

Structural Stud (s)



MATERIAL

Web (in)	3½
Flange (in)	1½
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)	1.14
Cross Sectional Area: A (in ²)	0.334
Moment of Inertia: Ix (in ⁴)	0.655
Section Modulus: Sx (in ³)	0.374
Radius of Gyration: Rx (in)	1.400
Moment of Inertia: Iy (in ⁴)	0.125
Radius of Gyration: Ry (in)	0.612

EFFECTIVE SECTION PROPERTIES

Yield Stress (ksi)	33	50
Moment of Inertia-Deflection: Ixe (in ⁴)	0.655	0.618
Section Modulus: Sxe (in ³)	0.364	0.339
Local Buckling Allowable Moment: Mal (in-k)	7.18	10.14
Distortional Buckling Allowable Moment: Mad (in-k)	6.68	9.82
Allowable strong axis shear away from punch: Vag (lb)	1740	2141
Allowable strong axis shear at punch: Vanet (lb)	631	779

(check web crippling)

TORSIONAL SECTION PROPERTIES

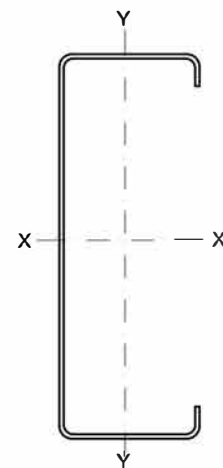
St. Venant Torsional Constant: Jx1000 (in ⁴)	0.227
Torsional Warping Constant: Cw (in ⁶)	0.350
Shear Center to Centroid on Principal X-axis: Xo (in)	-1.312
Radius of Gyration on the Centroid Principal axis: Ro (in)	2.014

PRODUCT ID

350S 162-43(3½x1½x18ga)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data