

# dMEV

## Decentralised Mechanical Extract Ventilation 2 Speed Axial Fan

# Installation Guide

### 1.0 Introduction

The dMEV 2 speed axial extract fan has been designed for continuous ventilation for kitchens or wet rooms and should be installed using 100mm dia. ducting. The unit can be installed in multiple application types, through wall, in duct and in room. Speed settings are fixed at either Low Speed and Low Boost or High Speed and High Boost (See Wiring Section for Details).

As a default, the fan is set to achieve low speed (4 l/s - wetrooms) to adjust to high speed (6 l/s - kitchen) refer to section 10.

### 2.0 Handling

Always handle the the fan carefully to avoid damage and distortion.

**NOTE: Unit identifier label maybe removed from front cover once installation / commissioning has been completed.**

### 4.0 Induct Installation

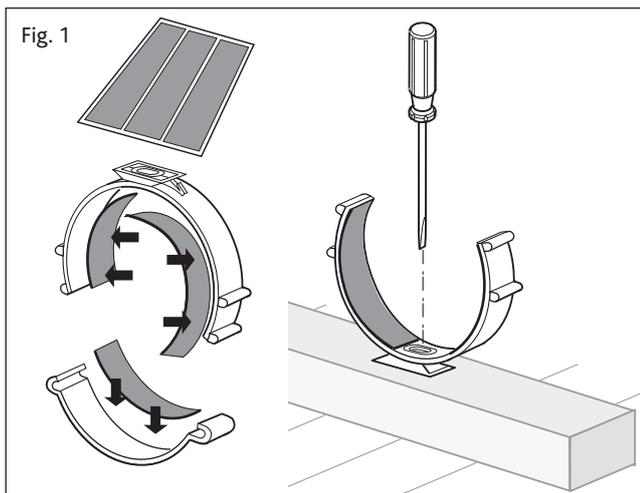


Fig. 1 Peel off the 3 anti-vibration pads, and attach them to the insides of the 2 part bracket. Then attach this half of the bracket to a secure surface.

### 3.0 Installation

The installation must be carried out by competent personnel in accordance with the appropriate authority and conforming to all statutory and governing regulations i.e. IEE, CIBSE, CCHSE, HVCA etc.

The unit is suitable for indoor use only, and is suitable for induct or wall and ceiling installation. Mount on a secure, vibration free surface away from any direct source of heat and areas where it would be subjected to water spray.

The maximum permissible ambient temperature is 50°C.

Please note that the fan clip supplied with the unit must always be used for installing the fan to a mounting surface.

#### dMEV box contents

Fan unit, electrical cover, wiring grommet and a cable clamp.  
2 part inlet grille, 3 anti-vibration pads, 2 part mounting bracket and spacer.

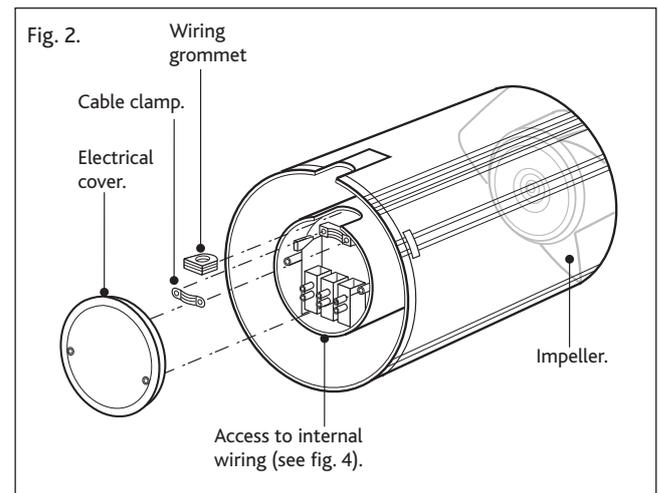


Fig. 2 Fan components.

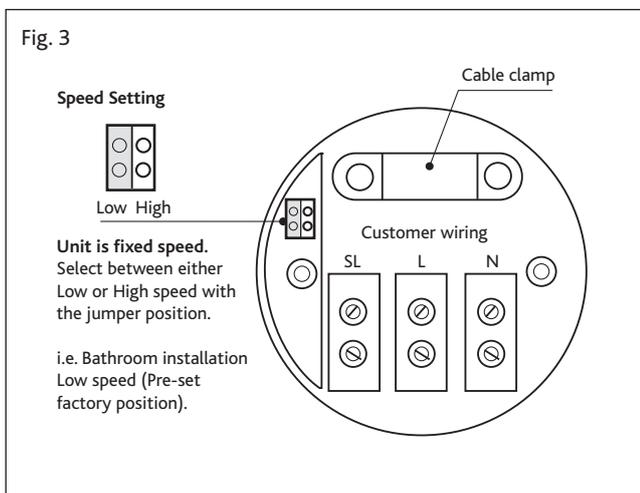


Fig. 3 Complete the internal fan wiring, and secure wiring using the cable clamp, make a hole in the wiring grommet and insert into the cutout on the fan wiring casing. Feed the wiring through the grommet and the outer fan casing for later connection. Fit the electrical cover with 2 screws.

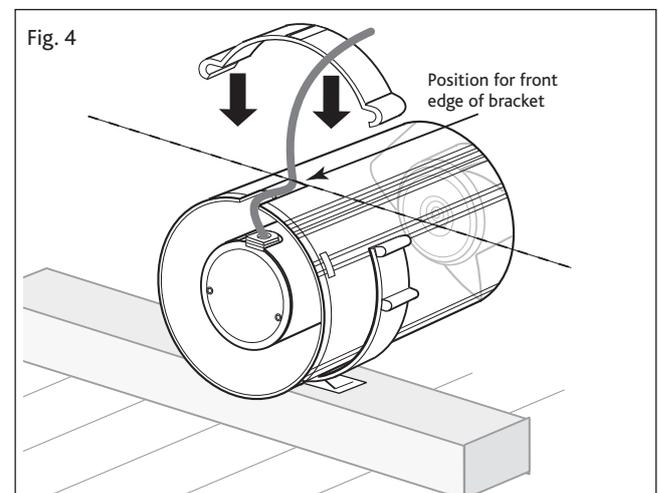
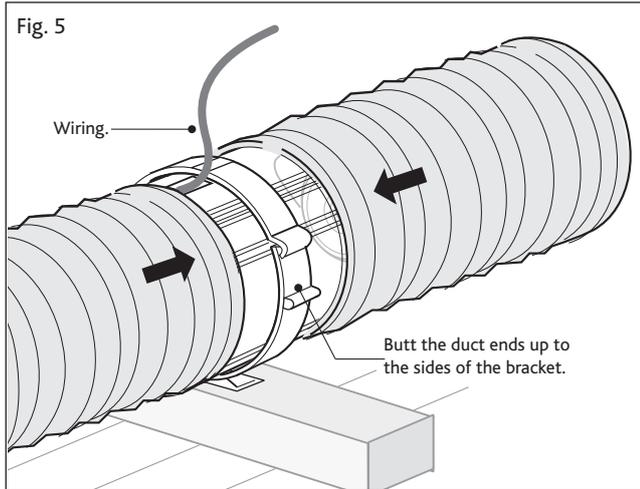
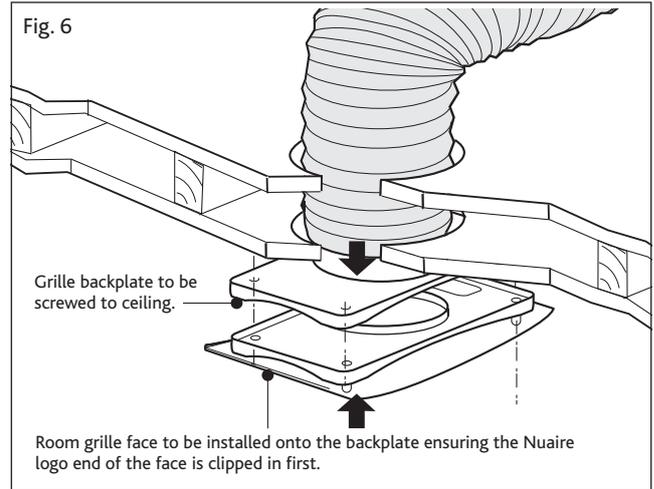


Fig. 4 Press the fan into the bottom half of the bracket and secure the top half of the bracket to the lower half ensuring that the bracket is positioned correctly on the fan.

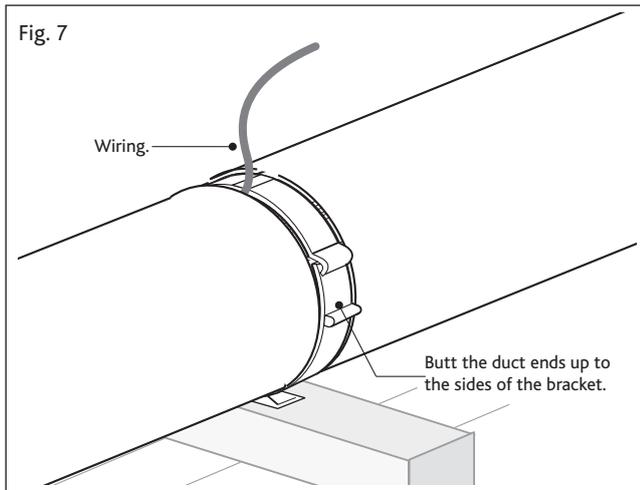
### 4.0 Induct Installation cont.



**Fig. 5** Using a combined maximum length of 1.5m flexible duct (2 lengths). Slide the 2 sleeve lengths over the fan unit so the ends butt up to each side of the bracket. Ensure the wiring protrudes at the leading edge of the bracket. Fix the duct ends in place with a cable/zip tie or a jubilee clamp then extend the flex duct to the grille locations.



**Fig. 6** Fix the back plate of the 2-part grille on the ceiling with screws, then pull the flex duct through the previously cut 100mm dia. hole, over the back plate spigot. Fix the duct ends in place with a cable/zip tie or a jubilee clamp.



**Fig. 7** If 100mm dia. rigid duct is used for in-line / in-room installations the duct ends must be secured with a tape and sealant fix. Please check the performance curve for rigid duct resistance.

Fig. 8

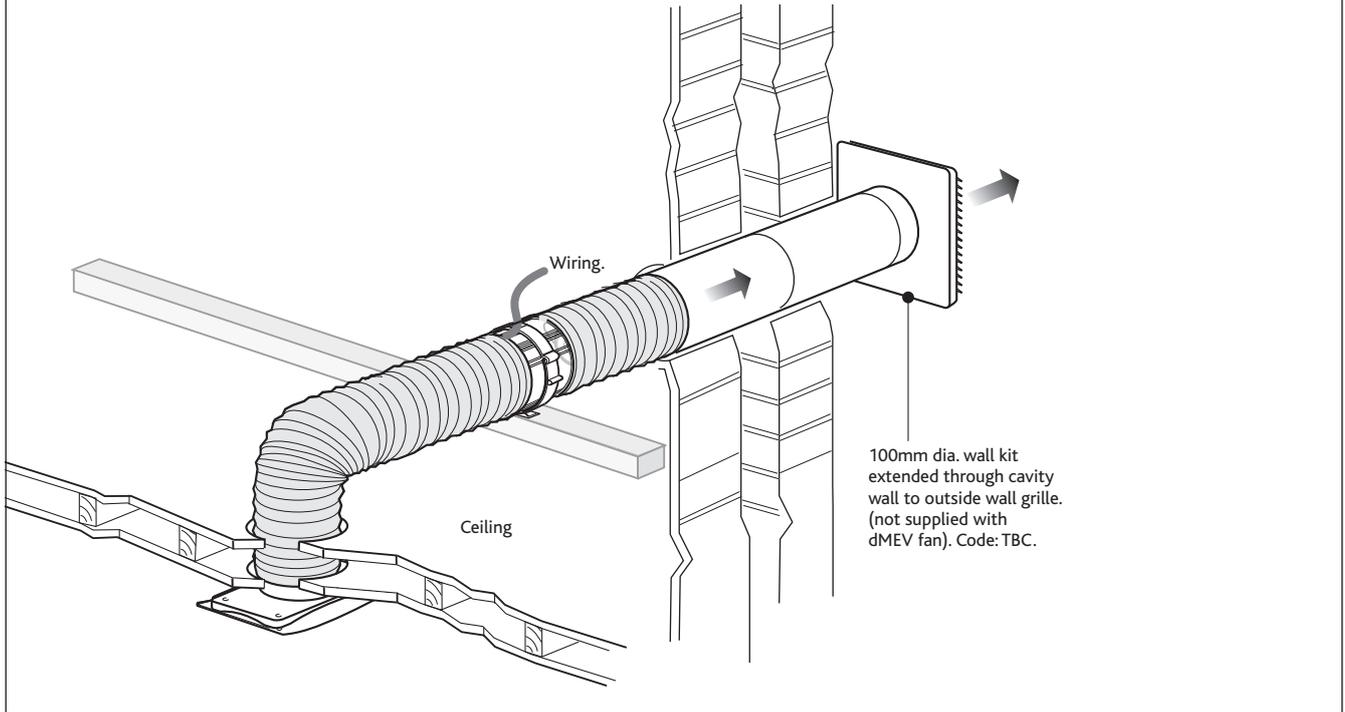
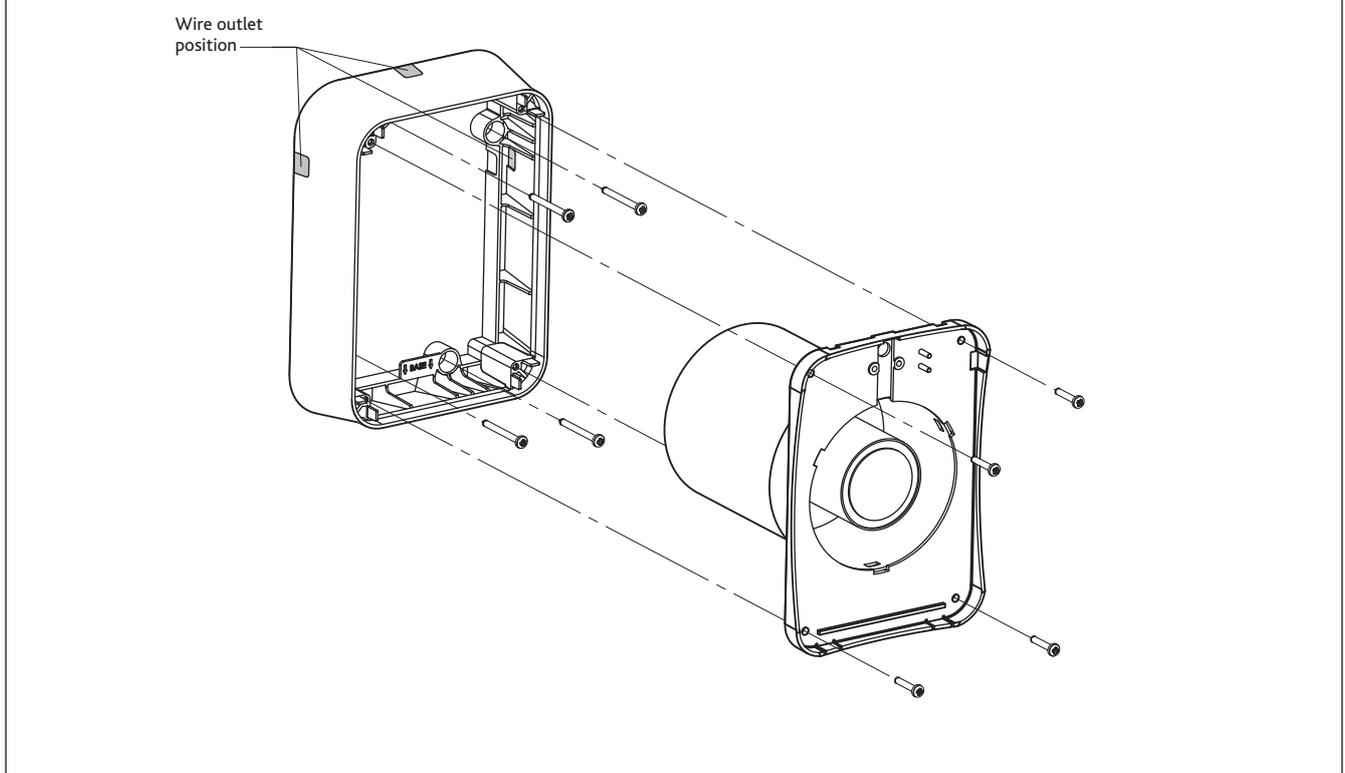


Fig. 8 Typical dMEV induct/inline installation with ceiling mounted grille and external wall grille.

### 5.0 Spacer Installation (if required)

Fig. 9



**Fig. 9 Spacer Installation** Having established the mounting position for the room grille. Mark the centres of duct hole and four fixing points using the template provided on page 6.

Core cut the centre duct hole, drill and plug mounting holes.

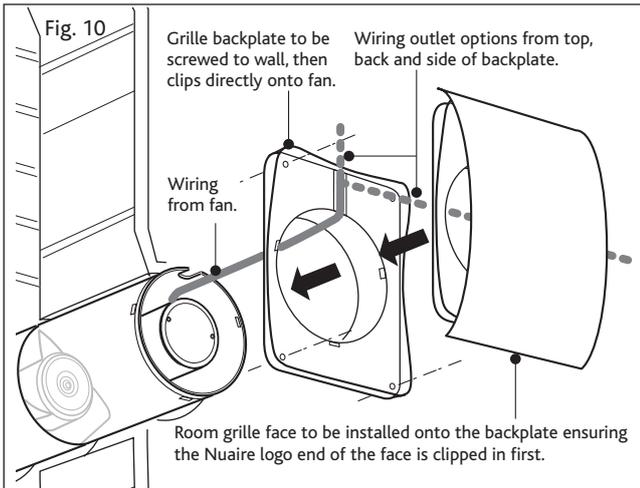
When using surface mounted cabling select the most appropriate cable entry position and carefully trim out the inner and outer cable cut-outs.

Secure spacer to the wall / ceiling (fixings supplied by others). Note: use wood screws not countersink screws to avoid distorting the skirt.

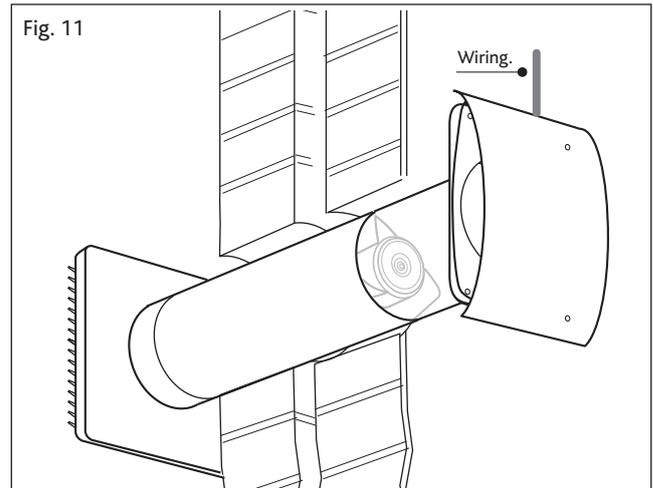
**Chased in Cable:**

Feed the cable through the spacer to pass through back plate for when installing fan.

## 6.0 Wall Installation

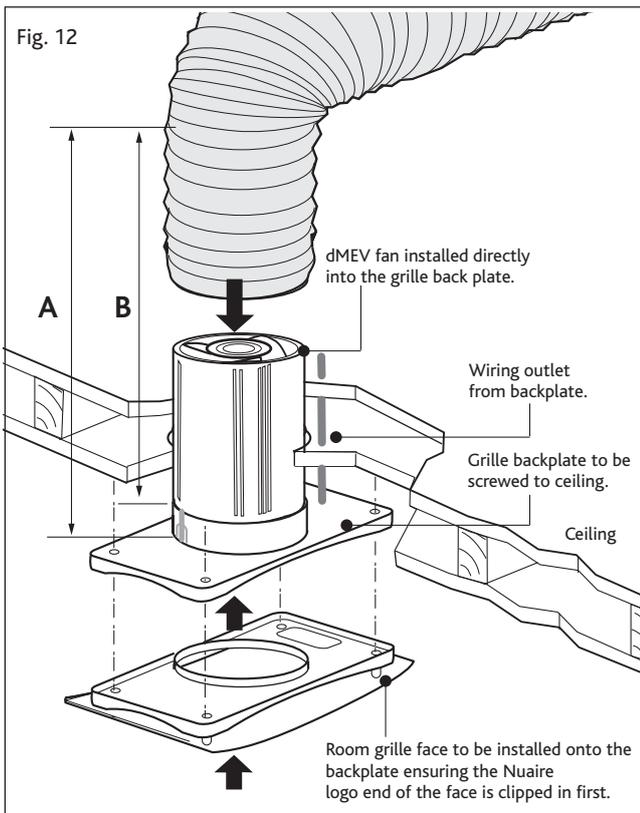


**Fig. 10** Having established the mounting position for the room grille, cut a duct hole through the wall. Wire the fan as described in (figs. 3 and 4). Insert the 100mm dia. ducting through the wall, then insert the fan unit into the duct and secure. Ensure that the wiring is fed through the grille back plate through the chosen exit point (see fig. 13) before installing the back plate onto the fan.



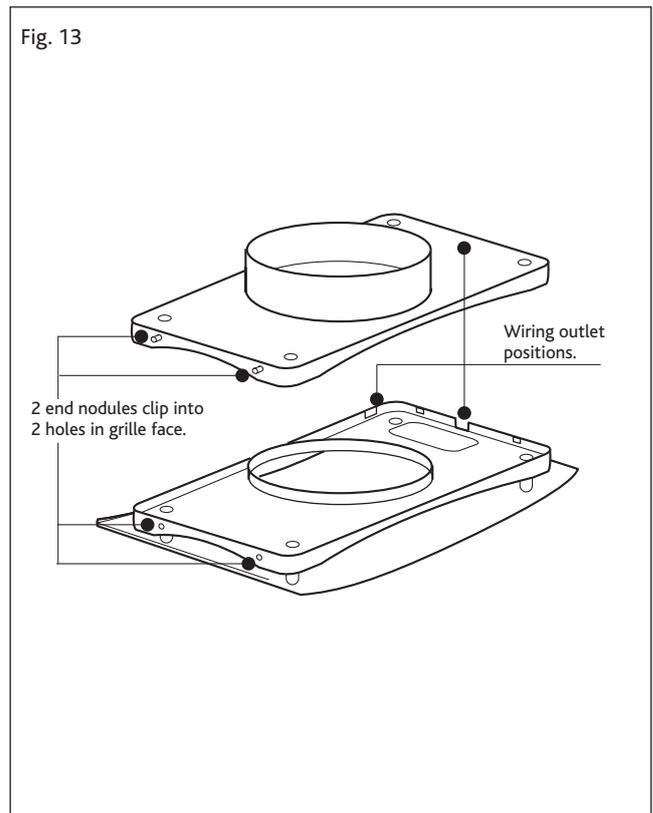
**Fig. 11** Fix the back plate of the 2-part grille on the wall with screws, then pull the flex through the chosen exit point in the grille front. (see fig. 13). Join the face of the grille to the back plate by locating the end with rectangular tabs into the rectangular holes. Once located, push the top part of the grille face into the back plate ensuring the round nodules slot into the holes on the top edge. The wiring can now be positioned in the chosen position on the wall.

## 7.0 Ceiling Installation



**Fig. 12** Having established the mounting position for the room grille, cut a 100mm dia. hole through the ceiling. Wire the fan as described in (figs. 3 and 4). Insert the fan unit into the grille back plate spigot and secure, ensuring the wiring protrudes from the fan casing above the back plate spigot (see fig. 12). before installing the back plate onto the ceiling with the fan unit. The grille face can now be attached to the back plate.

Using a maximum length of 1.5m flexible duct. Slide the sleeve over the fan unit so the end goes over the back plate spigot.



Fix the flexible duct end in place with a cable/zip tie or a jubilee clamp then extend the flex duct to the other grille location. If rigid duct is used the duct end butts up to the grille back plate spigot and must be secured with a tape and sealant fix.

**Note:** Measurement A & B in fig. 12 represents the required minimum height up to the first duct bend.

A = Flexible duct = 230mm up from the back plate.

B = Rigid duct = 200mm up from the top of the back plate spigot.

## 8.0 Dimensions (mm)

Fig. 14a. dMEV fan unit.

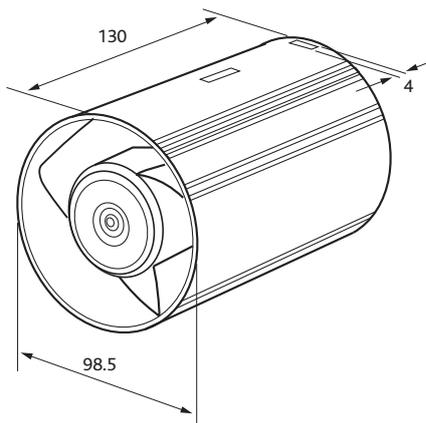
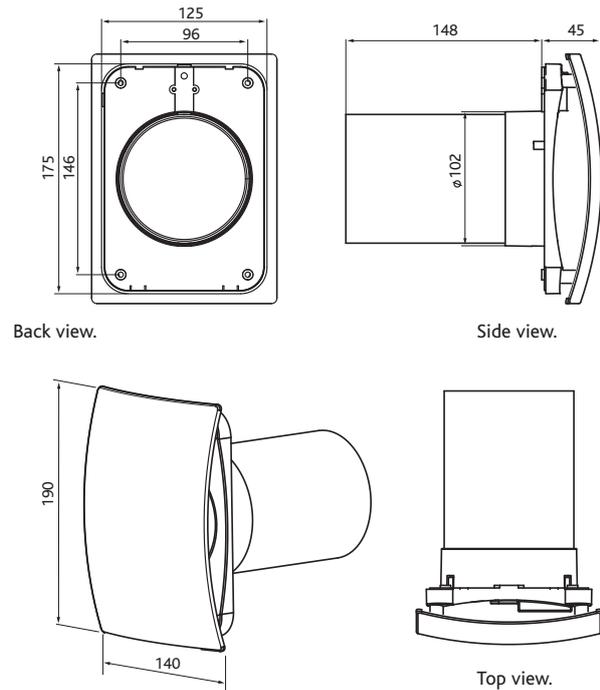


Fig. 14b. dMEV fan and room grille.



## 9.0 Electrical

Voltage:	230V
Frequency:	50Hz

## 10.0 Wiring

**Unit serving bathroom or kitchen (optional boost)**

**Unit serving bathroom (via light switch)**

**Speed setting**

**Unit is fixed speed.** Select between either Low or High speed with the jumper position.  
i.e. Bathroom installation Low speed (Pre-set factory position).

Speed Setting:	Low Continuous	Low Boost	High Continuous	High Boost
<b>Air Flow:</b>	4 l/s	8 l/s	6 l/s	13 l/s

## 11.0 Maintenance

The fan unit does not require any maintenance. However, for optimum performance, it is advisable to remove any accumulated dust with a low power vacuum cleaner.

**Note: Installation and Maintenance of the equipment must be as directed in the instructions provided with the unit.**

## 12.0 Warranty

The 5 year warranty starts from the day of delivery and includes parts and labour for the first year. The remaining 4 years covers replacement parts only.

This warranty is void if the equipment is modified without authorisation, is incorrectly applied, misused, disassembled, or not installed, commissioned and maintained in accordance with the details contained in this manual and general good practice.

The product warranty applies to the UK mainland and in accordance with Clause 14 of our Conditions of Sale. Customers purchasing from outside of the UK should contact Nuair International Sales office for further details.

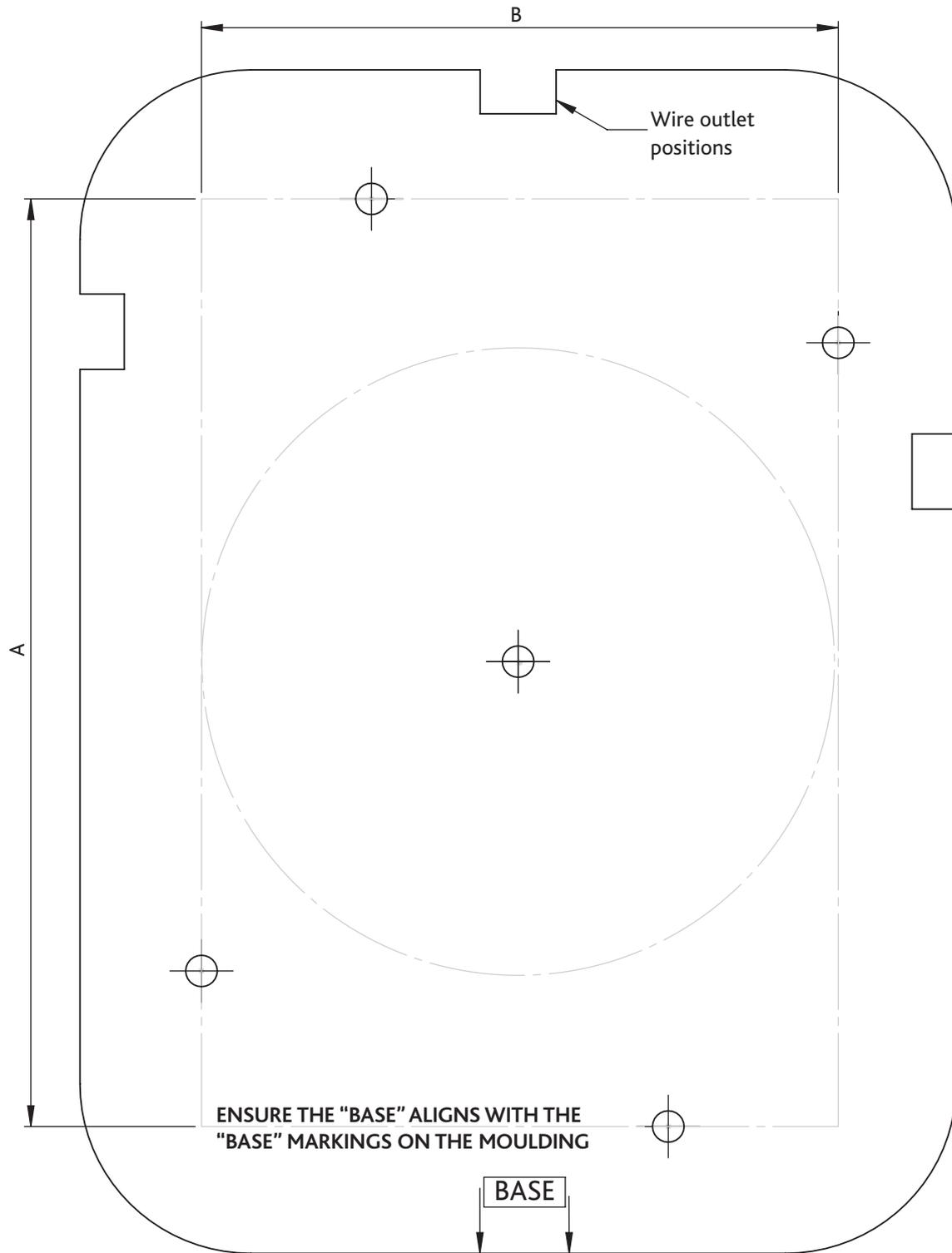
## 13.0 After Sales

For technical assistance or further product information, including spare parts and replacement components, please contact the After Sales Department.

**Technical Support  
on 02920 858 400**

Technical or commercial considerations may, from time to time, make it necessary to alter the design, performance and dimensions of equipment and the right is reserved to make such changes without prior notice.

### 14.0 Skirt Spacer Template



Note, if printing document check scale.

A = 147.8mm

B = 100.7mm