

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	14
Flange (in)	1 $\frac{5}{8}$
Lip (in)	0.500
Yield Strength Fy (KSI)	33, 50
Tensile Strength Fu (KSI)	45, 65
Design Thickness (in)	0.1017
Minimum Thickness (mil)	97
Gauge	12
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	6.136
Cross Sectional Area: A (in ²)	1.805
Moment of Inertia: Ix (in ⁴)	41.175
Section Modulus: Sx (in ³)	5.882
Radius of Gyration: Rx (in)	4.777
Moment of Inertia: Iy (in ⁴)	0.387
Radius of Gyration: Ry (in)	0.463

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in ⁴)	39.320	37.940
Section Modulus: Sxe (in ³)	5.363	5.003
Local Buckling Allowable Moment: Mal (in-k)	105.97	149.78
Distortional Buckling Allowable Moment: Mad (in-k)	99.69	130.48
Allowable strong axis shear away from punch: Vag (lb)	6,938	6,938
Allowable strong axis shear at punch: Va net (lb)	6,938	6,938

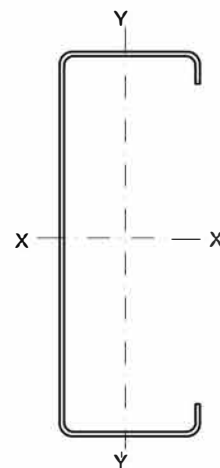
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	6.222
Torsional Warping Constant: Cw (in ⁶)	15.172
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.666
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.845

PRODUCT ID

1400 J 162-97 (14x1 $\frac{5}{8}$ x12ga)

CODES & STANDARDS

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



(check web crippling)

See Hermes/Hephaistos Technical Manual
for complete design data