



KNEE WALL SUPPORT BRACKET ASSEMBLY



Patent Pending

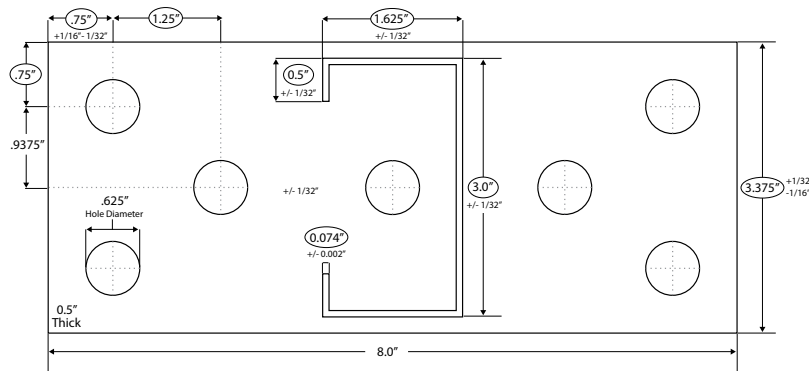
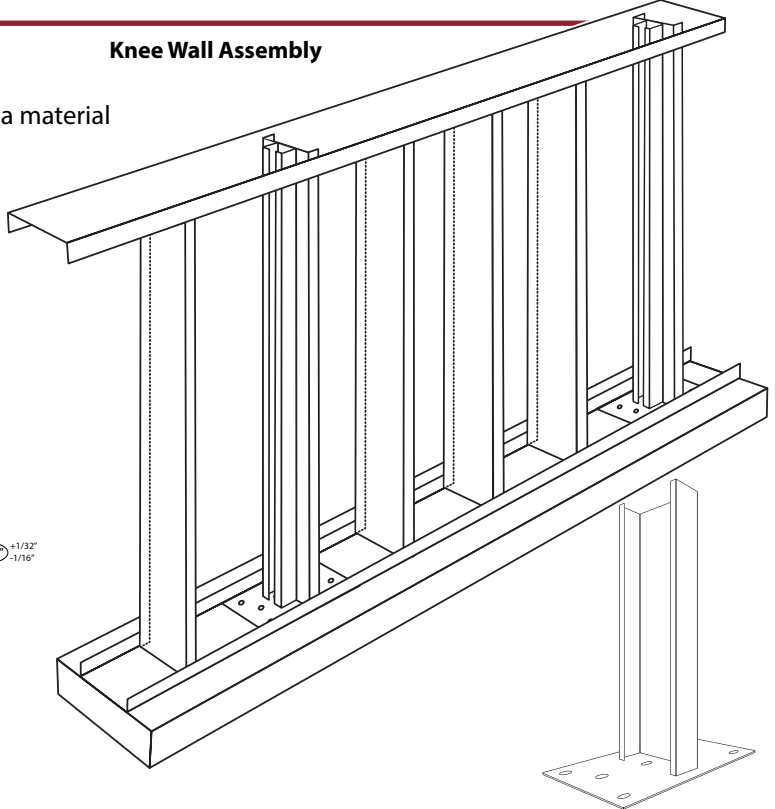
Knee Wall Support Bracket Assembly: What is it? An engineered system comprised of a 1/2" steel base plate welded to a 14ga structural stud.

In the construction industry, a "knee wall" is a term used to describe a short wall that is typically half the height of a full-sized wall. Also known as a "pony wall" or "cripple wall," knee walls are used for various purposes in building design, including providing structural support, dividing spaces, and enhancing aesthetic appeal.

TELLING'S KNEE WALL STUD & BASE PLATE:

- Knee Wall Stud & Base Plate are loaded perpendicular to the leg
- Knee Wall Stud is 300S162-68 14 ga. Competing products utilize 12ga material
- Base Plate is 8" x 3-3/8" and 1/2" thick with groove for Stud
- 1 Knee Wall Stud per Support Stud & Base Plate. Competitive products utilize 2 studs per support bracket
- Higher Allowable Loads than competing products

Knee Wall Assembly



Base plate thickness = 1/2" (36ksi)
 Bolt size = 1/2" Hole size = 5/8"
 Knee wall stud = 300S162-68

| Allowable Bending Capacity (kip-in) | | | | Knee Wall Support Stud: 300S162-68 (50 ksi) Anchor quantity: 4 at each corner Anchor Type: Hilti Kwik-TZ2 Anchor Size: 1/2 inch Concrete Thickness: 5.5 inches Concrete Strength (cracked) 3000 psi Embedment: 3.25 inches I_{eff} | Allowable Point Load Applied at the Top (lbf) | | | | | |
|---|----------------------|----------------------------------|--------------------|---|---|-------|-------|-------|-------|-------|
| Height (in) | Pony Wall Section | Stud to Baseplate Weld | Anchor to concrete | | Combined Strength and Deflection | | | | | |
| | | | | | L/90 | L/120 | L/180 | L/240 | L/360 | L/480 |
| 24 | 14.04 | 12.66 | 12.57 | | 524 | 524 | 524 | 524 | 524 | 430 |
| 36 | 13.69 | 12.66 | 12.57 | 349 | 349 | 349 | 349 | 255 | 191 | 153 |
| 48 | 12.50 | 12.66 | 12.57 | 260 | 260 | 260 | 215 | 143 | 108 | 86 |
| Allowable Distributed Load Applied along the Wall (plf) | | | | | | | | | | |
| Height (in) | Strength Limit State | Combined Strength and Deflection | | | | | | | | |
| | | L/90 | L/120 | L/180 | L/240 | L/360 | L/480 | L/600 | | |
| 24 | 524 | 524 | 524 | 524 | 524 | 524 | 524 | 524 | 459 | |
| 36 | 233 | 233 | 233 | 233 | 233 | 227 | 170 | 136 | | |
| 48 | 130 | 130 | 130 | 130 | 130 | 96 | 72 | 57 | | |

Representative loads based on specific quantity, type of anchors and concrete thickness. For additional anchor type and concrete thickness refer to detailed knee-wall technical catalog.



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