

Structural Stud (s)



MATERIAL

Web (in)	6
Flange (in)	1 $\frac{3}{8}$
Lip (in)	0.375
Yield Strength Fy (KSI)	50
Tensile Strength Fu (KSI)	65
Design Thickness (in)	0.1017
Minimum Thickness (mil)	97
Gauge	12
Available Finish G60, G90	

GROSS SECTION PROPERTIES

Weight of Member: (lb/ft)	3.03
Cross Sectional Area: A (in ²)	0.889
Moment of Inertia: Ix (in ⁴)	4.190
Section Modulus: Sx (in ³)	1.397
Radius of Gyration: Rx (in)	2.171
Moment of Inertia: Iy (in ⁴)	0.159
Radius of Gyration: Ry (in)	0.423

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: Ixe (in ⁴)	4.191
Section Modulus: Sxe (in ³)	1.387
Local Buckling Allowable Moment: Mal (in-k)	50.49
Distortional Buckling Allowable Moment: Mad (in-k)	48.17
Allowable strong axis shear away from punch: Vag (lb)	10472
Allowable strong axis shear at punch: Vanet (lb)	3805
(check web crippling)	

TORSIONAL SECTION PROPERTIES

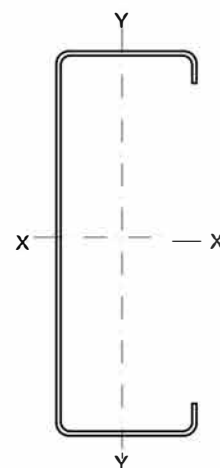
St. Venant Torsional Constant: Jx1000 (in ⁴)	3.066
Torsional Warping Constant: Cw (in ⁶)	1.216
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.734
Radius of Gyration on the Centroid Principal axis: Ro (in)	2.330

PRODUCT ID

600S 137-97 (6x1 $\frac{3}{8}$ x12ga) (Grade 50)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data