

C – Joists

with Small Punchout (J)



MATERIAL	
Web (in)	6
Flange (in)	3
Lip (in)	1
Yield Strength F_y (KSI)	50
Tensile Strength F_u (KSI)	65
Design Thickness (in)	0.0713
Minimum Thickness (mil)	68
Gauge	14
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	3.09
Cross Sectional Area: A (in ²)	0.907
Moment of Inertia: I_x (in ⁴)	5.355
Section Modulus: S_x (in ³)	1.785
Radius of Gyration: R_x (in)	2.430
Moment of Inertia: I_y (in ⁴)	1.075
Radius of Gyration: R_y (in)	1.100

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: I_{xe} (in ⁴)	5.229
Section Modulus: S_{xe} (in ³)	1.425
Allowable Design Bending Moment: M_d (in-k)	39.14
Allowable strong axis shear away from punch: V_{ag} (lb)	5352
Allowable strong axis shear at punch: $V_{a \text{ net}}$ (lb)	2880
(check web crippling)	

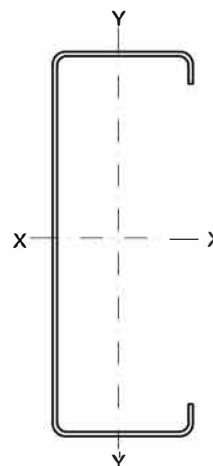
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: J_{x1000} (in ⁴)	1.537
Torsional Warping Constant: C_w (in ⁶)	7.937
Shear Center to Centroid on Principal X-axis: X_o (in)	-2.28
Radius of Gyration on the Centroid Principal axis: R_o (in)	3.506

PRODUCT ID

600 J 300-68 (6x3x16ga) (Grade 50)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data