

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	12
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)	4.30
Cross Sectional Area: A (in ²)	1.263
Moment of Inertia: Ix (in ⁴)	24.491
Section Modulus: Sx (in ³)	4.082
Radius of Gyration: Rx (in)	4.403
Moment of Inertia: Iy (in ⁴)	0.836
Radius of Gyration: Ry (in)	0.813

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in ⁴)	23.610
Section Modulus: Sxe (in ³)	2.938
Local Buckling Allowable Moment: Mal (in-k)	87.95
Distortional Buckling Allowable Moment: Mad (in-k)	79.05
Allowable strong axis shear away from punch: Vag (lb)	2770
Allowable strong axis shear at punch: Vanet (lb)	2770

(check web crippling)

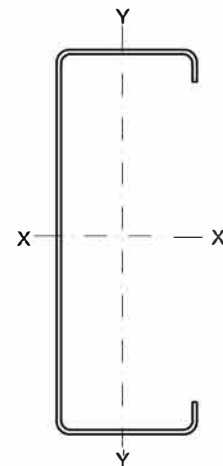
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	2.141
Torsional Warping Constant: Cw (in ⁶)	24.034
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.362
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.680

PRODUCT ID

1200 J 250-68 (12x2½x14ga) (Grade 50)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data