

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	8
Flange (in)	2
Lip (in)	0.625
Yield Strength Fy (KSI)	33
Tensile Strength Fu (KSI)	45
Design Thickness (in)	0.0346
Minimum Thickness (mil)	33
Gauge	20S
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	1.52
Cross Sectional Area: A (in ²)	0.448
Moment of Inertia: Ix (in ⁴)	4.097
Section Modulus: Sx (in ³)	1.024
Radius of Gyration: Rx (in)	3.024
Moment of Inertia: Iy (in ⁴)	0.227
Radius of Gyration: Ry (in)	0.712

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in ⁴)	4.096
Section Modulus: Sxe (in ³)	0.792
Local Buckling Allowable Moment: Mal (in-k)	13.06
Distortional Buckling Allowable Moment: Mad (in-k)	11.76
Allowable strong axis shear away from punch: Vag (lb)	379
Allowable strong axis shear at punch: Vanet (lb)	379

(check web crippling)

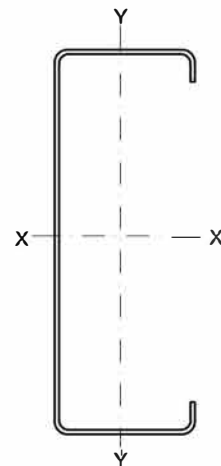
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	0.179
Torsional Warping Constant: Cw (in ⁶)	2.971
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.288
Radius of Gyration on the Centroid Principal axis: Ro (in)	3.363

PRODUCT ID

800 J 200-33 (8x2x20Sga) (Grade 33)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data