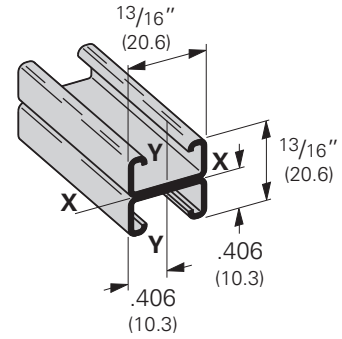
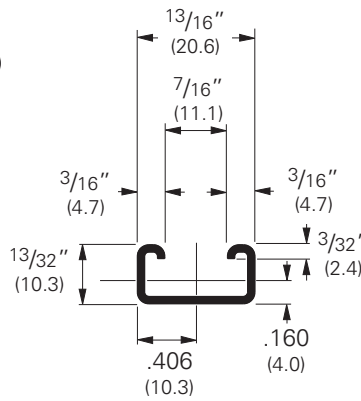
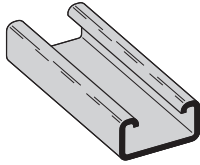


B72 Channel

- Thickness: 18 Ga. (1.2 mm)
- Standard lengths: 10' (3.05 m) & 20' (6.09 m)
- Standard finishes: Plain, DURA GREEN™, Pre-Galvanized
- Weight: .29 Lbs./Ft. (.43 kg/m)



B72A
Wt. .58 Lbs./Ft. (.87 kg/m)

Section Properties

Channel	Weight lbs./ft. kg/m	Areas of Section sq. in. cm ²	X - X Axis			Y - Y Axis		
			Moment of Inertia (I) in. ⁴ cm ⁴	Section Modulus (S) in. ³ cm ³	Radius of Gyration (r) in. cm	Moment of Inertia (I) in. ⁴ cm ⁴	Section Modulus (S) in. ³ cm ³	Radius of Gyration (r) in. cm
B72	.287 (.43)	.084 (.54)	.0018 (.07)	.0073 (.12)	.146 (.37)	.0077 (.32)	.0190 (.31)	.302 (.77)
B72A	.574 (.85)	.169 (1.09)	.0078 (.32)	.0192 (.31)	.215 (.55)	.0155 (.65)	.0382 (.63)	.303 (.77)

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

Beam Loading

Beam Span In. mm	Channel Style	Uniform Load and Deflection				Uniform Load @ Deflection = 1/240 Span 1/360 Span			
		Lbs.	kN	In.	mm	Lbs.	kN	Lbs.	kN
12 (305)	B72	116	(0.51)	.051	(1.29)	113	(0.50)	75	(0.32)
	B72A	210*	(0.93)	.020	(.51)	210*	(0.93)	210*	(0.93)
24 (609)	B72	58	(0.26)	.206	(5.23)	28	(0.12)	19	(0.08)
	B72A	159	(0.71)	.125	(3.17)	127	(0.56)	85	(0.38)
36 (914)	B72	39	(0.17)	.465	(11.81)	13	(0.06)	8	(0.03)
	B72A	106	(0.45)	.281	(7.14)	57	(0.25)	38	(0.17)
36 (1219)	B72	29	(0.13)	.827	(21.00)	7	(0.03)	5	(0.02)
	B72A	80	(0.35)	.500	(12.70)	32	(0.14)	21	(0.09)
60 (1524)	B72	23	(0.10)	1.292	(32.81)	5	(0.02)	3	(0.01)
	B72A	64	(0.28)	.782	(19.86)	20	(0.09)	14	(0.06)

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 12 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. kN	Lbs. kN	Lbs. kN	Lbs. kN	Lbs. kN	Lbs. kN	Lbs. kN	Lbs. kN
12 (305)	B72	1598 (7.11)	539 (2.40)	1712 (7.61)	1410 (6.27)	1181 (5.25)			
	B72A	3600 (16.01)	986 (4.38)	3700 (16.46)	3433 (15.27)	3229 (14.36)			
24 (609)	B72	701 (3.12)	320 (1.42)	1050 (4.67)	450 (2.00)	313** (1.39)			
	B72A	2710 (12.05)	802 (3.57)	3113 (13.85)	2043 (9.09)	1421 (6.32)			
36 (914)	B72	313** (1.39)	188 (0.83)	473 (2.10)	201** (0.89)	—			
	B72A	1421 (6.32)	569 (2.53)	2135 (9.50)	909 (4.04)	631** (2.81)			
36 (1219)	B72	177** (0.79)	122 (0.54)	267** (1.19)	—	—			
	B72A	799 (3.55)	404 (1.80)	1211 (5.39)	512** (2.28)	355** (1.58)			
60 (1524)	B72	113** (0.50)	85 (0.38)	171** (0.76)	—	—			
	B72A	512** (2.28)	298 (1.32)	775 (3.45)	327** (1.45)	—			

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

Reference page 201 for general fitting specifications.