

■ Services

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Services

I Manufacture & refurbishment

Manufacture

Our speciality is being able to manufacture new fan decks of any quantity to your specification. Our facilities enable us to replace old and obsolete decks which otherwise would require a complete new system installation.

When looking at having a fan deck manufactured there are several different versions from a single scroll unit with an internal motor to a quadruple scroll with two external motors or even four internal motors. With our extensive stocks we are able to produce fan decks to your specific requirements.

Refurbishment

In many buildings as fan coils have been running for 20-30 years the bearing and motors start to fail and the moving parts of the fan deck reaches the end of its life. start to reach the end of their life many sites and engineers look at the options of refurbishing the units. In most situations the tray, scrolls and wheels are in perfectly good condition and it is just the motor that has failed, as a result refurbishment is often far cheaper and quicker an option than manufacturing complete new units.

With our vast stocks of fan coil motors there are very few units which we are unable to refurbish. We ensure all fan decks are refurbished to the highest standard to ensure they retain their original performance.

In some sites there is a need for instant fan deck replacement such as hotels, we are able to provide pattern fan decks to be used as a buffer stock on site for fast servicing.

- **No minimum quantity**
- **Match old designs**
- **Full warranty**



Services

Manufacture & refurbishment

Fan decks come in four main designs, a single, a double, a treble and a quadruple scroll unit. They can then be subdivided depending upon the number of motors used to drive the wheels. Due to our stock holding there are very few units which we cannot replace or repair. Below are a list of the most commonly found variations of fan deck units.

Type A

A single scroll blower driven by an external rotor motor, 2 and 4 pole with 1 to 4 speeds available. This is the most compact of designs.



Type B

A single blower is driven by single shaft PSC motor, 2, 4 or 6 poles, 1 to 6 speeds via a resilient base mounted motor for reduced noise and vibration levels. Air volumes up to a maximum of 1000 m³/hr or 600cfm.



Type C

A double blower is driven by double shaft PSC motor, 2, 4 or 6 poles, 1 to 6 speeds, using resilient mounting base, motor power from 30W to 420W, impellers 108mm to 238mm diameter. Air volumes up to a maximum of 3000 m³/hr or 1800cfm.



Type D

Triple blower is driven by double shaft PSC motor, 2, 4 or 6 poles, 1 to 6 speeds, using resilient mounting base, coupling to third impeller. Air volumes up to a maximum of 7000 m³/hr or 4200cfm.



Type E

A triple blower which is driven by two PSC motors, 2, 4 or 6 poles, 1 to 6 speeds, using resilient mounting base. Air volumes up to a maximum of 7000 m³/hr or 4200cfm.



Type F

Quadruple blower is driven by two double shaft PSC motors, 2, 4 or 6 poles, 1 to 6 speeds, using resilient mounting base, motor power from 30W to 420W, impellers 108mm to 238mm diameter. Air volumes up to a maximum of 8000 m³/hr or 4800cfm.



Services

Manufacture & refurbishment

Refurbishment – The stages

We are often asked what steps we take when refurbishing old and obsolete units.

Step one

Once the units have been delivery/collected they are first cleaned, depending upon the level of dirt they can be pressured washed or/and chemically dipped overnight.



Step two

Once sufficiently clean the units are stripped and the wheels are assessed for damage or out of balance issues. The majority of the time wheels can be re-used but it is only when the units have been received can we give a 100% accurate quote.



Step three

Once a quotation has been approved and an order raised the units are re-assembled, we always use a new motor even if the original supplied was still in working order (unless requested). If any additional controls or switches are required they are installed at this stage.

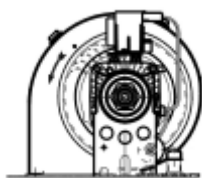


Step four

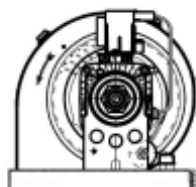
Finally the units are now electrically tested on each output speed and the impellers checked to ensure they are balanced. Once checked the units are then dispatched.



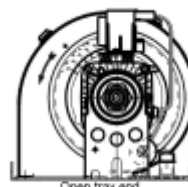
Profile A



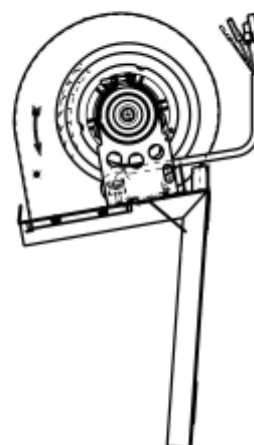
Profile B



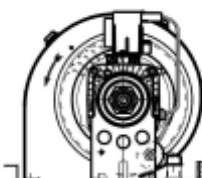
Profile C



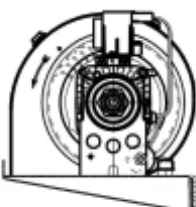
Profile F



Profile D



Profile E



Services

Manufacture & refurbishment

In conjunction with the fan deck services we offer we are able to offer a selection of the most commonly used controls for fan decks. The available accessories give you the choice to control your fan unit with simple manual switches or via a selection of thermostats to obtain a more automatic control.

Manual Switches

These enable the user to change the fan motor speed when used in conjunction with a multi speed fan motor or an autotransformer. We keep a variety of rocker switches and a more robust rotary type switch ranging from a simple on/off to multiple speed selection.



Speed Control

We currently have 2 types of autotransformer for use with any single phase fan motor up to 75watt or 100watt output. These units allow a up to seven speeds to be used on a standard single speed motor. They are usually used in conjunction with the manual type switches above or the thermostatic controls below.

Thermostatic Type Controls

Pipe Thermostat

These are designed to clip onto the pipes that feed the fan coil. The pipe thermostat acts as a switch and prevents the fan motor from starting until the pipes become hot (around 50 deg C) thus preventing cold air from being blown into the room. They are usually used in conjunction with the capillary action thermostats below.



Capillary Action Thermostat

The capillary action thermostat can be used in a number of ways but is usually used as a stand alone control to switch the fan deck off when a user set temperature is reached. They can also be wired in series to automatically control the speed of a fan unit. When a room is cold the thermostat will select a high speed to blow warm air quickly into the room, once the room has reached a user set temperature the thermostat will switch the fan motor automatically to a slower speed giving a more gentle background heat. The second thermostat switches the fan unit off when a user set temperature is reached.



Variable Speed Controls

This type of control gives stepless speed variation to a motor but must be used with care. The controller works by reducing the input power to the motor and if turned down too low will cause it to overheat and burn out or drastically reduce the life of the motor. It is also very important to select the correct amp rating for your motor when purchasing these controls, if you are unsure please speak to a member of the sales team.

Services

Manufacture & refurbishment

As of 2014 we have a new pricing guide for the manufacture and refurbishment of fan decks, we are now able to offer two levels of service; an express option and our standard service.

Express service

Our express service is for when you have an urgent need for some units to be manufactured or refurbished in the quickest turnaround possible. The units are processed out of standard working hours to ensure the fastest turnaround possible. Expected turnaround of 1-2 working days from receipt of the units (for a large quantity this may vary).

Standard service

Our standard service is based on a first come first repaired/manufactured basis and the lead time can vary depending upon the amount of work we currently have. Expected turnaround of 5-7 working days from receipt of the units.

Guide prices for express & standard service jobs are:

Fan deck	Type	Standard service		Express service	
		Manufacture	Refurb	Manufacture	Refurb
Single	A & B	£ 114.44	£ 87.13	£ 184.87	£ 132.86
Double	C	£ 137.30	£ 99.06	£ 222.52	£ 163.08
Treble (1 motor)	D	£ 215.52	£ 166.35	£ 431.64	£ 335.05
Treble (2 motors)	E	£ 254.00	£ 204.83	£ 432.38	£ 335.79
Quad	F	£ 307.37	£ 236.34	£ 507.73	£ 371.14

Direct drive blower	Type	Refurbishment	
		Express	Standard
Direct drive blower	7/5	£ 73.47	£ 108.43
Direct drive blower	7/7	£ 88.59	£ 123.55
Direct drive blower	9/7	£ 87.47	£ 122.43
Direct drive blower	9/9	£ 87.47	£ 122.43
Direct drive blower	10/8	£ 101.74	£ 136.70
Direct drive blower	10/10	£ 101.74	£ 136.70
Direct drive blower	12/9	£ 121.82	£ 160.43
Direct drive blower	12/12	£ 121.82	£ 160.43

*these are guide prices only. Prices vary depending upon motor power required and if the wheels need replacing.

Collection/delivery

To coincide with our new express service we are now able to offer several collection and delivery options. We can now offer a same day collection service via a local courier. For oversized or large quantity of units we would use a pallet service. The timed parcel deliveries we can offer are:

- Next day (anytime)
- Next day by noon
- Next day by 10AM
- Next day by 9AM
- Same day delivery/collection

Pumps

| Sub menu

new for 2015



Pages 6.3
Condensate Pumps



Pages 6.4
EC Condensate Pumps



Pages 6.5
Tank Pumps

Pumps

Introduction

new for 2015

We have a small range of pumps motors which fall under two categories;
Condensate Pump Removal and Tank Pumps.

Condensate Pumps

These condensate pumps are designed to be fitted into the ceiling void, in the AC unit itself, within the trunking and below the AC unit. The condensate removal pumps have a separate submersible reservoir and pump whilst the "kitchen" unit is a complete all in one unit.

These quiet running and reliable units are perfect for offices and meeting rooms with their low dB(A) sound levels.

Tank pumps

These centrifugal tank pumps are designed to remove condensate water from air conditioners, refrigeration equipment, gas boilers, all kinds of cabinet fan coil ceiling cassettes and de-humidifiers.

These units have high flow rates with high discharge heads and offer trouble free, centrifugal pump technology; they are reliable and durable at outstanding value. They are easy to fit and require little maintenance and are ideally suited for ducted a/c's and cassettes.



Pumps

Condensate pumps

new for 2015

Voltage supply: 230V, 50/60 Hz
Class: II appliance
Insulation: Class F

Max water temp.: 50 °C
Rating: Non continuous
Protection: Thermal Protection to 100 °C

PC-12B



PC-1218



PC-1028



Part Number	Max. Flow	Suction Lift	Discharge Head	Max. Unit Output	Tank Capacity	Outlet Tube	Sound Level
CP-1028	24L/h	2m	12m	10KW (30,000btu/hr)	55ml	7mm	<25dB(A)
CP-1218	40L/h	2m	12m	10KW (30,000btu/hr)	55ml	7mm	<25dB(A)
PC-12B	12L/h	2m	12m	10KW (30,000btu/hr)	35cc	7mm	<21dB(A)

CP-1018



Part Number	Max. Flow	Max. Head	Power Consumption	Unit Size	Tank Capacity	Outlet Tube	Sound Level
CP-1018	120L/h	3-3.5m	18W	L180xH150xW105	-	6mm	<25dB(A)

Pumps

EC Condensate pumps

new for 2015

Voltage supply: 230V, 50/60 Hz
Class: II appliance
Type: EC (Energy saving)

Insulation: Class F
Max water temp.: 50 °C
Rating: Non continuous



Part Number	Max. Flow	Max. Head	Max. Unit Output	Power Consumption	Tank Capacity	Outlet Tube	Sound Level
PC-24B	24L/h	2M	20KW (60,000btu/hr)	3W	55ml	7mm	<16B(A)
PC-40B	40L/h	2M	32KW (96,000btu/hr)	3W	55ml	7mm	<18dB(A)

Pumps

I Condensate removal pump

new for 2015

Voltage supply: 230V, 50/60 Hz
Class: II appliance
Insulation: Class F

Max water temp.: 50 °C
Rating: Non continuous
Notes: Low maintenance



Part Number	Max. Flow	Max. Head	Discharge of Water	Tank Capacity	Outlet Tube	Sound Level
CP-30228	108-180L/h	3-3.5M	22/25W	744cc	3/8" / 4mm	<45dB(A)
CP-50228	108-180L/h	5-6M	55/58W	744cc	3/8" / 4mm	<55dB(A)

Accessories

Sub menu



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Fan Blades



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Fan Impellers



Pages 7.7
Scroll & Wheels



Pages 7.8
Capacitors



Pages 7.9
Controls



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Mounting Arrangements

Accessories

Fan blades

Type:

Material:

Fixing

Axial fan blade

Metal & thermoplastic

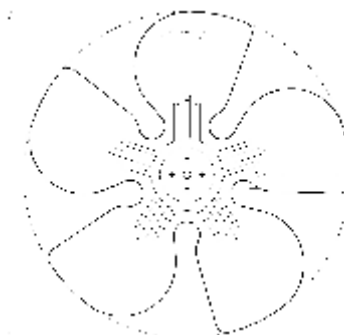
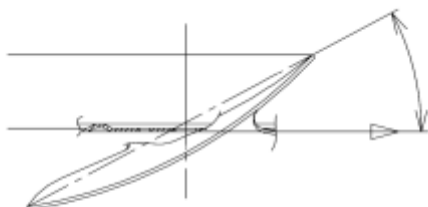
4 pin fixing point

Number of blades:

Used with:

Five

84 & 33 range shaded pole motors



Aluminium sucking blades

Diameter	Pitch (Degrees)							
	11'	18'	19'	20'	22'	25'	28'	31'
154mm								
165mm								
172mm								
200mm								
230mm								
254mm								
300mm								

Aluminium blowing blades

Diameter	Pitch (Degrees)						
	19'	20'	22'	25'	28'	31'	34'
154mm							
165mm							
172mm							
200mm							
230mm							
254mm							
300mm							



Plastic sucking blades

Diameter	Pitch (Degrees)					
	22'	25'	26'	28'	31'	34'
154mm						
172mm						
200mm						
230mm						
254mm						

Plastic blowing blades

Diameter	Pitch (Degrees)					
	22'	25'	26'	28'	31'	34'
154mm						
172mm						
200mm						
230mm						
254mm						
300mm						



Accessories

Fan blades

Type:

Axial fan blade

Material:

Metal (Aluminium & steel)

Fixing

Grub screw

Number of blades:

Four & five

Used with:

Plain shaft motors (84R, 33R, 105R)

One Piece 4 Bladed Fan with Steel Hub

Part Number	Blade Dimensions		Air Direction with ACW Rotation	Hub bore mm (ins)
	Diameter	Pitch		
FB-96-4-30-ACW-S-1	96	28	Sucking	4.76(3/16)
FB-140-4-32-ACW-S-1	140	32	Sucking	6.3(1/4)
FB-140-4-32-ACW-B-1	140	32	Blowing	6.3(1/4)



One Piece 5 Bladed Fan with Steel Hub

Part Number	Blade Dimensions		Air Direction with ACW Rotation	Hub bore mm (ins)
	Diameter	Pitch		
FB-228-5-31-ACW-B-1	228	31	Blowing	7.93(5/16)
FB-228-5-31-ACW-S-1	228	31	Sucking	7.93(5/16)
FB-254-5-12-ACW-S-1	254	12	Sucking	7.93(5/16)
FB-254-5-12-ACW-B-1	254	12	Blowing	7.93(5/16)
FB-254-5-28-ACW-B-1	254	28	Blowing	7.93(5/16)
FB-254-5-32-ACW-B-1	254	32	Blowing	7.93(5/16)



Square/curved 4 bladed fan

Part Number	Blade Dimensions		Air Direction with ACW Rotation	Hub bore mm (ins)
	Diameter	Pitch		
FB-254-4-28-ACW-S-1	254	28	Sucking	7.93(5/16)
FB-254-4-30-ACW-B-1	254	30	Blowing	7.93(5/16)
FB-305-4-34-ACW-B-1	305	34	Blowing	12.7(1/2)
FB-305-4-34-ACW-S-1	305	34	Sucking	12.7(1/2)
FB-310-4-28-ACW-B-1	310	28	Blowing	12mm
FB-310-4-36-ACW-B-1	310	36	Blowing	12mm
FB-310-4-36-ACW-S-1	310	36	Sucking	12mm
FB-355-4-24-ACW-B-1	355	24	Blowing	12.7(1/2)
FB-355-4-24-ACW-S-1	355	24	Sucking	12.7(1/2)
FB-380-4-20-ACW-B-1*	380	20	Blowing	15.9(5/8)
FB-380-4-30-ACW-B-1	380	30	Blowing	15.9(5/8)
FB-380-4-34-ACW-B-1	380	34	Blowing	12mm
FB-406-4-24-ACW-B-1	406	24	Blowing	15.9(5/8)
FB-406-4-24-ACW-S-1	406	24	Sucking	15.9(5/8)
FB-460-4-24-ACW-B-1	460	24	Blowing	15.9(5/8)
FB-510-4-26-ACW-B-1	510	26	Blowing	15.9(5/8)

Items marked * are not stocked



Accessories

Fan impellers

Type:

Material:

Construction:

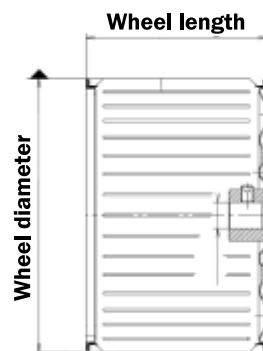
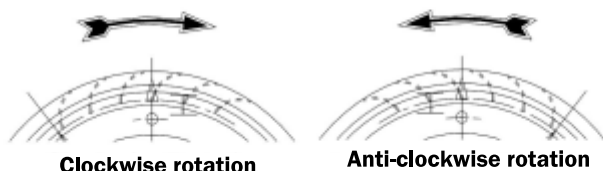
Forward curved impellers

Aluminium & steel

Ladder & tablock

Notes:

Steel wheels used for burner applications



Aluminium impellers

Part Number	Diameter mm	Length mm	Roation Hub Side	Hub Diameter mm	Hub Diameter inches
VC96.50S	96	50	ACW	12.7	1/2"
VC108.40D	108	40	CW	12.7	1/2"
VC108.74D	108	74	CW	12.7	1/2"
VC120.74D	120	74	CW	12.7	1/2"
VC120.74S	120	74	ACW	12.7	1/2"
VC133.74D	133	74	CW	12.7	1/2"
VC146.74D	146	74	CW	12.7	1/2"
VC146.74S	146	74	ACW	12.7	1/2"
VC160.74D	160	74	CW	12.7	1/2"
VC160.74S	160	74	ACW	12.7	1/2"
VC180.74D	180	74	CW	12.7	1/2"
VC180.88D	180	88	CW	12.7	1/2"
VC180.98D	180	98	CW	12.7	1/2"
VC180.98S	180	98	ACW	12.7	1/2"
VC200.88D	200	88	CW	12.7	1/2"
VC238.110D	238	110	CW	12.7	1/2"

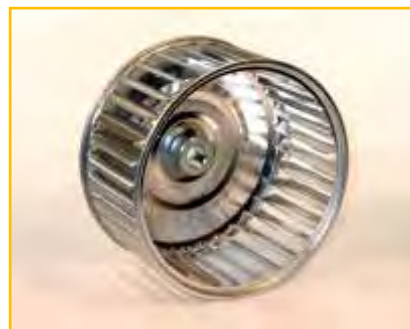
Steel impellers

Part Number	Diameter mm	Length mm	Roation Hub Side	Hub Diameter mm	Hub Diameter inches
SVC97.32S	97	32	ACW	8	-
SVC97.42D	97	42	CW	8	-
SVC108.42D	108	42	CW	8	-
SVC108.42D-1	108	42	CW	12.7	1/2"
SVC108.42S	108	42	ACW	8	-
SVC108.52D*	108	52	CW	8	-
SVC120.42D	120	42	CW	8	-
SVC120.52D	120	52	CW	12.7	1/2"
SVC133.52S	133	52	ACW	8	-
SVC133.52S-1	133	52	ACW	12.7	1/2"
SVC133.52D	133	52	CW	12.7	1/2"
SVC146.52D	146	52	CW	12.7	1/2"
SVC146.52S-1	146	52	ACW	12.7	1/2"
SVC146.74S	146	74	ACW	12.7	1/2"
SVC160.63D	160	63	CW	12.7	1/2"
SVC180.74D	180	74	CW	12.7	1/2"
SVC180.80S	180	80	ACW	12.7	1/2"
SVC180.92D	180	92	CW	12.7	1/2"
SVC225.75D#	225	75	CW	20	-
SVC225.92D	225	92	CW	12.7	1/2"

whilst stocks last

* item not stocked

Aluminium



Steel



2VC146.102/SP



Special Purpose Impellers

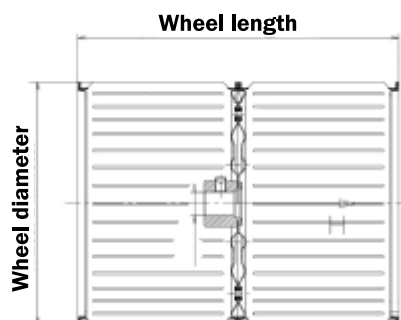
Part Number	Diameter mm	Length mm	Roation Hub Side
2VC146.102/SP	146	102	ACW

3 Arm Spider Hub - 1/2"

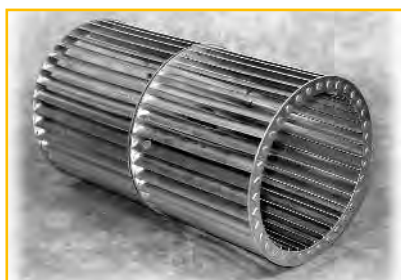
Accessories

Fan impellers

Type: Forward curved impellers
 Size: Double inlet
 Material: Aluminium & steel
 construction: Ladder & tablock



Aluminium wheels (1/2" hub bore)											
Length	Diameter										Length
	95	108	120	133	146	160	180	200	215	240	
100											100
Rotation	CW	ACW			CW						Rotation
120											120
Rotation								CW & ACW			Rotation
126											126
Rotation		CW			CW	CW					Rotation
146											146
Rotation			ACW	CW & ACW	CW & ACW	CW	CW			ACW	Rotation
176											176
Rotation			CW & ACW	CW & ACW	CW & ACW	ACW	CW & ACW	CW	ACW		Rotation
196											196
Rotation				CW & ACW	CW & ACW	ACW	CW & ACW	CW	CW	CW	Rotation
216											216
Rotation				CW & ACW	CW & ACW	ACW		CW		CW & ACW	Rotation
220											220
Rotation					ACW				CW & ACW		Rotation
226											226
Rotation				ACW	ACW						Rotation
240											240
Rotation		ACW		CW & ACW	CW & ACW		ACW		CW	CW	Rotation
300											300
Rotation					CW & ACW				ACW	CW	Rotation



Steel wheels				
Part Number	Diameter mm	Length mm	Rotation Hub Side	Hub Bore Diameter
S2VC240.180D	240	180	CW	12.7
S2VC240.216D	240	216	CW	12.7
S2VC240.245D	240	245	CW	12.7
S2VC250.265S	250	265	CW	12.7
S2VC280.205D	280	205	CW	12.7
S2VC280.205S	280	205	CW	12.7
S2VC280.270D	280	270	CW	12.7
S2VC330.242D	330	242	CW	12.7
S2VC330.242D-1	330	242	CW	15.9
S2VC330.321D	330	321	CW	15.9

Bore Dimensions			
Diameter	Outer Bore	Diameter	Outer Bore
95	20mm	180	25mm
108	20mm	200	25mm
120	20mm	215	25mm
133	20mm	240	25mm
146	25mm	280	45mm
160	25mm	330	45mm

tel: 01526 399 711 | fax: 01526 399 744 | email: sales@psp.uk.com

Accessories

Fan impellers

Type:

Forward curved impellers

Notes:

Size:

100mm diameter

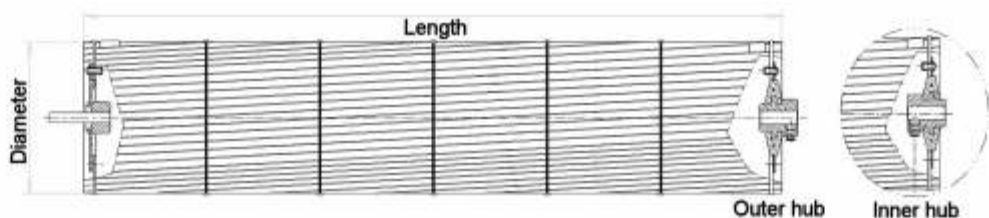
Hub bore:

7.93mm (5/16")

Material:

Aluminium

- Supplied with bearing attached
- Used with XRM range
- Non-stocked items (8 piece batch sizes)



CFW100-400D



CFW100-400D

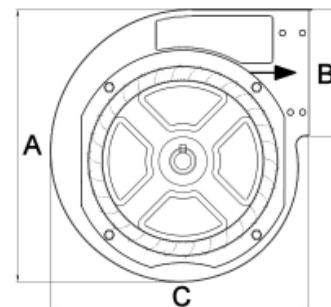
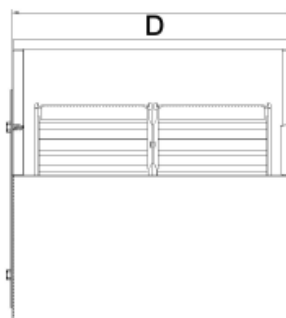


Part Number	Wheel Dimensions		Roation	In
	Diameter	Length	Hub Side	Stock
CFW100.340D	100	340	CW	No
CFW100.340S	100	340	ACW	No
CFW100.385D	100	385	CW	No
CFW100.385S	100	385	ACW	No
CFW100.423D	100	423	CW	No
CFW100.423S	100	423	ACW	No
CFW100.485D	100	485	CW	No
CFW100.485S	100	485	ACW	No
CFW100.571D	100	571	CW	No
CFW100.571S	100	571	ACW	No
CFW100.623D	100	623	CW	Yes
CFW100.623S	100	623	ACW	Yes
CFW100.685D	100	685	CW	No
CFW100.685S	100	685	ACW	No
CFW100.723D	100	723	CW	Yes
CFW100.723S	100	723	ACW	Yes
CFW100.785D	100	785	CW	No
CFW100.785S	100	785	ACW	No
CFW100.943D	100	943	CW	Yes
CFW100.943S	100	943	ACW	Yes
CFW100.985D	100	985	CW	No
CFW100.985S	100	985	ACW	No
CFW100.1185D	100	1185	CW	No
CFW100.1185S	100	1185	ACW	No

Accessories

Scroll & wheels

Type:	Galv. steel scroll & aluminium impeller
Fixing:	Flange
Hub size:	½" (12.7mm)



Part Number	Dimensions (mm)				Wheel Diameter	Wheel Length	Flange Fitted
	C	D	A	B			
S&W108.176	131	200	141	58	108	176	Yes
S&W133.146	185	184	191	78	133	146	No
S&W133.176	185	210	191	78	133	176	Yes
S&W133.190	219	222	180	84	133	190	Yes
S&W133.196	185	231	191	78	133	196	Yes
S&W133.196/1	190	240	185	72	133	196	Yes
S&W133.216	185	250	191	78	133	216	Yes
S&W133.240/1	190	270	186	70	133	240	Yes
S&W140.190	210	225	220	110	140	190	Yes
S&W140.240	210	270	220	110	140	240	Yes
S&W146.160	210	200	220	110	146	160	Yes
S&W146.190	210	220	220	110	146	190	Yes
S&W146.240	208	275	216	103	146	240	Yes
S&W146.300	195	335	205	90	146	300	No
S&W160.160	n/a	n/a	n/a	n/a	160	160	No
S&W160.200	220	230	238	110	160	200	Yes
S&W180.202	265	232	261	121	180	196	No
S&W180.240	265	276	262	121	180	240	No
S&W250.250	n/a	n/a	n/a	n/a	250	250	No

Accessories

Capacitors

Type:

Supply:

Supply:

Fixing:

Start & run capacitors

400/450V for use on 220/240V supplies (Start run)

280V for use on 220/240V supplies (Start only)

Leads, 2 pin & 4 pin

Fixing:

Fixing:

Material:

Temperature range:

Temperature range:

Stud mounting (Start run)

Mounting clip (Start only)

Thermoplastic & metal

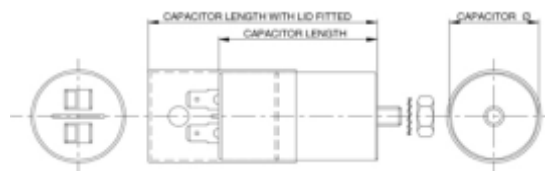
-25°C to +70°C (Start run)

-10°C to +50°C (Start only)

Run capacitors

Capacitor Value	Available in:			Dimensions (Approx)		Body Material
	2 pin	4 pin	Leads	Diameter	Length	
1 MFD	-	Yes	-	30mm	50mm	Plastic
1.5 MFD	-	Yes	-	30mm	50mm	Plastic
2 MFD	Yes	Yes	Yes	30mm	50mm	Plastic
2.5 MFD	Yes	Yes	-	25mm	60mm	Plastic
3 MFD	Yes	Yes	Yes	30mm	60mm	Plastic
3.15 MFD	Yes	-	-	30mm	60mm	Plastic
4 MFD	Yes	Yes	Yes	30mm	60mm	Plastic
5 MFD	Yes	Yes	Yes	30mm	50mm	Plastic
5 MFD	Yes	-	-	30mm	80mm	Metal
6 MFD	-	Yes	Yes	30mm	60mm	Plastic
6.3 MFD	Yes	Yes	-	30mm	60mm	Plastic & Metal
8 MFD	Yes	Yes	Yes	30mm	60mm	Plastic
10 MFD	Yes	Yes	Yes	35mm	60mm	Plastic
12 MFD	Yes	Yes	Yes	36mm	69mm	Plastic
12.5 MFD	Yes	-	-	35mm	75mm	Plastic
14 MFD	Yes	-	-	40mm	70mm	Metal
15 MFD	Yes	Yes	-	40mm	70mm	Plastic
16 MFD	Yes	-	-	35mm	70mm	Plastic
18 MFD	Yes	Yes	-	45mm	70mm	Plastic
20 MFD	-	Yes	-	40mm	75mm	Plastic
25 MFD	-	Yes	-	40mm	95mm	Plastic
30 MFD	-	Yes	-	50mm	90mm	Metal
35 MFD	-	Yes	-	50mm	80mm	Metal
40 MFD	-	Yes	-	50mm	90mm	Metal
45 MFD	-	Yes	-	50mm	100mm	Metal
50 MFD	-	Yes	-	55mm	100mm	Metal
60 MFD	-	Yes	-	55mm	110mm	Metal
70 MFD	-	Yes	-	60mm	110mm	Metal
80 MFD	-	Yes	-	55mm	135mm	Plastic
90 MFD	-	Yes	-	55mm	135mm	Plastic
100 MFD	-	Yes	-	55mm	135mm	Plastic

*Dimensions may vary from those given in table



Start capacitors 240V

Part Number	Capacitor Value	Connection Type	Dimensions (Approx)		Body Material
			Diameter	Length	
PSSTCAP-53/64	53-64 MFD	4 pin	35mm	70mm	Plastic
PSSTCAP-64/77	64-77 MFD	4 pin	35mm	70mm	Plastic
PSSTCAP-72/86	72-86 MFD	4 pin	35mm	70mm	Plastic
PSSTCAP-88/108	88-108 MFD	4 pin	35mm	70mm	Plastic
PSSTCAP-90/110	90-110 MFD	4 pin	35mm	70mm	Plastic
PSSTCAP-108/130	108-130 MFD	4 pin	35mm	70mm	Plastic
PSSTCAP-124/149	124-149 MFD	4 pin	35mm	70mm	Plastic
PSSTCAP-130/156	130-156 MFD	4 pin	35mm	70mm	Plastic
PSSTCAP-135/165	135-165 MFD	4 pin	35mm	70mm	Plastic
PSSTCAP-161/193	161-193 MFD	4 pin	45mm	85mm	Plastic
PSSTCAP-180/220	180-220 MFD	4 pin	45mm	85mm	Plastic
PSSTCAP-189/227	189-227 MFD	4 pin	45mm	85mm	Plastic
PSSTCAP-216/259	216-259 MFD	4 pin	45mm	85mm	Plastic



Capacitor Mounting Clips

Part Number	Coating	Grip Diameter
CSC25	Zinc Plated	25mm
CSC28	Zinc Plated	28mm
CSC32	Zinc Plated	32mm
CSC35	Zinc Plated	35mm
CSC38	Zinc Plated	38mm
CSC51	Zinc Plated	51mm



Accessories

Controls

Variable Speed Controllers

Part Number	Maximum Amp Rating	Temperature Rating	Box Dimensions (mm)			Dial Details
			Height	Width	Depth	
PSVEV	1.5A	-	42	32	60	6mmx38
PSVSC-2.5A	2.5A	25°C	55	43	28	Dial
PSVSC-5A	5A	25°C	60	40	36	Dial
PSVSC-6A*	6A	25°C	n/a	n/a	n/a	Dial
PSVSC-8A*	8A	40°C	n/a	n/a	n/a	Dial
PSVSC-10A	10A	25°C	n/a	n/a	n/a	Dial
PSVSC-15A	15A	25°C	n/a	n/a	n/a	Dial

Notes - They contain a high gain RFI noise suppression filter, minimum speed trimpot and a flame retardant ABS enclosure.

Notes - Items marked * may not be available from stock



Transformers

Part Number	Maximum Power (W)	Speed Output	Box Dimensions		
			Height	Width	Depth
TRAS.008	50W	7	50	57	42
TRAS.004	100W	7	60	70	60

TRAS.008



TRAS.004



Switches

Part Number	Switch Type	Number of Positions	Switch Shape	Switch Dimension		
				Height	Width	Depth
PSKC.001	Rotary	3 & off	Square	43	40	20
PSKC.002	Rotary	3 & off	Square	30	30	28
PSSW.001	Rocker	2 & off	Square	20	23	22
PSSW.002	Rocker	3	Square	30	25	32
PSSW-2SP	Rocker	on & off	Circular	14.6	17.6	17.6
PSSW-2SP-RED	Rocker	on & off	Circular	14.6	17.6	17.6

PSSW.002



PSSW.001



PSSW.2SP



PSSW-2SP-RED



PSKC.001



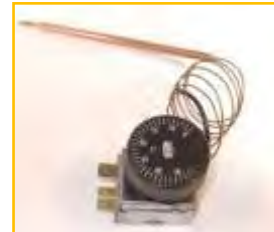
Thermostat

Part Number	Thermostat Type	Temperature Cut out
PSTH-CAP01	Capillary Action	-
PSTH.001	Pipe thermostat	LTC 35-50°C

PSTH.001



PSTH-CAP01



Plugs

Part Number	Number of Pins	Lead attached?
Psplug	3	No

Psplug



Cable

Part Number	Cable Length	Cable application	Plug connector
PL2.5M-1	2500mm	General	UK mains
PL3M-1.5	3000mm	General	UK mains
PSCAPC.1000	1000mm	Compact axial	2 pin female
PSCAPC.2000	2000mm	Compact axial	2 pin female
84PC-1	1000mm	84R special	3 pin female
84PC-2	2000mm	84R special	3 pin female
K31CA	1000mm	84R PSC	9 wire

K31CA



84PC-1



PL2-5M-1



Accessories

Mounting rings

Type:

Material:

Temperature rating:

Fan assembly mounting rings

Thermoplastic & metal

-35 °C to +90 °C for the plastic rings

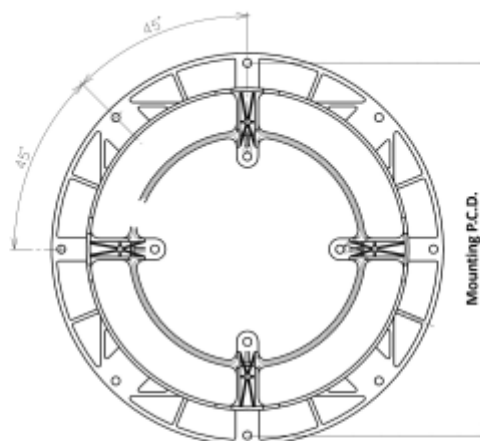
Notes:

- Circular & square cut design
- Sucking & blowing curved outlets
- Used with: 84 range shaded pole motors

Plastic



Square metal



Part Number	Material	Suggested Airflow	Inside Diameter	Outside Diameter	Mounting PCD	Ring Depth	Intended Blade Diameter
RB-154M	Metal	Sucking	162	200	190	49	154
RB-154P	Plastic	Sucking	162	200	190	49	154
RB-154M-B	Metal	Blowing	162	200	190	36	154
RB-172M	Metal	Sucking	180	220	208	49	172
RB-172P	Plastic	Sucking	180	220	208	49	172
RB-172M-SQ	Metal	Sucking	180	220	208	49	172
RB-172M-B	Metal	Blowing	180	220	208	36	172
RB-200M	Metal	Sucking	208	248	236	49	200
RB-200M-D	Metal	Sucking	208	248	236	60	200
RB-200P	Plastic	Sucking	208	248	236	49	200
RB-200M-B	Metal	Blowing	208	248	236	36	200
RB-230M	Metal	Sucking	238	278	265	49	230
RB-230P	Plastic	Sucking	245	283	265	49	230
RB-230P-SQ	Plastic	Sucking	245	283	265	49	230
RB-230M-B	Metal	Blowing	245	278	265	36	230
RB-254M	Metal	Sucking	262	302	290	49	254
RB-254P	Plastic	Sucking	262	302	290	49	254
RB-254M-B	Metal	Blowing	262	302	290	36	254
RB-300M	Metal	Sucking	308	350	344	49	300
RB-300M-B	Metal	Blowing	308	350	344	36	300

Accessories

Mounting guards

Type:

Grid & guard assembly wire guards

Notes:

Used with: 84 range & guard mounted axial range

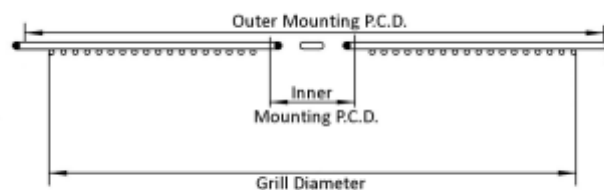
Material:

Metal black PVC coated



Suits 84 range fans

Part Number	Finish	Intended Blade Diameter	Inside Diameter	Maximum Diameter	Mounting PCD	Guard Depth
MG-154M	Chrome	154	170	202	190	11
MG-172M	Chrome	172	188	220	208	11
MG-200M	Chrome	200	214	248	236	25
WMGR200	Black PVC	200	207	250	238	50
MG-230M	Chrome	230	246	278	266	27
MG-254M	Chrome	254	270	300	294	17
MG-254M-1	Chrome	254	270	300	294	27
MG-300M	Chrome	300	324	354	344	17



Suits guard mounted axial range

Part Number	Guard Design	Intended Blade Diameter	Mounting P.C.D. Outer	Mounting P.C.D. Inner	Outer Grill Dia.	Guard Depth
GMAG-250-FLAT	Flat	250mm	320	59	288	-
GMAG-250-BSK	Basket	250mm	320	59	275	45
GMAG-300-FLAT	Flat	300mm	360	59	333	-
GMAG-300-BSK	Basket	300mm	360	59	325	60
GMAG-315-BSK	Basket	315mm	390	59	335	60
GMAG-330-BSK	Basket	330mm	402	90	350	80
GMAG-350-FLAT	Flat	350mm	422	90	385	-
GMAG-350-BSK	Basket	350mm	422	90	375	80
GMAG-380-BSK	Basket	380mm	450	90	400	80
GMAG-400-FLAT	Flat	400mm	470	90	435	-
GMAG-400-BSK	Basket	400mm	470	90	425	90
GMAG-450-FLAT	Flat	450mm	522	90	487	-
GMAG-450-BSK	Basket	450mm	522	90	475	90
GMAG-500-FLAT	Flat	500mm	570	120	537	-
GMAG-500-BSK	Basket	500mm	570	120	525	90
GMAG-550-FLAT	Flat	550mm	622	120	587	-
GMAG-550-BSK	Basket	550mm	622	120	578	100
GMAG-600-FLAT	Flat	600mm	679	120	620	-
GMAG-600-BSK	Basket	600mm	679	120	620	100
GMAG-630-FLAT	Flat	630mm	750	120	656	-
GMAG-630-BSK	Basket	630mm	750	120	655	100

* We charge £6.00 if you require us to fit an additional guard to your unit

* When a guard with a larger inner PCD is used a GMA-Adaptor is also required £10.38

Accessories

Mounting - pedestal

Type:

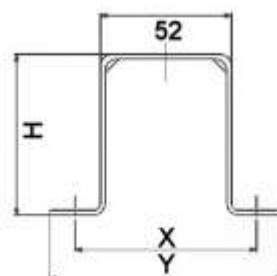
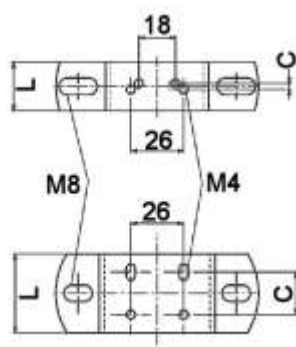
Fan assembly brackets

Notes:

- Straight and V shape designs
- Used with: 84 & 33 range shaded pole motors

Material:

Metal



Straight Leg

Part Number	Leg Height (H)	Mounting Point (X)	Bracket Width (Y)	Bracket Depth (L)	Fixing Hole Depth (C)
PBS-39/81	39	81	106	24	3
PBS-52/78	52	78	106	24	3
PBS56/78	56	78	100	25	18
PBS-60/86	60	86	106	25	-
PBS-72/78	72	78	106	24	3
PBS-74/86	74	86	106	25	-
PBS-75/78	75	78	100	25	-
PBS-84/81	84	81	106	24	3
PBS-84/78	84	78	100	39	21
PBS-86/78	86	78	100	25	-
PBS-88/78	88	78	100	40	-
PBS-89/78	89	78	100	25	-
PBS-92/78	92	78	100	40	-
PBS-95/78	95	78	100	25	-
PBS-109/78	109	78	100	39	21



Angle Leg

Part Number	Leg Height (H)	Mounting Point (X)	Bracket Width (Y)	Bracket Depth (L)	Fixing Hole Depth (C)
PBV-52/130	52	130	152	24	3
PBV-56/133	56	133	152	25	-
PBV-67/145	67	145	167	25	-
PBV-72/159	72	159	181	24	3
PBV-82/159	82	159	181	25	-
new PBV-84/142	84	142	164	24	3
PBV-89/142	89	142	164	24	3
PBV-90/110	90	110	132	49	35
PBV-112/150	112	150	172	39	21



Accessories

Mounting

Type:

Resilient mounting bases

Material:

Galv. steel

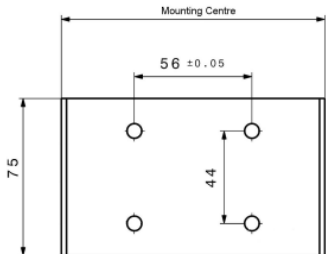
Size:

Single inlet

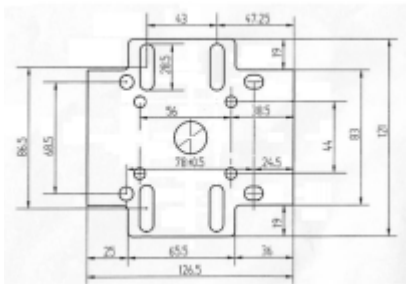
Notes:

Suits our fan coil motors

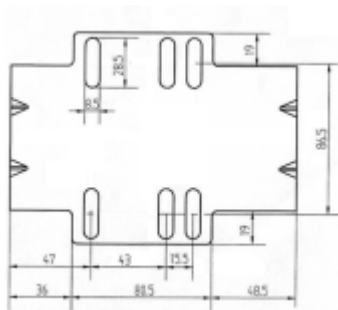
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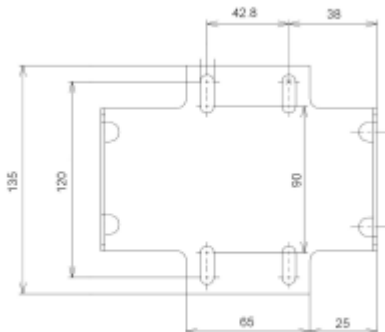
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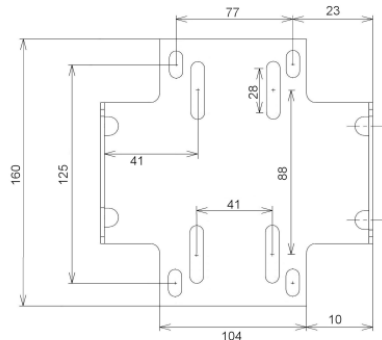
PB2



PB3



PB4



Fan coil resilient mounting bases

Shaft Centre Height	Mounting Centre								
		97	111	118	123	132	143	153	163
	67								
	Style	NB1	NB1	NB1	NB1	NB1	NB1	NB1	PB2
	76								
	Style	PB1		PB4	NB1	NB1	NB1		
	89								
	Style	PB3	NB1, PB3	NB1	NB1	NB1	NB1, PB1		
	95								
	Style	NB1	NB1	NB1	NB1	NB1	NB1		
101									
Style					NB1	NB1			

*Other sizes and dimenions are stocked but often only low quantities are kept

Mounting base height extender

Part Number	Height Extension
RBH-20	20mm
RBH-30	30mm
RBH-40	40mm



Accessories

Mounting

Type:

Flange mounting

Material:

Galv. Steel & painted steel

33 range mounting flange & accessories

Triangular mounting bracket



Code: 33-MB-1

Flange endshield mount



Code: 33-FL-1

May be drilled or slotted & fixed to the motor body.

33-HSG-1



Code: 33HSG-1

Heat sink guard suitable for high ambient applications

33-HSG-1

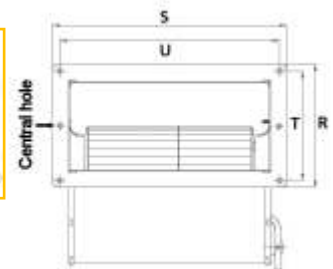


Code: 33-CG-1

Cork gasket used with flange mounting

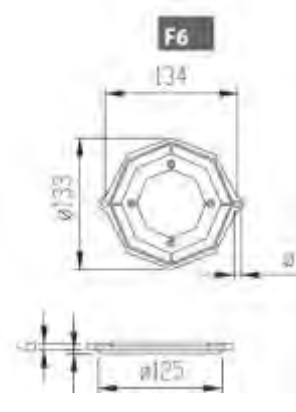
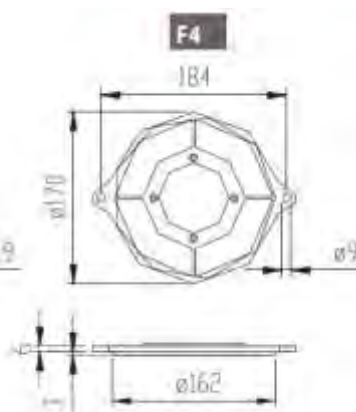
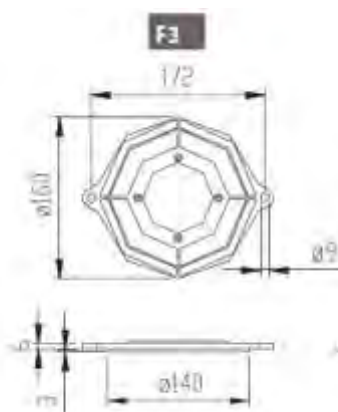
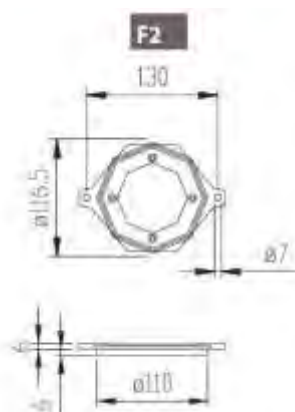
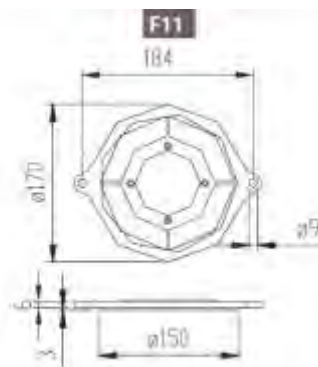
Direct drive flanges

Model Number	DD Type	R	S	Dimension T	U
DDF7/5	7/5	252	212	230	190
DDF7/7	7/7	252	274	230	250
DDF9/7	9/7	305	278	280	256
DDF9/9	9/9	305	345	280	320
DDF10/8	10/8	330	310	310	285
DDF10/10	10/10	330	375	310	350
DDF12/9	12/9	385	355	360	330
DDF12/12	12/12	385	435	360	410
CB-FL1	CB133-190	132	264	Central hole	250



Flanges

Part Number	Description	Mounting P.C.D.	Shoulder Diameter
BMF2	F2	130	110
BMF3	F3 - Nema 1	172	140
BMF4	F4 - Nema 2	184	162
BMF6	F6	134	125
BMF11	F11	180	-



Accessories

Mounting

Mounting arrangement - feet

Model Number	DD Type
DD7F	7/5 & 7/7
DD9F	9/7 & 9/9
DD10F	10/8 & 10/10
DD12F	12/9 & 12/12

Resilient base accessories

Code	Description
RES-CLIPS	Resilient clips
RR55-12	55mm diameter rings



Anti-vibration mounting arms

Part Number	Length	Depth	Hole Centres	Hole Size
PS-V.MOUNT	57mm	12.5mm	46mm	M5



Radial mounting accessories

Code	Description
BMKS	3 arm bracket set (standard)
BMKL	3 arm bracket set (long)
BMK-HD3	3 arm bracket set (heavy duty)
BMK-HD4	4 arm bracket set (heavy duty)
EBM-BKT1	Backward curved mounting bracket
BB105	Belly band, 105mm diameter
BB120	belly band, 120mm diameter

Anti-vibration plate mounts

Part Number	Hole Centres
PSFDAV-25.4	25.4mm
PSFDAV-34.9	34.9mm
PSFDAV-44.5	44.5mm



BMK-HD3



BMKL



BMKS



BB105



BB120



Anti-vibration fixings

Part Number	Thread	Rubber Diameter	Rubber Length	Stud Length
VM-1010-M4-1	M4	10mm	10mm	10mm
VM-1320-M5-1	M5	13mm	20mm	10mm
VM-1510-M5-1	M5	15mm	10mm	12mm
VM-1515-M5-1	M5	15mm	15mm	12mm
VM-1520-M6-1	M6	15mm	20mm	15mm
VM-2520-M6-1	M6	25mm	20mm	17mm
VM-2520-M6-2	M6	25mm	20mm	12mm
VM-3025-M8-1	M8	30mm	25mm	20mm
VM-4038-M10-1	M10	40mm	38mm	25mm
VM-5035-M10-1	M10	50mm	35mm	25mm



Inlet rings

Part Number	Outer Diameter	Inlet Depth	Inner Diameter
IR-133-BPI	125	13	87
IR-175-BPI	170	14	125
IR-220-BPI	252	21	156.2
IR-225-BPI	223	28	145
IR-250-BPI	255	33	167
IR-280-BPI	280	35	182.5



Accessories

Shaft adapters & brackets

Type: Various shaft accessories - Shaft sleeves
 - Mounting brackets & bearings
 - Extension pieces

Shaft Sleeves - £2.18

Inside Diameter	5mm	6mm	1/4"	1/4"	5/16"	5/16"	3/8"
Outside Diameter	1/4"	1/2"	5/16"	3/8"	3/8"	1/2"	1/2"
Shaft Length	n/a	18mm	n/a	n/a	25mm	25mm	30mm
Part Number	SS5mm-1/4	SS6mm-1/2	SS1/4-5/16	SS1/4-3/8	SS5/16-3/8	SS5/16-1/2	SS3/8-1/2

Inside Diameter	3/8"	7/16"	1/2"	1/2"	1/2"	1/2"	5/8"
Outside Diameter	7/16"	1/2"	14mm	15mm	5/8"	17mm	3/4"
Shaft Length	25mm	25mm	38mm	n/a	38mm	n/a	38mm
Part Number	SS3/8-7/16	SS7/16-1/2	SS1/2-14mm	SS1/2-15mm	SS1/2-5/8	SS1/2-17mm	SS5/8-3/4



Shaft Adapters

Part Number	Inside Diameter	Outside Diameter	length
Adaptor-1/2"	M6	1/2"	19mm



Shaft End Caps

Part Number	Motor Range
P3951BLK	105 Range
PLUG120	120 Range



Triangular bearing brackets & parts

Part Number	Description	Fixing hole P.C.D.s
PSTBB.001	1/2" bore with ball bearing	142/162/184mm
PSTBB.002	Triangular bearing bracket	145/156/182/196/212/234mm
PSBB-0.5	1/2" bearing	-
PSBB-0.6265	5/8" bearing	-
PSBB-0.75	3/4" bearing	-
PSBB-1.0	1" bearing	-

PSTBB.001



PSTBB.002



PSBB-0.5



Miscellaneous parts

Part Number	Description
PSSE.001	Shaft extension piece, 1/2"
PSSC.001	Shaft coupling, 1/2" bore, 57mm long

PSSE.001



PSSC.001



Accessories

Wire protection guards

Type:	Finger protection guards
Material:	Zinc & PVC coated steel
Suits:	Compact axial & refrigeration fans

Wire protection guards

Part Number	Blade Diameter	Mounting P.C.D.	Inside Diameter	Overall Depth	Annular Wires	Wire Coating
WPG154	154	190	160	27	7	Black PVC
WPG172	172	208	178	27	8	Black PVC
WPG200	200	238	207	27	9	Black PVC
WPG230	230	266	238	27	9	Black PVC

WPG154



WPG172



WPG200



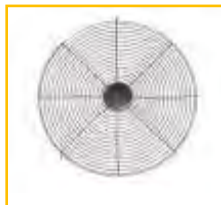
OEM use protection guards

Part Number	Blade Diameter	Mounting P.C.D.	Inside Diameter	Overall Depth	Annular Wires	Wire Coating
WPG520	520	579	520	Flat	16	Black PVC
WPG530	520	-	530	Flat	18	Black PVC
WPG700	700	745	697	Flat	26	Chrome

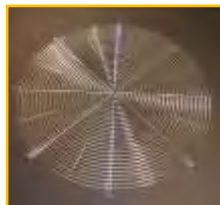
WPG520



WPG530



WPG700



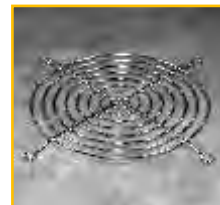
Compact axial protection guards

Part Number	Fixing Hole Width	Overall Width	Overall Depth
MFG06	50	56	5
MFG08	71.5	76	5.5
MFG09	82.5	90	5.5
MFG12	105	115.6	5.5
MFG15	162	154.4	6.45

MFG08



MFG12



Plastic Fan Filers

Part Number	Fixing Hole Width	Overall Width	Overall Depth
PFF06	50	60	4
PFF08	71.4	83.8	3.5
PFF09	82.5	92	4
PFF12	104.8	118.9	3.5
PFF15	162	182	4.15



Filter material

Code	Size
PSFM.001	Per fan deck

■ Carriage & contact

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Delivery charges

UK Domestic Parcel Rates (Parcelforce)

Service 1	Within 1-2 working days	£ 8.50
Service 2	Next working day by noon	£ 16.99
Service 3	Next working day by 10am	£ 24.72
Service 4	Next working day by 9am	£ 41.20
Service 5	Saturday delivery (Anytime)	£ 26.78
Service 6	Saturday delivery by 10am	£ 36.38
Service 7	Saturday delivery by 9am	£ 44.80

Non UK Domestic Parcel Rates

Service 8	Islands & Scottish Highlands	£ 16.48
Service 9	Northern Ireland 24	£ 20.05
Service 10	Northern Ireland 48	£ 15.73
Service 11	Southern Ireland by surface	£ 29.38
Service 12	Channel Islands	£ 18.93
Service 13	Isle of Man 24	£ 25.34
Service 14	Isle of Man 48	£ 16.99
SAMEDAY	Same day delivery/collection	£Call

Maximum parcel weight - 30kg

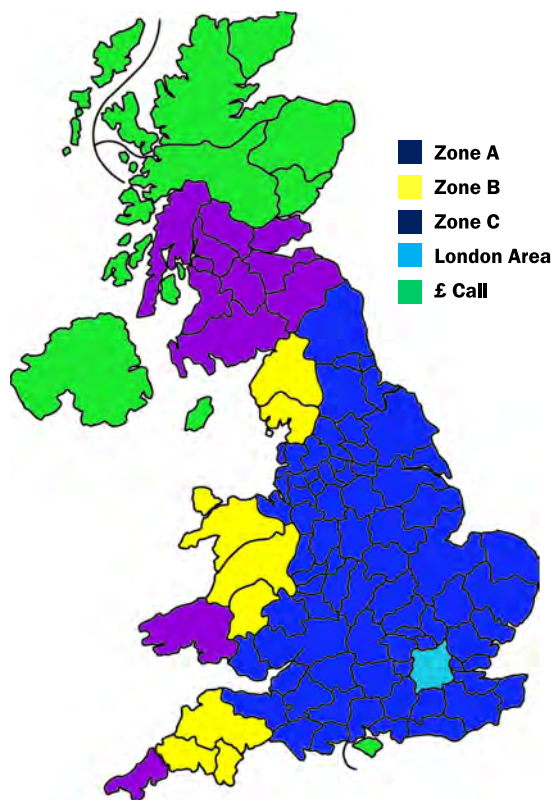
UK Domestic Pallet Rates

Service P1	Zone A - Next Day	£ 59.99
Service P2	Zone A - Two/Three Day	£ 49.99
Service P3	Zone B - Next Day	£ 63.86
Service P4	Zone B - Two/Three Day	£ 53.56
Service P5	Zone C - Next Day	£ 69.01
Service P6	Zone C - Two/Three Day	£ 58.71
Service P7	Zone A - Specified Time Delivery	£ 74.16
Service P8	Zone A - A.M. Delivery	£ 69.01
Service P9	London Area - Next Day	£ 69.01
Service P10	London Area - Two/Three Day	£ 58.71

International Parcel Rates

Belgium	£ 43.94
Corsica	£ 43.94
Czech Rep.	£ 50.14
Denmark	£ 31.42
Finland	£ 50.14
France	£ 31.42
Germany	£ 31.42
Greece	£ 43.55
Holland	£ 43.94
Italy	£ 41.90
Monaco	£ 31.42
Portugal	£ 43.55
Spain	£ 41.90
Turkey	£ 79.79

*Delivery prices may alter with fuel costs



■ Discount structure/payments

■ Discount Structure

We have two discount structures in effect; account holders and non-account holders.

Those who have a credit account with Pole Star receive a set discount rate for all orders regardless of the quantity ordered. If there are items which you use on a regular basis then specific product discount rates may apply.

Those who are not account holders are subject to a quantity discount.

Order Quantity	Discount %
1-4	0%
5-9	10%
10-24	15%
25-49	25%
50+	Please contact us

All products are subject to the discount policy, only carriage charges and labour are not subject to discount.

■ Pricing Information

- The prices shown are nett, ex-works and exclusive of value added tax.
- This price list supersedes all previously published price lists.
- The prices charged are those that are ruling at the time of despatch.
- All transactions are subject to our terms and conditions.
- We reserve the right to amend prices and discounts at any time and without notice.
- Credit terms, subject to approval are strictly nett monthly.
- There are no minimum order quantities or minimum invoice values.

■ Payment Methods

We at Pole Star are pleased to offer a varied selection of payment methods to all our customers.

- **Cheque/Post**
Please make all cheques out payable to "Pole Star Products Limited"
- **BACS (Electronic Transfer)**
If you are making an electronic payment please use the following information
Account Number – 0604 5570
Sort code – 12-24-82
BIC: BOFSGBS1BBB
IBAN: GB48 BOFS 1224 8206 0455 70
#Reference – Your account number, eg. ABC.001
- **Debit/Credit Card**
We accept all major credit and debit cards including American Express, however American Express cards are subject to a 4% surcharge. Please call 01526 399711 to supply the card details.



Contact

General Enquiries

Tel: +44 (0)1526 399711

Fax: +44 (0)1526 399744

Sales Office

sales@psp.uk.com

Mike Cook

Sales & Operational enquiries

Adam Pinnell

Order enquiries

Katie Chapman

Order enquiries

Chris Beck

Order enquiries

Accounts office

accounts@psp.uk.com

Carol Cook

Statements

Purchasing

purchasing@psp.uk.com

Tony Cowood

Purchase enquiries

Chris Kloed

External Sales

d.cowood@psp.uk.com

David Cowood

Sales / site visits

Display motors & literature

Warehouse

Chris Kloed

Goods inward/despatch

Stuart Prior

General warehouse enquiries

Production/modification

Alan Tinsley

Fan unit refurbishment

Mick Cox

Fan assembly

Scott Coombes

Motor modification

W www.psp.uk.com

T **PoleStarMotors**

f **Pole-star Motors**

BT <http://polestar.bttradespace.com>

S **psp-sales**

tel: 01526 399 711 | **fax:** 01526 399 744 | **email:** sales@psp.uk.com

■ IP explanation & rating

■ Enclosure types

EN 60529 outlines an international classification system for the sealing effectiveness of enclosures of electrical equipment against the intrusion into the equipment of foreign bodies (i.e. tools, dust, fingers) and moisture. This classification system utilizes the letters "IP" ("Ingress Protection") followed by two or three digits. (A third digit is sometimes used. An "x" is used for one of the digits if there is only one class of protection; i.e. IPX4 which addresses moisture resistance only.)

■ Degrees of Protection - First Digit

The first digit of the IP code indicates the degree that persons are protected against contact with moving parts (other than smooth rotating shafts, etc.) and the degree that equipment is protected against solid foreign bodies intruding into an enclosure.

0	No special protection
1	Protection from a large part of the body such as a hand (but no protection from deliberate access); from solid objects greater than 50mm in diameter.
2	Protection against fingers or other object not greater than 80mm in length and 12mm in diameter.
3	Protection from entry by tools, wires, etc., with a diameter or thickness greater than 1.0mm.
4	Protection from entry by solid objects with a diameter or thickness greater than 1.0mm
5	Protection from the amount of dust that would interfere with the operation of the equipment.
6	Dust tight.

■ Degrees of Protection - Second Digit

The second digit indicates the degree of protection of the equipment inside the enclosure against the harmful entry of various forms of moisture (e.g. dripping, spraying, submersion, etc.)

0	No special protection
1	Protection from dripping water.
2	Protection from vertically dripping water.
3	Protection from sprayed water.
4	Protection from splashed water.
5	Protection from water projected from a nozzle
6	Protection against heavy seas, or powerful jets of water.
7	Protection against immersion.
8	Protection against complete, continuous submersion in water.

Useful information

Conversion data

Length	metric to imperial	Imperial to metric
	mm x 0.394 = ins	ins. X 25.4 = MM
	m x 3.281 = feet	feet x 0.3048 = m
	m x 1.094 = yards	yards x 0.9144 = m
	km x 0.6214 = Miles	miles x 1.609 = km

Area	metric to imperial	Imperial to metric
	cm ² x 0.155 = sq ins	sq ins. X 6.452 = cm ²
	m ² x 10.76 = sq ft	sq ft x 0.929 = m ²
	m ² x 1.196 = sq yards	sq yards x 0.8361 = m ²
	km ² x 0.386 = sq miles	acres x 0.4047 = hectare

Volume	metric to imperial	Imperial to metric
	cm ³ x 0.061 = cu ins	cu ins x 16.39 = cm ³
	m ³ x 35.32 = cu ft	cu ftx 0.283 = m ³
	m ³ x 1.308 = cu yards	cu yards x 0.7645 = m ³
	litres x 1.76 = pints	pints x 0.568 = litre = dm ³
	litres x 0.2205 = gallons	gallons x 4.546 = litre - dm ³

Flow Rates				
Units	CFM	M ³ /hr	L/min	L/Sec
10 CFM	10	17	283.3	4.72
10 M ³ /hr	17	10	0.6	0.01
30 L/min	0.35	0.6	10	0.17

HP - watts			Inches - mm	
1	745.69W	W	1/16	1.6mm
3/4	559.27W	W	1/8	3.2mm
5/8	466.06W	W	1/6	4.8mm
1/2	372.85W	W	1/4	6.4mm
3/8	279.63W	W	5/16	7.9mm
1/3	248.56W	W	3/8	9.5mm
1/4	186.42W	W	7/16	11.1mm
1/6	124.28W	W	1/2	12.7mm
1/8	93.21W	W	9/16	14.3mm
1/16	46.61W	W	5/8	15.9mm
			11/16	17.5mm
			3/4	19.1mm
			13/16	20.6mm
			7/8	22.2mm
			15/16	23.8mm

Approximate power outputs

1PH PSC Motors			
Amps	Watts out	Watts in	Poles
0.50	35	110 (2MF)	4
0.65	50	145 (2.5MF)	4
0.75	75	165 (3.15MF)	4
1.00	100	180 (3.15MF)	4
1.20	150	280 (4.5MF)	4
1.40	180	310 (5MF)	4
1.60	210	350 (6.3MF)	4
2.10	250	230 (10MF)	6
3.00	370	600 (12MF)	6
3.60	550	990 (16MF)	6
5.10	735	1200 (20MF)	6

Shaded Pole Motors			
Amps	Watts inc	Stack	
0.20	32	13.5mm	
0.21	35	20mm	
0.23	38	21mm	
0.45	65	25mm	
0.52	73	30mm	
0.68	95	40mm	
0.87	120	45mm	

NEMA Insulation Classes		
Insulation Rating	Max. Operation temp	
	C	F
A	105	221
B	130	266
F	155	311
H	180	356

Choosing the correct fan

In order to select the correct fan please find below recommended air changes per hour in normal conditions for the following buildings:

Banks	2-4	Lauderettes	24-40
Bars/Cafes	10-12	Living Rooms	4-6
Pool/Games Rooms	6-8	Hospitals	5-7
Classrooms	2-4	Offices	5-7
Conference Rooms	8-10	Restaurants	10-15
Dark Rooms/X-ray	10-15	Shops/supermarkets	4-6
Fish & Chip shops	25-40	Swimming Pools	25-30
Kitchens (domestic)	10-15	Toilets/bathrooms	10-15
Laboratories	5-10	Canteen	6-10



■ Terms & conditions

- A. General – (1)** These documented terms and conditions of sale supersede all other terms and conditions, undertakings or representations made by the buyer or the seller. Nothing written or spoken verbally between the buyer and seller has contractual or other legal effect unless incorporated in this document.
(2) No agreement shall be effective to vary this contract unless agreed upon in writing and signed by a representative of the seller duly authorised in writing.
(3) Special attention is drawn to the warranty below.
- B. Description of Goods – (1)** “Goods” means, subject to this clause, goods of the description ordered or contained in the quotation and to be delivered hereunder.
(2) The Seller reserves the right to make without notice to the buyer any improvement or alteration in the material, specification, dimensions, or design of the goods which it thinks reasonable or desirable or which it is required to make by law and such improvement or alteration shall not affect the validity of the contract.
- C. Drawings, Prints and Specifications –** Any technical drawings, prints and specifications supplied by the seller under or in connection with the quotation, or the contract, shall remain the property of the seller. The buyer shall not copy them without the consent of the seller and shall comply with the seller's reasonable requirements to their use, return and otherwise.
- D. Patents –** The seller gives no indemnity in respect of any actual or alleged infringements of the patents, registered designs, design copyright, or any other industrial property right relating to the goods.
- E. Delivery – (1)** The place of and the date of delivery are as agreed between the buyer and the seller.
(2) The date for delivery is the seller's best estimate based on present information. The seller shall not be liable for delay in delivery in any circumstances whatsoever (even if caused by negligence of the seller, its servants or agents) nor for any loss, damage, or expenses which the buyer may suffer by reason of such delay.
(3) Claims for goods received in a damaged condition will only be considered if notified by telephone within 3 days of receipt and confirmed in writing within 14 days of receipt.
(4) Where the Goods cannot be examined the carrier's note or such other note (as the case may be) shall be marked by the Buyer at the time of delivery “not examined”.
- F. Cancellations – (1)** Orders/ Part orders cannot be cancelled without the prior agreement and written consent of the seller. Returned goods must be in a new and unused condition, in the original packing where possible. Credit for returned goods may be subject to a restocking charge of from 10% at the discretion of the seller.
(2) Goods will only be accepted if they are in brand new and unused condition;
(3) Packaged items will only be accepted if the package remains unbroken and in reasonable condition
(4) Goods will only be accepted if returned within three weeks of the date of collection or delivery;
(5) In every case a restocking fee charge will be made
(6) In every case the invoice number and date together with the reason for return must be stated.
- G. Property and risk – (1)** Property in the goods shall not pass to the buyer until the buyer has paid the whole of the price of the goods in full to the seller.
(2) The risk shall pass to the buyer as soon as one of the following events occurs:-
(i) The Buyer pays the price in full.
(ii) The buyer takes delivery of the goods
(iii) The seller notifies the buyer that the goods are ready for delivery and delivery has not taken place within 7 days thereafter for whatever reason.
- H. Jurisdiction –** The law governing the contract shall be the law of England. Any dispute arising out of or in connection with the contract shall be submitted to the jurisdiction of the English courts, except that the seller may elect and be entitled to proceed in Scotland, Wales or Northern Ireland or any foreign jurisdiction whatever proceedings may lawfully be brought against the buyer.
- I. Notices –** Any notice may be served by either party on the other by leaving it at, or sending it by, post, cable, telegram, fax or telefax to the address of that party contained in the contract. Such notice shall be deemed to be served when it would be received by either party in the normal course of transmission of post or otherwise.
- J. Liability of the Seller – (1)** The seller shall not be liable if manufacture or delivery is prevented, hindered or delayed by reason of strikes, sit-ins, trade disputes, lock-outs or any other actual or threatened industrial action or by difficulty in obtaining labour, plant, materials or bought in components, or by breakdown of plant, or machinery (including transport), or by interruption of power supplies, or by fire or by legal action by a third party (whether or not any of the aforesaid are caused by the negligence of the seller, its servants or agents) or by reason of any circumstances outside the seller's control which shall included, but not be limited to war, civil riot, intervention by the government and all other cases of force majeure.
(2) If the manufacture or delivery of the full quantity due hereunder is prevented, hindered, or delayed by reason of any circumstance within sub-clause (1) then without prejudice to the exemption from liability under (1) the seller shall be entitled either, to apportion goods of the contract description as its discretion between the buyer and other customers of the seller and to deliver the quantity so apportioned to the buyer, delivery of which quantity shall constitute delivery in full, or to withhold delivery, until such time as the full quantity can be and is delivered hereunder.
- K. Termination of the Contract – (1)** The contract shall automatically terminate if the buyer (being an individual or, in the case of a firm, any member thereof) commits any act of bankruptcy or has a receiving order made against him or has any process of distress or execution levied upon his goods or makes any arrangement with his creditors, before the property in the goods has passed to the buyer hereunder.
(2) If the buyer (being a limited company) has a receiver appointed of its assets or goes into liquidation whether compulsory or voluntary or ceases to carry on its business, or if the seller reasonably considers that any of the said events is about to occur, before the property in the goods has passed to the buyer, then the seller may terminate the contract forthwith by notification of writing.
(3) In the event of termination under sub-clause (1) or (2) above the buyer shall cease to have any interest in or right to possession of the goods and the seller for the purpose of exercising its rights as unpaid seller and under this contract shall be entitled to enter any premises where the goods are situated and to remove them as the buyer's expense.
- L. Variations – (1)** The seller agrees to carry out any reasonable variations to the previously agreed specifications and drawings which is requested in writing by the buyer or his agent and accepted in writing by the seller
(2) When specified or agreed materials are not readily available, the seller in addition to its rights under clause (B) shall be entitled to substitute other materials which it deems suitable without prior notice to the buyer.
- M. Site –** When deliveries are made direct to site the buyer will warrant to the seller that the site will be readily accessible to normal road transport at the time and date of delivery, and that the buyer or his agent will be ready to accept the goods.
- N. Price –** The price shall be that ruling according the seller's price list where applicable and in force at the date of the seller's notice that the goods are ready for delivery, unless otherwise agreed in writing by the seller and the buyer.
- O. Payment –** Payment terms for approved credit accounts are strictly nett monthly i.e. payment in full to be received no later than the last day of the month following the month during which the goods were dispatched, (an invoice from 1st, 15th or 30th April would fall due for payment on or before 31st May, and would become overdue on 1st June). The agreed terms of payment must be strictly observed. If any sum due thereunder is not paid in full by the due date or if before such date the buyer is unable or unwilling to make such payment in full then the seller shall have the right to terminate the contract forthwith whereupon clause K (3) shall apply. A minimum charge of £10.00 may be applied. Orders of a lesser value must be paid for by cash or cheque in such circumstances.
- P. Indemnity –** The buyer will indemnify the seller against any claims made by a third party arising directly or indirectly out of the contract.
- Q. Warranty – (1)** All goods are guaranteed against defects in manufacture and materials for a period of 12 months from the date of dispatch. Goods will be repaired or replaced free of charge within the period provided they are returned to our works carriage pre-paid, securely packaged and providing our inspection shows such goods to be defective due to the above causes. The seller's liability arising out of the supply of goods and their use shall not exceed the cost of rectifying defects within them as noted above. The seller shall not be liable for any costs incurred by the buyer in removal or replacement of defective goods in their use; neither shall the seller be liable in any event for any other indirect or consequential damages. The warranty will be invalid in the case of goods that have been subject to neglect, misuse, misapplication, incorrect connection, have not been properly packed for return to the seller, or have been altered or repaired in any way outside our works. Subject as contained in this warranty, all express or implied warranties or conditions statutory or otherwise as to quality or fitness for any purpose of the goods are hereby expressly excluded.
(2) The Buyer shall be responsible for ensuring the Goods are fit for purpose for which it wishes to use them and the Company gives no warranty (and none shall be implied) that the Goods are fit for purpose for any particular purpose; and the defect in question shall have appeared within 12 months (or such longer time period (if any) as may be provided for in any guarantee given or on behalf of the manufacturer of Goods) after the Buyer shall have taken possession of the Goods or performance of Services has been completed and shall have been thereupon promptly notified in writing to the Company.
(3) Any Goods alleged to be defective shall, if so required by the Company, be promptly returned at the Buyer's risk and expense to the Company's work for inspection, and the Company shall in its reasonable opinion consider them to be defective solely by reason of faulty design materials or workmanship; and
(4) No attempt shall have been made by the Buyer or by any third party to remedy any defect before, if so required by the Company, the Goods in question shall have been returned to the Company for inspection.
(5) Apart from such reimbursement repair or replacement the Company, its employees and agents shall be under no liability to the Buyer or any third party for any injury, loss or damage of any kind whatsoever, howsoever and wheresoever arising or arisen, and whether direct or indirect, including without limitation any injury, loss or damage arising.