

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)	0.0566
Minimum Thickness (mil)	54
Gauge	16
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	3.82
Cross Sectional Area: A (in ²)	1.122
Moment of Inertia: Ix (in ⁴)	28.712
Section Modulus: Sx (in ³)	4.102
Radius of Gyration: Rx (in)	5.058
Moment of Inertia: Iy (in ⁴)	0.707
Radius of Gyration: Ry (in)	0.794

EFFECTIVE SECTION PROPERTIES FOR 20ft JOIST SPAN*			
Hole Spacing (in)	48	32	16
Moment of Inertia-Deflection: Ixe (in ⁴)	25.84	24.41	22.97
Allowable Design Bending Moment: Md(in-k)	49	46	43
Allowable Shear Force: Va (lb) (solid section)	941	941	941
Check web crippling			
* For other joist spans, see Hermes Technical Manual			

TORSIONAL SECTION PROPERTIES (Solid Section)	
St. Venant Torsional Constant: Jx1000 (in ⁴)	1.198
Torsional Warping Constant: Cw (in ⁶)	27.675
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.272
Radius of Gyration on the Centroid Principal axis: Ro (in)	5.275



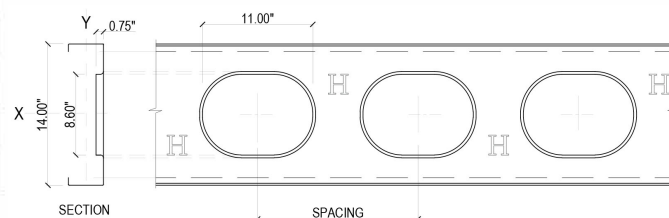
PRODUCT ID

1400 H 48 J 250-54 (14x2½x16ga) Holes@48"
 1400 H 32 J 250-54 (14x2½x16ga) Holes@32"
 1400 H 16 J 250-54 (14x2½x16ga) 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