

Structural Stud (s)



MATERIAL

Web (in)	3 $\frac{5}{8}$
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)	0.0451
Minimum Thickness (mil)	43
Gauge	18
Available Finish G60, G90	

GROSS SECTION PROPERTIES

Weight of Member: (lb/ft)	1.16
Cross Sectional Area: A (in ²)	0.340
Moment of Inertia: Ix (in ⁴)	0.710
Section Modulus: Sx (in ³)	0.392
Radius of Gyration: Rx (in)	1.445
Moment of Inertia: Iy (in ⁴)	0.127
Radius of Gyration: Ry (in)	0.611

EFFECTIVE SECTION PROPERTIES

Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in ⁴)	0.710	0.670
Section Modulus: Sxe (in ³)	0.380	0.355
Local Buckling Allowable Moment: Mal (in-k)	7.50	10.63
Distortional Buckling Allowable Moment: Mad (in-k)	7.00	10.22
Allowable strong axis shear away from punch: Vag (lb)	1740	2141
Allowable strong axis shear at punch: Vanet (lb)	676	832

(check web crippling)

TORSIONAL SECTION PROPERTIES

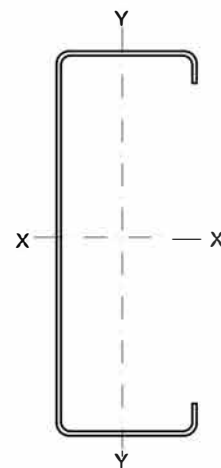
St. Venant Torsional Constant: Jx1000 (in ⁴)	0.230
Torsional Warping Constant: Cw (in ⁶)	0.376
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.297
Radius of Gyration on the Centroid Principal axis: Ro (in)	2.036

PRODUCT ID

362S 162-43 (3 $\frac{5}{8}$ x1 $\frac{1}{2}$ x18ga)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data