C – Joists
with Small Punchout (J)

MATERIAL	
Web (in)	10
Flange (in)	1⅝
Lip (in)	0.500
Yield Strength Fy (KSI)	50
Tensile Strength Fu (KSI)	65
Design Thickness (in)	0.1017
Minimum Thickness (mil)	97
Gauge	12
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	4.67
Cross Sectional Area: A (in^2)	1.372
Moment of Inertia: Ix (in^4)	16.974
Section Modulus: Sx (in^3)	3.395
Radius of Gyration: Rx (in)	3.517
Moment of Inertia: Iy (in^4)	0.320
Radius of Gyration: Ry (in)	0.483

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in^4)	16.628
Section Modulus: Sxe (in^3)	**3.254**
Local Buckling Allowable Moment:Mal (in-k)	97.44
Distortional Buckling Allowable Moment: Mad (in-k)	87.70
Allowable strong axis shear away from punch: Vag (lb)	9862
Allowable strong axis shear at punch: Vanet (lb)	7175

(check web crippling)

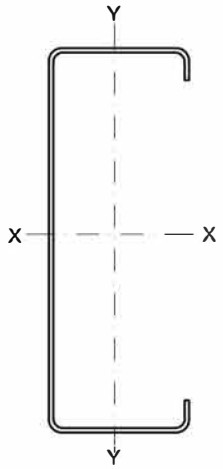
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in^4)	4.731
Torsional Warping Constant: Cw (in^6)	6.827
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.768
Radius of Gyration on the Centroid Principal axis: Ro (in)	3.632

PRODUCT ID

1000 J 162-97 (10x1⅝x12ga) (Grade 50)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual for complete design data

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