

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)	0.1017
Minimum Thickness (mil)	97
Gauge	12
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	6.05
Cross Sectional Area: A (in ²)	1.779
Moment of Inertia: Ix (in ⁴)	34.027
Section Modulus: Sx (in ³)	5.671
Radius of Gyration: Rx (in)	4.373
Moment of Inertia: Iy (in ⁴)	1.122
Radius of Gyration: Ry (in)	0.794

EFFECTIVE SECTION PROPERTIES FOR 20ft JOIST SPAN*			
Hole Spacing (in)	48	32	16
Moment of Inertia-Deflection: Ixe (in ⁴)	28.92	27.22	23.82
Allowable Design Bending Moment: Md (in-k)	111	104	91
Allowable Shear Force: Va (lb) (solid section)	8145	8145	8145
Check web crippling			
*For other joist spans, see Hermes Technical Manual			

TORSIONAL SECTION PROPERTIES (Solid Section)	
St. Venant Torsional Constant: Jx1000 (in ⁴)	6.134
Torsional Warping Constant: Cw (in ⁶)	32.734
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.329
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.639



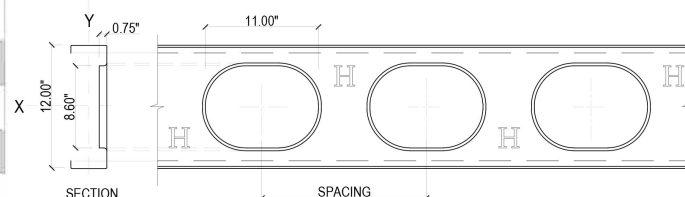
PRODUCT ID

1200 H 48 J 250-97 (12x2½x12ga) Holes@48"
 1200 H 32 J 250-97 (12x2½x12ga) Holes@32"
 1200 H 16 J 250-97 (12x2½x12ga) 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