

Structural Stud (s)



MATERIAL

Web (in)	3 $\frac{5}{8}$
Flange (in)	1 $\frac{5}{8}$
Lip (in)	0.500
Yield Strength Fy (KSI)	35
Tensile Strength Fu (KSI)	45
Design Thickness (in)	0.0346
Minimum Thickness (mil)	33
Gauge	20S
Available Finish G60, G90	

GROSS SECTION PROPERTIES

Weight of Member: (lb/ft)	0.89
Cross Sectional Area: A (in ²)	0.262
Moment of Inertia: Ix (in ⁴)	0.551
Section Modulus: Sx (in ³)	0.304
Radius of Gyration: Rx (in)	1.450
Moment of Inertia: Iy (in ⁴)	0.099
Radius of Gyration: Ry (in)	0.616

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: Ixe (in ⁴)	0.551
Section Modulus: Sxe (in ³)	0.275
Local Buckling Allowable Moment: Mal (in-k)	5.44
Distortional Buckling Allowable Moment: Mad (in-k)	5.20
Allowable strong axis shear away from punch: Vag (lb)	1024
Allowable strong axis shear at punch: Vanet (lb)	521

TORSIONAL SECTION PROPERTIES

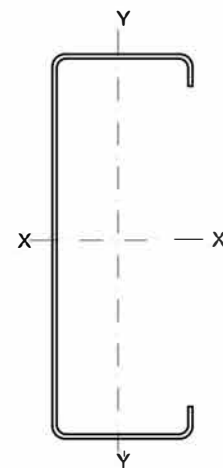
St. Venant Torsional Constant: Jx1000 (in ⁴)	0.105
Torsional Warping Constant: Cw (in ⁶)	0.297
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.308
Radius of Gyration on the Centroid Principal axis: Ro (in)	2.048

PRODUCT ID

362S 162-33 (3 $\frac{5}{8}$ x1 $\frac{5}{8}$ x20Sga) (Grade 33)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data