

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	6
Flange (in)	1 $\frac{3}{8}$
Lip (in)	0.375
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)	1.08
Cross Sectional Area: A (in ²)	0.318
Moment of Inertia: Ix (in ⁴)	1.583
Section Modulus: Sx (in ³)	0.528
Radius of Gyration: Rx (in)	2.230
Moment of Inertia: Iy (in ⁴)	0.069
Radius of Gyration: Ry (in)	0.464

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in ⁴)	1.551
Section Modulus: Sxe (in ³)	0.442
Local Buckling Allowable Moment: Mal (in-k)	8.73
Distortional Buckling Allowable Moment: Mad (in-k)	7.76
Allowable strong axis shear away from punch: Vag (lb)	638
Allowable strong axis shear at punch: Vanet (lb)	638

(check web crippling)

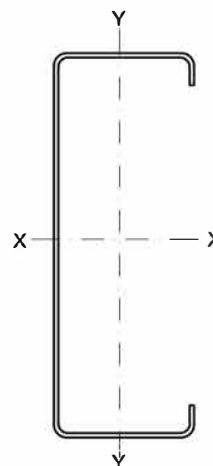
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	0.127
Torsional Warping Constant: Cw (in ⁶)	0.500
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.807
Radius of Gyration on the Centroid Principal axis: Ro (in)	2.416

PRODUCT ID

600 J 137-33 (6x1 $\frac{3}{8}$ x20Sga) (Grade 33)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data