

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	10
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)	3.58
Cross Sectional Area: A (in ²)	1.052
Moment of Inertia: Ix (in ⁴)	16.223
Section Modulus: Sx (in ³)	3.245
Radius of Gyration: Rx (in)	3.928
Moment of Inertia: Iy (in ⁴)	1.768
Radius of Gyration: Ry (in)	1.297

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in ⁴)	14.690	13.185
Section Modulus: Sxe (in ³)	2.741	2.267
Local Buckling Allowable Moment: Mal (in-k)	54.16	67.88
Distortional Buckling Allowable Moment: Mad (in-k)	47.21	60.89
Allowable strong axis shear away from punch: Vag (lb)	1660	1660
Allowable strong axis shear at punch: Va net (lb)	1660	1660

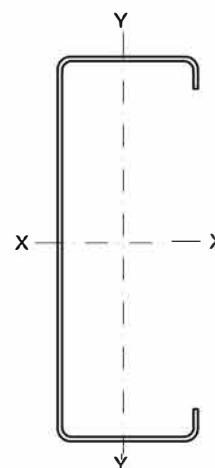
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	1.123
Torsional Warping Constant: Cw (in ⁶)	36.575
Shear Center to Centroid on Principal X-axis: Xo (in)	-2.546
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.857

PRODUCT ID

1000 J 350-54 (10x3½x16ga)

CODES & STANDARDS

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



(check web crippling)

See Hermes/Hephaistos Technical Manual
for complete design data