C – Joists
with Small Punchout (J)

MATERIAL	
Web (in)	16
Flange (in)	2½
Lip (in)	0.625
Yield Strength Fy (KSI)	33, 50
Tensile Strength Fu (KSI)	45, 65
Design Thickness (in)	0.0713
Minimum Thickness (mil)	68
Gauge	14
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	5.27
Cross Sectional Area: A (in^2)	1.549
Moment of Inertia: Ix (in^4)	49.832
Section Modulus: Sx (in^3)	6.229
Radius of Gyration: Rx (in)	5.673
Moment of Inertia: Iy (in^4)	0.889
Radius of Gyration: Ry (in)	0.758

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	**33**	**50**
Moment of Inertia-Deflection: Ixe (in^4)	43.021	**45.619**
Section Modulus: Sxe (in^3)	**4.711**	4.020
Local Buckling Allowable Moment:Mal (in-k)	77.72	100.50
Distortional Buckling Allowable Moment: Mad (in-k)	66.63	84.94
Allowable strong axis shear away from punch: Vag (lb)	1,649	2062
Allowable strong axis shear at punch: Va net (lb)	1,649	1649

(check web crippling)

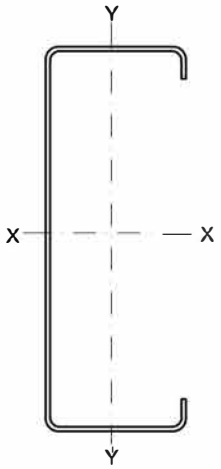
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in^4)	2.624
Torsional Warping Constant: Cw (in^6)	46.230
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.167
Radius of Gyration on the Centroid Principal axis: Ro (in)	5.841

PRODUCT ID

1600 J 250-68 (16x2½x14ga)

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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