Structural Stud (S)

MATERIAL	
Web (in)	4
Flange (in)	1⅜
Lip (in)	0.375
Yield Strength Fy (KSI)	50
Tensile Strength Fu (KSI)	65
Design Thickness (in)	0.0713
Minimum Thickness (mil)	68
Gauge	14
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	1.69
Cross Sectional Area: A (in^2)	0.497
Moment of Inertia: Ix (in^4)	1.165
Section Modulus: Sx (in^3)	0.583
Radius of Gyration: Rx (in)	0.531
Moment of Inertia: Iy (in^4)	0.112
Radius of Gyration: Ry (in)	0.475

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in^4)	1.166
Section Modulus: Sxe (in^3)	0.571
Local Buckling Allowable Moment: Mal (in-k)	17.10
Distortional Buckling Allowable Moment: Mad (in-k)	15.28
Allowable strong axis shear away from punch: Vag (lb)	481
Allowable strong axis shear at punch: Vanet (lb)	1356
(check web crippling)	

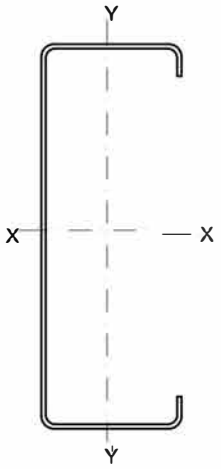
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in^4)	0.842
Torsional Warping Constant: Cw (in^6)	0.375
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.922
Radius of Gyration on the Centroid Principal axis: Ro (in)	1.850

PRODUCT ID

400S 137-68 (4x1⅜x14ga) (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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