

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	6
Flange (in)	1 $\frac{3}{8}$
Lip (in)	0.375
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)	1.75
Cross Sectional Area: A (in ²)	0.514
Moment of Inertia: Ix (in ⁴)	2.518
Section Modulus: Sx (in ³)	0.839
Radius of Gyration: Rx (in)	2.214
Moment of Inertia: Iy (in ⁴)	0.105
Radius of Gyration: Ry (in)	0.452

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in ⁴)	2.518	2.518
Section Modulus: Sxe (in ³)	0.826	0.765
Local Buckling Allowable Moment: Mal (in-k)	16.33	22.90
Distortional Buckling Allowable Moment: Mad (in-k)	15.05	19.85
Allowable strong axis shear away from punch: Vag (lb)	2740	2822
Allowable strong axis shear at punch: Va net (lb)	1890	1947

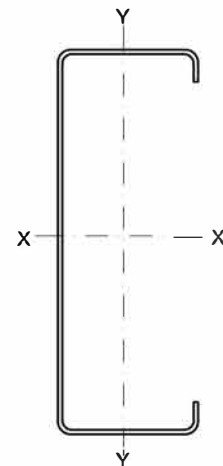
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	0.549
Torsional Warping Constant: Cw (in ⁶)	0.769
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.784
Radius of Gyration on the Centroid Principal axis: Ro (in)	2.392

PRODUCT ID

600 J 137-54 (6x1 $\frac{3}{8}$ x16ga)

CODES & STANDARDS

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



(check web crippling)

See Hermes/Hephaistos Technical Manual
for complete design data