

C – Joists with Small Punchout (J)



MATERIAL	
Web (in)	10
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)	5.36
Cross Sectional Area: A (in ²)	1.576
Moment of Inertia: Ix (in ⁴)	21.834
Section Modulus: Sx (in ³)	4.367
Radius of Gyration: Rx (in)	3.722
Moment of Inertia: Iy (in ⁴)	1.073
Radius of Gyration: Ry (in)	0.825

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in ⁴)	21.323
Section Modulus: Sxe (in ³)	4.202
Local Buckling Allowable Moment: Mal (in-k)	125.80
Distortional Buckling Allowable Moment: Mad (in-k)	107.14
Allowable strong axis shear away from punch: Vag (lb)	9862
Allowable strong axis shear at punch: Vanet (lb)	7175

(check web crippling)

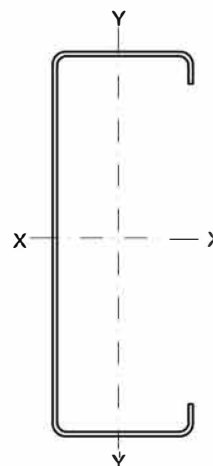
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	5.433
Torsional Warping Constant: Cw (in ⁶)	21.632
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.454
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.080

PRODUCT ID

1000 J 250-97 (10x2½x12ga) (Grade 50)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data