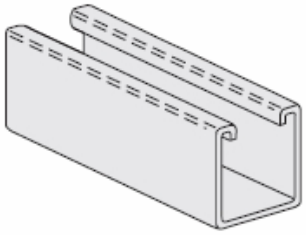
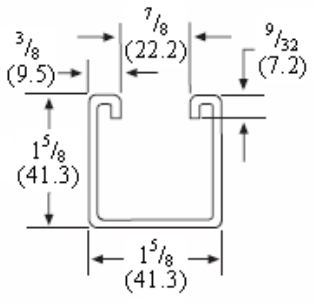
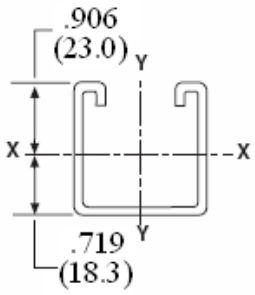
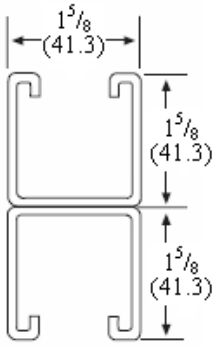
1001 - 1042

1⅝" X 1⅝" X 12 Gauge







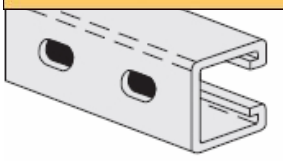


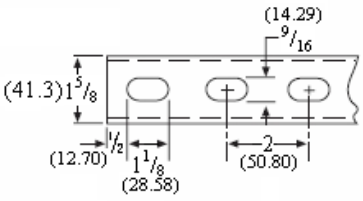
ORDERING:
Specify Figure No., finish and number of feet.

Fig. Number				Type - Description	Weight		Bundle Qty.			
10ft.	3.05m	20ft.	6.10m		lbs./ft.	kg/m	10ft.	3.05m	20ft.	6.10m
1001		1002		No Openings	1.77	(2.63)	500	(152.4)	500	(152.4)
1001A		1002A		Welded Back to Back	3.54	(5.27)	200	(61.0)	300	(91.4)
1011		1012		With 1 1/8" X 9/16" (28.58 X 14.29) slots on 2" (50.8) centers	1.70	(2.53)	500	(152.4)	500	(152.4)
1011A		1012A		Welded Back to Back	3.40	(5.06)	200	(61.0)	300	(91.4)
1021		1022		With 9/16" (14.29) dia. holes on 1 7/8" (47.63) centers	1.70	(2.53)	500	(152.4)	500	(152.4)
1021A		1022A		Welded Back to Back	3.40	(5.06)	200	(61.0)	300	(91.4)
1031		1032		With 3" (76.20) slots	1.68	(2.50)	500	(152.4)	500	(152.4)
1041		1042		With 7/8" (22.23) Knockouts on 6" (152.40) centers	1.77	(2.63)	500	(152.4)	500	(152.4)

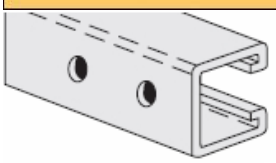
Available in aluminum and stainless steel. Price on request. To order aluminum, add suffix AL to fig. number. To order stainless steel, specify 304 or 316 and add suffix SS to fig. number.

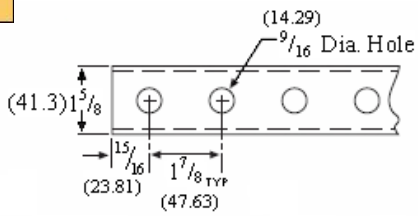
1011 - 1012



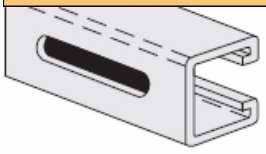


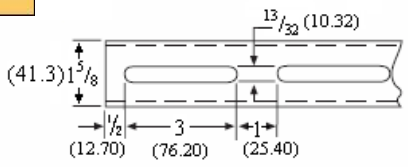
1021 - 1022



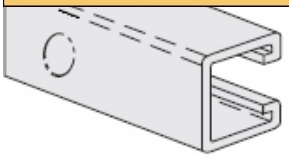


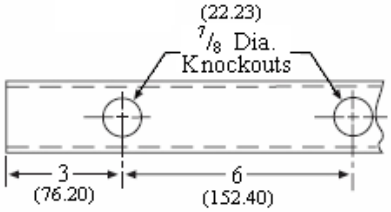
1031 - 1032





1041 - 1042





Unless otherwise specified, all dimensions on drawings and in charts are in inches and dimensions shown in parentheses are in millimeters.

CHANNEL

1001 - 1042

Elements of Selection

Figure Number	X-X Axis								Y-Y Axis					
	Area of Section		Moment Of Inertia		Section Modulus		Radius of Gyration		Moment Of Inertia		Section Modulus		Radius of Gyration	
	in.^{2}	cm^2	in.^{4}	cm^4	in.^{3}	cm^3	in.	cm	in.^{4}	cm^4	in.^{3}	cm^3	in.	cm
1001	0.562	(3.626)	0.1912	(7.961)	0.2125	(3.482)	0.583	(1.481)	0.2399	(9.988)	0.2953	(4.839)	0.653	(1.659)
1001A	1.124	(7.252)	0.9732	(40.519)	0.5989	(9.814)	0.931	(2.365)	0.4798	(19.977)	0.5905	(9.677)	0.653	(1.659)

Modules of Elasticity: 29,500,000 PSI (203,395.3mPa)

Beam & Column Loads

Figure Number	Beam Span or Unbraced Column Height		Maximum Column Load		Uniform Load		Deflection		Uniform Load @ 1/240 Span	
			Lbs.	kN	Lbs.	kN	In.	mm	Lbs.	kN
1001	12	(304.80)	10454	(46.50)	2610	(11.61)	.01	(0.25)	2610	(11.61)
1001A			21625	(96.19)	2610*	(11.61)	.01	(0.25)	2610*	(11.61)
1001	18	(457.20)	9950	(44.26)	2269	(10.09)	.03	(0.76)	2269	(10.09)
1001A			21433	(95.34)	2610*	(11.61)	.01	(0.25)	2610*	(11.61)
1001	24	(609.60)	9311	(41.42)	1702	(7.57)	.06	(1.52)	1702	(7.57)
1001A			21164	(94.14)	2610*	(11.61)	.02	(0.51)	2610*	(11.61)
1001	30	(762.00)	8582	(38.17)	1361	(6.05)	.09	(2.29)	1361	(6.05)
1001A			20819	(92.61)	2610*	(11.61)	.03	(0.76)	2610*	(11.61)
1001	36	(914.40)	7801	(34.70)	1135	(5.05)	.13	(3.30)	1135	(5.05)
1001A			20397	(90.73)	2610*	(11.61)	.06	(1.52)	2610*	(11.61)
1001	42	(1066.80)	6998	(31.13)	972	(4.32)	.17	(4.32)	972	(4.32)
1001A			19898	(88.51)	2610*	(11.61)	.09	(2.29)	2610*	(11.61)
1001	48	(1219.20)	6193	(27.55)	851	(3.79)	.22	(5.59)	758	(3.37)
1001A			19322	(85.95)	2405	(10.70)	.13	(3.30)	2405	(10.70)
1001	54	(1371.60)	5392	(23.98)	756	(3.36)	.28	(7.11)	599	(2.66)
1001A			18669	(83.04)	2138	(9.51)	.16	(4.06)	2138	(9.51)
1001	60	(1524.00)	4718	(20.99)	681	(3.03)	.35	(8.89)	485	(2.16)
1001A			17940	(79.80)	1924	(8.56)	.20	(5.08)	1924	(8.56)
1001	66	(1676.40)	4202	(18.69)	619	(2.75)	.42	(10.67)	401	(1.78)
1001A			17134	(76.22)	1749	(7.78)	.24	(6.10)	1749	(7.78)
1001	72	(1828.80)	3791	(16.86)	567	(2.52)	.51	(12.95)	337	(1.50)
1001A			16251	(72.29)	1603	(7.13)	.28	(7.11)	1603	(7.13)
1001	84	(2133.60)	3176	(14.13)	486	(2.16)	.69	(17.53)	248	(1.10)
1001A			14255	(63.41)	1374	(6.11)	.38	(9.65)	1255	(5.58)
1001	96	(2438.40)	2728	(12.13)	425	(1.89)	.90	(22.86)	190	(0.85)
1001A			11951	(53.16)	1202	(5.35)	.50	(12.70)	961	(4.27)
1001	108	(2743.20)	2381	(10.59)	378	(1.68)	1.13	(28.70)	150	(0.67)
1001A			9524	(42.36)	1069	(4.76)	.63	(16.00)	759	(3.38)
1001	120	(3048.00)	2101	(9.35)	340	(1.51)	1.40	(35.56)	121	(0.54)
1001A			7715	(34.32)	962	(4.28)	.78	(19.81)	615	(2.74)
1001	144	(3657.60)	1660	(7.38)	280	(1.25)	2.00	(50.80)	80	(0.36)
1001A			5040	(22.42)	800	(3.56)	1.14	(28.96)	420	(1.87)
1001	168	(4267.20)	--	--	240	(1.07)	2.72	(69.09)	60	(0.27)
1001A			--	--	680	(3.02)	1.53	(38.86)	310	(1.38)
1001	192	(4876.80)	--	--	210	(0.93)	3.55	(90.17)	50	(0.22)
1001A			--	--	600	(2.67)	2.02	(51.31)	240	(1.07)
1001	216	(5486.40)	--	--	190	(0.85)	4.58	(116.33)	40	(0.18)
1001A			--	--	530	(2.36)	2.54	(64.52)	190	(0.85)
1001	240	(6096.00)	--	--	170	(0.76)	5.62	(142.75)	--	--
1001A			--	--	480	(2.14)	3.16	(80.26)	150	(0.67)

Beam Loads: Loads listed are uniformly distributed, for loads concentrated at center of span multiply uniform load by .5 and multiply the deflection by .8. When deflection is not a factor use stress of 25,000 PSI (172.37 mPa). When deflection is a factor use deflection of 1/240 Span. *Failure determined by weld shear.

Column Loads: Column loadings are for allowable axial loads for the unsupported heights listed and include a K value of .80. If eccentric, loads should be reduced according to standard practice.

For Fabricated Channels, reduce beam load values as follows:

1011 & 1012	**15%**
1021 & 1022	**10%**
1031 & 1032	**30%**
1041 & 1042	**5%**

TECHNICAL DATA

SPOT WELDING

Resistance welding of back to back strut channel is accomplished by way of an AC powered press type spot welder. This equipment produces a series of spot welds from 2-1/2" (63.5) to 3" (76.2) apart continuously down the length of the channel. Consistency is maintained by the use of a highly sophisticated constant current weld control. This processor is capable of maintaining weld sequence, duration and current control along with other variables. Any deviations in the programmed parameters will issue forth an alarm or shut down fault, which is then investigated. Weld quality is tested every 300-350 welds through the use of a destructive test method.

Through the use of modern technology, destructive and non-destructive testing, the quality of strut can be maintained. Spot weld strut is fabricated in accordance with the R.W.M.A. guidelines for resistance welding.

Unless otherwise specified, all dimensions on drawings and in charts are in inches and dimensions shown in parentheses are in millimeters.