

Structural Stud (s)



MATERIAL

Web (in)	5½
Flange (in)	1⅝
Lip (in)	0.500
Yield Strength Fy (KSI)	50
Tensile Strength Fu (KSI)	65
Design Thickness (in)	0.0713
Minimum Thickness (mil)	68
Gauge	14
Available Finish G60, G90	

GROSS SECTION PROPERTIES

Weight of Member: (lb/ft)	2.24
Cross Sectional Area: A (in ²)	0.657
Moment of Inertia: Ix (in ⁴)	2.862
Section Modulus: Sx (in ³)	1.041
Radius of Gyration: Rx (in)	2.087
Moment of Inertia: Iy (in ⁴)	0.212
Radius of Gyration: Ry (in)	0.569

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: Ixe (in ⁴)	2.862
Section Modulus: Sxe (in ³)	1.034
Local Buckling Allowable Moment: Mal (in-k)	33.97
Distortional Buckling Allowable Moment: Mad (in-k)	29.87
Allowable strong axis shear away from punch: Vag (lb)	5352
Allowable strong axis shear at punch: Vanet (lb)	2532
(check web crippling)	

TORSIONAL SECTION PROPERTIES

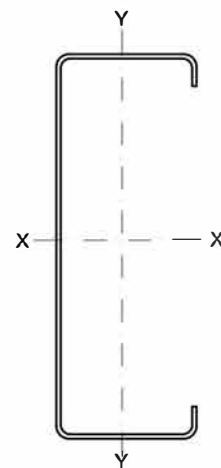
St. Venant Torsional Constant: Jx1000 (in ⁴)	1.114
Torsional Warping Constant: Cw (in ⁶)	1.342
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.072
Radius of Gyration on the Centroid Principal axis: Ro (in)	2.414

PRODUCT ID

550S 162-68 (5½x1⅝x14ga) (Grade 50)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data