

# Displacement Diffusers for raised floors

## Model : WB-RFD

### FUNCTION

Circular supply air diffuser with swirl function for mounting in raised floors. The slots in the diffuser are designed to give a swirl spread pattern with high induction to achieve low air velocities and low temperature gradients in the occupied areas. It is suitable for both constant and variable flow. It can be used for both ductless or ducted systems.

### QUICK FACTS

Strong aluminium construction  
Handles large under temperatures  
Very high induction rate  
Cleanable  
Plenum box with damper function and dirt trap  
Can be used with commissioning box  
Standard finish in shot-blasted aluminium  
Available in alternative colours

#### Dimension and weight

Size	ØA	ØB	ØC	Weight kg
150	190	150	165-170	2.9
200	240	200	220-225	4.1

#### Quick Selection Guide (dB vs cmh)

Size	20 dB(A)	25 dB(A)	30 dB(A)
150	28.8	36	46.8
200	50.4	61.2	75.6

### DESIGN

Circular supply air diffuser with slots for swirl function. The diffuser has a flange which can be used to clamp over different floor coverings.

### MATERIALS AND SURFACE TREATMENT

The diffuser is manufactured in cast and shot-blasted aluminium.

### ACCESSORIES

#### Dirt trap with swirl deflector and hit/miss damper:

Manufactured in galvanised sheet steel. Contains a simple circular slide deflector. Mounted direct to the face plate for positive pressure plenum floors, **ductless system**.

#### Mounting frame:

Manufactured in galvanised sheet steel. Used in conjunction with the commissioning box where **ducted systems** are used.

#### Commissioning box:

Manufactured in galvanised sheet steel. Contains a commissioning damper,

### PLANNING

If the diffuser is to be connected to a duct system, we recommend that the mounting frame be used. It has a rubber sealing ring on the connection spigot. This model however does not have any damper function. To obtain damper and measurement functions, the commissioning box is used. The pressure drop in the diffuser and box ensure an even flow of air through all installed diffusers.

When the space under the raised floor is used as a pressure chamber the WB-RFD is coupled with the dirt trap. This combination provides damper function but no measurement function. The total airflow in the pressure chamber is controlled with the aid of a measurement and regulation damper which is installed in the connecting duct system.

### INSTALLATION

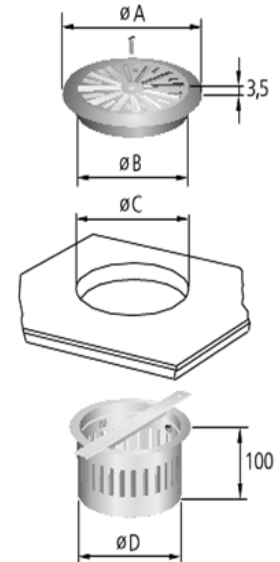
Cut a hole in the in the floor with the dimensions shown in "DIMENSIONS AND WEIGHTS". For ductless system, the WB-RFD is fastened to the underside of the raised floor using screws and brackets provided. For ducted systems, it is fastened to the connecting duct or commissioning box using blind rivets.

### COMMISSIONING

measurement and regulating damper be installed in the duct system before the diffuser for the purpose of measuring the airflow. When the commissioning box is used, both measurement and damper functions are obtained.



#### Ductless System



#### Ducted System

