



OEG BUILDING MATERIALS - METAL FRAMING MANUFACTURERS

6001 BORDENTOWN AVE, SAYREVILLE, NJ 08872

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PRODUCT  
Strut Channel

MEMBER#  
1316SC14

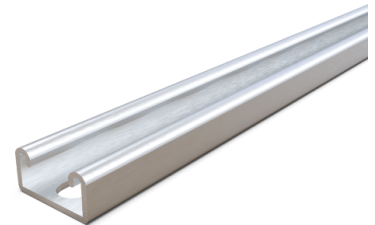
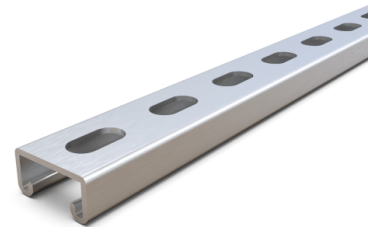
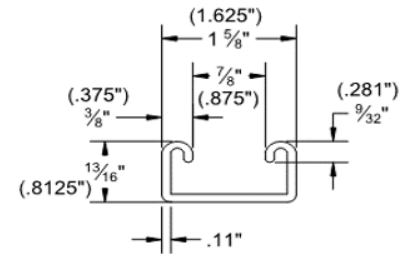
GAUGE  
14

## PHYSICAL PROPERTIES

|                         |         |
|-------------------------|---------|
| Web Depth               | 1.625   |
| Flange                  | 13/16   |
| Return                  | 0.375   |
| Weight (plf)            | 0.91344 |
| Area (in <sup>2</sup> ) | 0.287   |

## GROSS PROPERTIES

|                                             |         |
|---------------------------------------------|---------|
| Net Area (at 0.56" Hole) (in <sup>2</sup> ) | 0.24686 |
| Moment of Intertia Iy (in <sup>4</sup> )    | 0.1064  |
| Section Modulus Sy (in <sup>3</sup> )       | 0.131   |
| Radius of Gyration ry (in)                  | 0.2975  |
| Moment of Intertia Ix (in <sup>4</sup> )    | 0.02185 |
| Section Modulus Sx (top) (in <sup>3</sup> ) | 0.0525  |
| Section Modulus Sx (bot) (in <sup>3</sup> ) | 0.05516 |
| Radius of Gyration rx (in)                  | 0.2975  |



## DISCLAIMER:

All data, detail and specifications included in herein are intended as a general guide for using OEG Building Materials products. These products should not be used in design or construction without evaluation by a qualified engineer or architect to determine their suitability for a specific use. OEG Building Materials assumes no liability for failure resulting from use or misapplication of computation, details or specifications contained herein. OEG Building Material assumes no liability for damages resulting from improper application or insulation of these products.



## BEAM LOADING

| Span<br>(in) | Max. Allow<br>Uniform (fully<br>braced) plf | Max. Allow.<br>Uniform (fully<br>braced) lbs. | Max. Allow.<br>Uniform Load<br>(plf) | Max. Allow.<br>Uniform Load<br>(lbs.) | Deflection at<br>max load (in) | Max Uniform Load<br>at Deflection (plf) |       |       | Max Allowable<br>Moment at Span<br>(lb-ft) |
|--------------|---------------------------------------------|-----------------------------------------------|--------------------------------------|---------------------------------------|--------------------------------|-----------------------------------------|-------|-------|--------------------------------------------|
|              |                                             |                                               |                                      |                                       |                                | L/180                                   | L/240 | L/360 |                                            |
| 18           | 518.83                                      | 778.24                                        | 579.60                               | 869.30                                | 0.10                           | 565.9                                   | 424.4 | 282.9 | 163                                        |
| 24           | 291.84                                      | 583.68                                        | 320.00                               | 640.00                                | 0.18                           | 238.7                                   | 179.0 | 119.4 | 160                                        |
| 36           | 129.70                                      | 389.12                                        | 129.80                               | 389.30                                | 0.37                           | 70.7                                    | 53.1  | 35.4  | 146                                        |
| 48           | 72.96                                       | 291.84                                        | 67.50                                | 270.00                                | 0.60                           | 29.8                                    | 22.4  | 14.9  | 135                                        |
| 60           | 46.69                                       | 233.47                                        | 40.32                                | 201.60                                | 0.88                           | 15.3                                    | 11.5  | 7.6   | 126                                        |
| 72           | 32.43                                       | 194.56                                        | 26.44                                | 158.70                                | 1.20                           | 8.8                                     | 6.6   | 4.4   | 119                                        |
| 84           | 23.82                                       | 166.77                                        | 18.44                                | 129.10                                | 1.55                           | 5.6                                     | 4.2   | 2.8   | 113                                        |
| 96           | 18.24                                       | 145.92                                        | 13.30                                | 106.00                                | 1.89                           | 3.7                                     | 2.8   | 1.9   | 106                                        |
| 108          | 14.41                                       | 129.71                                        | 10.00                                | 89.80                                 | 2.28                           | 2.6                                     | 2.0   | 1.3   | 101                                        |
| 120          | 11.67                                       | 116.74                                        | 7.70                                 | 76.80                                 | 2.68                           | 1.9                                     | 1.4   | 1.0   | 96                                         |

### NOTES:

- Complies with AISI S100-2016.
- Steel Material is A1003 Grade 50.
- Effective Properties incorporate.
- Strength increase from Cold Forming.
- Safety Factor for Beams is 1.67.
- Safety Factor for Columns is 1.80.

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## COLUMN LOADING

| Span (in) | Max Column Load at Center of Gravity (lb) |          |          |          |
|-----------|-------------------------------------------|----------|----------|----------|
|           | K=0.65                                    | K=0.80   | K=1.0    | K=1.2    |
| 18        | 7,013                                     | 6,261    | 5,243    | 4,283    |
| 24        | 5,920                                     | 4,914    | 3,698    | 2,730    |
| 36        | 3,840                                     | 2,730    | 1,888    | 1,401    |
| 48        | 2,389                                     | 1,699    | 1,179    | 871      |
| 60        | 1,656                                     | 1,179    | KL/r>200 | KL/r>200 |
| 72        | 1,229                                     | 871      | KL/r>200 | KL/r>200 |
| 84        | 952                                       | KL/r>200 | KL/r>200 | KL/r>200 |
| 96        | KL/r>200                                  | KL/r>200 | KL/r>200 | KL/r>200 |
| 108       | KL/r>200                                  | KL/r>200 | KL/r>200 | KL/r>200 |
| 120       | KL/r>200                                  | KL/r>200 | KL/r>200 | KL/r>200 |
| 144       | KL/r>200                                  | KL/r>200 | KL/r>200 | KL/r>200 |

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