

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	8
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)	3.57
Cross Sectional Area: A (in ²)	1.050
Moment of Inertia: I_x (in ⁴)	10.384
Section Modulus: S_x (in ³)	2.596
Radius of Gyration: R_x (in)	3.145
Moment of Inertia: I_y (in ⁴)	1.179
Radius of Gyration: R_y (in)	1.060

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: I_{xe} (in ⁴)	10.125
Section Modulus: S_{xe} (in ³)	2.124
Local Buckling Allowable Moment: M_{al} (in-k)	63.58
Distortional Buckling Allowable Moment: M_{ad} (in-k)	53.66
Allowable strong axis shear away from punch: V_{ag} (lb)	4220
Allowable strong axis shear at punch: V_{anet} (lb)	3367

(check web crippling)

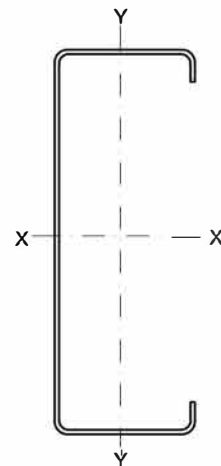
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: J_{x1000} (in ⁴)	1.779
Torsional Warping Constant: C_w (in ⁶)	14.888
Shear Center to Centroid on Principal X-axis: X_o (in)	-2.055
Radius of Gyration on the Centroid Principal axis: R_o (in)	3.904

PRODUCT ID

800 J 300-68 (8x3x14ga) (Grade 50)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data