

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	10
Flange (in)	1 $\frac{5}{8}$
Lip (in)	0.500
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)	3.33
Cross Sectional Area: A (in ²)	0.978
Moment of Inertia: Ix (in ⁴)	12.330
Section Modulus: Sx (in ³)	2.466
Radius of Gyration: Rx (in)	3.550
Moment of Inertia: Iy (in ⁴)	0.247
Radius of Gyration: Ry (in)	0.502

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in ⁴)	11.467
Section Modulus: Sxe (in ³)	2.122
Local Buckling Allowable Moment: Mal (in-k)	63.53
Distortional Buckling Allowable Moment: Mad (in-k)	53.74
Allowable strong axis shear away from punch: Vag (lb)	3345
Allowable strong axis shear at punch: Vanet (lb)	3345

(check web crippling)

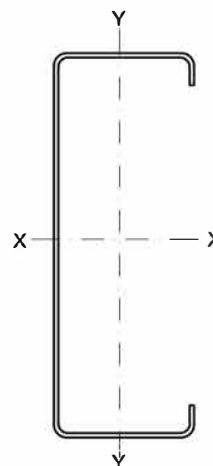
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	1.658
Torsional Warping Constant: Cw (in ⁶)	5.121
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.798
Radius of Gyration on the Centroid Principal axis: Ro (in)	3.673

PRODUCT ID

1000 J 162-68 (10x1 $\frac{5}{8}$ x14ga) (Grade 50)

CODES & STANDARDS

- ASTM A 1003, A 653, & C 955
- AISI S100-16



See Hermes/Hephaistos Technical Manual
for complete design data