

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)	0.566
Minimum Thickness (mil)	54
Gauge	16
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	3.43
Cross Sectional Area: A (in ²)	1.009
Moment of Inertia: Ix (in ⁴)	19.687
Section Modulus: Sx (in ³)	3.281
Radius of Gyration: Rx (in)	4.417
Moment of Inertia: Iy (in ⁴)	0.683
Radius of Gyration: Ry (in)	0.823

EFFECTIVE SECTION PROPERTIES FOR 20ft JOIST SPAN*			
Hole Spacing (in)	48	32	16
Moment of Inertia-Deflection: Ixe (in ⁴)	16.74	15.75	13.78
Allowable Design Bending Moment: Md (in-k)	40	38	33
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)	1.078
Torsional Warping Constant: Cw (in ⁶)	19.505
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.378
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.699



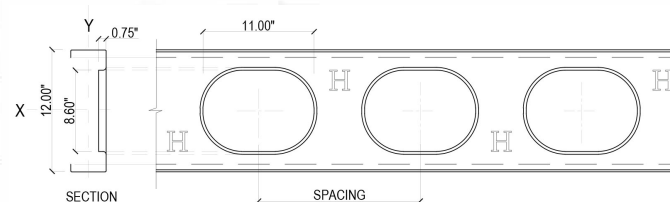
PRODUCT ID

1200 H 48 J 250-54 (12x2½x16ga) Holes@48"
 1200 H 32 J 250-54 (12x2½x16ga) Holes@32"
 1200 H 16 J 250-54 (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