

# ProSTUD® Composite Limiting Heights

## 5/8" Type X Gypsum Board

Width (in)	Stud member	Design thickness (in)	Yield strength (ksi)	Spacing (inches)	Lateral Load (psf)								
					5psf			7.5psf			10psf		
					L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
1-5/8	ProSTUD 25 162PDS125-15	0.0158	50	12	14' 1"	11' 7"	10' 1"	12' 3"	10' 1"	8' 7"	11' 2"	9' 1"	—
				16	12' 9"	10' 6"	9' 0"	11' 2"	9' 1"	—	10' 2"	8' 1"	—
				24	11' 2"	9' 1"	—	9' 9"	—	—	8' 5"	—	—
	ProSTUD 20 162PDS125-18	0.0190	70	12	13' 2"	11' 5"	10' 0"	11' 6"	10' 0"	8' 5"	10' 6"	8' 9"	—
				16	12' 10"	11' 1"	9' 9"	11' 2"	9' 8"	7' 11"	10' 2"	8' 4"	—
				24	11' 10"	10' 3"	8' 6"	10' 4"	8' 5"	—	9' 2"	—	—
	ProSTUD 30 162PDS125-30	0.0312	33	12	16' 3"	12' 11"	11' 3"	14' 3"	11' 3"	9' 10"	12' 11"	10' 3"	8' 8"
				16	14' 9"	11' 9"	10' 3"	12' 11"	10' 3"	8' 8"	11' 9"	9' 2"	—
				24	12' 11"	10' 3"	8' 8"	11' 3"	8' 8"	—	10' 3"	—	—
	ProSTUD 33 162PDS125-33	0.0346	33	12	17' 0"	13' 6"	11' 10"	14' 10"	11' 10"	10' 4"	13' 6"	10' 9"	9' 3"
				16	15' 6"	12' 3"	10' 9"	13' 6"	10' 9"	9' 3"	12' 3"	9' 9"	—
				24	13' 6"	10' 9"	9' 3"	11' 10"	9' 3"	—	10' 9"	—	—
2-1/2	ProSTUD 25 250PDS125-15	0.0158	50	12	17' 2"	14' 8"	13' 0"	15' 0"	12' 10"	11' 4"	13' 3" f	11' 8"	10' 4"
				16	15' 7"	13' 4"	11' 9"	13' 3" f	11' 8"	10' 4"	11' 5" f	10' 7"	9' 1"
				24	13' 3" f	11' 8"	10' 4"	10' 10" f	10' 2"	8' 6"	9' 4" f	8' 11"	—
	ProSTUD 20 250PDS125-18	0.0190	70	12	17' 5"	14' 8"	12' 11"	15' 3"	12' 10"	11' 3"	13' 10"	11' 8"	10' 3"
				16	16' 8"	14' 0"	12' 4"	14' 6"	12' 3"	10' 9"	13' 2"	11' 2" f	9' 9"
				24	15' 2"	12' 10"	11' 3"	13' 2" f	11' 2"	9' 10"	11' 5" f	10' 2"	8' 5"
	ProSTUD 30 250PDS125-30	0.0312	33	12	19' 9"	16' 3"	14' 4"	17' 3"	14' 2"	12' 6"	15' 8"	12' 11"	11' 4"
				16	17' 11"	14' 9"	13' 0"	15' 8"	12' 11"	11' 4"	14' 3"	11' 9"	10' 4"
				24	15' 8"	12' 11"	11' 4"	13' 8" f	11' 3"	9' 11"	12' 5"	10' 3"	8' 8"
	ProSTUD 33 250PDS125-33	0.0346	33	12	20' 4"	16' 9"	14' 9"	17' 9"	14' 7"	12' 10"	16' 2"	13' 3"	11' 8"
				16	18' 6"	15' 2"	13' 5"	16' 2"	13' 3"	11' 8"	14' 8"	12' 1"	10' 7"
				24	16' 2"	13' 3"	11' 8"	14' 1"	11' 7"	10' 3"	12' 10"	10' 7"	9' 1"
3-5/8	ProSTUD 25 362PDS125-15	0.0158	50	12	21' 6"	17' 1"	14' 11"	18' 4" f	14' 11"	13' 0"	15' 10" f	13' 7"	11' 10"
				16	19' 5" f	15' 6"	13' 7"	15' 10" f	13' 7"	11' 10"	13' 9" f	12' 4"	10' 7"
				24	15' 10" f	13' 7"	11' 10"	12' 11" f	11' 10"	10' 1"	11' 2" f	10' 7"	9' 0"
	ProSTUD 20 362PDS125-18	0.0190	70	12	22' 0"	18' 2"	15' 8"	19' 3"	15' 10"	13' 8"	17' 6"	14' 5"	12' 5"
				16	20' 6"	16' 10"	14' 7"	17' 11"	14' 9"	12' 9"	16' 3"	13' 5"	11' 6"
				24	18' 4"	15' 1"	13' 0"	15' 11" f	13' 2"	11' 4"	13' 9" f	12' 0"	10' 1"
	ProSTUD 30 362PDS125-30	0.0312	33	12	25' 8"	20' 5"	17' 10"	22' 5"	17' 10"	15' 7"	20' 5"	16' 2"	14' 2"
				16	23' 4"	18' 6"	16' 2"	20' 5"	16' 2"	14' 2"	18' 6"	14' 8"	12' 10"
				24	20' 5"	16' 2"	14' 2"	17' 10"	14' 2"	12' 3"	16' 2"	12' 10"	11' 0"
	ProSTUD 33 362PDS125-33	0.0346	33	12	26' 7"	21' 2"	18' 5"	23' 3"	18' 5"	16' 1"	21' 2"	16' 9"	14' 8"
				16	24' 2"	19' 2"	16' 9"	21' 2"	16' 9"	14' 8"	19' 2"	15' 3"	13' 4"
				24	21' 2"	16' 9"	14' 8"	18' 5"	14' 8"	12' 10"	16' 9"	13' 4"	11' 6"

**Notes:**

- Allowable composite limiting heights were determined in accordance with ICC-ES AC86-2019.
- Additional composite wall testing and analysis requirements of the SFIA Code Compliance Certification Program were observed.
- In accordance with current building codes and AISI design standards, the 1/3 stress increase for strength was not used.
- The composite limiting heights provided in the tables are based on a single layer of 5/8" Type X Gypsum Board from the following manufacturers: American, CertainTeed, Georgia Pacific, Continental, National, PABCO, and USG.
- The gypsum board must be applied full height in the vertical orientation to each stud flange and installed in accordance with ASTM C754 using minimum No. 6 Type S drywall screws spaced as listed below:
  - Screws spaced a maximum of 16 in. o.c. to framing members (including top and bottom tracks) spaced at 16 in. or 12 in. o.c.
  - Screws spaced a maximum of 12 in. o.c. to framing members (including top and bottom tracks) spaced at 24 in. o.c.
- No fasteners are required for attaching the stud to the track except as detailed in ASTM C754.
- Stud end bearing must be a minimum of 1 inch.
- f** Adjacent to the height value indicates that flexural stress controls the allowable wall height.
- s** Adjacent to the height value indicates that shear/end reaction controls the allowable wall height.

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					5psf			7.5psf			10psf		
					L/120	L/240	L/360	L/120	L/240	L/360	L/120	L/240	L/360
4	ProSTUD 25 400PDS125-15	0.0158	50	12	22' 8"	18' 0"	15' 9"	19' 1" f	15' 9"	13' 9"	16' 6" f	14' 4"	12' 6"
				16	20' 3" f	16' 4"	14' 4"	16' 6" f	14' 4"	12' 6"	14' 4" f	13' 0"	11' 3"
				24	16' 6" f	14' 4"	12' 6"	13' 6" f	12' 6"	10' 8"	11' 8" f	11' 3"	9' 6"
	ProSTUD 20 400PDS125-18	0.0190	70	12	22' 9"	18' 8"	16' 4"	19' 11"	16' 4"	14' 3"	18' 1"	14' 10"	13' 0"
				16	21' 4"	17' 7"	15' 4"	18' 8"	15' 4"	13' 5"	16' 11"	13' 11"	12' 2"
				24	19' 3"	15' 10"	13' 10"	16' 7" f	13' 10"	12' 1"	14' 4" f	12' 6"	10' 9"
	ProSTUD 30 400PDS125-30	0.0312	33	12	27' 5"	21' 9"	19' 0"	24' 0"	19' 0"	16' 8"	19' 9"	17' 4"	15' 1"
				16	24' 11"	19' 10"	17' 4"	21' 9"	17' 4"	15' 1"	19' 10"	15' 9"	13' 9"
				24	21' 9"	17' 4"	15' 1"	19' 0"	15' 1"	13' 2"	17' 4"	13' 9"	11' 10"
	ProSTUD 33 400PDS125-33	0.0346	33	12	27' 10"	22' 9"	20' 1"	24' 3"	19' 11"	17' 7"	22' 1"	18' 1"	15' 11"
				16	25' 3"	20' 8"	18' 3"	22' 1"	18' 1"	15' 11"	20' 1"	16' 5"	14' 6"
				24	22' 1"	18' 1"	15' 11"	19' 3"	15' 10"	13' 11"	17' 6"	14' 4"	12' 8"
6	ProSTUD 25 600PDS125-15	0.0158	50	12	27' 10" f	24' 2"	21' 5"	22' 9" f	21' 1"	18' 8"	19' 8" f	19' 2"	17' 0"
				16	24' 1" f	21' 11"	19' 5"	19' 8" f	19' 2"	17' 0"	17' 1" f	17' 1" f	15' 5"
				24	19' 8" f	19' 2"	17' 0"	16' 1" f	16' 1" f	14' 9"	13' 11" f	13' 11" f	13' 4"
	ProSTUD 20 600PDS125-18	0.0190	70	12	32' 1"	25' 6"	22' 3"	28' 1"	22' 3"	19' 5"	24' 4" f	20' 3"	17' 8"
				16	29' 10"	23' 8"	20' 8"	24' 10" f	20' 8"	18' 1"	21' 6" f	18' 9"	16' 5"
				24	25' 5" f	21' 1"	18' 5"	20' 9" f	18' 5"	16' 1"	18' 0" f	16' 9"	14' 6"
	ProSTUD 30 600PDS125-30	0.0312	33	12	36' 7"	29' 1"	25' 5"	32' 0"	25' 5"	22' 2"	29' 1"	23' 1"	20' 2"
				16	33' 3"	26' 5"	23' 1"	29' 1"	23' 1"	20' 2"	26' 5"	20' 11"	18' 4"
				24	29' 1"	23' 1"	20' 2"	25' 5"	20' 2"	17' 7"	22' 6" f	18' 4"	—
	ProSTUD 33 600PDS125-33	0.0346	33	12	36' 8"	30' 1"	26' 6"	32' 0"	26' 3"	23' 2"	29' 1"	23' 10"	21' 0"
				16	33' 3"	27' 4"	24' 1"	29' 1"	23' 10"	21' 0"	26' 5"	21' 8"	19' 1"
				24	29' 1"	23' 10"	21' 0"	25' 5"	20' 10"	18' 4"	23' 1"	18' 11"	—

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