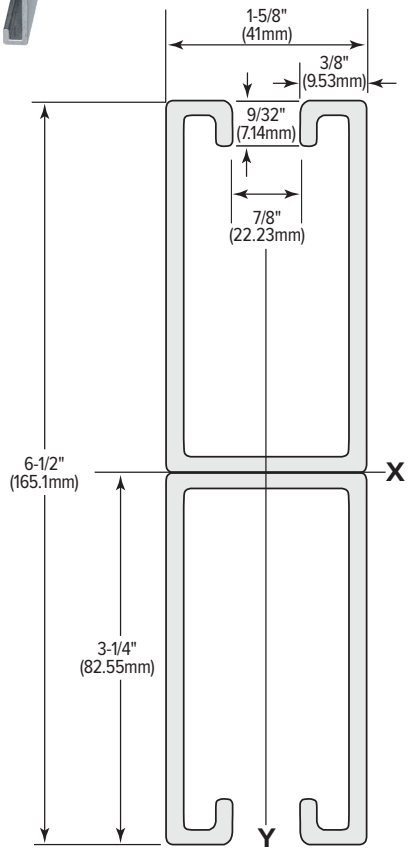
SPECIFICATIONS

# FIGURE 7880
## STRUT CHANNEL

## 1-5/8" x 3-1/4" 12 GA—BACK TO BACK SOLID

### FEATURES

- 1-5/8" x 6-1/2"
- 12-gauge channel
- Solid back to back
- Load data calculated based on ANSI/AISC 360-2016
- Available in 10-ft and 20-ft lengths
- Material: pre-galvanized steel (ASTM A653 SS Grade 33, G90)
- Standard length tolerance ±1/8"
- Available finish: pre-galvanized steel (ASTM A653 SS Grade 33, G90)




### REFERENCE CHART

| Item # | Finish | Size | | Length | | Gauge |
|---|---|---|---|---|---|---|
| | | in. | mm | ft | m | |
| FNWST7880B12ZSD1 | Pre-galv. | 1-5/8 x 6-1/2 | 41 x 165 | 10 | 3.048 | 12 |
| FNWST7880B12ZSD2 | Pre-galv. | 1-5/8 x 6-1/2 | 41 x 165 | 20 | 6.096 | 12 |

### SECTION PROPERTIES

| Wt/Ft Lbs | Area of Section Sq. In. | X-X Axis | | | Y-Y Axis | | |
|---|---|---|---|---|---|---|---|
| | | I $in^4$ | S $in^3$ | r in | I $in^4$ | S $in^3$ | r in |
| 6.26 | 1.775 | 6.251 | 1.923 | 1.877 | 0.862 | 1.060 | 0.697 |

I = Moment of Inertia S = Section Modulus r = Radius of Gyration

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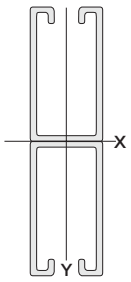


| Span or Unbraced Height (in.) | Static Beam Load (X-X Axis) | | | | | Max Allowable Load at Slot Face (lbs) | Column Loading Data | | | | Weight of Channel (lbs) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Max Allowable Uniform Load (lbs) | Deflection at Uniform Load (in.) | Uniform Load at Deflection | | | | Max Column Load | | | | |
| | | | Span/180 Deflection (lbs) | Span/240 Deflection (lbs) | Span/360 Deflection (lbs) | | k=.65 (lbs) | k=.80 (lbs) | k=1.0 (lbs) | k=1.2 (lbs) | |
| 12 | 6890* | 0.00 | 6890* | 6890* | 6890* | 10910 | 41100 | 40940 | 40680 | 40360 | 6.3 |
| 18 | 6890* | 0.01 | 6890* | 6890* | 6890* | 10860 | 40720 | 40360 | 39780 | 39080 | 9.4 |
| 24 | 6890* | 0.02 | 6890* | 6890* | 6890* | 10780 | 40180 | 39560 | 38550 | 37360 | 12.5 |
| 30 | 6890* | 0.02 | 6890* | 6890* | 6890* | 10690 | 39500 | 38550 | 37030 | 35250 | 15.7 |
| 36 | 6890* | 0.04 | 6890* | 6890* | 6890* | 10570 | 38690 | 37360 | 35250 | 32840 | 18.8 |
| 42 | 6890* | 0.05 | 6890* | 6890* | 6890* | 10440 | 37750 | 35990 | 33260 | 30200 | 21.9 |
| 48 | 6890* | 0.06 | 6890* | 6890* | 6890* | 10280 | 36700 | 34480 | 31100 | 27420 | 25.0 |
| 60 | 6450 | 0.10 | 6450 | 6450 | 6450 | 9900 | 34280 | 31100 | 26470 | 21740 | 31.3 |
| 72 | 5370 | 0.14 | 5370 | 5370 | 5370 | 9440 | 31540 | 27420 | 21740 | 16370 | 37.6 |
| 84 | 4610 | 0.19 | 4610 | 4610 | 4610 | 8890 | 28590 | 23620 | 16370 | 12030 | 43.8 |
| 96 | 4030 | 0.25 | 4030 | 4030 | 4030 | 8260 | 25520 | 19890 | 12030 | 9210 | 50.1 |
| 108 | 3580 | 0.32 | 3580 | 3580 | 3370 | 7550 | 22440 | 16370 | 9210 | 7280 | 56.3 |
| 120 | 3220 | 0.39 | 3220 | 3220 | 2730 | 6790 | 19440 | 13270 | 7280 | ** | 62.6 |
| 144 | 2690 | 0.57 | 2690 | 2690 | 1900 | 5510 | 13960 | 9210 | ** | ** | 75.1 |
| 168 | 2300 | 0.77 | 2300 | 2090 | 1390 | 4520 | 10250 | 6770 | ** | ** | 87.6 |
| 180 | 2150 | 0.89 | 2150 | 1820 | 1210 | ** | 8930 | ** | ** | ** | 93.9 |
| 192 | 2020 | 1.01 | 2020 | 1600 | 1070 | ** | 7850 | ** | ** | ** | 100.2 |
| 216 | 1790 | 1.27 | 1690 | 1260 | 840 | ** | ** | ** | ** | ** | 112.7 |
| 240 | 1610 | 1.57 | 1370 | 1020 | 680 | ** | ** | ** | ** | ** | 125.2 |

NR = Not Recommended
* Load limited by spot weld shear ** Not recommended - KL/r exceeds 200

NOTE: 1. Allowable beam loads are based on a uniformly loaded, simply supported beam. For capacities of a beam loaded at midspan at a single point, multiply the beam capacity by 50% and deflection by 80%. 2. The section properties (excluding quality) are in the absence of holes.