

Structural Stud (s)



MATERIAL	
Web (in)	8
Flange (in)	1 $\frac{5}{8}$
Lip (in)	0.500
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)	3.98
Cross Sectional Area: A (in ²)	1.169
Moment of Inertia: Ix (in ⁴)	9.717
Section Modulus: Sx (in ³)	2.429
Radius of Gyration: Rx (in)	2.883
Moment of Inertia: Iy (in ⁴)	0.305
Radius of Gyration: Ry (in)	0.511

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in ⁴)	9.717
Section Modulus: Sxe (in ³)	2.422
Local Buckling Allowable Moment: Mal (in-k)	82.72
Distortional Buckling Allowable Moment: Mad (in-k)	74.77
Allowable strong axis shear away from punch: Vag (lb)	10888
Allowable strong axis shear at punch: Vanet (lb)	5940
(check web crippling)	

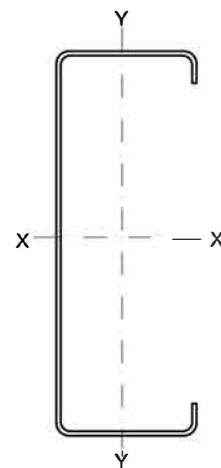
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	4.030
Torsional Warping Constant: Cw (in ⁶)	4.114
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.866
Radius of Gyration on the Centroid Principal axis: Ro (in)	3.053

PRODUCT ID

800S 162-97 (8x1 $\frac{5}{8}$ x12ga) (Grade 50)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data