

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)	0.0188
Minimum Thickness (mil)	25
Gauge	18
Available Finish G60, G90	

GROSS SECTION PROPERTIES	
Weight of Member: (lb/ft)	0.42
Cross Sectional Area: A (in²)	0.125
Moment of Inertia: Ix (in⁴)	0.294
Section Modulus: Sx (in³)	0.147
Radius of Gyration: Rx (in)	1.536
Moment of Inertia: Iy (in⁴)	0.021
Radius of Gyration: Ry (in)	0.415

EFFECTIVE SECTION PROPERTIES	
Moment of Inertia-Deflection: Ixe (in⁴)	0.215
Section Modulus: Sxe (in³)	0.087
Local Buckling Allowable Moment: Mal (in-k)	1.43
Distortional Buckling Allowable Moment: Mad (in-k)	1.29
Allowable strong axis shear away from punch: Vag (lb)	156
Allowable strong axis shear at punch: Vanet (lb)	125

(check web crippling)

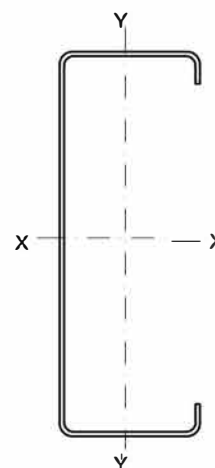
TORSIONAL SECTION PROPERTIES	
St. Venant Torsional Constant: Jx1000 (in⁴)	0.015
Torsional Warping Constant: Cw (in⁶)	0.068
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.755
Radius of Gyration on the Centroid Principal axis: Ro (in)	1.761

PRODUCT ID

400S 125-18 (4x1¼x25ga)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data