CHANNEL



1301-1342

1⁵/8" X ¹³/₁₆" X 14 Gauge



ORDERING:

of feet.

Specify Figure No., finish and number







Fig. Number		Time Description	Weight Per Foot	Bundle Qty.	
10 ft.	20 ft.	Type - Description	(in Lbs.)	10 ft.	20 ft.
1301	1302	No Openings	.93	500	1000
1301A	1302A	Welded Back to Back	1.86	500	500
1311	1312	With $1^{1}/_{8}$ " X $^{9}/_{16}$ " slots on 2" centers	.86	500	1000
1311A	1312A	Welded Back to Back	1.72	500	500
1321	1322	With $^{9}/_{16}$ " dia. holes on $1^{7}/_{8}$ " centers	.88	500	1000
1321A	1322A	Welded Back to Back	1.92	500	500
1331	1332	With 3" slots	.87	500	1000
1341	1342	With $^{7}\!/_{\! 8}"$ Knockouts on 6" centers	.97	500	1000

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.



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Elements of Selection

	X-X Axis			Y-Y Axis			
Figure Number	Area of Section Inches ²	Moment of Inertia Inches⁴	Section Modulus Inches ³	Radius of Gyration Inches	Moment of Inertia Inches⁴	Section Modulus Inches ³	Radius of Gyration Inches
1301 1301A	.295 .590	.027 .122	.056 .150	.302 .455	.110 .220	.135 .270	.610 .610

Modules of Elasticity: 29,500,000 PSI

Beam & Column Loads

Figure Number	Beam Span or Unbraced Column Height	Maximum Column Load (in Lbs.)	Uniform Load @ 25,000 PSI (in Lbs.)	Deflection @ 25,000 PSI (in Inches)	Uniform Load @ 1/240 Span (in Lbs.)
1301	10"	6186	870	.03	870
1301A	12	12763	870*	.01	870*
1301	0.4"	5464	465	.11	430
1301A	24	12135	870*	.04	870*
1301	0.0"	4300	310	.24	191
1301A	36	11087	832	.14	832
1301	40"	2703	233	.43	108
1301A	48	9620	624	.25	499
1301	0.0"	1730	186	.68	69
1301A	60	7734	499	.39	319
1301	70"	1201	155	.97	48
1301A	12	5571	416	.56	222
1301	0.4"	-	133	1.32	35
1301A	04	4093	357	.76	163
1301	0.0"	-	116	1.73	27
1301A	96	3134	312	1.00	125
1301	100"	-	103	2.19	21
1301A	108	2476	277	1.27	98
1301	100"	-	93	2.70	17
1301A	120	-	250	1.56	80

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. 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:

1311 & 1312	15%
1321 & 1322	10%
1331 & 1332	30%
1341 & 1342	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' to 3" 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.