Structural Stud (S)

MATERIAL	
Web (in)	8
Flange (in)	3
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)	2.86
Cross Sectional Area: A (in^2)	0.839
Moment of Inertia: Ix (in^4)	8.360
Section Modulus: Sx (in^3)	2.090
Radius of Gyration: Rx (in)	3.156
Moment of Inertia: Iy (in^4)	0.959
Radius of Gyration: Ry (in)	1.069

EFFECTIVE SECTION PROPERTIES		
Yield Stress (ksi)	**33**	**50**
Moment of Inertia-Deflection: Ixe (in^4)	7.583	7.906
Section Modulus: Sxe (in^3)	1.788	1.486
Local Buckling Allowable Moment: Mal (in-k)	35.33	44.48
Distortional Buckling Allowable Moment: Mad (in-k)		38.97
Allowable strong axis shear away from punch: Vag (lb)	2417	2091
Allowable strong axis shear at punch: Vanet (lb)	2171	2091

(check web crippling)

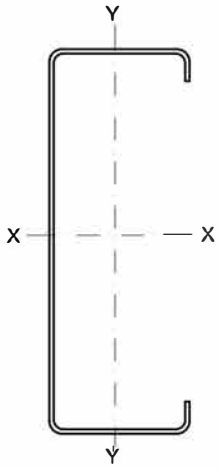
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in^4)	0.896
Torsional Warping Constant: Cw (in^6)	12.076
Shear Center to Centroid on Principal X-axis: Xo (in)	-2.073
Radius of Gyration on the Centroid Principal axis: Ro (in)	3.924

PRODUCT ID

800S 300-54 (8x3x16ga)

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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