Why Choose Dietrich Steel Studs Over Wood Studs?

Steel studs won’t warp, shrink, split or twist. So your walls are straighter, stronger, won’t develop nail pops or cracks from shifting or settling over time. Unlike wood, Dietrich Steel Studs are noncombustible and won’t harbor insects or vermin. Dietrich Steel Studs also are made with pre-punched holes for running plumbing and electrical wiring, saving you time, money and effort. Plus, Dietrich nonload-bearing studs are lightweight and can be easily removed, altered and relocated.

Plan Your Project

1. Measuring: Using a tape measure, determine the dimensions of the existing space as well as the lengths of your new walls. It is a good idea to plot those dimensions on grid paper (1 square = 1 foot) so that you have a top view of the project. Mark the wall dimensions on your drawing.

2. Stud Spacing: Space the studs either 12", 16" or 24" on center. Note allowable wall height table below.

3. Number of Studs: Based on spacing requirements, divide the wall length by 1 (12" o.c.), 1.3 (16" o.c.) or 2 (24" o.c.) to figure the number of studs needed. Add one more stud for each corner.

4. Number of Track Sections: Multiply the total lineal feet of wall by 2 to figure the amount of track needed for floor and ceiling runners. Track is sold in 10’ lengths and may need to be cut per wall.

Allowable Wall Heights

L/240 deflection, 5 PSF

<table>
<thead>
<tr>
<th>Size (in.)</th>
<th>Stud Spacing</th>
<th>12&quot;</th>
<th>16&quot;</th>
<th>24&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-5/8</td>
<td>STN 25</td>
<td>7-10</td>
<td>7-1</td>
<td>6-2</td>
</tr>
<tr>
<td>2-1/2</td>
<td>STN 25</td>
<td>10-10</td>
<td>9-10</td>
<td>8-6</td>
</tr>
<tr>
<td>3-5/8</td>
<td>STN 25</td>
<td>14-4</td>
<td>13-0</td>
<td>11-5</td>
</tr>
</tbody>
</table>

NOTES: 1. Listel limiting heights are based on moment with a 1/3 stress increase, shear, and deflection computed with Eq. 2. 2. Deflection calculations for limiting heights are based on Procedure 1 of UBC 27-9. 3. Limiting heights can be used vertically or horizontally as long as both stud flanges are fully braced by sheathing material. 4. Drywall studs not intended for exterior or load bearing applications.

Material Check List

<table>
<thead>
<tr>
<th>Description</th>
<th>Where and what to use</th>
<th>Qty. to buy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Track</td>
<td>Secure to ceiling and floor to hold studs in place</td>
<td></td>
</tr>
<tr>
<td>Stud</td>
<td>Twist into track at 12&quot;, 16&quot; or 24&quot; intervals and fasten</td>
<td></td>
</tr>
<tr>
<td>#7 x 7/16&quot;</td>
<td>Pan Head Type “S” framing screws</td>
<td></td>
</tr>
<tr>
<td>3/16&quot; x 1-1/4&quot;</td>
<td>Masonry screws or powder-actuated fasteners</td>
<td></td>
</tr>
<tr>
<td>#6 x 1-1/4&quot;</td>
<td>Bugle Head Type “S” drywall screws</td>
<td></td>
</tr>
<tr>
<td>3/16&quot; x 1-5/8&quot;</td>
<td>Attach wood trim to steel framing, and track to wood floor and ceiling joists</td>
<td></td>
</tr>
<tr>
<td>#7 x 1-5/8&quot;</td>
<td>Trim Head Type “S” trim screws</td>
<td></td>
</tr>
</tbody>
</table>

Framing Tools

• Reversible Drill or Screwgun – for installing or removing fasteners. Should have clutch to stop over penetration of fastener.
• Tin Snips – for trimming studs/track.
• Plumb Line – for aligning floor track with ceiling track.
• Measuring Tape – for measuring lengths and distances
• Framing Square – for square-cutting studs and track
• Level – for checking vertical/horizontal alignment
• C-Clamps or Open-Frame Locking Pliers – for holding unattached studs/track securely when fastening with screwgun.

Drywall Tools

• Square
• Utility Knife Drywall Saw
• Rasp

Safety Warning!

Eye protection is required to safeguard against metal pieces and particles produced while cutting or screwing metal components. Safety goggles or glasses are recommended. Leather-palm Gloves are recommended to protect against sharp edges or burrs.
1. Cut studs/runners to required lengths as you install using aviator snips or circular saw with abrasive, metal-cutting blade.

2. Attach ceiling runner. Use drywall screws to attach to joists. For parallel joists, bridge two joists with C-runners spaced 24” o.c. or less and install ceiling runner across bridges. Use expandable fasteners in the field of an existing ceiling. Space fasteners 12”-16” on center (2” from ends of runner).

3. Plum to position floor runner directly below ceiling runner.

4. Attach floor runner. Use powder-actuated fasteners for concrete floor. Use drywall screws for wood subfloor. Same fastener spacing as ceiling runner. Then mark stud locations 16” or 24” o.c. top and bottom starting from the same end.

5. Insert stud at slight angle into runners—then twist into place. Be sure all stud legs are pointed the same way for easier drywall attachment and punchouts are oriented the same way for easy plumbing or electrical installation.

6. Screw-attach stud to ceiling runner and floor runner with 7/16” pan or washer-head screws. Hold stud flange to runner for easier screw attachment. Attachment of drywall will hold studs in alignment.

7. Cut tabs approximately 4” long for attaching door header and stud bracing. Tabs may be bent either up or down.

8. Double studs back to back to support header and door jambs.

9. Attach C-Runner across studs to support cabinet attachment. C-Runner must be notched to fit between studs.

10. Insert grommets or pieces of pipe insulation into prepunched holes whenever you pass through wiring and/or plumbing. Your framing is now complete and ready for installing the drywall.

11. Screw-attach drywall to framing using drywall screws per manufacturer’s recommendations. Board should be attached advancing toward the open end of the studs.

12. Install corner beads and trim with screws or staples.

13. Tape and finish.

Helpful Hints
- Most trim can be adhesively attached and may require temporary screws while adhesive sets. If mechanical attachment is required, consider inserting sections of wood 2x4 inside runners for nailing.
- Door frames can be attached directly to steel framing, but many installers prefer wood 2x4 framing around the rough opening.
- If framing is used to support insulation blankets, the insulation will have to be ordered to the full 16” or 24” width dimension.
- Hanging pictures or artwork can be handled easily with standard hanging attachments except drywall screws are recommended where studs are located.
- Extremely heavy shelving and other heavy objects that project from the wall should be anticipated. Cross bracing with C-Runners as recommended for cabinet attachment is suggested for this purpose as well.

Limitations: 25-gauge Steel Studs are designed for use in nonload-bearing construction only. Check local building codes before beginning construction.

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