

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	16
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)	4.54
Cross Sectional Area: A (in ²)	1.335
Moment of Inertia: Ix (in ⁴)	45.760
Section Modulus: Sx (in ³)	5.720
Radius of Gyration: Rx (in)	5.856
Moment of Inertia: Iy (in ⁴)	1.390
Radius of Gyration: Ry (in)	1.021

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in ⁴)	37.499	34.302
Section Modulus: Sxe (in ³)	3.973	3.484
Local Buckling Allowable Moment: Mal (in-k)	65.55	87.11
Distortional Buckling Allowable Moment: Mad (in-k)	60.78	77.70
Allowable strong axis shear away from punch: Vag (lb)	821	821
Allowable strong axis shear at punch: Va net (lb)	821	821

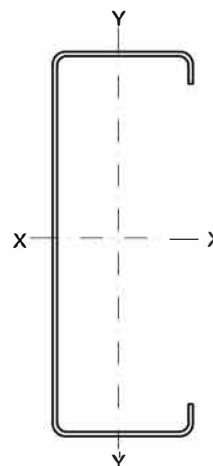
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	1.425
Torsional Warping Constant: Cw (in ⁶)	70.321
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.703
Radius of Gyration on the Centroid Principal axis: Ro (in)	6.183

PRODUCT ID

1600 J 300-54 (14x3x16ga)

CODES & STANDARDS

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



(check web crippling)

See Hermes/Hephaistos Technical Manual
for complete design data