Structural Stud (S)

MATERIAL	
Web (in)	2½
Flange (in)	1⅜
Lip (in)	0.375
Yield Strength Fy (KSI)	33, 50
Tensile Strength Fu (KSI)	45, 65
Design Thickness (in)	0.0566
Minimum Thickness (mil)	54
Gauge	16
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	1.07
Cross Sectional Area: A (in^2)	0.316
Moment of Inertia: Ix (in^4)	0.318
Section Modulus: Sx (in^3)	0.255
Radius of Gyration: Rx (in)	1.004
Moment of Inertia: Iy (in^4)	0.080
Radius of Gyration: Ry (in)	0.504

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	**33**	**50**
Moment of Inertia-Deflection: Ixe (in^4)	0.318	**0.318**
Section Modulus: Sxe (in^3)	0.253	0.246
Local Buckling Allowable Moment: Mal (in-k)	5.72	7.38
Distortional Buckling Allowable Moment: Mad (in-k)	5.71	7.09
Allowable strong axis shear away from punch: Vag (lb)	1533	2353
Allowable strong axis shear at punch: Vanet (lb)	373	565

(check web crippling)

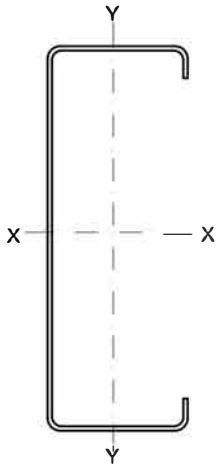
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in^4)	0.337
Torsional Warping Constant: Cw (in^6)	0.115
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.115
Radius of Gyration on the Centroid Principal axis: Ro (in)	1.583

PRODUCT ID

250S 137-54 (2½x1⅜x16ga)

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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