POWRMATIC®

Delivering complete climate control solutions worldwide

Heat recovery units with low running costs and minimum maintenance aiding the effective distribution of tempered air throughout the space

The Destratification range from Powrmatic.

CECx / HCF

Destratification & Sweep Fan Range

Heat Recovery Systems

CECx High Velocity Destratification Fans

ErP COMPLIANT
SEPTEMBER 2018

ErP Compliance

As from September 2018 the scope of the current Ecodesign regulation (EU) 2015/1188, Directive 2009/125/EC - Lot 21 Tier 1 (ErP) regulation is widened to embrace maximum levels of Nitrous Oxide (NOx) emissions.

All warm air heaters used to provide comfort for the occupants of a heated space must emit NOx levels less than 100 mg/kWh.
Compliance to the standard remains mandatory. est laborum

Product Benefits

- REDUCES BUILDING ENERGY COSTS
- RECYCLES INTERNAL HEAT
- MINIMAL MAINTAINANCE
- QUICK & EASY INSTALLATION
- LOW RUNNING NOISE LEVEL
- IMPROVES WORKFORCE COMFORT

Recirculation Energy Saving Comfort

The CECx Range from Powrmatic.

Powrmatic CECx is a high velocity heat recovery unit with low running costs and requiring minimal maintenance.

The CECx is designed for higher level mounting and will automatically recirculate high level hot air, reducing stratification and associated heat losses.

CECx fans are specifically designed to lower the fuel consumption of space heating systems and at the same time, improve comfort levels.

Models Available

- CECx 1400
- CECx 2250
- CECx 3350
- CECx 4500
- CECx 6500

Product Features

Quick & Easy Installation

The CECx fans can be suspended via the optional CECx Fixing kit which can be installed up to six times faster than traditional hanging systems. There is no requirement for nuts, bolts, clamps or other accessories. These fixing kits are strong, safe, industry approved with a 5:1 safety factor load rating and aesthetically discreet and lightweight. (see page 6 for more information)

Slimline CECx6500 Model

Construction

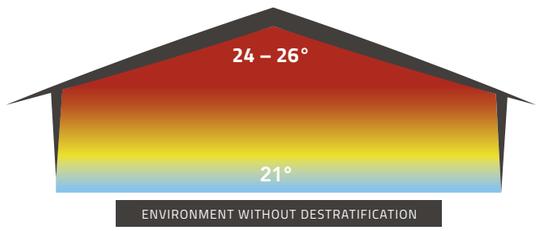
The CECx Calecon fans comprise of a panel box construction which has reduced in its overall height for a slimmer profile (4500 & 6500 models only) onto which is a resiliently mounted axial fan set which discharges warm air through an four-way adjustable louvred grille.

Automatic Thermostat

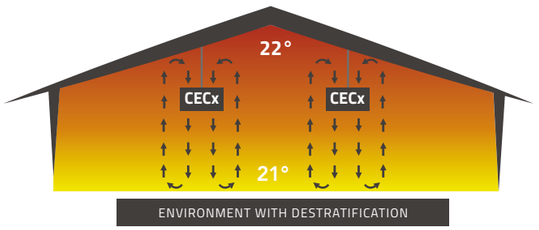
Automatic thermostatic controls inhibit fan operation until the roof space temperature reaches a pre-determined level, preventing the premature discharge of cold air.

Hot Air Recirculation

CECx destratification fans will automatically recirculate high level hot air, reducing stratification and associated heat losses via the adjustable louvres, returning useful heat back into the working zone and saving on energy and operating costs.



Temperatures shown are for a typical building



How CECx Fans Works

The two diagrams (left) illustrate how destratification fans can effectively distribute heat throughout the space so that stratification is minimised and there is only a very small temperature gradient between the working zone and the roof space. The ability of the destratification system to reduce the temperature of the air in the roof space also reduces the rate of heat loss through the roof.

Approvals CE

All CECx fans are CE approved.

HCF Low Velocity Sweep Fan

ErP COMPLIANT
SEPTEMBER 2018

ErP Compliance

As from September 2018 the scope of the current Ecodesign regulation (EU) 2015/1188, Directive 2009/125/EC - Lot 21 Tier 1 (ErP) regulation is widened to embrace maximum levels of Nitrous Oxide (NOx) emissions.

All warm air heaters used to provide comfort for the occupants of a heated space must emit NOx levels less than 100 mg/kWh. Compliance to the standard remains mandatory. est laborum

Product Benefits

- REDUCES BUILDING ENERGY COSTS
- RECYCLES INTERNAL HEAT
- MINIMAL MAINTAINANCE
- QUICK & EASY INSTALLATION
- LOW RUNNING NOISE LEVEL
- IMPROVES WORKFORCE COMFORT

Low Cost Fuel Reduction Flexibility

The HCF Range from Powrmatic

HCF low velocity impeller de-stratification fans are specifically designed to lower the fuel consumption of space heating systems.

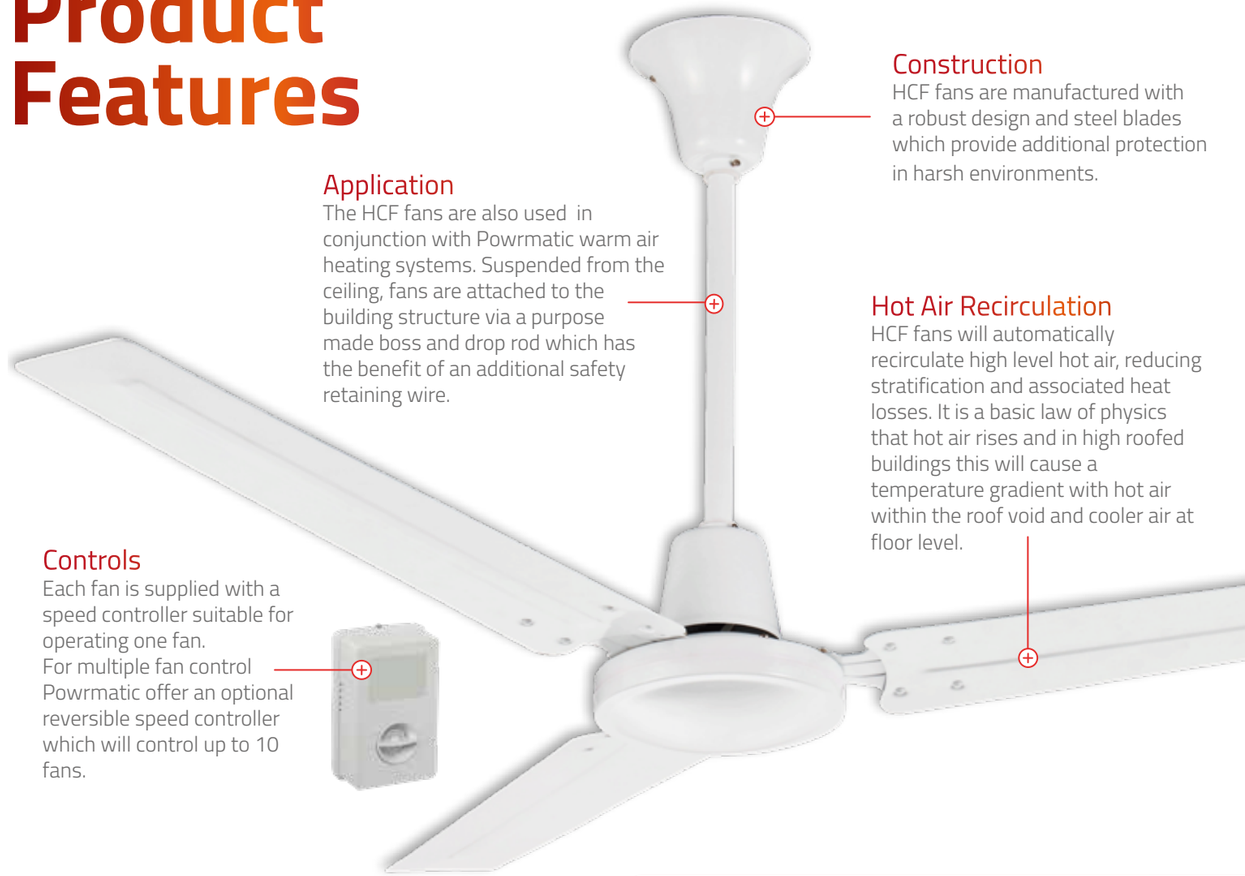
The gentle displacement of warm air from roof level down into the working zone converts wasted heat into useful heat reducing fuel consumption.

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.

Model Available

- HCF 1400

Product Features



Construction

HCF fans are manufactured with a robust design and steel blades which provide additional protection in harsh environments.

Application

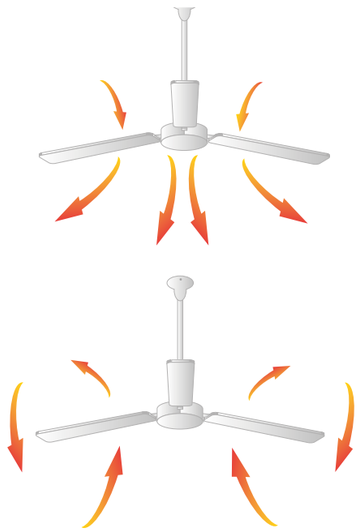
The HCF fans are also used in conjunction with Powrmatic warm air heating systems. Suspended from the ceiling, fans are attached to the building structure via a purpose made boss and drop rod which has the benefit of an additional safety retaining wire.

Hot Air Recirculation

HCF fans will automatically recirculate high level hot air, reducing stratification and associated heat losses. It is a basic law of physics that hot air rises and in high roofed buildings this will cause a temperature gradient with hot air within the roof void and cooler air at floor level.

Controls

Each fan is supplied with a speed controller suitable for operating one fan.
For multiple fan control Powrmatic offer an optional reversible speed controller which will control up to 10 fans.



How HFC Fans Works

The two diagrams (left) illustrate how the HCF Sweep Fans effective distribution heat throughout the space.

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

When used with a reversible 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.

Approvals CE

All CECx fans are CE approved.

WAREHOUSES ▪ FACTORIES ▪ GARAGE WORKSHOPS ▪ DISTRIBUTION / LOGISTIC CENTRES ▪ HORTICULTURAL & GARDEN CENTRE ▪ SHOWROOMS ▪ RETAIL OUTLETS

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CECx Technical Specification

Model			CECx 1400	CECx2250	CECx3350	CECx4500	CECx6500
Air displacement		m^3/s	0.77	1.2	1.8	2.3	3.1
		m^3/h	2800	4467	6410	8100	11025
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	1.3	2.9	3.1	5.6	5.7
	Run Current	amps	0.7	0.8	1.2	2.2	2.1
Dimensions	Width	mm	499	599	654	808	808
	Depth	mm	499	599	654	808	808
	Overall Height	mm	380	380	390	288	265
Nett weight		kg	16	22	25	29	33
Noise Level (sound power level)		dB(A)	59	66	66	66	68
Noise Level (sound pressure level @5m)		dB(A)	34	41	41	41	43

HCF Technical Specification

Model			HCF 1400
Air Displacement (At Maximum Speed)		M^3/h	10,000
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 Rating	Watts	60.0
	Load Current	Amps	0.263
Overall Dimensions	Height (Max)	Mm	610
	Blade Sweep	Mm	1400
Nett Weight		Kg	5.4
Noise Level		dB(A)	54

Notes:

- When siting the fans care must be taken to ensure that the impellors are kept are kept well clear of personnel at all times

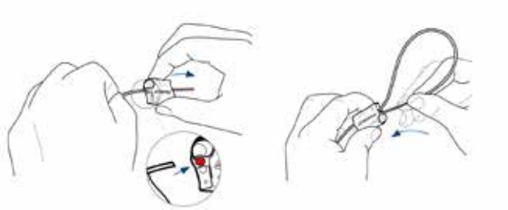
CECx Fixing Kit

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

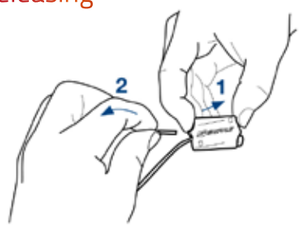
Features

- Up to 6 times faster to install than traditional methods
- Kit supplied with 4 x 1.5m of fixing cable including fittings
- Key-less - no tool required for adjustment
- Ergonomic buttons allow rapid adjustment
- Discreet and aesthetic design
- Load rated at 45 kg per wire with a 5:1 safety factor

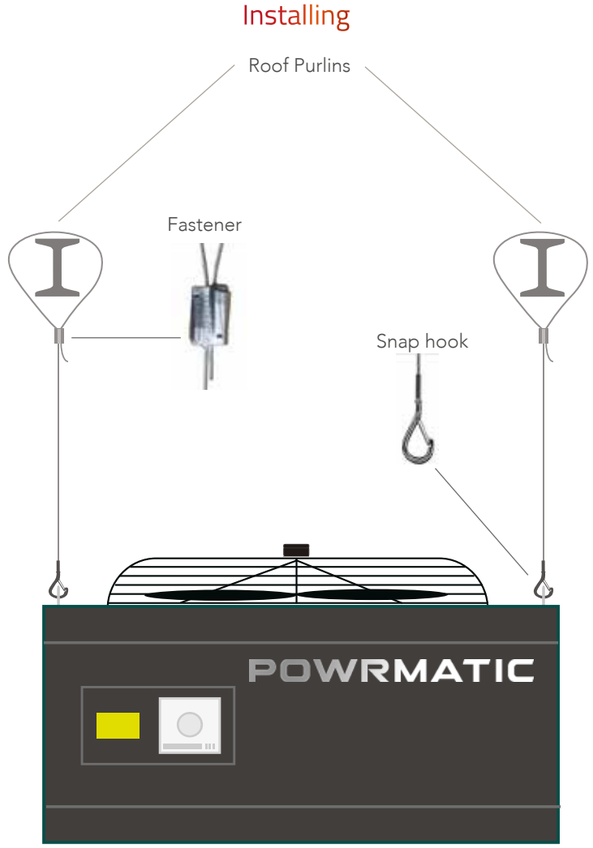
Connecting



Releasing



Installing



Optional Control Systems

CECx & HCF Units

1AMP HCF Speed Controller

The REB 1 is an optional 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 controller 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 optional 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 controller is wall mounted with a minimum speed adjustment setting and separate On/Off switch.

Reversible HCF Fan Controller

The optional Powrmatic reversible controller allows you to change the direction of airflow the for the Powrmatic HCF Sweep.