Structural Stud (S)

MATERIAL	
Web (in)	4
Flange (in)	2
Lip (in)	0.625
Yield Strength Fy (KSI)	33
Tensile Strength Fu (KSI)	45
Design Thickness (in)	0.0451
Minimum Thickness (mil)	43
Gauge	18
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	1.37
Cross Sectional Area: A (in^2)	0.402
Moment of Inertia: Ix (in^4)	1.048
Section Modulus: Sx (in^3)	0.524
Radius of Gyration: Rx (in)	1.615
Moment of Inertia: Iy (in^4)	0.235
Radius of Gyration: Ry (in)	0.764

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in^4)	1.048
Section Modulus: Sxe (in^3)	0.491
Local Buckling Allowable Moment: Mal (in-k)	9.71
Distortional Buckling Allowable Moment: Mad (in-k)	9.41
Allowable strong axis shear away from punch: Vag (lb)	1740
Allowable strong axis shear at punch: Vanet (lb)	810
(check web crippling)	

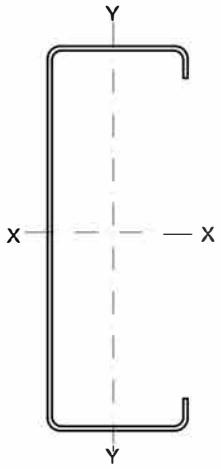
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in^4)	0.272
Torsional Warping Constant: Cw (in^6)	0.886
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.676
Radius of Gyration on the Centroid Principal axis: Ro (in)	2.450

PRODUCT ID

400S 200-43 (4x2x18ga) (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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