

C – Joists

with Small Punchout (J)



MATERIAL	
Web (in)	12
Flange (in)	3½
Lip (in)	1
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)	4.97
Cross Sectional Area: A (in²)	1.460
Moment of Inertia: Ix (in⁴)	31.004
Section Modulus: Sx (in³)	5.167
Radius of Gyration: Rx (in)	4.609
Moment of Inertia: Iy (in⁴)	2.306
Radius of Gyration: Ry (in)	1.257

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in⁴)	30.967
Section Modulus: Sxe (in³)	3.995
Local Buckling Allowable Moment: Mal (in-k)	119.62
Distortional Buckling Allowable Moment: Mad (in-k)	101.62
Allowable strong axis shear away from punch: Vag (lb)	2770
Allowable strong axis shear at punch: Vanet (lb)	2770

(check web crippling)

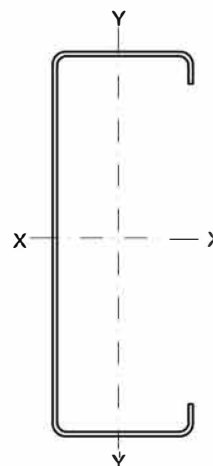
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in⁴)	2.473
Torsional Warping Constant: Cw (in⁶)	67.251
Shear Center to Centroid on Principal X-axis: Xo (in)	-2.346
Radius of Gyration on the Centroid Principal axis: Ro (in)	5.322

PRODUCT ID

1200 J 350-68 (12x3½x14ga) (Grade 50)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data