Structural Stud (S)

MATERIAL	
Web (in)	3⅝
Flange (in)	1⅜
Lip (in)	0.375
Yield Strength Fy (KSI)	33, 50
Tensile Strength Fu (KSI)	45, 65
Design Thickness (in)	0.0451
Minimum Thickness (mil)	43
Gauge	18
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	1.04
Cross Sectional Area: A (in^2)	0.306
Moment of Inertia: Ix (in^4)	0.616
Section Modulus: Sx (in^3)	0.340
Radius of Gyration: Rx (in)	1.419
Moment of Inertia: Iy (in^4)	0.075
Radius of Gyration: Ry (in)	0.497

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	**33**	**50**
Moment of Inertia-Deflection: Ixe (in^4)	0.616	**0.575**
Section Modulus: Sxe (in^3)	0.328	**0.302**
Local Buckling Allowable Moment: Mal (in-k)	6.48	**9.03**
Distortional Buckling Allowable Moment: Mad (in-k)	6.20	**8.37**
Allowable strong axis shear away from punch: Vag (lb)	1740	**1905**
Allowable strong axis shear at punch: Vanet (lb) (check web crippling)	676	**832**

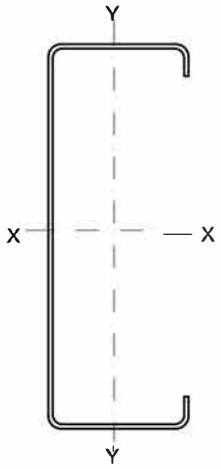
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in^4)	0.207
Torsional Warping Constant: Cw (in^6)	0.208
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.991
Radius of Gyration on the Centroid Principal axis: Ro (in)	1.801

PRODUCT ID

362S 137-43(3⅝x1⅜x18ga)

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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