Destratification Systems & Ambient Door Curtain Range

Industrial & Commercial Heating Systems.

powrmatic

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WARRANTY
NOW EXTENDED TO
2 YEARS
ON ALL DESTRATIFICATION & BARATHERM PRODUCTS

CE

HEATING // VENTILATION // AIR CONDITIONING // OEM PRODUCTS

CECx Destratification Fan

Introduction

CECx Calecon de-stratification fans are specifically designed to lower the fuel consumption of space heating systems and at the same time, improve comfort levels. The displacement of warm air from the roof void down into the working zone converts wasted heat into useful heat reducing fuel consumption greater 15% depending upon the building height.

An additional benefit is the ability of the fans to enhance comfort levels by creating a uniform pattern of heat throughout the area within which they are installed.

CECx Calecon fans comprise of a panel box construction onto which is a resiliently mounted axial fan set which discharges warm air through an adjustable punched louvred grille.

Automatic thermostatic controls prohibit fan operation until the roof space temperature reaches a pre-determined level.

Installation is quick and easy with fans only requiring mounting via the four eye-bolts provided and the connection of an electrical supply.

Design

Step 1)
Select the CECx Calecon model fan to suit the mounting height requirements. Fans should be mounted approximately 1.0 – 1.5 metres below the roof line.

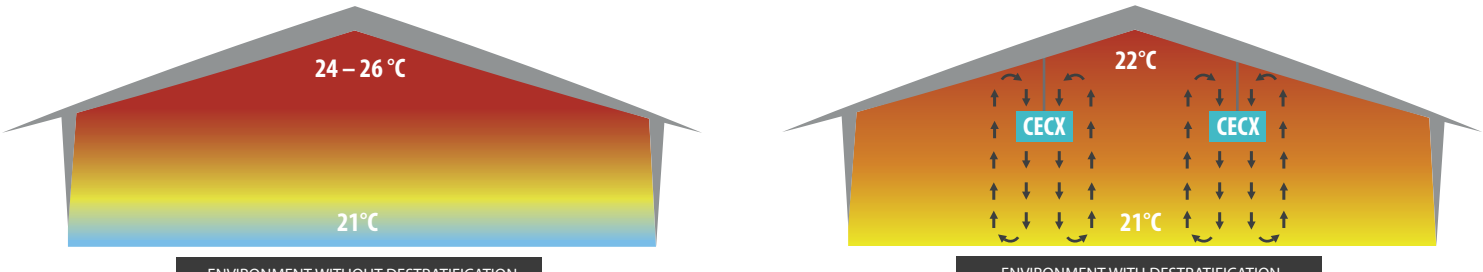
Step 2)
Calculate the building volume in cubic metres, multiply by 2 to determine the optimum air displacement.

Step 3)
To calculate the number of fans required divide the result of Step Two by the fan displacement (m^3/h) shown in the table below.

Warranty
CECx Calecon de-stratification fans units have the benefit of a two year parts only warranty.

Model			CECx1400	CECx2250	CECx3350	CECx4500	CECx6500
Air displacement		m^3/s	0.77	1.2	1.58	2.10	3.07
		m^3/h	2787	4320	5688	7560	11040
Mounting Height (maximum)		m	6	12	15	17	25
Mounting Height (suggested minimum)		m	2.1	2.8	3.8	4.1	6.0
Electrics	Supply	V/ph/Hz	230/1/50				
	Start Current	amps	1.1	2.0	3.3	4.2	5.3
	Run Current	amps	0.6	0.9	1.1	2.2	3.7
Dimensions	Width	mm	498	599	654	808	808
	Depth	mm	498	599	654	808	808
	Overall Height	mm	380	380	390	324.5	310.5
Nett weight		kg	16	22	25	29	33
Noise Level		dB(A)	60	63	63	67	70

Notes:
Maximum mounting heights are based upon a terminal velocity of 0.5m/s
Noise levels are applicable to the CECx models measured 5m from appliance in a typical installation situation.



ENVIRONMENT WITHOUT DESTRATIFICATION

Temperatures shown are for a typical building

ENVIRONMENT WITH DESTRATIFICATION

HCF Sweep Fan

Introduction

HCF low velocity impellor de-stratification fans are specifically designed to lower the fuel consumption of space heating systems. The gentle displacement of warm air from roof level down into the working zone converts wasted heat into useful heat reducing fuel consumption. An additional benefit is the ability of the fans to enhance comfort levels by creating a uniform pattern of heat throughout the area within which they are installed.

HCF low velocity impellor de-stratification fans comprise of a high quality die cast motor hub housing an external squirrel cage rotor, 2 x alternative length down rods and a set of three impellor blades, the latter produced from high grade steel with an epoxy powder coating, factory matched and dynamically balanced.

Fans are attached to the building structure via a purpose made boss and drop rod which has the benefit of an additional safety restraining wire.

For multiple fan control Powrmatic offer a reversable speed control which will control up to 10 fans.

Each fan is supplied with a speed controller suitable for operating one fan.

Fan Controller Supplied With HCF Fan

Design

Step 1)

Calculate the building floor area in m^2 and divide the result by $130m^2$. This will give you the number of fans you require.

Step 2)

Check that all fans are at least 2.3m from floor level and not sited in a position where they are a danger to personnel, members of the public or where accidental contact will constitute a hazard.

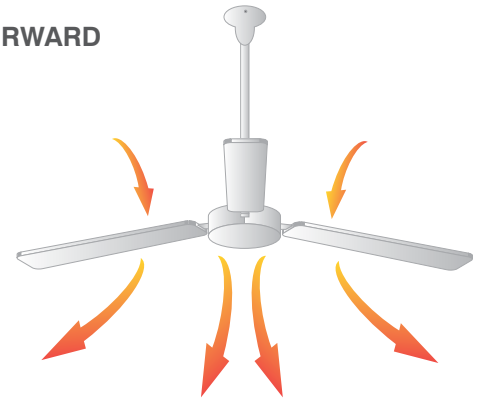
Warranty

HCF de-stratification fans units have the benefit of a two year parts only warranty.

Model			HCF 1400
Air Displacement (at maximum speed)		m^3/h	19,500
Mounting Height	Maximum	m	12
	Minimum	m	2.3
Floor Coverage At Maximum Height		m^2	130
Electrical Data (load at maximum speed)	Supply	V/ph/Hz	230/1/50
	Motor	watts	60.0
	Load	amps	0.263
Overall Dimensions	Height (max)	mm	610
	Blade sweep	mm	1400
Nett Weight		kg	5.4
Noise Level		dB(A)	54

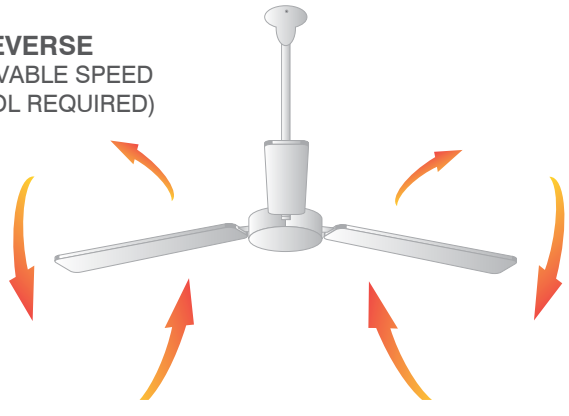
Notes:
Noise levels are applicable to the CECx models measured 5m from appliance in a typical installation situation.

FORWARD



The HCF Sweep fan will rotate counter clockwise converting and forcing the wasted warm air at roof level down into the working zones improving the climate control energy efficiency.

REVERSE
(RESERVABLE SPEED CONTROL REQUIRED)



When used with a reversable controller the HCF fan can rotate clockwise drawing the room air up towards the ceiling and forcing the warm air back down into the working zones.

Baratherm Ambient Door Curtain

Introduction

Baratherm units provide a high velocity door air curtain.The air stream is not heated and will assist in preventing air movement out from the space and thereby reduce energy costs.

The high air velocity stream will also reduce the ingress of air bourne contaminants and insects into the space.

When a heated application is required the unit can connected to a heated air stream.

Air curtains reduce drafts and discomfort. Comfort levels for staff, customers and visitors close to the doorway are increased by air curtains reducing drafts through frequently opening doorways.

When installed into factory or warehouse environments roller doors can be left open for fork lift access whilst maintaining the inside temperature.

Baratherm Unit Design

Designed to be suspended from suitable roof points or alternatively to be mounted on purpose designed brackets and are intended primarily for use in commercial or industrial premises.

Baratherm units are fitted with centrifugal fans that force air out through the downward facing exit slot that has directional louvres fitted.

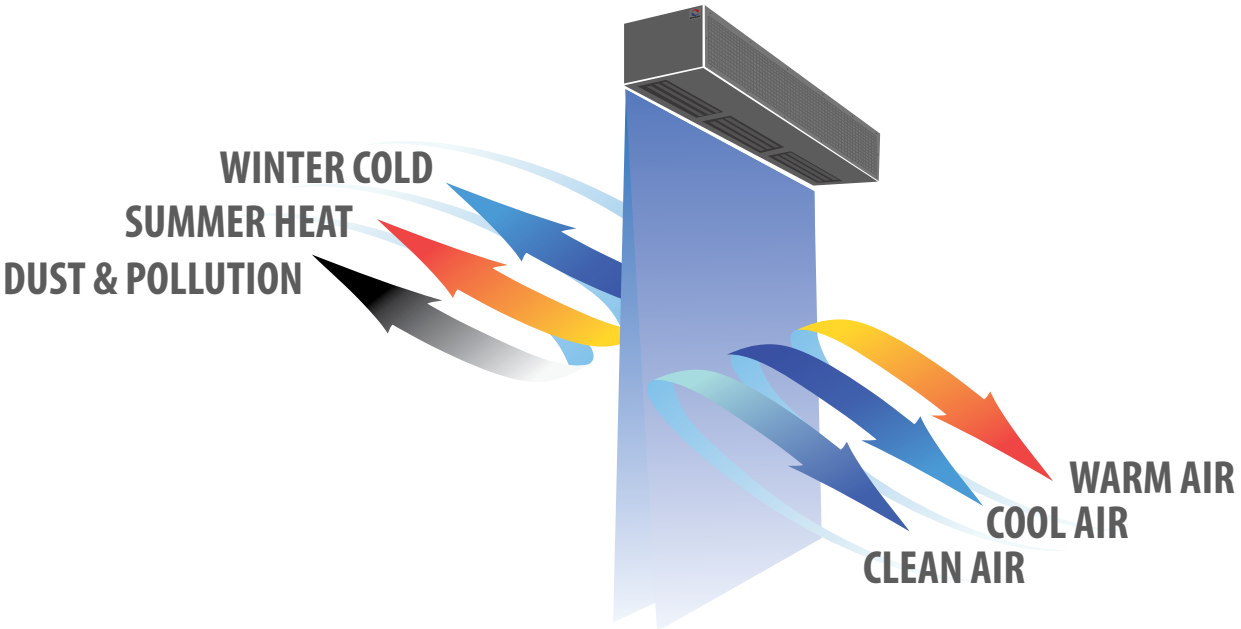
Casing construction is from 1.00mm galvanised mild steel. Standard finish is unpainted, but a choice of BS and RAL colours are available.

Painted units are finished with a durable epoxy powder coat paint finish which is stove hardened.

Warranty

The Baratherm units have the benefit of a two year parts only warranty.

Model		BAR3/16A	BAR4/21A
Average outlet velocity	m/s	15.3	15.3
Air volume	m^3/s	7.0	9.3
Electrical	V/ph/Hz	230/1/50	230/1/50
Start amps	amp	30.0	37.0
Run amps	amp	11.6	14.6
Number of fans	ea	3	4
Length	mm	1610	2100
Width	mm	470	470
Depth	mm	470	470
Weight	kg	80	103
Mounting Height (m)	Min	3	3
	Max	5	5



Controls & CECx Fixing Kit

1AMP HCF Speed Controller

The REB 1 is an electronic speed controller designed to be used with single phase motors suitable for electronic speed control of the Powrmatic HCF sweep fan. The REB 1 control is wall mounted with a fusible cut-out and switching output of 230v/50Hz.

3 AMP HCF / CECx 1400 Speed Controller

The REB 3 is an electronic speed controller designed to be used with a single phase motor suitable for electronic speed control of the Powrmatic HCF sweep fan and the CECx 1400. The REB 3 control is wall mounted with a minimum speed adjustment setting and separate On/Off switch.

Reversible HFC Fan Controller

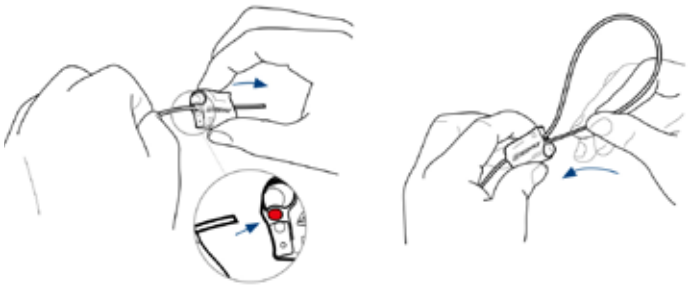
The Powrmatic reversible controller allows you to reverse the direction of airflow for the Powrmatic HCF Sweep Fan.

CECx Fixing Kit

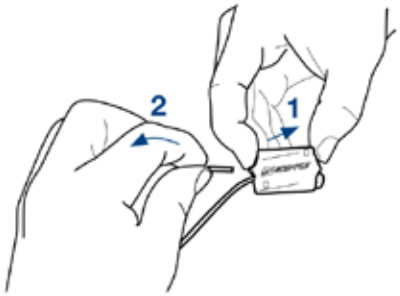
The CECx fixing kit is a fast locking solution for quick and easy suspension of our CECx destratification fans.

- Up to 6 times faster to install than traditional methods
- Keyless - no tool required for adjustment
- Ergonomic buttons allow rapid adjustment
- Discreet and aesthetic design
- Load rated at 45 kg with a 5:1 safety factor
- Supplied as a ready-to-use kit

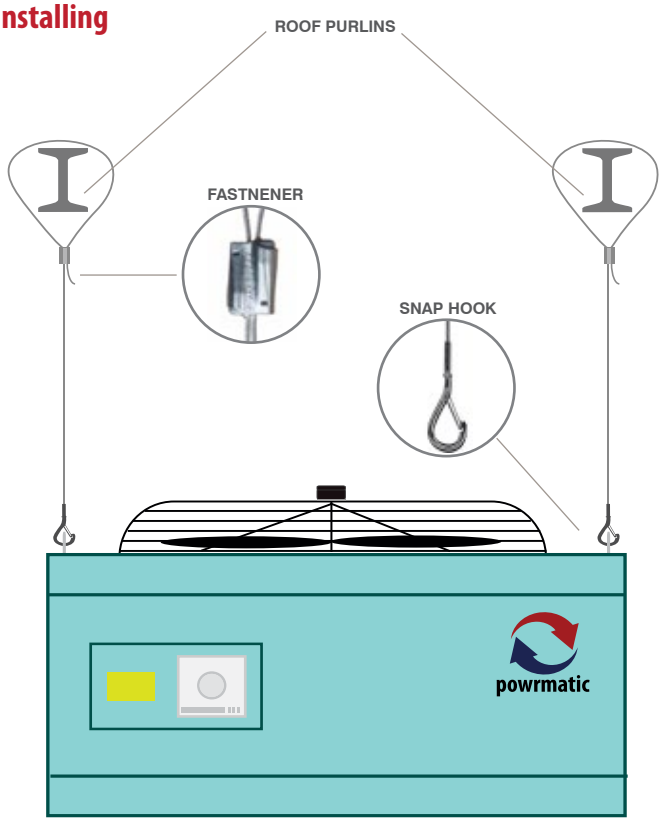
Connecting



Releasing



Installing



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Powrmatic are a leading UK manufacturer of commercial and industrial heating equipment; natural, powered & smoke ventilation products and HEM heat exchange modules. We are also a UK distributor of Midea air conditioning products with energy-saving DC inverter technology, and Ferroli boilers.

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