

Non-Structural Stud (s)



MATERIAL	
Web (in)	5½
Flange (in)	1¼
Lip (in)	0.188
Yield Strength Fy (KSI)	33
Tensile Strength Fu (KSI)	45
Design Thickness (in)	0.0566
Minimum Thickness (mil)	54
Gauge	16
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	1.53
Cross Sectional Area: A (in²)	0.450
Moment of Inertia: Ix (in⁴)	1.806
Section Modulus: Sx (in³)	0.657
Radius of Gyration: Rx (in)	2.003
Moment of Inertia: Iy (in⁴)	0.062
Radius of Gyration: Ry (in)	0.370

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in⁴)	1.773
Section Modulus: Sxe (in³)	0.641
Local Buckling Allowable Moment: Mal (in-k)	12.66
Distortional Buckling Allowable Moment: Mad (in-k)	10.63
Allowable strong axis shear away from punch: Vag (lb)	2740
Allowable strong axis shear at punch: Vanet (lb)	1666

(check web crippling)

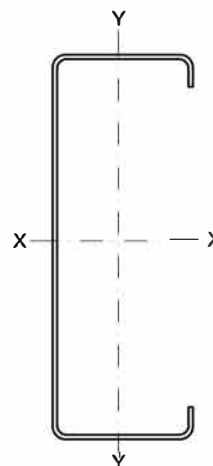
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in⁴)	0.481
Torsional Warping Constant: Cw (in⁶)	0.374
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.613
Radius of Gyration on the Centroid Principal axis: Ro (in)	2.127

PRODUCT ID

550S 125-54 (5½x1¼x16ga)

CODES & STANDARDS

- ASTM A 1003, A 653, & C 955
- AISI S 100-16



See Hermes/Hephaistos Technical Manual
for complete design data