

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)	0.1017
Minimum Thickness (mil)	97
Gauge	12
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	7.09
Cross Sectional Area: A (in ²)	2.084
Moment of Inertia: Ix (in ⁴)	54.692
Section Modulus: Sx (in ³)	7.813
Radius of Gyration: Rx (in)	5.123
Moment of Inertia: Iy (in ⁴)	1.854
Radius of Gyration: Ry (in)	0.943

EFFECTIVE SECTION PROPERTIES FOR 20ft JOIST SPAN*			
Hole Spacing (in)	48	32	16
Moment of Inertia-Deflection: Ixe (in ⁴)	49.22	46.49	43.75
Allowable Design Bending Moment: Md(in-k)	144	136	128
Allowable Shear Force: Va (lb) (solid section)	6938	6938	6938
Check web crippling			
* For other joist spans, see Hermes Technical Manual			

TORSIONAL SECTION PROPERTIES (Solid Section)	
St. Venant Torsional Constant: Jx1000 (in ⁴)	7.186
Torsional Warping Constant: Cw (in ⁶)	72.365
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.568
Radius of Gyration on the Centroid Principal axis: Ro (in)	5.440



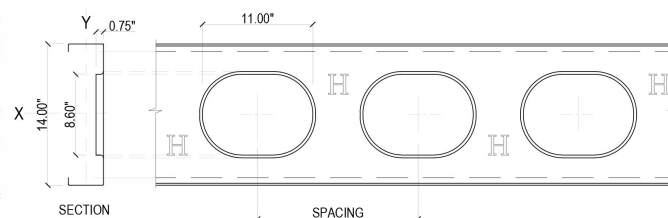
PRODUCT ID

1400 H 48 J 300-97 (14x3x12ga) Holes@48"
 1400 H 32 J 300-97 (14x3x12ga) Holes@32"
 1400 H 16 J 300-97 (14x3x12ga) 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