

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	10
Flange (in)	2½
Lip (in)	0.625
Yield Strength Fy (KSI)	50
Tensile Strength Fu (KSI)	65
Design Thickness (in)	0.0713
Minimum Thickness (mil)	68
Gauge	14
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	3.81
Cross Sectional Area: A (in ²)	1.121
Moment of Inertia: Ix (in ⁴)	15.756
Section Modulus: Sx (in ³)	3.151
Radius of Gyration: Rx (in)	3.749
Moment of Inertia: Iy (in ⁴)	0.799
Radius of Gyration: Ry (in)	0.844

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in ⁴)	14.469
Section Modulus: Sxe (in ³)	2.736
Local Buckling Allowable Moment: Mal (in-k)	81.93
Distortional Buckling Allowable Moment: Mad (in-k)	65.86
Allowable strong axis shear away from punch: Vag (lb)	3345
Allowable strong axis shear at punch: Vanet (lb)	3345

(check web crippling)

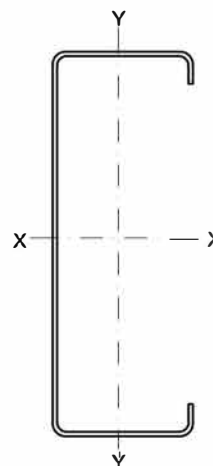
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	1.899
Torsional Warping Constant: Cw (in ⁶)	15.909
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.488
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.121

PRODUCT ID

1000 J 250-68 (10x2½x14ga) (Grade 50)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data