

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	16
Flange (in)	2
Lip (in)	0.625
Yield Strength Fy (KSI)	33, 50
Tensile Strength Fu (KSI)	45 65
Design Thickness (in)	0.1017
Minimum Thickness (mil)	97
Gauge	12
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	7.09
Cross Sectional Area: A (in ²)	2.084
Moment of Inertia: Ix (in ⁴)	63.076
Section Modulus: Sx (in ³)	7.885
Radius of Gyration: Rx (in)	5.501
Moment of Inertia: Iy (in ⁴)	0.671
Radius of Gyration: Ry (in)	0.567

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in ⁴)	58.895	60.007
Section Modulus: Sxe (in ³)	6.880	6.412
Local Buckling Allowable Moment: Mal (in-k)	135.95	191.97
Distortional Buckling Allowable Moment: Mad (in-k)	122.79	158.60
Allowable strong axis shear away from punch: Vag (lb)	6042	6042
Allowable strong axis shear at punch: Va net (lb)	6042	6042

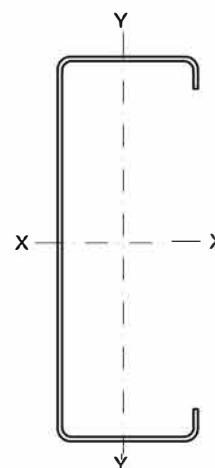
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	7.186
Torsional Warping Constant: Cw (in ⁶)	36.744
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.835
Radius of Gyration on the Centroid Principal axis: Ro (in)	5.593

PRODUCT ID

1600 J 200-97 (16x2x12ga)

CODES & STANDARDS

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



(check web crippling)

See Hermes/Hephaistos Technical Manual
for complete design data