



INSTALLATION MANUAL

Destratification Fan

Model DSF



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1. General

This user's guide is meant for the installer and if necessary for the user. It's a reference to operation and installation of the DSF range of destratification fans.

1.1 Description

The DSF destratification fan consists of a metal casing with a bladed fan & motor fitted within a fan guard. There is an outlet with pressed louvers on the opposite side, which enables the airflow to be directed in the desired direction. A fitted thermostat allows automatic operation.

1.2 Function

The DSF destratification fan is designed to be fitted within the roof space of a building to recirculate otherwise wasted, warm air gathering within the roof space, to low level. The fitted thermostat automates this process.

i.e If the room thermostat is set at 25°C, it will switch the fan on as soon as this temperature is achieved at ceiling/ roof level. The fan will stop when the thermostat detects

a reduction in temperature of approx 1.5°C.

The installation of a correctly sized destratification system, pays for itself quickly due to the significant energy savings achieved

1.3 Warnings

- The minimum suspension height is model dependant, please check the technical data table below.
- Disconnect the appliance from the power supply before performing maintenance on this appliance.
- Caution, this appliance can start automatically!
 - Take care of a safe area when working on this appliance
 - Use certified access equipment.
 - Take care of your personal safety. Use safety gloves and safety shoes.

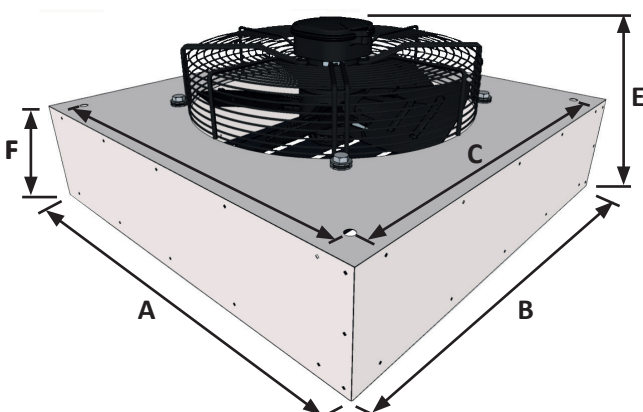
1.4 Warranty

Operation/installation of appliances not in accordance with this manual will render warranty void. It is not per-

2. Technical Data

Technical Data							
Models		DSF20	DSF40	DSF60	DSF80	DSF100	DSF120
Air volume	m ³ /h	2450	3955	6800	8510	9700	11435
Mounting Height	Maximum m	9	10	12	14	18	20
	Minimum m	4	6	7	8	9	10
Electrical supply	V	230V 1 Phase N & E - 50Hz					
Starting current	A	1.9	2.4	4.8	6.8	6.6	10.6
Running current	A	0.65	0.82	1.7	2.4	2.35	3.75
Noise level @ 5m	dB(A)	49	50	50	53	55	58
Weight	kg	12	13	16	21	25	25

2.1 Dimensional data



Dimensional Data						
Models	DSF20	DSF40	DSF60	DSF80	DSF100	DSF120
A	606	606	606	744	744	744
B	606	606	606	744	744	744
C	532	532	532	652	652	652
D	532	532	532	652	652	652
E	260	260	260	300	300	300
F	155	155	155	175	175	175

mitted to change the specifications or to make modifications of any kind, to this appliance.

3. Installation

3.1 Suspension

- The method/products used to suspend the unit must be fit for the purpose.
- The minimum suspension height is 4.0m. .
- Install the unit with 2 persons, keeping in mind, working at height and the weight of the unit.
- Take care and assign a safe area when working on this appliance
 - Use certified access equipment.
 - Take care of personal safety. Use safety gloves and safety shoes.

Each unit has been fitted with 4 suspension eyes for use with chains or steel wire (not included). Ensure the appliance has an uninterrupted supply of air on both inlet & outlet, a minimum clearance around the air inlet of 0.5m should be observed.

3.2 Calculating number of fans required

Calculate the volume of the space in m³, multiply this by 2. The resulting figure is the volume in m³/h needed by the DSF destratification fans.

Select the DSF model based upon air output, throw of the unit and height of the room. Then simply take the calculated air volume and divide by the air volume produced by your selected DSF model. The resulting figure is the qty needed for your application.

NOTE Selecting a DSF model with the highest air volume is not necessarily the best solution. It is important to achieve uniform air distribution throughout the space, for maximum comfort and reduced running costs.

Occasionally it will be necessary to install more DSF fans that calculations indicate to achieve uniform air distribution. In these scenarios, where possible, reduce the model size and increase the quantity.

IMPORTANT Always ensure the model of fan is capable of being installed at the height you propose.

3.3 Positioning

Position the destratification fan preferably towards the end of the throw or area that is not directly served by the heaters throw.

In general, a higher number of fans provides better air distribution.

Each DSF fan should be fitted approx. 1.0m beneath the roof or ceiling, but not closer than 0.5m. The distance between floor and fan may not exceed the distance stated in the technical data as this will prevent the warm air from reaching low level.

On the outlet of the DSF units are a series of twist and set outlet louvres. It is essential that these louvres be opened before the fan unit is switched on for the first time.

The louvres are intended to ensure that the airflow from the fan unit is correctly distributed. Each louvre should be opened to an angle of at least 45°. Even with the louvres set at maximum deflection, there will be a severe draft when the unit is suspended too low.

4. Electrical Connections

WARNING! Before starting installation ensure that the electrical circuit you are working on has been shut off.

This appliance must be earthed!

4.1 230Vac supply

The installation must comply with all applicable local and/or national standards.

All DSF units are supplied fully wired and come with a plug-in 2m flying lead. This should be connected to a fused mains isolator (locally mounted).

The fitted thermostat should be set to the temperature at which the fan is required to be switched on (typically 2 to 5°C above ambient set-point).

5. Operation and Maintenance

WARNING! Before starting maintenance make sure that the electrical circuit you are working on has been isolated.

The appliance must be earthed.

5.1 Operation

The DSF unit does not need manual control, it is automatic. Generally temperature setting has to be done by the installer.

The user is allowed to do following settings:

- Set the temperature at which the fan should ventilate.
- Turn ON/OFF main switch

5.2 Maintenance

In areas where heavy dust is present, it may be necessary to clean the fan & guard with compressed air once a year. If the guard is covered with severe dust, the fan will not provide optimal performance.

Check if the appliance turns ON and OFF as it should on the thermostat.

Pay attention on:

- The ON and OFF switching from the thermostat
- The smooth rotation of the fan
- Remove any dust from the appliance
- Check that the fan does not have severe vibration because of unbalance on the fan blades



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