

**Product Name:** 4" SmartStud 30mil

**Description:** 400SS125-30

### Physical Properties

Web Depth (in)	4.000	Yield Stress Fy (KSI)	33
Flange Width (in)	1.250	Mils	30
Return Lip (in)	0.250	Design Thickness (in)	0.0312
Standard Coating	G40	Minimum Thickness (in)	0.0296
Weight (lb/ft)	0.700	Gauge	20

### Section Properties

Cross Sectional Area (A)	0.206 in <sup>2</sup>
Moment of Inertia (Ix)	0.481 in <sup>4</sup>
Radius of Gyration (Rx)	1.529 in
Gross Moment of Inertia (Iy)	0.034 in <sup>4</sup>
Gross Radius of Gyration (Ry)	0.408 in

### Effective Section Properties

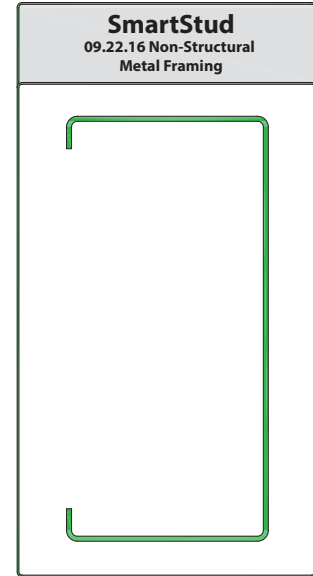
Moment of Inertia for Deflection (Ixe)	0.474 in <sup>4</sup>
Section Modulus (Sxe)	0.174 in <sup>3</sup>
Allowable Bending Moment (Ma)	3.440 in-k

### Torsional Properties

St. Venant Torsion Constant (Jx1000)	0.0670 in <sup>4</sup>
Warping Constant (Cw)	0.1070 in <sup>6</sup>
Distance from Shear Center to Neutral Axis (Xo)	-0.741 in
Radii of Gyration (Ro)	1.748 in
Torsional Flexural Constant (Beta)	0.820
Unbraced Length (Lu)	28.5 in

### Limiting Wall Heights - Composite

Spacing <small>4" SmartStud30</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"	24'-6"	19'-5"	17'-0"	21'-5"	17'-0"	14'-10"	19'-5"	15'-5"	13'-6"
16"	22'-3"	17'-8"	15'-5"	19'-5"	15'-5"	13'-6"	17'-5"	14'-0"	12'-2"
24"	19'-5"	15'-5"	13'-6"	16'-5"	13'-6"	11'-7"	14'-2"	12'-2"	10'-4"



### 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