Structural Stud (S)

MATERIAL	
Web (in)	2½
Flange (in)	1⅜
Lip (in)	0.375
Yield Strength Fy (KSI)	33
Tensile Strength Fu (KSI)	45
Design Thickness (in)	0.0346
Minimum Thickness (mil)	33
Gauge	20S
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	0.67
Cross Sectional Area: A (in^2)	0.197
Moment of Inertia: Ix (in^4)	0.203
Section Modulus: Sx (in^3)	0.163
Radius of Gyration: Rx (in)	1.015
Moment of Inertia: Iy (in^4)	0.052
Radius of Gyration: Ry (in)	0.515

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in^4)	0.203
Section Modulus: Sxe (in^3)	0.157
Local Buckling Allowable Moment: Mal (in-k)	3.09
Distortional Buckling Allowable Moment:Mad (in-k)	2.91
Allowable strong axis shear away from punch: Vag (lb)	975
Allowable strong axis shear at punch: Vanet (lb)	399
(check web crippling)	

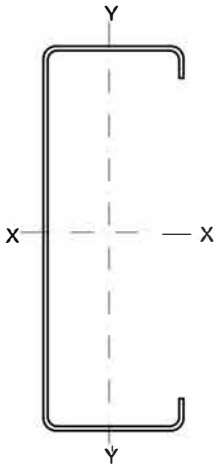
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in^4)	0.079
Torsional Warping Constant: Cw (in^6)	0.076
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.141
Radius of Gyration on the Centroid Principal axis: Ro (in)	1.612

PRODUCT ID

250S 137-33 (2½x1⅜x20Sga) (Grade 33)

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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