

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	12
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)	3.81
Cross Sectional Area: A (in ²)	1.121
Moment of Inertia: Ix (in ⁴)	19.526
Section Modulus: Sx (in ³)	3.254
Radius of Gyration: Rx (in)	4.174
Moment of Inertia: Iy (in ⁴)	0.255
Radius of Gyration: Ry (in)	0.477

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in ⁴)	17.405
Section Modulus: Sxe (in ³)	2.591
Local Buckling Allowable Moment: Mal (in-k)	77.58
Distortional Buckling Allowable Moment: Mad (in-k)	63.20
Allowable strong axis shear away from punch: Vag (lb)	2770
Allowable strong axis shear at punch: Vanet (lb)	2770

(check web crippling)

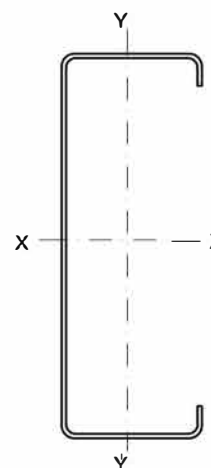
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	1.899
Torsional Warping Constant: Cw (in ⁶)	7.739
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.719
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.262

PRODUCT ID

1200 J 162-68 (12x1 $\frac{5}{8}$ x14ga) (Grade 50)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data