

C-Joists

with Big Stiffened Web Holes

MATERIAL	
Web (in)	12
Flange (in)	2
Lip (in)	0.625
Yield Strength Fy (KSI)	50
Tensile Strength Fu (KSI)	65
Design Thickness (in)	0.0713
Minimum Thickness (mil)	68
Gauge	14
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	4.06
Cross Sectional Area: A (in ²)	1.192
Moment of Inertia: Ix (in ⁴)	21.955
Section Modulus: Sx (in ³)	3.659
Radius of Gyration: Rx (in)	4.291
Moment of Inertia: Iy (in ⁴)	0.479
Radius of Gyration: Ry (in)	0.634

EFFECTIVE SECTION PROPERTIES FOR 20ft JOIST SPAN*			
Hole Spacing (in)	48	32	16
Moment of Inertia-Deflection: Ixe (in ⁴)	18.66	17.56	15.37
Allowable Design Bending Moment: M d (in-k)	63	59	52
Allowable Shear Force: Va (lb) (solid section)	2770	2770	2770
Check web crippling			
*For other joist spans, see Hermes Technical Manual			

TORSIONAL SECTION PROPERTIES (Solid Section)	
St. Venant Torsional Constant: Jx1000 (in ⁴)	2.020
Torsional Warping Constant: Cw (in ⁶)	14.176
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.017
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.456



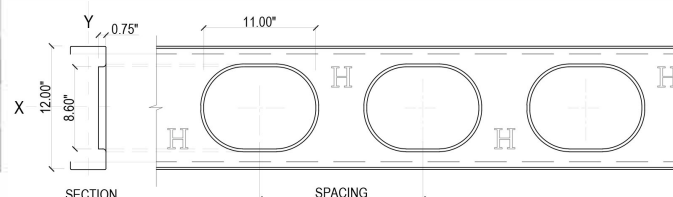
PRODUCT ID

1200 H 48 J 200-68 (12x2x14 ga) Holes@48"
 1200 H 32 J 200-68 (12x2x14 ga) Holes@32"
 1200 H 16 J 200-68 (12x2x14 ga) 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