

C-Joists

with Big Stiffened Web Holes



MATERIAL	
Web (in)	12
Flange (in)	2½
Lip (in)	0.625
Yield Strength Fy (KSI)	50
Tensile Strength Fu (KSI)	65
Design Thickness (in)	0.0713
Minimum Thickness (mil)	68
Gauge	14
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	4.54
Cross Sectional Area: A (in ²)	1.335
Moment of Inertia: Ix (in ⁴)	27.028
Section Modulus: Sx (in ³)	4.505
Radius of Gyration: Rx (in)	4.500
Moment of Inertia: Iy (in ⁴)	1.320
Radius of Gyration: Ry (in)	0.994

EFFECTIVE SECTION PROPERTIES FOR 20ft JOIST SPAN*			
Hole Spacing (in)	48	32	16
Moment of Inertia-Deflection: Ixe (in ⁴)	22.97	21.60	18.92
Allowable Design Bending Moment: Md (in-k)	70	66	58
Allowable Shear Force: Va (lb) (solid section)	2770	2770	2770
Check web crippling			
*For other joist spans, see Hermes Technical Manual			

TORSIONAL SECTION PROPERTIES (Solid Section)	
St. Venant Torsional Constant: Jx1000 (in ⁴)	2.262
Torsional Warping Constant: Cw (in ⁶)	37.126
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.726
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.921

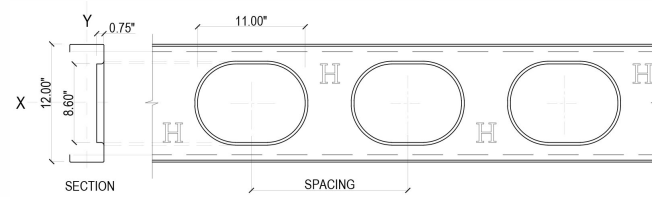
PRODUCT ID

1200 H 48 J 300-68 (12x2½x14 ga) Holes@48"
 1200 H 32 J 300-68 (12x2½x14 ga) Holes@32"
 1200 H 16 J 300-68 (12x2½x14 ga) 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