

C-Joists

with Big Stiffened Web Holes

MATERIAL	
Web (in)	12
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)	3.63
Cross Sectional Area: A (in ²)	1.066
Moment of Inertia: Ix (in ⁴)	21.705
Section Modulus: Sx (in ³)	3.618
Radius of Gyration: Rx (in)	4.513
Moment of Inertia: Iy (in ⁴)	1.074
Radius of Gyration: Ry (in)	1.004

EFFECTIVE SECTION PROPERTIES FOR 20ft JOIST SPAN*			
Hole Spacing (in)	48	32	16
Moment of Inertia-Deflection: Ixe (in ⁴)	18.45	17.36	15.20
Allowable Design Bending Moment: Md (in-k)	42	39	34
Allowable Shear Force: Va (lb) (solid section)	1102	1102	1102
Check web crippling			
* For other joist spans, see Hermes Technical Manual			

TORSIONAL SECTION PROPERTIES (Solid Section)	
St. Venant Torsional Constant: Jx1000 (in ⁴)	1.138
Torsional Warping Constant: Cw (in ⁶)	30.051
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.743
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.941



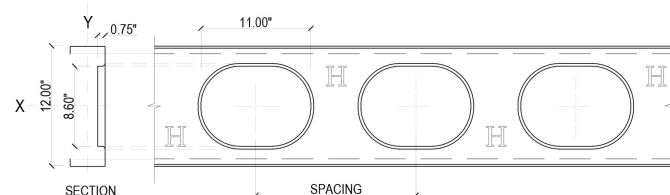
PRODUCT ID

1200 H 48 J 300-54 (12x2½x16ga) Holes@48"
 1200 H 32 J 300-54 (12x2½x16ga) Holes@32"
 1200 H 16 J 300-54 (12x2½x16ga) 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