

C-Joists

with Big Stiffened Web Holes

MATERIAL	
Web (in)	10
Flange (in)	3
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)	5.71
Cross Sectional Area: A (in ²)	1.677
Moment of Inertia: Ix (in ⁴)	24.325
Section Modulus: Sx (in ³)	4.865
Radius of Gyration: Rx (in)	3.808
Moment of Inertia: Iy (in ⁴)	1.703
Radius of Gyration: Ry (in)	1.007

EFFECTIVE SECTION PROPERTIES FOR 20ft JOIST SPAN*			
Hole Spacing (in)	48	32	16
Moment of Inertia-Deflection: Ixe (in ⁴)	22.86	21.89	20.68
Allowable Design Bending Moment: Md(in-k)	105	105	95
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)	5.783
Torsional Warping Constant: Cw (in ⁶)	33.570
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.838
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.347



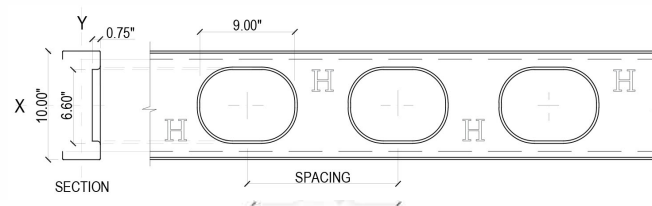
PRODUCT ID

1000	H	48	J	300-97	(10x3x12ga)	Holes@48"
1000	H	32	J	300-97	(10x3x12a)	Holes@32"
1000	H	16	J	300-97	(10x3x12ga)	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