

C – Joists

with Small Punchout (J)



MATERIAL	
Web (in)	8
Flange (in)	3
Lip (in)	1
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)	5.71
Cross Sectional Area: A (in ²)	1.677
Moment of Inertia: Ix (in ⁴)	24.325
Section Modulus: Sx (in ³)	4.865
Radius of Gyration: Rx (in)	3.808
Moment of Inertia: Iy (in ⁴)	1.703
Radius of Gyration: Ry (in)	1.007

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in ⁴)	23.161
Section Modulus: Sxe (in ³)	4.490
Local Buckling Allowable Moment: Mal (in-k)	134.43
Distortional Buckling Allowable Moment: Mad (in-k)	111.66
Allowable strong axis shear away from punch: Vag (lb)	9862
Allowable strong axis shear at punch: Vanet (lb)	7175

(check web crippling)

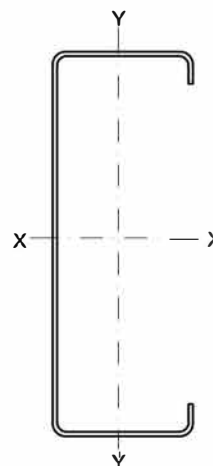
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	5.783
Torsional Warping Constant: Cw (in ⁶)	33.570
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.838
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.347

PRODUCT ID

1000 J 300-97 (10x3x12ga) (Grade 50)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data