

C-Joists

with Big Stiffened Web Holes



MATERIAL

Web (in)	10
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)	5.36
Cross Sectional Area: A (in ²)	1.576
Moment of Inertia: Ix (in ⁴)	21.834
Section Modulus: Sx (in ³)	4.367
Radius of Gyration: Rx (in)	3.722
Moment of Inertia: Iy (in ⁴)	1.073
Radius of Gyration: Ry (in)	0.825

EFFECTIVE SECTION PROPERTIES FOR 20ft JOIST SPAN*

Hole Spacing (in)	48	32	16
Moment of Inertia-Deflection: Ixe (in ⁴)	20.52	19.65	18.56
Allowable Design Bending Moment: Md(in-k)	101	101	91
Allowable Shear Force: Va (lb) (solid section)	7175	7175	7175
Check web crippling			
* For other joist spans, see Hermes Technical Manual			

TORSIONAL SECTION PROPERTIES (Solid Section)

St. Venant Torsional Constant: Jx1000 (in ⁴)	5.433
Torsional Warping Constant: Cw (in ⁶)	21.635
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.454
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.080

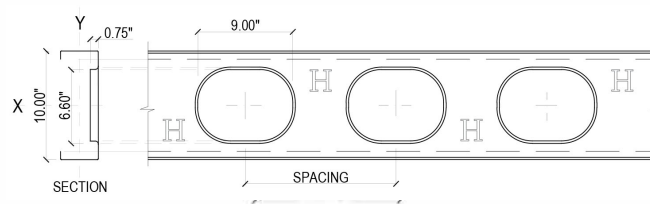
PRODUCT ID

1000	H	48	J	250- 97	(10x2½x12ga)	Holes@48"
1000	H	32	J	250-97	(10x2½x12ga)	Holes@32"
1000	H	16	J	250- 97	(10x2½x12ga)	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