



Expanding Your Solutions

#### Corporate Headquarters

13191 Crossroads Pkwy N., Ste 325  
City of Industry, CA 91746  
Phone: 800.775.2362  
Fax: 626.330.7598  
www.cemcosteel.com

#### Manufacturing Facilities

City of Industry, CA  
Denver, CO  
Ft. Worth, TX  
Pittsburg, CA

#### Structural Engineering/Design

1001-A Pittsburgh Antioch Hwy  
Pittsburg, CA 94565  
Phone: 800.775.2362  
Fax: 626.330.7598  
www.cemcoengineering.com

#### Technical Services

13191 Crossroads Pkwy N., Ste 325  
City of Industry, CA 91746  
Phone: 800.416.2278  
Fax: 626.249.5004

## 400S162-33 C-STUDS 33 MIL. (20 GA. STRUCTURAL)

### Geometric Properties

400S162-33 "S" structural load-bearing studs are produced from hot-dipped galvanized steel in standard CP60 coating. CP90 is available upon special request, and may require up-charges and extended lead times.

### Physical Properties

Model No.	Design Thickness (in)	Minimum Thickness (in)	Yield (ksi)	Coating <sup>3,4</sup>	Web Depth (in)	Flange Size (in)	Lip (in)
400S162-33	0.0346	0.0329	33	CP60	4	1-5/8	1/2

#### Notes:

1. Uncoated steel thickness. Thickness is for carbon sheet steel.
2. Minimum thickness represents 95% of the design thickness and is the minimum acceptable thickness.
3. Per ASTM C955 & A1003, Table 1.
4. CP90 available upon request. Will require extended lead time and upcharge.

**Color Code (painted on ends):** 33-mil: White

### ASTM & Code Standards:

- ASTM A653/A653M, A924/A924M, A1003/1003, C955 & C1007
- ICC-ES & SFIA Code Compliance Certification Program
- ICC ESR-3016
- ATI CCRR-0224
- IBC: 2012, 2015, 2018
- CBC: 2013, 2016
- AISI: S100-07, S100-12, S100-16, S200-12, S240-15

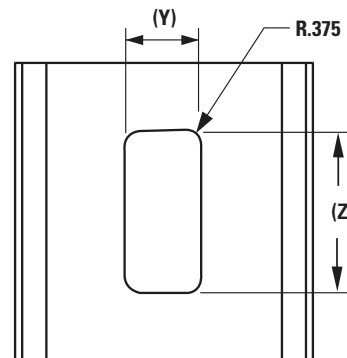
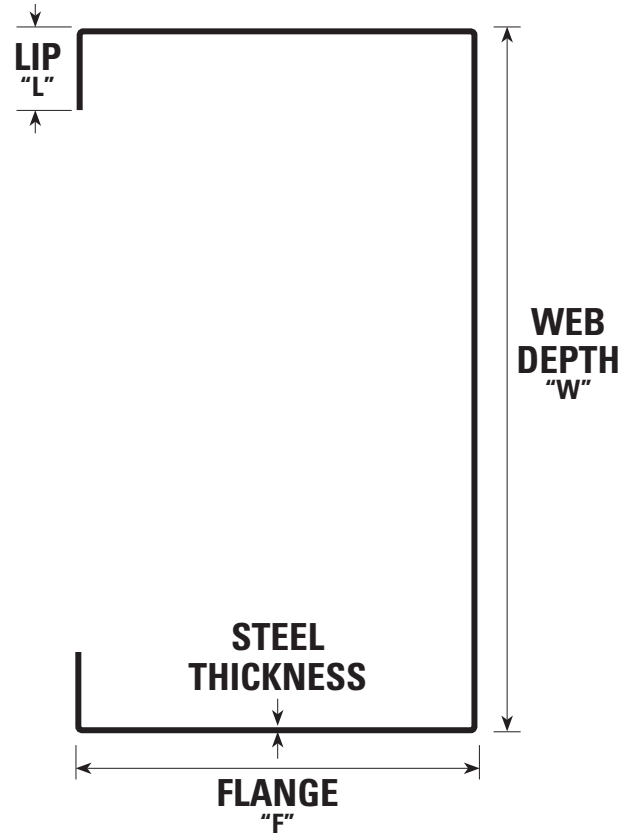
### LEED v4 for Building and Design Construction

- MR Prerequisite: Construction and Demolition Waste Management Planning.
- MR Credit: Construction and Demolition Waste Management.
- MR Credit: Building Product Disclosure and Optimization – Sourcing of Raw Materials, Option 2.
- MR Credit: Building Product Disclosure and Optimization – Environmental Product Declarations, Options 1 & 2.
- MR Credit: Building Product Disclosure and Optimization – Material Ingredients, Option 1.
- MR Credit: Building Life-Cycle Impact Reduction, Option 4.

### CEMCO cold-formed steel framing products contain 30% to 37% recycled steel.

- Total Recycled Content: 36.9%
- Post-Consumer: 19.8%
- Pre-Consumer: 14.4%

**CSI Division:** 05.40.00 – Cold-Formed Metal Framing



### Hole Detail

Standard Hole Centers are 24"	(Z) (in)	(Y) (in)
2-1/2" studs	2.000	0.750
3-1/2" to 14" studs	3.250	1.500

### 400S162-33 Section Properties

Design Thickness (in.)	Fy (ksi)	Gross <sup>3</sup>					Effective Properties <sup>2</sup>						Torsional Properties						Lu (in)
		Ix (in <sup>4</sup> )	Sx (in <sup>3</sup> )	Rx (in)	Iy (in <sup>4</sup> )	Ry (in)	Ix (in <sup>4</sup> )	Sx (in <sup>3</sup> )	Ma (in-k)	Vag (lb)	Vanet (lb)	Mad (in-k)	Jx1000 (in <sup>4</sup> )	Cw (in <sup>6</sup> )	Xo (in)	m (in)	Ro (in)	β	
0.0346	33	0.692	0.346	1.586	0.103	0.611	0.692	0.299	5.91	976	595	6.06	0.110	0.363	-1.263	0.768	2.118	0.644	42.3

**Notes:** 1. Web depth for track sections equals nominal depth plus 2 times the design thickness plus bend radius. 2. The values are for members with punch-outs. 3. Gross properties are based on the full, unreduced cross-section, away from web

punchouts. 4. Use the effective moment of inertia for deflection calculation. 5. Allowable moment is lesser of Ma and Mad. Distortional buckling is based on an assumed  $K\phi = 0$ . 6. These members are available un-punched only.

Check the updated list of Certified Production Facilities at Intertek's website at <http://www.intertek.com/building/sfia>



This technical information reflects the most current information available and supersedes any and all previous publications effective December 04, 2018.

12-04-18 AT