

Structural Stud (s)



MATERIAL

Web (in)	8
Flange (in)	3½
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)	5.62
Cross Sectional Area: A (in ²)	1.652
Moment of Inertia: Ix (in ⁴)	16.741
Section Modulus: Sx (in ³)	4.185
Radius of Gyration: Rx (in)	3.183
Moment of Inertia: Iy (in ⁴)	2.784
Radius of Gyration: Ry (in)	1.298

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: Ixe (in ⁴)	15.780
Section Modulus: Sxe (in ³)	3.778
Local Buckling Allowable Moment: Mal (in-k)	113.10
Distortional Buckling Allowable Moment: Mad (in-k)	105.79
Allowable strong axis shear away from punch: Vag (lb)	10888
Allowable strong axis shear at punch: Vanet (lb)	5940
(check web crippling)	

TORSIONAL SECTION PROPERTIES

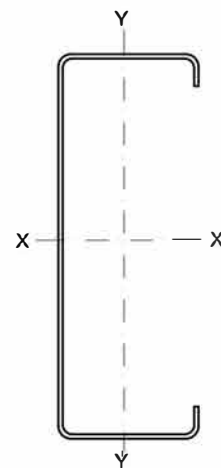
St. Venant Torsional Constant: Jx1000 (in ⁴)	5.696
Torsional Warping Constant: Cw (in ⁶)	38.83
Shear Center to Centroid on Principal X-axis: Xo (in)	-2.710
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.378

PRODUCT ID

800S 350-97 (8x3½x12ga) (Grade 50)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data