Structural Stud (S)

MATERIAL	
Web (in)	8
Flange (in)	2½
Lip (in)	0.625
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)	3.33
Cross Sectional Area: A (in^2)	0.978
Moment of Inertia: Ix (in^4)	9.263
Section Modulus: Sx (in^3)	2.316
Radius of Gyration: Rx (in)	3.077
Moment of Inertia: Iy (in^4)	0.752
Radius of Gyration: Ry (in)	0.877

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in^4)	9.258
Section Modulus: Sxe (in^3)	2.047
Local Buckling Allowable Moment: Mal (in-k)	61.28
Distortional Buckling Allowable Moment: Mad (in-k)	51.85
Allowable strong axis shear away from punch: Vag (lb)	4220
Allowable strong axis shear at punch: Vanet (lb)	3367
(check web crippling)	

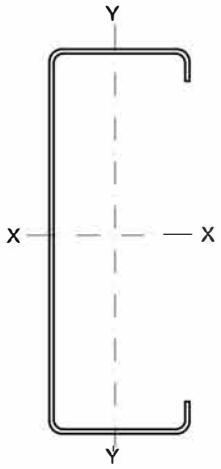
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in^4)	1.658
Torsional Warping Constant: Cw (in^6)	9.652
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.644
Radius of Gyration on the Centroid Principal axis: Ro (in)	3.597

PRODUCT ID

800S 250-68 (8x2½x14ga) (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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