

In summary for ceiling applications on wood framing:

Type W drywall screws that penetrate at least 5/8-inch into the wood ceiling joists/trusses and spaced no more than 12-inches on center. Assuming the existing drywall on the ceiling is no more than 5/8-inch thick, 1 ¼" long screws would be the minimum size. 1 ½" long screws would be preferable. This also assumes there is only one layer of drywall on the ceiling.

Excerpts below from the following pages:

<https://www.gypsum.org/technical/using-gypsum-board-for-walls-and-ceilings/using-gypsum-board-for-walls-and-ceilings-section-ii/>

<https://www.gypsum.org/technical/using-gypsum-board-for-walls-and-ceilings/using-gypsum-board-for-walls-and-ceilings-section-iii/>

Screws

The drywall screw is the most commonly used type of fastener for attaching gypsum board to either framing or existing gypsum board. Drywall screws have Phillips' heads that are designed to snugly fit the tip of a powered drywall screwdriver. Drywall screws pull the board tightly to the supports without damaging the board, and they minimize surface defects caused by loose boards and shrinking lumber. The specially contoured head, when properly driven, makes a uniform depression free of ragged edges. Correct setting of the nose piece on the power screwdriver permits correct countersinking of the drywall screw head for proper fastener concealment with joint compound. See Figure 21 for the three basic types of drywall screws, Type W for wood, Type S for light gage steel studs, and Type G for solid gypsum construction. Also shown is a sample of a Type S-12 screw, which is used for attaching wallboard to heavier gauge steel framing.

For best results:

- Use Type W gypsum drywall screws for fastening gypsum board to wood framing or furring. Diamond-shaped points on Type W screws provide efficient drilling action through both gypsum and wood, and a specially designed thread gives quick penetration and increased holding power. Type W screws must penetrate into supporting construction at least 5/8 -inch. However, in two-ply construction where the face layer is screw attached, additional holding power is developed in the base ply. In multi-layer applications, screws need only penetrate ½-inch into supports. Type S screws may be substituted for Type W.

Screw Attachment

Screw attachment of gypsum board requires the least number of fasteners. Using screws minimizes the number of fastener heads requiring treatment with joint compound and reduces the number of possible application defects. Do not exceed 12 inches o.c. between screws on ceilings and 16 inches o.c. on walls where framing members are 16 inch o.c. Do not exceed 12 inch o.c. between screws on walls and ceilings where framing members are 24 inch o.c. See Figure 21 for the necessary penetration for screws.

Use Type S screws to attach gypsum board to metal framing and furring. Do not exceed more than 12 inch o.c. between screws along supports for both walls and ceilings. These screw spacings are also appropriate for gypsum board mounted on resilient furring channels over wood framing.