

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	16
Flange (in)	3
Lip (in)	1
Yield Strength Fy (KSI)	33, 50
Tensile Strength Fu (KSI)	45, 65
Design Thickness (in)	0.0713
Minimum Thickness (mil)	68
Gauge	14
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	5.51
Cross Sectional Area: A (in ²)	1.620
Moment of Inertia: Ix (in ⁴)	54.355
Section Modulus: Sx (in ³)	6.794
Radius of Gyration: Rx (in)	5.793
Moment of Inertia: Iy (in ⁴)	1.411
Radius of Gyration: Ry (in)	0.933

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in ⁴)	51.189	49.256
Section Modulus: Sxe (in ³)	5.734	4.143
Local Buckling Allowable Moment: Mal (in-k)	94.61	103.58
Distortional Buckling Allowable Moment: Mad (in-k)	84.24	89.73
Allowable strong axis shear away from punch: Vag (lb)	1,649	2062
Allowable strong axis shear at punch: Va net (lb)	1,649	1,649

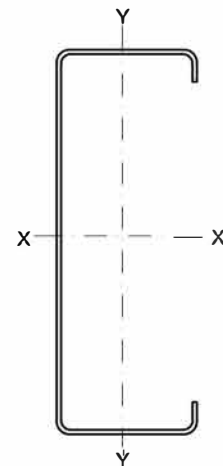
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	2.745
Torsional Warping Constant: Cw (in ⁶)	71.608
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.494
Radius of Gyration on the Centroid Principal axis: Ro (in)	6.055

PRODUCT ID

1300 J 300-68 (13x3x14ga)

CODES & STANDARDS

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



(check web crippling)

See Hermes/Hephaistos Technical Manual
for complete design data