

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)	0.0451
Minimum Thickness (mil)	43
Gauge	18
Available Finish G60, G90	

GROSS SECTION PROPERTIES

Weight of Member: (lb/ft)	1.52
Cross Sectional Area: A (in ²)	0.447
Moment of Inertia: Ix (in ⁴)	2.316
Section Modulus: Sx (in ³)	0.772
Radius of Gyration: Rx (in)	2.277
Moment of Inertia: Iy (in ⁴)	0.148
Radius of Gyration: Ry (in)	0.576

EFFECTIVE SECTION PROPERTIES

Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in ⁴)	2.316	2.192
Section Modulus: Sxe (in ³)	0.768	0.707
Local Buckling Allowable Moment: Mal (in-k)	16.29	21.17
Distortional Buckling Allowable Moment: Mad (in-k)	13.62	
Allowable strong axis shear away from punch: Vag (lb)	1415	1857
Allowable strong axis shear at punch: Vanet (lb)	1240	

(check web crippling)

TORSIONAL SECTION PROPERTIES

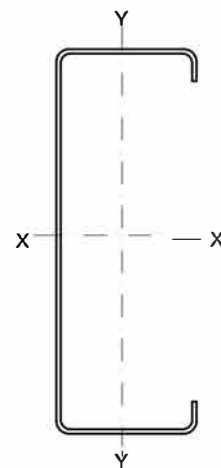
St. Venant Torsional Constant: Jx1000 (in ⁴)	0.303
Torsional Warping Constant: Cw (in ⁶)	1.095
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.062
Radius of Gyration on the Centroid Principal axis: Ro (in)	2.577

PRODUCT ID

600S 162-43 (6x1 $\frac{5}{8}$ x18ga)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data