

C-Joists

with Big Stiffened Web Holes



MATERIAL	
Web (in)	10
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)	3.81
Cross Sectional Area: A (in ²)	1.121
Moment of Inertia: Ix (in ⁴)	15.756
Section Modulus: Sx (in ³)	3.151
Radius of Gyration: Rx (in)	3.749
Moment of Inertia: Iy (in ⁴)	0.799
Radius of Gyration: Ry (in)	0.844

EFFECTIVE SECTION PROPERTIES FOR 20ft JOIST SPAN*			
Hole Spacing (in)	48	32	16
Moment of Inertia-Deflection: Ixe (in ⁴)	14.47	14.18	13.39
Allowable Design Bending Moment: Md(in-k)	62	62	56
Allowable Shear Force: Va (lb) (solid section)	3345	3345	3345
Check web crippling			
* For other joist spans, see Hermes Technical Manual			

TORSIONAL SECTION PROPERTIES (Solid Section)	
St. Venant Torsional Constant: Jx1000 (in ⁴)	1.899
Torsional Warping Constant: Cw (in ⁶)	15.909
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.488
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.121

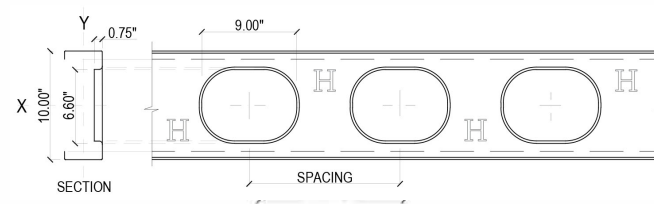
PRODUCT ID

1000 H 48 J 250-68 (10x2½x14 ga) Holes@48"
 1000 H 32 J 250-68 (10x2½x14 ga) Holes@32"
 1000 H 16 J 250- 68 (10x2½x14 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