

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	16
Flange (in)	3½
Lip (in)	1
Yield Strength Fy (KSI)	33, 50
Tensile Strength Fu (KSI)	45, 65
Design Thickness (in)	0.0566
Minimum Thickness (mil)	54
Gauge	16
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	4.73
Cross Sectional Area: A (in ²)	1.391
Moment of Inertia: Ix (in ⁴)	49.357
Section Modulus: Sx (in ³)	6.170
Radius of Gyration: Rx (in)	5.956
Moment of Inertia: Iy (in ⁴)	2.015
Radius of Gyration: Ry (in)	1.204

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in ⁴)	39.592	36.088
Section Modulus: Sxe (in ³)	4.152	3.626
Local Buckling Allowable Moment: Mal (in-k)	68.51	90.64
Distortional Buckling Allowable Moment: Mad (in-k)	63.45	80.97
Allowable strong axis shear away from punch: Vag (lb)	821	821
Allowable strong axis shear at punch: Va net (lb)	821	821

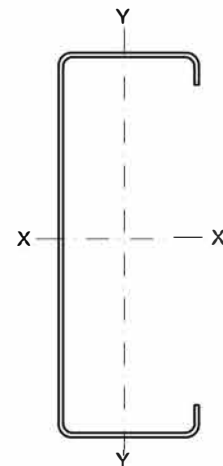
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	1.486
Torsional Warping Constant: Cw (in ⁶)	100.420
Shear Center to Centroid on Principal X-axis: Xo (in)	-2.066
Radius of Gyration on the Centroid Principal axis: Ro (in)	6.418

PRODUCT ID

1600 J 350-54 (16x3½x16ga)

CODES & STANDARDS

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



(check web crippling)

See Hermes/Hephaistos Technical Manual
for complete design data