

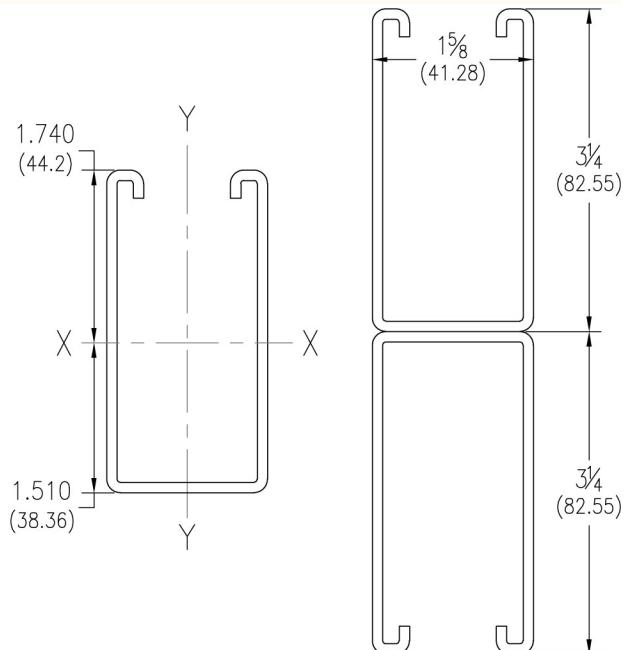
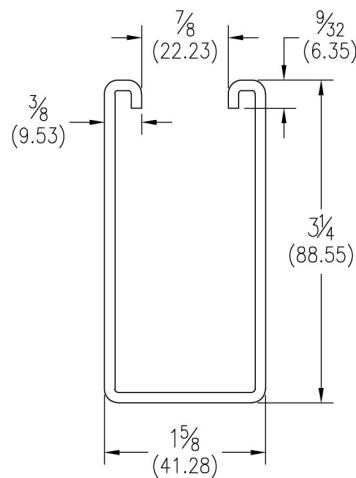
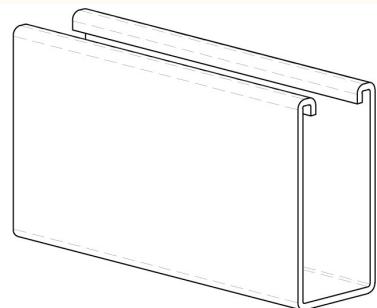


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CHANNEL STRUT

FIG. 1501-1542

1⁵/₈" X 3¹/₄" X 12 GAUGE



Material:

Carbon steel (Type 304 or 316
Stainless Steel upon request)

Finish:

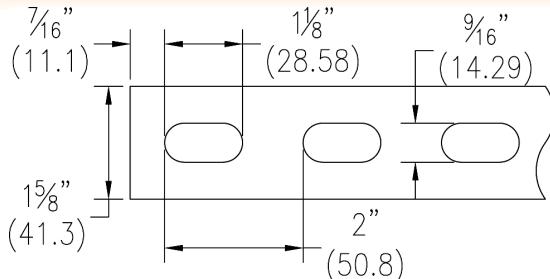
Plain, pre-galvanized, channel
green, e-coat, or hot dipped
galvanized

Ordering:

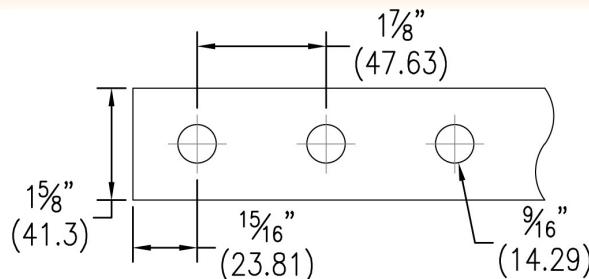
Specify figure number, material,
finish, and number of feet.

Fig. No.		Type - Description	Weight		Bundle Qty.			
10ft. (3.05m)	20ft. (6.1m)		lbs./ft.	kg/m	10ft.	3.05m	20ft.	6.1m
1501	1502	No Openings	2.99	(4.45)	300	(91.44)	300	(91.44)
1501A	1502A	Welded Back to Back	5.98	(8.90)	100	(30.48)	200	(60.96)
1511	1512	With 1 1/8" X 9/16" (28.58 X 14.29) slots on 2" (50.8) centers	2.90	(4.32)	300	(91.44)	300	(91.44)
1511A	1512A	Welded Back to Back	5.80	(8.63)	100	(30.48)	200	(60.96)
1521	1522	With 9/16" (14.29) dia. holes on 17/8" (47.63) centers	2.91	(4.33)	300	(91.44)	300	(91.44)
1521A	1522A	Welded Back to Back	6.02	(8.96)	100	(30.48)	200	(60.96)
1531	1532	With 3" (76.20) slots	2.89	(4.30)	300	(91.44)	300	(91.44)
1541	1542	With 7/8" (22.23) Knockouts on 6" (152.40) centers	2.99	(4.45)	300	(91.44)	300	(91.44)

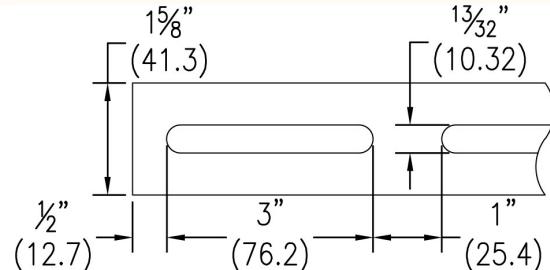
1511-1512



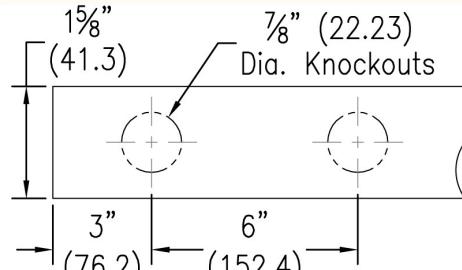
1521-1522



1531-1532



1541-1542



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

CHANNEL STRUT



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1⁵/₈" X 3¹/₄" X 12 GAUGE

FIG. 1501-1542

Section Properties

Fig. No.	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
1501	0.902	(5.819)	1.115	(46.423)	0.641	(10.504)	1.112	(2.824)	0.436	(18.153)	0.537	(8.800)	0.695	(1.765)
1501A	1.804	(11.639)	6.349	(264.341)	1.953	(32.004)	1.876	(4.765)	0.873	(36.347)	1.074	(17.600)	0.695	(1.765)

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

Beam & Column Load Table

Fig. No.	Beam Span or Unbraced Column Height	Maximum Column Load		Uniform Load @25,000 psi		Deflection @25,000 psi		Uniform Load @1/240 Span	
		Ibs.	kN	Ibs.	kN			Ibs.	kN
1501	24	(609.6)		8190	(36.43)	5130	(22.82)	0.03	(0.76)
1501A				17701	(78.74)	5130*	(22.82)	0.01	(0.25)
1501	36	(914.4)		7311	(32.52)	3488	(15.52)	0.07	(1.78)
1501A				17416	(77.47)	5130*	(22.82)	0.02	(0.51)
1501	48	(1219.2)		6214	(27.64)	2616	(11.64)	0.12	(3.05)
1501A				17016	(75.69)	5130*	(22.82)	0.04	(1.02)
1501	60	(1524.0)		4998	(22.19)	2093	(9.31)	0.18	(4.57)
1501A				16503	(73.41)	5130*	(22.82)	0.08	(2.03)
1501	72	(1828.8)		3816	(16.97)	1744	(7.76)	0.26	(6.60)
1501A				15876	(70.62)	5130*	(22.82)	0.14	(3.56)
1501	84	(2133.6)		3063	(13.62)	1495	(6.65)	0.36	(9.14)
1501A				15135	(67.32)	4552	(20.25)	0.19	(4.83)
1501	96	(2438.4)		2564	(11.41)	1308	(5.82)	0.47	(11.94)
1501A				14279	(63.52)	3983	(17.72)	0.25	(6.35)
1501	108	(2743.2)		2213	(9.84)	1163	(5.17)	0.59	(14.99)
1501A				12210	(54.31)	3541	(15.75)	0.32	(8.13)
1501	120	(3048.0)		1953	(8.69)	1046	(4.65)	0.73	(18.54)
1501A				12226	(54.38)	3187	(14.18)	0.39	(9.91)
1501	144	(3657.6)		1580	(7.03)	880	(3.91)	1.06	(26.92)
1501A				9250	(41.15)	2656	(11.81)	0.56	(14.22)
1501	168	(4267.2)		1340	(5.96)	750	(3.34)	1.43	(36.32)
1501A				6800	(30.25)	2276	(10.12)	0.77	(19.56)
1501	192	(4876.8)	-	-	-	660	(2.94)	1.88	(47.75)
1501A				-	-	1992	(8.86)	1.00	(25.40)
1501	216	(5486.4)	-	-	-	580	(2.58)	2.35	(59.69)
1501A				-	-	1770	(7.87)	1.27	(32.26)
1501	240	(6096.0)	-	-	-	530	(2.36)	2.94	(74.68)
1501A				-	-	1593	(7.09)	1.56	(39.62)

For pierced Channels, reduce beam load values as follows:
 1511 & 1512 = 15%
 1521 & 1522 = 10%
 1531 & 1532 = 30%
 1541 & 1542 = 5%

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" (50.8) to 4" (101.6) 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.

Beam Loads: Published loads are given in total uniform load (lbs.) not uniform load (lbs./ft.). For loads concentrated at center of span multiply uniform load by 0.5 and multiply the deflection by 0.8 (refer to page 26 for reduction factors on other beam configurations.). 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.

