

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)	0.0713
Minimum Thickness (mil)	68
Gauge	14
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	5.94
Cross Sectional Area: A (in²)	1.745
Moment of Inertia: Ix (in⁴)	61.641
Section Modulus: Sx (in³)	7.705
Radius of Gyration: Rx (in)	5.944
Moment of Inertia: Iy (in⁴)	2.490
Radius of Gyration: Ry (in)	1.195

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in⁴)	53.963	57.601
Section Modulus: Sxe (in³)	5.966	5.104
Local Buckling Allowable Moment: Mal (in-k)	98.44	127.59
Distortional Buckling Allowable Moment: Mad (in-k)	87.98	112.58
Allowable strong axis shear away from punch: Vag (lb)	1,649	2,062
Allowable strong axis shear at punch: Va net (lb)	1,649	2,062

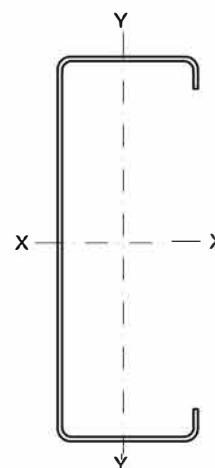
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in⁴)	2.957
Torsional Warping Constant: Cw (in⁶)	127.370
Shear Center to Centroid on Principal X-axis: Xo (in)	-2.055
Radius of Gyration on the Centroid Principal axis: Ro (in)	6.402

PRODUCT ID

1600 J 350-68 (16x3½x14ga)

CODES & STANDARDS

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



(check web crippling)

See Hermes/Hephaistos Technical Manual
for complete design data