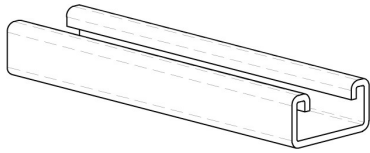


CHANNEL STRUT

FIG. 1301-1342

1 5/8" X 13/16" X 14 GAUGE



Material:

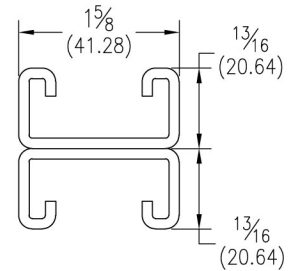
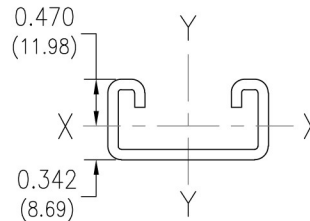
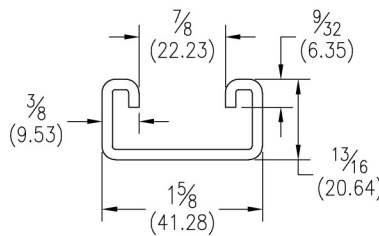
Carbon steel (Aluminum and Type 304 or 316 Stainless Steel upon request)

Finish:

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

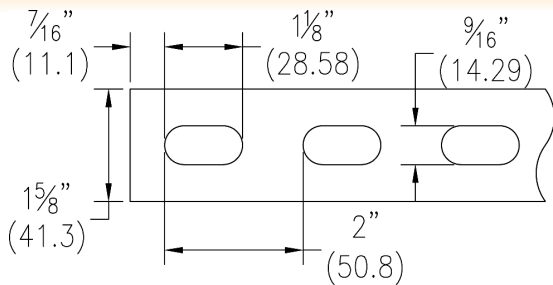
Ordering:

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

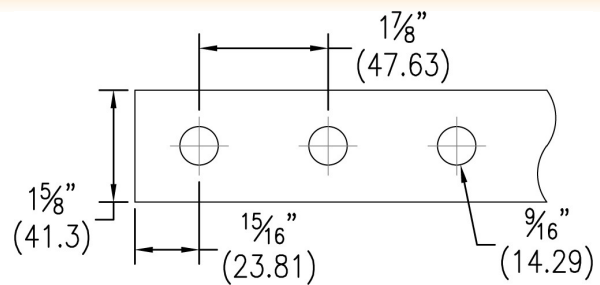


| Fig. No. | Type - Description | | Weight | | Bundle Qty. | | | |
|----------|--------------------|--|----------|-------|-------------|---------|-------|---------|
| | 10ft. (3.05m) | 20ft. (6.1m) | lbs./ft. | kg/m | 10ft. | 3.05m | 20ft. | 6.1m |
| 1301 | 1302 | No Openings | .93 | (.42) | 500 | (152.4) | 1000 | (304.8) |
| 1301A | 1302A | Welded Back to Back | 1.86 | (.84) | 500 | (152.4) | 500 | (152.4) |
| 1311 | 1312 | With 1 1/8" X 9/16" (28.58 X 14.29) slots on 2" (50.8) centers | .86 | (.39) | 500 | (152.4) | 1000 | (304.8) |
| 1311A | 1312A | Welded Back to Back | 1.72 | (.78) | 500 | (152.4) | 500 | (152.4) |
| 1321 | 1322 | With 9/16" (14.29) dia. holes on 1 7/8" (47.63) centers | .88 | (.40) | 500 | (152.4) | 1000 | (304.8) |
| 1321A | 1322A | Welded Back to Back | 1.92 | (.87) | 500 | (152.4) | 500 | (152.4) |
| 1331 | 1332 | With 3" (76.20) slots | .87 | (.39) | 500 | (152.4) | 1000 | (304.8) |
| 1341 | 1342 | With 7/8" (22.23) Knockouts on 6" (152.40) centers | .93 | (.42) | 500 | (152.4) | 1000 | (304.8) |

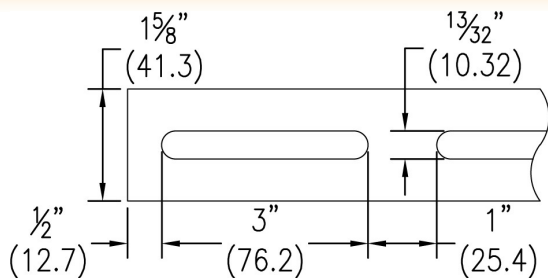
1311-1312



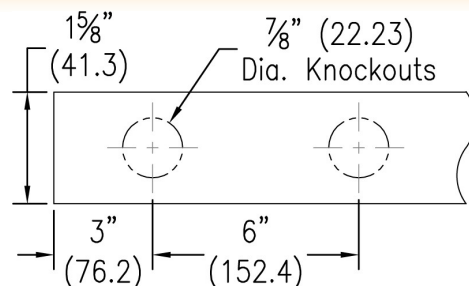
1321-1322



1331-1332



1341-1342



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

CHANNEL STRUT



1⁵/₈" X 1³/₁₆" X 14 GAUGE

FIG. 1301-1342

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 |
| 1301 | 0.295 | (1.903) | 0.027 | (1.124) | 0.056 | (0.918) | 0.302 | (0.767) | 0.11 | (4.580) | 0.135 | (2.212) | 0.61 | (1.549) |
| 1301A | 0.59 | (3.806) | 0.122 | (5.079) | 0.15 | (2.458) | 0.455 | (1.156) | 0.22 | (9.160) | 0.27 | (4.425) | 0.61 | (1.549) |

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 | |
|----------|-------------------------------------|----------|---------------------|---------|--------------------------|--------|------------------------|----------|--------------------------|--------|
| | | | lbs. | kN | lbs. | kN | | | lbs. | kN |
| 1301 | 12 | (304.8) | 6186 | (27.52) | 870 | (3.87) | 0.03 | (0.76) | 870 | (3.87) |
| 1301A | | | 12763 | (56.77) | 870* | (3.87) | 0.01 | (0.25) | 870* | (3.87) |
| 1301 | 24 | (609.6) | 5464 | (24.31) | 465 | (2.07) | 0.11 | (2.79) | 430 | (1.91) |
| 1301A | | | 12135 | (53.98) | 870* | (3.87) | 0.04 | (1.02) | 870* | (3.87) |
| 1301 | 36 | (914.4) | 4300 | (19.13) | 310 | (1.38) | 0.24 | (6.10) | 191 | (0.85) |
| 1301A | | | 11087 | (49.32) | 832 | (3.70) | 0.14 | (3.56) | 832 | (3.70) |
| 1301 | 48 | (1219.2) | 2703 | (12.02) | 233 | (1.04) | 0.43 | (10.92) | 108 | (0.48) |
| 1301A | | | 9620 | (42.79) | 624 | (2.78) | 0.25 | (6.35) | 499 | (2.22) |
| 1301 | 60 | (1524.0) | 1730 | (7.70) | 186 | (0.83) | 0.68 | (17.27) | 69 | (0.31) |
| 1301A | | | 7734 | (34.40) | 499 | (2.22) | 0.39 | (9.91) | 319 | (1.42) |
| 1301 | 72 | (1828.8) | 1201 | (5.34) | 155 | (0.69) | 0.97 | (24.64) | 48 | (0.21) |
| 1301A | | | 5571 | (24.78) | 416 | (1.85) | 0.56 | (14.22) | 222 | (0.99) |
| 1301 | 84 | (2133.6) | - | - | 133 | (0.59) | 1.32 | (33.53) | 35 | (0.16) |
| 1301A | | | 4093 | (18.21) | 357 | (1.59) | 0.76 | (19.30) | 163 | (0.73) |
| 1301 | 96 | (2438.4) | - | - | 116 | (0.52) | 1.73 | (43.94) | 27 | (0.12) |
| 1301A | | | 3134 | (13.94) | 312 | (1.39) | 1.00 | (25.40) | 125 | (0.56) |
| 1301 | 108 | (2743.2) | - | - | 103 | (0.46) | 2.19 | (55.63) | 21 | (0.09) |
| 1301A | | | 2476 | (11.01) | 277 | (1.23) | 1.27 | (32.26) | 98 | (0.44) |
| 1301 | 120 | (3048.0) | - | - | 93 | (0.41) | 2.70 | (68.58) | 17 | (0.08) |
| 1301A | | | - | - | 250 | (1.11) | 1.56 | (39.62) | 80 | (0.36) |
| 1301 | 144 | (3657.6) | - | - | 80 | (0.36) | 4.09 | (103.89) | - | - |
| 1301A | | | - | - | 200 | (0.89) | 2.26 | (57.40) | 50 | (0.22) |
| 1301 | 168 | (4267.2) | - | - | - | - | - | - | - | - |
| 1301A | | | - | - | 170 | (0.76) | 3.05 | (77.47) | 40 | (0.18) |
| 1301 | 192 | (4876.8) | - | - | - | - | - | - | - | - |
| 1301A | | | - | - | 150 | (0.67) | 4.02 | (102.11) | - | - |
| 1301 | 216 | (5486.4) | - | - | - | - | - | - | - | - |
| 1301A | | | - | - | 130 | (0.58) | 4.96 | (125.98) | - | - |
| 1301 | 240 | (6096.0) | - | - | - | - | - | - | - | - |
| 1301A | | | - | - | 120 | (0.53) | 6.28 | (159.51) | - | - |

For pierced Channels, reduce beam load values as follows:
 1311 & 1312 = 15%
 1321 & 1322 = 10%
 1331 & 1332 = 30%
 1341 & 1342 = 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.

CHANNEL
 PIPE & CONDUIT SUPPORTS
 STRUT NUTS & HARDWARE
 CONCRETE INSERTS
 END CAPS & CLOSURES
 FLAT PLATE FITTINGS
 90° ANGLE FITTINGS
 ANGLE FITTINGS
 "U" FITTINGS
 "Z" FITTINGS
 WING FITTINGS
 SPECIALTY FITTINGS
 TROLLEY ASSEMBLIES
 POST BASES
 BRACKETS & BRACE FITTINGS
 BEAM CLAMPS
 ROOFTOP SUPPORTS