

**Product Name:** 4" SmartStud25

**Description:** 400SS125-15

### Physical Properties

Web Depth (in)	4.00	Yield Stress Fy (KSI)	50
Flange Width (in)	1.250	Mils	15
Return Lip (in)	0.250	Design Thickness (in)	0.0157
Standard Coating	G40	Minimum Thickness (in)	0.0149
Weight (lb/ft)	0.373	Gauge EQ	25

### Section Properties

Cross Sectional Area (A)	0.110 in <sup>2</sup>
Moment of Inertia (Ix)	0.264 in <sup>4</sup>
Radius of Gyration (Rx)	1.552 in
Gross Moment of Inertia (Iy)	0.019 in <sup>4</sup>
Gross Radius of Gyration (Ry)	0.420 in

### Effective Section Properties

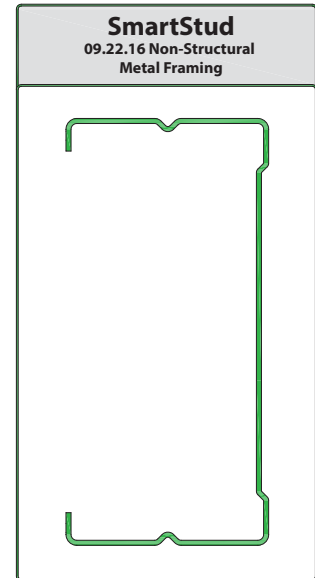
Moment of Inertia for Deflection (Ixe)	0.229 in <sup>4</sup>
Section Modulus (Sxe)	0.086 in <sup>3</sup>
Allowable Bending Moment (Ma)	2.146 in-k

### Torsional Properties

St. Venant Torsion Constant (Jx1000)	0.0088 in <sup>4</sup>
Warping Constant (Cw)	0.0637 in <sup>6</sup>
Distance from Shear Center to Neutral Axis (Xo)	-0.080 in
Radii of Gyration (Ro)	1.795 in
Torsional Flexural Constant (Beta)	0.800
Unbraced Length (Lu)	23.6 in

### Limiting Wall Heights - Composite

Spacing <small>4" SmartStud25</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"	22'-10"	18'-5"	15'-10"	19'-4"	15'-7"	13'-8"	16'-11"	14'-4"	12'-3"
16"	20'-4"	16'-6"	14'-1"	16'-9"	14'-1"	12'-0"	14'-7"	12'-7"	11'-2"
24"	16'-11"	14'-1"	12'-3"	13'-4"	12'-5"	10'-5"	11'-6"	11'-3"	9'-0"



### 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