

Structural Stud (s)



MATERIAL

Web (in)	8
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)	2.28
Cross Sectional Area: A (in ²)	0.670
Moment of Inertia: Ix (in ⁴)	5.737
Section Modulus: Sx (in ³)	1.434
Radius of Gyration: Rx (in)	2.927
Moment of Inertia: Iy (in ⁴)	0.194
Radius of Gyration: Ry (in)	0.539

EFFECTIVE SECTION PROPERTIES

Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in ⁴)	5.705	5.606
Section Modulus: Sxe (in ³)	1.320	1.205
Local Buckling Allowable Moment: Mal (in-k)	26.07	36.08
Distortional Buckling Allowable Moment: Mad (in-k)	23.96	31.31
Allowable strong axis shear away from punch: Vag (lb)	2091	2091
Allowable strong axis shear at punch: Vanet (lb)	2091	2091

(check web crippling)

TORSIONAL SECTION PROPERTIES

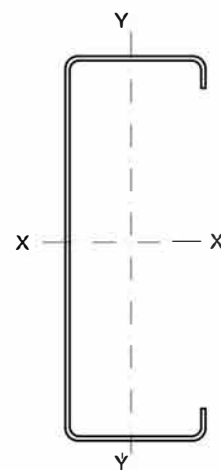
St. Venant Torsional Constant: Jx1000 (in ⁴)	0.715
Torsional Warping Constant: Cw (in ⁶)	2.539
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.914
Radius of Gyration on the Centroid Principal axis: Ro (in)	3.114

PRODUCT ID

800S 162-54 (8x1 $\frac{5}{8}$ x16ga)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data