

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

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	6.74
Cross Sectional Area: A (in ²)	1.983
Moment of Inertia: Ix (in ⁴)	49.781
Section Modulus: Sx (in ³)	7.112
Radius of Gyration: Rx (in)	5.011
Moment of Inertia: Iy (in ⁴)	1.161
Radius of Gyration: Ry (in)	0.765

EFFECTIVE SECTION PROPERTIES FOR 20ft JOIST SPAN*			
Hole Spacing (in)	48	32	16
Moment of Inertia-Deflection: Ixe (in ⁴)	44.80	42.31	39.82
Allowable Design Bending Moment: Md(in-k)	137	130	122
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)	6.835
Torsional Warping Constant: Cw (in ⁶)	46.520
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.225
Radius of Gyration on the Centroid Principal axis: Ro (in)	5.215



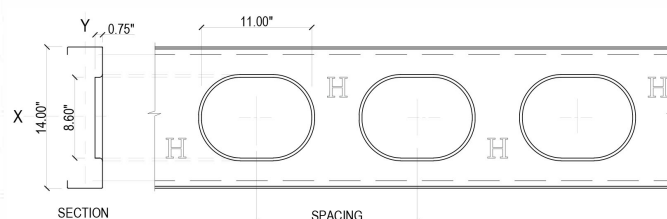
PRODUCT ID

1400 H 48 J 250-97 (14x2½x12ga) Holes@48"
 1400 H 32 J 250-97 (14x2½x12ga) Holes@32"
 1400 H 16 J 250-97 (14x2½x12ga) 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