



Limiting Heights for NITROSTUD 25 mil (0.0179 in.), $F_y = 33$ ksi, Studs with 5/8" Type X Gypsum Board

| Member Size | Spacing (in.) | 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 | |
| | | ft | in | ft | in | ft | in | ft | in | ft | in | ft | in | ft | in | ft | in | | |
| 1-5/8" | 12 | 12 | - | 10f | 11 | - | 11 | 10 | - | 8 | 10 | - | 5f | 10 | - | 5 | 9 | - | 3 |
| | 16 | 11 | - | 1f | 10 | - | 10 | 9 | - | 8 | 9 | - | 1f | 9 | - | 1f | 8 | - | 3 |
| | 24 | 9 | - | 1f | 9 | - | 1f | 8 | - | 3 | | | | | | | | | |
| 2-1/2" | 12 | 14 | - | 9f | 14 | - | 9f | 13 | - | 2 | 12 | - | 0f | 12 | - | 0f | 11 | - | 6 |
| | 16 | 12 | - | 9f | 12 | - | 9f | 11 | - | 11 | 10 | - | 5f | 10 | - | 5f | 9 | - | 0f |
| | 24 | 10 | - | 5f | 10 | - | 5f | 8 | - | 6f | 8 | - | 6f | 8 | - | 6f | | | |
| 3-5/8" | 12 | 16 | - | 11f | 16 | - | 11f | 14 | - | 11 | 13 | - | 10f | 13 | - | 10f | 13 | - | 0 |
| | 16 | 14 | - | 8f | 14 | - | 8f | 13 | - | 6 | 12 | - | 0f | 12 | - | 0f | 11 | - | 10 |
| | 24 | 12 | - | 0f | 12 | - | 0f | 11 | - | 10 | 9 | - | 9f | 9 | - | 9f | 8 | - | 6f |
| 4" | 12 | 17 | - | 8f | 17 | - | 8f | 15 | - | 10 | 14 | - | 5f | 14 | - | 5f | 13 | - | 10 |
| | 16 | 15 | - | 4f | 15 | - | 4f | 14 | - | 4 | 12 | - | 6f | 12 | - | 6f | 10 | - | 10f |
| | 24 | 12 | - | 6f | 12 | - | 6f | 12 | - | 6f | 10 | - | 3f | 10 | - | 3f | 8 | - | 10f |
| 6" | 12 | 21 | - | 11f | 21 | - | 11f | 21 | - | 10 | 17 | - | 11f | 17 | - | 11f | 15 | - | 6f |
| | 16 | 19 | - | 0f | 19 | - | 0f | 19 | - | 0f | 15 | - | 6f | 15 | - | 6f | 13 | - | 5f |
| | 24 | 15 | - | 6f | 15 | - | 6f | 15 | - | 6f | 12 | - | 8f | 12 | - | 8f | | | |

NOTES:

- Allowable composite limiting heights are calculated using ICC-ES AC86-2010.
- Minimum safety factor for strength = 1.508 for 5 to 10 psf
- The gypsum board must be applied full height to each stud flange and installed using minimum No. 6 Type S Drywall screws spaced a maximum of 12 in. on-center for studs at 24-in spacing, and 16 in. on-center for studs at 16 and 12 in. spacing.
- No fasteners are required for attaching the stud to the track.
- Stud end bearing must be a minimum of 1 inch.
- Minimum material yield strength equals 33 ksi.
- '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.