

Product Name: 4" SmartStud 33mil

Description: 400SS125-33

Physical Properties

Web Depth (in)	4.000	Yield Stress Fy (KSI)	33
Flange Width (in)	1.250	Mils	33
Return Lip (in)	0.250	Design Thickness (in)	0.0346
Standard Coating	G40	Minimum Thickness (in)	0.0329
Weight (lb/ft)	0.770	Gauge	20

Section Properties

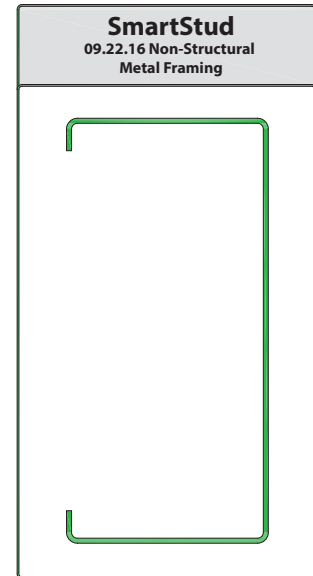
Cross Sectional Area (A)	0.228 in ²
Moment of Inertia (Ix)	0.531 in ⁴
Radius of Gyration (Rx)	1.527 in
Gross Moment of Inertia (Iy)	0.038 in ⁴
Gross Radius of Gyration (Ry)	0.407 in

Effective Section Properties

Moment of Inertia for Deflection (Ixe)	0.524 in ⁴
Section Modulus (Sxe)	0.203 in ³
Allowable Bending Moment (Ma)	4.01 in-k

Torsional Properties

St. Venant Torsion Constant (Jx1000)	0.0910 in ⁴
Warping Constant (Cw)	0.1180 in ⁶
Distance from Shear Center to Neutral Axis (Xo)	-0.738 in
Radii of Gyration (Ro)	1.744 in
Torsional Flexural Constant (Beta)	0.821
Unbraced Length (Lu)	28.4 in



Limiting Wall Heights - Composite

Spacing <small>4" SmartStud33</small>	5 psf			7.5 psf			10 psf		
	L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
12"	25'-1"	19'-11"	17'-4"	21'-11"	17'-4"	15'-0"	19'-11"	15'-8"	13'-7"
16"	23'-1"	18'-4"	15'-11"	20'-2"	15'-11"	13'-9"	18'-4"	14'-5"	12'-6"
24"	20'-9"	16'-5"	14'-3"	18'-1"	14'-3"	12'-4"	16'-5"	12'-10"	11'-2"

MANUFACTURING Codes & Standards

- NASPEC AISI S100-07 IBC 2009 2012 Compliant
- Coated in accordance to ASTM A1003 & A653
- Meets or exceeds ASTM C645 & C745 & AISI S220
- Multiple UL Design Listings including U419
- 3rd Party Code Evaluation Report ICC-ESR #3943
- US Patent No. D618,365S

GREEN Benefits & LEED Data:

- LEED Credit MR 2 - Construction Waste Mgmt - 1-2 Points
- LEED Credit MR 4 - Recycled Credit - 1-2 Points
- LEED Credit MR 5 - Regional Materials - 1-2 Points
- CRACO products are 100% recyclable
- Contact Technical Services for more information