

Non-Structural Stud (s)



MATERIAL	
Web (in)	4
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)	1.24
Cross Sectional Area: A (in ²)	0.365
Moment of Inertia: Ix (in ⁴)	0.836
Section Modulus: Sx (in ³)	0.418
Radius of Gyration: Rx (in)	1.512
Moment of Inertia: Iy (in ⁴)	0.057
Radius of Gyration: Ry (in)	0.394

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in ⁴)	0.809
Section Modulus: Sxe (in ³)	0.399
Local Buckling Allowable Moment: Mal (in-k)	7.88
Distortional Buckling Allowable Moment: Mad (in-k)	7.19
Allowable strong axis shear away from punch: Vag (lb)	2604
Allowable strong axis shear at punch: Vanet (lb)	944

(check web crippling)

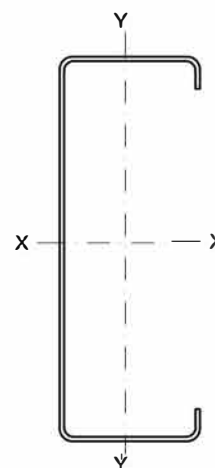
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in ⁴)	0.390
Torsional Warping Constant: Cw (in ⁶)	0.178
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.713
Radius of Gyration on the Centroid Principal axis: Ro (in)	1.718

PRODUCT ID

400S 125-54 (4x1¼x16ga)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data