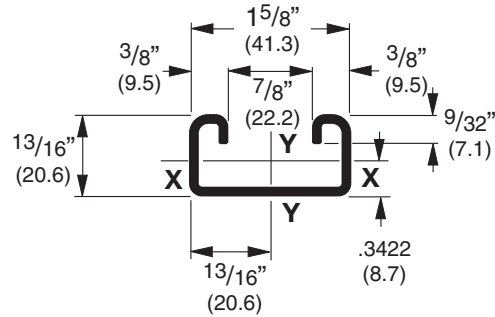
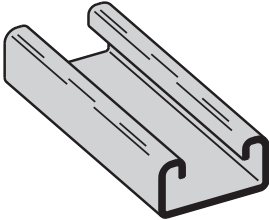
\*\*Where the slenderness ratio  $\frac{KL}{r}$  exceeds 200, and K = end fixity factor, L = actual length and r = radius of gyration.

Reference page 14 for general fitting and standard finish specifications.

# B54 Channel & Combinations

## B54

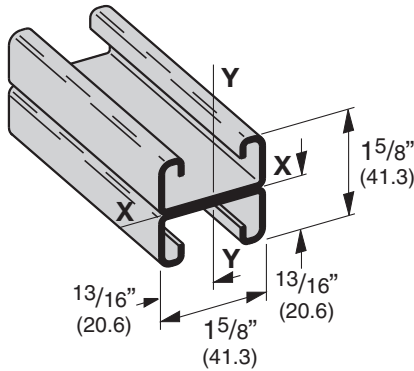
- Thickness: 14 Gauge (1.9 mm)
- Standard lengths: 10' (3.05 m) & 20' (6.09 m)
- Standard finishes: Plain, Dura-Green, Pre-Galvanized, Hot-Dipped Galvanized, Stainless Steel Type 304 or 316, Aluminum
- Weight: .97 Lbs./Ft. (1.44 kg/m)



## SECTION PROPERTIES

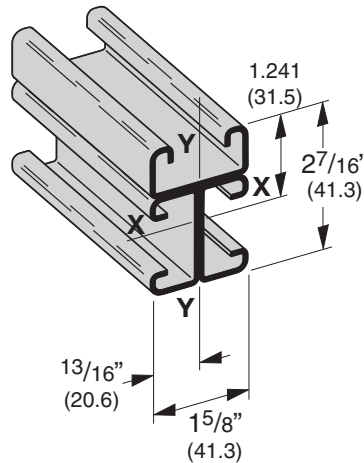
Channel	Weight		Areas of Section		Moment of Inertia (I)		Section Modulus (S)		Radius of Gyration (r)		Moment of Inertia (I)		Section Modulus (S)		Radius of Gyration (r)	
	lbs./ft.	kg/m	sq. in.	cm <sup>2</sup>	in. <sup>4</sup>	cm <sup>4</sup>	in. <sup>3</sup>	cm <sup>3</sup>	in.	cm	in. <sup>4</sup>	cm <sup>4</sup>	in. <sup>3</sup>	cm <sup>3</sup>	in.	cm
<b>B54</b>	1.016	(1.51)	.299	(1.93)	.0263	(1.09)	.0560	(.92)	.297	(.75)	.1106	(4.60)	.1361	(2.23)	.608	(1.55)
<b>B54A</b>	2.032	(3.02)	.598	(3.86)	.1226	(5.10)	.1510	(2.47)	.453	(1.15)	.2212	(9.12)	.2722	(4.46)	.608	(1.55)

Calculations of section properties are based on metal thicknesses as determined by the AISI Cold-Formed Steel Design Manual.



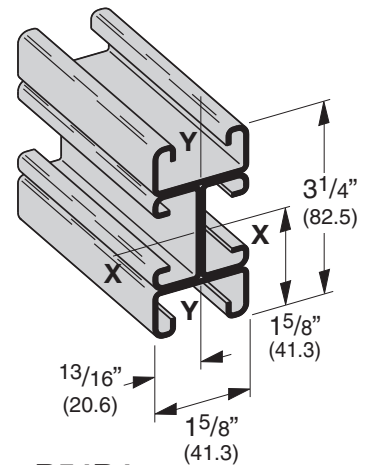
### B54A

Wt. 1.94 Lbs./Ft. (2.89 kg/m)



### B54B3

Wt. 2.91 Lbs./Ft. (4.33 kg/m)



### B54B4

Wt. 3.88 Lbs./Ft. (5.77 kg/m)

Reference page 14 for general fitting and standard finish specifications.

# B54 Beam & Column Loading Data

## BEAM LOADING

Beam Span In. mm		Channel Style	Uniform Load and Deflection				Uniform Load @ Deflection =			
			Lbs. N		In. mm		1/240 Span		1/360 Span	
			Lbs.	N	In.	mm	Lbs.	N	Lbs.	N
12	(305)	<b>B54</b>	870	(3870)	.027	(.68)	870	(3870)	870	(3870)
		<b>B54A</b>	870*	(3870)	.005	(.13)	870*	(3870)	870*	(3870)
24	(609)	<b>B54</b>	465	(2068)	.108	(2.74)	430	(1913)	287	(1276)
		<b>B54A</b>	870*	(3870)	.043	(1.09)	870*	(3870)	870*	(3870)
36	(914)	<b>B54</b>	310	(1379)	.243	(6.17)	191	(849)	127	(565)
		<b>B54A</b>	832	(3701)	.141	(3.58)	832	(3701)	591	(2629)
48	(1219)	<b>B54</b>	233	(1036)	.432	(10.97)	108	(480)	72	(320)
		<b>B54A</b>	624	(2775)	.250	(6.35)	499	(2219)	332	(1477)
60	(1524)	<b>B54</b>	186	(827)	.676	(17.17)	69	(307)	46	(204)
		<b>B54A</b>	499	(2219)	.391	(9.93)	319	(1419)	213	(947)
72	(1829)	<b>B54</b>	155	(689)	.973	(24.71)	48	(213)	32	(142)
		<b>B54A</b>	416	(1850)	.563	(14.30)	222	(987)	148	(658)
84	(2133)	<b>B54</b>	133	(591)	1.324	(33.63)	35	(155)	23	(102)
		<b>B54A</b>	357	(1588)	.766	(19.45)	163	(725)	109	(485)
96	(2438)	<b>B54</b>	116	(516)	1.730	(43.94)	27	(120)	18	(80)
		<b>B54A</b>	312	(1388)	1.001	(25.42)	125	(556)	83	(369)
108	(2743)	<b>B54</b>	103	(458)	2.189	(55.60)	21	(93)	14	(62)
		<b>B54A</b>	277	(1232)	1.267	(32.18)	98	(436)	66	(293)
120	(3048)	<b>B54</b>	93	(413)	2.703	(68.65)	17	(75)	11	(49)
		<b>B54A</b>	250	(1112)	1.564	(39.72)	80	(356)	53	(236)

Based on simple beam condition using an allowable design stress of 25,000 psi (172 MPa) in accordance with MFMA, with adequate lateral bracing (see page 11 for further explanation). Actual yield point of cold rolled steel is 42,000 psi. To determine concentrated load capacity at mid span, multiply uniform load by 0.5 and corresponding deflection by 0.8. \*Failure determined by weld shear.

## COLUMN LOADING

Unbraced Height In. mm		Channel Style	Max. Column Loading K = .80				Max. Column Loading (Loaded @ C.G.)					
			Loaded@ C.G.		Loaded@ Slot Face		K = .65		K = 1.0		K = 1.2	
			Lbs.	N	Lbs.	N	Lbs.	N	Lbs.	N	Lbs.	N
12	(305)	<b>B54</b>	6186	(27516)	2586	(11503)	6284	(27952)	6032	(26831)	5857	(26053)
		<b>B54A</b>	12763	(56772)	4060	(18060)	12835	(57093)	12645	(56248)	12501	(55607)
24	(609)	<b>B54</b>	5464	(24305)	2254	(10026)	5763	(25635)	4968	(22099)	4300	(19127)
		<b>B54A</b>	12135	(53979)	3857	(17157)	12420	(55247)	11663	(51879)	11087	(49317)
36	(914)	<b>B54</b>	4300	(19127)	1816	(8078)	5043	(22432)	3076	(13683)	2136	(9501)
		<b>B54A</b>	11087	(49317)	3549	(15787)	11728	(52169)	10026	(44598)	8729	(38828)
48	(1219)	<b>B54</b>	2703	(12023)	1341	(5965)	3920	(17437)	1730	(7695)	1201	(5342)
		<b>B54A</b>	9620	(42792)	3169	(14096)	10759	(47858)	7734	(34402)	5571	(24781)
60	(1524)	<b>B54</b>	1730	(7695)	995	(4426)	2621	(11659)	1107**	(4924)	769**	(3420)
		<b>B54A</b>	7734	(34402)	2745	(12210)	9514	(42320)	5134	(22837)	3566	(15862)
72	(1829)	<b>B54</b>	1201	(5342)	763	(3394)	1820	(8096)	769**	(3420)	534**	(2375)
		<b>B54A</b>	5571	(24781)	2291	(10191)	7992	(35550)	3566	(15862)	2476	(11014)
84	(2133)	<b>B54</b>	883**	(3928)	603	(2682)	1337	(5947)	565**	(2513)	-	-
		<b>B54A</b>	4093	(18206)	1913	(8509)	6200	(27579)	2620	(11654)	1819**	(8091)
96	(2438)	<b>B54</b>	676**	(3007)	487	(2166)	1024**	(4555)	-	-	-	-
		<b>B54A</b>	3134	(13941)	1616	(7188)	4747	(21116)	2006**	(8923)	1393**	(6196)
108	(2743)	<b>B54</b>	534**	(2375)	401	(1784)	809**	(3598)	-	-	-	-
		<b>B54A</b>	2476	(11014)	1380	(6138)	3751	(16685)	1585**	(7050)	1100**	(4893)
120	(3048)	<b>B54</b>	-	-	336	(1494)	655**	(2913)	-	-	-	-
		<b>B54A</b>	2006**	(8923)	1190	(5293)	3038	(13513)	1284**	(5711)	-	-

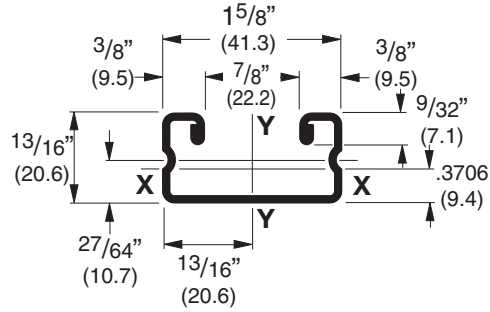
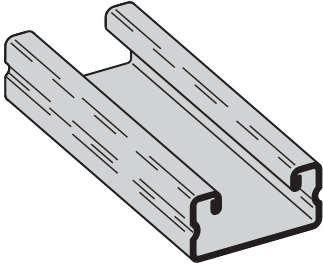
\*\*Where the slenderness ratio  $\frac{KL}{r}$  exceeds 200, and K = end fixity factor, L = actual length and r = radius of gyration.

Reference page 14 for general fitting and standard finish specifications.

# B56 Channel & Combinations

## B56

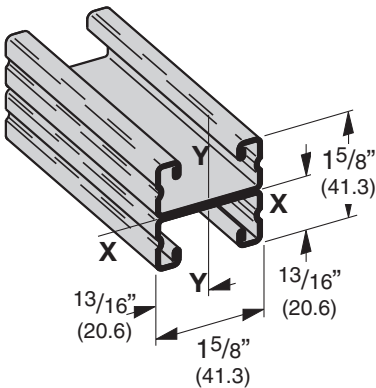
- Thickness: 16 Gauge (1.5 mm)
- Standard lengths: 10' (3.05 m) & 20' (6.09 m)
- Standard finishes: Plain, Dura-Green, Pre-Galvanized, Hot-Dipped Galvanized
- Weight: .85 Lbs./Ft. (1.26 kg/m)



## SECTION PROPERTIES

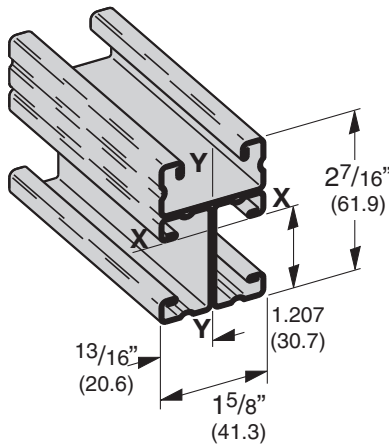
Channel	Weight		Areas of Section		Moment of Inertia (I)		Section Modulus (S)		Radius of Gyration (r)		Moment of Inertia (I)		Section Modulus (S)		Radius of Gyration (r)	
	lbs./ft.	kg/m	sq. in.	cm <sup>2</sup>	in. <sup>4</sup>	cm <sup>4</sup>	in. <sup>3</sup>	cm <sup>3</sup>	in.	cm	in. <sup>4</sup>	cm <sup>4</sup>	in. <sup>3</sup>	cm <sup>3</sup>	in.	cm
<b>B56</b>	.894	(1.33)	.263	(1.70)	.0241	(1.00)	.0546	(.89)	.303	(.77)	.0966	(4.02)	.1189	(1.95)	.606	(1.54)
<b>B56A</b>	1.789	(2.66)	.526	(3.39)	.1205	(5.02)	.1484	(2.43)	.479	(1.22)	.1931	(8.04)	.2377	(3.89)	.606	(1.54)

Calculations of section properties are based on metal thicknesses as determined by the AISI Cold-Formed Steel Design Manual.



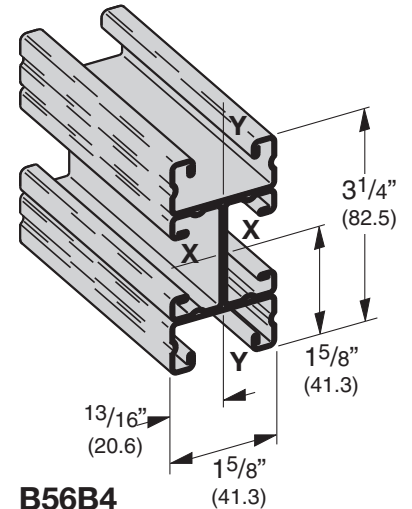
### B56A

Wt. 1.70 Lbs./Ft. (2.53 kg/m)



### B56B3

Wt. 2.55 Lbs./Ft. (3.79 kg/m)



### B56B4

Wt. 3.40 Lbs./Ft. (5.06 kg/m)

Reference page 14 for general fitting and standard finish specifications.

# B56 Beam & Column Loading Data

## BEAM LOADING

Beam Span In. mm		Channel Style	Uniform Load and Deflection				Uniform Load @ Deflection =			
			Lbs.		N		1/240 Span		1/360 Span	
In.	mm		Lbs.	N	In.	mm	Lbs.	N	Lbs.	N
12	(305)	B56	610	(2713)	.027	(.68)	610	(2713)	610	(2713)
		B56A	610*	(2713)	.004	(.10)	610*	(2713)	610*	(2713)
24	(609)	B56	405	(1801)	.109	(2.77)	372	(1655)	248	(1103)
		B56A	610*	(2713)	.035	(.89)	610*	(2713)	610*	(2713)
36	(914)	B56	270	(1201)	.245	(6.22)	165	(734)	110	(489)
		B56A	610*	(2713)	.121	(3.07)	610*	(2713)	502	(2233)
48	(1219)	B56	202	(898)	.435	(11.05)	93	(413)	62	(276)
		B56A	530	(2357)	.250	(6.35)	423	(1881)	282	(1699)
60	(1524)	B56	162	(720)	.680	(17.27)	59	(262)	40	(178)
		B56A	424	(1886)	.391	(9.93)	271	(1205)	181	(805)
72	(1829)	B56	135	(600)	.980	(24.89)	41	(182)	28	(124)
		B56A	353	(1570)	.563	(14.30)	188	(836)	125	(556)
84	(2133)	B56	116	(516)	1.334	(33.88)	30	(133)	20	(89)
		B56A	303	(1348)	.766	(19.45)	138	(614)	92	(409)
96	(2438)	B56	101	(449)	1.742	(44.24)	23	(102)	15	(67)
		B56A	265	(1179)	1.001	(25.42)	106	(471)	71	(316)
108	(2743)	B56	90	(400)	2.205	(56.01)	18	(80)	12	(53)
		B56A	236	(1050)	1.267	(32.18)	84	(373)	56	(249)
120	(3048)	B56	81	(360)	2.722	(69.14)	15	(67)	10	(44)
		B56A	212	(943)	1.564	(39.72)	68	(302)	45	(200)

Based on simple beam condition using an allowable design stress of 25,000 psi (172 MPa) in accordance with MFMA, with adequate lateral bracing (see page 11 for further explanation). Actual yield point of cold rolled steel is 42,000 psi. To determine concentrated load capacity at mid span, multiply uniform load by 0.5 and corresponding deflection by 0.8. \*Failure determined by weld shear.

## COLUMN LOADING

Unbraced Height In. mm		Channel Style	Max. Column Loading K = .80				Max. Column Loading (Loaded @ C.G.)					
			Loaded@ C.G.		Loaded@ Slot Face		K = .65		K = 1.0		K = 1.2	
In.	mm		Lbs.	N	Lbs.	N	Lbs.	N	Lbs.	N	Lbs.	N
12	(305)	B56	4968	(22099)	2182	(9706)	5044	(22437)	4845	(21551)	4702	(20915)
		B56A	10237	(45536)	3365	(14968)	10291	(45776)	10148	(45140)	10039	(44655)
24	(609)	B56	4367	(19425)	1903	(8465)	4624	(20568)	3985	(17726)	3572	(15889)
		B56A	9762	(43423)	3202	(14243)	9977	(44380)	9405	(41835)	8969	(39896)
36	(914)	B56	3572	(15889)	1557	(6926)	4034	(17944)	2658	(11823)	1845	(8207)
		B56A	8969	(39896)	2955	(13144)	9454	(42053)	8167	(36328)	7186	(31965)
48	(1219)	B56	2335	(10386)	1164	(5178)	3290	(14634)	1495	(6650)	1038	(4617)
		B56A	7860	(34963)	2649	(11783)	8722	(38797)	6434	(28620)	4731	(21044)
60	(1524)	B56	1495	(6650)	862	(3834)	2264	(10071)	957	(4257)	664**	(2953)
		B56A	6434	(28620)	2307	(10262)	7780	(34607)	4360	(19394)	3028	(13469)
72	(1829)	B56	1038	(4617)	661	(2940)	1572	(6992)	664**	(2953)	461**	(2050)
		B56A	4731	(21044)	1937	(8616)	6629	(29487)	3028	(13469)	2103	(9354)
84	(2133)	B56	763**	(3394)	522	(2322)	1155	(5137)	488**	(2171)	—	—
		B56A	3476	(15462)	1619	(7201)	5269	(23437)	2224	(9893)	1545**	(6872)
96	(2438)	B56	584**	(2598)	422	(1877)	884**	(3932)	—	—	—	—
		B56A	2661	(11837)	1368	(6085)	4031	(17931)	1703**	(7575)	1183**	(5262)
108	(2743)	B56	461**	(2050)	348	(1548)	699**	(3109)	—	—	—	—
		B56A	2103	(9354)	1169	(5200)	3185	(14167)	1346**	(5987)	934**	(4154)
120	(3048)	B56	—	—	291	(1294)	566**	(2417)	—	—	—	—
		B56A	1703**	(7575)	1008	(4484)	2580	(11476)	1090**	(4848)	—	—

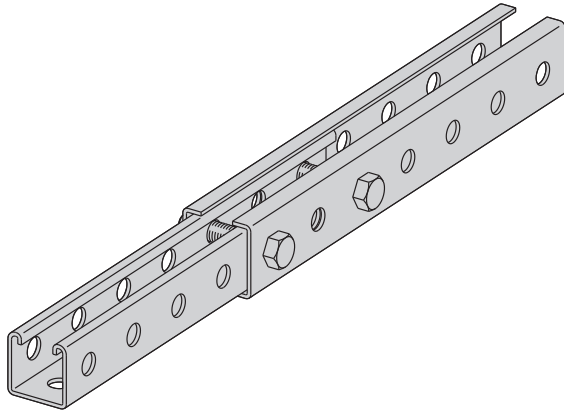
\*\*Where the slenderness ratio  $\frac{KL}{r}$  exceeds 200, and K = end fixity factor, L = actual length and r = radius of gyration.

Reference page 14 for general fitting and standard finish specifications.

# Telescoping Channel

## BTS22TH

- Can be secured at any point of system
- Order BTS22TH & B22TH separately
- Thickness: 12 Gauge (1.5 mm)
- Standard lengths: 10' (3.05 m)
- Standard finishes: Dura-Green, Yellow Zinc Dichromate, Hot-Dipped Galvanized



### Slip Load Data

Resistance to slip\*  
700 lbs.

1/4" thick 2-hole fitting with (2) 1/2" bolts & channel nuts. Typical of many standard fittings.

Resistance to slip\*  
3600 lbs.

1/2" bolt & nut

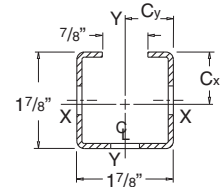
\*With a safety factor of 3

## BTS22TH TELESCOPING STRUT

Fits over all 15/8" x 15/8" channels 9/16" holes on 17/8" centers 12 gauge material thickness

Section Properties			X-X Axis				Y-Y Axis			
Channel	Weight lbs./ft.	Area In <sup>2</sup>	C <sub>x</sub> In	I <sub>x</sub> In <sup>4</sup>	S <sub>x</sub> In <sup>3</sup>	r <sub>x</sub> In	C <sub>y</sub> In	I <sub>y</sub> In <sup>4</sup>	S <sub>y</sub> In <sup>3</sup>	r <sub>y</sub> In
<b>BTS22TH</b>	1.934	0.4578	1.0009	0.2525	0.2523	0.7426	0.9375	0.2757	0.2941	0.7761

Section properties are based on nominal metal thickness, and overall dimensions.

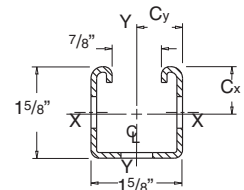


## B22TH THREE HOLE STRUT

9/16" holes on 17/8" centers 12 gauge material thickness

Section Properties			X-X Axis				Y-Y Axis			
Channel	Weight lbs./ft.	Area In <sup>2</sup>	C <sub>x</sub> In	I <sub>x</sub> In <sup>4</sup>	S <sub>x</sub> In <sup>3</sup>	r <sub>x</sub> In	C <sub>y</sub> In	I <sub>y</sub> In <sup>4</sup>	S <sub>y</sub> In <sup>3</sup>	r <sub>y</sub> In
<b>B22TH</b>	1.760	0.3863	0.8245	0.1596	0.1936	0.6400	0.8125	0.1719	0.2116	0.6642

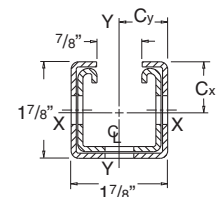
Section properties are based on nominal metal thickness, and overall dimensions.



## COMBINATION OF BTS22TH & B22TH

Section Properties			X-X Axis				Y-Y Axis			
Channel Combination	Weight lbs./ft.	Area In <sup>2</sup>	C <sub>x</sub> In	I <sub>x</sub> In <sup>4</sup>	S <sub>x</sub> In <sup>3</sup>	r <sub>x</sub> In	C <sub>y</sub> In	I <sub>y</sub> In <sup>4</sup>	S <sub>y</sub> In <sup>3</sup>	r <sub>y</sub> In
<b>BTS22TH/B22TH</b>	3.597	0.8474	0.9773	0.4126	0.4222	0.6978	0.9375	0.4476	0.4774	0.7268

Section properties are based on nominal metal thickness, and overall dimensions.

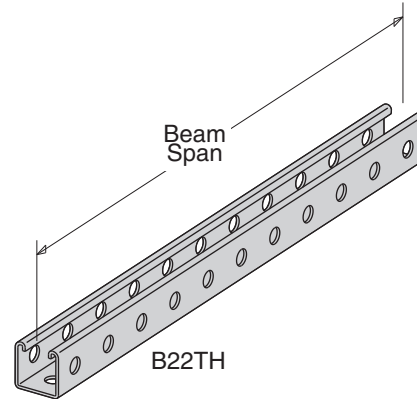


Reference page 14 for general fitting and standard finish specifications.

## BEAM LOADING DATA

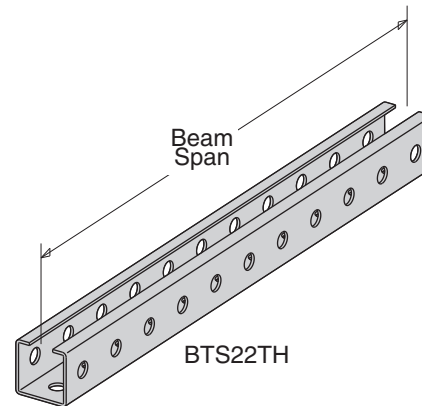
### B22TH

Beam Span in	Beam Load Data x-x Axis		
	Allowable Load lbs*	Resulting Deflection in	Allowable Load @ Deflection= 1/240 Span
12	2225	0.015	3225
24	1610	0.061	1610
36	1071	0.136	1071
48	800	0.243	658
60	637	0.379	417
72	528	0.546	286
84	449	0.743	206
96	390	0.970	153
108	344	1.228	116
120	306	1.516	90



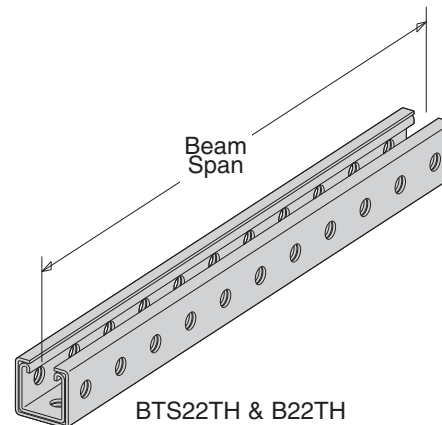
### BTS22TH

Beam Span in	Beam Load Data x-x Axis		
	Allowable Load lbs*	Resulting Deflection in	Allowable Load @ Deflection= 1/240 Span
12	4203	0.012	4203
24	2099	0.050	2099
36	1396	0.112	1396
48	1044	0.200	1044
60	831	0.312	664
72	689	0.450	456
84	587	0.612	330
96	510	0.799	248
108	450	1.012	190
120	401	1.249	149



### BTS22TH & B22TH TELESCOPING MEMBERS OF EQUAL LENGTH

Beam Span in	Beam Load Data x-x Axis		
	Allowable Load lbs*	Resulting Deflection in	Allowable Load @ Deflection= 1/240 Span
12	7033	0.013	7033
24	3511	0.051	3511
36	2335	0.115	2335
48	1745	0.205	1705
60	1389	0.320	1082
72	1151	0.460	742
84	980	0.627	536
96	851	0.819	401
108	749	1.036	307
120	668	1.279	239



Channel & Combinations

\*Based on simple beam condition using an allowable design stress of 25,000 psi (172 MPa) with adequate lateral bracing (see page 11 for further explanation). To determine concentrated load capacity at mid span, multiply uniform load by 0.5 and corresponding deflection by 0.8.

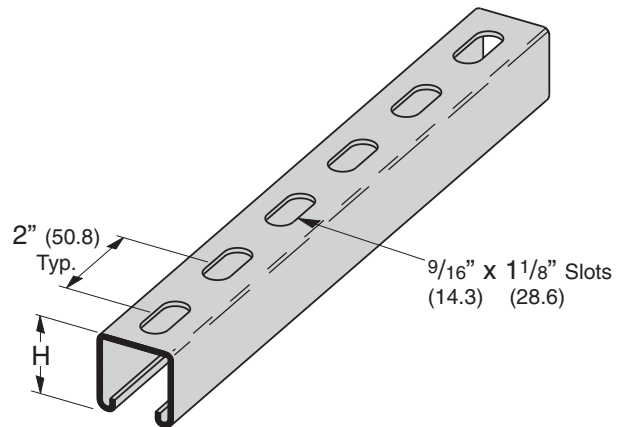
Reference page 14 for general fitting and standard finish specifications.

# Channel Hole Patterns

## B11SH THRU B56SH SH TYPE CHANNEL

• For beam loads use 90% of Channel Loading Chart

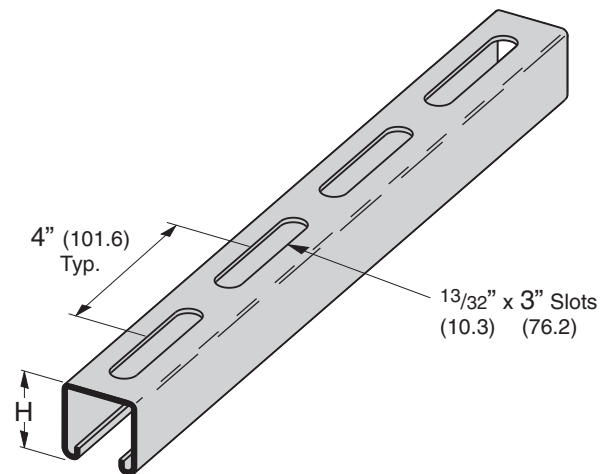
Part No.	Thickness		Height H		Weight	
	In.	mm	In.	mm	Lbs./Ft.	kg/m
B11SH	12 Ga.	(2.6)	3 <sup>1</sup> / <sub>4</sub> "	(82.5)	2.97	(4.42)
B12SH	12 Ga.	(2.6)	27 <sup>1</sup> / <sub>16</sub> "	(61.9)	2.39	(3.55)
B22SH	12 Ga.	(2.6)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.82	(2.71)
B24SH	14 Ga.	(1.9)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.34	(1.99)
B26SH	16 Ga.	(1.5)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.07	(1.59)
B32SH	12 Ga.	(2.6)	1 <sup>3</sup> / <sub>8</sub> "	(34.9)	1.62	(2.41)
B42SH	12 Ga.	(2.6)	1"	(25.4)	1.36	(2.02)
B52SH	12 Ga.	(2.6)	1 <sup>3</sup> / <sub>16</sub> "	(20.6)	1.19	(1.77)
B54SH	14 Ga.	(1.9)	1 <sup>3</sup> / <sub>16</sub> "	(20.6)	.91	(1.35)
B56SH	16 Ga.	(1.5)	1 <sup>3</sup> / <sub>16</sub> "	(20.6)	.80	(1.19)



## B11S THRU B56S S TYPE CHANNEL

• For beam loads use 90% of Channel Loading Chart

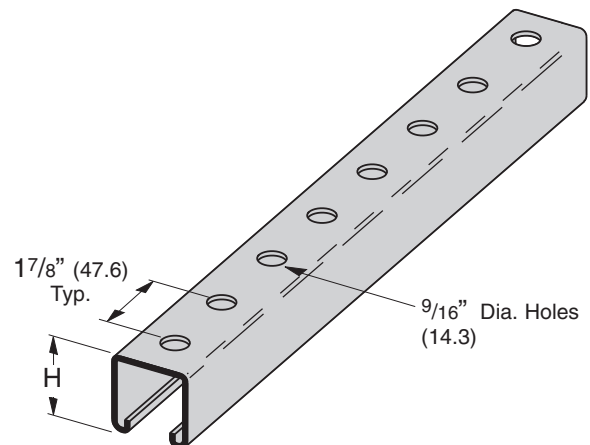
Part No.	Thickness		Height H		Weight	
	In.	mm	In.	mm	Lbs./Ft.	kg/m
B11S	12 Ga.	(2.6)	3 <sup>1</sup> / <sub>4</sub> "	(82.5)	2.94	(4.37)
B12S	12 Ga.	(2.6)	27 <sup>1</sup> / <sub>16</sub> "	(61.9)	2.36	(3.51)
B22S	12 Ga.	(2.6)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.79	(2.66)
B24S	14 Ga.	(1.9)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.32	(1.96)
B26S	16 Ga.	(1.5)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.06	(1.58)
B32S	12 Ga.	(2.6)	1 <sup>3</sup> / <sub>8</sub> "	(34.9)	1.59	(2.36)
B42S	12 Ga.	(2.6)	1"	(25.4)	1.33	(1.98)
B52S	12 Ga.	(2.6)	1 <sup>3</sup> / <sub>16</sub> "	(20.6)	1.16	(1.72)
B54S	14 Ga.	(1.9)	1 <sup>3</sup> / <sub>16</sub> "	(20.6)	.89	(1.32)
B56S	16 Ga.	(1.5)	1 <sup>3</sup> / <sub>16</sub> "	(20.6)	.79	(1.17)



## B11H17/8 THRU B56H17/8 H17/8 TYPE CHANNEL

• For beam loads use 90% of Channel Loading Chart

Part No.	Thickness		Height H		Weight	
	In.	mm	In.	mm	Lbs./Ft.	kg/m
B11H17/8	12 Ga.	(2.6)	3 <sup>1</sup> / <sub>4</sub> "	(82.5)	3.00	(4.46)
B12H17/8	12 Ga.	(2.6)	27 <sup>1</sup> / <sub>16</sub> "	(61.9)	2.42	(3.60)
B22H17/8	12 Ga.	(2.6)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.85	(2.75)
B24H17/8	14 Ga.	(1.9)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.36	(2.02)
B26H17/8	16 Ga.	(1.5)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.09	(1.62)
B32H17/8	12 Ga.	(2.6)	1 <sup>3</sup> / <sub>8</sub> "	(34.9)	1.65	(2.45)
B42H17/8	12 Ga.	(2.6)	1"	(25.4)	1.39	(2.07)
B52H17/8	12 Ga.	(2.6)	1 <sup>3</sup> / <sub>16</sub> "	(20.6)	1.22	(1.81)
B54H17/8	14 Ga.	(1.9)	1 <sup>3</sup> / <sub>16</sub> "	(20.6)	.93	(1.38)
B56H17/8	16 Ga.	(1.5)	1 <sup>3</sup> / <sub>16</sub> "	(20.6)	.82	(1.22)

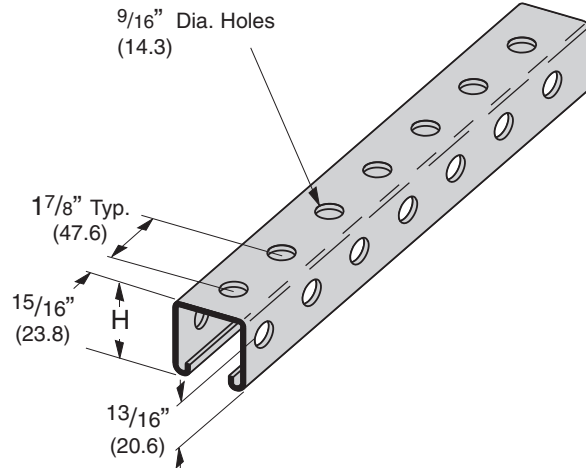


Reference page 14 for general fitting and standard finish specifications.

## B22TH (TH TYPE CHANNEL)

• For beam loads use 90% of Channel Loading Chart

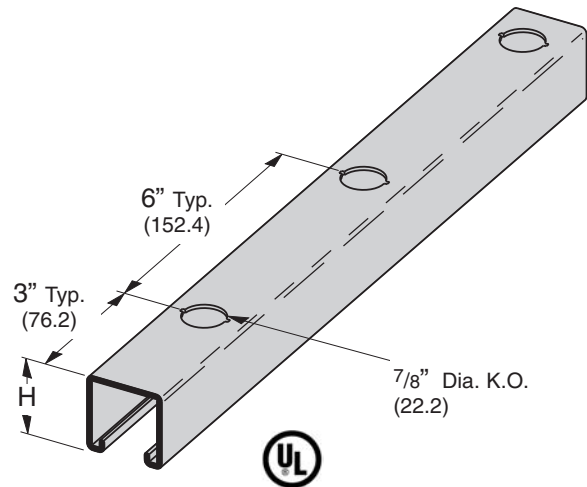
Part No.	Thickness		Height H		Weight	
	In.	mm	In.	mm	Lbs./Ft.	kg/m
<b>B22TH</b>	12 Ga.	(2.6)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.76	(2.62)



## B11KO6 THRU B56KO6 (KO6 TYPE KNOCKOUT CHANNEL)

• For beam loads use 90% of Channel Loading Chart

Part No.	Thickness		Height H		Weight	
	In.	mm	In.	mm	Lbs./Ft.	kg/m
<b>B11KO6</b>	12 Ga.	(2.6)	3 <sup>1</sup> / <sub>4</sub> "	(82.5)	3.05	(4.54)
<b>B12KO6</b>	12 Ga.	(2.6)	2 <sup>7</sup> / <sub>16</sub> "	(61.9)	2.47	(3.67)
<b>B22KO6</b>	12 Ga.	(2.6)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.90	(2.83)
<b>B24KO6</b>	14 Ga.	(1.9)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.40	(2.08)
<b>B26KO6</b>	16 Ga.	(1.5)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.12	(1.66)
<b>B32KO6</b>	12 Ga.	(2.6)	1 <sup>3</sup> / <sub>8</sub> "	(34.9)	1.70	(2.53)
<b>B42KO6</b>	12 Ga.	(2.6)	1"	(25.4)	1.44	(2.14)
<b>B52KO6</b>	12 Ga.	(2.6)	1 <sup>3</sup> / <sub>16</sub> "	(20.6)	1.27	(1.89)
<b>B54KO6</b>	14 Ga.	(1.9)	1 <sup>3</sup> / <sub>16</sub> "	(20.6)	.97	(1.44)
<b>B56KO6</b>	16 Ga.	(1.5)	1 <sup>3</sup> / <sub>16</sub> "	(20.6)	.85	(1.26)

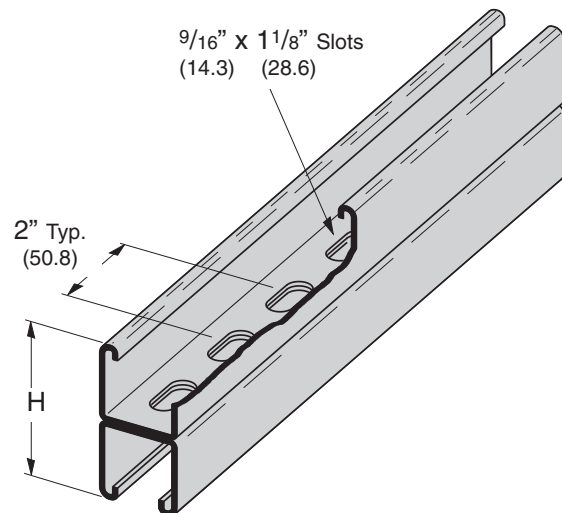


Channel & Combinations

## B22SHA (BACK TO BACK SH TYPE CHANNEL)

• For beam loads use 90% of Channel Loading Chart

Part No.	Thickness		Height H		Weight	
	In.	mm	In.	mm	Lbs./Ft.	kg/m
<b>B22SHA</b>	12 Ga.	(2.6)	3 <sup>1</sup> / <sub>4</sub> "	(82.5)	3.64	(5.42)



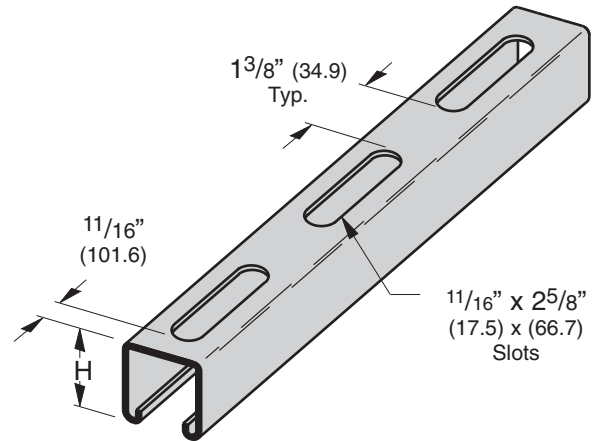
Reference page 14 for general fitting and standard finish specifications.

# Channel Hole Patterns

## B11S58 THRU B56S58 S58 TYPE CHANNEL

• For beam loads use 90% of Channel Loading Chart

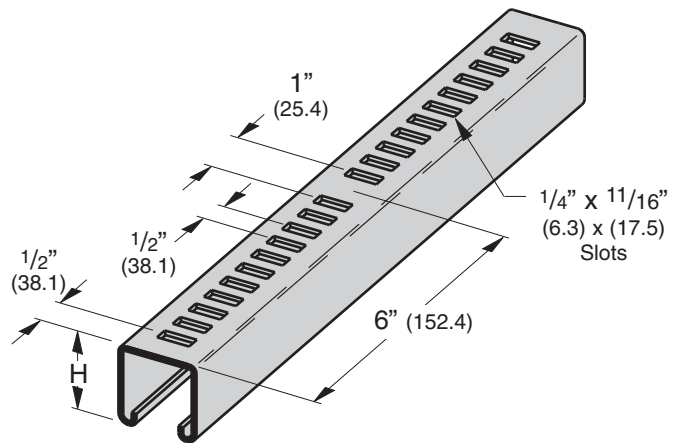
Part No.	Thickness		Height H		Weight	
	In.	mm	In.	mm	Lbs./Ft.	kg/m
B11S58	12 Ga.	(2.6)	3 <sup>1</sup> / <sub>4</sub> "	(82.5)	2.94	(4.37)
B12S58	12 Ga.	(2.6)	27 <sup>1</sup> / <sub>16</sub> "	(61.9)	2.36	(3.51)
B22S58	12 Ga.	(2.6)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.79	(2.66)
B24S58	14 Ga.	(1.9)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.32	(1.96)
B26S58	16 Ga.	(1.5)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.06	(1.58)
B32S58	12 Ga.	(2.6)	1 <sup>3</sup> / <sub>8</sub> "	(34.9)	1.59	(2.36)
B42S58	12 Ga.	(2.6)	1"	(25.4)	1.33	(1.98)
B52S58	12 Ga.	(2.6)	1 <sup>3</sup> / <sub>16</sub> "	(20.6)	1.16	(1.72)
B54S58	14 Ga.	(1.9)	1 <sup>3</sup> / <sub>16</sub> "	(20.6)	.89	(1.32)
B56S58	16 Ga.	(1.5)	1 <sup>3</sup> / <sub>16</sub> "	(20.6)	.79	(1.17)



## B22M THRU B54M M (MARINE RUNG) TYPE CHANNEL

• For beam loads use 90% of Channel Loading Chart

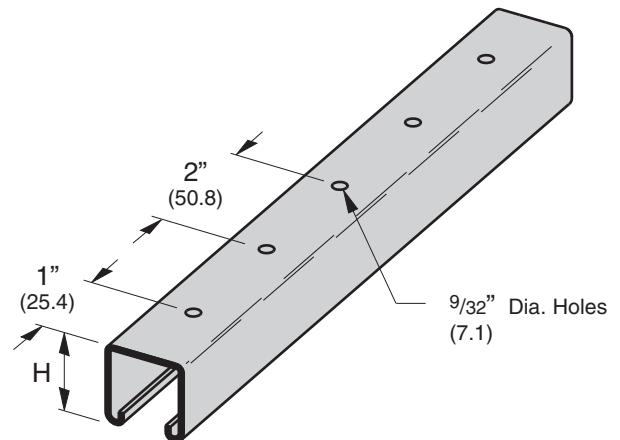
Part No.	Thickness		Height H		Weight	
	In.	mm	In.	mm	Lbs./Ft.	kg/m
B22M	12 Ga.	(2.6)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.79	(2.66)
B24M	14 Ga.	(1.9)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.32	(1.96)
B32M	12 Ga.	(2.6)	1 <sup>3</sup> / <sub>8</sub> "	(34.9)	1.59	(2.36)
B42M	12 Ga.	(2.6)	1"	(25.4)	1.33	(1.98)
B44M	14 Ga.	(1.9)	1"	(25.4)	0.98	(1.46)
B52M	12 Ga.	(2.6)	1 <sup>3</sup> / <sub>16</sub> "	(20.6)	1.16	(1.72)
B54M	14 Ga.	(1.9)	1 <sup>3</sup> / <sub>16</sub> "	(20.6)	.89	(1.32)



## B22H25 THRU B56H25 H25 TYPE CHANNEL

• For beam loads use 90% of Channel Loading Chart

Part No.	Thickness		Height H		Weight	
	In.	mm	In.	mm	Lbs./Ft.	kg/m
B22H25	12 Ga.	(2.6)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.85	(2.75)
B24H25	14 Ga.	(1.9)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.36	(2.02)
B26H25	16 Ga.	(1.5)	1 <sup>5</sup> / <sub>8</sub> "	(41.3)	1.09	(1.62)
B32H25	12 Ga.	(2.6)	1 <sup>3</sup> / <sub>8</sub> "	(34.9)	1.65	(2.45)
B42H25	12 Ga.	(2.6)	1"	(25.4)	1.39	(2.07)
B52H25	12 Ga.	(2.6)	1 <sup>3</sup> / <sub>16</sub> "	(20.6)	1.22	(1.81)
B54H25	14 Ga.	(1.9)	1 <sup>3</sup> / <sub>16</sub> "	(20.6)	.93	(1.38)
B56H25	16 Ga.	(1.5)	1 <sup>3</sup> / <sub>16</sub> "	(20.6)	.82	(1.22)



Reference page 14 for general fitting and standard finish specifications.

