

C-Joists

with Big Stiffened Web Holes

MATERIAL	
Web (in)	14
Flange (in)	3
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)	4.01
Cross Sectional Area: A (in ²)	1.179
Moment of Inertia: Ix (in ⁴)	31.463
Section Modulus: Sx (in ³)	4.495
Radius of Gyration: Rx (in)	5.166
Moment of Inertia: Iy (in ⁴)	1.115
Radius of Gyration: Ry (in)	0.972

EFFECTIVE SECTION PROPERTIES FOR 20ft JOIST SPAN*			
Hole Spacing (in)	48	32	16
Moment of Inertia-Deflection: Ixe (in ⁴)	27.33	26.74	25.17
Allowable Design Bending Moment: Md(in-k)	51	48	45
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)	1.259
Torsional Warping Constant: Cw (in ⁶)	42.690
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.617
Radius of Gyration on the Centroid Principal axis: Ro (in)	5.500



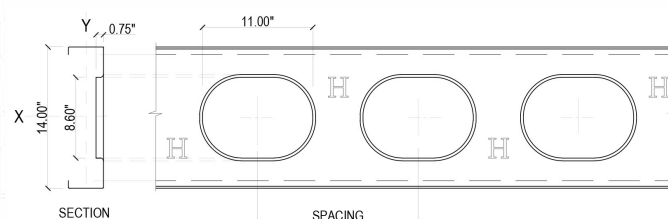
PRODUCT ID

1400 H 48 J 300-54(14x3x16ga) Holes@48"
 1400 H 32 J 300-54 (14x3x16ga) Holes@32"
 1400 H 16 J 300-54 (14x3x16ga) 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