Structural Stud (S)

MATERIAL	
Web (in)	8
Flange (in)	1⅜
Lip (in)	0.375
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)	3.72
Cross Sectional Area: A (in^2)	1.093
Moment of Inertia: Ix (in^4)	8.601
Section Modulus: Sx (in^3)	2.150
Radius of Gyration: Rx (in)	2.806
Moment of Inertia: Iy (in^4)	0.170
Radius of Gyration: Ry (in)	0.394

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in^4)	8.601
Section Modulus: Sxe (in^3)	2.143
Local Buckling Allowable Moment: Mal (in-k)	73.24
Distortional Buckling Allowable Moment: Mad (in-k)	65.11
Allowable strong axis shear away from punch: Vag (lb)	10888
Allowable strong axis shear at punch: Vanet (lb)	5940
(check web crippling)	

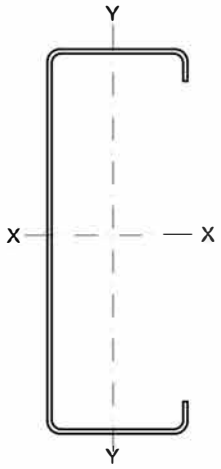
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in^4)	3.767
Torsional Warping Constant: Cw (in^6)	2.349
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.630
Radius of Gyration on the Centroid Principal axis: Ro (in)	2.902

PRODUCT ID

800S 137-97 (8x1⅜x12ga) (Grade 50)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual for complete design data

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