

C-Joists

with Big Stiffened Web Holes



MATERIAL	
Web (in)	10
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)	3.24
Cross Sectional Area: A (in ²)	0.953
Moment of Inertia: Ix (in ⁴)	14.080
Section Modulus: Sx (in ³)	2.816
Radius of Gyration: Rx (in)	3.845
Moment of Inertia: Iy (in ⁴)	1.024
Radius of Gyration: Ry (in)	1.037

EFFECTIVE SECTION PROPERTIES FOR 20ft JOIST SPAN*			
Hole Spacing (in)	48	32	16
Moment of Inertia-Deflection: Ixe (in ⁴)	10.93	10.93	10.93
Allowable Design Bending Moment: Md(in-k)	46	46	42
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)	1.017
Torsional Warping Constant: Cw (in ⁶)	19.888
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.892
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.409

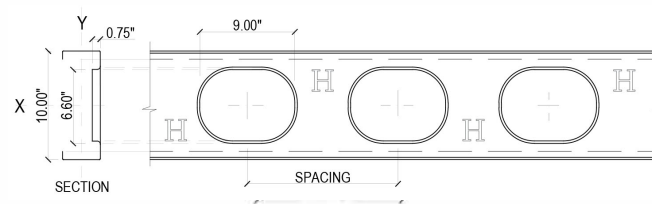
PRODUCT ID

1000 H 48 J 300-54 (10x3x16ga) Holes@48"
 1000 H 32 J 300-54 (10x3x16ga) Holes@32"
 1000 H 16 J 300-54 (10x3x16ga) 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