

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

GROSS SECTION PROPERTIES

Weight of Member: (lb/ft)	3.05
Cross Sectional Area: A (in ²)	0.896
Moment of Inertia: Ix (in ⁴)	12.681
Section Modulus: Sx (in ³)	2.536
Radius of Gyration: Rx (in)	3.762
Moment of Inertia: Iy (in ⁴)	0.653
Radius of Gyration: Ry (in)	0.854

EFFECTIVE SECTION PROPERTIES FOR 20ft JOIST SPAN*

Hole Spacing (in)	48	32	16
Moment of Inertia-Deflection: Ixe (in ⁴)	10.48	10.48	10.48
Allowable Design Bending Moment: Md(in-k)	45	45	41
Allowable Shear Force: Va (lb) (solid section)	1660	1660	1660
Check web crippling			
* For other joist spans, see Hermes Technical Manual			

TORSIONAL SECTION PROPERTIES (Solid Section)

St. Venant Torsional Constant: Jx1000 (in ⁴)	0.957
Torsional Warping Constant: Cw (in ⁶)	12.922
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.505
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.141

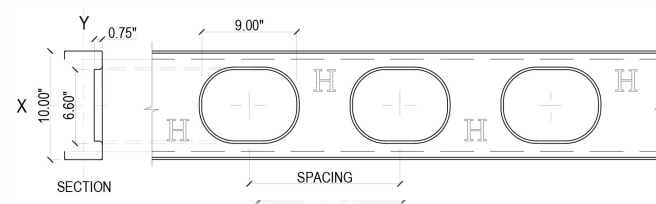
PRODUCT ID

1000 H 48 J 250-54 (10x2½x16ga) Holes@48"
 1000 H 32 J 250-54 (10x2½x16ga) Holes@32"
 1000 H 16 J 250-54 (10x2½x16ga) 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