

# C-Joists

## with Big Stiffened Web Holes

| MATERIAL                  |        |
|---------------------------|--------|
| Web (in)                  | 8      |
| Flange (in)               | 2      |
| Lip (in)                  | 0.625  |
| Yield Strength Fy (KSI)   | 50     |
| Tensile Strength Fu (KSI) | 65     |
| Design Thickness (in)     | 0.0566 |
| Minimum Thickness (mil)   | 54     |
| Gauge                     | 16     |
| Available Finish G60, G90 |        |

| GROSS SECTION PROPERTIES                   |       |
|--------------------------------------------|-------|
| Weight of Member: (lb/ft)                  | 2.47  |
| Cross Sectional Area: A (in <sup>2</sup> ) | 0.726 |
| Moment of Inertia: Ix (in <sup>4</sup> )   | 6.574 |
| Section Modulus: Sx (in <sup>3</sup> )     | 1.644 |
| Radius of Gyration: Rx (in)                | 3.009 |
| Moment of Inertia: Iy (in <sup>4</sup> )   | 0.357 |
| Radius of Gyration: Ry (in)                | 0.701 |

| EFFECTIVE SECTION PROPERTIES FOR 20ft JOIST SPAN*    |      |      |      |
|------------------------------------------------------|------|------|------|
| Hole Spacing (in)                                    | 48   | 32   | 16   |
| Moment of Inertia-Deflection: Ixe (in <sup>4</sup> ) | 6.25 | 6.05 | 5.98 |
| Allowable Design Bending Moment: Md (in-k)           | 36   | 34   | 33   |
| Allowable Shear Force: Va (lb) (solid section)       | 2091 | 2091 | 2091 |
| Check web crippling                                  |      |      |      |
| * For other joist spans, see Hermes Technical Manual |      |      |      |

| TORSIONAL SECTION PROPERTIES (Solid Section)               |        |
|------------------------------------------------------------|--------|
| St. Venant Torsional Constant: Jx1000 (in <sup>4</sup> )   | 0.775  |
| Torsional Warping Constant: Cw (in <sup>6</sup> )          | 4.663  |
| Shear Center to Centroid on Principal X-axis: Xo (in)      | -1.265 |
| Radius of Gyration on the Centroid Principal axis: Ro (in) | 3.338  |



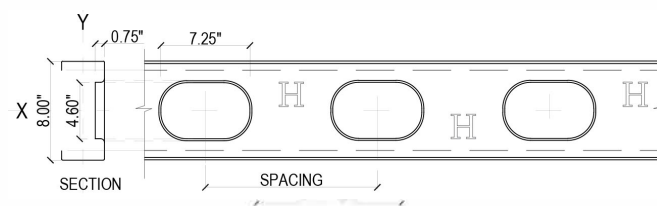
### PRODUCT ID

800 H 48 J 200-54 (8x2x16ga) Holes@48"  
 800 H 32 J 200-54 (8x2x16ga) Holes@32"  
 800 H 16 J 200-54 (8x2x16ga) Holes@16"

### CODES & STANDARDS

- ASTM A 1003, A 653, & C 955
- AISI S100-16

### HOLE SIZE AND SPACING



See Hermes/Hephaistos Technical Manual  
for complete design data