C – Joists
with Small Punchout (J)

MATERIAL	
Web (in)	6
Flange (in)	1⅝
Lip (in)	0.500
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)	1.52
Cross Sectional Area: A (in^2)	0.447
Moment of Inertia: Ix (in^4)	2.316
Section Modulus: Sx (in^3)	0.772
Radius of Gyration: Rx (in)	2.277
Moment of Inertia: Iy (in^4)	0.148
Radius of Gyration: Ry (in)	0.576

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in^4)	2.316
Section Modulus: Sxe (in^3)	**0.768**
Local Buckling Allowable Moment:Mal (in-k)	16.29
Distortional Buckling Allowable Moment: Mad (in-k)	13.62
Allowable strong axis shear away from punch: Vag (lb)	1415
Allowable strong axis shear at punch: Vanet (lb)	1240

(check web crippling)

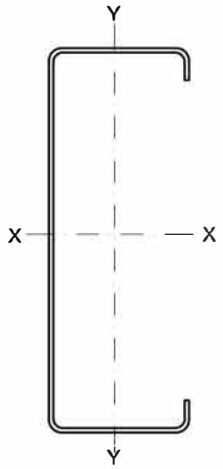
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in^4)	0.303
Torsional Warping Constant: Cw (in^6)	1.095
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.062
Radius of Gyration on the Centroid Principal axis: Ro (in)	2.577

PRODUCT ID

600 J 162-43 (6x1⅝x18ga) (Grade 33)

CODES & STANDARDS

- ASTM A 1003, A 653, & C 955
- AISI S 100-16



See Hermes/Hephaistos Technical Manual for complete design data

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