

waterloo



Operating and Maintenance

DFA Series Louvred Face Diffuser





DFA Series Louvred Face Diffuser

Product Description

DFA Louvred Face Diffuser

Tools Required

- 1 x Pop riveter
- 1 x ø3.5mm drill bit
- 1 x Battery operated drill

Installation instructions:

1- Install the plenum box in its desired position by suspending it from its mounting holes with drop rods (supplied by others).

Raise or lower the plenum as required to give a set dimension within the range of 55mm to 60mm from the proposed ceiling face (**Figures 1**).

Once you are happy with its positioning then lock the plenum in place using the lock nuts on the drop rods.

2- After the ceiling has been installed, the cut out for the diffuser must be created. The size of the opening required can be found using the formula:

'Nominal stack size' + 38mm.

For example, if you were fitting a DFA-41/450x450 then the nominal stack size would be 450mm square. Therefore the opening would be $450 + 38 = 488\text{mm}$ on both sides.

3- Remove the core from the diffuser by locating the fixing screws holding it in position. There will be 1x screw fitted on all four sides on a square diffuser (**Figures 2**), but on a rectangular one there will be 2x per side on opposite sides. It should be noted that the screws are held captive on the diffuser core by a retaining Clip to prevent them being lost during maintenance.

4- When the core has been removed, store it away until needed to prevent damage.

5- Insert the diffuser frame in the ceiling opening making sure that the stack is positively located in the plenum box opening (**Figures 3**).

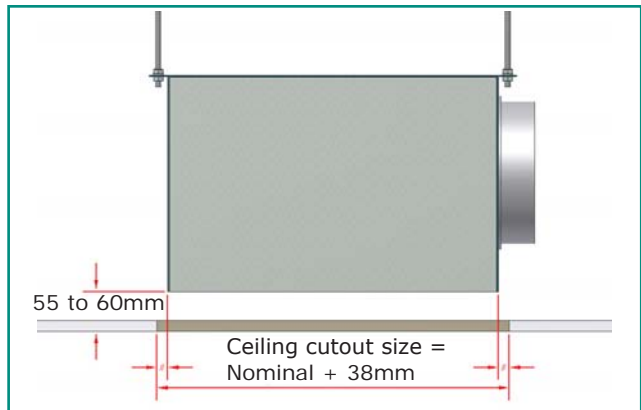


Figure 1: Mount plenum box

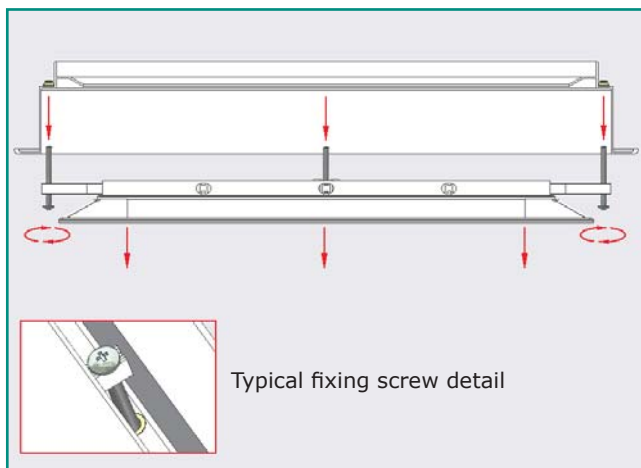


Figure 2: Remove the diffuser core

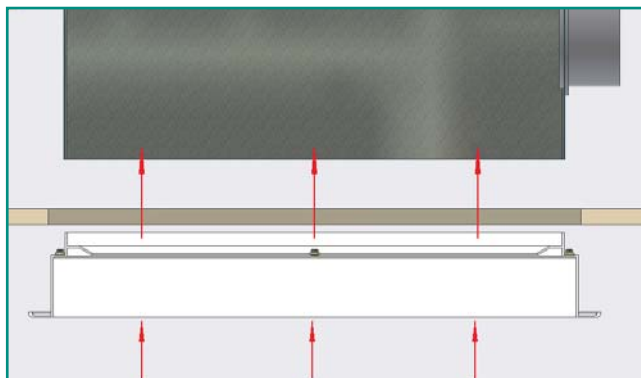


Figure 3: Locate diffuser in opening



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Installation instructions:

6- When this has been achieved, push the frame up to ensure that the rear of the flange is butted up to the ceiling face as in **(Figure 4)**.

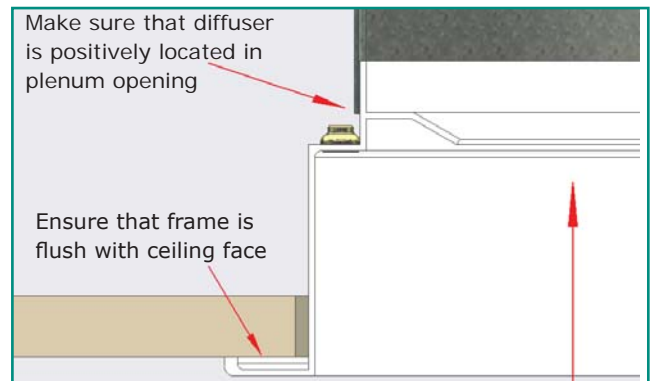


Figure 4: Ensure that Diffuser is seated correctly

7- Drill through the frame & plenum wall, and secure in position with pop rivets or self tapping screws **(Figure 5)**. Repeat this operation on the remaining 3 sides or as required.

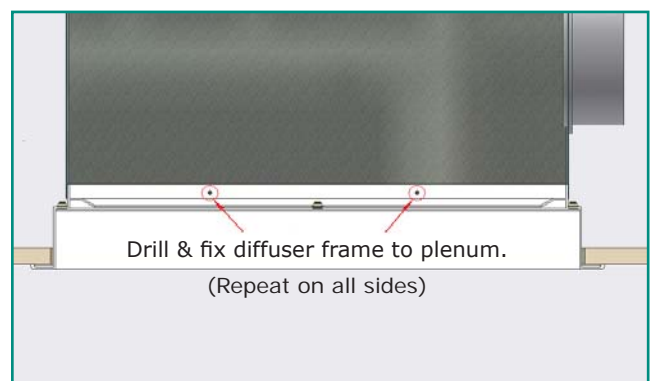


Figure 5: Rivet diffuser in place

8- Replace the diffuser core by winding the fixing screws into the frame **(Figure 6)**.

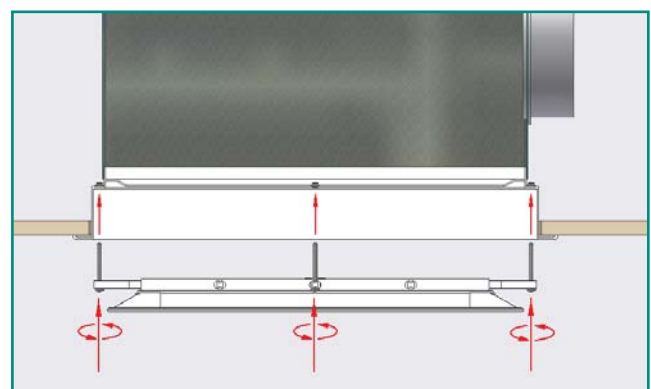


Figure 6: Replace diffuser core



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Installation instructions:

9- To adjust the air flow to the desired pattern, the following details should be noted:

a) By adjusting the core to sit below the diffuser face will cause the air flow pattern to follow the ceiling face (**Figure 7**)

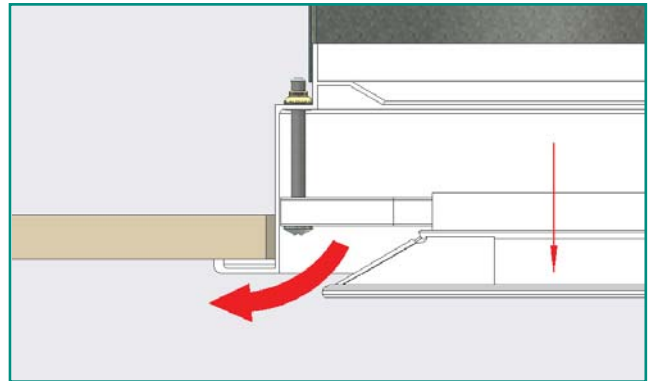


Figure 7: Move Core out for the airflow to follow the ceiling face

b) However, if the core is adjusted so it is above the diffuser face (**Figure 7a**), then the air flow pattern will then exit in a downwards direction.

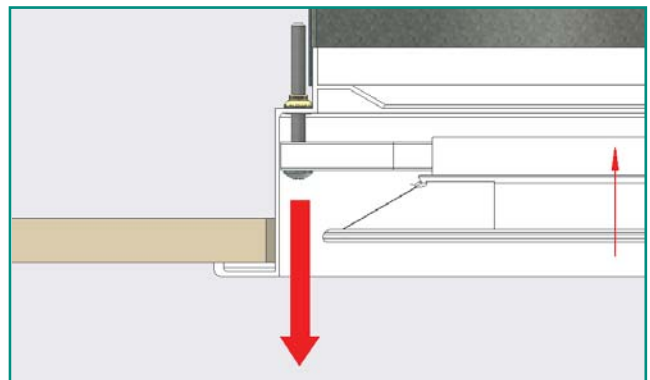


Figure 7a: Move Core in for the air to flow downwards

Cleaning and Maintenance:

Waterloo recommend that the diffuser faces are cleaned with warm soapy water. For regular cleaning, a simple wipe down of all accessible faces will suffice.

If a deeper clean is required then simply remove the diffuser core as previously described, then clean the interior faces of the diffuser frame and the whole of the diffuser Core then reassemble.



Waterloo Product Range

GRILLES

A complete range of products suitable for all wall, ceiling and floor applications. Most grilles are made from aluminium and have a range of fixed or moveable blades designed to give performance whilst remaining aesthetically pleasing to the eye. Grilles are made to customer specified sizes and colours (PPM/G); standard colour PPM9010 (20% Gloss White). The range is complemented by the Aircell range of polymer Grilles.



DIFFUSERS

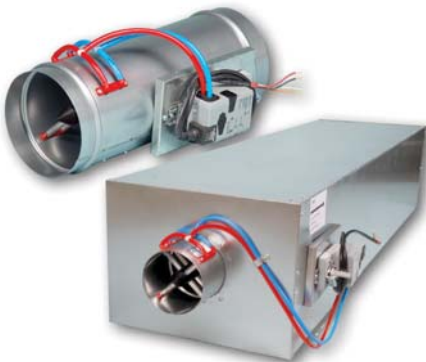
Designed to be installed in various ceiling systems, we have a complete range to suit both performance and aesthetic requirements. Most diffusers are made from aluminium and can be ordered with or without plenum boxes for easy duct work. Diffusers can be ordered in customer specified colours (PPM/G); standard colour is PPM 9010 (20% Gloss White). This range is complemented by the Aircell range of polymer Diffusers.



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The finest quality range of high output active beams, used for ventilated heating and cooling applications. These units have 4 pipe coils to allow heating and cooling circuits to run simultaneously, giving constant and responsive control. The design allows a large optimum capacity and also allows the customer to specify the nozzle type and pitch for individual circumstances.

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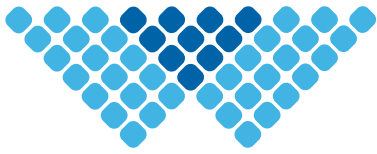
EXTERNAL LOUVRES

A quality range of products for external wall applications. Made from aluminium, with birdscreen or insect screen options. All louvres are made to customer specified sizes and (PPM/G) colours; standard colour is PPM 9006.



DISPLACEMENT

A full range of recessed, semi-recessed, floor, wall and corner units providing high ventilation efficiency and excellent comfort. The very low pressure involved also offer quiet installations. Displacement units are available as wall or floor mounted, or indeed integrated within the architectural design.



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