

Structural Stud (s)



MATERIAL

Web (in)	8
Flange (in)	1 $\frac{3}{8}$
Lip (in)	0.375
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)	2.66
Cross Sectional Area: A (in ²)	0.782
Moment of Inertia: Ix (in ⁴)	6.305
Section Modulus: Sx (in ³)	1.576
Radius of Gyration: Rx (in)	2.839
Moment of Inertia: Iy (in ⁴)	0.134
Radius of Gyration: Ry (in)	0.414

EFFECTIVE SECTION PROPERTIES

Moment of Inertia-Deflection: Ixe (in ⁴)	6.290
Section Modulus: Sxe (in ³)	1.452
Local Buckling Allowable Moment: Mal (in-k)	43.46
Distortional Buckling Allowable Moment: Mad (in-k)	36.98
Allowable strong axis shear away from punch: Vag (lb)	4220
Allowable strong axis shear at punch: Vanet (lb)	3367
(check web crippling)	

TORSIONAL SECTION PROPERTIES

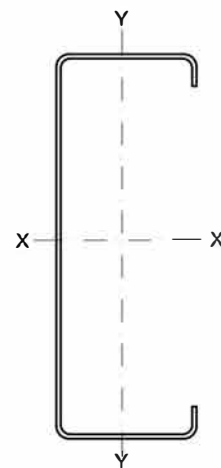
St. Venant Torsional Constant: Jx1000 (in ⁴)	1.325
Torsional Warping Constant: Cw (in ⁶)	1.789
Shear Center to Centroid on Principal X-axis: Xo (in)	-0.661
Radius of Gyration on the Centroid Principal axis: Ro (in)	2.944

PRODUCT ID

800S 137-68 (8x1 $\frac{3}{8}$ x14ga) (Grade 50)

CODES & STANDARDS

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



See Hermes/Hephaistos Technical Manual
for complete design data