

# air diffusion

## FlowBar

### Installed During Hard Ceiling Installation

#### Step 1: Install Plasterboard

- Slide the plasterboard tightly between the mounting clips and the FlowBar flange as shown in Figure 1. For ease of installation, insert the tapered edge of the plasterboard into this opening. For the best fit, slide the edge of the plasterboard all the way to the vertical leg of the frame.
- Every 300mm and between the Hard Ceiling Clips attach screws just beside the diffuser flange, through the plasterboard and into the framing member.
- **Border 55 only:** before installing the plasterboard the leading edge must be trimmed at a 45° angle to match the diffuser as shown in Figure 2.

#### Step 2: Review Installation

Before continuing it is recommended that the installer confirms that:

- The FlowBar diffuser is secure and straight.
- **Do not run the HVAC system during the finishing procedures. This could cause premature drying of the compounds, making them more prone to cracking.**

#### Step 3: Finish the Surface (Borders 22 & 55 ONLY)

- Remove dust from finishing surface with a tack cloth, and clean with a mild cleaner/degreaser.
- Apply first coat of **Setting/Bonding/Joining** compound onto the diffusers finishing flange and onto the plasterboard 75mm.
- Embed a 100mm wide mesh or paper tape into the first coat of compound. Smooth to remove air pockets.
- The tape should cover the aluminium rail, but not extend over the raised lip on the rail. Apply second coat of setting compound over the tape and smooth.
- After the compound has dried, apply two coats of standard finishing compound and let dry. Sand smooth, prime and paint as scheduled.

Figure 1: Plasterboard Installation (Border 22 ONLY)

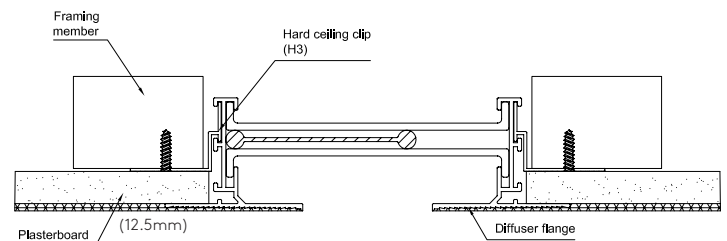


Figure 2: Plasterboard Installation (Border 55 ONLY)

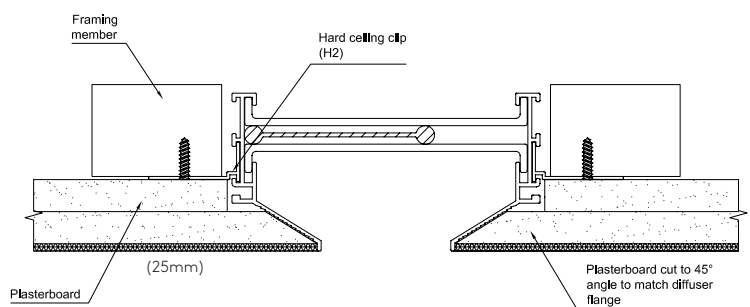
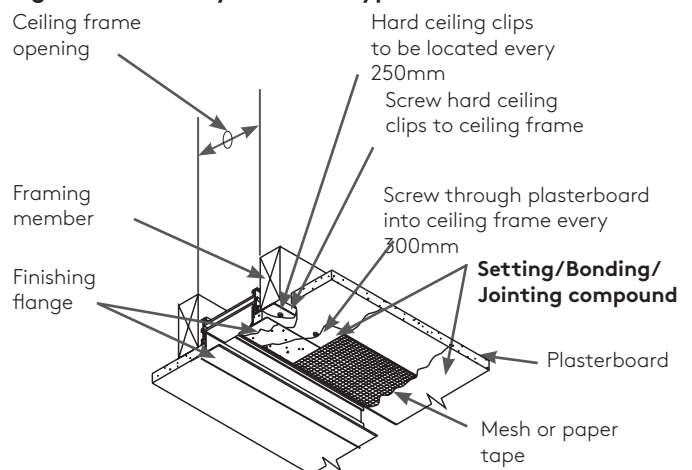


Figure 3: Summary of Border Type 22 Installation



## Installed After Hard Ceiling Installation

### Step 1. Install Plenums

- Install Air Diffusion model PBL-1/PBL-L plenum and secure to the building structure using hanger rods.
- If plenum is furnished by others, a hemmed edge inside the bottom of the plenum sides is required to capture the hanger bracket assemblies.
- The plenum should be hung so that the plenum straddles the ceiling opening and the bottom edge of the plenum rests on the rear of the ceiling as shown in Figure 4.

### Step 2. Make Inlet Duct Connections

- Attach the inlet duct to the inlet collar using the method prescribed by the job specification.

**NOTE:** If the plenum inlet is accessible after the ceiling is installed, this step can be completed later.

### Step 3. Install Plasterboard Ceiling

- The ceiling contractor can now frame in the ceiling around the plenum and install the plasterboard. Complete the ceiling surfacing.

**NOTE:** The finished opening must be smaller than the overall FlowBar face dimensions. Refer to Table 1 for the ceiling opening width required.

### Step 4. Install Concealed Fasteners

- Install the F6 mounting bracket to the FlowBar spacer at the desired interval by pushing the No.8 75mm Posi c/s screw through the hole in the spacer from the face of the diffuser. Start the threaded end of the screw into the bracket as shown in Figure 5.

### Step 5. Install Diffuser in Ceiling

- If continuous FlowBar is being installed using multiple sections, assemble the sections together using spline support clips (SS1).
- Lift the diffuser into the plenum until the mounting brackets spring into the hemmed edge. Using a screw driver, tighten the screw until the diffuser is snug against the ceiling as shown in Figure 6. Before securing the diffuser, make sure that the diffuser flange overlaps the ceiling opening.

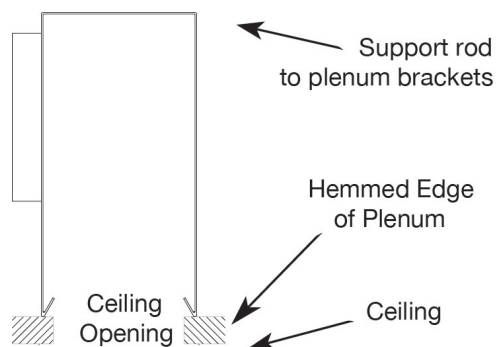
Make sure that at least two F6 mounting assemblies line up with each plenum.

Where mounting brackets do not line up with a plenum, the plasterboard can be used to support the FlowBar diffuser. Use a screw driver to tighten the screws until the diffuser is snug against the ceiling as shown in Figure 7.

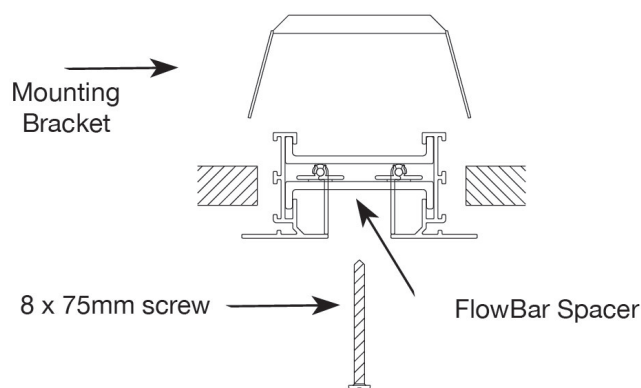
**Table 1. Ceiling Opening Dimensions Border Type 66**

Ceiling Opening Width	
FlowBar Model	1-SLOT
FL-10	76
FL-15	102
FL-20	127
FL-25	152
FL-30	178

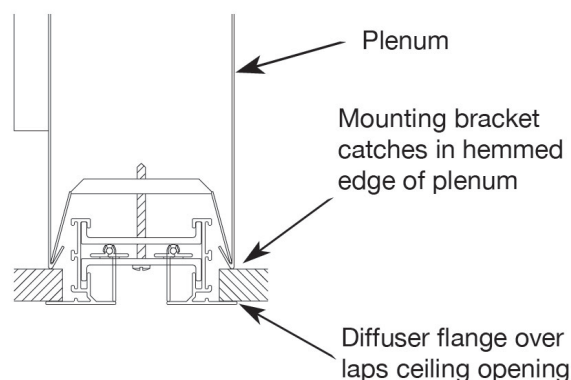
**Figure 4. Concealed Fastening Plenum Installation**



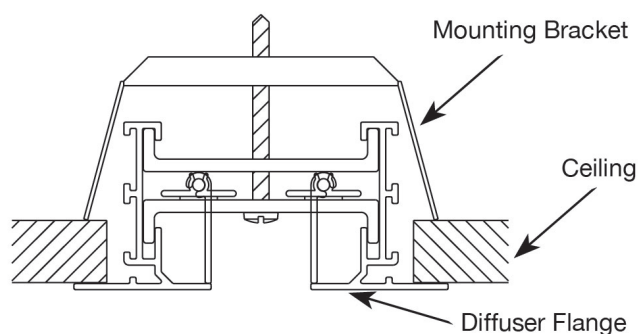
**Figure 5. Bracket/Diffuser Assembly**



**Figure 6. Diffuser Installation with Plenum**



**Figure 7. Diffuser Installation without Plenum**



## Installed In Acoustic/Tile Ceiling

### Step 1. Install Hanger Clips to Diffuser

- FlowBar Diffusers with one-slot are supported by sliding Upper Hanger Clips through the top bosses in the FlowBar rails as shown in Figure 8.
- The clips are secured to the building structure with hanger wire/rods.

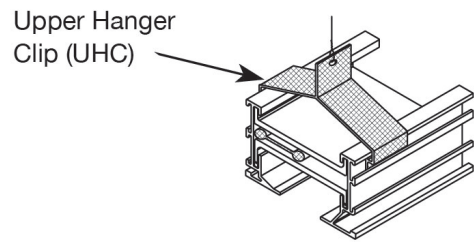
### Step 2. Install Diffuser in Ceiling

If continuous FlowBar is being installed in multiple sections, assemble the sections together using spline support clips (SS1).

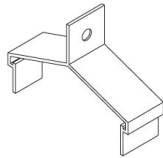
### Step 3. Attached Plenums to Diffusers

After installing the FlowBar into the ceiling suspension system, install the air distribution plenums and connect to ductwork.

**Figure 8. Attachment of UHC to 1-Slot diffuser**



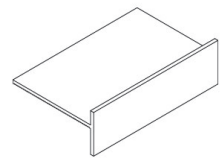
## Parts List



### Model: UHC-10, 15 or 20

Description: Upper Hanger Clip

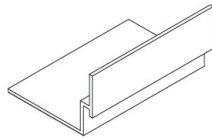
Application: Use with models FL-10, 15 or 20 any border type, except Border Type 66 with F6 fixing. Clip inserts into extrusion boss and hanger wire threads through hole in clip to support FlowBar diffuser.



### Model: H2

Description: Hard Ceiling Clip

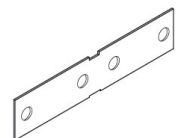
Application: Use with Border 55 in hard ceiling installation. Insert a clip into the extrusion boss on the outside of the diffuser frame. Attach the clip to framing member with screw. Clips should be spaced at 250mm intervals.



### Model: H3

Description: Hard Ceiling Clip

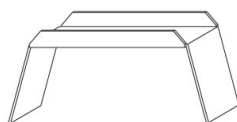
Application: Use with Border 22, 66 & 11 in hard ceiling installation. Insert a clip into the extrusion boss on the outside of the diffuser frame. Attach clip to framing member with screw. Clips should be spaced at 250mm intervals.



### Model: SS1

Description: Spline Support Clip

Application: Used to connect multiple sections of FlowBar diffusers. Insert clip half way into the extrusion boss on the outside of the diffuser frame, then slide exposed end of spline support clip into connecting piece of FlowBar.



### Model: F6-10, 15, 20, 25 & 30

Description: Concealed Fastener Bracket Kit

Application: Use with FlowBar Border Type 66 to install FlowBar diffuser after hard ceiling installation. Place mounting bracket above diffuser. Drill hole into existing FlowBar spacer(s). Thread No.8 75mm Posi c/s screw through each spacer and into mounting bracket. Tighten screw(s) until diffuser flanges draw tight against ceiling.

# Even more from us...



Flowbar High  
Capacity Slot  
Diffuser



Linear Slot  
Diffuser



Circular Ceiling  
Diffuser



Square &  
Rectangular Diffuser



Exhaust & Supply  
Air Valves



Fixed Blade  
Linear Ceiling  
Diffuser



Circular Floor  
Swirl



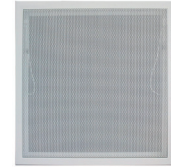
Fixed Blade  
Grille



Linear Floor  
Grille



Single Deflection  
Grille



Perforated Face  
Ceiling Diffuser



Jet  
Diffuser



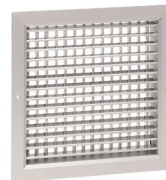
Egg Crate  
Grilles



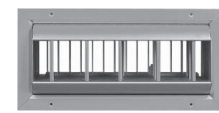
Linear Narrow  
Blade Bar Grille



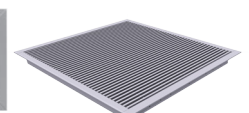
Variable Air Pattern  
Ceiling Swirl Diffuser



Double  
Deflection Grille



Cylinder Jet  
Diffuser



Panel Floor  
Grille



Swirl®



Non Vision  
Grille



Linear Wide  
Blade Bar Grille



Security Grille