

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

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	6.05
Cross Sectional Area: A (in ²)	1.779
Moment of Inertia: Ix (in ⁴)	34.027
Section Modulus: Sx (in ³)	5.671
Radius of Gyration: Rx (in)	4.373
Moment of Inertia: Iy (in ⁴)	1.122
Radius of Gyration: Ry (in)	0.794

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in ⁴)	33.851
Section Modulus: Sxe (in ³)	4.998
Local Buckling Allowable Moment: Mal (in-k)	149.63
Distortional Buckling Allowable Moment: Mad (in-k)	130.54
Allowable strong axis shear away from punch: Vag (lb)	8145
Allowable strong axis shear at punch: Vanet (lb)	7410

(check web crippling)

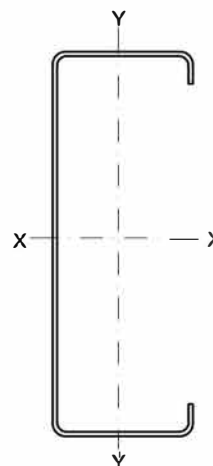
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	6.134
Torsional Warping Constant: Cw (in ⁶)	32.734
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.329
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.639

PRODUCT ID

1200 J 250-97 (12x2½x12ga) (Grade 50)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data