

# The **big book** of



## **FANS & SPARES**



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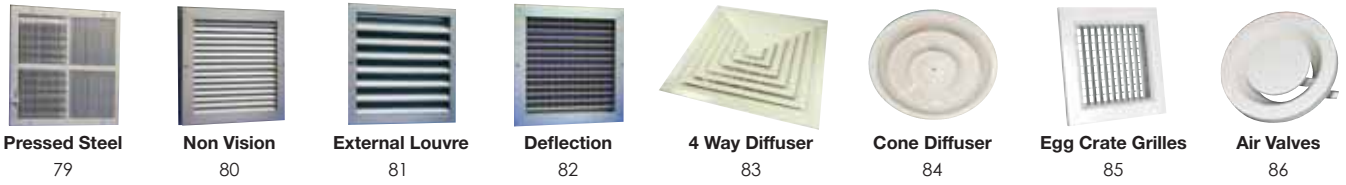


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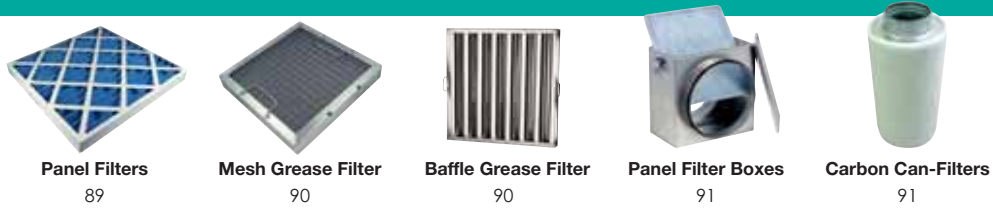
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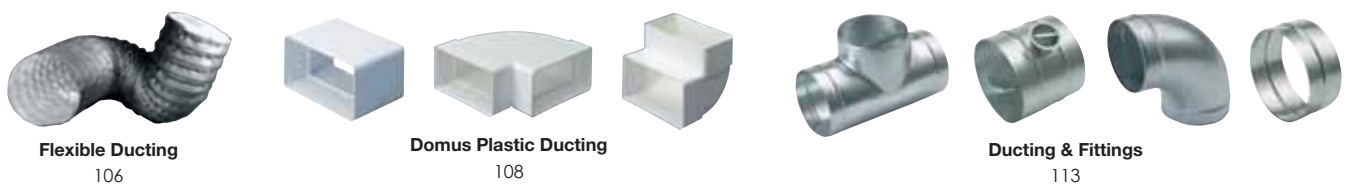
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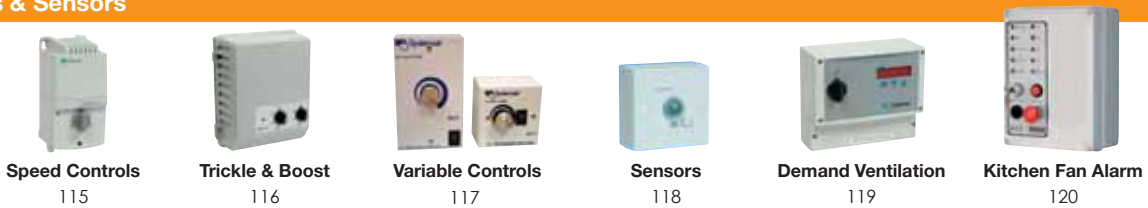
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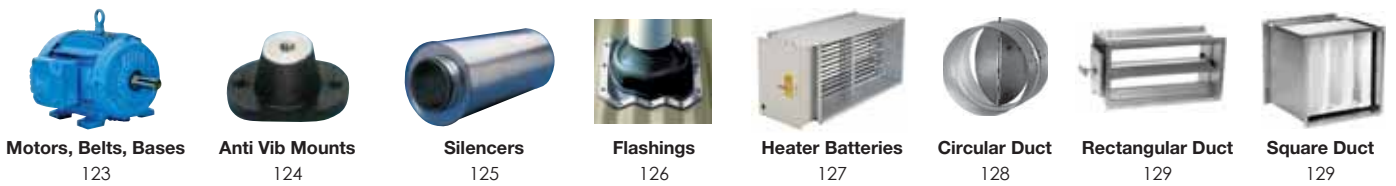
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Fans & Spares are proud to have supplied ventilation equipment to:



MATALAN

B&Q



MARKS & SPENCER



Somerfield



Clarks

WEMBLEY STADIUM



RIVER ISLAND





Fans & Spares are pleased to present the BIG 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 Fans there is only one company you need to call.

From your job winning partner.

### **Neil Rapley**

Managing Director

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B7 5EJ  
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# Domestic & Commercial fans

Wall, Ceiling, Window & Panel

Lo-profile

Low-voltage

Axial & Centrifugal

## 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

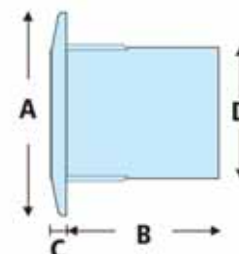
	EAFL100	EAFL120	EAFL150
Maximum Airflow l/s	23 l/s	36 l/s	64 l/s
m <sup>3</sup> /hr	85m <sup>3</sup> /hr	130m <sup>3</sup> /hr	230m <sup>3</sup> /hr
Spigot Size	100mm (4")	120mm (5")	150mm (6")
dBA @ 3m	41	41	40
Voltage	230-1-50	230-1-50	230-1-50
Amps	0,12	0,15	0,15
Power W	20	25	25

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

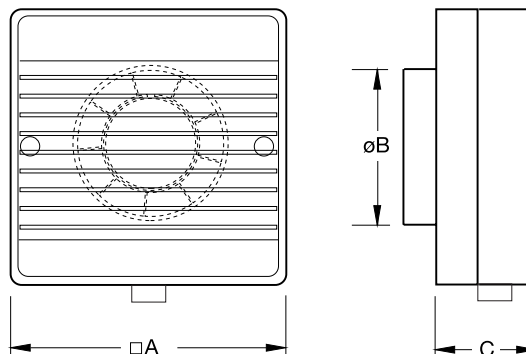
		EAF100	EAF120	EAF150
Maximum Airflow	l/s	23 l/s	36 l/s	64 l/s
	m <sup>3</sup> /hr	85m <sup>3</sup> /hr	130m <sup>3</sup> /hr	230m <sup>3</sup> /hr
Spigot Size		100mm (4")	120mm (5")	150mm (6")
dBA @ 3m		36	36	35
Voltage		230-1-50	230-1-50	230-1-50
Amps		0,12	0,15	0,15

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 mm

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





# Showerlite

by Express-air

The new Express-air "Showerlite" is a distinctive light which is incorporated into a circular diffuser and is suitable for both showers & bathroom. The Showerlite is designed to be used with any 100mm Dia in-line fan, such as the EAS100 Shower Fan or the RVK 100 in-line centrif fan for extra power. The Showerlite can be used within the splash area of the shower or bath and is powered by a S.E.L.V remote safety isolating transformer. Available in three colours, White, Brass and Chrome, the Express-air Showerlite will enhance any shower or bathroom providing a rich warm glow of soft light.



### Electrical Data

12 volt 35W dichroic 5.3 sealed lamp  
 Powered by a Transformer T1250W. Input A.C.  
 Output, 12 Volt A.C. 50VA Dimmable

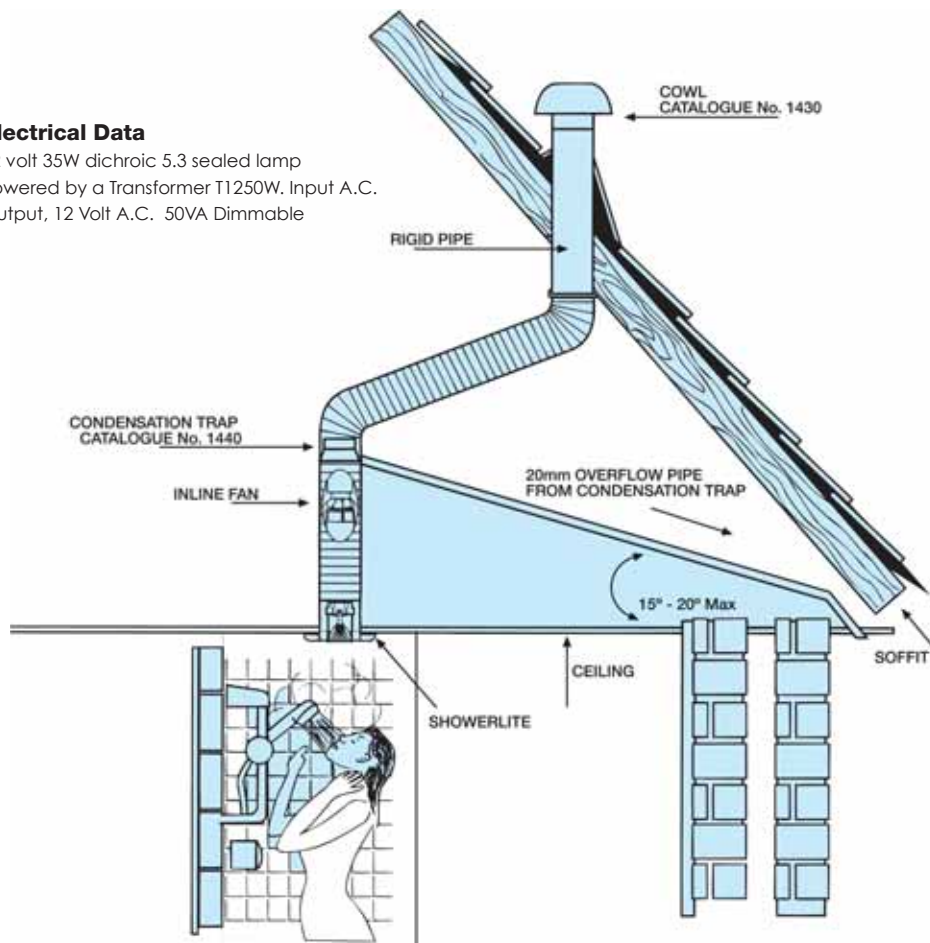
### Order Ref:

SL-W = White

SL-B = Brass

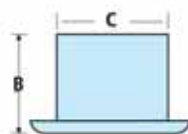
SL-C = Chrome

T1250W = Transformer



### Suitable Extract Fans

- EAS100 = Express-air In-line Axial Fan 100mm Dia
- Lineo100T = Vortice In-line Mixed Flow Fan 100mm + Run on timer
- RVK100 = Systemair in-line plastic Centrif Fan
- EFS-ROT = Express-air Run on Timer



### Dimensions

A	B	C
140 Dia	74	98

## 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"

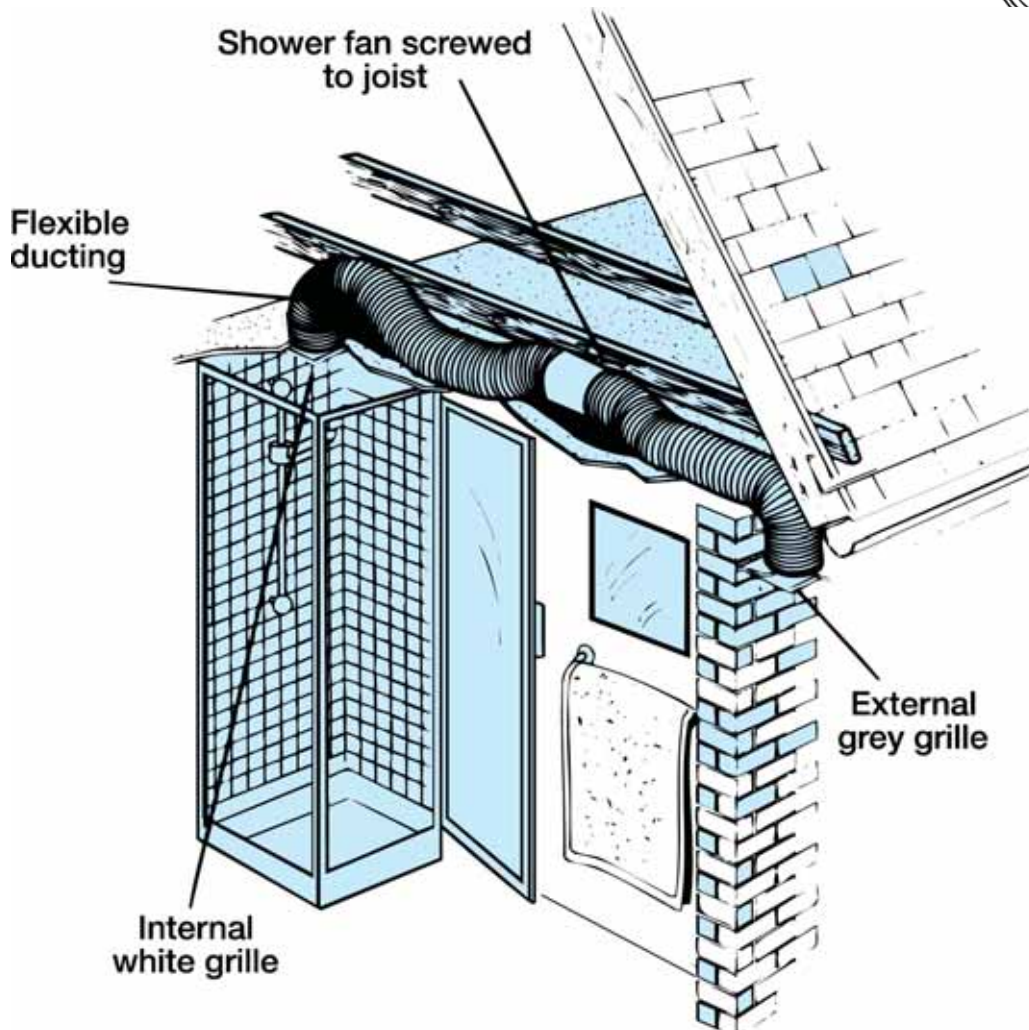
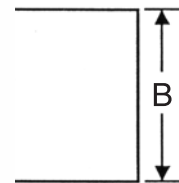
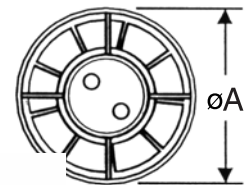


### Technical Data

	EAS 100	EAS 120	EAS150
Maximum Airflow l/s	23 l/s	36 l/s	64 l/s
m <sup>3</sup> /hr	85m <sup>3</sup> /hr	130m <sup>3</sup> /hr	230m <sup>3</sup> /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



## Domestic centrifugal fan

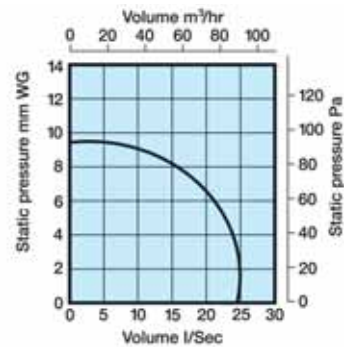
by Express-air

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.



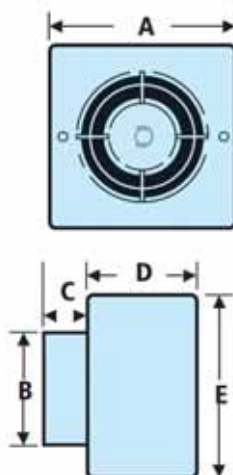
### Technical Data

		EBF
Maximum Airflow	l/s	25l/s
	m <sup>3</sup> /hr	90m <sup>3</sup> /hr
Spigot Size	100mm (4")	
dBA @ 3m	37	
Voltage	230-1-50	
Amps	0,2	
Power W	25	



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



### Dimensions

A	B	C	D	E	Weight/kg
163	98 Dia	65	90	163	11 kg

## Domestic centrifugal fan

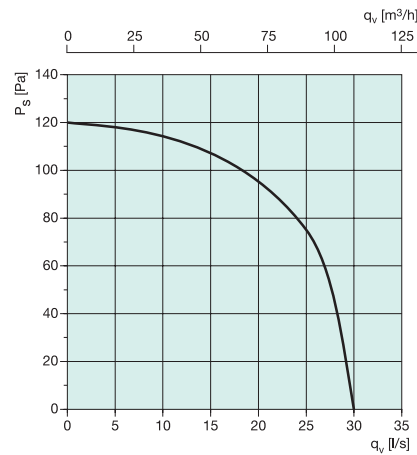
by Express-air

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.

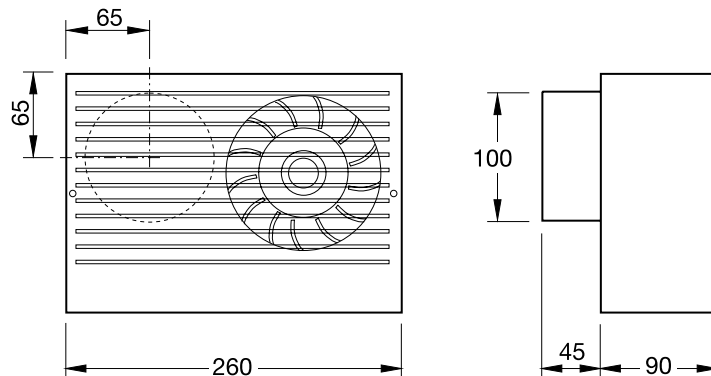


### Technical Data

ECF100		
Maximum Airflow	l/s	31 l/s
	m <sup>3</sup> /hr	110 m <sup>3</sup> /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



## Multi-vent centrifugal fan

by *Express-air*

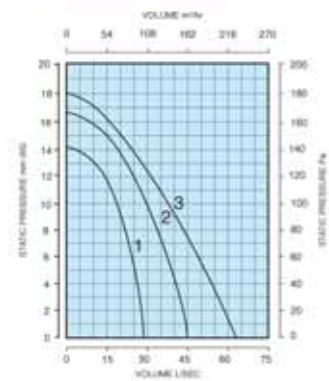
The Express-air range of Multi-vent centrifugal fans are designed for either wall or ceiling mounting and are ideal for Bathrooms, Utility rooms & Kitchens to comply with building regulations on Ventilation. The Multi-vent fan has three different speed settings, making it easy to select for the room 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 <sup>3</sup> /hr)	Setting 1	28l/s (100m <sup>3</sup> /hr)	37 dBA
	Setting 2	45l/s (162m <sup>3</sup> /hr)	51 dBA
	Setting 3	65l/s (234m <sup>3</sup> /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
<b>ECF* 100 S</b>	Centrifugal Fan, Standard model for remote switching (Light switch etc)
<b>ECF* 100 P</b>	Centrifugal Fan, as above but supplied with pullcord switch
<b>ECF* 100 T</b>	Centrifugal Fan, Timer model incorporating adjustable timer (1-20 mins)
<b>ECF* 100 TP</b>	Centrifugal Fan, Timer model incorporating adjustable timer (1-20 mins) with pullcord switch
<b>ECF* 100 TH</b>	Centrifugal Fan, Adjustable Humidity control between 40% & 95% RH + Run on timer (1 - 20 mins)
<b>ECF* 100 PIR</b>	Centrifugal Fan, Passive Infra Red Sensor + Run on timer (1 - 20 mins)

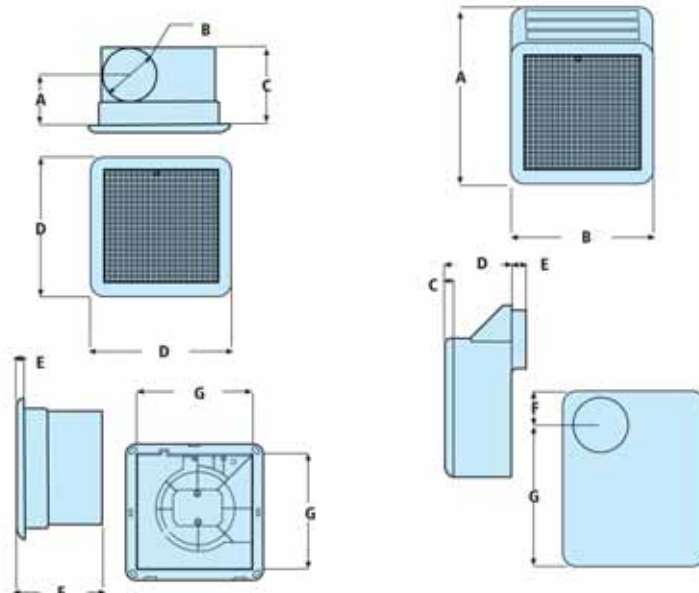
\* Add "F" for Flush Fitting or "S" for Surface Mounted

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



## Low-voltage domestic fans

by Express-air

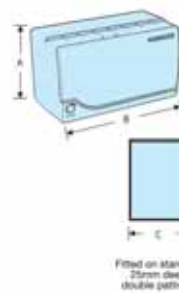
The Express-air range of Low-voltage domestic fans are designed for either wall or ceiling mounting and are ideal for shower rooms & bathrooms to comply with building regulations on Ventilation. The range includes 100mm (4") axial & centrifugal fans with a remote Safety Extra Low Voltage transformer 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 <sup>3</sup> /hr	85m <sup>3</sup> /hr	110m <sup>3</sup> /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/T12 Transformer

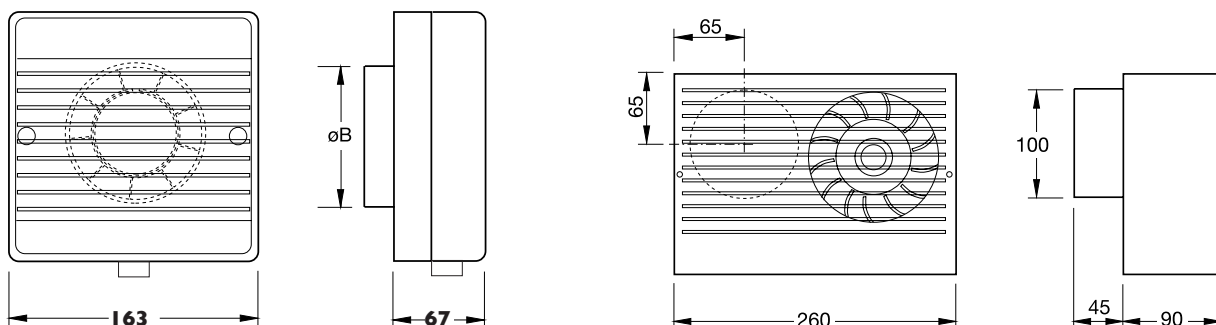


A 82 mm  
B 145 mm  
C 65 mm

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



## Centralised ducting system

by Express-air

The Express-air 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 15m<sup>3</sup>/hr for toilets and the other at 30m<sup>3</sup>/hr for bathrooms. There is a 125mm spigot also for Kitchens with tabs to regulate the air flow from 45 - 135m<sup>3</sup>/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.



### Performance data

#### Flowrate measurements m<sup>3</sup>/hr

Measurements made using "CETIAT" flow meter with 6 metres of duct at each outlet

House size	Min. total flowrate	Min. flowrate in kitchen	Norm. flowrate in kitchen	Flowrate in bathroom	Flowrate in toilet
3 rooms	94	46	106	32	16
4 rooms	126	46	122	32	16
5+ rooms	134	52	133	33	17

Model Ref	EACE-5S Standard Model	EACE-5H Humidity Model
Fan Speed:	1575 r.p.m at Minimum speed,	2060 r.p.m at Maximum speed
Sound Volume:	31dBA at Minimum speed,	40dBA at Maximum speed

### Technical Data

The EACE-5 centralised fan unit measures 375mm High x 305mm Depth x 290mm Wide (Weight 3.5kgs)

Electrical data: 220-240V -A.C. 50 Hz, consuming 32 watts on minimum speed & 70 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.



## EACE-3 Central Extract System

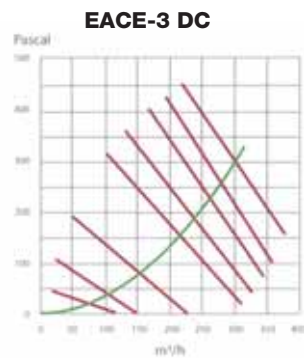
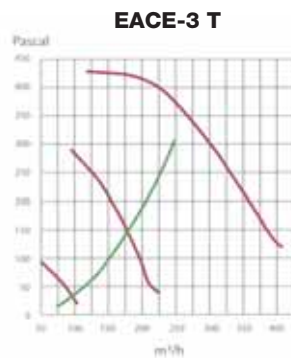
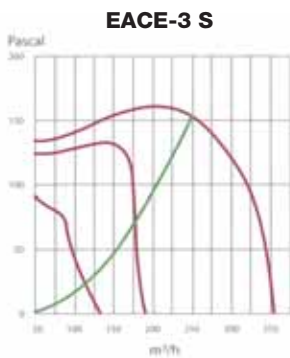
by Express-air

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.

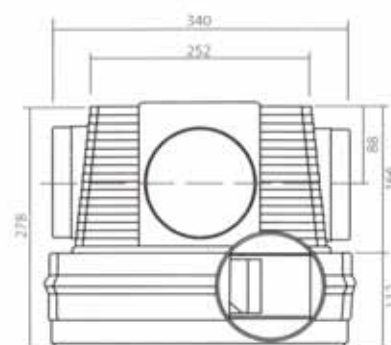
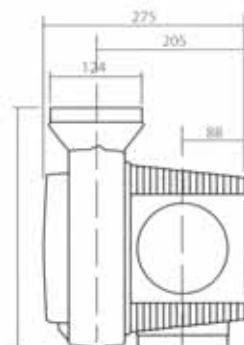
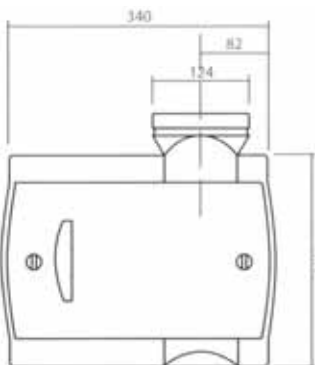


### Technical Data

Model	EACE-3S	EACE-3T	EACE-3DC
Static Pa @ 225m <sup>3</sup> /hr	151 Pa	400 Pa	400 Pa
Output	High	41 W	73 W
	Medium	22 W	40 W
	Low	12 W	13 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



### Dimensions





## Commercial wall fans

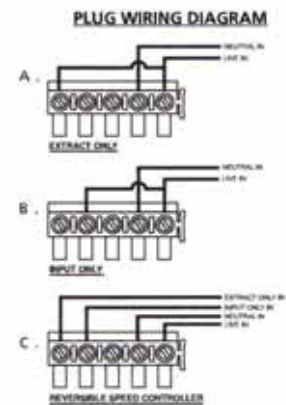
by Express-air

The Express-air range of commercial wall 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. All products are BEAB approved and carry the CE marking and come complete with a 2 year guarantee.



### Technical Data

Fan Ref	ES6W	ES9W	ES12W
Maximum Airflow l/s (m <sup>3</sup> /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

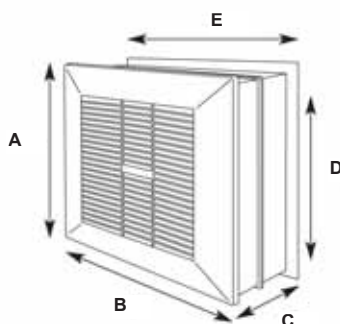
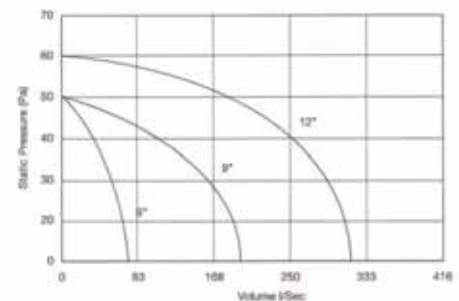


### Controls, Sensors & Ancillaries

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

### Performance Graph



### Dimensions mm

	A	B	C	D	E
ES6W	310	310	160-290	278	288
ES9W	390	390	160-290	361	366
ES12W	470	470	160-290	440	447

## Commercial window fans

by Express-air

The Express-air range of commercial window 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.

All products are BEAB approved and carry the CE marking and come complete with a 2 year guarantee.

### Technical Data

Fan Ref	ES6G	ES9G	ES12G
Maximum Airflow l/s (m <sup>3</sup> /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

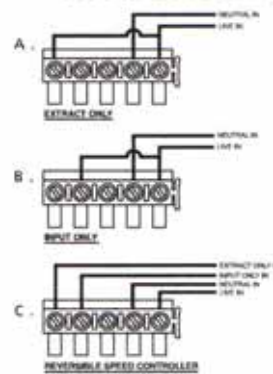
Please enquire for coloured grille replacements

### Dimensions

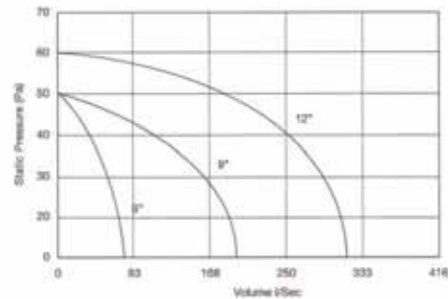
	A	B	C	Hole Dia
ES6G	205	105	25	184
ES9G	286	125	25	260
ES12G	362	145	25	320



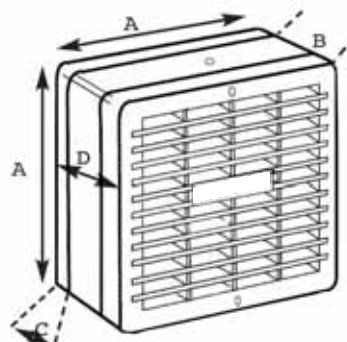
### PLUG WIRING DIAGRAM



### Performance Graph



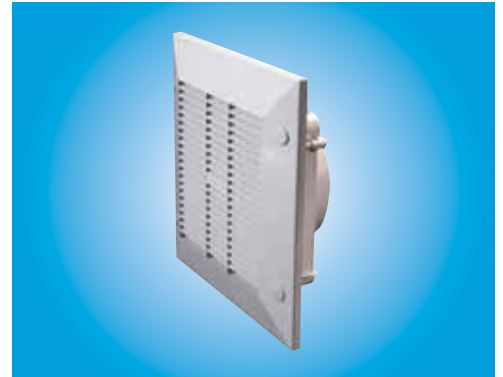
### Dimensions (mm)



## Commercial panel fans

by Express-air

The Express-air range of commercial panel 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. This model is designed for refurbishment projects as they will fit most leading commercial wall liners. 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. All products are BEAB approved and carry the CE marking and come complete with a 2 year guarantee.



### Technical Data

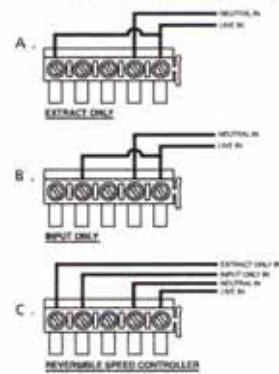
Fan Ref	ES6P	ES9P	ES12P
Maximum Airflow l/s (m <sup>3</sup> /hr)	77 (278)	185 (668)	281 (1021)
Sound Power Level dBA@3m	40	53	60
Voltage	230-1-50	230-1-50	230-1-50
Amps	0,24	0,4	0,6
Power W	45	80	120
Controller	EAC6	EAC9/12	EAC9/12

### Controls, Sensors & Ancillaries

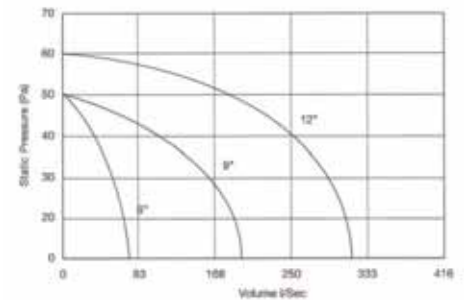
EAC6	Variable Speed control (6" only)
EAC9/12	Variable Speed control & Reversible
EFS-PIR	Passive infra red sensor with run on timer
EFS-HS	Humidistat
EFS-7DAY	7 Day Analogue Timer
EFS-ROT	Run on timer 1 - 20 mins

Please enquire for Coloured Grille replacements

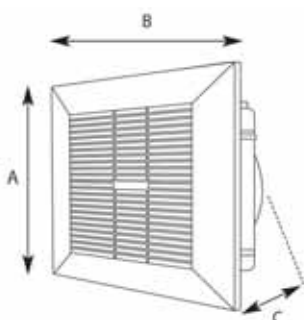
### PLUG WIRING DIAGRAM



### Performance Graph



### Dimensions mm



### Dimensions

	A	B	C
ES6P	310	310	110
ES9P	390	390	138
ES12P	470	470	154

## Kitchen Canopies

by Xpelair

### Standard 60cm Cooker Hood

Order Ref: 91189A

- Available in White or Brown
- Duct Size 125mm Dia
- 3 Speed Levels
- Recirculation or extraction
- Max extract rate 200m<sup>3</sup>/hr
- Built in twin spot light
- Acrylic grease filter in metal grid casing



### 60 / 90 Chimney

Order Ref: 91194AW / 91195AW

- Stainless Steel finish
- Duct Size 125mm Dia
- 3 Speed Levels
- Recirculation or extraction
- Max extract rate 480m<sup>3</sup>/hr
- Built in twin spot light
- Two Aluminium grease filters
- 600mm or 900mm lengths



### Standard Insert Cooker Hood

Order Ref: 91192AW

- Stainless Steel
- Duct Size 125mm Dia
- 3 Speed Levels
- Recirculation or extraction
- Max extract rate 229m<sup>3</sup>/hr
- Built in twin spot light
- Acrylic grease filter in metal grid casing
- 600mm length



### Integrated Cooker Hood

Order Ref: 91193AW

- Silver finish
- Duct Size 125mm Dia
- 3 Speed Levels
- Recirculation or extraction
- Max extract rate 350m<sup>3</sup>/hr
- Built in twin spot light
- Metallic grease filter in aluminium grille
- 600mm length





# Industrial fans

## Industrial Fans & Fittings



## Lineo in-line mixed flow fan

by Vortice

Vortice Lineo extract fan can be mounted in a wide range of options - at the beginning, middle or end of the air duct and horizontally, vertically, against walls, ceilings, false ceilings or any flat surface. One of the main features of the new Vortice Lineo range, in addition to ease of installation, is the fact that the fan unit can be removed from situ, for inspection and maintenance, in just a few seconds without the use of tools.

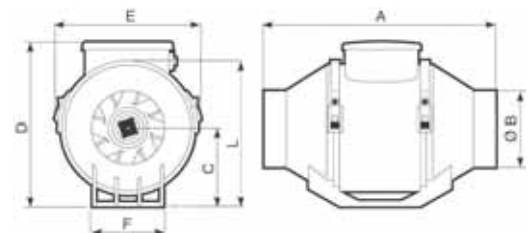
- Silent running and certified, guaranteed performance
- Compact overall dimensions
- Protection rating IPX4
- Two speeds
- Adjustable timer
- Double insulation
- Self-extinguishing V0 plastic
- Eco-friendly
- Speed Adjustable



Fan	Voltage	Speed	Power	Current	Airflow m <sup>3</sup> /sec@Static Pressure Pa.						dBA
					Watts	Amps	0Pa	50Pa	100Pa	150Pa	
LINEO 100 Q	230-1-50	Min	12	0,05	0,043	0,007					29,4
			Max	15	0,07	0,055	0,014				37,9
LINEO 100	230-1-50	Min	20	0,09	0,05	0,02	0,008				30,7
			Max	23	0,11	0,07	0,05	0,016	0,03		39,4
LINEO 125	230-1-50	Min	25	0,11	0,069	0,041	0,014				33,9
			Max	33	0,15	0,101	0,07	0,028	0,007		43
LINEO 150	230-1-50	Min	40	0,18	0,106	0,08	0,06	0,025			41,4
			Max	58	0,26	0,152	0,13	0,115	0,1	0,004	50,5
LINEO 160	230-1-50	Min	40	0,18	0,106	0,08	0,06	0,025			41,7
			Max	58	0,26	0,152	0,13	0,115	0,1	0,004	50,8
LINEO 200	230-1-50	Min	98	0,43	0,219	0,19	0,17	0,14	0,07		48,8
			Max	145	0,64	0,294	0,27	0,25	0,22	0,17	55,1
LINEO 250	230-1-50	Min	110	0,48	0,275	0,21	0,18	0,15	0,1	0,03	51,4
			Max	180	0,78	0,375	0,34	0,31	0,29	0,26	0,17
LINEO 315	230-1-50	Min	200	0,9	0,483	0,4	0,35	0,24	0,2	0,1	50,6
			Max	300	1,32	0,638	0,58	0,55	0,48	0,42	0,3

### Models

	A	B	C	D	E	F	L	Kg
Lineo 100 QVO-QTVO	231	96	82	174	156	95	152	1,25
Lineo 100 VO-TVO	303	96	101,5	211	188,5	90	189	1,8
Lineo 125 VO-TVO	258	122	101,5	211	188,5	90	189	1,8
Lineo 150 VO-TVO	294	146	112,5	234	214,5	110	212	2,4
Lineo 160 VO-TVO	272,5	156	112,5	234	214,5	110	212	2,4
Lineo200 VO-TVO	300	196	125,5	260,5	234,5	140	235	3,7
Lineo250 VO	385	247	152,5	317	300	176,5	292	7
Lineo315 VO	448	312	188,5	392,5	361,5	220,5	359	11,3



# K-fan In-line metal tube fan

by Systemair

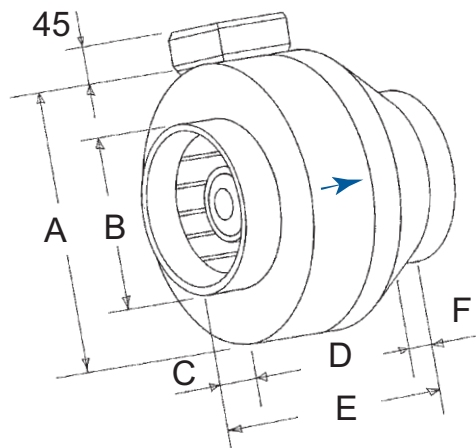
- Sizes 100 mm to 315 mm
- Fan - single phase 230V - 1Ph - 50Hz
- Speed-controllable
- Air tightness C-class
- Integral thermal contacts
- Easy to install in any position
- Maintenance-free and reliable
- Available on wall plate KV type
- Mounting bracket fitted as standard



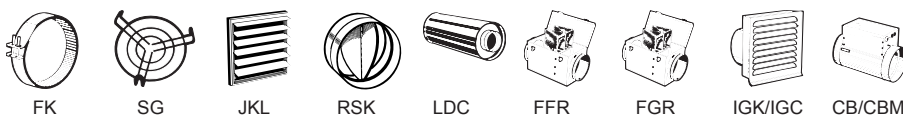
Product Code	Speed rpm	Airflow m <sup>3</sup> /sec@Static Pressure Pa.					Motor Data			dBA 3m	Speed Control	
		50 Pa	100 Pa	150 Pa	200 Pa	300 Pa	FLC	SC	kW		Elec	Trans
K100M	2730	0.049	0.019				0.11	0.25	0.024	34	SC1.5	RE1.5
K100XL	2385	0.069	0.048	0.037	0.026		0.32	0.70	0.073	48	SC1.5	RE1.5
K125M	2725	0.055	0.026	0.001			0.11	0.25	0.024	38	SC1.5	RE1.5
K125XL	2320	0.090	0.062	0.048	0.032		0.34	0.70	0.076	44	SC1.5	RE1.5
K150M	2395	0.126	0.096	0.076	0.054		0.33	0.70	0.073	43	SC1.5	RE1.5
K150XL	2610	0.195	0.155	0.133	0.110	0.060	0.47	1.00	0.108	52	SC1.5	RE1.5
K160M	2395	0.126	0.095	0.076	0.054		0.33	0.70	0.073	43	SC1.5	RE1.5
K160XL	2610	0.195	0.155	0.133	0.110	0.060	0.47	1.00	0.108	52	SC1.5	RE1.5
K200M	2575	0.215	0.171	0.150	0.126	0.072	0.47	1.00	0.109	50	SC1.5	RE1.5
K200L	2645	0.265	0.227	0.206	0.184	0.139	0.83	2.00	0.18	51	SC1.5	RE1.5
K250M	2585	0.220	0.180	0.157	0.133	0.071	0.46	1.00	0.105	43	SC1.5	RE1.5
K250L	2645	0.280	0.241	0.220	0.200	0.152	0.84	2.00	0.18	46	SC1.5	RE1.5
K315M	2535	0.370	0.320	0.290	0.263	0.203	0.94	2.00	0.215	47	SC1.5	RE1.5
K315L	2360	0.460	0.420	0.370	0.339	0.270	1.39	3.00	0.32	49	SC3.0	RE1.5

## Dimensions

K	A	B	C	D	E	F	Weight / kg
100 M	218	100	26	166	218	26	2
100 XL	246	100	26	161	213	26	4,5
125 M	218	125	27	142	196	27	2
125 XL	246	125	26	151	203	26	4,5
150 M	286	150	25	152	202	25	3
150 XL	336	150	29	171	226	26	4,5
160 M	286	160	25	147	198	26	3
160 XL	336	160	29	166	221	26	4
200 M	336	200	30	148	205	27	3,8
200 L	336	200	30	174	231	27	4,5
250 M	336	250	30	120	177	27	3,6
250 L	336	250	30	145	202	27	5
315 M	408	315	32	160	220	27	7
315 L	408	315	37	160	225	27	9



## Accessories



For Accessories see page 128



# RVK Plastic in-line centrifugal tube fan

by Systemair

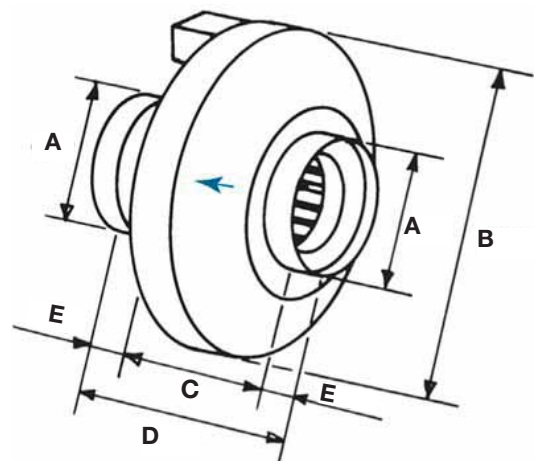
- Plastic tube fan, 100 mm to 315 mm
- Fan - single phase, 230 V, 1 Ph, 50 Hz
- 100% speed controllable
- Integral thermal contacts
- Can be installed in any position
- Maintenance free and reliable
- Backward curved impeller & external rotor motor
- Radon version available, please enquire
- Ideal for hydroponics



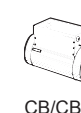
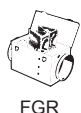
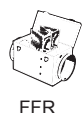
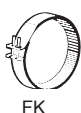
Product Code	Speed rpm	Airflow m <sup>3</sup> /sec @ Static Pressure Pa.					Motor Data			dBA @ 3m	Speed Control	
		50 Pa	100 Pa	150 Pa	200 Pa	300 Pa	FLC	SC	kW		Elec	Trans
RVK 100E2-A1	2500	0.040	0.025	0.001	-	-	0.19	0.35	0.032	46	SC 1,5	RE 1,5
RVK 125E2-A1	2490	0.047	0.030	-	-	-	0.19	0.35	0.031	46	SC 1,5	RE 1,5
RVK 125E2-L1	2350	0.081	0.070	0.058	0.044	-	0.35	0.90	0.08	50	SC 1,5	RE 1,5
RVK 150E2-A1	2350	0.107	0.095	0.079	0.060	0.004	0.35	0.90	0.08	50	SC 1,5	RE 1,5
RVK 160E2-A1	2350	0.107	0.095	0.079	0.060	0.004	0.35	0.90	0.08	50	SC 1,5	RE 1,5
RVK 150E2-L1	2520	0.170	0.151	0.127	0.114	0.071	0.5	1.50	0.11	55	SC 1,5	RE 1,5
RVK 160E2-L1	2520	0.170	0.151	0.127	0.114	0.071	0.5	1.50	0.11	55	SC 1,5	RE 1,5
RVK 200E2-A1	2520	0.191	0.171	0.155	0.134	0.089	0.51	1.50	0.11	52	SC 1,5	RE 1,5
RVK 200E2-L1	2580	0.249	0.222	0.200	0.193	0.148	0.76	2.00	0.17	54	SC 1,5	RE 1,5
RVK 250E2-A1	2520	0.202	0.185	0.163	0.138	0.077	0.51	1.50	0.11	52	SC 1,5	RE 1,5
RVK 250E2-L1	2580	0.258	0.238	0.214	0.195	0.143	0.76	2.00	0.17	55	SC 1,5	RE 1,5
RVK 315E2-A1	2410	0.340	0.310	0.290	0.270	0.200	0.88	2.00	0.2	55	SC 1,5	RE 1,5
RVK 315E2-L1	2320	0.450	0.430	0.410	0.380	0.290	1.4	3.20	0.32	58	SC 3,0	RE 1,5

## Dimensions

RVK	A	B	C	D	E	Weight Kg
RVK100	99	251	170	230	30	2
RVK125	124	251	170	230	30	2
RVK150	149	340,5	170	230	30	5
RVK160	159	340,5	170	230	30	5
RVK200E2-A1	199	340,5	170	230	30	4
RVK200E2-L1	199	340,5	190	250	30	4,5
RVK250E2-A1	249	340,5	170	230	30	5
RVK250E2-L1	249	340,5	190	230	30	5,5
RVK315	315	405	215	275	30	8



## Accessories



For Accessories see page 128

# SAMF

## Small duct mounted axial fan

by Elta

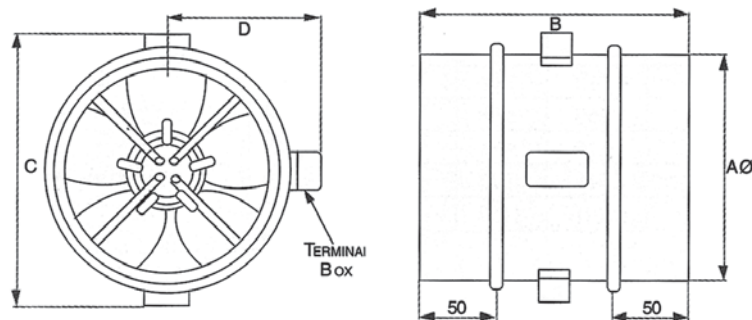
- Duct mounted axial fan 150 mm to 315mm
- All metal casing with integral mounting brackets
- Speed controllable
- External rotor motor, IP44, Class B
- All units suitable up to 80% RH, 40° air temp



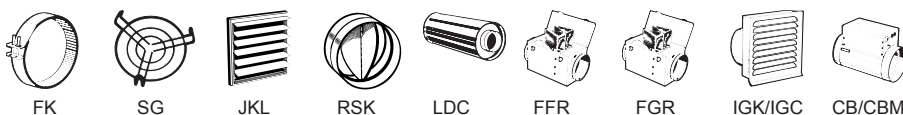
Product Ref	Speed RPM	Airflow m³/s @ Static Pressure Pa								Motor Data		dBA @ 3m	Speed Control
		0	25	50	75	100	125	150	175	FLC	kW		
SAMF150/2-2	2760	0,110	0,084	0,063	0,044	0,022	-	-	-	0,25	0,046	43	EL13
SAMF200/4-2	1440	0,144	0,093	0,053	0,017	-	-	-	-	0,13	0,03	52	EL13
SAMF200/2-2	2580	0,238	0,208	0,170	0,135	0,107	0,085	-	-	0,3	0,06	39	EL13
SAMF250/4-2	1380	0,279	0,230	0,151	0,079	-	-	-	-	0,21	0,05	49	EL13
SAMF250/2-2	2520	0,420	0,382	0,347	0,309	0,264	0,210	0,151	-	0,54	0,12	40	EL13
SAMF315/4-2	1320	0,555	0,441	0,280	0,161	0,081	-	-	-	0,32	0,07	47	EL13
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	EL13

	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 128

## KD-fan Circular mixed flow fan

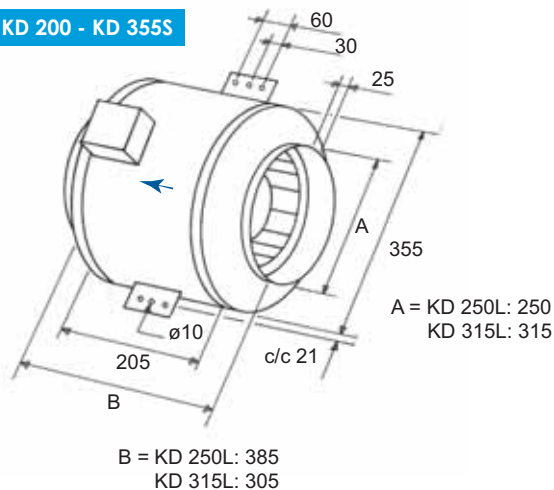
by Systemair

- 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
- Mounting brackets fitted as standard

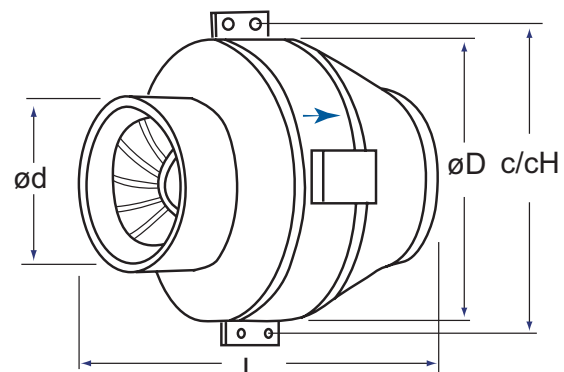


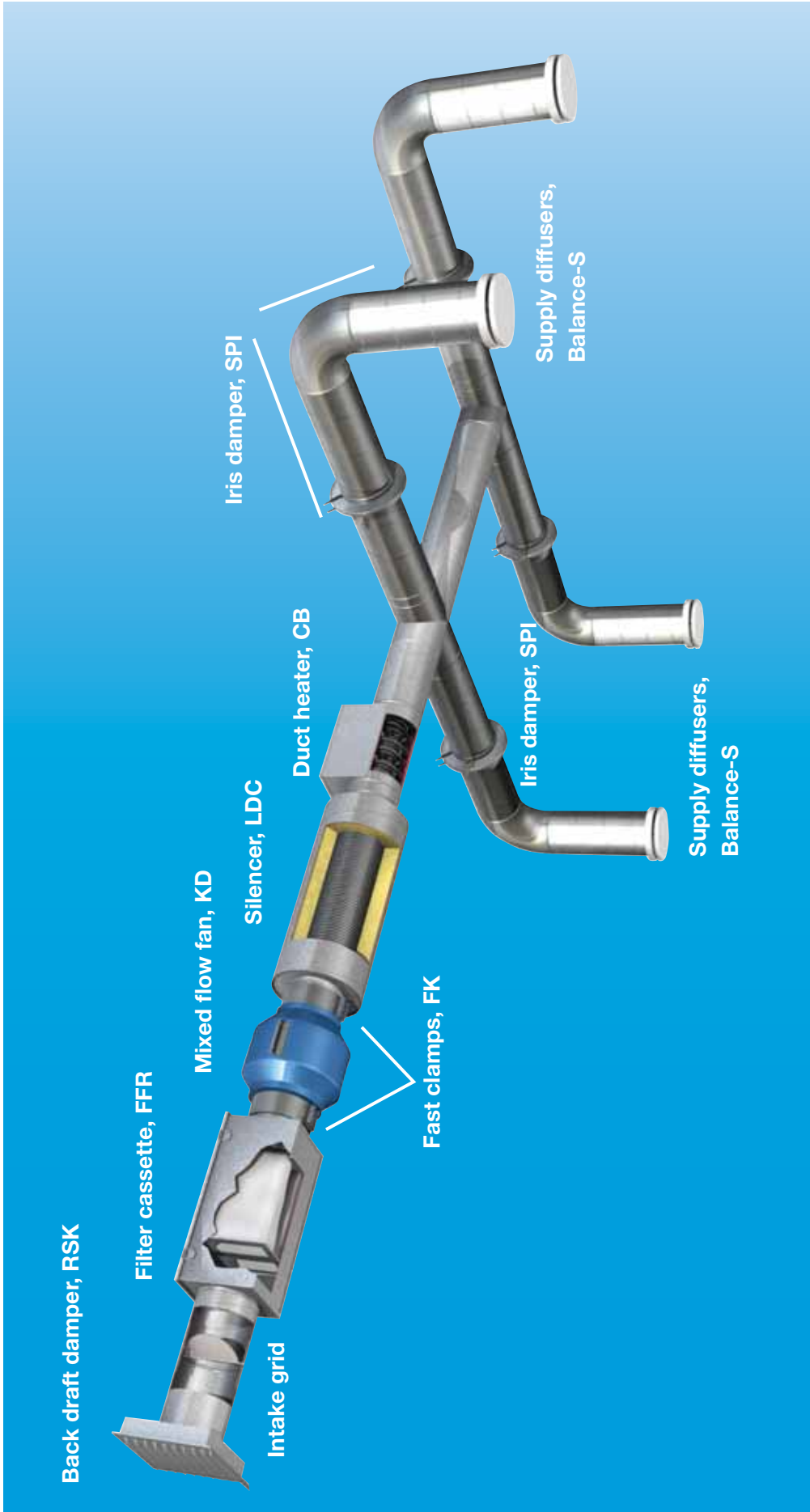
Product Code	Voltage	Speed rpm	Airflow m <sup>3</sup> /sec@Static Pressure Pa.					Motor Data			dBA 3m	Speed Control	
			50 Pa	100 Pa	150 Pa	200 Pa	300 Pa	FLC	SC	kW		Elec	Trans
KD200L	230	2565	0.340	0.315	0.275	0.245	0.150	1.14	4.7	0.256	53	SC1,5	RE1,5
KD250M	230	2565	0.370	0.330	0.315	0.275	0.175	1.13	4.7	0.255	54	SC1,5	RE1,5
KD250L	230	2595	0.525	0.495	0.455	0.420	0.330	1.61	7.0	0.37	55	SC3,0	RE3,0
KD315M	230	2575	0.365	0.345	0.315	0.275	0.190	1.12	4.5	0.252	58	SC1,5	RE1,5
KD315L	230	2590	0.565	0.542	0.505	0.465	0.370	1.62	7.2	0.372	53	SC3,0	RE3,0
KD355S	230	2590	0.570	0.535	0.500	0.460	0.362	1.62	7.2	0.373	53	SC3,0	RE3,0
KD315XL1	230	1375	0.685	0.585	0.450	0.225	-	1.29	5.0	0.275	52	SC3,0	RTRE3
KD355M1	230	1375	0.760	0.640	0.490	0.265	-	1.3	5.0	0.275	50	SC3,0	RTRE3
KD355XL1	230	1310	1.020	0.900	0.770	0.600	0.120	2.0	7.5	0.45	52	SC3,0	RTRE3
KD400M1	230	1310	1.030	0.915	0.780	0.600	0.120	2.03	7.5	0.457	53	SC3,0	RTRE3
KD400XL1	230	1270	1.590	1.465	1.310	1.155	0.785	4.3	11.0	0.893	58	SC5,0	RTRE5
KD450M1	230	1305	1.700	1.570	1.410	1.225	1.020	4.67	11.0	0.922	60		RTRE7
KD450XL1	230	1290	2.235	2.095	1.940	1.790	1.435	6.16	15.0	1.398	61		RTRE7
KD500M1	230	1290	2.250	2.110	1.975	1.815	1.470	6.1	15.0	1.385	64		RTRE7
KD355XL3	400	1395	1.110	1.010	0.890	0.735	0.265	0.91	4.5	0.474	54		RTRD2
KD400M3	400	1390	1.135	1.020	0.905	0.735	0.230	0.93	4.5	0.475	54		RTRD2
KD400XL3	400	1325	1.650	1.535	1.400	1.235	0.800	1.6	4.5	0.861	57		RTRD2
KD450M3	400	1320	1.735	1.600	1.450	1.285	0.830	1.6	4.5	0.864	57		RTRD2
KD450XL3	400	1325	2.135	2.035	1.910	1.770	1.435	2.21	11.0	1.263	60		RTRD4
KD500M3	400	1330	2.210	2.100	1.970	1.830	1.485	2.23	11.0	1.267	60		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/M#	500	643	663	721





# KVKF

## Compact acoustic in-line fan

by Systemair

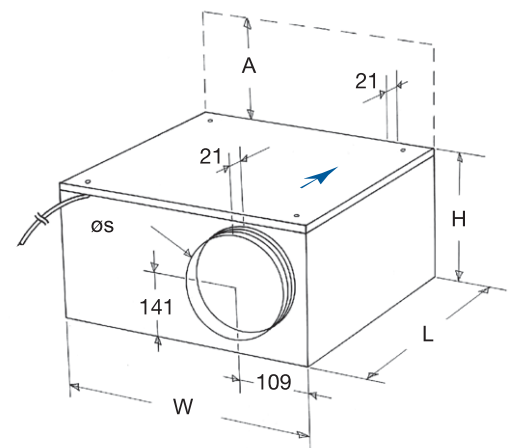
- Compact acoustic duct fan, 125mm to 400mm
- Fan - single phase, 230V - 1Ph - 50Hz
- 100% speed controllable
- 40mm acoustic lining (low noise)
- Integral thermal contacts
- Can be installed in any position
- Access panel with removable fan assembly
- Single inlet forward curved impeller with external rotor motor (KVKF200 & 250 - backward curved impeller)
- Compact fan casing for restricted ceiling voids



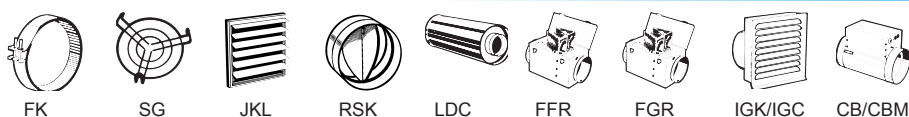
Product Code	Speed rpm	Airflow m <sup>3</sup> /sec @ Static Pressure Pa.					Motor Data			dBA @ 3m	Speed Control	
		50	100	200	300	400	FLC	SC	kW		Elec	Trans
KVKF125	1850	0.09	0.080	0.058	0.033	-	0.43	1.2	0.098	37	SC 1,5	RE 1,5
KVKF150M	2005	0.16	0.102	0.081	0.039	-	0.51	1.5	0.117	40	SC 1,5	RE 1,5
KVKF150L	2540	0.127	0.116	0.092	0.050	-	0.58	1.7	0.133	43	SC 1,5	RE 1,5
KVKF160M	2005	0.16	0.102	0.081	0.039	-	0.51	1.5	0.117	40	SC 1,5	RE 1,5
KVKF160L	2540	0.127	0.116	0.092	0.050	-	0.58	1.7	0.133	43	SC 1,5	RE 1,5
KVKF200	2630	0.213	0.204	0.171	0.140	0.107	0.83	2.5	0.178	44	SC 1,5	RE 1,5
KVKF250M	2615	0.268	0.238	0.205	0.164	0.121	0.9	2.7	0.203	42	SC 1,5	RE 1,5
KVKF250L	2415	0.41	0.380	0.335	0.290	0.241	1.34	4.0	0.307	41	SC 1,5	RE 1,5
KVKF315M	1265	0.445	0.410	0.325	0.160	-	2.2	7.0	0.457	46	SC 3,0	RTRE 3,0
KVKF315L	1265	0.57	0.525	0.390	0.192	-	3.01	9.0	0.634	49	SC 5,0	RTRE 5,0
KVKF355	1355	0.77	0.739	0.641	0.495	-	5.47	18.0	1.237	51		RTRE 7,0
KVKF400	1320	0.82	0.783	0.683	0.549	-	5.7	18.0	1.288	50		RTRE 7,0

### Dimensions

	A	L	W	H	S DIA	Weight Kg
KVKF125	230	399	349	230	125	12
KVKF150	230	399	349	230	150	12
KVKF160	230	399	349	230	160	12
KVKF200	270	500	481	270	200	20
KVKF250	320	604	597	320	250	26
KVKF315	600	588	630	404	315	42
KVKF355	650	633	684	486	355	53
KVKF400	650	633	684	486	400	53



### Accessories



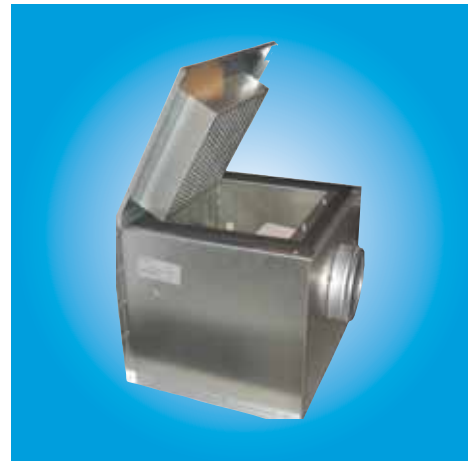
For Accessories see page 128

# KVK Fan

## Acoustic in-line centrifugal fan

by Systemair

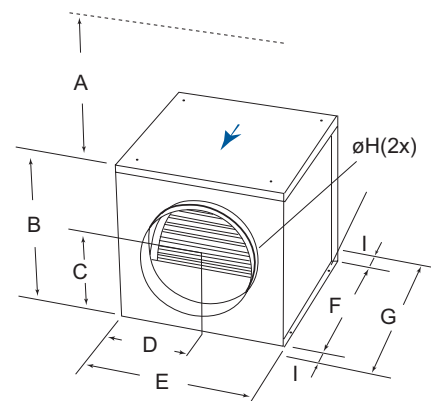
- Acoustic duct fan, 125 mm to 500 mm
- Fan - single phase, 230 V, 1 Ph, 50 Hz
- 100% speed controllable
- 50 mm acoustic lining (low noise)
- Integral thermal contacts
- Can be installed in any position
- Access panel with removable fan assembly
- Double inlet forward curved impeller with external rotor motor



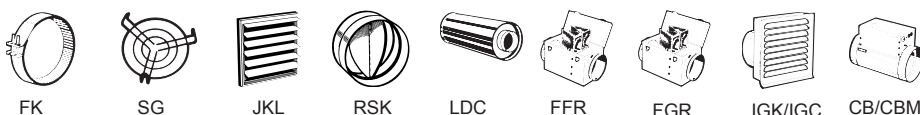
Product Code	Speed rpm	Airflow m <sup>3</sup> /sec @ Static Pressure Pa.					Motor Data			dBA @ 3m	Speed Control	
		50	100	150	200	300	FLC	SC	kW		Elec	Auto Trans
KVK125	1720	0.042	0.031	0.007			0.17	0.5	0.041	28	SC 1,5	RTRE 1,5
KVK160	2010	0.094	0.080	0.061	0.030		0.35	0.85	0.081	35	SC 1,5	RTRE 1,5
KVK200	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	300	292	173	182	364	317	391	125	37	9.1
160	300	292	173	182	364	317	391	160	37	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 128

# KVK DUO

## Acoustic in-line twin fan

by Systemair

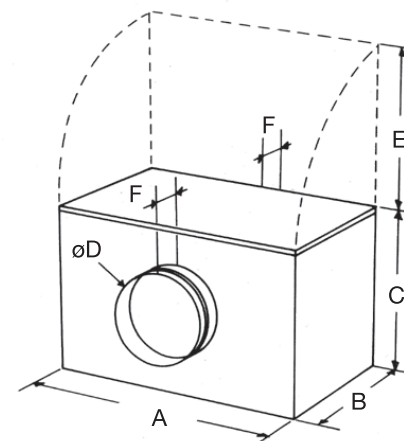
- Run and stand by motors
- Acoustic duct fan, 125mm to 400mm
- Fan - single phase, 230V - 1Ph - 50Hz
- 100% speed controllable
- 50mm acoustic lining (low noise)
- Integral thermal contacts
- Can be mounted upside down
- Access panel with removable fan assembly
- Double inlet forward curved impeller with external rotor motor
- Auto-change over panel with duty-share and volt free contacts



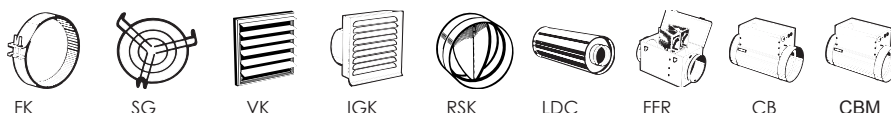
Product Code	Speed rpm	Airflow m <sup>3</sup> /sec @ Static Pressure Pa.					Motor Data			dBA @ 3m	Speed control		
		50	100	150	200	300	FLC	SC	kW		Elec	Trans	ACO Panel
KVK DUO125	1720	0.041	0.030	0.010			0.17	0.5	0.041	28	SC 1,5	RTRE 1,5	ACO 8
KVK DUO160	2010	0.094	0.080	0.060	0.030		0.35	0.85	0.081	35	SC 1,5	RTRE 1,5	ACO 8
KVK DUO200	1750	0.180	0.168	0.151	0.130	0.058	0.77	2.0	0.177	39	SC 1,5	RTRE 1,5	ACO 8
KVK DUO250	1965	0.294	0.272	0.250	0.228	0.173	1.3	3.0	0.304	42	SC 3,0	RTRE 3,0	ACO 8
KVK DUO315M	1325	0.493	0.435	0.350	0.201		1.49	4.0	0.334	35	SC 3,0	RTRE 3,0	ACO 8
KVK DUO315L	1220	0.734	0.698	0.645	0.570	0.212	2.61	8.0	0.593	37	SC 5,0	RTRE 3,0	ACO 8
KVK DUO355	1170	0.734	0.698	0.645	0.570	0.212	2.78	8.0	0.632	37	SC 5,0	RTRE 3,0	ACO 8
KVK DUO400	1190	0.734	0.698	0.645	0.570	0.212	2.78	8.0	0.638	39	SC 5,0	RTRE 3,0	ACO 8

### 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



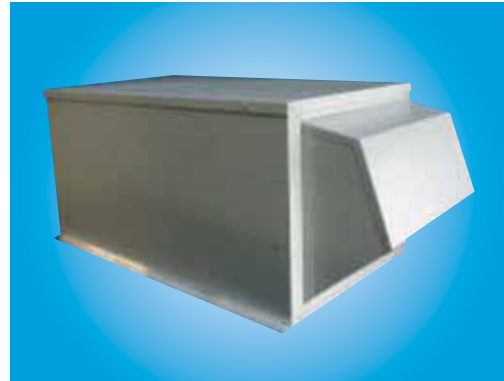
### Accessories



For Accessories see page 128

## 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 intergral 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:** ACOPI1 with volt free contacts and duty share as standard

### Performance Details

Fan Ref	Speed RPM	Airflow m³/s @ Static Pressure Pa									Motor Data			dBA @
		50	100	125	150	200	250	300	350	550	FLC	SC	kW	3m
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	1,790	1,710	1,690	1,680	1,600	1,550	1,500	1,440	1,000	5,00	25,00	1,500	60

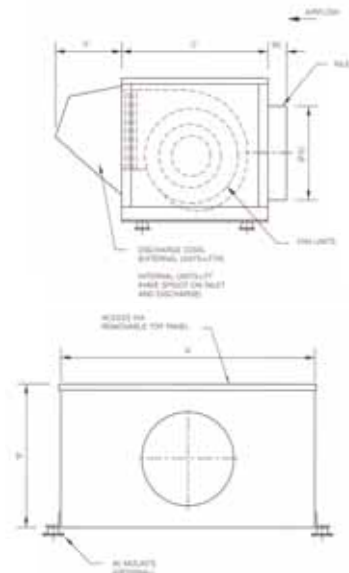
dBA values are average spherical free field for comparison only, shown for acoustically lined units, at 3.0m distance. The Full range of performance and sound data is available upon request. All units 240-1-50 supply except 500/3 = 415-3-50

### How to order:

EFTR400L = Roof Mounted Twin Fan 400dia - Acoustically Lined  
 EFT250 = Duct Mounted Twin Fan 250dia

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.





## 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 EFTRB for roof mounting with plastisol casing, 20mm "mez" flange connection on inlet and weatherproof discharge cowl with intergral bird mesh. Bottom inlet available on request.

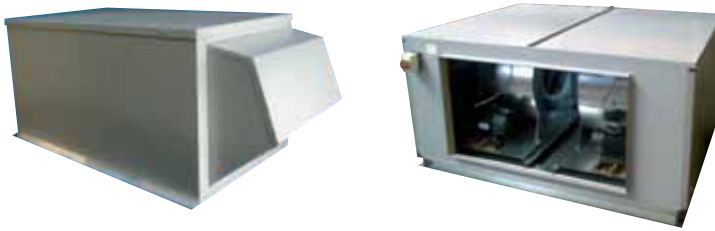


- Size Range:** Four standard case sizes with different combinations of motors and pulleys giving an extensive range of fan duties.
- Impellers:** Two DIDW (double inlet double width) forward curved centrifugal type
- Motors:** Comply with BS5000 & IEC34-1. Foot mounted type TEFV IP55 Class F insulation. 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

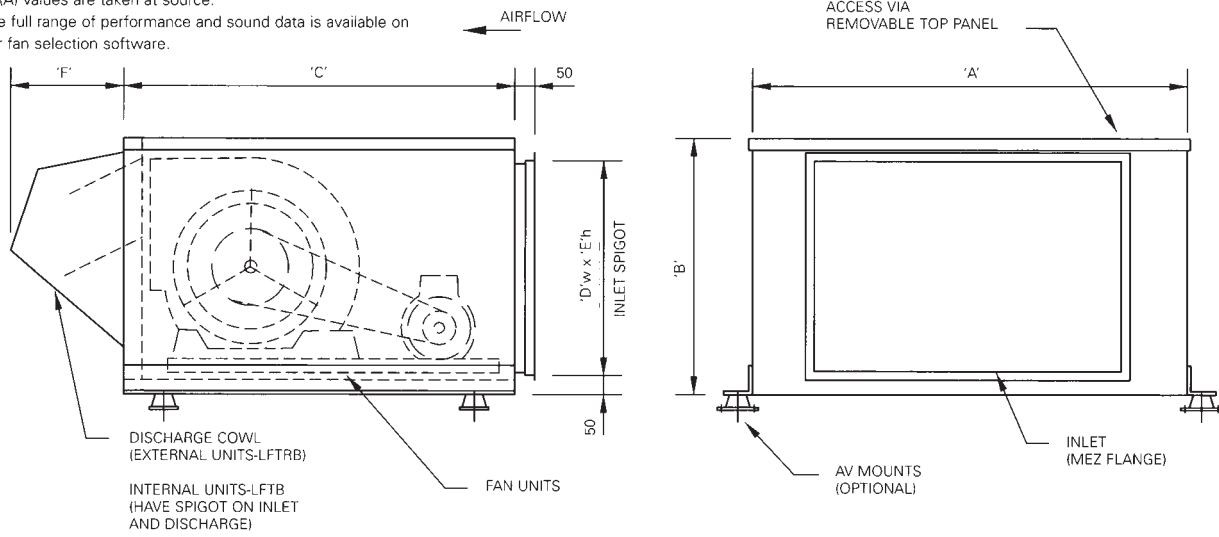
### Performance Details

Fan	Ref	Airflow m <sup>3</sup> /s @ Static Pressure Pa										Motor Data		
		50	100	150	200	250	300	350	400	450	500	FLC	SC	kW
EFTB 7/1	Airflow m <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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

# KE/KT

## Rectangular centrifugal fan

by Systemair

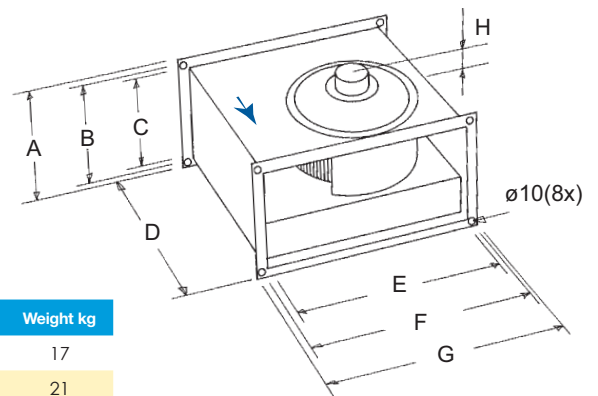
- Forward curved centrifugal fan
- Compact design for ceiling void applications
- Can be installed in any position
- Maintenance free and reliable
- Speed controllable
- Integral thermal contacts



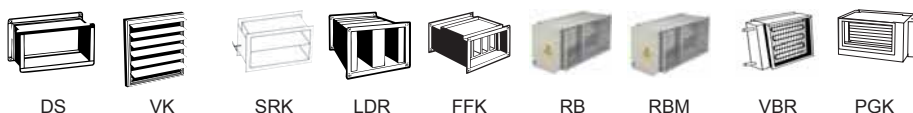
Product Code	Voltage	Airflow m <sup>3</sup> /s @ static pressure Pa					Motor Data		dBa @ 3m	Speed Control
		50	100	150	200	300	FLC	KW		
KE40-20-4	230-1-50	-	0,245	0,220	0,176	-	1,00	0,230	55	RTRE1.5
KE50-25-4	230-1-50	0,450	0,419	0,386	0,338	-	2,51	0,530	56	RTRE3
KE50-30-4	230-1-50	-	0,595	0,561	0,516	0,411	3,67	0,819	59	RTRE5
KE60-30-4	230-1-50	-	-	0,706	0,669	0,573	5,40	1,231	62	RTRE7
KT50-25-4	400-3-50	0,511	0,479	0,443	0,393	0,198	0,95	0,550	55	RTRD2
KT50-30-4	400-3-50	-	-	0,615	0,565	0,414	1,41	0,800	57	RTRD2
KT60-30-4	400-3-50	0,922	0,890	0,855	0,808	0,712	2,36	1,360	58	RTRD4
KT60-35-4	400-3-50	-	-	-	1,286	1,176	4,12	2,460	61	RTRD7
KT70-40-4	400-3-50	-	-	-	-	1,630	6,04	3,616	66	RTRD7
KT70-40-6	400-3-50	1,386	1,308	1,230	1,143	0,918	3,00	1,628	56	RTRD4
KT80-50-6	400-3-50	-	2,048	1,963	1,879	1,611	4,91	2,670	60	RTRD7
KT80-50-8	400-3-50	1,416	1,313	1,176	0,992	-	2,40	1,140	59	RTRD4
KT100-50-6	400-3-50	-	-	-	-	2,350	6,79	3,810	62	RTRD7
KT100-50-8	400-3-50	2,173	2,052	1,930	1,783	1,336	4,67	2,290	58	RTRD7

KE	A	c/c B	C	D	E	c/c F	G	H	Weight kg
40-20-4	240	220	198	502	398	420	440	28	12
50-25-4	290	270	248	532	498	520	540	30	18
50-30-4	340	320	298	562	498	520	540	32	21
60-30-4	340	320	298	642	598	620	640	47	28

KT	A	c/c B	C	D	E	c/c F	G	H	Weight kg
50-25-4	290	270	248	532	498	520	540	64	17
50-30-4	340	320	298	562	498	520	540	66	21
60-30-4	340	320	298	642	598	620	640	88	29
60-35-4	390	370	348	717	598	620	640	83	38
70-40-4	440	420	398	787	698	720	740	94	60
70-40-6	440	420	398	787	698	720	740	74	43
80-50-6	540	520	497	880	798	820	840	96	71
80-50-8	540	520	497	880	798	820	840	96	63
100-50-6	540	520	497	980	998	1020	1040	100	95
100-50-8	540	520	497	980	998	1020	1040	100	95



### Accessories



For Accessories see page 129

# RS/RSI

## Rectangular in-line centrifugal fan

by Systemair

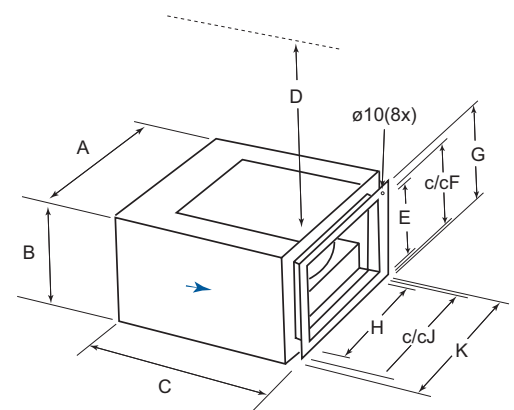
- Backward curved rectangular fan, RS (acoustic version - RSI)
- Fan - single phase, 230V - 1Ph - 50Hz
- Fan - three phase, 400V - 1Ph - 50Hz
- 100% speed controllable
- Integral thermal contacts
- Can be installed in any position
- Maintenance free and reliable
- Backward curved impeller & external rotor motor
- Hinged access door
- RSI - 50mm acoustic lining



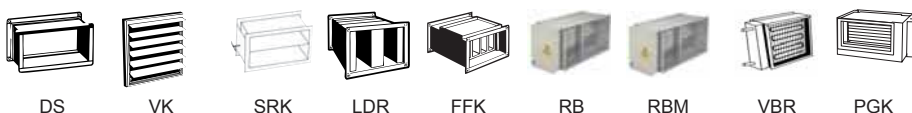
Product Code	Voltage	Speed rpm	Airflow m3/sec @ Static Pressure Pa.					Motor Data			dBA @ 3m		Speed Control	
			50	100	150	200	300	FLC	SC	kW	RS	RSI	Elec	Trans
RS 30-15	240	2270	0.125	0.106	0.088	0.072	0.033	0.35	1.40	0.08	49	-	SC 1,5	RE 1,5
RS 40-20M1	240	2605	0.215	0.180	0.165	0.142	0.094	0.46	1.84	0.105	52	-	SC 1,5	RE 1,5
RS 40-20L1	240	2315	0.334	0.300	0.271	0.235	0.170	0.89	3.56	0.204	46	-	SC 1,5	RE 1,5
RS 50-25M1	240	1365	0.357	0.312	0.264	0.210	0.025	0.6	2.40	0.137	47	-	SC 1,5	RE 1,5
RS 60-35M1	240	1335	0.850	0.785	0.710	0.640	0.460	1.75	7.00	0.382	56	50	SC 3.0	RE 3.0
RS 60-35M3	400	1370	0.910	0.850	0.790	0.700	0.520	0.79	3.16	0.399	58	48	-	RTRD 2
RS 60-35L1	240	1310	1.050	1.000	0.900	0.820	0.650	2.79	11.16	0.624	57	48	SC 5,0	RTRE 3
RS 60-35L3	400	1410	1.130	1.050	1.000	0.920	0.770	1.59	6.36	0.665	61	51	-	RTRD 2
RS 70-40L1	240	1305	1.500	1.400	1.300	1.200	0.980	2.81	11.24	0.624	60	51	SC 5,0	RTRE 3
RS 70-40L3	400	1410	1.320	1.260	1.190	1.100	0.930	1.7	6.80	0.705	61	51	-	RTRD 2
RS 80-50M3	400	1330	1.840	1.790	1.680	1.600	1.400	1.96	7.84	1.086	60	53	-	RTRD 4
RS 80-50L3	400	1390	2.500	2.375	2.290	2.220	2.000	3.6	14.40	1.894	64	57	-	RTRD 7
RS 100-50L3	400	1360	3.240	3.180	3.050	2.960	2.750	5.09	20.36	2.975	66	63	-	RTRD 7

RS	A	B	C	D	E	c/c F	G	H	c/c J	K	Weight 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	
60-35M/L	708	492	717	650	648	370	390	598	620	640	42
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 129

## KDRE/KDRD Square mixed flow fan

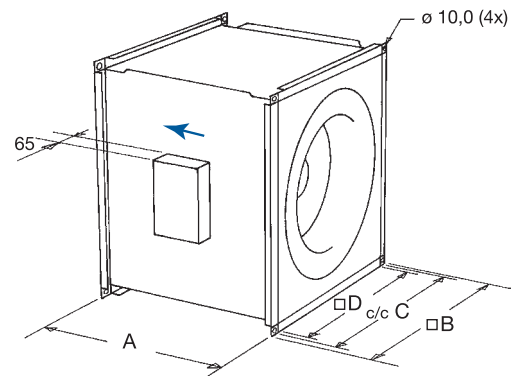
by Systemair

- Square cased mixed flow fan,
- KDRE Fan - single phase, 230V - 1Ph - 50Hz
- KDRD Fan - three phase, 400V - 3Ph - 50Hz
- 100% speed controllable
- Integral thermal contacts
- Can be installed in any position
- Maintenance free and reliable
- Mixed flow impeller with external rotor motor



Product Code	Speed rpm	Airflow m <sup>3</sup> /sec @ Static Pressure Pa.					Motor Data			dBA @ 3m	Speed Control	
		50	100	200	300	400	FLC	SC	kW		Elec	Trans
KDRE45	1385	0.882	0.740	0.185			1.55	5.0	0.326	46	SC3,0	RTRE3
KDRE50	1310	1.310	1.149	0.680	0.120		2.27	7.5	0.511	54	SC5,0	RTRE5
KDRE55	1282	1.810	1.657	1.240	0.666	0.130	4.1	11.0	0.861	53	SC5,0	RTRE5
KDRE65	1315	2.900	2.710	2.230	1.580	0.885	6.6	16.0	1.497	61	N/A	RTRE7
KDRD50	1400	1.380	1.260	0.890	0.260		0.98	6.0	0.504	49		RTRD2
KDRD55	1315	1.746	1.610	1.280	0.760	0.140	1.51	7.5	0.787	54		RTRD2
KDRD65	1305	2.743	2.577	2.140	1.480	0.740	2.24	10.0	1.281	55		RTRD4
KDRD70	1382	3.960	3.800	3.400	2.930	2.320	4.6	25.0	2.493	62		RTRD7

KDRD	A	B	C	D	Weight kg
KDRD 45	400	492	470	447	26
KDRD 50	450	547	520	502	41
KDRD 55	485	595	573	550	42
KDRD 65	510	707	680	661	54
KDRD 70	530	742	720	696	62



### Accessories



FFS



DSK



LDK



RBK



VBK

For Accessories  
see page 129

# MUB

## Multibox acoustic duct fan

by Systemair

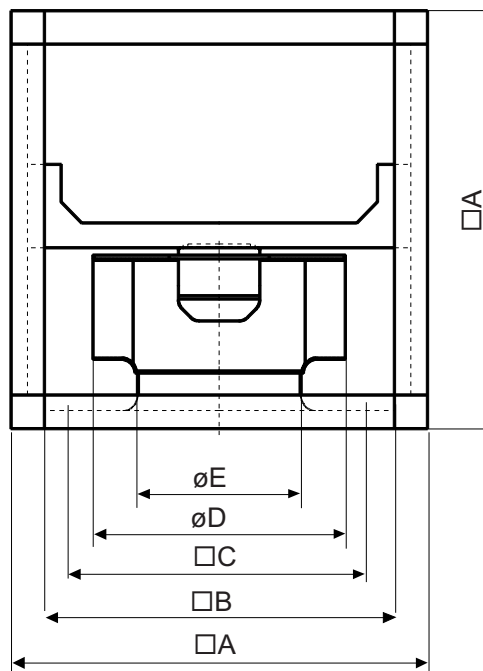
- Backward curved centrifugal fan, 355mm to 500mm
- Fan - single phase, 230V - 1Ph - 50Hz
- 100% speed controllable
- 20mm acoustic lining (low noise)
- Penta post construction with double skinned panels
- Integral thermal contacts
- Can be installed in any position
- Removable panels to allow side or straight through discharge
- 3 year warranty
- Backward curved impeller with external rotor motor
- Filters & heater batteries available



Product Code Single phase	Speed rpm	Airflow m <sup>3</sup> /sec @ Static Pressure Pa. (Straight Discharge)					Motor Data			dBA @ 3m	Speed Control	
		100	200	300	400	500	FLC	SC	kW		Elec	Trans
MUB 025-355E4-A2	1260	0.55	0.40	0.20			1.25	3.1	0.28	54	SC 1,5	RTRE 1,5
MUB 042-400E4-A2	1360	0.96	0.85	0.65	0.20		2.2	5.0	0.52	49	SC 3,0	RTRE 3
MUB 042-450E4-A2	1280	1.20	1.00	0.80	0.45		3.5	10.0	0.74	52	SC 5,0	RTRE 5
MUB 042-499E4-A2	1320	1.50	1.27	1.05	0.80	0.46	4.95	13.0	1.1	52	N/A	RTRE 5
MUB 042-500E4-A2	1340	1.75	1.63	1.40	1.20	0.75	5.7	20.0	1.35	56	N/A	RTRE 7

MUB	□A	□B	□C	∅D	∅E	Weight kg
025 355E4-A2	500	420	378	355	224	37
042 400E4-A2	670	590	548	400	253	57
042 450E4-A2	670	590	548	454	286	62
042 499E4-A2	670	590	548	-	-	70
042 500E4-A2	670	590	548	504	321	70

With external rotor motor



### Accessories



FGV



UGS



WSG



WDS



SRKG

For Accessories  
see page 129

# MUB

## Multibox acoustic duct fan

By Systemair



- Backward curved centrifugal fan, 355mm to 630mm
- Fan - three phase, 400V - 3Ph - 50Hz
- 20mm acoustic lining (low noise)
- Penta post construction with double skinned panels
- Integral thermal contacts
- Can be installed in any position
- Removable panels to allow side or straight through discharge
- Backward curved impeller
- Filters & heater batteries available
- Kitchen version K2 with motor out of airstream (temp 100°C)  
Side discharge only
- All fans ref DV have dual wound motors for two speed operation (switch required)

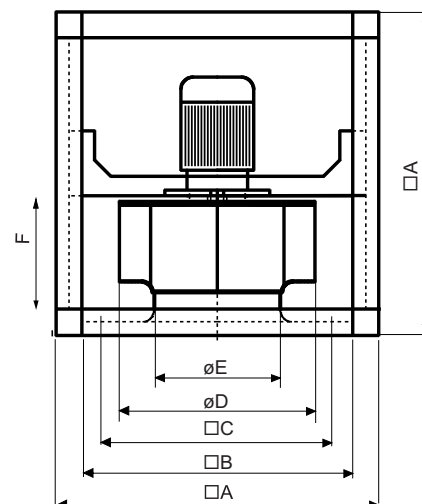
Product Code	Speed rpm	Airflow m <sup>3</sup> /sec @ Static Pressure Pa. (Side Discharge)					Motor Data			dBA @ 3m	Speed Control Trans
		100	200	300	400	500	FLC	SC	kW		
MUB 025-355DV-A2	1300	0.660	0.500	0.285			0.58	1.7	0.28	55	RTRD 2
MUB 042-400DV-A2	1340	1.010	0.840	0.605	0.125		0.85	3.1	0.46	49	RTRD 2
MUB 042-450DV-A2	1230	1.310	1.125	0.925	0.650		1.3	3.4	0.69	52	RTRD 2
MUB 042-499DV-A2	1200	1.700	1.470	1.200	0.900	0.440	1.8	4.9	0.9	55	RTRD 2
MUB 042-500DV-A2	1330	2.230	2.055	1.880	1.660	1.400	4.3	21.0	1.5	56	RTRD 7
MUB 062-560DV-A2	1420	3.200	3.010	2.825	2.610	2.380	5.8	27.0	2.2	57	RTRD 7
MUB 062-630DV-B2	1340	4.160	3.960	3.760	3.560	3.350	6.8	27.0	3.9	69	RTRD 14
MUB 062-630D4-A2	1400	4.285	4.080	3.840	3.590	3.315	9.5	46.0	4.0	69	N/A

Kitchen Version	(Motor outside of airstream) 90° discharge only. 100°C Temperature										
MUB 042-400DV-K2	1340	1.000	0.820	0.650	0.200		0.85	3.1	0.46	49	RTRD 2
MUB 042-450DV-K2	1230	1.300	1.150	0.800	0.500	0.150	1.3	3.4	0.69	52	RTRD 2
MUB 042-500DV-K2	1330	1.850	1.700	1.500	1.260	1.040	4.3	23.0	1.5	56	RTRD 7
MUB 062-560DV-K2	1400	2.750	2.600	2.350	2.230	2.000	5.8	32.0	2.2	57	RTRD 7
MUB 062-630D4-K2	1400	4.250	4.050	3.800	3.500	3.270	9.5	46.0	4.0	69	N/A

MUB	□A	□B	□C	∅D	∅E	F	Weight kg
025 355	500	420	378	355	224	-	37
042 400	670	590	548	400	253	300	57
042 450	670	590	548	454	286	300	62
042 499	670	590	548	500	320	300	70
042 500	670	590	548	504	321	300	70
062 560	800	720	676	570	361	321	130
062 630	800	720	678	635	407	321	145

Dimension F is for kitchen K2 version only.

With IEC standard motor

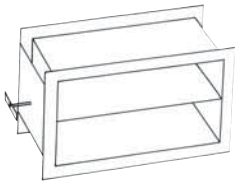


### Accessories



For Accessories see page 129

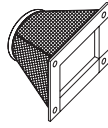
Accessories for MUB



**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.

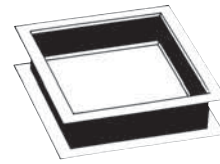
SRKG	A	B	c/c C	c/c D
025	378	378	398	398
042	548	548	568	568
062	678	678	698	698



**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.

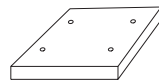
FGV	A	B	C	D
025/418-418	418	398	378	190
042/588-588	588	568	548	350
062/718-718	718	698	678	418



**WSG**

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

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:**

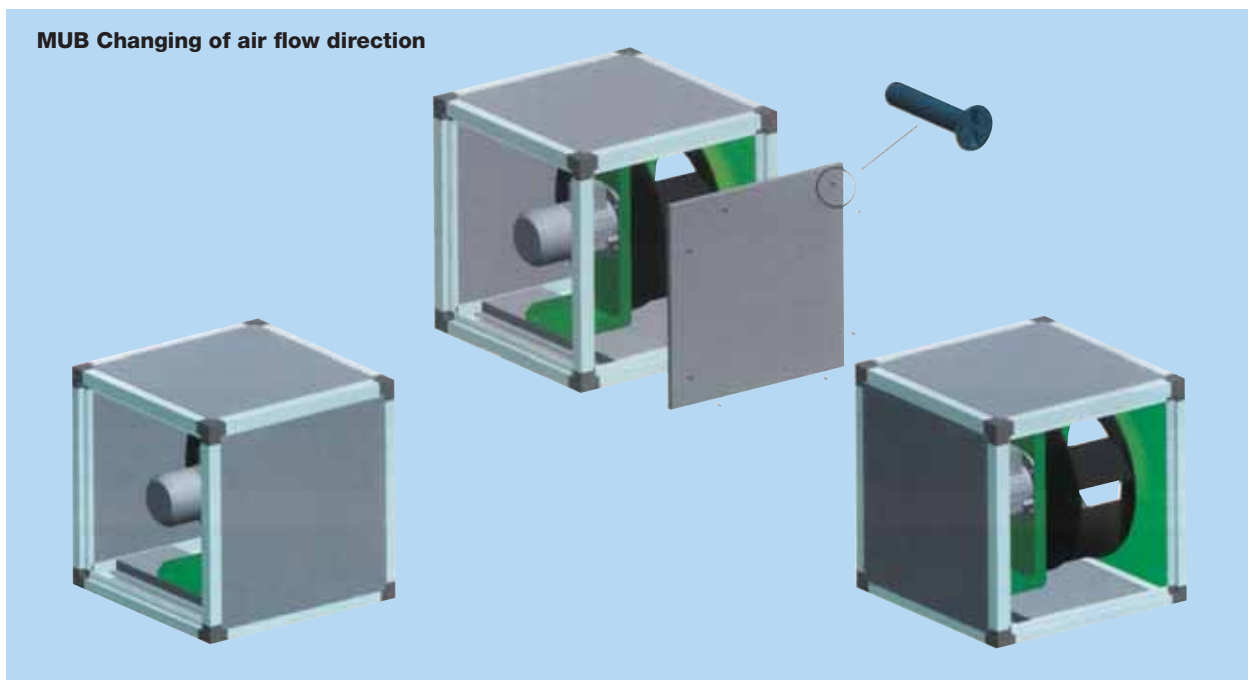
- Electric
- LPHW

**Filters:**

- Panel
- Bag

Also available for Multibox, please enquire.

**MUB Changing of air flow direction**





# KBT/KBR Kitchen extract centrifugal fans

By Systemair

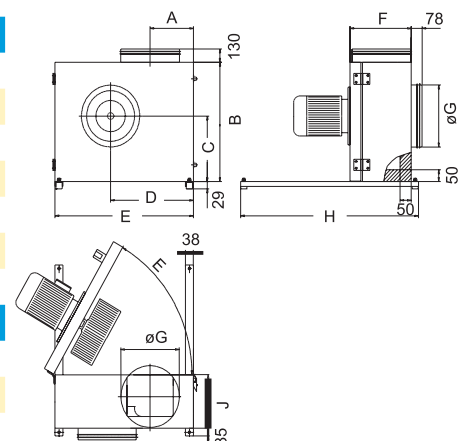
- Duct mounted fan, KBT 160mm to 355mm, KBR 200mm to 355mm
- Fan - single phase, 230V - 1Ph - 50Hz
- Fan - three phase, 400V - 3Ph - 50Hz
- Speed controllable
- Integral thermal contacts
- Double skin casing with 50mm acoustic lining
- Suitable for temperatures up to 120°C
- Hinged access door
- KBT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



Product Code	Voltage	Speed rpm	Airflow m³/sec @ Static Pressure Pa.					Motor Data			dBA @ 3m	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	49	RTRE 1,5
KBT 160DV	400	1120	0.215	0.174	-	-	-	0.57	3.5	0.16	49	RTRD 2
KBT 180E4	230	1330	0.370	0.330	0.210	-	-	1.11	5.0	0.14	52	RTRE 1,5
KBT 200E4	230	1370	0.500	0.470	0.400	0.130	-	5.10	21.0	0.75	55	RTRE 7
KBT 200DV	400	1360	0.530	0.490	0.390	0.260	-	1.88	11.0	0.55	55	RTRD 2
KBT 225E4	230	1370	0.720	0.690	0.590	0.470	-	5.10	21.0	0.75	59	RTRE 7
KBT 225DV	400	1350	0.730	0.710	0.620	0.530	0.310	2.50	13.0	0.75	59	RTRD 4
KBT 250E4	230	1400	1.090	1.070	1.000	0.900	0.770	10.70	45.0	1.85	63	N/A
KBT 250DV	400	1330	1.080	1.030	0.930	0.810	0.650	4.30	26.0	1.5	63	RTRD 7
KBT 280DV	400	1400	1.380	1.350	1.300	1.230	1.150	5.80	35.0	2.2	66	RTRD 7
KBR 315DV	400	1360	0.570	0.530	0.440	0.300	0.100	1.39	8.5	0.37	54	RTRD 2
KBR 315DZ	400	2710	1.050	1.030	0.970	0.920	0.810	3.40	20.5	1.5	69	RTRD 4
KBR 355E4	230	1330	0.920	0.890	0.780	0.660	0.470	2.10	12.5	0.37	59	RTRE 3
KBR 355DV	400	1360	0.990	0.930	0.830	0.710	0.590	1.39	8.5	0.37	59	RTRD 2
KBR 355E4/K	230	1330	0.76	0.69	0.58	0.44	0.28	2.10	12.5	0.37	59	RTRE 3
KBR 355DV/K	400	1360	0.78	0.72	0.64	0.5	0.32	1.39	8.5	0.37	59	RTRD 2
KBR 355DZ	400	2600	1.94	1.92	1.86	1.75	1.73	6.50	37.0	3.0	72	RTRD 7
KBR 355DZ/K	400	2660	1.56	1.52	1.47	1.38	1.34	5.0	30.0	2.2	72	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



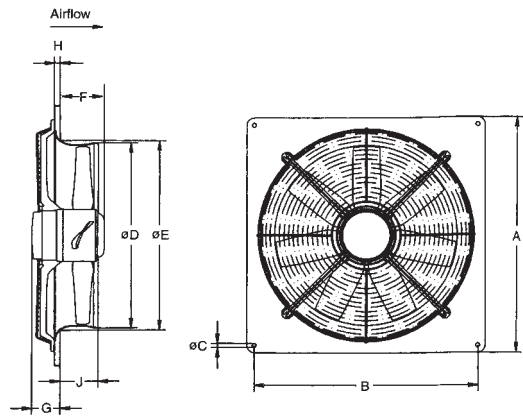
## ZAP/ZSP/AW Plate mounted axial fans

by Ziehl Abegg

- Sickle & aerofoil bladed fans, 200 mm to 710 mm
- Fan - single phase, 230 V, 1 Ph, 50 Hz
- Diecast 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 <sup>3</sup> /sec @ Static Pressure Pa			Motor Data			dBA @ 3m	Speed Control	
		0 Pa	50 Pa	100 Pa	FLC	SC	kW		Elec	Trans
AW200-E2-K	2600	0.253	0.214	0.097	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	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	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	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	3.4	7.4	0.77	53	N/A	RTRE 5
ZSP500-61	890	1.787	1.354	-	1.25	2.4	0.29	47	SC3,0	RTRE 1,5
ZAP560-41	1300	3.61	3.338	3.027	7.5	15.0	1.6	68		RTRE 7
ZAP560-61	880	2.474	1.923	-	1.95	4.6	0.43	55	SC3,0	RTRE 3
ZAP630-61	880	3.345	2.77	-	2.7	5.3	0.6	59	SC3,0	RTRE 3
ZAP630-81	650	2.472	-	-	1.45	3.1	0.32	55	SC3,0	RTRE 3
ZAP710-61	850	4.573	3.91	-	4.1	8.0	0.89	61	SC5,0	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



Three Phase Product Code	Speed rpm	Airflow m <sup>3</sup> /sec @ Static Pressure Pa			Motor Data			dBA @ 3m	Speed Control Trans
		0 Pa	50 Pa	100 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	0.48	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	1.15	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	1.35	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	3.1	2.66	1.8	7.0	1.0	63	RTRD4
ZAP560-63	860	2.4	1.838	-	0.81	1.75	0.39	55	RTRD2
ZAP630-43	1360	5.22	4.85	4.49	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	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	6.4	5.75	4.85	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	10.5	67.0	5.5	78	Inverter
ZAP1000-83	670	9.6	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

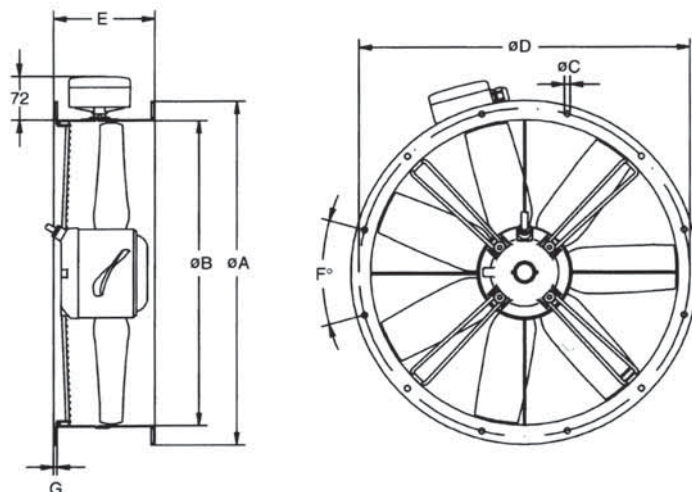
## ZAC/ZSC/AR Short cased axial fans

by Ziehl Abegg

- Sickle & aerofoil bladed fans, 200mm to 630mm
- Fan - single phase, 230V - 1Ph - 50Hz
- Diecast 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 <sup>3</sup> /sec @ Static Pressure Pa			Motor Data			Weight Kg	dBA @ 3m	Speed Control	
		50 Pa	100 Pa	125 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	0.7	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	2.1	6.0	0.47	10.2	61	N/A	RE 3,0
ZSC315-41	1400	0.5	-	-	0.59	1.5	0.13	6.5	46	SC 1,5	RE 1,5
ZSC350-41	1400	0.739	0.52	-	0.9	2.5	0.2	7.5	49	SC 1,5	RE 1,5
ZSC400-41	1320	1.143	0.888	0.626	1.35	2.9	0.31	10.3	51	SC 3,0	RE 3,0
ZSC450-41	1310	1.805	1.509	1.31	2.8	7.0	0.61	15.8	55	SC 3,0	RE 3,0
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	7.4	0.77	16.6	53	SC 3,0	RTRE 3,0
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	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 3,0
ZAC630-61	880	2.77	-	-	2.7	5.3	0.6	19.8	59	SC 3,0	RTRE 3,0



## 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 <sup>3</sup> /sec @ Static Pressure Pa			Motor Data			dBA @ 3m	Speed Control Trans
	rpm	50 Pa	100 Pa	125 Pa	FLC	SC	kW		
ZSC315-43	1410	0.504	-	-	0.29	1.0	0.12	46	RTRD 2
ZSC350-43	1360	0.71	0.472	-	0.35	1.0	0.18	48	RTRD 2
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	1.15	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	1.35	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	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	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	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	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	ØA	ØB	ØC	ØD	E	ØF	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:

- Mounting feet
- Flex conns
- Flanges
- Anti Vib Mounts
- Clips

#### Order Code:

AR ("Size") PK  
e.g. AR 250 PK

# 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	FLC	SC	kW		Elec	Auto trans
SLC315/4-2	1300	0.63	0.55	0.38	-	-	1.0	2.3	0.12	45	EL13	TC12
SLC315/2-1	2750	1.26	1.20	1.13	1.06	0.98	3.4	12.2	0.55	54		
SLC350/4-2	1300	0.85	0.76	0.63	-	-	1.3	4.6	0.18	48	EL13	TC12
SLC350/2-1	2820	1.42	1.39	1.36	1.32	1.30	6.9	24.2	1.1	64		
SLC400/4-2	1350	1.44	1.32	1.15	-	-	2.2	7.0	0.37	52	EL13	TC14
SLC400/2/1	2780	2.07	2.03	1.98	1.92	1.88	10.0	55.0	1.5	66		
SLC450/4-2A	1350	1.68	1.56	1.40	1.12	-	2.2	7.0	0.37	55	EL13	TC14
SLC450/4-2B	1350	2.07	1.89	1.67	1.38	-	3.7	11.1	0.55	55	EL16	TC18
SLC450/2-1	2780	3.03	2.93	2.84	2.73	2.62	10.0	55.0	1.5	68		
SLC500/4-2A	1350	1.81	1.70	1.57	1.36	1.00	2.2	7.0	0.37	58	EL13	TC14
SLC500/4-2B	1380	2.58	2.42	2.22	2.00	1.64	4.8	16.8	0.75	58	EL16	TC18
SLC560/4-2A	1380	2.90	2.78	2.62	2.42	2.10	4.8	16.8	0.75	59	EL16	TC18
SLC560/4-2B	1350	3.35	3.15	2.96	2.71	2.35	6.0	21.0	1.0	59		TC18
SLC630/6-1A	950	2.54	2.28	1.86	-	-	3.0	10.5	0.37	58		
SLC630/6-1B	950	3.31	2.95	2.48	-	-	4.3	13.6	0.55	58		
SLC630/4-2	1350	3.72	3.56	3.36	3.12	2.78	6.0	21.0	1.0	64		TC18

### Dimensions

SLC	A	B	C	E	F	G	K	Weight/kg
315	315	375	300	8	10	355	20	17
350	350	425	375	8	10	395	20	26
400	400	475	400	8	12	450	20	31
450	450	530	375	8	12	500	20	30
450/2-3B	450	530	450	8	12	500	25	45
500	500	585	400	12	12	560	20	33
500/2-3	500	585	450	12	12	560	25	52
560	560	645	400	12	12	620	20	40
560/2-3	560	645	570	12	12	620	20	96
630	630	715	400	12	12	690	20	50
630/4-3B	630	715	450	12	12	690	20	58

# SLC

## Adjustable pitch long cased axial fans

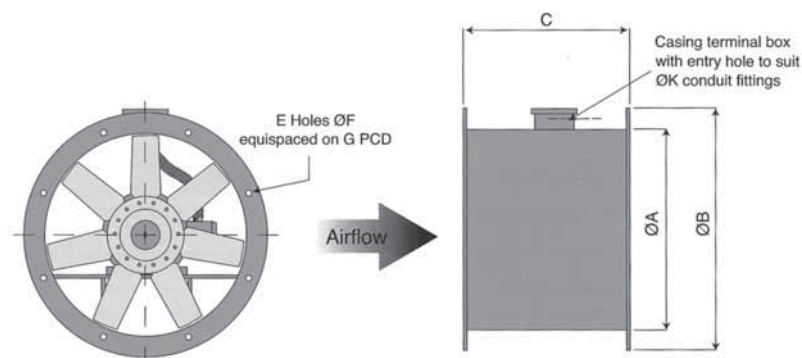
by Elta

- Long cased axial fan, 315mm to 630mm
- 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	FLC	SC	kW		
SLC315/4-3	1365	0.58	0.46	-	-	-	0.4	1.3	0.12	46	TC33
SLC315/2-3	2780	0.93	0.91	0.88	0.84	0.82	1.3	5.7	0.55	61	INV
SLC350/4-3	1340	0.77	0.66	-	-	-	0.6	1.8	0.18	49	TC33
SLC350/2-3A	2800	1.45	1.42	1.38	1.34	1.31	2.5	11.8	1.1	64	INV
SLC350/2-3B	2840	1.89	1.85	1.82	1.77	1.73	4.7	24.2	2.2	63	INV
SCL400/4-3	1390	1.31	1.16	-	-	-	1.2	4.3	0.37	52	TC33
SLC400/2-3	2840	2.37	2.34	2.29	2.25	2.22	4.7	24.2	2.2	67	INV
SCL450/4-3A	1390	1.57	1.42	1.18	-	-	1.2	4.3	0.37	56	TC33
SLC450/4-3B	1365	1.88	1.70	1.43	-	-	1.6	5.4	0.55	56	TC33
SLC450/2-3A	2840	2.82	2.78	2.72	2.66	2.60	4.7	24.2	2.2	75	INV
SLC450/2-3B	2850	3.79	3.74	3.69	3.63	3.57	7.8	46.2	4.0	75	INV
SLC500/4-3A	1390	1.63	1.50	1.30	1.03	0.50	1.2	4.3	0.37	58	TC33
SLC500/4-3B	1370	2.41	2.23	2.00	1.62	-	2.0	7.6	0.75	58	INV
SLC500/4-3C	1380	2.83	2.60	2.32	-	-	2.6	12.0	1.1	58	TC33
SCL500/2-3A	2850	4.08	4.02	3.98	3.90	3.84	7.8	46.2	4.0	78	INV
SCL500/2-3B	2870	4.72	4.68	4.60	4.52	4.46	10.8	74.5	5.5	71	INV
SLC560/4-3A	1370	2.67	2.52	2.29	1.98	-	2.0	7.6	0.75	59	INV
SLC560/4-3B	1380	3.31	3.13	2.88	2.60	-	2.6	12.0	1.1	60	TC33
SLC560/4-3C	1390	3.85	3.60	3.32	2.94	-	3.5	15.8	1.5	60	TC35
SLC560/2-3	2900	6.63	6.51	6.37	6.30	6.18	14.7	85.3	7.5	75	INV
SLC630/6-3A	910	2.40	1.90	-	-	-	1.1	4.3	0.37	57	TC33
SLC630/6-3B	890	3.04	2.48	-	-	-	1.5	5.6	0.55	59	TC33
SLC630/4-3A	1380	3.52	3.32	3.08	2.76	2.32	2.6	12.0	1.1	64	TC33
SLC630/4-3B	1400	5.17	4.90	4.61	4.30	3.88	5.1	25.0	2.2	63	TC310



# SCPP Contra rotating axial fan

by Elta

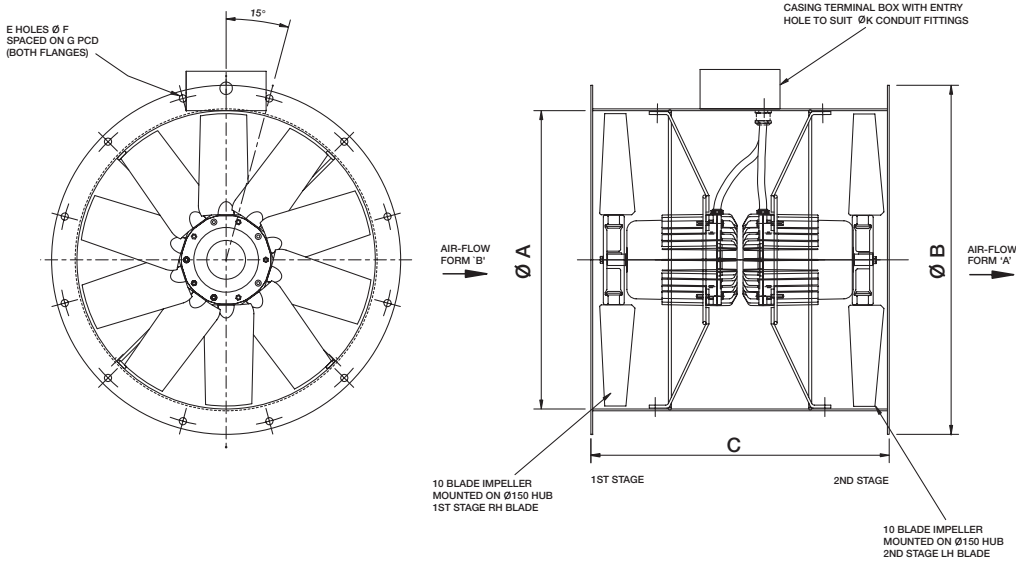
The compact power plus contra-rotating axial has been design for kitchen canopy installations due to its high pressure characteristics. Available in 4 sizes from 450 dia to 630 dia and fully speed controllable. Operating temperatures of 70deg C at fixed speed and 50deg C when used with speed controllers. Motors have class F insulation and IP55 rating making the fan suitable for external applications. This fan is ideal to cope with high pressure drops through baffle and carbon filters.



Product Code	Voltage	Airflow m³/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	63	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	68	EL101	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	71	-	TC116

### Dimensions

REF	A	B	C	E	F	G	K	Weight/kg
SCPP450/4-1	450	530	430	8	12	500	20	35
SCPP500/4-1	500	585	500	12	12	560	20	55
SCPP560/4-1	560	645	500	12	12	620	20	60
SCPP630/4-1	630	715	500	12	12	690	20	70





## SB Bifurcated axial fans

by Elta

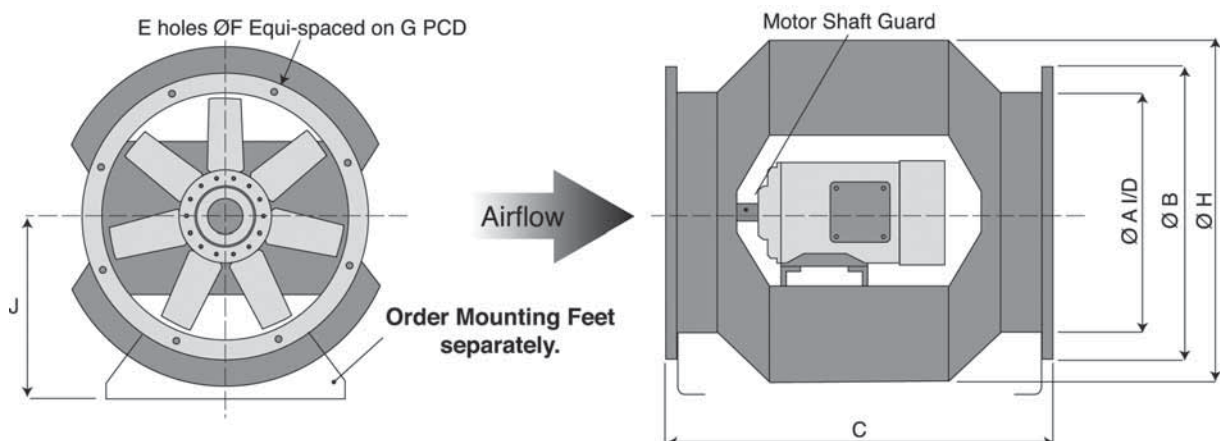
- Biflow axial fan, 250mm to 630mm dia
- Fan - single phase, 240V - 1Ph - 50Hz
- Fan - three phase, 380-415V - 3Ph - 50Hz
- Adjustable pitch aerofoil impellers to BS1490
- IP54 motor
- Suitable for temperatures up to 150°C
- Tested to ISO5801
- Available in sizes up to 2 metres
- Extra high temp/emergency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



Product Code	Speed rpm	Airflow m <sup>3</sup> /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	-	-	-	-	1.05	2.9	0.12	48
SB315-CON4-1	1370	0.43	0.38	0.23	-	-	-	1.05	2.9	0.12	51
SB250-CON4-3	1470	0.14	0.04	-	-	-	-	0.47	1.28	0.12	48
SB250-CON2-3	2880	0.5	0.47	0.44	0.36	0.28	0.2	0.8	3.0	0.25	61
SB315-CON4-3	1410	0.43	0.37	0.25	-	-	-	0.47	1.28	0.12	51
SB315-CON2-3	2780	0.91	0.9	0.88	0.84	0.8	0.76	1.55	6.6	0.55	64
SB400-CYL4-3	1450	0.89	0.82	0.7	-	-	-	0.8	3.0	0.25	55
SB400-CON2-3	2910	2.05	2.02	2.00	1.96	1.92	1.86	4.8	26.4	2.2	70
SB500-CYL4-3	1450	2.14	2.04	1.92	1.52	-	-	2.0	8.5	0.75	62
SB500-CON2-3	2875	3.76	3.73	3.71	3.66	3.6	3.54	8.4	59.0	4.0	80
SB630-CYL4-3	1435	4.27	4.16	4.04	3.76	3.44	-	4.8	26.4	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

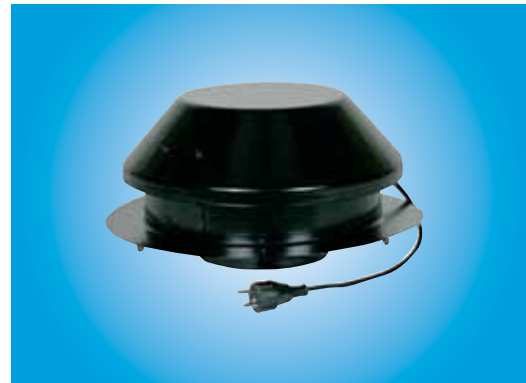


# TFER

## Roof mounted centrifugal fan

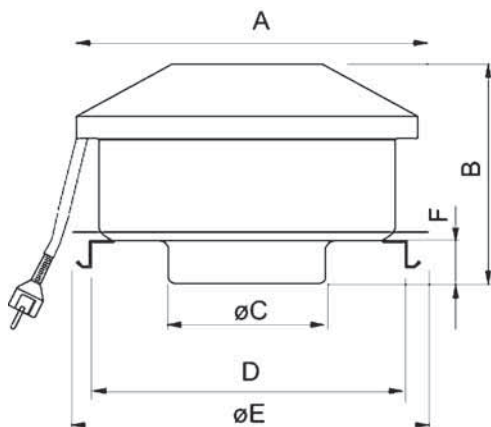
by Systemair

- 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



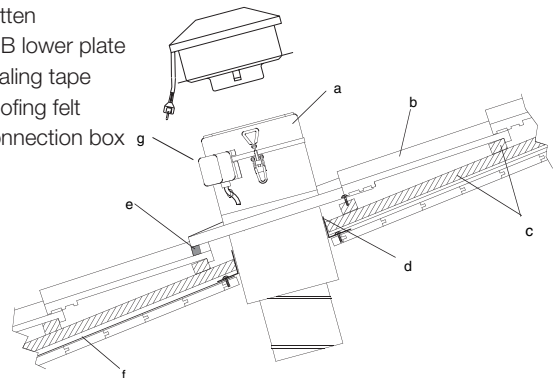
Product Code	Speed rpm	Airflow m3/sec @ Static Pressure Pa.					Motor Data			dBA @	Speed control	
		50	100	150	200	300	FLC	SC	kW	3m	Elec	Trans
TFER 125M	2435	0.037	0.022	-	-	-	0.19	0.5	0.032	41	SC1,5	RE1,5
TFER 125XL	2310	0.074	0.063	0.049	0.035	0.001	0.35	0.75	0.08	46	SC1,5	RE1,5
TFER 160	2350	0.095	0.081	0.067	0.052	0.011	0.34	0.7	0.077	45	SC1,5	RE1,5
TFER 200	2550	0.160	0.145	0.126	0.110	0.069	0.48	1.25	0.109	51	SC1,5	RE1,5
TFER 315M	2300	0.290	0.270	0.250	0.220	0.170	0.88	2.3	0.198	56	SC1,5	RE1,5
TFER 315L	2380	0.350	0.330	0.300	0.270	0.230	1.34	3.5	0.306	61	SC3,0	RE1,5

TFER	A	B	øC	D	øE	F	Weight
125M	242	178	124	237	-	30	2,5
125XL	284	187	124	237	332	20	3,5
160	334	197	158	287	380	28	4
200	402	181	198	287	470	30	5,5
315	502	290	292	-	313	30	9



### How to install TFER

- TOB/TOS roof curb
- Roof cladding
- Batten
- TUB lower plate
- Sealing tape
- Roofing felt
- Connection box



### Accessories:

- FRT - Roof curb
- TOB - Tile replacement curb

## RA / RAW Roof mounted axial fans

by Systemair

- 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 <sup>3</sup> /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	RTRE3.0
RA450-41	1310	1.42	1.25	1.04	2.8	7.0	0.61	58	725/525	SC3.0	RTRE3.0
RA500-41	1210	1.97	1.71	1.48	3.4	7.4	0.77	56	885/685	-	RTRE5
RA560-41	1300	2.31	2.10	1.53	7.5	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 <sup>3</sup> /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	725/525	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.

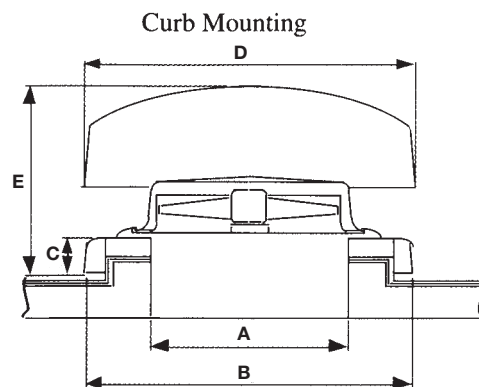
The standard colour finish is RAL 7035, but any B.S. or RAL colour can be provided if required.

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	500	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

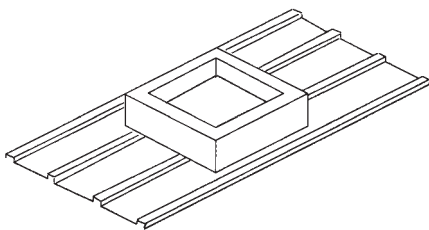


# RA Resistance / Pressure drop through cowl

Air volume m<sup>3</sup>/s against resistance Pa

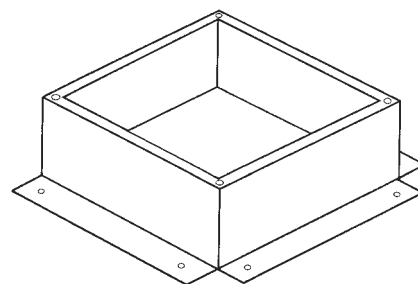
### Resistance through Cowl Only

Air Volume (m <sup>3</sup> /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

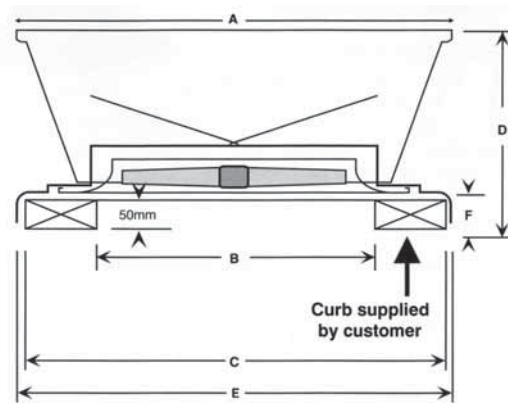
Unit ref	A' External	B' Internal
200/250	425	325
300/315	500	400
350	600	400
400/450	700	500
500/560	850	650
630/710	990	790
800	1100	900
1000	1300	1100

# RV

## Vertical discharge roof axial fan

by Systemair

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 m³/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

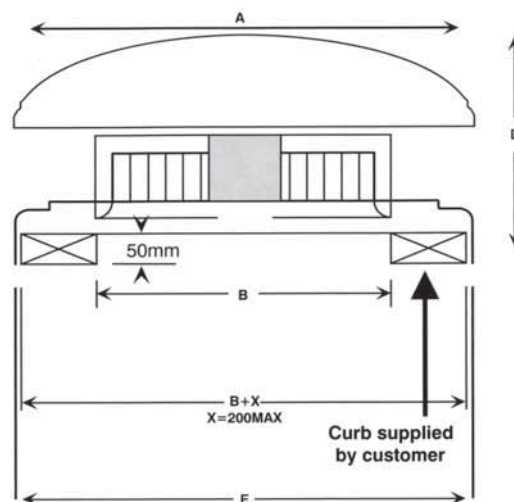
- Fibreglass cowl & base complete with centrifugal fan, 315mm to 560mm
- Fan - single phase, 230V - 1Ph - 50Hz
- Fan - three Phase, 400V - 3Ph - 50Hz
- Glass fibre cowl & base
- Colour RAL7035 (others available)
- Bird guard fitted as standard
- Backward curved impeller with external rotor motor



Product Code	Speed rpm	Airflow m <sup>3</sup> /sec @ Static Pressure Pa.			Motor Data			dBA @ 3m	Curb Size Ext/Int Sq	Speed control	
		0Pa	100Pa	200Pa	FLC	SC	kW			Elec	Trans
RC315-41	1340	0.48	0.39	0.2	0.65	2.0	0.15	50	510/410	SC1.5	RTRE1.5
RC355-41	1400	0.79	0.68	0.5	1.3	4.0	0.28	51	650/450	SC1.5	RTRE1.5
RC355-43	1300	0.76	0.62	0.48	0.6	3.0	0.26	46	650/450	-	RTRD2
RC400-41	1350	1.04	0.94	0.82	2.1	6.5	0.47	56	750/550	SC3.0	RTRE3
RC400-43	1350	1.04	0.94	0.81	0.8	4.0	0.44	52	750/550	-	RTRD2
RC450-41	1260	1.58	1.43	1.27	3.4	11.0	0.74	60	750/550	SC5.0	RTRE5
RC450-43	1210	1.52	1.39	1.21	1.4	8.0	0.72	52	750/550	-	RTRD2
RC500-41	1320	2.12	1.98	1.80	5.7	25.0	1.3	65	890/690	-	RTRE7
RC500-43	1325	2.18	2.03	1.87	2.1	11.0	1.19	65	890/690	-	RTRD4
RC560-43	1210	2.83	2.66	2.45	3.5	18.0	1.9	65	890/690	-	RTRD4

### Dimensions

	A sq	B sq	D	E	Weight/kg
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

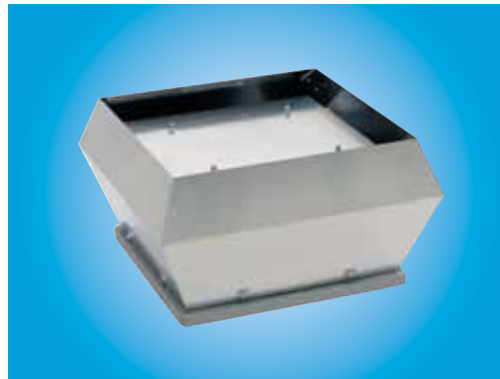


# DVS

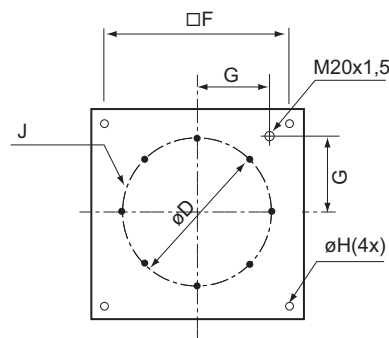
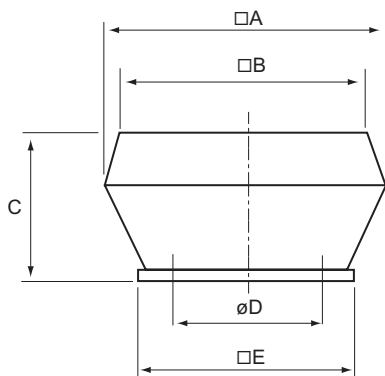
## Vertical discharge centrifugal fan

By Systemair

- Metal cowl construction
- Roof mounted extract fan
- Backward curved centrifugal impeller
- Speed controllable
- Maintenance free and reliable
- Acoustic DVS1 version available



Product Code	Voltage	Airflow m <sup>3</sup> /s @ static pressure Pa					Motor Data		dBA @ 10m	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	RE1.5
DVS225EZ	230-1-50	0,272	0,250	0,225	0,169	0,094	0,55	0,130	40	RE1.5
DVS311EV	230-1-50	0,488	0,438	0,380	0,211	-	0,65	0,135	37	RE1.5
DVS355E4	230-1-50	0,791	0,730	0,680	0,519	0,238	1,30	0,280	39	RTRE1.5
DVS400DV	400-3-50	1,055	1,019	0,950	0,811	0,650	0,80	0,440	43	RTRD2
DVS400E4	230-1-50	1,055	0,988	0,938	0,788	0,600	2,10	0,470	43	RTRE3
DVS450E4	230-1-50	1,583	1,519	1,419	1,258	1,000	3,40	0,740	45	RTRE5
DVS450DV	400-3-50	1,527	1,469	1,388	1,230	1,000	1,40	0,720	45	RTRD2
DVS499DV	400-3-50	1,833	1,769	1,700	1,500	1,250	1,80	0,900	46	RTRD2
DVS500DV	400-3-50	2,194	2,100	2,038	1,880	1,700	2,10	1,190	48	RTRD4
DVS500DS	400-3-50	1,500	1,350	1,250	0,838	-	1,00	0,440	38	RTRD2
DVS560DV	400-3-50	2,916	2,800	2,700	2,419	2,230	3,50	1,900	50	RTRD4
DVS560DS	400-3-50	2,097	1,900	1,750	1,300	0,500	1,50	0,720	41	RTRD4
DVS630DS	400-3-50	2,777	2,650	2,480	2,169	1,700	2,10	1,100	45	RTRD4
DVS710DS	400-3-50	4,583	4,400	4,200	3,800	3,300	4,00	2,000	50	RTRD7



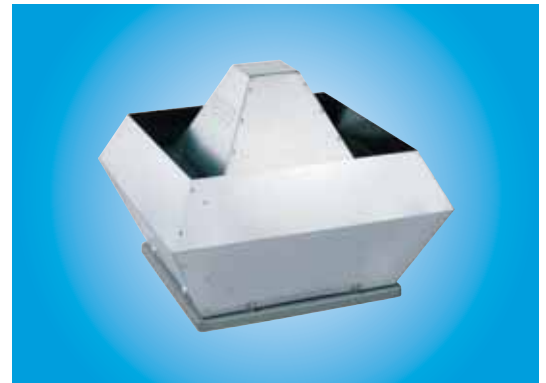
DVS	□A	□B	C	øD	□E	□F	G	øH	J	Weight Kg
190EZ, 225EZ	370	295	170	213	335	245	105	10	6xM6	7
311EV	560	470	330	282	435	330	146	10	6xM6	11
355E4, 400E4/DV	720	618	400	438	595	450	200	12	6xM8	25
450E4-500DS	900	748	440	438	665	535	237	12	6xM8	40
560DV/DS, 630DS	1050	1010	560	605	939	750	293	14	8xM8	58
710DS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



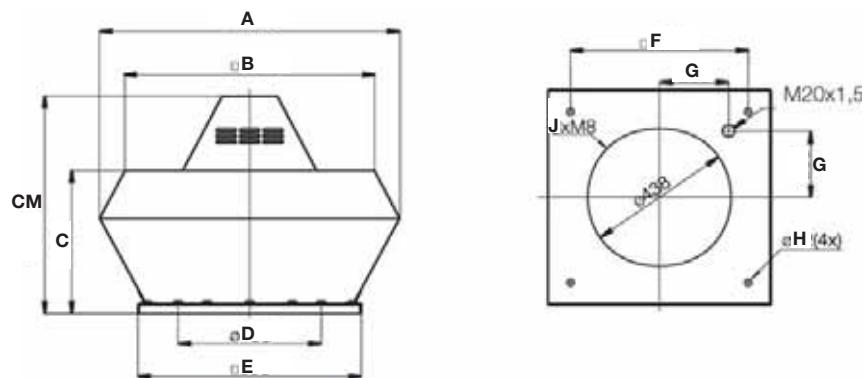
# DVN Roof Mounted Kitchen Extract Fan

By Systemair

- Metal cowl construction / vertical discharge
- Motor outside of air stream
- Max temperature of transported air 120° C
- Suitable for kitchen extract & coastal applications
- Backward curved centrifugal impeller
- Acoustic DVNI version available for low noise



Product Code	Voltage	Airflow m³/s @ static pressure Pa							Motor Data		dBA @	Speed Control
		0	50	100	200	300	400	500	FLC	kW	10m	Trans
DVN355E4	230-1-50	0,85	0,81	0,76	0,65	0,51	-	-	1,50	0,37	41	RTRE3
DVN355DV	400-3-50	0,85	0,79	0,73	0,60	0,42			0,95	0,37	41	RTRD2
DVN400E4	230-1-50	1,00	0,97	0,91	0,78	0,59	0,28		2,00	0,37	44	RTRE3
DVN400DV	400-3-50	1,10	1,07	0,99	0,84	0,69	0,51		1,40	0,37	44	RTRD2
DVN450DV	400-3-50	1,55	1,50	1,45	1,34	1,19	1,00	0,68	2,50	0,75	46	RTRD4
DVN500DV	400-3-50	2,17	2,05	1,99	1,85	1,70	1,51	1,25	4,30	1,50	49	RTRD7
DVN560DS	400-3-50	1,39	1,33	1,22	0,94				2,35	0,55	39	RTRD4
DVN560DV	400-3-50	3,00	2,90	2,81	2,64	2,45	2,24	2,01	5,80	2,20	51	RTRD7
DVN560DS	400-3-50	2,08	1,99	1,87	1,62	1,26	0,69		2,10	0,75	42	RTRD4
DVN630D4	400-3-50	4,14	4,10	4,00	3,80	3,70	3,50	3,30	9,20	4,00	59	FREQ INV
DVN630DS	400-3-50	2,56	2,50	2,40	2,16	1,85	1,30		4,80	1,50	46	RTRD7
DVN710D6	400-3-50	3,90	3,80	3,70	3,40	3,10	2,70	2,30	5,70	2,20	51	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	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	FREQ INV



## Dimensions

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	574	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 Applications 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



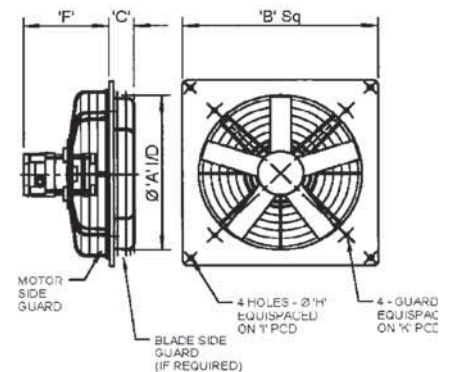
Ancillaries include : Wire safety guards & louvre shutters

## Performance Data

Fan Ref	Speed RPM	Airflow m <sup>3</sup> /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	0,035	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	0,035	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	0,035	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	0,035	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		A	B	C	F	h	i	k	Weight/kg
ins	mm								
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	-



# MZ

## Welding smoke & exhaust fumes fan

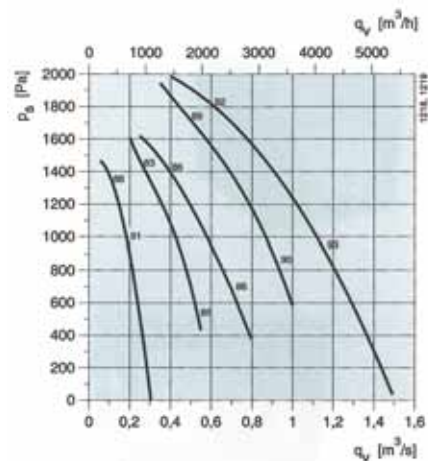
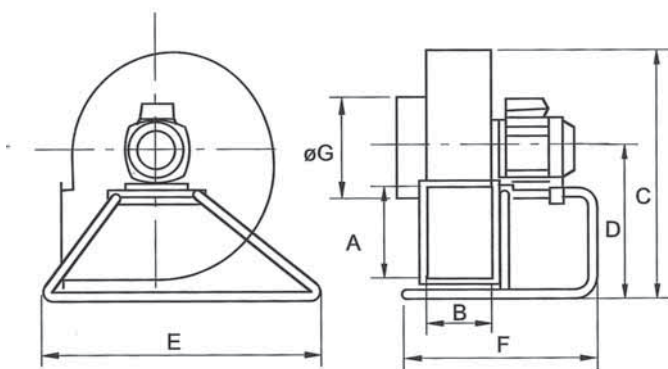
by Systemair

The MZ range are centrifugal fans suitable for evacuation of welding smoke or exhaust fumes. Impeller and casing are manufactured from galvanised steel. The stand is powder coated in black. The fans casing and sides are joined together with a "pittsburg" seam in order to meet the demands for tightness at high pressure drops.



The MZ fans have two-pole three-phase standard motors. The direction of exhaust can be changed if needed. The MZ12 can be rotated in steps of 60 deg and the MZ 14-28 in steps of 45 deg by loosening the bolts on the motor bracket.

		MZ 12	MZ 14	MZ 18	MZ 22	MZ 28
Voltage / Frequency	V/50Hz	400	400	400	400	400
Phase	~	3	3	3	3	3
Power	W	770	750	1100	1500	2710
Current	A	1,34	1,90	2,60	3,40	5,09
Max airflow	m <sup>3</sup> /s	0,31	0,55	0,80	1,00	1,49
Speed	RPM	2805	2800	2800	2800	2895
Max. Temp. on transported Air	Deg C	70	50	50	50	45
Weight	kg	15,8	25	27	32	36
Min. required back pressure	Pa	-	429	385	859	-
Insulation Class, motor		F	F	F	F	F
Enclosure class, motor		IP54	IP54	IP54	IP54	IP54



	A	B	C	D	E	F	G
MZ12	ø125	-	460	270	520	420	ø125
MZ14	225	140	630	390	675	470	ø250
MZ18	225	140	630	390	675	470	ø250
MZ22	250	225	665	400	675	470	ø250
MZ28	250	225	665	400	675	470	ø250

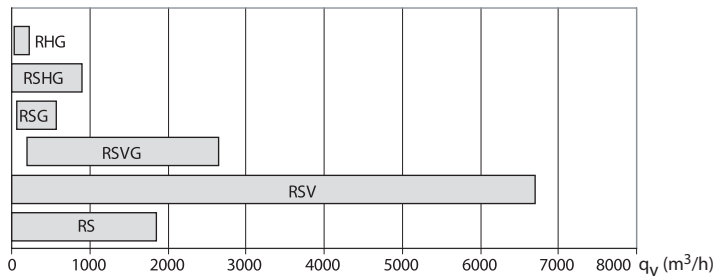
## Chimney exhaust fans

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.



## Centrifugal Fans

by *Airflow*

### B - Single Inlet Blowers

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

### D - Stool Mounted Blowers

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

### C - Double Inlet Blowers

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



## 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, all within a compact package. There are 3 models in the range to suit different boiler ratings, please enquire for technical help.

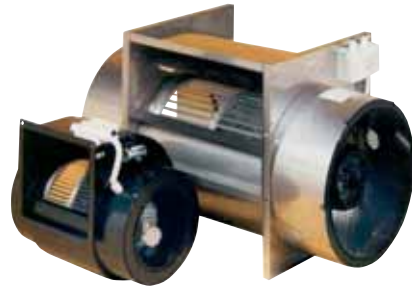


Model Ref	Boiler Size heat outputs up to	Flue gas temps up to	Max Airflow m³/s	Elec Data			dBA @ 3m
				Voltage	FLC	SC	
100	35kW	200 deg C	0,04	240-1-50	0,75	1,2	54
350	102kW	300 deg C	0,15	240-1-50	0,51	0,9	64
800	235kW	300 deg C	0,37	240-1-50	0,72	1,5	68

## 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.

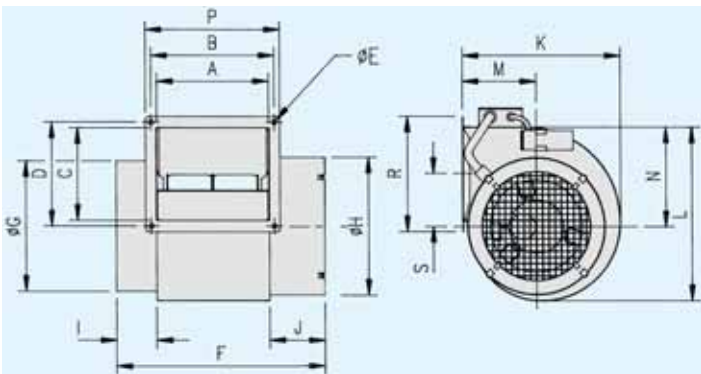


**Performance table at 20°C**

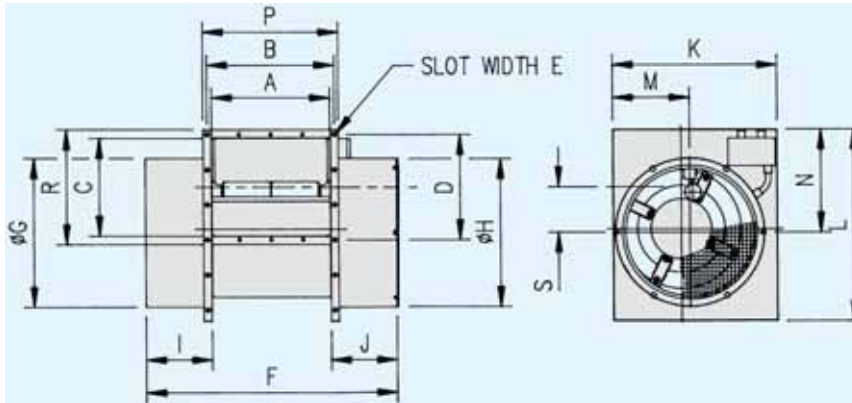
Fan Size	Airflow Litres / Sec @ Pascals Pa												Volt	FLC amps	Mptor W	RPM	
	0	30	60	100	120	160	200	250	275	300	350	375					
GBDF2 / SSDF 2	300	260	230	80	0									230	0,64	75	900
GBDF3 / SSDF3	600	550	510	440	380	120	0							230	1,45	120	880
GBDF4 / SSDF4	1000	950	900	815	760	640	340	80	0					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

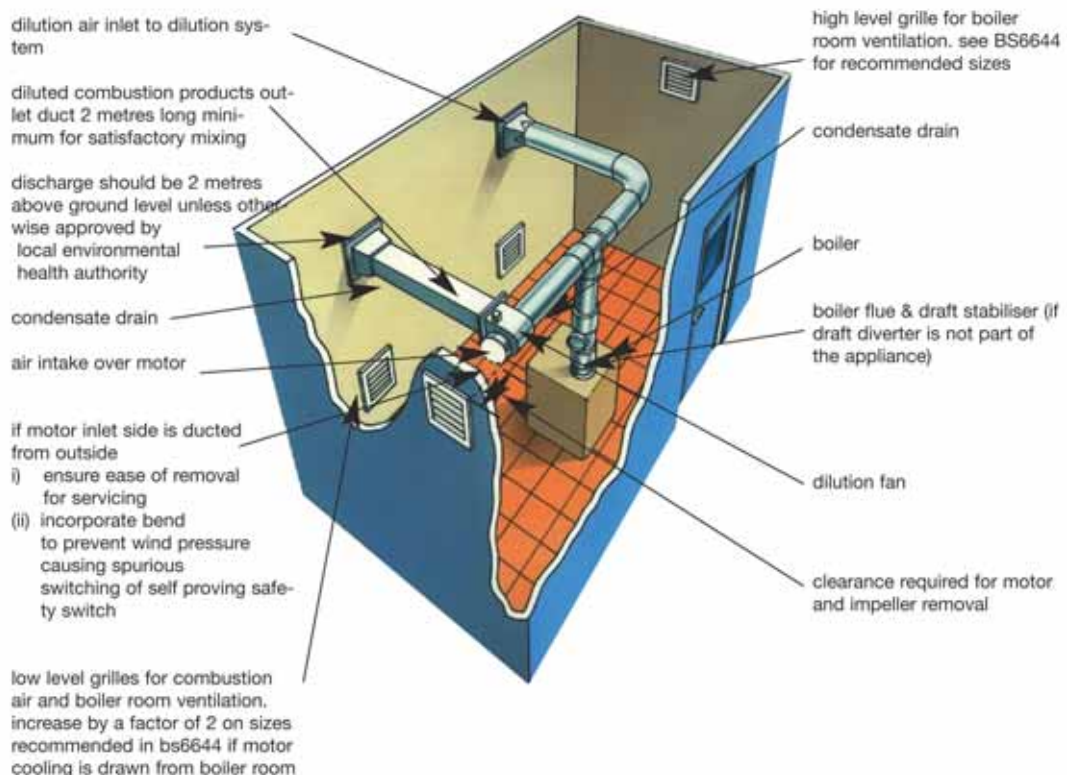


Fan Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	R	S
2	218	238	179	200	9,5	402	251	265	78	106	304	335	140	191	260	222	101
3	250	270	236	257	9,5	440	302	302	78	109	359	394	175	222	294	281	109
4	352	384	263	295	9,5	578	302	340	78	141	408	445	194	256	409	321	121



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 Fans

## Axial fans – up to wheel diameter 1800 mm

### HABV-G

(inlet with guide vanes)



**HA...(B)-G F300**  
**HA...(F)-G F400**  
**HABV-G F600**

- Two high temperature smoke extract fans in series, same rotation direction
- F600 version with capsulated motors with cooling ducts
- In case one fan is switched off or stops running for any reason, approx. 65% of the total air volume will be supplied.

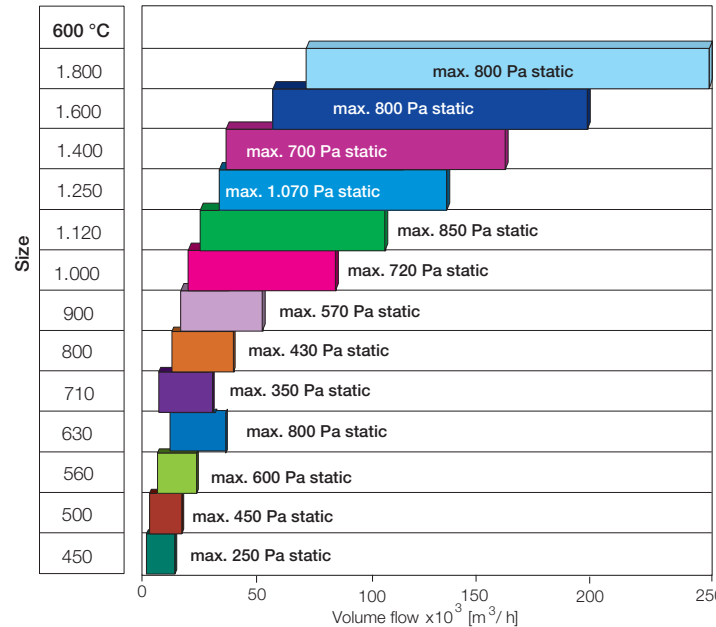
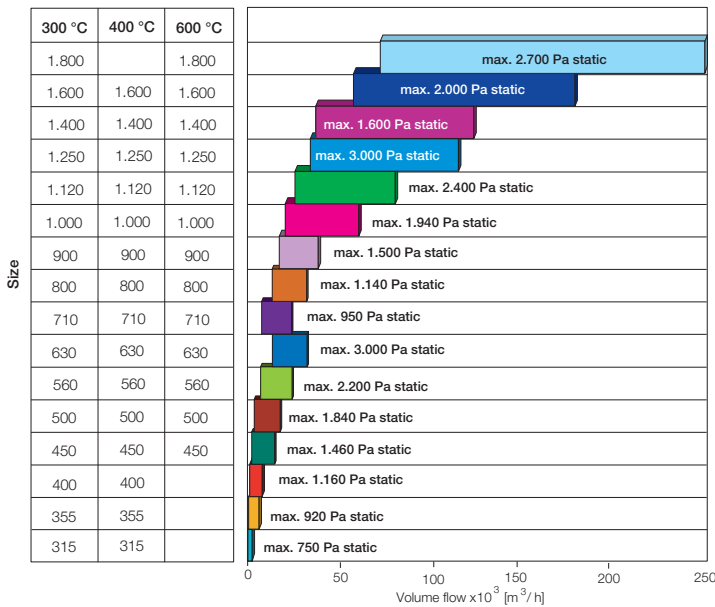
### HABV (with inlet guide vanes)



### HABV...F600

(with inlet guide vanes)

- Fan wheel diameter from 450 to 1800 mm
- F600 version with capsulated motors with cooling ducts



### Accessories

Silencers



RSA

Protection guards



SG-AW/AR

Back draught dampers



LRK

Counter Flanges



GFL-AR

Mounting feet, alternatively mounting brackets



MFA-AR

Flexible connections



EVH

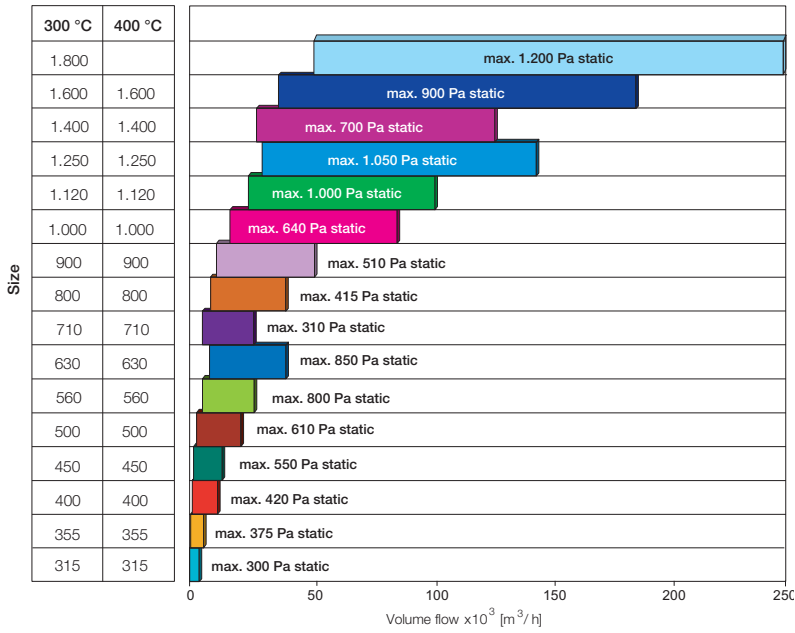
Inlet cones



ESD



## Axial fans HA



## HA



### Axial fan

**HA...(B) F300**

**HA...(F) F400**

- Sizes 315 to 1800 mm
- P-HA with square wall plate with inlet cone, manufactured from steel, hot dip galvanized, up to size 1000

### Axial roof fan

**HA...(B)-D F300**

**HA...(F)-D F400**

**HABV...-D F600**

- Sizes 315 to 1800 mm
- With roof cowl and base frame



**HA...(B)-D**

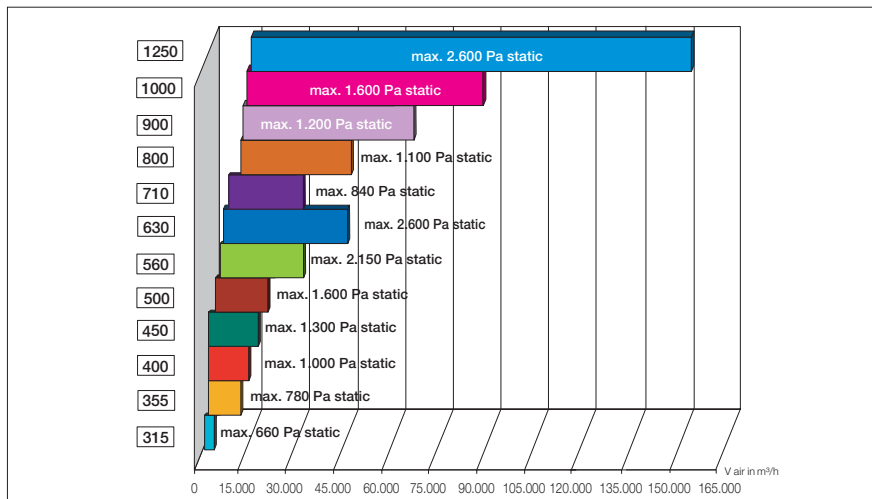
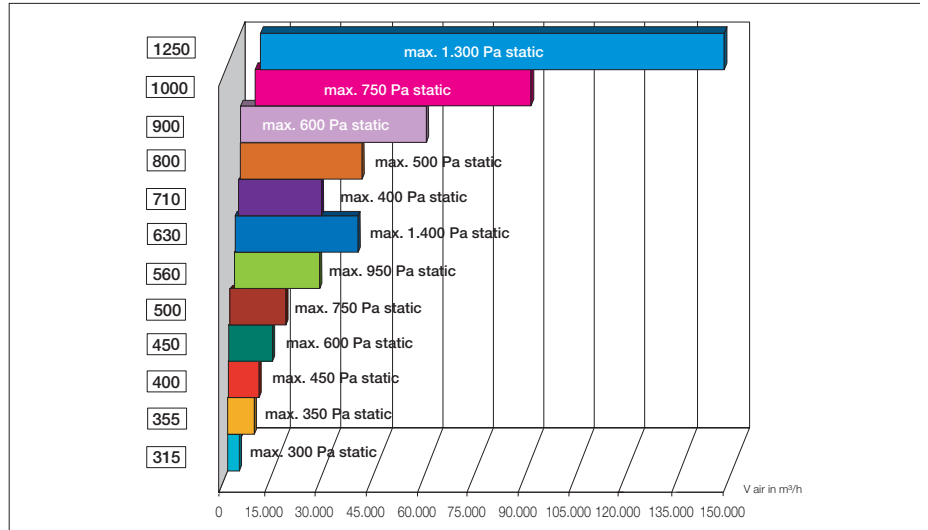
## AXC



**AXC...(B) F300**

**AXC...(B)-G F300**

- Fan wheel diameter from 315 to 1250 mm
- Adjustable aluminium impellers



**AXCG**

- Sizes from 315 to 1250 mm
- Casing manufactured from steel, hot dip galvanized

# Centrifugal roof fan – up to 52500 m<sup>3</sup>/h

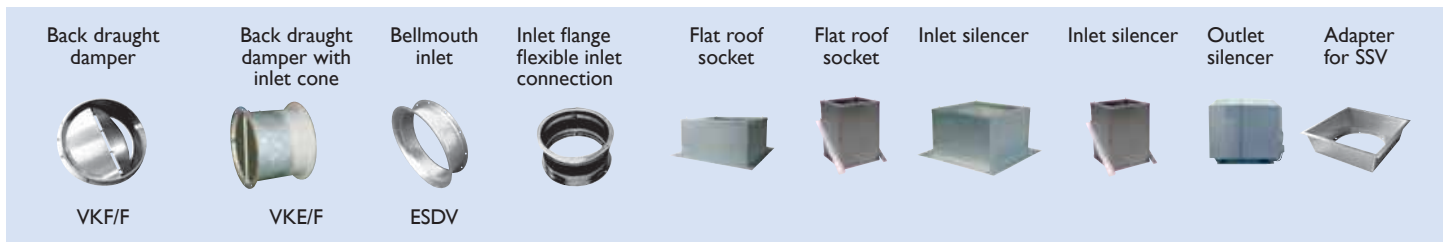
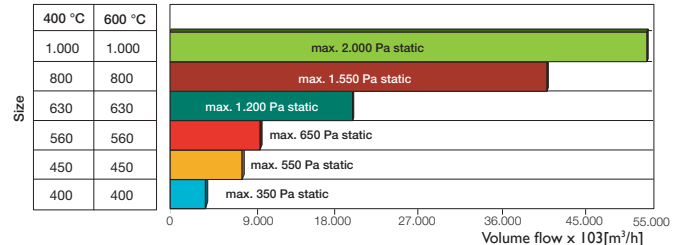


## DVV F400F600 Roof fan

The motor is separated from the air stream and insulated. ISO class F, protection class IP 54. Backward curved centrifugal impellers, in 400°C version made from galvanized steel, in stainless steel in 600°C

version. Motor cooling via cooling duct in a negative pressure system. The terminal box is fitted outside the cooling duct.

DVV fans are also available in versions for 40°C and 100°C continuous operation.



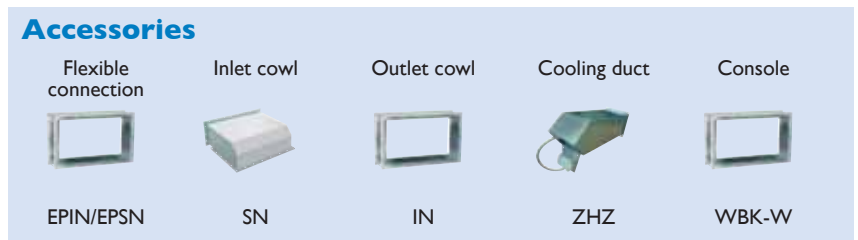
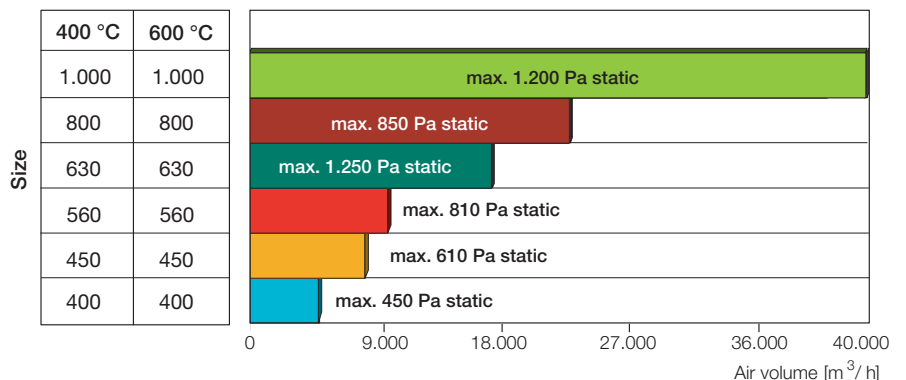
# Centrifugal wall fans WVA/WVI – up to 40000 m<sup>3</sup>/h



Centrifugal fan for wall mounting. Casing from galvanized steel, powder coated. Backward curved centrifugal impellers, in 400°C version made from galvanized steel, in stainless steel in 600°C version.

WVA to be installed outside the fire zone, WVI with insulated motor to be installed inside the fire zone, with cooling duct ZHZ to be connected to the motor compartment.

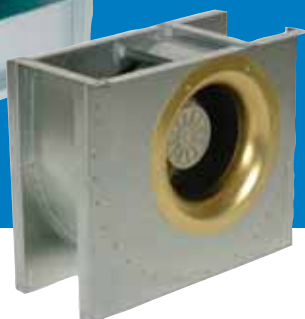
Fans are certified for horizontal installation on a wall, motor pointing downwards. Possibility to connect to a duct system, using accessory SN (inlet duct connection). IN outlet connection with protection guard is used for WVI as duct connection through the wall, for WVA as rain protection.



# ATEX – safe ventilation in potentially explosion hazardous environment



KTEX



DKEX



EX 140/180



RVK 315

## High demands for fans approved for Zone I

From 1 July 2003 the new ATEX directive 94/9/EC was in force in the whole of the European Union for equipment to be used in potentially explosive atmospheres such as petrol stations, battery charging rooms, chemical industry, fume cupboards and spray cabinets.

- **Approved for Zone I category 2G**
- **Can be speed controlled**
- **Approved for Explosion group IIA, IIB and IIC**

### What separates ATEX fans from standard fans is mainly that

- they meet considerably higher quality demands
- they are produced from materials that do not give off sparks
- the temperature does not exceed the limit for Temperature class T3
- they are traceable.

They must be marked with machine plate made from metal.

## The selection of an explosion proof fan

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. The fans supplied by Systemair comply with temperature classification T3, some units can also be used in T4. \*)

The next step is the selection of the correct zone resp. category. 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 gas mixtures in the project. All Systemair explosion proof fans are in unit category II, allowing an application in zone I and zone 2.

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

(gas/vapour/fog-air mixture in ignitable condition). The categories/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 1000 h/year). Example: inside a fuel tank.

Category 2 (zone 1) covers areas, where there is a regular occurrence of explosion hazardous atmosphere (10-1000 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.

Typical examples for application of ignition protection classes:

i	Intrinsically safe
d	Flame proof
e	Increased safety
p	Pressurized
o	Oil filled
m	Encapsulated
q	Sand filled

## Tested and approved

Systemair Atex products:

- Fans tested in accordance with ATEX directive 94/9/EC and EN 50014, 50019 and EN 1127-1
- Ex(e) increased safety
- Ex(d) flame proof (pressure resistant capsulation, DVV-ex)
- Windings with integrated thermal motor protection, with external leads, to be connected to certified motor protection devices
- All models have serial numbers on the metallic rating plate.

\*)

Temperature classification	Ignition temp. of medium	Max. surface temp. 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



### EX 140/180

Air flow up to 1180 m<sup>3</sup>/h (0.33 m<sup>3</sup>/s).  
Ex(e) increased safety. Motor protection device MSEX available for EX140 and EX180. 230V and 400V models available.

### RVK

Air flow up to 1020 m<sup>3</sup>/h (0.28 m<sup>3</sup>/s).  
Ex(e) increased safety. Casing consists of conducting plastic. Ex-classified terminal box available as accessory. Motor speed controllable by transformer.

### DKEX

Air flow up to 5.000 m<sup>3</sup>/h (1.4 m<sup>3</sup>/s).  
Ex(e) increased safety. Motors speed controllable by transformer.

### KTEX

Air flow up to 5.000 m<sup>3</sup>/h (1.4 m<sup>3</sup>/s).  
Ex(e) increased safety. Ex-classified terminal box available as accessory. Motors speed controllable by transformer.

### AWEX

Air flow up to 11.500 m<sup>3</sup>/h (3.19 m<sup>3</sup>/s).  
Ex(e) increased safety. Sizes 355 and 420 are approved for temperature class T4. Ex-classified terminal box available as accessory. Motors speed controllable by transformer.

### DVEX

Air flow up to 8.600 m<sup>3</sup>/h (2.4 m<sup>3</sup>/s).  
Ex(e) increased safety. Motors speed

controllable by transformer. Ex-classified terminal box available as accessory.

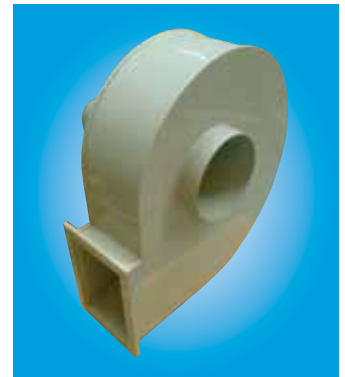
### DVV-EX

Air flow up to 44.000 m<sup>3</sup>/h (12.2 m<sup>3</sup>/s).  
Ex(d) flame proof. Motors speed controllable by frequency inverters. Supplied with Ex-classified terminal box pre-installed at the fan casing.

Art no.	Model	ATEX certificate no.	Art no.	Model	ATEX certificate no.
1560	EX 140-4 Centrifugal Fan (ATEX)	SP03ATEX3101X	5969	AW 355 D4-2-EX Axial fan ATEX	ZELM05ATEX0279X
1562	EX 140-2 Centrifugal Fan (ATEX)	SP03ATEX3101X	5970	AW 420 D4-2-EX Axial fan ATEX	ZELM05ATEX0279X
1561	EX 180-4 Centrifugal Fan (ATEX)	SP03ATEX3101X	5971	AW 550 D6-2-EX Axial fan ATEX	ZELM05ATEX0279X
1557	EX 140-4C Centrifugal Fan (ATEX)	SP03ATEX3101X	5972	AW 650 D6-2-EX-Axial fan ATEX	ZELM05ATEX0279X
1559	EX 140-2C Centrifugal Fan (ATEX)	SP03ATEX3101X	30271	RVK 315Y4 (ATEX)	ZELM03ATEX0198X
1558	EX 180-4C Centrifugal Fan (ATEX)	SP03ATEX3101X	30841	DVV-EX 560D4 Roof fan 40°	SIQ06ATEX062X
1564	KTEX 50-25-4 Rect.fan (ATEX)	SP04ATEX3105X	30842	DVV-EX 560D4-6 Roof fan 40°	SIQ06ATEX062X
3958	KTEX 50-25-4 (230V/3-) (ATEX)	SP04ATEX3105X	30843	DVV-EX 560D4-8 Roof fan 40°	SIQ06ATEX062X
1566	KTEX 50-30-4 Rect.fan (ATEX)	SP03ATEX3103X	30844	DVV-EX 560D6 Roof fan 40°	SIQ06ATEX062X
3957	KTEX 50-30-4 (230V/3-) (ATEX)	SP03ATEX3103X	30845	DVV-EX 560D6-8 Roof fan 40°	SIQ06ATEX062X
1568	KTEX 60-30-4 Rect.fan (ATEX)	SP04ATEX3107X	30846	DVV-EX 560D8 Roof fan 40°	SIQ06ATEX062X
1570	KTEX 60-35-4 Rect.fan (ATEX)	SP04ATEX3109X	30852	DVV-EX 630D4 Roof fan 40°	SIQ06ATEX062X
1572	KTEX 70-40-6 Rect.fan (ATEX)	SP04ATEX3111X	30848	DVV-EX 630D4-6-K Roof fan 40°	SIQ06ATEX062X
3965	DKEX 225-4 Centrifugal (ATEX)	SP04ATEX3106X	30853	DVV-EX 630D4-8 Roof fan 40°	SIQ06ATEX062X
3959	DKEX 225-4(230V/3-) (ATEX)	SP04ATEX3106X	30849	DVV-EX 630D4-8-K Roof fan 40°	SIQ06ATEX062X
3966	DKEX 250-4 Centrifugal (ATEX)	SP03ATEX3104X	30847	DVV-EX 630D4-K Roof fan 40°	SIQ06ATEX062X
3986	DKEX 250-4(230V/3-) (ATEX)	SP03ATEX3104X	30854	DVV-EX 630D6 Roof fan 40°	SIQ06ATEX062X
3967	DKEX 280-4 Centrifugal (ATEX)	SP04ATEX3108X	30855	DVV-EX 630D6-8 Roof fan 40°	SIQ06ATEX062X
3968	DKEX 315-4 Centrifugal (ATEX)	SP04ATEX3110X	30851	DVV-EX 630D6-8-K Roof fan 40°	SIQ06ATEX062X
3969	DKEX 355-6 Centrifugal (ATEX)	SP04ATEX3112X	30850	DVV-EX 630D6-8-K Roof fan 40°	SIQ06ATEX062X
1680	DVEX 315D4 Roof fan ATEX	SP04ATEX3113X	30856	DVV-EX 800D6 Roof fan 40°	SIQ06ATEX062X
2040	DVEX 315D4 230V 3-Roof fan ATEX	SP04ATEX3113X	30857	DVV-EX 800D6-8 Roof fan 40°	SIQ06ATEX062X
1681	DVEX 355D4 Roof fan ATEX	SP04ATEX3114X	30860	DVV-EX 800D6-8-K Roof fan 40°	SIQ06ATEX062X
1682	DVEX 400D4 Roof fan ATEX	SP05ATEX3115X	30859	DVV-EX 800D6-K Roof fan 40°	SIQ06ATEX062X
1683	DVEX 450D4 Roof fan ATEX	SP04ATEX3116X	30858	DVV-EX 800D8 Roof fan 40°	SIQ06ATEX062X
1684	DVEX 500D6 Roof fan ATEX	SP04ATEX3117X	30861	DVV-EX 800D8-K Roof fan 40°	SIQ06ATEX062X
1685	DVEX 560D6 Roof fan ATEX	SP05ATEX3118X	30862	DVV-EX 1000D6 Roof fan 40°	SIQ06ATEX062X
1686	DVEX 630D6 Roof fan ATEX	SP04ATEX3119X	30863	DVV-EX 1000D8 Roof fan 40°	SIQ06ATEX062X

## Plastic centrifugal fans - Corrosion resistant

Suitable for : Laboratory fume cupboard ventilation, fume removal from chemical storage cabinets and rooms, local fume extraction arms, odour filtration, and explosive gas ventilation.



Motor Type	Standard, out of airstream	Supply	Single and three phase models
Protection	IP54/IP55 standard + specials	Impellers	Forward-curved in moulded polypropylene
Features	Moulded polypropylene scroll housing, 'O' ring sealed. Models to suit fume cupboard and filtration systems	Mounting	Standard and weather protecting pedestals
Pressure	Medium	Speed Control	Frequency inverter drive only
Size	Ø150 to 350 impellers	Flow rate	10000 m³/h maximum
Pressure	1500 Pascals maximum		

## Special applications

For over fifty years Fans & Spares have built a reputation for being able to supply products for every application within the Air Movement industry.

- Epoxy Coated
- Stainless Steel
- P.V.C
- Petrol / Diesel Driven
- Belt Driven Axials
- Belt Driven Centrif
- 60 Hz
- Vacuum Pumps
- Marine applications
- Dust Extraction
- Fume Cupboards
- High Pressure Blowers
- Multi Vane Centrif
- Bifurcated Fans
- Jet Fans



## 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 along your old fan to one of our trade counters and let us do the hard work in identifying and quoting what you need!

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

Wheel sizes from 146 x 146 mm (5" ¾) up to 18-18

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

Volume flow up to 16000 m<sup>3</sup>/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



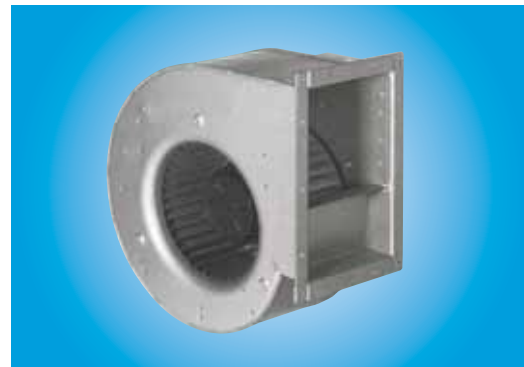
### Double inlet centrifugal fans with true airfoil section

Wheel size from 315 up to 1000 mm

Volume flow up to 120.000 m<sup>3</sup>/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 m<sup>3</sup>/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 m<sup>3</sup>/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 m<sup>3</sup>/h

Pressure up to 750 Pa (static pressure)

Motor power up to 2200 W

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



# Heat Recovery & Air Handling Units

# TA Supply air handling unit

by Systemair

The TA units are designed for complete plug & play use and are ideal for offices, schools and retail shops. The units have low overall height for ceiling void applications, with hinged access doors for ease of maintenance. All TA units are delivered complete with the SCP controller, heating battery and filters. The TA EL has an electric heater, whilst the TA HW uses a hot water battery. Manufactured with double skin casings insulated with 50mm mineral wool for ultra low noise breakouts. Remote extract fans can be linked into the SCP control to provide total ventilation.



Control panel SCP

TA	Voltage V/50Hz	Motor W	Heater kW	Airflow m <sup>3</sup> /s @ Pa						Filters
				50Pa	100Pa	200Pa	300Pa	400Pa	500Pa	
450EL	230/400	130	3/3/6	0.155	0.143	0.11	0.077	0.025	-	EU5
650EL	400	220	8,3	0,22	0,21	0,17	0,15	0,1	0,06	EU5
1100EL	400	325	13,3	0,34	0,32	0,27	0,23	0,19	0,14	EU5
1500EL	400	548	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	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

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 650 - 1500 and 3-phase for TA units 2000 & above. The extract fan must also have integrated thermal contacts for protection against over heating.

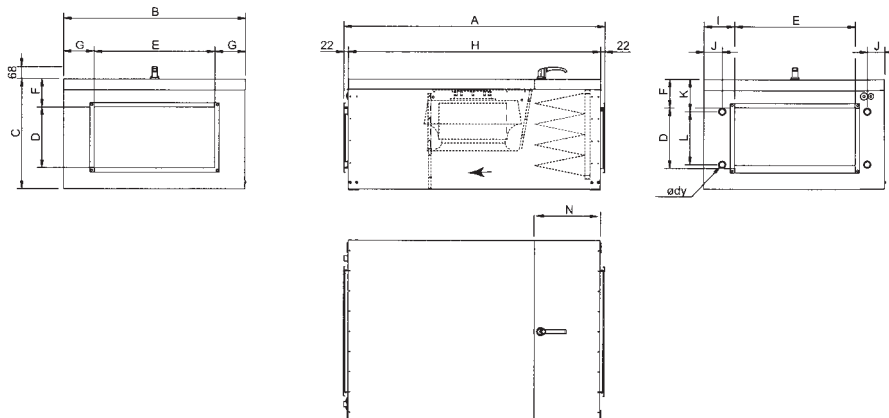
### Available current for external extract fan (Amps)

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

### Options

- KVKF - Slim Acoustic Fan 1Ph
- RSI - Acoustic Rect Duct Fan 3 ph

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

by Systemair

The VX heat recovery units are complete plug & play ventilation units ideal for small offices. The unit has insulated double skinned panels with access available from both sides for ease of maintenance. The CE control offers both speed control & heat selection from a touch of the pad. Wall mounted vertical units are also available in this range.



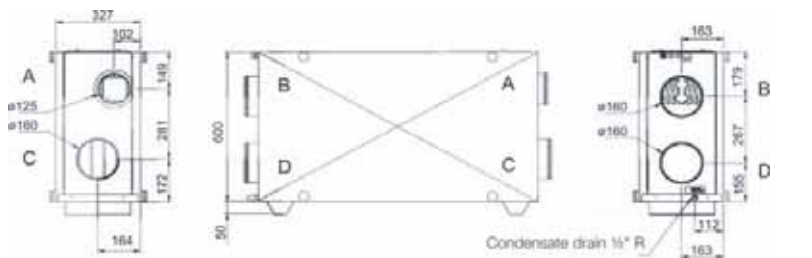
	Air flow m <sup>3</sup> /s @ Pa					
	50 Pa	100 Pa	150 Pa	200 Pa	250 Pa	300 Pa
VX400E Supply	0,104	0,1	0,086	0,073	0,058	0,034
Extract	0,123	0,115	0,104	0,093	0,08	0,06
VX700E Supply	0,185	0,173	0,154	0,14	0,12	0,1
Extract	0,235	0,22	0,2	0,185	0,17	0,15

### 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	EU7
Filter, Exhaust Air	Aluminium	Aluminium



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



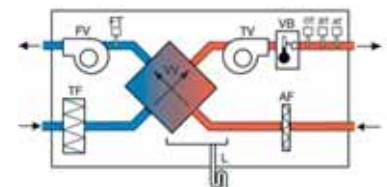
### VX400E



### VX700E

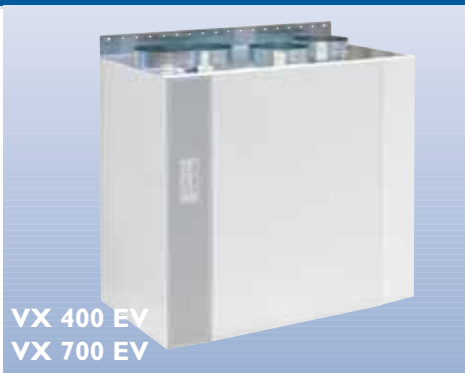
- A Exhaust air
- B Supply air
- C Fresh air
- D Extract air

- A Exhaust air
- B Supply air
- C Fresh air
- D Extract air



- TF Supply-air filter
- FV Exhaust air fan
- FI Defrosting thermostat
- VV Heat exchanger
- TV Supply air fan
- VB Electric heater battery
- DT Overheating thermostat
- BT Emergency thermostat
- AT Setting of supply-air temperature
- AF Exhaust-air filter
- L Condensation drain

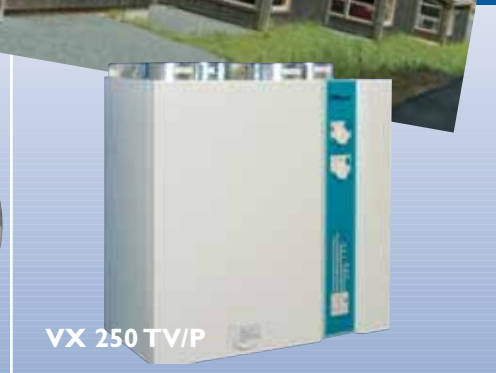
# Residential units



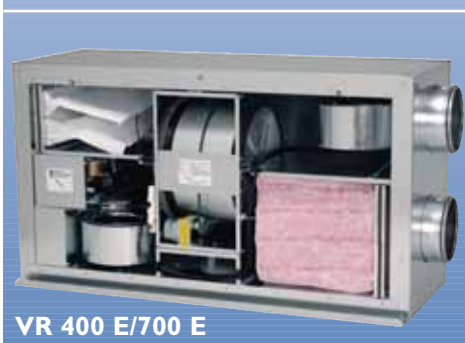
VX 400 EV  
VX 700 EV



VX 400 E  
VX 700 E



VX 250 TV/P



VR 400 E/700 E



VR 250 EH/B



VR 400 EV/B  
VR 700 EV

**Systemair residential units are suitable for ventilation of homes and offices:**

- Delivered complete with control system
- User friendly control panel
- Easy to service and maintain
- High quality external rotor motors
- Made from double-skinned galvanised sheet steel (central units made from Aluzinc 185).

**VX units have centrifugal fans for supply and extract air, cross flow exchanger, reheater battery and filters.**

**VR units have rotating heat exchanger, centrifugal fans for supply and extract air, reheater battery and filter, automatic change between normal and summer operation, flexible installation without condensate drain.**

## VX 400 EV/VX 700 EV

- Integrated control panel
- Possible to connect an external control panel
- Adjustable filter change interval

Designed for installation on the wall in a warm space, utility room or similar.

## VX 400 E/VX 700 E

- External control panel
- Possible to connect several external control panels
- Large inspection doors on both sides
- Adjustable filter change interval
- 50 mm insulation

For installation horizontally. Can be placed in cold areas.

## VX 250 TV/P

- Compact design, easy to install
- Integrated control panel

Easy to install in new and old dwellings, on the wall in a laundry room or similar.

## VR 400 EV/B & 700 EV

- Integrated control panel
- Possible to connect an external control panel
- Cool recovery function
- Adjustable filter change interval
- Possible to connect to a cooker hood

Designed for installation on the wall in a warm space, utility room or similar.

## VR 400 E/700 E

- External control panel
- Possible to connect several external control panels
- Large inspections doors on both sides
- Cool recovery function
- Adjustable filter change interval
- 50 mm insulation

For horizontal installation in a warm or cold space e.g a utility room or attic.

## VR 250 EH/B

- External control panel
- Possible to connect several external control panels
- Large inspections doors on both sides
- Cooling recovery function
- Adjustable filter change interval
- Possible to connect to a cooker hood

Designed for installation on the wall in a warm space, utility room or similar.

## Control panel CE for all units (not VX 250 TV/P)

Air flow, supply air temperature and filter change interval are easy to set with the control panel.

Lamp indicators show chosen settings and if filter change is necessary.



# Compact units



**Systemair compact units are ventilation units especially suited for smaller industries, warehouses, petrol stations, schools, shops and offices. They have high efficiency, easy maintenance and are delivered pre-programmed with controls ready to run.**

## TA 650-4500 m<sup>3</sup>/h

TA is a series of supply air units, available in six sizes and with electrical or hot water re-heater battery. TA is a compact unit with low overall height.

The unit is delivered complete with control system and is designed for simultaneous operation with a stand alone extract air fan.

## Maxi I 100-2000 m<sup>3</sup>/h

Maxi is a series of heat recovery units in three sizes, with a low overall height and crossflow heat exchangers. The unique design with double duct connections for outdoor air and extract air makes the units very compact and easy to install. Using the suspension device UDM, the Maxi with electric heater can be installed in a false ceiling.

## Topvex 1000-2000 m<sup>3</sup>/h

Top connected heat recovery unit in three sizes with rotating heat exchanger. The unit is powered by two plug fans mounted on external rotor motors.

The top connection saves floor space and facilitates installations in already existing premises.

## Rotovex 2400-4800 m<sup>3</sup>/h

Heat recovery unit in three sizes, with a rotating heat exchanger and two plug fans with EC-motors to ensure low power consumption. Rotovex keeps a constant airflow (CAV) and automatically controls the supply air temperature.

Rotovex can easily be divided into two parts and is designed for easy transport through standard doorways with an opening of 800 mm.

## Time 1000-14000 m<sup>3</sup>/h

Time is available with a rotating heat exchanger or with a crossflow heat exchanger. The crossflow heat exchanger is mainly used when supply and extract air need to remain separate.

Time has built-in efficient plug fans with low sound level.

Time is very easy to maintain and components that need servicing can easily be withdrawn.

## Control system

The Systemair control system is standard in the compact units and available as an option with the central units.

All Compact units are delivered with a very user-friendly and fully integrated Systemair controller. In this pre-configured controller it is easy to choose different functions by using the external SCP (Systemair Control Panel) to navigate in the menus. The SCP panel can freely be placed either on the unit or separated from it.

The Systemair control system covers most of the demands associated with a modern air handling unit. There are different forms of alarms, time control, temperature control and operating status, where the most important parameters are shown in the SCP display.

To simplify the start up procedure the Systemair control panel has preprogrammed temperature set points, time settings and sensors. All these settings can of course easily be changed to other values.

Features like free cooling, heat/cool recovery and cascade control are standard in most units. The Systemair control system is suitable for communication with BMS (Building Management Systems).



# Central units



The DV series replaces our former industrial units and are also produced in Denmark.

We have further developed the strong points and added quite a lot of news. The result has become a highly flexible ventilation unit that answers up to our goal of developing products that are innovative in construction as well as in function.

The DV together with all the other ventilation units available from Systemair offer a complete ventilation solution. With all the other ventilation products in our range Systemair can today offer the most complete ventilation package on the market.

## DV 1500-54000 m<sup>3</sup>/h

- Very strong and rigid frame system
- Panels and frames corrosion protected with Aluzinc 185
- Dampers with rigid damper blades in extruded aluminium
- Different types of
  - filter classes
  - heat recovery systems
  - fans
- Electrical heaters
- Hot water heating coils
- Cold water cooling coils
- DX cooling coils
- Disc-Lock system for easy assembling of sections.

## Many alternatives and possibilities

The DV unit is a combination Air Handling Unit which 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.

The DV unit can be delivered in 12 different sizes, so it is always possible to find a solution and a size covering your needs.

The large removable inspection doors and a lot of parts which demand service are side withdrawable, it makes the service access very easy.

The Disc-Lock is a very quick and efficient way to assemble the DV sections. The system is standard for outside assembly but is also available for inside assembly i.e. if a large unit is placed along the wall.

To ensure correct dimensioning, we developed a highly advanced design program, called SystemairCAD. This is a very user-friendly program which makes it possible to quickly and easily combine different AHU functions, perform technical calculations and document entire processes in the form of an AutoCAD drawing.

Fully dimensioned drawings, plus construction and presentation of technical data provide easy interpretation, with the added benefit of direct transfer of the drawings to AutoCAD.

## Summary

Systemair has developed one of the widest ranges of heat and cooling recovery units on the market. Our units are well suited for all conditions. They are functional and easy to install and understand.

## Systemair air handling units

Systemair's air handling units are built in Sweden, Norway and Denmark and cover an extensive range from 200-54 000 m<sup>3</sup>/h. The units are available in many different variations from the easier with simple functions, to the most advanced.

### A simple and a stable system

The units have a stable construction with frame profiles and chamfered cast aluminium corners or double sheet metal casings. All of the units have 50 mm mineral wool insulation.

The combination of heavy insulation and high efficient fans ensure a low sound level. Due to the insulation the unit can also be placed in cold areas without risk of condensation.

### Service minded

The large inspection doors easily give access to all functions, and all components that require maintenance can be easily removed. That is why it is fast and simple to service a Systemair air handling unit.

## Regulation, compact units

S = Standard choice

P = Possible settings

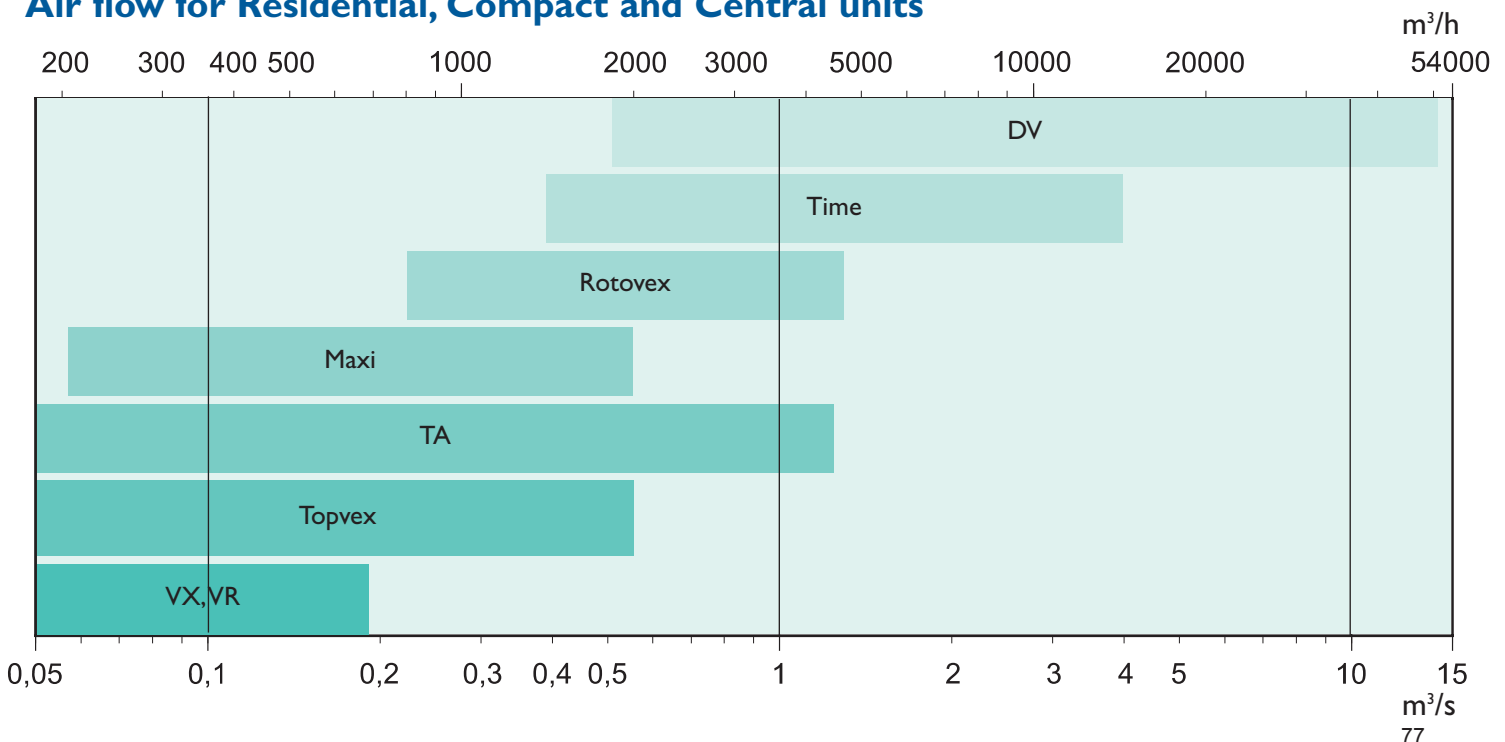
A = Accessories

		TA	Topvex 1000-1500	Topvex 2000	Maxi	Rotovex	Time
<b>Temperature control</b>	Extract air	-	S	S	S	S	S
	Supply air	S	S	S	S	S	S
	Supply air with outdoor compensation	-	S	S	S	S	S
	Room control	-	-	-	S	S	S
	Outdoor changing Supply or Extract/Room air	-	-	-	S	S	S
<b>Fan control</b>	2-step	S	S	S	S	-	-
	Stepless	-	-	-	-	S	-
	Airflow control, CAV	-	-	-	-	S	S
	Pressure control, VAV	-	-	-	-	S	S
	Outdoor compensated airflow	-	-	-	S	S	-
<b>Heat exchanger</b>	Cross flow	-	-	-	S	-	S
	By-pass damper	-	-	-	A *	-	S
	Rotating	-	S	S	-	S	S
<b>Heater</b>	Hot water	S	S	S	S	S	S
	Electrical	S	S	S	S	S	-
<b>Cold water cooler (0...10VDC)</b>	External	S	S	S	S	S	S
	Built-in	-	-	-	-	-	S
<b>Free cooling</b>		-	-	-	P **	P	P
<b>Cool recovering</b>		-	P	P	P **	P	P
<b>Demand ventilation, CO<sub>2</sub></b>	2-step	-	P	P	P	-	-
	Stepless	-	-	-	-	P	P
<b>Pump control</b>	Heating	-	-	-	S	S	S
	Cooling	-	-	-	S	S	S
<b>Exchanger efficiency</b>		-	-	-	P	P	P
<b>Extended running</b>		S	S	S	S	S	S
<b>Week schedule</b>		S	S	S	S	S	S
<b>Damper control</b> Fresh/Exhaust air		S	S	S	S	S	S
<b>Alarm</b>	Alarm message	S	S	S	S	S	S
	High and low priority	S	-	-	S	S	S
	Sum alarm output	S	-	-	S	S	S
<b>Communication</b> Exoline, Modbus LON, TCP/IP via RS-485		A	A	A	S	S	S
		A	A	A	A	A	A

\* Maxi 1100 has the by-pass built-in as standard

\*\* By-pass damper is necessary

## Air flow for Residential, Compact and Central units





# Grilles, Diffusers & Louvres

Also available, please enquire for the following:

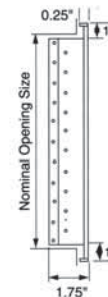
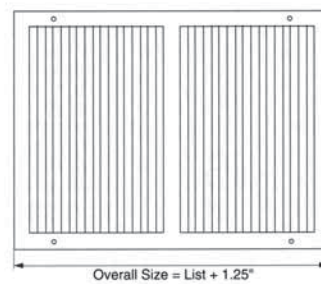
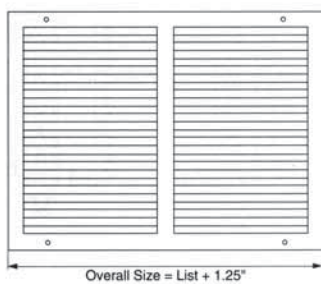
**Swirl Diffusers**  
**Linear Bar Grilles**  
**Curved Blade Grilles**  
**Floor Grilles**  
**Linear Slot Diffusers**  
**Jet Nozzle Diffusers**  
**Perforated Diffusers**  
**Security Grilles**  
**Fire Rated Air Valves**

## 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 <sup>3</sup> /s	0,02	0,032	0,040	0,051	0,062
	200 x 100	NR	-	-	-	-	19
0,031	200 x 200	m <sup>3</sup> /s	0,042	0,060	0,076	0,099	0,150
	250 x 150	NR	-	-	-	-	19
0,049	250 x 250	m <sup>3</sup> /s	0,065	0,100	0,127	0,160	0,190
	300 x 200	NR	-	-	-	-	19
0,07	300 x 300	m <sup>3</sup> /s	0,09	0,140	0,184	0,225	0,280
	450 x 200	NR	-	-	-	-	22
0,096	350 x 350	m <sup>3</sup> /s	0,125	0,180	0,250	0,310	0,380
	500 x 250	NR	-	-	-	17	23
0,125	400 x 400	m <sup>3</sup> /s	0,16	0,250	0,325	0,410	0,500
	450 x 300	NR	-	-	-	17	25
0,16	450 x 450	m <sup>3</sup> /s	0,2	0,310	0,410	0,520	0,620
	600 x 350	NR	-	-	17	21	27
0,2	500 x 500	m <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /s	0,281	0,4215	0,562	0,7025	0,843
	700 x 550	NR	-	22	26	32	37



### How to Order

	PSG300300S	PSR450300W
<b>Type</b>	PSG = Pressed Steel Grille	PSR = Pressed Steel Register
<b>Size</b>	300300 = 300 x 300	450300 = 450 x 300
<b>Finish</b>	S = Satin Anodised	W = White (or state RAL code)

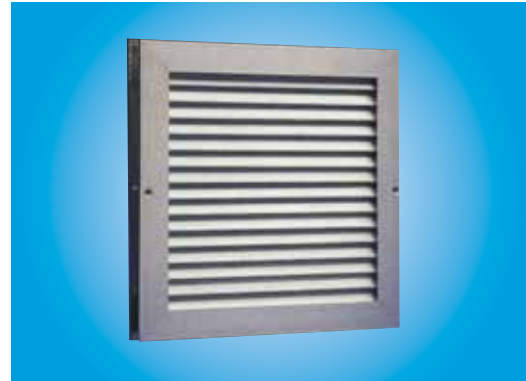


For intumescent fire blocks see page 104

## 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 <sup>2</sup>	Size mm	Pa	8	20	35	46	60
0,025	150 x 150	m <sup>3</sup> /s	0,025	0,038	0,050	0,063	0,075
	200 x 100	NR	-	-	18	25	30
0,042	200 x 200	m <sup>3</sup> /s	0,042	0,063	0,084	0,105	0,126
	250 x 150	NR	-	-	20	26	32
0,065	250 x 250	m <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /s	0,34	0,5	0,68	0,855	1,01
	700 x 550	NR	-	22	30	38	43

### How to Order

#### NVF300300S

**Type** NVF = Non Vision Flanged  
**Size** 300300 = 300 x 300  
**Finish** S = Satin Anodised

#### NVS450300W

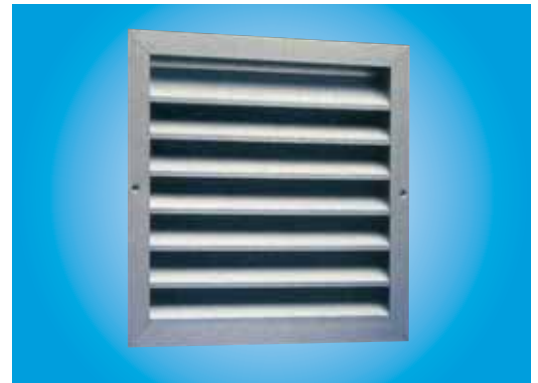
**Type** NVS = Non Vision Surface  
**Size** 450300 = 450 x 300  
**Finish** W = White (or state RAL code)



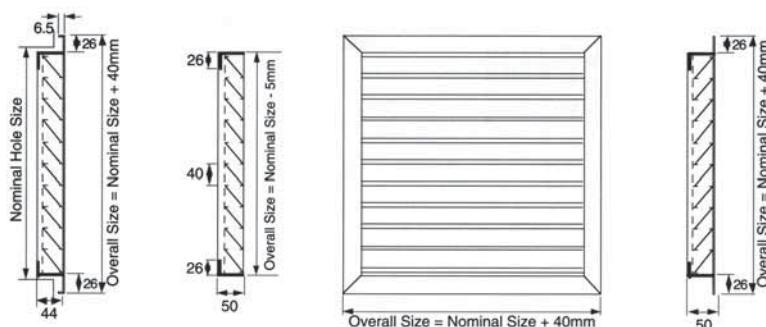


## External weather louvres

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%.



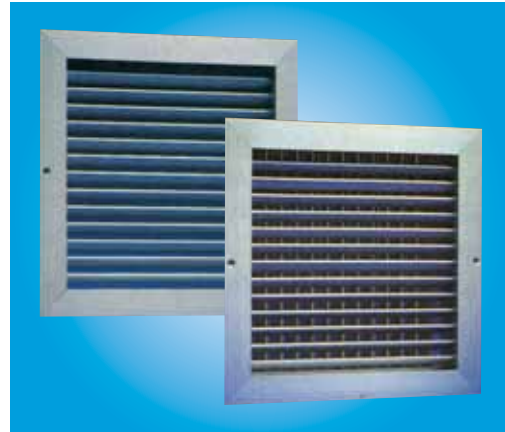
Free Area	Nominal	Vel m/s	1	1,5	2	2,5	3
m <sup>2</sup>	Size mm	Pa Intake	11	18	34	48	67
		Pa Exhaust	6	13	24	37	50
0,011	150 x 150	m <sup>3</sup> /s	0,011	0,017	0,022	0,028	0,033
		NR	-	-	18	25	30
0,02	200 x 200	m <sup>3</sup> /s	0,02	0,030	0,040	0,050	0,060
		NR	-	-	20	26	32
0,032	250 x 250	m <sup>3</sup> /s	0,032	0,048	0,064	0,080	0,096
		NR	-	25	31	36	38
0,045	300 x 300	m <sup>3</sup> /s	0,045	0,068	0,090	0,113	0,135
		NR	20	27	33	37	41
0,0613	350 x 350	m <sup>3</sup> /s	0,0613	0,092	0,123	0,153	0,184
		NR	21	29	35	39	43
0,08	400 x 400	m <sup>3</sup> /s	0,08	0,120	0,160	0,200	0,240
		NR	22	30	36	40	44
0,102	450 x 450	m <sup>3</sup> /s	0,102	0,153	0,204	0,255	0,306
		NR	22	30	37	41	45
0,125	500 x 500	m <sup>3</sup> /s	0,125	0,188	0,250	0,313	0,375
		NR	24	32	37	42	46
0,152	550 x 550	m <sup>3</sup> /s	0,152	0,228	0,304	0,380	0,456
		NR	25	33	38	43	47
0,18	600 x 600	m <sup>3</sup> /s	0,18	0,27	0,36	0,45	0,54
		NR	26	34	39	44	48
0,245	700 x 700	m <sup>3</sup> /s	0,245	0,368	0,490	0,613	0,735
		NR	27	35	41	45	48
0,32	800 x 800	m <sup>3</sup> /s	0,32	0,48	0,64	0,8	0,96
		NR	28	36	42	46	50
0,405	900 x 900	m <sup>3</sup> /s	0,405	0,608	0,810	1,013	1,215
		NR	30	37	43	47	51
0,502	1000 x 1000	m <sup>3</sup> /s	0,502	0,753	1,004	1,255	1,506
		NR	31	37	44	48	52



# Single & Double deflection grilles

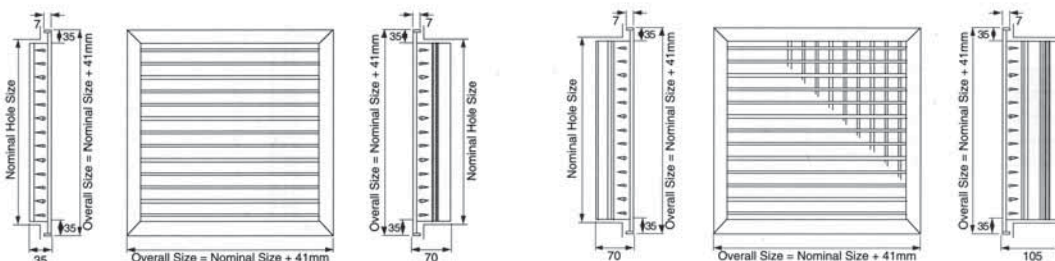
## Part Codes: SDG or DDG

Grilles with either single row or double row of individually adjustable teardrop 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 <sup>2</sup>	Size mm	Pa	5	8	10	15	21	26	38
0,015	150 x 150	m <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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 <sup>3</sup> /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

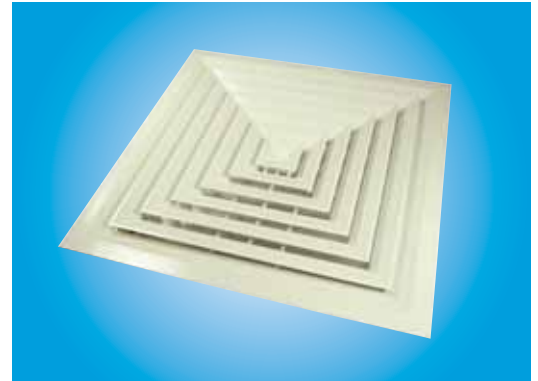
How to Order **SDG300300S** **DDG450350W**  
**Type** SDG = Single Deflection DDG = Double Deflection  
**Size** 300300 = 300 x 300 450350 = 450 x 350  
**Finish** S = Satin Anodised W = White (or state RAL code)



## 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. They are made up of one piece so have NO Joints or Gaps at the corners and come with a removal core for ease of cleaning. The diffusers are manufactured from pressed 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 <sup>2</sup>	Size mm	Pa	3	4	6	8	10	15	22
EAD150W	0,009	148 x 148	m <sup>3</sup> /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
EAD225W	0,02	223 x 223	m <sup>3</sup> /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
EAD300W	0,036	298 x 298	m <sup>3</sup> /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
EAD375W	0,056	373 x 373	m <sup>3</sup> /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
EAD450W	0,081	448 x 448	m <sup>3</sup> /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

EAD450W 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	150	295	42	140	83
225 X 225	210	225	370	42	215	83
300 X 300	285	300	445	42	290	83
375 X 375	360	375	520	42	365	83
450 X 450	435	450	595	42	440	83

## Circular multi cone diffuser

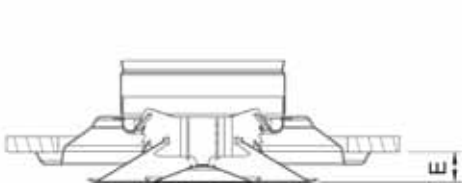
A Multi cone diffuser for supply or extract air, suitable for ceiling or duct mounting. The diffuser consists of an external cone and an adjustable double center cone. The double cone can be adjusted for changing the air distribution pattern from horizontal to vertical. Manufactured from Steel and powder coated - standard finish white RAL 9010, other colour options available on request. Sizes from 160 dia neck to 500 dia neck.



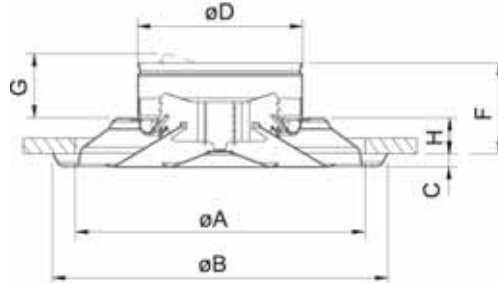
Horizontal Air Pattern					Vertical Air Pattern				
Konika-A-160	m <sup>3</sup> /s	0,075	0,094	0,112	Konika-A-160	m <sup>3</sup> /s	0,060	0,075	0,090
	dB(A)	25	33	40		dB(A)	25	33	40
	Throw m	4,5	5,5	6		Throw m	7	9	10,5
	Pa	17,0	27,0	37		Pa	20	34	45,0
Konika-A-200	m <sup>3</sup> /s	0,128	0,165	0,190	Konika-A-200	m <sup>3</sup> /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 <sup>3</sup> /s	0,190	0,240	0,275	Konika-A-250	m <sup>3</sup> /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 <sup>3</sup> /s	0,255	0,320	0,375	Konika-A-315	m <sup>3</sup> /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 <sup>3</sup> /s	0,440	0,560	0,650	Konika-A-400	m <sup>3</sup> /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 <sup>3</sup> /s	0,680	0,840	0,980	Konika-A-500	m <sup>3</sup> /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



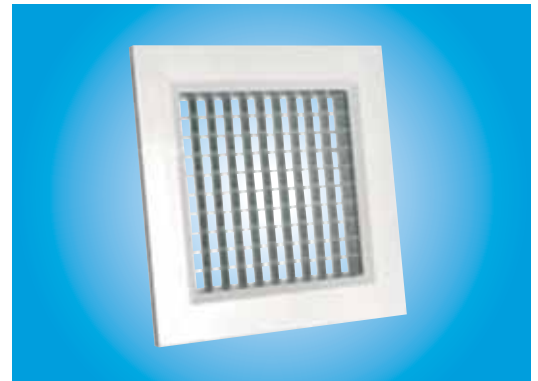
Vertical distribution pattern



# Egg Crate Grilles

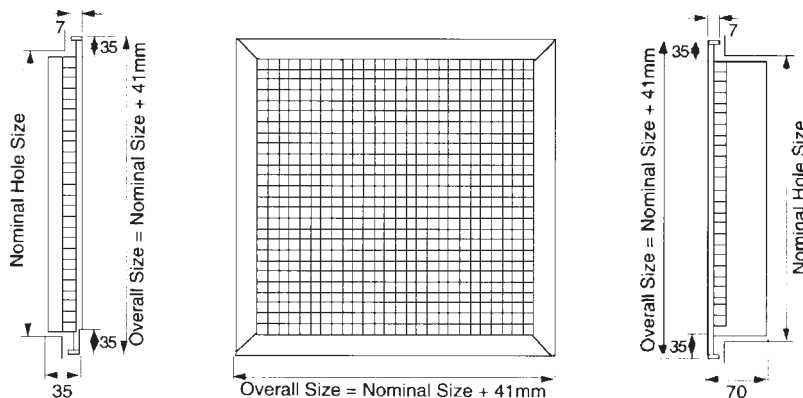
by Express-air

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 customers' needs. Standard finish is Egg Shell White colour – RAL 9010. Can be supplied in other colours as per the requirement of the customers.



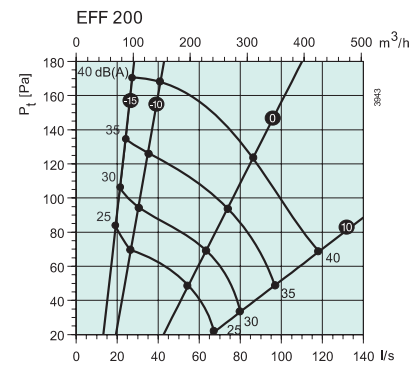
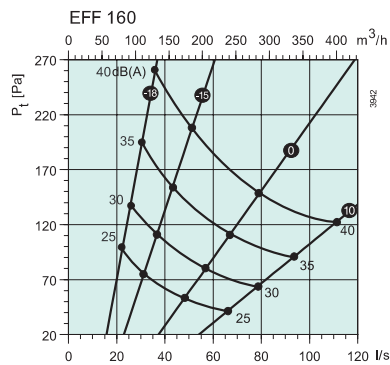
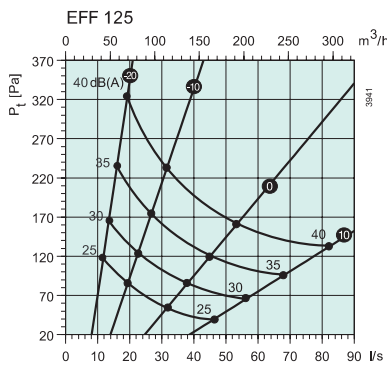
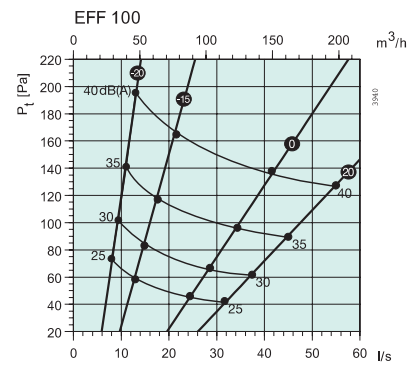
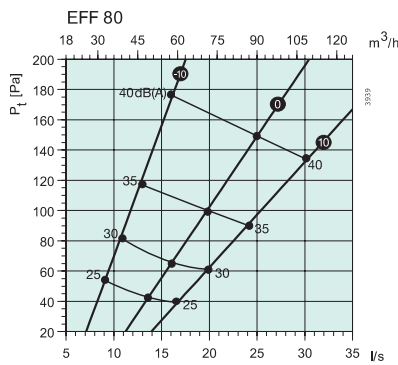
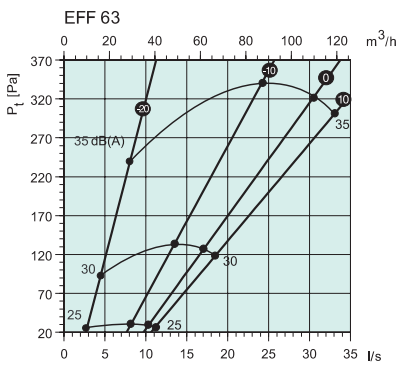
Order Ref Code	Free Area M <sup>2</sup>	Neck Size mm	Vel m/s Pa	1,5	2	2,5	3	3,5	4	5
				4	6	9	13	18	23	34
ECG100W	0,009	100 x 100	m <sup>3</sup> /s	0,014	0,018	0,023	0,027	0,032	0,036	0,045
			NR	-	-	-	22	25	31	
ECG150W	0,019	150 x 150	m <sup>3</sup> /s	0,029	0,038	0,048	0,057	0,067	0,076	0,095
			NR	-	-	-	22	25	31	
ECG200W	0,034	200 x 200	m <sup>3</sup> /s	0,051	0,068	0,085	0,102	0,119	0,136	0,170
			NR	-	-	-	18	25	28	35
ECG250W	0,054	250 x 250	m <sup>3</sup> /s	0,081	0,108	0,135	0,162	0,189	0,216	0,270
			NR	-	-	-	19	26	28	37
ECG300W	0,078	300 x 300	m <sup>3</sup> /s	0,117	0,156	0,195	0,234	0,273	0,312	0,390
			NR	-	-	-	16	20	28	32
ECG350W	0,106	350 x 350	m <sup>3</sup> /s	0,159	0,212	0,265	0,318	0,371	0,424	0,530
			NR	-	-	-	17	23	30	32
ECG400W	0,144	400 x 400	m <sup>3</sup> /s	0,216	0,288	0,360	0,432	0,504	0,576	0,720
			NR	-	-	-	19	24	29	33
ECG450W	0,182	450 x 450	m <sup>3</sup> /s	0,273	0,364	0,455	0,546	0,637	0,728	0,910
			NR	-	-	-	20	25	33	35
ECG500W	0,231	500 x 500	m <sup>3</sup> /s	0,347	0,462	0,578	0,693	0,809	0,924	1,155
			NR	-	-	-	21	26	33	36
ECG595W	0,299	550 x 550	m <sup>3</sup> /s	0,449	0,598	0,748	0,897	1,047	1,196	1,495
			NR	-	-	-	22	28	34	38

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



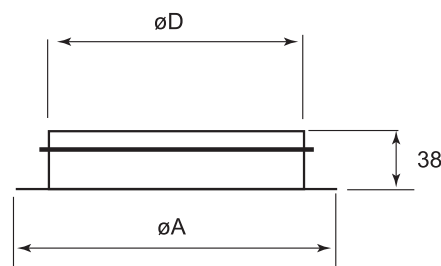
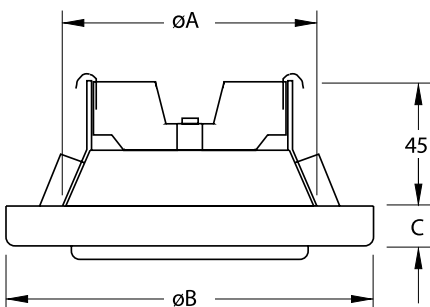
## Air Valves (Plastic, Metal & Fire Rated)

Designed for supply or extract, air valves can be installed in either ceilings, walls or straight onto ductwork and are ideal for toilet ventilation systems. Air flow is varied by turning the central cone of the diffuser which also allows easy commissioning. The air valves are supplied with mounting rings for ease of installation. Available in metal or plastic with standard white finish from sizes 63mm to 200mm duct dia. Fire rated air valves and stainless steel finishes are available on request.



Size	A Dia	B Dia	C
63	63	90	15
80	80	106	15
100	100	135	15
125	125	160	15
150/160	149	191	15
200	200	238	18

Mounting Ring			
	A Dia	D Dia	Hole Req
100	120	97	103
125	146	122	128
150	180	147	154
160	180	157	163
200	220	197	203



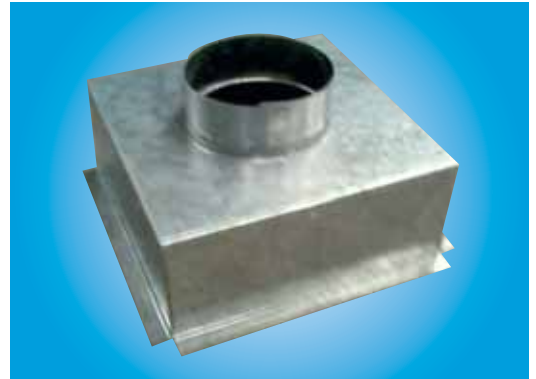
## Spigot / Plenum Boxes

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.

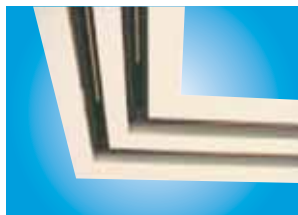
**Order Ref:- SBX450450250TE**

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.



## Please enquire for the following, also available from F&S



Linear Slot Diffusers



Fixed Blade Grilles



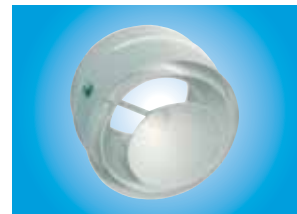
Floor Grilles



Circ Swirl Diffusers



Jet Nozzles



Jet Diffusers



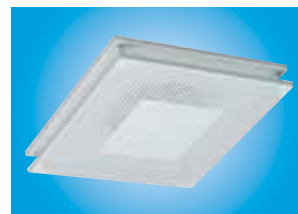
Drum Jet Diffusers



Exposed Duct Diffusers



Sinus Nozzle Diffusers



Perforated Diffusers



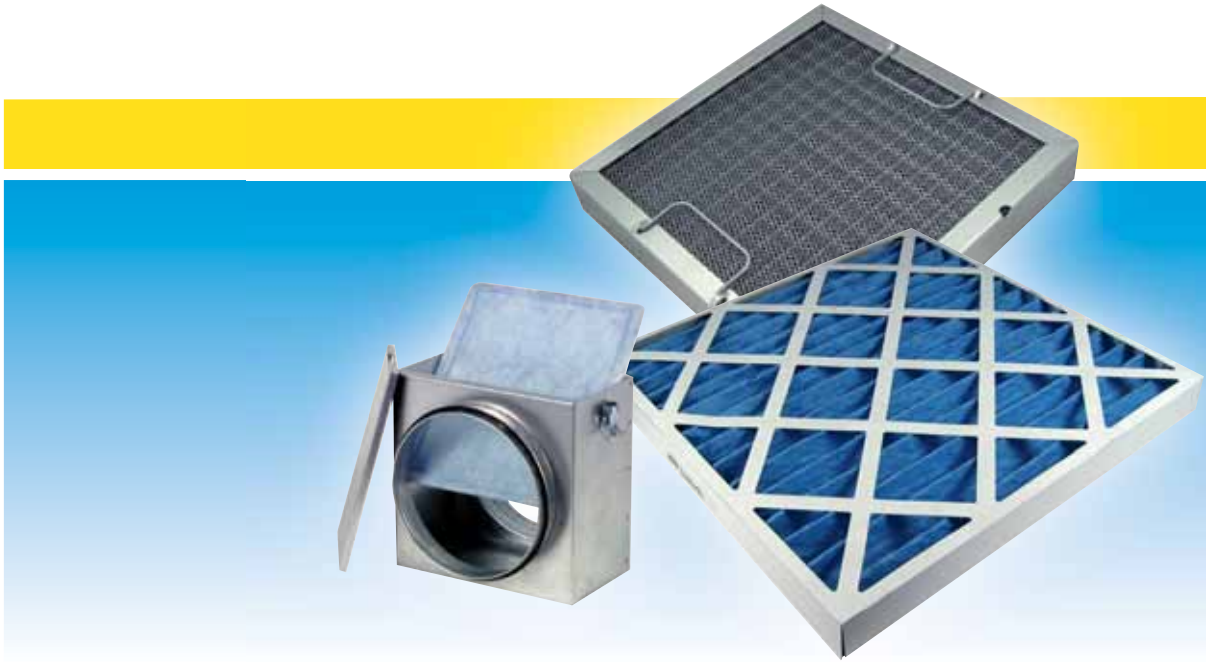
Swirl Diffusers



Plastic Grilles & Diffusers



Fire Rated Air Valves



## Filters

Also Available, please enquire for the following:

**Bag Filters**  
**Carbon Filters**  
**Media Rolls**



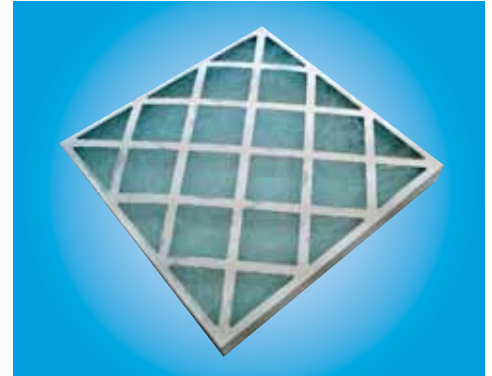
## Panel Filters

by Express-air

### Glass Fibre Disposable Filter (Cardboard Frame)

Order Ref	Size Inches	Size mm			Filter Grade	Capacity m <sup>3</sup> /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



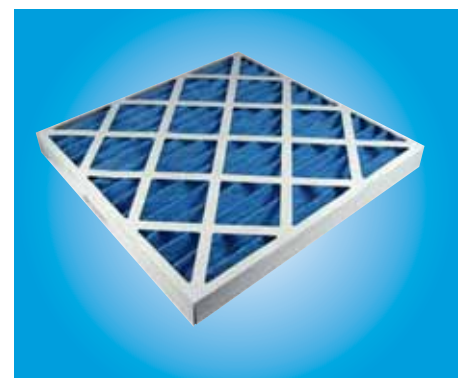
### Synthetic Pleated Disposable Filters (Cardboard Frame)

Order Ref	Size Inches	Size mm			Filter Grade	Capacity m <sup>3</sup> /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.



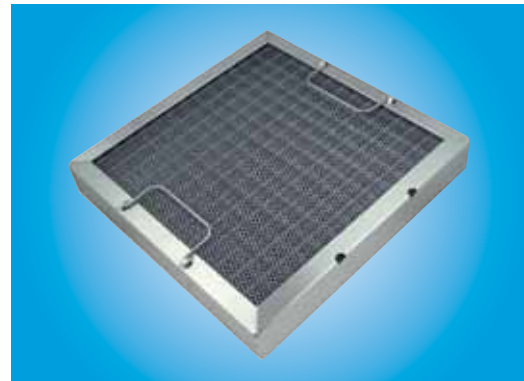
## Grease Filters

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 <sup>3</sup> /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 <sup>3</sup> /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

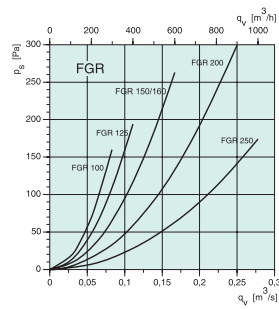
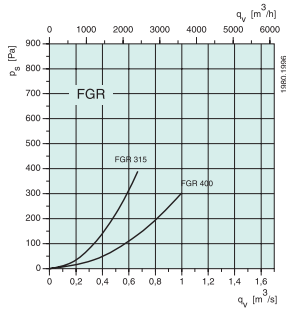
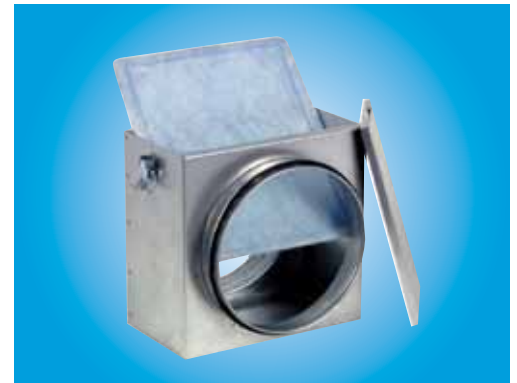
Order Ref	Size Inches	Size mm			Capacity m <sup>3</sup> /s against Resistance Pa *			
	W x H x D	W	H	D	50pa	100pa	150pa	200pa
EABFS16162	16 x 16 x 2	394	394	45	0,12	0,16	0,20	0,24
EABFS18182	18 x 18 x 2	445	445	45	0,20	0,28	0,35	0,39
EABFS20102	20 x 10 x 2	495	241	45	0,12	0,16	0,20	0,24
EABFS20162	20 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.

## 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 unwanted smells. The activated carbon filters are a packed bed design to give constant performance, long life and are maintenance free, with a life of up to 1.5 years. 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	Weight kg
ECCF100/250	160m³/hr	2.9
ECCF125/400	300m³/hr	5.6
ECCF150/500	480m³/hr	7.9
ECCF150/800	760m³/hr	12.1
ECCF200/500	760m³/hr	9.9
ECCF200/800	1030m³/hr	15.3
ECCF250/750	1080m³/hr	17.8
ECCF315/750	1300m³/hr	27.5
ECCF315/1000	1800m³/hr	35.3

Carbon Can Filters are to be used with the HVK range of plastic extract duct fans



# Heating & Cooling Products

## Hand Driers

by Manrose

### Light Usage Models

These models are suitable for use within office & commercial organisations, such as clinics & catering establishments. They are not recommended for use in public areas prone to vandalism, for example public lavatories



Order Ref:	MAN/M04A	MAN/M-88	MAN/M-88A	MAN/A-89
Cover	ABS thermoplastics one-piece cover	ABS, 3mm White	ABS, 3mm White	Aluminium 3mm White
Operation	No Touch I.R Detection	Push Button Timer 45Sec	No Touch I.R Detection	No Touch I.R Detection
Electrical	220-240V 9A 50/60Hz	220-240V 9A 50Hz	220-240V 9A 50Hz	220-240V 9A 50Hz
Motor	150W	140W	140W	140W
Wattage	1100W	1940W	1940W	1940W
Dimensions				
HxWxD	258x145x138mm	300x250x130mm	300x250x130mm	300x250x130mm
Sound Volume				
Levels	60dB(A)	60dB(A)	60dB(A)	60dB(A)
Output at				
Diffuser	39 l/sec	56 l/sec	56 l/sec	56 l/sec
Weight	1.2kg	3.25kg	3.25kg	4.25kg

### Heavy Duty Models

These models are suitable for use in public areas such as lavatories, factories, schools, railway & motorway service stations and are designed for heavy usage and unsupervised areas



Order Ref:	MAN/E-88	MAN/E-88A	MAN/E-88AD	MAN/E-88ACS	MAN/E-88C
Cover	Steel 2mm White Porcelain Enamelled	Steel 2mm White Porcelain Enamelled	Steel 2mm Gold Plated	Steel 2mm Satin Chromed	Steel 2mm Bright Chromed
Operation	Push Button Timer 34Sec	No Touch I.R Detection	No Touch I.R Detection	No Touch I.R Detection	Push Button Timer 34Sec
Electrical	220-240V 11A 50Hz	220-240V 11A 50Hz	220-240V 11A 50Hz	220-240V 11A 50Hz	220-240V 11A 50Hz
Motor	250W 5500r.p.m	250W 5500 rpm	250W 5500 rpm	250W 5500 rpm	250W 5500 rpm
Wattage	2450W	2450W	2450W	2450W	2450W
Dimensions					
HxWxD	250x275x160mm	250x275x160mm	250x275x160mm	250x275x160mm	250x275x160mm
Sound Volume					
Levels	70dB(A)	70dB(A)	70dB(A)	70dB(A)	70dB(A)
Output at					
Diffuser	130 l/sec	130 l/sec	130 l/sec	130 l/sec	130 l/sec
Weight	7kg	7kg	7kg	7kg	7kg

# Electrostatic Air Cleaners

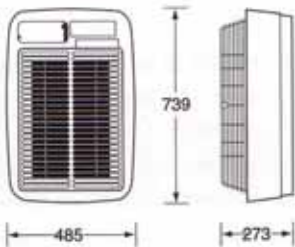
by Xpelair



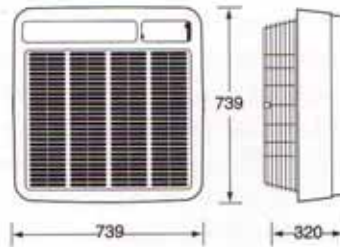
Select the right product for your application

		EAC400K	EAC400W	EAC700K	EAC700W	EACF400W	EACF700W
Ceiling Mounted							
Airflow m <sup>3</sup> /hr	High	1000	1000	2000	2000	780	1500
	Med					660	1260
	Low	400	400	1000	1000	420	1080
Sound pressure level dBA @ 3m		58	58	60	60	58	63
Number of cells		1	1	2	2	1	2
Max Elec power W		115	115	300	300	275	315
Finish		Black/Woodgrain	White	Black/Woodgrain	White	white	white
Installed Weight kg		19	19	32	32	25	38

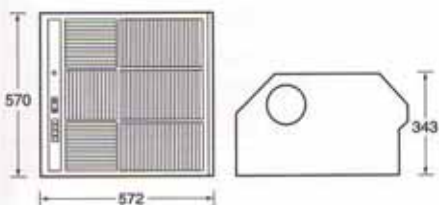
**EAC400 Range**



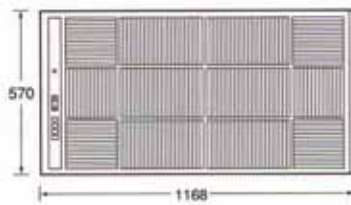
**EAC700 Range**



**EACF400**



**EACF700**



## 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 <sup>3</sup> /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

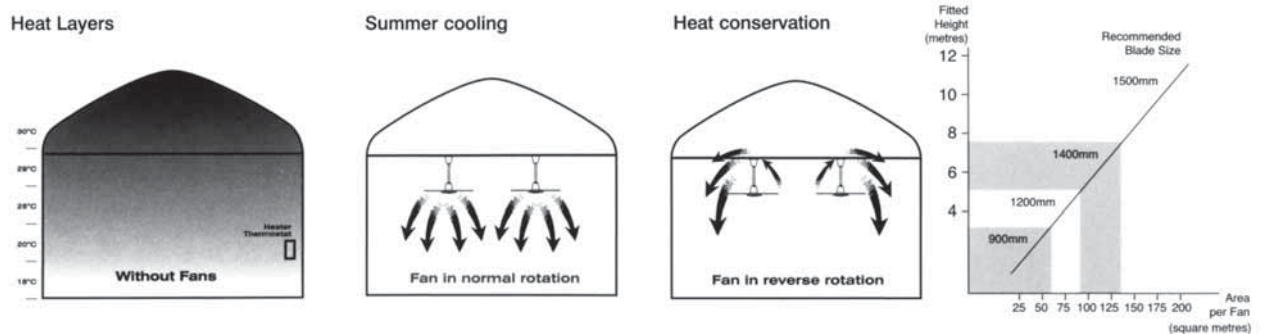
**EACF1.5** Electronic speed controller with forward / reverse switch, can control up to 5 ceiling fans

**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 systems works with the EAAEC12SENSOR, to offer temperature control between 0 - 15 deg 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.



## 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	Dimensions			Max Duty	Max Speed	dBA @	Weight	Voltage
Code	Height mm	Wide mm	Depth mm	m <sup>3</sup> /s	RPM	3m	kg	
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

## 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 @	230-1-50			Airflow	Max Mtg Ht
	RPM	3m	FLC	SC	kW	m <sup>3</sup> /s	metres
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



## 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

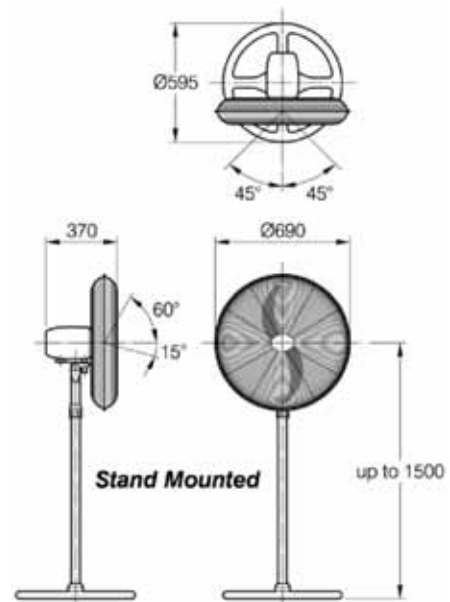
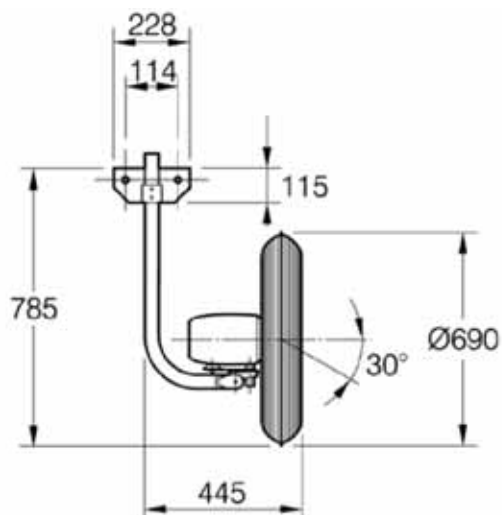
Type - squirrel cage induction motor.  
 Electrical supply - 220-240V, single phase, 50 Hz.  
 3 speed motor.  
 Bearings - sealed-for-life, ball.

### 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 <sup>3</sup> /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	



## Portable Air Conditioning Units

by Vortice

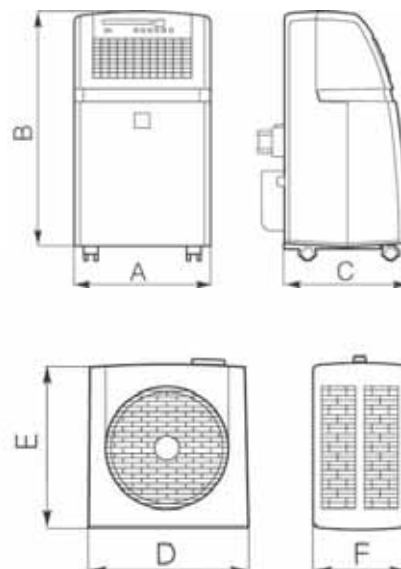
The polar II M14 E Split is a split unit air conditioner with an outdoor unit connected to an indoor unit by a flexible hose. The indoor unit blows conditioned air into the room while the outdoor unit dissipates heat and humidity. Robust design ensures an extended working life, and soft-touch electronic controls let you select your preferred room temperature at the touch of a button.

The Polar II M14 E Split features an infrared remote control, and boasts a particularly elegant, compact design that makes it look great in any room.

- Easy to move
- Separable units
- Simple controls
- Washable dust filter
- Active carbon filter
- Remote control
- Continuous exhaust
- Automatic condensate evaporation system
- 2 speeds
- Sleep function



Specifications		M14 E Split
Product code		65089/65090
Cooling capacity	W	3114
Operating temperature (indoor unit)	C	18-32
Operating temperature (outdoor unit)	C	21-43
Consumption	W	1240
Voltage	V	230
Frequency	-Hz	50
Energy efficiency rating		2,51
Energy efficiency class		E
Air flow (max)	m <sup>3</sup> /h	410
Rated current	A	6,0
Type of refrigerant		R 407 C
Type of compressor		Rotary
Fan speeds	No	2
Noise level at low speed (I.U.)		35.3
Noise level at high speed (I.U.)		37.4
Noise level (O.U.)	dB(A)	32.4
Weight (I.U.)	kg	30
Weight (O.U.)	kg	11
Recommended room size	m <sup>3</sup>	90
Length of air and coolant hose sheath	mm	3000



### Dimensions

A	B	C	D	E	F
410	753	392	480	479	327

## 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 <sup>3</sup> /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

OUTDOOR UNITS								
		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 C76						
Airflow	m <sup>3</sup> /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

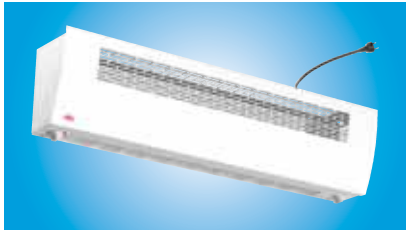
### LINKING SPECIFICATION BETWEEN INDOOR AND OUTDOOR UNITS

1-230V Power Supply								
Power Supply Side		Indoor	Indoor	Indoor	Indoor	Ind. or Out.	Ind. or Out.	Outdoor
Power cable section	mm <sup>2</sup>	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 <sup>2</sup>	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 <sup>2</sup>	-	-	-	-	5x1.5	5x1.5	5x1.5
Fuse amp	A	-	-	-	-	-	6	6
Electrical connection Ind./Out.	mm <sup>2</sup>	-	-	-	-	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"

# Air Curtains

by Frico



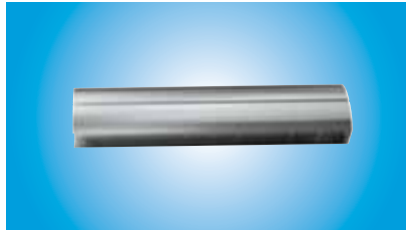
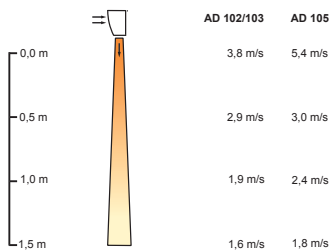
## AD 100, for small openings

- Designed primarily for smaller openings such as kiosk and service windows, where a narrow hot air stream is required.

✎ With electric heating 2-3 kW, with cord and cable

✎ With electric heating 4,5 kW, for permanent installation

length: 0,8 m.

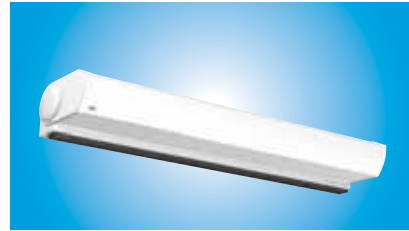
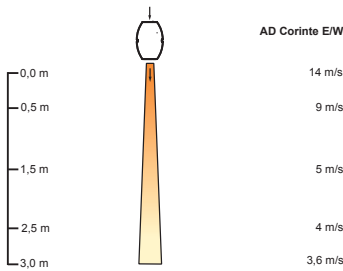


## AD Corinte, for door heights up to 3 m

- A flexible series that can be mounted either horizontally or vertically in entrances.
- Standard design in brushed or in polished stainless steel.

✎ with electric heating 12-20 kW,  
 ♣ with water heating

length: 1, 7, 2,2 and 2,7 m.



## AD 200, for door heights up to 2,5 m

- Excellent for use in customer entrances where doors are frequently opened; shops, restaurants, supermarkets etc.

- An adjustable air outlet grille makes it possible to direct the air for an optimal air curtain effect.

- Adjustable distance between mounting brackets.

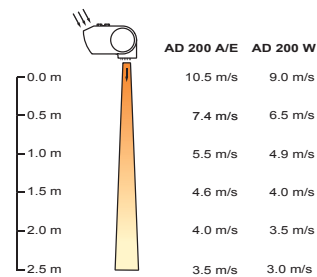
▲ ambient

✎ with electric heating 3-4,5 kW, with cord and cable (AD210C03) and cable (AD210C05)

✎ with electric heating 6-18 kW, for permanent installation

♣ with water heating

length: 1, 1,5 and 2 m.



## AD 400, for door heights 3-4,5 m

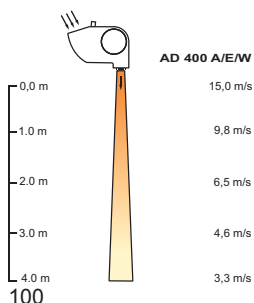
- Excellent for use in industrial doorways, such as loading bays.
- Combines high performance with a compact size and an elegant design.
- An adjustable air outlet grille makes it possible to direct the air for an optimal air curtain effect.
- Adjustable distance between mounting brackets.

▲ ambient

✎ with electric heating 13,5 - 27 kW

♣ with water heating

length: 1,5 and 2 mm.

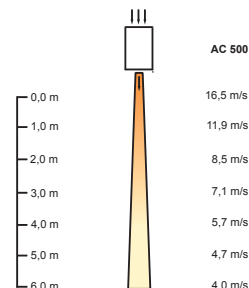


## AD 500, for door heights 3-6 m

- Designed for heavy duty applications with high demands on air flow performance.
- Effectively prevents energy losses through open doorways. the leakage of heated and refrigerated air is minimized, giving energy savings and a comfortable indoor climate.
- The air stream can be directed to suit a specific doorway.

▲ ambient

length: 1 and 1,5 m.



## Controls

Frico offer a complete range of control equipment to suit your requirements:

- 5-step speed control
- Thermostats
- Door contacts
- BMS systems



# Volume Control & Fire Dampers

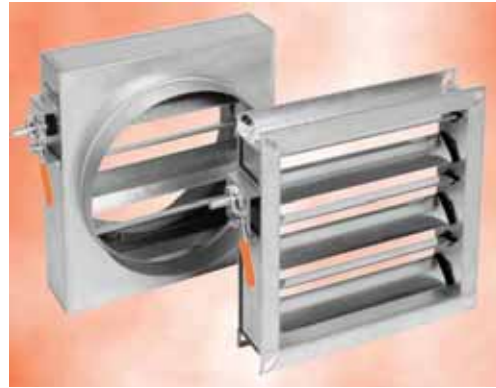
## Volume Control Dampers

### 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.

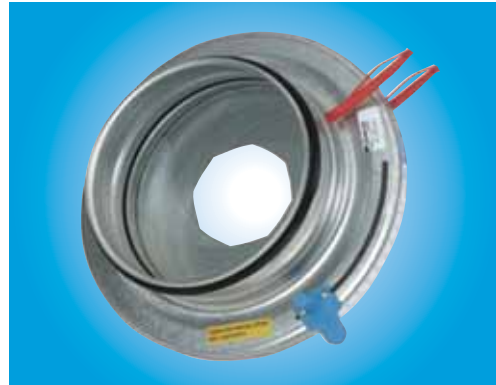
**Specification:** Low Noise level, centrally-formed airflow and fixed test points for precise measurements.

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.

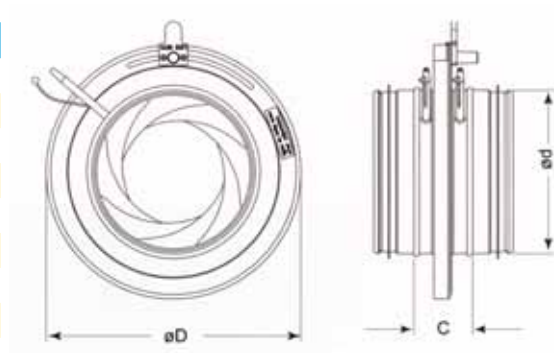
Max temp:- 70°C

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



### Dimensions

	Ø d	C	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 airstream

### Type B

Square/rectangular spigot

Blades out of airstream

### Type I "Induct"

Square/rectangular case

Blades partially in airstream

### Type C

Circular spigot

Blades out of airstream

### Type O

Flat Oval spigot

Blades out of airstream

### Control Options

Solenoid

Electro-magnet

## Electric Motors



### 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 24	30	Open/Close
GM 240	30	Open/Close
GM 24 - SR	30	Modulating

### Fire / Smoke Dampers

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
BF 24	12	Spring Return
BF 24 - T	12	Spring Return
BF 230	12	Spring Return
BF 230 - 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*

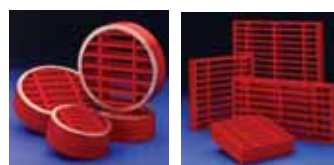
Available in circular sizes 100mm to 600mm diameter

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	Standard	Airflow m <sup>3</sup> /s @ Velocity m/s			Order	Standard	Airflow m <sup>3</sup> /s @ Velocity m/s		
Ref	Length	5m/s	10m/s	20m/s	Ref	Length	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	Standard	Airflow m <sup>3</sup> /s @ Velocity m/s			Order	Standard	Airflow m <sup>3</sup> /s @ Velocity m/s		
Ref	Length	5m/s	10m/s	20m/s	Ref	Length	5m/s	10m/s	20m/s
EAPVCFD100	10m	0,039	0,079	0,157	EAPVCFD250	10m	0,245	0,491	0,982
EAPVCFD125	10m	0,061	0,123	0,245	EAPVCFD300	10m	0,353	0,707	1,414
EAPVCFD150	10m	0,088	0,177	0,353	EAPVCFD315	10m	0,390	0,779	1,559
EAPVCFD160	10m	0,101	0,201	0,402	EAPVCFD350	10m	0,481	0,962	1,924
EAPVCFD180	10m	0,127	0,255	0,509	EAPVCFD400	10m	0,628	1,257	2,513
EAPVCFD200	10m	0,157	0,314	0,628	EAPVCFD450	10m	0,795	1,590	3,180
EAPVCFD225	10m	0,199	0,398	0,795	EAPVCFD500	10m	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	Standard	Airflow m <sup>3</sup> /s @ Velocity m/s		
Ref	Length	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 <sup>3</sup> /s @ Velocity m/s			Order Ref	Standard Length	Airflow m <sup>3</sup> /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 <sup>3</sup> /s @ Velocity m/s			Order Ref	Standard Length	Airflow m <sup>3</sup> /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	Flex	Fire safety	Temperature	Working pressure	
Code	Type	Testing	Range	100mm - 250mm	300mm - 500mm
EALIFD	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
EALIFD	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 DUCTING

Domus manufacture modular ventilation ducting for domestic kitchens and bathrooms, and light industrial and commercial premises.

- Manufactured with flame retardant plastics
- Lightweight, with simple push-fit connections
- Duct easily cut to length
- Non-corrosive
- Recycled materials used wherever possible
- A wide range of wall and ceiling terminals




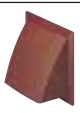


Trade Packaging



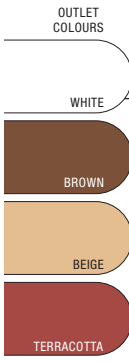
Retail Packaging

## WALL OUTLETS



S100 = System 100 S125 = Supertube 125 PV225 = PolyVent 225 PV300 = PolyVent 300  
M220 = MegaDuct 220 Round Spigot ● Rectangular Socket ■

Description	Trade	Retail	Size/ System
 <b>Wall Outlet with Gravity Flaps</b>	4900	44910*	● 100
	4901	44910*	■ S100
	5900	n/a	● 125
	6900	n/a	● 150/ M220
 <b>Cowl Wall Outlet with Damper</b>	4902	44932*	● 100
	4903	44932*	■ S100
	5902	n/a	● 125
	6902	n/a	● 150/ M220
 <b>Louvred Grille</b>	4904	n/a	● 100
	4905	n/a	■ S100
	5904	n/a	● 125
	6904	n/a	● 150/ M220
 <b>Louvred Grille with Internal Damper</b>	4994	n/a	● 100
	500	n/a	● 125




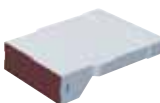




\*Packed with round and rectangular spigots






## WALL OUTLETS cont.

Description	Trade	Retail	Size/ System
 <b>Louvred Grille with Flyscreen</b>	F4904	44954*	● 100
	F4905	44954*	■ S100
	F5904	n/a	● 125
	F6904	n/a	● 150/ M220
 <b>Round Cowl Outlet</b>	4802	n/a	● 100
	<b>Round Cowl 'High Rise' Kit</b>	2447	n/a
	2647	n/a	● 150

## BRICK SIZE OUTLETS


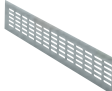






 <b>Horizontal Airbrick with Damper</b>	501	n/a	S125
 <b>Louvred Airbrick Horizontal Vertical</b>	505	40505	S125
	507	n/a	S125
 <b>Airbrick Adapter Double Airbrick Adapter Supertube to Megaduct Adapter</b>	077	40077	S100
	977	n/a	M220
	957	n/a	S125/M220
 <b>Extended Horizontal Airbrick</b> (For PolyVent) Fits direct to PolyVent channel	2009 3009	n/a n/a	PV225 PV300
 <b>Airbrick Adapter</b> (for PolyVent)	2016 3016	n/a n/a	PV225 PV300
 <b>Airbrick Fascia</b> (for PolyVent Airbrick Adapters)	2316	n/a	PV225/300
 <b>Double Airbrick</b>	905	n/a	M220
 <b>Double Airbrick Adapter to Round Pipe</b>	954	n/a	100/125/ 150

## GRILLES & VENTILATORS



 <b>Round Louvred Grille</b>	4804	44804	100
	<b>with Flyscreen</b>	F4804	F44804
 <b>Multidirectional Internal Louvred Grille</b>	4906	44906	100
	5906	n/a	125
	6906	n/a	150
 <b>Internal Door Ventilator</b>	145	40145	456 x 92mm (overall size)



**GRILLES & VENTILATORS cont.**




Description	Trade	Retail	Size/System
 <b>Plinth Ventilator</b>	146	n/a	456 x 75mm (overall size)
 <b>Worktop Ventilator</b>	<b>Metal</b> 148	40148	478 x 79mm (overall size)
 <b>Louvre</b>	793	40793	271 x 95mm
 <b>Louvre</b>	796	40796	271 x 171mm
 <b>Open n Shut Grille</b>	893	40893	271 x 95mm
 <b>Open n Shut Grille</b>	896	40896	271 x 171mm
 <b>Air Extract or supply Valve (to fit pipe)</b>	136-04 136-05 136-06	n/a n/a n/a	100 125 150
 <b>Air Extract or supply Valve (ceiling)</b>	136-24 136-25 136-26	40136 n/a n/a	100 125 150

**GRILLES & VENTILATORS cont.**

 <b>Roof Vent Cowl for 110mm pipe</b>	4110	n/a	110
 <b>Roof Weathering Slate (angled)</b>	4457	n/a	110 (457 x 457mm)















**SYSTEM 100, SUPERTUBE 125 & MEGADUCT 220**

Flat channel outer dimensions are: S100, 110mm x 54mm S125, 204mm x 60mm M220, 220mm x 90mm

	<b>Flat Channel</b> 1m	010 510 910	40010 n/a n/a	S100 S125 M220	
	1.5m	015 515 915	n/a n/a n/a	S100 S125 M220	
	<b>NEW</b> 2m	D1-2000 D3-2000	n/a n/a	S100 S125	
	 <b>Flat Channel Outer Sleeve</b>	1m	D2-1000	n/a	S100
	 <b>Flat Channel Clip</b>	122-4 122-5 922	40122* n/a n/a	S100 S125 M220	

\*Two items per pack

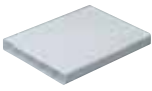








**SYSTEM 100, SUPERTUBE 125 & MEGADUCT 220**

Description	Trade	Retail	Size/System
 <b>Flat Channel Connector</b>	020 520 920	40020 n/a n/a	S100 S125 M220
 <b>Flat Channel Connector with Damper</b>	027 527	n/a n/a	S100 S125
 <b>Elbow Bend with Socket with Spigot</b>	030 040	40030 40040	S100 S100
 <b>Elbow Bend</b>	440 540 640	n/a n/a n/a	100 125 150
(Connects Supertube 125 to 100, 125 & 150mm dia.)			
 <b>Elbow Bend with Rotating Offset Spigot</b>	441 541 641	n/a n/a n/a	100 125 150
(Connects Supertube 125 to 100, 125 & 150mm dia.)			
 <b>Elbow Bend with Rotating Offset Spigot</b>	941 951 961	n/a n/a n/a	100 125 150
(Connects MegaDuct 220 to 100, 125 & 150mm dia.)			
 <b>Adapter - from 125mm to 100mm</b>	544	n/a	S125
Adapter to fit code 540/541 to 100mm spigot			
 <b>Horizontal 90° Bend</b>	050 550 950	40050 n/a n/a	S100 S125 M220
 <b>Horizontal Adjustable Bend</b>	545	n/a	S125
 <b>Vertical 90° Bend</b>	060 560 960	40060 n/a n/a	S100 S125 M220
 <b>Horizontal T Piece</b>	080 582	40080 n/a	S100 S125
 <b>Round to Rectangular Adapter</b>	070 570 970	40070 n/a n/a	S100 S125 M220
Round connection 100mm I.D./125mm I.D./154mm I.D.			
 <b>Short Round to Rectangular Adapter</b>	071	40071	S100
Round connection 100mm O.D.			
 <b>Rectangular Wall Plate</b>	115-4 115-5	40115 n/a	S100 S125






### POLYVENT

Flat channel outer dimensions are: PV225, 234mm x 29mm PV300, 308mm x 29mm















Description	Trade	Retail	Size/System
 <b>Flat Channel</b> 1m 1.5m 2m	2001	n/a	PV225
	3001	n/a	PV300
	20150	n/a	PV225
	30150	n/a	PV300
	20200	n/a	PV225
30200	n/a	PV300	
 <b>Flat Channel Connector</b>	2006	n/a	PV225
3006	n/a	PV300	
 <b>Horizontal 90° Bend</b>	2007	n/a	PV225
3007	n/a	PV300	
 <b>Horizontal 45° Bend</b>	2008	n/a	PV225
3008	n/a	PV300	
 <b>Vertical 90° Bend</b>	2010	n/a	PV225
3010	n/a	PV300	
 <b>Vertical 45° Bend</b>	2011	n/a	PV225
3011	n/a	PV300	
 <b>Elbow Bend/Plenum</b> Round connection 2013/3013 100mm I.D.	2013	n/a	PV225
3013	n/a	PV300	
 <b>Round to Rectangular Adapter</b> Round connection 100mm I.D.	2005	n/a	PV225
3005	n/a	PV300	
 <b>Universal Support Clip</b>	2014	n/a	PV225/ PV300

### EASPIPE

Pipe available in three diameters 100mm, 125mm and 150mm I.D.


 <b>Round Pipe</b> 350mm 1m 2m	135-4	40135	100
	135-5	n/a	125
	135-6	n/a	150
	1100-4	41100	100
	1100-5	n/a	125
	1100-6	n/a	150
	1200-4	n/a	100
	1200-5	n/a	125
	1200-6	n/a	150
 <b>Round Pipe Sleeve</b> 1m	2100-4	n/a	100
	2100-5	n/a	125
	2100-6	n/a	150
 <b>Telescopic Assembly</b> 250 to 450mm	130-4	n/a	100
	130-5	n/a	125
	130-6	n/a	150

### EASPIPE cont.


Description	Trade	Retail	Size
 <b>Adapter to Round Sockets</b>	380	n/a	100
	580	n/a	125
	680	n/a	150
 <b>90° Bend</b>	490	40490	100
	590	n/a	125
	690	n/a	150
 <b>45° Bend</b>	491	40491	100
	591	n/a	125
 <b>Equal T Piece</b> Plastic Metal Metal	492	40492	100
	592M 692M	n/a n/a	125 150
 <b>Straight Pipe Connector</b>	493	40493	100
	593	n/a	125
	693	n/a	150
 <b>Straight Pipe Connector with Damper Valve</b>	494	40494	100
	594	n/a	125
	694	n/a	150
 <b>Straight Pipe Connector with Damper Valve &amp; Wall Plate</b>	495	n/a	100
	595	n/a	125
	695	n/a	150
 <b>Pipe Fastener</b> *Two items per pack	496	40496*	100
	596	n/a	125
	696	n/a	150
 <b>Condensation Trap with Overflow</b> with Overflow without Overflow Fits Domus 100mm I.D. + 110mm O.D. pipe	497	n/a	100/110
	498	n/a	100/110
 <b>Condensation Trap for Soil Pipe</b> Fits 110mm O.D. pipe only	2022	n/a	110
 <b>Round Wall plate</b>	114-4 114-5 114-6	40114 n/a n/a	100 125 150
 <b>Aluminium Circular Adapter</b> 110mm I.D. to 100mm O.D.	120	n/a	110/100
 <b>Circular Adapter</b> 125mm I.D. to 100mm O.D. 150mm I.D. to 125mm O.D. 150mm I.D. to 100mm O.D. 200mm I.D. to 150mm O.D.	119	40119	100/125
	118	n/a	125/150
	619	n/a	150/100
	819	n/a	200/150
 <b>Rubber Spigot Adapter</b> 120mm - 125mm	519	n/a	120/125

### THERMAPIPE (INSULATED PIPE)


Pipe available in three diameters 100mm, 125mm and 150mm I.D.

Description	Trade	Retail	Size/System	
 Round Pipe	1m	4TP100 5TP100 6TP100	n/a 100 125 150	
	2m	4TP200 5TP200 6TP200	n/a 100 125 150	
		Insulated Sleeve ONLY	4TP2SL 5TP2SL 6TP2SL	n/a 100 125 150
			90° Angle Bend	4TP90 5TP90 6TP90
	45° Bend			4TP91 5TP91
		Equal T Piece		4TP92 5TP92M 6TP92M
Thermal Insulation Sheet	10TP12		n/a	1.2m x 1m
	Aluminium Duct Sealing Tape 45m length		50TP45	n/a

### FLEXIBLE HOSES & ACCESSORIES

Description	Trade	Retail	Size/System					
 Flexible PVC Round Hose	1m	261 371 361 561 661 861	n/a 76 89 100 125 150 200					
		3m	263 373 363 563 663 863	n/a 76 89 100 125 150 200				
			6m	266 376 366 566 666 866	n/a 76 89 100 125 150 200			
				15m	2615 3715 3615 5615 6615 8615	n/a 76 89 100 125 150 200		
					45m	3645	n/a	100
						Round Insulated Hose	4210 5210 6210	n/a 100 125 150

### FLEXIBLE HOSES & ACCESSORIES cont.

Description	Trade	Retail	Size/System		
 Aluminium Round Duct	300mm	n/a 403203 503203 603203	100 125 150		
		1.5m	n/a 403215 503215 603215	100 125 150	
			3m	n/a 403230 503230 603230	100 125 150
	Threaded Hose Connector with Spigot			124-4	40124
		Threaded Hose Connector with Socket		126-4 126-5 126-6	40126 n/a n/a
	Threaded Hose Connector for 110mm Pipe		126-110	n/a	100/110
			Hose Clip	125-4 125-5 125-6 125-8	40125* n/a n/a n/a
	Aluminium Duct Clip	127-4 127-5 127-6		40127* n/a n/a	100 125 150
		Rectangular PVC Hose		3m	333 533 933
500mm				3305 5305 9305	40335 n/a n/a
	Rectangular PVC Hose		3m	5533	n/a
		500mm	5505	n/a	125
(Forms round to fit EasiPipe 125mm connections)					
Rectangular Hose Connector	381 581	n/a n/a	S100 S125		
	PVC Duct Sealing Tape	4.6m 33m	123-4 123	40123 n/a	50mm Width

### TUMBLE DRYER SELF-CONDENSING KIT

 <b>NEW</b> Tumble Dryer Self-Condensing Kit with 2m Hose	2442-2	n/a	100
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All sizes in mm

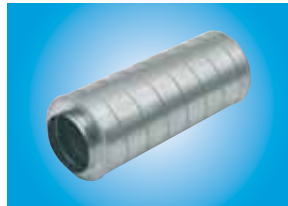




## Ducting & Fittings

### Spiral Duct - 3m Lengths

Part Code: VSP  
Available 80mm to 630mm



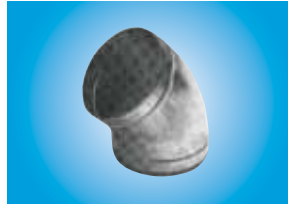
### 90 Deg Bend

Part Code: VSP90



### 45 Deg Bend

Part Code: VSP45



### 90 Deg Twin Bend

Part Code: VSPTB90



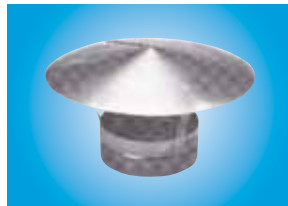
### Reducer

Part Code: VSPR



### Metal Cowl

Part Code: VSPMC



### Flat Shoe

Part Code: VSPFS



### Flanged Spigot

Part Code: VSPTO



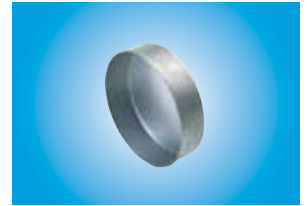
### Equal Tee Piece

Part Code: VSPET



### End Cap

Part Code: VSPE



### Split Rings

Part Code: VSPSR

### Suspensions Rings

Part Code: VSPVSR



### Access Doors

Part Code: AJAD



### Single Blade Balancing Dampers

Part Code: VSPBD



### Blast Gate Dampers

Part Code: VSPBG



### Pressed Saddle

Part Code: VSPPS



### Male Coupler

Part Code: VSPCM

### Female Coupler

Part Code: VSPCF





# Controls & Sensors

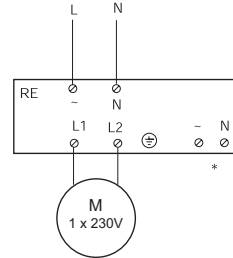
## Auto transformer 5 step speed controls

### 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

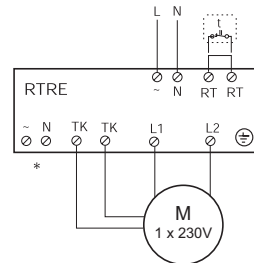


### RTRE - Single Phase Auto Transformer with TK's

	Amps	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

#### Output voltages for each of the 5 steps

Steps	1	2	3	4	5
Voltage V	80	105	130	160	230

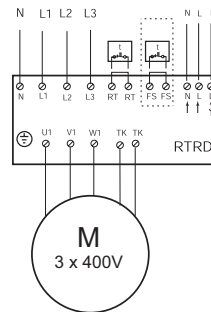


### RTRD - Three Phase Auto Transformer with TK's

	Amps	Fuse	H x W x D mm	kg
RTRD 2	2A	-	255x190x135	7,5
RTRD 4	4A	-	309x262x160	12,5
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



## 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)



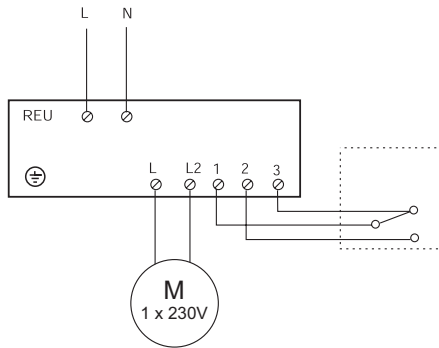
## Two speed - trickle & boost control

by Systemair

### REU - Single Phase 230V 50/60Hz

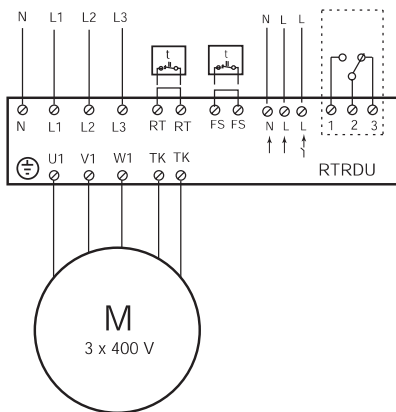
REU, a single phase transformer which controls the fan speed by altering the supply voltage in five fixed steps. The steps are adjusted manually, using the control knobs on the front of the unit. There are two control knobs: one for the higher fan speeds (Boost) and one for lower fan speeds (Trickle), 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)



### RTRDU - Three Phase 400V 50/60Hz

RTRDU, three phase version, as REU but with integral motor protection 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. The transformer has 230V terminals for operating dampers or other external equipment. These terminals have no current when the transformer switch is in position "0", or when the TK input is open.



#### Output voltages for each of the 5 steps:

Step	1	2	3	4	5
Voltage V	80	105	130	160	230

	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



#### 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

## Electronic variable speed control

### SC - Single phase electronic variable control

	Amps	H x W x D mm	kg
SC1.5	1,5	255x190x135	7,5
SC3.0	3A	309x262x160	12,5
SC5.0	5A	309x262x160	18
SC8.0	8A	290x400x166	30

NOTE ! Electronic controls may cause motor noise, therefore Fans & Spares recommend auto transformers to be used in noise sensitive areas.



## Motor protection devices

These direct on-line starters, switch off the supply voltage to the motor when the thermal contact (TK) in the motor windings is tripped

		STET 10B	STDT 16
Voltage	V	60-230	60-400
Current min./max.	A	0.4/10	16
Max. Fuse	A	16	80
Weight	kg	0,5	0,5
B x H x T	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 ACO8 also has a built in 24 hour duty share switching between both fans for long life. Volt free contacts are provided for connection to BMS.

**ACO8:** Single phase 230V, 8.0 amps  
Three phase ACO panels are also available



## 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 temp cut out
- Connections for sensors
- Timeclocks
- Electric heater battery control 3Kw - 54Kw

Please enquire..



## 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  
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 accomodation. 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 work on temperature changes, where as the REPT works from both pressure & temperature changes.



RET - Temperature Regulator



REP - Pressure regulator



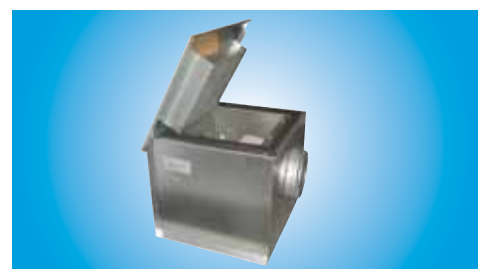
Differential Pressure Switch



PIR activated Air Valve



Cooker hood (no fan)



Centralised extract fan



## ALS2 Kitchen Fan Alarm Unit

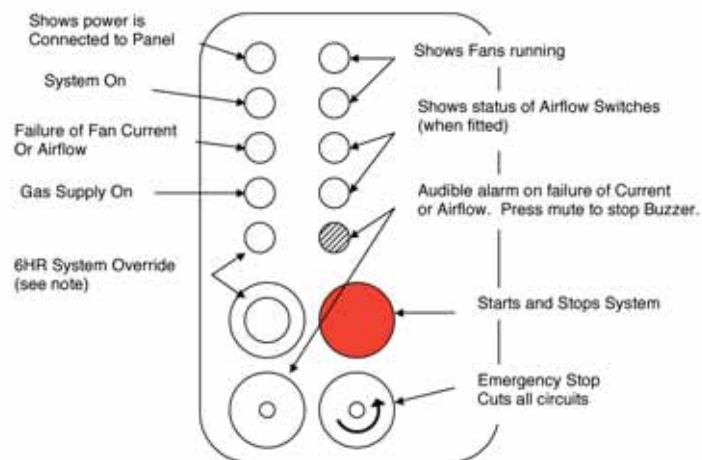
BS 6173 2001 calls for commercial kitchen supply and extract fans to be interlocked with the gas supply to prevent gas cooking equipment being used without suitable ventilation.

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 Airflow 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.



### 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.



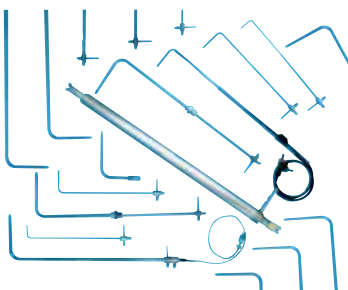
### Low Flow Hood Kits

Light weight air balancing kit with a range of optional accessories including six fabric hoods and three plastic hoods.



### Thermal Anemometer

Digital velocity meter with temperature display and telescopic probe with flexible neck



### Pitot Static Tubes

For permanent and portable use with manometers, transducers etc



### Manometers

Industrial Vertical Tube Manometer  
Inclined Manometer  
Inclined Filter Loss Manometer



### TH12 Thermohygrometer

## 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*



## 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



## 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



## 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**

### 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**

Duct tape

**TAPEPVC** = PVC

**TAPECLOTH** = CLOTH

**TAPEALI** = ALUMINIUM FOIL

Gasket

**FLANGE GASKET** = 20mm x 6mm x 15m

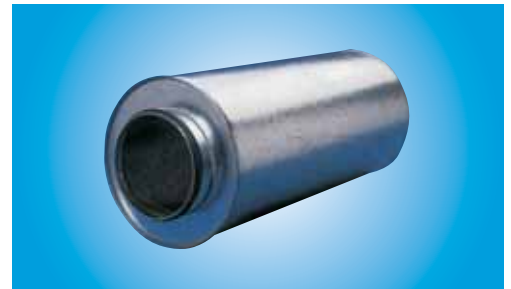


## Attenuators / Silencers

### Circular Attenuators

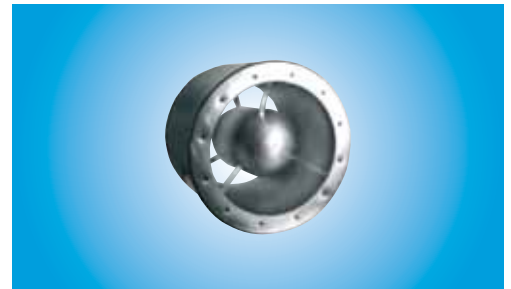
Ref : LDC

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



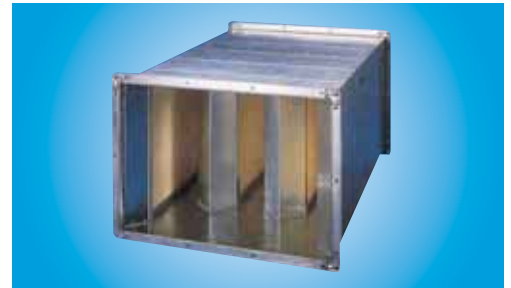
### Circular Attenuators

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



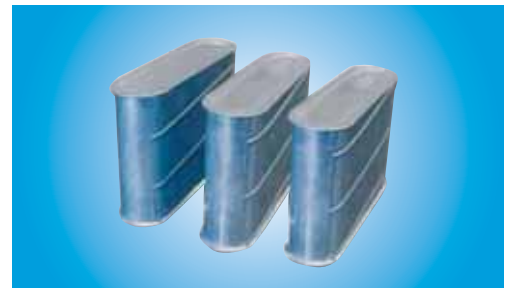
### Rectangular Attenuators

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.



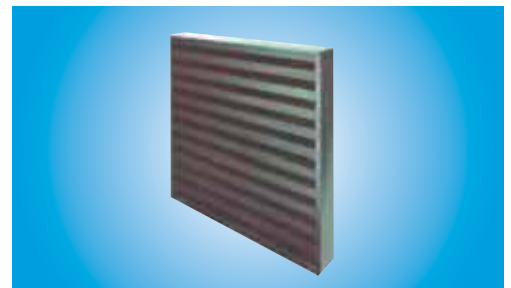
### Acoustic Splitters

Acoustic Splitters for 'build in' applications  
Please enquire



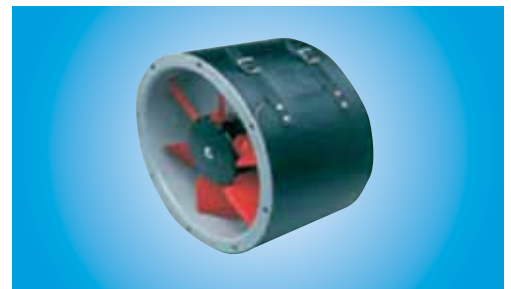
### Acoustic Louvres

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



## Roof Flashings

by Dek's

### Perfect for Flashing Pipes / Ducts on Metal Roofs



Ref	Pipe mm
MINI DFE 0-35	0 - 35
DFE 5-55	5 - 55
DFE 50-70	50 - 70
DFE 5-120	5 - 120
DFE 110-170	110 - 170
DFE 160-220	160 - 220
DFE 160-300	160 - 300
DFE 290-440	290 - 440

### The Original watertight Flashing for Metal Roofs



Ref	Pipe mm
MINI DF100	0 - 35
DF101	5 - 65
DF102	45 - 80
DF103	5 - 127
DF104	73 - 160
DF105	108 - 190
DF106	125 - 230
DF107	150 - 280
DF108	175 - 330

### EZi-Seal, Forget the Silicone - Just screw it down



Ref	Pipe mm
MINI DFE0-35EZ	0 - 35
DFE5-55EZ	5 - 55
DFE50-70EZ	50 - 70
DFE5-120EZ	5 - 120
DFE110-170EZ	110 - 170
DFE160-300EZ	160 - 300
DFE290-440EZ	290 - 440

### Retrofit, For Repairs & Difficult-to-access Pipes



Ref	Pipe mm
RF801	20 - 70
RF802	50 - 185
RF803	85 - 255

### Roof Flashing Fixing Kit REF: DFK1



Cut Dektite® cone where indicated for the relevant pipe size.



Slide Dektite® flashing down over pipe. Water can be used as a lubricant.



Apply neutral cure silicone sealant on underside of flange.



Press pipe flashing into contours of roof panel.

## 5-in-1 Roof Vent Kit

by Express-air

### The Express-air 5-in-1 roof vent kit,

500 x 500mm lead through roof 5 way ventilation terminal available in dark grey.

Duct sizes on cut off spigots

- 100mm
- 110mm
- 125mm
- 150mm
- 160mm



Order Ref Code: EFS-RCK

## Heating Coils & Batteries

Fans & Spares offer a range of heater batteries covering most requirements for duct mounted heating. Some sizes are available from stock, other are made to your specification with short lead times.

### 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.



**CWK**



**VBR**

### 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 quote;

- 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



**CB**



**RB**

### 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



**RBM**

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



**CBM**

Other sizes available, please enquire

Also available: DX or Chilled water cooling coils - Please enquire

Cooling coils available on request, please enquire

## 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 Circ 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 Cows.

			
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 <sup>2</sup>	⇔	Feet <sup>2</sup>	10,7636
Feet <sup>2</sup>	⇔	Metres <sup>2</sup>	0,0929

Volume		Multiply by	
Feet <sup>3</sup>	⇔	Metres <sup>3</sup>	0,0283
Metres <sup>3</sup>	⇔	Feet <sup>3</sup>	35,3134

Flow Rate		Multiply by	
C.F.M	⇔	m <sup>3</sup> /sec	0,00047
C.F.M	⇔	Litres/Sec	0,472
m <sup>3</sup> /sec	⇔	C.F.M	2119
Litres/Sec	⇔	C.F.M	2,12

$$1 \text{ m}^3/\text{s} = 1000/\text{s} = 2119 \text{ CFM} = 3600 \text{ m}^3/\text{h}$$

$$1000 \text{ m}^3/\text{h} = 0,278 \text{ m}^3/\text{Sec} = 277.8 \text{ l/s} = 588 \text{ CFM}$$

$$1000 \text{ CFM} = 0,472 \text{ m}^3/\text{Sec} = 472 \text{ l/s} = 1699 \text{ m}^3/\text{h}$$

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

$$\text{Velocity (m/s)} = \frac{\text{air flow m}^3/\text{s}}{\text{duct area m}^2}$$

$$\text{Velocity Pressure (Pa)} = \text{Velocity}^2 \times 0,6$$

$$\text{Heat input kW} = \text{m}^3/\text{s} \times 1,2 \times \Delta t$$

$\Delta t$  (temperature difference -4 to 21°C) would give a  $\Delta t$  of 25

### Fume Removal (recommended min. velocities across face of extract hood)

Equipment	Velocity
Soundblast Booths (openings)	2.5 m/s
Soundblast 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	0.2 - 0.5 m/s

### Specific Fan Power

$$\text{SFP} = \frac{\text{Total power for Supply \& Exhaust Fans (kW)}}{\text{Air flow m}^3/\text{s}}$$

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 <sup>2</sup>
100mm	⇔	0.00785m <sup>2</sup>
125mm	⇔	0.01227m <sup>2</sup>
150mm	⇔	0.01767m <sup>2</sup>
200mm	⇔	0.03142m <sup>2</sup>
250mm	⇔	0.04909m <sup>2</sup>
315mm	⇔	0.07794m <sup>2</sup>
355mm	⇔	0.09898m <sup>2</sup>
400mm	⇔	0.12566m <sup>2</sup>
450mm	⇔	0.1590m <sup>2</sup>
500mm	⇔	0.1964m <sup>2</sup>
560mm	⇔	0.2463m <sup>2</sup>
630mm	⇔	0.3118m <sup>2</sup>

### 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 (non smoking environment)

16 litres per person (smoking environment)

### 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 howsoever 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 Sellers 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 property 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 kind 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 judgement) 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 (otherwise 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.

13.5 The Buyer shall be responsible for arranging for testing and inspection of the Goods at the Seller's premises before shipment. The Seller shall have no liability for any claim in respect of any defect in the Goods which would be apparent on inspection and which is made after shipment, or in respect of any damage during transit.

13.6 Unless otherwise agreed in writing by the Seller payment of all amounts due to the Seller shall be made in sterling by irrevocable letter of credit opened by the Buyer in favour of the Seller and confirmed by a leading London bank acceptable to the Seller within 10 days of the Seller's acceptance of the Order and upon presentation of the required documents to a London bank.

#### 14. General

14.1 The Seller shall be entitled to sub-contract the fulfilment of the Contract or any part thereof in which event the Seller contracts on behalf of itself and its sub-contractors.

14.2 The termination of the Contract howsoever arising shall be without prejudice to any rights and duties of either party which may have accrued prior to termination.

14.3 The Seller's rights contained in condition 8 (but not the Buyer's rights) shall continue beyond the discharge of the parties' primary obligations under the Contract following its termination by the seller or breach by the Buyer.

14.4 Any notice required or permitted to be given by either party to the other under these conditions shall be in writing addressed to that other party at its registered office or principal place of business or such other address as may at the relevant time have been notified pursuant to this provision to the party giving the notice.

14.5 No waiver by the Seller of any breach of the Contract by the Buyer shall be considered as a waiver of any subsequent breach of the same or any other provision.

14.6 If any provision of these conditions is held by any competent authority to be invalid or unenforceable in whole or in part the validity of the other provisions of these conditions and the remainder of the provision in question shall not be affected.

#### 15. Proper Law and Jurisdiction

The Contract shall be governed by the laws of England and the Buyer agrees to submit to the non-exclusive jurisdiction of the English courts.



# FANS & SPARES

“Your Job Winning Partner”



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