

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	14
Flange (in)	3
Lip (in)	1
Yield Strength Fy (KSI)	33, 50
Tensile Strength Fu (KSI)	45, 65
Design Thickness (in)	0.0566
Minimum Thickness (mil)	54
Gauge	16
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	4.01
Cross Sectional Area: A (in ²)	1.179
Moment of Inertia: Ix (in ⁴)	31.463
Section Modulus: Sx (in ³)	4.495
Radius of Gyration: Rx (in)	5.166
Moment of Inertia: Iy (in ⁴)	1.115
Radius of Gyration: Ry (in)	0.972

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in ⁴)	29.726	26.210
Section Modulus: Sxe (in ³)	2.956	2.494
Local Buckling Allowable Moment: Mal (in-k)	48.78	62.35
Distortional Buckling Allowable Moment: Mad (in-k)	44.43	54.05
Allowable strong axis shear away from punch: Vag (lb)	1176	1176
Allowable strong axis shear at punch: Va net (lb)	941	941

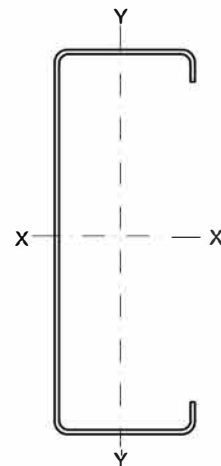
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	1.259
Torsional Warping Constant: Cw (in ⁶)	42.690
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.617
Radius of Gyration on the Centroid Principal axis: Ro (in)	5.500

PRODUCT ID

1400 J 300-54 (14x3x16ga)

CODES & STANDARDS

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



(check web crippling)

See Hermes/Hephaistos Technical Manual
for complete design data