

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	10
Flange (in)	2
Lip (in)	0.625
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)	2.86
Cross Sectional Area: A (in ²)	0.839
Moment of Inertia: Ix (in ⁴)	11.282
Section Modulus: Sx (in ³)	2.256
Radius of Gyration: Rx (in)	3.666
Moment of Inertia: Iy (in ⁴)	0.378
Radius of Gyration: Ry (in)	0.671

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in ⁴)	10.552	9.592
Section Modulus: Sxe (in ³)	1.958	1.661
Local Buckling Allowable Moment: Mal (in-k)	38.69	49.72
Distortional Buckling Allowable Moment: Mad (in-k)	34.77	45.06
Allowable strong axis shear away from punch: Vag (lb)	1660	1660
Allowable strong axis shear at punch: Va net (lb)	1660	1660

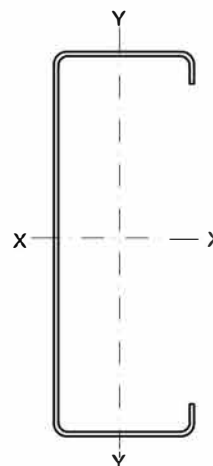
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	0.896
Torsional Warping Constant: Cw (in ⁶)	7.665
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.135
Radius of Gyration on the Centroid Principal axis: Ro (in)	3.896

PRODUCT ID

1000 J 200-54 (10x2x16ga)

CODES & STANDARDS

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



(check web crippling)

See Hermes/Hephaistos Technical Manual
for complete design data