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-30-EQ is manufactured from 55 ksi, 18 mil steel, SFT-33EQ is manufactured from 57 ksi 24 mil steel, both with 1¼" legs. Larger leg heights are available in 1½", 2", 2 ½", & 3". 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 ½", 3 ½", 3 5/8"
4", & 6"

Supreme Nomenclature

Example 1
6" Studs for 30EQ Supreme : 600SFS-30EQ

Example 2
6" Track for 33EQ Supreme : 600SFT-33EQ

Example 3
6" Deep Leg Track for 30EQ Supreme : 600SFDT250-30EQ

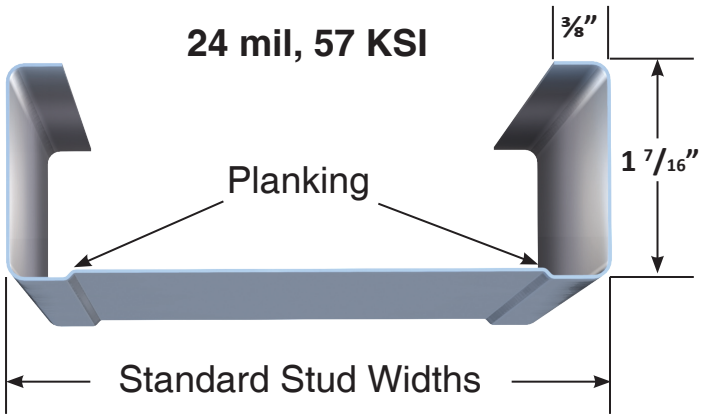
Screw Connections - Per AISI Section E4.

Allowable Loads (lb/screw)												
Steel Thickness		Steel Prop.		No. 10 - 0.190 in. dia.			No. 8 - 0.164 in. dia.			No. 6 - 0.168 in. dia.		
mils	Design (in)	Fy (ksi)	Fu (ksi)	Shear	Pullout	Pullover	Shear	Pullout	Pullover	Shear	Pullout	Pullover
24 SFS	0.0235	57	65	143	82	191	133	71	191	122	60	191

Notes: 1. *All values assume that the nominal strength of the screw itself is at least 1.25 times the design strength. Listed values use a factor of safety of 3.*
2. *Pullover values assume a minimum head/washer diameter, dw, of 1/4"*

High Yield Steel
Plus New Profile
Superior Drywall Stud

Supreme Stud Profile



Patent Pending

SFS™ Supreme Framing System

For additional information, please contact Steel-Con or visit www.SupremeFramingSystem.com

2003 and 2006 IBC Tables For Non-Structural Framing

(30EQ & 33EQ - Mil) Interior COMPOSITE Wall Heights - 5/8" GWB Full Height

Stud	Spacing	5 psf			7.5 psf			10 psf			15 psf		
Member	(in.) o.c.	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
30EQ Galvanizing to be G-40 Minimum for 5 PSF or less & 33EQ G-60 Minimum for Greater than 5 PSF Lateral Loads
33EQ Galvanizing to be G-60 Minimum

(30EQ & 33EQ - Mil) Interior NON-COMPOSITE Wall Height - 1/2" GWB Full Height

Stud	Spacing	5 psf			7.5 psf			10 psf			15 psf		
Member	(in.) o.c.	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-24	16	10' 0"	-	-	8' 9"	-	-	-	-	-	-	-	-
162 SFS-24	24	8' 9"	-	-	-	-	-	-	-	-	-	-	-
250 SFS-24	16	13' 10"	11' 0"	9' 7"	12' 1"	9' 7"	8' 4"	11' 0"	8' 8"	-	9' 2"	-	-
250 SFS-24	24	12' 1"	9' 7"	8' 4"	10' 7"	8' 4"	-	9' 2"	-	-	8' 3"f	-	-
362 SFS-24	16	18' 7"	14' 9"	12' 11"	16' 3"	12' 11"	11' 3"	14' 1"f	11' 9"	10' 3"	11' 6"f	10' 3"	8' 11"
362 SFS-24	24	16' 3"	12' 11"	11' 3"	13' 3"f	11' 3"	9' 10"	11' 6"f	10' 3"	8' 11"	8' 9"	8' 9"	-
400 SFS-24	16	20' 2"	16' 0"	13' 11"	17' 1"f	13' 11"	12' 2"	14' 10"f	12' 8"	11' 1"	12' 1"f	11' 1"	9' 8"
400 SFS-24	24	17' 1"f	13' 11"	12' 2"	13' 11"f	12' 2"	10' 8"	12' 1"f	11' 1"	9' 8"	8' 8"	8' 8"	8' 5"
600 SFS-24*	16	26' 9"	21' 3"	18' 6"	22' 3"f	18' 6"	16' 2"	19' 3"f	16' 10"	14' 8"	15' 9"f	14' 8"	12' 10"
600 SFS-24*	24	22' 3"f	18' 6"	16' 2"	18' 2"f	16' 2"	14' 2"	15' 9"f	14' 8"	12' 10"	12' 10"f	12' 10"f	11' 2"

Table Notes

** Web-height to thickness ratio exceeds 200. Web stiffeners are required at all supprt points*
f Flexural stress controls allowable height
End lateral bearing - 1 inch minimum
Heights based on steel properties only
1/2" Gypsum Board both sides full height
30EQ Galvanizing to be G-40 Minimum for 5 PSF or less & 33EQ G-60 Minimum for Greater than 5 PSF Lateral Loads
33EQ Galvanizing to be G-60 Minimum

(30EQ & 33EQ - Mil) Interior NON-COMPOSITE Chase Wall or Non-Clad Wall Height

Stud	Spacing	5 psf			7.5 psf			10 psf			15 psf		
Member	(in.) o.c.	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 examples of lateral bracing, please refer to detail on page 6.

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For additional information, please contact Steel-Con or visit www.SupremeFramingSystem.com.

2003 and 2006 IBC Tables For Non-Structural Framing

(30EQ & 33EQ - Mil) Stud (SFS™) Section Properties

Stud Member	Design Thickness	Gross							Effective					Torsional Properties					
		Area ($in.^2$)	Weight (lbs/ft.)	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.)	ß
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.*

(30EQ & 33EQ - Mil) 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				Lateral Support of Top Flange			
	Unsupported Joist spacing o.c.		Midspan Joist spacing o.c.		Unsupported Joist spacing o.c.		Midspan Joist spacing o.c.		Unsupported Joist spacing o.c.		Midspan 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

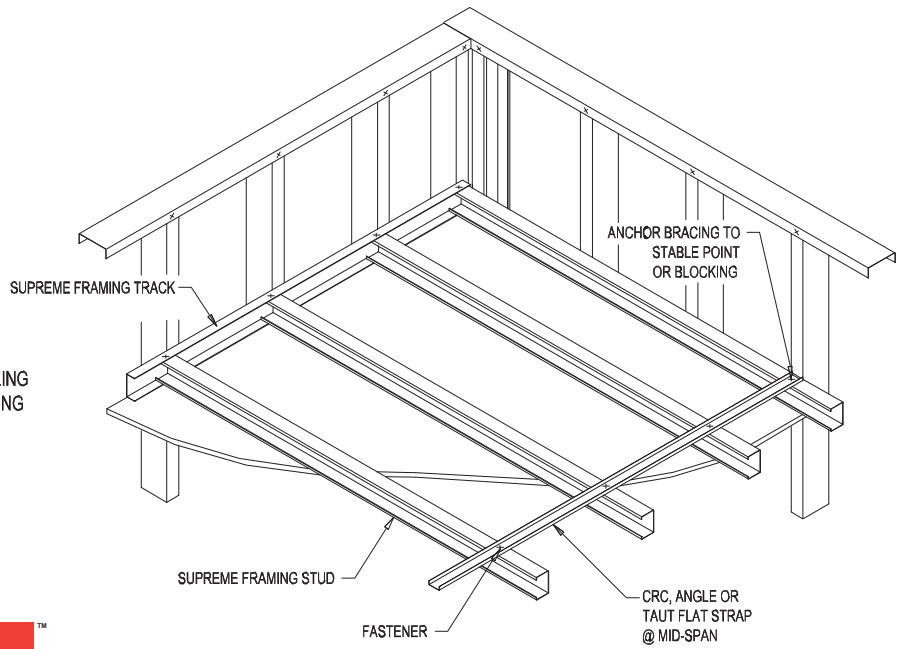
(30EQ & 33EQ - Mil) Allowable Ceiling Spans - DEFLECTION LIMIT L/360

Stud Member	**4 psf**				**6 psf**				**13 psf**			
	Lateral Support of Top Flange				Lateral Support of Top Flange				Lateral Support of Top Flange			
	Unsupported Joist spacing o.c.		**Midspan** Joist spacing o.c.		**Unsupported** Joist spacing o.c.		**Midspan** Joist spacing o.c.		**Unsupported** Joist spacing o.c.		**Midspan** 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.

EXAMPLE OF CEILING MID-SPAN BRACING



Steel-Con™
Steel Construction Systems

For additional information, please contact Steel-Con or visit www.SupremeFramingSystem.com.

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 Principal Investigator Thomas Miller, Phd. 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).

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)

Structural Engineer - Devco Engineering

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For additional information, please contact Steel-Con or visit www.SupremeFramingSystem.com.

DEVCO engineering inc