Structural Stud (S)

MATERIAL	
Web (in)	4
Flange (in)	2
Lip (in)	0625
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)	1.05
Cross Sectional Area: A (in^2)	0.310
Moment of Inertia: Ix (in^4)	0.812
Section Modulus: Sx (in^3)	0.406
Radius of Gyration: Rx (in)	1.619
Moment of Inertia: Iy (in^4)	0.183
Radius of Gyration: Ry (in)	0.769

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in^4)	0.810
Section Modulus: Sxe (in^3)	0.338
Local Buckling Allowable Moment: Mal (in-k)	6.69
Distortional Buckling Allowable Moment: Mad (in-k)	6.67
Allowable strong axis shear away from punch: Vag (lb)	976
Allowable strong axis shear at punch: Vanet (lb)	595
(check web crippling)	

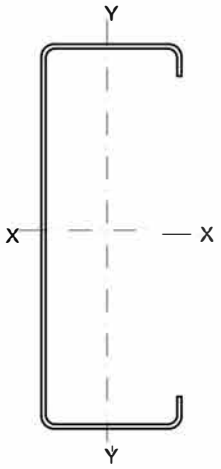
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in^4)	0.124
Torsional Warping Constant: Cw (in^6)	0.697
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.688
Radius of Gyration on the Centroid Principal axis: Ro (in)	2.462

PRODUCT ID

400S 200-33 (4x2x20Sga) (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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