

C – Joists

with Small Punchout (J)



MATERIAL	
Web (in)	14
Flange (in)	2½
Lip (in)	0.625
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)	6.74
Cross Sectional Area: A (in ²)	1.983
Moment of Inertia: Ix (in ⁴)	49.781
Section Modulus: Sx (in ³)	7.112
Radius of Gyration: Rx (in)	5.011
Moment of Inertia: Iy (in ⁴)	1.161
Radius of Gyration: Ry (in)	0.765

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in ⁴)	48.686
Section Modulus: Sxe (in ³)	5.945
Local Buckling Allowable Moment: Mal (in-k)	178.00
Distortional Buckling Allowable Moment: Mad (in-k)	152.50
Allowable strong axis shear away from punch: Vag (lb)	6938
Allowable strong axis shear at punch: Vanet (lb)	6938

(check web crippling)

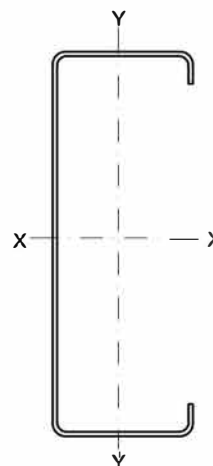
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	6.835
Torsional Warping Constant: Cw (in ⁶)	46.520
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.225
Radius of Gyration on the Centroid Principal axis: Ro (in)	5.215

PRODUCT ID

1400 J 250-97 (14x2½x12ga) (Grade 50)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data