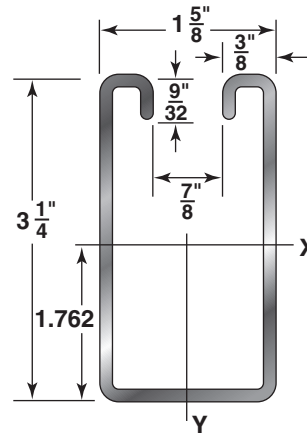
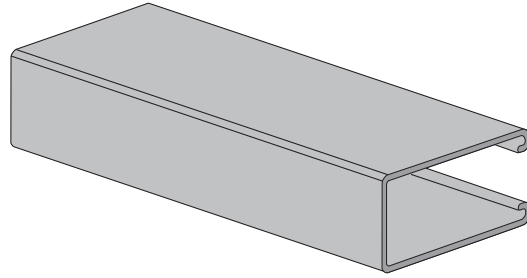


# AS-112

**3 1/4" X 1 5/8"**  
**12 Gauge Channel**

Stocked in pre-galvanized, plain & powder coated Supr-Green, in both 10 & 20 ft. lengths. Note: Also available in Stainless Steel 304 & 316 Alloys. Other materials, finishes & lengths are available upon request.



## Specifications

### GENERAL

ALL-STRUT channels are manufactured by a series of forming dies, or rolls, which progressively cold work the strip steel into the desired channel configuration. This method produces a cross section of uniform dimensions within a tolerance of plus or minus 0.015", on outside dimensions.

### LENGTH INFORMATION

ALL-STRUT channels are produced and stocked in 10' and 20' lengths with a tolerance of  $\pm 1/8"$ . Other lengths are available upon request.

### LOADING DATA

1. When calculating load at center of span, multiply load from table by 0.5 and deflection by 0.8.
2. When calculating beam and column loads for aluminum, multiply by 33%.

### MATERIAL

ALL-STRUT channels are produced from prime structural steel covered by the following specifications. (See technical section for additional information)

- Pre-Galvanized Steel . . . . .ASTM A-653
  - Plain Steel . . . . .ASTM A-1011-04-SS
  - Aluminum (Type 6063T6) . . . . .ASTM B-221
  - Stainless Steel (Type 304 & 316) . . . . .ASTM A-240
- Other materials and specifications available on request.
- Hot Dipped Galvanized. . . . .ASTM A-123
  - Zinc Trivalent Chromium. . . . .ASTM B-633-85
  - Powder Coated Supr-Green. . . . .ASTM B-117
  - PVC Coating 40 ML Thickness - Available Upon Request

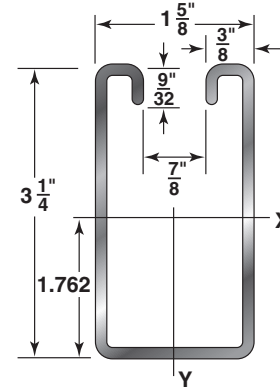
# AS-112

3 1/4" X 1 5/8"  
12 Gauge Channel

## SECTION PROPERTIES

| Catalog No. | Wt./Ft. Lbs. | Area of Section Sq. In. | X-X Axis          |                   |       | Y-Y Axis          |                   |       |
|-------------|--------------|-------------------------|-------------------|-------------------|-------|-------------------|-------------------|-------|
|             |              |                         | I in <sup>4</sup> | S in <sup>3</sup> | r in. | I in <sup>4</sup> | S in <sup>3</sup> | r in. |
| AS-112      | 3.13         | 0.887                   | 1.100             | 0.633             | 1.114 | 0.431             | 0.530             | 0.697 |

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



| Span or Unbraced Height (In) | Static Beam Load (X-X Axis)      |                                 |                            |                           |                           |                         |  | Column Loading Data              |             |             |             |
|------------------------------|----------------------------------|---------------------------------|----------------------------|---------------------------|---------------------------|-------------------------|--|----------------------------------|-------------|-------------|-------------|
|                              | Max Allowable Uniform Load (Lbs) | Deflection at Uniform Load (In) | Uniform Load at Deflection |                           |                           |                         | Max. Allowable Load at Slot Face (Lbs) | Max. Column Load Applied at C.G. |             |             |             |
|                              |                                  |                                 | Span/180 Deflection (Lbs)  | Span/240 Deflection (Lbs) | Span/360 Deflection (Lbs) | Weight of Channel (Lbs) |  | k=.65 (Lbs)                      | k=.80 (Lbs) | k=1.0 (Lbs) | k=1.2 (Lbs) |
| 12                           | 10,610                           | 0.01                            | 10,610                     | 10,610                    | 10,610                    | 3.1                     | 6,170                                  | 19,600                           | 19,060      | 18,210      | 17,240      |
| 18                           | 7,070                            | 0.02                            | 7,070                      | 7,070                     | 7,070                     | 4.7                     | 5,950                                  | 18,320                           | 17,240      | 15,630      | 13,920      |
| 24                           | 5,300                            | 0.03                            | 5,300                      | 5,300                     | 5,300                     | 6.3                     | 5,650                                  | 16,720                           | 15,070      | 12,770      | 10,560      |
| 30                           | 4,240                            | 0.05                            | 4,240                      | 4,240                     | 4,240                     | 7.8                     | 5,270                                  | 14,920                           | 12,770      | 10,030      | 7,640       |
| 36                           | 3,540                            | 0.07                            | 3,540                      | 3,540                     | 3,540                     | 9.4                     | 4,840                                  | 13,060                           | 10,560      | 7,640       | 5,650       |
| 42                           | 3,030                            | 0.09                            | 3,030                      | 3,030                     | 3,030                     | 11.0                    | 4,360                                  | 11,230                           | 8,560       | 5,910       | 4,450       |
| 48                           | 2,650                            | 0.12                            | 2,650                      | 2,650                     | 2,650                     | 12.5                    | 3,860                                  | 9,530                            | 6,850       | 4,790       | 3,660       |
| 60                           | 2,120                            | 0.18                            | 2,120                      | 2,120                     | 1,920                     | 15.7                    | 3,100                                  | 6,680                            | 4,790       | 3,450       | 2,710       |
| 72                           | 1,770                            | 0.26                            | 1,770                      | 1,770                     | 1,340                     | 18.8                    | 2,570                                  | 4,980                            | 3,660       | 2,710       | 2,170       |
| 84                           | 1,520                            | 0.36                            | 1,520                      | 1,470                     | 980                       | 21.9                    | 2,200                                  | 3,950                            | 2,960       | 2,240       | 1,820       |
| 96                           | 1,330                            | 0.47                            | 1,330                      | 1,130                     | 750                       | 25.0                    | 1,930                                  | 3,270                            | 2,500       | 1,920       | 1,580       |
| 108                          | 1,180                            | 0.60                            | 1,180                      | 890                       | 590                       | 28.2                    | 1,730                                  | 2,800                            | 2,170       | 1,690       | 1,390       |
| 120                          | 1,060                            | 0.74                            | 960                        | 720                       | 480                       | 31.3                    | 1,560                                  | 2,450                            | 1,920       | 1,510       | **          |
| 144                          | 880                              | 1.06                            | 670                        | 500                       | 330                       | 37.6                    | 1,320                                  | 1,980                            | 1,580       | **          | **          |
| 168                          | 760                              | 1.44                            | 490                        | 370                       | 250                       | 43.8                    | 1,150                                  | 1,670                            | 1,340       | **          | **          |
| 180                          | 710                              | 1.65                            | 430                        | 320                       | 210                       | 47.0                    | **                                     | 1,550                            | **          | **          | **          |
| 192                          | 660                              | 1.88                            | 380                        | 280                       | 190                       | 50.1                    | **                                     | 1,450                            | **          | **          | **          |
| 216                          | 590                              | 2.38                            | 300                        | 220                       | 150                       | 56.3                    | **                                     | **                               | **          | **          | **          |
| 240                          | 530                              | 2.94                            | 240                        | 180                       | 120                       | 62.6                    | **                                     | **                               | **          | **          | **          |

# Bearing Load may limit load

\*\* Not recommended - KL/r exceeds 200

### Notes

- The beam capacities shown above include the weight of the strut beam. The beam weight must be subtracted from these capacities to arrive at the net beam capacity.
- 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%.

3. The above chart shows beam capacities for strut without holes. For strut with holes, multiply by the following:

OS by 88%,                      OS3 by 90%,  
RS (1/16 holes) by 88%,      RS-3/4-MOD (3/4 holes) by 85%,  
KO by 82% .