

C – Joists

with Small Punchout (J)



MATERIAL	
Web (in)	12
Flange (in)	2
Lip (in)	0.625
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)	3.24
Cross Sectional Area: A (in ²)	0.953
Moment of Inertia: Ix (in ⁴)	17.668
Section Modulus: Sx (in ³)	2.945
Radius of Gyration: Rx (in)	4.307
Moment of Inertia: Iy (in ⁴)	0.394
Radius of Gyration: Ry (in)	0.643

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in ⁴)	16.700	16.361
Section Modulus: Sxe (in ³)	2.383	2.031
Local Buckling Allowable Moment: Mal (in-k)	39.32	50.77
Distortional Buckling Allowable Moment: Mad (in-k)	34.44	44.30
Allowable strong axis shear away from punch: Vag (lb)	1377	1377
Allowable strong axis shear at punch: Va net (lb)	1102	1102

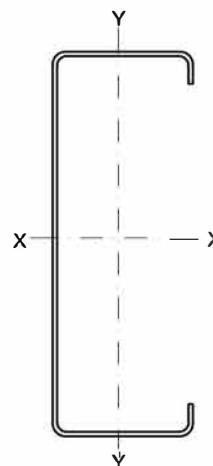
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	1.017
Torsional Warping Constant: Cw (in ⁶)	11.550
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.032
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.475

PRODUCT ID

1200 J 200-54 (12x2x16ga)

CODES & STANDARDS

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



(check web crippling)

See Hermes/Hephaistos Technical Manual
for complete design data