Structural Stud (S)

MATERIAL	
Web (in)	8
Flange (in)	2
Lip (in)	0.625
Yield Strength Fy (KSI)	33, 50
Tensile Strength Fu (KSI)	45, 65
Design Thickness (in)	0.0451
Minimum Thickness (mil)	43
Gauge	18
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	1.98
Cross Sectional Area: A (in^2)	0.582
Moment of Inertia: Ix (in^4)	5.303
Section Modulus: Sx (in^3)	1.326
Radius of Gyration: Rx (in)	3.018
Moment of Inertia: Iy (in^4)	0.292
Radius of Gyration: Ry (in)	0.708

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	33	**50**
Moment of Inertia-Deflection: Ixe (in^4)	5.302	4.672
Section Modulus: Sxe (in^3)	1.288	1.067
Allowable Moment: Mal (in-k)	25.45	31.96
Distortional Buckling Allowable Moment: Mad (in-k)	20.34	
Allowable strong axis shear away from punch: Vag (lb)	1051	1767
Allowable strong axis shear at punch: Vanet (lb)	1051	1577

(check web crippling)

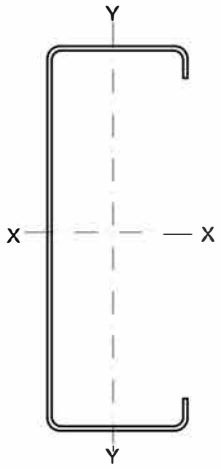
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in^4)	0.395
Torsional Warping Constant: Cw (in^6)	3.797
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.277
Radius of Gyration on the Centroid Principal axis: Ro (in)	3.353

PRODUCT ID

800S 200-43 (8x2x18ga)

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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