

Exterior curtain wall overview

Load/Span Table Wind Pressure Notes.

IBC 2012/ASCE 7-10 only

Due to changes in the model building codes, design wind pressures determined using IBC 2012/ASCE 7-10 are strength level loads (LRFD) in comparison to those determined in earlier IBC codes which were service level loads (ASD). The load/span tables that follow are based on service level (ASD) wind loads. Therefore, to properly use the load/span tables in this catalog, multiply the IBC 2012/ASCE 7-10 design wind pressures by 0.6 (reference section 2.4 ASCE 7-10) prior to entering the load/span tables.

Example:

- ASCE 7-10 Calculated Design Wind Pressure = 16psf (strength level loads, LRFD)
- Convert to service level load (ASD) = $16\text{psf} \times 0.6 = 10\text{psf}$
- Use 10psf as the Pressure Value used in this table to determine the member span

Any other building code

The load/span tables that follow are based on service level (ASD) wind loads. If the wind load being used meets this criterion, it does not need to be modified prior to using the tables.

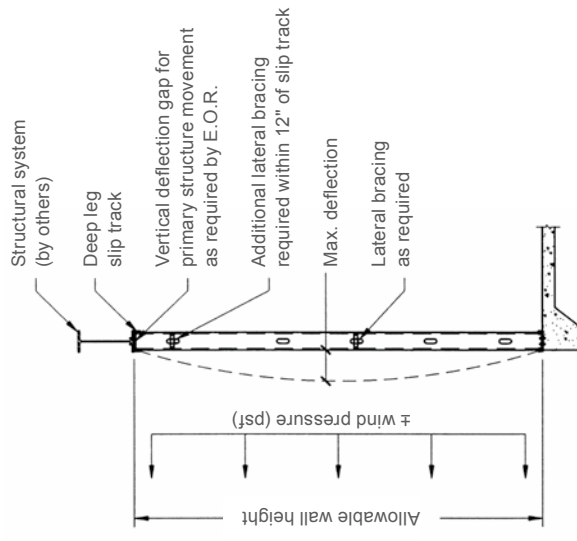
Allowable wall heights—curtain wall framing.

Exterior curtain walls must be designed to withstand the highest winds anticipated for the particular construction location. Wind pressures can be found in the project's structural drawings under the "general notes" section. Please contact technical services at 888-437-3244 for help converting wind speeds (mph) to wind loads (psf).

The tables on the following pages provide allowable height limitations for exterior curtain walls subjected to lateral transverse loads. Members shown vary in depth, flange width and steel thickness. Select the studs that are right for your application, also taking into account the acceptable deflection level.

Deflection.

- L/240 Length (height) of stud, in inches, divided by 240 (exterior siding or EIFS)
- L/360 Length (height) of stud, in inches, divided by 360 (exterior stucco)
- L/600 Length (height) of stud, in inches, divided by 600 (exterior brick)
- L/720 Length (height) of stud, in inches, divided by 720 (exterior brick)



General Notes:

- 1 Lateral loads have been multiplied by 0.7 for deflection determination per IBC 2012 Table 1604.3.
- 2 The strength increase due to cold work of forming was incorporated for flexural strength as applicable per section A7.2 of AISI-NASPEC, 2007 with 2010 supplement.
- 3 Limiting heights based on continuous support of each flange over the full length of the stud.
- 4 Heights based on steel properties only (i.e., composite wall considerations not included in the deflection calculations).
- 5 All values are based on $F_y=33\text{ksi}$ for 33mil and 43mil studs, and $F_y=50\text{ksi}$ for 54mil, 68mil and 97mil studs.
- 6 Adding additional horizontal bridging will not reduce the actual deflection in the wall. To reduce the deflection of a wall stud, either a heavier member is required or an intermediate structural support must be provided.
- 7 Horizontal structural bridging (or bracing) is defaulted to be at 4 ft. on center for the purposes of the values shown in this catalog. The actual bridging that is ultimately provided is to be determined by the licensed specialty engineer responsible for the cold-formed steel design for the given project.
- 8 For a top-of-wall application which requires slip track for primary structure movement, mechanical bridging is recommended within 12" of the top of the stud.

Complies with AISI S100-07 NASPEC with 2010 supplement • IBC 2012
The technical content of this literature is effective 11/1/12 and supersedes all previous information.