

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	8
Flange (in)	2½
Lip (in)	0.625
Yield Strength Fy (KSI)	33 , 50
Tensile Strength Fu (KSI)	45
Design Thickness (in)	0.0566
Minimum Thickness (mil)	54
Gauge	16
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	2.66
Cross Sectional Area: A (in²)	0.783
Moment of Inertia: Ix (in⁴)	7.467
Section Modulus: Sx (in³)	1.867
Radius of Gyration: Rx (in)	3.089
Moment of Inertia: Iy (in⁴)	0.614
Radius of Gyration: Ry (in)	0.886

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in⁴)	7.466	7.399
Section Modulus: Sxe (in³)	1.703	1.490
Local Buckling Allowable Moment: Mal (in-k)	33.65	44.61
Distortional Buckling Allowable Moment: Mad (in-k)	29.16	37.84
Allowable strong axis shear away from punch: Vag (lb)	2091	2091
Allowable strong axis shear at punch: Va net (lb)	2091	2091

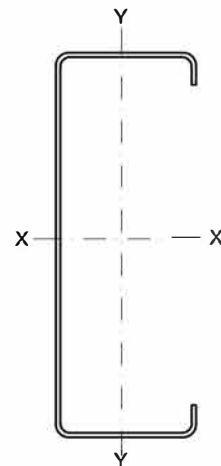
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in⁴)	0.836
Torsional Warping Constant: Cw (in⁶)	7.850
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.661
Radius of Gyration on the Centroid Principal axis: Ro (in)	3.617

PRODUCT ID

800 J 250-54 (8x2½x16ga)

CODES & STANDARDS

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



(check web crippling)

See Hermes/Hephaistos Technical Manual
for complete design data