

Structural Stud (s)



MATERIAL

Web (in)	6
Flange (in)	1 $\frac{5}{8}$
Lip (in)	0.500
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)	1.89
Cross Sectional Area: A (in ²)	0.556
Moment of Inertia: Ix (in ⁴)	2.861
Section Modulus: Sx (in ³)	0.954
Radius of Gyration: Rx (in)	2.268
Moment of Inertia: Iy (in ⁴)	0.180
Radius of Gyration: Ry (in)	0.570

EFFECTIVE SECTION PROPERTIES

Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in ⁴)	2.861	2.861
Section Modulus: Sxe (in ³)	0.948	0.922
Local Buckling Allowable Moment: Mal (in-k)	21.05	27.59
Distortional Buckling Allowable Moment: Mad (in-k)	18.87	23
Allowable strong axis shear away from punch: Vag (lb)	2740	2822
Allowable strong axis shear at punch: Vanet (lb)	1890	1947

(check web crippling)

TORSIONAL SECTION PROPERTIES

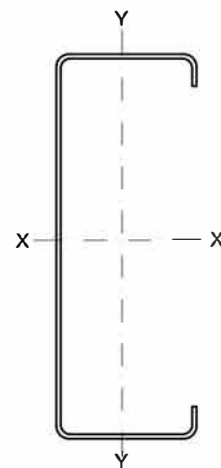
St. Venant Torsional Constant: Jx1000 (in ⁴)	0.594
Torsional Warping Constant: Cw (in ⁶)	1.337
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.049
Radius of Gyration on the Centroid Principal axis: Ro (in)	2.563

PRODUCT ID

600S 162-54 (6x1 $\frac{5}{8}$ x16ga)

CODES & STANDARDS

- ASTM A 1003, A 653, & C 955
- AISI S100-16



See Hermes/Hephaistos Technical Manual
for complete design data