

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)	0.0451
Minimum Thickness (mil)	43
Gauge	18
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	1.41
Cross Sectional Area: A (in ²)	0.413
Moment of Inertia: Ix (in ⁴)	2.042
Section Modulus: Sx (in ³)	0.681
Radius of Gyration: Rx (in)	2.224
Moment of Inertia: Iy (in ⁴)	0.087
Radius of Gyration: Ry (in)	0.459

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in ⁴)	2.042
Section Modulus: Sxe (in ³)	0.635
Local Buckling Allowable Moment: Mal (in-k)	12.56
Distortional Buckling Allowable Moment: Mad (in-k)	11.17
Allowable strong axis shear away from punch: Vag (lb)	1415
Allowable strong axis shear at punch: Vanet (lb)	1240

(check web crippling)

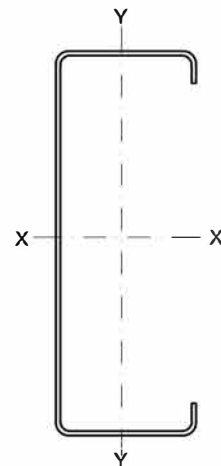
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	0.280
Torsional Warping Constant: Cw (in ⁶)	0.633
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.796
Radius of Gyration on the Centroid Principal axis: Ro (in)	2.406

PRODUCT ID

600 J 137-43 (6x1 $\frac{3}{8}$ x18ga) (Grade 33)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data