Structural Stud (S)

MATERIAL	
Web (in)	8
Flange (in)	3½
Lip (in)	0.625
Yield Strength Fy (KSI)	33, 50
Tensile Strength Fu (KSI)	45, 65
Design Thickness (in)	0.0566
Minimum Thickness (mil)	54
Gauge	16
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	3.19
Cross Sectional Area: A (in^2)	0.938
Moment of Inertia: Ix (in^4)	9.685
Section Modulus: Sx (in^3)	2.421
Radius of Gyration: Rx (in)	3.213
Moment of Inertia: Iy (in^4)	1.646
Radius of Gyration: Ry (in)	1.324

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	**33**	**50**
Moment of Inertia-Deflection: Ixe (in^4)	8.918	8.209
Section Modulus: Sxe (in^3)	2.112	1.828
Local Buckling Allowable Moment: Mal (in-k)	41.73	54.74
Distortional Buckling Allowable Moment: Mad (in-k)	37.14	48.11
Allowable strong axis shear away from punch: Vag (lb)	2091	2091
Allowable strong axis shear at punch: Vanet (lb)	2091	2091

(check web crippling)

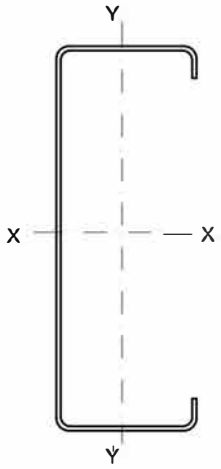
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in^4)	1.002
Torsional Warping Constant: Cw (in^6)	22.897
Shear Center to Centroid on Principal X-axis: Xo (in)	-2.766
Radius of Gyration on the Centroid Principal axis: Ro (in)	4.442

PRODUCT ID

800S 350-54 (8x3½x16ga)

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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