

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

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	7.00
Cross Sectional Area: A (in ²)	2.059
Moment of Inertia: Ix (in ⁴)	43.280
Section Modulus: Sx (in ³)	7.213
Radius of Gyration: Rx (in)	4.585
Moment of Inertia: Iy (in ⁴)	3.159
Radius of Gyration: Ry (in)	1.239

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in ⁴)	43.274
Section Modulus: Sxe (in ³)	6.582
Local Buckling Allowable Moment: Mal (in-k)	197.06
Distortional Buckling Allowable Moment: Mad (in-k)	166.00
Allowable strong axis shear away from punch: Vag (lb)	8145
Allowable strong axis shear at punch: Vanet (lb)	7410

(check web crippling)

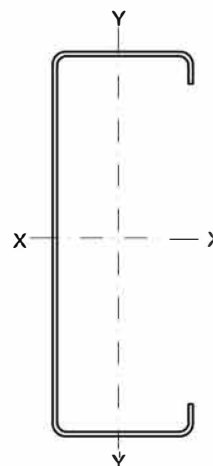
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	7.098
Torsional Warping Constant: Cw (in ⁶)	92.672
Shear Center to Centroid on Principal X-axis: Xo (in)	-2.310
Radius of Gyration on the Centroid Principal axis: Ro (in)	5.281

PRODUCT ID

1200 J 350-97 (12x3½x12ga) (Grade 50)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data