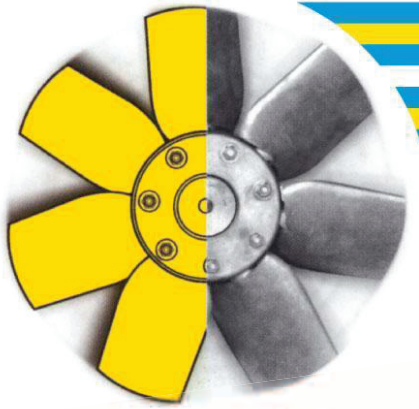


THE BIGGER BOOK OF



FANS & SPARES

"Your Job Winning Partner"



EII

www.fansandspares.co.uk

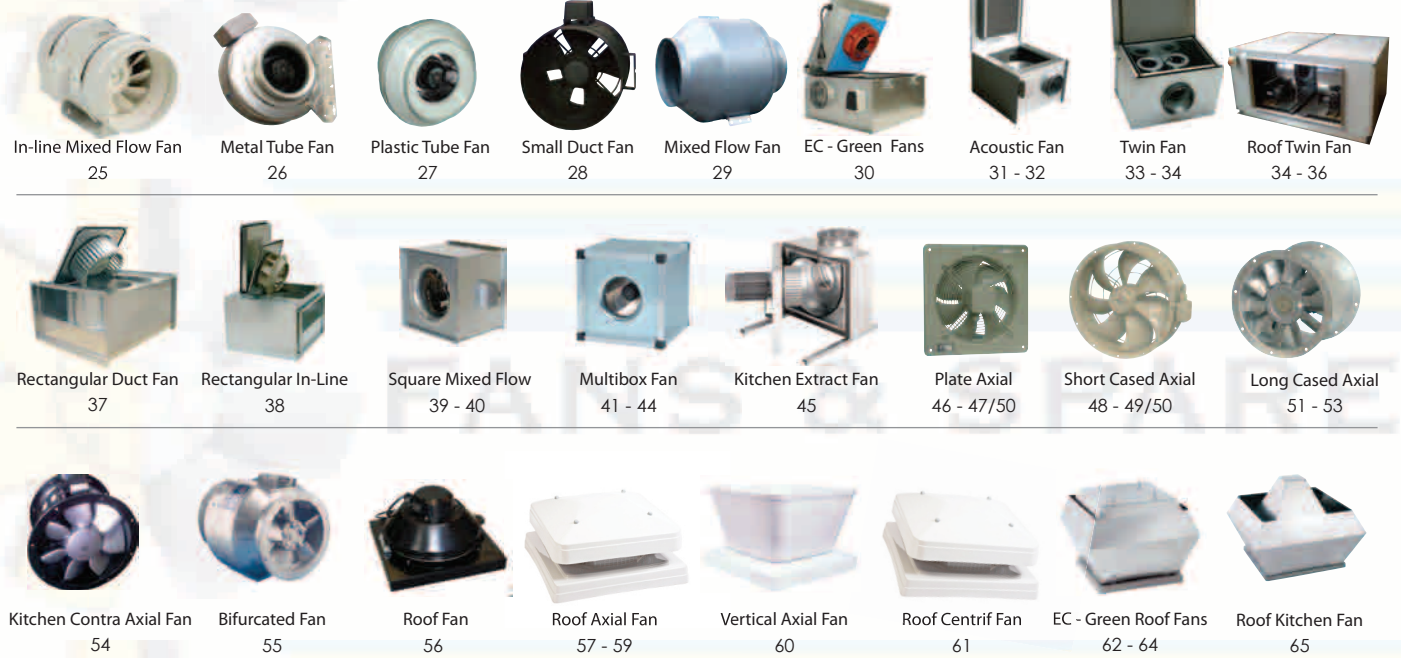
Stockist & Distributors of Ventilation products

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The Fans & Spares web site is packed full of useful data from product downloads, technical literature, operating & maintenance instructions and of course our Web shop with on-line prices ready to purchase 24 hours a day, 7 days a week
To find out more why not visit us at:-

www.fansandspares.co.uk



- Site Visits
- Trade Counters
- Design Advice
- Deliveries Nationwide
- Availability from Warehouse Stocks





Fans & Spares are pleased to present the **Bigger Book**, which is a modest attempt to list some of the wide choice of ventilation equipment available from our nationwide network of branches. We hope you find this a most comprehensive catalogue, packed full of information, with great choice, as you would expect from a leading ventilation distributor. At Fans & Spares we have a very simple mission statement :-

“We make it Easy”

- Express-air - our own brand of job winning products
- Availability of stocks, from our network of branches
- Service & technical advice you can rely on
- Your choice of products & manufacturers

If you can't find what you are looking for or you need some technical advice, then just ask. When it comes to Ventilation there is only one company you need to call.

From your job winning partner.

Neil Rapley
Managing Director

Branch Locations

Fans & Spares Birmingham

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Fax : 0121 322 0311

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Nottingham
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Tel : 01794 830399
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Fans & Spares Stoke

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Tel : 01782 579076
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Unit 88 Cressex Enterprise Centre
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High Wycombe
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Tel : 01494 614566
Fax : 01494 614665

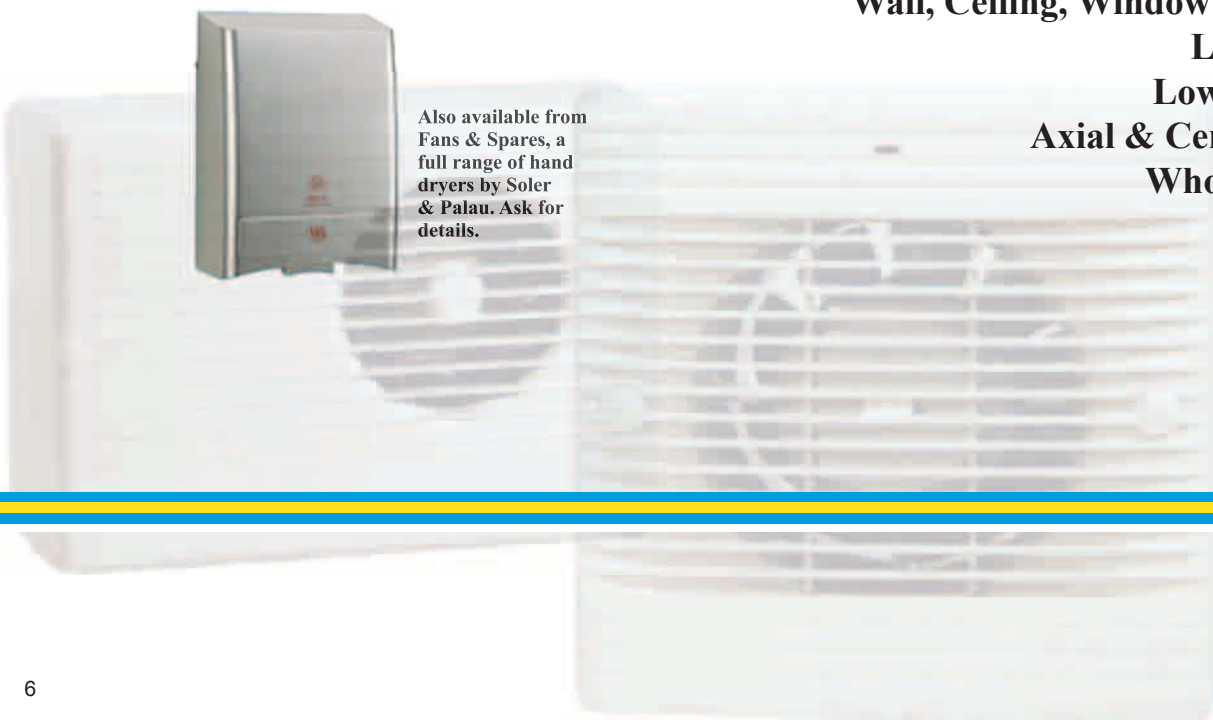
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NE11 0NQ
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Fax : 0191 4046913



Domestic & Commercial fans

Wall, Ceiling, Window & Panel
Lo-profile
Low-voltage
Axial & Centrifugal
Whole house



Also available from Fans & Spares, a full range of hand dryers by Soler & Palau. Ask for details.



Xpelair CentrX Range



Xpelair CMF Range



Xpelair PX Range



Xpelair SL Range

Xpelair Featured Product: PX Range

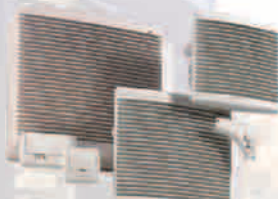
Introducing a new addition to the Xpelair commercial range. The PX range introduces even greater flexibility into the design of commercial and larger domestic ventilation systems. Based on the proven WX range, PX fans are perfect for ceiling and panel applications in kitchens, restaurants, pubs, offices, schools, shops and kiosks. They can be installed at any angle in ceilings, voids and wall panels of any thickness.

The ceiling hugging, low profile white fascia is styled to blend into any ceiling type, whether smooth, tiled or textured.

For safety, a finger guard is integrated into the ultra slim high gloss ABS fascia. An integral spigot allows the attachment of flexible ducting, such as XFlex. Installation in ceilings and wall panels is rapid thanks to the concealed fixing points provided. Both the PX9 & PX12 are reversible making them ideal for ducted input systems in the hospitality industry. On PX9 & PX12 units a positive plug and socket assembly provides a means of isolation for service access without the safety risk of accidental disconnection. PX9 & PX12 models feature totally enclosed external rotor motors providing constant volume outputs, even in gusty external conditions. Pre-balanced sickle bladed impellers eliminate 'fan judder' and ensure quiet trouble free operation. Sealed for life maintenance free bearings ensure suitability for running at any angle. Running costs are impressively low, and when not in use the silent electro-thermal shutter cassette closes silently against backdraughts. And cleaning has never been easier. The housing, shutter cassette and impeller are all removed in seconds.



Greenwood SF90 Range



Greenwood Eco Range



Greenwood Unity Range



Greenwood AXSK Range

Greenwood Airvac Featured Product: Unity Range

SAP Appendix Q eligible which will help reduce DER's (dwelling emission rates) in SAP. Also suitable to help achieve level 3 and above of the code for sustainable Homes.

The one and only...decentralised MeV system with BBA certification available in the domestic market. Simple and easy to apply in existing designs with individual room fans.

Just 2 watts....significantly low energy consumption makes Unity an energy savvy choice.

All for one and one for all....one fan, any room, all installations, simply the only fan you need to design in and specify.

Just one window vent....no need for loads of window vents now required with intermittent fans – just one per habitable room (2,500mm² equivalent area).

Shhhh...silent ventilation with no risk of noise and complete comfort for homeowners.

It does what it says on the box....intelligent design features constant volume sensor which alters speed with any pressure changes – always guaranteeing building ventilation requirements.

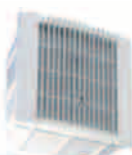
Hide and seek....stylish and discreet front fascia blends in with room décor.

UK's first carbon neutral fan....Just another one of our commitments to reducing carbon emissions.

From inside to out....extremely low energy ec motor, patented technology, H&V domestic product of the year finalist 2007.



Vortice Punto Filo Range



Vortice Volt Press Range



Vortice Tiracamino Range



Vortice Quadro ES Range

Vortice Featured Product: Quadro ES Range

New highly efficient product offering low power consumption thanks to the brushless motor and specially designed electronic control system.

For the ventilation of medium-sized rooms in commercial premises plus bathrooms/showers and toilets in domestic situations.

4 models with or without timer.

Surface mounting and built-in versions available.

Backdraught shutter incorporated to avoid air back-flow when the unit is turned off.

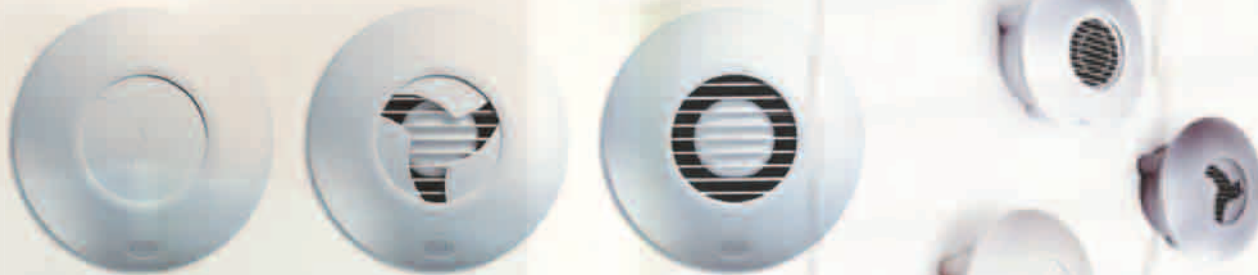
Timer models adjustable between 3 and 20 minutes.

Reduced sound levels with superior certified performances on ducted applications.

Two Speeds. All models feature two speed operation, including timer equipped models.

Vort Quadro fans guarantee a low environmental impact. Recyclable materials have been used and the "Design for Disassembly" technique has been followed (2002/96/EC - WEEE).

AIRFLOW™
SPECIALISTS IN AIR MOVEMENT TECHNOLOGY



**AIRFLOW
iCON™**

The choice of three fans in the iCON range means you can fit the perfect size of fan to suit the room and the application. The iCON 15 axial fan is sleek and slim. The iCON 30 and iCON 60 mixed centrifugal/axial fan flow technology makes them not only highly compact and efficient, but also extremely quiet in operation, and suitable for use with ducting. All fans are supplied with three years no quibble replacement product guarantee

iCON 15 is ideal for toilets, en-suites, shower rooms and bathrooms, recessed into the wall or ceiling, it is stylish and unobtrusive, even in the smallest space.

iCON 30 is quiet, powerful and designed for recessed or surface mounting in walls or ceilings in larger toilets, bathrooms and utility rooms.

iCON 60 is the largest fan in the range, suitable for recessed or surface mounting in walls or ceilings and is highly efficient in domestic kitchens and residents' lounges

iCON15S is ideal for toilets, en-suites, shower rooms and bathrooms. Recessed into the wall or ceiling, it is stylish and unobtrusive, even in the smallest space. Supplied with a 12V DC transformer it is extra safe too.

iCON30S is ideal for toilets, en-suites, shower rooms, utility rooms and bathrooms. Recessed or surface mounted into the wall or ceiling, it is stylish and unobtrusive. Operating from 12V DC supply it is extra safe too.

iCON fans complement modern day living by harmonising with virtually any interior design. Neat, unobtrusive and stylish, iCON fans provide quiet and reliable ventilation while blending into the background.

Available from stock in Anthracite, Gold, Silver and Glacier white matt wipe clean finish, they add colour and co-ordination to your toilet, bathroom and kitchen - and at surprisingly low cost.

iCON 15S and iCON 30S are energy saving and extra save - they comply with the latest IEE wiring regulations for installation in wet zones and are supplied with a 12V DC transformer.

Modules

Basic-Fan operates by remote switch (not supplied). No module required

PCS-Pull Cord-On/Off by integral pull cord

PCTS-Pull Cord with -Timer-adjustable 1 to 45 minutes.

HTS-Humidity-adjustable 40% to 90% RH, adjustable timer and pull cord boost

PRTS-Infrared Timer- Passive Infrared activation with adjustable run-on timer

PRHTS-Infrared Humidity Timer- Passive infrared activation with adjustable humidity/adjustable timer



QUIETAIR

The QuietAir range from Airflow sets new standards for powerful, yet highly efficient ventilation in the home, and with a sound level of just 25 dB(A) you will hardly notice it is running.

Quietair combines contemporary design with ultra low noise levels and outstanding energy efficiency.

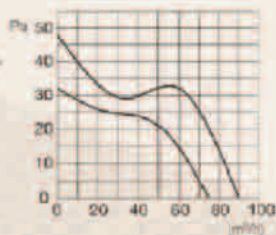
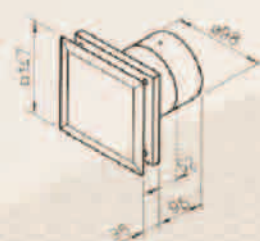
Quietair sets new standards for the reliable, low cost ventilation of toilets, en-suites and bathrooms; and at just 25dB(A) you will hardly hear the fan running, even at night!

Low Energy, High Tech!

- High efficiency impeller delivers up to 60m³/hr through 12m of rigid ducting, including 90° bends
- Integral flow straightener and back draught flap
- Low specific fan power for SAP assessments
- Clip-on cover for ease of cleaning
- Innovative room refresh option (interval timer) programmable for automatic long term routine ventilation
- Complies with latest Building Regulations Approved Document F



Dimensions & Performance



Domestic Fans

by Elta

The **SA Axial Range** is a stylish range of axial flow fans which provides powerful extract of air through windows, walls, ceilings and panels for a variety of domestic and commercial applications.

- 3 standard sizes from 100mm to 150mm.
- Air volume flow rates of up to 0.088 m³/s (317 m³/hr).
- Static pressures of up to 80 Pa.
- Axial impeller design for larger volumes.
- IPX4 – Splash proof.
- Shock proof, heat resistant plastic.
- Suitable for operating temperatures up to 40°C.
- Motors are double insulated with built-in thermal overload protection.
- CE Marked and BEAB approved.
- Sealed for life ball bearings to operate at any angle.
- Timer models adjustable from 3-15 minutes.
- Lower noise levels.



The **SA LV Axial Range** is a stylish range of axial flow fans which have been specifically developed to ensure complete safety in the appropriately regulated “Safety Zones”, providing powerful extract of air through windows, walls, ceilings and panels for a variety of domestic and commercial applications.

The **SE “Executive” Axial Range** is a stylish range of slim profile axial flow fans which provides powerful extract of air through windows, walls, ceilings and panels for a variety of domestic and commercial applications.

- 3 standard sizes from 100mm to 150mm.
- Air volume flow rates of up to 0.088 m³/s (317 m³/hr).
- Static pressures of up to 80 Pa.
- Axial impeller design for larger volumes.
- IPX4 – Splash proof.
- Shock proof, heat resistant plastic.
- Suitable for operating temperatures up to 40°C.
- Motors are double insulated with built-in thermal overload protection.
- CE Marked and BEAB approved.
- Sealed for life ball bearings to operate at any angle.
- Timer models adjustable from 3-15 minutes.
- Front plate fascia protrudes between 8mm and 15mm dependant on model, providing one of the slimmest profile fans on the market



The **SE LV “Executive” Axial Range** is a stylish range of slim profile axial flow fans which have been specifically developed to ensure complete safety in the appropriately regulated “Safety Zones”, providing powerful extract of air through windows, walls, ceilings and panels for a variety of domestic and commercial applications.

The **SC Range** is a range of centrifugal flow fans which offer excellent pressure development characteristics, designed specifically for use with rigid or flexible ductwork for a wide variety of residential and commercial applications.

- 1 standard size 100mm.
- Air volume flow rates of up to 0.03 m³/sec (108m³/h).
- Static pressures of up to 120 Pa.
- Greater pressure capability than axial fans.
- IPX4 – Splash proof.
- Shock proof, heat resistant plastic.
- Suitable for operating temperatures up to 40°C.
- Motors are double insulated with built-in thermal overload protection.
- CE Marked and BEAB approved.
- Sealed for life ball bearings to operate at any angle.
- Timer models adjustable from 3-15 minutes.
- Anti-vibration gasket between fan casing and wall for quiet operation.
- Supplied with back draught shutter and inlet cone for improved performance.



The **SC LV Centrifugal Range** is a range of centrifugal flow fans which have been specifically developed to ensure complete safety in the appropriately regulated “Safety Zones”, offering excellent pressure development characteristics, designed specifically for use with rigid or flexible ductwork for a wide variety of residential and commercial applications.

The **SCE “Executive” Centrifugal Range** is a stylish range of slim profile centrifugal flow fans which offer excellent pressure development characteristics, designed specifically for use with rigid or flexible ductwork for a wide variety of residential and commercial applications.

- 1 standard size 100mm.
- Air volume flow rates of up to 0.036 m³/s (130 m³/hr).
- Static pressures of up to 127 Pa.
- Greater pressure capability than axial fans.
- IPX4 – Splash proof.
- Shock proof, heat resistant plastic.
- Suitable for operating temperatures up to 40°C.
- Motors are double insulated with built-in thermal overload protection.
- CE Marked and BEAB approved.
- Sealed for life ball bearings to operate at any angle.
- Timer models adjustable from 3-15 minutes.
- Front plate fascia protrudes 19mm, providing one of the slimmest profile fans on the market.
- Supplied with backdraught shutter.



The **SCE LV “Executive” Centrifugal Range** is a range of slim profile centrifugal flow fans which have been specifically developed to ensure complete safety in the appropriately regulated “Safety Zones”, offering excellent pressure development characteristics, designed specifically for use with rigid or flexible ductwork for a wide variety of residential and commercial applications.

SAX Commercial Wall / Window Fan

The SAX is a stylish, high performance range of axial flow fans which provides powerful extract of air through windows, walls, ceilings and panels for a variety of domestic and commercial applications

- Axial impeller design for larger volumes.
- Two standard sizes, 9” and 12”
- Automatic and reversible models.
- Air volume flow rates of up to 0.528 m³/s (1900 m³/hr).
- Static pressures of up to 80 Pa.
- Shock proof, heat resistant plastic.
- Motors are double insulated with built in thermal overload protection.
- Sealed for life ball bearings to operate at any angle.
- Energy efficient with low power absorption.



Details

Product Code	Description	Voltage	m ³ /hr / l/sec	Reversible	Speed Control option	Speed Control standard
SAX23/9A	Basic unit, fan only	230	824 / 229	No	Yes	
SAX23/9A	Run on timer unit	230	824 / 229	Yes		Yes
SAX23/9A	Includes telescopic steel wall liner	230	824 / 229	Yes		Yes
SAX23/9A	Basic unit, fan only	230	1900 / 528	No	Yes	
SAX23/9A	Run on timer unit	230	824 / 229	Yes		Yes
SAX23/9A	Includes telescopic steel wall liner	230	824 / 229	Yes		Yes

Mounting arrangements: All fans can be Ceiling, Wall, Window or Fan only.

Domestic centrifugal fan

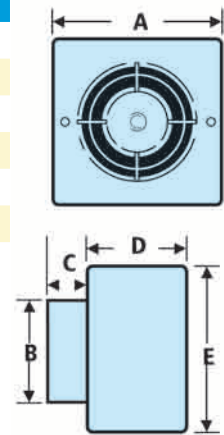
by Express-air

The Express-air range of domestic centrifugal fans are designed for either wall or ceiling mounting and are ideal for toilets & bathrooms to comply with building regulations on Ventilation. The fan has a 100mm 4" spigot with an integral back draught shutter with options of built in sensors to suit all your needs. The units are all manufactured using high ABS thermoplastics for strength and durability, aesthetics and easy cleaning. All products are BEAB approved and carry the CE marking and come complete with a 2 year guarantee.

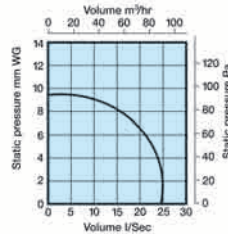


Ref Code	Product Type
EBF 100 S	Centrifugal Fan. Standard model for remote switching (Light switch etc)
EBF 100 P	Centrifugal Fan. as above but supplied with pullcord switch
EBF 100 T	Centrifugal Fan. Timer model incorporating adjustable timer (1-20 mins)
EBF 100 TH	Centrifugal Fan. Adjustable Humidity control between 40% & 95% RH + Run on timer (1 - 20 mins)
EWK100	Wall Fitting Kit - (External grille. white + wall sleeve)
EFS-PIR	Passive Infra Red Sensor with run on timer

Dimensions EBF100 series



Technical Data		EBF
Maximum Airflow	l/s	25l/s
	m ³ /hr	90m ³ /hr
Spigot Size		100mm (4")
dBA @ 3m		37
Voltage		230-1-50
Amps		0.2
Power W		25

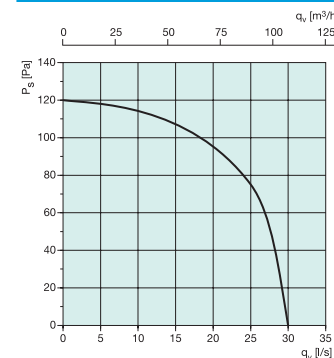
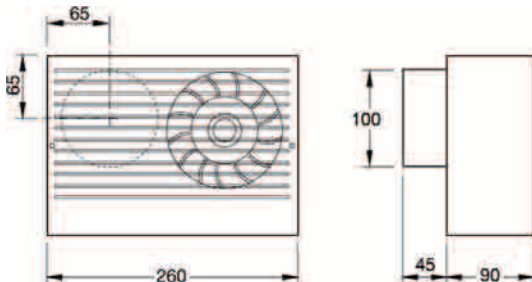


A	B	C	D	E	Weight/ kg
163	98 Dia	65	90	163	1.1 kg

Domestic centrifugal fan

by Express-air

Technical Data		ECF100
Maximum Airflow	l/s	31 l/s
	m ³ /hr	110 m ³ /hr
Spigot Size		100 mm (4")
dBA @3m		39
Voltage		230-1-50
Amps		0.27
Power W		45



Ref Code	Product Type
ECF 100 S	Centrifugal Fan. Standard model for remote switching (Light switch etc)
ECF 100 P	Centrifugal Fan. as above but supplied with pullcord switch
ECF 100 T	Centrifugal Fan. Timer model incorporating adjustable timer (1-20 mins)
ECF 100 TH	Centrifugal Fan. Adjustable Humidity control between 40% & 95% RH + Run on timer (1 - 20 mins)
EWK100	Wall Fitting Kit - (External grille. white + wall sleeve)
EFS-PIR	Passive Infra Red Sensor with run on timer

Premier UltraDC

Centrifugal safety extra low voltage fan

by Xpelair



- Selv UltraDC Centrifugal Wall fan with CF, condensation control, and overrun timer.
- Application: Intermittent ventilation in Toilets & Bathrooms.
- Continuous extract in kitchens, utility rooms, bathrooms or toilets.
- Control options: Pullcord override. Quick visit 2min delay.
- Adjustable timer overrun.
- Adjustable humidistat.
- Surface or recess mounting
- Auto run status light
- Pullcord boost override with status light



The Xpelair Premier Selv with UltraDC technology, safe, energy efficient and long lasting.

The Premier is designed with installer selectable settings to satisfy Document F1 installed performances for continuous ventilation in bathrooms and sanitary accommodation; continuous extract in kitchens, utility rooms, bathrooms and sanitary accommodation, all from one fan with whisper quiet operation.

Premier offers centrifugal performance with an UltraDC motor. This ensures a constant pressure development and lower energy use than many axial ec fans and requires no filter.

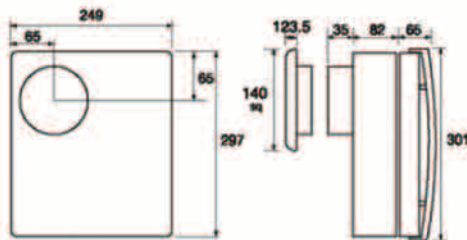
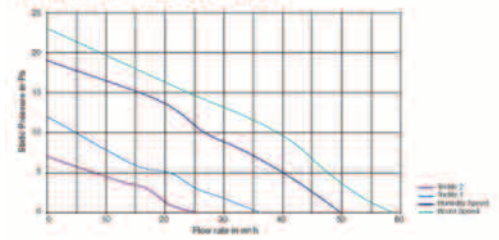
Versatile standard built-in options allow the installer to select any combination of advanced features: active response humidity control, adjustable overrun timer, 'Quick visit' delayed start and pullcord BOOST override.

The unit can be surface or recess mounted at any angle.

For complete peace of mind Premier LVCF20TDC is IPX5 Safety Extra Low Voltage rated for installation in splash zone 1 and zones 2 / 3 of a bath or shower. Premier features UltraDC offering an 80% reduction in energy use, a choice of installed performances and longer life, typically up to five times longer than a conventional AC motor.

Technical Data	Premier Ultra LVCF20T
Reference Number	92288AW
Integral pullcord boost override	15 l/s
Adjustable overrun timer	30 sec - 20 mins
Quick Visit delayed On	2 mins
Active response humidistat	70 - 90% RH. Factory set at 70% RH
Selectable installed performances	6, 8, 13, 15 l/s
Sound pressure level	(dB(A)@3m) - 6l/s 29.6
Electrical power rating- 6l/s	3.5W
IP rating	IPX5
Weight	4.25kg
Transformer	Located outside of spray area Zone 3

Premier Ultra LVCF20T:



Hole Diameter 115mm
Duct Size 100mm



Also Available shower fan & light systems

Lo-profile domestic fans

by Express-air

The new Express-air Lo Profile fan has a unique design which enables it to fit unobtrusively into any wall or ceiling and are ideal for Toilets, Bathrooms, Utility Rooms & Kitchens to comply with building regulations on Ventilation. Its flush fitting allows the fan to blend into the décor of the room. Available in three spigot sizes 100mm (4"), 120mm (5") & 150mm (6") with a Square or Circular front cover and options of either White, Brass or Chrome effect finish. The units are all manufactured using high ABS thermoplastics for strength and durability, aesthetics and easy cleaning. All products are BEAB approved and carry the CE marking and come complete with a 2 year guarantee.



Technical Data

	EAFL100	EAFL120	EAFL150
Maximum Airflow l/s	23 l/s	36 l/s	64 l/s
m ³ /hr	85m ³ /hr	130m ³ /hr	230m ³ /hr
Spigot Size	100mm (4")	120mm (5")	150mm (6")
dBA @ 3m	41	41	40
Voltage	230-1-50	230-1-50	230-1-50
Amps	0.12	0.15	0.15
Power W	20	25	25

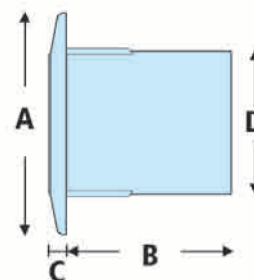


How to order Lo Profile domestic fan range

Fan	>1 Range Code:
EAFL 100 SSW	EAFL = Axial Fan Lo Profile (Wall / Ceiling)
↓ ↓ ↓	>2 Fan Size:
1 2 3	100 = 4 inch (100mm)
	120 = 5 inch (120mm)
	150 = 6 inch (150mm)
	>3 Options
	SSW = Standard Model. Square Cover. White
	SSB = Standard Model. Square Cover. Brass
	SSC = Standard Model. Square Cover. Chrome
	STW = Timer Model (1-20mins). Square Cover. White
	STB = Timer Model (1-20mins). Square Cover. Brass
	STC = Timer Model (1-20mins). Square Cover. Chrome
	CSW = Standard Model. Circular Cover. White
	CSB = Standard Model. Circular Cover. Brass
	CSC = Standard Model. Circular Cover. Chrome
	CTW = Timer Model (1-20mins). Circular Cover. White
	CTB = Timer Model (1-20mins). Circular Cover. Brass
	CTC = Timer Model (1-20mins). Circular Cover. Chrome



Ref	A	B	C	D
EAFL100S	140	100	10	98 dia
EAFL100C	140 dia	100	10	98 dia
EAFL120S	161	122	10	118 dia
EAFL120C	165 dia	122	10	118 dia
EAFL150S	191	122	10	150 dia
EAFL150C	198 dia	122	10	150 dia



Domestic axial fans

by Express-air

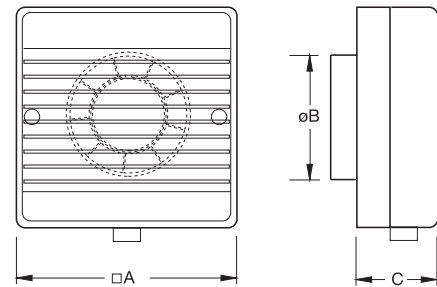
The Express-air range of domestic fans are designed for either wall, ceiling or window* mounting (*kit required) and are ideal for Toilets, Bathrooms, Utility Rooms & Kitchens to comply with building regulations on Ventilation. The range includes 100mm, 120mm & 150mm sizes with options for built in sensors / shutters to suit all your needs. The units are all manufactured using high ABS thermoplastics for strength and durability, aesthetics and easy cleaning. All products are BEAB approved and carry the CE marking and come complete with a 2 year guarantee.

Technical Data

		EAF100	EAF120	EAF150
Maximum Airflow	l/s	23 l/s	36 l/s	64 l/s
	m³/hr	85m ³ /hr	130m ³ /hr	230m ³ /hr
Spigot Size		100mm (4")	120mm (5")	150mm (6")
dBA @ 3m		36	36	35
Voltage		230-1-50	230-1-50	230-1-50
Amps		0.12	0.15	0.15

Ref Code	Product Type
EAF *** S	Axial Fan. Standard model for remote switching (Light switch etc)
EAF *** P	Axial Fan. as above but supplied with pullcord switch
EAF *** T	Axial Fan. Timer model incorporating adjustable timer (1-20 mins)
EAF *** TH	Axial Fan. Adjustable Humidity control between 40% & 95% RH + Run on timer (1 - 20 mins)
EAF *** SS	Axial Fan. Standard model for remote switching (Light switch etc) + Automatic shutters
EAF *** PS	Axial Fan. as above but supplied with pullcord switch + Automatic shutters
EAF *** TS	Axial Fan. Timer model incorporating adjustable timer (1-20 mins) + Automatic shutters
EAF *** THS	Axial Fan. Adjustable Humidity control between 40% & 95% RH + Run on timer (1 - 20 mins) + Automatic shutters
EWK***	Wall Fitting Kit - (External grille. white + wall sleeve)
EGK***	Window Fitting Kit
EFS-PIR	Passive Infra Red Sensor with run on timer

*** Fan Size 100, 120 or 150



Dimensions	A	B	C
100 mm	163	98	67
120 mm	182	118	112
150 mm	203	150	72

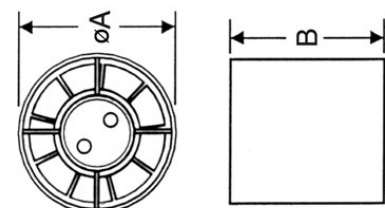
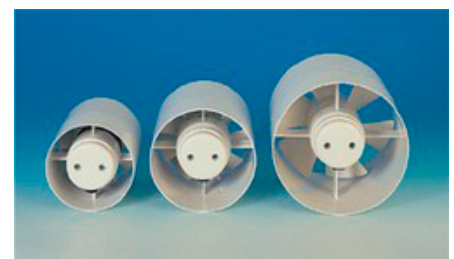
In-line axial shower fan

by Express-air

The Express-air range of domestic in-line fans are designed for duct mounting and are ideal for toilets, bathrooms, shower rooms, utility rooms & kitchens to comply with building regulations on ventilation. The range includes 100mm, 120mm & 150mm sizes. The units are all manufactured using high ABS thermoplastics for strength and durability. All products are BEAB approved and carry the CE marking and come complete with a 2 year guarantee. Can be used with Express-air "Showerlite"

Technical Data

		EAS 100	EAS 120	EAS150
Maximum Airflow	l/s	23 l/s	36 l/s	64 l/s
	m³/hr	85m ³ /hr	130m ³ /hr	230m ³ /hr
Spigot Size		100mm (4")	120mm (5")	150mm (6")
dBA @ 3m		32	32	31
Voltage		230-1-50	230-1-50	230-1-50
Amps		0.12	0.15	0.15
Power W		20	25	25



Dimension

	EAS 100	EAS 120	EAS 150
øA	100	118	150
B	90	99	110

Low-voltage domestic fans

by Express-air



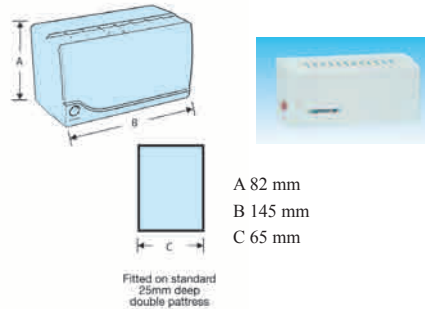
The Express-air range of Low-voltage domestic fans are designed for either wall or ceiling mounting and are ideal for shower rooms & bathrooms to comply with building regulations on Ventilation. The range includes 100mm (4") axial & centrifugal fans with a remote Safety Extra Low Voltage transformer offering integral control options to suit all your needs. The units are all manufactured using high ABS thermoplastics for strength and durability, aesthetics and easy cleaning. All products are BEAB approved and carry the CE marking and come complete with a 2 year guarantee.



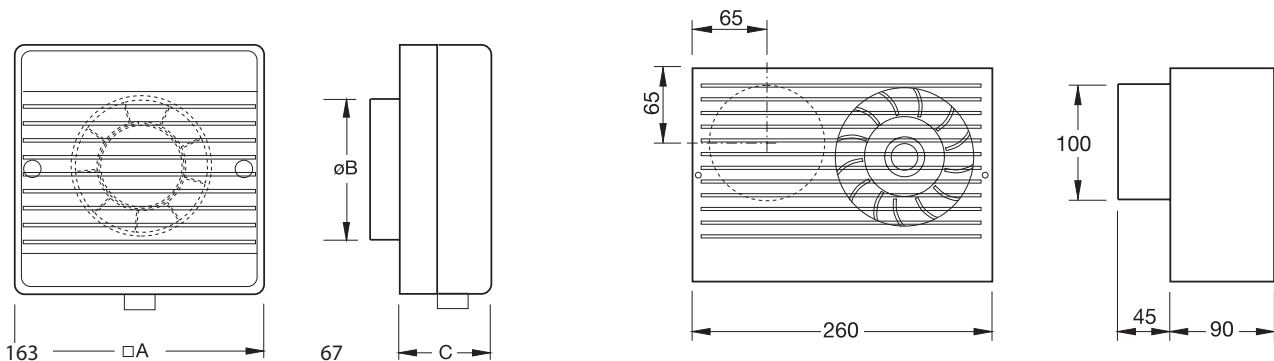
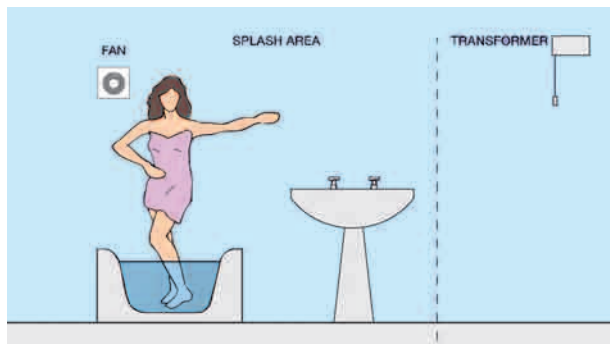
Technical Data

		EAF 100LV	ECF 100LV
Maximum Airflow	l/s	23l/s	31l/s
	m ³ /hr	85m ³ /hr	110m ³ /hr
Spigot Size		100 mm (4")	100 mm (4")
dBA @ 3m		36	39
Voltage		230-1-50 Input	
Amps		12 Volt A.C - SELV	
Power W		20	20

Dimensions T12/LT12 Transformer



Ref Code	Product Type
EAF 100 LV	Low Voltage Axial Fan 100mm to be used with ET Transformer
ECF 100 LV	Low Voltage Centrifugal Fan 100mm to be used with ET Transformer
Transformer Part Ref	
ET12S	Low Voltage Transformer. Standard model for remote switching (Light switch etc) ET
ET12H	Low Voltage Transformer. Adjustable Humidity control between 40% & 95% RH + Run on timer (1 - 20 mins)
ET12T	Low Voltage Transformer. Run on timer (1 - 20 mins)
ET12P	Low Voltage Transformer. Pullcord



Multi-vent centrifugal fan

by Express-air

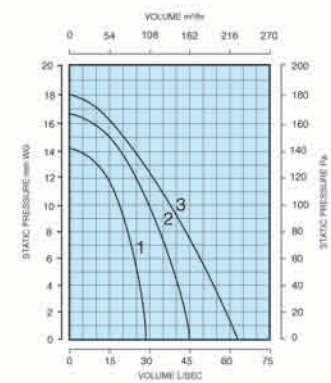
The Express-air range of Multi-vent centrifugal fans are designed for either wall or ceiling mounting and are ideal for Bathrooms, Utility rooms & Kitchens to comply with building regulations on Ventilation. The Multi-vent fan has three different speed settings, making it easy to select for the room environment. An integral performance selector switch inside the fan allows the installer to select the fan speed for the appropriate room. This means only one type of fan is required for the total home ventilation requirements. The range is available in either surface mount or flush fitting, a 100mm 4" spigot with an integral back draught shutter with options of built in sensors to suit all your needs. The units are all manufactured using high ABS thermoplastics for strength and durability, aesthetics and easy cleaning.



Technical Data

ECFF100 / ECFS100			
Maximum Airflow l/s (m ³ /hr)	Setting 1	28l/s (100m ³ /hr)	37 dBA
	Setting 2	45l/s (162m ³ /hr)	51 dBA
	Setting 3	65l/s (234m ³ /hr)	56 dBA
Spigot Size	100mm (4")		
Voltage	230-1-50		
Amps	0.4		
Power W	20/40/60		

Performance Graph



Ref Code	Product Type
ECF* 100 S	Centrifugal Fan, Standard model for remote switching (Light switch etc)
ECF* 100 P	Centrifugal Fan, as above but supplied with pullcord switch
ECF* 100 T	Centrifugal Fan, Timer model incorporating adjustable timer (1-20 mins)
ECF* 100 TP	Centrifugal Fan, Timer model incorporating adjustable timer (1-20 mins) with pullcord switch
ECF* 100 TH	Centrifugal Fan, Adjustable Humidity control between 40% & 95% RH + Run on timer (1 - 20 mins)
ECF* 100 PIR	Centrifugal Fan, Passive Infra Red Sensor + Run on timer (1 - 20 mins)

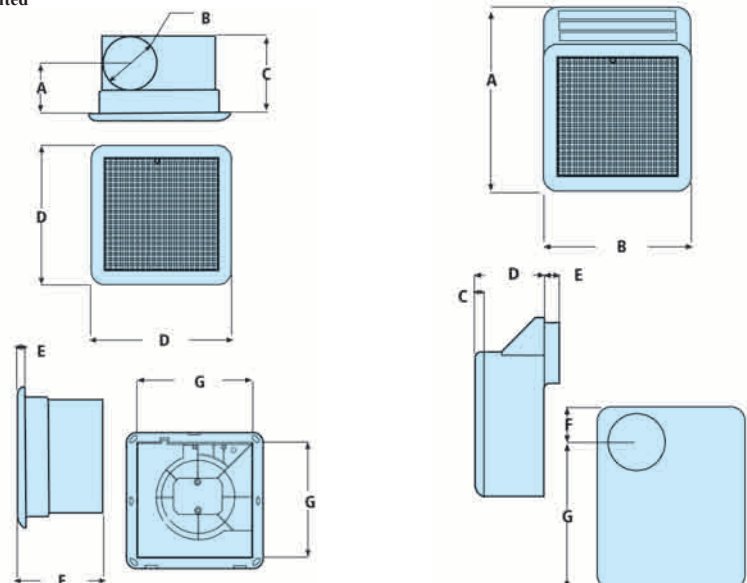
* Add "F" for Flush Fitting or "S" for Surface Mounted

ECFF = Flush Fitting Version

ECFS = Surface Mounted Version

Dimensions

	ECFF	ECFS
A	91	312
B	96 dia	250
C	141	15
D	250	119.5
E	15	22.5
F	155	63
G	210	249



EcoVent KWL EC



Wall mounted heat recovery unit

by Helios

EcoVent - the intelligent way of energy saving.
Heat recovery for optimal climate in single rooms.

- Compact wall installation
- Installed in no time
- Efficiency exceeds 70%
- EC-technology = high savings
- Ideal for renovation
- Elegant design



Compact wall installed unit for single rooms. EcoVent is the proven solution for comfortable indoor climate and energy saving in single rooms. Ideal to bring existing buildings up to modern standards in the course of a renovation and to EnEV standard. EcoVent supplies small and larger single rooms. For a medium-sized flat the installation of two units is recommended.

Installed in no time - ideal for renovation. EcoVent is the optimal renovation solution, since a subsequent and time-consuming installation of a ventilation system is no longer required. The access to the outside air is simply made by a core drilling in the outside wall in which the wall sleeve is inserted. This can be done simply during the facade renovation. Two protection cover plates close the openings.

The installation of the elegantly designed external fascia which is made from high-grade steel takes place with the final plastering works. During the interior work the unit is inserted into the wall sleeve and connected electrically.

Ordering & Delivery; coordinated with the assembly steps the following elements are packed separately.

First fix set, consisting of wall sleeve, cover plates & external fascia. Ventilation unit; with indoor fascia, includes heat exchanger, fans, filters, shutters & electrical connection

Speed controller; which is to be mounted remotely allows a 4-speed operation as well as a 100% supply air or a 100% extract air operation and on/off. Further features - Optical filter display with reset button. - Error message with motor failure

Technical Data

Airflow volume on speed step	speed 4	speed 3	speed 2	speed 1
Supply/Extract V m ³ /hr	60	45	30	17
Sound level dB(A)* case breakout Lpa in 3 m	41	35	29	23
Fan power 2xW*	5	3	2	1.5
Nominal current Amps	0.07			
Protection to IP	X4			
Electrical Connection	NYM-J 3 x 1.5 mm			
Temperature operating range	-20 °C to + 40 °C			
Weight approx kg	13			

LoVolt XHR150 range

by Xpelair

Effective solution for condensation problems in individual rooms

- Suitable for solid and cavity walls 229-356mm thick
- Easy installation - a 152mm hole can be drilled in minutes using a core cutter, the unit is then simply slid into place and fixed into position
- On trickle mode, the unit is whisper quiet. At boost speed it is a mere 41dB(A)
- The tamper proof design ensures it works constantly against the effects of condensation
- At the heart of the unit is an efficient aluminium heat recovery cell combined with LoVolt motor assembly for complete safety, especially in the splash zones of bathrooms and showers
- A separate 12V SELV transformer is supplied with the unit. This is installed outside of splash zones 1 and 2
- At most times the unit will 'idle' at trickle speed

LoVolt XHR150PC

Ref. 90821AA

- Two speed trickle and pullcord boost operation
- SELV safety LoVolt motor operation with separate SELV transformer
- Tubular construction with integral air intake/outlet and wall bezel
- Aluminium heat exchange cell
- Fascia with built in filters



LoVolt XHR150HP

Ref. 90820AA

- Built in pullcord override switch for On / Off operation
- SELV safety LoVolt motor operation with separate SELV transformer
- Tubular construction with integral air intake/outlet and wall bezel
- Aluminium heat exchange cell
- Remote adjustable set point type humidity sensor automatically switches to boost when a higher %RH is detected from showering etc...
- Integral light sensor to prevent misuse operation at night

EBB Kitchen / Utility Room Fans

by Soler & Palau

The EBB-N extractor fans are suitable for many domestic and commercial ventilation applications where higher system resistance pressures are encountered.

The range comprise of three models, EBB-100N, EBB-170N and EBB-250N, each available in different versions.

The EBB-N models incorporate powerful forward curved centrifugal impeller with 2-speed single phase 230V 50Hz, 4-pole (EBB-170N and 250N) or 2-pole motor (EBB-100N).

- S version: Standard models.
- T version: Models with adjustable run-on-timer.
- HT version: Models with internal humidistat and adjustable run-on-timer.

Back draft shutter

The EBB-N are fitted with an automatic back draft shutter to prevent air entry and limit heat leakage when the extractor is not operating

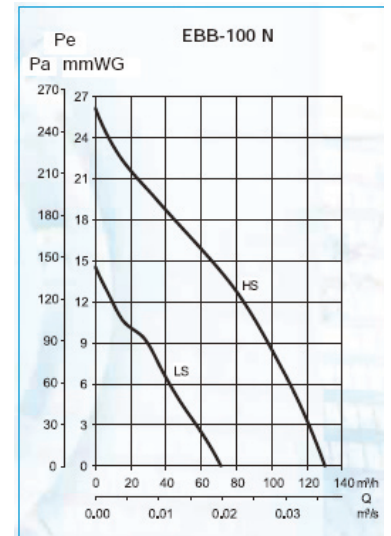
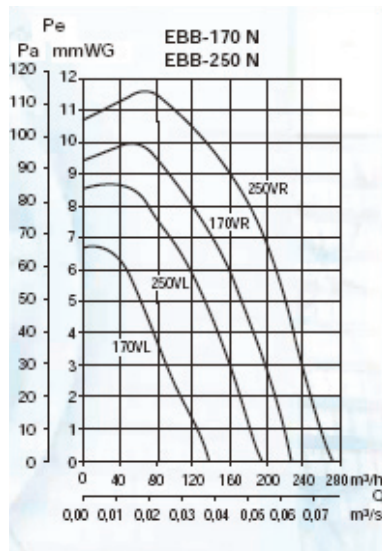
Forward curved centrifugal impeller

To deliver high airflow performances with a minimum of noise generation against high static pressure system resistance



Features

	S	T	HT
Backdraft shutter	•	•	•
Metal filters	•	•	•
Two speed	•	•	•
Adjustable Run-On-Timer		•	•
Internal humidistat			•

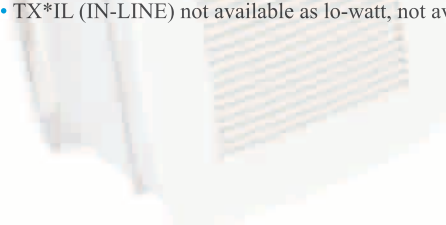


T-Series Commercial Fans

by Vent-Axia

Available as wall mounting, window mounting, panel mounting, roof mounting, dark room model and as an in-line fan the T-Series range has been one of the most popular choices for over 20 years. The units are available in 4 sizes, 6", 7", 9" & 12", all reversible & speed controllable. A lo-watt version is also available giving energy savings of between 65% & 70%.

- TX*WL (WALL) size 9" & 12" available as lo-watt
- TX*WW (WINDOW) size 9" & 12" available as lo-watt
- TX*PL (PANEL) size 9" & 12" available as lo-watt
- TX*RF (ROOF) size 9" & 12" available as lo-watt
- TX*DR (DARKROOM) not available as lo-watt
- TX*IL (IN-LINE) not available as lo-watt, not available in size 7"



Commercial Fans

by Express-air

The Express-air range of commercial fans are ideal for Offices, Restaurants & Public Houses to comply with building regulations on Ventilation. The range includes 6", 9" & 12" models all fully speed controllable, with the 9" & 12" models being reversible for supply & extract air. The fans are complete with thermo-activated shutters to prevent draughts and save on costs. Different coloured grilles are available in white, terracotta & brown, standard model is pale grey. The units are all manufactured using high ABS thermoplastics for strength and durability, aesthetics and easy cleaning. The Panel model is designed for refurbishment projects as they will fit most leading commercial wall liners. All products are BEAB approved and carry the CE marking and come complete with a 2 year guarantee.



Technical Data

Fan Ref	Size 6	Size 9	Size 12
Maximum Airflow l/s (m ³ /hr)	77 (278)	185 (668)	281 (1021)
Sound Power Level dBA@3m	40	53	60
Voltage	230-1-50	230-1-50	230-1-50
Amps	0.24	0.4	0.6
Power W	45	80	120
Controller	EAC6	EAC9/12	EAC9/12

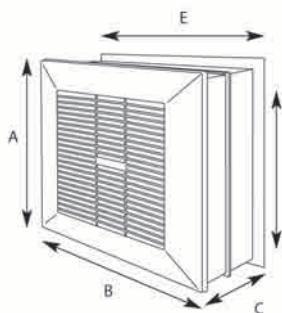
Controls, Sensors & Ancillaries

EAC6	Variable speed control (6" only)
EAC9/12	Variable speed control & reversible
EFS-PIR	Passive infra red sensor with run on timer
EFS-HS	Humidistat
EFS-7DAY	7 day analogue timer
EFS-ROT	Run on timer 1-20 mins

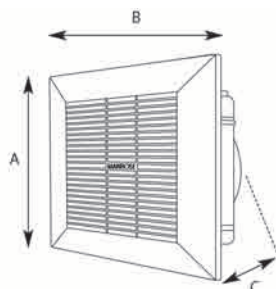
Please enquire for coloured grille replacements

Dimensions

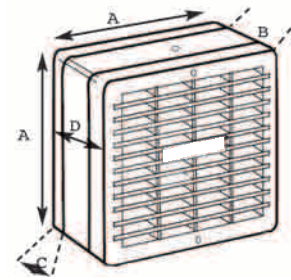
Fan Ref	A	B	C	D	E	Hole Dia
ES6W (Wall)	310	310	160-290	278	288	-
ES9W (Wall)	390	390	160-290	361	366	-
ES12W (Wall)	470	470	160-290	440	447	-
ES6P (Panel)	310	310	110	-	-	-
ES9P (Panel)	390	390	138	-	-	-
ES12P (Panel)	470	470	154	-	-	-
ES6G (Window)	205	105	25	-	-	184
ES9G (Window)	286	125	25	-	-	260
ES12G (Window)	362	145	25	-	-	320



Wall fan

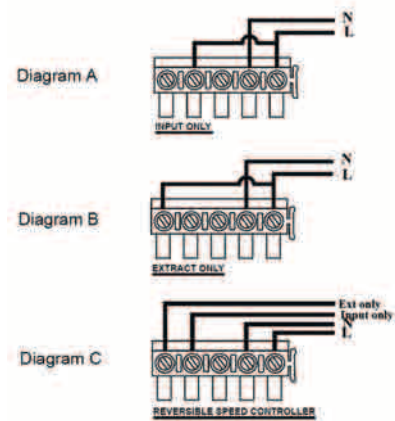


Panel fan

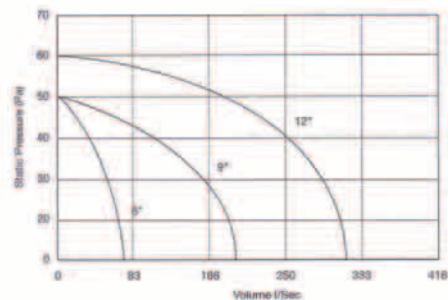


Window fan

Plug Wiring Diagram



Performance Graph



Bravo Centrifugal Ventilation System



by Systemair

The Mono tube ventilation system can be used in bathrooms and kitchens without windows, for example.

Quick and easy installation in ceiling, wall and duct, due to IT'S modular construction.

All fan sets can be mounted directly into a false ceiling or into a wall, if combined with exhaust air set BRAVO FLS (accessory) or in an optional flush mounted casing, BRAVO HSG or BRAVO BSG.

All fan sets come with forward curved impeller, external rotor motor & motor protection through thermal contacts.

All fan sets will be supplied complete with electrical plug, white cover and panel filter EU2.

Available models:

Model "Z": fan set with delayed start, changeable run-on-time, standby function

Model "Zi": fan set as model "Z", however with additional anti-mould-control by interval operation of

10 minutes each hour at 30 m³/h air volume.

Model "G": fan set with 3 air volumes, desired step can be set at the connection plug

Model "FÜ": fan set as model "Z", however with acoustic signal for filter change

Model "F": fan set with external humidity control unit

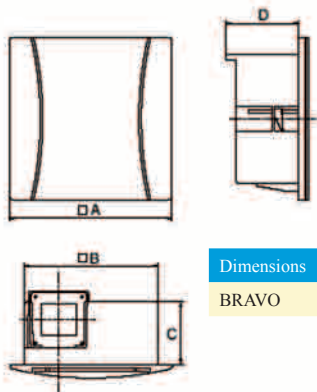
Model "FS": fan set with internal humidity control unit. Turns on maximum power 60 or 90 m³/h when

the humidity rises and after reaching the rated value, back to normal again.

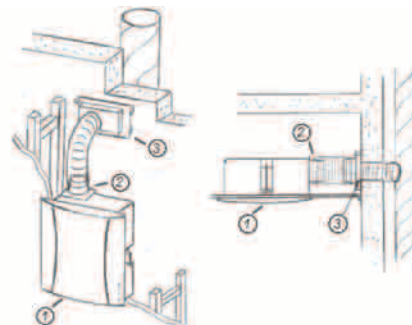
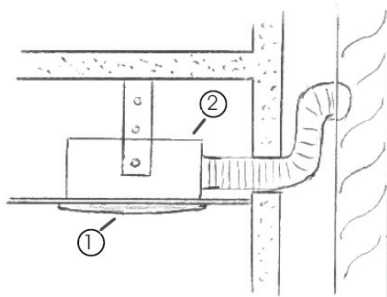
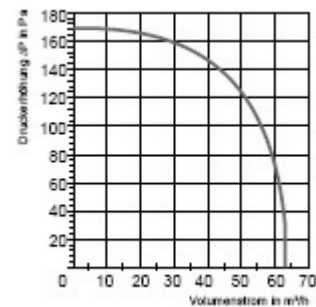


Technical Data

	V/Hz	Air flow m ³ /hr	Maximum watts	Maximum current	dB(A) @ 10 m
BRAVO VE 30/60/90 G	230/50	30/60/90	8/16/34	0.08/0.12/0.15	29/33/39
BRAVO VE 60 Z	230/50	60	16	0.12	33
BRAVO VE 60 Zi	230/50	60/30	16/8	0.12/0.08	33/29
BRAVO VE 60 Z-FU	230/50	60	16	0.12	33
BRAVO VE 90 Z	230/50	90	34	0.15	39
BRAVO VE 90 Zi	230/50	90/30	34/8	0.15/0.08	39/29
BRAVO VE 90 Z-FU	230/50	90	34	0.15	39
BRAVO VE 60 F	230/50	30/60/90	8/16/34	0.08/0.12/0.15	29/33/39
BRAVO VE 30/60 FS	230/50	30/60	8/16	0.08/0.12	29/39
BRAVO VE 30/90 FS	230/50	30/90	8/34	0.08/0.15	29/39



Dimensions	A	B	C	D
BRAVO	265	225	102	119



(1) BRAVO FAN SET (2) Exhaust air set BRAVO FLS (3) Fire protection set BRAVO WKH-K

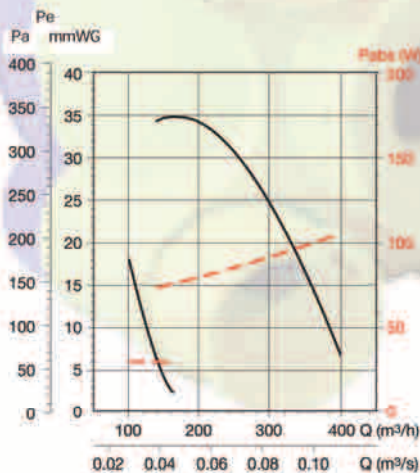
Centralised ducting system

by S&P

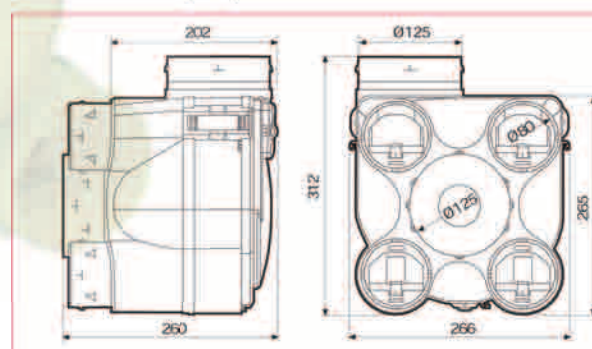
The Soler & Palau Centralised Ducting System (EACE-5) provides continuous mechanical ventilation throughout the entire house from a single extraction unit and can be used in up to five individual rooms. Made from strong reinforced plastic it is very lightweight, making it easy to install in a loft or ceiling void. A two speed motor is fitted as standard to enable trickle & boost operation via a switch (Available separately). The range offers a standard model & a Humidity model, which switches the fan on at high speed when the humidity reaches a set point. The fan unit is supplied with three extraction inlets, two 80mm inlets, one with a flow regulator at 15m³/hr for toilets and the other at 30m³/hr for bathrooms. There is a 125mm spigot also for Kitchens with tabs to regulate the air flow from 45 - 135m³/hr, plus two further plugged 80mm inlets for larger applications, all discharging from one 125mm extract duct through either a wall or roof terminal.



Air valves, Flexible ducting, Two speed switches & Flow regulators are all available as separate items.



Dimensions (mm)



Electrical data: 220-240V -A.C. 50 Hz, consuming 24 watts on minimum speed & 65 watts on maximum speed. A double pole isolating switch, having a contact separation of at least 3mm in all poles, must be used with a 3 amp fuse fitted, to comply with current IEE regulations. The fan unit must not be accessible to a person using either the shower or bath.

Centralised ducting system CMEV.4e

by Greenwood Airvac

Top of the energy class

The best SAP Appendix Q eligible product with an incredible 0.16w/l/s* performance which will help reduce DER's in SAP and contribute to achieving Level 3 and above of the Code for Sustainable Homes.

Complete control

A continuously running ventilation system for the whole house that actively contributes to indoor air quality, controlled via a wired in remote switch to control trickle and boost speeds.

Not seen and not heard

A completely discreet system, centrally mounted in a cupboard means no more nuisance running noise.

Space saving

5th extract point can be located at bottom of unit (requires cut out on site) for easier connection to ducting in applications with limited space.

A perfect fit

Compact design (one of the smallest on the market) makes it ideal for apartments and small properties that usually don't have the window space for all of the trickle vents required with traditional 'on and off' extract fans (System 1).

No fuss installation and commissioning

One of the fastest units to connect and commission on site. 100% variable motor speed options for trickle and boost speeds adjusted through speed pots located on fan body. (medium speed will be based on mid-point between selected trickle and boost speeds).

From inside to out

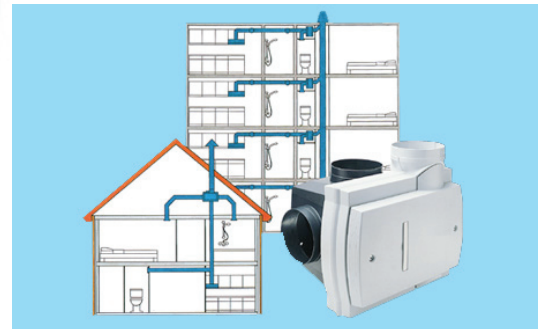
Energy efficient EC motor, 5 extract spigots, clever motor assembly design which can be easily removed once isolated, allowing for cleaning and maintenance if necessary.



EACE-3 Central Extract System

by Express-air

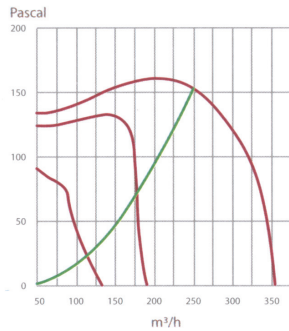
The Express-air Centralised Ducting System (EACE-3) provides continuous mechanical ventilation throughout the entire house from a single extraction unit and can be used in up to three individual rooms. Made from strong ABS plastic it is very lightweight, making it easy to install in a loft or ceiling void. A three speed fan offers trickle, medium & boost operation via a switch (available separately). The fan unit is supplied with three extraction inlets, all 125mm which discharge from one 125mm extract duct through either a wall or roof terminal. A slimline version is also available to suit applications where space is at a premium. the unit is only 185mm high and is manufactured with three extract points suitable for use with 110mm x 54mm or 204mm x 60mm flat duct or a mixture of both.



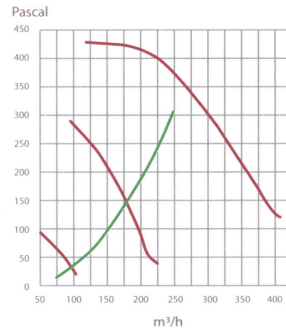
Technical Data

Model	EACE-3S	EACE-3T	EACE-3DC
Static Pa @ 225m ³ /hr	151 Pa	400 Pa	400 Pa
Output			
High	41 W	73 W	24.4 W
Medium	22 W	40 W	9.9 W
Low	12 W	13 W	5.1 W
Max amperage	0.18 amps	0.23 amps	0.18 amps
Voltage	230-1-51	230-1-50	230-1-50
Weight	3.4kg	3.5kg	3.5kg

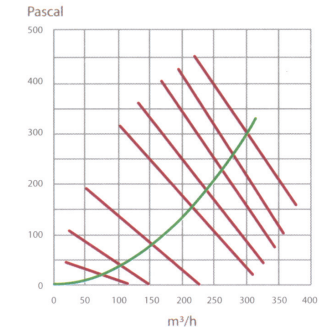
EACE-3 S



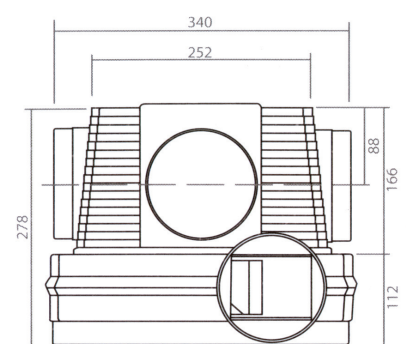
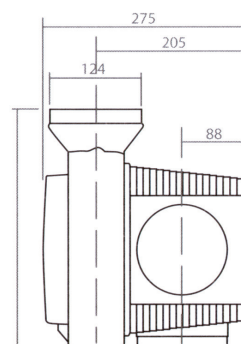
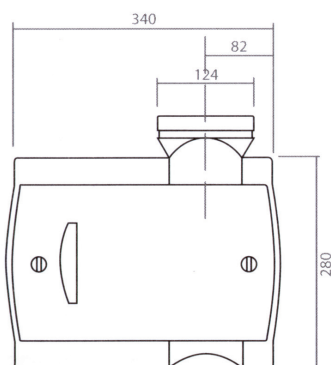
EACE-3 T



EACE-3 DC



Dimensions



VR 300 TK/B

Domestic Heat recovery unit c/w Cookerhood

by Systemair Villavent

- Rotating Wheel Heat Exchanger.
- Reversible - Left or Right Handed Version.
- Automatic change from Normal to Summer Operation.
- No Need for Condensate Drain.
- Up to 84% Heat Recovery Efficiency.
- Cookerhood connection direct to unit or remote.
- 3 Speed Control.



The VR 300 TK/B is a compact unit for ventilation of homes and primarily developed for wall mounted installation but can be installed horizontally e.g. in a false ceiling. The unit is double skinned, fully insulated, equipped with centrifugal fans for supply/extract air, rotating heat exchanger, filters and thermostat operated re-heater battery. VR 300 TK/B is equipped with large inspection hatches on both sides and is by that means reversible for optimal and simple duct connections. The cooker hood can be connected via duct on the top of the unit if it is placed separate from the kitchen. As an alternative, a cookerhood can be installed directly under the unit. The extract air from the cookerhood is drawn via an integrated bypass duct directly to the extract fan bypassing the exchanger block. The airflow are set from a cooker hood or a separate control switch with an internal transformer, CTK/B or CTK/B-S.

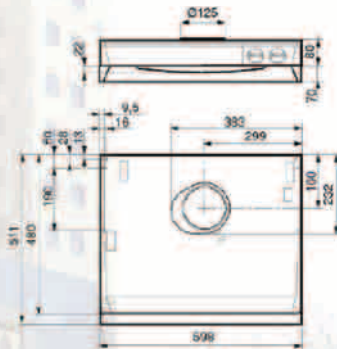
Electrical connection

- Connection to power supply via 1 m cable with earthed plug
- Special contact for connection of control switch or cookerhood

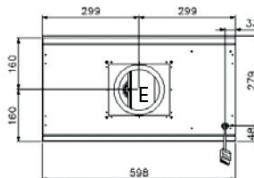
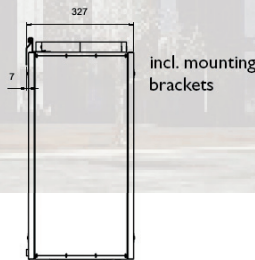
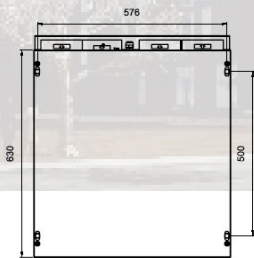
VR Unit	Air flow m ³ /s @ Pa					
	50 Pa	100 Pa	150 Pa	200 Pa	250 Pa	300 Pa
VR300TK/B Supply	0.057	0.050	0.044	0.036	0.028	0.020
VR300TK/B Extract	0.057	0.051	0.044	0.036	0.029	0.020
VR300TK/B Cookerhood Ext	0.090	0.084	0.076	0.068	0.057	0.044

Technical Data

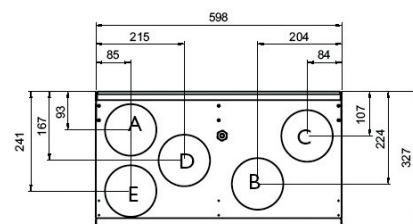
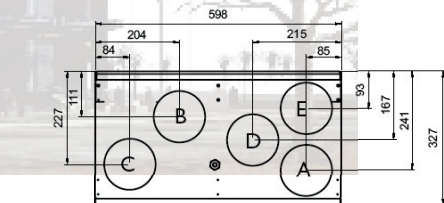
		VR300TK/B
Voltage Frequency	V/ 50 Hz	230-240 50Hz
Input power. Motors	Watts	2 x 120
Input power. Heater Battery	Watts	1000
Sound power level - Breakout (Low/Min/Max)	dB(A)	35/41/44
Mains Fuse	Amps	10
Weight	Kg	45
Filter. Supply Air		EU7
Filter. Exhaust Air		EU5



VR 300 TK/B



Duct connections, ø125 mm
 A Exhaust air
 B Supply air
 C Fresh air
 D Extract air from wetrooms/kitchen
 E Extract air from cooker hood





251-10/B COOKER HOOD EVB,EHB STEEL

Functional design and high efficiency, even at a low airflow. Developed for connection to Villavent heat recovery unit type VR-250 EH/B and VR-400 EV/B and to central extract fans serving more than one apartment.

A modern and functional cookerhood with a high efficiency even at a low airflow (75% at 140 m3/h). The aluminium filter can easily be removed for cleaning in warm soapy water or in dish washer. A patented, adjustable damper solution allows for individual setting of airflow at normal ventilation and control cable for control of the damper/fan speed (airflow) in the ventilation unit. The cookerhood is equipped with a 3-step control of airflow (fan speed). This model is available white painted or in stainless steel.

60 / 90 Chimney

Ref. 91194AW / Ref. 91195AW

Description: 60/90cm Chimney Canopies

Finish: Stainless Steel

Duct size: 125mm

Features / Specification

- 60/90cm Chimney Canopies
- 3 speed levels
- Stainless steel finish
- Recirculation or extraction
- Maximum extraction rate 480m3/h
- Push button control panel
- 200W motor
- Built in twin lights
- Twin aluminium grease filters
- Optional carbon filter system



Standard Plus

Ref. 91191AW

Description: 60cm Standard Plus Canopy

Finish: Stainless Steel

Duct size: 125mm

Features / Specification

- 60cm Plus Canopy
- 3 speed levels
- Stainless steel finish
- Recirculation or extraction
- Maximum extraction rate 200m3/h
- Sliding control panel
- 125W motor
- Built in twin lights
- Twin aluminium grease filters
- Additional carbon filter system for recirculation only



90 Curved

Ref. 91202AW

Description: 90cm Curved Glass Canopy

Finish: Stainless Steel and Glass

Duct size: 125mm

Features / Specification

- 90cm Curved Glass Canopy
- 3 speed levels
- Stainless steel finish
- Recirculation or extraction
- Maximum extraction rate 480m3/h
- Electronic touch control
- 200W motor
- Twin 50W halogen spotlights
- Aluminium grease filter
- Optional carbon filter system



90 Island

Ref. 91203AW

Description: 90cm Island Glass Canopy

Finish: Stainless Steel and Glass

Duct size: 125mm

Features / Specification

- 90cm Island Glass Canopy
- 3 speed levels
- Stainless steel finish
- Recirculation or extraction
- Maximum extraction rate 851m3/h
- Electronic touch control
- 240W motor
- Four 50W halogen spotlights
- Aluminium grease filter
- Optional carbon filter system



60 / 90 Tonda

Ref. 91196AW / Ref. 91197AW

Description: 60/90cm Tonda Canopies

Finish: Stainless Steel

Duct size: 125mm

Features / Specification

- 60/90cm Tonda Canopies
- 3 speed levels
- Stainless steel finish
- Recirculation or extraction
- Maximum extraction rate 480m3/h
- Sliding control panel
- 200W motor
- Built in twin lights
- Twin aluminium grease filters
- Optional carbon filter system



Inset

Ref. 91192AW

Description: 60cm Inset Canopy

Colour: Silver

Duct size: 125mm

Features / Specification

- 60cm Inset Canopy
- 3 speed levels
- Available in silver finish
- Recirculation or extraction
- Maximum extraction rate 229m3/h
- Sliding control panel
- 140W motor
- Built in twin lights
- Carbon filter system
- Acrylic grease filter in metal grid casing





Industrial fans



TD-MIXVENT in-line mixed flow fan

by Soler &Palau

- Silent running and certified. guaranteed performance
- Compact overall dimensions
- Protection rating IPX4
- Two speeds (except TD 4000 & 6000)
- Adjustable Run on Timer (These models are not speed controllable)
- Models 160 - 800 have polypropylene casing, while models 1000 - 6000 have steel casings
- Self-extinguishing V0 plastic
- Eco-friendly
- Speed controllable
- Low Carbon - Ecowatt version available

The Soler & Palau range of in-line mixed flow duct fans are manufactured in tough reinforced plastic (from 160 to 800 models) or with metal casing steel finished in a tough epoxy-polyester paint coating (from 1000 to 6000 models). The unique design of the support bracket allows the motor and impeller assembly to be fitted or removed without dismantling the adjacent ducting.



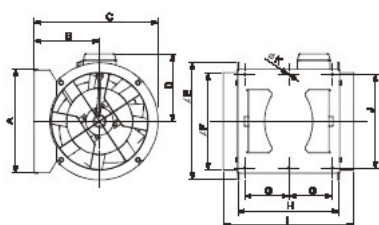
Fan TD-MIXVENT	Duct Diameter	Voltage	Speed	Airflow m ³ /sec@Static Pressure Pa.						Power	Current	Sound Pressure Level *
				0 Pa	50 Pa	100 Pa	150 Pa	200 Pa	250 Pa			
TD-160/100 N SILENT	100	230-1-50	Min 2200	0.039	0.013	-	-	-	-	12	0.10	21
			Max 2500	0.05	0.0286	0.002	-	-	-	20	0.16	24
TD-250/100	100	230-1-50	Min 1850	0.047	0.025	0.001	-	-	-	18	0.10	26
			Max 2200	0.066	0.052	0.015	-	-	-	24	0.11	31
TD-350/125	125	230-1-50	Min 1900	0.075	0.045	0.01	-	-	-	22	0.10	28
			Max 2250	0.099	0.08	0.032	0.001	-	-	30	0.13	33
TD-500/150	150	230-1-50	Min 1950	0.122	0.1	0.081	0.05	0.02	-	44	0.19	29
			Max 2500	0.159	0.15	0.14	0.125	0.04	0.02	50	0.22	33
TD-500/160	160	230-1-50	Min 1950	0.122	0.1	0.081	0.05	0.02	-	44	0.19	29
			Max 2500	0.159	0.15	0.14	0.125	0.04	0.02	50	0.22	33
TD-800/200	200	230-1-50	Min 2000	0.22	0.19	0.165	0.145	0.075	0.04	100	0.45	33
			Max 2500	0.28	0.26	0.25	0.23	0.2	0.09	120	0.50	39
TD-1300/250	250	230-1-50	Min 2000	0.294	0.25	0.22	0.17	0.14	0.1	140	0.60	39
			Max 2520	0.355	0.33	0.31	0.275	0.25	0.22	180	0.80	43
TD-2000/315	315	230-1-50	Min 2000	0.31	0.26	0.23	0.155	0.12	0.09	160	0.80	42
			Max 2700	0.4	0.37	0.35	0.325	0.3	0.27	225	1.20	47
TD-4000/355	355	230-1-50	Max 1400	1.027	0.98	0.9	0.79	0.65	0.09	345	1.53	44
TD-6000/400	400	230-1-50	Max 1400	1.527	1.4	1.35	1.25	1.1	0.85	665	2.97	44

*Sound pressure level radiated at 3 m @ free air conditions with rigid ducts at the inlet & outlet

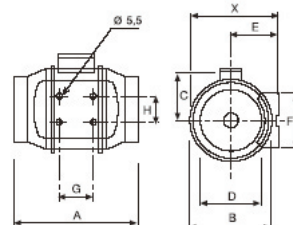
Dimensions

	A	B	C	D	E	F	G	H	kg
TD-160/100 N SILENT	232	135.5	95.5	97	82	96	47.5	5	1.4
TD-250/100	303	176	115	123	100	90	80	60	2.0
TD-350/125	258	176	115	123	100	90	80	60	2.0
TD-500/150	295	200	127	147	112	130	80	60	2.7
TD-500/160	275	200	127	157	112	130	80	60	2.7
TD-800/200	302	217	141	198	124	140	100	94	4.9
TD-1300/250	386	272	192	248	155	168	145	140	9.4
TD-2000/315	450	336	224	312	188	210	182	178	14.0
TD-4000/355	377	238	451	224	426	354	150	368	19.0
TD-6000/400	450	249	492	267	487	399	160	425	26.0

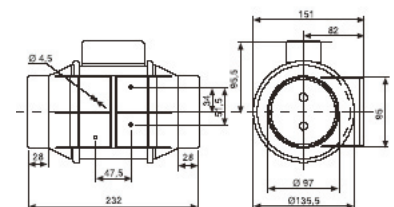
TD4000 & TD6000



TD250 - TD2000



TD160/100 N SILENT



K - Fan

In-line metal tube fan

by Systemair

- Speed-controllable
- Integral thermal contacts
- Can be installed in any position
- Can be installed outdoors
- Maintenance-free and reliable

The K series is designed for installation in ducts. All the K-fans have minimum 25 mm long spigot connections.

The fans have backward-curved blades and external rotor motors. The FK mounting clamp facilitates easy installation and removal, and prevents the transfer of vibration to the duct. The fans can be speed-controlled via a stepless thyristor or a 5-step transformer.

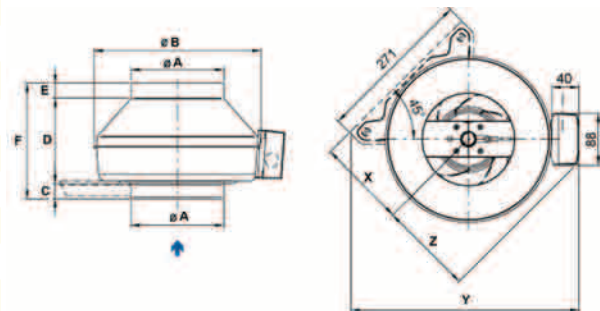
To protect the motor from overheating the fan is impedance protected. The casing is manufactured from galvanised sheet steel and folded which gives the fan a close to air tight casing. Duct connected outdoor and wet room applications of the fan are possible due to the air tight casing and the IP 55 rated terminal box with a IP 68 rated M20 cable gland.



Product Code	Speed rpm	Airflow m ³ /sec @ Static Pressure Pa.					Motor Data			dBA 3m	Speed Control	
		50 Pa	100 Pa	150 Pa	200 Pa	300 Pa	FLC	SC	kW		Elec	Trans
K100M	2730	0.04	0.02	-	-	-	0.11	0.28	0.024	38	SC1.5	RE1.5
K100XL	2435	0.07	0.06	0.05	0.04	0.02	0.25	0.56	0.058	48	SC1.5	RE1.5
K125M	2725	0.04	0.03	-	-	-	0.11	0.28	0.024	34	SC1.5	RE1.5
K125XL	2390	0.08	0.07	0.06	0.04	0.02	0.27	0.60	0.062	50	SC1.5	RE1.5
K150M	2420	0.12	0.10	0.08	0.07	0.02	0.27	0.58	0.063	44	SC1.5	RE1.5
K150XL	2590	0.20	0.18	0.15	0.13	0.08	0.44	1.00	0.101	53	SC1.5	RE1.5
K160M	2420	0.12	0.1	0.08	0.07	0.02	0.27	0.58	0.063	44	SC1.5	RE1.5
K160XL	2555	0.20	0.18	0.15	0.13	0.08	0.44	1.00	0.101	53	SC1.5	RE1.5
K200M	2630	0.199	0.181	0.163	0.142	0.096	0.46	1.00	0.106	51	SC1.5	RE1.5
K200L	2570	0.251	0.233	0.217	0.196	0.154	0.71	1.87	0.159	50	SC1.5	RE1.5
K250M	2610	0.196	0.175	0.153	0.131	0.081	0.45	1.00	0.104	49	SC1.5	RE1.5
K250L	2640	0.264	0.246	0.226	0.206	0.161	0.70	1.86	0.157	49	SC1.5	RE1.5
K315M	2535	0.344	0.318	0.292	0.263	0.206	0.94	2.00	0.215	47	SC1.5	RE1.5
K315L	2360	0.433	0.406	0.376	0.339	0.268	1.39	3.00	0.320	50	SC3.0	RE1.5

Dimensions

K	A	B	C	D	E	(F)	X	Y	Z	kg
100 M	99	218	26	166	26	218	112.5	329	136	2
100 XL	99	246	26	161	26	213	124.5	353	145	4.5
125 M	124	218	27	142	27	196	112.5	329	136	2
125 XL	124	246	26	151	26	203	124.5	353	145	4.5
150 M	149	286	25	152	25	202	148.5	390	161	3
150 XL	149	336	29	166	26	221	174.5	429	180	4.5
160 M	159	286	25	147	26	198	148.5	390	161	3
160 XL	159	336	29	166	26	221	174.5	429	180	4
200 M	199	336	30	148	27	205	183.5	438	181	3.8
200 L	199	366	30	174	27	231	183.5	438	181	4.5
250 M	249	336	30.5	119.5	27	177	183.5	441	180	3.6
250 L	249	336	30.5	144.5	27	202	183.5	441	180	5
315 M	314	408	42.5	160.5	27	220	222	498	204	7



Accessories



26 CB

CBM

FGR

FK

LDC

RSK

VK

REE

RE

For Accessories see page 140

RVK

Plastic in-line centrifugal tube fan

by Systemair

- Speed-controllable
- Integral thermal contacts
- Can be installed in any position
- Inclusive mounting bracket
- Maintenance-free and reliable
- Suitable for Hydroponics use

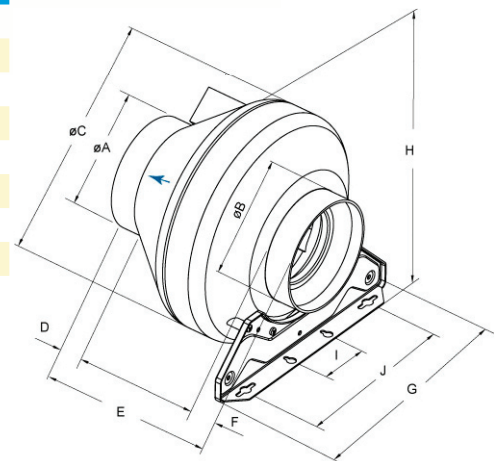
The RVK series is designed for installation in ducts. The fans have backward-curved blades and external rotor motors. The FK mounting clamp facilitates easy installation and removal, and prevents the transfer of vibration to the duct. The fans can be speed-controlled via a stepless thyristor or a 5-step transformer. The RVK fans have integral thermal contacts with automatic reset. The casing is manufactured from fibreglass reinforced plastic.



Product Code	Speed rpm	Airflow m ³ /sec @ Static Pressure Pa.					Motor Data			dBA @ 3m	Speed Control	
		50 Pa	100 Pa	150 Pa	200 Pa	300 Pa	FLC	SC	kW		Elec	Trans
RVK 100E2-A1	2480	0.038	0.024	-	-	-	0.17	0.35	0.029	34	SC 1.5	RE 1.5
RVK 125E2-A1	2468	0.049	0.028	-	-	-	0.17	0.35	0.029	38	SC 1.5	RE 1.5
RVK 125E2-L2	2436	0.08	0.067	0.054	0.043	0.015	0.26	0.83	0.061	43	SC 1.5	RE 1.5
RVK 150E2-A1	2430	0.106	0.093	0.079	0.062	0.015	0.26	0.83	0.058	43	SC 1.5	RE 1.5
RVK 150E2-L2	2430	0.171	0.155	0.139	0.122	0.083	0.5	1.50	0.112	43	SC 1.5	RE 1.5
RVK 160E2-A1	2530	0.11	0.097	0.082	0.064	0.013	0.26	0.83	0.058	48	SC 1.5	RE 1.5
RVK 160E2-L2	2530	0.186	0.168	0.15	0.13	0.087	0.50	1.50	0.112	48	SC 1.5	RE 1.5
RVK 200E2-A1	2550	0.2	0.181	0.161	0.14	0.09	0.47	1.45	0.107	45	SC 1.5	RE 1.5
RVK 200E2-L2	2580	0.25	0.23	0.21	0.19	0.15	0.71	2.00	0.16	46	SC 1.5	RE 1.5
RVK 250E2-A1	2546	0.21	0.2	0.178	0.154	0.096	0.47	1.45	0.109	48	SC 1.5	RE 1.5
RVK 250E2-L2	2595	0.283	0.264	0.244	0.221	0.173	0.70	2.00	0.159	44	SC 1.5	RE 1.5
RVK 315E2-A1	2387	0.345	0.319	0.292	0.263	0.202	0.77	2.40	0.176	40	SC 1.5	RE 1.5
RVK 315E2-L2	2433	0.48	0.45	0.43	0.4	0.328	1.39	3.20	0.318	45	SC 3.0	RE 1.5

Dimensions

RVK	A	B	C	D	E	F	G	H	I	J	kg
RVK100	99	99	251	30	230	30	271.5	265	60	200	2
RVK125	124	124	251	30	230	30	271.5	265	60	200	2
RVK150	149	149	340.5	30	230	30	271.5	360	60	200	4.7
RVK160	159	159	340.5	30	230	30	271.5	360	60	200	4.7
RVK200E2-A1	199	199	340.5	30	230	30	271.5	360	60	200	4
RVK200E2-L1	199	199	340.5	30	250	30	271.5	360	60	200	4.5
RVK250E2-A1	249	249	340.5	30	230	30	271.5	360	60	200	5
RVK250E2-L1	249	249	340.5	30	250	30	271.5	360	60	200	5.2
RVK315	315	315	405	30	275	30	271.5	430	60	200	7.5



Accessories



For Accessories see page 140

SAMF

Small duct mounted axial fan

by Elta

- Duct mounted axial fan 150 mm to 315mm
- All metal casing with integral mounting bracket
- Speed controllable
- External rotor motor. IP44. Class B
- All units suitable up to 80% RH. 40° air temp

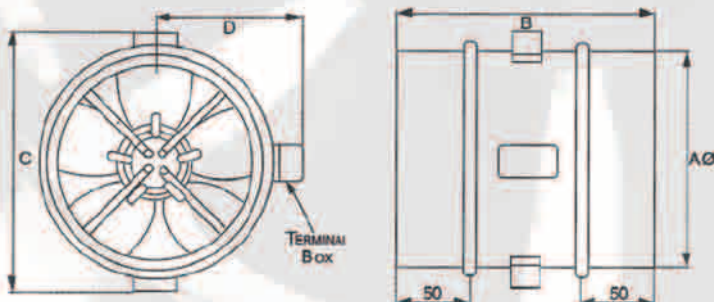


The cased axial Miniflow SAMF is a duct mounted axial fan with a lightweight, yet robust, design. Specifically developed as a cost effective alternative to in-line centrifugal fans, it provides powerful airflow at lower pressures for applications ranging from domestic to commercial ventilation.

Product	Speed	Airflow m ³ /s @ Static Pressure Pa								Motor Data		dBA @	Speed
		0	25	50	75	100	125	150	175	FLC	kW		
SAMF150/2-2	2760	0.110	0.084	0.063	0.044	0.022	-	-	-	0.25	0.046	43	EL31
SAMF200/4-2	1440	0.144	0.093	0.053	0.017	-	-	-	-	0.13	0.03	52	EL31
SAMF200/2-2	2580	0.238	0.208	0.170	0.135	0.107	0.085	-	-	0.3	0.06	39	EL31
SAMF250/4-2	1380	0.279	0.230	0.151	0.079	-	-	-	-	0.21	0.05	49	EL31
SAMF250/2-2	2520	0.420	0.382	0.347	0.309	0.264	0.210	0.151	-	0.54	0.12	40	EL31
SAMF315/4-2	1320	0.555	0.441	0.280	0.161	0.081	-	-	-	0.32	0.07	47	EL31
SAMF315/2-2	2460	0.639	0.621	0.592	0.530	0.440	0.364	0.267	0.209	0.71	0.16	58	EL31

	A	B	C	D	Weight Kg
SAMF150/2	147	165	n/a	n/a	1.5
SAMF200/4	206	250	236	164	3.5
SAMF200/2	206	250	236	164	3.5
SAMF250/4	260	250	296	190	4.0
SAMF250/2	260	250	296	190	4.0
SAMF315/4	311	250	346	219	4.8
SAMF315/2	311	250	346	219	4.8

Dimensions



Accessories



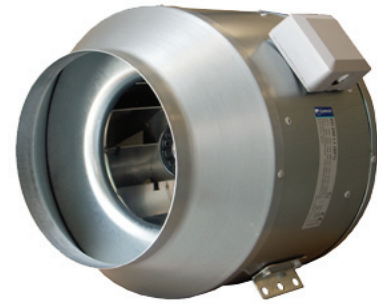
For Accessories see page 140

KD Circular mixed flow fan

by Systemair



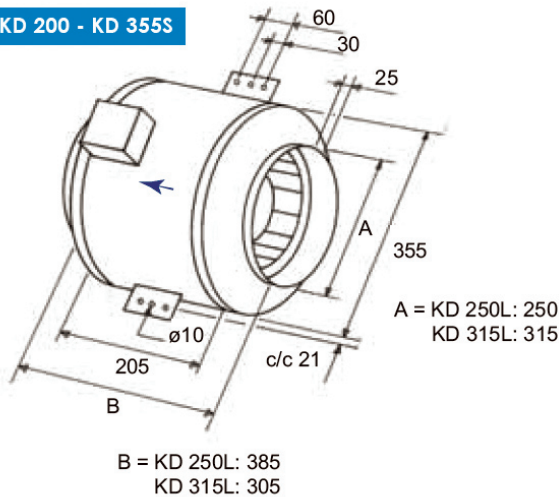
- Duct mounted mixed flow fan. 200 mm to 500 mm
- High efficiency - low noise
- Speed-controllable
- Integral thermal contacts
- Can be installed in any position
- Maintenance-free and reliable



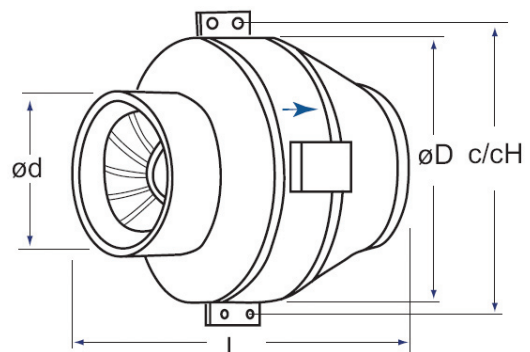
The KD series have external rotor motors with a new type of mixed flow impeller which reduces the external dimensions of the fans. These fans have a high capacity in relation to their compact design. Brackets are supplied with the fans to make installation easier. The FK mounting clamp facilitates easy installation and removal and prevents the transfer of vibrations to the duct. To protect the motor from overheating the fan has integral thermal contacts with electrical reset. The casing is manufactured from galvanised sheet steel.

Product Code	Voltage	Speed rpm	Airflow m ³ /sec @ Static Pressure Pa.					Motor Data			dBA 3m	Speed Control	
			50 Pa	100 Pa	150 Pa	200 Pa	300 Pa	FLC	SC	kW		Elec	Trans
KD200L	230	2562	0.340	0.315	0.275	0.245	0.150	1.14	4.7	0.257	53	SC1.5	RE1.5
KD250M	230	2572	0.370	0.330	0.315	0.275	0.175	1.13	4.7	0.254	54	SC1.5	RE1.5
KD250L	230	2604	0.525	0.495	0.455	0.420	0.330	1.61	7.0	0.370	55	SC3.0	RE3.0
KD315M	230	2573	0.365	0.345	0.315	0.275	0.190	1.12	4.5	0.252	59	SC1.5	RE1.5
KD315L	230	2595	0.565	0.542	0.505	0.465	0.370	1.62	7.2	0.372	54	SC3.0	RE3.0
KD355S	230	2597	0.570	0.535	0.500	0.460	0.362	1.61	7.2	0.371	53	SC3.0	RE3.0
KD315XL1	230	1375	0.685	0.585	0.450	0.225	-	1.29	5.0	0.276	52	SC3.0	RTRE3
KD355M1	230	1375	0.760	0.640	0.490	0.265	-	1.30	5.0	0.275	50	SC3.0	RTRE3
KD355XL1	230	1309	1.020	0.900	0.770	0.600	0.120	1.90	7.5	0.431	56	SC3.0	RTRE3
KD400M1	230	1307	1.030	0.915	0.780	0.600	0.120	1.90	7.5	0.432	53	SC3.0	RTRE3
KD400XL1	230	1298	1.590	1.465	1.310	1.155	0.785	4.24	11.0	0.855	61	SC5.0	RTRE5
KD450M1	230	1308	1.700	1.570	1.410	1.225	1.020	4.21	11.0	0.857	61	-	RTRE5
KD450XL1	230	1290	2.235	2.095	1.940	1.790	1.435	6.16	15.0	1.392	61	-	RTRE7
KD500M1	230	1290	2.250	2.110	1.975	1.815	1.470	6.10	15.0	1.386	64	-	RTRE7
KD355XL3	400	1399	1.110	1.010	0.890	0.735	0.265	0.96	4.5	0.451	58	-	RTRD2
KD400M3	400	1397	1.135	1.020	0.905	0.735	0.230	0.95	4.5	0.456	57	-	RTRD2
KD400XL3	400	1304	1.650	1.535	1.400	1.235	0.800	1.53	4.5	0.792	61	-	RTRD2
KD450M3	400	1307	1.735	1.600	1.450	1.285	0.830	1.53	4.5	0.778	63	-	RTRD2
KD450XL3	400	1325	2.135	2.035	1.910	1.770	1.435	2.22	11.0	1.246	61	-	RTRD4
KD500M3	400	1315	2.210	2.100	1.970	1.830	1.485	2.23	11.0	1.243	64	-	RTRD4

KD 200 - KD 355S



KD	ød	L	øD	c/cH
315XL1	312	484	455	518
400M1/M3	400	480	503	568
400XL1/XL3	400	602	560	625
500M1/M3	500	643	663	721



K-EC & KVKE-EC EC/DC Energy Saving "Green" fans

by Systemair

- EC-motors, high level of efficiency
- 100% speed controllable
- Speed regulator included
- Low noise level
- Integrated motor protection



MTV-1/010 Controller 0..10V

EC technology is intelligent technology; using integral electronic control which eliminates the slip losses in the motor & ensures that the motor always runs at optimal load and guarantees that the proportion of energy utilised effectively is many times higher and energy consumption considerably lower compared with AC motors.

EC fans are notable for their economical energy consumption and excellent ease of control. They can be varied in speed to match the airflow demand, and operate at high efficiency levels. For the same air volume, they consume distinctly less energy than AC fan drives.



The **K EC** series is designed for installation in ducts. All the K-fans have minimum 25 mm long spigot connections. The fans have backward-curved blades and external rotor motors (EC). The FK mounting clamp facilitates easy installation and removal, and prevents the transfer of vibration to the duct. The fans are delivered with a pre-wired potentiometer (0-10V) that allows you to easily find the desired working point. The potentiometer is set between 6-10V from factory. This can easily be changed if the installation requires more performance.

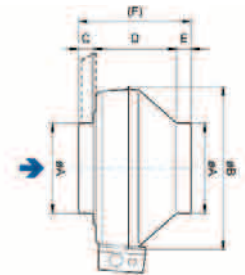
To protect the motor from overheating the fan has integral thermal contacts with electrical reset. The casing is manufactured from galvanised sheet steel with the seams folded to give the fan a close to air tight casing. Outdoor mounting and wet room applications are possible due to the fans air tight casing and the IP 55 rated terminal box with a IP 68 rated M20 cable gland.

The **KVKE EC** models have a single inlet centrifugal fan with backward-curved blades and a maintenance-free external rotor motor (EC). These fans develop relatively high static pressure and have a very high efficiency. The fans are delivered with a pre-wired potentiometer (0-10V) that allows you to easily find the desired working point. The potentiometer is set between 6-10V from factory. This can easily be changed if the installation requires more performance.

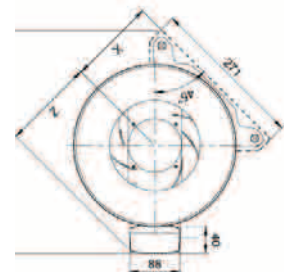
The **KVKE** motor and impeller are mounted on the access cover for ease of maintenance. The service cover can be easily removed by withdrawing the hinge pin. To protect the motor from overheating, the fans have integral thermal contacts with automatic reset. The fans can be installed in any position and are easy to connect to spiral ducts using FK mounting clamps. The **KVKE** models are manufactured from galvanised sheet steel and are thermally and acoustically insulated with a 50 mm layer of rockwool with a surface liner which prevents the migration of fibres into the airstream.

Performance

Product Code	Voltage	Speed rpm	Airflow m ³ /sec @ Static Pressure Pa.					Motor Data		dBA 3m
			100 Pa	200 Pa	300 Pa	500 Pa	700 Pa	FLC	kW	
KVKE 125 EC	230	3603	0.110	0.100	0.086	0.059	0.034	0.685	0.087	43
KVKE 160 EC	230	2592	0.131	0.112	0.088	0.029	-	0.531	0.069	39
KVKE 200 EC	230	3033	0.219	0.201	0.184	0.132	0.071	1.10	0.156	46
KVKE 250 EC	230	2821	0.300	0.280	0.260	0.220	0.170	1.64	0.265	49
KVKE 315 EC	230	2380	0.470	0.440	0.410	0.350	0.260	2.38	0.395	50
K160 EC	230	3217	0.143	0.114	0.093	0.058	0.024	0.684	0.088	46
K200 EC	230	2468	0.176	0.138	0.096	-	-	0.626	0.078	51
K 250 EC	230	2628	0.235	0.184	0.144	0.111	0.038	0.921	0.02	46
K315M EC	230	2113	0.33	0.26	0.19	-	-	1.14	0.166	50
K315L EC	230	2719	0.45	0.40	0.36	0.26	0.15	2.08	0.34	57



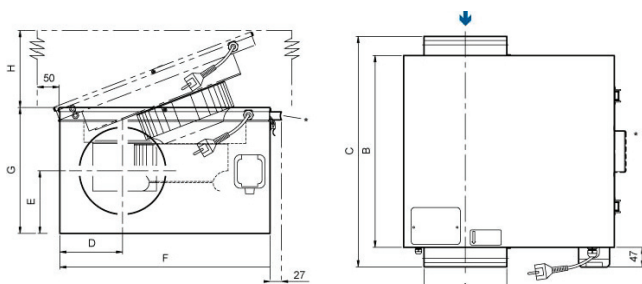
K-EC



Dimensions

Model	A	B	C	D	E	F	G	H	Kg
KVKE 125 EC	125	433	479	125	128.5	442	246	470	13.2
KVKE 160 EC	160	482	528	145.5	132.5	505	266	530	17
KVKE 200 EC	200	482	534	150.5	149	505	303	530	18.8
KVKE 250 EC	250	578	700	176	174	596	359	620	28.1
KVKE 315 EC	315	680	802	208.5	207.5	705.5	430	730	38.8

Model	A	B	C	D	E	F	X	Y	Kg
K160 EC	159	286	25	147	26	198	148.5	390	3
K200 EC	199	336	30	148	27	205	183.5	438	3.3
K250 EC	249	336	30.5	144.5	27	202	183.5	441	3.5
K315M EC	314	408	32.5	160.5	27	220	222	498	7.2
K315L EC	314	408	37.5	160.5	27	225	222	498	6



KVKE-EC

KVO

Circular in-line duct fan

by Systemair

- Speed-controllable
- Integral thermal contacts
- Low noise level
- Compact construction - Low profile

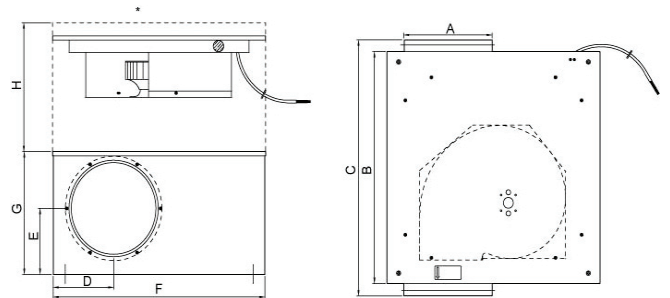
KVO 100-250 models have a single-inlet centrifugal fan with forward-curved blades and a maintenance-free external rotor motor. In all KVO models, the motor and impeller are mounted on the cover for easy cleaning and maintenance. To protect the motor from overheating, the KVO 100-250 have integral thermal contacts with electrical reset. The fans can be installed in any position, and are easy to connect to spiral ducts using FK mounting clamps. The lid is insulated with 40 mm rockwool. The casing is manufactured from galvanised sheet steel.



Product Code	Speed rpm	Airflow m ³ /sec @ Static Pressure Pa.						Motor Data		d B A @ 3m	Speed Control	
		50	100	150	200	250	300	FLC	W		Elec	Trans
KVO100	2438	0.071	0.062	0.054	0.044	0.029	-	0.346	78	40	SC 1.5	RE 1.5
KVO125	2475	0.092	0.081	0.067	0.051	0.038	-	0.393	89	38	SC 1.5	RE 1.5
KVO150L	2544	0.128	0.119	0.108	0.097	0.085	0.063	0.59	135	43	SC 1.5	RE 1.5
KVO150M	2040	0.115	0.106	0.098	0.089	0.076	0.051	0.511	117	42	SC 1.5	RE 1.5
KVO160L	2544	0.128	0.119	0.108	0.097	0.085	0.063	0.59	135	43	SC 1.5	RE 1.5
KVO160M	2040	0.115	0.106	0.098	0.089	0.076	0.051	0.511	117	42	SC 1.5	RE 1.5
KVO200	2632	0.229	0.213	0.197	0.182	0.165	0.148	0.681	151	51	SC 1.5	RE 1.5
KVO250L	2480	0.397	0.377	0.356	0.336	0.314	0.294	1.33	301	52	SC 3.0	RE 1.5
KVO250M	2632	0.274	0.250	0.241	0.226	0.21	0.194	0.892	198	46	SC 1.5	RE 1.5
KVO315	1279	0.580	0.516	0.446	0.363	0.295	0.185	2.73	584	49	SC 5.0	RTRE 5.0
KVO315M	1268	0.459	0.424	0.387	0.347	0.299	-	2.08	435	46	SC 5.0	RTRE 3.0
KVO355	1374	0.768	0.73	0.684	0.636	0.587	0.524	5.1	1162	55	REE100TR0	RTRE 7.0
KVO400	1356	0.803	0.763	0.717	0.671	0.617	0.559	5.47	1238	55	REE100TR0	RTRE 7.0

Dimensions

	A	B	C	D	E	F	G	H	kg
KVO100	100	329	367	69	76	300	150	150	8
KVO125	125	329	367	84	72	300	150	150	9
KVO150	150	329	367	94	95	300	185	185	10
KVO160	160	329	367	99	90	300	185	185	10
KVO200	200	419	466	123	109	435	220	220	17
KVO250	250	527.5	568	151	133	558	270	270	22
KVO315	315	535.5	580	186	166	580	340	550	37
KVO355	355	572	661	209	231	640	425	600	44
KVO400	400	572	653	221	209	640	425	600	42



Accessories



For Accessories see page 140

by Systemair

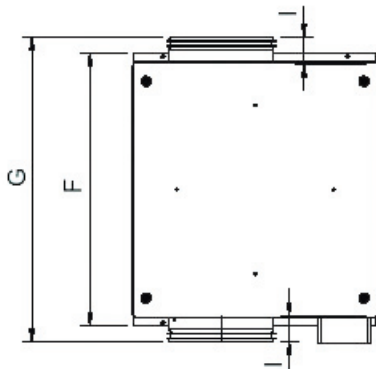
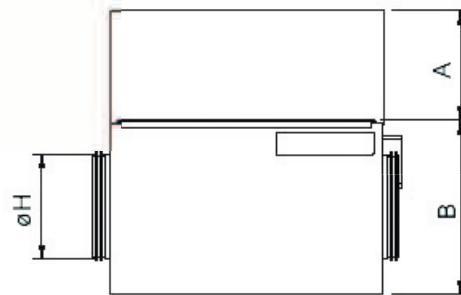
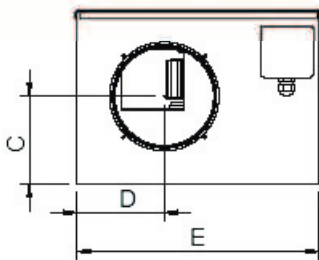
- Speed-controllable
- Integral thermal contacts
- Low noise level
- Compact construction

The KVK 125-160 models have a single-inlet centrifugal fan with forward-curved blades and a maintenance-free external rotor motor. To protect the motor from overheating the KVK 125-160 has integral thermal contacts with electrical reset. The fans can be installed in any position, and are easy to connect to spiral ducts using FK mounting clamps. The KVK models are manufactured from galvanized sheet steel and are thermally and acoustically insulated with a 50 mm layer of rockwool with a surface liner which prevents the migration of fibres into the airstream.



Product Code	Speed rpm	Airflow m³/sec @ Static Pressure Pa.					Motor Data			dBA @		Speed Control	
		50	100	150	200	300	FLC	SC	kW	3m	Elec	Auto Trans	
KVK125	1978	0.095	0.088	0.08	0.07	-	0.41	0.9	0.093	35	SC 1.5	RTRE 1.5	
KVK160M	2062	0.12	0.10	0.087	0.079	-	0.48	1.4	0.111	39	SC 1.5	RTRE 1.5	
KVK160L	2519	0.13	0.119	0.10	0.097	0.065	0.59	1.8	0.135	39	SC 1.5	RTRE1.5	
KVK200	1810	0.180	0.163	0.145	0.124	0.070	0.75	2.0	0.172	39	SC 1.5	RTRE 1.5	
KVK250	1965	0.293	0.270	0.250	0.234	0.171	1.3	3.0	0.304	42	SC 3.0	RTRE 1.5	
KVK315M	1325	0.485	0.428	0.353	0.200	-	1.49	4.0	0.334	35	SC 3.0	RTRE 3	
KVK315L	1200	0.751	0.707	0.657	0.599	0.415	2.83	8.0	0.643	37	SC 5.0	RTRE 3	
KVK355	1165	0.737	0.690	0.641	0.584	0.415	2.93	8.0	0.665	41	SC 5.0	RTRE 3	
KVK400	1105	0.750	0.707	0.657	0.599	0.393	2.83	8.0	0.654	39	SC 5.0	RTRE 3	
KVK500	1235	1.42	1.35	1.28	1.22	1.05	6.28	33.0	1.452	56	-	RTRE 7	

Dimensions



KVK	A	B	C	D	E	F	G	øH	I	Weight kg
125	250	266	151	114	367	-	421	125	35	11
160M	250	266	134	132	367	-	421	160	35	11.5
160L	250	266	134	132	367	-	421	160	35	12
200	350	345	207	309	419	372	454	200	41	17.5
250	400	381	201	244.5	489	372	458	250	43	21
315M/L	550	544.5	326.5	273	546	540	626	315	43	40
400	550	544.5	326.5	273	546	540	664	400	62	41
500	700	680.5	403	370	740	690	814	500	62	81

Accessories



For Accessories see page 140

KVK DUO

Acoustic in-Line Twin Fan

by Systemair



- Speed-controllable
- Integral thermal contacts
- Low noise level
- Twin fan
- Can be installed for bottom access

KVK DUO models have double inlet centrifugal fans with forward-curved impellers and maintenance-free external rotor motors. To protect the motors from overheating the fans have integral thermal contacts with leads for connection to a motor protection device. The fans are easy to connect to spiral ducts using FK mounting clamps.

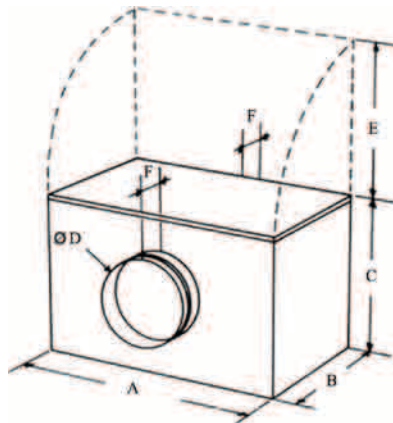
The KVK DUO models are manufactured from galvanised sheet steel and are thermally and acoustically insulated with a 50 mm layer of mineral wool. Internal surfaces are protected with perforated galvanised sheet steel.



Product Code	Speed rpm	Airflow m ³ /sec @ Static Pressure Pa.						Motor Data			dBa @ 3m	Speed control		
		50	100	150	200	250	300	FLC	SC	kW		Elec	Trans	ACO Panel
KVK DUO125	1720	0.046	0.035	0.012				0.17	0.5	0.041	28	SC 1.5	RTRE 1.5	ACO 8A
KVK DUO160	2010	0.097	0.084	0.063	0.031			0.35	0.85	0.081	35	SC 1.5	RTRE 1.5	ACO 8A
KVK DUO200	1750	0.183	0.168	0.151	0.133	0.104	0.056	0.77	2.0	0.177	39	SC 1.5	RTRE 1.5	ACO 8A
KVK DUO250	1965	0.295	0.272	0.250	0.228	0.202	0.175	1.3	3.0	0.304	42	SC 3.0	RTRE 3.0	ACO 8A
KVK DUO315M	1325	0.495	0.435	0.350	0.201			1.49	4.0	0.334	35	SC 3.0	RTRE 3.0	ACO 8A
KVK DUO315L	1220	0.734	0.698	0.645	0.586	0.501	0.387	2.61	8.0	0.593	37	SC 5.0	RTRE 3.0	ACO 8A
KVK DUO355	1170	0.734	0.698	0.645	0.586	0.501	0.387	2.78	8.0	0.632	37	SC 5.0	RTRE 3.0	ACO 8A
KVK DUO400	1190	0.734	0.698	0.645	0.586	0.501	0.387	2.78	8.0	0.638	39	SC 5.0	RTRE 3.0	ACO 8A

Dimensions KVK DUO

REF	A	B	C	D	E	F	kg
125	514	351	337	125	300	35	19
160	514	351	337	160	300	35	22
200	604	401	390	200	350	39	32
250	724	501	461	250	400	41	36
315-400	952	567	510	315/355/400	550	41/64/65	72



Accessories

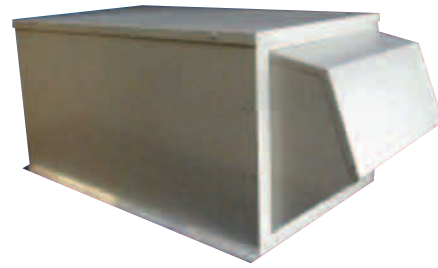


For Accessories see page 140

EFT / EFTR

Duct & Roof mounted twin fans

This range of Direct Drive Twin fans are designed for guaranteed standby ventilation for toilets, plant rooms or other areas where the failsafe extract of contaminated air is required. Available as an Internal unit EFT for duct mounting with spigot connection on inlet and outlet or as an external unit EFTR for roof mounting with plastisol casing, spigot connection on inlet and weatherproof discharge cowl with integral bird mesh. Bottom inlet available on request.



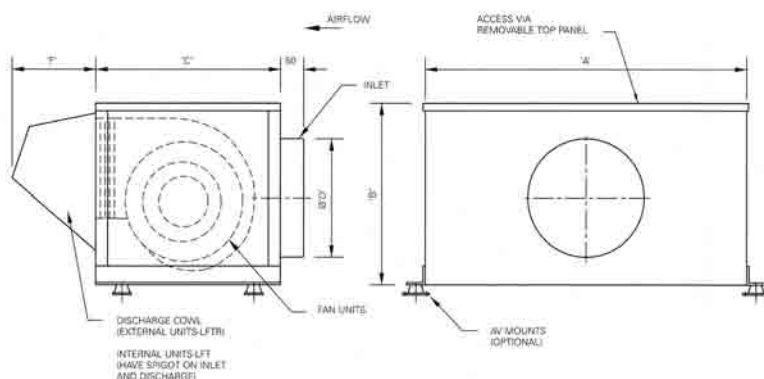
- Size Range: Duct/Spigot size connection 125mm to 500mm diameter
- Impellers: Two DIDW (double inlet double width) forward curved centrifugal type
- Motors: Comply with ISO standards. They are fitted with sealed for life ball bearings
- Casing/Finish: Single Skinned in galvanised sheet steel (internal units) or Plastisol (Plastic coated steel for external units). All fans have removable lids sealed with a neoprene gasket. Powder coated paint finish (to any BS or RAL number) available on all models.
- Operating Temperature: From -15 to +40 deg C as standard.
- Insulation (Optional): 25 mm acoustic foam lining. please add suffix "L" after fan code
- Auto Changeover Panel: ACOP1 with volt free contacts and duty share as standard

Performance Details

Fan Ref	Speed RPM	Airflow m³/s @ Static Pressure Pa									Motor Data			dBA @ 3m	
		50	100	125	150	200	250	300	350	550	FLC	SC	kW		
EFT125	1340	0.460	0.037	0.032	0.025	0.005						0.75	4.13	0.015	39
EFT150	1340	0.046	0.037	0.032	0.025	0.005						0.75	4.13	0.015	41
EFT200	1375	0.113	0.070	0.036								0.64	3.52	0.022	37
EFT250	1360	0.228	0.190	0.170	0.145	0.050						1.82	10.01	0.073	43
EFT315	1370	0.398	0.367	0.350	0.320	0.268	0.153					2.00	11.00	0.150	50
EFT355A	1100	0.425	0.412	0.400	0.388	0.353	0.313	0.125				2.00	11.00	0.373	55
EFT355B	1250	0.575	0.560	0.551	0.540	0.491	0.450	0.376	0.175			2.85	15.68	0.373	55
EFT355C	1350	0.750	0.725	0.712	0.690	0.655	0.605	0.540	0.400			3.85	21.18	0.373	58
EFT400	1350	0.810	0.790	0.780	0.770	0.730	0.660					3.80	20.90	0.550	57
EFT450	1350	0.990	0.975	0.965	0.945	0.900	0.820	0.675				4.90	26.40	0.550	59
EFT500	1300	-	1.110	1.100	1.090	1.070	1.040	0.996	0.890			6.85	37.68	0.550	60
EFT500/3	1410	1.500	1.400	1.300	1.200	1.100	1.000	0.900	0.850	0.800		5.00	25.00	1.500	60

Model	A	B	C	D	F	weight
125	575	238	400	125	200	25kg
150	575	238	400	150	200	25kg
200	800	275	450	200	200	32kg
250	800	425	550	250	200	38kg
315	1000	450	650	315	200	44kg
355	1000	475	650	350	250	64kg
400	1050	475	650	400	250	70kg
450	1150	475	650	450	250	70kg
500	1250	525	700	500	250	98kg

Dimension "F" is for roof version only.



EFTB / EFTBR

Belt driven twin fans



This range of Belt Driven Twin fans are designed for guaranteed standby ventilation for toilets, plant rooms or other areas where the failsafe extract of contaminated air is required. Available as an Internal unit EFTB for duct mounting with 20mm “mez” flange connection on inlet and outlet or as an external unit EFTBR for roof mounting with plastisol casing. 20mm “mez” flange connection on inlet and weatherproof discharge cowl with integral bird mesh. Bottom inlet available on request.

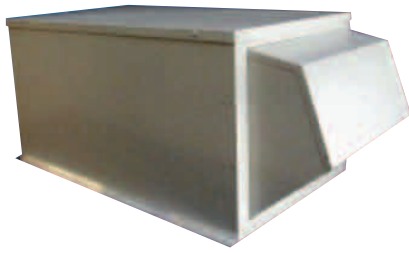


- Size Range:** Four standard case sizes with different combinations of motors and pulleys giving an extensive range of fan duties.
- Impellers:** Two DIDW (double inlet double width) forward curved centrifugal type
- Motors:** Comply with BS5000 & IEC34-1. Foot mounted type TEFV IP55 Class F insulation. They are fitted with sealed for life ball bearings
- Casing/Finish:** Double Skinned in galvanised sheet steel (internal units) or Plastisol single skinned (Plastic coated steel for external units). All fans have sealed removable access panels. Powder coated paint finish (to any BS or RAL number) available on all models.
- Operating Temperature:** From -15 to +40 deg C as standard
- Insulation :** (Optional) 25mm acoustic foam lining. please add suffix “L” after fan code
- Auto Changeover Panel:** ACOP3/DS with volt free contacts and duty share as standard

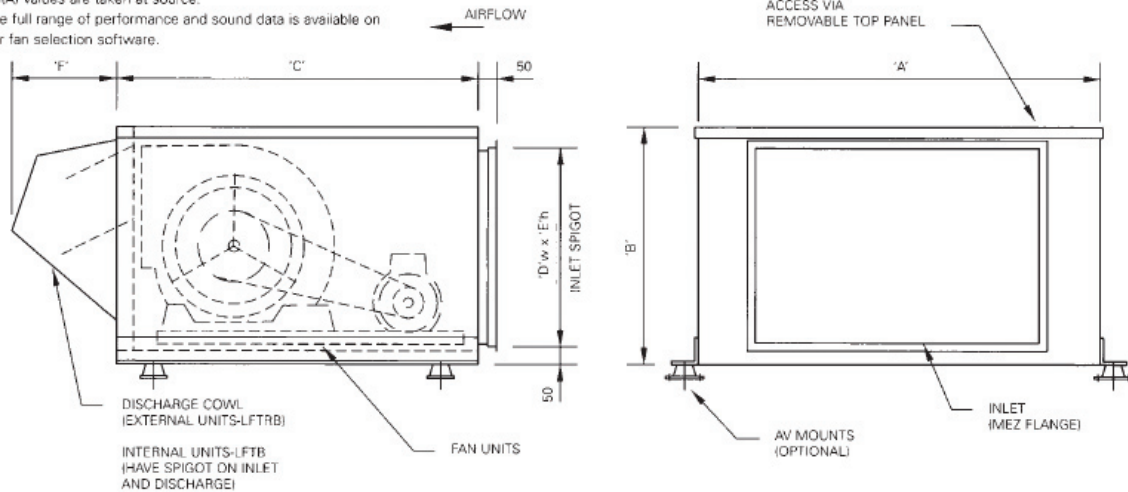
Performance Details

Fan	Ref	Airflow m ³ /s @ Static Pressure Pa										Motor Data			
		50	100	150	200	250	300	350	400	450	500	FLC	SC	kW	
EFTB 7/1	Airflow m ³ /s	0.790	0.750	0.700	0.650	0.600						2.00	11.00	0.75	
	dB(A)	79	78	76	75	74									
EFTB 7/2	Airflow m ³ /s			0.95	0.9	0.85	0.8	0.75	0.7			2.90	16.00	1.10	
	dB(A)			79	78	77	76	76	75						
EFTB 7/3	Airflow m ³ /s				1.0	0.95	0.9	0.85	0.8			2.90	16.00	1.10	
	dB(A)				80	79	78	77	77						
EFTB 7/4	Airflow m ³ /s							1.0	0.9	0.8	0.7	3.90	21.50	1.50	
	dB(A)							80	79	77	76				
EFTB 8/1	Airflow m ³ /s	1.07	1.02	0.95	0.9							2.00	11.00	0.75	
	dB(A)	77	76	75	74										
EFTB 8/2	Airflow m ³ /s		1.21	1.15	1.1	1.05	1.0					2.90	16.00	1.10	
	dB(A)		80	79	78	77	77								
EFTB 8/3	Airflow m ³ /s				1.25	1.2	1.15	1.1	1.05			3.90	21.50	1.50	
	dB(A)				81	80	79	79	78						
EFTB 8/4	Airflow m ³ /s							1.3	1.25	1.2	1.15	1.1	5.30	29.20	2.20
	dB(A)							82	81	80	80	80			
EFTB 9/1	Airflow m ³ /s		1.42	1.33	1.28	1.21						2.90	16.00	1.10	
	dB(A)		80	78	78	77									
EFTB 9/2	Airflow m ³ /s		1.7	1.65	1.6	1.55	1.5					3.90	21.50	1.50	
	dB(A)		79	79	78	78	78								
EFTB 9/3	Airflow m ³ /s					1.85	1.8	1.75	1.7	1.65		5.30	29.20	2.20	
	dB(A)					81	81	81	80	80					
EFTB 9/4	Airflow m ³ /s							2.0	1.95	1.9	1.85	1.8	7.10	39.10	3.00
	dB(A)							83	82	82	82	82			
EFTB 10/1	Airflow m ³ /s	2.14	2.09	2.0	1.9	1.8						3.90	21.50	1.50	
	dB(A)	80	79	79	78	78									
EFTB 10/2	Airflow m ³ /s		2.4	2.35	2.3	2.25	2.16	2.05				5.30	29.20	2.20	
	dB(A)		82	82	82	81	81	80							
EFTB 10/3	Airflow m ³ /s				2.52	2.47	2.42	2.37	2.32	2.28		7.10	39.10	3.00	
	dB(A)				83	83	83	83	83	83					
EFTB 10/4	Airflow m ³ /s							2.53	2.4	2.35	2.3	2.2	7.10	39.10	3.00
	dB(A)							84	83	83	83	82			

Belt driven twin fans



dB(A) values are taken at source.
The full range of performance and sound data is available on our fan selection software.



Model	A	B	C	D	E	F	Weight kg
7	1000	500	950	600	450	250	190
8	1150	550	1000	750	450	275	240
9	1200	650	1150	900	500	300	275
10	1450	700	1200	900	600	300	300

Run & Standby Axial Fans



- Run & Standby Axial fans for large air volumes, where back up is needed.
- Sizes up to 1250mm Dia
- Duties up to 20m³/s
- Can be installed in any position
- Idle losses taken into account
- Auto Changeover panels with Duty Share available
- Emergency Smoke Extract versions available
- For all selections, please enquire

KE/KT

Rectangular centrifugal fan

by Systemair

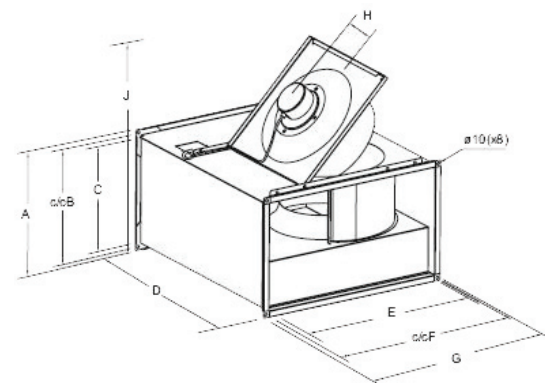
- Swing-out Motor & Impeller for maintenance
- Speed-controllable
- Integral thermal contacts
- Can be installed in any position
- Maintenance-free and reliable

The KE/ KT models have impellers with forward-curved blades and external rotor motors. The motor and impeller are mounted on the access cover to facilitate easy maintenance. The casing is manufactured from galvanised sheet steel. To protect the motor from overheating the fans have integral thermal contacts with external leads for connection to a motor protection device. The fans can be installed in any position and are easy to connect using the DS flexible connections. The KE/KT fans have a pre-wired, integral terminal box. KE is single phase, KT is three phase.

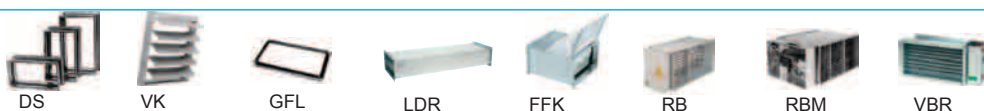


Product Code	Voltage	Speed rpm	Airflow m ³ /sec @ Static Pressure Pa.					Motor Data			dBA @ 3m	Speed Control
			100	150	200	250	300	FLC	SC	kW		
KE40-20-4	230	1206	0.266	0.241	0.191	0.008	-	1.0	4.0	0.227	55	RTRE 1.5
KE50-25-4	230	1298	0.42	0.38	0.34	0.27	-	2.51	8.0	0.533	55	RTRE 3
KE50-30-4	230	1193	0.59	0.55	0.52	0.46	0.4	3.67	12.4	0.819	59	RTRE 5
KE60-30-4	230	1342	0.74	0.7	0.66	0.62	0.58	5.4	18.0	1.231	62	RTRE 7
KT50-25-4	400	1287	0.48	0.44	0.39	0.33	0.23	0.95	3.9	0.55	58	RTRD 2
KT50-30-4	400	1193	-	0.61	0.57	0.50	0.41	1.41	4.5	0.80	57	RTRD 2
KT60-30-4	400	1342	0.88	0.85	0.82	0.76	0.71	2.36	6.7	1.36	58	RTRD 4
KT60-35-4	400	1250	-	-	1.27	1.22	1.18	4.12	21.0	2.46	61	RTRD 7
KT70-40-4	400	1297	-	-	-	-	1.63	6.04	26.5	3.616	66	RTRD 7
KT70-40-6	400	805	1.31	1.23	1.15	1.06	0.91	3.0	18.2	1.628	57	RTRD 4
KT80-50-6	400	842	2.03	1.98	1.88	1.75	1.61	4.91	23.2	2.67	59	RTRD 7
KT80-50-8	400	552	1.32	1.17	1.0	0.69	-	2.4	13.7	1.14	59	RTRD 4
KT100-50-6	400	837	-	-	-	-	2.35	6.79	27.2	3.81	62	RTRD 7
KT100-50-8	400	614	2.05	1.91	1.78	1.6	1.32	4.67	22.8	2.29	58	RTRD7

Product Code	A	c/c B	C	D	E	c/c F	G	H	J	Weight Kg
KE40-20-4	240	220	198	502	398	420	440	28	530	12
KE50-25-4	290	270	248	532	498	520	540	30	610	18
KE50-30-4	340	320	298	562	498	520	540	32	695	23
KE60-30-4	340	320	298	642	598	620	640	34	715	34
KT50-25-4	290	270	248	532	498	520	540	64	610	18
KT50-30-4	340	320	298	562	498	520	540	66	695	21
KT60-30-4	340	320	298	642	598	620	640	70	715	31
KT60-35-4	390	370	348	717	598	620	640	95	805	37
KT70-40-4	440	420	398	787	698	720	740	116	900	56
KT70-40-6	440	420	398	787	698	720	740	94	900	42
KT80-50-6	540	520	497	880	798	820	840	97	1080	64
KT80-50-8	540	520	497	880	798	820	840	97	1080	56
KT100-50-6	540	520	497	980	998	1020	1040	97	1130	80
KT100-50-8	540	520	497	980	998	1020	1040	97	1130	80



Accessories



For Accessories see page 141

RSI/RS

Rectangular in-Line Centrifugal Fan

by Systemair

- Speed-controllable
- Integral thermal contacts
- Can be installed in any position
- Maintenance-free and reliable

The RS models have impellers with backward-curved blades and external rotor motors. The motor and impeller are mounted on the access cover to facilitate easy maintenance. To protect the motor from overheating the RS has integral thermal contacts with external leads for connection to a motor protection device. The fan can be installed in any position and is easy to connect using the DS flexible connections. The casing is manufactured from galvanised sheet steel. The RSI models are thermally and acoustically insulated with 50 mm of mineral wool, with perforated sheet steel on the inner surface

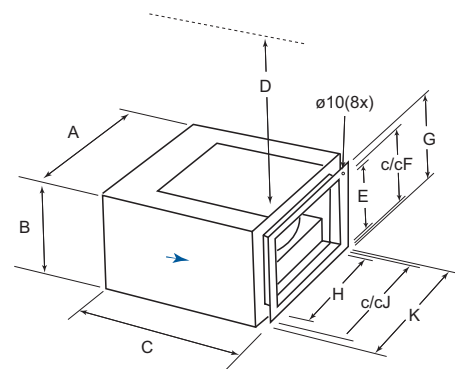
* Model available as RSI acoustic fan.



Product Code	Voltage	Speed rpm	Airflow m3/sec @ Static Pressure Pa.					Motor Data			dBA @ 3m		Speed Control	
			100	150	200	250	300	FLC	SC	kW	RS	RSI	Elec	Trans
RS 30-15	240	2431	0.106	0.088	0.072	0.06	0.033	0.26	1.40	0.060	48	-	SC 1.5	RE 1.5
RS 40-20M	240	2597	0.180	0.165	0.142	0.113	0.094	0.46	1.84	0.106	52	-	SC 1.5	RE 1.5
RS 40-20L	240	2556	0.300	0.271	0.26	0.24	0.170	0.93	3.56	0.208	53	-	SC 1.5	RE 1.5
RS 50-25	240	1362	0.312	0.264	0.210	0.14	0.025	0.6	2.40	0.138	46	-	SC 1.5	RE 1.5
*RS 60-35M1	240	1365	0.785	0.710	0.640	0.61	0.460	1.91	7.00	0.401	58	50	SC 3.0	RE 3.0
*RS 60-35M3	400	1371	0.850	0.790	0.700	0.60	0.520	0.80	3.16	0.399	58	48	-	RTRD 2
*RS 60-35L1	240	1308	1.000	0.900	0.820	0.69	0.650	2.80	11.16	0.626	58	52	SC 5.0	RTRE 3
*RS 60-35L3	400	1408	1.050	1.000	0.920	0.75	0.770	1.59	6.36	0.665	61	57	-	RTRD 2
*RS 70-40L1	240	1308	1.400	1.300	1.200	1.08	0.980	2.84	11.24	0.623	60	51	SC 5.0	RTRE 3
*RS 70-40L3	400	1410	1.260	1.190	1.100	1.03	0.930	1.7	6.80	0.704	61	50	-	RTRD 2
*RS 80-50M3	400	1335	1.790	1.680	1.600	1.49	1.400	1.97	7.84	1.089	60	53	-	RTRD 4
*RS 80-50L3	400	1385	2.375	2.290	2.220	2.09	2.000	3.6	14.40	1.893	63	56	-	RTRD 7
*RS 100-50L3	400	1361	3.180	3.050	2.960	2.80	2.750	5.09	20.36	2.962	65	62	-	RTRD 7

RS	A	B	C	D	E	c/cF	G	H	c/cJ	K	kg
30-15	340	190	402	275	148	170	190	298	320	340	7
40-20	440	240	502	375	198	220	240	398	420	440	12
50-25	540	290	532	450	248	270	290	498	520	540	17
60-35	640	390	717	550	348	370	390	598	620	640	35
70-40	740	440	787	550	398	420	440	698	720	740	43
80-50	840	541	882	670	498	520	541	798	820	840	68
100-50	1040	541	982	670	498	520	541	998	1020	1040	97

RSI	A	B	C	D	E	c/cF	G	H	c/cJ	K	kg
60-35M/L	708	492	717	650	648	370	390	598	620	640	62
70-40L1/L3	808	542	787	650	397	420	440	697	720	740	80
80-50M3/L3	908	662	882	750	497	520	540	797	820	840	107
100-50L3	1108	662	982	760	497	520	540	997	1020	1040	137



Accessories



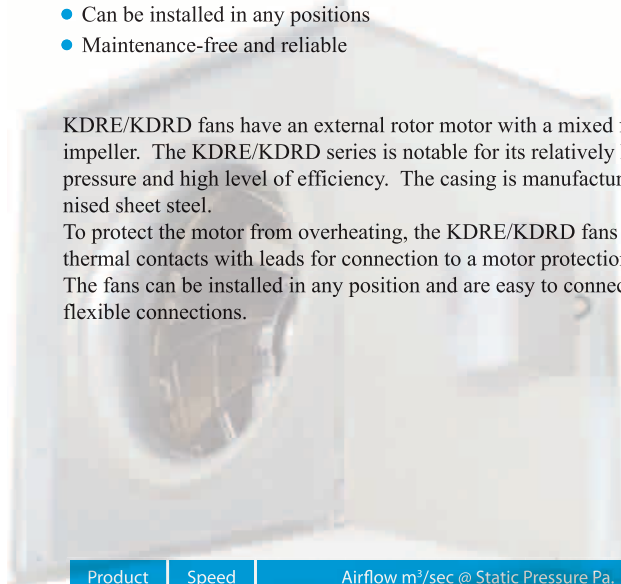
For Accessories see page 141

KDRE/KDRD

Square mixed flow fan

by Systemair

- KDRE Fan - single phase. 230V - 1Ph - 50Hz
- KDRD Fan - three phase. 400V - 3Ph - 50Hz
- Speed-controllable
- Integral thermal contacts
- Can be installed in any positions
- Maintenance-free and reliable

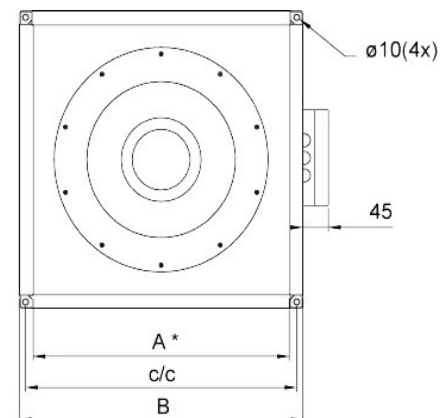
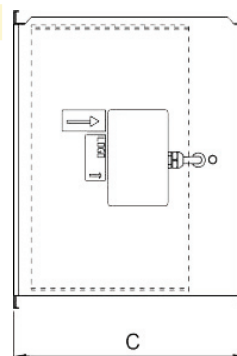


KDRE/KDRD fans have an external rotor motor with a mixed flow type impeller. The KDRE/KDRD series is notable for its relatively high static pressure and high level of efficiency. The casing is manufactured from galvanized sheet steel.

To protect the motor from overheating, the KDRE/KDRD fans have integral thermal contacts with leads for connection to a motor protection device. The fans can be installed in any position and are easy to connect using the DS flexible connections.

Product Code	Speed rpm	Airflow m ³ /sec @ Static Pressure Pa.					Motor Data			dBA @ 3m	Speed Control	
		50	100	200	300	400	FLC	SC	kW		Elec	Trans
KDRE45	1387	0.882	0.740	0.185			1.55	5.0	0.325	46	SC3.0	RTRE3
KDRE50	1297	1.310	1.149	0.680	0.120		1.94	7.5	0.442	52	SC5.0	RTRE5
KDRE55	1280	1.810	1.657	1.240	0.666	0.130	4.10	11.0	0.861	51	SC5.0	RTRE5
KDRE65	1315	2.900	2.710	2.230	1.580	0.885	6.61	16.0	1.501	61	N/A	RTRE7
KDRD50	1397	1.380	1.260	0.890	0.260		0.96	6.0	0.462	54		RTRD2
KDRD55	1315	1.746	1.610	1.280	0.760	0.140	1.52	7.5	0.789	55		RTRD2
KDRD65	1341	2.743	2.577	2.140	1.480	0.740	2.23	10.0	1.250	53		RTRD4
KDRD70	1400	3.960	3.800	3.400	2.930	2.320	4.68	25.0	2.493	62		RTRD7

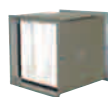
KDRE/KDRD	A	B	C	D	kg
KDRE 45	447	470	492	400	26
KDRE/KDRD 50	502	520	547	450	41
KDRE/KDRD 55	550	573	595	485	42
KDRE/KDRD 65	661	680	707	510	54
KDRD 70	696	720	740	530	62



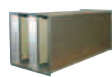
Accessories



DSK



FFS



LDK



RBK



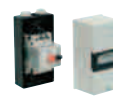
VBK



RTRD



RTRDU



STDT

For Accessories see page 141

Multiflow SMB

Square cased mixed flow fan

by Elta

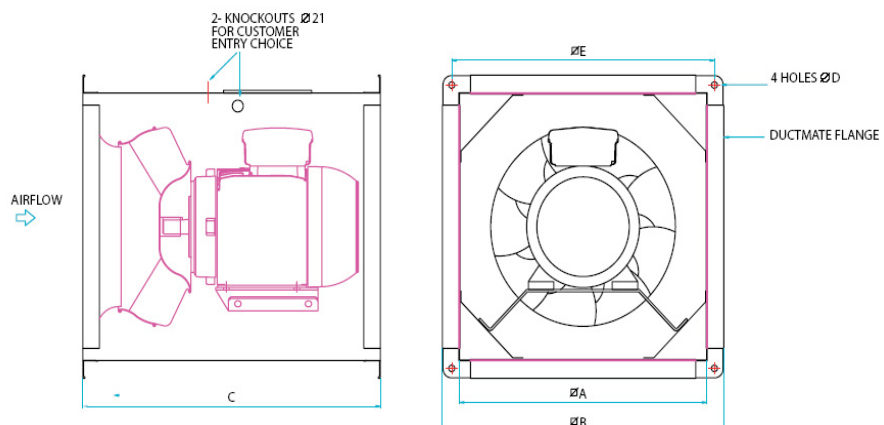
- Unique adjustable pitch mixed flow impeller.
- 9 standard case sizes from 350mm to 1000mm.
- Air volume flow rates of up to 7.88 m³/sec.
- Static pressures of up to 600 Pa.
- Wide operating range.
- Greater pressure capability than axial fans.
- Greater airflow capability than centrifugal fans.
- Non overloading power curve.
- Non-stall characteristic.
- Suitable for operating temperatures of up to 50° C.
- Motors are foot mounted totally enclosed metric type.
- Sealed for life ball bearings to operate at any angle.
- Motors weatherproofed to IP55 with Class 'F' insulation to EN 60034-5.



Multiflow SMB is a range of square cased mixed flow fans with a unique adjustable pitch mixed flow impeller, ideally suited for installation within ductwork and suitable for extract or supply for a broad range of industrial, commercial and residential applications.

Product Code	Voltage	Speed rpm	Airflow m ³ /sec @ Static Pressure Pa.					Motor Data			dBa @ 4m	Speed control Trans or Inv
			50	100	200	300	400	FLC	SC	kW		
SMB350/4-5-2	230	1300	0.28	0.14	-	-	-	1.09	2.30	0.12	43	TC12
SMB350/2-4-2	230	2750	0.63	0.60	9.54	0.46	0.36	2.55	7.00	0.37	60	TC14
SMB400/4-5-2	230	1300	0.64	0.53	0.12	-	-	1.51	3.69	0.18	50	TC12
SMB400/2-3-2	230	2750	1.16	1.14	1.07	1.00	0.90	6.15	22.7	1.0	68	TC112
SMB450/4-5-2	230	1350	1.09	0.97	0.57	0.10	-	2.56	5.93	0.37	54	TC14
SMB500/4-4-2	230	1350	1.48	1.36	1.08	0.60	0.05	3.70	11.9	0.55	58	TC18
SMB550/4-4-2	230	1350	2.30	2.15	1.76	1.25	0.38	6.28	16.4	1.0	62	TC110
SMB650/4-4-2	230	1350	2.81	2.72	2.46	2.11	1.60	10.1	25.9	1.5	68	TC112
SMB500/4-5-3	400	1410	1.73	1.60	1.32	0.87	-	2.0	11.4	0.75	58	TC33
SMB550/4-5-3	400	1410	2.43	2.33	2.03	1.60	0.84	2.90	15.4	1.1	62	TC33
SMB650/4-4-3	400	1420	2.97	2.84	2.59	2.29	1.85	3.70	20.4	1.5	67	EVFD/150
SMB700/6-4-3	400	920	2.65	2.38	1.73	0.65	-	2.12	8.70	0.75	59	TC35
SMB700/4-5-3	400	1415	4.51	4.40	4.10	3.73	3.34	6.78	47.5	3.0	68	EVFD/300
SMB800/8-5-3	400	700	3.26	2.92	1.42	-	-	2.33	10.7	0.75	58	EVFD/150
SMB800/6-4-3	400	940	4.17	3.98	3.47	2.64	0.87	4.30	22.3	1.5	64	EVFD/220
SMB1000/8-4-3	400	710	6.53	6.20	5.35	3.98	0.93	5.31	32.9	2.2	61	EVFD/220
SMB1000/6-3-3	400	940	7.68	7.46	6.99	6.43	5.74	8.95	47.5	4.0	67	EVFD/400

Type	A	B	C	D	E	kg
SMB350	350	400	420	9	375	22
SMB400	400	450	480	9	425	30
SMB450	450	500	470	9	475	26
SMB500	500	550	500	9	525	30
SMB550	550	620	550	11	585	44
SMB650	650	720	600	11	685	58
SMB700	700	770	650	11	735	63
SMB800	800	870	700	11	835	79
SMB1000	1000	1070	800	11	1035	118



MUB

Multibox acoustic duct fans

by Systemair

- Speed-controllable
- Modular system
- Integral thermal contacts
- Low sound level
- Flexible airflow direction due to removable panels
- Installation in any mounting position
- Maintenance-free and reliable

The MUB fans have impellers with backward curved blades, manufactured from aluminium except the 355 which is polyamide. The MUB is equipped with external rotor motors or IEC standard motors, fully speed controllable. The three phase motors are D/Y connected for two speed operation. Motor protection is done by thermal contacts, which have to be connected to an external motor protection device. The casing consists of a corrosion-resistant aluminium frame with fibreglass reinforced plastic corners of PA6; highly shock-resistant. The double skin panels are manufactured from galvanised steel with 20 mm mineral wool insulation. To avoid condensation the profile is provided with a separate chamber to fix screws. The Multibox fans are delivered for straight through airflow but can easily be rebuilt due to removable panels. This allows flexible ventilation solutions. The MUB can also be used as extract or supply air unit in air handling units. Installation in any mounting position is possible.



MUB - EC

- 100 % speed controllable
- Integrated electronic motor protection
- Energy-saving

The MUB-EC fans are driven by EC-external rotor motors. These are energy saving motors with high efficiency. The power electronics are integrated in the motor housing. All models have one potential-free terminal for error message. All motors are suitable to be used for 50/60Hz. The input voltage for single phase units can vary between 200 and 277V, for three phase units between 380 and 480V. Speed control by a 0-10V signal. From size 450 the motor has an output voltage of 10V and 20V for an external potentiometer.



MUB - K2 (kitchen extract fan)

- Motor outside of the air stream, Temperatures up to 120 Deg C
- Integral thermal contacts
- Low sound level
- Maintenance-free and reliable

All MUB-K2 fans have impellers with backward curved blades, manufactured from aluminium, and IEC standard motors, which can be speed controlled by transformer, except size 630-D4 which is controllable only via frequency controller. Motors are outside the air stream. Panels are removable, allowing flexible ventilation solutions. With quicklock access door. The MUB casing is equipped with a grease tray under the impeller and a protection guard at the motor side. An isolator switch is mounted on the casing. All MUB-K2 three phase motors (630D4 only by frequency controller) are D/Y connected for two speed operation. Motor protection by thermal contacts, to be connected to an external motor protection device. Standard execution, seen in airflow direction: service door left, top outlet. The MUB-K2 fans are delivered to 90° air direction



MTV-1/010 Controller 0..10V

Speed controller with 0-10V input
- Combined flush or surface mounting

For the manual control of speed and air flow of electrical fans with 0-10V input. The jetproof IP 54 enclosure is achieved with the included surface mounting case. (Flush-mounting without the surface mounting case, gives a splash proof IP 44 enclosure also suitable for highly demand environments as bathrooms etc).



Accessories



FGV

SRKG

UGS

WSG

WSD

RTRD

REE

For Accessories see page 129

MUB, MUB-EC, MUB-K

Technical Data



Product Code	Airflow-Straight	Speed RPM	Airflow m ³ /sec @ Static Pressure Pa.					Motor Data		dBA @ 3m	Speed Control	
	Airflow 90°		100	200	300	400	500	FLC	kW		Elec	Trans
Single Phase Standard												
MUB 025 355E4-A2	Straight	1260	0.551	0.43	0.096	-	-	1.05	0.25	55	SC 1.5	RTRE 1.5
	90°		0.636	0.50	0.288							
MUB 042 400E4-A2	Straight	1360	0.96	0.85	0.65	0.20	-	2.2	0.373	49	SC 3.0	RTRE 3
	90°		0.89	0.77	0.62	0.35						
MUB 042 450E4-A2	Straight	1280	1.236	1.05	0.852	0.56	-	2.8	0.640	52	SC 5.0	RTRE 5
	90°		1.317	1.10	0.912	0.67	-					
MUB 042 499E4-A2	Straight	1320	1.50	1.306	1.09	0.85	0.482	4.95	1.10	48	N/A	RTRE 5
	90°		1.653	1.446	1.235	1.04	0.712					
MUB 042 500E4-A2	Straight	1340	1.73	1.57	1.38	1.16	0.83	4.80	1.080	56	REE100TR0	RTRE 7
	90°		1.958	1.748	1.54	1.32	1.107					
Kitchen Version Single Phase												
MUB 042 400E4-K2	90°	1370	0.97	0.83	0.64	0.35		5.1	0.75	49	N/A	RTRE 7
MUB 042 450E4-K2	90°	1430	1.52	1.37	0.98	0.69	0.56	5.3	0.75	52	N/A	RTRE 7
Three Phase Standard												
MUB 025 355DV-A2	Straight	1300	0.524	0.386	0.262	-	-	0.58	0.207	55		RTRD2
	90°		0.606	0.469	0.378	0.10	-					
MUB 042 400DV-A2	Straight	1340	0.906	0.771	0.59	0.09	-	0.7	0.305	49		RTRD2
	90°		1.01	0.84	0.605	0.125	-					
MUB 042 450DV-A2	Straight	1230	1.246	1.085	0.893	0.595	0.059	1.3	0.69	52		RTRD2
	90°		1.375	1.178	0.973	0.753	0.184					
MUB 042 499DV-A2	Straight	1200	1.408	1.216	0.998	0.694	0.199	1.8	0.9	48		RTRD2
	90°		1.548	1.316	1.084	0.812	0.453					
MUB 042 500DV-A2	Straight	1330	1.843	1.686	1.529	1.329	1.054	4.3	1.5*	56		RTRD7
	90°		1.983	1.779	1.585	1.415	1.219					
MUB 062 560DV-A2	Straight	1420	2.763	2.571	2.38	2.197	2.02	5.8	2.2*	57		RTRD7
	90°		3.048	2.8	2.51	2.28	2.048					
MUB 062 630DV-B2	Straight	1340	3.514	3.341	3.172	2.987	2.776	9.2	3.42	69		RTRD14
	90°		3.958	3.764	3.563	3.368	3.177					
MUB 062 630D4-A2	Straight	1400	3.781	3.632	3.48	3.312	3.129	9.5	4.0*	69		Inverter
	90°		4.316	4.137	3.961	3.772	3.584					
MUB 100 630D4-L	Straight	1435	5.420	5.246	5.000	4.827	4.598	9.5	5.5	75		Inverter
MUB 100 710D6-A2	Straight	954	4.136	3.776	3.413	3.055	3.000	5.16	2.46	60		RTRD7
Kitchen Version Three Phase												
MUB 042 400DV-K2	90°	1340	0.945	0.804	0.619	0.209	-	1.4	0.37	49		RTRD2
MUB 042 450DV-K2	90°	1230	1.372	1.163	0.965	0.749	-	2.5	0.75	52		RTRD4
MUB 042 500DV-K2	90°	1330	1.977	1.785	1.582	1.421	1.226	4.3	1.5	56		RTRD7
MUB 062 560DV-K2	90°	1400	3.037	2.808	2.529	2.265	2.046	5.8	2.2	57		RTRD7
MUB 062 630D4-K2	90°	1400	4.35	4.191	3.992	3.774	3.544	9.5	4.0	69		Inverter
EC Version Single Phase												
MUB 025 315EC-A2	Straight	1870	0.49	0.37	0.25	0.12	-	1.4	0.18	44		MTV-1/010
MUB 025 355EC-A2	Straight	1660	0.77	0.69	0.58	0.47	0.24	2.7	0.43	48		MTV-1/010
MUB 042 400EC-A2	Straight	1339	0.92	0.78	0.62	0.39	-	2.26	0.378	48		MTV-1/010
MUB 042 450EC-A2-K	Straight	1250	1.26	1.14	0.97	0.78	-	2.4	0.58	52		MTV-1/010
EC Version Three Phase												
MUB 042 450EC-A2	Straight	1560	1.74	1.53	1.42	1.32	1.11	1.95	1.17	56		MTV-1/010
MUB 042 500EC-A2	Straight	1340	1.78	1.66	1.46	1.25	1.07	2.18	1.1	56		MTV-1/010
MUB 062 560EC-A2	Straight	1360	2.78	2.63	2.39	2.17	1.95	3.1	2.0	57		MTV-1/010
MUB 062 630EC-A2	Straight	1210	3.5	3.2	2.9	2.7	2.5	3.9	2.56	67		MTV-1/010
* Power @ shaft												

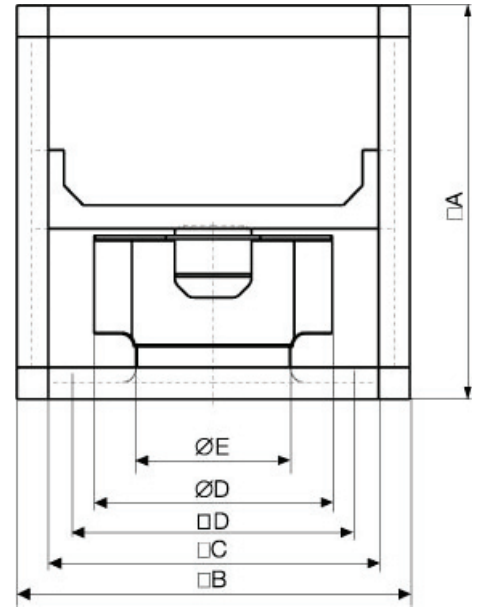
MUB, MUB-EC, MUB-K2

Dimensions



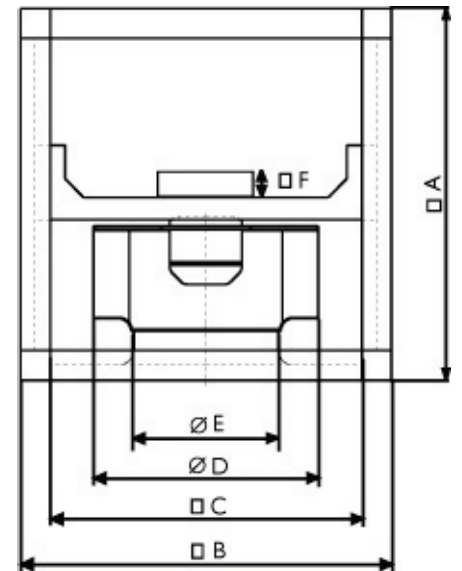
MUB	pA	pB	pC	pD	øD	øE	kg
025 355 -A2	500	500	420	378	355	224	37
042 400 -A2	670	670	590	548	404	253	58
042 450 -A2	670	670	590	548	454	286	54
042 499 -A2	670	670	590	548	504	321	66
042 500 -A2	670	670	590	548	504	321	68
062 560-A2	800	800	720	676	570	361	130
062 630-B2	800	800	720	678	635	407	145
062 630-A2	800	800	720	678	635	407	135
100 630D4-L	1000	1000	920	878	630	389	160
100 710-A2	1000	1000	920	878	710	389	160

Standard MUB



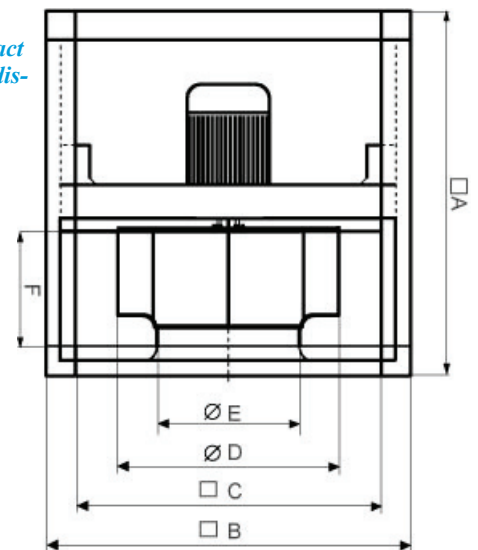
MUB-EC	pA	pB	pC	øD	øE	F	kg
025 315EC-A2	500	500	420	315	200	40	30
025 355EC-A2	500	500	420	355	224	40	37
042 400EC-A2	670	670	590	400	253	40	56
042 450EC-A2	670	670	590	454	286	70	60
042 450EC-A2-K	670	670	590	450	286	70	65
042 500EC-A2	670	670	590	504	321	70	80
062 560EC-A2	800	800	720	560	360	70	90
062 630EC-A2	800	800	720	630	407	70	95

EC MUB



MUB-K2	pA	pB	pC	øD	øE	F	kg
042 400 K2	670	670	548	404	253	300	59
042 450 K2	670	670	548	454	286	300	64
042 500 K2	670	670	548	504	321	300	70
062 560 K2	800	800	720	570	361	321	132
062 630 K2	800	800	720	635	407	321	137

Kitchen Extract MUB (side discharge only)



Accessories



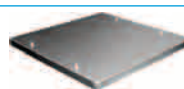
FGV



UGS



WSG



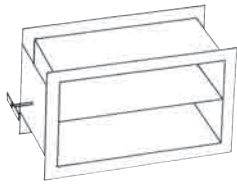
WSD



SRKG

For Accessories see page 141

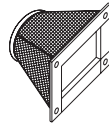
Accessories for MUB



SRKG

Shutter valve is a cut-off valve intended for use in ventilation systems. The valve is designed with a number of blades which close towards each other, mounted in an aluminium frame. The blades are manufactured from aluminium.

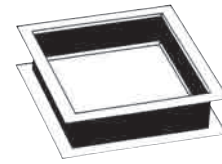
SRKG	A	B	c/c C	c/c D
025	378	378	398	398
042	548	548	568	568
062	678	678	698	698



UGS

Adaptor flexible square to circular. Reduction from square to round. The frame is manufactured from aluminium and neoprene coated fabric. For temperature up to 60°C. The circular side has a locking ring for easy installation to the duct system.

UGS	A/C	G/H	I	J
025/355	378	418	355	210
042/500	548	588	500	210
062/630	678	718	630	210



FGV

Flexible connection. Manufactured from aluminium with neoprene coated fabric. For temperature up to 60°C. On both sides there are holes for mounting to the duct system.

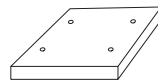
FGV	A	B	C	D
025/418-418	418	398	378	190
042/588-588	588	568	548	350
062/718-718	718	698	678	418



WSG

Weather protection guard. Manufactured from galvanised steel. The protection guard includes a protection grille.

WSG	A	B
025	418	418
042	585	585
062	715	715



WSD

Weather roof for Multiboxes. Made of seawater resistant aluminium. Edges are welded.

WSD	A	B	C
025	560	480	260
042	730	650	370
062	860	780	500
100	1060	980	700

NOTE

Heater Batteries:

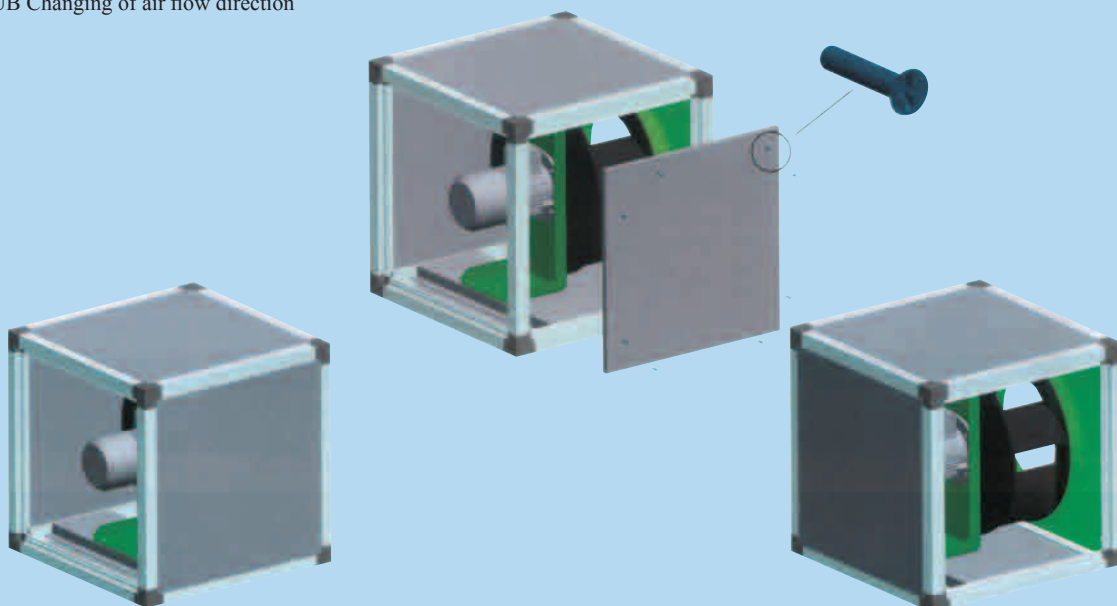
- | Electric
- | LPHW

Filters:

- | Panel
- | Bag

Also available for Multibox. please enquire.

MUB Changing of air flow direction



KBT/KBR

Kitchen extract centrifugal fans

by Systemair

- Duct mounted fan. KBT 160mm to 355mm.
KBR 200mm to 355mm
- Fan - single phase. 230V - 1Ph - 50Hz
- Fan - three phase. 400V - 3Ph - 50Hz
- Speed controllable
- Integral thermal contacts
- Double skin casing with 50mm acoustic lining
- Suitable for temperatures up to 120°C
- Hinged access door
- KBT - forward curved impeller
- KBR - backward curved impeller
- KBR/F - suitable for 400°C/120 min*

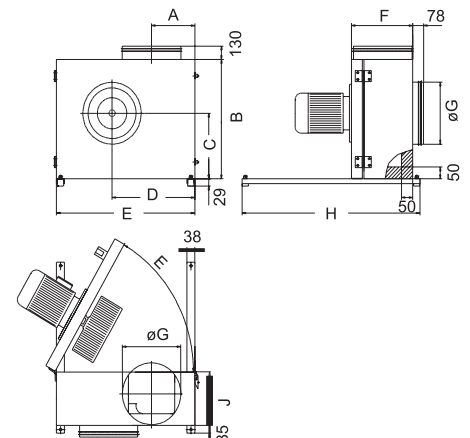


* A smoke extract option is available in sizes 280 - 355. suitable for 150°C continuous (400°C/120 min) please enquire.

Product Code	Voltage	Speed rpm	Airflow m ³ /sec @ Static Pressure Pa.					Motor Data			dBa @ 4m	Speed control Trans
			50	100	200	300	400	FLC	SC	kW		
KBT 160E4	230	1330	0.193	0.151	-	-	-	1.11	5.0	0.14	31	RTRE 1.5
KBT 160DV	400	1120	0.215	0.174	-	-	-	0.57	3.5	0.16	31	RTRD 2
KBT 180E4	230	1330	0.370	0.330	0.210	-	-	1.11	5.0	0.14	34	RTRE 1.5
KBT 200E4	230	1370	0.500	0.470	0.400	0.130	-	5.10	21.0	0.75	37	RTRE 7
KBT 200DV	400	1360	0.530	0.490	0.390	0.260	-	1.88	11.0	0.55	37	RTRD 2
KBT 225E4	230	1370	0.720	0.690	0.590	0.470	-	5.10	21.0	0.75	41	RTRE 7
KBT 225DV	400	1340	0.730	0.710	0.620	0.530	0.310	2.30	13.0	0.75	41	RTRD 4
KBT 250E4	230	1053	1.090	1.070	1.000	0.900	0.770	10.4	45.0	1.84	45	N/A
KBT 250DV	400	1340	1.080	1.030	0.930	0.810	0.650	4.30	26.0	1.5	45	RTRD 7
KBT 280DV	400	1330	1.380	1.350	1.300	1.230	1.150	5.80	35.0	2.2	48	RTRD 7
KBR 315DV	400	1360	0.570	0.530	0.440	0.300	0.100	1.39	8.5	0.37	36	RTRD 2
KBR 315DZ	400	2710	1.050	1.030	0.970	0.920	0.810	3.40	20.5	1.5	51	RTRD 4
KBR 355E4	230	1330	0.920	0.890	0.780	0.660	0.470	2.10	12.5	0.37	44	RTRE 3
KBR 355DV	400	1360	0.990	0.930	0.830	0.710	0.590	1.39	8.5	0.37	41	RTRD 2
KBR 355E4/K	230	1330	0.76	0.69	0.58	0.44	0.28	2.10	12.5	0.37	42	RTRE 3
KBR 355DV/K	400	1360	0.78	0.72	0.64	0.5	0.32	1.39	8.5	0.37	41	RTRD 2
KBR 355DZ	400	2600	1.94	1.92	1.86	1.75	1.73	6.50	37.0	3.0	54	RTRD 7
KBR 355DZ/K	400	2660	1.56	1.52	1.47	1.38	1.34	5.0	30.0	2.2	54	RTRD 7

KBT	A	B	C	D	E	F	øG	H	J	Weight kg
160	127.4	382	213	248	435	207	160	450	149	25
180	134.4	412	230	269	470	219	200	450	161	29
200	142.7	445	249	292	510	232	200	450	174	38
225	146.5	455	256	301	522	251	225	600	193	40
250	162	500	282	333	576	272	250	600	213	52
280	172	537	295	360	625	291	280	600	234	68

KBR	A	B	C	D	E	F	øG	H	J	Weight kg
315	187.5	600	339	398	690	307	315	800	249	82
355	206.7	655	372	451	770	331	355	800	273	100

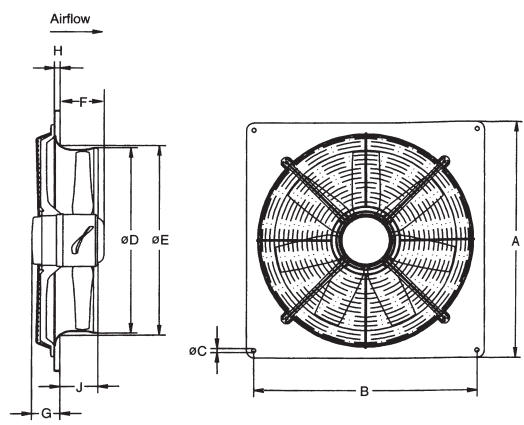


by Ziehl Abegg

- Sickle & aerofoil bladed fans. 200 mm to 710 mm
- Fan - single phase. 230 V. 1 Ph. 50 Hz
- Die cast aluminium impellers
- (AW type pressed steel blades)
- Insulation class 'F' IP54 (AW type IP44)
- Operating range -40°C to 70°C
- Thermal protection 'TK'
- Galv steel wall plate with bellmouth
- Corrosion resistant paint pebble grey (AW type black)
- Inlet guard
- IP54 terminal box
- Maintenance free. sealed for life bearings



Single Phase Product Code	Speed rpm	Airflow m ³ /sec @ Static Pressure Pa				Motor Data			dBA @ 3m	Speed Control	
		0 Pa	50 Pa	100 Pa	125 Pa	FLC	SC	kW		Elec	Trans
AW200-E2-K	2600	0.253	0.214	0.097	0.076	0.32	1.28	0.071	55	SC 1.5	RE 1.5
AW200-E4-K	1400	0.117	0.013	-	-	0.062	0.248	0.016	38	SC 1.5	RE 1.5
AW250-E2-K	2500	0.504	0.43	0.241	-	0.6	2.4	0.14	60	SC 1.5	RE 1.5
AW250-E4-K	1400	0.268	0.1	-	-	0.21	0.84	0.047	44	SC 1.5	RE 1.5
AW300-E2-K	2700	0.97	0.85	0.75	-	1.1	2.7	0.23	61	SC 1.5	RE 1.5
AW300-E4-K	1390	0.51	0.36	-	-	0.32	1.1	0.07	45	SC 1.5	RE 1.5
ZAP315-21	2650	1.056	0.985	0.92	0.881	2.1	6.0	0.47	61	N/A	RTRE 3
ZSP315-41	1400	0.611	0.5	-	-	0.59	1.5	0.13	46	SC 1.5	RTRE 1.5
ZAP315-61	880	0.375	-	-	-	0.37	0.7	0.07	40	SC 1.5	RTRE 1.5
ZSP350-41	1400	0.872	0.739	0.52	-	0.9	2.5	0.2	49	SC 1.5	RTRE 1.5
ZAP350-61	910	0.722	-	-	-	0.5	1.0	0.1	44	SC 1.5	RTRE 1.5
ZSP400-41	1320	1.306	1.143	0.888	0.626	1.35	2.9	0.31	51	SC 3.0	RTRE 3
ZAP400-61	940	0.986	-	-	-	0.6	1.4	0.13	48	SC 1.5	RTRE 1.5
ZSP450-41	1310	2.01	1.805	1.509	1.310	2.8	7.0	0.61	55	SC 3.0	RTRE 3
ZSP450-61	910	1.368	0.98	-	-	0.91	2.1	0.21	48	SC 1.5	RTRE 1.5
ZSP500-41	1210	2.517	2.248	1.876	1.610	3.4	5.0	0.77	53	SC 5.0	RTRE 5
ZSP500-61	890	1.787	1.354	-	-	1.25	2.4	0.29	47	SC 3.0	RTRE 1.5
ZAP560-41	1300	3.61	3.338	3.027	2.875	7.5	15.0	1.6	68	REE100	RTRE 7
ZAP560-61	880	2.474	1.923	-	-	1.95	4.6	0.43	55	SC 3.0	RTRE 3
ZAP630-61	880	3.345	2.77	-	-	2.7	5.3	0.6	59	SC 3.0	RTRE 3
ZAP630-81	650	2.472	-	-	-	1.45	3.1	0.32	55	SC 3.0	RTRE 3
ZAP710-61	850	4.573	3.91	-	-	4.1	8.0	0.89	61	SC 5.0	RTRE 5



ZAP/ZSP/AW

Plate mounted axial fans

by Ziehl Abegg

- Air operated louvre shutters available for all sizes. please quote VK size. e.g. VK400
- Motor side guards available



Three Phase Product Code	Speed rpm	Airflow m ³ /sec @ Static Pressure Pa				Motor Data			dBA @ 3m	Speed Control Trans
		0 Pa	50 Pa	100 Pa	125 Pa	FLC	SC	kW		
ZSP315-43	1410	0.611	0.504	-		0.29	1.0	0.12	46	RTRD2
ZAP315-63	900	0.368	-	-		0.14	0.45	0.05	40	RTRD2
ZSP350-43	1360	0.861	0.71	0.472		0.35	1.0	0.18	48	RTRD2
ZAP350-63	910	0.736	-	-		0.25	0.75	0.09	44	RTRD2
ZSP400-43*	1300	1.292	1.11	0.842	0.515	0.48	1.35	0.27	50	RTRD2
ZSP400-63*	970	1.057	0.716	-		0.29	0.78	0.18	46	RTRD2
ZSP450-43*	1340	2.042	1.867	1.577	1.400	1.15	3.7	0.61	56	RTRD2
ZSP450-63*	1000	1.663	1.318	-		0.72	1.25	0.41	50	RTRD2
ZSP500-43*	1340	2.694	2.46	2.164	1.976	1.35	4.7	0.78	56	RTRD2
ZSP500-63*	1000	2.173	1.75	-		0.94	1.6	0.55	49	RTRD2
ZAP560-43	1300	3.426	3.10	2.66	2.405	1.8	7.0	1.0	63	RTRD4
ZAP560-63	860	2.40	1.838	-		0.81	1.75	0.39	55	RTRD2
ZAP630-43	1360	5.22	4.85	4.49	4.270	3.2	14.0	1.9	70	RTRD4
ZAP630-63	880	3.39	2.826	-		1.5	3.6	0.7	60	RTRD2
ZAP630-83	630	2.472	-	-		0.65	2.0	0.31	55	RTRD2
ZAP710-43	1350	6.81	6.53	6.18	5.99	4.9	23.0	2.9	70	RTRD7
ZAP710-63	890	4.71	4.11	3.29		1.8	6.4	0.89	62	RTRD2
ZAP710-83	640	3.39	2.33	-		1.1	3.3	0.42	55	RTRD2
ZAP800-63	900	6.40	5.75	4.85	4.10	2.7	9.8	1.4	62	RTRD4
ZAP800-83	680	4.87	3.82	-		1.8	5.5	0.72	55	RTRD2
ZAP1000-63	935	13.89	13.33	12.71	12.35	10.5	67.0	5.5	78	Inverter
ZAP1000-83	670	9.60	8.72	7.62		4.2	13.0	2.2	66	RTRD7
ZAP1000-103	530	8.06	6.79	-		2.7	9.5	1.25	60	RTRD4

* 4 Pole fan with two speed motor. Pre-wired Delta for high speed (4 pole). Change to Star configuration for 6 pole speed.

Plate axial dimensions

Size	A	B	ØC	ØD	ØE	F	G	H	J	kg
200	312	260	7	203	215	46	73	6	46	2.7
250	370	320	7	257	265	49	73	6	49	3.9
300	430	380	9	324	330	62	78	11	62	5
315	430	380	9	320	328	84	81	11	70	6.1
350	485	435	9	367	372	97	87	12	75	7.2
400	540	490	9	412	420	104	87	12	88	10.2
450	575	535	11	463	480	143	75	14	96	15.1
500	655	615	11	517	528	141	77	16	104	19.2
560	725	675	11	568	589	160	62	16	119	25
630	805	750	11	643	670	175	66	20	130	32.5
710	850	810	14.5	720	763	242	66	20	150	43
800	970	910	14.5	807	870	202	51	20	150	38
1000	1170	1135	14.5	1009	1067	286	80	20	200	92

ZAC/ZSC/AR

Short cased axial fans

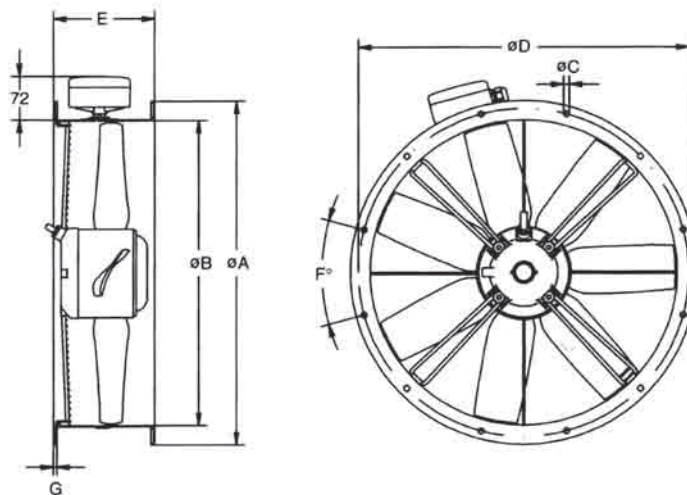
by Ziehl Abegg



- Sickle & aerofoil bladed fans. 200mm to 630mm
- Fan - single phase. 230V - 1Ph - 50Hz
- Die cast aluminium impellers (AR type Steel)
- Insulation class 'F' IP54 (AR type IP44)
- Operating range -40°C to 70°C
- Thermal protection 'TK'
- Galv steel casing with flanges
- Corrosion resistant paint ZAC/ZSC pebble Grey. (AR type Black)
- Inlet guard
- IP54 terminal box
- Maintenance free. sealed for life bearings



Single Phase Product Code	Speed rpm	Airflow m ³ /sec @ Static Pressure Pa				Motor Data			Weight Kg	dBA @ 3m	Speed Control	
		50 Pa	100 Pa	125 Pa	150 Pa	FLC	SC	kW			Elec	Trans
AR200-E2-K	2600	0.216	0.109	0.06		0.3	0.9	0.06	2.7	45	SC 1.5	RE 1.5
AR200-E4-K	1370	0.018	-	-		0.21	0.6	0.03	2.5	41	SC 1.5	RE 1.5
AR250-E2-K	2500	0.42	0.28	0.07		0.53	1.5	0.15	3.9	60	SC 1.5	RE 1.5
AR250-E4-K	1400	0.073	-	-		0.21	0.6	0.04	3.5	44	SC 1.5	RE 1.5
AR300-E2-K	2700	0.83	0.75	0.70	0.63	1.1	3.5	0.23	5.0	63	SC 1.5	RE 1.5
AR300-E4-K	1390	0.36	-	-		0.32	1.0	0.07	4.9	49	SC 1.5	RE 1.5
ZAC315-21	2650	0.985	0.92	0.881	0.84	2.1	6.0	0.47	10.2	61	N/A	RTRE 3
ZSC315-41	1400	0.5	-	-		0.59	1.5	0.13	6.5	46	SC 1.5	RTRE 1.5
ZSC350-41	1400	0.739	0.52	-		0.9	2.5	0.2	7.5	49	SC 1.5	RTRE 1.5
ZAC350-21	2800	1.336	1.264	1.225	1.180	4.45	12.0	1.05	7.4	72	N/A	N/A
ZSC400-41	1320	1.143	0.888	0.626		1.35	2.9	0.31	10.3	51	SC 3.0	RTRE 3
ZSC450-41	1310	1.805	1.509	1.31		2.8	5.0	0.61	15.8	55	SC 3.0	RTRE 3
ZSC450-61	910	0.98	-	-		0.91	2.1	0.21	14.0	48	SC 1.5	RTRE 1.5
ZSC500-41	1210	2.248	1.876	1.61		3.4	5.0	0.77	16.6	53	SC 5.0	RTRE 5
ZSC500-61	890	1.354	-	-		1.25	2.4	0.29	14.4	47	SC 1.5	RTRE 1.5
ZAC560-41	1300	3.338	3.027	2.875	2.680	7.5	15.0	1.6	25.0	68	N/A	RTRE 7
ZAC560-61	880	1.923	-	-		1.95	4.6	0.43	16.5	55	SC 3.0	RTRE 3
ZAC630-61	880	2.77	-	-		2.7	5.3	0.6	19.8	59	SC 3.0	RTRE 3



Matching Flange



Flexible Connection



Flange & Flex Combo



Mounting Feet



Anti-vibration mount



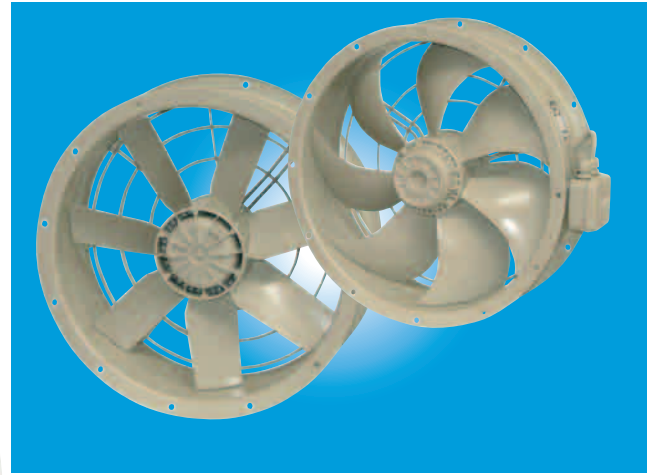
Silencer

ZAC/ZSC

Short cased axial fans

by Ziehl Abegg

- Sickle & aerofoil bladed fans 315mm to 1000mm
- Fan - three phase. 400V - 3Ph - 50Hz
- Diecast aluminium impellers
- Insulation class 'F' IP54
- Operating range -40°C to 70°C
- Thermal protection 'TK'
- Galv steel casing with flanges
- Corrosion resistant paint ZSC/ZAC pebble grey
- Inlet guard
- IP54 terminal box
- Maintenance free. sealed for life bearings



Three Phase Product Code	Speed	Airflow m ³ /sec @ Static Pressure Pa				Motor Data			dBA @ 3m	Speed Control Trans
	rpm	50 Pa	100 Pa	125 Pa	150 Pa	FLC	SC	kW		
ZAC315-23	2690	0.990	0.930	0.893	0.850	0.79	2.4	0.51	64	RTRD 2
ZSC315-43	1410	0.504	-	-	-	0.29	1.0	0.12	46	RTRD 2
ZAC350-23	2700	1.336	1.264	1.225	1.180	2.2	8.0	1.05	72	RTRD 4
ZSC350-43	1360	0.71	0.472	-	-	0.35	1.0	0.18	48	RTRD 2
ZAC400-23	2850	1.915	1.837	1.790	1.747	2.7	19.0	1.4	78	RTRD 4
ZSC400-43*	1300	1.11	0.842	0.515	-	0.48	1.35	0.27	50	RTRD 2
ZSC400-63*	970	0.716	-	-	-	0.29	0.78	0.18	46	RTRD 2
ZSC450-43*	1340	1.867	1.577	1.4	1.154	1.15	3.7	0.61	56	RTRD 2
ZSC450-63*	1000	1.318	-	-	-	0.72	1.25	0.41	50	RTRD 2
ZSC500-43*	1340	2.46	2.164	1.976	1.752	1.35	4.7	0.78	56	RTRD 2
ZSC500-63*	1000	1.75	-	-	-	0.94	1.6	0.55	49	RTRD 2
ZAC560-43	1300	3.1	2.66	2.405	2.08	1.8	7.0	1.0	63	RTRD 4
ZAC560-63	860	1.838	-	-	-	0.81	1.75	0.39	55	RTRD 2
ZAC630-43	1360	4.85	4.49	4.27	4.03	3.2	14.0	1.9	70	RTRD 4
ZAC630-63	880	2.826	-	-	-	1.5	3.6	0.7	60	RTRD 2
ZAC710-43	1350	6.53	6.18	5.99	5.77	4.9	23.0	2.9	70	RTRD 7
ZAC710-63	890	4.11	3.29	-	-	1.8	6.4	0.89	62	RTRD 2
ZAC800-63	900	5.75	4.85	4.1	-	2.7	9.8	1.4	62	RTRD 4
ZAC800-83	680	3.82	-	-	-	1.8	5.5	0.72	55	RTRD 2
ZAC1000-63	935	13.33	12.71	12.35	11.94	10.5	67.0	5.5	78	Inverter
ZAC1000-83	670	8.72	7.62	6.72	-	4.2	13.0	2.2	66	RTRD 7

* 4 Pole fan with two speed motor. Pre-wired Delta for high speed (4 pole).
Change to Star configuration for 6 pole speed.

Cased axial dimensions

Size	OA	OB	OC	OD	E	OF	G	kg
200	255	204	7	235	85	8	6	2.7
250	306	252	7	286	95	8	6	3.9
300	382	317	7	356	130	8	6	5
315	382	317	9.5	356	135	8	6	6.5
350	421	356	9.5	395	135	8	6	7.5
400	466	400	9.5	438	155	12	6	10.3
450	515	451	9.5	487	160	12	6	15.8
500	567	503	9.5	541	165	12	6	16.6
560	635	559	11.5	605	210	16	8	25
630	707	634	11.5	674	220	16	8	29
710	785	711	11.5	751	260	16	10	45
800	875	797	11.5	837	280	24	10	39
1000	1080	1001	11.5	1043	330	24	5	92

NOTE

Ancillary Packs available including:
 2x Mounting feet
 2x Flex conns
 2x Flanges
 4x Anti Vib Mounts
 4x Clips

Order Code:
 AR ("Size") PK
 e.g. AR 250 PK

Rotorex plate & cased axial fans

by Soler & Palau

Range of plate mounted & short cased axial fans manufactured from high grade galvanised steel and provided with a Sickle blade impeller.

The motor and fan impeller are supported within this mounting plate by strong electrowelded steel support frame. All models include a steel finger guard as standard mounted to the inlet side of the fan. The whole fan assembly is protected against corrosion by cataforesis primer and a polyester black paint finish (1).

Available, depending upon the model, with single or three phase motors in 2, 4, 6, 8 or 12 poles

All the motors are IP54, Class F insulation, equipped with thermal protection.

Electrical supplies:

Single phase 230V-50Hz. (Capacitor located inside the wiring terminal box).

Three phase 400V-50Hz. (250 model: 230/400V-50Hz).

All single phase models are speed controllable except 630 and 710 models.

All three phase models are speed controllable by Auto transformer.

Models from Ø800 to Ø1000 are speed controllable by inverter.



Rotorex Sickle Blade Plate Fan Single Phase

Product Code	Speed rpm	Airflow m ³ /sec @ Static Pressure Pa.						Motor Data		dBA @ 3m	Speed control	
		0	25	50	100	150	200	FLC	kW		Elec	Auto trans
HXBR/4-250	1450	0.25	0.2	0.1	-	-	-	0.21	0.04	45	REB-3	RMB-1.5
HXBR/4-315	1400	0.57	0.5	0.44	0.23	-	-	0.53	0.12	53	REB-3	RMB-1.5
HXBR/4-355	1400	0.825	0.74	0.68	0.49	0.21	-	0.55	0.12	59	REB-3	RMB-1.5
HXBR/4-400	1360	1.41	1.29	1.15	0.6	0.4	-	1.2	0.29	60	REB-3	RMB-1.5
HXBR/4-450	1370	2.12	2.0	1.85	1.42	0.55	-	2.00	0.38	64	REB-3	RMB-3
HXBR/4-500	1350	2.76	2.6	2.45	2.05	1.7	1.2	3.8	0.85	69	REB-5	RMB-5
HXBR/4-560	1300	3.46	3.25	3.08	2.75	2.4	1.5	6.00	1.3	70	REB-8	RMB-7
HXBR/4-630	1200	4.03	3.87	3.7	3.3	2.85	2.3	5.7	1.3	72	REB-8	RMB-7

Rotorex Sickle Blade Short Cased Axial Fan Single Phase

Product Code	Speed rpm	Airflow m ³ /sec @ Static Pressure Pa.						Motor Data		dBA @ 3m	Speed control	
		0	25	50	100	150	200	FLC	kW		Elec	Auto trans
TXBR/4-315	1400	0.57	0.5	0.44	0.23	-	-	0.53	0.12	53	REB-3	RMB-1.5
TXBR/4-355	1400	0.825	0.74	0.68	0.49	0.21	-	0.55	0.12	59	REB-3	RMB-1.5
TXBR/4-400	1360	1.41	1.29	1.15	0.6	0.4	-	1.2	0.29	60	REB-3	RMB-1.5
TXBR/4-450	1370	2.12	2.0	1.85	1.42	0.55	-	2.8	0.63	64	REB-5	RMB-5
TXBR/4-500	1350	2.76	2.6	2.45	2.05	1.7	1.2	3.8	0.85	69	REB-5	RMB-5
TXBR/4-560	1300	3.46	3.25	3.08	2.75	2.4	1.5	6.00	1.3	70	REB-7	RMB-7
TXBR/4-630	1200	4.03	3.87	3.7	3.3	2.85	2.3	5.7	1.3	72	REB-7	RMB-7

Compact plate & cased axial fans

by Elta

The Compact SCP is a slim profile plate mounted axial fan. The fan design, construction and finish provides a strong durable and weather proofed range. The Compact SCD is a short cased axial fan designed for duct mounting. The fan design, construction and finish provides a strong, durable and weather proofed range. The Compact fans boast highly efficient lightweight, yet robust motors with proven reliability, ensuring long life and trouble free operation, excellent all round performance and simple speed control

- 10 standard sizes from 250mm to 800mm. (SCP)
- 8 standard sizes from 250mm to 630mm. (SCD)
- Air volume flow rates of up to 4.75 m³/sec.
- Static pressures of up to 200 Pa.
- Highly efficient, lightweight induction motors.
- Fully speed controllable.
- Impellers are highly efficient aerofoil bladed section, produced from GRP, retained in an aluminium hub and balanced to Grade G6.3.
- Suitable for operating temperatures up to 70°C (50°C under speed control).
- Extensive stock range available.



SLC

Adjustable pitch long cased axial fans

by Elta

- Long cased axial fan. 315mm to 630mm
- Fan - single Phase. 240V - 1Ph - 50Hz (1-fixed 2-variable)
- Adjustable pitch aerofoil impellers
- IP55 motors
- Suitable for temperatures up to 54°C
- Tested to ISO5801
- Emergency smoke fan available. please enquire

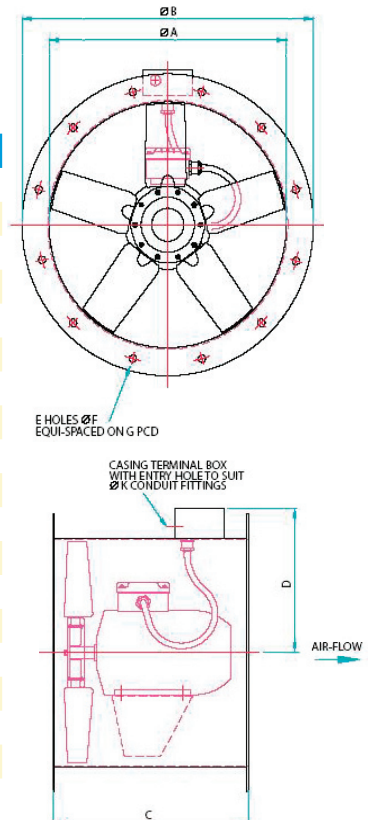


Single Phase

Product Code	Speed rpm	Airflow m3/sec @ Static Pressure Pa.						Motor Data			dBA @ 3m	Speed control	
		0	50	100	150	200	250	FLC	SC	kW		Elec	Auto trans
SLC315/4-2	1300	0.63	0.55	0.38	-	-	-	1.09	2.3	0.12	45	EL31	TC12
SLC315/2-1	2750	1.26	1.20	1.13	1.06	0.98	0.87	3.20	9.77	0.55	54		
SLC355/4-2	1300	0.85	0.76	0.63	-	-	-	1.51	3.69	0.18	48	EL31	TC12
SLC355/2-1	2820	1.42	1.39	1.36	1.32	1.30	1.26	6.30	20.0	1.1	64		
SLC400/4-2	1350	1.44	1.32	1.15	-	-	-	2.56	5.93	0.37	52	EL31	TC14
SLC400/2/1	2780	2.07	2.03	1.98	1.92	1.88	1.84	8.10	30.1	1.5	66		
SLC450/4-2A	1350	1.68	1.56	1.40	1.12	-	-	2.56	5.93	0.37	55	EL31	TC14
SLC450/4-2B	1350	2.07	1.89	1.67	1.38	-	-	3.7	11.9	0.55	55	EL61	TC18
SLC450/2-1	2780	3.03	2.93	2.84	2.73	2.62	2.51	8.10	30.1	1.5	68		
SLC500/4-2A	1350	1.81	1.70	1.57	1.36	1.00	-	2.56	5.93	0.37	58	EL31	TC14
SLC500/4-2B	1380	2.58	2.42	2.22	2.00	1.64	-	4.52	11.3	0.75	58	EL61	TC18
SLC560/4-2A	1380	2.90	2.78	2.62	2.42	2.10	-	4.52	11.3	0.75	59	EL61	TC18
SLC560/4-2B	1350	3.35	3.15	2.96	2.71	2.35	-	6.28	16.4	1.0	59	EL101	TC18
SLC630/6-1A	950	2.54	2.28	1.86	-	-	-	2.3	5.25	0.37	58		
SLC630/6-1B	950	3.31	2.95	2.48	-	-	-	3.92	9.75	0.55	58		
SLC630/4-2	1350	3.72	3.56	3.36	3.12	2.78	2.22	6.28	16.4	1.0	64	EL101	TC18

Dimensions

SLC	A	B	C	D	E	F	G	K	Weight/kg
315	315	375	300	225	8	10	355	20	17
355	350	425	375	245	8	10	395	20	26
400	400	475	400	265	8	12	450	20	31
450	450	530	375	290	8	12	500	20	30
450/2-3B	450	530	450	290	8	12	500	25	45
500	500	585	400	315	12	12	560	20	33
500/2-3	500	585	450	315	12	12	560	25	52
560	560	645	400	345	12	12	620	20	40
560/2-3	560	645	570	345	12	12	620	20	96
630	630	715	400	380	12	12	690	20	50
630/4-3B	630	715	450	380	12	12	690	20	58
710	710	795	450	420	16	12	770	20	70
800	800	885	450	465	16	12	860	25	75
900/4-3A	900	1000	570	515	16	15	970	25	135
900/4-3B	900	1000	710	515	16	15	970	32	183
1000/4-3A	1000	1110	590	565	16	15	1070	25	143
1000/4-3B	1000	1110	790	565	16	15	1070	32	222
1000/4-3C	1000	1110	790	565	16	15	1070	32	239



SLC

Adjustable pitch long cased axial fans

by Elta

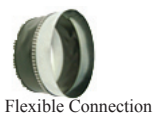


- Long cased axial fan. 315mm to 1000mm
- Fan - three phase. 400V. 3Ph. 50Hz (* 240V - 3Ph - 50Hz)
- Adjustable pitch aerofoil impellers
- IP55 motors
- Suitable for temperatures up to 54°C
- Tested to ISO5801
- Sizes up to 2000mm dia available
- Emergency smoke fan available. please enquire



Three Phase

Product Code	Speed rpm	Airflow m3/sec @ Static Pressure Pa.						Motor Data			dBA @ 3m	Speed control
		50	100	150	200	250	300	FLC	SC	kW		
SLC315/4-3	1365	0.58	0.46	-	-	-	-	0.44	1.94	0.12	46	TC33
SLC315/2-3	2780	0.93	0.91	0.88	0.84	0.82	0.78	1.40	8.54	0.55	61	EVFD/75
SLC355/4-3	1340	0.77	0.66	-	-	-	-	0.62	3.22	0.18	49	TC33
SLC355/2-3A	2800	1.45	1.42	1.38	1.34	1.31	1.26	2.5	17.9	1.1	64	EVFD/150
SLC355/2-3B	2840	1.89	1.85	1.82	1.77	1.73	1.68	4.8	33.6	2.2	63	EVFD/220
SCL400/4-3	1390	1.31	1.16	-	-	-	-	1.12	5.82	0.37	52	TC33
SLC400/2-3	2840	2.37	2.34	2.29	2.25	2.22	2.16	4.80	33.6	2.2	67	EVFD/220
SCL450/4-3A	1390	1.57	1.42	1.18	-	-	-	1.12	5.82	0.37	56	TC33
SLC450/4-3B	1365	1.88	1.70	1.43	-	-	-	1.57	9.42	0.55	56	TC33
SLC450/2-3A	2840	2.82	2.78	2.72	2.66	2.60	2.53	4.80	33.6	2.2	75	EVFD/220
SLC450/2-3B	2850	3.79	3.74	3.69	3.63	3.57	3.50	8.82	61.7	4.0	75	EVFD/400
SLC500/4-3A	1390	1.63	1.50	1.30	1.03	0.50	-	1.12	5.82	0.37	58	TC33
SLC500/4-3B	1370	2.41	2.23	2.00	1.62	-	-	2.0	11.4	0.75	58	EVFD/75
SLC500/4-3C	1380	2.83	2.60	2.32	-	-	-	2.90	15.4	1.1	58	TC33
SCL500/2-3A	2850	4.08	4.02	3.98	3.90	3.84	3.75	8.82	61.7	4.0	78	EVFD/400
SCL500/2-3B	2870	4.72	4.68	4.60	4.52	4.46	4.40	10.3	82.4	5.5	71	EVFD/550
SLC560/4-3A	1370	2.67	2.52	2.29	1.98	-	-	2.0	11.4	0.75	59	EVFD/75
SLC560/4-3B	1380	3.31	3.13	2.88	2.60	-	-	2.9	15.4	1.1	60	TC33
SLC560/4-3C	1390	3.85	3.60	3.32	2.94	-	-	3.7	20.4	1.5	60	TC35
SLC560/2-3	2900	6.63	6.51	6.37	6.30	6.18	6.05	13.6	92.5	7.5	75	EVFD/750
SLC630/6-3A	910	2.40	1.90	-	-	-	-	1.11	5.77	0.37	57	TC33
SLC630/6-3B	890	3.04	2.48	-	-	-	-	1.61	8.53	0.55	59	TC33
SLC630/4-3A	1380	3.52	3.32	3.08	2.76	2.32	-	2.50	15.4	1.1	64	TC33
SLC630/4-3B	1400	5.17	4.90	4.61	4.30	3.88	-	5.2	25.0	2.2	63	TC310
SLC710/4-3A	1405	6.82	6.52	6.18	5.82	5.38	4.76	6.78	47.5	3.0	70	EVFD/300
SLC800/4-3A	1420	8.08	7.82	7.54	7.22	6.87	6.48	8.82	61.7	4.0	77	EVFD/400
SLC900/4-3A	1470	11.78	11.47	11.16	10.78	10.39	10.0	14.2	114	7.5	81	EVFD//750
SLC900/4-3B	1470	14.39	14.04	13.76	13.38	13.02	12.60	21.0	126	11.0	79	EVFD/1100
SLC1000/4-3A	1470	12.86	12.50	12.19	11.80	11.42	10.96	14.2	114	7.5	83	EVFD/750
SLC1000/4-3B	1470	15.62	15.35	15.02	14.62	14.18	13.71	21.0	126	11.0	83	EVFD/1100
SLC1000/4-3C	1460	18.22	17.92	17.48	17.15	16.84	16.35	28.4	170	15.0	84	EVFD/1500



SCPP Contra rotating axial fan

by Elta

- 4 Standard size 450mm, 500mm, 560mm & 630mm dia
- Fan - single phase. 240V - 1Ph - 50Hz
- Fan - three phase. 380-415V - 3Ph - 50Hz
- Air volumes up to 4.3m³/s & Static Pressures up to 600Pa
- IP55 motors with Class F insulation
- Suitable for temperatures up to 70°C (50°C under speed control)
- Robust, heavy duty hot dipped galv steel casings
- Can be mounted inside or outside
- Designed for Kitchen Canopy use



Product Code	Voltage	Airflow m ³ /s @ static pressure Pa								Motor Data			dBA @ 3m	Speed Control	
		100	200	300	350	400	500	600	FLC	SC	KW	Elec		Trans	
SCPP450/4-1	230-1-50	1.67	1.51	1.27	1.13	-	-	-	6.0	18	0.74	58	EL61-TK	TC18	
SCPP500/4-1	230-1-50	2.24	2.09	1.91	1.77	1.61	-	-	7.2	21.6	1.1	62	EL101	TC18	
SCPP560/4-1	230-1-50	3.01	2.80	2.51	2.32	2.05	1.30	-	9.8	30	1.5	66	-	TC110	
SCPP630/4-1	230-1-50	4.06	3.81	3.49	3.28	3.01	2.30	1.45	15.8	39.6	2.2	70	-	-	

JM Aerofoil Long cased axial fan

by Flaktwoods

- Size 315mm - 1600mm dia
- Fan - single phase. 240V - 1Ph - 50Hz
- Fan - three phase. 380-415V - 3Ph - 50Hz
- Air volumes up to 65.0m³/s & Static Pressures up to 1900Pa
- 800mm up to 2900rpm; 1400mm up to 1450rpm; 1600mm up to 960rpm
- IP55 motors
- Fully adjustable die cast aluminium impeller; X-ray inspection
- Suitable for temperatures up to 70°C (50°C under speed control)
- Long & short mild steel casing variants - hot dipped galv or Stainless Steel
- Multi-stage available for higher pressure development
- Bifurcated variants for continuous operation up to 200°C
- Explosion proof options in accordance with ATEX directive



AXCBF - Bifurcated axial fan AXC - Long cased axial fan

by Systemair

- Size 315mm - 2000mm dia (800mm max size for Bifurcated option)
- Fan - single phase. 240V - 1Ph - 50Hz
- Fan - three phase. 380-415V - 3Ph - 50Hz
- Air volumes up to 69.0m³/s & Static Pressures up to 1400Pa
- IP55 motors, Class F Insulation
- Aerofoil Aluminium impeller with adjustable pitch
- AXC Suitable for temperatures up to 55°C
- Hot dipped galvanized steel casing, to DIN EN ISO 1461
- Multi-stage available for higher pressure development
- AXCBF Bifurcated variants for continuous operation up to 200°C
- Explosion proof options in accordance with ATEX directive
- Smoke extract available 300°C, 400°C & 600°C for 120 mins

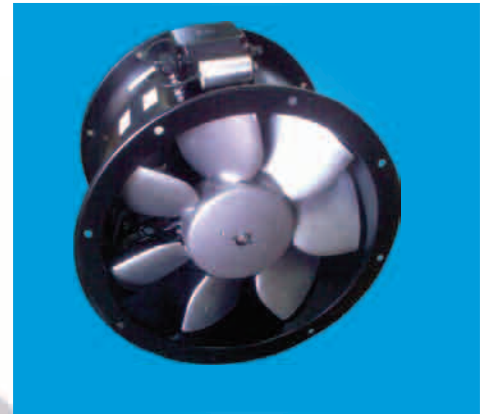


TCBBx2 / TCBTx2

Contra rotating axial fan (formally badged as Turboprop)

by Soler & Palau

- Contra rotating system with two fans and two complementary impellers allowing the duplication of the pressure with the same air volume.
- Rolled steel casings and motor support protected by cataforesis primer and black polyester paint finish. Stainless steel screws
- Impellers are dynamically balanced, according to ISO 1940 standard, giving vibration free operation
- All the motors are IP65, Class F insulation (1), equipped with thermal protection.
- All motors are speed controllable (by voltage). Three phase motors suitable for inverter control.
- Ideal for Kitchen Extract Canopies



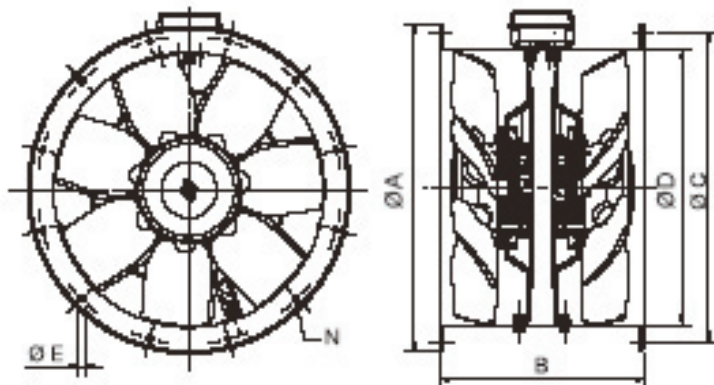
Range of cylindrical cased axial fans fitted with aluminium impellers and manufactured from high grade rolled galvanised steel and protected against corrosion by cataforesis primer and black polyester paint finish.

Fitted with 2 contra-rotating complementary impellers manufactured from die-cast aluminium.

All models are supplied with pre-wired wiring junction box located on the outside of the fan casing for easy wiring access.

Available with single or three phase 4 poles motors.

Product Code	Voltage	Airflow m ³ /s @ static pressure Pa							Motor Data			dBa @ 3m	Speed Control	
		100	150	200	300	400	500	600	FLC	SC	KW		Elec	Trans
TCBBx2/4-450	230-1-50	1.74	1.67	1.6	1.43	1.19	-	-	5.4	21.6	1.24	74	REB-6	RTRE 7
TCBBx2/4-500	230-1-50	2.33	2.25	2.14	1.85	1.47	-	-	7.3	28.0	1.7	76	REB-8	RTRE 7
TCBBx2/4-560	230-1-50	3.67	3.57	3.45	3.19	2.89	2.56	-	15.5	56.0	3.25	78	N/A	N/A
TCBBx2/4-630	230-1-50	4.5	4.35	4.19	3.8	3.29	2.66	1.79	19.0	76.0	3.0	79	N/A	N/A
TCBTx2/4-450	400-3-50	1.73	1.68	1.62	1.47	1.2	-	-	3.4	20.4	1.25	74	-	RMT-5
TCBTx2/4-500	400-3-50	2.38	2.31	2.23	2.04	1.8	-	-	3.6	21.6	1.75	76	-	RMT-7
TCBTx2/4-560	400-3-50	3.63	3.54	3.44	3.2	2.9	2.66	-	5.8	34.8	3.12	78	-	Inv
TCBTx2/4-630	400-3-50	4.7	4.58	4.48	4.2	3.9	3.68	3.33	8.0	48.0	4.2	79	-	Inv



Dimensions

REF	A	B	C	D	E	N	Weight/kg
TCBBx2 450	537	375	500	450	12	8	36
TCBBx2 500	595	375	560	500	12	12	38
TCBBx2 560	655	520	620	560	12	12	56
TCBBx2 630	725	520	690	630	12	12	63

SB Bifurcated axial fans

by Elta

The Biflow SB is a quality range of bifurcated axial fans with a cylindrical casing, specially developed for handling more hostile air movement applications. Biflow SB is designed so that air throughput totally by-passes the motor, keeping the motor out of the airstream in a cooler environment

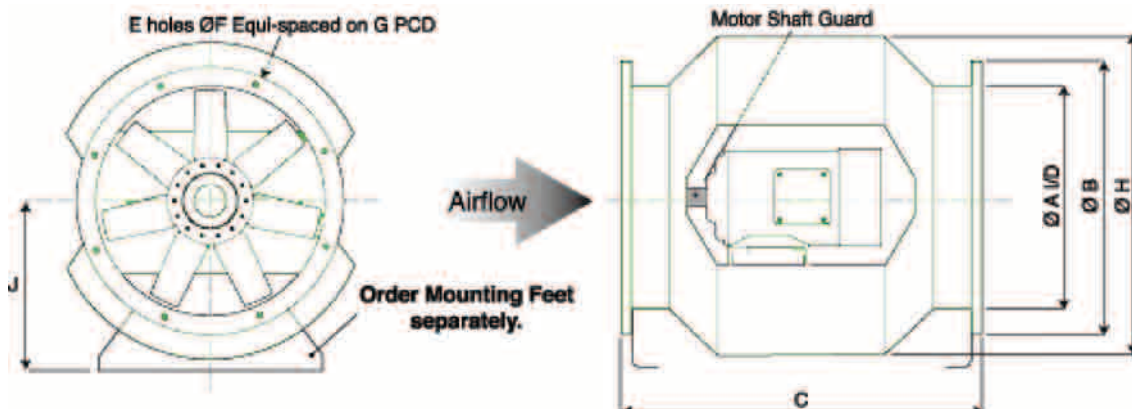
- Biflow axial fan. 250mm to 630mm dia
- Fan - single phase. 240V - 1Ph - 50Hz
- Fan - three phase. 380-415V - 3Ph - 50Hz
- Adjustable pitch aerofoil impellers to BS1490
- IP54 motor
- Suitable for temperatures up to 150°C
- Tested to ISO5801
- Available in sizes up to 2 metres
- Extra high temp/emergency duty please enquire



Product Code	Speed rpm	Airflow m ³ /sec @ Static Pressure Pa.						Motor Data			dBA @ 3m
		50	75	100	150	200	250	FLC	SC	kW	
SB250-CON4-1	1450	0.15	0.03	-	-	-	-	1.13	3.73	0.12	48
SB315-CON4-1	1370	0.43	0.38	0.23	-	-	-	1.13	3.73	0.12	51
SB250-CON4-3	1370	0.14	0.04	-	-	-	-	0.48	2.40	0.12	48
SB250-CON2-3	2780	0.5	0.47	0.44	0.36	0.28	0.2	0.68	3.06	0.25	61
SB315-CON4-3	1370	0.43	0.37	0.25	-	-	-	0.48	2.40	0.12	51
SB315-CON2-3	2800	0.91	0.9	0.88	0.84	0.8	0.76	1.18	6.14	0.55	64
SB400-CYL4-3	1400	0.89	0.82	0.7	-	-	-	0.69	3.8	0.25	55
SB400-CON2-3	2840	2.05	2.02	2.00	1.96	1.92	1.86	4.56	27.4	2.2	70
SB500-CYL4-3	1415	2.14	2.04	1.92	1.52	-	-	1.67	10.9	0.75	62
SB500-CON2-3	2900	3.76	3.73	3.71	3.66	3.6	3.54	7.55	57.4	4.0	80
SB630-CYL4-3	1410	4.27	4.16	4.04	3.76	3.44	-	4.54	30.9	2.2	70

Dimensions

SB	A	B	C	E	F	G	H	I	kg
250	250	325	460	8	10	299	400	220	23
315	315	380	500	8	10	355	460	250	31
400-CYL	400	475	450	8	12	450	N/A	250	29
400-CON	400	485	650	8	12	450	570	305	49
500-CYL	500	585	450	12	12	560	N/A	315	47
500-CON	500	585	710	12	12	560	700	370	86
630	630	715	570	12	12	690	N/A	400	78



TFSK

Roof mounted centrifugal fan

by Systemair

- Backward curved fan. 125mm to 315mm
- Fan - single phase. 230V - 1Ph - 50Hz
- 100% speed controllable
- Maintenance free and reliable
- Integral thermal contacts
- Available in black & brick red
- Supplied with cable & plug
- Backward curved impeller with external rotor motor

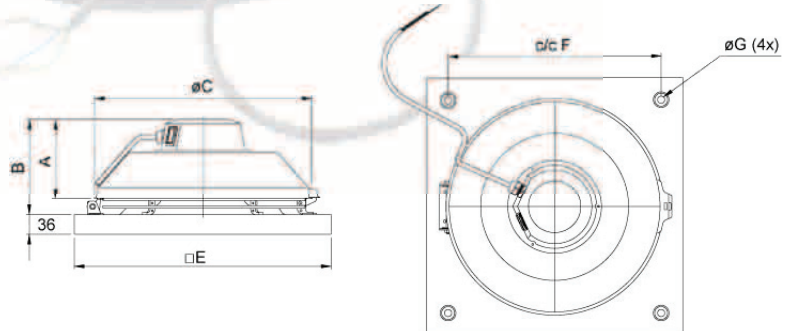
The TFSK range consists of roof fans with square connection and are fitted with a single-inlet centrifugal fan with backward-curved blades and external rotor motors. The motors can be tilted outwards to facilitate inspection and service. They have integral on/off switch and are supplied with 1 m cable and are easy connected to our standard roof curbs TG, FDS and SSD.

These fans are suitable for exhaust-air ventilation systems, e.g. single and multiple dwellings, offices and day nurseries. To protect the motors from overheating, all motors have an integral thermal contact with automatic reset. The fans are manufactured in powder-coated, galvanized sheet steel and are delivered in the standard colours of black or brick red.



Product Code	Speed rpm	Airflow m ³ /sec @ Static Pressure Pa.					Motor Data			dBA @	Speed control	
		50	100	150	200	300	FLC	SC	kW	4m	Elec	Trans
TFSK 125M	1965	0.037	0.022	-	-	-	0.13	0.5	0.025	31	SC1.5	RE1.5
TFSK 125XL	2530	0.074	0.063	0.049	0.035	0.001	0.26	0.7	0.054	41	SC1.5	RE1.5
TFSK 160	2461	0.095	0.081	0.067	0.052	0.011	0.26	0.7	0.058	44	SC1.5	RE1.5
TFSK 200	2537	0.160	0.145	0.126	0.110	0.069	0.47	1.25	0.108	48	SC1.5	RE1.5
TFSK 315M	2575	0.290	0.270	0.250	0.220	0.170	0.90	2.3	0.207	51	SC1.5	RE1.5
TFSK 315L	2341	0.350	0.330	0.300	0.270	0.230	1.35	3.5	0.307	55	SC3.0	RE1.5

TFSK	A	B	øC	E	c/c F	øG	Weight
125M	119	144	284	321	245	9	2.5
125XL	119	144	284	321	245	9	2.5
160	120	145	334	421	330	9	3.3
200	123	160	364	421	330	9	4.2
315M/L	160	206	404	521	450	11	7



TFSR Roof Fans

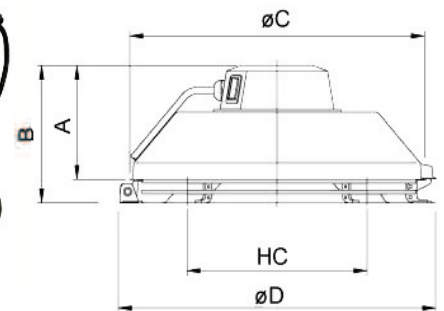
by Systemair

- Swing-out Access to Motor & Impeller
- Speed-controllable
- Easy to install
- Full range of accessories

The TFSR range consists of roof fans with circular connection and are fitted with a single-inlet centrifugal fan with backward-curved blades and external rotor motors. The motors can be tilted outwards to facilitate inspection and service. They have integral on/off switch and are supplied with 1 m cable for fast connection to the mains e.g. via the connection box on the roof curb TOB or TOS.

These fans are suitable for exhaust-air ventilation systems, e.g. single and multiple dwellings, offices and day nurseries. To protect the motors from overheating, all motors have an integral thermal contact with automatic reset. The fans are manufactured in powder-coated, galvanized sheet steel and are delivered in the standard colours of black or brick red.

TFSR is delivered with a spigot connection if the installation requires direct duct connection. TFSR 125-160 are delivered with a Ø 160 spigot and TFSR 200-315 with a Ø 200. The spigot is not pre-assembled to the fan.



TFSR	A	B	øC	øD	HC	Weight
125M/XL	119	144	284	315	205	2.5
160	120	145	334	380	205	3.3
200	123	160	364	439	250	4.2
315M/L	160	206	404	485	250	7

RA/RAW

Roof mounted axial fans

- Cowl & base complete with axial fan. 200mm to 1000mm
- Fan - single phase. 230V - 1Ph - 50Hz
- Fan - three phase. 400V - 3Ph - 50Hz
- Glass fibre cowl & base (choice of designs)
- Colour RAL7035 (others available)
- Complete with plate mounted axial fan (supplied loose)
- Can be wired in reverse for input air. performance reduced by up to 30%
- Vertical discharge cowls available



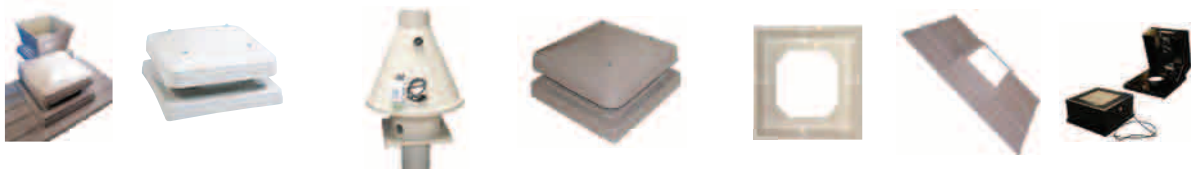
Single Phase

Product Code	Speed rpm	Airflow m ³ /sec @ Static Pressure Pa			Motor Data			dBA @ 3m	Curb Size Ext/Int Sq	Speed control	
		0Pa	50Pa	100Pa	FLC	SC	kW			Elec	Trans
RA200-21	2600	0.22	0.18	0.08	0.32	1.28	0.071	56	425/325	SC1.5	RE1.5
RA200-41	1400	0.11	0.03	-	0.062	0.248	0.016	39	425/325	SC1.5	RE1.5
RA250-21	2500	0.44	0.38	0.21	0.6	2.4	0.14	61	425/325	SC1.5	RE1.5
RA250-41	1400	0.22	0.14	-	0.21	0.6	0.04	47	425/325	SC1.5	RE1.5
RA300-21	2700	0.87	0.75	0.65	1.1	2.7	0.23	62	485/385	SC1.5	RE1.5
RA300-41	1390	0.5	0.38	-	0.32	1.1	0.07	48	485/385	SC1.5	RE1.5
RA315-41	1400	0.55	0.43	-	0.59	1.5	0.13	49	485/385	SC1.5	RTRE1.5
RA350-41	1400	0.74	0.62	0.50	0.9	2.5	0.2	52	625/425	SC1.5	RTRE1.5
RA400-41	1320	1.06	0.88	0.71	1.35	2.9	0.31	54	725/525	SC3.0	RTRE3
RA450-41	1310	1.42	1.25	1.04	2.8	7.0	0.61	58	725/550	SC5.0	RTRE3
RA500-41	1210	1.97	1.71	1.48	3.4	7.4	0.77	56	885/685	SC5.0	RTRE5
RA560-41	1300	2.31	2.10	1.53	6.5	15.0	1.6	71	885/685	-	RTRE7
RA630-61	880	2.57	1.94	-	1.95	4.6	0.43	62	985/785	SC3.0	RTRE3
RA710-61	880	2.95	2.30	-	2.7	5.3	0.6	64	985/785	SC3.0	RTRE5

Three Phase

Product Code	Speed rpm	Airflow m ³ /sec @ Static Pressure Pa.			Motor Data			dBA @ 3m	Curb size Ext/Int Sq	Speed control	
		0Pa	50Pa	100Pa	FLC	SC	kW			Trans	
RA315-43	1410	0.55	0.44	0.34	0.29	1.0	0.12	52	485/385	RTRD2	
RA350-43	1360	0.70	0.59	0.48	0.35	1.0	0.18	54	625/425	RTRD2	
RA400-43*	1300	1.03	0.83	0.67	0.48	1.4	0.27	57	725/525	RTRD2	
RA450-43*	1340	1.41	1.25	1.10	1.15	3.7	0.61	62	725/550	RTRD2	
RA500-43*	1340	2.05	1.82	1.60	1.35	4.7	0.78	62	885/685	RTRD2	
RA560-43	1300	2.30	2.02	1.50	1.8	7.0	1.0	66	885/685	RTRD4	
RA630-43	1360	3.71	3.47	3.10	3.2	14.0	1.9	73	985/785	RTRD4	
RA630-63	880	2.57	1.92	-	1.5	3.6	0.7	63	985/785	RTRD2	
RA710-43	1350	5.88	5.55	5.18	4.9	23.0	2.9	75	985/785	RTRD7	
RA710-63	890	3.03	2.35	1.58	1.8	6.4	0.89	65	985/785	RTRD2	
RA800-63	900	4.69	4.20	3.50	2.7	9.8	1.4	65	1100/900	RTRD4	
RA800-83	680	3.59	2.91	-	1.8	5.5	0.72	58	1100/900	RTRD2	
RA1000-63	935	11.10	10.51	9.70	10.5	67.0	5.5	81	1300/1100	INV	
RA1000-83	670	7.25	6.30	4.31	4.2	13.0	2.2	69	1300/1100	RTRD7	
RA1000-103	530	5.20	3.80	-	2.7	9.5	1.25	65	1300/1100	RTRD4	

*4 Pole fan with two speed motor. Pre-wired Delta for high speed (4 pole). Change to Star configuration for 6 pole speed.



RA Roof Cowl Dimensions

RA horizontal discharge roof cowls from Systemair are manufactured from glass reinforced plastic, with an ultra violet stabiliser and are precision moulded to provide a durable unit for the severest weather conditions without deterioration of finish.

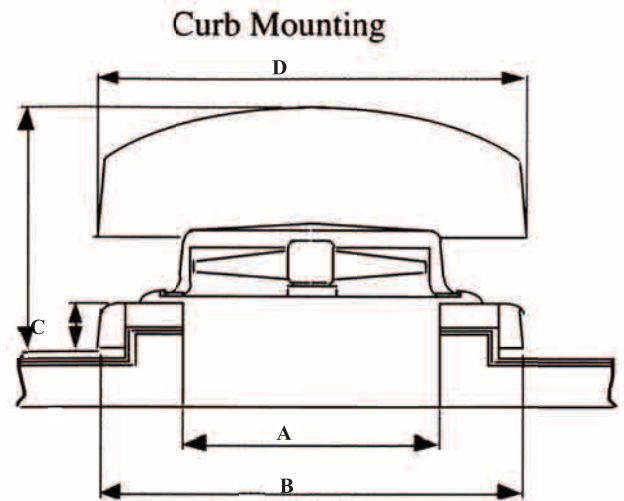
The standard colour finish is RAL 7035, but any B.S. or RAL colour can be provided if required.

A full range of ancillary items are available, including: bird guards, back draught shutters, purlin boxes and soaker sheets. RA roof fans are suitable for extract and supply air.

* Weight of RA shown in the chart includes an AW1 plate fan.



Model ref.	A sq.	B sq.	C	D sq.	E	Weight kg*
RA200	325	450	90	490	310	18
RA250	325	450	90	490	310	18
RA300	400	510	90	555	340	20
RA315	400	510	90	555	340	20
RA350	400	650	90	675	380	22
RA400	500	750	90	765	460	26
RA450	550	750	90	765	460	29
RA500	650	910	120	995	550	44
RA560	650	910	120	995	550	47
RA630	790	1010	120	1115	650	70
RA710	790	1010	120	1115	650	73
RA800	900	1165	100	1410	750	65
RA1000	1100	1360	80	1650	750	100 - 140



- * Bird guard fitted as standard
- * Air operated shutter available - Ref BDS("size of cowl")

See page 130 for RAL colour chart options

Other Roof Cowls available (Coloured / Metal - please enquire)

Coloured Cowls to any RAL or BS colour



LGV - Vertical Discharge
LGH - Low Profile Discharge
Metal Roof Cowls available
Sizes 225 - 900



EFS-RCK 5-in-1 Roof Cowl
with flashing. Cut off Spigot
(100mm, 110mm, 125mm,
150mm & 160mm Dia)



Metal Roof Cowls complete
with flashing and duct connector
(Sizes 125mm - 400mm Dia)
Brick Red or Slate Grey Colour
Options

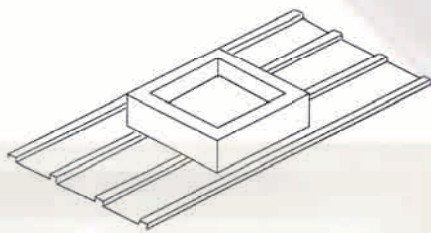
RA

Resistance / Pressure drop through cowl



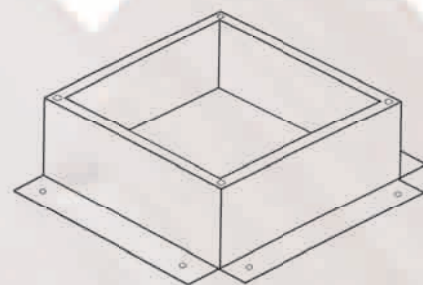
Air volume m³/s against resistance Pa

Resistance through Cowl Only																															
Air Volume (m ³ /s)	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.2	1.4	1.5	1.6	1.8	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0				
RA200/250 Intake	4	16	36	64																											
RA200/250 Discharge	3	12	27	48																											
RA300/315 Intake	2	6	13	23	36	52																									
RA300/315 Discharge	1	4	10	17	27	39																									
RA350 Intake	1	5	10	18	28	39	52	65	106																						
RA350 Discharge	1	4	7	14	20	28	38	60	90																						
RA400/450 Intake		2	5	8	11	16	21	28	43	63	86	98																			
RA400/450 Discharge		1	3	6	8	12	16	21	33	47	64	73																			
RA500/560 Intake					5	7	9	11	18	27	37	42	46	60	74																
RA500/560 Discharge					3	5	6	8	13	20	27	31	36	45	65																
RA630/710 Intake									8	10	14	17	18	23	29	45	64	88	114												
RA630/710 Discharge									6	8	10	12	14	17	21	32	48	64	87												
RA800 Intake									4	6	8	10	11	13	18	27	36	50	66	84	104										
RA800 Discharge									2	4	6	7	8	10	12	20	28	38	50	63	78										
RA1000 Intake																3	4	6	8	11	16	21	27	34	41	50	60	70	82	94	106
RA1000 Discharge																2	3	4	6	8	11	16	20	26	31	38	45	53	62	70	79



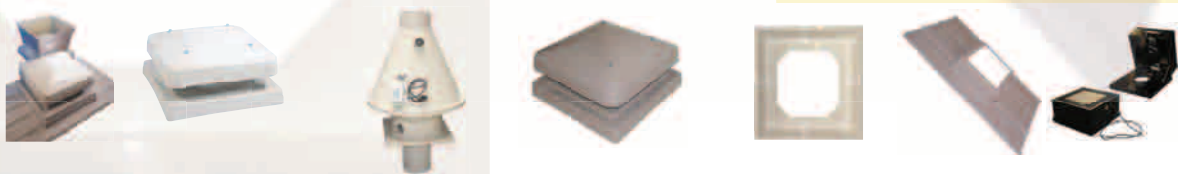
Soaker sheet detail (profile required)

Unit ref	A square	B Upstand	C length
SKR200/250	450	150	1800
SKR300/315	515	150	1800
SKR350	650	150	1800
SKR400/450	750	150	1800
SKR500/560	890	150	1800
SKR630/710	1000	150	1800
SKR800	1130	150	1800
SKR1000	1365	150	1800



Upstand detail

Unit ref	A' External	B' Internal
200/250	425	325
300/315	500	400
350	600	400
400/450	700	500
500/560	850	650
630/710	990	790
800	1100	900
1000	1300	1100



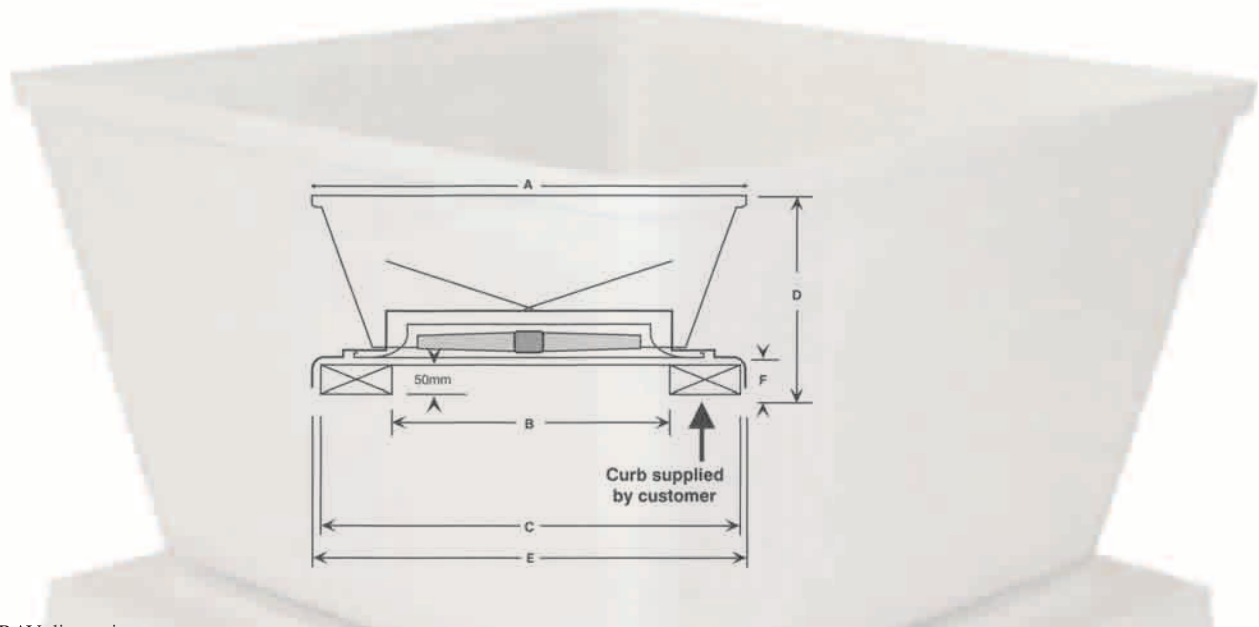
RV

Vertical discharge roof axial fan

RV vertical discharge roof cowls from Systemair are manufactured from glass reinforced plastic, with an ultra violet-stabiliser and are precision moulded to provide a durable unit for the severest weather conditions without deterioration of finish. The standard colour finish is RAL 7035, but any B.S. or RAL colour can be provided if required. The fan comes complete with back draught shutters as standard.

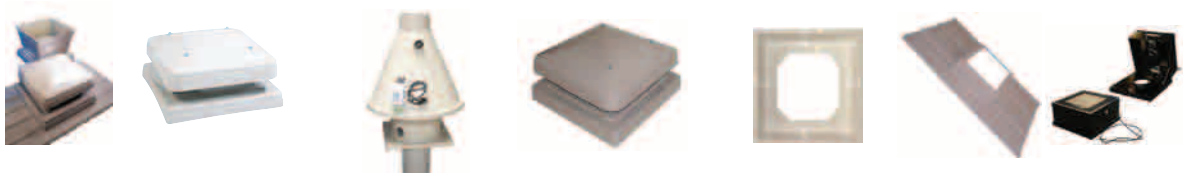


Product Code	Speed rpm	Airflow m ³ /s @ Static Pressure Pa			Motor Data			dBA @ 3m	Speed Control	
		0pa	50pa	100pa	FLC	SC	kW		Elec	Trans
RV315-4	1400	0.55	0.42	-	0.59	1.5	0.13	49	SC1.5	RTRE1.5
RV350-4	1400	0.75	0.62	-	0.9	2.5	0.2	52	SC1.5	RTRE1.5
RV400-4	1320	1.22	1.0	-	1.35	2.9	0.31	54	SC3	RTRE3
RV450-4	1310	1.65	1.47	1.21	2.8	7.0	0.61	58	SC5	RTRE3
RV500-4	1210	2.4	2.13	1.76	3.4	7.4	0.77	56	SC5	RTRE5
RV560-4	1300	2.97	2.58	2.17	6.5	15	1.6	71	-	RTRE7
RV630-6	880	3.0	2.35	-	2.7	5.3	0.6	62	SC5	RTRE3
RV710-6	850	3.6	3.0	1.6	4.1	8.0	0.89	64	SC5	RTRE5



RAV dimensions

Model	A sq.	B sq.	C sq.	D	E sq.	F	Weight kg
RAV315	690	400	485	475	510	100	20
RAV350	690	400	600	475	650	100	22
RAV400	790	510	725	585	750	100	26
RAV450	790	510	725	585	750	100	29
RAV500	950	620	885	700	910	110	44
RAV560	950	620	885	700	910	110	47
RAV630	1030	780	950	800	1010	110	73
RAV710	1030	780	950	800	1010	110	80



RC Roof mounted centrifugal fans

by Systemair

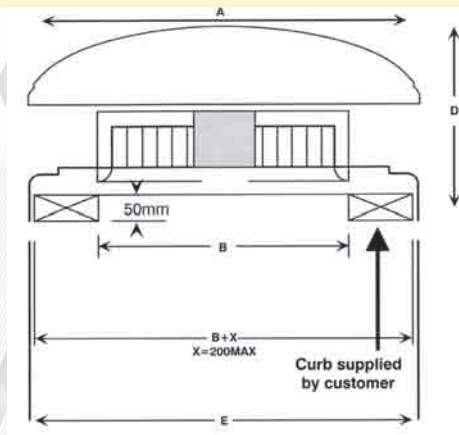
- Fibreglass cowl & base complete with centrifugal fan. 315mm to 560mm
- Fan - single phase. 230V - 1Ph - 50Hz
- Fan - three Phase. 400V - 3Ph - 50Hz
- Glass fibre cowl & base
- Colour RAL7035 (others available)
- Bird guard fitted as standard
- Backward curved impeller with external rotor motor



Product Code	Speed rpm	Airflow m ³ /sec @ Static Pressure Pa.				Motor Data			dBA @ 3m	Curb Size		Speed control	
		0Pa	100Pa	200Pa	300Pa	FLC	SC	kW		Ext/Int Sq	Elec	Trans	
RC200-12	2500	0.16	0.12	0.07	0.01	0.26	0.7	0.061	53	425/325	SC1.5	RTR1.5	
RC250-12	2600	0.40	0.35	0.29	0.22	0.70	2.1	0.175	65	425/325	SC1.5	RTR1.5	
RC315-41	1340	0.50	0.39	0.25	-	0.47	1.5	0.13	57	510/410	SC1.5	RTR1.5	
RC355-41	1400	0.77	0.70	0.55	0.33	1.35	3.7	0.31	57	650/450	SC3.0	RTR1.5	
RC355-43	1300	0.76	0.62	0.48	0.28	0.6	3.0	0.26	56	650/450	-	RTRD2	
RC400-41	1350	1.16	1.03	0.88	0.67	2.2	5.0	0.50	56	750/550	SC3.0	RTR3	
RC400-43	1350	1.04	0.94	0.81	0.59	0.8	4.0	0.44	52	750/550	-	RTRD2	
RC450-41	1360	1.50	1.33	1.20	0.94	3.2	7.0	0.74	62	750/550	SC5.0	RTR5	
RC450-43	1210	1.52	1.39	1.21	0.90	1.4	8.0	0.72	52	750/550	-	RTRD2	
RC500-41	1390	2.11	2.00	1.80	1.60	5.7	15.0	1.30	62	890/690	-	RTR7	
RC500-43	1420	2.30	2.14	1.90	1.70	2.3	9.2	1.25	64	890/690	-	RTRD4	
RC560-43	1300	2.86	2.60	2.30	2.14	3.5	10.0	1.80	65	890/690	-	RTRD4	
RC630-43	1400	4.30	4.10	3.90	3.70	6.8	29.0	4.10	72	990/790	-	RTRD7	

Dimensions

	A sq	B sq	D	E	Weight/kg
200/250	490	325	310	450	10
315	555	350	350	555	11
355	675	400	430	695	22
400	765	500	480	795	25
450	765	500	480	795	26
500	995	650	490	960	42
560	995	650	560	960	52
630	1115	790	650	1010	75



DVS

Vertical discharge centrifugal fan

by Systemair

- Metal cowl construction
- Roof mounted extract fan
- Backward curved centrifugal impeller
- Speed controllable
- Maintenance free and reliable
- Acoustic DVSI version available
- DHS - Low profile Horizontal discharge version



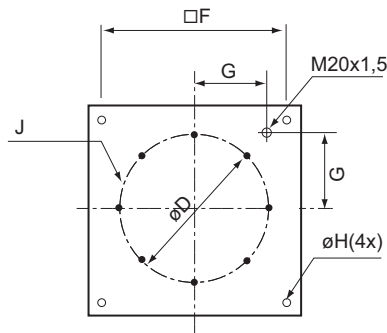
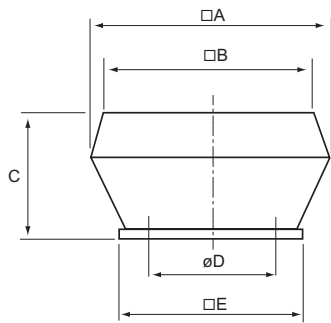
The DVS/DHS/DVSI models have impellers with backward curved blades and external rotor motors. All motors are speed controllable over the voltage. Frequency inverters must have an all pole sine filter. The motors are suspended on effective vibration dampers.

DVS/DHS/DVSI ...EZ / EV / ES: 1~ motor with connection for 2-speeds

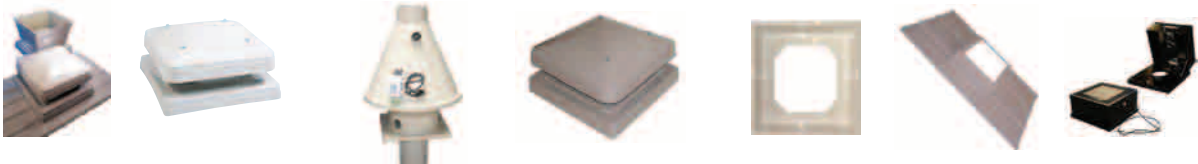
DVS/DHS/DVSI ...E4: 1-speed motor

DVS/DHS/DVSI ...DV / DS: 3~ with Y/D-connection for 2-speeds

Product Code	Voltage	Airflow m ³ /s @ static pressure Pa					Motor Data		dBA @ 10m DVS	dBA @ 10m DVSI	Speed Control Trans
		0	50	100	200	300	FLC	kW			
DVS190EZ	230-1-50	0.133	0.113	0.100	0.064	0.020	0.36	0.080	40	36	RE1.5
DVS225EZ	230-1-50	0.272	0.250	0.225	0.169	0.094	0.50	0.113	41	36	RE1.5
DVS311EV	230-1-50	0.488	0.438	0.380	0.211	-	0.60	0.135	37	28	RE1.5
DVS355E4	230-1-50	0.791	0.730	0.680	0.519	0.238	1.20	0.260	39	30	RTRE1.5
DVS400DV	400-3-50	1.055	1.019	0.950	0.811	0.650	0.80	0.440	43	34	RTRD2
DVS400E4	230-1-50	1.055	0.988	0.938	0.788	0.600	2.00	0.420	43	34	RTRE3
DVS450E4	230-1-50	1.583	1.519	1.419	1.258	1.000	3.40	0.770	45	36	RTRE5
DVS450DV	400-3-50	1.527	1.469	1.388	1.230	1.000	1.40	0.750	45	36	RTRD2
DVS499DV	400-3-50	1.833	1.769	1.700	1.500	1.250	1.80	0.900	46	37	RTRD2
DVS500DV	400-3-50	2.194	2.100	2.038	1.880	1.700	2.10	1.190	48	39	RTRD4
DVS500DS	400-3-50	1.500	1.350	1.250	0.838	-	1.00	0.440	38	29	RTRD2
DVS560DV	400-3-50	2.916	2.800	2.700	2.419	2.230	3.50	1.900	56	47	RTRD4
DVS560DS	400-3-50	2.097	1.900	1.750	1.300	0.500	1.50	0.680	41	32	RTRD2
DVS630DS	400-3-50	2.777	2.650	2.480	2.169	1.700	2.10	1.100	45	36	RTRD4
DVS710DS	400-3-50	3.850	3.700	3.500	3.100	2.650	3.5	2.475	50	41	RTRD7
DVS710DS-L	400-3-50	4.460	4.440	4.300	3.900	3.600	6.50	2.95	50	41	RTRD7



DVS	oA	oB	C	oD	oE	oF	G	oH	J	Weight Kg
190EZ. 225EZ	370	295	170	213	335	245	105	10	6xM6	7
311EV	560	470	330	282	435	330	146	10	6xM6	11
355E4. 400E4/DV	720	618	400	438	595	450	200	12	6xM8	25
450E4-500DS	900	748	440	438	665	535	237	12	6xM8	40
560DV/DS. 630DS	1050	1010	560	605	939	750	293	14	8xM8	58
710DS	1350	1176	660	674	1035	840	320	14	8xM8	88



DVC-S / -P / -POC+FTG / -PK / -SK

Roof Mounted Extract Fan

With EC - Motors



by Systemair

- 100 % speed controllable
- Integrated motor protection
- Low noise level
- Safe and maintenance free operation
- Energy-saving



The DVC roof fans are driven by EC- external rotor motors, so called energy saving motors with high efficiency. The input voltage for single phase units can vary between 200 and 277V, for three phase units between 380 and 480V. All motors are suitable for 50Hz and 60Hz and from size 355 up to 630 suspended on effective vibration dampers .

Motor protection is integrated in the electronics of the motor, no additional external motor protection device is needed. Casing from seawater-resistant aluminium, base frame powder coated.

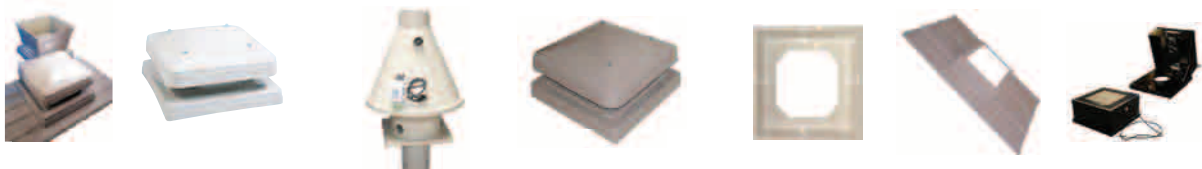
Backward curved impellers manufactured from polyamide PA 6 for size 190 and 315. From 355 up to 630 impellers manufactured from seawater resistant aluminium.

The DVC-POC versions have integrated pressure sensors and temperature sensor for outdoor temperature compensation. The electronics could be programmed for a pressure constant operation or pressure constant operation with outdoor temperature compensation. The factory setting is pressure constant operation with outdoor temperature compensation. All set point adjustments over the keyboard and all values were shown on the LC display.

The DVC-P versions have integrated pressure sensors and the electronics are programmed for a pressure constant operation. Two potentiometers in the electronics allow for 2 set values (day/night), one additional contact for an external setting.

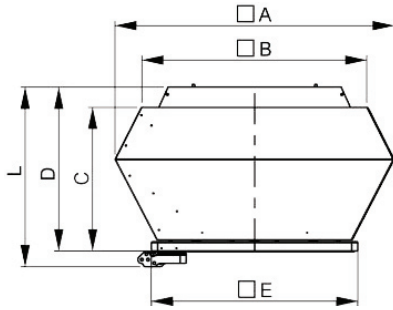
Performance & Motor details

Product Code	Voltage	Airflow m ³ /s @ static pressure Pa						RPM	Motor		dBA @ 4m	Weight Kg
		100	200	300	400	500	600		kW	Amps		
DVC190-S	230 / 1PH	0.174	1.45	0.109	0.072	0.28	-	3114	0.087	0.65	58	7
DVC225-P	230 / 1PH	0.237	0.215	0.18	0.152	0.113	0.071	3278	0.166	1.2	58	8
DVC225-S	230 / 1PH	0.237	0.215	0.18	0.152	0.113	0.071	3278	0.166	1.2	58	8
DVC315-P	230 / 1PH	0.44	0.33	0.19	0.09	-	-	1867	0.173	1.2	47	11
DVC315-POC + FTG	230 / 1PH	0.44	0.33	0.19	0.09	-	-	1867	0.173	1.2	47	11
DVC315-S	230 / 1PH	0.44	0.33	0.19	0.09	-	-	1867	0.173	1.2	47	11
DVC355-P	230 / 1PH	0.81	0.73	0.62	0.51	0.28	-	1657	0.378	2.31	50	25
DVC355-POC + FTG	230 / 1PH	0.81	0.73	0.62	0.51	0.28	-	1657	0.378	2.31	50	25
DVC355-S	230 / 1PH	0.81	0.73	0.62	0.51	0.28	-	1657	0.378	2.31	50	25
DVC400-P	230 / 1PH	0.88	0.74	0.60	0.37	0.02	-	1348	0.381	2.3	49	29
DVC400-POC + FTG	230 / 1PH	0.88	0.74	0.60	0.37	0.02	-	1348	0.381	2.3	49	29
DVC400-S	230 / 1PH	0.88	0.74	0.60	0.37	0.02	-	1348	0.381	2.3	49	29
DVC450-P	400 / 3PH	1.59	1.47	1.38	1.26	1.13	0.92	1558	1.05	1.8	56	45
DVC450-PK	230 / 1PH	1.28	1.17	1.02	0.82	-	-	1300	0.614	2.8	53	45
DVC450-POC + FTG	400 / 3PH	1.59	1.47	1.38	1.26	1.13	0.92	1558	1.05	1.8	56	45
DVC450-S	400 / 3PH	1.59	1.47	1.38	1.26	1.13	0.92	1558	1.05	1.8	56	43
DVC450-SK	230 / 1PH	1.28	1.17	1.02	0.82	-	-	1300	0.614	2.8	53	43
DVC500-P	400 / 3PH	1.66	1.55	1.41	1.22	0.99	0.05	1339	0.984	1.66	55	49
DVC500-POC + FTG	400 / 3PH	1.66	1.55	1.41	1.22	0.99	0.05	1339	0.984	1.66	55	49
DVC500-S	400 / 3PH	1.66	1.55	1.41	1.22	0.99	0.05	1340	0.984	1.66	55	49
DVC560-P	400 / 3PH	2.78	2.61	2.39	2.19	1.97	1.74	1359	1.87	2.88	58	63
DVC560-POC	400 / 3PH	2.78	2.61	2.39	2.19	1.97	1.74	1359	1.87	2.88	58	63
DVC560-S	400 / 3PH	2.78	2.61	2.39	2.19	1.97	1.74	1359	1.87	2.88	58	63
DVC630-P	400 / 3PH	3.4	3.2	3.0	2.8	2.6	2.3	1209	2.45	3.72	64	65
DVC630-POC	400 / 3PH	3.4	3.2	3.0	2.8	2.6	2.3	1209	2.45	3.72	64	65
DVC630-S	400 / 3PH	3.4	3.2	3.0	2.8	2.6	2.3	1209	2.45	3.72	64	65

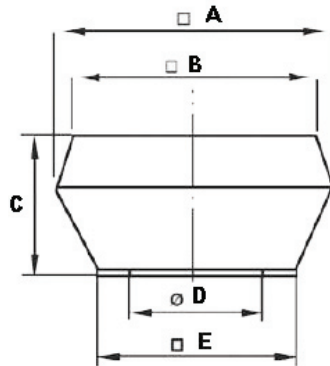


DVC-S / -P / -POC+FTG / -PK / -SK Roof Mounted Extract Fan Dimensions

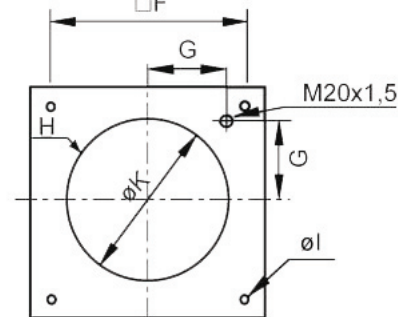
DVC-OC+FTG



DVC-S / -P / -PK / -SK



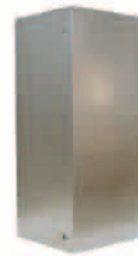
DVC-S / -P / -POC+FTG / -PK / -SK



DVC	Asq	Bsq	C	D	E sq	F sq	G	H	I	K	L
190	370	295	170	213	335	245	105	6xM6	10(4X)	213	-
225	370	295	170	213	335	245	105	6xM6	10(4X)	213	-
315	370	295	330	285	435	330	146	6xM6	10(4X)	285	-
315-POC	560	470	330	393	435	330	146	6xM6	10(4X)	285	443
355	720	618	390	438	595	450	200	6xM8	12(4X)	438	-
355-POC	720	618	390	454	595	450	200	6xM8	12(4X)	438	504
400	720	618	390	438	595	450	200	6xM8	12(4X)	438	-
400-POC	720	618	390	475	595	450	200	6xM8	12(4X)	438	525
450	900	730	465	438	665	535	237	6xM8	12(4X)	438	-
450-POC	900	730	465	530	665	535	237	6xM8	12(4X)	438	580
500	900	730	465	438	665	535	237	6xM8	12(4X)	438	-
500-POC	900	730	465	530	665	535	237	6xM8	12(4X)	438	580
560	1150	-	560	605	939	750	293	8xM8	14(4X)	605	-
560-POC	1150	955	560	-	939	750	293	8xM8	14(4X)	605	600
630	1150	-	560	605	939	750	293	8xM8	14(4X)	605	-
630-POC	1150	955	560	-	939	750	293	8xM8	14(4X)	605	600



Roof Fan Ancillaries



TG roof curb

The brackets make it easy to fit the roof curb to the roof pitch, and also function as a silencer. Manufactured from galvanised sheet steel and insulated with a 50 mm rockwool sheet and a perforated inner plate. The roof curb is fitted with plastic piping and conduits for electric cables. A roof curb with 100 mm insulation (corresponding to A60 insulation) is available on request.



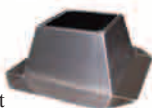
VKS automatic shutter

Consists of flanges manufactured from galvanized steel, and of shutter blades manufactured from seawater resistant aluminium. Suitable for DVS/DHS, DVC, DVSI, DVN.



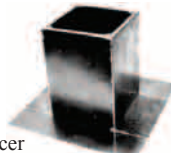
VKM motor driven shutter

Consists of flanges manufactured from galvanized steel, and of shutter blades manufactured from seawater resistant aluminium. Is equipped with a servo motor (230V/50Hz/25W), which can be operated manually as well as through the automatic controllers of the air conditioning unit. While the motor is energized the shutter stays open. When separated from the supply the shutter will close automatically. Suitable for DVS/DHS, DVSI, DVN.



FDS flat roof socket

Manufactured from seawater resistant aluminium and is supplied ready for assembly with insulation up to 100°C. Suitable for DVS/DHS, DVSI, DVN, DVNI, DVC, DVEX.



SSD socket silencer

For special requirements at the inlet side. The sound absorption at 250 Hz is in average 8 dB. The SSD is manufactured from seawater resistant aluminium. The sound absorbing material is abrasion resistant up to a velocity of 20 m/s. The crank is extendable for service options. Suitable for DVS/DHS, DVSI, DVN, DVNI, DVC and DVEX.



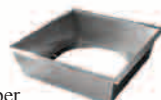
TDA adapter framework

for mounting of accessories. Adapter framework for mounting into roof socket. The adapter framework consists of galvanized steel.



AFS Inlet flange

Counterflange for connection to a duct system. Manufactured from galvanized steel. Suitable for DVS/DVSI, DHS, DVN/DVNI up to 120°C.



ASK inflow chamber

For mounting on SSD socket silencers to fix inlet accessories and duct system. Made of seawater resistant aluminium. For DVS/DHS, DVSI, DVNI, DVN, DVC, TOE, TOV.



ASS flexible connection

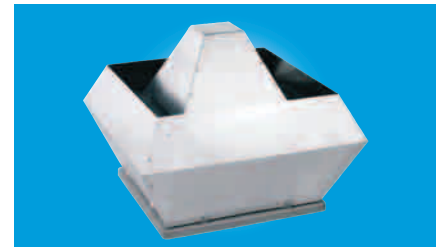
Manufactured from galvanised sheet steel, with neoprene coated fabric. For temperature up to 70°C.

DVN Roof Mounted Kitchen Extract Fan



By Systemair

- Standard motor outside the air stream
- Max temperature of transported air 120°C
- Suitable for coastal applications
- Vertical exhaust
- Low sound level
- DVNI - Acoustic lined version 50mm low Noise

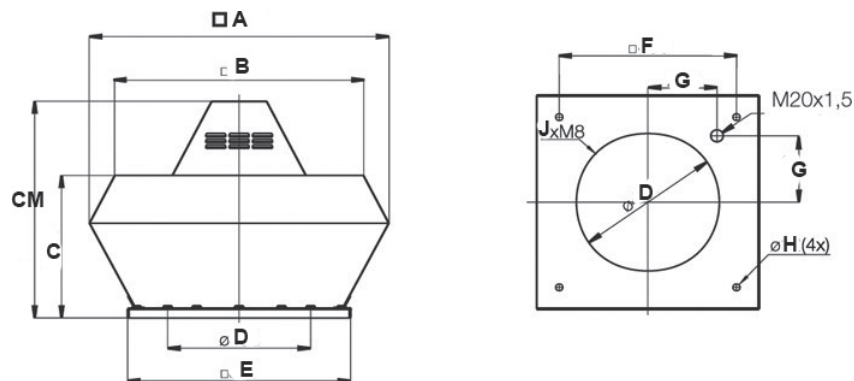


The casing and impeller with backward-curved blades is manufactured from seawater resistant aluminium. The base frame and the integrated protection guard consist of powder-coated galvanised steel.

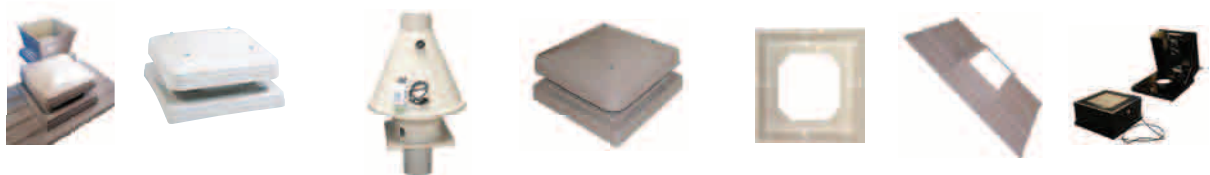
The motor is suspended on effective vibration dampers.

The single-phase motor is speed-controllable via transformer and the three-phase motor additionally via D/Y connection. To protect the motor from overheating the fan has integral thermal contacts with external leads for connection to a motor protection device.

Product Code	Voltage	Airflow m ³ /s @ static pressure Pa							Motor Data		dBA @	dBA @	Speed Control
		0	50	100	200	300	400	500	FLC	kW	10m DVN	10m DVNI	Trans
DVN355E4	230-1-50	0.80	0.81	0.76	0.64	0.48	-	-	1.50	0.37	41	32	RTRE3
DVN355DV	400-3-50	0.80	0.79	0.72	0.57	0.40			0.95	0.37	41	32	RTRD2
DVN400E4	230-1-50	1.00	0.97	0.91	0.78	0.59	0.28		2.00	0.37	44	35	RTRE3
DVN400DV	400-3-50	1.10	1.07	0.99	0.84	0.69	0.51		1.40	0.37	44	35	RTRD2
DVN450DV	400-3-50	1.55	1.50	1.45	1.34	1.19	1.00	0.68	2.50	0.75	46	37	RTRD4
DVN500DV	400-3-50	2.17	2.05	1.99	1.85	1.70	1.51	1.25	4.30	1.50	49	40	RTRD7
DVN500DS	400-3-50	1.39	1.33	1.22	0.94				2.35	0.55	39	30	RTRD4
DVN560DV	400-3-50	3.00	2.90	2.81	2.64	2.45	2.24	2.01	5.80	2.20	57	48	RTRD7
DVN560DS	400-3-50	2.08	1.99	1.87	1.62	1.26	0.69		2.10	0.75	42	33	RTRD4
DVN630D4	400-3-50	4.14	4.10	4.00	3.80	3.70	3.50	3.30	9.20	4.00	59	50	FREQ INV
DVN630DS	400-3-50	2.56	2.50	2.40	2.16	1.85	1.30		4.80	1.50	46	37	RTRD7
DVN710D6	400-3-50	3.90	3.80	3.70	3.40	3.10	2.70	2.30	5.70	2.20	51	42	FREQ INV
DVN800D6	400-3-50	6.67	6.50	6.30	5.80	5.40	4.80	4.30	9.30	4.00	56	47	FREQ INV
DVN900D6	400-3-50	8.75	8.40	8.30	7.90	7.50	7.10	6.60	16.00	7.50	62	53	FREQ INV



DVN	Asq	Bsq	C	CM	D	E sq	F sq	G	H	J	Weight kg
355	720	618	400	600	438	595	450	200	12	6XM8	27
400	720	618	400	600	438	595	450	200	12	6XM8	33
450	900	745	445	675	438	665	535	237	12	6XM8	38
500	900	745	445	675	438	665	535	237	12	6XM8	49
560	1150	1013	560	901	605	939	750	293	14	8XM8	58
630	1150	1013	560	901	605	939	750	293	14	8XM8	65
710	1700	1178	810	1180	674	1035	840	315	14	8XM8	88
800	1700	1471	845	1180	872	1250	1050	433	14	8XM8	200
900	1700	1471	845	1180	872	1250	1050	433	14	8XM8	242





Special Application Fans

FLP

Flameproof axial fans

by The London Fan Company

For use in hazardous areas where flammable gas or dust is present ATEX II 2G D [EExd Zone 1]

- Sizes from 190mm to 760mm impeller diameter
- All units are fitted with Breezax anti static blades.
- Stainless steel or mild steel plates are available with non-sparking track.
- Available in 110V 1Phase version. please enquire
- All fans are suitable for internal or external operations at any installed angle.
- Airflow direction is A form (B form can be supplied if required)
- Operating temperatures from -20 C to 50 C

Ancillaries include : Wire safety guards & louvre shutters

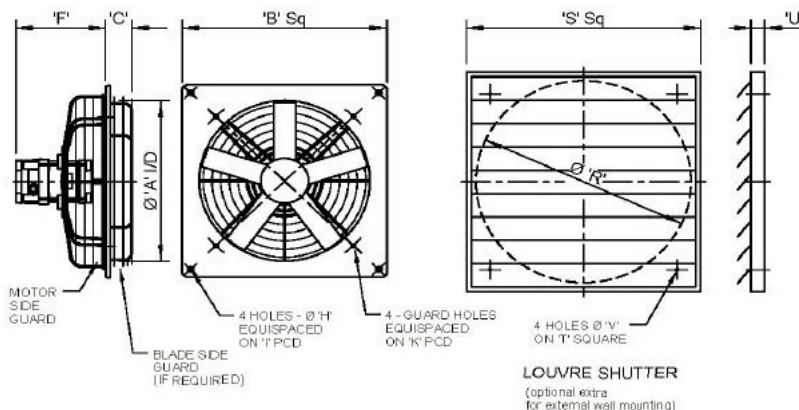


Performance Data

Fan Ref	Speed RPM	Airflow m ³ /s @ Static Pressure Pa							dBA @ 3m	Motor Data 240-1-50			Motor Data 415-3-50		
		0 Pa	12.5	25	37.5	50	62.5	75		kW	FLC	SC	kW	FLC	SC
7.5FLP 4Pole	1400	0.12	0.01	-	-	-	-	-	40	0.04	0.5	1.21	0.1	0.6	1.29
7.5FLP 2Pole	2800	0.2	0.19	0.18	0.17	0.15	0.11	0.01	54	0.15	1.1	3.29	0.15	0.8	2.84
9FLP 6Pole	900	0.14	0.12						35	0.035	0.6	0.78		0.45	0.71
9FLP 4Pole	1400	0.24	0.21	0.18					44	0.04	0.5	1.21	0.1	0.6	1.29
9FLP 2Pole	2800	0.46	0.42	0.39	0.35	0.32	0.31	0.28	58	0.15	1.1	3.29	0.15	0.8	2.84
10.5FLP 6Pole	900	0.17	0.13						38	0.035	0.6	0.78		0.45	0.71
10.5FLP 4Pole	1400	0.36	0.34	0.24					48	0.04	0.5	1.21	0.1	0.6	1.29
10.5FLP 2Pole	2700	0.61	0.59	0.57	0.54	0.48	0.45	0.41	62	0.3	2.1	8.14	0.3	0.7	2.53
12FLP 6Pole	900	0.36	0.3	0.25					42	0.035	0.6	0.78		0.45	0.71
12FLP 4Pole	1400	0.54	0.5	0.47	0.39	0.34			52	0.04	0.5	1.21	0.1	0.6	1.29
15FLP 6Pole	900	0.68	0.64	0.53	0.45				48	0.035	0.6	0.78		0.45	0.71
15FLP 4Pole	1400	1.01	0.99	0.94	0.88	0.78	0.71	0.61	57	0.1	1.2	1.31	0.1	0.6	1.29
18FLP 6Pole	900	1.15	1.12	1.09	0.92	0.73			51	0.37	2.3	7.08	0.37	1.1	3.46
18FLP 4Pole	1400	1.74	1.72	1.67	1.61	1.53	1.44	1.2	61	0.37	2.3	7.07	0.37	1.1	4.19
24FLP 8Pole	700	2.12	1.95	1.76	1.49	1.1			54	Please enquire					
24FLP 6Pole	900	2.77	2.72	2.66	2.59	2.54	2.47	2.3	60	0.37	2.3	7.08	0.37	1.1	3.46

Dimensions in mm

Fan size									
ins	mm	A	B	C	F	h	i	k	Weight/kg
7.5	190	203	260	26	235	8	323	239	6
9	229	241	330	26	235	10	414	280	7
10.5	267	279	355	26	235	10	450	315	7
12	315	323	394	26	235	12	503	372	8
15	381	392	470	35	235	12	611	447	9
18	457	473	560	35	335	16	728	530	26
24	610	630	718	35	335	19	938	702	37
30	762	800	914	35	335	20	1207	864	-



PRF

Aggressive media & corrosive gases

Plastic exhaust fumes fan

by Systemair

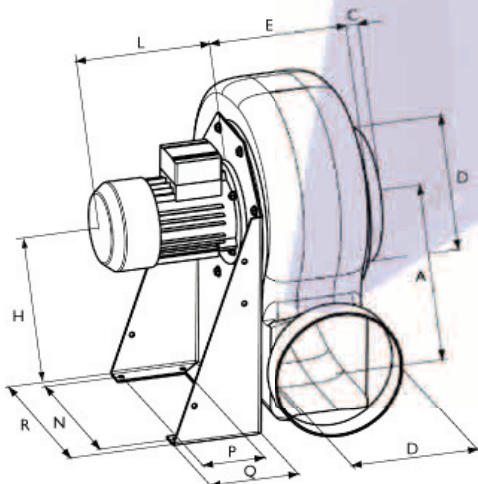
- Temperature of transported air from -15°C - $+70^{\circ}\text{C}$
- Single-flow impellers from PP with effective blade geometry
- The powder painted pedestal is manufactured of galvanised steel
- Position of casing can be easily adapted
- Perfect fitting accessories: connections, dampers, splinter protection

The PRF fans have been developed especially for the exhaust of aggressive media. This is the right fan when corrosive gases, contaminated air or other aggressive components are part of the exhaust air. Typical applications are medical facilities, the food-, electrical-or chemical industry. The sintered casing from PE is absolutely waterproof and offers a variety of applications with its connectors from $\varnothing 125 - 250$ mm. The casing can be easily adjusted through turning it (Standard position is LG270, see picture).



Product Code	Voltage	Speed rpm	Airflow m ³ /s @ Static Pressure Pa.						Motor Data		dBA @ 1m	Speed Controller
			100	200	300	400	500	600	FLC	kW		
PRF160D4	400-3-50	1350	0.18	0.114					0.57	0.16	46	RTRD 2
PRF160E4	230-1-50	1330	0.16	0.101					1.11	0.14	46	RTRE 1.5
PRF180D4	400-3-50	1360	0.26	0.18	0.04				0.57	0.16	49	RTRD 2
PRF180E4	230-1-50	1365	0.26	0.18	0.04				1.11	0.14	49	RTRE 1.5
PRF200D4	400-3-50	1413	0.41	0.35	0.29	0.19			0.95	0.25	59	RTRD 2
PRF250D4	400-3-50	1374	0.85	0.77	0.70	0.61	0.47	0.33	2.5	0.75	66	RTRD 4

Product Code	Voltage	Speed rpm	Airflow m ³ /s @ Static Pressure Pa.						Motor Data		dBA @ 1m
			200	400	600	800	1000	1200	FLC	kW	
PRF125D2	400-3-50	2806	0.159	0.117	0.067				0.58	0.25	59
PRF160D2	400-3-50	2869	0.41	0.35	0.29	0.22	0.13		1.79	0.75	67
PRF180D2	400-3-50	2700	0.60	0.54	0.47	0.40	0.32	0.20	2.60	1.10	69
PRF200D2	400-3-50	2784	0.88	0.81	0.75	0.70	0.67	0.58	3.26	1.50	74
PRF250D2	400-3-50	2880	1.73	1.69	1.59	1.55	1.45	1.21	7.77	4.00	86



PFR	A	C	øD	E	H	L	N	P	Q	R	Weight
125D2	140	40	125	150	250	195	200	100	140	235	9
160D2	183	40	160	180	310	210	255	100	140	290	13
160D4/E4	183	40	160	180	310	190	255	100	140	290	14
180D2	208	40	180	190	350	230	277	120	190	320	19
180D4/E4	208	40	180	190	350	190	277	120	190	320	14
200D2	240	40	200	200	410	245	320	150	230	355	34
200D4	240	40	200	200	410	210	320	150	230	355	34
250D2	290	40	250	240	495	230	330	170	250	370	49
250D4	290	40	250	240	495	230	330	170	250	370	46

DVP

Roof plastic fan for aggressive media

by Systemair

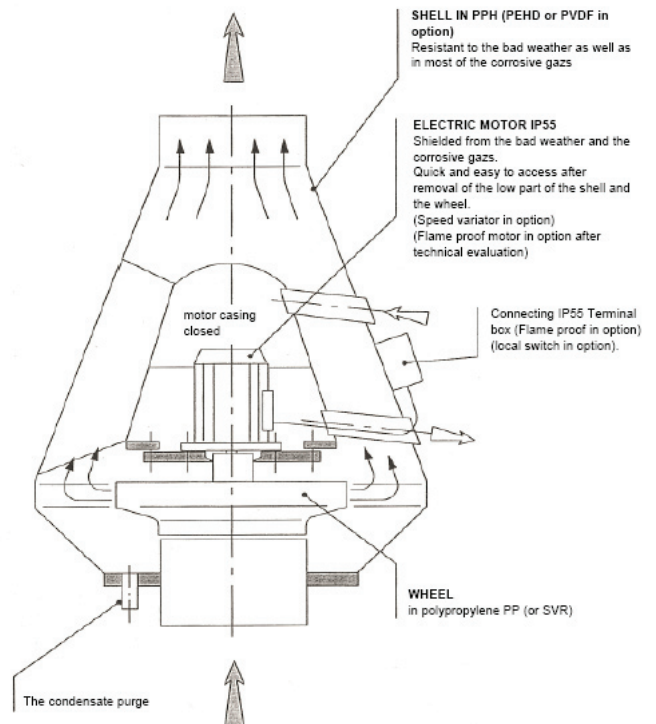
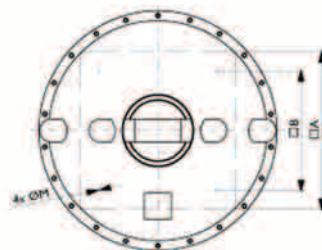
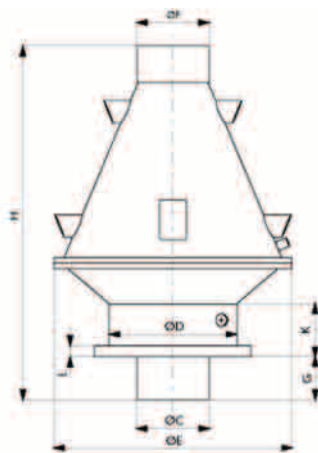
- Temperature of transported air from -15°C to +60°C
- Single-flow impellers from PP with effective blade geometry
- Weather-resistant, sturdy casing made from PP
- Motor and terminal box in IP55
- Encapsulated motor, outside the airstream

The DVP fans have been developed especially for the exhaust of aggressive media. This is the right fan when corrosive gases, contaminated air or other aggressive components are part of the exhaust air. Typical applications are medical facilities, the food-, electrical-or chemical industry. The casing from PP offers a variety of applications with its connectors from \varnothing 200 - 400 mm. The motor is speed control-lable via frequency converter. Motor protection with protective motor switch to be done on site.



Product Code	Voltage	Speed rpm	Airflow m ³ /s @ Static Pressure Pa.							Motor Data		dBA @ 4M
			100	200	300	500	750	1000	1250	FLC	kW	
DVP200D2-4	400-3-50	2885	0.59	0.56	0.53	0.47	0.36	0.06	2.88	1.714	61.5	
DVP250D2-4	400-3-50	2874	1.24	1.19	1.15	1.08	0.91	0.69	8.56	5.32	69.2	
DVP315D4-8	400-3-50	1494	1.14	0.98	0.72	0.33			3.27	0.487	54.6	
DVP400D4-8	400-3-50	1445	1.2	1.11	0.98	0.48	0.07		4.12	2.02	59.8	
DVP400D4-8-L	400-3-50	1447	1.89	1.62	1.38	0.75	0.53		7.65	4.1	60.5	

DVP	A	B	C	øD	E	F	G	H	K	L	M	Weight
200D2-4	435	330	200	355	662	200	119	1065	146	30	4x10	25 kg
250D2-4	595	450	250	400	768	250	-	981	181	30	4x12	35 kg
315D4-8	665	535	315	560	810	315	218	1161	200	30	4x12	45 kg
400D4-8L	939	750	400	601	976	400	-	1134	235	30	4x14	55 kg
400D4-8	939	750	400	601	976	400	-	1134	235	30	4x14	55 kg



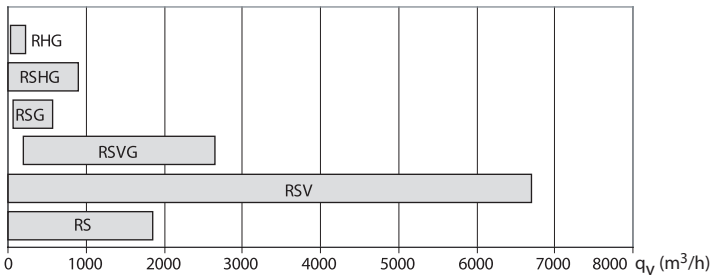
Chimney Exhaust Fans

by Exhausto

A range of complete chimney fan systems consisting of chimney fans with automatic controls which guarantee the optimum chimney draught irrespective of the position, dimensions or height of the chimney. This product range can solve any type of chimney draught problem, and among others we supply systems for the following:

- Fireplaces and stoves
- Single boilers and water heaters burning gas, oil or solid fuel
- Multiple appliances where several boilers are connected to the same chimney

The chimney fans offer capacities which will cover any heating appliance from small domestic fireplaces in private homes to larger commercial/ industrial boiler installations. System solutions for gas appliances have a built-in failsafe operation developed to meet international standards.



ZRS 170 / 180 Smoke & Gas Fans

by Systemair

- Installation; Fans are supplied with 1m armoured cable and a junction box. Steel cables are provided to give extra support for the fan during chimney sweeping and similar operations.
- Design; The flue-gas fans have a casing of cast aluminium alloy. The ZRS 170 impeller is made of silumin alloy, while the ZRS 180 impeller is made of stainless steel.
- Selecting the correct fan; The ZRS 170 is suitable for smaller fireplaces with an aperture of less than 0,35 m², and the ZRS 180 is intended for fireplaces with an aperture between 0,35 and 0,80 m².

Systemair flue-gas fans counter act drafts caused by stoves, ovens and open fireplaces. Flue-gas fans are positioned on the top of the chimney and fixed with four adjustable locating rods which are inserted down the chimney. This means that no fixing into the chimney itself is required. The fan is a discreet and compact unit with a low profile



Flue Boost Fans

The flue boost is a boxed shaped unit with in-line spigots for the flue connection, a pressure switch to ensure safe operation and plug-in electrical fittings for easy connection. There are 3 models in the range to suit different boiler ratings. please enquire for technical help.



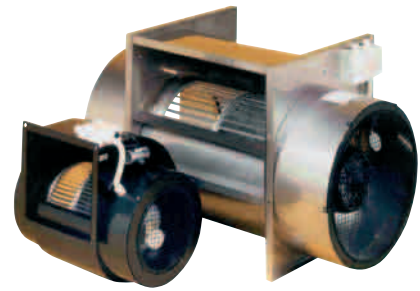
Model	Boiler Size heat outputs up to	Flue gas temps up to	Max Airflow	Elec Data			dBA @
				Voltage	FLC	SC	
Ref			m³/s				3m
100	35kW	200 deg C	0.04	240-1-50	0.75	1.2	54
350	102kW	300 deg C	0.15	240-1-50	0.51	0.9	64
800	235kW	300 deg C	0.37	240-1-50	0.72	1.5	68

GBDF /SSDF

Flue dilution fans

by Airflow

A new range of dilution fans including stainless steel versions for enhanced corrosion resistance, which allow flexible siting of gas boilers rated between 30 kW and 650 kW input upgraded to include a pressure switch fail safe system and an easy to connect mains flying lead with snap-in plug and socket, the airflow range of flue dilution fans is available in 5 sizes to satisfy the dilution needs of industrial and commercial boilers. Each size is available in standard form (GBDF series) for atmospheric boilers and water heaters of circa 75% efficiency. Enhanced corrosion resistance versions (SSDF series) with stainless steel fan cases are also available for installation where regulations or the specification calls for stainless steel ducting, and, when higher efficiency boilers such as modular designs are likely to produce condensation. Condensation should not be allowed to collect in the fan casing.

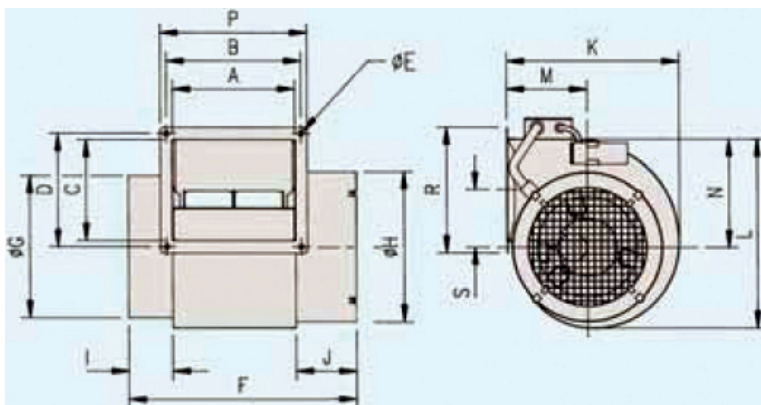


Performance table at 20°C

Fan Size	Airflow Litres / Sec @ Pascals Pa												Volt	FLC amps	Motor W	RPM	
	0	30	60	100	120	160	200	250	275	300	350	375					
GBDF2 / SSDF 2	300	260	230	80	0									230	0.64	75	900
GBDF3 / SSDF3	600	550	510	440	380	120	0							230	1.45	120	880
GBDF4 / SSDF4	1000	950	900	815	760	640	340	80	0					230	2.8	335	930
GBDF5 / SSDF5	Not suitable below 90Pa			1370	1324	1200	1075	850	450	200	0			415	2.6	900	940
GBDF6 / SSDF6	Not suitable below 180Pa						1675	1420	1280	1085	625	460		415	2.9	900	900

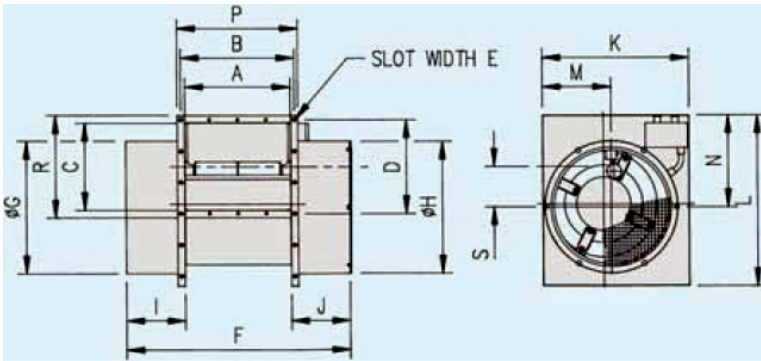
Typical performance table at 20°C

Fan Size	Units	GBDF2	GBDF3	GBDF4	GBDF5	GBDF6
		SSDF2	SSDF3	SSDF4	SSDF5	SSDF6
Maximum boiler input rating	kW	80	160	270	425	650
Minimum inlet duct diameter	mm	254	305	305	457	457
Minimum inlet louvre size	mm	300x300	400x400	400x400	600x600	600x600
Minimum discharge duct diameter	mm	225	275	345	370	457
Minimum discharge grille size	mm	300x300	400x400	450x450	500x500	600x600
Diluted flue gas volume	l/s	215	430	730	1145	1750
Total static pressure loss in system	pa	70	93	130	160	180
Maximum flue velocity	m/s	5.5	7.3	7.9	10.7	10.7



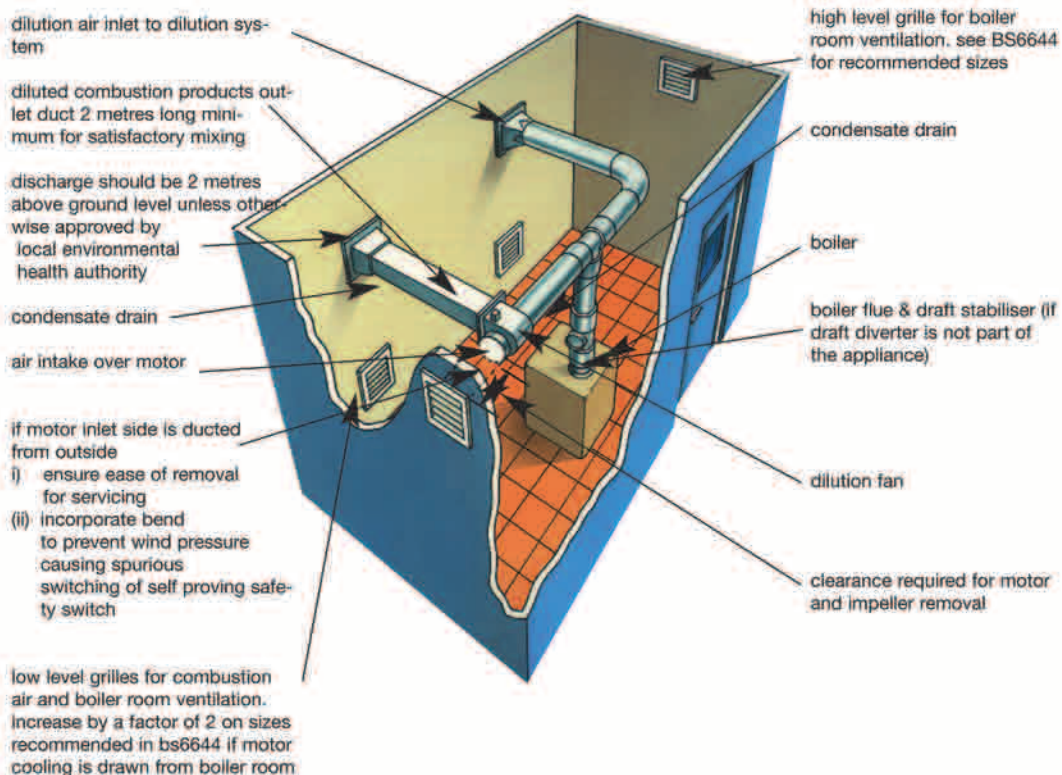
Fan Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	R	S
2	218	238	179	200	9.5	402	251	265	78	106	304	335	140	191	260	222	101
3	250	270	236	257	9.5	440	302	302	78	109	359	394	175	222	294	281	109
4	352	384	263	295	9.5	578	302	340	78	141	408	445	194	256	409	321	121

GBDF /SSDF Flue dilution fans



Fan Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	R	S
5	360	386	298	321	7	761	454	454	200	200	500	585	233	314	411	350	129
6	490	517	332	355	7	892	454	454	200	200	500	585	232	336	542	384	145

- (i) Dilution Fans are intended for use in Boiler Rooms where the maximum temperature is to 40°C at ceiling height.
- (ii) Ensure fan is sized to cope with system resistance of all ducts including motor side inlet duct if fitted.
- (iii) If motor side inlet is open to the Boiler Room, adequate ventilation must be provided to the Boiler Room.
- (iv) Multiple boiler installations can use a common header as long as the Dilution Fan has been sized for total kW input.
- (v) Duct sizes must match the inlet and outlet spigots and flange of the selected Dilution Fan.
- (vi) Where flue gas temperatures and/or dilution air are likely to cause condensation in the ducts, stainless steel versions type SSDF should be used.



Smoke Extract Axial Fans

by Systemair Matthews & Yates



HA (F) Smoke extract axial fans certified for 400°C/2h in accordance with EN 12101-3

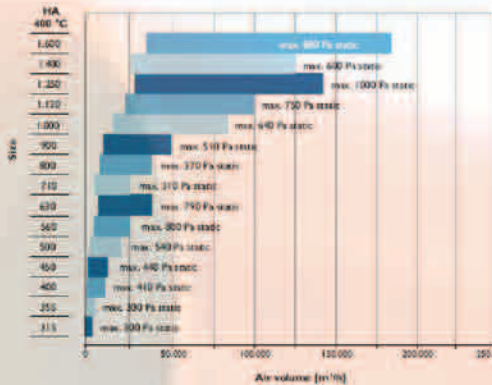
- Welded steel impellers
- Long casing, hot dip galvanized steel, to DIN EN ISO 1461
- Spun flanges for high rigidity, to DIN 24154 series 3
- Terminal box in IP65 mounted at the outside of the casing for easy wiring
- Motors IP55, insulation class H, in accordance with EN 60034-5/IEC 85
- Suitable for operating temperatures of up to 55°C continuous or once for 400°C/2h
- Inspection hole to verify correct direction of rotation



The Systemair HA (F) range of long cased smoke extract axial fans is available in sizes from 315 up to 1.600 mm impeller diameter. The HA (F) axial fans have been performance tested in accordance with DIN ISO 5801, DIN 24163 and AMCA 210-99 on the Systemair fan test rig. High temperature testing at Technical University Munich, Germany. Three years warranty make it a safe choice.

Two stage fans

For higher pressure drops two stage fans are offered. Two fans in series increase the available static pressure drop.



Performance guide
HA for 400°C / 120 min.



Axial roof fans (exhaust and supply fans)
AXC...-D

AXC...(B)-D F300

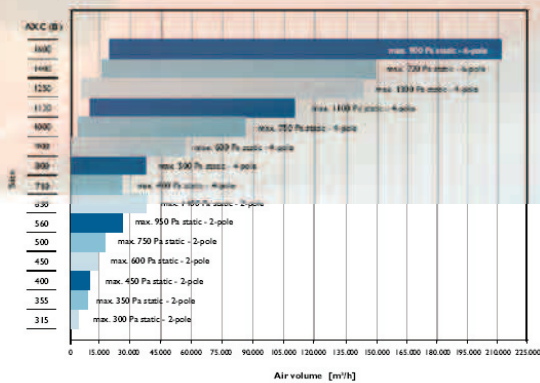
HA...(F)-D F400

HABV-D F600

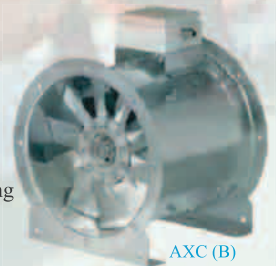
- Casing manufactured from steel, hot dip galvanised upon completion.
- Delivered with roof cowl and base frame.
- No wind or snow load testing required for this design.

AXC (B) & AXC (B) - G Smoke extract axial fans certified for 300°C/2h in accordance with EN 12101-3

Performance guide
AXC (B) for 300°C / 120 min.

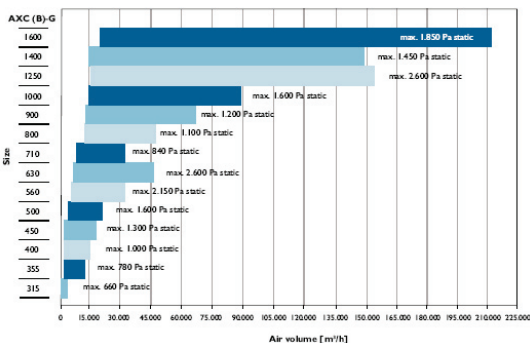


- Aerofoil impeller with adjustable pitch angle
- Die cast aluminium hub and blades
- Long casing, hot dip galvanized steel, to DIN EN ISO 1461
- Spun flanges for high rigidity, to DIN 24154 series 3
- Terminal box in IP65 mounted at the outside of the casing for easy wiring
- Motors IP54, insulation class H, in accordance with EN 60034-5/IEC 85
- Suitable for operating temperatures of up to 55°C continuous or once for 300°C/2h
- Inspection hole to verify correct direction of rotation



AXC (B)

The Systemair AXC (B) range of long cased smoke extract axial fans is available in sizes from 315 up to 1.600 mm impeller diameter. The adjustable pitch angle setting offers a wide performance and maximum flexibility to match precisely individual airflow requirements. The AXC (B) axial fans have been performance tested in accordance with DIN ISO 5801, DIN 24163 and AMCA 210-99 on the Systemair fan test rig. High temperature testing at Technical University Munich, Germany. Three years warranty make it a safe choice.



Performance guide
AXC (B)-G for 300°C / 120 min.

AXC (B) F300		
1	315/32°-2	1,1 kW
2	355/22°-2	1,1 kW
3	400/16°-2	1,1 kW
4	450/18°-2	2,2 kW
5	500/12°-2	2,2 kW
6	500/22°-2	4 kW
7	560/18°-2	7,5 kW
8	630/24°-2	15 kW
9	630/16°-4	1,1 kW
10	630/26°-4	2,2 kW
11	710/18°-4	2,2 kW
12	710/26°-4	4 kW
13	800/18°-4	4 kW
14	800/28°-4	7,5 kW
15	900/18°-4	7,5 kW
16	900/26°-4	15 kW
17	1000/10°-4	7,5 kW
18	1000/18°-4	15 kW

Stock Range



AXC (B)-G

HABV Smoke extract axial fans certified for 600°C/2h in accordance with EN 12101-3 by Systemair

- Welded steel impellers
- Long casing, hot dip galvanized steel, to DIN EN ISO 1461, with integrated guide vane
- Spun flanges for high rigidity, to DIN 24154 series 3
- Terminal box in IP65 mounted at the outside of the casing for easy wiring
- Motors IP55, insulation class H, in accordance with EN 60034-5/IEC 85
- Motor encapsulated, with cooling duct
- Suitable for operating temperatures of up to 55°C continuous or once for 600°C/2h

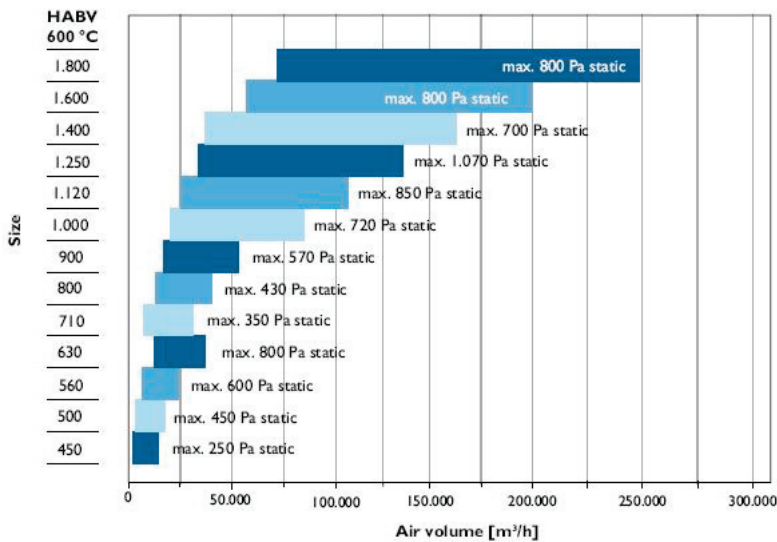


The Systemair HABV range of long cased smoke extract axial fans is available in sizes from 450 up to 1800 mm impeller diameter. The pitch angle can be individually set before manufacturing and offers a wide performance and flexibility range to precisely match airflow requirements. The HABV axial fans have been performance tested in accordance with DIN ISO 5801, DIN 24163 and AMCA 210-99 on the Systemair fan test rig. High temperature testing at Technical University Munich, Germany. Three years warranty make it a safe choice.

HABV axial fan casings are heavy gauge, hot dip galvanized upon completion, with spun flanges for high rigidity. Integrated inlet guide vane. Insulated motor enclosure with cooling duct for motor cooling.

Performance guide

HABV for 600°C 120 min.



HABV-G

Two high temperature smoke extract fans mounted in series, same rotational direction. In the case of one fan being switched off or stops running the other fan will supply approx 65% of the total air volume. Resistance figures of up to 2700 pascals can be achieved



High temperature range

Fans & Spares offer a full range of smoke extract, car park extract as well as tunnel fans from Systemair as shown. We can also offer similar systems from other manufacturers including Soler & Palau, Elta Fans, London Fans & Victoria Fans

Fan range	Application	Impeller diameter (mm)	-20°/55°C	200°C	300°C/120min	400°C/120min	600°C/120min	Car Park Jet	Tunnel Jet	Explosive atmosphere
AXC	supply/exhaust	315 - 2.000	x							
AXC (B)	exhaust	315 - 1.600	x		x					
AXCBF	bifurcated motor out of airstream	250 - 800		x						
HA (F)	exhaust	315 - 1.600				x				
HABV	exhaust	450 - 1.800	x				x			
AJR / AJB	impulse ventilation	315 - 400	x					x		
AJR (B) / AJB (B)	impulse ventilation	315 - 400			x			x		
AXCEX	exhaust/supply	315 - 1.600	x							x
AXCBF-EX	exhaust	250 - 800	x							x
AJ	impulse ventilation reversible	500 - 1.600	x						x	
AJ (T)†	impulse ventilation reversible	500 - 1.600 710 - 1.400			x	x			x	
...P	wall mounting	315 - 1.000	x		x	x	x			
...D	roof mounting	315 - 1.800	x		x	x	x			
...G	high pressure	315 - 2.000	x		x	x				

† EN 12101-3 certification in progress

High Temperature Smoke Ventilation Fans



by Systemair

DVV F400/600 Roof Mounted Smoke Extract Fan

- Smoke extract unit
- 400°C / 120 min
- Vertical exhaust
- Suitable for coastal applications
- Wide range of accessories
- Certified acc. to EN 12101-3 at TU Munich
- CE-certified acc. to EN 12101-3, 2002-06 at TÜV Süd

The DVV smoke extract fans are used in case of fire to extract smoke gases from rooms, and also during normal working conditions for standard ventilation.

Smoke-free escape ways increase the chances to rescue people in case of a fire. For installation only over heated rooms.

The octagonal casing is manufactured from seawater resistant aluminium. The base frame consist of galvanised steel. The impeller with backward-curved blades is manufactured from galvanised steel.

Motor cooling with fresh air via air duct. Thermal motor protection on request. In case of fire all protective devices must be bridged to guarantee functional capability.

Available in 6 sizes (400, 450, 560, 630, 800, 1000) over 70 models with duties up to 52,500 m³/h



WVA F400/600 Wall Mounted Smoke Extract Fan

- Smoke extract unit for wall mounting
- 400°C / 120 min
- Wide range of accessories
- Certified acc. to EN 12101-3 at TU Munich
- CE-certified acc. to EN 12101-3, 2002-06 at TÜV Süd

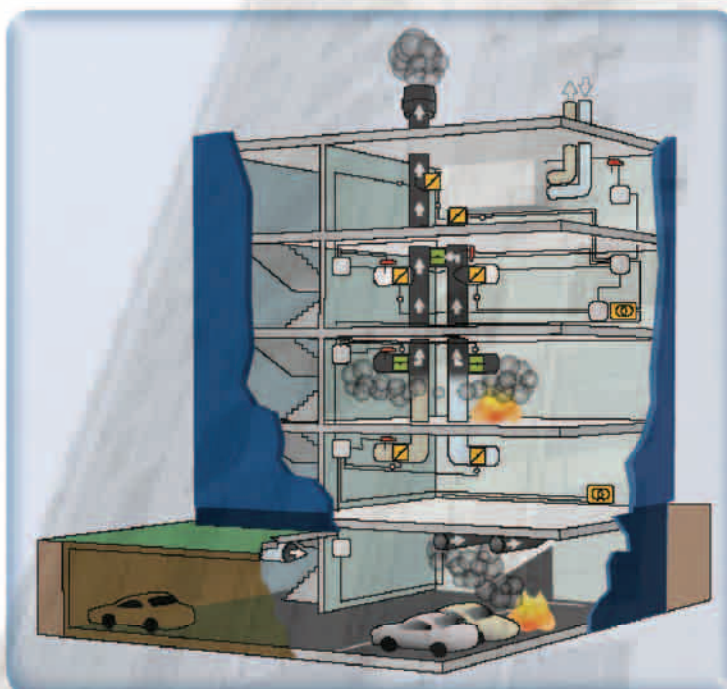
The WVA smoke extract fans are used in case of fire to extract smoke gases from rooms, and also for daily ventilation (dual purpose fans). Smoke-free escape ways increase the chances to rescue people in case of fire.

For installation only outside the building. Fans are certified for horizontal installation on a wall, motor pointing downwards.

The casing is manufactured from steel, powder coated RAL 7032. The base frame consists of galvanised steel. The impeller with backward-curved blades is manufactured from galvanised steel.

Thermal motor protection on request (PTC or thermal contact). In case of fire all protective devices must be bridged to guarantee functional capability.

Available in 6 sizes (400, 450, 560, 630, 800, 1000) over 50 models with duties up to 40,000 m³/h



Systemair offers solutions for larger installations as well as small and medium size buildings.

However the approach and solution will vary due to the need of such complex buildings.

In general once the building becomes more and more complex in use and construction, the building then is broken into Zones and thus the fire safety is more simplified.

Systemair being provider of global solution for the fire safety, complies with latest European standards and certifications process to assure the uniform and proper product offering throughout the markets.

From Carpark Jet-fans, Smoke and Fire dampers to roof extract fans, all products are offered as package solutions with controllers to simplify the installation and assure the correct functionality.

On demand CFD simulations can be executed to simplify the installation of complex building layouts.

Consult your local Systemair office for further information on product line and application.

Tunnel Application

by Systemair Matthews & Yates

A wide range of equipment, an extensive know-how, the engineering staff qualification and expertise make Systemair a leading company in road, rail and metro tunnel ventilation.

Thanks to a broad experience in air diffusion and to the renowned Matthew and Yates' axial fans product range, Systemair presents a complete, competitive and advanced offer for tunnel ventilation. Every step of tunnel building and operation processes, from smoke extraction to tunnel ventilation, is covered by Systemair products and services: quality, performance, energy efficiency and a flawless logistics system provided by a leader in ventilation systems, above and under ground.

Tunnel building: Ventilation systems for pollution control during construction: a wide range of axial fans, control systems, dry and wet dedusting systems.

Road tunnels: Axial and impulse tunnel fans for longitudinal, transverse and semi-transverse tunnel ventilation systems for pollution control and removal and for the exhaustion of tunnel fire smoke. All products comply with Standard EN12101-3 for smoke and heat exhaust ventilators.

Rail and metro tunnels: Tunnel axial fans and soundproofing systems for user safety and comfort, according to Standard EN12101-3 for smoke and heat exhaust in case of fire.

AJ - Tunnel Jet Fans

- Size 500mm - 1600mm dia
- Motors can be supplied to suit 50Hz and 60 Hz supplies
- Trust efficiency in excess of 40 N/kW
- Adjustable aluminium impellers for maximum efficiency
- Terminal box on casing for easy on-site wiring
- IEC standard motors as specified in IEC 34; High temp motors for smoke removal
- Unidirectional or fully reversible in either direction
- Smoke extract available 300°C & 400°C for 120 mins

The Systemair Matthews & Yates Division has been involved with specialist fan engineering in tunnel ventilation for more than 25 years. A number of important references all over the world prove our competence. Depending on the tunnel design, size and traffic flow, various solutions for ventilation are available. These are generally:

a) **Fully Transverse:** Air is supplied from one side of the tunnel and extracted from the other, picking up fumes in the process. Most suited to long tunnels but costly due to the large sized ducts required.

b) **Semi Transverse:** Fresh air is supplied uniformly over the length of the tunnel causing the foul air to escape longitudinally from the tunnel.

Semi transverse ventilation systems use ducting for supply and often in conjunction with jet fans for certain sensitive areas.

c) **Longitudinal:** Widely accepted as the most economical of the three systems and normally used for tunnels up to approximately 1 km in length, depending on traffic flow. Jet fans mounted in the tunnel roof will provide positive longitudinal ventilation and have the ability for reversal in emergencies or to work with prevailing winds.

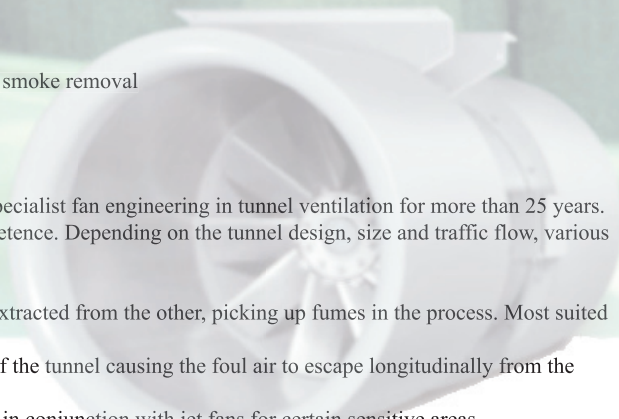
AJ8 & AJR Car Park “Impulse” Jet Fans

by Systemair

- Size 315mm, 355mm & 400mm dia
- Two Designs; AJR - Circular & AJ8 - Octagonal
- Removable fan module for easy maintenance
- Pre-assembled mounting brackets for safe and easy ceiling suspension
- IEC standard motors IP55 for CO exhaust (up to 55°C) or IP54 for high temperature (300°C/2hr) applications

- Casing manufactured from galvanized sheet steel
- Adjustable aluminium impellers for maximum efficiency
- Fully reversible blade settings available on request
- Terminal box IP66/67 for easy access at the outer fan casing
- Smoke extract available 300°C for 120 mins

Systemair Jet fans AJR and AJ8 offer highest system performance at low installation and running costs. They are available in impeller diameter 315, 355 and 400 mm. The system provides day-by-day ventilation as well as smoke extraction. For straight airflow the silencers have integrated inlet cones and guide vanes. The sound attenuating material is non-inflammable according to DIN 4102, corresponding with EU guideline 97/69. As accessory deflectors on the outlet side are available.



Atex Fans (Explosive Atmospheres)

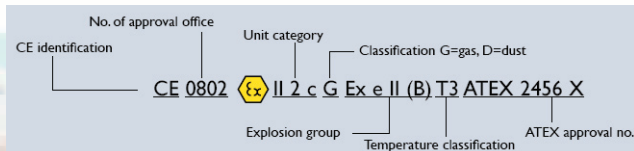


On 1st July 2003, the new ATEX directive 94/9/EC (ATEX = Atmospheres Explosibles) became effective. This directive is valid in all EC countries for operational installations in explosion hazardous zones. Examples are petrol stations, battery rooms, painting cabins and the chemical industry. Systemair provides you with helpful information for the selection of a suitable fan. Please bear in mind that manufacturers are responsible only for the appearance and workmanship of the fan. The system user is responsible for the correct system design for a proper operation. Pre-selection depends on the medium to be transported. Each medium has an individual ignition temperature. Systemair explosion proof fans comply with temperature classification T3, some units can also be used in T4. The following table shows possible ignition protection classes.

Temperature Classification	Ignition temp of different gas mixtures	Maximum surface temperature of electrical equipment
T1	> 450 °C	450 °C
T2	> 300...> 450 °C	300 °C
T3	> 200...> 300 °C	200 °C
T4	> 135...> 200 °C	135 °C
T5	> 100...> 135 °C	100 °C
T6	> 85...> 100 °C	85 °C

In contrast to standard fans there are special guidelines for explosion proof fans:

- Usage of non sparking materials
- Motor temperature must not exceed temperature classification T3
- Traceability of the manufacturing process
- Overall considerably higher quality demands



EX

Centrifugal fan with casing manufactured from silumin. Ex e increased safety. Compact design. Available in 230 V and 400 V execution. Air volume up to 1180 m³/h.



RVK-EX

Circular duct fan with casing manufactured from conducting plastic. Ex e increased safety. Speed controllable. Air volume up to 1020 m³/h.



DKEX

Centrifugal fan with casing manufactured from galvanised sheet steel with a brass inlet cone. Ex e increased safety. Speed controllable. Air volume up to 5000 m³/h.



KTEX

Rectangular duct fan with casing manufactured from galvanised sheet steel with a brass inlet cone. Ex e increased safety. Speed controllable. Air volume up to 5000 m³/h.



AW-EX

Axial fan with a square plate for wall mounting and an impeller manufactured from galvanised power-coated sheet steel. Size 355 and 420 are approved for temperature classification T4. Speed controllable. Air volume up to 11,500 m³/h.



DVEX

Roof fan with casing manufactured from sea water resistant aluminium. Ex e increased safety. Speed controllable. Air volume up to 8600 m³/h.



DVV-EX

Roof fan with casing manufactured from sea water resistant aluminium. Ex e increased safety. Speed controllable by frequency converter. Delivery with mounted terminal box. Air volume up to 44,000 m³/h.



AXC-EX

Axial fan with casing manufactured from hot dip galvanised steel. Ex e increased safety. Speed controllable by frequency converter. Air volume up to 190,000 m³/h.



AXCBF-EX

Axial fan with casing manufactured from hot dip galvanised steel. Ex e increased safety. Speed controllable by frequency converter. Air volume up to 20,000 m³/h.



In the industry explosion hazardous areas are classified in zones. ATEX classifies the fans in categories, corresponding to the zones. Categories are independent from the substance causing the explosion hazard. The classification in categories (or zones) is related to the temporal appearance (frequency of occurrence) of explosion hazardous atmosphere. Basically the correct zone or category can only be given by the user of the system, after having conducted an analyse regarding the occurrence of explosion hazardous gases or mixtures in the project. The categories or zones do not define the concentration!

Category 1 (zone 0) covers areas, where there is a permanent or long lasting occurrence of explosion hazardous atmosphere (more than 1.000 h/year). Example: Inside a fuel tank.

Category 2 (zone 1) covers areas, where there is a regular occurrence of explosion hazardous atmosphere (10 – 1.000 h/ year). Example: Filling machine.

Category 3 (zone 2) covers areas, where there is a non-regular or short time appearance of explosion hazardous atmosphere (up to 10 h/year). Example: defective gas pipe, accidents.

All Systemair explosion proof fans correspond with category II, allowing an application in zone I and zone 2. The last decision has to be made regarding the ignition protection class.

All Systemair explosion proof fans correspond to ignition protection class Ex e = increased safety. The following ignition protection classes may be requested. **i** intrinsic safety, **d** pressure resistant capsulation, **e** increased safety, **p** over pressure capsulation, **o** oil capsulation, **m** cast capsulation, **q** sand capsulation (Ex e IIA T4)

The ignition temperature of the medium but also the classification in explosion groups is important. Both classifications have to be considered (II A or II B) when selecting a suitable fan. A good example is hydrogen. Hydrogen is classified in temperature class T1, but in explosion group II C. Hydrogen can not be extracted with a Systemair explosion proof fan.

Hydroponics

by Fans & Spares



What is Hydroponics?, by its most simple definition, is the growing of plants without soil. The plants are supported in an inert media such as clay pebbles or rockwool and are fed nutrient solution. This means that the plants do not have to develop a large root system in order to feed. Soil-based plants divide their energy evenly between growing upwards and growing downwards (rooting). A hydroponically grown plant expends a greater proportion of its effort growing upwards because all the nutrients it requires are readily available.



Why ventilate your growing area?

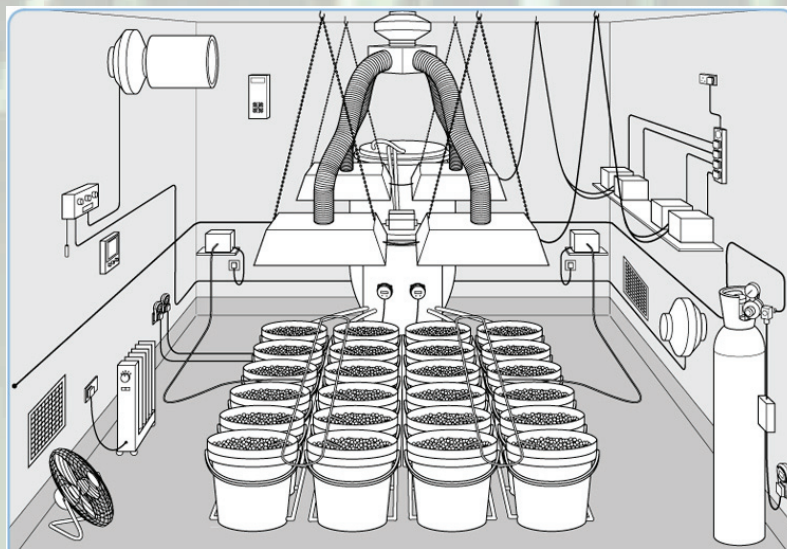
Ventilation is one of the most important parts of your growroom setup. It provides your plants with the ideal growing environment and removes stale air that contains moisture from plant transpiration which can cause disease and decay. Correctly ventilating your growing area also removes any unwanted odours from the water tanks etc, excess heat and provides a continuous supply of fresh CO2 - invaluable for your plant development.

Fans & Spares offer the complete ventilation solution from:-

- ***Supply Fresh Air Fans - HVK's 100mm dia to 315mm dia see page 27 (as RVK)***
- ***Extract Air Fans - HVK's 100mm dia to 315mm dia***
- ***Odour Control - Carbon Filters 100mm to 315mm see page 103***
- ***Speed controllers & temperature stats see page 129/130***
- ***Flexible ducting (Acoustic & Standard) 10m lengths see page 118/119***
- ***Ductwork Components - Tee Pieces / Bends / Reducers etc see page 125***
- ***Clips & Clamps see page 137***
- ***Silencers - Flexible & Rigid see page 125***
- ***Air Circulators - Floor or wall mounted see page 107/108/109***



The World renowned HVK plastic duct fan, manufactured by Systemair Germany (formerly known as Lti Fans). This fan has been developed especially for the hydroponic market and is considered the best money can buy, these low wattage, high output fans are designed to handle both low air volume hobby use and high air volume commercial use. All HVK fans are tested to run 24hours, 7 days, 365 days a year without problems.



Centrifugal fan scrolls



Whether it's a replacement or spare part for a direct or belt drive - single or double inlet fan with forward or backward curved impellers - Fans and Spares will have the solution.

Why not take your old fan to one of our trade counters and let us identify it and sort out a replacement

Direct driven centrifugal fans, double inlet, with forward curved blades

Wheel sizes from 146 x 146 mm (5" 3/4) up to 18-18

Also from sizes from 9/7 tight up to 12-12*

Volume flow up to 16000 m³/h

Pressure up to 1000 Pa (static pressure)

Installed power up to 4 kW

Conventional motors, single phase and three phase 50 and 60Hz

*external rotor motors, single phase and three phase 50 and 60Hz



Double inlet centrifugal fans with true airfoil section

Wheel size from 315 up to 1000 mm

Volume flow up to 120.000 m³/h

Pressure up to 2500 Pa (total pressure)

Installed power up to 75 kW



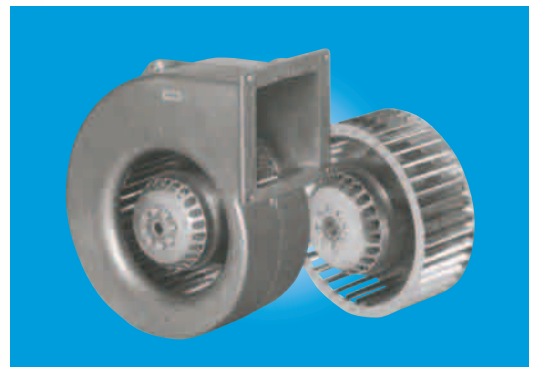
Belt Driven. Forward Curved Centrifugal, Double Inlet Fans

Wheel size from 160 up to 1000 mm

Volume flow up to 240.000 m³/h

Pressure up to 2500 Pa (total pressure)

Installed power up to 75 kW



Direct driven centrifugal fans. single inlet, with forward curved blades

Wheel sizes from 97 up to 450 mm (18")

Volume flow up to 7000 m³/h

Pressure up to 1000 Pa (static pressure)

Motor power up to 2200 W

Conventional. high slip motors. single phase and three phase 50 and 60Hz

Direct driven fans for fan-coil units, fan-decks

Wheel sizes from 4" up to 9"

Volume flow up to 10000 m³/h

Pressure up to 750 Pa (static pressure)

Motor power up to 2200 W

Conventional. high slip motors, single phase, 230 V - 50 Hz



Double Inlet Blowers - Centrifugal - Quiet yet powerful fans with the motor mounted in one inlet. These fans are large air movers and are used where noise criteria are strict. Airflow rates from 112-1880 l/sec, 243-6768 m³/hr

Duplex and Twin Scroll Blower - Centrifugal - Two fans driven by a double shaft motor. This design allows air into a system over a broad front from a very compact unit. Airflow rates up to 1180 l/sec 4248 m³/hr

Single Inlet Blowers-Centrifugal-Quiet,powerful air delivery for localised air movement. Airflow rates from 2.8 to 130l/sec, 275 ft³/min

Stool Mounted Blowers - Centrifugal - A range of robust fans with the availability of different speed motors to efficiently match your required performance needs. Airflow rates up to 1792 l/sec, 6451 m³/hr



Double Inlet Fans



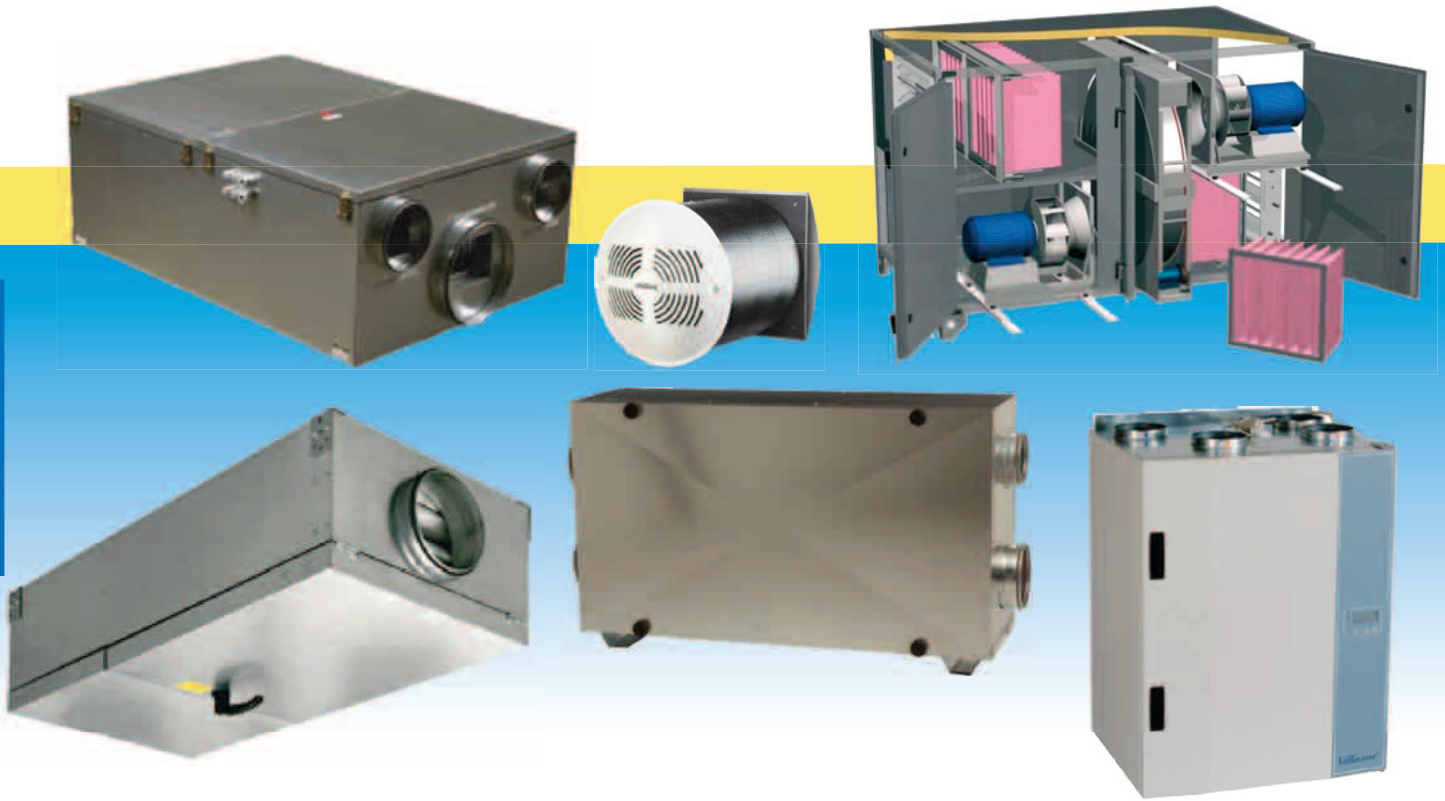
Duplex Fans



Single Inlet Fans



Stool Mounted Fans



Heat Recovery & Air Handling Units



TA

Supply air handling unit c/w Controls

by Systemair

- Supply air units
- Low overall height
- Complete with integrated control system
- Speed-controllable

TA is a series of air-handling units designed for ventilating petrol stations, schools, shops, offices and other smaller premises. The units have low overall height and are easy to install in existing premises.

The units are delivered complete with control system, heating battery and filters. The TA EL has an electric re-heater, whilst the TA HW uses a hot-water battery for re-heating. Speed-controllable, high efficiency plug fans make service and cleaning easy.

The double skin casing is insulated with 50 mm mineral wool to minimize sound to the environment. The units are controlled from a user-friendly control panel that can be mounted on the wall.



Control panel SCP

TA	Voltage V/50Hz	Motor W	Heater kW	Airflow m ³ /s @ Pa						Filters
				50Pa	100Pa	200Pa	300Pa	400Pa	500Pa	
450EL	230/400	130	3/3 or 6	0.155	0.143	0.11	0.077	0.025	-	EU5
650EL	400	220	5 or 8.3	0.22	0.21	0.17	0.15	0.1	0.06	EU5
1100EL	400	325	8 or 13.3	0.34	0.32	0.27	0.23	0.19	0.14	EU5
1500EL	400	548	12 or 20.3	0.49	0.47	0.42	0.37	0.31	0.25	EU5
1500HW	230	573	enq	0.41	0.4	0.35	0.3	0.25	0.2	EU5
2000EL	400	705	16 or 33.3	0.6	0.57	0.54	0.49	0.44	0.39	EU5
2000HW	400	673	enq	0.56	0.54	0.5	0.46	0.42	0.36	EU5
3000HW	400	1084	enq	0.95	0.9	0.8	0.64	0.4	0.1	EU5
4500HW	400	1880	enq	1.44	1.39	1.27	1.12	0.9	0.6	EU5

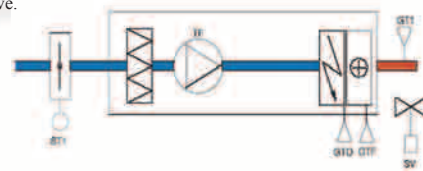
External extract Fan (use either KVK fan for 1ph & RSI fan for 3Ph)

An extract fan can be connected to the unit and be operated in parallel with the TA supply unit. The extract fan must be 1-phase for TA units 450 - 1500 and 3-phase for TA units 2000 & above. The extract fan must also have integrated thermal contacts for protection against over heating.

Available current for external extract fan (Amps)

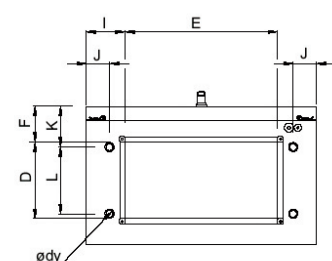
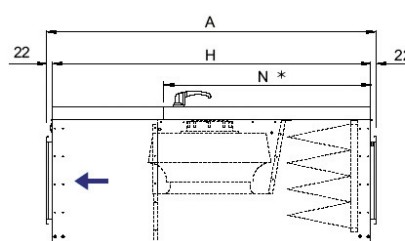
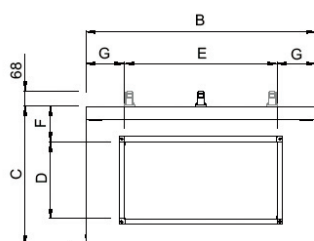
TA	450	650	1100	1500	2000	3000	4500
230 V 1 ph	0.7	1.0	3.5	2.6			
400 V 3 ph					2.8	2.0	4.3

Explanatory sketch



- TF Supply air fan
- GT1 Supply air sensor
- SV Valve actuator, water valve (accessory)
- GTO Immersion sensor
- GTF Sensor for frost protection
- ST1 Damper actuator, fresh air (accessory)

TA Unit	A	B	C	D	E	F	G	H	I	J	K	L	Dia dy	N	Weight kg
450EL	1125	500	354	200dia	-	51	-	1042	89	-	-	-	-	176	50
650EL	1203	556	307	200 dia		69	-	1116	82	-	-	-	-	702	55
1100EL	1233	620	374	250 dia		75	-	1146	140	-	-	-	-	731	67
1500EL	1190	750	374	200	400	105	175	1146	69	-	-	-	-	731	82
1500HW	1190	750	374	200	400	105	175	1146	175	102	125	162	21mm	731	71
2000EL	1190	850	374	250	500	73	175	1146	73	-	-	-	-	731	99
2000HW	1190	850	374	250	500	73	175	1146	175	101	92	212	21mm	731	87
3000HW	1296	904	545	300	600	141	152	1252	152	92	160	262	27mm	325	125
4500HW	1346	1006	545	400	700	91	153	1302	153	92	110	362	34mm	320	145



VX

Heat recovery unit c/w Controls

by Systemair



- User friendly controlling by one or several control panels.
- Automatic de-frosting for all operating conditions.
- Integral filter monitor
- EU7 fine filter for supply-air
- Cross flow heat exchanger
- Inspection covers on both sides
- Demand control



CE Control Panel with plug & play connections that enable control of the fan speed and heater battery temperatures.



The VX-400 E is a complete ventilation unit designed for smaller offices, shops and similar premises. VX 400 E and 700 E are designed to ventilate homes, offices and smaller commercial buildings.

Fans for supply and extract air, control system, cross flow heat exchanger, thermostat operated pre- and re-heater battery and filters are standard.

Summer block is available as an accessory when heat recovery is not required.

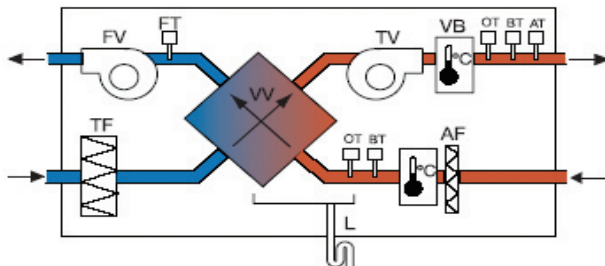
Air flow, supply air temperature and filter change interval are set from one (or several) external mounted control panels type CE. Lamp indicators on the CE panel shows chosen fans and temperature settings, whether the heating battery is in operation and if filters need to be replaced. The lamps also help to show if any faults would occur.

VX Unit	Air flow m ³ /s @ Pa					
	50 Pa	100 Pa	150 Pa	200 Pa	250 Pa	300 Pa
VX400E Supply	0.104	0.1	0.086	0.073	0.058	0.034
Extract	0.123	0.115	0.104	0.093	0.08	0.06
VX700E Supply	0.185	0.173	0.154	0.14	0.12	0.1
Extract	0.235	0.22	0.2	0.185	0.17	0.15

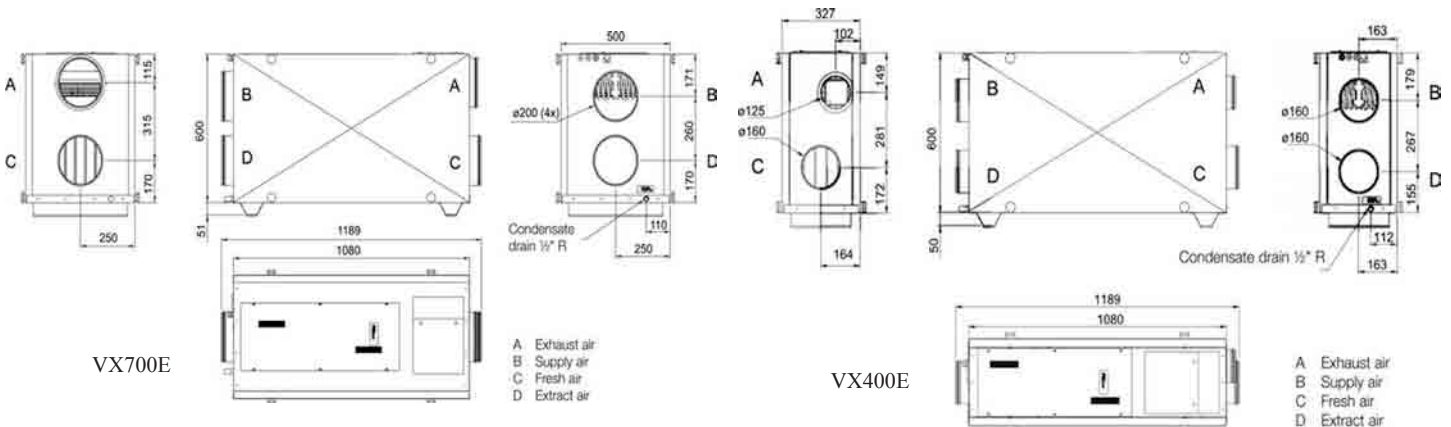
Technical Data

	VX400E	VX700E
Voltage Frequency	V/ 50 Hz	230-240
Input power. Motors	Watts	2 x 138
Input power. Heater Battery	Watts	1670
Sound power level - Breakout	dB(A)	53
Mains Fuse	Amps	10
Weight	Kg	47
Filter. Supply Air		EU7
Filter. Exhaust Air		Aluminium

VX 400-700 E



- TF Fresh air filter
- FV Exhaust air fan
- FT Defrosting thermostat
- VV Heat exchanger
- TV Supply air fan
- VB Electric heater battery
- OT Overheating thermostat
- BT Emergency thermostat
- AT Setting of supply-air temperature
- AF Extract air filter
- L Condensate drain



Compact Air handling Units



Topvex TX / SX (Plate Heat Exc)

- Duties from 0.05m³/s - 1.9m³/s
- Plug and play
- Integrated control system
- Pre-configured
- Very easy to operate
- Menu based controller
- Factory tested
- Low energy use
- Ready for demand controlling
- Step-less fan speed settings
- Step-less differentiation of the fans
- Easy maintenance
- Manufactured in Aluzinc
- Low noise



Topvex TX is an air handling unit with a modern design intended for ventilating offices, day-care centres or used as zone ventilation in larger buildings e.g. schools.

To meet the new restricted energy requirements with low SFP (Specific Fan Power) Topvex TX is equipped with EC fan motors. EC-motors consume an average of 30 % less energy than standard alternating current motors. In some applications, the saving can be 50 % or more.

Topvex TX with its crossflow heat exchanger is normally used where it is a requirement that the supply and exhaust air must be kept separated.

The units have an efficient de-icing function.

Ice accretion of the heat exchanger is depending on the outdoor temperature and the humidity in the extract air. The humidity in the extract air is varying a lot depending on what activities it is in the building e.g. an industry premises is normally producing much less humidity than a day-care centre. Therefore has the de-icing function been made settable so that it can be optimized to different applications.

The housing is made of insulated panels and has bevelled cast aluminium corners to avoid sharp edges. Doors and panels are made of double-skinned 0.9mm aluzinc with 50mm of internal mineral insulation. Main components are removable with quick release connections for the electrical cables and the large inspection doors facilitate inspection and servicing.

Topvex TX is delivered complete with control system, supply and extract filter, cross flow heat exchanger, by-pass damper and Electrical or Hot water heater.

The unit is ready configured and therefore very easy to set up, set the Time and date, desired air temperature, fan speed (0-100%) and then program the operating time and the unit is up-and-running.

The units have energy saving functions like:

- Cool recovering to recover the chilliness in the extract air, when using an external cooling unit.
- Demand controlled airflow by using a digital CO₂/ humidity sensor or a movement detector.
- Sum alarm output that makes it possible for central supervision of many units.
- Central supervision secures that incorrect operating, like dirty filters, detects early.

Topvex TR / SR (Thermal Wheel)

- Duties from 0.05m³/s - 1.9m³/s
- Space saving top connection
- Rotating heat exchanger
- Integrated control system
- Electric or hot water heating coil



Topvex are designed for ventilating schools, day care centres, offices and other smaller premises. The unit is also suitable for zone ventilation in larger buildings. Topvex is delivered complete with control system, rotating wheel, re-heater battery, electric wiring and filters.

It is easy to set up the unit. All functions are controlled from a control panel, to be placed on a wall. The unit switches automatically to cool recovery if indoor temperature becomes lower than outside temp.

With the rotating heat exchanger, problems with condensation and need for defrost cycles are eliminated.

Topvex is tested according to Eurovent EN 1886.

Maxi Comfort 800

The Systemair Maxi Comfort 800 is an all-year heat pump including controller. The unit ventilates, cools, heats, regulates supply and exhaust air flows, mixes, filters and saves energy thanks to its intelligent electronics. Its compact design means that no further installation work is necessary on the unit. It only requires a mains power connection and a connection for the condensate drain. This allows rapid installation and simple commissioning of the unit, which is tested and ready for service, and only needs to be plugged in.

It is also possible to interconnect and operate up to five units in order to cover larger capacity ranges.

The typical areas of application of the Maxi Comfort 800 include: Bank branches, petrol stations, offices, boutiques, bakeries, doctors' surgeries, residential buildings, and it is also ideal for server rooms.



The Maxi Comfort 800 is controlled by a pre-programmed control unit with flash memory.

It can be used to control up to five units (1 master, 4 slaves) automatically or manually.

A separate electricity consumption optimisation function is integrated, as well as a run time and error message protocol display.



All information and queries concerning the required mode can be displayed and modified using the cable remote control with LCD display and external keys. Case dimensions: (W x H x D) 156 x 82 x 31 mm The control panel consists of a control and indicator display with input keys and a real-time clock. There is also an interface to the motherboard. The standard values and operational status are displayed in cleartext on a four-line LCD display.

The unit can be switched on and off directly on the control unit.

Air Handling Units with Heat Recovery

(A very small selection of the units available, please enquire for more extensive selections)



VR 250 EH/B HEAT RECOVERY UNIT

- Rotating heat exchanger
- Automatic change normal/summer operation
- Flexible installation without condensate drain
- Automatic bypass-function when using a cooker hood

The VR unit is suitable for ventilation of smaller apartments. It is painted white and designed for installation on the wall or ceiling. It is delivered double skinned, fully insulated and with complete control functions, centrifugal fans for supply and extract air, rotating heat exchanger, reheater battery and filter.

A duct from the cooker hood can be connected to a separate "bypass-duct" so that the air from the cooker hood leads direct to the exhaust fan and not through the unit.

Anti-vibration ceiling mounting brackets and inspection doors on both sides makes the unit easy to place and clean.

The unit will automatically alternate between normal operation with heat recovery and summer operation without heat recovery.

Electrical connection

- Connection to mains supply via 1 m cable and plug for earthed connection
- 4-core (12V) for signal from remote control panel, if installed. Connection via external plug or alternatively on terminal block in the junction box. Use twin plugs for installation of several control panels.
- 2-core for potential free signal from separate timer, if installed

VX-700 EV HEAT RECOVERY UNIT

- User friendly controlling by the integrated and/or separate control panel
- Automatic de-frosting for all operating conditions
- Integral filter monitor
- EU7 fine filter for supply-air
- Cross flow heat exchanger
- Demand control

The VX-700 EV is a complete ventilation unit designed for dwellings, smaller offices, shops and similar premises. It is coated in white enamel and intended for wall mounting in laundry rooms, sculleries or similar locations.

Fans for supply and extract air, control system, cross flow heat exchanger, thermostat operated pre- and re-heater battery and filters are standard.

Summer block is available as an accessory when heat recovery is not required.

Air flow, supply air temperature and filter change interval are set on the integrated control panel and/or from one (or several) external control panels type CE.

Lamp indicators on the CE panel shows chosen fans and temperature settings, whether the heating battery is in operation and if filters need to be replaced. The lamps also help to show if any faults would occur.

A separate timer can be connected for programming day and night operation. A CO2 or presence sensor (potential free contact) can be connected for demand control.

The casing is manufactured from galvanised sheet steel, double skinned with 30 mm of insulation. The VX-700 EV is available in both right-hand (H) and left-hand (V) versions. E.g. for right-hand version (H), the supply air connection is on the top of the unit to the right hand side.

VR 400-700DC HEAT RECOVERY UNIT

- User friendly controlling by one or several control panels.
- Automatic de-frosting for all operating conditions.
- Integral filter monitor
- EU7 fine filter for supply-air
- Thermal Wheel heat recovery
- Inspection covers on both sides
- Demand control



The VR-400DC & VR-700DC is a complete ventilation unit designed for smaller offices, shops and similar premises, with DC motors for low energy use.

Fans for supply and extract air, control system, Thermal Wheel heat exchanger, thermostat operated pre- and re-heater battery and filters are standard.

Air flow, supply air temperature and filter change interval are set from one (or several) external mounted control panels type CE.

Lamp indicators on the CE panel shows chosen fans and temperature settings, whether the heating battery is in operation and if filters need to be replaced.

The lamps also help to show if any faults would occur. A separate timer can be connected for programming day and night operation.

A CO2 or presence sensor (potential free contact) can be connected for demand control.

VX 400 EV L HEAT RECOVERY UNIT

The VX-400 EV is a complete ventilation unit designed for dwellings, smaller offices, shops and similar premises

- User friendly controlling by the integrated and/or separate control panel
- Automatic de-frosting for all operating conditions
- Integral filter monitor
- EU7 fine filter for supply-air
- Cross flow heat exchanger
- Demand control

VX 250 TV/P HEAT RECOVERY UNIT

A heat recovery unit equipped with centrifugal fans for supply and extract air, cross flow heat exchanger, thermostat operated re-heater battery and filters.

VX 250 TV/P is very easy to install in both new and old dwellings. The unit is designed for installation on the wall in laundry room or similar.



Maxi Compact Air Handling Units

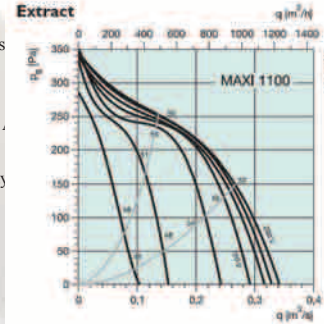
MAXI 1100 EL AHU-COMPACT, (Elec Heater Battery)
MAXI 1100 HW AHU-COMPACT, (LPHW Heater Battery)

- Complete with integrated control system
- Low overall height
- Easy to service
- Integrated bypass duct
- EU7 fine filter

The MAXI 1100 unit is designed for the ventilation of smaller offices, shops or similar premises. The unit is to be installed horizontally in the attic, above a corridor or similar locations. The EL unit can also be installed upside down. The MAXI 1100 is manufactured from galvanised sheet steel with 50 mm insulation (30 mm for the inspection covers.) The 2 inspection covers with quick-release fasteners together with removable motors and heat exchange unit facilitate easy service and maintenance. The heat recovery efficiency is approximately 55-65 %.

The MAXI EL has an electric re-heater, whilst the MAXI HW uses a hot-water battery for re-heating. A by-pass channel with motorized damper is built into the unit.

The integral transformer has a 7-step choice for fan speed. The SCP control panel has an integral 7-day timer for selecting day and night operating settings.



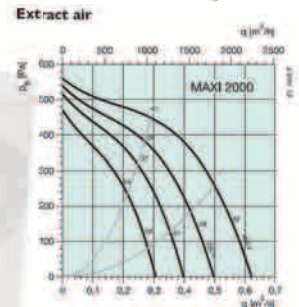
MAXI 2000 EL AHU-COMPACT,
MAXI 2000 HW AHU-COMPACT

- Complete with integrated control system
- Low overall height
- Easy to service
- EU7 fine filter

The MAXI 2000 unit is designed for the ventilation of offices, shops, nurseries or similar premises. The unit is to be installed horizontally. The MAXI EL can also be installed upside down. The unit is supplied in 2 parts to facilitate easy installation. The MAXI EL has an electric re-heater, whilst the MAXI HW uses a hot-water battery for re-heating. The heat recovery efficiency is approximately 55-65%.

The MAXI 2000 is manufactured from galvanised sheet steel, double skinned, with 50 mm of Rock-Wool insulation. To facilitate easy maintenance, the access covers are fitted with quick release clips. In addition, the motors and heat exchanger are removable.

The integral transformer has a 4-step choice for fan speed. The SCP control panel has an integral 7-day timer for selecting day and night operating settings.



Accessories

- E-tool cable
- Spring return damper*
- Valve actuator for HW
- Valve, 2-way
- Valve, 3-way
- Duct adapter
- Combi-Cowl
- Combi-Grille
- Cooler, cold water
- Silencer, supply/exhaust
- Silencer, extract/outdoor**
- Timer
- Room temperature sensor
- Outdoor sensor, wall mount
- Exhaust air sensor, duct
- Filter EU3
- Filter EU5
- Filter EU7
- By-pass duct
- Vibration damper
- Suspension device for EL

1100 EL/HW

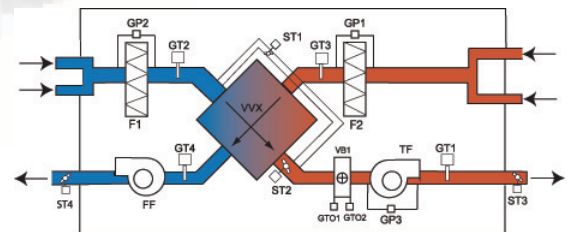
- ETC
- EFD 315
- HWRO
- TVTA 202
- TVTA 203
-
- THM
- VGM
- CWK 315
- LDC 315
- LDC 200
- T 120
- TG-R5/PT1000
- TG-R6/PT1000
- TG-KH/PT1000
- BVF 1100-3
- BVF 1100-5
- BVF 1100-7
-
- VDM 1100
- UDM 1100

2000 EL/HW

- ETC
- EFD 315
- HWRO
- TVTA 452
- TVTA 453
- OKM 2000
- THM
- VGM
- CWK 315
- LDC 315
- LDC 250
- T 120
- TG-R5/PT1000
- TG-R6/PT1000
- TG-KH/PT1000
- BVF 1500/2000-3
- BVF 1500/2000-5
- 1500/2000-7
- BP 1500/2000
- VDM 1500/2000
- UDM 1500/2000

* N.B. One damper to be mounted on the exhaust and one on the supply air duct.

** N.B. Maxi has two ducts for extract and outdoor air. One to two dampers for exhaust/outdoor air can be connected depending on the need.



By Systemair

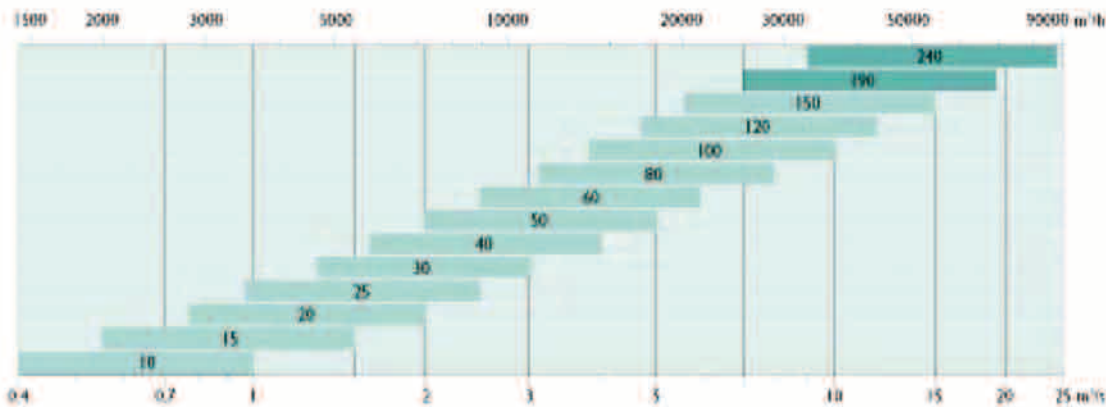
Characteristics

DV is a range of air handling units, built in modules which gives many design possibilities. It can be built as separate supply air and exhaust air units or as a complete system including heat recovery.

The fans are directly driven and the motors are prepared for frequency converters (frequency converters are not included). The DV units in sizes 10-150 are available with centrifugal fans too.

The panels are insulated with 50 mm mineral wool that is totally encapsulated between two steel sheet. The selected heavy mineral wool helps to further minimize break out of noise from the unit and to good heat insulation.

The DV units comes without control system.



Sizes and air volumes

The DV Air Handling Unit (AHU) comes in a range of 12 different sizes, with air volume capacities from 0,4 -15 m³/s or 1.500 - 54.000 m³/h, making it possible to always find the unit suitable for any given requirement.

Functions

The DV AHU features a number of well-dimensioned functions, presenting a choice between different heat exchanger systems, a range of fans, filters, heating and cooling coils and much more. This means the DV AHU can be configured for many different applications, from individual fan units to advanced air handling systems.

Dampers

DV is fitted with contra - rotating dampers in tightness class 3 . The product range consists of shut off - and mixing dampers .

Filters

Compact filters in class G4 are short pleated filters . Bag filters are available in 5 classes from G3 to F9. Locking rails ensure tightness and easy change of filters .

Heat exchangers

Rotary heat exchangers with a high efficiency level . Possibility for transferring of moisture . Plate heat exchangers for separation of air-flows, and with possibility for corrosion protection . Run - around coil heat exchangers for airflows that are separated from each other.

Heating coils

For heating of air with hot water, steam or electricity.

Cooling coils

For cooling of air with cold water or direct evaporation.

Fans

Belt - driven centrifugal fans with different types of high efficiency fan impellers. Plug fans are direct driven and features low sound levels in the lower frequencies

AHU Casing

DV Air Handling Units are built to last.

To ensure that the quality of the casing lives up to the high standards of its functions, we use panels and frames which are protected against corrosion using alu-zinc of the highest quality AZ185. Steel sheets which are protected with alu-zinc AZ185, ensure a corrosion protection in class C4 according to EN ISO 12944-2.

Frame profiles and corners

Danvent AHUs are constructed using a closed framing profile with cast aluminium corner pieces. The frame profiles are made of steel with alu-zinc corrosion protection. The result is a strong and robust construction able to resist twisting and lateral movement, making them extremely stable and strong.

Panels

The panels of the DV AHU are built using a sandwich construction with 50 mm mineral wool for sound and heat insulation. The mineral wool is completely encapsulated between two steel sheets. The panels with alu-zinc surface is not only highly corrosion-resistant, but presents an attractive, uniform appearance that can last for many years.

Disc-Lock

An AHU consisting of several sections can be quickly and efficiently assembled using Disc-Lock, our unique assembly system. The sections can be assembled externally or internally as required.

Danvent DV Modular Air Handling Units



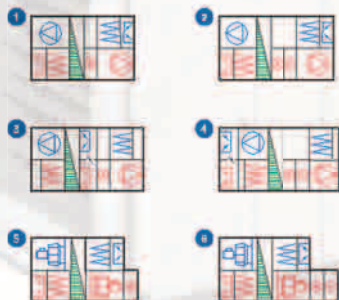
Inspection Doors

Danvent AHUs have large inspection doors, making service access easy. The doors are mounted using solid hinges with easily removable stainless steel pins. This means that the doors can be easily removed, if there is no room for normal opening of the doors. The doors are sealed using rubber profiles and locks with heavy-duty handles. They can only be opened using a key, thus fulfilling the specifications of the Machinery Directive (CE Labelling).

Roof Units

The DV AHUs are available as roof units. In this version the units feature a roof construction, which provides protection against the effects of the weather. The units are available with components, which protect the air inlet and outlet against rain and snow.

Rotary Heat Exchanger



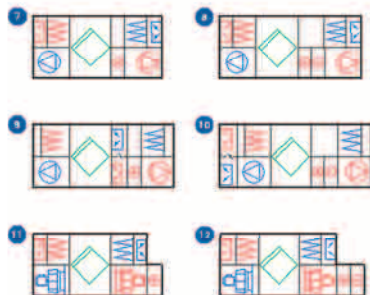
Run-around Coil Heat Exchangers



Recirculated air



Plate Heat Exchanger



Supply air

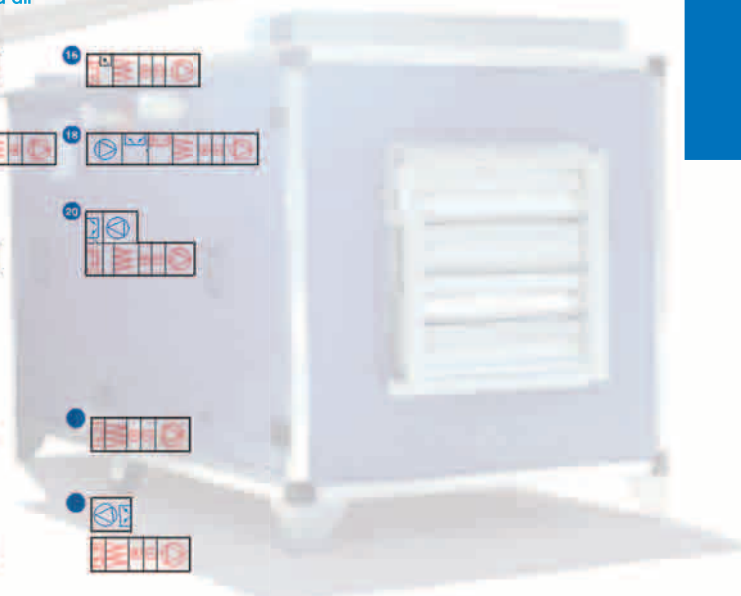
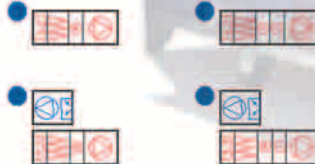


Photo is of the Air Handling Unit installed at Fans & Spares head office which provides Heat Recovery, LPHW Heating & DX Cooling to the sales offices



Nevada Air Handling Units (Competitive prices, Fast Delivery!)



by Fastlane

The NEVADA range of direct drive air handling units provide two types of framework construction, either 'Wraparound' or 'Pentapost' to form a rigid construction for the unit and its components.

Each type of unit is suitable for either internal or external mounting dependant upon application, with a selection of six standard models and a duty range of up to 1.4 m³/sec.

Each NEVADA unit comprises a direct driven centrifugal fan, a pleated panel filter and a L.P.H.W. Coil or Electric Heater Battery as standard components.

NEVADA units can be enhanced through a wide variety of optional equipment to cater for customer applications, including volume control dampers, silencers, manometers, heater control panels, speed regulators, pressure differential switches, washable filters and many more.

- Excellent performance characteristics with Air volumes of up to 1.4 m³/sec.
- A quality construction air handling unit, competitively priced, providing value and reliability.
- Standard components include forward curved double inlet fans, electric or hot water heaters and panel filters.
- Flexibility in design with internal or external mounting units and a comprehensive range of accessories.
- Slide rails allow installation and regular maintenance of standard components with minimal effort.
- Single Unlined, Lined and Double skinned casings to meet required noise criteria.
- Standard NEVADA 'Wraparound' units are available on a 48 Hr working day despatch. °
- Flexibility in performance with fully speed controllable fans.
- A wide range of electric heater outputs are available.
- Matching silencers are available to fit onto the outlet of the unit via a discharge spacer.
- Fan, filter and heater all within one casing, therefore easier to install.



° N.B. 48 Hr Despatch does not apply to Weatherproof or Non Standard Sizes

The standard range of NEVADA 'WRAPAROUND' units are manufactured from galvanised sheet steel, precision cut, then folded to standard sizes.

Although units are galvanised casings as standard, they can be supplied with plastisol coated steel outer skins upon request.

Panels are flush mounted into the unit framework rebates on a crush resistant closed cell neoprene sealing gasket, which provides an air seal between the panel and the component section. Gaskets are chemically and biologically inert and meet all requirements of DW 144

The NEVADA Wraparound can be used for external mounting, supplied with a weather louvre and fitted with water sheds over the top of the access panels to prevent water ingress, with plastisol coated steel outer skins as an option on the unit casing construction.

Single Skinned

Casings are manufactured from 1.0mm thick pre hot dipped galvanised mild steel suitably braced for rigidity.

Access to the fan and filter compartments is via lift off access doors with quick release fasteners.

Panels are flush mounted into the unit framework rebates on a crush resistant closed cell neoprene sealing gasket, which provides an air seal between the panel and the component section. Gaskets are chemically and biologically inert and meet all requirements of DW 144.

Single Skinned Lined

Casings are manufactured from 1.0mm thick pre hot dipped galvanised mild steel suitably braced for rigidity, internally lined with 25mm thick foam to building regulations class O fire propagation to BS 476 Part 6, spread of flame class 1 to BS 476 Part 7 and has a thermal transmittance U value of 1.92 W/m² K.

Double Skinned

Casings are manufactured from 1.0mm thick pre hot dipped galvanised mild steel suitably braced for rigidity, with an inner skin of 0.9mm hot dipped galvanised mild steel, enclosing 25mm of 65kg/m³ mineral wool.

N.B. Fan access and filter removal is via side access panels.

Fans & Motors

the fans are mounted onto a diaphragm plate, are double inlet double width forward curved centrifugal, housed in a purpose designed scroll with integral deep drawn inlet cones to facilitate maximum efficiency.

All fans are suitable for 230V/1Ph/50Hz or 60Hz electrical supply.

The fans are suitable for operating temperatures of up to +40°C.

The Motors are isolated from the unit case and have anti-vibration mounts fitted between the motor mounting arm and the fan casing.

All wheels are dynamically balanced.

Fan, Filter, EHB		Air flow m ³ /s @ Pa											
Model	Speed	0	50	100	150	200	250	300	400	500	FLC	SC	kW
NWE 10	1330	0.33	0.31	0.28	0.23						1.09	2.7	0.15
NWE 20	1120	0.56	0.50	0.44	0.37	0.28	0.13				3.2	8.0	0.373
NWE 30	1280	-	-	-	0.71	0.66	0.6	0.52			4.8	12.0	0.373
NWE 40	1190	1.09	1.04	0.98	0.92	0.85	0.77	0.65			6.3	15.8	0.55
NWE 50	1210	-	-	-	-	-	1.00	0.96	0.75	0.30	5.9	14.8	0.55
NWE 60	900	1.54	1.44	1.33	1.21	1.06	0.81				8.1	20.3	0.736

Fan, Filter, LPHW		Air flow m ³ /s @ Pa											
Model	Speed	0	50	100	150	200	250	300	400	500	FLC	SC	kW
NWHW 10	1330	0.31	0.28	0.26	0.21	0.09					1.09	2.7	0.15
NWHW 20	1120	0.44	0.39	0.34	0.28	0.21	0.12				3.2	8.0	0.373
NWHW 30	1280	-	-	0.7	0.65	0.60	0.53	0.42	0.15		4.8	12.0	0.373
NWHW 40	1190	1.02	0.97	0.90	0.84	0.76	0.67	0.54	0.20		6.3	15.8	0.55
NWHW 50	1210	-	-	-	-	-	0.97	0.92	0.60	0.24	5.9	14.8	0.55
NWHW 60	900	1.44	1.34	1.23	1.11	0.95	0.70	0.42			8.1	20.3	0.736



Grilles. Diffusers & Louvres

Also available, please enquire for the following:

- Swirl Diffusers
- Linear Bar Grilles
- Curved Blade Grilles
- Floor Grilles
- Linear Slot Diffusers
- Jet Nozzle Diffusers
- Perforated Diffusers
- Security Grilles
- Fire Rated Air Valves

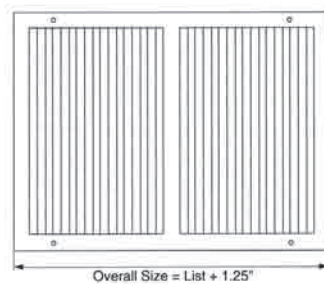
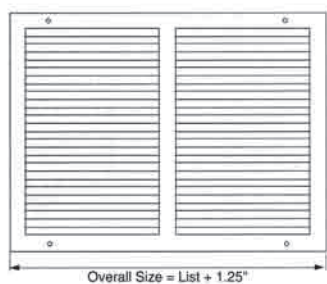
Pressed steel grilles

By Express-Air

A range of flush mounted, non vision grilles and registers pressed out of sheet steel for doors, partitions or wall mounted. Designed for air replacement with intumescent fire blocks or warm air ventilation systems. Sizes available from 100mm to 600mm with 50mm increments on length or height. Standard finish is either White RAL 9010 or Silver, with other colour options available on request i.e Black. Free area approx 78%.



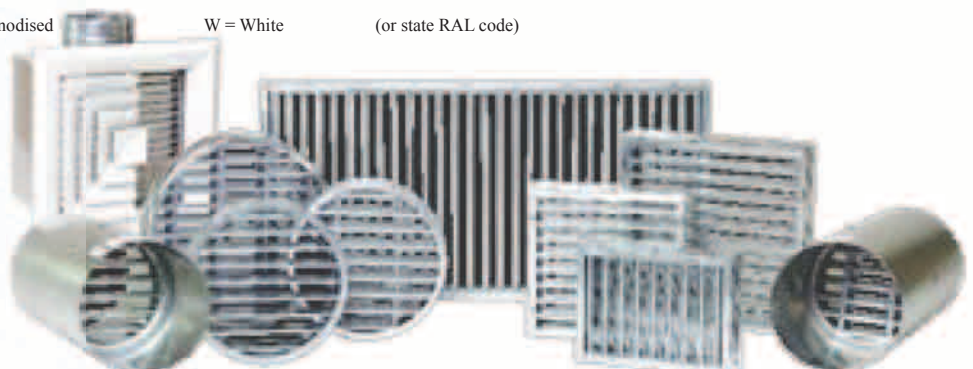
Free Area M2	Nominal Size mm	Vel m/s Pa	1	1.5	2	2.5	3
			3	7	10	15	20
0.017	150 x 150	m ³ /s	0.02	0.032	0.040	0.051	0.062
	200 x 100	NR	-	-	-	-	19
0.031	200 x 200	m ³ /s	0.042	0.060	0.076	0.099	0.150
	250 x 150	NR	-	-	-	-	19
0.049	250 x 250	m ³ /s	0.065	0.100	0.127	0.160	0.190
	300 x 200	NR	-	-	-	-	19
0.07	300 x 300	m ³ /s	0.09	0.140	0.184	0.225	0.280
	450 x 200	NR	-	-	-	-	22
0.096	350 x 350	m ³ /s	0.125	0.180	0.250	0.310	0.380
	500 x 250	NR	-	-	-	17	23
0.125	400 x 400	m ³ /s	0.16	0.250	0.325	0.410	0.500
	450 x 300	NR	-	-	-	17	25
0.16	450 x 450	m ³ /s	0.2	0.310	0.410	0.520	0.620
	600 x 350	NR	-	-	17	21	27
0.2	500 x 500	m ³ /s	0.25	0.385	0.510	0.650	0.775
	600 x 400	NR	-	16	21	25	30
0.236	550 x 550	m ³ /s	0.236	0.354	0.472	0.590	0.708
	600 x 500	NR	-	18	23	26	35
0.281	600 x 600	m ³ /s	0.281	0.4215	0.562	0.7025	0.843
	700 x 550	NR	-	22	26	32	37



How to Order

Type	PSG = Pressed Steel Grille	PSR = Pressed Steel Register
Size	300300 = 300 x 300	450300 = 450 x 300
Finish	S = Satin Anodised	W = White (or state RAL code)

For intumescent fire blocks see page 116



Non vision transfer grilles

NVF - Flanged NVS - Surface mounted

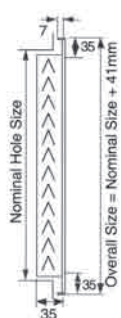
Grilles with horizontal angled blades permitting the passage of air whilst limiting the passage of light and vision. Ideal for transferring air from adjoining areas and air make up. Available in nominal sizes of 100mm to 1000mm with 50mm increments on length or height. Made from extruded aluminium with mechanical joints to lock the mitred corners of the flange. Standard finish Silver satin anodised to BS 1615 AA5. Other colours available i.e White. Fixings are via countersunk screw holes in the border. Free area approx 45%. Surface mounted grilles are used when an intumescent fire block is required.



Free Area	Nominal	Vel m/s	1	1.5	2	2.5	3
M ²	Size mm	Pa	8	20	35	46	60
0.025	150 x 150	m ³ /s	0.025	0.038	0.050	0.063	0.075
	200 x 100	NR	-	-	18	25	30
0.042	200 x 200	m ³ /s	0.042	0.063	0.084	0.105	0.126
	250 x 150	NR	-	-	20	26	32
0.065	250 x 250	m ³ /s	0.055	0.085	0.130	0.163	0.195
	300 x 200	NR	-	15	22	28	33
0.08	300 x 300	m ³ /s	0.08	0.120	0.160	0.200	0.240
	450 x 200	NR	-	15	23	30	34
0.106	350 x 350	m ³ /s	0.1	0.165	0.220	0.270	0.330
	500 x 250	NR	-	17	24	33	36
0.144	400 x 400	m ³ /s	0.13	0.200	0.280	0.337	0.400
	450 x 300	NR	-	18	27	34	36
0.182	450 x 450	m ³ /s	0.186	0.280	0.375	0.468	0.560
	600 x 350	NR	-	19	29	35	38
0.231	500 x 500	m ³ /s	0.23	0.344	0.468	0.595	0.700
	600 x 400	NR	-	19	30	35	40
0.299	550 x 550	m ³ /s	0.28	0.410	0.555	0.700	0.850
	600 x 500	NR	-	20	30	35	42
0.333	600 x 600	m ³ /s	0.34	0.5	0.68	0.855	1.01
	700 x 550	NR	-	22	30	38	43

How to Order

	NVF300300S	NVS450300W	
Type	NVF = Non Vision Flanged	NVS = Non Vision Surface	
Size	300300 = 300 x 300	450300 = 450 x 300	
Finish	S = Satin Anodised	W = White	(or state RAL code)



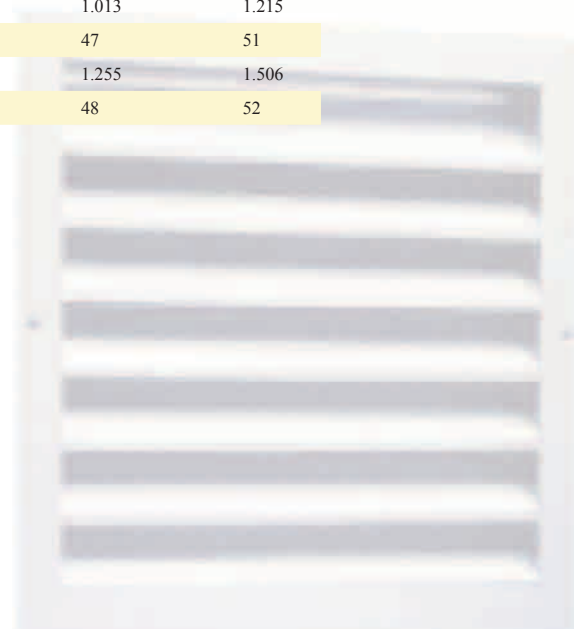
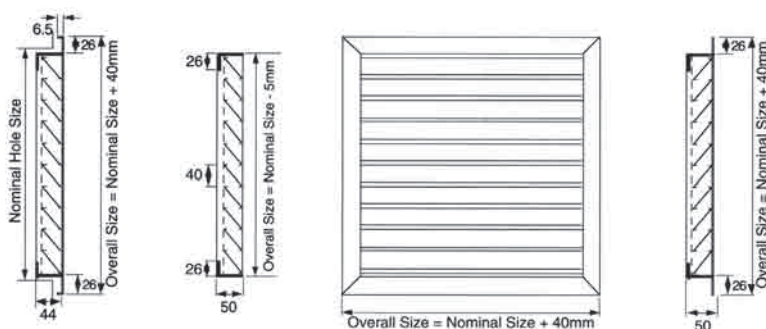
External weather louvres



Ideal for use on the external walls of a building for intake or extract air, the 45 deg blades are fixed at 50mm centres and have excellent integral rain defence features. Constructed from extruded aluminium sections, frames are fully welded and fitted with a bird guard as standard. Standard finish is satin anodised. with other colours available on request. Free area approx 50%.



Free Area	Nominal	Vel m/s	1	1.5	2	2.5	3
m ²	Size mm	Pa Intake	11	18	34	48	67
		Pa Exhaust	6	13	24	37	50
0.011	150 x 150	m ³ /s	0.011	0.017	0.022	0.028	0.033
		NR	-	-	18	25	30
0.02	200 x 200	m ³ /s	0.02	0.030	0.040	0.050	0.060
		NR	-	-	20	26	32
0.032	250 x 250	m ³ /s	0.032	0.048	0.064	0.080	0.096
		NR	-	25	31	36	38
0.045	300 x 300	m ³ /s	0.045	0.068	0.090	0.113	0.135
		NR	20	27	33	37	41
0.0613	350 x 350	m ³ /s	0.0613	0.092	0.123	0.153	0.184
		NR	21	29	35	39	43
0.08	400 x 400	m ³ /s	0.08	0.120	0.160	0.200	0.240
		NR	22	30	36	40	44
0.102	450 x 450	m ³ /s	0.102	0.153	0.204	0.255	0.306
		NR	22	30	37	41	45
0.125	500 x 500	m ³ /s	0.125	0.188	0.250	0.313	0.375
		NR	24	32	37	42	46
0.152	550 x 550	m ³ /s	0.152	0.228	0.304	0.380	0.456
		NR	25	33	38	43	47
0.18	600 x 600	m ³ /s	0.18	0.27	0.36	0.45	0.54
		NR	26	34	39	44	48
0.245	700 x 700	m ³ /s	0.245	0.368	0.490	0.613	0.735
		NR	27	35	41	45	48
0.32	800 x 800	m ³ /s	0.32	0.48	0.64	0.8	0.96
		NR	28	36	42	46	50
0.405	900 x 900	m ³ /s	0.405	0.608	0.810	1.013	1.215
		NR	30	37	43	47	51
0.502	1000 x 1000	m ³ /s	0.502	0.753	1.004	1.255	1.506
		NR	31	37	44	48	52

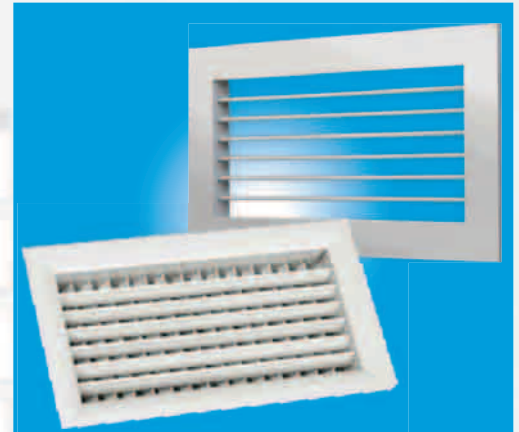


Single & Double Deflection Grilles

By Express-Air

Part Codes: SDG or DDG

Grilles with either single row or double row of individually adjustable tear-drop section blades and flanged borders. Supplied with or without an opposed blade damper. Available in nominal sizes of 100mm to 1200mm with 50mm increments on length or height. Made from extruded aluminium with mechanical joints to lock the mitred corners of the flange. Standard finish Silver satin anodised to BS 1615 AA5. Other colours available i.e White. Fixings are via countersunk screw holes in the border. Free area approx 80%. Heavy duty version and Fixed Blade grilles are available on request.



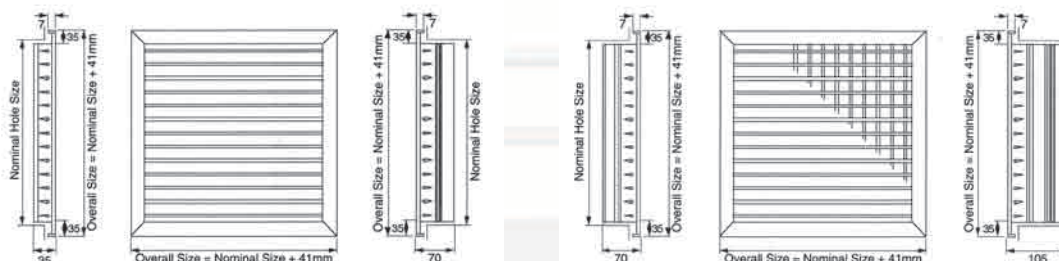
Free Area	Nominal	Vel m/s	1.5	2	2.5	3	3.5	4	5
M ²	Size mm	Pa	5	8	10	15	21	26	38
0.015	150 x 150	m ³ /s	0.023	0.030	0.038	0.045	0.053	0.060	0.075
		Throw M	3.0	4.4	5.4	6.7	7.8	8.8	10.4
		NR	-	-	-	-	22	25	31
0.034	200 x 200	m ³ /s	0.051	0.068	0.085	0.102	0.119	0.136	0.170
		Throw M	3.6	5.2	6.4	7.7	8.8	9.3	11.0
		NR	-	-	14	21	25	28	35
0.052	250 x 250	m ³ /s	0.078	0.104	0.130	0.156	0.182	0.208	0.260
		Throw M	4.0	5.5	7.0	8.4	9.0	9.9	11.0
		NR	-	-	18	22	27	31	37
0.077	300 x 300	m ³ /s	0.116	0.154	0.193	0.231	0.270	0.308	0.385
		Throw M	4.3	5.6	7.0	8.7	9.7	10.8	12.5
		NR	-	-	18	25	28	32	37
0.105	350 x 350	m ³ /s	0.158	0.210	0.263	0.315	0.368	0.420	0.525
		Throw M	4.5	6.0	7.8	9.5	10.2	11.8	14.0
		NR	-	-	21	26	30	34	41
0.146	400 x 400	m ³ /s	0.219	0.292	0.365	0.438	0.511	0.584	0.730
		Throw M	5.0	6.8	8.6	9.8	11.4	12.7	15.0
		NR	-	16	23	29	32	36	42
0.18	450 x 450	m ³ /s	0.270	0.360	0.450	0.540	0.630	0.720	0.900
		Throw M	5.5	7.5	9.0	10.6	12.0	14.2	16.7
		NR	-	18	24	31	35	39	44
0.23	500 x 500	m ³ /s	0.345	0.460	0.575	0.690	0.805	0.920	1.150
		Throw M	6.0	7.9	9.8	11.4	13.2	15.0	18.2
		NR	-	20	27	31	35	40	46
0.32	600 x 600	m ³ /s	0.480	0.640	0.800	0.960	1.120	1.280	1.600
		Throw M	6.5	9.0	10.3	12.6	14.7	16.7	20.0
		NR	-	22	29	33	38	42	49

How to Order **SDG300300S** **DDG450350W**

Type SDG = Single Deflection DDG = Double Deflection

Size 300300 = 300 x 300 450350 = 450 x 350

Finish S = Satin Anodised W = White (or state RAL code)

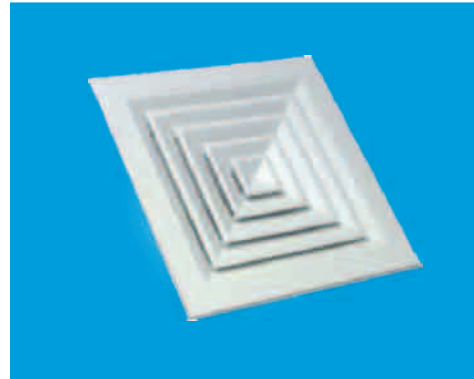


4 Way Louvred Face Diffuser

By Express-Air

The Express-air range of 4 way blow diffusers are ideal for Offices, Shops & Restaurants and are available in five sizes. All diffusers have a removal core for ease of cleaning.

The diffusers are manufactured from aluminium, powder coated white RAL 9010 for strength and durability. The opposed blade damper is optional and just clips onto the neck when required, plenum boxes are made to order with either top or side entry spigots. All diffusers are packaged in plastic bags inside boxes to prevent damage when transporting to site.



Order	Free Area	Nominal	Vel m/s	2	2.5	3	3.5	4	5	6
Ref Code	M ²	Size mm	Pa	3	4	6	8	10	15	22
EAD150WF	0.009	148 x 148	m ³ /s	0.018	0.023	0.027	0.032	0.036	0.045	0.054
			Throw M	1.0	1.2	1.6	1.8	2.2	2.7	3.2
			NR	-	-	22	25	27	32	36
EAD225WF	0.02	223 x 223	m ³ /s	0.040	0.050	0.060	0.070	0.080	0.100	0.12
			Throw M	1.5	1.9	2.3	2.7	3.0	3.7	4.4
			NR	-	21	24	27	30	35	38
EAD300WF	0.036	298 x 298	m ³ /s	0.072	0.090	0.108	0.126	0.144	0.180	0.216
			Throw M	2.0	2.5	3.0	3.4	3.9	5.0	6.0
			NR	-	23	26	29	32	37	41
EAD375WF	0.056	373 x 373	m ³ /s	0.112	0.140	0.168	0.196	0.224	0.280	0.336
			Throw M	2.5	3.1	3.7	4.3	4.9	6.2	7.5
			NR	20	24	28	32	34	38	42
EAD450WF	0.081	448 x 448	m ³ /s	0.162	0.203	0.243	0.284	0.324	0.405	0.486
			Throw M	3.0	3.7	4.5	5.3	6.0	7.5	9.0
			NR	22	26	29	33	36	40	43

EAD450WF is designed to fit standard ceiling tiles



Std. Size mm	A mm	B mm	C mm	D mm	E mm	F mm
150 X 150	135	147	295	42	150	83
225 X 225	210	223	370	42	225	83
300 X 300	285	297	445	42	300	83
375 X 375	360	372	520	42	375	83
450 X 450	435	447	595	42	450	83

Circular Multi Cone Diffuser

Systemair Konika circular ceiling diffuser, with PER plenum box as an accessory.

The Konika is a supply and exhaust air diffuser for ceiling assembly. The Konika is suitable for offices, shops or similar premises. The Konika can be connected directly to a circular duct by the use of Konika bar. The Konika is suitable both for cool and warm air. The Konika has high induction which allows a maximum air temperature difference of ΔT 12 K.

The Konika is manufactured from steel with a white powder-coated finish (RAL 9010) and is available in the following sizes: ϕ 160, ϕ 200, ϕ 250 and ϕ 315.

This device can be used for exhaust air.

Correct adjustment requires a length of straight duct, 4 times the duct diameter in front of the PER plenum box. Between the PER plenum box and the Konika diffuser there need to be a length of straight duct, 1 times the duct diameter.



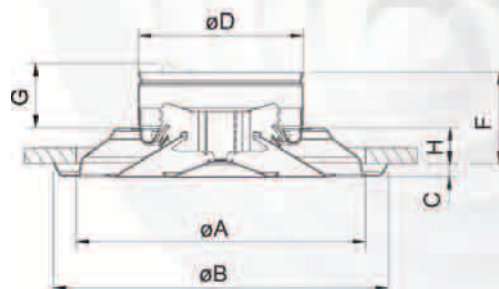
Horizontal Air Pattern				Vertical Air Pattern					
Konika-A-160	m ³ /s	0.075	0.094	0.112	Konika-A-160	m ³ /s	0.060	0.075	0.090
	dB(A)	25	33	40		dB(A)	25	33	40
	Throw m	4.5	5.5	6		Throw m	7	9	10.5
	Pa	17.0	27.0	37		Pa	20	34	45.0
Konika-A-200	m ³ /s	0.128	0.165	0.190	Konika-A-200	m ³ /s	0.100	0.120	0.145
	dB(A)	25	33	40		dB(A)	25	33	40
	Throw m	6	7	8		Throw m	8	11	13.5
	Pa	14	23	30		Pa	19	30	41
Konika-A-250	m ³ /s	0.190	0.240	0.275	Konika-A-250	m ³ /s	0.150	0.190	0.230
	dB(A)	25	33	40		dB(A)	25	33	40
	Throw m	7	9	10		Throw m	10	12.5	14.5
	Pa	12	19	25		Pa	14	23	32
Konika-A-315	m ³ /s	0.255	0.320	0.375	Konika-A-315	m ³ /s	0.210	0.275	0.325
	dB(A)	25	33	40		dB(A)	25	33	40
	Throw m	8	9.5	11		Throw m	11	14	16
	Pa	12	18	25		Pa	13	23	30
Konika-A-400	m ³ /s	0.440	0.560	0.650	Konika-A-400	m ³ /s	0.370	0.475	0.550
	dB(A)	25	33	40		dB(A)	25	33	40
	Throw m	11	14	16		Throw m	15	18	21
	Pa	11	18	24		Pa	12	21	27
Konika-A-500	m ³ /s	0.680	0.840	0.980	Konika-A-500	m ³ /s	0.530	0.660	0.780
	dB(A)	25	33	40		dB(A)	25	33	40
	Throw m	12.5	16	19		Throw m	17	20	23
	Pa	10	15	21		Pa	10	16	22

	A Dia	B Dia	C	D Dia	E	F	G	H
Konika-A-160	279	323	12	160	22	85	46	35
Konika-A-200	375	428	10	200	26	101	55	51
Konika-A-250	467	538	14	250	33	117	68	67
Konika-A-315	557	635	10	315	42	135	80	85
Konika-A-400	740	856	14	400	49	166	92	116
Konika-A-500	924	1081	17	500	72	199	116	149

Horizontal distribution pattern



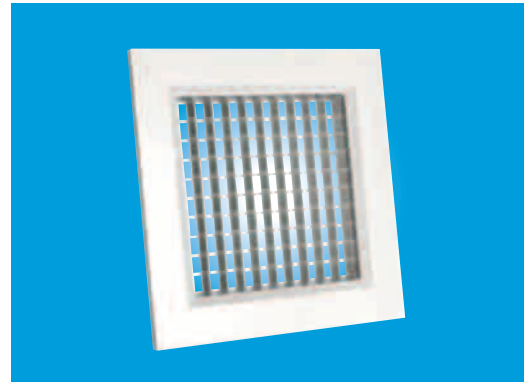
Vertical distribution pattern



Egg Crate Grilles

by Express-air

Egg Crate Grilles are the latest addition to the Express-air Product Range. Egg Crate Grilles are designed for use in exhaust or return air situations and may be mounted in walls or ceilings. Made fully out of Aluminium, the Grille has outer frame manufactured from heavy extrusion which can accommodate the egg crate core. Grilles upto 600 mm x 600 mm are available, which can be mounted efficiently in the ceilings. The Grille core has a standard 1/2" x 1/2" x 1/2" Egg Crate Size. The free area of the grille is >90% of the nominal area, providing maximum air flow and very low noise levels. Egg Crate Grilles can also be supplied as plain cores according to customer's needs. Standard finish is Egg Shell White colour – RAL 9010. Can be supplied in other colours as per the requirement of the customers.



Order Ref Code	Free Area M ²	Neck Size mm	Vel m/s Pa	1.5	2	2.5	3	3.5	4	5
				4	6	9	13	18	23	34
ECG100WF	0.009	100 x 100	m ³ /s	0.014	0.018	0.023	0.027	0.032	0.036	0.045
			NR	-	-	-	22	25	31	
ECG150WF	0.019	150 x 150	m ³ /s	0.029	0.038	0.048	0.057	0.067	0.076	0.095
			NR	-	-	-	22	25	31	
ECG200WF	0.034	200 x 200	m ³ /s	0.051	0.068	0.085	0.102	0.119	0.136	0.170
			NR	-	-	-	18	25	28	35
ECG250WF	0.054	250 x 250	m ³ /s	0.081	0.108	0.135	0.162	0.189	0.216	0.270
			NR	-	-	-	19	26	28	37
ECG300WF	0.078	300 x 300	m ³ /s	0.117	0.156	0.195	0.234	0.273	0.312	0.390
			NR	-	-	16	20	28	32	40
ECG350WF	0.106	350 x 350	m ³ /s	0.159	0.212	0.265	0.318	0.371	0.424	0.530
			NR	-	-	17	23	30	32	42
ECG400WF	0.144	400 x 400	m ³ /s	0.216	0.288	0.360	0.432	0.504	0.576	0.720
			NR	-	-	19	24	29	33	43
ECG450WF	0.182	450 x 450	m ³ /s	0.273	0.364	0.455	0.546	0.637	0.728	0.910
			NR	-	-	20	25	33	35	45
ECG500WF	0.231	500 x 500	m ³ /s	0.347	0.462	0.578	0.693	0.809	0.924	1.155
			NR	-	-	21	26	33	36	46
ECG595WF	0.299	550 x 550	m ³ /s	0.449	0.598	0.748	0.897	1.047	1.196	1.495
			NR	-	-	22	28	34	38	50

Opposed blade dampers are available for all sizes of Egg crate grilles, please quote ref EA0BD*** (***) neck size)
Plenum boxes with either side or top entry made to order - please specify duct diameter



GAR Egg Crate Grilles

By Systemair

The GAR is an exhaust air grille with fixed deflectors. The GAR is used to evacuate large amounts of air with a minimum pressure drop and has a low sound level. The GAR can be mounted into a wall, a duct sleeve coupling or PRG plenumbox. Available in nine sizes from 200x100 to 600x200. Manufactured from powder-coated aluminium (white RAL 9010) and fitted with friction springs for easy installation. The grille is installed in the duct or wall with the GSF mounting frame. It can also be easily mounted onto the PRG plenumbox.



GSF Mounting Frame



GSS Damper



PRG Plenum

Swirl Diffusers (Square & Circular / Fixed & Variable)

Swirl Diffusers to suit all designs and needs from standard ceiling tile fixed blade to adjustable black blade diffusers. Swirls can be supplied with or without plenum box and are available in quantities with short lead times. If you can't find the design you are looking for then please enquire.

VVKN is a ceiling swirl diffuser with a rectangular front plate and radially arranged fixed blades. The diffuser is suited for both, hot and cold air and can be used for exhaust air. The height of the room can be up to 4 meters. The VVKN front plate is manufactured from steel. The surface is powder painted RAL9010. VVKN is available in the following sizes: 300x300, 400x400, 500x500, 600x600, 625x625.

VVKN



VVKR is a ceiling swirl diffuser with a rectangular front plate and inserted, manually adjustable air guiding blades in radial arrangement. The diffuser is suited for both hot and cold air and can be used for exhaust air. The height of the room can be up to 4 meters. The VVKR front plate is manufactured from steel. The surface is powder painted RAL9010. Blades are from plastic and in a black color. VVKR is available in the following sizes: 300x300-8 blades, 400x400-16 blades, 500x500-24 blades, 600x600-32 blades, 625x625-32 blades.

VVKR



FD-Q & FD-R are highly inductive swirl diffusers with either square or circular front plate and fixed swirl diffuser blades manufactured from steel. To be used with a plenum box. The FD is manufactured from powder coated steel (RAL 9010) and is available in sizes 400, 500, 600 and 625mm. The plenum box is manufactured from galvanized steel and contains a perforated flow straightener, an adjustable air damper and a non-flammable insulation.

DHD-SR & DHD-SQ are ceiling swirl diffusers with square front plate and inserted, adjustable air guiding blades in radial arrangement. This diffuser is especially suited for comfort ventilation in rooms with high air exchange rates. Up to 4m room height warm air as well as cold air can be distributed without a change in the blade adjustment. The DHD is manufactured from powder coated steel (RAL 9010) and is available in sizes 310, 400, 500, 600, 625 and 800 mm.

FD-Q



AKH-Q / AKH-R

The plenum box is used in combination with the ceiling diffuser FD and DHD. A damper is included.

Q = square

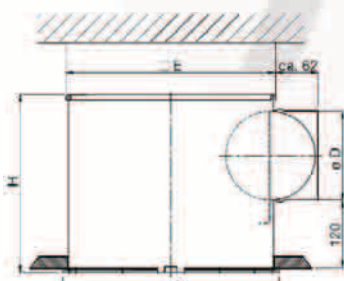
R = circular

FD-R

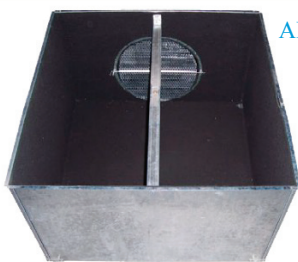


	A	E	H	D
DHD310	310	290	315	158
DHD400	400	370	315	158
DHD500	500	470	405	248
DHD600	600	570	405	248
DHD625	625	570	405	248
DHD800	800	770	500	353
FD400	398	370	315	158
FD500	498	470	405	248
FD600	598	570	405	248
FD625	623	570	405	248

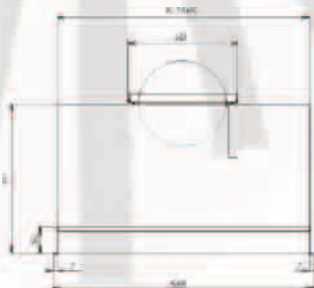
	D	K	H1	KG
VVKN300	158	290	270	5
VVKN400	198	390	280	6.6
VVKN500	198	490	290	11.2
VVKN600	248	590	340	11.8
VVKN625	248	615	340	12
VVKR300	158	290	270	5
VVKR400	198	390	280	6.6
VVKR500	198	490	290	11.2
VVKR600	248	590	340	11.8
VVKR625	248	615	340	12



AKH-Q



VVK Vertical



VVK Horizontal



DHD-SR



DHD-SQ



AJD Ball Spout Jet Diffusers



Description

The AJD long throw nozzle and the decorative ring are manufactured from aluminium, with a standard powder paint finish in white RAL 9010. The connection part is manufactured from galvanised steel sheet. The AJD nozzle has an extraordinary good aesthetic design and can be painted by special order to fit any decorative need.

Function

The AJD nozzles provide long throws with a low noise level, releasing a long air jet with exceptional precision to a length of over 30 metres. They can be used for spot cooling and are especially appropriate for large rooms requiring a decorative look, for instance, large vestibules, entertainment areas, airport halls, department stores, hotels, etc... The configuration allows the nozzle to swivel in all directions up to a maximum of $\pm 30^\circ$ in the horizontal or vertical direction.

Design

The AJD long throw nozzles are manufactured from aluminium, with a standard powder paint finish in white RAL 9010. The connection part is manufactured of galvanised steel sheet. Available in the following diameter: $\varnothing 100$, $\varnothing 125$, $\varnothing 160$, $\varnothing 200$, $\varnothing 250$, $\varnothing 315$, $\varnothing 400$.

Mounting

With concealed screws.



CRS Circular Swirl Diffuser

Description

The CRS swirl diffusers with fixed blades are manufactured from steel sheet, standard finish in white colour RAL 9010. Air diffusion by means of swirl diffusion form has, in comparison with traditional circular diffusers, high induction capacity. The rotational turbulence produced, cause a rapid mixing of supply and induced air, resulting in rapid mixing of temperatures and considerably shorter jet throws. Besides, CRS swirl diffusers can be used in VAV systems, allowing for variations in air flow rate from 100% to 25% without risk of jet detaching from the ceiling.

Design

The CRS swirl diffusers are manufactured in steel sheet, with a standard powder paint finish in white colour RAL 9010. Available in the following diameter: $\varnothing 125$, $\varnothing 160$, $\varnothing 200$, $\varnothing 250$, $\varnothing 315$.

Mounting

With mounting bridge or fixing by screws on the plenum box, drop rods on ceiling, or being installed directly to supply duct connection.



Air Valves

The Balance-E is a round exhaust diffuser with an aerodynamically shaped valve cone. The Balance-E performs extremely well with regard to sound level, pressure drop and air flow characteristics. The Balance-E is installed in a frame or directly into the duct.

The Balance-S is a round supply-air diffuser with an aerodynamically shaped valve cone. The Balance-S performs extremely well with regard to sound level, pressure drop, air flow and self-damping. The Balance-S is installed in a frame or directly into the duct.

The EFF is an exhaust diffuser for installation on ceiling or wall. It can also be used for supply air. The diffuser has a lockable central cone which is rotated to adjust the pressure and consequently the air volume.

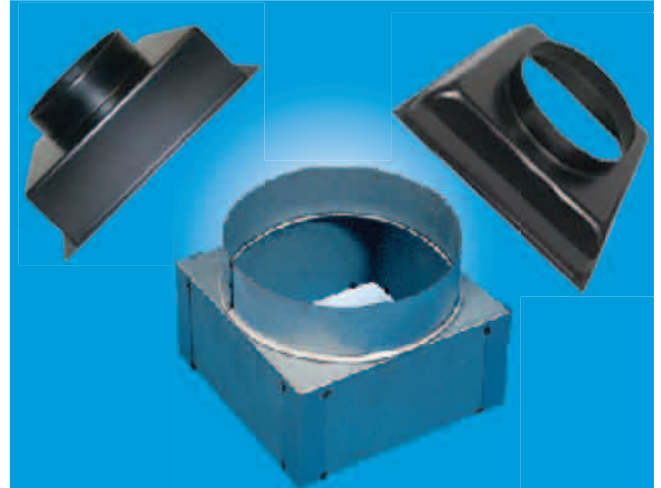
Spigot / Plenum Boxes

Spigot boxes are made to order from Fans & Spares to suit all grilles, diffusers and Louvre neck sizes. Top entry or Side entry, return edge or shallow pan adapters, the choice is yours. Standard sizes are available from stock, with all others usually 3 to 5 days delivery.

Order Ref:- SBX450450250TE

SBX - Spigot Box (Metal)
 450450 - Neck Size
 250 - Duct Connection Diameter
 TE - Top Entry or SE - Side Entry

Plastic Spigot Boxes are also available, please enquire.



Fabricated Ducting Made to Order

Need something out of the ordinary, if it's to do with air then let Fans & Spares sort it out for you. It's not just plenum boxes we do, transformation pieces for ducting, kitchen hoods, filter frames, whatever the need just give your local branch a call.

"We make it easy"

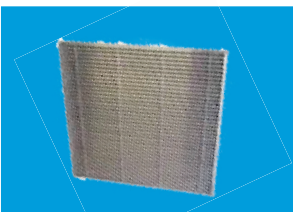


Linear Slot Diffusers

Please enquire for the following Air Distribution Products, also available from Fans & Spares



Fixed Blade Grilles



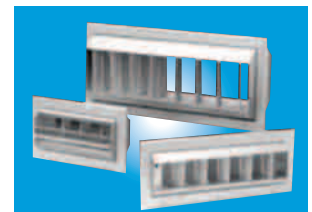
Floor Grilles



Exposed Duct Diffusers



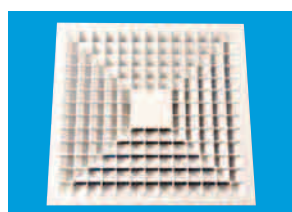
Sinus Nozzle Diffusers



Drum Jet Diffusers



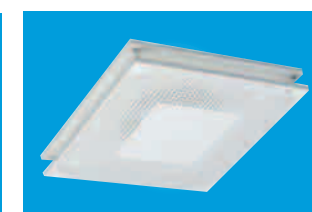
Bathroom PIR Damper



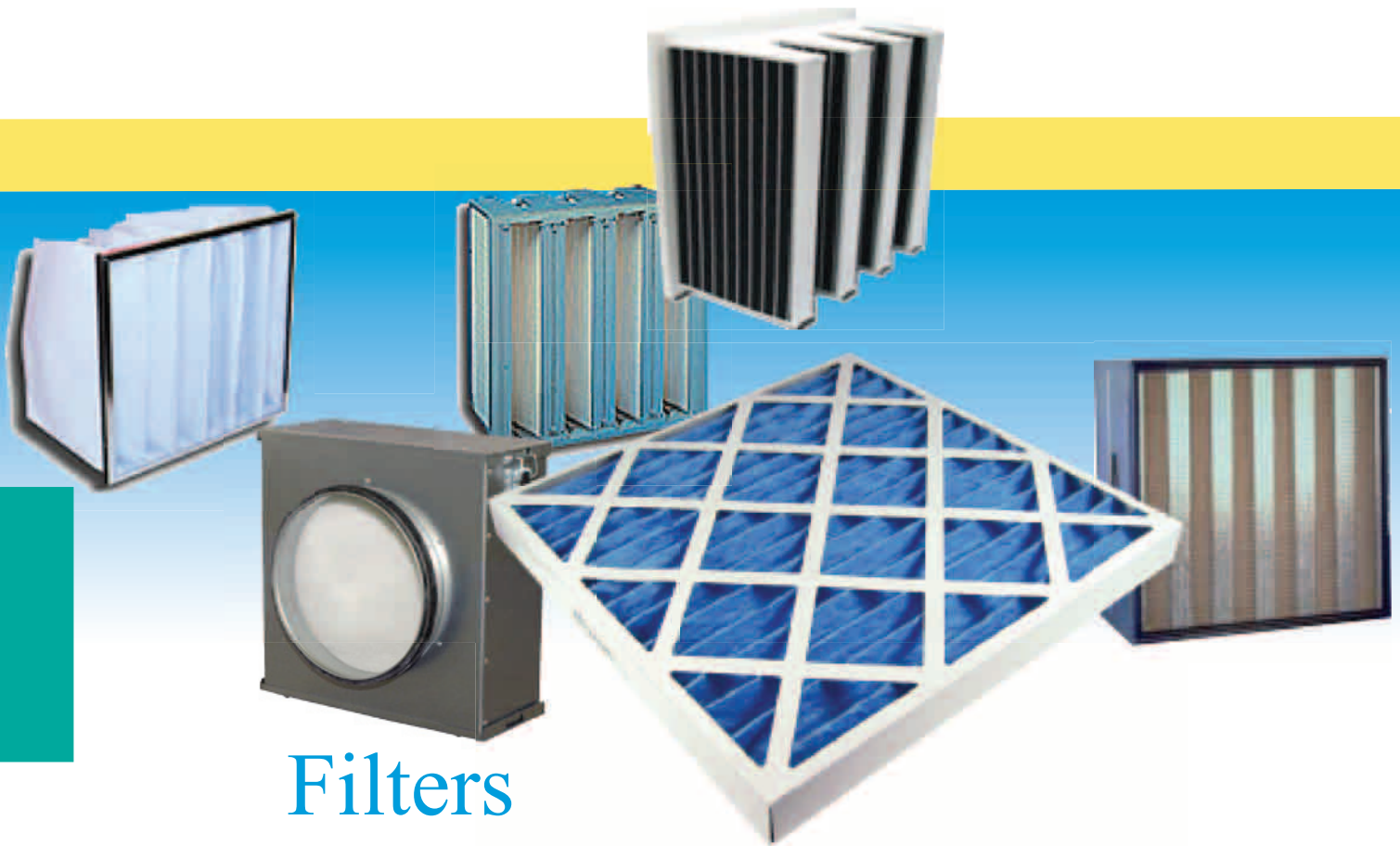
Plastic Grilles & Diffusers



Fire Rated Air Valves



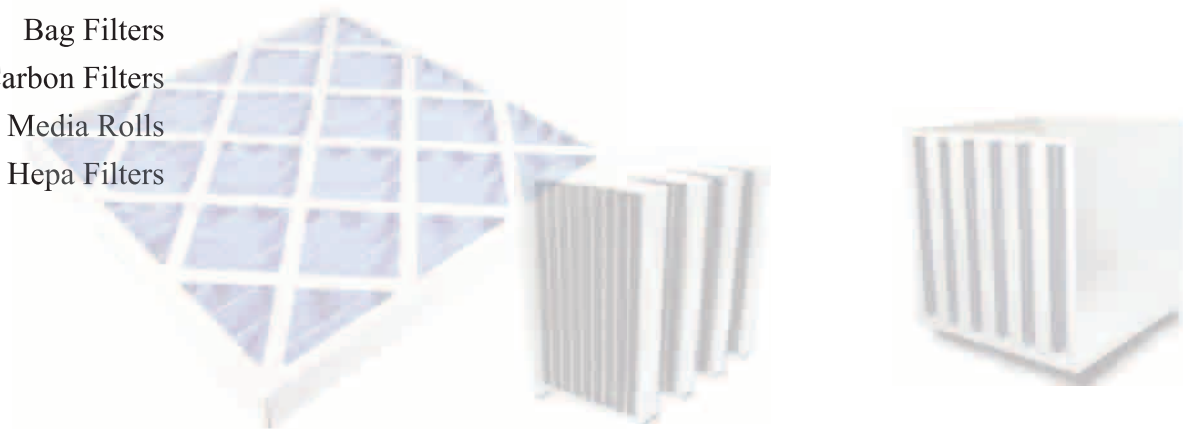
Perforated Diffusers



Filters

Also Available, please enquire for the following:

- Bag Filters
- Carbon Filters
- Media Rolls
- Hepa Filters



Panel Filters

By Express-air

Glass Fibre Disposable Filter (Cardboard Frame)

Order Ref	Size Inches	Size mm			Filter Grade	Capacity m ³ /s *
	W x H x D	W	H	D		
EAAF10101	10 x 10 x 1	241	241	22	G3	0.12
EAAF10102	10 x 10 x 2	241	241	45	G3	0.13
EAAF12121	12 x 12 x 1	292	292	22	G3	0.16
EAAF12122	12 x 12 x 2	292	292	45	G3	0.18
EAAF15152	15 x 15 x 2	368	368	45	G3	0.28
EAAF16161	16 x 16 x 1	394	394	22	G3	0.31
EAAF16162	16 x 16 x 2	394	394	45	G3	0.35
EAAF18182	18 x 18 x 2	445	445	45	G3	0.41
EAAF20101	20 x 10 x 1	495	241	22	G3	0.22
EAAF20102	20 x 10 x 2	495	241	45	G3	0.25
EAAF20152	20 x 15 x 2	495	368	45	G3	0.38
EAAF20162	20 x 16 x 2	495	394	45	G3	0.41
EAAF20201	20 x 20 x 1	495	495	22	G3	0.47
EAAF20202	20 x 20 x 2	495	495	45	G3	0.52
EAAF24122	24 x 12 x 2	594	292	45	G3	0.37
EAAF24242	24 x 24 x 2	594	594	45	G3	0.73
EAAF25162	25 x 16 x 2	622	394	45	G3	0.52
EAAF25202	25 x 20 x 2	622	495	45	G3	0.64

* Capacity based on a face velocity of 2m/s giving initial resistance of 32Pa
Maximum velocity for Glass Fibre Filters 2.5m/s



Synthetic Pleated Disposable Filters (Cardboard Frame)

Order Ref	Size Inches	Size mm			Filter Grade	Capacity m ³ /s *
	W x H x D	W	H	D		
EAPF10102	10 x 10 x 2	241	241	45	G4	0.12
EAPF12122	12 x 12 x 2	292	292	45	G4	0.18
EAPF15152	15 x 15 x 2	368	368	45	G4	0.27
EAPF16162	16 x 16 x 2	394	394	45	G4	0.35
EAPF18182	18 x 18 x 2	445	445	45	G4	0.41
EAPF20152	20 x 15 x 2	495	368	45	G4	0.37
EAPF20162	20 x 16 x 2	495	394	45	G4	0.40
EAPF20202	20 x 20 x 2	495	495	45	G4	0.48
EAPF24242	24 x 24 x 2	594	594	45	G4	0.72
EAPF25202	25 x 20 x 2	622	495	45	G4	0.63

* Capacity based on initial resistance of 40Pa, max capacity 25% above shown data.

Available as 20mm (1") & also 95mm (4") depths. Made to order sizes available, please enquire.



Filter Media available in standard size (10M x 2M)

JF600 Synthetic Air Filter Media
Thickness 22mm
Grade F5
White with Mesh Scrim, and fully impregnated with adhesive



JF120 Synthetic Air Filter Media
Thickness 5-8mm
Grade G2
White

JF150 Synthetic Air Filter Media
Thickness 12-14mm
Grade G3
White

JF290 Synthetic Air Filter Media
Thickness 15mm
Grade G4
Blue/White



JF025 Synthetic Air Filter Media
Thickness 22mm
Grade G4
Blue/White

JF050 Synthetic Air Filter Media
Thickness 50mm
Grade G4
White

Grease Filters

by Express-air

Aluminium Frame Galvanised Mesh Grease Filters

Order Ref	Size Inches	Size mm			Capacity
	W x H x D	W	H	D	m ³ /s *
EAGF12121	12 x 12 x 1	292	292	20	0.19
EAGF12122	12 x 12 x 2	292	292	45	0.19
EAGF16161	16 x 16 x 1	394	394	20	0.33
EAGF16162	16 x 16 x 2	394	394	45	0.33
EAGF18181	18 x 18 x 1	445	445	20	0.42
EAGF18182	18 x 18 x 2	445	445	45	0.42
EAGF20101	20 x 10 x 1	495	241	20	0.26
EAGF20102	20 x 10 x 2	495	241	45	0.26
EAGF20161	20 x 16 x 1	495	394	20	0.41
EAGF20162	20 x 16 x 2	495	394	45	0.41
EAGF20201	20 x 20 x 1	495	495	20	0.52
EAGF20202	20 x 20 x 2	495	495	45	0.52
EAGF24241	24 x 24 x 1	597	597	20	0.75
EAGF24242	24 x 24 x 2	597	597	45	0.75
EAGF25202	25 x 20 x 2	662	495	45	0.65

*capacity based on Initial clean resistance of 30Pa @ 2.5m/s velocity

Aluminium Baffle Filters

Order Ref	Size Inches	Size mm			Capacity m ³ /s against Resistance Pa *			
	W x H x D	W	H	D	50pa	100pa	150pa	200pa
EABFA16162	16 x 16 x 2	394	394	45	0.12	0.16	0.20	0.24
EABFA18182	18 x 18 x 2	445	445	45	0.20	0.28	0.35	0.39
EABFA20102	20 x 10 x 2	495	241	45	0.12	0.16	0.20	0.24
EABFA20162	20 x 16 x 2	495	394	45	0.20	0.28	0.35	0.39
EABFA20202	20 x 20 x 2	495	495	45	0.26	0.38	0.46	0.51
EABFA24242	24 x 24 x 2	597	597	45	0.35	0.50	0.66	0.71

Stainless Steel Baffle Filters

Order Ref	Size Inches	Size mm			Capacity m ³ /s against Resistance Pa *			
	W x H x D	W	H	D	50pa	100pa	150pa	200pa
EABFS16162	16 x 16 x 2	394	394	45	0.12	0.16	0.20	0.24
EABFS18182	18 x 18 x 2	445	445	45	0.20	0.28	0.35	0.39
EABFS20102	20 x 10 x 2	495	241	45	0.12	0.16	0.20	0.24
EABFS20162	20 x 16 x 2	495	394	45	0.20	0.28	0.35	0.39
EABFS20202	20 x 20 x 2	495	495	45	0.26	0.38	0.46	0.51
EABFS24242	24 x 24 x 2	597	597	45	0.35	0.50	0.66	0.71

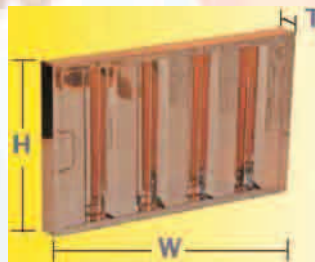
* The resistance quoted above is both the initial and operating resistance due to the self draining capacity of the filter.

Duo Grease Filters

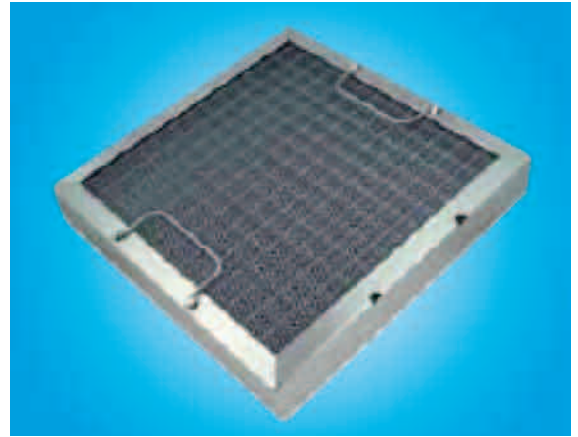
These filters are designed for use in commercial kitchens and ventilation from food preparation areas where their primary function is to reduce flame travelling from the cooking area up into the extract duct.

These unique products are a hybrid of baffle filter and mesh grease filter.

These filters are made from rolled channel frames, with safety edges. Each blade overlaps the opposite one to provide a tortuous path for the grease laden air. The grease drains down the blades and through the drain holes provided into a collection tray provided in the kitchen canopy. The Baffle section is made from Stainless Steel, and the mesh layer can be either galvanised steel or stainless steel. Available in sizes; 10 x 20, 12 x 12, 12 x 16, 12 x 24, 16 x 16, 16 x 20, 16 x 25, 18 x 18, 20 x 10, 20 x 16, 20 x 20, 20 x 25, 24 x 24.



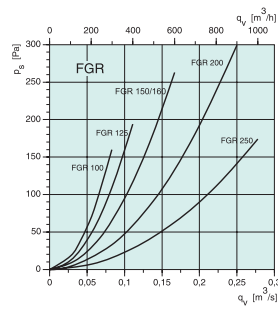
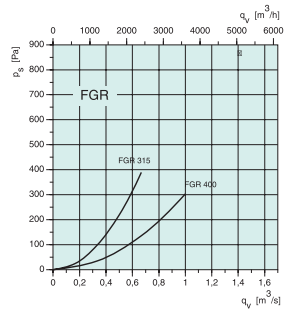
We always specify filters as Height (H) x Width (W) x Thickness (T) This is particularly important with baffle filters because the handles will always go on the H side, the blades will always run along the H side, and the drain holes will always be in the W side



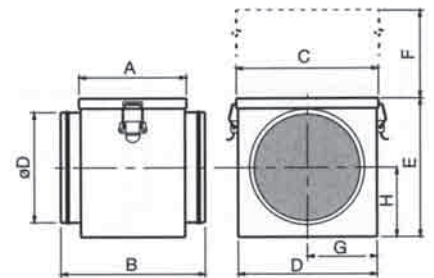
Panel Filter Boxes

by Systemair

The FGR filter cassette is fitted with a standard type EU3 panel filter. The cassette housing is manufactured from galvanised sheet steel with rubber-sealed circular duct connections, toggle locks and disposable filters. This filter cassette is suitable for use as a supply-air filter in heavy industry and industrial workshops.



	D dia	A	B	C	D	E	F	G
FGR100	100	154	196	204	200	199	200	100
FGR125	125	154	196	204	200	199	200	100
FGR150	150	154	196	204	200	199	200	100
FGR160	160	154	196	204	200	199	200	100
FGR200	200	153	202	247	244	243	250	122
FGR250	250	153	206	297	294	293	300	147
FGR315	315	153	206	346	343	342	350	171.5
FGR355	355	153	206	451	448	447	450	224
FGR400	400	153	254	451	448	447	450	224



Carbon Can-Filters

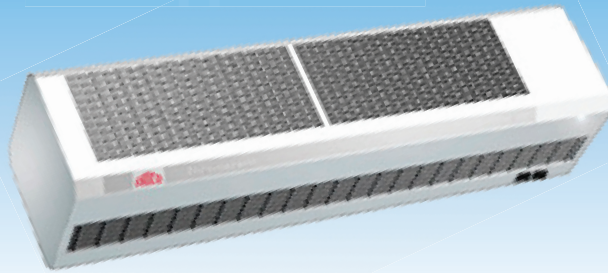
by Express-air

The Express-air range of circular carbon filters have been designed for use with extract fans to remove most un-wanted smells. The activated carbon filters are a packed bed design to give constant performance, long life and are maintenance free, with lifespans of 6 - 12 months. Packed bed design prevents the forming of preferential channels, which can allow untreated air through the system. The design of Filters gives you a large surface area for lower pressure drops, typically 180pa at max airflow with pre-filter. A bed depth, that allows for full 0.1 second contact time at max airflow for complete odour removal. Ideal for the Hydroponics industry. Available in duct sizes of 100mm up to 315mm.



Order Code
 ECCF = Circ Carbon Filter
 150 = Duct Spigot Size mm
 800 = Length mm

	Max Airflow	HVK Fan
ECCF100/250	175m3/hr	HVK100A
ECCF125/500	350m3/hr	HVK125A
ECCF150/500	480m3/hr	HVK150A
ECCF150/800	760m3/hr	HVK150L
ECCF200/500	760m3/hr	HVK200A
ECCF250/750	1080m3/hr	HVK250L
ECCF315/750	1300m3/hr	HVK315A
ECCF315/1250	1850m3/hr	HVK315L



Heating & Cooling Products



With 75 years of experience behind us we create the energy efficient solutions for comfortable indoor climates of today. Our products are efficient, energy saving and have an attractive design which means that they blend in to different types of sites.

Air curtains; Separating different climate zones by an invisible curtain of air gives large energy savings and a comfortable indoor climate. Our three different brands gives us a complete product selection: Frico stands for the energy efficient and well designed standard solutions, Gelu creates tailor-made products and Shearflow gives us powerful solutions at an attractive price.

Radiant heaters; Radiant heaters heat people, not the surrounding air. The radiated heat "naturally" migrates to where it is most needed, which facilitates the creation of a comfortable indoor climate.

Fan heaters; Fan heaters provide effective heating at a low cost. Our fan heaters are robust and reliable, have low noise levels and extremely long service lives.

Ceiling fans; Ceiling fans force over-heated air from the ceiling down to the occupation zone and in this way save energy and increase the heat comfort. The savings in premises with high ceilings are very large.

Convectors; Convectors provide good heat distribution and the warm air flow directed upwards can be used to counter-act cold drafts from the windows.

Regulators; The regulation system is the brain of a heating system and is decisive for comfort level and energy consumption. Frico offer a wide range of regulators to give the selection options depending on how advanced a solution one is looking for and what environment it is to be used in.

Thermozone Technology

Thirty years of air curtain development in the demanding Scandinavian climate has given us a unique platform to create air curtains with optimal door protection.

Thermozone air curtains are optimized in:

- Airflow geometry
- Performance
- Sound level

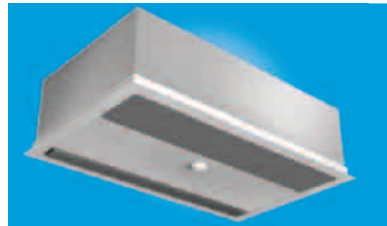
Frico co-operate with leading architects and product designers to create today's aesthetic products. Frico offers a wide range of options with or without heat and for all openings from service hatches to aircraft hangers.



Portier is an exclusive air curtain in brushed stainless steel. Installed above entrance doors and smaller doors of up to 2.5 meters in height.



The Thermozone AC/WAC 300/400 range consists of both heated and ambient versions and hot water heated WAC models. AC/WAC300/400 are designed for permanent horizontal installation above doorways with heights between 2,5 and 4,0 metres or positioned vertically beside the doorway when overdoor space is limited. They can be surface mounted or recessed into a false



AR300 is especially suited for environments with high demands in respect of design. The recessed installation is very discrete and the built-in control contributes further to the concealed appearance.



Thermozone SF is an ideal solution for any environment with revolving doors. The air curtain is mounted vertically and its curved design integrates neatly with the door. Thermozone SF efficiently protects the exposed area just above



The Thermozone PA1000 Range comprises of 4 door heaters. The range starts with the PA1006E03, a 3kW, 650mm long single phase door heater. The range extends further with the PA1008 which is available in 3 versions depending upon the heat output required. The PA1008 has three models all 860mm in length supplying 2kW, 3kW and 5kW of heat respectively. The complete PA1008 range is single phase. **BUDGET PRICED!**

AGI is a robust air curtain for industrial doors that can be mounted horizontally or vertically. It is available in four module lengths which can easily be combined to cover the individual needs of every door. The air flow is regulated using a 5-step transformer or continuously variable 3-phase control.

- * Designed for floor-standing mounting in larger entrances and doors.
- * Clean, stylish and simple design ideal for both shop entrances and industrial doors.
- * An adjustable air outlet grille makes it possible to direct the air for an optimal air curtain effect.



Radiant heating

Efficient heating

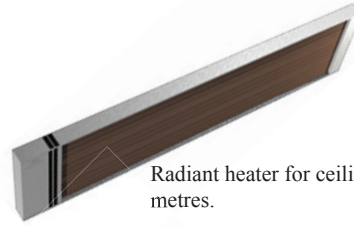
The heat from radiant heaters is emitted as soon as the rays hit a surface and there are no losses on the way. The heat is then transmitted to the air which means that the temperature can be lowered with a maintained comfort level. Radiant heaters also give instant heat.

Zone and spot heating

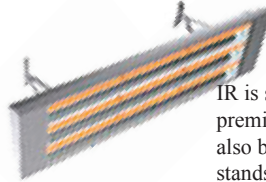
With radiant heating systems, different zones within the same room can have different temperatures. This means energy can be saved and comfort increased. Radiant heaters also provide efficient and economical protection against cold draughts. The radiated heat “naturally” migrates to where it is most needed, which means that cold surfaces such as windows will attract the radiant heating.

Discrete heating

Radiant heaters heat without being seen or heard. They have a discrete design that blend in well in all environments and the heating cause no air movements.



Radiant heater for ceiling heights between 4 and 15 metres.



IR is suitable for total or supplementary heating of premises with large volume and high ceilings. It can also be used outdoors for example on sports arena stands or to keep loading bays dry and frostless.



Water heated radiant heater for recessed mounting in false ceilings.

Fan heaters (Electric & LPHW)

Exceptionally silent

One of the most important moments in our product development, is the construction of silent fan heaters. At our plant in Skinnskatteberg, Sweden, you will find one of the most sophisticated air and sound laboratories in Europe.

Lots of power, small investment

Compared to other heating systems, the investment cost for a fan heater is low. Frico fan heaters give you lots of power for the money.

Compact and robust

Frico fan heaters are compact and light. Therefore they are easy to carry around or can easily be mounted on the wall. The heaters are also very robust and withstand heavy handling in aggressive environments.

Heating and ventilation

A great advantage of a fan heater is the option of combining heating and ventilation. Mixing cabinets for a stationary fan heaters create economic heating and ventilation, by mixing the return air with fresh air.



Tiger is a range of fan heaters for portable use. The compact and robust design makes them suitable for use in workshops, garages and retail areas. Tiger can easily be wall mounted. The built-in thermostat regulates fan speed and heat, or just the heat.



Fan heater SW is designed for heating of industrial premises, work shops, storage rooms, supermarkets, etc. Modern fan technology optimises the air flow through the heater battery, achieving sound levels as low as 35 dB(A). The balanced motor and axial fan combination supplies a smooth flow of heat from the water coil. Provided with air directors. The fan heater can be wall or ceiling mounted with water connection on either side. Regulation of air flow in three stages

Regulators / Controls

The control system is the “heart” and the “brain” of a heating system and often decisive for both comfort level and energy consumption. The temperature of an electric heating system can be quickly, easily, and exactly regulated more than in any other heating system.

The heat balance in a building is a dynamic interplay of several factors that can be divided into three main groups:

- * Heat losses
- * Heat contribution
- * Heat storage

The purpose of heating (the heat contribution) is to cover the differences between the various posts so that the desired temperature can be maintained in the building. In practice, both the climatic stresses (outside temperature, sunshine, wind) and the heat contribution to a building vary over time. The variations can be long-term, such as with the seasons, or shorter, such as when the sun is hidden by clouds, a room is filled with people, or when a door is opened. The ability of the sections of the building to store heat is of great significance for the shorter variations. One of the greatest advantages of an electric heating system is that temperature can be regulated simply, quickly, and more exact than in any other heating system. It is however vital to choose the right control and regulation system, as it determines the comfort level and energy consumption of the building.



ADEA is an advanced and user friendly regulator for air curtains. ADEA is ready to run directly after installation on account of the pre-programmed parameters. An outdoor sensor, room sensor and door contact govern the regulator, which adapts the heat and fan speed, according to the preset parameters, to the prevailing conditions.



The air curtain control box CK02EC/CK02WC, level 2, makes it easier to install air curtains. All accessories are collected in a practical box



CIRT is a variable output regulator with a timer, primarily intended for infrared heaters and other radiant heaters. The built-in timer can be set for 0,5 to 4 or 4 to 24 hours. IP44.

Portable Axial Fans

By Elta

The Portacooler SPC Fan is designed to provide fast, cool relief in many locations including marquees, club rooms, shops, restaurants, gymnasiums, schools, halls, workshops and warehouses.

Construction

Metal powder coated casing to RAL 7032 (pastel beige) All parts treated to ensure full corrosion protection. Inlet & Outlet protected by Zinc plated steel wire guard. High Quality aerodynamic GRP impeller Strong durable frame with rubber feet

Motor

High Efficient. Lightweight induction motor. Class F IP55.

Electrical supply - 220-240V, single phase. 50 Hz.

Fully Speed Controllable

Integral thermal overload protection

Special Features

Powerful 350mm, 450mm & 560mm Dia Fan

Variable speed-and-off regulator fitted as standard.

Flying lead fitted with 13A plug

Fan angle adjuster



Product Code	Dimensions			Max Duty m ³ /s	Max Speed RPM	dBA @ 3m	Weight kg	Voltage
	Height mm	Wide mm	Depth mm					
SPC350/4-1	610	582	460	0.8	1320	56	18	230-1-50
SPC450/4-1	678	671	460	1.5	1300	63	24	230-1-50
SPC560/4-1	733	791	460	3	1350	69	33	230-1-50

Ceiling Sweep Fans

by Express-air

The Express-air Ceiling fans are available in three blade diameters, 900mm (36"), 1200mm (48") & 1400mm (56"). The Blades & Downrods are manufactured from high grade steel, with an epoxy polyester powder coated finish. The downrods come complete with a suspension kit and suspension loop. Standard length being 835mm (33"), with an overall length including the motor of 915mm (36"). The EACF 48 & 56 ceiling fans are reversible, for applications where minimal air disturbance is required.

In this operation the air is forced up to the ceiling and drops down the walls to the working environment. The EACF 36 is for downward use only.

Performance Data

Fan Code	Blade Dia	No Poles	RPM	Voltage	Motor kW	Amps	Duty m ³ /s
EACF 36	900mm	14	375	230-1-50	0.056	0.3	3.07
EACF 48	1200mm	18	320	230-1-50	0.065	0.35	4.96
EACF 56	1400mm	18	300	230-1-50	0.08	0.4	5.43

Accessories

EACFM** Motor only (Replacement)

EACFB** Blades only (Replacement)



Controllers

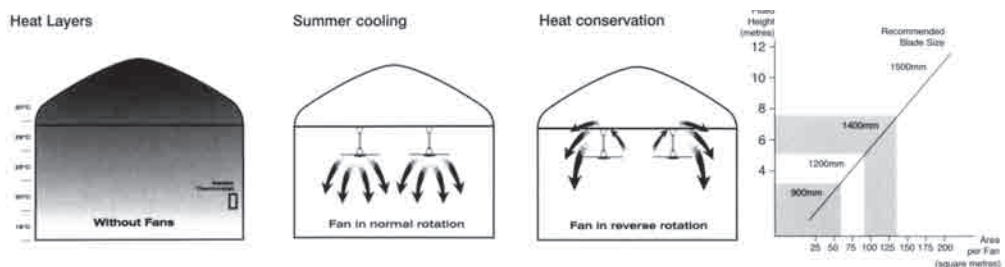
EACF1.5 Electronic speed controller with forward / reverse switch, can control up to 5 ceiling fans.

EAAEC12 + EAAEC12SENSOR Automatic Environment Controller & Sensor

Designed to control up to 10 Express-air ceiling fans (same size blades). The controller offers two forms of control; Manual or Automatic. Manual offers minimum & maximum speeds via the control knob, while the automatic system works with the EAAEC12SENSOR, to offer temperature control between 0 °C - 15°C. A switch selects either "up", "down", or "off", with the other switch controlling "manual" or "automatic". The casing is IP44, complete with indicator lights

Selection Guide

The mounting height of the ceiling fan shows what floor area it will cover (in square metres).



De-Stratification Fans

by Express-air

The Express-air range of de-stratification fans can be used in stores, warehouses, factories, workshops, as well as many other industrial applications. The unit is made up of a standard plate mounted axial fan, housed in a neat and sturdy casing complete with goal post supports for ease of mounting and angled airflow. Ideal for applications where the proposed mounting height requires higher velocity fans or where open bladed ceiling fans are considered unsuitable. The unit provides effective and positive ventilation to improve the working environment, particularly during summer months. In addition these fans can be used during the winter to re-circulate hot air from under ceilings and roofs down to living and working areas, thus helping to conserve energy.



Performance Data

Ref	Speed	dBA @ 3m	230-1-50		kW	Airflow m³/s	Max Mtg Ht metres
	RPM		FLC	SC			
DES 315	1400	46	0.59	1.5	0.13	0.6	13
DES 400	1320	51	1.35	2.9	0.31	1.3	20
DES 450	1310	55	2.8	7	0.61	2	25

Available in larger sizes & three phase options - Please enquire

Blandovent 400 Destratification Unit

By Systemair

- Levels out temperature difference
- Suitable for rooms with ceiling height 4-20 m
- Speed-controllable
- Nozzles can be turned 0-180°
- Low sound level

Voltage 230 Volts
frequency 50 Hz
Power 60 W
Current 0.28 A
Max airflow 930 l/s
R.P.M 920
49 dB(A)
Weight 14.9 kg



The Blandovent cuts heating costs by evening out the temperature difference in a building (blowing warmer air near the ceiling towards the floor). It may be installed in any environment for levelling out temperatures, making air circulate or concentrating the air flow. The built-in axial fan is very quiet. The casing is made of coated steel plate. The air nozzle is made of aluminium.

The Blandovent should be suspended by chains about 0,5 m from the ceiling. The nozzle should be adjusted with regard to existing objects on the floor of the premises. The Blandovent should be connected to a motor protector type AWE-SK. A thermostat can also be connected to the Blandovent.



Thermal contact motor protection, 1 phase



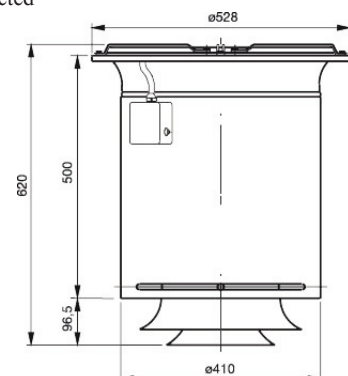
Thyristor speed controller- Combined flush or surface mounting, 1 phase



Room thermostat



Manual five-step transformer, 1 phase, with motor protection



Pedestal Fans

by Hydor

The Pedestal Fan is available in stand or wall mounted configurations and is designed to provide fast, cool relief in many locations including marquees, club rooms, shops, restaurants, gymnasiums, schools, halls, workshops and warehouses.

Construction

Stand mounted version (SPF) fitted with heavy cast iron base.

Wall mounted version (SWF) provided with wall mounting kit. Impellers are of aluminium and fully balanced.

Wire guards of chrome plated mesh.

All Steel components have a corrosion resistant finish.

Supplied in Kit form for ease of assembly

Motor

Type - squirrel cage induction motor.

Electrical supply - 220-240V. single phase. 50 Hz.

3 speed motor.

Bearings - sealed-for-life. ball.

Special Features

Powerful 635mm dia fan

3 speed-and-off regulator fitted as standard.

Stand mount version height adjustable up to 1500mm.

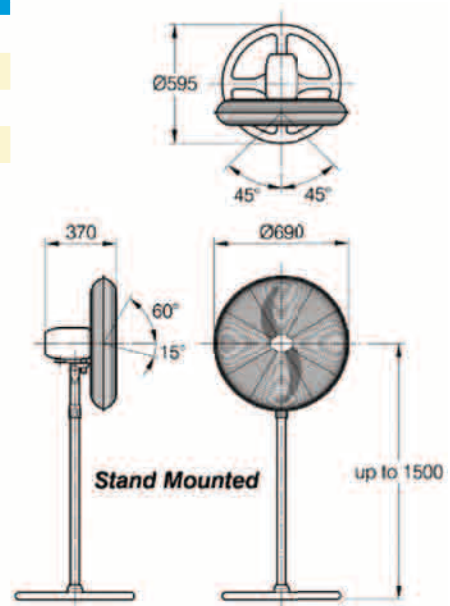
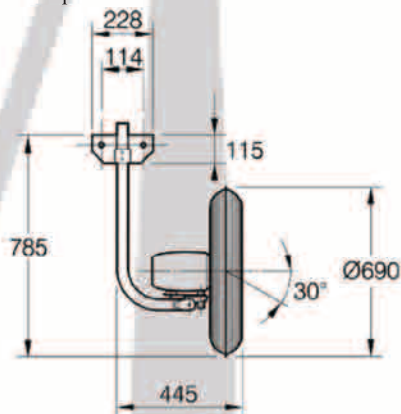
Oscillation - 90° horizontal swing mechanism.

Tilting mechanism for vertical adjustment.

BEAB approved



Product Code	Duty m ³ /s			Weight kg
	LOW	MED	HIGH	
SPF63	2.6	3.0	3.3	25kg
SWF63	2.6	3.0	3.3	15kg
dBA @ 3m	55	59	68	
power Watts	135	150	175	
Current Amps	0.56	0.6	0.8	



Floor Standing Air Circulators

Features a high performance motor. Air circulators have a stylish chrome finish, 360 degree tilt adjustment as well as a three speed motor. A must have to ensure even room temperature, available in 9" & 12" sizes



Portable Air Conditioning Units

by Vortice

Polar M10 EA

- New generation all in one air conditioner with all the advantages of the electronic Polar range. High quality construction, easy to use and to install. The new design together with the use of R410A cooling gas makes this one of the leaders in it's category for performance and efficient use of energy and environmental respect. Performance EER and yearly consumption (according to EN14511) are TUV certified. The automatic water drainage system collects the dampness from the environment, evaporates it and finally expels the vapour through the hot air extraction duct.

Standard accessories

Washable anti-dustfilter which traps the impurities present in the air drawn through the unit, preventing their circulation in the air-conditioned room.

Activated carbon filter.

Three washable anti-dust filters to protect the heat exchanger of the condensing unit.

The supplied remote control can be used up to 10 metres from the unit.

An exhaust vent for expelling warm air through window or door is included.

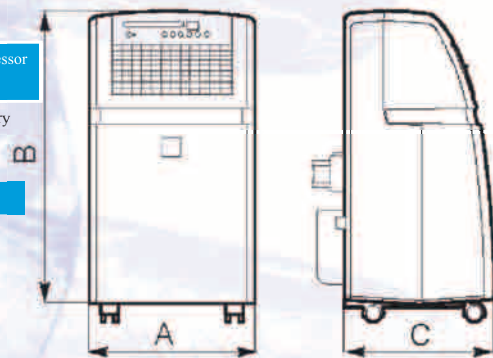
A two speed function and timer are included.



Dimensions (mm)

Product	Code	Power Btu/h	Operating temperature	kW	V	A	M3/h	Recommended room size	Cooling W	Compressor
Polar M10 EA	65098	8150	18°C - 32°C	.834	230	2.5	350	60m3	2390	Rotary

A	B	C	Kg	Duct dia
410	753	392	29	120mm



Self Contained Wall Mounted Air Conditioning Units

by Xpelair

Digitemp series; WA210, WA245, WHP210, WHP245

Digitemp, from low carbon ventilation specialist Xpelair, gives summer cooling and winter warmth from its stylish wall mounted units. Quickly and simply installed from inside the room, even at multiple stories, to a patented external folding grille system. This eliminates the need for awkward and sometimes impossible external access.

Xpelair's Digitemp comfort cooling technology is designed specifically for domestic and specific small commercial use, to give year round economical heating and cooling comfort; as an advanced 'air to air' heat-pump Digitemp is part of Xpelair's carbon saving CarbonLite range. Despite this impressive low carbon performance, the whole thing fits into a modern, stylish case. With no outdoor condensing unit to install and no gas connection necessary, the unit can be fitted at high or low level for optimum flexibility without specialist skills. The integral refrigerant system is factory sealed, so installation does not require the opening of the entire system or any connection to hoses.

Cooling, heating and dehumidification are regulated by the convenient hand-held remote control and all operational modes are programmable using the infrared handset – allowing total control and adjustment from distance.

Digitemp uses a three-speed fan including night mode for extra quiet operation. Economic and efficient, Digitemp combines low carbon, low power consumption when cooling, with a high efficiency heating capacity.

Two of the models, the WA210N and WA245N provide cooling only, whilst the WHP210N and WHP245N deliver the convenience of heating and cooling in one advanced unit.



Wall Mounted Air Conditioning Units

by Airwell

Performance, aesthetics and comfort are all advantages that characterise the FLORIDA N wall-mounted unit range. With its refined design, tried and tested technology and reliable components, the Florida wall-mounted range can also offer unrivalled heat comfort and air quality, which means that it can be incorporated into all residential and commercial buildings. With extremely low noise levels, a broad operating range, the eco-friendly fluid R410A and energy label A (depending on model), the FLORIDA A wall-mounted unit range has been designed to provide a very high comfort level and to be very easy to fit for installers.

- Cooling Only Models 2.23kW – 8.8kW
- Heat Pump Models 2.28kW – 9.09kW
- Infrared remote control
- Night-Time slow running
- Three levels of filtration
- Energy Efficient



FLO N Cooling Only		FLO 7 N	FLO 9 N	FLO 12 N	FLO 14 N	FLO 18 N	FLO 24 N	FLO 30 N
FLO N Heat Pump		FLO 7 N RC	FLO 9 N RC	FLO 12 N RC	FLO 14 N RC	FLO 18 N RC	FLO 24 N RC	FLO 30 N RC
Heating Capacity (1)	kW	2.28	3	4	4.48	5.56	7.37	9.09
Power input	kW	0.66	0.85	1.14	1.39	1.6	2.4	3.06
COP / Energy Label		3.45 / B	3.52 / B	3.51 / B	3.22 / C	3.46 / B	3.07 / D	2.97 / D
Cooling Capacity (2)	kW	2.23	2.72	3.63	4	5.5	6.81	8.8
Power input	kW	0.68	0.82	1.1	1.33	1.69	2.26	3.01
EER / Energy Label		3.23 / A	3.31 / A	3.3 / A	3.03 / B	3.22 / A	3.01 / B	2.92 / C
INDOOR UNITS								
Dehumidification	l/h	0.7	0.9	1.3	1.5	1.8	2.66	3.2
Airflow (LS/NS/HS)	m ³ /hr	280/320/380	330/380/450	450/550/635	475/550/660	750/840/930	840/930/990	830/1040/1250
Acoustic pressure to 1m (LS/NS/HS) (3)	dB(A)	25/27/30	28/31/35	35/39/43	36/41/46	37/40/43	40/42/45	47/51/55
Net Weight	kg	11	11	11.5	11.5	14	15	17
Dimensions (WxDxH)	mm	810x190x285	810x190x285	810x190x285	810x190x285	1060x210x295	1060x210x295	1200x236x340
		GC 7 N	GC 9 N	GC 12 N	GC 14 N	GC 18 N	GC 24 N	GC 30 N
		GC 7 NRC	GC 9 NRC	GC 12 NRC	GC 14 NRC	GC 18 NRC	GC 24 NRC	GC 30 NRC
Compressor Type		Rotary	Rotary	Rotary	Rotary	Rotary	Rotary	Scroll
Operating Limits Winter/Summer (4)		-10 °C / + 43 °C C76						
Airflow	m ³ /hr	1660	1780	1850	2160	2480	2480	3110
Acoustic pressure to 1m	dB(A)	47	49	53	54	57	58	60
Weight	kg	32	35	35	38	56	56	82
Dimensions (WxDxH)		795x290x610	795x290x610	795x290x610	795x290x610	846x302x690	846x302x690	900x340x970
LINKING SPECIFICATION BETWEEN INDOOR AND OUTDOOR UNITS								
1-230V Power Supply								
Power Supply Side		Indoor	Indoor	Indoor	Indoor	Ind. or Out.	Ind. or Out.	Outdoor
Power cable section	mm ²	3x1.5	3x1.5	3x1.5	3x1.5	3x1.5	3x2.5	3x2.5
Fuse amp	A	10	10	15	15	15	20	32
Electrical connection Ind./Out.	mm ²	5x1.5	5x1.5	5x1.5	5x1.5	6x1.5	6x1.5	6x1.5
3N-400V Power Supply								
Power Supply Side		-	-	-	-	Outdoor	Outdoor	Outdoor
Power cable section	mm ²	-	-	-	-	5x1.5	5x1.5	5x1.5
Fuse amp	A	-	-	-	-	-	6	6
Electrical connection Ind./Out.	mm ²	-	-	-	-	6x1.5	6x1.5	6x1.5
LINKING PIPES								
Max. Length	m	15	15	15	15	25	25	25
Max. Height	m	7	7	7	7	15	15	15
Suction pipe Diameter	inches	3/8"	3/8"	3/8"	1/2"	1/2"	3/8"	3/8"
Liquid pipe Diameter	inches	1/4"	1/4"	1/4"	1/4"	1/4"	5/8"	5/8"

(1) Nominal heating capacity: international conditions 20°C/12°C damp - External air: 7°C/6°C damp. (2) Nominal cooling capacity: international conditions (Standards NF EN 255.2 / 814.2) - 27°C/19°C damp - External air: 35°C/24°C damp. (3) Overall acoustic pressure in dB(A) (1m) under nominal conditions: outdoor unit in a free field over reflecting plane - indoor unit: installed in an average sized room. (4) Operating limit with all-seasons kit.

Hot Water Heaters



HEATRAE SADIA
The quality name in water heating

Megaflow

The NEW high efficiency Megaflow HE now boasts numerous innovative features designed to ensure superior levels of operating efficiency, delivering even more hot water – just when you need it!
Thanks to the high-performance ‘coil in coil’ heat exchanger; more hot water is available quicker than ever before.



Supreme

intelliBoil™ technology for the efficient management of the boiling cycle. Easy installation with auto-commissioning
Integral electronic water conditioner makes Supreme less prone to scale



Streamline

An attractive, thermoplastic, point of use product offering remarkable versatility, Streamline comes in two sizes, each with two ratings. It is available as a complete oversink unit with a thermoplastic spout and valve or as a heater only.



Hotflo

Heatrae Sadia’s Hotflo range sets a new standard in value for money small unvented water heating. Hotflo can service up to three basins and incorporates a copper inner container, requiring no anode, to achieve optimum performance in terms of durability and corrosion resistance.



Hydrotap

HydroTap dispenses freshly filtered boiling and chilled water at the touch of a button so you can make perfect tasting tea and coffee in an instant.
When it comes to energy saving, HydroTap excels. Independent tests conducted by Aston University in the UK show that HydroTap is up to 40% more energy efficient than a kettle.



Hydroboil

Zip Hydroboil instant boiling water heaters are available in a range of capacities from 1.5L to 40L and are designed to provide boiling water within one degree of boiling point.
Patented Twin Chamber technology separates the boiling water from incoming cold water to ensure constant delivery of boiling water. The system conserves energy by recycling steam to pre-heat incoming cold water. The Hydroboil is equipped with a classic two way safety tap



Aquapoint

Zip Aquapoint III delivers hot water for one or more outlets. It has a glass lined steel storage tank tested to 12 bar. A sacrificial anode is fitted for protection against aggressive water conditions.

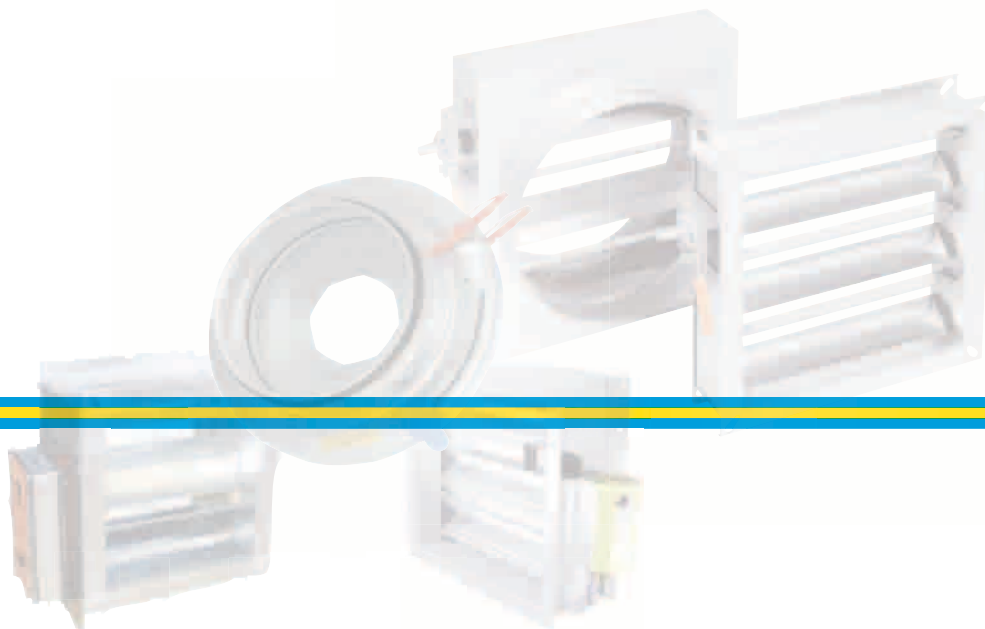


Varipoint

Zip Varipoint III delivers hot water for multiple outlets. It is available in 30, 50, 80 and 100 litre models. It has a heavy gauge copper storage tank tested to 12 bar and five year warranty on the tank and two years on controls.
Zip Varipoint III (30, 50, 80 & 100 litre) comes with all the necessary accessories and factory fitted P&T valve.



Volume Control, Smoke & Fire Dampers



Volume Control Dampers

Features

- Standard case construction is galvanised mild steel
- Two airfoil blade designs
- Four casing options
- Out of airflow linkage
- Easy conversion from manual to motorised or vice versa
- Infinite sizing capability from 100 to 1000mm, 100 to 800mm dia.
- Variable flange dimensions
- Comprehensive control options
- Can be supplied with blades and case in 316/430 stainless steel

Specifications & Tests

- Unless stated otherwise, flange models suitable for class A & B of DW144, spigot models suitable for class A B & C
- Conforms to HVCA specification DW144
- Conforms to Eurovent 2/2 classes A - C
- Independent performance tests for pressure drop, leakage and airtightness.

Test reports 143, 145 and 146 refer

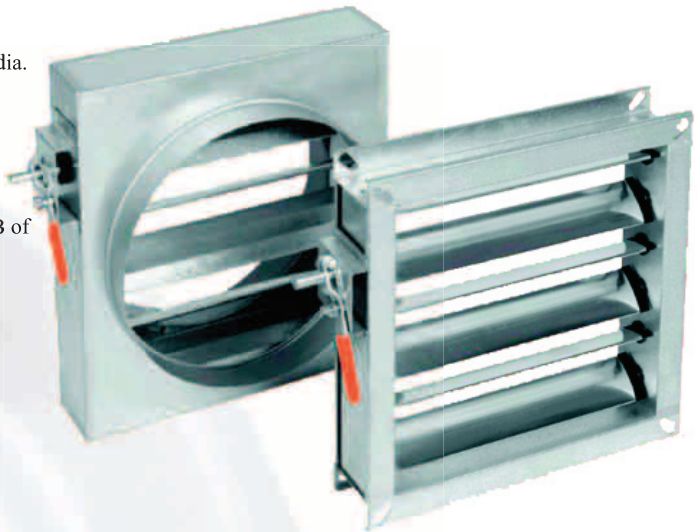
Flangefit - 100 to 1000mm sq.

Spigotfit - 100 to 1000mm sq.

Circular Spigotfit - 100 to 800mm dia.

Flat Oval Spigotfit - 100 to 1000mm spigots

Control Options - Extended spindle. Hand Control. Electric Motor. Pneumatic Motor



Iris Dampers

The SPI is an iris damper for measuring and adjusting the airflow.

Specification: Low Noise level, centrally-formed airflow and fixed test points for precise measurements.

The damper also has an adjustment aperture which can be opened completely, which means there is no need for an access door for cleaning.

Available in sizes 100mm - 630mm Dia.

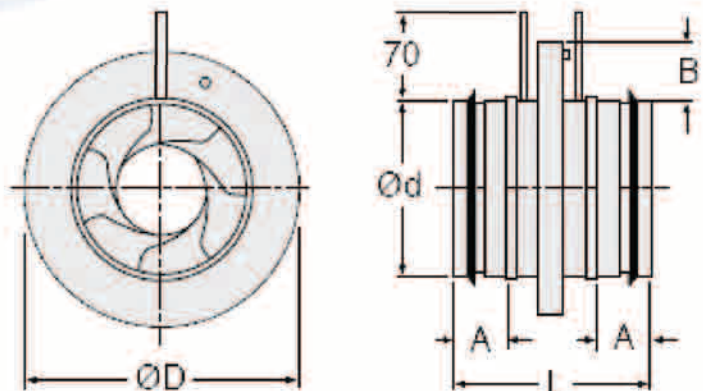
Max temp:- 70°C

The damper is manufactured from galvanised sheet steel and is fitted with a rubber seal tested for air-tightness.



Dimensions

	Ø d	A	Ø D
SPI 100	99	54	163
SPI 125	124	63	210
SPI 150	149	54	230
SPI 160	159	60	230
SPI 200	199	62	285
SPI 250	249	62	333
SPI 300	299	65	405
SPI 315	314	63	406
SPI 400	399	70	560
SPI 500	499	60	644
SPI 630	629	60	811



Smoke dampers

Features

- Standard blade and case construction is galvanised mild steel, with grade 302S stainless steel side seals
- Unique one piece double-skin interlocking airfoil blades
- Four casing options
- Linkage out of airflow
- Optional blades and case in grades 316 or 430 stainless steel
- Grade 316 stainless steel side seals available to order
- Infinite sizing capability from 100sq.mm, to 1200sq.mm
- Variable flange dimensions and casing widths

Specifications & Tests

- Unless stated otherwise, flange models suitable for class A & B of DW144, spigot models suitable for class A B & C
- Conforms to HVCA specification DW144
- Conforms to Eurovent 2/2 classes A - C
- Blade construction fire tested to BS476 part20; 1987 for integrity and leakage
- Elevated temperature tests, reports 231297, 234486 and 127438 refer
- Resistance tested by BSRIA, report 15633/1 refers
- Leakage tested by BSRIA, report 15633/1 refers
- 28 day salt corrosion tested Chatfield report RLR3 refers



Flangefit
100mm to 1200mm
Spigotfit
100mm to 1200mm
Circular
100mm to 1200mm
Flat Oval
100mm to 1200mm

Control Options
Extended spindle
Hand Control
Electric Motor
Pneumatic Motor

Fire dampers

Features

- Low/medium and high velocity models
- Galvanised or stainless steel blades and casings
- Factory fitted HEVAC approved installation frame, or other approved method
- Fully welded construction
- Infinite sizing capability
- Comprehensive status and Control options
- Tested for four hour duration

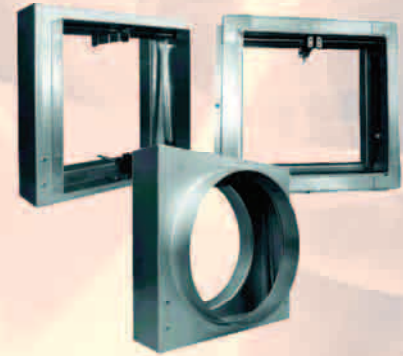
Specifications & Tests

Fire tested to:

- European standard EN1366 -2:1999
- ISO 10294 -1:1996(E)
- Horizontal test report for 4hr duration TE 201814
- Vertical test report for 4hr duration TE 201633
- BS 476 part 20:1987 for 4hr duration: Warrington report WFRC C43264 stainless steel blades

Warrington report WFRC C43265 galvanised blades

- 28 day Salt corrosion test Chatfield reports C7217/8
- Conforms to DW144 and Eurovent 2/2 as relevant



Type A
Square/rectangular spigot
Blades partially in air-stream
Type B
Square/rectangular spigot
Blades out of airstream
Type I "Induct"
Square/rectangular case
Blades partially in air-stream

Type C
Circular spigot
Blades out of airstream
Type O
Flat Oval spigot
Blades out of airstream
Control Options
Solenoid
Electro-magnet

Electric Actuators



Fire / Smoke Dampers

Air Control Dampers

Model	Torque Nm	Operations
NM 24 A	10	Open/Close
NM 230 A	10	Open/Close
NM 24A - SR	10	Open/Close
SM 24 A	20	Open/Close
SM 230A-S	20	Open/Close
SM 24A-S	20	Open/Close
SM 240 A	20	Open/Close
SM 24A - SR	20	Modulating
SM 230A -SR	15	Modulating
GM 24A	40	Open/Close
GM230A	40	Open/Close
GM24A-SR	40	Modulating

Model	Torque Nm	Operations
AF 24	11	Spring Return
AF 24 - S	11	Spring Return
AF 230	11	Spring Return
AF 230 - S	11	Spring Return
AF 24 - SR	11	Modulating
BF24	12	Spring Return
BF24-T	12	Spring Return
BF230	12	Spring Return
BF230-T	12	Spring Return
BAE 72		Replacement Thermal Fuse
BAE 72 - S		Replacement Thermal Fuse with Test Switch
ZTPC600-B		Thermal Enclosure

NOTE Other models available. Please enquire for price & availability

Smoke & Fire Dampers



Features

- Standard construction is galvanised mild steel.
- Stainless steel blades and casings available to order
- Infinite sizing capability
- Fully welded casing construction
- Factory fitted HEVAC approved installation frame
- Various control options
- Compatible to B.M.S. and bespoke control systems
- Factory fitted access doors available
- Interlocking blade design

Specifications & tests

- Tested to BS476: part20:1987
- Tested to BS EN 1366-2; 1999 and ISO10294-1: 1996(E)
- Conforms to HVCA ductwork specification DW144. classes A. B & C casing leakage
- Conforms to Eurovent 2/2 as relevant

The BSB FSD Series Fire, Smoke and Control Damper has been specifically designed to be positioned within the duct system to prevent the free passage of smoke and fire as well as offering the added facility of air balancing control. Combination fire and smoke dampers incorporate the features typically required by specifiers, contractors and Fire Authorities. There are three casing variants - cases fully welded: square/rectangular, circular and flat oval. All are available in any size increment within minimum / maximum dimensions. All are suitable for low-high velocity and pressure applications. Tested to BS476: part20:1987, Tested to BS EN 1366-2; 1999 and ISO10294-1: 1996(E). Conforms to HVCA ductwork specification DW144, classes A. B & C casing leakage. Conforms to Eurovent 2/2 as relevant.



Type S

Square/rectangular spigot
Vertical or horizontal mounting

Type C

Circular spigot
Vertical or horizontal mounting

Type O

Flat Oval spigot
Vertical or horizontal mounting

Tri-Pro 3 in 1 Damper

The unique Tri-Pro design combines Fire, Fire Smoke and Volume Control in one.

Fire tested to BS 476 parts 20 and 22 for 4 hours.

Available as manual, motorised smoke or motorised fire smoke damper.

Please enquire



Circular Duct Fusible Link Dampers

Fusible link fire dampers. Can be mounted vertically or horizontally and have a one hour fire rating in both directions. Complies to BS476 Part 8 and are available in 100mm, 125mm & 150mm diameters.

Order Codes

EACFD100	100mm Diameter
EACFD125	125mm Diameter
EACFD150	150mm Diameter



Intumescent Fire Blocks

Minimum fire integrity of one hour

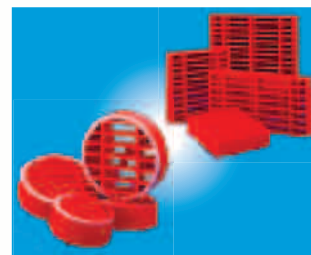
Available in circular sizes 100mm to 600mm diameter

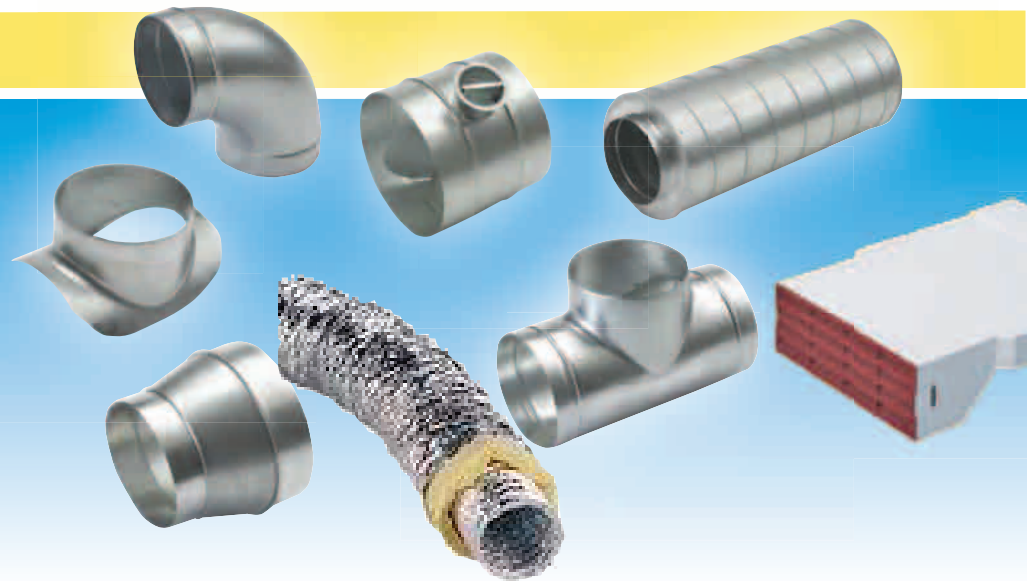
Available in length up to 600mm (50mm increments)

Available in heights up to 600mm (50mm increments)

Order Codes

LV40*	Square *Size required I.e 250x250
CVT*	Circular *Diameter required I.e 250





Ducting & Fittings

Flexible Ducting

by Express-air



Aluminium - Type EAALIFD

Description: Fully flexible, high quality, un-insulated aluminium laminated duct for use in commercial HVAC systems. Easy & Fast installation over round or oval connections. Tough and airtight with a smooth core for low friction loss and lower operation costs.

Construction: 5 x layers of tough “aluminium / polyester laminates” plus flame retardant adhesive, encapsulating a copper plated high tensile steel wire helix.



Order Ref	Standard Length	Airflow m ³ /s @ Velocity m/s			Order Ref	Standard Length	Airflow m ³ /s @ Velocity m/s		
		5m/s	10m/s	20m/s			5m/s	10m/s	20m/s
EAALIFD100	10m	0.039	0.079	0.157	EAALIFD250	10m	0.245	0.491	0.982
EAALIFD125	10m	0.061	0.123	0.245	EAALIFD300	10m	0.353	0.707	1.414
EAALIFD150	10m	0.088	0.177	0.353	EAALIFD315	10m	0.390	0.779	1.559
EAALIFD160	10m	0.101	0.201	0.402	EAALIFD350	10m	0.481	0.962	1.924
EAALIFD180	10m	0.127	0.255	0.509	EAALIFD400	10m	0.628	1.257	2.513
EAALIFD200	10m	0.157	0.314	0.628	EAALIFD450	10m	0.795	1.590	3.180
EAALIFD225	10m	0.199	0.398	0.795	EAALIFD500	10m	0.982	1.964	3.928

PVC - Type EAPVCFD

Description: Fully flexible, high quality, un-insulated aluminium laminated duct for use in commercial HVAC systems. Easy & Fast installation over round or oval connections. Tough and reinforced by a “grey outer skin” for resistance to tear and puncture, airtight with a smooth core for low friction loss and lower operation costs.

Construction: 6 x layers of tough “aluminium / polyester / co-polymer laminates” plus flame retardant adhesive, encapsulating a copper plated high tensile steel wire helix.



Order Ref	Standard Length	Airflow m ³ /s @ Velocity m/s			Order Ref	Standard Length	Airflow m ³ /s @ Velocity m/s		
		5m/s	10m/s	20m/s			5m/s	10m/s	20m/s
EAPVCFD100	6m	0.039	0.079	0.157	EAPVCFD250	6m	0.245	0.491	0.982
EAPVCFD125	6m	0.061	0.123	0.245	EAPVCFD300	6m	0.353	0.707	1.414
EAPVCFD150	6m	0.088	0.177	0.353	EAPVCFD315	6m	0.390	0.779	1.559
EAPVCFD160	6m	0.101	0.201	0.402	EAPVCFD350	6m	0.481	0.962	1.924
EAPVCFD180	6m	0.127	0.255	0.509	EAPVCFD400	6m	0.628	1.257	2.513
EAPVCFD200	6m	0.157	0.314	0.628	EAPVCFD450	6m	0.795	1.590	3.180
EAPVCFD225	6m	0.199	0.398	0.795	EAPVCFD500	6m	0.982	1.964	3.928

Semi-Rigid - Type EASEMFD

Description: Semi flexible, high quality, aluminium duct for use in all low / medium pressure systems and suitable for AC. Easy & Fast installation, tough and airtight.

Construction: 1 x wound layer of tough corrugated aluminium, “Triple Locked” seams for air tightness & strength.

Order Ref	Standard Length	Airflow m ³ /s @ Velocity m/s		
		5m/s	10m/s	20m/s
EASEMFD100	3m	0.039	0.079	0.157
EASEMFD125	3m	0.061	0.123	0.245
EASEMFD150	3m	0.088	0.177	0.353
EASEMFD160	3m	0.101	0.201	0.402
EASEMFD200	3m	0.157	0.314	0.628
EASEMFD250	3m	0.245	0.491	0.982





Flexible Ducting

by Express-air

Thermally insulated - Type EATHEFD

Description: Fully flexible, high quality, insulated aluminium laminated duct for use in commercial HVAC systems. Easy & Fast installation over round or oval connections. Tough and airtight with a smooth core for low friction loss and lower operation costs.

Construction: Outer vapour barrier is 3 x layers of tough “aluminium / polyester laminates” plus flame retardant adhesive and spiral fibreglass reinforcement. The inner core has 5 x layers of tough aluminium / polyester laminates plus flame retardant adhesive encapsulating a copper plated high tensile steel wire helix.



Order Ref	Standard Length	Airflow m ³ /s @ Velocity m/s			Order Ref	Standard Length	Airflow m ³ /s @ Velocity m/s		
		5m/s	10m/s	20m/s			5m/s	10m/s	20m/s
EATHEFD100	10m	0.039	0.079	0.157	EATHEFD250	10m	0.245	0.491	0.982
EATHEFD125	10m	0.061	0.123	0.245	EATHEFD300	10m	0.353	0.707	1.414
EATHEFD150	10m	0.088	0.177	0.353	EATHEFD315	10m	0.390	0.779	1.559
EATHEFD160	10m	0.101	0.201	0.402	EATHEFD350	10m	0.481	0.962	1.924
EATHEFD180	10m	0.127	0.255	0.509	EATHEFD400	10m	0.628	1.257	2.513
EATHEFD200	10m	0.157	0.314	0.628	EATHEFD450	10m	0.795	1.590	3.180
EATHEFD225	10m	0.199	0.398	0.795	EATHEFD500	10m	0.982	1.964	3.928

Acoustic / Thermal - Type EAACOFD

Description: Fully flexible, high quality, insulated aluminium laminated duct for use in commercial HVAC systems. Easy & Fast installation over round or oval connections. Tough and airtight with a smooth core for low friction loss and lower operation costs.

Construction: Outer vapour barrier is 3 x layers of tough “aluminium / polyester laminates” plus flame retardant adhesive and spiral fibreglass reinforcement. The inner core has 5 x layers of tough aluminium / polyester laminates plus flame retardant adhesive encapsulating a copper plated high tensile steel wire helix.



Order Ref	Standard Length	Airflow m ³ /s @ Velocity m/s			Order Ref	Standard Length	Airflow m ³ /s @ Velocity m/s		
		5m/s	10m/s	20m/s			5m/s	10m/s	20m/s
EAACOFD100	10m	0.039	0.079	0.157	EAACOFD250	10m	0.245	0.491	0.982
EAACOFD125	10m	0.061	0.123	0.245	EAACOFD300	10m	0.353	0.707	1.414
EAACOFD150	10m	0.088	0.177	0.353	EAACOFD315	10m	0.390	0.779	1.559
EAACOFD160	10m	0.101	0.201	0.402	EAACOFD350	10m	0.481	0.962	1.924
EAACOFD180	10m	0.127	0.255	0.509	EAACOFD400	10m	0.628	1.257	2.513
EAACOFD200	10m	0.157	0.314	0.628	EAACOFD450	10m	0.795	1.590	3.180
EAACOFD225	10m	0.199	0.398	0.795	EAACOFD500	10m	0.982	1.964	3.928

Flex Code	Flex Type	Fire safety Testing	Temperature Range	Working pressure	
				100mm - 250mm	300mm - 500mm
EAALIFD	Aluminium	BS476 (6.7&20)	-30°C to +140°C	+2.5Kpa to -0.3Kpa	+2.5Kpa to -0.1Kpa
EAPVCFD	Grey	BS476 (6.7&20)	-30°C to +140°C	+2.5Kpa to -0.4Kpa	+2.5Kpa to -0.2Kpa
EATHEFD	Thermal	BS476 (6.7&20)	-30°C to +140°C	+2.5Kpa to -0.4Kpa	+2.5Kpa to -0.2Kpa
EAACOFD	Acoustic	BS476 (6.7&20)	-30°C to +140°C	+2.5Kpa to -0.4Kpa	+2.5Kpa to -0.2Kpa
EASEMFD	Semirigid	BS476 (6.7&20)	-30°C to +250°C	+3.5Kpa to -2.5Kpa	+3.5Kpa to -1.5Kpa

Flex Code	Flex Type	Diameter Class	Air tightness Class	Max air vel m/s	Crushing strength	
					Compressed	Uncompressed
EAALIFD	Aluminium	B	C	30	33-10 kg	3-5 kg
EAPVCFD	Grey	B	C	30	18-10 kg	1-3 kg
EATHEFD	Thermal	B	C	25	33-10 kg	3-5 kg
EAACOFD	Acoustic	B	C	30	33-10 kg	3-5 kg
EASEMFD	Semi-rigid	A	C	30	100-15 kg	60-10 kg

Domus plastic modular ventilation ducting is suitable for domestic housing, and light industrial and commercial premises.

- The main features of the Domus range are: -
- Channels and pipes manufactured with flame retardant plastics to meet the relevant international standards
- Suitable for a variety of applications
- Lightweight with simple push-fit connections
- Ducts easily cut to length
- Non corrosive, leading to a long life
- Recycled materials used wherever possible
- Manufactured to strict quality control procedures
- Compatible with a wide range of wall and ceiling terminals and domestic extractor fans



FLAT CHANNEL DUCTING

The low profile design enables concealment when installed along the top of wall units or when fitted in ceiling voids, cavity walls and other confined spaces.

ROUND PIPE DUCTING

A round configuration is the most efficient for airflow as less back pressure occurs and should be fitted where the space for ducts is not restricted. Includes insulated version for temperature control (ThermaPipe).

DUCTING KITS

Designed to provide a one-stop solution to many popular installations for the kitchen, bathroom and utility room from a comprehensive range of standard boxed kits containing the components required for the installation in question

FIRE PREVENTION

Domus FireBrake is a unique scientifically advanced intumescent product to prevent the spread of fire through ventilation ducting systems. Building Regulations state that when a compartment wall is penetrated an approved fire-stopping device should be installed. It has a 2-hour fire rating. FireBrake is available for all round and rectangular Domus ducting systems.



MEGADUCT 220
(220 x 90mm)



POLYVENT 225
(234 x 29mm)



POLYVENT 300
(308 x 29mm)



SUPERTUBE 125
(204 x 60mm)



SYSTEM 100
(110 x 54mm)

FLAT CHANNEL DUCTING POLYVENT 225 & 300



Polyvent 225 1M
Flat Channel
(2001)



Polyvent 225 1.5M
Flat Channel
(20150)



Polyvent 225 2M
Flat Channel
(20200)



Polyvent 225 Round To
Rectangular Adapter
(2005)



Polyvent 225 Flat
Channel Connector
(2006)



Polyvent 225 Horizontal
90 Bend
(2007)

Polyvent 300 1M
Flat Channel
(3001)

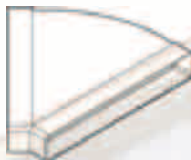
Polyvent 300 1.5M
Flat Channel
(30150)

Polyvent 300 2M
Flat Channel
(30200)

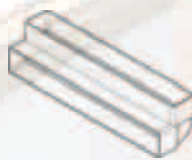
Polyvent 300 Round To
Rectangular Adapter
(3005)

Polyvent 300 Flat
Channel Connector
(3006)

Polyvent 300 Horizontal
90 Bend
(3007)



Polyvent 225 Horizontal
45 Bend
(2008)



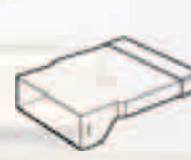
Polyvent 225 Vertical
90 Bend
(2010)



Polyvent 225 Vertical
45 Bend
(2011)



Polyvent 225 Elbow
Bend / Plenum
(2013)



Polyvent 225 Long
Airbrick Adapter
(2016)



Polyvent 225 Universal
Support Clip
(2014)

Polyvent 300 Horizontal
45 Bend
(3008)

Polyvent 300 Vertical
90 Bend
(3010)

Polyvent 300 Vertical
45 Bend
(3011)

Polyvent 300 Elbow
Bend / Plenum
(3013)

Polyvent 300 Long
Airbrick Adapter
(3016)

FLAT CHANNEL DUCTING MEGADUCT 220 (220 x 90mm)

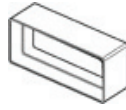
MegaDuct 220 Flat Channel 1 metre 220 x 90mm (910)



MegaDuct 220 Flat Channel 1.5 metre 220 x 90mm (915)



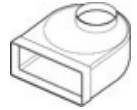
MegaDuct 220 Flat Channel Connector (920)



MegaDuct Flat Channel Clip (922)



MegaDuct 220 Elbow Bend with rotating offset spigot 100mm Connection (941)



MegaDuct 220 Horizontal 90 deg Bend (950)



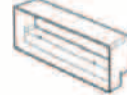
MegaDuct 220 Elbow Bend with rotating offset spigot 125mm Connection (951)



MegaDuct 220 Horizontal 45 deg Bend (955)



Supertube to MegaDuct Adapter (957)



MegaDuct 220 Vertical 90 deg Bend (960)



MegaDuct 220 Elbow Bend with rotating offset spigot 150mm Connection (961)



MegaDuct 220 Straight Round to Rectangular Adapter (970)



MegaDuct 220 Vertical 45 deg Bend (975)



Double Airbrick Adapter to MegaDuct 220 (977)



FLAT CHANNEL DUCTING SYSTEM 100 (110 x 54mm)

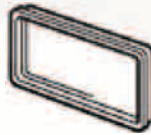
010 System100 Flat Channel 1 metre



015 System100 Flat Channel 1.5 metre



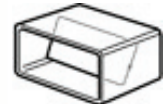
018 System100 Flat Channel End Cap



020 System100 Flat Channel Connector



027 System100 Flat Channel Connector with Damper



030 System100 Elbow Bend



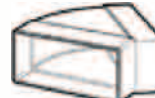
040 System100 Elbow Bend with Spigot



050 System100 Horizontal 90 deg Bend



055 System100 Horizontal 45 deg Bend



060 System100 Vertical 90 deg Bend



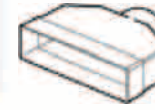
070 System100 Round to Rectangular Adapter



071 System100 Short Round to Rectangular Adapter



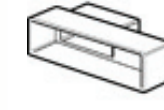
073 100mm Round to single Airbrick Adapter



075 System100 Vertical 45 deg Bend



077 Airbrick Adapter to System100



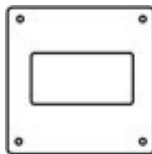
080 System100 Horizontal T Piece



107 System100 Damper Valve with Wall Plate



115-4 System 100 Rectangular Wall Plate



122-4 System100 Flat Channel Clip



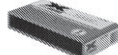
D1-2000 System100 Flat Channel 2metre



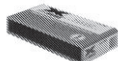
087 System 100 FireBrake Duct Connector



2087 PolyVent 225 FireBrake Duct Connector



3087 PolyVent 300 FireBrake Duct Connector



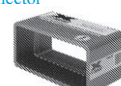
488 EasiPipe 100 FireBrake Duct Connector



587 Supertube 125 FireBrake Duct Connector



987 MegaDuct 220 FireBrake Duct Connector





FLAT CHANNEL DUCTING SUPERTUBE 125 (204 x 60mm)

115-5B
Supertube 125 Wall Plate, Code
501 Outlet Surround Brown



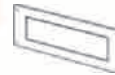
115-5C
Supertube 125 Wall Plate, Code
501 Outlet Surround Cream



115-5T
Supertube 125 Wall Plate, Code
501 Outlet Surround Terracotta



115-5W
Supertube 125 Wall Plate, Code
501 Outlet Surround White



122-5
Supertube 125 Flat Channel
Clip



440
Supertube 125 Elbow Bend
100mm Connection



441
Supertube 125 Elbow Bend
with rotating offset spigot
100mm Connection



510
Supertube 125 Flat Channel 1
metre 204 x 60mm



515
Supertube 125 Flat Channel 1.5
metre 204 x 60mm



518
Supertube 125 Flat Channel
End Cap



520
Supertube 125 Flat Channel
Connector



527
Supertube 125 Flat Channel
Connector with Damper



540
Supertube 125 Elbow Bend
125mm Connection



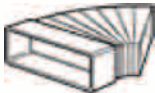
541
Supertube 125 Elbow Bend
with rotating offset spigot
125mm Connection



544
Supertube 125 Adapter connects
Code 540 to 100mm



545
Supertube 125 Adjustable
Horizontal Bend



550
Supertube 125 Horizontal 90
deg Bend



555
Supertube 125 Horizontal 45
deg Bend



560
Supertube 125 Vertical 90 deg
Bend



570
Supertube 125 Round to Rec-
tangular Adapter



575
Supertube 125 Vertical 45 deg
Bend



581
Rectangular Hose Connector
for 206 x 60mm Hose



582
Supertube 125 Horizontal T
Piece



640
Supertube 125 Elbow Bend
150mm Connection



641
Supertube 125 Elbow Bend
with rotating offset spigot
150mm Connection



644
Supertube 125 Offset Reducer
for Code 640



D3-2000
Supertube 125 Flat Channel 2
metre 204 x 60mm



ROUND PIPE DUCTING EASIPIPE 100 (100mm) / EASIPIPE 125 (125mm) / EASIPIPE 150 (150mm)

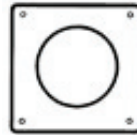
019
Circular Adapter 80/100mm
119
Circular Adapter 100/125mm
118
Circular Adapter 125/150mm



1100-4
EasiPipe 100 Round Pipe 1M
- 100mm dia
1100-5
EasiPipe 125 Round Pipe 1M
- 125mm dia
1100-6
EasiPipe 150 Round Pipe 1M
- 150mm dia



114-4
Round Wall Plate for 100mm
Hose or Pipe
114-5
Round Wall Plate for 125mm
Hose or Pipe
114-6
Round Wall Plate for 150mm
Hose or Pipe



120
Aluminium Reducing Piece
110mm to 100mm



1200-4
EasiPipe 100 Round Pipe 2M
- 100mm dia
1200-5
EasiPipe 125 Round Pipe 2M
- 125mm dia
1200-6
EasiPipe 150 Round Pipe 2M
150mm dia



130-4
Telescopic Pipe 100mm dia 250
to 450mm long
130-5
Telescopic Pipe 125mm dia 250
to 450mm
130-6
Telescopic Pipe 150mm dia 250
to 450mm



135-4
Round Pipe Inner dia 100mm
350mm long
135-5
Round Pipe Inner dia 125mm
350mm
135-6
Round Pipe Inner dia 150mm
350mm



2100-4
Outer Sleeve for 100mm Round
Pipe 1M
2100-5
Inner Pipe for 125mm Round
Pipe 1M
2100-6
Inner Pipe for 150mm Round
Pipe 1M



490
EasiPipe100 Right Angle Bend
590
EasiPipe 125 Round 90 Degree
Bend
690
EasiPipe 150 Round 90 Degree
Bend



491
EasiPipe100 45 Degree Bend
591
Easipipe 125 45 Bend

150mm Dia not available



492
Equal T Piece 100mm
592
EasiPipe 125 Equal 'T' Piece
692M
150mm Equal 'T' Piece - White
metal



493
100mm EasiPipe 100 Straight
Pipe Connector
593
EasiPipe 125 Straight Pipe
Connector
693
EasiPipe 150 Straight Pipe
Connector



494
100mm EasiPipe 100 Straight
Pipe Connector c/w Damper
594
EasiPipe 125 Straight Pipe
Connector c/w Damper
694
EasiPipe 150 Straight Pipe
Connector c/w Damper



495
100mm EasiPipe Straight Pipe
Connector c/w Damper & Wall
Plate
595
EasiPipe 125 Straight Pipe
Connector c/w Damper & Wall
Plate
695
EasiPipe 150 Connector with
Valve and Wall Plate



496
EasiPipe100 Fixing Clip
596
EasiPipe125 Fixing Clip
696
EasiPipe150 Fixing Clip



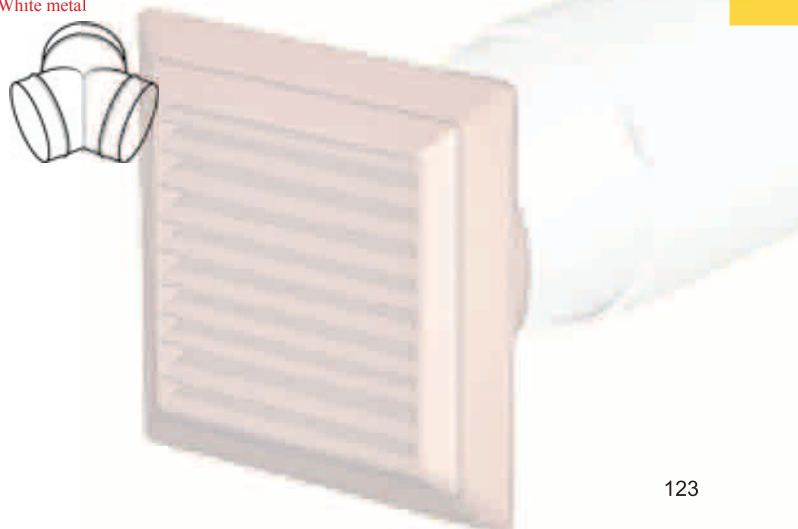
497
Condensation Trap 100-110mm
with Overflow Connection



498
Condensation Trap 100-110mm



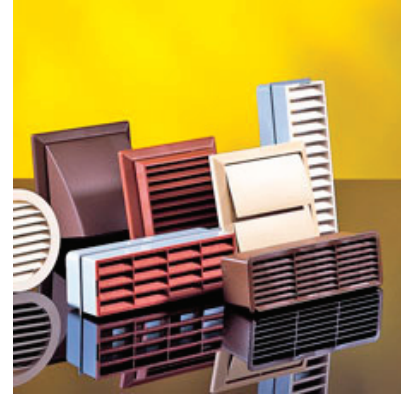
499M
EasiPipe 100 Equal 'Y' Piece
- White metal
599M
EasiPipe 125 125mm Equal 'Y'
Piece - White metal
699M
150mm Equal 'Y' Piece
- White metal



Domus manufacture a wide range of ventilation terminals to either let air in or let air escape.

The main features of the Domus range are:

- Manufactured with UV stable materials to reduce colour fade
- Airbricks meet BS493
- Excellent airflow performance
- Suitable for a variety of applications
- Choice of colours
- Easy to install
- Compatible with Domus round and rectangular ducting systems



There are five main types used for different situations:

Gravity Flaps

Provides a backdraft barrier and prevents air going back into the house, but will increase air resistance. Not recommended for use in exposed locations as this can cause excessive noise from the constant opening and closing of the flaps.



4900	5900	6900	4901
Wall Outlet with Gravity Flaps - 100mm Round	Wall Outlet with Gravity Flaps 125mm	Wall Outlet with Gravity Flaps 150mm	Wall Outlet with Gravity Flaps - 110mm x 54mm

Available in Brown, Cotswold Stone, Terracotta, White (add B,C,T,W to end of code)

Louvred Grilles

Offers the least airflow resistance of all the outlet types. Can be used externally or internally and are available with or without a flyscreen. No provision for back draft prevention.



4904	5904	6904
Louvred Grille - 100mm Round	Louvred Grille - 125mm Round	Louvred Grille - 150mm Round

Available in Brown, Cotswold Stone, Terracotta, White (add B,C,T,W to end of code)
Available with Flyscreen (add F to beginning of code)

Cowled Outlets

Supply exceptional protection against the effects of high winds and driving rain. Includes a damper for back draft prevention to prevent air going back into the house.



4902	5902	6902	4903
Cowled Wall Outlet - 100mm Round	Cowled Wall Outlet - 125mm Round	Cowled Wall Outlet - 150mm Round	Cowled Wall Outlet - 110mm x 54mm

Available in Brown, Cotswold Stone, Terracotta, White (add B,C,T,W to end of code)

Air Bricks

Designed to fit in the wall and form a part of the brickwork. Available with or without damper for back draft prevention. For internal or external use



905 MEGADUCT 220 Double Airbrick	954 Double Airbrick Adapter to Round Pipe	2009 Polyvent 225 Long Air- brick Adapter with Grille	2316 Airbrick Fascia for PolyVent Airbrick Adapter

3009 Polyvent 300 Long Air- brick Adapter with Grille	501 Brick Size Louvred Outlet with Damper	505 Horizontal Louvred Airbrick

Available in Brown, Cotswold Stone, Terracotta, White (add B,C,T,W to end of code)

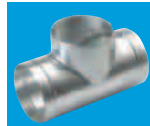
Ducting & Fittings



Spiral Duct - 3m Lengths
Part Code: VSP
Available 80mm to 1000mm



Equal Tee Piece
Part Code: VSPET



90 Deg Bend
Part Code: VSP90



End Cap
Part Code: VSPE



45 Deg Bend
Part Code: VSP45



Split Rings
Part Code: VSPSR
Suspensions Rings
Part Code: VSPVSR



90 Deg Twin Bend
Part Code: VSPB90



Access Doors
Part Code: AJAD &
AJADTYPE A/B
(circular)



Reducer
Part Code: VSPR



Single Blade
Balancing Dampers
Part Code: VSPBD



Metal Cowl
Part Code: VSPMC



Blast Gate Dampers
Part Code: VSPBG



Flat Shoe
Part Code: VSPFS



Pressed Saddle
Part Code: VSPPS



Flanged Spigot
Part Code: VSPTO



Male Coupler
Part Code: VSPCM
Female Coupler
Part Code: VSPCF



Up to 6 times faster to install than traditional hanging systems. Available in kits with a length of wire, pre-crimped end fixing, Gripple and setting key
No1 - SWL 10kg, with a 5:1 safety factor
No2 - SWL 45kg, with a 5:1 safety factor
No3 - SWL 90kg, with a 5:1 safety factor
No4 - SWL 225kg, with a 5:1 safety factor
No5 - SWL 325kg, with a 5:1 safety factor

Slotted Banding
SSB 25mm x 30
Metres



Sealants, Tape, Clips & Gasket

Worm Drive Wire Clips - Specially designed to use with flexible duct and tube

Order Ref:

FSMQC110 = up to 110mm Dia

FSMQC165 = up to 165mm Dia

FSMQC215 = up to 215mm Dia

FSMQC325 = up to 325mm Dia

FSMQC525 = up to 525mm Dia

Multiband on a 30m roll

Order Ref:

FSQIPBAND

Box of 50no Clamps

Order Ref:

FSQIPCLAMP



Duct tape

TAPEPVC = PVC

DUCT050 = CLOTH

ALU050 = ALUMINIUM FOIL

Nylon Clamping

An economical alternative to metal clamps.

Order Ref:-

FSNQC100 = 100mm Dia.

FSNQC127 = 127mm Dia.

FSNQC229 = 229mm Dia



Full range of sealants available from stock
Order Ref:

DUCTGREY

DUCTCLEAR

MAS87 FireBrake Acoustic Intumescent Mastic, 310 ml



Acoustic Foam Class O Self Adhesive

2M x 1M x 25mm



Ductwrap Isover

1200mm x 25mm x 17M



Controls & Sensors



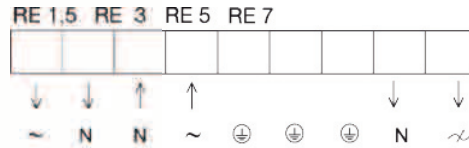
Auto transformer 5 step speed controls

RE - Single Phase Auto Transformer

	Amps	Fuse	H x W x D mm	kg
RE 1.5	1.5A	1.8A	200x105x105	1.5
RE 3	3A	3.5A	200x105x105	2.5
RE 5	5A	6A	200x105x105	4.1
RE 7	7A	8A	275x105x145	7.5

Output voltages for each of the 5 steps					
Steps	1	2	3	4	5
Voltage V	80	105	130	160	230

A single-phase transformer which controls the fan speed by altering the supply voltage in five fixed steps. The steps are adjusted manually, using the control knob on the front of the unit. The transformer has 230V terminals for operating dampers, electric heater batteries or other external equipment. When the transformer knob is in position 0, the outlet has no current. The indicator lamp on the front shows that the transformer is in operation. The fuse may be reset from outside. The RE has a self extinguishing thermoplastic casing.



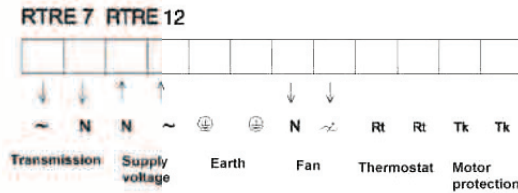
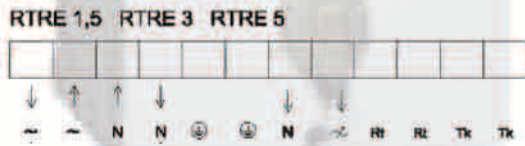
RTRE - Single Phase Auto Transformer with TK's

	Fuse	H x W x D mm	kg	
RTRE 1.5	1.5A	1.8A	200x105x105	1.6
RTRE 3	3A	3.5A	200x105x105	2.6
RTRE 5	5A	6A	200x105x105	4.2
RTRE 7	7A	8A	275x105x145	7.6
RTRE 12	12A	12A	256x147x140	10.5

Output voltages for each of the 5 steps					
Steps	1	2	3	4	5
Voltage V	80	105	130	160	230

A single-phase transformer which controls the fan speed by altering the supply voltage in five fixed steps. The steps are adjusted manually, using the control knob on the front of the unit. An integral motor protection device is included which cuts the supply voltage to the fan if the thermal contact in the fan motor is activated. The unit is reset by turning the knob to "0" for 10 seconds, after which the unit restarts.

The unit has input terminals for room thermostat RT, which stops the supply voltage to the fan when the circuit is broken. These terminals are linked before delivery. The transformer has 230V terminals for operating dampers, electric water-heater batteries or other external equipment.



RTRD - Three Phase Auto Transformer with TK's

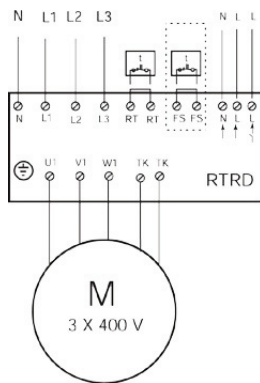
	Amps	Fuse	H x W x D mm	kg
RTRD 2	2A	-	255x190x135	7.5
RTRD 4	4A	-	309x262x160	18
RTRD 7	7A	-	309x262x160	18
RTRD 14	14A	-	290x400x166	30

Output voltages for each of the 5 steps					
Steps	1	2	3	4	5
Voltage V	95	145	190	240	400

A three-phase transformer which controls the fan speed by altering the supply voltage in five fixed steps. The steps are adjusted manually, using the control knob on the front of the unit.

An integral motor protection device is included which cuts the supply voltage to the fan if the thermal contact in the fan motor is activated. The unit is reset by turning the knob to "0" for 10 seconds, after which the unit restarts.

Input terminals for room thermostat RT and frost protection thermostat FS cut supply voltage to the fan when the circuit is broken. When the frost protection thermostat FS breaks the circuit, it is reset in the same way as when the TK is triggered. Terminals are linked before delivery. The indicator lamp on the front shows that the transformer is in operation. The transformer has 230V terminals for operating dampers, electric heater batteries or other external equipment. These terminals have no current when the transformer knob is in position 0, or when the TK or RT input is open. Supply voltage: 400V 50/60Hz.



Multi-Unit Speed Control

If multiple fans are to be run off one Auto transformer speed control, then the total combined full load currents (FLC) of the fans, plus a 20% margin must not exceed the Amperage of the controller. All TK's must be wired in series or Fans without TK's will each require a motor protection device. STET 10B.

Example

4 no KDRD50 Fan off 1 no RTRD
 Full load current of fan 0.98amps multiplied by 4 = 3.92amps
 Plus 20% = 4.7amps
 Therefore speed controller required is RTRD 7 (7amps)



Two speed - trickle & boost control

“Turn any speed controllable fan into a green energy saving solution”

by Systemair

REU - Single Phase 230V 50/60Hz

REU, a single phase transformer which controls the fan speed by altering the supply voltage in five fixed steps. The steps are adjusted manually, using the control knobs on the front of the unit. There are two control knobs: one for the higher fan speeds (Boost) and one for lower fan speeds (Trickle), any combination of speed settings can be achieved, i.e. low speed set to position 2 and high speed set to position 4. This feature allows for easy set-up and commissioning. Switching between the high and low settings is done by an external change-over contact, which could be a thermostat or CO2 Sensor etc. The indicator lamp on the front shows when the transformer is in operation.

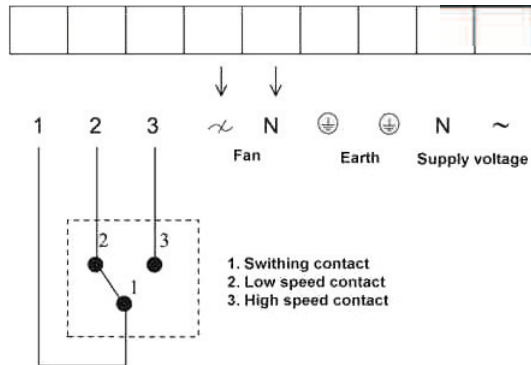
Note! Fans with external thermal contact leads (TK) must always be connected to a motor protection device (STET 10B)



Output voltages for each of the 5 steps:

Step	1	2	3	4	5
Voltage V	80	105	130	160	240

	amps	Fuse	H x W x D mm	kg
REU 1.5	1.5A	1.8A	200x105x105	1.7
REU 3	3A	3.5A	275x105x145	3.2
REU 5	5A	6A	275x105x145	4.8
REU 7	7A	8A	275x105x145	7.7



RTRDU - Three Phase 400V 50/60Hz

A three-phase transformer which controls the fan speed by altering the supply voltage in five fixed steps. The steps are adjusted manually, using the control knobs on the front of the unit.

There are two control knobs: one for higher fan speeds and one for lower fan speeds. Switching between the high and low settings is done by an external change-over contact, which could be a thermostat or a timer. An integral motor protection device is included which cuts the supply voltage to the fan if the thermal contact in the fan motor is activated. The unit is reset by turning the switch to “0” for 10 seconds, after which the unit restarts.

Input terminals for room thermostat RT cuts supply voltage to the fan when the circuit is broken.

Terminals are linked before delivery. The indicator lamp on the front shows when the transformer is in operation.

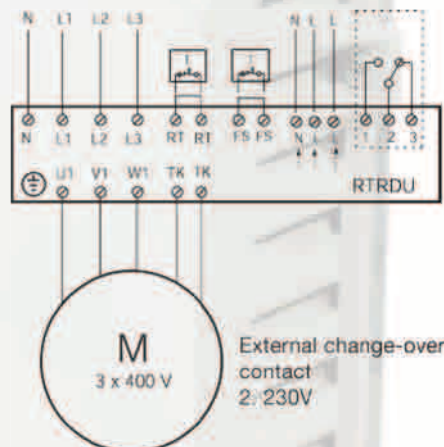
The transformer has 230V terminals for operating dampers, electric heater batteries or other external equipment. These terminals have no current when the transformer switch is in position 0, or when the TK or RT input is open. Supply voltage: 400V 50/60Hz.



Output voltages for each of the 5 steps:

Step	1	2	3	4	5
Voltage V	95	145	190	240	400

	amps	H x W x D mm	kg
RTRDU 2	2A	323x270x172	10
RTRDU 4	4A	323x270x172	13
RTRDU 7	7A	450x290x174	18



SENSORS

A range of sensors are available depending on how you want your two speed (trickle & boost) system to work. Options include:- CO2 Sensor, PIR Motion Sensor, HR1 Humidistat Sensor, RT1 Room Temperature Sensor, REX2000 Timeclock Control or even just off the light switch



Electronic variable speed control

REE - Single Phase Thyristor variable speed control
 SC - Single Phase Electronic variable speed control

Type	Amps	H x W x D mm	kg
REE 1	0.1-1.0A	82 x 82 x 65	0.26
REE 2	0.1-2.0A	82 x 82 x 65	0.26
REE 4	0.4-4.0A	82 x 82 x 65	0.3
SC1.5	1.5A	86 x 86 x 71	0.33
SC3.0	3.0A	147 x 86.5 x 62	0.5
SC5.0	5.0A	147 x 86.5 x 62	0.6
SC8.0	8.0A	185 x 172 x 135	2.0



Motor protection devices

These direct on-line starters, switch off the supply voltage to the motor when the thermal contacts (TK) in the motor windings is tripped. Start / Stop push button.

	STET 10B	STDT
Voltage	60-230	60-400
Current min/max	0.4 / 10.0	16.0
Max. Fuse	16	80
Weight kg	0.5	0.5
Dimensions WxHxD mm	79x141x80	80x150x98
Enclosure	IP54	IP55



Auto changeover panels

For use with run & standby fans to provide changeover on fan failure, with the addition of warning lights. The ACO8A also has a built in 24 hour duty share switching between both fans to ensure a long life. Volt free contacts are provided for connection to a BMS.



Control panels

A wide range of customised control panels are available from Fans & Spares, with standard features including:

- Supply fan connections
- Fan interlock
- Integral fan run-on-timer
- High temperature cut out
- Connections for sensors
- Timeclocks
- Electric heater battery control 3kw - 54kw



Sensors & Controls

by Express-air



EAC6:
Variable speed control suitable for all "size 6"
Express-air commercial fans



EAC9/12:
Variable speed control with reversible switch
suitable for all "size 9 & 12" Express-air
commercial fans



EFS-PIR:
Remote Passive Infra Red motion detector
360 deg vision, with built in Run on Timer



EFS-ROT:
Remote Run on Timer 1-20 mins



EFS-7DAY:
Remote Analogue 7 Day Timeswitch



EFS-HS:
Remote Humidistat 40% - 95% RH



RT 0-30:
Remote Room Thermostat 0 - 30 degC

Other Sensors & Controls available
Please enquire

- Air Quality Sensors
- CO2 Sensors
- Isolator Switch
- Differential Pressure Switch
- Digital Time Clocks

Demand Ventilation Controls

by Systemair

- REP - Pressure regulator
- RET - Temperature regulator
- REPT - Pressure & Temperature regulator

These systems work on demand ventilation and can be used in a wide variety of applications, such as high rise tower block, offices & student accommodation. Instead of having a fan for each room, one central fan is used with the speed / extract rate being varied by the control gear. The REP regulates the fan speed on pressure drop changes (using a differential pressure switch). This can work for cooker hoods as well as a PIR activated air valve in the toilets. So only the required extraction rate is used, saving money as well as energy. The RET works on temperature changes, whereas the REPT works from both pressure & temperature changes.



Constant pressure system



Centralised extract fans



Thyristor-type stepless temperature regulation (P-regulation) for single-phase motors with variable voltage control. Used, for example, for room-temperature regulation where the heating is conducted by air. An integral motor protection device is included which switches off the supply voltage to the fan if the thermal contact in the fan motor is activated.



RET - Temperature Regulator

Thyristor-type stepless pressure regulation (P-regulation) for single-phase motors with variable voltage control. Used, for example, for the pressure regulation of fans. An integral motor protection device is included which cuts the supply voltage to the fan if the thermal contact in the fan motor is activated.



REP - Pressure regulator

A membrane-type sensor for measuring the differential pressure in non-aggressive gases. The difference in pressure between the sensor's plus (+) and minus (-) connections affects the membrane, which generates a voltage via a differential transformer. This voltage converts into a continuous DC voltage proportional to the membrane's position. Cable length approx. 0.5m.



DSG Differential Pressure Switch

BPD is a motorized damper with integrated presence sensor (PIR), for Bathroom installations. The extract units may be installed either on the wall (in a vertical or horizontal position), or the ceiling.

The damper stays open 25 min after the presence sensor (PIR) does not have any movement indication any longer. If the relative humidity is over 75% the damper will also stay open.

Spigot version: Ø100mm and Ø125mm (with adapter). Ø80mm (with special sleeve Ø80mm). note: the BPD is delivered with adapter Ø100mm.

The BPD dampers are especially useful in constant pressure systems for example block of flats.



PIR activated Air Valve



Cooker hood (no fan)

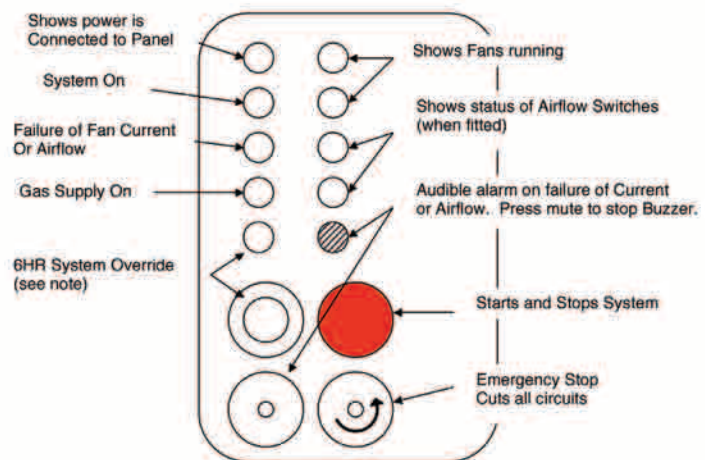
BS 6173 2001 calls for commercial kitchen supply and extract fans to be interlocked with the gas supply to prevent gas cooking equipment being used without suitable ventilation.

The ALS2 Panel has been designed to meet this new requirement by monitoring the fan running currents and offers a reliable and easy to install solution. The unit also acts as a fan starter for single phase fans and can be fitted with integral speed controllers.



Functions Provided

- (1) Lamps to monitor status of Fans. Gas Valve & Override.
- (2) Start / Stop Button.
- (3) Audible Alarm and Mute Button.
- (4) Key Switch with 6HR Override.
- (5) Emergency Stop Switch.
- (6) Optional Airflow Switch input (to monitor for blocked ductwork).
- (7) Connections for Fire Alarm Shut Off (low voltage).
- (8) Dual channel monitoring of upper and lower fan current.
- (9) Short circuit fusing.
- (10) 40 seconds delay before Gas Valve is shut off.



Various permutations of fan type can be accommodated.

Three phase fans will need a separate starter and a link to the current sensor.

Single phase fans with a running current greater than 6.5 Amps will need a separate speed controller. Several small fans can be paralleled from one current sensor providing the total current is less than 10 Amps. See fan connection drawings.

Three Type of ALS2 are available:-

ALS2/P Without Speed Controllers

ALS2/P1 With One Single Phase Speed Controller Max. 6.5A

ALS2/P2 With Two Single Phase Speed Controllers Max. 6.5A

6hr Override

This key switch has been provided so that in the event of a failure the Manager can decide whether to continue cooking while a repairer can be located. This feature has been requested by users to avoid losing cooking time. The override lasts for 6 hours before shutting off the gas valve. It must be turned off and on to re-use.

Fire Alarm Contacts

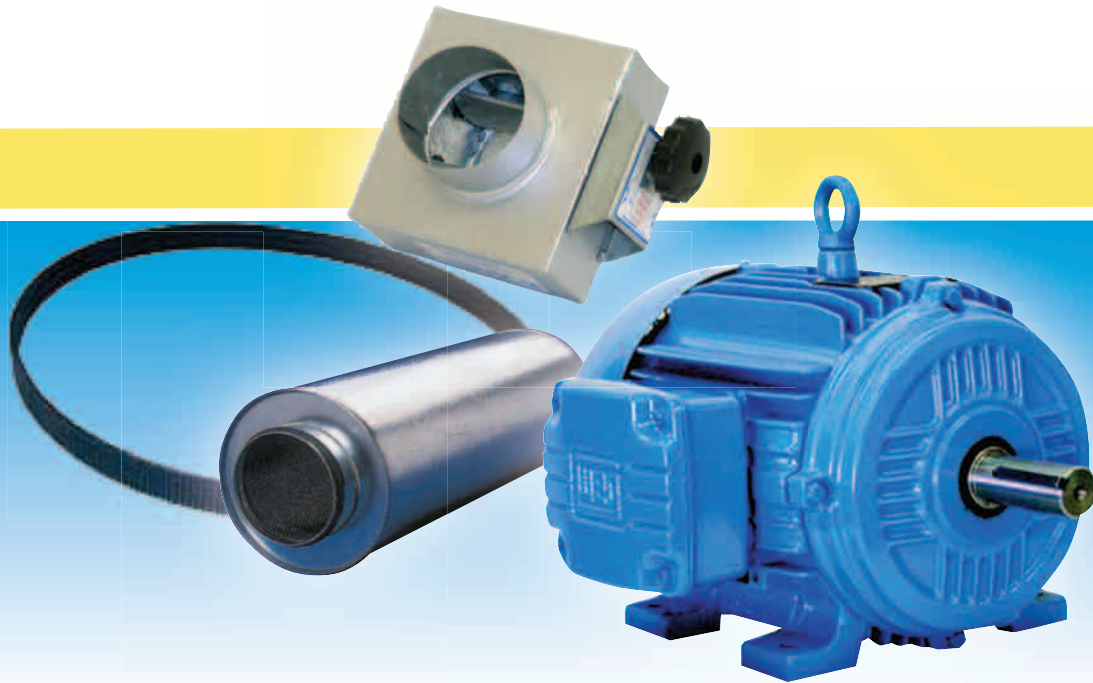
Two terminals are provided for linking into the Fire Alarm system. These should be wired normally closed in a healthy state and break on alarm.

The alarm relay contacts should be VOLT FREE as the ALS2 gives out a 24V signal and should not be supplied with any voltage. If no Fire Alarm system is used these terminals should be left linked.

If the Fire Alarm should operate the fans and gas solenoid valve are shut down.

Emergency Stop

The Emergency Stop Button when pushed will shut down the fans and turn off the gas supply.



Fans & Spares Accessories

Test equipment

by TSI Instruments



Rotating Vane Anemometer

Digital velocity and volume flow meter with averaging, imperial and metric display



Rotating Vane Anemometer

Digital velocity and volume flow meter with telescopic probe, turbulence indication and auto logging. Wide choice of display units. Analogue and digital outputs



IAQ 10 CO2 Meter

A new generation in compact, portable airflow measurement incorporating temperature, volume flow, velocity, turbulence, draught intensity IAQ indicator. Wide choice of displays. Analogue and Digital outputs.



Thermal Anemometer

Digital velocity meter with temperature display and telescopic probe with flexible neck



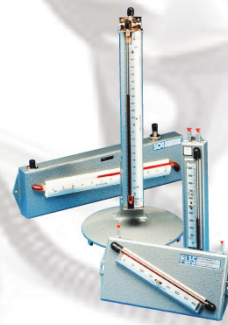
Indoor Air Quality

The IAQ50 Indoor Air Quality Meter quickly and accurately measures temperature, humidity and carbon dioxide levels in real time, and includes a data logging function.



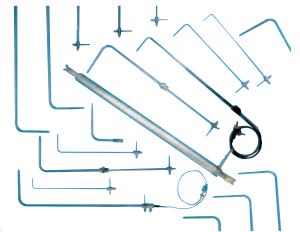
Low Flow Hood Kits

Light weight air balancing kit with a range of optional accessories including six fabric hoods and three plastic hoods.



Manometers

Industrial Vertical Tube Manometer
Inclined Manometer
Inclined Filter Loss Manometer



Pitot Static Tubes

For permanent and portable use with manometers, transducers etc

Test equipment

by Kimo Instruments



Manometers



Air flow Instruments



Sensors

Anti-Vibration Mounts

Rubber & Spring type available. Please enquire

Anti Vibration Mount Ref	Weight Range kg	Nominal Deflection
VT/1 - BLUE	9.0 to 18 Kg	4.0mm
VT/1 - YELLOW	15 to 28 Kg	4.0mm
VT/1 - GREEN	21 to 40 Kg	4.0mm
VT/1 - WHITE	27 to 54 Kg	4.0mm
VT/1 - RED	36 to 72 Kg	4.0mm
VT/2 - BLUE	18 to 60 Kg	5.0mm
VT/2 - GREEN	54 to 108 Kg	5.0mm
VT/2 - WHITE	90 to 180 Kg	5.0mm
VT/2 - RED	135 to 270 Kg	5.0mm
VT/2 - BLACK	180 to 360 Kg	5.0mm



Motor Slide Bases

Fans & Spares supply the worlds finest selection of motor slide bases. These robustly constructed and expertly designed motor slide bases are supplied with a full. money back guarantee.

What are slide bases used for?

Motor slide bases are used on fans, conveyors and any other processes that involve belt tightening. Due to varying temperatures and belt strength, the tightness of the belt must be adjusted to keep machinery running at its maximum efficiency. Even the most experienced engineers can take up to an hour adjusting motor slide rails. The “quick-fit” and “mono-plate” range supplied by Fans & Spares means that belts can be easily adjusted in a matter of minutes, irrespective of engineering experience.

Please enquire for details & selections

Motor Slide Base Sizes

SL270 63/112 SL430 90/160
 SL307 90/112 SL490 160/188
 SL340 90/132

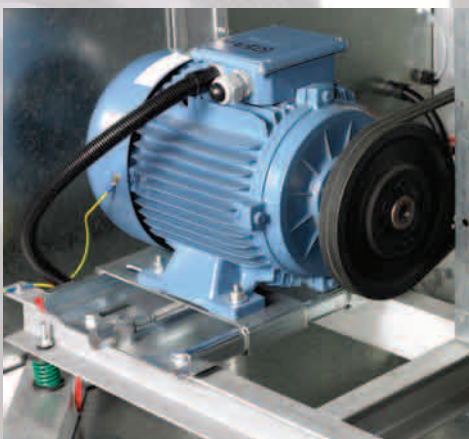


Motors, Belts & Pulley's

Fans & Spares can offer a complete range of replacement belts & pulley's to suit most fan motor applications, please enquire

Whatever your motor requirement, Fans & Spares are happy to offer a solution

- 2 pole, 4 pole & 6 pole option
- 2 speed motors
- Foot or Pad mounted
- 0.25kw - 30kw



Flange, Guide Vane, Corners & Channel

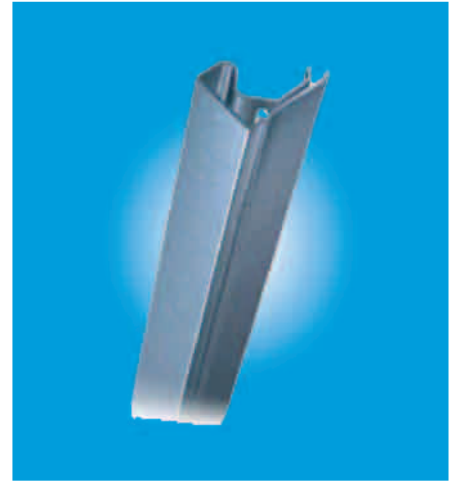


by Denhaco

The Ecoflange is manufactured by Construction & Engineering Products, a division of Corus Special Strip. Fifty years experience of cold roll forming technology means that Construction & Engineering Products can design and manufacture to the most exacting tolerances and consistent quality levels.

All major products supplied by Denhaco fully conform to Duct Work Specification 144 (DW144), the UK Heating Ventilating Contractors Association (HVCA) specification and have been tested and certified by the Building Services Research and Investigation Association (BSRIA) in relation to the DW144/TM1 test procedures for the HVCA. The Ecoflange is available in four internationally recognised standard sizes (BS15, BS20, BS30 and BS40) and has a choice of material gauge to suit every specification.

The Ecoflange facilitates rapid and accurate assembly of joints and incorporates a number of significant features that set it apart as a market leader in flange technology. The cantilever action on the duct and the offset corner noses for even pressure all around the face of the flange, ensure accurate assembly and sealing. In-line injection of mastic into the flange, ensures that the edge of the duct is firmly bedded into the sealant. All this, combined with square hole fixing points, makes fast, single-handed installation easy, an important breakthrough when working at height or in restricted spaces. Denhaco ensured that the TM1 test requirements from BSRIA were met, without needing to dimple the corners on J1, J2, J3 and J4 flanges, saving customers time and money.



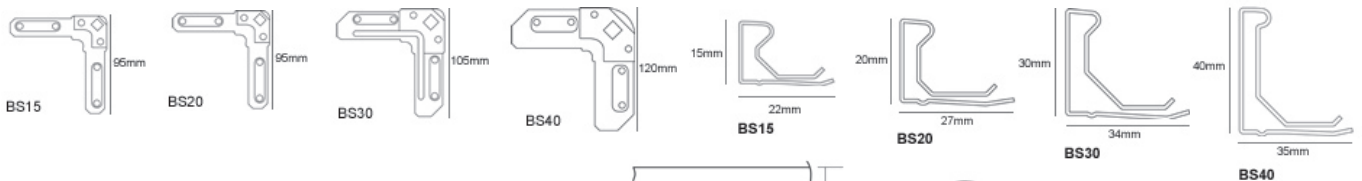
The **BS15** Ecoflange was the first 15mm flange to be tested and available to the market, an innovation started by Denhaco. Estimates show that 60% of the ductwork currently made by using the 20 mm flange could be manufactured using the new 15 mm flange.

Tested to DW144/TM1, the **BS20** flange is certified for J1 and J2 rated ductwork. The BS20 has a unique advantage as the corners do not have to be dimpled in order to meet these requirements.

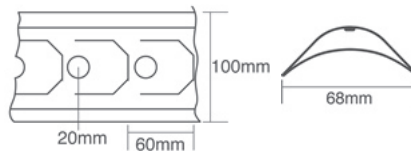
The **BS30** flange performs to J3, J4 and J5 (J5 with a tie rod), and fully conforms to DW144/TM1. Again Denhaco believe that it is the only company to pass J4 without having to dimple the corners.

In response to requests from customers, Denhaco has introduced short BS30 and 31 corners, which remove the need to cut down standard sized corners for ducts when connecting to dampers.

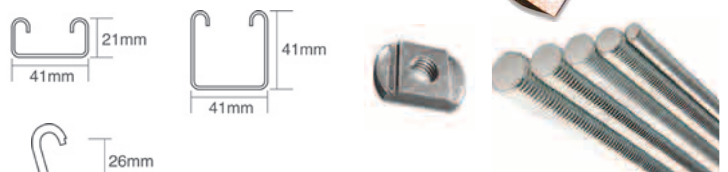
The **BS40** flange can be used to manufacture ductwork up to J5 and J6 (J6 with a tie rod). The BS40 complements the Denhaco product range and ensures that Denhaco is the only name you need to specify. This flange is fully certified to DW144/TM1.



Denhaco's **turning vane** and **track** complement its flange system and meets the requirements of DW144. The track fixing tool allows you to create an extremely rigid frame to allow air movement with minimum vibration.



Denhaco stock **channel** in 1.6 and 2.5 mm gauges. Available in 3, 5 and 6 metre lengths (6 metre on request and dependent on quantity), M8 and M10 channel nuts and top plates are also available for use with Denhaco channel section.



Denhaco **clamps** have been tested during DW144/TM1 certification. The standard BS clamp is suitable for three sizes of flange - 20, 30 and 40.

The **BS15 clamp** was fully tested during the BSRIA certification of the 15mm flange and is ideally suited for J1 rated ductwork with the new BS15 flange. To help reduce costs further, this smaller version of the BS Clamp has been produced, which is capable of clamping both the BS15 and BS20 Duct Flange Systems.

Threaded rod is available in 1, 2 & 3 metre lengths, in 8mm, 10mm & 12mm dia. Rod Connectors are also available as well as **channel nuts**

Flange Gasket = 20mm x 6mm x 15m

Flexible Duct Connector = 45 x 75 x 45

Rivets = various sizes

Tec Screws = various sizes



Roof Flashings

The Dektite system provides a flexible solution for flashing problems.

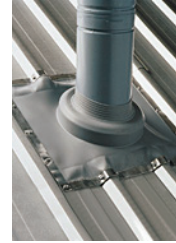
Designed to completely weather-proof pipes and flues wherever they penetrate profiled roofs and walls, Dektite eliminates the need for special purpose soakers or flashing back, and can be installed easily by one person. The flexible material allows for pipe movement due to expansion and contraction or vibration, maintaining a weather-proof seal. Dektite is easily fastened to all sheet profiles and tile materials i.e. aluminium, steel



DEKS Retrofit



DEKS Aluminium



DEKS Soaker



DEKS Eziseal



DEKS Original



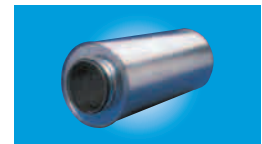
DEKS Silicone
(High Temperature)

Attenuators / Silencers

Circular Attenuators

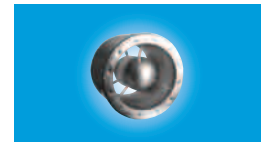
Ref: LDC

Attenuator construction for this range comprises a pre-galvanised sheet steel spiral wound outer casing, manufactured in accordance with HVCA DW144 specification, with circular spigotted end caps. Sizes 100mm Dia to 500mm Dia



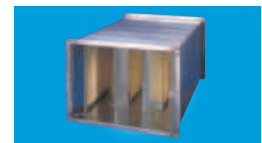
Circular Attenuators

Construction for this range comprises external pre-galvanised sheet steel tube over casing, manufactured in accordance with HVCA DW144 specification, end rings fitted with tapped inserts to suit the relevant fan drilling detail. Available with or without pod. Sizes 315mm Dia to 1250mm Dia



Rectangular Attenuators

This range of rectangular duct attenuators for HVCA applications offers an innovative acoustic splitter construction, which provides significantly improved mechanical integrity of the acoustic media containment envelope.



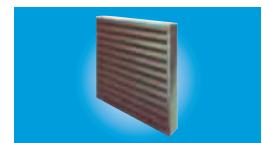
Flexible Silencers

A range of flexible silencers from 100mm to 315mm dia
All available from stock.



Acoustic Louvres

This range of acoustic louvres is designed to ensure optimum acoustic performance with efficient weather resistance capability and aesthetic properties.



Acoustic Jackets

Available for additional attenuation for Fans, to suit Circular, Square & Rectangular type



Heating Coils & Batteries



Fans & Spares offer a range of heating & cooling batteries covering most requirements for duct mounted heating. Some sizes are available from stock. other are made to your specification with short lead times. Options include Electric, LPHW, DX or Chilled water - Please enquire.

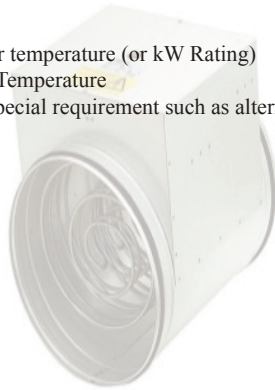
Low pressure hot water (L.P.H.W)
Available in most circular, rectangular or square sizes with flanged, galvanised steel casing, aluminium fins, copper tubes and male B.S.P connections as standard, but other materials and connections are also available.

Electric Duct Heater Batteries

Available in square or rectangular flanged casing, circular spigoted casing, or stab-in type. Sheathed elements in galvanised steel housing as standard.

For price and availability please provide;

- Dimension Required
- Air Volume
- Entering & Leaving air temperature (or kW Rating)
- Water Flow & Return Temperature
- Please also state any special requirement such as alternative materials



Electric Duct Heaters with full controls package

(inc room sensor TG-R430 & Duct Sensor & flow switch TG-K330)

Ref Circular	kW	Supply	Stage
CBMT/P100-06	0.6	230-1-50	1
CBMT/P125-12	1.2	230-1-50	1
CBMT/P150-27	2.7	230-1-50	1
CBMT/P200-30	3.0	230-1-50	1
CBMT/P250-54	5.4	230-1-50	1
CBMT/P315-90	9.0	400-3-50	3
CBMT/P400-12	12.0	400-3-50	4
CBMT/P500-17	17.0	400-3-50	4

Ref Rectangular	kW	Supply	Stage
RBM40-20/9	9.0	400-3-50	thyristor
RBM50-25/15	15.0	400-3-50	thyristor
RBM50-30/15	15.0	400-3-50	thyristor
RBM60-30/27	27.0	400-3-50	thyristor
RBM60-35/27	27.0	400-3-50	thyristor
RBM70-40/27	27.0	400-3-50	thyristor

Other sizes available, please enquire
Also available: DX or Chilled water cooling coils - Please enquire
Cooling coils available on request, please enquire



VBC



VBR



CB



RB



RBM



CBM

DXRE Rectangular Duct Mounted DX Cooling Coil

by Systemair

- Same model for left-hand or right-hand installation (reversible coil)
Stainless steel condensate drip tray. A droplet eliminator can be fitted regardless of the direction of air flow
Easily removable drip tray to simplify cleaning and inspection



- DXRE are mostly used for central cooling of the ventilation air but can also be used for individual cooling of the air supplied to individual rooms (zones).

- The DXRE is intended for installation in a horizontal duct, with the air flow in either direction (reversible coil).

- We recommend that a DE droplet eliminator (accessory) should be installed on the outlet side of the coil if the air velocity is in excess of 2.5 m/s. This prevents water droplets being entrained by the air flow out into the duct system

Available in Duct Sizes:

400 x 200	600 x 350
500 x 250	700 x 400
500 x 300	800 x 500
600 x 300	1000 x 500

PGK Rectangular Duct Mounted Water Cooling Coil

by Systemair

- Casing of galvanised sheet steel with copper tubes and aluminium fins. Inspection covers for easy cleaning and maintenance.

- Cold water-cooling battery for rectangular ducts.

- Casing from galvanised sheet steel. Water-battery from copper tubes and aluminium fins. Air vent and drain valve included. Drip pan from stainless steel and condensate connection (R $\frac{1}{2}$ ""). Max working pressure 1.6 MPa (16 bar). For water connection left or right. Two inspection covers for cleaning and maintenance. Droplet separator DE as an accessory regardless of air direction. Recommended for air velocities from 3m/s.



Available in Duct Sizes:

400 x 200	600 x 350
500 x 250	700 x 400
500 x 300	800 x 500
600 x 300	1000 x 500

CWK Circular Duct Mounted Water Cooling Coil

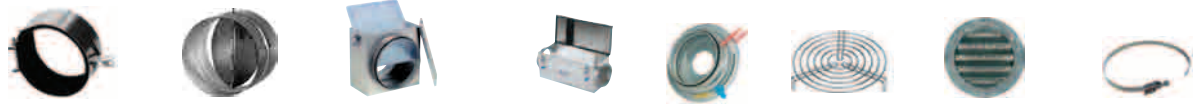
by Systemair

- Casing of galvanised sheet steel with copper tubes and aluminium fins. Inspection covers for easy cleaning and maintenance.

- Connection sleeves with rubber seal.
- Max operating temperature 150 °C
- Max operating pressure 1,6 MPa (16Bar)
- Available in duct sizes: 100mm, 125mm, 160mm, 200mm, 250mm 315mm & 400mm Dia



Circular duct accessories



Duct Size	Fast Clamps	Back Draught Shutter	Panel Filter Box	Bag Filter Box	Iris Damper	Spigot Guard	Circ wall Louvre	Metal Quick Clamp
100	FK100	RSK100	FGR100	FFR100	SPI 100	SG100	IGC100	FSMQC110
125	FK125	RSK125	FGR125	FFR125	SPI 125	SG125	IGC125	FSMQC165
150	FK150	RSK150	FGR150	FFR150	SPI 150	SG150	-	FSMQC165
160	FK160	RSK160	FGR160	FFR160	SPI 160	SG160	IGC160	FSMQC165
200	FK200	RSK200	FGR200	FFR200	SPI 200	SG200	IGC200	FSMQC215
250	FK250	RSK250	FGR250	FFR250	SPI 250	SG250	IGC250	FSMQC315
315	FK315	RSK315	FGR315	FFR315	SPI 315	SG315	IGC315	FSMQC315
355	FK355	RSK355	FGR355	FFR355	SPI 355	SG355	-	FSMQC525
400	FK400	RSK400	FGR400	FFR400	SPI 400	SG400	-	FSMQC525



Duct Size	Silencers				Water Htr	Elec Htr	Elec Htr	Water Cool
	300mm Long	600mm Long	900mm Long	1200mm Long	Battery	Battery	Battery +	Battery
100	LDC100-300	LDC100-600	LDC100-900	LDC100-1200	VBC100	CB100	CBMT100	CWK100
125	LDC125-300	LDC125-600	LDC125-900	LDC125-1200	VBC125	CB125	CBMT125	CWK125
150	LDC150-300	LDC150-600	LDC150-900	LDC150-1200	-	CB150	CBMT150	-
160	LDC160-300	LDC160-600	LDC160-900	LDC160-1200	VBC160	CB160	CBMT160	CWK160
200	LDC200-300	LDC200-600	LDC200-900	LDC200-1200	VBC200	CB200	CBMT200	CWK200
250	LDC250-300	LDC250-600	LDC250-900	LDC250-1200	VBC250	CB250	CBMT250	CWK250
315	LDC315-300	LDC315-600	LDC315-900	LDC315-1200	VBC315	CB315	CBMT315	CWK315
355	LDC355-300	LDC355-600	LDC355-900	LDC355-1200	-	CB355	CBMT355	-
400	LDC400-300	LDC400-600	LDC400-900	LDC400-1200	VBC400	CB400	CBMT400	CWK400



Duct Size	Flexible Duct PVC	ALI	Acoustic /thermal	Semi Rigid	Circ VCD	Circ Fire Damper	Circ Intumescent Fire block	Fusible Link Fire Damper
100	EAPVCFD100	EAALIFD100	EAACOFD100	EASEMFD100	BVCA100	BFCG100	CVT100	EACFD100
125	EAPVCFD125	EAALIFD125	EAACOFD125	EASEMFD125	BVCA125	BFCG125	-	EACFD125
150	EAPVCFD150	EAALIFD150	EAACOFD150	EASEMFD150	BVCA150	BFCG150	CVT150	EACFD150
160	EAPVCFD160	EAALIFD160	EAACOFD160	EASEMFD160	BVCA160	BFCG160	-	
200	EAPVCFD200	EAALIFD200	EAACOFD200	EASEMFD200	BVCA200	BFCG200	CVT200	
250	EAPVCFD250	EAALIFD250	EAACOFD250	EASEMFD250	BVCA250	BFCG250	CVT250	
315	EAPVCFD315	EAALIFD315	EAACOFD315	EASEMFD315	BVCA315	BFCG315		
355	EAPVCFD355	EAALIFD355	EAACOFD355		BVCA355	BFCG355		
400	EAPVCFD400	EAALIFD400	EAACOFD400		BVCA400	BFCG400		



Air Valves Duct Size	Plastic Extract	Plastic Supply	Metal Sup/Ext	Fire Rated Sup/Ext	Stainless Sup/Ext	Mounting Ring	Wall Grille	Kit 5-in-1 Size
100	BE100	BS100	EFF100	FSVHD100	FSSSVLF100	RFU100	IGK100	EFS-RCK
125	BE125	BS125	EFF125	FSVHD125		RFU125	IGK125	EFS-RCK
150	BE160	BS160	EFF160	FSVHD150	FSSSVLF150	RFU150	-	EFS-RCK
160	BE160	BS160	EFF160	FSVHD160		RFU160	IGK160	EFS-RCK
200	BE200		EFF200	FSVHD200		RFU200	IGK200	

Rectangular duct fan accessories



	Attenuator	Bag	Volume	Flex	Louvre	Elect Heater Battery		LPHW Heater Battery	
	950mm	Filter Box	Control	Connection	Shutter	Rect	3 Phase	Rect	2 Row
			Damper						4 Row
Duct Size	Ref No.	Ref No.	Ref No.	Ref No.	Ref No.	Ref No.	Ref No.	Ref No.	Ref No.
30-15	LDR30-15	FFK30-15	SRK30-15	DS30-15	-	-	-		
40-20	LDR40-20	FFK40-20	SRK40-20	DS40-20	VK40-20	RB40-20/9	RB40-20/15	VBR40-20-2	VBR40-20-4
50-25	LDR50-25	FFK50-25	SRK50-25	DS50-25	VK50-25	RB50-25/15	RB50-25/27	VBR50-25-2	VBR50-25-4
50-30	LDR50-30	FFK50-30	SRK50-30	DS50-30	VK50-30	RB50-30/15	RB50-30/27	VBR50-30-2	VBR50-30-4
60-30	LDR60-30	FFK60-30	SRK60-30	DS60-30	VK60-30	RB60-30/27	RB60-30/45	VBR60-30-2	VBR60-30-4
60-35	LDR60-35	FFK60-35	SRK60-35	DS60-35	VK60-35	RB60-35/27	RB60-35/45	VBR60-35-2	VBR60-35-4
70-40	LDR70-40	FFK70-40	SRK70-40	DS70-40	VK70-40	RB70-40/27	RB70-40/45	VBR70-40-2	VBR70-40-3
80-50	LDR80-50	-	-	DS80-50	VK80-50	RB80-50/45	RB80-50/67.5	VBR80-50-2	VBR80-50-3
100-50	LDR100-50	-	-	DS100-50	VK100-50	RB100-50/45	RB100-50/67.5	VBR100-50-2	VBR100-50-3

Square duct fan accessories



	Attenuator 1200 mm	Bag Filter	Flex Connection	Elect Heater Battery 3 Phase	LPHW Heater Battery 2 Row
KDR size	Ref No.	Ref No.	Ref No.	Ref No.	Ref No.
45	LDK45	FFS45	DSK45	RBK45/18	VBK45
50	LDK50	FFS50	DSK50	RBK50/21	VBK50
55	LDK55	FFS55	DSK55	RBK55/33	VBK55
65	LDK65	FFS65	DSK65	RBK65/39	VBK65
70	LDK70	-	DSK70	-	-

Multibox duct fan accessories



	Inlet Attenuator 1200mm	Outlet Attenuator 900mm	Flex Connection	Weather Louvre	Square to Circle Flexible	Volume Control Damper	Bird Beak Cowl	Weather Proof Roof	Base Upstand
MUB Size	Ref No.	Ref No.	Ref No.	Ref No.	Ref No.	Ref No.	Ref No.	Ref No.	Ref No.
MUB 025	MBI 025	MBO 025	FGV 025	WSG 025	UGS 025	SRKG 025	MBC 025	MBR 025	MBB 025
MUB 042	MBI 042	MBO 042	FGV 042	WSG 042	UGS 042	SRKG 042	MBC 042	MBR 042	MBB 042
MUB 062	MBI 062	MBO 062	FGV 062	WSG 062	UGS 062	SRKG 062	MBC 062	MBR 062	MBB 062

Heater Batteries / Filters / Cooling Coils / Mixing Boxes are available for Multibox. Please enquire

RAL Colour Chart

Colours can be applied to Grilles / Diffusers / Louvres and also Roof Cowls.

			
RAL 1001	RAL 1002	RAL 1003	RAL 1012
			
RAL 1013	RAL 1014	RAL 1015	RAL 1016
			
RAL 1018	RAL 1024	RAL 1028	RAL 2002
			
RAL 2003	RAL 2004	RAL 2008	RAL 2012
			
RAL 3001	RAL 3003	RAL 3005	RAL 3009
			
RAL 3020	RAL 5002	RAL 5005	RAL 5010
			
RAL 5012	RAL 5013	RAL 5014	RAL 5021
			
RAL 6001	RAL 6002	RAL 6005	RAL 6010
			
RAL 6011	RAL 6017	RAL 6018	RAL 6019
			
RAL 6020	RAL 6021	RAL 6032	RAL 6034
			
RAL 7000	RAL 7001	RAL 7004	RAL 7005
			
RAL 7015	RAL 7016	RAL 7023	RAL 7030
			
RAL 7032	RAL 7033	RAL 7035	RAL 7036
			
RAL 7037	RAL 7038	RAL 7040	RAL 7042
			
RAL 7044	RAL 7045	RAL 7046	RAL 7047
			
RAL 8017	RAL 9001	RAL 9010	RAL 9004
			
RAL 9006	RAL 9011	RAL 9016	RAL 9005

DISCLAIMER: Please note that the colours shown on this page offer only an approximation of their actual real-life counterparts. We can't be held responsible for any mis-match. This chart offers a guide only.

Useful Technical Data

Area		Multiply by
Metres ²	→	Feet ² 10.7636
Feet ²	→	Metres ² 0.0929

Volume		Multiply by
Feet ³	→	Metres ³ 0.0283
Metres ³	→	Feet ³ 35.3134

Flow Rate		Multiply by
C.F.M	→	m ³ /sec 0.00047
C.F.M	→	Litres/Sec 0.472
m ³ /sec	→	C.F.M 2119
Litres/Sec	→	C.F.M 2.12

1 m³/s = 1000l/s = 2119 CFM = 3600 m³/h

1000 m³/h = 0.278 m³/Sec = 277.8 l/s = 588 CFM

1000 CFM = 0.472 m³/Sec = 472 l/s = 1699m³/h

Pressure		Multiply by
Inches W.G	→	Pascals 249
Inches W.G	→	Millimetres 25.4
Inches W.G	→	Kilopascals 0.249
Pascals	→	Inches W.G 0.004
Millimetres	→	Inches W.G 0.0393

Velocity		Multiply by
Ft/min	→	m/s 0.0051
m/s	→	Ft/min 196.85

Formulae	
Velocity (m/s) =	$\frac{\text{air flow m}^3/\text{s}}{\text{duct area m}^2}$
Velocity Pressure Pa =	velocity ² x 0.6
Heat input kW =	m ³ /s x 1.2 x Δt
Δt (temperature difference -4 to 21°C) would give a Δt of	25

Fume Removal (recommended min. velocities across face of extract hood)	
Equipment	Velocity
Sand Blast Booths (openings)	2.5 m/s
Sand Blast Booths (downwards through booth)	0.4 m/s
Electro-Plating	0.75 - 1.0 m/s
Electro-Welding	0.5 - 1.0 m/s
Paint Spray Booths (breathing zone)	0.75 m/s
Kitchen Equipment	0.35 - 0.5 m/s

Specific Fan Power	
SFP =	$\frac{\text{Total power for Supply \& Exhaust Fans (kW)}}{\text{Air flow m}^3/\text{s}}$

Mass		Multiply by
Tons	→	Kilograms 1016.05
Tons	→	Tonnes 1.016

Length		Multiply by
Miles	→	Kilometres 1.609
Yards	→	Metres 0.914
Feet	→	Metres 0.305
Inches	→	Millimetres 25.4
Inches	→	Centimetres 2.54

Duct diameter		Free Area m ²
100mm	→	0.00785m ²
125mm	→	0.01227m ²
150mm	→	0.01767m ²
200mm	→	0.03142m ²
250mm	→	0.04909m ²
315mm	→	0.07794m ²
355mm	→	0.09898m ²
400mm	→	0.12566m ²
450mm	→	0.1590m ²
500mm	→	0.1964m ²
560mm	→	0.2463m ²
630mm	→	0.3118m ²

Recommended Air change Rates	
Residences. Churches. Storage areas	1-2
Libraries. Banks. Classrooms	2-3
Offices. Assembly Halls. Laboratories	4-6
Hospital Wards. Treatment Rooms. Toilets. Bathrooms. Public Houses	6-8
Cinemas. Theatres. Garages	6-10
Cafes. Canteens. Dance Halls	8-12
Restaurants. Domestic kitchens. Laundries	10-15
Commercial Kitchens. Bakeries. Boiler Houses. Swimming Pools	15-30
Paint Shops. Foundries. Furnace Rooms	30-60

General ventilation rates per person	
8 litres per person	

Recommended SFP level	
2.0	refurbishment and maintenance work
1.5	new installations

Terms & Conditions of Sale

1. Interpretation

In these conditions:

1.1 the following expressions shall have the meanings set opposite them unless the context otherwise requires: "Acknowledgement of Order" the written acknowledgement given by the Seller to the Buyer in response to an Order; "the Buyer" the person, firm or company with whom the Contract is made; "the Contract" the contract between the Seller and the Buyer for the sale of the Goods into which these conditions are incorporated; "Goods" the goods (including any instalment of the goods or any parts of them) which the Seller is to supply in accordance with these conditions; "Order" the written or oral order placed by the Buyer; "Quotation" the written or oral quotation given by the Seller to the Buyer or to others on the Buyer's behalf; "the Seller" the company referred to overleaf as the Seller; "writing" and "written" shall include telex and facsimile transmission;

1.2 any reference in these conditions to any provision of a statute shall be construed as a reference to that provision as amended, re-enacted or extended at the relevant time;

1.3 any reference to the singular includes the plural and reference to a gender includes every gender;

1.4 the headings are inserted for convenience only and shall not affect the interpretation of these conditions.

2. Formation of Contract

2.1 All Quotations and Acknowledgements of Order given by the Seller shall be deemed to include these conditions except (subject to the provisions of clause 2.6) insofar as they are inconsistent with any special terms or conditions contained in the Quotation or the Acknowledgement of Order (as the case may be).

2.2 The Quotation does not form an offer capable of acceptance by the Buyer but merely an invitation to the Buyer to make an offer in accordance with its terms.

2.3 No Order shall be deemed to be accepted by the Seller unless and until acknowledged and confirmed in writing by the Seller's authorised representative.

2.4 Any terms or conditions contained in the Order or any other document delivered or sent by the Buyer which are inconsistent with these conditions shall not form part of the Contract unless (subject to the provisions of clause 2.6) accepted by the Seller in writing in the Acknowledgement of Order

2.5 If subsequent to any contract between the Seller and the Buyer into which these conditions are incorporated any contract for the supply of goods similar to the Goods is made between the Seller and the Buyer whether the same is in writing, orally or otherwise, without express reference to any conditions, such contract shall be deemed to be subject to these conditions.

2.6 No variation to these conditions shall be effective unless agreed in writing between the authorised representatives of the Buyer and the Seller.

3. Basis of the Sale

3.1 The Seller's employees or agents are not authorised to make any representations concerning the Goods unless confirmed by the Seller in writing. In entering into the Contract the Buyer acknowledges that it does not rely on any such representations which are not so confirmed and that it shall not have any right of action against the Seller arising out of or in connection with any such representation except in the case of fraud.

3.2 Any advice or recommendation given by the Seller or its employees or agents to the Buyer or its employees or agents as to the storage, application or use of the Goods which is not confirmed in writing by the Seller is followed or acted upon entirely at the Buyer's own risk and accordingly the Seller shall not be liable for any such advice or recommendation which is not so confirmed.

3.3 In entering into this Contract the Buyer assumes responsibility for the Goods being sufficient for its purpose. As the Seller is not responsible for system design and as the Buyer has greater knowledge of his own requirements the Seller shall not accept any responsibility for the performance or suitability of the Goods in their final operating environment whether or not details of the final

operating environment have been made available to the Seller.

3.4 Any typographical, clerical or other error or omission in any sales literature, Quotation, price list, Acknowledgement of Order, invoice or other document or information issued by the Seller shall be subject to correction without any liability on the part of the Seller.

3.5 The Buyer shall be responsible to the Seller for ensuring the accuracy of the terms of any Order (including any applicable specification) and for giving the Seller any necessary information relating to the Goods within a sufficient time to enable the Seller to perform the Contract in accordance with its terms.

3.6 If the Goods are to be manufactured or any process is to be applied to the Goods by the Seller in accordance with a specification submitted by the Buyer, the Buyer shall indemnify the Seller against all loss, damages, costs and expenses awarded against or incurred by the Seller in settlement of any claim for infringement of any patent, copyright, design, trade mark or other industrial or intellectual property rights of any other person which results from the Seller's use of the Buyer's specification.

3.7 The Seller reserves the right at any time to change the design, construction and/or specification of the Goods if such change is required to conform with any applicable statutory or EC requirements or if such change will not in the opinion of the Seller at the time that such change is made adversely affect the quality or performance of such Goods.

3.8 No order which has been accepted by the Seller may be cancelled by the Buyer except with the agreement in writing of the Seller and on terms that the Buyer shall indemnify the Seller in full against all loss (including loss of profit), costs (including the cost of all labour and materials used), damages, charges and expenses incurred by the Seller as a result of cancellation.

4. Delivery

4.1 Delivery of the Goods shall be made by the Buyer collecting the Goods at the Seller's premises at any time after the Seller has notified the Buyer that the Goods are ready for collection or, if some other place for delivery is agreed by the Seller, by the Seller delivering the Goods to that place.

4.2 Any dates quoted for the delivery of the Goods are approximate only and the Seller shall not be liable for any delay in delivery of the Goods showsoever caused. Time for delivery shall not be of the essence of the Contract unless previously agreed by the Seller in writing.

4.3 The Seller may make delivery by instalments. Where Goods are to be delivered in instalments each delivery shall constitute a separate contract and failure by the Seller to deliver any one or more of the instalments in accordance with these conditions or any claim by the Buyer in respect of any one or more instalments shall not entitle the Buyer to treat the Contract as a whole as repudiated.

4.4 If the Buyer fails to take delivery of the Goods or fails to give the Seller adequate delivery instructions at the time stated for delivery, then without prejudice to any other right or remedy available to the Seller, the Seller may:

4.4.1 store the Goods until actual delivery and charge the Buyer for the reasonable costs (including insurance) of storage; or

4.4.2 sell the Goods at the best price readily obtainable and (after deducting all reasonable storage and selling expenses) charge the Buyer for any shortfall below the price under the Contract.

4.5 No claim for damage to any Goods or for any shortages in the Goods delivered will be considered by the Seller unless it is advised of such claim in writing within 7 days of the date of delivery of the Goods or such part thereof as are actually delivered. In the absence of such advice, the Buyer will be deemed to have accepted the Goods. No claim for non delivery will be considered by the Seller unless it is advised in writing within 14 days of the date of the Seller's invoice. Any claim for damage, shortages or non delivery shall also be notified by the Buyer to the carrier (if any) in the manner and within the appropriate time limit prescribed by the carrier's terms

and conditions, as advised by the Seller to the Buyer. In the event of a failure by the Buyer to give the appropriate notices then any claim which the Buyer may otherwise have pursuant to this condition will be deemed to have been waived and will be absolutely barred.

5. Guarantee

5.1 The Seller will endeavour to transfer to the Buyer the benefit of any warranty or guarantee given by the manufacturer of the Goods to the Seller.

5.2 The Seller will free of charge within a period of 3 months from the date of delivery or such longer period as may be referred to in the Seller's sales literature repair or at its option replace any Goods which are proved to the reasonable satisfaction of the Seller to be defective in design, materials or workmanship unless, in the Seller's reasonable opinion:

5.2.1 the Goods have been altered in any way whatsoever or repaired without the Seller's approval or have been subjected to wilful damage, negligence, abnormal working conditions or misuse; or

5.2.2 the Goods have been improperly installed or connected; or

5.2.3 the Buyer has failed to observe any operational or maintenance requirements relating to the Goods; or

5.2.4 the Buyer has failed to notify the Seller in writing of any defect or suspected defect within 14 days of the same coming to the knowledge of the Buyer; or

5.2.5 the Buyer is in breach of this or any other contract made with the Seller; or

5.2.6 the defect in the Goods arises from any drawing, design or specification supplied or approved by or on behalf of the Buyer. Notwithstanding the provisions of this condition, the Seller shall not be obliged to repair or replace any defective Goods unless and until the Buyer returns such Goods to the Seller (without any charge or cost to the Seller) if reasonably requested by the Seller so to do. In the case of any defective Goods which it would be unreasonable for the Seller to require the Buyer to return to the Seller (e.g. because of their size or because following installation or connection they form an integral part of a larger system or structure which it would be unreasonable to require the Buyer to dismantle) notwithstanding the provisions of this condition, the Seller shall not be obliged to repair or replace such Goods unless the Seller is easily able to obtain access to the same for repair or replacement. Any Goods replaced by the Seller will belong to the Seller. Any repaired or replacement Goods will be guaranteed on these terms for the unexpired portion of the 3 month or longer guarantee period.

6. Seller's Liability

6.1 Save as provided in conditions 5.1 and 5.2 and subject to condition 6.2 the Seller will be under no liability under the Contract, in tort or otherwise for any personal injury, death, loss or damage of any kind whatsoever whether direct or indirect and whether consequential or otherwise (including but not limited to loss of profits, loss of business or contracts, loss of operating time or loss of use whether foreseeable or not) resulting from any defect in the Goods or from any work done in connection therewith or as a result thereof and the Seller hereby excludes all conditions, warranties and stipulations express or implied, statutory, customary or otherwise to the fullest extent permitted by law which but for such exclusion would or might subsist in favour of the Buyer.

6.2 The Seller does not exclude liability for:

6.2.1 any breach of the implied condition that the Seller has or will have the right to sell the Goods when property therein is to pass;

6.2.2 when the Buyer deals as a consumer (as defined in section 12 of the Unfair Contract Terms Act 1977), any breach of the implied terms relating to the conformity of the goods with their description or sample, as to their quality or fitness for a particular purpose;

6.2.3 death or personal injury resulting from its negligence or that

of its employees;

6.2.4 direct physical damage to or physical loss of the property of the Buyer resulting from the Seller's, its employee's or agents' negligent acts or omissions and which arise out of the performance of its obligations under the Contract provided that:

6.2.4.1 the Seller shall only accept liability for any such damage or loss if and to the extent that such liability is covered by the public/product liability policy taken out by the Seller and operative at the time of the damage or loss. Details of such insurance policy will be made available to the Buyer upon request. If the Buyer requests in writing additional insurance the Seller will take all reasonable steps to obtain it on the Buyer's behalf and any premium or additional premium and any other expenses incurred in obtaining such insurance shall be payable by the Buyer to the Seller.

6.2.4.2 the Seller's liability under this condition 6.2.4 shall not exceed £1 million in aggregate in respect of any one event or series of events.

7. Risk

7.1 Risk of damage to or loss of the Goods shall pass to the Buyer:

7.1.1 in the case of Goods to be delivered at the Seller's premises, at the time when the Seller notifies the Buyer that the Goods are available for collection; or

7.1.2 in the case of Goods to be delivered otherwise than at the Seller's premises, at the time of delivery or, if the Buyer wrongfully fails to take delivery of the Goods, the time when the Seller has tendered delivery of the Goods.

8. Property in the Goods

8.1 Notwithstanding delivery and the passing of risk in the Goods the property in the Goods shall not pass to the Buyer until:

8.1.1 the price of the Goods has been paid in full; and

8.1.2 payment has been made to the Seller of all sums due or owing from the Buyer to the Seller on any account whatsoever.

8.2 Until such time as property in the Goods passes to the Buyer in accordance with condition 8.1:

8.2.1 the Buyer shall hold the Goods as the Seller's fiduciary agent and bailee, shall not obliterate any identifying mark on the Goods or their packaging and shall keep the Goods separate from any other goods of the Buyer or third parties properly stored, protected and insured and identified as the Seller's property; and

8.2.2 the Buyer shall be entitled to use or (subject to condition 8.3) sell the Goods in the ordinary course of its business.

8.3 The Buyer shall not be entitled to pledge or in any way charge by way of security for any indebtedness any of the Goods which remain the property of the Seller but if the Buyer does so all monies owing by the Buyer to the Seller shall (without prejudice to any other right or remedy of the Seller) forthwith become due and payable.

8.4 Where the Seller is unable to determine whether any goods are the Goods the Buyer shall be deemed to have sold all goods of the kinds sold by the Seller to the Buyer in the order in which they were invoiced to the Buyer.

8.5 The Seller may at any time after payment for the Goods has become due take possession of the Goods (which for the avoidance of doubt shall include the right to stop the Goods in transit) and remove them and the Buyer shall be deemed to have granted irrevocable authority to the Seller to enter upon the Buyer's premises or other premises where the Goods may be and, by the Seller's employees or agents, take possession of the Goods and (if necessary) dismantle the Goods from anything to which they are attached.

8.6 The Seller shall have the right to maintain an action against the Buyer for the price of the Goods notwithstanding that property in the Goods has not passed.

8.7 Nothing in the Contract shall constitute the Buyer the agent of the Seller in respect of any re-sale of the Goods by the Buyer so as to confer upon a third party any rights against the Seller

9. Price

9.1 Except as otherwise stated in any Quotation and unless otherwise agreed in writing between the Buyer and the Seller all prices quoted are the price of the Goods

(excluding VAT) ex-works and where the Seller agrees to deliver the Goods otherwise than at the Seller's premises the Buyer shall be liable to pay the Seller's charges for transport, packaging and insurance.

9.2 The Seller reserves the right, by giving notice to the Buyer at any time before delivery, to increase the price of the Goods to reflect any increase in the cost to the Seller which is due to any factor beyond the control of the Seller (such as, without limitation, any foreign exchange fluctuation, currency regulation, alteration of duties, significant increase in the costs of labour, materials or other costs of manufacture), any change in delivery dates, quantities or specifications for the Goods which is requested by the Buyer or any delay caused by any instructions of the Buyer or failure of the Buyer to give the Seller adequate information or instructions.

9.3 The cost of pallets and returnable containers will be charged to the Buyer in addition to the price of the Goods but full credit will be given to the Buyer provided they are returned undamaged to the Seller before the due payment date.

10. Payment

10.1 Where no account has been opened in advance by the Seller in respect of the Buyer, the Seller will not be obliged to deliver the Goods until the Buyer has paid the amount shown on the pro-forma invoice relating to the Goods.

10.2 Where an account has been opened for the Buyer, the Seller may in its absolute discretion set and on 3 days prior written notice to the Buyer alter the Buyer's credit limit and the Seller reserves the right not to deliver the Goods if the price thereof increases the amount owed by the Buyer to the Seller beyond the Buyer's credit limit from time to time.

10.3 Where an account has been opened for the Buyer and the price of the Goods together with all other indebtedness of the Buyer to the Seller does not exceed the Buyer's credit limit from time to time, the price of the Goods will be paid by the Buyer within 30 days from the end of the month in which the Seller's invoice is issued or within such other period as the Buyer and the Seller may agree in writing. The time of payment shall be of the essence of the Contract.

10.4 If the Buyer fails to make any payment on the due date then, without prejudice to any other right or remedy available to the Seller, the Seller may without liability;

10.4.1 suspend any further deliveries to the Buyer or cancel the Contract or any other contract between the Seller and the Buyer;

10.4.2 charge the Buyer interest (both before and after any judgment) on the amount unpaid at the rate of 5% per annum above the base rate from time to time of Barclays Bank Plc until payment in full is made; and

10.4.3 appropriate any payment made by the Buyer to such of the Goods (or the goods supplied under any other contract between the Buyer, and the Seller) as the Seller may in its absolute discretion think fit (notwithstanding any purported appropriation by the Buyer).

10.5 The Seller shall be entitled to payment for all instalments of Goods delivered to the Buyer notwithstanding that the remainder of the Goods shall not have been delivered.

10.6 The Buyer shall not be entitled to withhold payment of any amount payable under the Contract because of any disputed claim of the Buyer, in respect of faulty goods or any other alleged breach of contract whether in respect of the Contract or any other contract between the Buyer and the Seller not shall the Buyer be entitled to set off against any amount payable under the Contract to the Seller any monies owed by the Seller to the Buyer on any account whatsoever, whether such a right is conferred on the Buyer by statute or otherwise.

11. Force Majeure

The Seller shall not be liable to the Buyer or be deemed to be in breach of the Contract by reason of any delay in performing or any failure to perform any of the Seller's obligations in relation to the Goods if the delay or

failure is due to any cause beyond the Seller's reasonable control. Without prejudice to the generality of the foregoing, the following shall be regarded as causes beyond the Seller's reasonable control: act of God.

explosion, lighting, flood, tempest, fire or accident; war or threat of war, sabotage, insurrection, civil disturbance or requisition; acts, restrictions, regulations, by-laws, prohibitions, or measures of any kind on the part of any governmental, parliamentary or local authority; import or export regulations or embargoes; strikes, lockouts or other industrial actions or trade disputes (whether involving employees of the Seller or any third party); difficulties in obtaining raw materials, labour, fuel, parts or machinery; power failure or breakdown in machinery.

12. Cancellation and Suspension of the Contract

12.1 This condition applies if:

12.1.1 the Buyer is in breach of any of its obligations under the Contract or any other contract between the Buyer and the Seller; or

12.1.2 unforeseen events including (without prejudice to the generality of the foregoing) those referred to in condition 11 materially affect the commercial effect of the Contract; or

12.1.3 the Buyer makes any voluntary arrangement with its creditors or (being an individual or firm) becomes bankrupt or (being a company) becomes subject to an administration order or goes into liquidation (other than for the purposes of amalgamation or reconstruction); or

12.1.4 an encumbrancer takes possession, or a receiver is appointed, of any of the property or assets of the Buyer; or

12.1.5 the Buyer ceases or threatens to cease to carry on business; or

12.1.6 the Seller reasonably apprehends that any of the events mentioned in conditions 12.1.3, 12.1.4 or 12.1.5 is about to occur in relation to the Buyer and notifies the Buyer accordingly; or

12.1.7 the Seller receives notice of any claim alleging that the Goods or any part thereof or any process applied to the Goods infringe any patent, copyright, design right, trademark or other industrial or intellectual property rights of any other person.

12.2 If this condition 12 applies then, without prejudice to any other right or remedy available to the Seller, the Seller shall be entitled to cancel the Contract or suspend any further deliveries under the Contract by notice to the Buyer without any liability to the Buyer and if the Goods have been delivered but not paid for then the price shall become immediately due and payable notwithstanding any previous agreement or arrangement to the contrary.

13. Export Terms

13.1 In these conditions "Incoterms" means the international rules for the interpretation of trade terms of the International Chamber of Commerce as in force at the date when the Contract is made. Unless the context otherwise requires, any term or expression which is defined in or given a particular meaning by the provisions of Incoterms shall have the same meaning in these conditions, but if there is any conflict between the provisions of Incoterms and these conditions, the latter shall prevail.

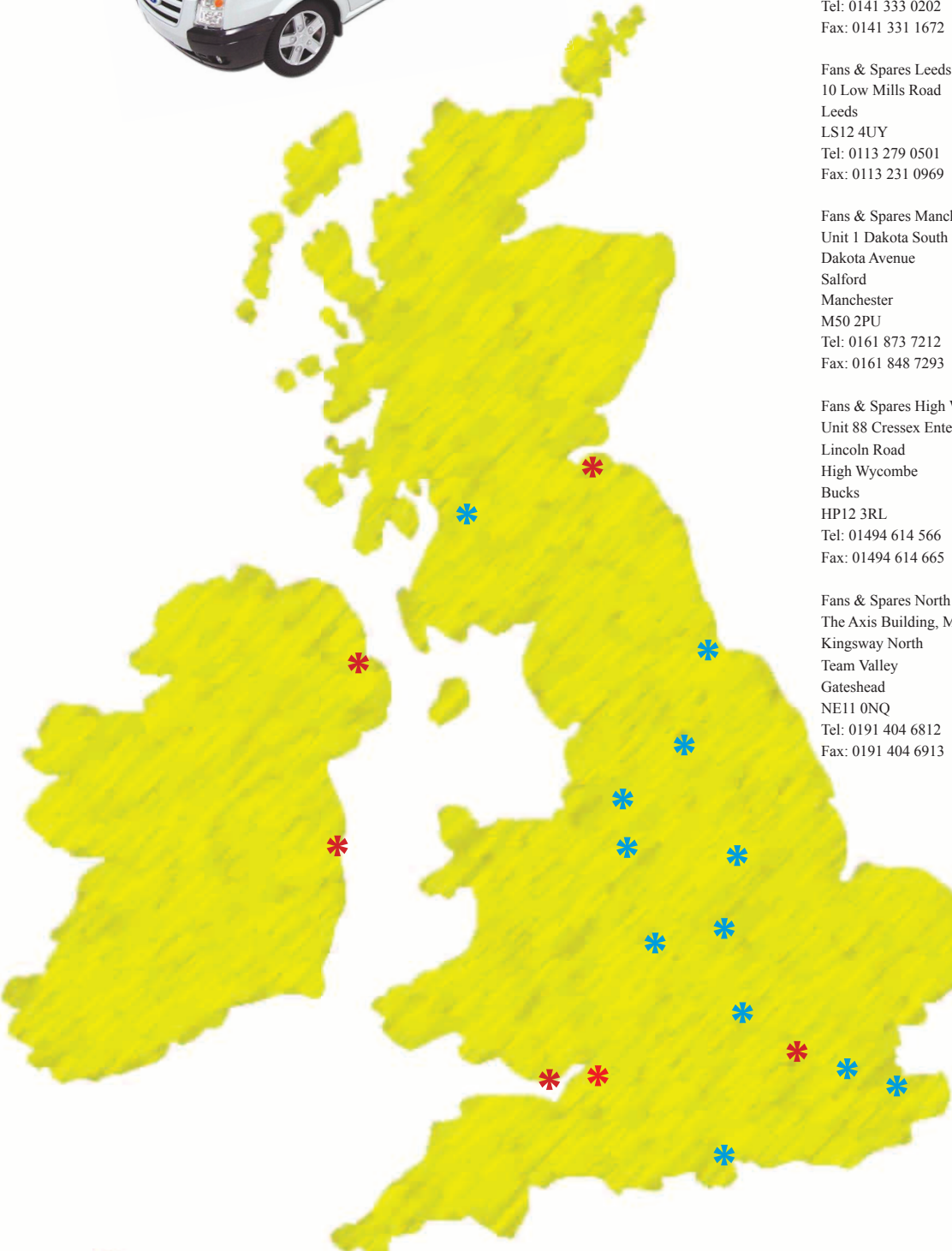
13.2 Where the Goods are supplied for export from the United Kingdom, the provisions of this condition 13 shall (subject to any special terms agreed in writing between the Buyer and the Seller) apply notwithstanding any other provision of these conditions

13.3 The Buyer shall be responsible for complying with any legislation or regulations governing the importation of the Goods into the country of destination and for the payment of any duties on them.

13.4 Unless otherwise agreed in writing between the Buyer and the Seller, the Goods shall be delivered FOB the air or sea port of shipment and the Seller shall be under no obligation to give notice under section 32(3) of the Sale of Goods Act 1979.



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 Forthcoming Projects