

What is Supreme Framing System™?

Supreme Framing System™

SFS is a new design utilizing superior yield strength steel to produce a premium product. Supreme Track SFT is manufactured from 55 ksi, 18 mil steel single track system with 1 ¼" legs. The studs are manufactured from 57 ksi, 24 mil steel, including planking and 1 7/16" flanges for quicker installation.



Available Sizes

1 5/8", 2 1/2", 3 1/2", 3 5/8"
4", & 6"

High Yield Steel
Plus New Profile
Supreme Drywall Stud



Supreme Nomenclature

Example 1

6" Studs for Supreme : 600SFS-30EQ

Example 2

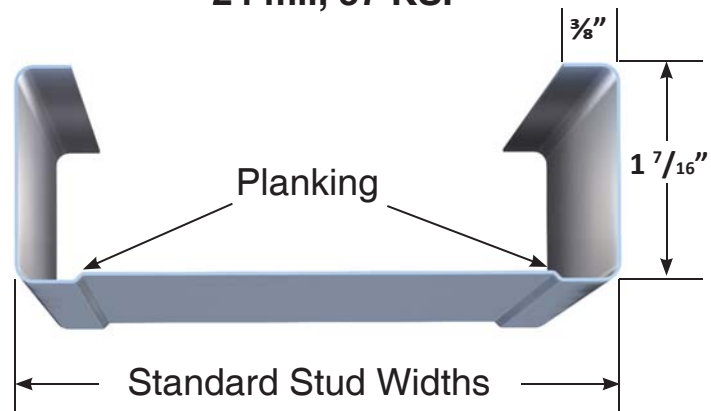
6" Track for Supreme : 600SFT-30EQ

Example 3

6" Deep Leg Track for Supreme : 600SFDT250-30EQ

Supreme Stud Profile

24 mil, 57 KSI



Patent Pending



For additional information, please contact any SCAFCO Branch or visit www.SupremeFramingSystem.com

2003 and 2006 IBC Tables For Supreme Framing System™

(30 - Mil EQ) Interior Non-Structural COMPOSITE Wall Heights

| Stud Member | Spacing (in.) o.c. | 5 psf | | | 7.5 psf | | | 10 psf | | | 15 psf | | |
|-------------|--------------------|---------|---------|---------|----------|---------|--------|---------|---------|---------|---------|---------|---------|
| | | L/120 | L/240 | L/360 | L/120 | L/240 | L/360 | L/120 | L/240 | L/360 | L/120 | L/240 | L/360 |
| 162 SFS | 16 | 12' 10" | 10' 2" | 8' 9" | 11' 2" | 8' 9" | - | 9' 10" | - | - | - | - | - |
| 162 SFS | 24 | 11' 4"f | 9' 1" | - | 9' 5"f | - | - | 8' 3"f | - | - | - | - | - |
| 250 SFS | 16 | 15' 7" | 12' 5" | 10' 10" | 13' 8" | 10' 10" | 9' 5" | 11' 7"f | 9' 9" | 8' 6" | 9' 3"f | 8' 6" | - |
| 250 SFS | 24 | 13' 7" | 10' 10" | 9' 5" | 11' 0"f | 9' 5" | 8' 3" | 9' 4"f | 8' 7" | - | - | - | - |
| 362 SFS | 16 | 20' 5" | 15' 8" | 13' 8" | 16' 10"f | 13' 8" | 12' 0" | 14' 1"f | 12' 5" | 10' 10" | 11' 1"f | 10' 10" | 9' 4" |
| 362 SFS | 24 | 17' 1"f | 14' 3" | 12' 5" | 13' 5"f | 12' 5" | 10' 9" | 11' 5"f | 11' 3" | 9' 8" | 9' 1"f | 9' 1"f | 8' 4" |
| 400 SFS | 16 | 20' 9" | 16' 6" | 14' 5" | 17' 0"f | 14' 5" | 12' 7" | 14' 5"f | 13' 1" | 11' 5" | 11' 5"f | 11' 5"f | 9' 9" |
| 400 SFS | 24 | 17' 3"f | 14' 8" | 12' 10" | 13' 8"f | 12' 10" | 11' 2" | 11' 8"f | 11' 8"f | 10' 1" | 9' 4"f | 9' 4"f | 8' 9" |
| 600 SFS | 16 | 28' 6" | 21' 6" | 18' 9" | 21' 11"f | 18' 9" | 16' 5" | 17' 8"f | 17' 1" | 14' 11" | 13' 4"f | 13' 4"f | 13' 0" |
| 600 SFS | 24 | 22' 7"f | 18' 6" | 16' 6" | 16' 6"f | 16' 2" | 14' 5" | 13' 6"f | 13' 6"f | 13' 1" | 10' 4"f | 10' 4"f | 10' 4"f |

Table Notes

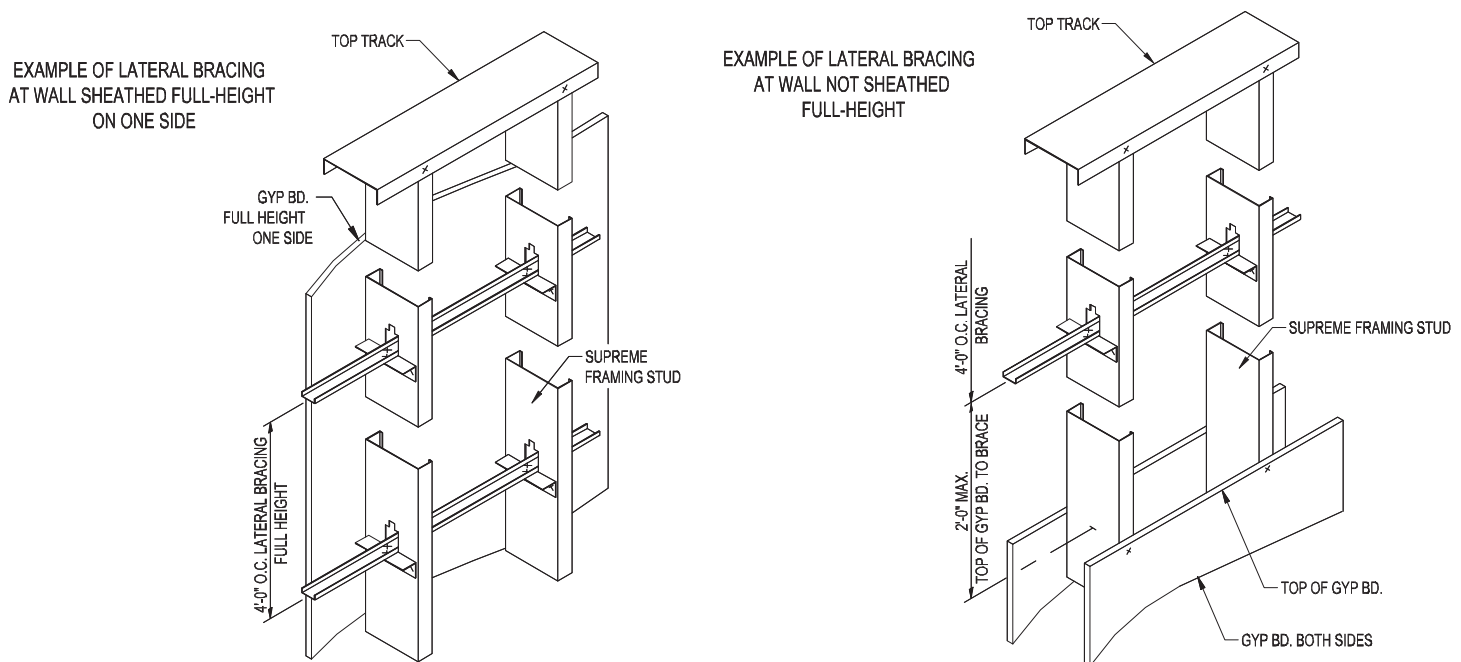
- f: Flexural stress controls allowable height*
- 5/8" Gypsum Board both sides full height*
- Tested per 2008 ICC ES Acceptance Criteria AC-86*
- Galvanizing to be G-40 minimum for 5 PSF or less & G-60 minimum for Greater than 5 PSF Lateral Loads*

(30 - Mil EQ) Interior Non-Structural NON-COMPOSITE Wall Heights

| Stud Member | Spacing (in.) o.c. | 5 psf | | | 7.5 psf | | | 10 psf | | | 15 psf | | |
|-------------|--------------------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|
| | | L/120 | L/240 | L/360 | L/120 | L/240 | L/360 | L/120 | L/240 | L/360 | L/120 | L/240 | L/360 |
| 162 SFS | 16 | 10' 0" | - | - | 8' 9" | - | - | - | - | - | - | - | - |
| 162 SFS | 24 | 8' 9" | - | - | - | - | - | - | - | - | - | - | - |
| 250 SFS | 16 | 13' 10" | 11' 0" | 9' 7" | 12' 1" | 9' 7" | 8' 4" | 11' 0" | 8' 8" | - | 9' 2" | - | - |
| 250 SFS | 24 | 12' 1" | 9' 7" | 8' 4" | 10' 7" | 8' 4" | - | 9' 2" | - | - | - | - | - |
| 350 SFS | 16 | 18' 0" | 14' 4" | 12' 7" | 14' 8" | 12' 7" | 10' 11" | 12' 8" | 11' 5" | 9' 11" | 10' 4" | 9' 11" | 8' 8" |
| 350 SFS | 24 | 14' 8" | 12' 7" | 10' 11" | 11' 11" | 10' 11" | 9' 7" | 10' 4" | 9' 11" | 8' 8" | 8' 6" | 8' 6" | - |
| 362 SFS | 16 | 18' 4" | 14' 9" | 12' 11" | 14' 11" | 12' 11" | 11' 3" | 12' 11" | 11' 9" | 10' 3" | 10' 6" | 10' 3" | 8' 11" |
| 362 SFS | 24 | 14' 11" | 12' 11" | 11' 3" | 12' 2" | 11' 3" | 9' 10" | 10' 6" | 10' 3" | 8' 11" | 8' 8" | 8' 8" | - |
| 400 SFS | 16 | 19' 3" | 16' 0" | 13' 11" | 15' 8" | 13' 11" | 12' 2" | 13' 7" | 12' 8" | 11' 1" | 11' 1" | 11' 1" | 9' 8" |
| 400 SFS | 24 | 15' 8" | 13' 11" | 12' 2" | 12' 10" | 12' 2" | 10' 8" | 11' 1" | 11' 1" | 9' 8" | 8' 8" | 8' 8" | 8' 5" |

Table Notes

- End lateral bearing - 1 inch minimum*
- Heights based on steel properties only*
- Limiting heights based on 1/2" minimum gypsum wall board attached to each face to within 4 feet of the end of the stud OR 1/2" minimum gypsum wall board attached to one face and the unsheated flange laterally braced at 4 foot o. c. for the length of the stud*



For additional information, please contact any SCAFCO Branch or visit www.SupremeFramingSystem.com.

2003 and 2006 IBC Tables For Supreme Framing System™

(30 - Mil EQ) Non-Structural Stud (SFS™) Section Properties

| Stud Member | Design Thickness | Area (in. ²) | Weight (lbs/ft.) | Gross | | | | | Effective | | | | | Torsional Properties | | | | | |
|-------------|------------------|--------------------------|------------------|-------------------------------------|-------------------------------------|----------------------|-------------------------------------|----------------------|-------------------------------------|-------------------------------------|-------------------------|----------------------|-----------------------|----------------------------|------------------------------------|---------|----------------------|----------------------|-------|
| | | | | I _{xx} (in. ⁴) | S _{xx} (in. ³) | R _x (in.) | I _{yy} (in. ⁴) | R _y (in.) | I _{xx} (in. ⁴) | S _{xx} (in. ³) | M _a (ft-lbs) | V _a (lbs) | Y _{cg} (in.) | Jx1000 (in. ⁴) | C _w (in. ⁶) | m (in.) | X _o (in.) | R _o (in.) | β |
| 162 SFS | 0.0235 | 0.117 | 0.40 | 0.055 | 0.068 | 0.684 | 0.035 | 0.543 | 0.052 | 0.048 | 136 | 621 | 0.938 | 0.022 | 0.027 | 0.776 | -1.359 | 1.616 | 0.292 |
| 250 SFS | 0.0235 | 0.138 | 0.47 | 0.145 | 0.116 | 1.025 | 0.041 | 0.542 | 0.136 | 0.090 | 255 | 505 | 1.379 | 0.025 | 0.060 | 0.716 | -1.212 | 1.677 | 0.478 |
| 350 SFS | 0.0235 | 0.161 | 0.55 | 0.313 | 0.179 | 1.392 | 0.046 | 0.531 | 0.304 | 0.112 | 319 | 351 | 2.127 | 0.030 | 0.119 | 0.659 | -1.083 | 1.842 | 0.655 |
| 362 SFS | 0.0235 | 0.164 | 0.56 | 0.339 | 0.187 | 1.437 | 0.046 | 0.529 | 0.331 | 0.116 | 331 | 338 | 2.212 | 0.030 | 0.128 | 0.652 | -1.069 | 1.867 | 0.672 |
| 400 SFS | 0.0235 | 0.173 | 0.59 | 0.427 | 0.213 | 1.569 | 0.047 | 0.524 | 0.417 | 0.129 | 367 | 305 | 2.468 | 0.032 | 0.159 | 0.634 | -1.029 | 1.949 | 0.721 |
| 600 SFS* | 0.0235 | 0.220 | 0.75 | 1.112 | 0.371 | 2.247 | 0.053 | 0.492 | 0.976 | 0.219 | 622 | 200 | 3.715 | 0.041 | 0.388 | 0.553 | -0.864 | 2.457 | 0.876 |

Section Properties Table Notes

Gross properties are based on the full-unreduced cross section of the studs, away from the punchouts.

For deflection calculations, use the effective moment of inertia.

*Web-height to thickness ratio exceeds 200. Web stiffeners are required at all support points.

(30 - Mil EQ) Allowable Ceiling Spans - DEFLECTION LIMIT L/240

| Stud Member | 4 psf | | | | 6 psf | | | | 13 psf | | | |
|-------------|-------------------------------|--------|--------------------|--------|--------------------|--------|--------------------|--------|-------------------------------|-------|--------------------|--------|
| | Lateral Support of Top Flange | | | | | | | | Lateral Support of Top Flange | | | |
| | Unsupported | | Midspan | | Unsupported | | Midspan | | Unsupported | | Midspan | |
| | Joist spacing o.c. | | Joist spacing o.c. | | Joist spacing o.c. | | Joist spacing o.c. | | Joist spacing o.c. | | Joist spacing o.c. | |
| | 16" | 24" | 16" | 24" | 16" | 24" | 16" | 24" | 16" | 24" | 16" | 24" |
| 162 SFS | 8' 7" | 7' 6" | 8' 7" | 7' 6" | 7' 6" | 6' 6" | 7' 6" | 6' 6" | 5' 9" | 5' 0" | 5' 9" | 5' 0" |
| 250 SFS | 9' 10" | 8' 10" | 11' 10" | 10' 4" | 8' 10" | 7' 11" | 10' 4" | 9' 0" | 7' 2" | 6' 4" | 8' 0" | 6' 11" |
| 362 SFS | 10' 8" | 9' 7" | 15' 4" | 13' 7" | 9' 7" | 8' 8" | 13' 7" | 12' 0" | 7' 10" | 7' 0" | 10' 8" | 9' 2" |
| 400 SFS | 11' 0" | 9' 10" | 15' 9" | 14' 0" | 9' 10" | 8' 10" | 14' 0" | 12' 4" | 8' 1" | 7' 2" | 11' 0" | 9' 7" |

Ceiling Span Table Notes

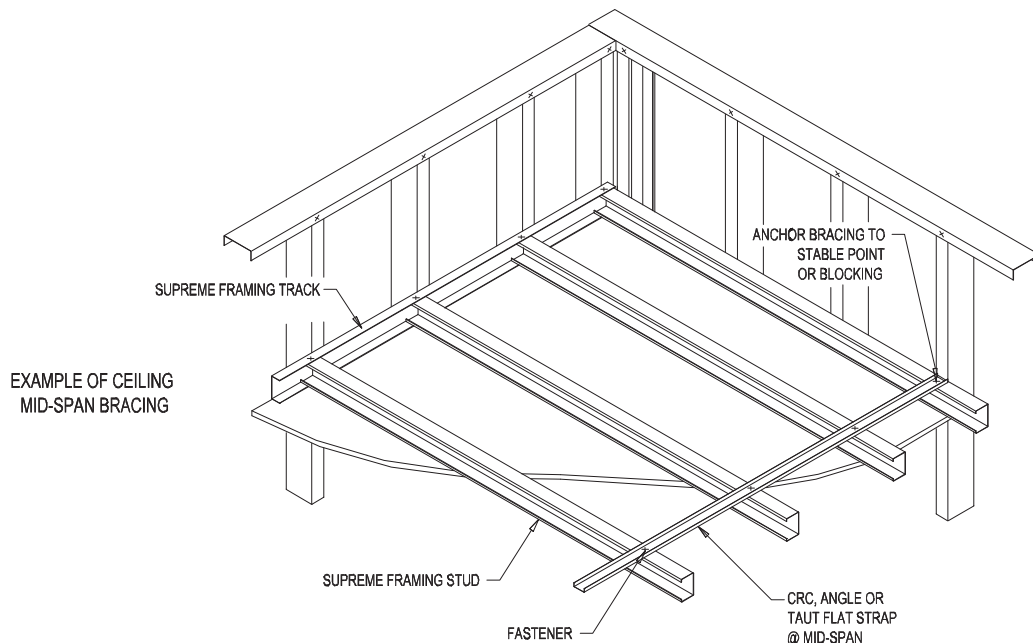
Values are for single spans, for fully braced ceilings, use mid-span values, end bearing length is 1 inch minimum

(30 - Mil EQ) Allowable Ceiling Spans - DEFLECTION LIMIT L/360

| Stud Member | 4 psf | | | | 6 psf | | | | 13 psf | | | |
|-------------|-------------------------------|--------|--------------------|--------|--------------------|--------|--------------------|--------|-------------------------------|-------|--------------------|--------|
| | Lateral Support of Top Flange | | | | | | | | Lateral Support of Top Flange | | | |
| | Unsupported | | Midspan | | Unsupported | | Midspan | | Unsupported | | Midspan | |
| | Joist spacing o.c. | | Joist spacing o.c. | | Joist spacing o.c. | | Joist spacing o.c. | | Joist spacing o.c. | | Joist spacing o.c. | |
| | 16" | 24" | 16" | 24" | 16" | 24" | 16" | 24" | 16" | 24" | 16" | 24" |
| 162 SFS | 7' 6" | 6' 6" | 7' 6" | 6' 6" | 6' 6" | 5' 8" | 6' 6" | 5' 8" | 5' 0" | 4' 5" | 5' 0" | 4' 5" |
| 250 SFS | 9' 10" | 8' 10" | 10' 4" | 9' 0" | 8' 10" | 7' 10" | 9' 0" | 7' 10" | 6' 11" | 6' 1" | 6' 11" | 6' 1" |
| 362 SFS | 10' 8" | 9' 7" | 13' 11" | 12' 2" | 9' 7" | 8' 8" | 12' 2" | 10' 7" | 7' 10" | 7' 0" | 9' 4" | 8' 2" |
| 400 SFS | 11' 0" | 9' 10" | 15' 0" | 13' 1" | 9' 10" | 8' 10" | 13' 1" | 11' 5" | 8' 1" | 7' 2" | 10' 2" | 8' 10" |

Ceiling Span Table Notes

Values are for single spans, for fully braced ceilings, use mid-span values, end bearing length is 1 inch minimum.



Supreme Framing System™ is Tested & Approved to the Highest Standard



School of Civil & Construction Engineering Building

All of the testing for Supreme Framing System™ was under the supervision of Principle Investigator Thomas Miller, Ph.D. of Oregon State University's School of Civil and Construction Engineering Professor Thomas Miller's structural engineering and structural mechanics research interests include earthquake engineering, timber structures and cold-formed steel structures. He provided all of the testing of Cold-Formed Steel Wall Stud Panels for the Metal Stud Manufacturer's Association (MSMA) and has also provided all of the Composite Wall Testing for the Steel Stud Manufacturer's Association (SSMA).



For additional information, please contact any SCAFCO Branch or visit www.SupremeFramingSystem.com.

Code Approvals and Performance Standards

AISI "North American Specification for the Design of Cold-Formed Steel Structural Members"

ASTM American Society for Testing and Materials 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"

E119 "Standard Test Methods for Fire Tests of Building Construction and Materials"

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"

UL Underwriters Laboratories Testing Standard

UL 263 "Fire Tests of Building Construction and Materials"

UL Underwriters Laboratories Supreme Framing Classification

Wall Design No. V486 in the UL Fire Resistance Directory

Steel Framing Members Fire Resistance Classification

[U411](#) [U412](#) [U419](#) [U435](#) [U465](#) [U493](#)

Additional Code Approvals
ICC-ES ESR (Pending)

Independent Product Certification

Sound Ratings - Riverbank Acoustical Laboratories

Fire Testing - Underwriters Laboratories Inc.

Structural Testing - O.S.U. (Oregon State University)

3rd Party Testing - Architectual Testing Inc.

Structural Engineer - Devco Engineering

