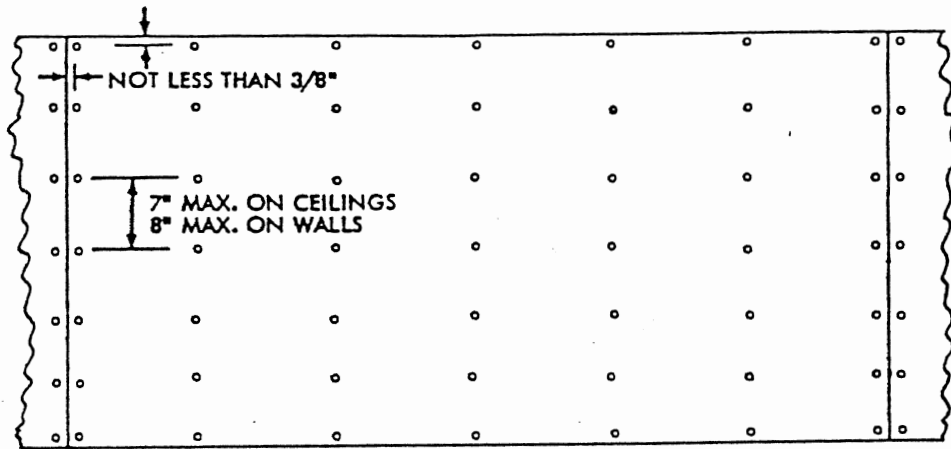


Drywall Nailing

SINGLE NAILING



"SINGLE NAILING" SYSTEM PROCEDURE: The wallboard shall be held in firm contact with the nailing member while the nails are being driven. Nailing preferably should proceed from the central portion of each piece of wallboard towards ends and edges. Nails shall not be staggered on adjoining edges or ends. Perimeter nailing at the top and bottom is not required.

R702.3.5 Application.

Maximum spacing of supports and the size and spacing of fasteners used to attach gypsum board shall comply with Table R702.3.5. Gypsum sheathing shall be attached to exterior walls in accordance with Table R602.3(1). Gypsum board shall be applied at right angles or parallel to framing members. All edges and ends of gypsum board shall occur on the framing members, except those edges and ends that are perpendicular to the framing members. Interior gypsum board shall not be installed where it is directly exposed to the weather or to water.

TABLE R702.3.5 MINIMUM THICKNESS AND APPLICATION OF GYPSUM BOARD

THICKNESS OF GYPSUM BOARD (inches)	APPLICATION	ORIENTATION OF GYPSUM BOARD TO FRAMING	MAXIMUM SPACING OF FRAMING MEMBERS (inches o.c.)	MAXIMUM SPACING OF FASTENERS (inches)		SIZE OF NAILS FOR APPLICATION TO WOOD FRAMING ^c
				Nails ^a	Screws ^b	
Application without adhesive						
3/8	Ceiling ^d	Perpendicular	16	7	12	13 gage, 1 1/4" long, 19/64" head; 0.098" diameter, 1 1/4" long, annular-ringed; or 4d cooler nail, 0.080" diameter, 1 3/8" long, 7/32" head.
	Wall	Either direction	16	8	16	
1/2	Ceiling	Either direction	16	7	12	13 gage, 1 3/8" long, 19/64" head; 0.098" diameter, 1 1/4" long, annular-ringed; 5d cooler nail, 0.086" diameter, 1 5/8" long, 15/64" head; or gypsum board nail, 0.086" diameter, 1 5/8" long, 9/32" head.
	Ceiling ^d	Perpendicular	24	7	12	
	Wall	Either direction	24	8	12	
	Wall	Either direction	16	8	16	

5/8	Ceiling	Either direction	16	7	12	13 gage, 1 ⁵ / ₈ " long, ¹⁹ / ₆₄ " head; 0.098" diameter, 1 ³ / ₈ " long, annular-ringed; 6d cooler nail, 0.092" diameter, 1 ⁷ / ₈ " long, ¹ / ₄ " head; or gypsum board nail, 0.0915" diameter, 1 ⁷ / ₈ " long, ¹⁹ / ₆₄ " head.
	Ceiling ^e	Perpendicular	24	7	12	
	Wall	Either direction	24	8	12	
	Wall	Either direction	16	8	16	
Application with adhesive						
3/8	Ceiling ^d	Perpendicular	16	16	16	Same as above for ³ / ₈ " gypsum board
	Wall	Either direction	16	16	24	
1/2 or 5/8	Ceiling	Either direction	16	16	16	Same as above for ¹ / ₂ " and ⁵ / ₈ " gypsum board, respectively
	Ceiling ^d	Perpendicular	24	12	16	
	Wall	Either direction	24	16	24	
Two 3/8 layers	Ceiling	Perpendicular	16	16	16	Base ply nailed as above for ¹ / ₂ " gypsum board; face ply installed with adhesive
	Wall	Either direction	24	24	24	

For SI: 1 inch = 25.4 mm.

a. For application without adhesive, a pair of nails spaced not less than 2 inches apart or more than 2¹/₂ inches apart may be used with

the pair of nails spaced 12 inches on center.

b. Screws shall be in accordance with [Section R702.3.6](#). Screws for attaching gypsum board to structural insulated panels shall penetrate the wood structural panel facing not less than $\frac{7}{16}$ inch.

c. Where cold-formed steel framing is used with a clinching design to receive nails by two edges of metal, the nails shall be not less than $\frac{5}{8}$ inch longer than the gypsum board thickness and shall have ringed shanks. Where the cold-formed steel framing has a nailing groove formed to receive the nails, the nails shall have barbed shanks or be 5d, 13 $\frac{1}{2}$ gage, $\frac{15}{8}$ inches long, $\frac{15}{64}$ -inch head for $\frac{1}{2}$ -inch gypsum board; and 6d, 13 gage, 1 $\frac{7}{8}$ inches long, $\frac{15}{64}$ -inch head for $\frac{5}{8}$ -inch gypsum board.

d. Three-eighths-inch-thick single-ply gypsum board shall not be used on a ceiling where a water-based textured finish is to be applied, or where it will be required to support insulation above a ceiling. On ceiling applications to receive a water-based texture material, either hand or spray applied, the gypsum board shall be applied perpendicular to framing. When applying a water-based texture material, the minimum gypsum board thickness shall be increased from $\frac{3}{8}$ inch to $\frac{1}{2}$ inch for 16-inch on center framing, and from $\frac{1}{2}$ inch to $\frac{5}{8}$ inch for 24-inch on center framing or $\frac{1}{2}$ -inch sag-resistant gypsum ceiling board shall be used.

e. Type X gypsum board for garage ceilings beneath habitable rooms shall be installed perpendicular to the ceiling framing and shall be fastened at maximum 6 inches o.c. by minimum 1 $\frac{7}{8}$ inches 6d coated nails or equivalent drywall screws.