

C-Joists

with Big Stiffened Web Holes

MATERIAL	
Web (in)	14
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)	4.78
Cross Sectional Area: A (in ²)	1.406
Moment of Inertia: Ix (in ⁴)	35.755
Section Modulus: Sx (in ³)	5.108
Radius of Gyration: Rx (in)	5.043
Moment of Inertia: Iy (in ⁴)	0.865
Radius of Gyration: Ry (in)	0.784

EFFECTIVE SECTION PROPERTIES FOR 20ft JOIST SPAN*			
Hole Spacing (in)	48	32	16
Moment of Inertia-Deflection: Ixe (in ⁴)	32.18	30.39	28.60
Allowable Design Bending Moment: Md(in-k)	82	77	73
Allowable Shear Force: Va (lb) (solid section)	2364	2364	2364
Check web crippling			
* For other joist spans, see Hermes Technical Manual			

TORSIONAL SECTION PROPERTIES (Solid Section)	
St. Venant Torsional Constant: Jx1000 (in ⁴)	2.383
Torsional Warping Constant: Cw (in ⁶)	34.118
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.257
Radius of Gyration on the Centroid Principal axis: Ro (in)	5.256



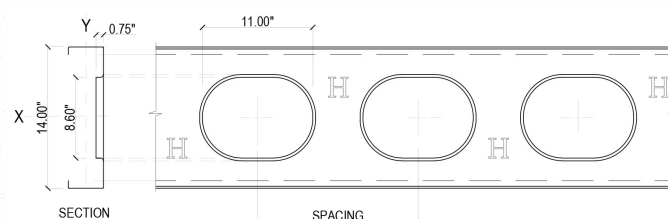
PRODUCT ID

1400 H 48 J 250-68 (14x2½x14 ga) Holes@48"
 1400 H 32 J 250-68 (14x2½x14 ga) Holes@32"
 1400 H 16 J 250-68 (14x2½x14 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