

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	6
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)	2.47
Cross Sectional Area: A (in ²)	0.726
Moment of Inertia: Ix (in ⁴)	4.320
Section Modulus: Sx (in ³)	1.440
Radius of Gyration: Rx (in)	2.440
Moment of Inertia: Iy (in ⁴)	0.876
Radius of Gyration: Ry (in)	1.100

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in ⁴)	4.276	3.67
Section Modulus: Sxe (in ³)	1.196	1.109
Local Buckling Allowable Moment: Mal (in-k)	23.64	32.51
Allowable Design Bending Moment: Md (in-k)	22.13	22.13
Allowable strong axis shear away from punch: Vag (lb)	2710	2740
Allowable strong axis shear at punch: Va net (lb)	1890	1947

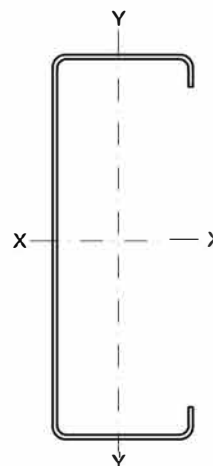
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	0.775
Torsional Warping Constant: Cw (in ⁶)	6.229
Shear Center to Centroid on Principal X-axis: Xo (in)	-2.296
Radius of Gyration on the Centroid Principal axis: Ro (in)	3.525

PRODUCT ID

600 J 300-54 (6x3x16ga)

CODES & STANDARDS

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



(check web crippling)

See Hermes/Hephaistos Technical Manual
for complete design data