

TM

# SUPREME

## STEEL FRAMING SYSTEM



# TELLING



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**THE LEADER IN METAL FRAMING INNOVATION**



## **Introduction**

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## A High Strength, High Performance Steel Drywall Framing System

The Supreme Framing System offers all the benefits of traditional flat steel studs and track. It consists of high strength metal framing with a design that achieves equal or better performance by using superior 57 ksi yield strength and thinner steel. The Supreme framing system is interchangeable with traditional framing components, with the same installation techniques as traditional framing components. No extra training or special fasteners are required for installation.

## Knurl & Rib Technology

The stud and track system utilizes a knurled flange with a flat stud design. The knurling is designed to prevent screws from walking during wall board attachment.

## Supreme is Certified

All inspections and testing for the Supreme Steel Framing System Association (SSFSA) are provided by a third-party certification agency where products are required to be audited to ensure consistent quality and compliance to ASTM C645, C955, IBC Codes, and AISI S100-07 standards.

Stud and track products must be tested on an unannounced visit for coating weight, metal thickness and yield strength. The dimensional properties are also measured. All requirements must be satisfied in order to be certified code compliant. All members of the SSFSA must satisfy the requirements each time they are audited.

All certified Supreme Steel products are marked to show that it is third-party certified. The markings may be located on bundles or each framing member. The third-party certification marking guarantees to the contractor and owner that materials are high quality and code compliant.

- 2018, 2015, 2012 & 2009 International Building Code® (IBC)
- 2018, 2015 & 2012 International Residential Code® (IRC)
- 2017 Florida Building Code, Building (FBC Building)
- 2017 Florida Building Code, Residential (FBC Residential)
- Multiple UL approved fire-rated assemblies
- Excellent acoustical performance
- 57 ksi steel reduces screw stripping
- Fastens with sharp point screws (D25, D20 and 30EQD)
- Wider flanges available for screw placement
- Custom Press Brake Shapes

## LEED Credits

- **MR Credit** - Building product disclosure and optimization - Environmental product declarations (1 point).
- **MR Credit** - Building product disclosure and optimization sourcing of raw materials (1 point).
- **MR Credit** - Construction and demolition waste management (Up to 2 points).
- **In Credit:** Innovation (up to 2 points).

## Independent Product Certification

- Code Compliance - ICC Evaluation Services, LLC  
- IAPMO Report UES-0313
- **Fire Testing** - Underwriters Laboratories, Inc.
  - **UL 263** – Standard for Fire Tests of Building Construction and Materials
  - **Wall Designs in the UL Fire Resistance Directory:**  
V438, V486, V496, V498, U411, U412, U419, U435, U465, U493
- **Sound Ratings** - Riverbank Acoustical Laboratories
- **Third-Party Testing** - Intertek/Architectural Testing Inc. (ATI)
- **Structural Testing** - STAR Laboratories
- **Structural Engineer** - DEVCO Engineering

## Code Approvals, Performance Standards, and Product Certifications

### AISI S100

- AISI's "North American Specification for the Design of Cold-formed Steel Structural Members".

### ASTM International:

- **A653** - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process.
- **A1003** - Standard Specification for Steel Sheet, Carbon, and Metallic-Coated for Cold-Formed Framing Members.
- **C645** - Standard Specification for Non-Structural Steel Framing Members.
- **C754** - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products.
- **C955** - Standard Specification for Load-Bearing (Transverse and Axial) Steel Studs, Runners (Tracks), and Bracing or Bridging for Screw Application of Gypsum Panel Products and Metal Plaster Bases.
- **C1007** - Standard Specification for Installation of Load Bearing (Transverse and Axial) Steel Studs and Related Accessories.
- **E72** - Standard Test Methods of Conducting Strength Tests of Panels for Building Construction.
- **E90** - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.
- **E119** - Standard Test Methods for Fire Tests of Building Construction and Materials.



## SUPREME STUD - TECHNICAL INFORMATION

### Nomenclature Example

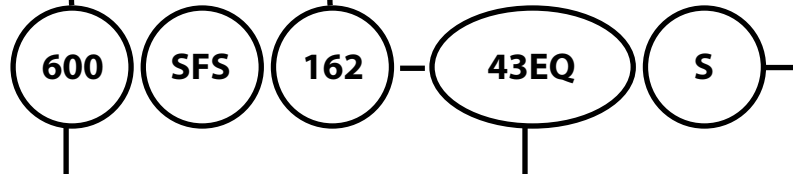
Supreme products have a four-part identification code that identifies the web depth, flange width, style, and mil thickness.

#### Member Web Depth

(Example: 6" = **600** x 1/100 inch)  
All member depths are given in 1/100 inch.  
For all "SFT" sections, member depth is the inside to inside dimension.

#### Flange Width

(Example: 1-5/8" = 1.625" = 162 x 1/200 inch)  
All flange widths are given in 1/100 inch.



#### Style

(Example: Supreme Framing Stud section = **SFS**)  
Nomenclature uses the following characters to designate the profile:  
**SFS** = Supreme Framing Stud  
**SFT** = Supreme Framing Track Sections  
**F** = Furring Channel Sections  
**TAT** = True Action Slotted Track  
**ZF** = Z=Furring

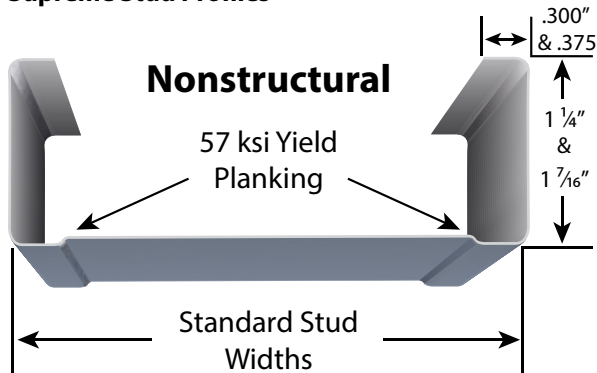
#### Thickness Designation

See Thickness Tables on page 5.

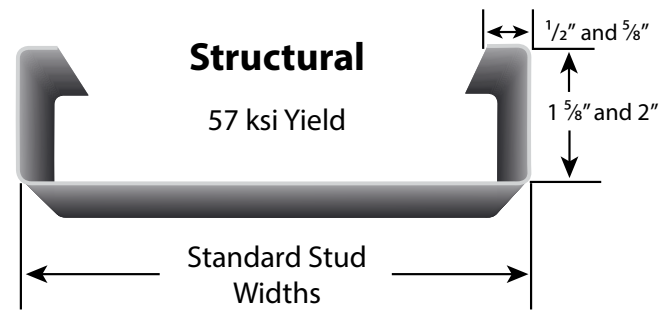
#### Design Type

(Example: Structural section = **S**)  
Nomenclature uses the following two characters:  
**S** = Structural studs and track  
**D** = Drywall (Non-Structural) studs and track

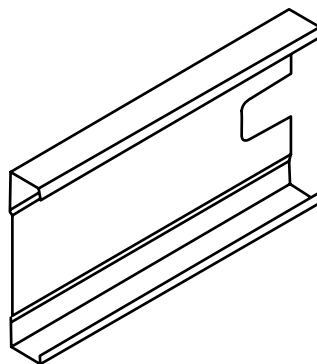
### Supreme Stud Profiles



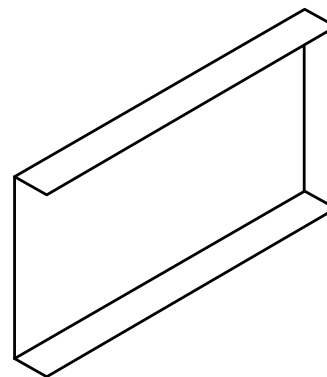
**Available Sizes**  
1 5/8", 2 1/2", 3 1/2", 3 5/8", 4, 5 1/2" and 6"



**Available Sizes**  
2 1/2", 3 1/2", 3 5/8", 4, 5 1/2", 6" and \* 8"  
\*available in 43EQA only



"SFS" - C-Stud  
Sections



"SFT" - Track  
Sections



- The Supreme Steel Framing System has been successfully utilized in commercial construction for over a decade
- 2018, 2015 & 2012 International Building Code per IAPMO ER0313
- Florida Building Code 2017 approvals
- Multiple UL Designs for Fire Resistance Ratings per ANSI/UL263
- Acoustical Performance 3rd party testing per ASTM E90
- IAPMO Uniform ER0313 certified

## Supreme Stud

| Thickness Nomenclature | Min Base Metal Thickness (in) | Design Thickness (in) | Min Yield Strength (ksi) | Standard Galvanization | Web Sizes (in)                           | Stud Flange / Leg Sizes (in) | Track Flange / Leg Sizes (in) | Design Inside Corner Radii (in) |
|------------------------|-------------------------------|-----------------------|--------------------------|------------------------|------------------------------------------|------------------------------|-------------------------------|---------------------------------|
| D25                    | 0.0147"                       | 0.0155"               | 50 or 57 ksi             | G40                    | 1-5/8", 2.5", 3.5", 3-5/8", 4", 5.5", 6" | 1-1/4"                       | 1-1/4" and 1-1/2"*            | 0.0860"                         |
| D20                    | 0.0179"                       | 0.0188"               | 57 ksi                   | G40                    | 1-5/8", 2.5", 3.5", 3-5/8", 4", 5.5", 6" | 1-1/4" and 1-7/16"           | 1-1/4" and 1-1/2"*, 2"*       | 0.0844"                         |
| 30EQD                  | 0.0223"                       | 0.0235"               | 57 ksi                   | G40                    | 1-5/8", 2.5", 3.5", 3-5/8", 4", 5.5", 6" | 1-1/4" and 1-7/16"           | 1-1/4", 1-1/2" and 2"*        | 0.0820"                         |

D = Drywall / Non Structural, S = Structural

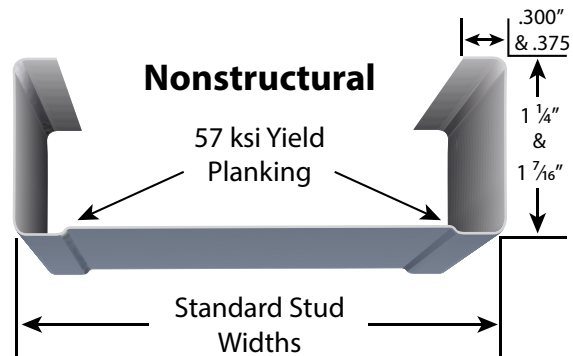
Higher galvanization available

\* = Track height to weight ratio exceeds AISI S100 guidelines

## Supreme Stud Stiffening Lip Length

| Nomenclature | Flange/Leg (in) | Stiffening Lip Length (in) |
|--------------|-----------------|----------------------------|
| SFS125-D25   | 1-1/4"          | 0.300"                     |
| SFS125-D20   | 1-1/4"          | 0.375"                     |
| SFS144       | 1-7/16"         | 0.375"                     |
| SFS162       | 1-5/8"          | 0.500"                     |
| SFS200       | 2"              | 0.625"                     |

Supreme Stud Stiffening Lip Length remains constant with various web sizes

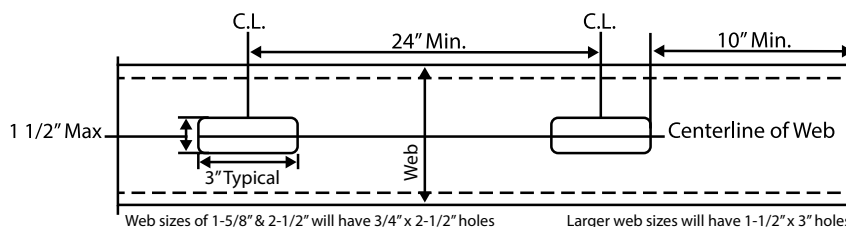


**Available Sizes**  
1 5/8", 2 1/2", 3 1/2", 3 5/8", 4", 5 1/2" and 6"

## Supreme Deep Leg Track

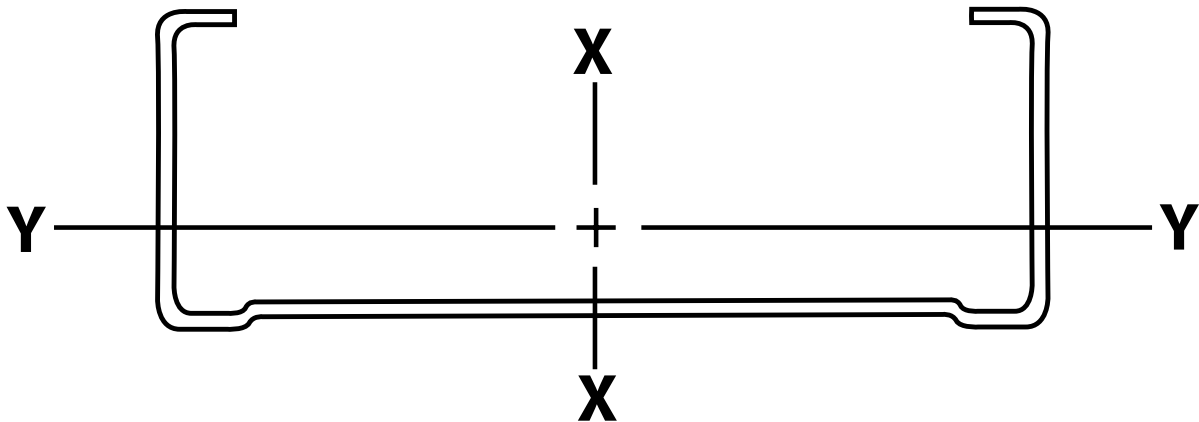
| Thickness Nomenclature | Min Base Metal Thickness (in) | Design Thickness (in) | Min Yield Strength (ksi) | Standard Galvanization | Track Web Sizes (in)             | Track Flange / Leg Sizes (in) | Gap (in)                                                        |
|------------------------|-------------------------------|-----------------------|--------------------------|------------------------|----------------------------------|-------------------------------|-----------------------------------------------------------------|
| D20                    | 0.0179"                       | 0.0188"               | 57 ksi                   | G40                    | 2.5", 3.5", 3-5/8", 4", 5.5", 6" | 2", 2.5", 3"                  | 2" leg = 1/2" gap<br>2.5" leg = 3/4" gap<br>3.0" leg = 1.0" gap |
| 30EQD                  | 0.0223"                       | 0.0235"               | 57 ksi                   | G40                    | 2.5", 3.5", 3-5/8", 4", 5.5", 6" | 2", 2.5", 3"                  |                                                                 |

D = Drywall / Non Structural, S = Structural



## General Table Notes:

1. The values in this catalog are based on the 2007 edition of North American Specification for the Design of Cold-Formed Steel Structural Members, AISI S100-07 as referenced by 2009 International Building Code (IBC) and AISI S100-07 with Supplement S2-10 as referenced by 2012 IBC.
2. Where AISI S100 is referenced, it is the North American Specification for the Design of Cold-Formed Steel Structural Members, S100-07 and AISI S100-07 with Supplement S2-10, as applicable with U.S. provisions.
3. The structural properties included herein have been computed based on allowable strength design (ASD) method.
4. The effective moment of inertia for deflection is calculated at a stress that results in a section modulus such that the stress times the section modulus at that stress is equal to the allowable moment. AISI S100 Procedure I for serviceability determination has been used.
5. Distortional buckling calculations are based on  $K\phi = 0$ .
6. Conditions with loads that exceed the 10 psf limit for non-structural members require a G60 galvanized coating.
7. When provided, factory punch-outs will be located along the center line of the webs of the stud members and will have a minimum center-to-center spacing of 24". Punch-outs for members greater than 2 1/2" deep are a maximum of 1 1/2" wide x 4" long. Members with depths 2 1/2" and smaller are maximum 3/4" wide x 4 1/2" long. Any configuration or combination of holes that fit within the punch-out width and length limitations mentioned above shall be permitted; other punch-out configurations and locations not in compliance with limitations listed above must be approved by a design professional. Values herein are based on punch-out configuration and location as illustrated below.
8. The 10" end distance shown may be altered if calculations are in conformance with code.





# SUPREME STUD - NON-STRUCTURAL & STRUCTURAL STUD SECTION PROPERTIES

## Non-Structural Supreme Studs (SFS) - Section Properties

| Part No.         | Design Thickness (in) | Fy (ksi) | Area (in²) | Weight (lb/ft) | Gross Properties |             |         |          |         | Effective Properties |           |            |            |          |            | Torsional Properties |          |         |        |         |       |         |
|------------------|-----------------------|----------|------------|----------------|------------------|-------------|---------|----------|---------|----------------------|-----------|------------|------------|----------|------------|----------------------|----------|---------|--------|---------|-------|---------|
|                  |                       |          |            |                | Ix (in⁴)         | Sx (in³)    | Rx (in) | Iy (in⁴) | Ry (in) | Ixe (in⁴)            | Sxe (in³) | Mal (in-k) | Mad (in-k) | Vag (lb) | VaNet (lb) | Jx1000 (in⁴)         | Cw (in⁶) | Xo (in) | m (in) | Ro (in) | β     | Lu (in) |
| 162SFS125-D25    | 0.0155                | 57       | 0.070      | 0.24           | 0.033            | 0.040       | 0.682   | 0.015    | 0.470   | 0.031                | N/A       | 0.66       | 0.73       | 233      | 94         | 0.006                | 0.011    | -1.127  | 0.651  | 1.399   | 0.351 | 24.4    |
| 162SFS125-D20    | 0.0188                | 57       | 0.087      | 0.30           | 0.040            | 0.049       | 0.675   | 0.020    | 0.480   | 0.037                | 0.035     | 1.21       | 1.20       | 397      | 131        | 0.010                | 0.016    | -1.182  | 0.683  | 1.444   | 0.329 | 26.1    |
| 162SFS144-D20    | 0.0188                | 57       | 0.094      | 0.32           | 0.044            | 0.055       | 0.686   | 0.028    | 0.545   | 0.043                | N/A       | 0.95       | 1.08       | 397      | 131        | 0.011                | 0.022    | -1.365  | 0.779  | 1.622   | 0.292 | 29.1    |
| 162SFS125-30EQD  | 0.0235                | 57       | 0.109      | 0.37           | 0.049            | 0.060553846 | 0.673   | 0.025    | 0.478   | 0.048                | 0.047     | 1.60       | 1.56       | 621      | 162        | 0.020                | 0.020    | -1.177  | 0.680  | 1.438   | 0.330 | 31.2    |
| 162SFS144-30EQD  | 0.0235                | 57       | 0.117      | 0.40           | 0.055            | 0.068       | 0.684   | 0.035    | 0.543   | 0.052                | 0.048     | 1.63       | 1.70       | 621      | 162        | 0.022                | 0.027    | -1.359  | 0.776  | 1.616   | 0.292 | 29.0    |
| 250SFS125-D25    | 0.0155                | 57       | 0.083      | 0.28           | 0.086            | 0.068       | 1.015   | 0.018    | 0.465   | 0.079                | N/A       | 1.26       | 1.16       | 144      | 133        | 0.007                | 0.025    | -0.994  | 0.595  | 1.495   | 0.558 | 24.0    |
| 250SFS125-D20    | 0.0188                | 57       | 0.104      | 0.35           | 0.106            | 0.085       | 1.011   | 0.024    | 0.477   | 0.101                | 0.066     | 2.26       | 1.91       | 258      | 196        | 0.012                | 0.035    | -1.045  | 0.625  | 1.530   | 0.534 | 25.1    |
| 250SFS144-D20    | 0.0188                | 57       | 0.111      | 0.38           | 0.117            | 0.093       | 1.027   | 0.033    | 0.545   | 0.112                | N/A       | 1.75       | 1.72       | 258      | 196        | 0.013                | 0.049    | -1.217  | 0.719  | 1.683   | 0.477 | 28.1    |
| 250SFS125-30EQD  | 0.0235                | 57       | 0.129      | 0.44           | 0.131            | 0.10512     | 1.009   | 0.029    | 0.475   | 0.128                | 0.088     | 2.99       | 2.50       | 505      | 306        | 0.024                | 0.043    | -1.040  | 0.622  | 1.524   | 0.535 | 25.0    |
| 250SFS144-30EQD  | 0.0235                | 57       | 0.138      | 0.47           | 0.145            | 0.116       | 1.025   | 0.041    | 0.542   | 0.136                | 0.090     | 3.06       | 2.68       | 505      | 306        | 0.025                | 0.060    | -1.212  | 0.716  | 1.677   | 0.478 | 28.0    |
| 350SFS125-D25²   | 0.0155                | 57       | 0.099      | 0.34           | 0.186            | 0.106       | 1.373   | 0.020    | 0.451   | 0.166                | N/A       | 1.75       | 1.66       | N/A      | N/A        | 0.008                | 0.051    | -0.880  | 0.543  | 1.692   | 0.730 | 23.6    |
| 350SFS125-D20    | 0.0188                | 57       | 0.123      | 0.42           | 0.231            | 0.132       | 1.372   | 0.026    | 0.464   | 0.222                | 0.083     | 2.82       | 2.73       | 180      | 159        | 0.014                | 0.070    | -0.926  | 0.571  | 1.719   | 0.710 | 24.5    |
| 350SFS144-D20    | 0.0188                | 57       | 0.130      | 0.44           | 0.252            | 0.144       | 1.395   | 0.037    | 0.533   | 0.235                | N/A       | 2.40       | 2.47       | 180      | 159        | 0.015                | 0.097    | -1.088  | 0.662  | 1.847   | 0.653 | 27.6    |
| 350SFS125-30EQD  | 0.0235                | 57       | 0.153      | 0.52           | 0.286            | 0.164       | 1.370   | 0.033    | 0.462   | 0.286                | 0.110     | 3.77       | 3.56       | 351      | 248        | 0.028                | 0.086    | -0.921  | 0.568  | 1.714   | 0.711 | 24.5    |
| 350SFS144-30EQD  | 0.0235                | 57       | 0.161      | 0.55           | 0.313            | 0.179       | 1.392   | 0.046    | 0.531   | 0.304                | 0.112     | 3.83       | 3.84       | 351      | 248        | 0.030                | 0.119    | -1.083  | 0.659  | 1.842   | 0.655 | 27.6    |
| 362SFS125-D252   | 0.0155                | 57       | 0.101      | 0.34           | 0.202            | 0.112       | 1.416   | 0.020    | 0.449   | 0.180                | N/A       | 1.84       | 1.72       | N/A      | N/A        | 0.008                | 0.055    | -0.867  | 0.537  | 1.720   | 0.746 | 23.6    |
| 362SFS125-D20    | 0.0188                | 57       | 0.125      | 0.42           | 0.250            | 0.138       | 1.416   | 0.027    | 0.462   | 0.242                | 0.086     | 2.92       | 2.83       | 173      | 164        | 0.015                | 0.076    | -0.914  | 0.565  | 1.747   | 0.727 | 24.5    |
| 362SFS144-D20    | 0.0188                | 57       | 0.132      | 0.45           | 0.273            | 0.151       | 1.439   | 0.037    | 0.531   | 0.254                | N/A       | 2.52       | 2.56       | 173      | 164        | 0.016                | 0.104    | -1.074  | 0.655  | 1.873   | 0.671 | 27.6    |
| 362SFS125-30EQD  | 0.0235                | 57       | 0.156      | 0.53           | 0.311            | 0.172       | 1.414   | 0.033    | 0.460   | 0.311                | 0.115     | 3.91       | 3.70       | 338      | 255        | 0.029                | 0.093    | -0.909  | 0.562  | 1.742   | 0.728 | 24.4    |
| 362SFS144-30EQD  | 0.0235                | 57       | 0.164      | 0.56           | 0.339            | 0.187       | 1.437   | 0.046    | 0.529   | 0.331                | 0.116     | 3.97       | 3.98       | 338      | 155        | 0.030                | 0.128    | -1.069  | 0.652  | 1.867   | 0.672 | 27.5    |
| 400SFS125-D252   | 0.0155                | 57       | 0.107      | 0.36           | 0.255            | 0.127       | 1.545   | 0.021    | 0.443   | 0.223                | N/A       | 2.10       | 1.90       | N/A      | N/A        | 0.009                | 0.069    | -0.833  | 0.521  | 1.810   | 0.788 | 23.4    |
| 400SFS125-D20    | 0.0188                | 57       | 0.132      | 0.45           | 0.315            | 0.158       | 1.546   | 0.028    | 0.457   | 0.306                | 0.095     | 3.24       | 3.14       | 156      | 156        | 0.016                | 0.093    | -0.878  | 0.547  | 1.836   | 0.771 | 24.3    |
| 400SFS144-D20    | 0.0188                | 57       | 0.139      | 0.47           | 0.343            | 0.172       | 1.572   | 0.038    | 0.526   | 0.314                | N/A       | 2.86       | 2.84       | 156      | 156        | 0.016                | 0.129    | -1.034  | 0.637  | 1.954   | 0.720 | 27.5    |
| 400SFS125-30EQD  | 0.0235                | 57       | 0.164      | 0.56           | 0.392            | 0.196       | 1.544   | 0.034    | 0.454   | 0.392                | 0.127     | 4.34       | 4.11       | 305      | 275        | 0.030                | 0.115    | -0.873  | 0.545  | 1.831   | 0.773 | 24.2    |
| 400SFS144-30EQD  | 0.0235                | 57       | 0.173      | 0.59           | 0.427            | 0.213       | 1.569   | 0.047    | 0.524   | 0.417                | 0.129     | 4.40       | 4.41       | 305      | 275        | 0.032                | 0.159    | -1.029  | 0.634  | 1.949   | 0.721 | 27.4    |
| 550SFS125-D25²   | 0.0155                | 57       | 0.130      | 0.44           | 0.543            | 0.198       | 2.045   | 0.023    | 0.419   | See note 1 below     |           |            |            |          |            | 0.010                | 0.140    | -0.715  | 0.470  | 2.207   | 0.900 |         |
| 550SFS125-D20¹   | 0.0188                | 57       | 0.160      | 0.55           | 0.673            | 0.245       | 2.050   | 0.030    | 0.433   |                      |           |            |            |          |            | 0.019                | 0.188    | -0.761  | 0.489  | 2.229   | 0.883 | N/A     |
| 550SFS144-D20²   | 0.0188                | 57       | 0.167      | 0.57           | 0.726            | 0.264       | 2.084   | 0.042    | 0.502   |                      |           |            |            |          |            | 0.020                | 0.259    | -0.904  | 0.574  | 2.327   | 0.894 |         |
| 550SFS125-30EQD² | 0.0235                | 57       | 0.200      | 0.68           | 0.837            | 0.304       | 2.048   | 0.037    | 0.431   | 0.788                | 0.197     | 6.73       | 5.67       | 218      | 218        | 0.037                | 0.231    | -0.757  | 0.487  | 2.225   | 0.884 | 23.7    |
| 550SFS144-30EQD² | 0.0235                | 57       | 0.208      | 0.71           | 0.903            | 0.328       | 2.081   | 0.052    | 0.500   | 0.896                | 0.204     | 6.97       | 6.09       | 218      | 218        | 0.038                | 0.320    | -0.900  | 0.571  | 2.322   | 0.850 | 26.9    |
| 600SFS125-D25¹   | 0.0155                | 57       | 0.138      | 0.47           | 0.670            | 0.223       | 2.207   | 0.023    | 0.411   | See note 1 below     |           |            |            |          |            | 0.011                | 0.170    | -0.685  | 0.450  | 2.347   | 0.920 | N/A     |
| 600SFS125-D20¹   | 0.0188                | 57       | 0.169      | 0.58           | 0.830            | 0.277       | 2.214   | 0.031    | 0.425   |                      |           |            |            |          |            | 0.020                | 0.228    | -0.730  | 0.473  | 2.369   | 0.905 | N/A     |
| 600SFS144-D20¹   | 0.0188                | 57       | 0.177      | 0.60           | 0.894            | 0.298       | 2.250   | 0.043    | 0.494   |                      |           |            |            |          |            | 0.021                | 0.314    | -0.869  | 0.556  | 2.462   | 0.875 | N/A     |
| 600SFS125-30EQD² | 0.0235                | 57       | 0.211      | 0.72           | 1.033            | 0.344       | 2.211   | 0.038    | 0.423   | 0.959                | 0.216     | 7.37       | 6.14       | 200      | 200        | 0.039                | 0.281    | -0.725  | 0.470  | 2.365   | 0.906 | 23.5    |
| 600SFS144-30EQD² | 0.0235                | 57       | 0.220      | 0.75           | 1.112            | 0.371       | 2.247   | 0.053    | 0.492   | 0.976                | 0.219     | 7.46       | 6.60       | 200      |            | 0.041                | 0.388    | -0.864  | 0.553  | 2.457   | 0.876 | 26.7    |

1. Web height-to-thickness ratio exceeds 200. Web stiffeners are required at all support points and concentrated loads.

2. Web height-to-thickness ratio exceeds 260. Section is not in compliance with AISI S100 Section 81, but may be used in accordance with SSFSA's published composite wall data for these members.



# SUPREME STUD - NON-STRUCTURAL & STRUCTURAL TRACK SECTION PROPERTIES

## Supreme Track (SFT) - Section Properties

| Section         | Design Thickness (in) | Fy (ksi) | Gross Properties |                |          |          |         |          |         |           | Effective Properties |           |          |            | Torsional Properties |         |        |         |       |  |
|-----------------|-----------------------|----------|------------------|----------------|----------|----------|---------|----------|---------|-----------|----------------------|-----------|----------|------------|----------------------|---------|--------|---------|-------|--|
|                 |                       |          | Area (in²)       | Weight (lb/ft) | Ix (in⁴) | Sx (in³) | Rx (in) | Iy (in⁴) | Ry (in) | Ixe (in⁴) | Sxe (in³)            | Ma (in-k) | Vag (lb) | Jx1000 in⁴ | Cw (in⁶)             | Xo (in) | m (in) | Ro (in) | β     |  |
| 162SFT125-D25   | 0.0155                | 57       | 0.064            | 0.22           | 0.034    | 0.042    | 0.733   | 0.011    | 0.412   | 0.022     | N/A                  | 0.37      | 215      | 0.005      | 0.006                | -0.878  | 0.504  | 1.216   | 0.478 |  |
| 162SFT125-D20   | 0.0188                | 57       | 0.077            | 0.26           | 0.042    | 0.048    | 0.733   | 0.013    | 0.411   | 0.029     | 0.023                | 0.79      | 394      | 0.009      | 0.007                | -0.878  | 0.503  | 1.215   | 0.478 |  |
| 162SFT125-30EQD | 0.0235                | 57       | 0.097            | 0.33           | 0.052    | 0.060    | 0.734   | 0.016    | 0.410   | 0.038     | 0.031                | 1.06      | 621      | 0.018      | 0.009                | -0.874  | 0.502  | 1.213   | 0.481 |  |
| 162SFT150-D25   | 0.0155                | 57       | 0.072            | 0.24           | 0.040    | 0.046    | 0.748   | 0.018    | 0.497   |           |                      |           |          | 0.006      | 0.010                | -1.107  | 0.626  | 1.425   | 0.397 |  |
| 162SFT150-D20   | 0.0188                | 57       | 0.087            | 0.30           | 0.049    | 0.056    | 0.749   | 0.021    | 0.496   | -         | -                    | -         | -        | 0.010      | 0.012                | -1.105  | 0.625  | 1.424   | 0.398 |  |
| 162SFT150-30EQD | 0.0235                | 57       | 0.109            | 0.37           | 0.061    | 0.070    | 0.749   | 0.027    | 0.496   | 0.041     | 0.032                | 1.09      | 621      | 0.020      | 0.014                | -1.102  | 0.623  | 1.422   | 0.399 |  |
| 162SFT200-D20   | 0.0188                | 57       | 0.106            | 0.36           | 0.063    | 0.072    | 0.770   | 0.046    | 0.662   | -         | -                    | -         | -        | 0.013      | 0.026                | -1.574  | 0.869  | 1.873   | 0.294 |  |
| 162SFT200-30EQD | 0.0235                | 57       | 0.132            | 0.45           | 0.079    | 0.090    | 0.771   | 0.058    | 0.661   | -         | -                    | -         | -        | 0.024      | 0.032                | -1.571  | 0.868  | 1.871   | 0.295 |  |
| 162SFT250-D20   | 0.0188                | 57       | 0.125            | 0.42           | 0.077    | 0.088    | 0.785   | 0.085    | 0.823   | -         | -                    | -         | -        | 0.015      | 0.047                | -2.052  | 1.116  | 2.346   | 0.235 |  |
| 162SFT250-30EQD | 0.0235                | 57       | 0.156            | 0.53           | 0.096    | 0.110    | 0.786   | 0.105    | 0.823   | -         | -                    | -         | -        | 0.029      | 0.059                | -2.049  | 1.115  | 2.344   | 0.236 |  |
| 162SFT300-30EQD | 0.0235                | 57       | 0.179            | 0.61           | 0.114    | 0.130    | 0.797   | 0.172    | 0.980   | -         | -                    | -         | -        | 0.033      | 0.099                | -2.534  | 1.363  | 2.831   | 0.199 |  |
| 250SFT125-D25   | 0.0155                | 57       | 0.078            | 0.26           | 0.086    | 0.069    | 1.051   | 0.012    | 0.400   | 0.054     | N/A                  | 0.61      | 137      | 0.006      | 0.015                | -0.769  | 0.460  | 1.363   | 0.682 |  |
| 250SFT125-D20   | 0.0188                | 57       | 0.094            | 0.32           | 0.104    | 0.079    | 1.051   | 0.015    | 0.400   | 0.078     | 0.036                | 1.23      | 249      | 0.011      | 0.018                | -0.769  | 0.460  | 1.362   | 0.681 |  |
| 250SFT125-30EQD | 0.0235                | 57       | 0.118            | 0.40           | 0.130    | 0.099    | 1.052   | 0.019    | 0.399   | 0.100     | 0.053                | 1.80      | 478      | 0.022      | 0.023                | -0.765  | 0.458  | 1.361   | 0.684 |  |
| 250SFT150-D2    | 0.0155                | 57       | 0.085            | 0.29           | 0.099    | 0.075    | 1.076   | 0.020    | 0.488   |           |                      |           |          | 0.007      | 0.024                | -0.983  | 0.578  | 1.537   | 0.591 |  |
| 250SFT150-D20   | 0.0188                | 57       | 0.104            | 0.35           | 0.120    | 0.092    | 1.077   | 0.025    | 0.488   | -         | -                    | -         | -        | 0.012      | 0.030                | -0.981  | 0.577  | 1.536   | 0.592 |  |
| 250SFT150-30EQD | 0.0235                | 57       | 0.129            | 0.44           | 0.150    | 0.114    | 1.077   | 0.031    | 0.487   | 0.108     | 0.052                | 1.79      | 478      | 0.024      | 0.037                | -0.979  | 0.576  | 1.535   | 0.593 |  |
| 250SFT200-D20   | 0.0188                | 57       | 0.122            | 0.42           | 0.152    | 0.116    | 1.114   | 0.053    | 0.661   | -         | -                    | -         | -        | 0.014      | 0.064                | -1.427  | 0.082  | 1.927   | 0.452 |  |
| 250SFT200-30EQD | 0.0235                | 57       | 0.153            | 0.52           | 0.190    | 0.144    | 1.115   | 0.067    | 0.660   | -         | -                    | -         | -        | 0.028      | 0.080                | -1.424  | 0.816  | 1.926   | 0.453 |  |
| 250SFT250-D20   | 0.0188                | 57       | 0.141            | 0.48           | 0.184    | 0.140    | 1.141   | 0.097    | 0.830   | -         | -                    | -         | -        | 0.017      | 0.119                | -1.887  | 1.061  | 2.356   | 0.359 |  |
| 250SFT250-30EQD | 0.0235                | 57       | 0.176            | 0.60           | 0.230    | 0.175    | 1.142   | 0.121    | 0.829   | -         | -                    | -         | -        | 0.033      | 0.148                | -1.885  | 1.059  | 2.355   | 0.359 |  |
| 250SFT300-D20   | 0.0188                | 57       | 0.160            | 0.54           | 0.216    | 0.164    | 1.610   | 0.158    | 0.995   | -         | -                    | -         | -        | 0.019      | 0.196                | -2.358  | 1.306  | 2.810   | 0.296 |  |
| 250SFT300-30EQD | 0.0235                | 57       | 0.200            | 0.68           | 0.270    | 0.205    | 1.162   | 0.198    | 0.994   | -         | -                    | -         | -        | 0.037      | 0.245                | -2.355  | 1.305  | 2.808   | 0.297 |  |
| 350SFT125-D252  | 0.0155                | 57       | 0.093            | 0.32           | 0.181    | 0.103    | 1.395   | 0.014    | 0.383   | 0.114     | N/A                  | 0.91      | N/A      | 0.007      | 0.032                | -0.676  | 0.419  | 1.597   | 0.821 |  |
| 350SFT125-D20   | 0.0188                | 57       | 0.113            | 0.38           | 0.219    | 0.121    | 1.394   | 0.017    | 0.383   | 0.173     | 0.051                | 1.73      | 175      | 0.013      | 0.038                | -6.750  | 0.418  | 1.595   | 0.821 |  |
| 350SFT125-30EQD | 0.0235                | 57       | 0.141            | 0.48           | 0.275    | 0.151    | 1.396   | 0.021    | 0.381   | 0.221     | 0.074                | 2.51      | 338      | 0.026      | 0.048                | -0.673  | 0.417  | 1.595   | 0.822 |  |
| 350SFT150-D252  | 0.0155                | 57       | 0.101            | 0.34           | 0.206    | 0.114    | 1.430   | 0.023    | 0.472   |           |                      |           |          | 0.008      | 0.052                | -0.875  | 0.532  | 1.742   | 0.748 |  |
| 350SFT150-D20   | 0.0188                | 57       | 0.122            | 0.42           | 0.250    | 0.138    | 1.431   | 0.027    | 0.472   | -         | -                    | -         | -        | 0.014      | 0.063                | -0.873  | 0.531  | 1.741   | 0.749 |  |
| 350SFT150-30EQD | 0.0235                | 57       | 0.153            | 0.52           | 0.313    | 0.172    | 1.431   | 0.034    | 0.471   | 0.238     | 0.074                | 2.51      | 338      | 0.028      | 0.078                | -0.871  | 0.530  | 1.740   | 0.749 |  |
| 350SFT200-D20   | 0.0188                | 57       | 0.141            | 0.48           | 0.311    | 0.172    | 1.485   | 0.060    | 0.649   | -         | -                    | -         | -        | 0.017      | 0.136                | -1.293  | 0.765  | 2.073   | 0.611 |  |
| 350SFT200-30EQD | 0.0235                | 57       | 0.176            | 0.60           | 0.389    | 0.215    | 1.486   | 0.074    | 0.649   | -         | -                    | -         | -        | 0.033      | 0.170                | -1.291  | 0.763  | 2.072   | 0.612 |  |
| 350SFT250-D20   | 0.0188                | 57       | 0.160            | 0.54           | 0.372    | 0.206    | 1.526   | 0.109    | 0.824   | -         | -                    | -         | -        | 0.019      | 0.249                | -1.733  | 1.003  | 2.452   | 0.500 |  |
| 350SFT250-30EQD | 0.0235                | 57       | 0.200            | 0.68           | 0.466    | 0.257    | 1.527   | 0.135    | 0.823   | -         | -                    | -         | -        | 0.037      | 0.311                | -1.731  | 1.002  | 2.450   | 0.501 |  |
| 350SFT300-D20   | 0.0188                | 57       | 0.179            | 0.61           | 0.433    | 0.239    | 1.557   | 0.177    | 0.995   | -         | -                    | -         | -        | 0.021      | 0.409                | -2.186  | 1.245  | 2.863   | 0.417 |  |
| 350SFT300-30EQD | 0.0235                | 57       | 0.223            | 0.76           | 0.542    | 0.299    | 1.558   | 0.221    | 0.994   | -         | -                    | -         | -        | 0.041      | 0.510                | -2.184  | 1.244  | 2.861   | 0.417 |  |
| 362SFT125-D252  | 0.0155                | 57       | 0.095            | 0.32           | 0.196    | 0.108    | 1.437   | 0.014    | 0.381   | 0.123     | N/A                  | 0.95      | N/A      | 0.008      | 0.034                | -0.666  | 0.414  | 1.629   | 0.833 |  |
| 362SFT125-D20   | 0.0188                | 57       | 0.115            | 0.39           | 0.237    | 0.126    | 1.436   | 0.017    | 0.380   | 0.188     | 0.053                | 1.80      | 169      | 0.014      | 0.042                | -0.665  | 0.413  | 1.627   | 0.833 |  |
| 362SFT125-30EQD | 0.0235                | 57       | 0.144            | 0.49           | 0.297    | 0.158    | 1.437   | 0.021    | 0.379   | 0.240     | 0.076                | 2.60      | 326      | 0.027      | 0.052                | -0.663  | 0.412  | 1.628   | 0.834 |  |
| 362SFT150-D252  | 0.0155                | 57       | 0.103            | 0.35           | 0.223    | 0.119    | 1.473   | 0.023    | 0.470   |           |                      |           |          | 0.008      | 0.056                | -0.863  | 0.527  | 1.771   | 0.763 |  |
| 362SFT150-D20   | 0.0188                | 57       | 0.125            | 0.42           | 0.271    | 0.144    | 1.474   | 0.028    | 0.470   | -         | -                    | -         | -        | 0.015      | 0.067                | -0.861  | 0.526  | 1.770   | 0.763 |  |
| 362SFT150-30EQD | 0.0235                | 57       | 0.156            | 0.53           | 0.338    | 0.180    | 1.474   | 0.034    | 0.469   | 0.258     | 0.076                | 2.60      | 326      | 0.029      | 0.085                | -0.859  | 0.525  | 1.769   | 0.764 |  |
| 362SFT200-D20   | 0.0188                | 57       | 0.143            | 0.49           | 0.336    | 0.179    | 1.530   | 0.060    | 0.648   | -         | -                    | -         | -        | 0.017      | 0.147                | -1.278  | 0.759  | 2.096   | 0.628 |  |
| 362SFT200-30EQD | 0.0235                | 57       | 0.179            | 0.61           | 0.420    | 0.224    | 1.531   | 0.075    | 0.647   | -         | -                    | -         | -        | 0.033      | 0.184                | -1.276  | 0.758  | 2.095   | 0.629 |  |
| 362SFT250-D20   | 0.0188                | 57       | 0.162            | 0.55           | 0.401    | 0.214    | 1.573   | 0.110    | 0.823   | -         | -                    | -         | -        | 0.019      | 0.269                | -1.716  | 0.997  | 2.469   | 0.517 |  |
| 362SFT250-30EQD | 0.0235                | 57       | 0.203            | 0.69           | 0.502    | 0.267    | 1.573   | 0.137    | 0.822   | -         | -                    | -         | -        | 0.037      | 0.336                | -1.713  | 0.995  | 2.467   | 0.518 |  |

1. Web height-to-thickness ratio exceeds 200. Web stiffeners are required at all support points and concentrated loads.
2. Web height-to-thickness ratio exceeds 260 or flange width-to-thickness ratio exceeds 60. Section is not in compliance with AISI S100 Section B1, so effective properties are not provided.

### Table Notes

1. The centerline bend radius is based on inside corner radii shown in the steel thickness table.
2. Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI S100 Section A7.2.
3. For deflection calculations, use the effective moment of inertia.
4. Tabulated gross properties are based on the full unreduced cross section of the studs away from punch-outs.
5. Allowable moment is the lesser of  $M_{al}$  and  $M_{ad}$ . Stud distortional buckling is based on an assumed  $K\psi = 0$ .
6. See page 6 for additional general table notes.



# SUPREME STUD - NON-STRUCTURAL & STRUCTURAL TRACK SECTION PROPERTIES

## Supreme Track (SFT) - Section Properties

| Section          | Design Thickness (in) | Fy (ksi) | Gross Properties        |                |                       |                       |         |                       |         | Effective Properties   |                        |           |          | Torsional Properties      |                       |         |        |         |       |
|------------------|-----------------------|----------|-------------------------|----------------|-----------------------|-----------------------|---------|-----------------------|---------|------------------------|------------------------|-----------|----------|---------------------------|-----------------------|---------|--------|---------|-------|
|                  |                       |          | Area (in <sup>2</sup> ) | Weight (lb/ft) | Ix (in <sup>4</sup> ) | Sx (in <sup>3</sup> ) | Rx (in) | Iy (in <sup>4</sup> ) | Ry (in) | Ixe (in <sup>4</sup> ) | Sxe (in <sup>3</sup> ) | Ma (in-k) | Vag (lb) | Jx1000 (in <sup>4</sup> ) | Cw (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | β     |
| 362SFT300-D20    | 0.0188                | 57       | 0.181                   | 0.62           | 0.467                 | 0.249                 | 1.605   | 0.179                 | 0.994   | -                      | -                      | -         | -        | 0.021                     | 0.442                 | -2.167  | 1.238  | 2.874   | 0.432 |
| 362SFT300-30EQD  | 0.0235                | 57       | 0.226                   | 0.77           | 0.584                 | 0.311                 | 1.606   | 0.223                 | 0.994   | -                      | -                      | -         | -        | 0.042                     | 0.552                 | -2.165  | 1.237  | 2.873   | 0.432 |
| 400SFT125-D252   | 0.0155                | 57       | 0.101                   | 0.34           | 0.246                 | 0.123                 | 1.561   | 0.014                 | 0.374   | 0.153                  | N/A                    | 1.08      | N/A      | 0.008                     | 0.043                 | -0.638  | 0.401  | 1.728   | 0.864 |
| 400SFT125-D202   | 0.0188                | 57       | 0.122                   | 0.42           | 0.297                 | 0.144                 | 1.560   | 0.017                 | 0.374   | 0.239                  | 0.058                  | 1.98      | 153      | 0.014                     | 0.052                 | -0.637  | 0.400  | 1.726   | 0.864 |
| 400SFT125-30EQD  | 0.0235                | 57       | 0.153                   | 0.52           | 0.373                 | 0.181                 | 1.562   | 0.021                 | 0.373   | 0.305                  | 0.084                  | 2.87      | 295      | 0.028                     | 0.065                 | -0.635  | 0.399  | 1.727   | 0.865 |
| 400SFT150-D252   | 0.0155                | 57       | 0.101                   | 0.43           | 0.246                 | 0.119                 | 1.561   | 0.014                 | 0.374   | 0.153                  |                        | 1.08      |          | 0.008                     | 0.043                 | -0.640  | 0.400  | 1.730   | 0.860 |
| 400SFT150-D202   | 0.0188                | 57       | 0.132                   | 0.45           | 0.338                 | 0.164                 | 1.601   | 0.028                 | 0.463   | -                      | -                      | -         | -        | 0.016                     | 0.085                 | -0.828  | 0.511  | 1.861   | 0.802 |
| 400SFT150-30EQD  | 0.0235                | 57       | 0.153                   | 0.52           | 0.373                 | 0.181                 | 1.562   | 0.021                 | 0.373   | 0.305                  | 0.084                  | 2.87      | 295      | 0.028                     | 0.065                 | -0.635  | 0.399  | 1.727   | 0.865 |
| 400SFT200-D202   | 0.0188                | 57       | 0.151                   | 0.51           | 0.417                 | 0.202                 | 1.664   | 0.062                 | 0.642   | -                      | -                      | -         | -        | 0.018                     | 0.184                 | -1.236  | 0.741  | 2.170   | 0.676 |
| 400SFT200-30EQD  | 0.0235                | 57       | 0.188                   | 0.64           | 0.521                 | 0.253                 | 1.665   | 0.077                 | 0.641   | -                      | -                      | -         | -        | 0.035                     | 0.229                 | -1.234  | 0.740  | 2.169   | 0.676 |
| 400SFT250-D20    | 0.0188                | 57       | 0.169                   | 0.58           | 0.496                 | 0.241                 | 1.712   | 0.113                 | 0.818   | -                      | -                      | -         | -        | 0.020                     | 0.335                 | -1.666  | 0.977  | 2.525   | 0.565 |
| 400SFT250-30EQD  | 0.0235                | 57       | 0.212                   | 0.72           | 0.620                 | 0.300                 | 1.712   | 0.141                 | 0.817   | -                      | -                      | -         | -        | 0.039                     | 0.419                 | -1.664  | 0.976  | 2.523   | 0.565 |
| 400SFT300-D20    | 0.0188                | 57       | 0.188                   | 0.64           | 0.575                 | 0.279                 | 1.749   | 0.185                 | 0.991   | -                      | -                      | -         | -        | 0.022                     | 0.550                 | -2.111  | 1.217  | 2.915   | 0.475 |
| 400SFT300-30EQD  | 0.0235                | 57       | 0.235                   | 0.80           | 0.719                 | 0.348                 | 1.749   | 0.231                 | 0.991   | -                      | -                      | -         | -        | 0.043                     | 0.687                 | -2.109  | 1.216  | 2.913   | 0.476 |
| 550SFT125-D252   | 0.0155                | 57       | 0.124                   | 0.42           | 0.519                 | 0.185                 | 2.046   | 0.015                 | 0.350   |                        |                        |           |          | 0.010                     | 0.089                 | -0.548  | 0.355  | 2.146   | 0.935 |
| 550SFT125-D201   | 0.0188                | 57       | 0.150                   | 0.51           | 0.630                 | 0.224                 | 2.046   | 0.018                 | 0.349   | See note 1 below       |                        |           |          | 0.018                     | 0.108                 | -0.546  | 0.354  | 2.146   | 0.935 |
| 550SFT125-30EQD2 | 0.0235                | 57       | 0.188                   | 0.64           | 0.787                 | 0.280                 | 2.046   | 0.023                 | 0.348   | 0.568                  | 0.113                  | 3.99      | 213      | 0.035                     | 0.134                 | -0.545  | 0.353  | 2.146   | 0.936 |
| 550SFT150-D252   | 0.0155                | 57       | 0.132                   | 0.45           | 0.580                 | 0.207                 | 2.098   | 0.025                 | 0.438   |                        |                        |           |          | 0.011                     | 0.145                 | -0.721  | 0.459  | 2.261   | 0.898 |
| 550SFT150-D201   | 0.0188                | 57       | 0.160                   | 0.54           | 0.703                 | 0.250                 | 2.098   | 0.031                 | 0.437   | See note 1 below       |                        |           |          | 0.019                     | 0.176                 | -0.720  | 0.458  | 2.260   | 0.899 |
| 550SFT150-30EQD2 | 0.0235                | 57       | 0.200                   | 0.68           | 0.879                 | 0.312                 | 2.098   | 0.038                 | 0.437   | 0.653                  | 0.116                  | 3.97      | 213      | 0.037                     | 0.219                 | -0.718  | 0.457  | 2.260   | 0.899 |
| 550SFT200-D201   | 0.0188                | 57       | 0.179                   | 0.61           | 0.851                 | 0.303                 | 2.182   | 0.068                 | 0.616   | See note 1 below       |                        |           |          | 0.021                     | 0.380                 | -1.095  | 0.677  | 2.518   | 0.811 |
| 550SFT200-30EQD2 | 0.0235                | 57       | 0.223                   | 0.76           | 1.064                 | 0.378                 | 2.183   | 0.085                 | 0.615   | -                      | -                      | -         | -        | 0.041                     | 0.474                 | -1.093  | 0.676  | 2.517   | 0.812 |
| 550SFT250-D20    | 0.0188                | 57       | 0.198                   | 0.67           | 0.999                 | 0.355                 | 2.249   | 0.125                 | 0.795   | -                      | -                      | -         | -        | 0.023                     | 0.691                 | -1.496  | 0.906  | 2.816   | 0.718 |
| 550SFT250-30EQD  | 0.0235                | 57       | 0.247                   | 0.84           | 1.249                 | 0.444                 | 2.249   | 0.156                 | 0.794   | -                      | -                      | -         | -        | 0.045                     | 0.862                 | -1.494  | 0.905  | 2.815   | 0.718 |
| 550SFT300-D20    | 0.0188                | 57       | 0.216                   | 0.74           | 1.146                 | 0.408                 | 2.302   | 0.205                 | 0.972   | -                      | -                      | -         | -        | 0.026                     | 1.127                 | -1.917  | 1.139  | 3.150   | 0.630 |
| 550SFT300-30EQD  | 0.0235                | 57       | 0.270                   | 0.92           | 1.433                 | 0.509                 | 2.303   | 0.255                 | 0.972   | -                      | -                      | -         | -        | 0.050                     | 1.408                 | -1.915  | 1.138  | 3.148   | 0.630 |
| 600SFT125-D251   | 0.0155                | 57       | 0.132                   | 0.45           | 0.640                 | 0.213                 | 2.203   | 0.015                 | 0.342   | See note 1 below       |                        |           |          | 0.011                     | 0.108                 | -0.523  | 0.342  | 2.290   | 0.948 |
| 600SFT125-D201   | 0.0235                | 57       | 0.160                   | 0.54           | 0.776                 | 0.254                 | 2.204   | 0.019                 | 0.342   |                        |                        |           |          | 0.019                     | 0.131                 | -0.522  | 0.341  | 2.290   | 0.948 |
| 600SFT125-30EQD2 | 0.0235                | 57       | 0.200                   | 0.68           | 0.970                 | 0.317                 | 2.204   | 0.023                 | 0.341   | 0.690                  | 0.124                  | 4.24      | 195      | 0.037                     | 0.163                 | -0.520  | 0.340  | 2.290   | 0.948 |
| 600SFT150-D252   | 0.0155                | 57       | 0.140                   | 0.48           | 0.712                 | 0.233                 | 2.259   | 0.026                 | 0.430   |                        |                        |           |          | 0.011                     | 0.177                 | -0.691  | 0.444  | 2.401   | 0.917 |
| 600SFT150-D201   | 0.0188                | 57       | 0.169                   | 0.58           | 0.864                 | 0.282                 | 2.259   | 0.031                 | 0.429   | See note 1 below       |                        |           |          | 0.020                     | 0.214                 | -0.690  | 0.443  | 2.401   | 0.917 |
| 600SFT150-30EQD2 | 0.0235                | 57       | 0.212                   | 0.72           | 1.080                 | 0.352                 | 2.259   | 0.039                 | 0.428   | 0.721                  | 0.126                  | 4.28      | 195      | 0.039                     | 0.267                 | -0.688  | 0.442  | 2.400   | 0.918 |
| 600SFT200-D201   | 0.0188                | 57       | 0.188                   | 0.64           | 1.039                 | 0.339                 | 2.350   | 0.069                 | 0.607   | See note 1 below       |                        |           |          | 0.022                     | 0.464                 | -1.055  | 0.659  | 2.647   | 0.841 |
| 600SFT200-30EQD2 | 0.0235                | 57       | 0.235                   | 0.80           | 1.299                 | 0.424                 | 2.351   | 0.086                 | 0.606   | -                      | -                      | -         | -        | 0.043                     | 0.578                 | -1.053  | 0.658  | 2.646   | 0.842 |
| 600SFT250-D20    | 0.0188                | 57       | 0.207                   | 0.70           | 1.214                 | 0.397                 | 2.422   | 0.128                 | 0.786   | -                      | -                      | -         | -        | 0.024                     | 0.843                 | -1.448  | 0.884  | 2.930   | 0.756 |
| 600SFT250-30EQD  | 0.0235                | 57       | 0.259                   | 0.88           | 1.518                 | 0.495                 | 2.423   | 0.159                 | 0.785   | -                      | -                      | -         | -        | 0.048                     | 1.052                 | -1.446  | 0.883  | 2.929   | 0.756 |
| 600SFT300-D20    | 0.0188                | 57       | 0.226                   | 0.77           | 1.389                 | 0.454                 | 2.481   | 0.210                 | 0.965   | -                      | -                      | -         | -        | 0.027                     | 1.375                 | -1.861  | 1.116  | 3.248   | 0.672 |
| 600SFT300-30EQD  | 0.0235                | 57       | 0.282                   | 0.96           | 1.737                 | 0.567                 | 2.482   | 0.262                 | 0.964   | -                      | -                      | -         | -        | 0.052                     | 1.716                 | -1.859  | 1.115  | 3.247   | 0.672 |

1. Web height-to-thickness ratio exceeds 200. Web stiffeners are required at all support points and concentrated loads.
2. Web height-to-thickness ratio exceeds 260 or flange width-to-thickness ratio exceeds 60. Section is not in compliance with A/SI SJ00 Section B1, so effective properties are not provided.

### Table Notes

1. The centerline bend radius is based on inside corner radii shown in the steel thickness table.
2. Effective properties incorporate the strength increase from the cold work of forming as applicable per AISI S100 Section A7.2.
3. For deflection calculations, use the effective moment of inertia.
4. Tabulated gross properties are based on the full unreduced cross section of the studs away from punch-outs.
5. Allowable moment is the lesser of  $M_{al}$  and  $M_{ad}$ . Stud distortional buckling is based on an assumed  $K\psi = 0$ .
6. See page 6 for additional general table notes.

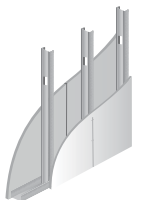
# SUPREME STUD - INTERIOR WALL HEIGHTS - COMPOSITE

## Supreme Interior Wall Heights Composite

| Section         | Fy (ksi) | Spacing (in) oc | 5 psf L/120 | L/240   | L/360   | 7.5 psf L/120 | L/240    | L/360   | 10 psf L/120 | L/240    | L/360    | 15 psf L/120 | L/240       | L/360     |
|-----------------|----------|-----------------|-------------|---------|---------|---------------|----------|---------|--------------|----------|----------|--------------|-------------|-----------|
| 162SFS125-D25   | 57       | 12              | 13' 4"      | 10' 10" | 9' 8"   | 11' 8"        | 9' 7"    | 8' 6"   | 10' 7"       | 8' 9"    | -        | -            | -           | -         |
|                 |          | 16              | 12' 1"      | 9' 12"  | 8' 10"  | 10' 7"        | 8' 9"    | -       | 9' 7"        | 7' 11"   | -        | -            | -           | -         |
|                 |          | 24              | 10' 7"      | 8' 9"   | -       | 9' 3"         | -        | -       | 8' 2" f      | -        | -        | -            | -           | -         |
| 162SFS125-D20   | 57       | 12              | 13' 0"      | 10' 4"  | 9' 1"   | 11' 5"        | 9' 0"    | 7' 11"  | 10' 4"       | 8' 2"    | 7' 3"    | 8' 3" f, rl  | 7' 2"       | 6' 4"     |
|                 |          | 16              | 11' 10"     | 9' 5"   | 8' 3"   | 10' 4"        | 8' 2"    | -       | 9' 5"        | -        | -        | -            | -           | -         |
|                 |          | 24              | 10' 4"      | 8' 2"   | -       | 9' 0"         | -        | -       | 8' 3"        | -        | -        | -            | -           | -         |
| 162SFS125-30EQD | 57       | 12              | 14' 0"      | 11' 7"  | 10' 6"  | 12' 3"        | 10' 2"   | 9' 2"   | 11' 1"       | 9' 3"    | 8' 4"    | 9' 8"        | 8' 1"       | -         |
|                 |          | 16              | 12' 8"      | 10' 7"  | 9' 7"   | 11' 1"        | 9' 3"    | 8' 4"   | 10' 1"       | 8' 5"    | -        | 8' 5" f      | -           | -         |
|                 |          | 24              | 11' 1"      | 9' 3"   | 8' 4"   | 9' 8"         | 8' 1"    | -       | 8' 10"       | -        | -        | -            | -           | -         |
| 162SFS144-D20   | 57       | 12              | 13' 7"      | 11' 1"  | 9' 9"   | 11' 11"       | 9' 9"    | 8' 6"   | 10' 10"      | 8' 10"   | 7' 9"    | 8' 2" f      | 7' 9"       | -         |
|                 |          | 16              | 12' 4"      | 10' 1"  | 8' 10"  | 10' 10"       | 8' 10"   | 7' 9"   | 9' 10"       | 8' 1"    | -        | -            | -           | -         |
|                 |          | 24              | 10' 10"     | 8' 10"  | 7' 9"   | 9' 5"         | -        | -       | 8' 5"        | -        | -        | -            | -           | -         |
| 162SFS144-30EQD | 57       | 12              | 13' 11"     | 11' 4"  | 10' 0"  | 12' 2"        | 9' 11"   | 8' 8"   | 11' 0"       | 9' 0"    | 7' 10"   | 8' 7" f      | 7' 9"       | -         |
|                 |          | 16              | 12' 8"      | 10' 4"  | 9' 1"   | 11' 0"        | 9' 0"    | 7' 10"  | 10' 0"       | 8' 1"    | -        | -            | -           | -         |
|                 |          | 24              | 11' 0"      | 9' 0"   | 7' 10"  | 9' 7"         | 7' 9"    | -       | 8' 6"        | -        | -        | -            | -           | -         |
| 250SFS125-D25   | 57       | 12              | 15' 8"      | 13' 7"  | 12' 2"  | 13' 8"        | 11' 11"  | 10' 7"  | 12' 5"       | 10' 10"  | 9' 7"    | 8' 5" f      | 8' 5" f     | 8' 1"     |
|                 |          | 16              | 14' 3"      | 12' 4"  | 11' 0"  | 12' 5"        | 10' 10"  | 9' 7"   | 11' 1" f     | 9' 10"   | 8' 6"    | -            | -           | -         |
|                 |          | 24              | 12' 5"      | 10' 10" | 9' 7"   | 10' 5" f      | 9' 4"    | 8' 1"   | 9' 0" f      | 8' 4"    | -        | -            | -           | -         |
| 250SFS125-D20   | 57       | 12              | 16' 3"      | 13' 10" | 12' 3"  | 14' 2"        | 12' 1"   | 10' 8"  | 12' 10"      | 11' 0"   | 9' 9"    | 9' 5" f, rl  | 9' 5" f, rl | 8' 6"     |
|                 |          | 16              | 14' 9"      | 12' 6"  | 11' 2"  | 12' 10"       | 11' 0"   | 9' 9"   | 11' 8"       | 9' 11"   | 8' 10"   | 8' 2" f, rl  | 8' 2" f, rl | -         |
|                 |          | 24              | 12' 10"     | 11' 0"  | 9' 9"   | 11' 3"        | 9' 7"    | 8' 6"   | 10' 1" f, rl | 8' 8"    | 7' 9"    | -            | -           | -         |
| 250SFS125-30EQD | 57       | 12              | 17' 6"      | 14' 9"  | 13' 3"  | 15' 4"        | 12' 10"  | 11' 7"  | 13' 11"      | 11' 8"   | 10' 6"   | 11' 6" f     | 10' 2"      | 9' 2"     |
|                 |          | 16              | 15' 11"     | 13' 5"  | 12' 1"  | 13' 11"       | 11' 8"   | 10' 6"  | 12' 8"       | 10' 7"   | 9' 7"    | 10' 0" f     | 9' 3"       | 8' 4"     |
|                 |          | 24              | 13' 11"     | 11' 8"  | 10' 6"  | 12' 2"        | 10' 2"   | 9' 2"   | 11' 0"       | 9' 3"    | 8' 4"    | 8' 2" f      | 8' 1"       | -         |
| 250SFS144-D20   | 57       | 12              | 17' 1"      | 14' 0"  | 12' 5"  | 14' 11"       | 12' 3"   | 10' 10" | 13' 7"       | 11' 1"   | 9' 10"   | 9' 5" f      | 9' 5" f     | 8' 2"     |
|                 |          | 16              | 15' 6"      | 12' 9"  | 11' 3"  | 13' 7"        | 11' 1"   | 9' 10"  | 12' 4"       | 10' 1"   | 8' 8"    | 8' 2" f      | 8' 2" f     | -         |
|                 |          | 24              | 13' 7"      | 11' 1"  | 9' 10"  | 11' 8" f      | 9' 8"    | 8' 2"   | 10' 2" f     | 8' 7"    | -        | -            | -           | -         |
| 250SFS144-30EQD | 57       | 12              | 18' 2"      | 14' 5"  | 12' 7"  | 15' 10"       | 12' 7"   | 11' 0"  | 14' 5"       | 11' 5"   | 10' 0"   | 10' 3" f     | 10' 0"      | 8' 6"     |
|                 |          | 16              | 16' 6"      | 13' 1"  | 11' 5"  | 14' 5"        | 11' 5"   | 10' 0"  | 13' 1"       | 10' 5"   | 8' 11"   | 8' 11" f     | 8' 11" f    | -         |
|                 |          | 24              | 14' 5"      | 11' 5"  | 10' 0"  | 12' 7"        | 10' 0"   | 8' 6"   | 11' 0" f     | 8' 11"   | -        | -            | -           | -         |
| 362SFS125-D25   | 57       | 12              | 21' 9"      | 17' 3"  | 15' 1"  | 18' 6" f      | 15' 1"   | 13' 2"  | 16' 1" f     | 13' 9"   | 12' 0"   | 10' 7" f     | 10' 7" f    | 10' 4"    |
|                 |          | 16              | 19' 8" f    | 15' 8"  | 13' 9"  | 16' 1" f      | 13' 9"   | 12' 0"  | 13' 11" f    | 12' 6"   | 10' 9"   | 9' 2" f      | 9' 2" f     | 9' 2" f   |
|                 |          | 24              | 16' 1" f    | 13' 9"  | 12' 0"  | 13' 1" f      | 12' 0"   | 10' 4"  | 11' 4" f     | 10' 9"   | 9' 3"    | -            | -           | -         |
| 362SFS125-D20   | 57       | 12              | 20' 11"     | 17' 1"  | 14' 11" | 18' 3"        | 15' 0"   | 13' 0"  | 16' 7"       | 13' 7"   | 11' 10"  | 11' 2" f     | 11' 2" f    | 10' 4"    |
|                 |          | 16              | 19' 0"      | 15' 7"  | 13' 7"  | 16' 7"        | 13' 7"   | 11' 10" | 14' 9" f     | 12' 4"   | 10' 9"   | 9' 8" f      | 9' 8" f     | 9' 5"     |
|                 |          | 24              | 16' 7"      | 13' 7"  | 11' 10" | 13' 10" f     | 11' 10"  | 10' 4"  | 12' 0" f     | 10' 9"   | 9' 5"    | 7' 11" f     | 7' 11" f    | 7' 11" f  |
| 362SFS125-30EQD | 57       | 12              | 22' 10"     | 18' 2"  | 15' 10" | 20' 0"        | 15' 10"  | 13' 10" | 18' 2"       | 14' 5"   | 12' 7"   | 13' 3" f     | 12' 7"      | 11' 0"    |
|                 |          | 16              | 20' 9"      | 16' 6"  | 14' 5"  | 18' 2"        | 12' 7"   | 16' 6"  | 13' 1"       | 11' 5"   | 11' 6" f | 11' 5" f     | 11' 5" f    | 10' 0"    |
|                 |          | 24              | 18' 2"      | 14' 5"  | 12' 7"  | 15' 10"       | 12' 7"   | 11' 0"  | 14' 3" f     | 11' 5"   | 10' 0"   | 9' 4" f      | 9' 4" f     | 8' 9"     |
| 362SFS144-D20   | 57       | 12              | 22' 4"      | 17' 9"  | 15' 6"  | 19' 6"        | 15' 6"   | 13' 7"  | 17' 3" f     | 14' 1"   | 12' 4"   | 11' 4" f     | 11' 4" f    | 10' 8"    |
|                 |          | 16              | 20' 4"      | 16' 1"  | 14' 1"  | 17' 3" f      | 14' 1"   | 12' 4"  | 15' 0" f     | 12' 10"  | 11' 1"   | 9' 10" f     | 9' 10" f    | 9' 7"     |
|                 |          | 24              | 17' 3" f    | 14' 1"  | 12' 4"  | 14' 1" f      | 12' 4"   | 10' 8"  | 12' 3" f     | 11' 1"   | 9' 7"    | 8' 0" f      | 8' 0" f     | 8' 0" f   |
| 362SFS144-30EQD | 57       | 12              | 23' 6"      | 18' 8"  | 16' 4"  | 20' 6"        | 16' 4"   | 14' 3"  | 18' 8"       | 14' 10"  | 12' 11"  | 12' 6" f     | 12' 6" f    | 11' 3"    |
|                 |          | 16              | 21' 4"      | 16' 11" | 14' 10" | 18' 8"        | 14' 10"  | 12' 11" | 16' 5" f     | 13' 5"   | 11' 9"   | 10' 10" f    | 10' 10" f   | 10' 2"    |
|                 |          | 24              | 18' 8"      | 14' 10" | 12' 11" | 15' 6" f      | 12' 11"  | 11' 3"  | 13' 5" f     | 11' 9"   | 10' 2"   | 8' 10" f     | 8' 10" f    | 8' 9"     |
| 400SFS125-D25   | 57       | 12              | 21' 8"      | 17' 7"  | 15' 8"  | 18' 6" f      | 15' 4"   | 13' 9"  | 16' 0" f     | 14' 0"   | 12' 6"   | 10' 6" f     | 10' 6" f    | 10' 6" f  |
|                 |          | 16              | 19' 7" f    | 16' 0"  | 14' 3"  | 16' 0" f      | 14' 0"   | 12' 6"  | 13' 10" f    | 12' 8"   | 11' 4"   | 9' 1" f      | 9' 1" f     | 9' 1" f   |
|                 |          | 24              | 16' 0" f    | 14' 0"  | 12' 6"  | 13' 1" f      | 12' 6"   | 10' 11" | 11' 4" f     | 11' 1"   | 9' 11"   | -            | -           | -         |
| 400SFS125-D20   | 57       | 12              | 22' 3"      | 18' 7"  | 16' 4"  | 19' 5"        | 16' 2"   | 14' 3"  | 17' 5" f     | 14' 9"   | 12' 11"  | 11' 5" f     | 11' 5" f    | 11' 4"    |
|                 |          | 16              | 20' 2"      | 16' 10" | 14' 10" | 17' 5" f      | 14' 9"   | 12' 11" | 15' 1" f     | 13' 4"   | 11' 9"   | 9' 11" f     | 9' 11" f    | 9' 11" f  |
|                 |          | 24              | 17' 5" f    | 14' 9"  | 12' 11" | 14' 2" f      | 12' 10"  | 11' 4"  | 12' 4" f     | 11' 8"   | 10' 3"   | 8' 1" f      | 8' 1" f     | 8' 1" f   |
| 400SFS125-30EQD | 57       | 12              | 24' 4"      | 19' 4"  | 16' 11" | 21' 3"        | 16' 11"  | 14' 9"  | 19' 4"       | 15' 4"   | 13' 5"   | 13' 9" f     | 13' 5"      | 11' 9"    |
|                 |          | 16              | 22' 2"      | 17' 7"  | 15' 4"  | 19' 4"        | 15' 4"   | 13' 5"  | 17' 7"       | 13' 11"  | 12' 2"   | 11' 11" f    | 11' 11" f   | 10' 8"    |
|                 |          | 24              | 19' 4"      | 15' 4"  | 13' 5"  | 16' 11"       | 13' 5"   | 11' 9"  | 14' 10" f    | 12' 2"   | 10' 8"   | 9' 8" f      | 9' 8" f     | 9' 4"     |
| 400SFS144-D20   | 57       | 12              | 23' 1"      | 18' 4"  | 16' 0"  | 20' 2"        | 16' 0"   | 14' 0"  | 17' 8" f     | 14' 6"   | 12' 8"   | 11' 7" f     | 11' 7" f    | 11' 1"    |
|                 |          | 16              | 21' 0"      | 16' 8"  | 14' 6"  | 17' 8" f      | 14' 6"   | 12' 8"  | 15' 3" f     | 13' 2"   | 11' 6"   | 10' 0" f     | 10' 0" f    | 10' 0"    |
|                 |          | 24              | 17' 8" f    | 14' 6"  | 12' 8"  | 14' 5" f      | 12' 8"   | 11' 1"  | 12' 6" f     | 11' 6"   | 10' 0"   | 8' 2" f      | 8' 2" f     | 8' 2" f   |
| 400SFS144-30EQD | 57       | 12              | 25' 0"      | 19' 10" | 17' 4"  | 21' 10"       | 17' 4"   | 15' 2"  | 19' 8" f     | 15' 9"   | 13' 9"   | 12' 11" f    | 12' 11" f   | 12' 0"    |
|                 |          | 16              | 22' 9"      | 18' 1"  | 15' 9"  | 19' 8" f      | 15' 9"   | 13' 9"  | 17' 0" f     | 14' 4"   | 12' 6"   | 11' 2" f     | 11' 2" f    | 10' 11"   |
|                 |          | 24              | 19' 8" f    | 15' 9"  | 13' 9"  | 16' 0" f      | 13' 9"   | 12' 0"  | 13' 11" f    | 12' 6"   | 10' 11"  | 9' 2" f      | 9' 2" f     | 9' 2" f   |
| 600SFS125-D25   | 57       | 12              | 28' 8" f    | 24' 4"  | 21' 7"  | 23' 5" f      | 21' 3"   | 18' 10" | 20' 3" f     | 19' 3"   | 17' 2"   | 13' 4" f     | 13' 4" f    | 13' 4" f  |
|                 |          | 16              | 24' 10" f   | 22' 1"  | 19' 8"  | 20' 3" f      | 19' 3"   | 17' 2"  | 17' 7"       | 17' 6"   | 15' 7"   | -            | -           | -         |
|                 |          | 24              | 20' 3" f    | 19' 3"  | 17' 2"  | 16' 7" f      | 16' 7" f | 14' 11" | 14' 4" f     | 14' 4" f | 13' 5"   | -            | -           | -         |
| 600SFS125-D20   | 57       | 12              | 31' 6" f    | 25' 3"  | 22' 0"  | 25' 9" f      | 22' 0"   | 19' 3"  | 22' 3" f     | 20' 0"   | 17' 6"   | 14' 8" f     | 14' 8" f    | 14' 8" f  |
|                 |          | 16              | 27' 3" f    | 22' 11" | 20' 0"  | 22' 3" f      | 20' 0"   | 17' 6"  | 19' 3" f     | 18' 2"   | 15' 11"  | 12' 8" f     | 12' 8" f    | 12' 8" f  |
|                 |          | 24              | 22' 3" f    | 20' 0"  | 17' 6"  | 18' 2" f      | 17' 6"   | 15' 3"  | 15' 9" f     | 15' 9" f | 13' 11"  | 10' 4" f     | 10' 4" f    | 10' 4" f  |
| 600SFS125-30EQD | 57       | 12              | 33' 9"      | 26' 9"  | 23' 5"  | 29' 5"        | 23' 5"   | 20' 5"  | 26' 8" f     | 21' 3"   | 18' 7"   | 17' 6" f     | 17' 6" f    | 16' 3"    |
|                 |          | 16              | 30' 8"      | 24' 4"  | 21' 3"  | 26' 8" f      | 21' 3"   | 18' 7"  | 23' 1" f     | 19' 4"   | 16' 10"  | 15' 2" f     | 15' 2" f    | 14' 9"    |
|                 |          | 24              | 26' 8" f    | 21' 3"  | 18' 7"  | 21' 9" f      | 18' 7"   | 16' 3"  | 18' 10" f    | 16' 10"  | 14' 9"   | 12' 5" f     | 12' 5" f    | 12' 5" f  |
| 600SFS144-D20   | 57       | 12              | 31' 2"      | 24' 9"  | 21' 7"  | 25' 11" f     | 21' 7"   | 18' 10" | 22' 6" f     | 19' 7"   | 17' 2"   | 14' 9" f     | 14' 9" f    | 14' 9" f  |
|                 |          | 16              | 27' 6" f    | 22' 6"  | 19' 7"  | 22' 6" f      | 19' 7"   | 17' 2"  | 19' 6" f     | 17' 10"  | 15' 7"   | 12' 9" f     | 12' 9" f    | 12' 9" f  |
|                 |          | 24              | 22' 6" f    | 19' 7"  | 17' 2"  | 18' 4" f      | 17' 2"   | 14' 10" | 15' 11" f    | 15' 7"   | 13' 4"   | -            | -           | -         |
| 600SFS144-30EQD | 57       | 12              | 33' 8"      | 26' 9"  | 23' 4"  | 28' 4" f      | 23' 4"   | 20' 5"  | 24' 6" f     | 21' 2"   | 18' 6"   | 16' 1" f     | 16' 1" f    | 16' 1" f  |
|                 |          | 16              | 30' 0" f    | 24' 3"  | 21' 2"  | 24' 6" f      | 21' 2"   | 18' 6"  | 21' 3" f     | 19' 3"   | 16' 10"  | 13' 11" f    | 13' 11" f   | 13' 11" f |
|                 |          | 24              | 24' 6" f    | 21' 2"  | 18' 6"  | 20' 0" f      | 18' 6"   | 16' 2"  | 17' 4" f     | 16' 10"  | 14' 8"   | -            | -           | -         |

### Table Notes

- Allowable composite limiting heights are calculated using ICC-ES AC86-2012
- No fasteners are required for attaching the stud to the track
- Stud end bearing must be a minimum of 1 inch
- Composite limiting heights are based on a single layer of 5/8" type X gypsum board installed in the vertical orientation to both sides of the wall over full height using minimum No. 6 Type S drywall screws spaced a maximum of 12" oc for studs at 24" spacing, and 16" oc for studs at 16" and 12" spacing
- "f" denotes wall height is controlled by flexure stress
- "rl" indicate limiting heights affected by the strength per stud ratio limit





# SUPREME STUD - LIMITING WALL HEIGHTS

## Supreme Non-Composite Limiting Wall Heights: Fully Braced

| Section          | Fy (ksi) | Spacing (in) oc | 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   |
| 162SFS125-D25    | 50       | 12              | 9' 4"   | -       | -       | 8' 0"   | -       | -       | -       | -       | -       |
|                  |          | 16              | 8' 5"   | -       | -       | -       | -       | -       | -       | -       | -       |
|                  |          | 24              | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| 162SFS125-D20    | 57       | 12              | 9' 11"  | 8' 1"   | -       | 8' 8"   | -       | -       | -       | -       | -       |
|                  |          | 16              | 9' 0"   | -       | -       | -       | -       | -       | -       | -       | -       |
|                  |          | 24              | -       | -       | -       | -       | -       | -       | -       | -       | -       |
| 162SFS144-D20    | 57       | 12              | 10' 6"  | 8' 4"   | -       | 9' 1"   | -       | -       | 8' 2"   | -       | -       |
|                  |          | 16              | 9' 6"   | -       | -       | 8' 2"   | -       | -       | -       | -       | -       |
|                  |          | 24              | 8' 2"   | -       | -       | -       | -       | -       | -       | -       | -       |
| 162SFS125-30EQD  | 57       | 12              | 10' 10" | 8' 7"   | -       | 9' 6"   | -       | -       | 8' 7"   | -       | -       |
|                  |          | 16              | 9' 10"  | -       | -       | 8' 7"   | -       | -       | -       | -       | -       |
|                  |          | 24              | 8' 7"   | -       | -       | -       | -       | -       | -       | -       | -       |
| 162SFS144-30EQD  | 57       | 12              | 11' 0"  | 8' 9"   | -       | 9' 8"   | -       | -       | 8' 9"   | -       | -       |
|                  |          | 16              | 10' 0"  | -       | -       | 8' 9"   | -       | -       | -       | -       | -       |
|                  |          | 24              | 8' 9"   | -       | -       | -       | -       | -       | -       | -       | -       |
| 250SFS125-D25    | 50       | 12              | 12' 5"  | 10' 5"  | 9' 1"   | 10' 2"  | 9' 0"   | -       | 8' 10"  | 8' 1"   | -       |
|                  |          | 16              | 10' 9"  | 9' 5"   | 8' 3"   | 8' 10"  | 8' 1"   | -       | -       | -       | -       |
|                  |          | 24              | 8' 10"  | 8' 1"   | -       | -       | -       | -       | -       | -       | -       |
| 250SFS125-D20    | 57       | 12              | 13' 10" | 11' 2"  | 9' 9"   | 12' 1"  | 9' 9"   | 8' 6"   | 11' 0"  | 8' 10"  | -       |
|                  |          | 16              | 12' 7"  | 10' 2"  | 8' 10"  | 11' 0"  | 8' 10"  | -       | 10' 0"  | -       | -       |
|                  |          | 24              | 11' 0"  | 8' 10"  | -       | 9' 7"   | -       | -       | 8' 5"   | -       | -       |
| 250SFS144-D20    | 57       | 12              | 14' 5"  | 11' 6"  | 10' 1"  | 12' 5"  | 10' 1"  | 8' 10"  | 11' 2"  | 9' 2"   | 8' 0"   |
|                  |          | 16              | 13' 0"  | 10' 6"  | 9' 2"   | 11' 2"  | 9' 2"   | 8' 0"   | 9' 8"   | 8' 4"   | -       |
|                  |          | 24              | 11' 2"  | 9' 2"   | 8' 0"   | 9' 1"   | -       | -       | -       | -       | -       |
| 250SFS125-30EQD  | 57       | 12              | 15' 1"  | 11' 11" | 10' 5"  | 13' 2"  | 10' 5"  | 9' 1"   | 11' 11" | 9' 6"   | 8' 3"   |
|                  |          | 16              | 13' 8"  | 10' 10" | 9' 6"   | 11' 11" | 9' 6"   | 8' 3"   | 10' 10" | 8' 7"   | -       |
|                  |          | 24              | 11' 11" | 9' 6"   | 8' 3"   | 10' 5"  | 8' 3"   | -       | 9' 5"   | -       | -       |
| 250SFS144-30EQD  | 57       | 12              | 15' 4"  | 12' 2"  | 10' 7"  | 13' 5"  | 10' 7"  | 9' 3"   | 12' 2"  | 9' 8"   | 8' 5"   |
|                  |          | 16              | 13' 11" | 11' 1"  | 9' 8"   | 12' 2"  | 9' 8"   | 8' 5"   | 11' 1"  | 8' 9"   | -       |
|                  |          | 24              | 12' 2"  | 9' 8"   | 8' 5"   | 10' 7"  | 8' 5"   | -       | 9' 8"   | -       | -       |
| 350SFS125-D25    | 50       | 12              | 14' 8"  | 13' 1"  | 11' 9"  | 12' 0"  | 11' 4"  | 10' 2"  | 10' 0"  | 10' 0"  | 9' 2"   |
|                  |          | 16              | 12' 9"  | 11' 10" | 10' 7"  | 10' 0"  | 10' 0"  | 9' 2"   | -       | -       | -       |
|                  |          | 24              | 10' 0"  | 10' 0"  | 9' 2"   | -       | -       | -       | -       | -       | -       |
| 350SFS125-D20    | 57       | 12              | 18' 0"  | 14' 3"  | 12' 6"  | 15' 9"  | 12' 6"  | 10' 11" | 14' 3"  | 11' 4"  | 9' 11"  |
|                  |          | 16              | 16' 4"  | 13' 0"  | 11' 4"  | 14' 3"  | 9' 11"  | 9' 11"  | 12' 4"  | 10' 4"  | 9' 0"   |
|                  |          | 24              | 14' 3"  | 11' 4"  | 9' 11"  | 11' 7"  | 9' 11"  | 8' 8"   | 9' 5"   | 9' 0"   | -       |
| 350SFS144-D20    | 57       | 12              | 18' 2"  | 14' 11" | 13' 0"  | 15' 5"  | 12' 11" | 11' 5"  | 13' 4"  | 11' 8"  | 10' 4"  |
|                  |          | 16              | 16' 4"  | 13' 6"  | 11' 10" | 13' 4"  | 11' 8"  | 10' 4"  | 11' 7"  | 10' 6"  | 9' 5"   |
|                  |          | 24              | 13' 4"  | 11' 8"  | 10' 4"  | 10' 11" | 10' 1"  | 9' 0"   | 9' 5"   | 9' 1"   | 8' 1"   |
| 350SFS125-30EQD  | 57       | 12              | 19' 6"  | 15' 6"  | 13' 6"  | 17' 1"  | 13' 6"  | 11' 10" | 15' 6"  | 12' 4"  | 10' 9"  |
|                  |          | 16              | 17' 9"  | 14' 1"  | 12' 4"  | 15' 6"  | 12' 4"  | 10' 9"  | 14' 0"  | 11' 2"  | 9' 9"   |
|                  |          | 24              | 15' 6"  | 12' 4"  | 10' 9"  | 13' 3"  | 10' 9"  | 9' 4"   | 11' 5"  | 9' 9"   | 8' 6"   |
| 350SFS144-30EQD  | 57       | 12              | 19' 11" | 15' 10" | 13' 10" | 17' 5"  | 13' 10" | 12' 1"  | 15' 10" | 12' 7"  | 10' 11" |
|                  |          | 16              | 18' 1"  | 14' 4"  | 12' 7"  | 15' 10" | 12' 7"  | 10' 11" | 14' 4"  | 11' 5"  | 9' 11"  |
|                  |          | 24              | 15' 10" | 12' 7"  | 10' 11" | 13' 8"  | 10' 11" | 9' 7"   | 11' 10" | 9' 11"  | 8' 8"   |
| 362SFS125-D25    | 50       | 12              | 14' 11" | 13' 5"  | 12' 0"  | 12' 2"  | 11' 7"  | 10' 4"  | 9' 10"  | 9' 10"  | 9' 4"   |
|                  |          | 16              | 12' 11" | 12' 1"  | 10' 10" | 9' 10"  | 9' 10"  | 9' 4"   | -       | -       | -       |
|                  |          | 24              | 9' 10"  | 9' 10"  | 9' 4"   | -       | -       | -       | -       | -       | -       |
| 362SFS125-D20    | 57       | 12              | 18' 6"  | 14' 10" | 13' 0"  | 16' 2"  | 13' 0"  | 11' 4"  | 14' 6"  | 11' 8"  | 10' 4"  |
|                  |          | 16              | 16' 10" | 13' 6"  | 11' 10" | 14' 6"  | 11' 8"  | 10' 4"  | 12' 7"  | 10' 7"  | 9' 4"   |
|                  |          | 24              | 14' 6"  | 11' 9"  | 10' 4"  | 11' 10" | 10' 2"  | 9' 0"   | 9' 4"   | 9' 3"   | 8' 1"   |
| 362SFS144-D20    | 57       | 12              | 18' 8"  | 15' 4"  | 13' 5"  | 15' 8"  | 13' 3"  | 11' 8"  | 13' 7"  | 12' 0"  | 10' 7"  |
|                  |          | 16              | 16' 8"  | 13' 10" | 12' 2"  | 13' 7"  | 12' 0"  | 10' 7"  | 11' 9"  | 10' 9"  | 9' 8"   |
|                  |          | 24              | 13' 7"  | 12' 0"  | 10' 7"  | 11' 1"  | 10' 4"  | 9' 3"   | 9' 4"   | 9' 4"   | 8' 4"   |
| 362SFS125-30EQD  | 57       | 12              | 20' 1"  | 15' 11" | 13' 11" | 17' 6"  | 13' 11" | 12' 2"  | 15' 11" | 12' 8"  | 11' 0"  |
|                  |          | 16              | 18' 3"  | 14' 6"  | 12' 8"  | 15' 11" | 12' 8"  | 11' 0"  | 14' 3"  | 11' 6"  | 10' 0"  |
|                  |          | 24              | 15' 11" | 12' 8"  | 11' 0"  | 13' 6"  | 11' 0"  | 9' 8"   | 11' 8"  | 10' 0"  | 8' 9"   |
| 362SFS144-30EQD  | 57       | 12              | 20' 9"  | 16' 5"  | 14' 4"  | 17' 11" | 14' 4"  | 12' 7"  | 16' 3"  | 12' 11" | 11' 3"  |
|                  |          | 16              | 18' 8"  | 14' 11" | 13' 1"  | 16' 5"  | 13' 1"  | 11' 5"  | 14' 9"  | 11' 9"  | 10' 3"  |
|                  |          | 24              | 16' 4"  | 13' 1"  | 11' 5"  | 14' 0"  | 11' 4"  | 10' 0"  | 12' 1"  | 10' 3"  | 8' 11"  |
| 400SFS125-D25    | 50       | 12              | 15' 8"  | 14' 3"  | 12' 9"  | 12' 10" | 12' 4"  | 11' 0"  | 9' 7"   | 9' 7"   | 9' 7"   |
|                  |          | 16              | 13' 7"  | 12' 10" | 11' 6"  | 9' 7"   | 9' 7"   | 9' 7"   | -       | -       | -       |
|                  |          | 24              | 9' 7"   | 9' 7"   | 9' 7"   | -       | -       | -       | -       | -       | -       |
| 400SFS125-D20    | 57       | 12              | 20' 0"  | 16' 1"  | 14' 0"  | 17' 6"  | 13' 10" | 12' 3"  | 15' 3"  | 12' 7"  | 11' 2"  |
|                  |          | 16              | 18' 2"  | 14' 7"  | 12' 9"  | 15' 3"  | 12' 7"  | 11' 2"  | 13' 2"  | 11' 5"  | 10' 1"  |
|                  |          | 24              | 15' 3"  | 12' 7"  | 11' 2"  | 11' 10" | 11' 0"  | 9' 9"   | 8' 11"  | 8' 11"  | 8' 10"  |
| 400SFS144-D20    | 57       | 12              | 19' 11" | 16' 5"  | 14' 5"  | 16' 6"  | 14' 2"  | 12' 7"  | 14' 3"  | 12' 10" | 11' 5"  |
|                  |          | 16              | 17' 6"  | 14' 10" | 13' 1"  | 14' 3"  | 12' 10" | 11' 5"  | 12' 4"  | 11' 7"  | 10' 4"  |
|                  |          | 24              | 14' 3"  | 12' 10" | 11' 5"  | 11' 8"  | 11' 1"  | 9' 11"  | 9' 9"   | 9' 9"   | 8' 11"  |
| 400SFS125-30EQD  | 57       | 12              | 21' 8"  | 17' 3"  | 15' 0"  | 18' 11" | 15' 0"  | 13' 2"  | 17' 3"  | 13' 8"  | 11' 11" |
|                  |          | 16              | 19' 9"  | 15' 8"  | 13' 8"  | 17' 3"  | 13' 8"  | 11' 11" | 15' 1"  | 12' 5"  | 10' 10" |
|                  |          | 24              | 17' 3"  | 13' 8"  | 11' 11" | 14' 2"  | 11' 11" | 10' 5"  | 12' 3"  | 10' 10" | 9' 5"   |
| 400SFS144-30EQD  | 57       | 12              | 22' 2"  | 17' 7"  | 15' 4"  | 19' 4"  | 15' 4"  | 13' 5"  | 17' 7"  | 13' 11" | 12' 2"  |
|                  |          | 16              | 20' 2"  | 16' 0"  | 13' 11" | 17' 7"  | 13' 11" | 12' 2"  | 15' 7"  | 12' 8"  | 11' 1"  |
|                  |          | 24              | 17' 7"  | 13' 11" | 12' 2"  | 14' 8"  | 12' 2"  | 10' 8"  | 12' 9"  | 11' 1"  | 9' 8"   |
| 550SFS125-30EQD* | 57       | 12              | 27' 5"  | 21' 11" | 19' 3"  | 23' 7"  | 19' 1"  | 16' 9"  | 20' 5"  | 17' 4"  | 15' 2"  |
|                  |          | 16              | 24' 9"  | 19' 11" | 17' 5"  | 20' 5"  | 15' 2"  | 17' 8"  | 15' 8"  | 13' 9"  | 13' 9"  |
|                  |          | 24              | 20' 5"  | 17' 4"  | 15' 2"  | 16' 8"  | 15' 1"  | 13' 3"  | 13' 6"  | 13' 6"  | 12' 0"  |
| 550SFS144-30EQD* | 57       | 12              | 28' 7"  | 22' 8"  | 19' 10" | 24' 6"  | 19' 10" | 17' 4"  | 21' 2"  | 18' 0"  | 15' 9"  |
|                  |          | 16              | 26' 0"  | 20' 7"  | 18' 0"  | 21' 2"  | 18' 0"  | 15' 9"  | 18' 4"  | 16' 4"  | 14' 3"  |
|                  |          | 24              | 21' 2"  | 18' 0"  | 15' 9"  | 17' 4"  | 15' 9"  | 13' 9"  | 15' 0"  | 14' 3"  | 12' 6"  |
| 600SFS125-30EQD* | 57       | 12              | 29' 2"  | 23' 5"  | 20' 7"  | 24' 7"  | 20' 5"  | 17' 11" | 21' 3"  | 18' 6"  | 16' 3"  |
|                  |          | 16              | 26' 1"  | 21' 3"  | 18' 8"  | 21' 3"  | 18' 6"  | 16' 3"  | 17' 9"  | 16' 9"  | 14' 9"  |
|                  |          | 24              | 21' 3"  | 18' 6"  | 16' 3"  | 15' 10" | 15' 10" | 14' 2"  | 11' 10" | 11' 10" | 11' 10" |
| 600SFS144-30EQD* | 57       | 12              | 29' 9"  | 23' 7"  | 20' 8"  | 25' 6"  | 20' 8"  | 18' 0"  | 22' 1"  | 18' 9"  | 16' 4"  |
|                  |          | 16              | 27' 1"  | 21' 5"  | 18' 9"  | 22' 1"  | 18' 9"  | 16' 4"  | 19' 1"  | 17' 0"  | 14' 10" |
|                  |          | 24              | 22' 1"  | 18' 9"  | 16' 4"  | 18' 0"  | 16' 4"  | 14' 3"  | 15' 7"  | 14' 10" | 13' 0"  |

Table Notes: See notes on page 12.

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For more information, please contact Telling Industries Technical Services at 866-372-6384.

This technical information reflects the most current information available and supersedes any and all previous publications effective August 2021

# SUPREME STUD - LIMITING WALL HEIGHTS

## 2018 IBC (AISI S100) Limiting Heights for Interior Non-Load Bearing Non-Composite Wall Panels - Braced 48" oc

| Section          | Spacing<br>(in) oc | Fy<br>(ksi) | L/120   | 5 psf<br>L/240 | L/360   | L/120   | 7.5 psf<br>L/240 | L/360   | L/120   | 10 psf<br>L/240 | L/360   |
|------------------|--------------------|-------------|---------|----------------|---------|---------|------------------|---------|---------|-----------------|---------|
| 162SFS125-D25    | 50                 | 12          | 9' 4"   | -              | -       | 8' 0"   | -                | -       | -       | -               | -       |
|                  | 50                 | 16          | 8' 5"   | -              | -       | -       | -                | -       | -       | -               | -       |
|                  | 50                 | 24          | -       | -              | -       | -       | -                | -       | -       | -               | -       |
| 162SFS125-D20    | 57                 | 12          | 9' 11"  | 8' 1"          | -       | 8' 8"   | -                | -       | -       | -               | -       |
|                  | 57                 | 16          | 9' 0"   | -              | -       | -       | -                | -       | -       | -               | -       |
|                  | 57                 | 24          | -       | -              | -       | -       | -                | -       | -       | -               | -       |
| 162SFS144-D20    | 57                 | 12          | 10' 6"  | 8' 4"          | -       | 9' 1"   | -                | -       | 8' 2"   | -               | -       |
|                  | 57                 | 16          | 9' 6"   | -              | -       | 8' 2"   | -                | -       | -       | -               | -       |
|                  | 57                 | 24          | 8' 2"   | -              | -       | -       | -                | -       | -       | -               | -       |
| 162SFS125-30EQD  | 57                 | 12          | 10' 10" | 8' 7"          | -       | 9' 6"   | -                | -       | 8' 7"   | -               | -       |
|                  | 57                 | 16          | 9' 10"  | -              | -       | 8' 7"   | -                | -       | -       | -               | -       |
|                  | 57                 | 24          | 8' 7"   | -              | -       | -       | -                | -       | -       | -               | -       |
| 162SFS144-30EQD  | 57                 | 12          | 11' 0"  | 8' 9"          | -       | 9' 8"   | -                | -       | 8' 9"   | -               | -       |
|                  | 57                 | 16          | 10' 0"  | -              | -       | 8' 9"   | -                | -       | -       | -               | -       |
|                  | 57                 | 24          | 8' 9"   | -              | -       | -       | -                | -       | -       | -               | -       |
| 250SFS125-D25    | 50                 | 12          | 12' 5"  | 10' 5"         | 9' 1"   | 10' 2"  | 9' 0"            | -       | 8' 10"  | 8' 1"           | -       |
|                  | 50                 | 16          | 10' 9"  | 9' 5"          | 8' 3"   | 8' 10"  | 8' 1"            | -       | -       | -               | -       |
|                  | 50                 | 24          | 8' 10"  | 8' 1"          | -       | -       | -                | -       | -       | -               | -       |
| 250SFS125-D20    | 57                 | 12          | 13' 10" | 11' 2"         | 9' 9"   | 12' 1"  | 9' 9"            | 8' 6"   | 11' 0"  | 8' 10"          | -       |
|                  | 57                 | 16          | 12' 7"  | 10' 2"         | 8' 10"  | 11' 0"  | 8' 10"           | -       | 10' 0"  | -               | -       |
|                  | 57                 | 24          | 11' 0"  | 8' 10"         | -       | 9' 7"   | -                | -       | 8' 5"   | -               | -       |
| 250SFS144-D20    | 57                 | 12          | 14' 5"  | 11' 6"         | 10' 1"  | 12' 5"  | 10' 1"           | 8' 10"  | 11' 2"  | 9' 2"           | 8' 0"   |
|                  | 57                 | 16          | 13' 0"  | 10' 6"         | 9' 2"   | 11' 2"  | 9' 2"            | 8' 0"   | 9' 8"   | 8' 4"           | -       |
|                  | 57                 | 24          | 11' 2"  | 9' 2"          | 8' 0"   | 9' 1"   | -                | -       | -       | -               | -       |
| 250SFS125-30EQD  | 57                 | 12          | 15' 1"  | 11' 11"        | 10' 5"  | 13' 2"  | 10' 5"           | 9' 1"   | 11' 11" | 9' 6"           | 8' 3"   |
|                  | 57                 | 16          | 13' 8"  | 10' 10"        | 9' 6"   | 11' 11" | 9' 6"            | 8' 3"   | 10' 10" | 8' 7"           | -       |
|                  | 57                 | 24          | 11' 11" | 9' 6"          | 8' 3"   | 10' 5"  | 8' 3"            | -       | 9' 5"   | -               | -       |
| 250SFS144-30EQD  | 57                 | 12          | 15' 4"  | 12' 2"         | 10' 7"  | 13' 5"  | 10' 7"           | 9' 3"   | 12' 2"  | 9' 8"           | 8' 5"   |
|                  | 57                 | 16          | 13' 11" | 11' 1"         | 9' 8"   | 12' 2"  | 9' 8"            | 8' 5"   | 11' 1"  | 8' 9"           | -       |
|                  | 57                 | 24          | 12' 2"  | 9' 8"          | 8' 5"   | 10' 7"  | 8' 5"            | -       | 9' 8"   | -               | -       |
| 350SFS125-D25    | 50                 | 12          | 14' 8"  | 13' 1"         | 11' 9"  | 12' 0"  | 11' 4"           | 10' 2"  | 10' 0"  | 10' 0"          | 9' 2"   |
|                  | 50                 | 16          | 12' 9"  | 11' 10"        | 10' 7"  | 10' 0"  | 10' 0"           | 9' 2"   | -       | -               | -       |
|                  | 50                 | 24          | 10' 0"  | 10' 0"         | 9' 2"   | -       | -                | -       | -       | -               | -       |
| 350SFS125-D20    | 57                 | 12          | 18' 0"  | 14' 3"         | 12' 6"  | 15' 9"  | 12' 6"           | 10' 11" | 14' 3"  | 11' 4"          | 9' 11"  |
|                  | 57                 | 16          | 16' 4"  | 13' 0"         | 11' 4"  | 14' 3"  | 11' 4"           | 9' 11"  | 12' 4"  | 10' 4"          | 9' 0"   |
|                  | 57                 | 24          | 14' 3"  | 11' 4"         | 9' 11"  | 11' 7"  | 9' 11"           | 8' 8"   | 9' 5"   | 9' 0"           | -       |
| 350SFS144-D20    | 57                 | 12          | 18' 2"  | 14' 11"        | 13' 0"  | 15' 5"  | 12' 11"          | 11' 5"  | 13' 4"  | 11' 8"          | 10' 4"  |
|                  | 57                 | 16          | 16' 4"  | 13' 6"         | 11' 10" | 13' 4"  | 11' 8"           | 10' 4"  | 11' 7"  | 10' 6"          | 9' 5"   |
|                  | 57                 | 24          | 13' 4"  | 11' 8"         | 10' 4"  | 10' 11" | 10' 1"           | 9' 0"   | 9' 5"   | 9' 1"           | 8' 1"   |
| 350SFS125-30EQD  | 57                 | 12          | 19' 6"  | 15' 6"         | 13' 6"  | 17' 1"  | 13' 6"           | 11' 10" | 15' 6"  | 12' 4"          | 10' 9"  |
|                  | 57                 | 16          | 17' 9"  | 14' 1"         | 12' 4"  | 15' 6"  | 12' 4"           | 10' 9"  | 14' 0"  | 11' 2"          | 9' 9"   |
|                  | 57                 | 24          | 15' 6"  | 12' 4"         | 10' 9"  | 13' 3"  | 10' 9"           | 9' 4"   | 11' 5"  | 9' 9"           | 8' 6"   |
| 350SFS144-30EQD  | 57                 | 12          | 19' 11" | 15' 10"        | 13' 10" | 17' 5"  | 13' 10"          | 12' 1"  | 15' 10" | 12' 7"          | 10' 11" |
|                  | 57                 | 16          | 18' 1"  | 14' 4"         | 12' 7"  | 15' 10" | 12' 7"           | 10' 11" | 14' 4"  | 11' 5"          | 9' 11"  |
|                  | 57                 | 24          | 15' 10" | 12' 7"         | 10' 11" | 13' 8"  | 10' 11"          | 9' 7"   | 11' 10" | 9' 11"          | 8' 8"   |
| 362SFS125-D25    | 50                 | 12          | 14' 11" | 13' 5"         | 12' 0"  | 12' 2"  | 11' 7"           | 10' 4"  | 9' 10"  | 9' 10"          | 9' 4"   |
|                  | 50                 | 16          | 12' 11" | 12' 1"         | 10' 10" | 9' 10"  | 9' 10"           | 9' 4"   | -       | -               | -       |
|                  | 50                 | 24          | 9' 10"  | 9' 10"         | 9' 4"   | -       | -                | -       | -       | -               | -       |
| 362SFS125-D20    | 57                 | 12          | 18' 6"  | 14' 10"        | 13' 0"  | 16' 2"  | 13' 0"           | 11' 4"  | 14' 6"  | 11' 8"          | 10' 4"  |
|                  | 57                 | 16          | 16' 10" | 13' 6"         | 11' 10" | 14' 6"  | 11' 8"           | 10' 4"  | 12' 7"  | 10' 7"          | 9' 4"   |
|                  | 57                 | 24          | 14' 6"  | 11' 9"         | 10' 4"  | 11' 10" | 10' 2"           | 9' 0"   | 9' 4"   | 9' 3"           | 8' 1"   |
| 362SFS144-D20    | 57                 | 12          | 18' 8"  | 15' 4"         | 13' 5"  | 15' 8"  | 13' 3"           | 11' 8"  | 13' 7"  | 12' 0"          | 10' 7"  |
|                  | 57                 | 16          | 16' 8"  | 13' 10"        | 12' 2"  | 13' 7"  | 12' 0"           | 10' 7"  | 11' 9"  | 10' 9"          | 9' 8"   |
|                  | 57                 | 24          | 13' 7"  | 12' 0"         | 10' 7"  | 11' 1"  | 10' 4"           | 9' 3"   | 9' 4"   | 9' 4"           | 8' 4"   |
| 362SFS125-30EQD  | 57                 | 12          | 20' 1"  | 15' 11"        | 13' 11" | 17' 6"  | 13' 11"          | 12' 2"  | 15' 11" | 12' 8"          | 11' 0"  |
|                  | 57                 | 16          | 18' 3"  | 14' 6"         | 12' 8"  | 15' 11" | 12' 8"           | 11' 0"  | 14' 3"  | 11' 6"          | 10' 0"  |
|                  | 57                 | 24          | 15' 11" | 12' 8"         | 11' 0"  | 13' 6"  | 11' 0"           | 9' 8"   | 11' 8"  | 10' 0"          | 8' 9"   |
| 362SFS144-30EQD  | 57                 | 12          | 20' 9"  | 16' 5"         | 14' 4"  | 17' 11" | 14' 4"           | 12' 7"  | 16' 3"  | 12' 11"         | 11' 3"  |
|                  | 57                 | 16          | 18' 8"  | 14' 11"        | 13' 1"  | 16' 5"  | 13' 1"           | 11' 5"  | 14' 9"  | 10' 3"          | 10' 3"  |
|                  | 57                 | 24          | 16' 4"  | 13' 1"         | 11' 5"  | 14' 0"  | 11' 4"           | 10' 0"  | 12' 1"  | 10' 3"          | 8' 11"  |
| 400SFS125-D25    | 50                 | 12          | 15' 8"  | 14' 3"         | 12' 9"  | 12' 10" | 12' 4"           | 11' 0"  | 9' 7"   | 9' 7"           | 9' 7"   |
|                  | 50                 | 16          | 13' 7"  | 12' 10"        | 11' 6"  | 9' 7"   | 9' 7"            | 9' 7"   | -       | -               | -       |
|                  | 50                 | 24          | 9' 7"   | 9' 7"          | 9' 7"   | -       | -                | -       | -       | -               | -       |
| 400SFS125-D20    | 57                 | 12          | 20' 0"  | 16' 1"         | 14' 0"  | 17' 6"  | 13' 10"          | 12' 3"  | 15' 3"  | 12' 7"          | 11' 2"  |
|                  | 57                 | 16          | 18' 2"  | 14' 7"         | 12' 9"  | 15' 3"  | 12' 7"           | 11' 2"  | 13' 2"  | 11' 5"          | 10' 1"  |
|                  | 57                 | 24          | 15' 3"  | 12' 7"         | 11' 2"  | 11' 10" | 11' 0"           | 9' 9"   | 8' 11"  | 8' 11"          | 8' 10"  |
| 400SFS144-D20    | 57                 | 12          | 19' 11" | 16' 5"         | 14' 5"  | 16' 6"  | 14' 2"           | 12' 7"  | 14' 3"  | 12' 10"         | 11' 5"  |
|                  | 57                 | 16          | 17' 6"  | 14' 10"        | 13' 1"  | 14' 3"  | 12' 10"          | 11' 5"  | 12' 4"  | 11' 7"          | 10' 4"  |
|                  | 57                 | 24          | 14' 3"  | 12' 10"        | 11' 5"  | 11' 8"  | 11' 1"           | 9' 11"  | 9' 9"   | 9' 9"           | 8' 11"  |
| 400SFS125-30EQD  | 57                 | 12          | 21' 8"  | 17' 3"         | 15' 0"  | 18' 11" | 15' 0"           | 13' 2"  | 17' 3"  | 13' 8"          | 11' 11" |
|                  | 57                 | 16          | 19' 9"  | 15' 8"         | 13' 8"  | 17' 3"  | 13' 8"           | 11' 11" | 15' 1"  | 12' 5"          | 10' 10" |
|                  | 57                 | 24          | 17' 3"  | 13' 8"         | 11' 11" | 14' 2"  | 11' 11"          | 10' 5"  | 12' 3"  | 10' 10"         | 9' 5"   |
| 400SFS144-30EQD  | 57                 | 12          | 22' 2"  | 17' 7"         | 15' 4"  | 19' 4"  | 15' 4"           | 13' 5"  | 17' 7"  | 13' 11"         | 12' 2"  |
|                  | 57                 | 16          | 20' 2"  | 16' 0"         | 13' 11" | 17' 7"  | 13' 11"          | 12' 2"  | 15' 7"  | 12' 8"          | 11' 1"  |
|                  | 57                 | 24          | 17' 7"  | 13' 11"        | 12' 2"  | 14' 8"  | 12' 2"           | 10' 8"  | 12' 9"  | 11' 1"          | 9' 8"   |
| 550SFS125-30EQD* | 57                 | 12          | 27' 5"  | 21' 11"        | 19' 3"  | 23' 7"  | 19' 1"           | 16' 9"  | 20' 5"  | 17' 4"          | 15' 2"  |
|                  | 57                 | 16          | 24' 9"  | 19' 11"        | 17' 5"  | 20' 5"  | 17' 4"           | 15' 2"  | 17' 8"  | 15' 8"          | 13' 9"  |
|                  | 57                 | 24          | 20' 5"  | 17' 4"         | 15' 2"  | 16' 8"  | 15' 1"           | 13' 3"  | 13' 6"  | 13' 6"          | 12' 0"  |
| 550SFS144-30EQD* | 57                 | 12          | 28' 7"  | 22' 8"         | 19' 10" | 24' 6"  | 19' 10"          | 17' 4"  | 21' 2"  | 18' 0"          | 15' 9"  |
|                  | 57                 | 16          | 26' 0"  | 20' 7"         | 18' 0"  | 21' 2"  | 18' 0"           | 15' 9"  | 18' 4"  | 16' 4"          | 14' 3"  |
|                  | 57                 | 24          | 21' 2"  | 18' 0"         | 15' 9"  | 17' 4"  | 15' 9"           | 13' 9"  | 15' 0"  | 12' 6"          | 12' 6"  |
| 600SFS125-30EQD* | 57                 | 12          | 29' 2"  | 23' 5"         | 20' 7"  | 24' 7"  | 20' 5"           | 17' 11" | 21' 3"  | 18' 6"          | 16' 3"  |
|                  | 57                 | 16          | 26' 1"  | 21' 3"         | 18' 8"  | 21' 3"  | 18' 6"           | 16' 3"  | 17' 9"  | 16' 9"          | 14' 9"  |
|                  | 57                 | 24          | 21' 3"  | 18' 6"         | 16' 3"  | 15' 10" | 15' 10"          | 14' 2"  | 11' 10" | 11' 10"         | 11' 10" |
| 600SFS144-30EQD* | 57                 | 12          | 29' 9"  | 23' 7"         | 20' 8"  | 25' 6"  | 20' 8"           | 18' 0"  | 22' 1"  | 18' 9"          | 16' 4"  |
|                  | 57                 | 16          | 27' 1"  | 21' 5"         | 18' 9"  | 22' 1"  | 18' 9"           | 16' 4"  | 19' 1"  | 17' 0"          | 14' 10" |
|                  | 57                 | 24          | 22' 1"  | 18' 9"         | 16' 4"  | 18' 0"  | 16' 4"           | 14' 3"  | 15' 7"  | 14' 10"         | 13' 0"  |

### Table Notes:

1. End lateral bearing - 1 inch minimum (1.5 inch at 600 SFS-22 members)
2. Heights based on steel properties only
3. Limiting heights based on lateral and torsional bracing spaced 48" on center full height of member
4. 1.0 factor for Deflection Calculations applied throughout
5. 1.0 factor for Strength Calculations applied throughout
6.  $K_f = 0$  in  $^4$ /lb/in
7. e - web stiffener required to achieve height in table. Web stiffeners may not be required for lesser heights.
8. Check reactions against published web crippling values for lesser heights.
9. \*Web-height to thickness ratio exceeds 200. Web crippling values based on test data.

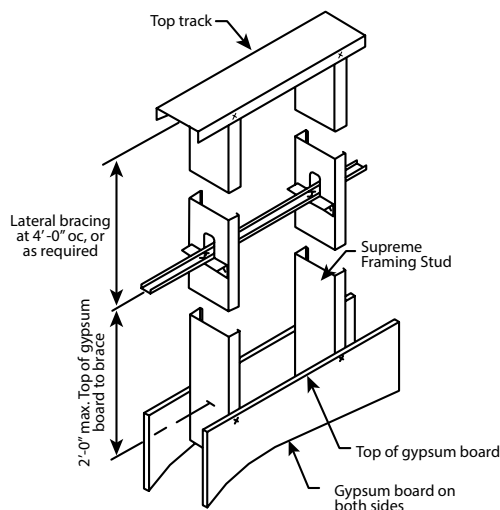
[www.buildstrong.com](http://www.buildstrong.com) | 866.372.6384

For more information, please contact Telling Industries Technical Services at 866-372-6384.

This technical information reflects the most current information available and supersedes any and all previous publications effective August 2021

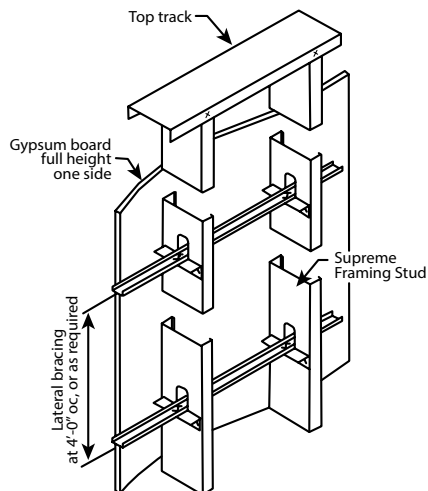
## Lateral Bracing

Example of lateral bracing for walls not sheathed full height.

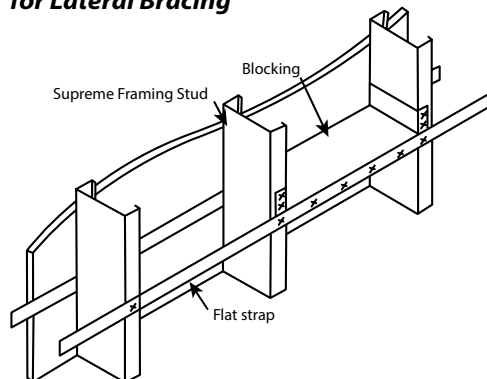


## Lateral Bracing

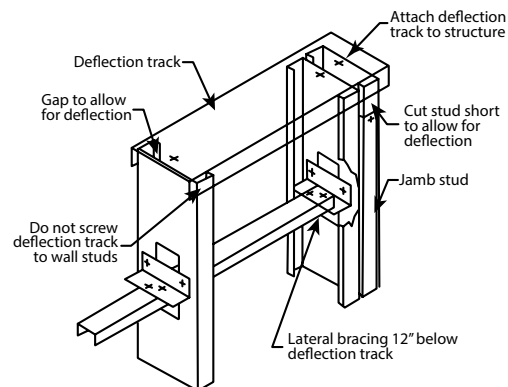
Example of lateral bracing for walls sheathed full height on one side.



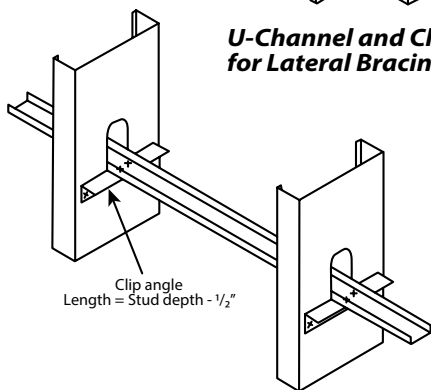
## Flat Strap and Blocking for Lateral Bracing



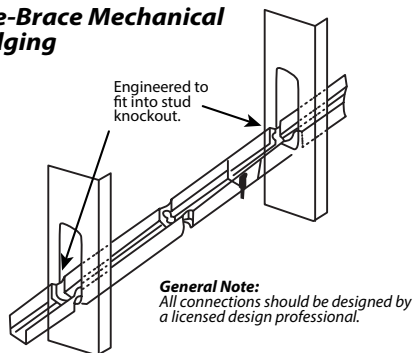
## Deflection Track



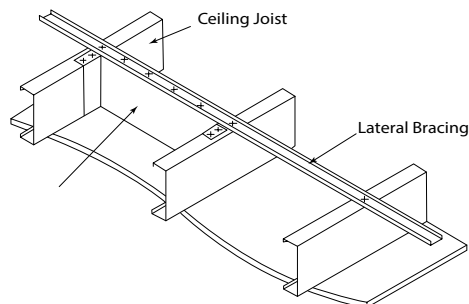
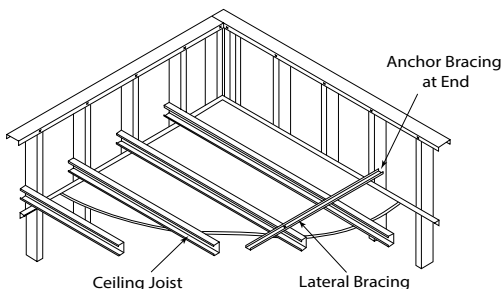
## U-Channel and Clip Angle for Lateral Bracing



## True-Brace Mechanical Bridging



**General Note:**  
All connections should be designed by a licensed design professional.



**General Note:**  
All connections should be designed by a licensed design professional.



# SUPREME STUD - NON-STRUCTURAL CEILING SPANS - DEFLECTION LIMIT: L/120, L/240 & L/360

## Ceiling Span Tables - Deflection Limit L/120

| Section         | Fy<br>(ksi) | 4 psf                                 |        |        |                                       |         |         | 6 psf                                 |        |        |                                       |         |         | 10 psf                                |        |        |                                       |        |        |
|-----------------|-------------|---------------------------------------|--------|--------|---------------------------------------|---------|---------|---------------------------------------|--------|--------|---------------------------------------|---------|---------|---------------------------------------|--------|--------|---------------------------------------|--------|--------|
|                 |             | Lateral Support of Compression Flange |        |        | Lateral Support of Compression Flange |         |         | Lateral Support of Compression Flange |        |        | Lateral Support of Compression Flange |         |         | Lateral Support of Compression Flange |        |        | Lateral Support of Compression Flange |        |        |
|                 |             | Ununsupported                         |        |        | Midspan                               |         |         | Ununsupported                         |        |        | Midspan                               |         |         | Ununsupported                         |        |        | Midspan                               |        |        |
|                 |             | Joist Spacing (in) o.c.               |        |        | Joist Spacing (in) o.c.               |         |         | Joist Spacing (in) o.c.               |        |        | Joist Spacing (in) o.c.               |         |         | Joist Spacing (in) o.c.               |        |        | Joist Spacing (in) o.c.               |        |        |
|                 |             | 12                                    | 16     | 24     | 12                                    | 16      | 24      | 12                                    | 16     | 24     | 12                                    | 16      | 24      | 12                                    | 16     | 24     | 12                                    | 16     | 24     |
| 162SFS125-D20   | 57          | 8' 2"                                 | 7' 6"  | 6' 8"  | 10' 8"                                | 9' 8"   | 8' 5"   | 7' 3"                                 | 6' 8"  | 5' 11" | 9' 3"                                 | 8' 5"   | 7' 4"   | 6' 3"                                 | 5' 9"  | 5' 1"  | 7' 10"                                | 7' 1"  | 5' 10" |
| 162SFS144-D20   | 57          | 8' 5"                                 | 7' 8"  | 6' 10" | 11' 2"                                | 10' 1"  | 8' 8"   | 7' 5"                                 | 6' 10" | 6' 0"  | 9' 8"                                 | 8' 8"   | 7' 3"   | 5' 10"                                | 5' 4"  | 4' 7"  | 7' 0"                                 | 6' 2"  | 5' 1"  |
| 162SFS144-30EQD | 57          | 9' 6"                                 | 8' 9"  | 7' 10" | 11' 11"                               | 10' 10" | 9' 5"   | 8' 6"                                 | 7' 10" | 6' 11" | 10' 5"                                | 9' 5"   | 8' 3"   | 7' 4"                                 | 6' 9"  | 5' 11" | 8' 9"                                 | 7' 11" | 6' 9"  |
| 250SFS125-D20   | 57          | 9' 2"                                 | 8' 6"  | 7' 8"  | 13' 1"                                | 12' 1"  | 10' 10" | 8' 3"                                 | 7' 8"  | 6' 10" | 11' 8"                                | 10' 10" | 9' 7"   | 7' 2"                                 | 6' 8"  | 5' 11" | 10' 1"                                | 9' 3"  | 7' 10" |
| 250SFS144-D20   | 57          | 9' 5"                                 | 8' 9"  | 7' 10" | 13' 1"                                | 12' 0"  | 10' 6"  | 8' 6"                                 | 7' 10" | 6' 11" | 11' 6"                                | 10' 6"  | 9' 0"   | 6' 9"                                 | 6' 2"  | 5' 6"  | 8' 9"                                 | 7' 9"  | 6' 6"  |
| 250SFS144-30EQD | 57          | 10' 7"                                | 9' 10" | 8' 10" | 15' 2"                                | 13' 11" | 12' 5"  | 9' 6"                                 | 8' 10" | 7' 11" | 13' 6"                                | 12' 5"  | 11' 0"  | 8' 4"                                 | 7' 9"  | 6' 11" | 11' 7"                                | 10' 7" | 9' 1"  |
| 350SFS125-D20   | 57          | 9' 10"                                | 9' 2"  | 8' 3"  | 14' 1"                                | 12' 11" | 11' 6"  | 8' 10"                                | 8' 3"  | 7' 5"  | 12' 6"                                | 11' 6"  | 10' 3"  | 7' 9"                                 | 7' 2"  | 6' 5"  | 10' 10"                               | 9' 11" | 8' 5"  |
| 350SFS144-D20   | 57          | 10' 5"                                | 9' 8"  | 8' 8"  | 14' 7"                                | 13' 4"  | 11' 10" | 9' 4"                                 | 8' 8"  | 7' 9"  | 12' 10"                               | 11' 10" | 10' 4"  | 7' 6"                                 | 6' 11" | 6' 1"  | 10' 0"                                | 9' 0"  | 7' 8"  |
| 350SFS144-30EQD | 57          | 11' 6"                                | 10' 8" | 9' 7"  | 16' 6"                                | 15' 2"  | 13' 5"  | 10' 4"                                | 9' 7"  | 8' 7"  | 14' 8"                                | 13' 5"  | 11' 11" | 9' 0"                                 | 8' 4"  | 7' 6"  | 12' 7"                                | 11' 6" | 10' 0" |
| 362SFS125-D20   | 57          | 10' 0"                                | 9' 3"  | 8' 4"  | 14' 2"                                | 13' 1"  | 11' 8"  | 8' 11"                                | 8' 4"  | 7' 5"  | 12' 8"                                | 11' 8"  | 10' 4"  | 7' 10"                                | 7' 3"  | 6' 5"  | 10' 11"                               | 10' 0" | 8' 4"  |
| 362SFS144-D20   | 57          | 10' 6"                                | 9' 9"  | 8' 10" | 14' 8"                                | 13' 6"  | 11' 11" | 9' 6"                                 | 8' 10" | 7' 10" | 13' 0"                                | 11' 11" | 10' 5"  | 8' 3"                                 | 7' 7"  | 6' 8"  | 11' 1"                                | 10' 1" | 8' 5"  |
| 362SFS144-30EQD | 57          | 11' 7"                                | 10' 9" | 9' 8"  | 16' 7"                                | 15' 4"  | 13' 7"  | 10' 5"                                | 9' 8"  | 8' 8"  | 14' 10"                               | 13' 7"  | 12' 0"  | 9' 1"                                 | 8' 5"  | 7' 7"  | 12' 8"                                | 11' 8" | 10' 2" |
| 400SFS125-D20   | 57          | 10' 3"                                | 9' 6"  | 8' 6"  | 14' 7"                                | 13' 5"  | 12' 0"  | 9' 2"                                 | 8' 6"  | 7' 8"  | 13' 0"                                | 12' 0"  | 10' 8"  | 8' 0"                                 | 7' 5"  | 6' 7"  | 11' 3"                                | 10' 4" | 9' 0"  |
| 400SFS144-D20   | 57          | 10' 10"                               | 10' 1" | 9' 0"  | 15' 0"                                | 13' 9"  | 12' 2"  | 9' 9"                                 | 9' 0"  | 8' 0"  | 13' 3"                                | 12' 2"  | 10' 8"  | 7' 9"                                 | 7' 2"  | 6' 4"  | 10' 5"                                | 9' 5"  | 8' 0"  |
| 400SFS144-30EQD | 57          | 11' 11"                               | 11' 0" | 9' 11" | 17' 0"                                | 15' 9"  | 14' 0"  | 10' 8"                                | 9' 11" | 8' 11" | 15' 3"                                | 14' 0"  | 12' 5"  | 9' 4"                                 | 8' 8"  | 7' 9"  | 13' 1"                                | 12' 0" | 10' 6" |
| 550SFS144-30EQD | 57          | 13' 3"                                | 12' 4" | 11' 1" | 19' 3"                                | 17' 11" | 16' 2"  | 11' 11"                               | 11' 1" | 10' 0" | 17' 5"                                | 16' 2"  | 14' 6"  | 10' 6"                                | 9' 9"  | 8' 10" | 15' 3"                                | 14' 0" | 12' 3" |
| 600SFS144-30EQD | 57          | 13' 7"                                | 12' 7" | 11' 4" | 19' 5"                                | 18' 0"  | 16' 2"  | 12' 3"                                | 11' 4" | 10' 2" | 17' 5"                                | 16' 2"  | 14' 5"  | 10' 8"                                | 9' 10" | 8' 10" | 15' 2"                                | 14' 0" | 12' 4" |

## Ceiling Span Tables - Deflection Limit L/240

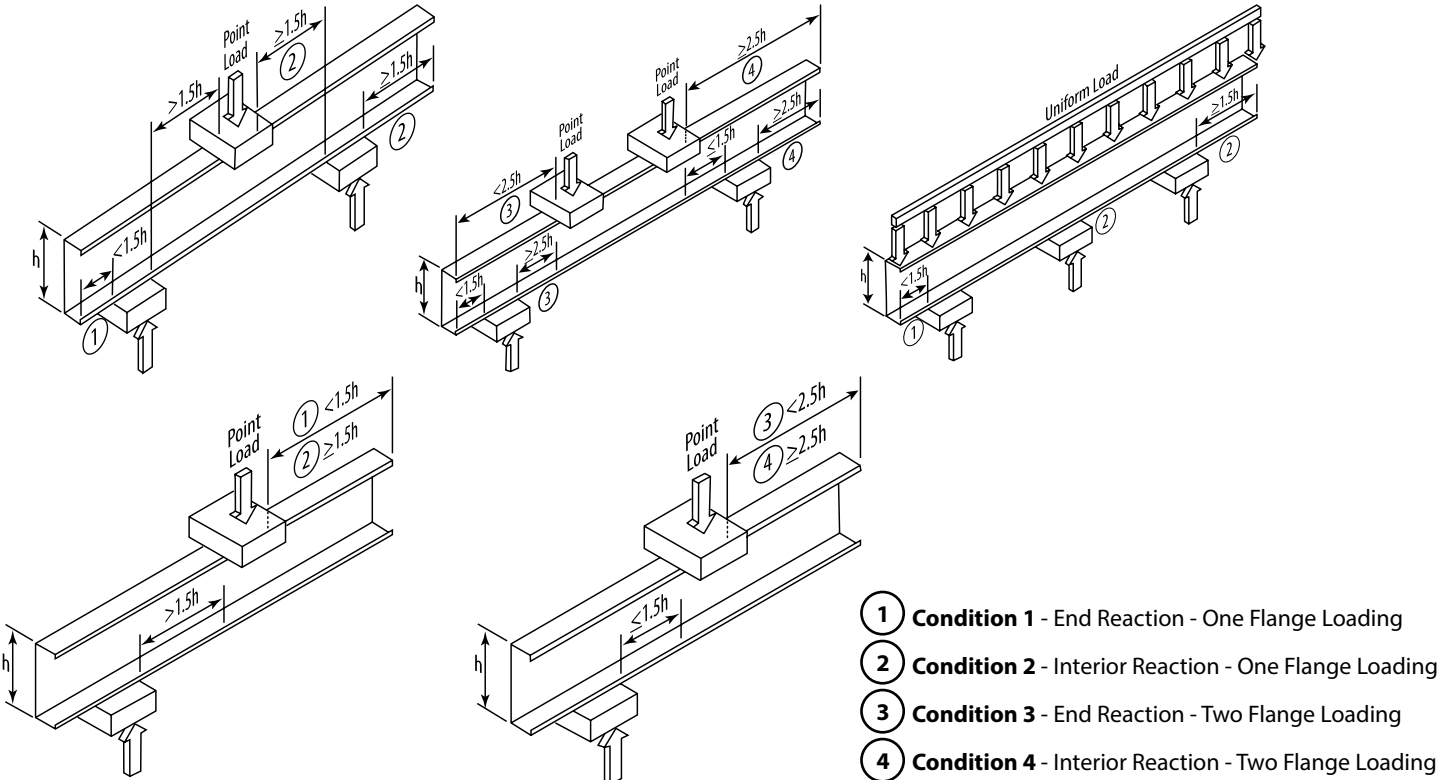
| Section                 | Fy<br>(ksi) | 4 psf                                 |        |                         |         |                         |         | 6 psf                                 |        |                         |         |                         |         | 10 psf                                |        |                         |         |                         |        | 13 psf                                |        |                         |        |         |        |
|-------------------------|-------------|---------------------------------------|--------|-------------------------|---------|-------------------------|---------|---------------------------------------|--------|-------------------------|---------|-------------------------|---------|---------------------------------------|--------|-------------------------|---------|-------------------------|--------|---------------------------------------|--------|-------------------------|--------|---------|--------|
|                         |             | Lateral Support of Compression Flange |        |                         |         |                         |         | Lateral Support of Compression Flange |        |                         |         |                         |         | Lateral Support of Compression Flange |        |                         |         |                         |        | Lateral Support of Compression Flange |        |                         |        |         |        |
|                         |             | Ununsupported                         |        |                         |         |                         |         | Ununsupported                         |        |                         |         |                         |         | Ununsupported                         |        |                         |         |                         |        | Ununsupported                         |        |                         |        |         |        |
|                         |             | Midspan                               |        |                         | Midspan |                         |         | Midspan                               |        |                         | Midspan |                         |         | Midspan                               |        |                         | Midspan |                         |        | Midspan                               |        |                         |        |         |        |
| Joist Spacing (in) o.c. |             | Joist Spacing (in) o.c.               |        | Joist Spacing (in) o.c. |         | Joist Spacing (in) o.c. |         | Joist Spacing (in) o.c.               |        | Joist Spacing (in) o.c. |         | Joist Spacing (in) o.c. |         | Joist Spacing (in) o.c.               |        | Joist Spacing (in) o.c. |         | Joist Spacing (in) o.c. |        | Joist Spacing (in) o.c.               |        | Joist Spacing (in) o.c. |        |         |        |
| 12                      | 16          | 24                                    | 12     | 16                      | 24      | 12                      | 16      | 24                                    | 12     | 16                      | 24      | 12                      | 16      | 24                                    | 12     | 16                      | 24      | 12                      | 16     | 24                                    | 12     | 16                      | 24     |         |        |
| 162SFS125-D20           | 57          | 8' 2"                                 | 7' 6"  | 6' 8"                   | 8' 5"   | 7' 8"                   | 6' 8"   | 7' 3"                                 | 6' 8"  | 5' 10"                  | 7' 4"   | 6' 8"                   | 5' 10"  | 6' 2"                                 | 5' 8"  | 4' 11"                  | 6' 2"   | 5' 8"                   | 4' 11" | 5' 10"                                | 5' 3"  | 4' 5"                   | 5' 10" | 5' 3"   | 4' 7"  |
| 162SFS144-D20           | 57          | 8' 5"                                 | 7' 8"  | 6' 10"                  | 8' 10"  | 8' 0"                   | 7' 0"   | 7' 5"                                 | 6' 10" | 6' 0"                   | 7' 9"   | 7' 0"                   | 6' 2"   | 5' 10"                                | 5' 4"  | 4' 7"                   | 6' 6"   | 5' 11"                  | 5' 1"  | 5' 10"                                | 5' 4"  | 4' 7"                   | 6' 0"  | 5' 5"   | 4' 9"  |
| 162SFS125-30EQD         | 57          | 8' 9"                                 | 8' 1"  | 7' 3"                   | 9' 3"   | 8' 5"                   | 7' 4"   | 7' 10"                                | 7' 3"  | 6' 5"                   | 8' 1"   | 7' 4"                   | 6' 5"   | 6' 10"                                | 6' 2"  | 5' 5"                   | 6' 10"  | 6' 2"                   | 5' 5"  | 6' 3"                                 | 5' 8"  | 4' 11"                  | 6' 3"  | 5' 8"   | 4' 11" |
| 162SFS144-30EQD         | 57          | 9' 5"                                 | 8' 7"  | 7' 6"                   | 9' 5"   | 8' 7"                   | 7' 6"   | 8' 3"                                 | 7' 6"  | 6' 6"                   | 8' 3"   | 7' 6"                   | 6' 6"   | 6' 11"                                | 6' 4"  | 5' 6"                   | 6' 11"  | 6' 4"                   | 5' 6"  | 6' 4"                                 | 5' 9"  | 5' 0"                   | 6' 4"  | 5' 9"   | 5' 0"  |
| 250SFS125-D20           | 57          | 9' 2"                                 | 8' 6"  | 7' 8"                   | 11' 9"  | 10' 8"                  | 9' 4"   | 8' 3"                                 | 7' 8"  | 6' 10"                  | 10' 3"  | 9' 4"                   | 8' 2"   | 7' 2"                                 | 6' 8"  | 5' 11"                  | 8' 8"   | 7' 10"                  | 6' 10" | 6' 8"                                 | 6' 2"  | 5' 6"                   | 8' 1"  | 7' 3"   | 6' 4"  |
| 250SFS144-D20           | 57          | 9' 5"                                 | 8' 9"  | 7' 10"                  | 12' 2"  | 11' 1"                  | 9' 8"   | 8' 6"                                 | 7' 10" | 6' 11"                  | 10' 7"  | 9' 8"                   | 8' 5"   | 6' 9"                                 | 6' 2"  | 5' 6"                   | 8' 9"   | 7' 9"                   | 6' 6"  | 6' 9"                                 | 6' 2"  | 5' 6"                   | 8' 2"  | 7' 5"   | 6' 6"  |
| 250SFS125-30EQD         | 57          | 9' 9"                                 | 9' 1"  | 8' 2"                   | 12' 10" | 11' 8"                  | 10' 3"  | 8' 9"                                 | 8' 2"  | 7' 4"                   | 11' 3"  | 10' 3"                  | 8' 11"  | 7' 8"                                 | 7' 2"  | 6' 5"                   | 9' 6"   | 8' 7"                   | 7' 6"  | 7' 2"                                 | 6' 8"  | 6' 0"                   | 8' 8"  | 7' 11"  | 6' 11" |
| 250SFS144-30EQD         | 57          | 10' 7"                                | 9' 10" | 8' 10"                  | 13' 1"  | 11' 11"                 | 10' 5"  | 9' 6"                                 | 8' 10" | 7' 11"                  | 11' 5"  | 10' 5"                  | 9' 1"   | 8' 4"                                 | 7' 9"  | 6' 11"                  | 9' 8"   | 8' 9"                   | 7' 8"  | 7' 9"                                 | 7' 2"  | 6' 5"                   | 8' 10" | 8' 0"   | 7' 0"  |
| 350SFS125-D20           | 57          | 9' 10"                                | 9' 2"  | 8' 3"                   | 14' 1"  | 12' 11"                 | 11' 6"  | 8' 10"                                | 8' 3"  | 7' 5"                   | 12' 6"  | 11' 6"                  | 10' 3"  | 7' 9"                                 | 7' 2"  | 6' 5"                   | 10' 10" | 9' 11"                  | 8' 5"  | 7' 3"                                 | 6' 8"  | 5' 11"                  | 10' 0" | 9' 1"   | 6' 6"  |
| 350SFS144-D20           | 57          | 10' 5"                                | 9' 8"  | 8' 8"                   | 14' 7"  | 13' 4"                  | 11' 10" | 9' 4"                                 | 8' 8"  | 7' 9"                   | 12' 10" | 11' 10"                 | 10' 4"  | 7' 6"                                 | 6' 11" | 6' 1"                   | 10' 0"  | 9' 0"                   | 7' 8"  | 7' 6"                                 | 6' 11" | 6' 1"                   | 10' 0" | 9' 0"   | 6' 6"  |
| 350SFS125-30EQD         | 57          | 10' 7"                                | 9' 10" | 8' 10"                  | 15' 2"  | 14' 1"                  | 12' 8"  | 9' 6"                                 | 8' 10" | 7' 11"                  | 13' 8"  | 12' 8"                  | 11' 3"  | 8' 4"                                 | 7' 8"  | 6' 11"                  | 11' 10" | 10' 11"                 | 9' 7"  | 7' 9"                                 | 7' 2"  | 6' 5"                   | 11' 0" | 10' 1"  | 8' 9"  |
| 350SFS144-30EQD         | 57          | 11' 6"                                | 10' 8" | 9' 7"                   | 16' 6"  | 15' 2"                  | 13' 5"  | 10' 4"                                | 9' 7"  | 8' 7"                   | 14' 8"  | 13' 5"                  | 11' 10" | 9' 0"                                 | 8' 4"  | 7' 6"                   | 12' 7"  | 11' 5"                  | 9' 11" | 8' 5"                                 | 7' 9"  | 6' 11"                  | 11' 6" | 10' 5"  | 9' 0"  |
| 362SFS125-D20           | 57          | 10' 0"                                | 9' 3"  | 8' 4"                   | 14' 2"  | 13' 1"                  | 11' 8"  | 8' 11"                                | 8' 4"  | 7' 5"                   | 12' 8"  | 11' 8"                  | 10' 4"  | 7' 10"                                | 7' 3"  | 6' 5"                   | 10' 11" | 10' 0"                  | 8' 4"  | 7' 3"                                 | 6' 9"  | 6' 0"                   | 10' 1" | 9' 2"   | 6' 5"  |
| 362SFS144-D20           | 57          | 10' 6"                                | 9' 9"  | 8' 10"                  | 14' 8"  | 13' 6"                  | 11' 11" | 9' 6"                                 | 8' 10" | 7' 10"                  | 13' 0"  | 11' 11"                 | 10' 5"  | 8' 3"                                 | 7' 7"  | 6' 8"                   | 11' 1"  | 10' 1"                  | 8' 5"  | 7' 7"                                 | 7' 0"  | 6' 2"                   | 10' 2" | 9' 2"   | 6' 6"  |
| 362SFS125-30EQD         | 57          | 10' 8"                                | 9' 11" | 8' 11"                  | 15' 4"  | 14' 2"                  | 12' 9"  | 9' 7"                                 | 8' 11" | 8' 10"                  | 13' 9"  | 12' 9"                  | 11' 4"  | 8' 5"                                 | 7' 9"  | 7' 0"                   | 12' 0"  | 11' 0"                  | 9' 9"  | 7' 10"                                | 7' 3"  | 6' 6"                   | 11' 1" | 10' 2"  | 8' 11" |
| 362SFS144-30EQD         | 57          | 11' 7"                                | 10' 9" | 9' 8"                   | 16' 7"  | 15' 4"                  | 13' 7"  | 10' 5"                                | 9' 8"  | 8' 8"                   | 14' 10" | 13' 7"                  | 12' 0"  | 9' 1"                                 | 8' 5"  | 7' 7"                   | 12' 8"  | 11' 8"                  | 10' 2" | 8' 6"                                 | 7' 10" | 7' 0"                   | 11' 9" | 10' 8"  | 9' 2"  |
| 400SFS125-D20*          | 57          | 10' 3"                                | 9' 6"  | 8' 6"                   | 14' 7"  | 13' 5"                  | 12' 0"  | 9' 2"                                 | 8' 6"  | 7' 8"                   | 13' 0"  | 12' 0"                  | 10' 8"  | 8' 0"                                 | 7' 5"  | 6' 7"                   | 11' 3"  | 10' 4"                  | 9' 0"  | 7' 6"                                 | 6' 11" | 6' 2"                   | 10' 5" | 9' 6"   | 8' 3"  |
| 400SFS144-D20           | 57          | 10' 10"                               | 10' 1" | 9' 0"                   | 15' 0"  | 13' 9"                  | 12' 2"  | 9' 9"                                 | 9' 0"  | 8' 0"                   | 13' 3"  | 12' 2"                  | 10' 8"  | 7' 9"                                 | 7' 2"  | 6' 4"                   | 10' 5"  | 9' 5"                   | 8' 0"  | 7' 9"                                 | 7' 2"  | 6' 4"                   | 10' 5" | 9' 5"   | 8' 0"  |
| 400SFS125-30EQD         | 57          | 11' 0"                                | 10' 2" | 9' 1"                   | 15' 8"  | 14' 6"                  | 13' 1"  | 9' 10"                                | 9' 1"  | 8' 2"                   | 14' 1"  | 13' 1"                  | 11' 8"  | 8' 7"                                 | 7' 11" | 7' 2"                   | 12' 4"  | 11' 4"                  | 10' 0" | 8' 0"                                 | 7' 5"  | 6' 8"                   | 11' 5" | 10' 6"  | 9' 2"  |
| 400SFS144-30EQD         | 57          | 11' 11"                               | 11' 0" | 9' 11"                  | 17' 0"  | 15' 9"                  | 14' 0"  | 10' 8"                                | 9' 11" | 8' 11"                  | 15' 3"  | 14' 0"                  | 12' 5"  | 9' 4"                                 | 8' 8"  | 7' 9"                   | 13' 1"  | 12' 0"                  | 10' 6" | 8' 8"                                 | 8' 1"  | 7' 2"                   | 12' 1" | 11' 1"  | 9' 7"  |
| 550SFS125-30EQD*        | 57          | 12' 3"                                | 11' 4" | 10' 2"                  | 17' 6"  | 16' 3"                  | 14' 7"  | 11' 0"                                | 10' 2" | 9' 2"                   | 15' 9"  | 14' 7"                  | 13' 1"  | 9' 7"                                 | 8' 11" | 8' 0"                   | 13' 9"  | 12' 8"                  | 11' 4" | 8' 11"                                | 8' 3"  | 7' 5"                   | 12' 9" | 11' 10" | 10' 6" |
| 550SFS144-30EQD         | 57          | 13' 3"                                | 12' 4" | 11' 1"                  | 19' 3"  | 17' 11"                 | 16' 2"  | 11' 11"                               | 11' 1" | 10' 0"                  | 17' 5"  | 16' 2"                  | 14' 6"  | 10' 6"                                | 9' 9"  | 8' 10"                  | 15' 3"  | 14' 0"                  | 12' 3" | 9' 10"                                | 9' 1"  | 8' 3"                   | 14' 1" | 12' 4"  | 8' 3"  |
| 600SFS125-30EQD*        | 57          | 12' 7"                                | 11' 8" | 10' 5"                  | 17' 11" | 16' 7"                  | 14' 11" | 11' 3"                                | 10' 5" | 9' 4"                   | 16' 1"  | 14' 11"                 | 13' 4"  | 9' 10"                                | 8' 1"  | 8' 2"                   | 14' 0"  | 13' 0"                  | 11' 7" | 9' 2"                                 | 8' 6"  | 7' 7"                   | 13' 1" | 12' 1"  | 10' 9" |
| 600SFS144-30EQD         | 57          | 13' 7"                                | 12' 7" | 11' 4"                  | 19' 5"  | 18' 0"                  | 16' 2"  | 12' 3"                                | 11' 4" | 10' 2"                  | 17' 5"  | 16' 2"                  | 14' 5"  | 10' 8"                                | 9' 10" | 8' 10"                  | 15' 2"  | 14' 0"                  | 12' 4" | 9' 11"                                | 9' 2"  | 8' 3"                   | 14' 1" | 12' 4"  | 8' 3"  |

## Supreme Web Crippling

| Web Section | Design Thickness (in) | Mil Thickness | Fy (ksi) | Condition 1<br>Bearing Length (in) |     |     | Condition 2<br>Bearing Length (in) |     |     | Condition 3<br>Bearing Length (in) |     |     | Condition 4<br>Bearing Length (in) |     |     |
|-------------|-----------------------|---------------|----------|------------------------------------|-----|-----|------------------------------------|-----|-----|------------------------------------|-----|-----|------------------------------------|-----|-----|
|             |                       |               |          | 1                                  | 3.5 | 6   | 1                                  | 3.5 | 6   | 1                                  | 3.5 | 6   | 1                                  | 3.5 | 6   |
| 162         | 0.0188                | D20           | 57       | 95                                 | 155 | 194 | 150                                | 216 | 260 | 78                                 | 110 | 131 | 210                                | 277 | 322 |
| 162         | 0.0235                | 30EQD         | 57       | 147                                | 237 | 296 | 250                                | 353 | 422 | 128                                | 177 | 210 | 338                                | 439 | 506 |
| 250         | 0.0188                | D20           | 57       | 90                                 | 146 | 183 | 146                                | 211 | 254 | 63                                 | 89  | 106 | 189                                | 250 | 290 |
| 250         | 0.0235                | 30EQD         | 57       | 140                                | 225 | 281 | 244                                | 345 | 413 | 108                                | 149 | 176 | 309                                | 401 | 463 |
| 350         | 0.0188                | D20           | 57       | 85                                 | 138 | 173 | 143                                | 206 | 247 | 49                                 | 69  | 82  | 169                                | 224 | 260 |
| 350         | 0.0235                | 30EQD         | 57       | 133                                | 214 | 267 | 239                                | 338 | 404 | 88                                 | 122 | 145 | 282                                | 366 | 422 |
| 362         | 0.0188                | D20           | 57       | 84                                 | 137 | 142 | 142                                | 205 | 247 | 47                                 | 67  | 80  | 167                                | 221 | 257 |
| 362         | 0.0235                | 30EQD         | 57       | 132                                | 213 | 266 | 238                                | 337 | 403 | 86                                 | 119 | 141 | 279                                | 362 | 417 |
| 400         | 0.0188                | D20           | 57       | See Note 2 below                   |     |     |                                    |     |     |                                    |     |     |                                    |     |     |
| 400         | 0.0235                | 30EQD         | 57       | 130                                | 209 | 261 | 236                                | 334 | 400 | 80                                 | 110 | 131 | 270                                | 351 | 404 |
| 550         | 0.0188                | D20           | 57       | See Note 1 below                   |     |     |                                    |     |     |                                    |     |     |                                    |     |     |
| 550         | 0.0235                | 30EQD         | 57       | 122                                | 196 | 245 | 230                                | 326 | 389 | 57                                 | 79  | 94  | 238                                | 309 | 357 |
| 600         | 0.0188                | D20           | 57       | See Note 1 below                   |     |     |                                    |     |     |                                    |     |     |                                    |     |     |
| 600         | 0.0235                | 30EQD         | 57       | 107                                | 192 | 240 | 228                                | 323 | 386 | 50                                 | 70  | 83  | 229                                | 297 | 342 |

### Table Notes:

- h/t exceeds 260. Section is not in compliance with AISI NASPEC Section B1.2 for steel only design, but may be used in accordance with SSFSA's published composite wall data for these members
- h/t of web exceeds AISI NASPEC Section B1.2 limit of 200, therefore bearing stiffeners are required when used in non-composite wall assemblies.
- For 550 and 600SF30EQD h/t exceeds 200. However, confirmatory testing has shown that the NASPEC equations conservatively predict web crippling capacities for these members. Thus, loads at or below those listed require no web stiffeners.



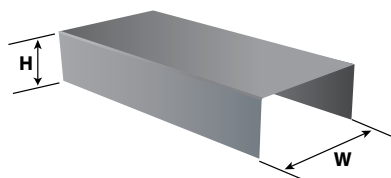
# SUPREME STUD - DEEP LEG TRACK

## Supreme Deep Leg Track (SFT) - Section Properties

| Part Number                  | Design Thickness (in) | Fy (ksi) | Area (in <sup>2</sup> ) | Weight (lb/ft) | Gross Properties      |                       |         |                       |         | Effective Properties   |                        |           |          | Torsional Properties      |                       |         |        |         |       |
|------------------------------|-----------------------|----------|-------------------------|----------------|-----------------------|-----------------------|---------|-----------------------|---------|------------------------|------------------------|-----------|----------|---------------------------|-----------------------|---------|--------|---------|-------|
|                              |                       |          |                         |                | Ix (in <sup>4</sup> ) | Sx (in <sup>3</sup> ) | Rx (in) | Iy (in <sup>4</sup> ) | Ry (in) | Lxe (in <sup>4</sup> ) | Sxe (in <sup>3</sup> ) | Ma (in-k) | Vag (lb) | Jx1000 (in <sup>4</sup> ) | CW (in <sup>6</sup> ) | Xo (in) | m (in) | Ro (in) | β     |
| 162SFT200-D20                | 0.0188                | 57       | 0.106                   | 0.36           | 0.063                 | 0.072                 | 0.770   | 0.046                 | 0.662   | -                      | -                      | -         | -        | 0.013                     | 0.026                 | -1.574  | 0.869  | 1.873   | 0.294 |
| 162SFT200-30EQD              | 0.0235                | 57       | 0.132                   | 0.45           | 0.079                 | 0.090                 | 0.771   | 0.058                 | 0.661   | -                      | -                      | -         | -        | 0.024                     | 0.032                 | -1.571  | 0.868  | 1.871   | 0.295 |
| 162SFT250-D20                | 0.0188                | 57       | 0.125                   | 0.42           | 0.077                 | 0.088                 | 0.785   | 0.085                 | 0.823   | -                      | -                      | -         | -        | 0.015                     | 0.047                 | -2.052  | 1.116  | 2.346   | 0.235 |
| 162SFT250-30EQD              | 0.0235                | 57       | 0.156                   | 0.53           | 0.096                 | 0.110                 | 0.786   | 0.105                 | 0.823   | -                      | -                      | -         | -        | 0.029                     | 0.059                 | -2.049  | 1.115  | 2.344   | 0.236 |
| 162SFT300-30EQD              | 0.0235                | 57       | 0.179                   | 0.61           | 0.114                 | 0.130                 | 0.797   | 0.172                 | 0.980   | -                      | -                      | -         | -        | 0.033                     | 0.099                 | -2.534  | 1.363  | 2.831   | 0.199 |
| 250SFT200-D20                | 0.0188                | 57       | 0.122                   | 0.42           | 0.152                 | 0.116                 | 1.114   | 0.053                 | 0.661   | -                      | -                      | -         | -        | 0.014                     | 0.064                 | -1.427  | 0.082  | 1.927   | 0.452 |
| 250SFT200-30EQD              | 0.0235                | 57       | 0.153                   | 0.52           | 0.190                 | 0.144                 | 1.115   | 0.067                 | 0.660   | -                      | -                      | -         | -        | 0.028                     | 0.080                 | -1.424  | 0.816  | 1.926   | 0.453 |
| 250SFT250-D20                | 0.0188                | 57       | 0.141                   | 0.48           | 0.184                 | 0.140                 | 1.141   | 0.097                 | 0.830   | -                      | -                      | -         | -        | 0.017                     | 0.119                 | -1.887  | 1.061  | 2.356   | 0.359 |
| 250SFT250-30EQD              | 0.0235                | 57       | 0.176                   | 0.60           | 0.230                 | 0.175                 | 1.142   | 0.121                 | 0.829   | -                      | -                      | -         | -        | 0.033                     | 0.148                 | -1.885  | 1.059  | 2.355   | 0.359 |
| 250SFT300-D20                | 0.0188                | 57       | 0.160                   | 0.54           | 0.216                 | 0.164                 | 1.610   | 0.158                 | 0.995   | -                      | -                      | -         | -        | 0.019                     | 0.196                 | -2.358  | 1.306  | 2.810   | 0.296 |
| 250SFT300-30EQD              | 0.0235                | 57       | 0.200                   | 0.68           | 0.270                 | 0.205                 | 1.162   | 0.198                 | 0.994   | -                      | -                      | -         | -        | 0.037                     | 0.245                 | -2.355  | 1.305  | 2.808   | 0.297 |
| 350SFT200-D20                | 0.0188                | 57       | 0.141                   | 0.48           | 0.311                 | 0.172                 | 1.485   | 0.060                 | 0.649   | -                      | -                      | -         | -        | 0.017                     | 0.136                 | -1.293  | 0.765  | 2.073   | 0.611 |
| 350SFT200-30EQD              | 0.0235                | 57       | 0.176                   | 0.60           | 0.389                 | 0.215                 | 1.486   | 0.074                 | 0.649   | -                      | -                      | -         | -        | 0.033                     | 0.170                 | -1.291  | 0.763  | 2.072   | 0.612 |
| 350SFT250-D20                | 0.0188                | 57       | 0.160                   | 0.54           | 0.372                 | 0.206                 | 1.526   | 0.109                 | 0.824   | -                      | -                      | -         | -        | 0.019                     | 0.249                 | -1.733  | 1.003  | 2.452   | 0.500 |
| 350SFT250-30EQD              | 0.0235                | 57       | 0.200                   | 0.68           | 0.466                 | 0.257                 | 1.527   | 0.135                 | 0.823   | -                      | -                      | -         | -        | 0.037                     | 0.311                 | -1.731  | 1.002  | 2.450   | 0.501 |
| 350SFT300-D20                | 0.0188                | 57       | 0.179                   | 0.61           | 0.433                 | 0.239                 | 1.557   | 0.177                 | 0.995   | -                      | -                      | -         | -        | 0.021                     | 0.409                 | -2.186  | 1.245  | 2.863   | 0.417 |
| 350SFT300-30EQD              | 0.0235                | 57       | 0.223                   | 0.76           | 0.542                 | 0.299                 | 1.558   | 0.221                 | 0.994   | -                      | -                      | -         | -        | 0.041                     | 0.510                 | -2.184  | 1.244  | 2.861   | 0.417 |
| 362SFT200-D20                | 0.0188                | 57       | 0.143                   | 0.49           | 0.336                 | 0.179                 | 1.530   | 0.060                 | 0.648   | -                      | -                      | -         | -        | 0.017                     | 0.147                 | -1.278  | 0.759  | 2.096   | 0.628 |
| 362SFT200-30EQD              | 0.0235                | 57       | 0.179                   | 0.61           | 0.420                 | 0.224                 | 1.531   | 0.075                 | 0.647   | -                      | -                      | -         | -        | 0.033                     | 0.184                 | -1.276  | 0.758  | 2.095   | 0.629 |
| 362SFT250-D20                | 0.0188                | 57       | 0.162                   | 0.55           | 0.401                 | 0.214                 | 1.573   | 0.110                 | 0.823   | -                      | -                      | -         | -        | 0.019                     | 0.269                 | -1.716  | 0.997  | 2.469   | 0.517 |
| 362SFT250-30EQD              | 0.0235                | 57       | 0.203                   | 0.69           | 0.502                 | 0.267                 | 1.573   | 0.137                 | 0.822   | -                      | -                      | -         | -        | 0.037                     | 0.336                 | -1.713  | 0.995  | 2.467   | 0.518 |
| 362SFT300-D20                | 0.0188                | 57       | 0.181                   | 0.62           | 0.467                 | 0.249                 | 1.605   | 0.179                 | 0.994   | -                      | -                      | -         | -        | 0.021                     | 0.442                 | -2.167  | 1.238  | 2.874   | 0.432 |
| 362SFT300-30EQD              | 0.0235                | 57       | 0.226                   | 0.77           | 0.584                 | 0.311                 | 1.606   | 0.223                 | 0.994   | -                      | -                      | -         | -        | 0.042                     | 0.552                 | -2.165  | 1.237  | 2.873   | 0.432 |
| 400SFT200-D20 <sup>2</sup>   | 0.0188                | 57       | 0.151                   | 0.51           | 0.417                 | 0.202                 | 1.664   | 0.062                 | 0.642   | -                      | -                      | -         | -        | 0.018                     | 0.184                 | -1.236  | 0.741  | 2.170   | 0.676 |
| 400SFT200-30EQD              | 0.0235                | 57       | 0.188                   | 0.64           | 0.521                 | 0.253                 | 1.665   | 0.077                 | 0.641   | -                      | -                      | -         | -        | 0.035                     | 0.229                 | -1.234  | 0.740  | 2.169   | 0.676 |
| 400SFT250-D20                | 0.0188                | 57       | 0.169                   | 0.58           | 0.496                 | 0.241                 | 1.712   | 0.113                 | 0.818   | -                      | -                      | -         | -        | 0.020                     | 0.335                 | -1.666  | 0.977  | 2.525   | 0.565 |
| 400SFT250-30EQD              | 0.0235                | 57       | 0.212                   | 0.72           | 0.620                 | 0.300                 | 1.712   | 0.141                 | 0.817   | -                      | -                      | -         | -        | 0.039                     | 0.419                 | -1.664  | 0.976  | 2.523   | 0.565 |
| 400SFT300-D20                | 0.0188                | 57       | 0.188                   | 0.64           | 0.575                 | 0.279                 | 1.749   | 0.185                 | 0.991   | -                      | -                      | -         | -        | 0.022                     | 0.550                 | -2.111  | 1.217  | 2.915   | 0.475 |
| 400SFT300-30EQD              | 0.0235                | 57       | 0.235                   | 0.80           | 0.719                 | 0.348                 | 1.749   | 0.231                 | 0.991   | -                      | -                      | -         | -        | 0.043                     | 0.687                 | -2.109  | 1.216  | 2.913   | 0.476 |
| 550SFT200-D20 <sup>1</sup>   | 0.0188                | 57       | 0.179                   | 0.61           | 0.851                 | 0.303                 | 2.182   | 0.068                 | 0.616   | See note 1 below       |                        |           |          | 0.021                     | 0.380                 | -1.095  | 0.677  | 2.518   | 0.811 |
| 550SFT200-30EQD <sup>2</sup> | 0.0235                | 57       | 0.223                   | 0.76           | 1.064                 | 0.378                 | 2.183   | 0.085                 | 0.615   | -                      | -                      | -         | -        | 0.041                     | 0.474                 | -1.093  | 0.676  | 2.517   | 0.812 |
| 550SFT250-D20                | 0.0188                | 57       | 0.198                   | 0.67           | 0.999                 | 0.355                 | 2.249   | 0.125                 | 0.795   | -                      | -                      | -         | -        | 0.023                     | 0.691                 | -1.496  | 0.906  | 2.816   | 0.718 |
| 550SFT250-30EQD              | 0.0235                | 57       | 0.247                   | 0.84           | 1.249                 | 0.444                 | 2.249   | 0.156                 | 0.794   | -                      | -                      | -         | -        | 0.045                     | 0.862                 | -1.494  | 0.905  | 2.815   | 0.718 |
| 550SFT300-D20                | 0.0188                | 57       | 0.216                   | 0.74           | 1.146                 | 0.408                 | 2.302   | 0.205                 | 0.972   | -                      | -                      | -         | -        | 0.026                     | 1.127                 | -1.917  | 1.139  | 3.150   | 0.630 |
| 550SFT300-30EQD              | 0.0235                | 57       | 0.270                   | 0.92           | 1.433                 | 0.509                 | 2.303   | 0.255                 | 0.972   | -                      | -                      | -         | -        | 0.050                     | 1.408                 | -1.915  | 1.138  | 3.148   | 0.630 |
| 600SFT200-D20 <sup>1</sup>   | 0.0188                | 57       | 0.188                   | 0.64           | 1.039                 | 0.339                 | 2.350   | 0.069                 | 0.607   | See note 1 below       |                        |           |          | 0.022                     | 0.464                 | -1.055  | 0.659  | 2.647   | 0.841 |
| 600SFT200-30EQD <sup>2</sup> | 0.0235                | 57       | 0.235                   | 0.80           | 1.299                 | 0.424                 | 2.351   | 0.086                 | 0.606   | -                      | -                      | -         | -        | 0.043                     | 0.578                 | -1.053  | 0.658  | 2.646   | 0.842 |
| 600SFT250-D20                | 0.0188                | 57       | 0.207                   | 0.70           | 1.214                 | 0.397                 | 2.422   | 0.128                 | 0.786   | -                      | -                      | -         | -        | 0.024                     | 0.843                 | -1.448  | 0.884  | 2.930   | 0.756 |
| 600SFT250-30EQD              | 0.0235                | 57       | 0.259                   | 0.88           | 1.518                 | 0.495                 | 2.423   | 0.159                 | 0.785   | -                      | -                      | -         | -        | 0.048                     | 1.052                 | -1.446  | 0.883  | 2.929   | 0.756 |
| 600SFT300-D20                | 0.0188                | 57       | 0.226                   | 0.77           | 1.389                 | 0.454                 | 2.481   | 0.210                 | 0.965   | -                      | -                      | -         | -        | 0.027                     | 1.375                 | -1.861  | 1.116  | 3.248   | 0.672 |
| 600SFT300-30EQD              | 0.0235                | 57       | 0.282                   | 0.96           | 1.737                 | 0.567                 | 2.482   | 0.262                 | 0.964   | -                      | -                      | -         | -        | 0.052                     | 1.716                 | -1.859  | 1.115  | 3.247   | 0.672 |

Note: See track notes on page 10

## Supreme Stud Deep Leg Track



| Thickness Nomenclature | Min Base Metal Thickness (in) | Design Thickness (in) | Min Yield Strength (ksi) | Standard Galvanization | Track Web Sizes (in)             | Track Flange / Leg Sizes (in) | Gap (in)                                                        |
|------------------------|-------------------------------|-----------------------|--------------------------|------------------------|----------------------------------|-------------------------------|-----------------------------------------------------------------|
| D20                    | 0.0179"                       | 0.0188"               | 57 ksi                   | G40                    | 2.5", 3.5", 3-5/8", 4", 5.5", 6" | 2", 2.5", 3"                  | 2" leg = 1/2" gap<br>2.5" leg = 3/4" gap<br>3.0" leg = 1.0" gap |
| 30EQD                  | 0.0223"                       | 0.0235"               | 57 ksi                   | G40                    | 2.5", 3.5", 3-5/8", 4", 5.5", 6" | 2", 2.5", 3"                  |                                                                 |

D = Drywall / Non Structural, S = Structural

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This technical information reflects the most current information available and supersedes any and all previous publications effective August 2021

## Web Depth-to-Thickness Ratios

| Mil Thickness<br>Design Thickness (in)<br>Inside Bend Radius (in)<br>Depth (in) | D25<br>0.0155<br>0.086 |       | D20<br>0.0188<br>0.0844 |     | 30EQD<br>0.0235<br>0.082 |       |
|---------------------------------------------------------------------------------|------------------------|-------|-------------------------|-----|--------------------------|-------|
|                                                                                 | $h \text{ (in)}^2$     | hit   | $h \text{ (in)}^2$      | hit | $h \text{ (in)}^2$       | hit   |
| 1.625                                                                           | 1.422                  | 91    | 1.419                   | 75  | 1.414                    | 60    |
| 2.5                                                                             | 2.297                  | 148   | 2.294                   | 122 | 2.289                    | 97    |
| 3.5                                                                             | 3.297                  | 2131  | 3.294                   | 175 | 3.289                    | 139   |
| 3.625                                                                           | 3.422                  | 221 1 | 3.419                   | 181 | 3.414                    | 145   |
| 4                                                                               | 3.797                  | 2451  | 3.794                   | 200 | 3.789                    | 161   |
| 5.5                                                                             | 5.297                  |       | 5.294                   |     | 5.289                    | 225 1 |
| 6                                                                               | 5.797                  |       | 5.794                   |     | 5.789                    | 246 1 |
| 8                                                                               | 7.797                  |       | 7.794                   |     | 7.789                    |       |

**NOTES:**

- 1 h/ t exceeds 200, web stiffeners required
- 2 h value used for h/ t calculation is the flat width of the web. For SFS members, this is the out-to-out member size, minus twice the thickness, minus twice the inside bend radius.
- 3 h/ t values exceeding 260 are marked with a dash ( - ).
- 4 h/ t values in this table apply to SFS (studs and Joists) members only and do not apply to tracks and channels.

## Definitions of Section Property Symbols

### Gross Properties

**I<sub>x</sub>:** Moment of inertia of the cross section about the x-axis.

**S<sub>x</sub>:** Section modulus about the x-axis.

**R<sub>x</sub>:** Radius of gyration of cross section about the x-axis.

**I<sub>y</sub>:** Moment of inertia of cross section about the y-axis.

**R<sub>y</sub>:** Radius of gyration of cross section about the y-axis.

### Effective Properties

**I<sub>xe</sub>:** Effective moment of inertia about the x-axis. S<sub>xe</sub>: Effective section modulus about the x-axis. M<sub>al</sub>: Allowable moment based on local buckling.

**M<sub>ad</sub>:** Allowable moment based on distortional buckling assuming  $K\phi = 0$ .

**M<sub>a</sub>:** Allowable moment for track and channel members, based on local buckling only.

**V<sub>ag</sub>:** Allowable strong axis shear away from punchout, calculated in accordance with AISI S100 Section C3.2.1.

**V<sub>anet</sub>:** Allowable strong axis shear at the punchout, calculated in accordance with AISI S100 Section C3.2.2.

## Torsional and Other Properties

**J:** St. Venant torsional constant. The numbers shown in the tables for J have been multiplied by 1000. The actual values can be obtained by dividing the listed numbers by 1000.

**C<sub>w</sub>:** Torsional warping constant.

**X<sub>o</sub>:** Distance from the shear center to the centroid along the principal x-axis.

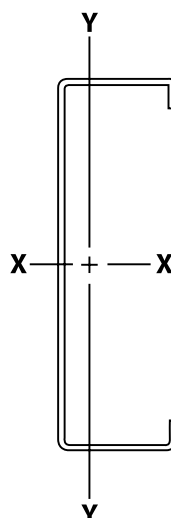
**m:** Distance from shear center to mid-plane of web.

**R<sub>o</sub>:** Polar radius of gyration of cross section about the shear center.

**β:**  $1 - (X_o / R_o)^2$

**L<sub>u</sub>:** Critical unbraced length for lateral-torsional buckling. Members are considered fully braced when unbraced length is less than L<sub>u</sub>.

**K<sub>φ</sub>:** Distortional buckling moment (M<sub>ad</sub>) is calculated without the beneficial effect of sheathing to rotational stiffness.  $K\phi = 0$ .



## RiverbankAcoustical LABORATORIES ACCOUSTIC PERFORMANCE SUPREME TESTING ASSEMBLIES (ASTM E 90)

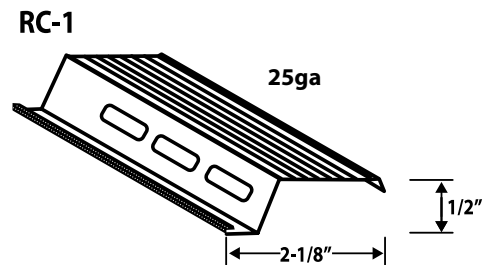
All acoustical data was independently tested by Riverbank Acoustical Laboratories utilizing the Supreme Framing System and RC-1. Riverbank Acoustical is a nationally recognized company accredited by the National Institute of Standards and Technology (NIST) through the National Voluntary Laboratory Accreditation Program (NVLAP).

### Partition Specifications

| Partition Type | Side A   | SideB            | Gypsum Type  | Insulation Type | Stud Spacing | STC Rating |
|----------------|----------|------------------|--------------|-----------------|--------------|------------|
| 1              | 1 layer  | 1 layer          | 5/8" Type X  | -               | 24" oc       | 38         |
| 2              | 1 layer  | 1 layer          | 5/8" Type X  | R-11 insulated  | 24" oc       | 47         |
| 3              | 1 layer  | 1 layer on RC-1  | 5/8" Type X  | R-11 insulated  | 24" oc       | 52         |
| 4              | 2 layers | 2 layers on RC-1 | 5/8" T ype X | R-11 insulated  | 24" oc       | 61         |

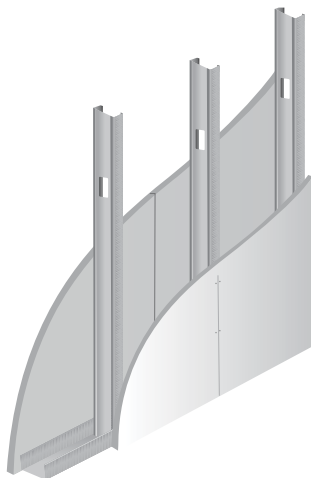
### Typical RC-1 Installation Instructions for Walls

- Bottom RC-1 installed with mounting leg turned up, spaced 2" up from top track leg.
- Top RC-1 installed with mounting leg turned down, spaced 6" down from track leg.
- Middle RC-1 installed with mounting leg turned down, spaced 24" apart.
- Please reference Gypsum Association's GA-216 guidelines.

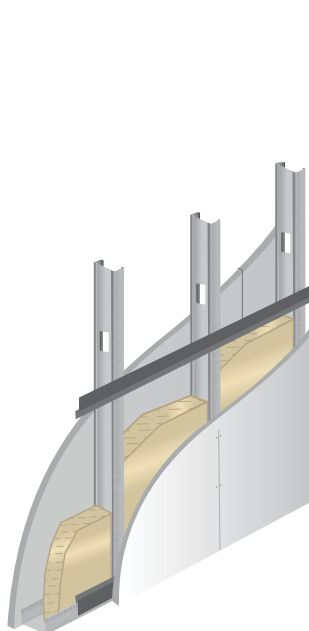


### Typical RC-1 Installation Instructions for Ceilings

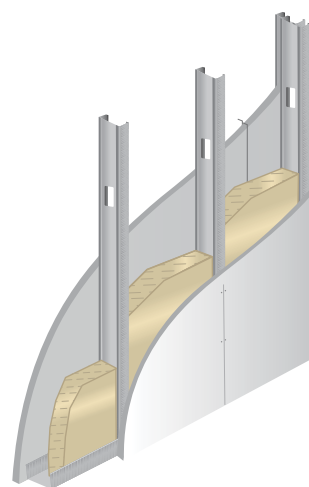
- When RC-1 is installed on a ceiling, it should be installed perpendicular to the joists.
- RC-1 should be installed on ceilings with the open side facing the same direction across the entire ceiling.
- RC-1 on ceilings should be install with maximum of 6" spacing out from a wall.
- 16" OC joist spacing use 24" RC-1 spacing. 24" OC joist spacing use 16" RC-1 spacing.
- RC-1 can be overlapped at a support location with a minimum of 4" overlap.
- No more than two 5/8" gypsum boards should be fastened to an RC-1 channel with a maximum load of 5 lbs per SF.



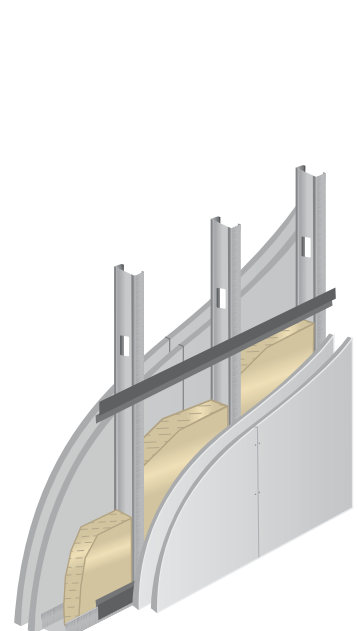
**Partition Type 1**  
38 STC  
3 5/8" Stud



**Partition Type 2**  
47 STC  
3 5/8" Stud



**Partition Type 3**  
52 STC  
3 5/8" Stud

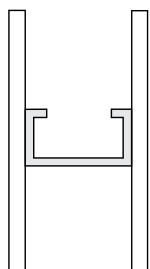


**Partition Type 4**  
61 STC  
3 5/8" Stud

## UL Approved Designs

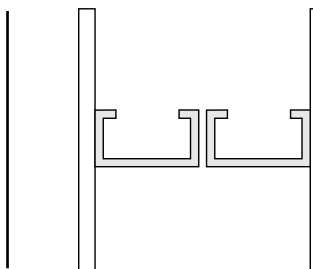
### One-Hour Wall Assemblies - Non-Load Bearing

1 5/8" - 2 1/2' - 3 5/8" - 4" - 6"



#### One-Hour Wall Assembly

- Studs spaced 24" oc
- One layer of gypsum wallboard (GWB per UL design assembly)
- No insulation required

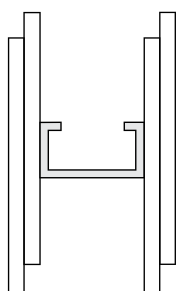


#### One-Hour Chase Wall Assembly

- Two rows of Supreme Studs
- Studs spaced 24" oc
- Can be aligned with 1" minimum spacing between studs from each row, staggered, or staggered and overlapped
- One layer of gypsum wallboard (GWB per UL design assembly)
- No insulation required

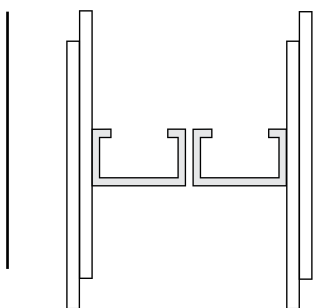
### Two-Hour Wall Assemblies - Non-Load Bearing

1 5/8" - 2 1/2' - 3 5/8" - 4" - 6"



#### Two-Hour Wall Assembly

- Studs spaced 24" oc
- Two layers of gypsum wallboard (GWB per UL design assembly)
- No insulation required



#### Two-Hour Chase Wall Assembly

- Two rows of Supreme Studs
- Studs spaced 24" oc
- Can be aligned with 1" minimum spacing between studs from each row, staggered, or staggered and overlapped
- Two layers of gypsum wallboard (GWB per UL design assembly)
- No insulation required



#### UL Classifications for Supreme Framing System

V438, V486, V496, V498, U411, U412, U419, U435, U465, U493



#### Fire Testing Data ASTM E 119

#### Notes:

1. Fire Ratings are for wall assemblies, not individual wall components.
2. Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
3. Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements.
4. The published information cannot always address every construction nuance encountered in the field. When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design.
5. Users of fire resistance assemblies are advised to consult the general UL Guide Information for each product category and each group of assemblies. The UL Guide Information includes specifics concerning alternate materials and alternate methods of construction.



## SUPREME STUD - SCREW AND WELD CAPACITIES

### Screw Table Notes

- Capacities based on AISI S100 Section E4 specification.
- When connecting materials of different steel thicknesses or tensile strengths, use the lowest values. Tabulated values assume two sheets of equal thickness are connected.
- Capacities are based on Allowable Strength Design (ASD) and include safety factor of 3.0.
- Where multiple fasteners are used, screws are assumed to have a center-to-center spacing of at least 3 times the nominal diameter (d).
- Screws are assumed to have a center-of screw to edge-of steel dimension of at least 1.5 times the nominal diameter (d) of the screw.
- Values are for pure shear of tension loads. See AISI S100 Section E4.5 for combined shear and pull-over
- Tension capacity is based on the lesser of pull-out capacity in sheet closest to screw tip, or pull-over capacity for sheet closest to screw head (based on head diameter shown).
- Higher values, especially for screw strength, may be obtained by specifying screws from a specific manufacturer.

### Allowable Screw Connection Capacity (Pounds Per Screw)

| Thickness<br>(Mils) | Design<br>Thickness | Fy<br>Yield<br>(ksi) | Fu Tensile<br>(ksi) | #6 Screw<br>0.138" dia; 1/4" Head |                      |          | #8 Screw<br>0.164" dia; 5/16" Head |                      |          | #10 Screw<br>0.190" dia; 0.340" Head |                      |          | #12 Screw<br>0.216" dia; 0.340" Head |                      |          | 1/4" Screw<br>0.250" dia; 0.409" Head |                      |
|---------------------|---------------------|----------------------|---------------------|-----------------------------------|----------------------|----------|------------------------------------|----------------------|----------|--------------------------------------|----------------------|----------|--------------------------------------|----------------------|----------|---------------------------------------|----------------------|
|                     |                     |                      |                     | Shear                             | Tension /<br>Pullout | Pullover | Shear                              | Tension /<br>Pullout | Pullover | Shear                                | Tension /<br>Pullout | Pullover | Shear                                | Tension /<br>Pullout | Pullover | Shear                                 | Tension /<br>Pullout |
| D25                 | 0.0155              | 50                   | 65                  | 111 <sup>1</sup>                  | 39                   | 137      | 111 <sup>1</sup>                   | 47                   | 157      | 111 <sup>1</sup>                     | 54                   | 171      | -                                    | -                    | -        | -                                     | -                    |
| D20                 | 0.0188              | 57                   | 65                  | 142 <sup>1</sup>                  | 48                   | 166      | 150 <sup>1</sup>                   | 57                   | 191      | 164 <sup>1</sup>                     | 66                   | 208      | 109                                  | 75                   | 208      | -                                     | -                    |
| 30EQD               | 0.0235              | 57                   | 65                  | 174 <sup>1</sup>                  | 60                   | 208      | 184 <sup>1</sup>                   | 71                   | 239      | 236 <sup>1</sup>                     | 82                   | 260      | 152                                  | 93                   | 260      | -                                     | -                    |

#### NOTES:

Values are based on testing using AISI procedures.

### Weld Table Notes

- Weld capacities are based the AISI S100 Specification Sections E2.4 for fillet welds and E2.5 for groove welds.
- When connecting materials of different steel thicknesses or tensile strengths (Fu), the lowest values should be used.
- Capacities are based on Allowable Strength Design (ASD) and include appropriate safety factors.
- Longitudinal capacity is loading in parallel direction of the length of the weld.
- Weld capacities are based on either 0.0938" or 0.125" diameter E60 or E70 electrodes. The use of 0.030" to 0.035" diameter wire electrodes may provide best results.
- Transverse capacity is loading in perpendicular direction of the length of the weld.
- For flare groove welds, the effective throat of weld is conservatively assumed to be less than 2t.



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