

Non-Structural Stud (s)

MATERIAL	
Web (in)	8
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)	2.01
Cross Sectional Area: A (in ²)	0.592
Moment of Inertia: Ix (in ⁴)	4.596
Section Modulus: Sx (in ³)	1.149
Radius of Gyration: Rx (in)	2.787
Moment of Inertia: Iy (in ⁴)	0.066
Radius of Gyration: Ry (in)	0.335

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in ⁴)	4.323
Section Modulus: Sxe (in ³)	1.018
Local Buckling Allowable Moment: Mal (in-k)	20.12
Distortional Buckling Allowable Moment: Mad (in-k)	16.01
Allowable strong axis shear away from punch: Vag (lb)	2091
Allowable strong axis shear at punch: Vanet (lb)	2091

(check web crippling)

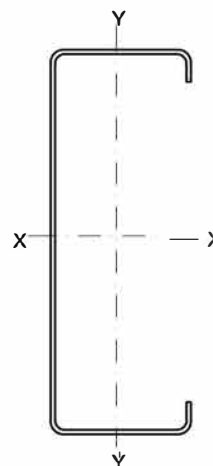
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	0.632
Torsional Warping Constant: Cw (in ⁶)	0.890
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.500
Radius of Gyration on the Centroid Principal axis: Ro (in)	2.851



PRODUCT ID
800S 125-54 (8x1¼x16ga)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data