

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)	0.1017
Minimum Thickness (mil)	97
Gauge	12
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	5.36
Cross Sectional Area: A (in ²)	1.576
Moment of Inertia: Ix (in ⁴)	26.977
Section Modulus: Sx (in ³)	4.496
Radius of Gyration: Rx (in)	4.138
Moment of Inertia: Iy (in ⁴)	0.332
Radius of Gyration: Ry (in)	0.459

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in ⁴)	25.642
Section Modulus: Sxe (in ³)	4.056
Local Buckling Allowable Moment: Mal (in-k)	121.43
Distortional Buckling Allowable Moment: Mad (in-k)	105.38
Allowable strong axis shear away from punch: Vag (lb)	8145
Allowable strong axis shear at punch: Vanet (lb)	7410

(check web crippling)

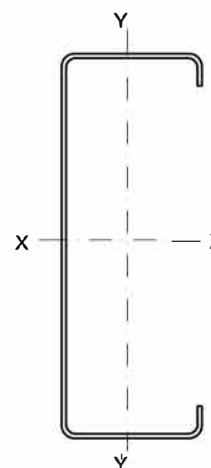
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	5.433
Torsional Warping Constant: Cw (in ⁶)	10.331
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.691
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.220

PRODUCT ID

1200 J 162-97 (12x1 $\frac{5}{8}$ x12ga) (Grade 50)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data