

Installation of Resilient Furring Channel to Steel or Wood Framing Members:

Note: These guidelines are for ClarkDietrich's single leg RC Deluxe and RC-1 Pro, and double leg RC-2 Pro. Details of construction for a specific assembly to achieve the required fire or acoustic rating shall be obtained from fire test reports, acoustic test reports, engineering evaluations, or listings from recognized fire, sound and acoustic laboratories.

Install resilient furring channels at right angles (perpendicular) to the framing members. The resilient furring channel shall be positioned with the slotted hole(s) directly over the framing member. The resilient furring channel shall be attached to the framing member using the screw hole provided in the mounting flange. If no screw hole is provided or located at the framing member, attach through the mounting flange.

No more than 7.5 lbs/sf of gypsum panels should be installed to resilient furring channel. For reference, common 5/8" thick gypsum panels weigh upwards of 2.5 lbs/sf.

For wall framing members spaced a maximum of 24 in. (610 mm) on center, resilient furring channels should not be spaced greater than 24 in. (610 mm) on-center when installed. For ceiling framing members spaced 24 in. (610 mm) on-center, install resilient furring channels at 16 in. on-center maximum. For ceiling framing members spaced 16 in. (406 mm) on-center install resilient furring channels at 24 in. (610 mm) on-center maximum.

In the case of wall framing members, resilient furring channels should be installed with the mounting flange of the resilient furring channel down, except at the floor or starter row where the mounting flange may be installed with the flange up to accommodate fastening to the framing members. In the case of two-legged resilient furring channel attach only the lower mounting flange to the wall-framing members except as noted.

Note 1: By keeping the mounting flange down the weight of the gypsum panel products will pull the resilient channel away from the stud improving the sound rating.

Note 2: Two-legged resilient furring channels may be attached to the wall and ceiling framing members using both legs. Alternately attach the legs of the resilient furring channel to the framing members. This method of attachment may reduce the sound rating performance of the assembly. Verify acceptability with the approving authority prior to installation.

Best practice for bottom of walls is to install the lowest row of resilient furring channel no more than 2 in. (51 mm) from floor to the bottom edge of the mounting flange, leaving a 1/4 in. (6.4 mm) gap between the edge of bottom track and mounting flange of the resilient channel (See Figure 1). The return lip of the resilient furring channel should be a maximum of 6 in. (152 mm) from the floor (See Figure 2). Should a situation arise where the bottom track has unusually long legs, and the distance from return lip to the floor exceeds 6 in. (152 mm), the resilient channel profile should be installed in the inverted direction with the mounting flange above the return lip leaving a 1/4 in. (6.4 mm) gap between the mounting flange and the edge of the bottom track. (See Figure 3). When installed per Figure 3, extra care should be taken while selecting the proper screw length so the screw doesn't penetrate the resilient channel and touch the bottom track which would short circuit the system and reduce STC ratings.

Best practice for top of walls is to install the highest row of resilient furring channel with a 1/4 in. (6.4 mm) gap between the return lip and bottom edge of the top track (See Figure 4), and not more than 6 in. (152 mm) from the ceiling to the bottom edge of the mounting flange (See Figure 5).

For ceilings, the first row and last row of resilient furring channel shall be located not more than 6 in. (152 mm) from the adjacent wall. (Measurements are to the center of the face of the resilient furring channel.)

Attach resilient furring channel to framing members with screws only. For steel framing, Type-S x 3/8 in. (9.5 mm) pan head framing screws may be used. For wood framing members, Type-W or Type-S screws (minimum 1 1/4 in. (32 mm) long) may be used. It is not recommended that nails be used. Install the screws in the holes provided in the mounting flange (whenever possible).

Splicing of resilient furring channel members shall be done by “nesting” the ends of the resilient furring channel members directly over the framing member and screwing through the mounting flanges into the framing member. (An acceptable alternative would be to butt the resilient furring channel members over the framing member leaving a minimum 1/16 in. (1.6 mm) gap between resilient furring channels.)

Gypsum panel products shall be attached to the resilient furring channel using a screw length to ensure that the screw point does not make contact with the framing member. (This will minimize the potential of the screws hitting the wall studs and “short-circuiting” the sound resistance effectiveness of the resilient furring channels.)

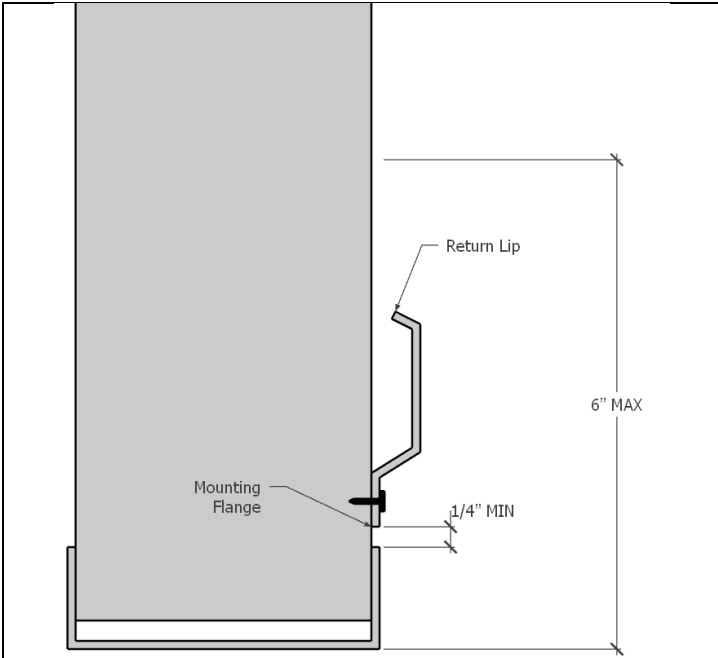


Figure 1 – Bottom of Wall (Minimum Spacing)

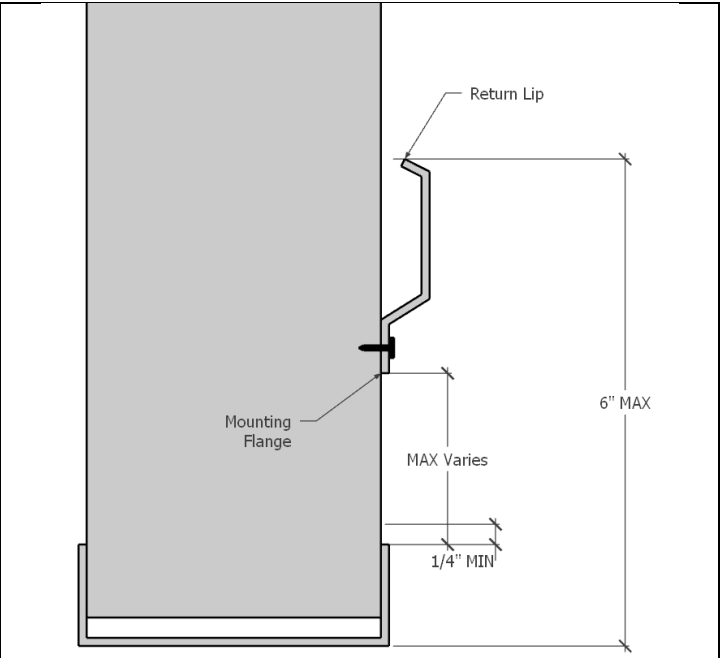


Figure 2 – Bottom of Wall (Maximum Spacing)

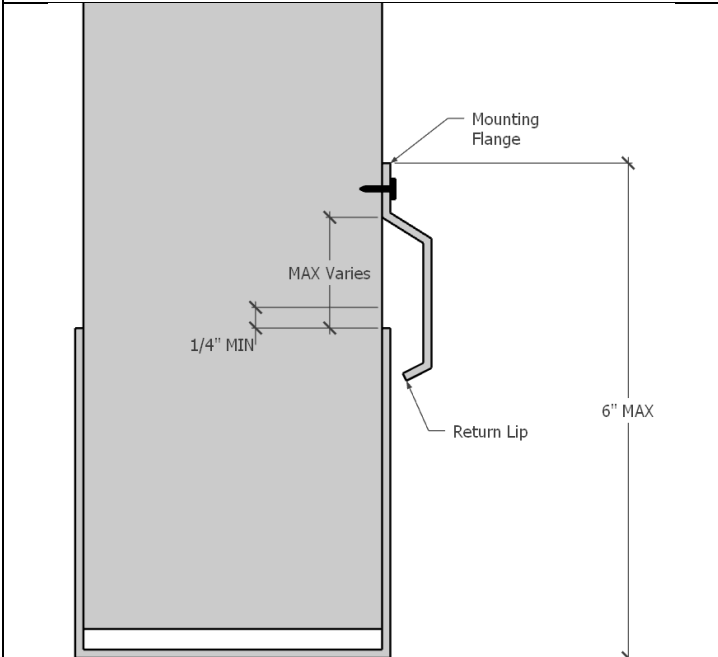


Figure 3 – Bottom of Wall (Inverted Installation)

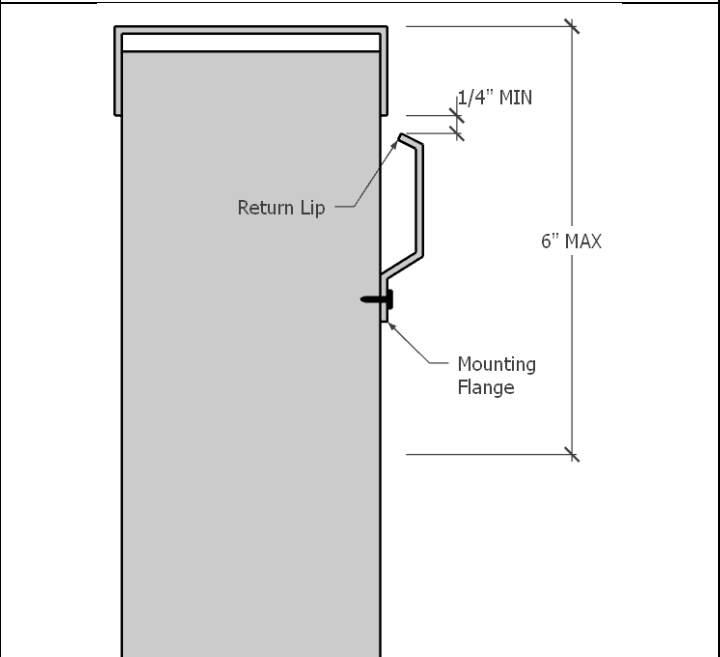


Figure 4 – Top of Wall (Minimum Spacing)

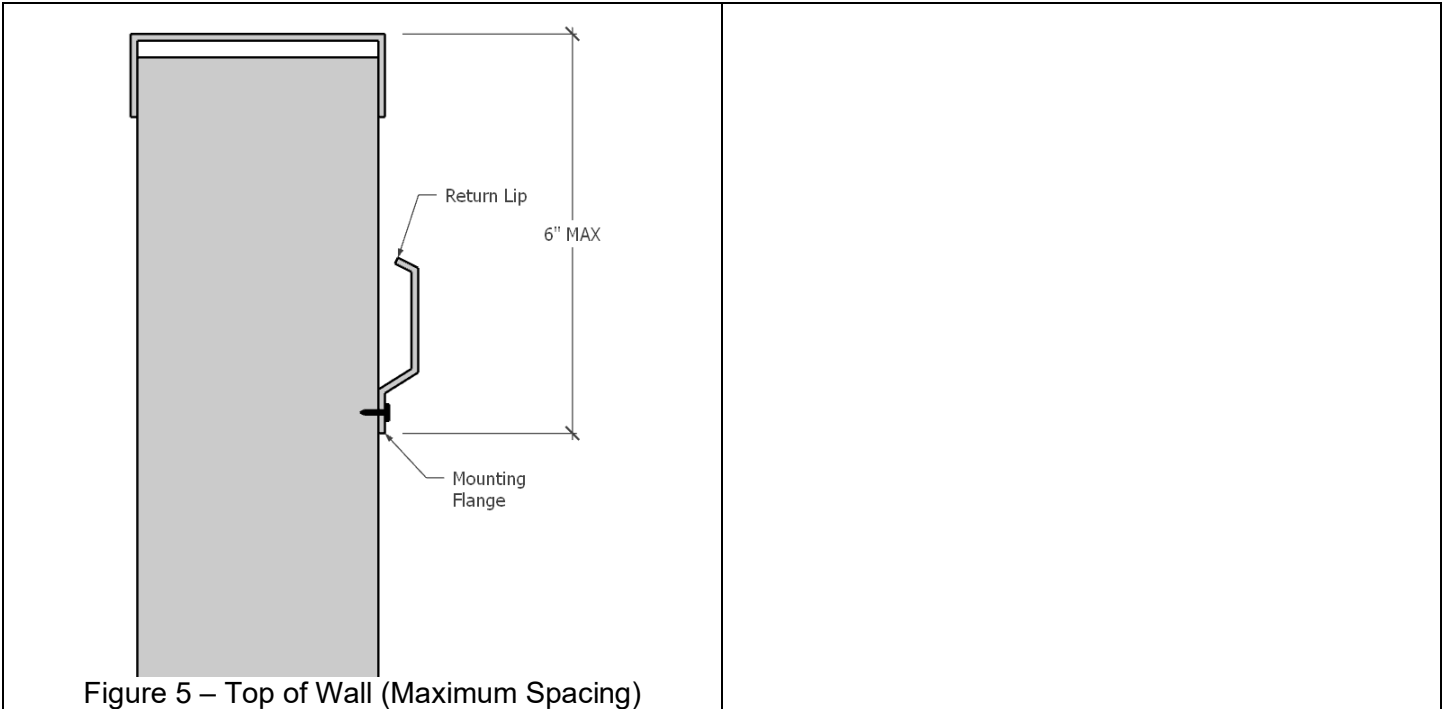


Figure 5 – Top of Wall (Maximum Spacing)