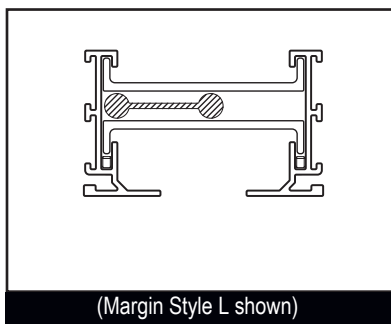




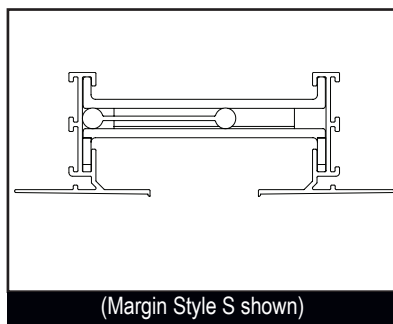
AIR-TRAC™ Hard Ceiling Installation

STEP 1. Identify the Margin Style

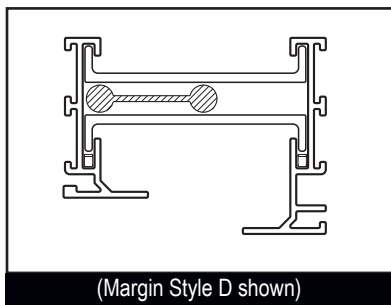
There are five different extrusion styles (identified as “Margin Styles” in this manual) which are combined to form the different Margin Types.



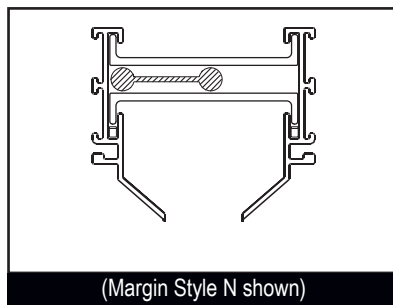
MARGIN L. The outer edge of the face flange is even with the stack head for flush mounting.



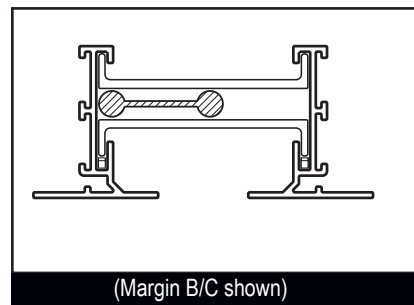
MARGIN S. is designed for use with hard ceiling applications where the finishing flange is taped and spackled into the ceiling to leave only the air slot exposed to the room.



MARGIN D. has an extended height for use with uneven ceiling heights or where the ceiling meets the wall.



MARGIN N. like Margin S, is designed for use with hard ceiling applications where the finishing flange is taped and spackled into the ceiling. The sheetrock or wood for frame 5 is cut at an angle to match the frame.



MARGIN B/C. The outer edge of the face flange is extended 1/2" out to provide an extended surface for sheetrock or acoustic ceiling tile to lay on. Can also be used with concealed mounting brackets.



AIR-TRAC™ Hard Ceiling Installation

STEP 2. Construct Ceiling Framework

- ☐ Before installing drywall, a framed opening must be constructed to support the AIR-TRAC™ Diffuser.
- ☐ It is recommended that the framework be continuous to accommodate the Hard Ceiling Clip spacing requirements.
- ☐ The framing material must be suitable to hold the Diffuser in place when attached with screws through the AIR-TRAC™ Mounting Clips.
- ☐ The width of the framed opening required depends on the model of AIR-TRAC™ being installed. The frame opening width dimension, 'W', is listed in Table 1.
- ☐ NOTE: If it appears that it will be difficult to install plenums after the opening is framed and AIR-TRAC™ installed, then use wires to support the Plenums above the framework first.

STEP 3. Attach Mounting Clips

- ☐ Hard Ceiling Clips are shipped loose for field attachment to the AIR-TRAC™ Diffuser.
- ☐ Slide the Hard Ceiling Clips into the lower bosses of each frame rail as shown in Figure 2.
- ☐ Position the clips at a maximum of 10" intervals along the Diffuser frame.
- ☐ The Hard Ceiling Clips must be secured to a framing member.
- ☐ These Mounting Clips should be attached to the ceiling framework at a maximum of 10" intervals.
- ☐ For Diffusers with two slots, a CenterTee Support Bracket is shipped loose for installation. The Center-Tee Support Bracket is installed over the center rail of the AIR-TRAC™ and then rotated to interlock with the outer AIR-TRAC™ borders as shown in Figure 3.

AIR-TRAC™ Slot Width	Frame Opening Width (W)		
	1-SLOT	2-SLOT 2A	2-SLOT 2C
1"	3¼	5 ¹¹ / ₁₆	6 ⁹ / ₁₆
1 1/2"	4¼	7 ¹¹ / ₁₆	8 ⁹ / ₁₆
2"	5¼	9 ¹¹ / ₁₆	10 ⁹ / ₁₆
2 1/2"	6¼	11 ¹¹ / ₁₆	12 ⁹ / ₁₆
3"	7¼	13 ¹¹ / ₁₆	14 ⁹ / ₁₆

Table 1. Frame Opening Dimensions

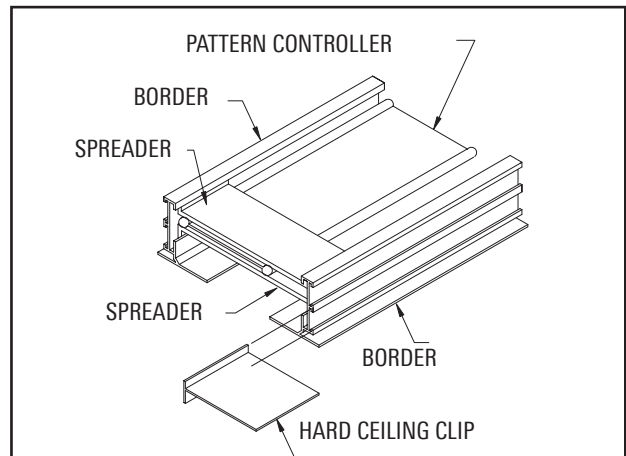


Figure 2. Installation of Hard Ceiling Clips

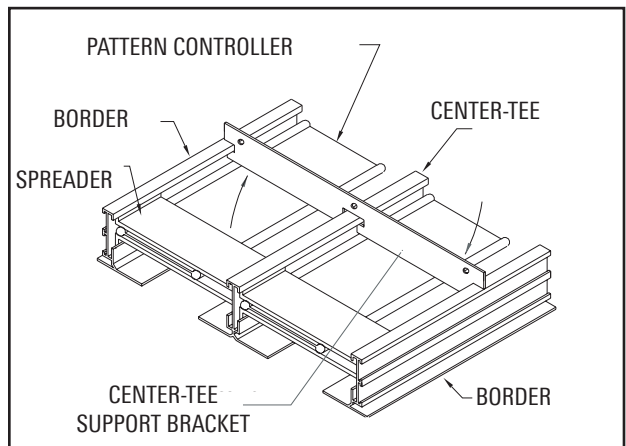


Figure 3. Installation of Center-Tee Support Bracket



AIR-TRAC™ Hard Ceiling Installation

STEP4. Attach Diffuser to Ceiling Frame

- ☐ Lift the AIR-TRAC™ Diffuser into the framed opening and secure the Mounting Clips to the frame with flat head screws as shown in Figure 4.
- ☐ If multiple sections of AIR-TRAC™ are required, repeat previous step by lifting additional sections into the framed opening. Be sure to insert Connector Clips-C04 into the AIR-TRAC™ ends to insure a tight and aligned connection as shown in Figure 4.
- ☐ Install and secure end caps and mitered corners if required as shown in Figure 5.

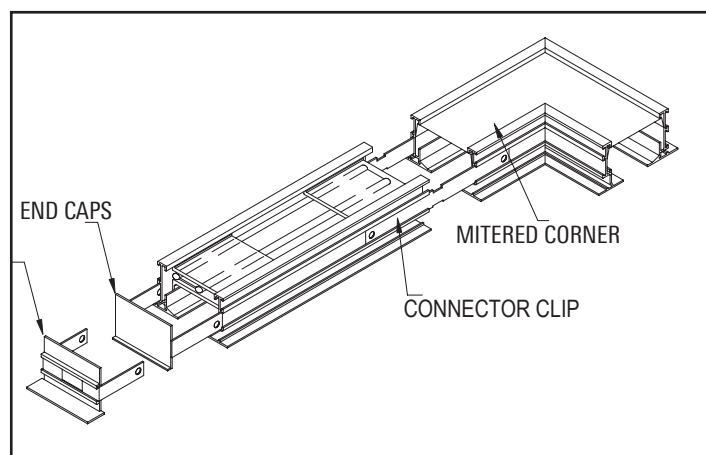


Figure 5. Installation of End Caps & Mitered Corner

STEP 5. Attach Plenum to Diffuser

- ☐ If Plenums were mounted earlier, attach the Plenum by snapping it to the Diffuser using the clips on the Plenum as shown in Figure 6.
- ☐ If Plenums were not mounted earlier, lift the Plenums into place and attach them to the AIR-TRAC™ at this time.
- ☐ Plenums may need support with ceiling wire to the building structure per code requirements.

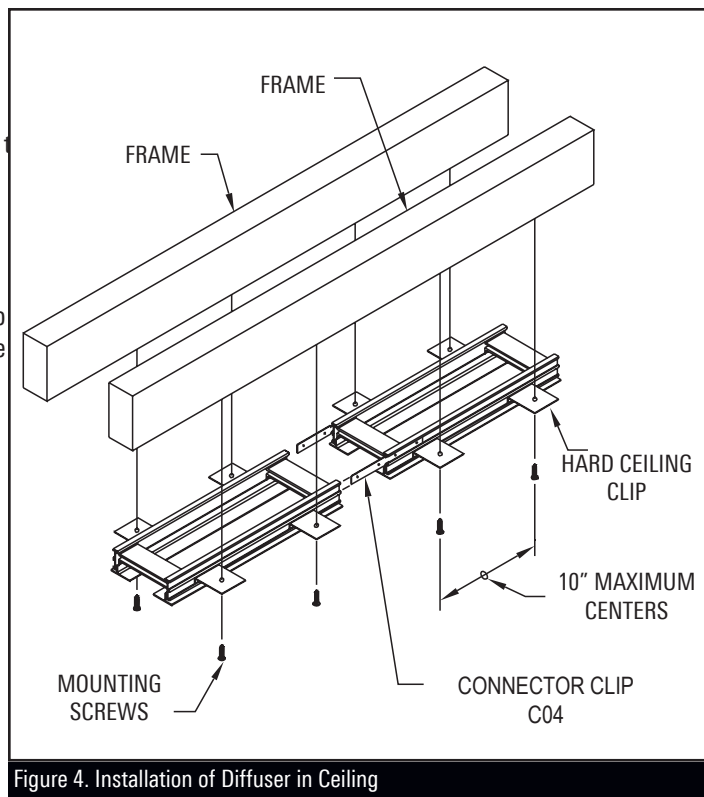


Figure 4. Installation of Diffuser in Ceiling

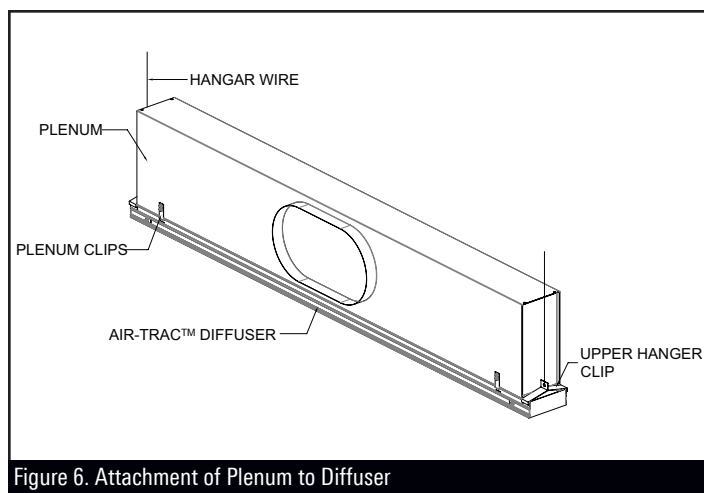


Figure 6. Attachment of Plenum to Diffuser



AIR-TRAC™ Hard Ceiling Installation

STEP 6. Attach Inlet Damper (if required)

- ☐ Attach optional Inlet Damper assembly (if supplied) to the Inlet Collar. Position the lever inside the Plenum on the bottom of the Inlet Collar.
- ☐ Install the Inlet Duct on the Plenum Inlet Collar using the methods prescribed by the sheet metal specification.

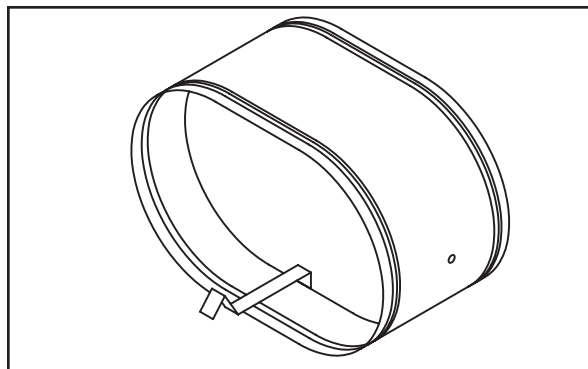


Figure 7. View of Inlet Damper

STEP 7. Install Drywall

- ☐ Slide the Drywall tightly between the mounting clips and the AIR-TRAC™ Flange as shown in Figure 8. For ease of installation, insert the tapered edge of the Drywall into this opening. For the best fit, slide the edge of the Drywall all the way to the vertical leg of the frame.
- ☐ Every 12" and between the Hard Ceiling Clips, attach screws just beside the Diffuser Flange, through the Drywall and into the Framing Member.
- ☐ For Margin N only, before installing the sheetrock or wood ceiling, the leading edge must be trimmed at a 45° angle to match the Diffuser as shown in Figure 9.

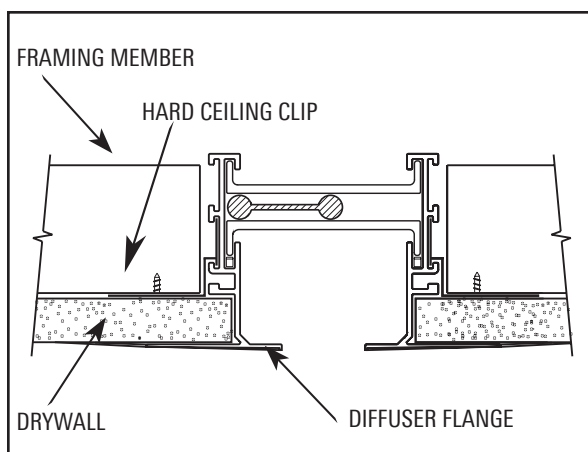


Figure 8. Drywall Installation

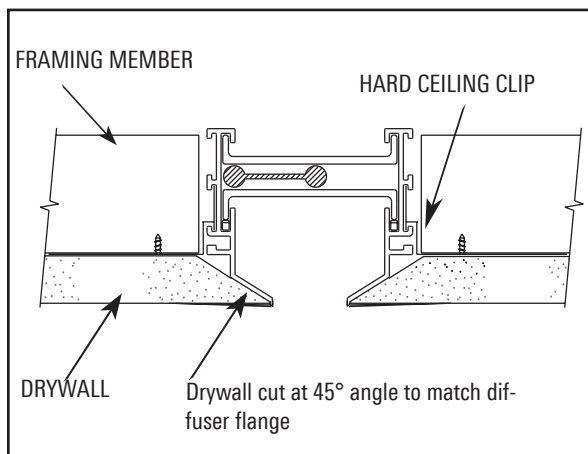


Figure 9. Drywall Preparation - Margin N Only)



AIR-TRAC™ Installed During Hard Ceiling Installation

STEP 8. Review Installation - (Margins S \$ N Mljw)

Before continuing it is recommended to confirm that:

- ☐ The AIR-TRAC™ Diffuser is secure and straight.
- ☐ For units longer than twelve feet, a 1/8" gap between sections is recommended to allow for thermal expansion.

☐ Before installation, confirm that the diffuser is properly aligned with the ceiling frame opening. The diffuser should be installed in the center of the opening, and the gap between the diffuser and the frame should be uniform.

QRN 7, Dglgqf rfc Qspd_ac - (K_peg1q Q \$ L Mljw')

☐ The diffuser should be installed in the center of the ceiling frame opening. The diffuser should be installed in the center of the opening, and the gap between the diffuser and the frame should be uniform.

☐ The diffuser should be installed in the center of the ceiling frame opening. The diffuser should be installed in the center of the opening, and the gap between the diffuser and the frame should be uniform.

☐ After the diffuser is installed, the ceiling should be finished. The ceiling should be finished with a durabond setting-type compound.

☐ Embed a 4" wide mesh or paper tape into the first coat of joint compound. Smooth to remove air pockets. The tape should cover the aluminum rail, but not extend over the raised lip on the rail. Apply second coat of finishing compound over the tape and smooth.

☐ After compound has dried, apply two coats of standard finishing compound and let dry. Sand smooth, prime, and paint as scheduled.

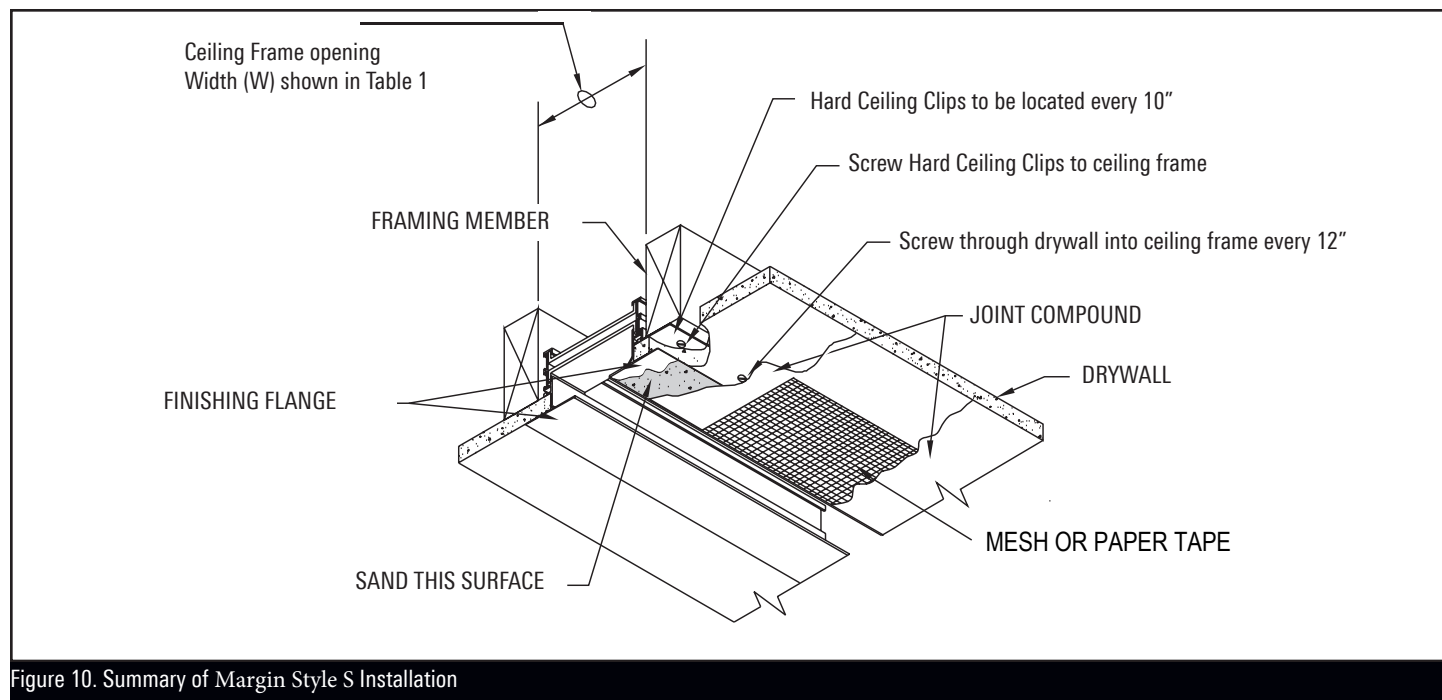


Figure 10. Summary of Margin Style S Installation