

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	8
Flange (in)	3
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)	3.24
Cross Sectional Area: A (in ²)	0.953
Moment of Inertia: Ix (in ⁴)	14.080
Section Modulus: Sx (in ³)	2.816
Radius of Gyration: Rx (in)	3.845
Moment of Inertia: Iy (in ⁴)	1.024
Radius of Gyration: Ry (in)	1.037

EFFECTIVE SECTION PROPERTIES		
Yield stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in ⁴)	12.399	10.934
Section Modulus: Sxe (in ³)	2.272	1.832
Local Buckling Allowable Moment: Mal (in-k)	44.90	54.85
Distortional Buckling Allowable Moment: Mad (in-k)	38.27	49.12
Allowable strong axis shear away from punch: Vag (lb)	1660	1660
Allowable strong axis shear at punch: Va net (lb)	1660	1660

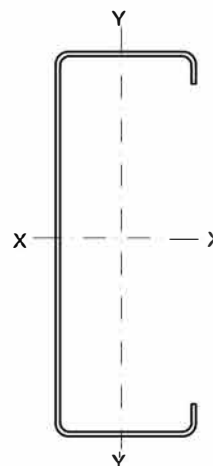
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	1.017
Torsional Warping Constant: Cw (in ⁶)	19.888
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.892
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.409

PRODUCT ID

1000 J 300-54 (10x3x16ga)

CODES & STANDARDS

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



(check web crippling)

See Hermes/Hephaistos Technical Manual
for complete design data