

CDF De-Stratification Fan Unit

CI/SfB

56

TS 232



Applications

CDF De-stratification units are designed to mix high and low level air within high bay factories and warehouses. This has two benefits, bringing heated air back down to floor level reduces the need for additional heat and reducing the air temperature at roof level reduces the temperature difference across the fabric of the roof hence reducing the heat lost through the roof fabric.

They can also be used to where the air flow produced by the space heaters is insufficient to give the required air movement for even heating of the building.

Fitting CDF units in high roofed buildings can significantly reduce overall heating costs.

Features

- bi-directional louvres for maximum control of air direction.
- textured powder coated steel cabinet (RAL9016 White).
- totally enclosed permanently lubricated motor (IP55).
- thermostat for automatic control.
- optional variable speed control.
- eye-bolts for chain/wire suspension

Control

The CDF unit is fitted with an integral thermostat which should be set at 2-3 °C above the required building temperature.

Double deflection louvres are fitted to spread the airflow when the fans are mounted below recommended mounting heights. They should be adjusted to give an acceptable airflow at floor level with an even spread.

Optional fan speed controllers can be fitted to give even greater control of the airflow and noise level.

The CDF-SC controllers allow variable speed control of individual fans, CDF-SC3 for CDF-315 and 400 and CDF-SC5 for CDF-450



Installation (Download full installation instructions at www.cehltd.co.uk)

The fan unit should be mounted at approximately one metre below the highest point of the roof. Multiple units should be spread around the area avoiding columns, beams and light fittings which may disrupt the airflow. The unit is provided with eye bolts to allow suspension from chain or wire rope. It is important to check that the structure and fixings are substantial enough to take the weight of the unit. It may also be appropriate to make provisions for cleaning and servicing the unit.

All units are for 230V operation and should be connected via a suitably fused and isolatable power supply. Connection should be via a 2 pole switched connection unit having a contact separation of at least 3mm in all poles. The unit must be earthed.

Electrical connections should be made by a suitably qualified person in accordance with the latest edition of the IEE Requirements for Electrical Installation (BS7671:2001)

Selection

- Based on the required mounting height of the unit select the most appropriate unit.
 CDF- 315 between 3m and 9m
 CDF- 400 between 5m and 13m
 CDF- 450 between 6m and 18m
- Calculate the volume of the building (L x W x H) based on two air movements per hour the number of units required is given by $(2 \times L \times W \times H / V)$ where V is the air flow volume of the fan.

Example

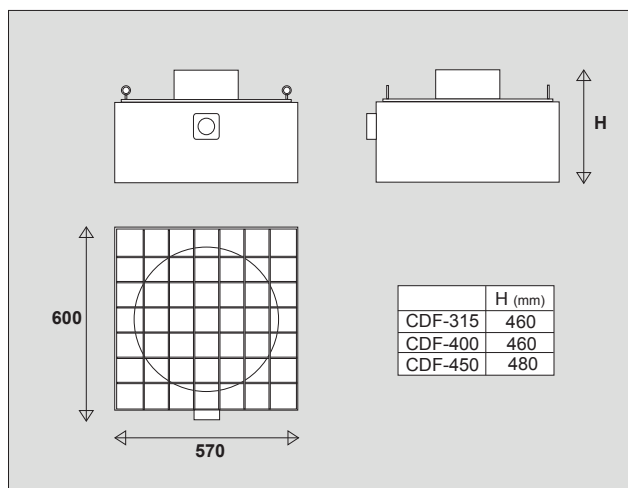
A building 60 m x 30m x 9m requires de-stratification fans for an efficient space heating installation.

1) Mounting height 8m thus CDF-315 and CDF-400 are possible.

2) Volume of building = $60 \times 30 \times 9 = 16200$ cu m
 at 2 airchanges = $16200 \times 2 = 32400$ cu m

3) Using CDF- 315 units $32400/2150 = 15$ units required
 Using CDF- 400 units $32400/5000 = 7$ units required.

Specification



Cat No	Vol m3/hr	Max mtg ht (m)	Min mtg ht (m)	dBA @ 3m	rpm	Volts	Watts	Amp	Wt. kgs
CDF-315	2150	9	3	52	1400	230	90	0.8	18.0
CDF-400	5000	13	5	61	1400	230	180	1.6	20.0
CDF-450	7000	18	6	66	1400	230	370	3.0	24.0

The manufacturers reserve the right to change the specification without prior notice E&OE



Commercial Electric Heat Limited
 Burnfoot Industrial Estate
 HAWICK Roxburghshire TD9 8SL
 Tel 01450 372103 Fax 01450 377800
www.cehltd.co.uk
 email sales@cehltd.co.uk