

Structural Stud (s)



MATERIAL

Web (in)	8
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)	4.67
Cross Sectional Area: A (in ²)	1.372
Moment of Inertia: Ix (in ⁴)	12.793
Section Modulus: Sx (in ³)	3.198
Radius of Gyration: Rx (in)	3.053
Moment of Inertia: Iy (in ⁴)	1.009
Radius of Gyration: Ry (in)	0.858

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: Ixe (in ⁴)	12.793
Section Modulus: Sxe (in ³)	3.067
Local Buckling Allowable Moment: Mal (in-k)	91.82
Distortional Buckling Allowable Moment: Mad (in-k)	83.02
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

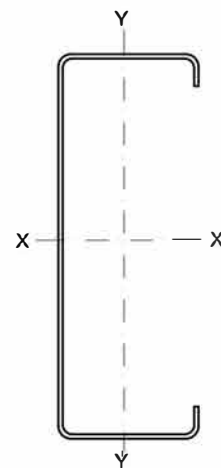
St. Venant Torsional Constant: Jx1000 (in ⁴)	4.731
Torsional Warping Constant: Cw (in ⁶)	13.091
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.607
Radius of Gyration on the Centroid Principal axis: Ro (in)	3.555

PRODUCT ID

800S 250-97 (8x2½x12ga) (Grade 50)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data