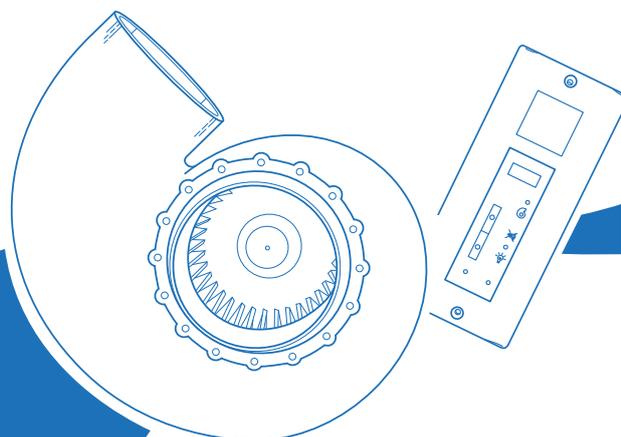
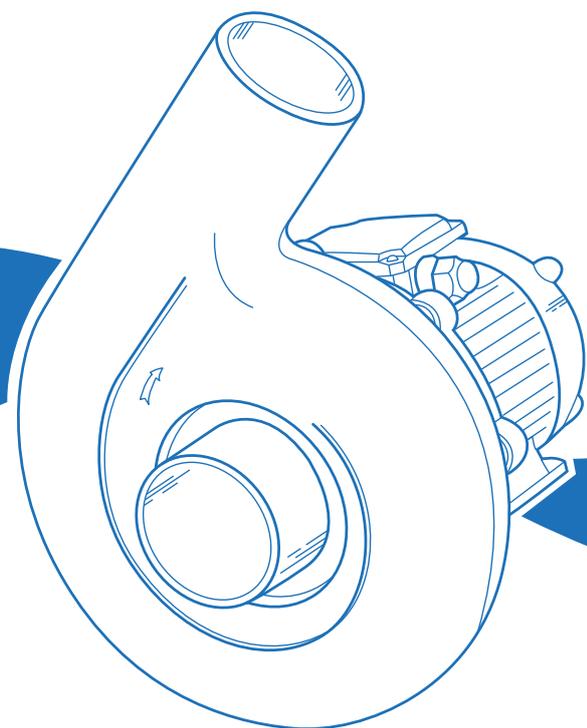


**Corrosion Resistant  
Fans & Controllers**

Laboratory & Industrial Fume Extraction



# CORROSION RESISTANT POLYPROPYLENE FANS FROM AXAIR FANS UK

## APPLICATION KNOWLEDGE

Over 25 years of experience in general air movement; including corrosive, explosive and hot fume handling.

## PLASTIC RANGE: CORROSION RESISTANT

- 10 basic sizes of fan with single piece moulded, high density polypropylene casing.
- Industry standard round spigot sizes.
- Compact design, easy assembly and direct driven motors.

## STOCK FACILITY

Vast selection of fans, fan components, general accessories and controllers.

## CUSTOMISED BUILD

Fans assembled to order from stock components to create the perfect mechanical and electrical solution for you fume extract installation.

## CUSTOMER CARE

Experience our customer service from enquiry through to delivery and after sales support.

## AXAIR OFFERS YOU A WIDE RANGE OF ELECTRICAL OPTIONS INCLUDING:

- 230V or 115V single phase motor
- 230/400V three phase direct-on-line or inverter supplied motor
- 400/690V three phase star-delta connection in larger sizes
- Pre-wired electrical isolators
- Motor starters
- Inverter drives
- Fume cupboard alarms
- ATEX motors

## AXAIR OFFERS YOU A WIDE RANGE OF MECHANICAL OPTIONS INCLUDING:

- Choice of handling
- Choice of standard weather pedestals
- Anti-vibration mountings
- Flexible connectors
- Flange pairs
- Dust transformations
- Manual dampers
- Drain hose connectors
- ATEX polypropylene/carbon fans

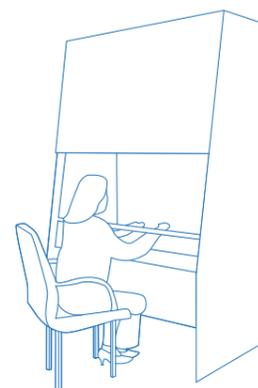
## #MORETHANJUSTAFANSUPPLIER



Axair Fans has over 25 years' experience in air movement and specialises in polypropylene moulded construction fans, designed to extract and resist the widest range of corrosive fumes in laboratory and industrial extraction.

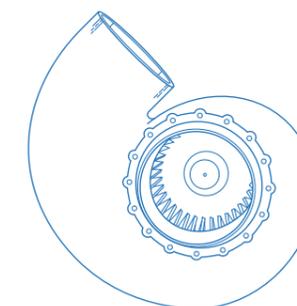
## CONTENTS

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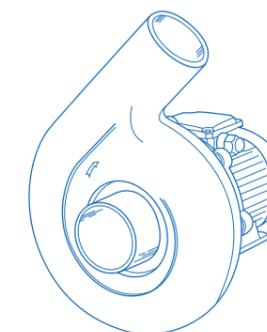
APPLICATIONS

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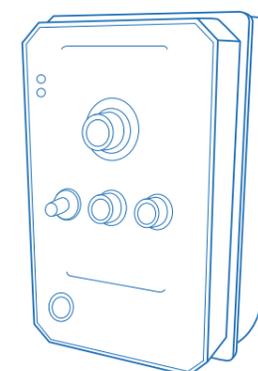
S-FANS

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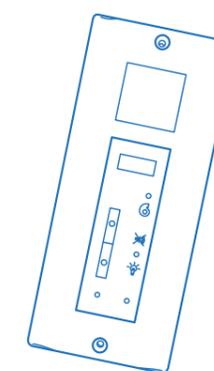
ST-FANS

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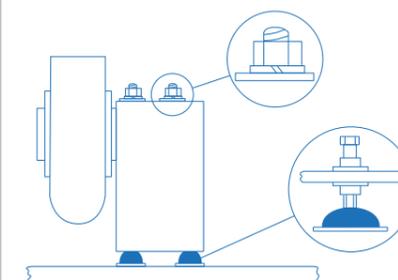
FAN ACCESSORIES

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AIRFLOW CONTROLLERS

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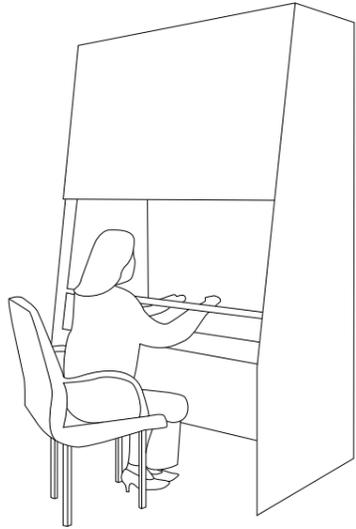
TECHNICAL INFORMATION



For technical information, advice on fan selection or to see our full range of fans and fan accessories in addition to our polypropylene range, visit our website.

[WWW.AXAIR-FANS.CO.UK](http://WWW.AXAIR-FANS.CO.UK)

## APPLICATIONS



**LABORATORY  
EXTRACT**



**ENVIRONMENTAL CHAMBER  
EXTRACTION**



**FUME EXTRACT ARMS**



**PROCESS FUME  
EXTRACTION**

## MOTORS & ACCESSORIES



### MOTORS

All polypropylene fans are directly driven by IEC dimensioned electric motors manufactured to BSN4999-EN60034 Standards and are selected on their capacity for:

- Low electro-magnetic vibration
- Dimensional compactness
- Inverter drive compatibility
- Electrical terminal accessibility
- IP55 dust and hosed water protection
- Integrity of surface finish

### ACCESSORIES

To integrate the fan into your installation, we offer the following accessories:-

- Mechanical isolation of the fan from the ductwork by means of chemical resistant flexible duct connectors, attached by quick-release stainless steel band clips.
- Mechanical isolation of the fan from the motor pedestal or base by means of rubber anti vibration mountings of the correct hardness and compression.
- Flange pairs with sockets to fit standard plastic ductwork. These can provide an easy method of disconnecting the fan stack in situations where a flexible connector is impractical.
- Pre-wiring of electrical isolators to the motor terminal to ensure first class electrical work in factory conditions and an isolator on the fan pedestal.
- Fume cupboard 'low air' alarms and air speed controls that are modern, sophisticated products requiring no special training to install and commission.



# AXAIR 'S' FANS

The Axair 'S' range fans are designed to provide high air flow rate against medium system pressures; typical applications being the extract of corrosive fumes from laboratory fume cupboards and industrial process tanks.



## OUR S FAN RANGE

<b>PAGE 7</b>	<b>PAGE 11</b>	<b>PAGE 13</b>
<b>S15</b>	<b>S20</b>	<b>S25</b>
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<b>S30</b>	<b>S35</b>	<b>S50</b>

## ELECTRICAL DATA

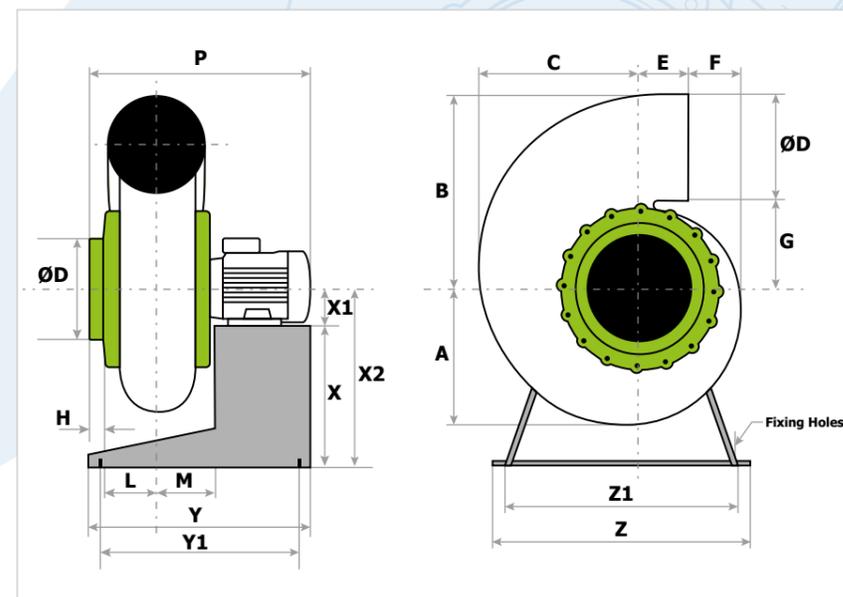
Model	/min	kW	Motor	SINGLE PHASE			THREE PHASE		
				V	A (full load)	A (start)	V	A (full load)	A (start)
<b>S15/2</b>	2870	0,37	71-2	230	2,8	7	400	1,2	6
<b>S15/4</b>	1450	0,25	71-4	230	2,0	5	400	1,0	5
<b>S20/2L</b>	2870	0,55	71-2	230	3,8	9	400	1,5	7
<b>S20/2M</b>	2870	0,75	80-2	230	5,1	14	400	1,8	10
<b>S20/2H</b>	2870	1,10	80-2	230	7,0	19	400	2,5	14
<b>S20/4</b>	1450	0,25	71-4	230	2,0	5	400	1,0	5
<b>S20/6</b>	930	0,18	71-6	230	1,9	5	400	0,9	2,5
<b>S25/2L</b>	2870	1,50	90S-2	230	10,8	28	400	3,7	20
<b>S25/2M</b>	2870	2,20	90L-2	230	14,6	63	400	5,1	34
<b>S25/2H</b>	2870	3,00	90L-2				400	6,9	49
<b>S25/4</b>	1450	0,37	71-4	230	3,4	8	400	1,2	5
<b>S25/6</b>	930	0,18	71-6	230	1,9	5	400	0,9	2,5
<b>S30/4</b>	1450	1,50	90L-4	230	10,5	28	400	3,7	20
<b>S30/4L</b>	1450	0,75	90-4	230	4,9	27	400	2,2	10
<b>S30/6</b>	930	0,75	90S-6	230	4,8	16	400	2,2	8,0
<b>S35/4</b>	1450	4,00	112M-4				400	8,26Y	58Y
<b>S35/4M</b>	1450	5,50	112M-4				400	11,4Δ	*75A
<b>S35/6</b>	930	2,20	112M-4				400	5,3Y	24Y

Notes: Tabulated current values are approximate and depend on the make and model of each motor. Size the wiring with a built-in safety factor. Set current overload protection to A (Full Load).  
 A (Full Load) = Motor full load current - to select wiring and current overload protection.  
 A (Start) = Motor starting current - mainly advisory for motors with Y/Δ facility.  
 To obtain 230V 3phase current multiply 400V (Full Load) by 1,732.  
 \* Δ Connected 400V direct-on-line. Y/Δ switching reduces starting current to 1/3 x A (Start).

ATEX versions are available on request, please contact us.

## S15 / 125 / METAL PEDESTAL

The fan shown is mounted on a metal pedestal but is also available with a weather protecting box pedestal. Motor dimensions will vary according to source.



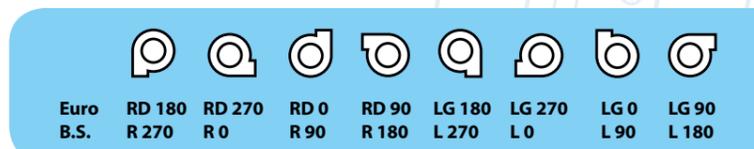
HOUSING DIMENSIONS

Fan	ØD	A	B	C	E	F	G	H	L	M	P	Y	Y1	Z	Z1
<b>S15</b>	<b>125</b>	170	240	203	100	32	115	30	70	80	380	350	250	410	350

PEDESTAL DIMENSIONS

Fan - Motor Size	Motor	X	X1	X2
S15 - all sizes	'71' frame	300	71	371

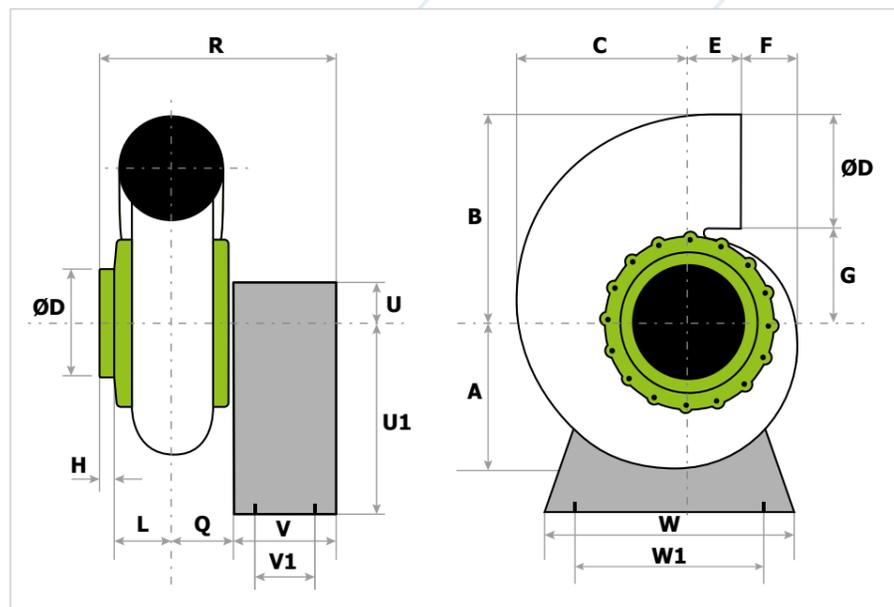
Available handing & orientation viewed on air inlet



ATEX versions are available on request, please contact us.

### S15 / 125 / BOX PEDESTAL

The fan shown is mounted on a weather protecting box pedestal but is also available mounted on a metal pedestal. Motor dimensions will vary according to source.



HOUSING DIMENSIONS

Fan	ØD	A	B	C	E	F	G	H	L	Q
S15	125	170	240	203	100	32	115	30	70	80

PEDESTAL DIMENSIONS

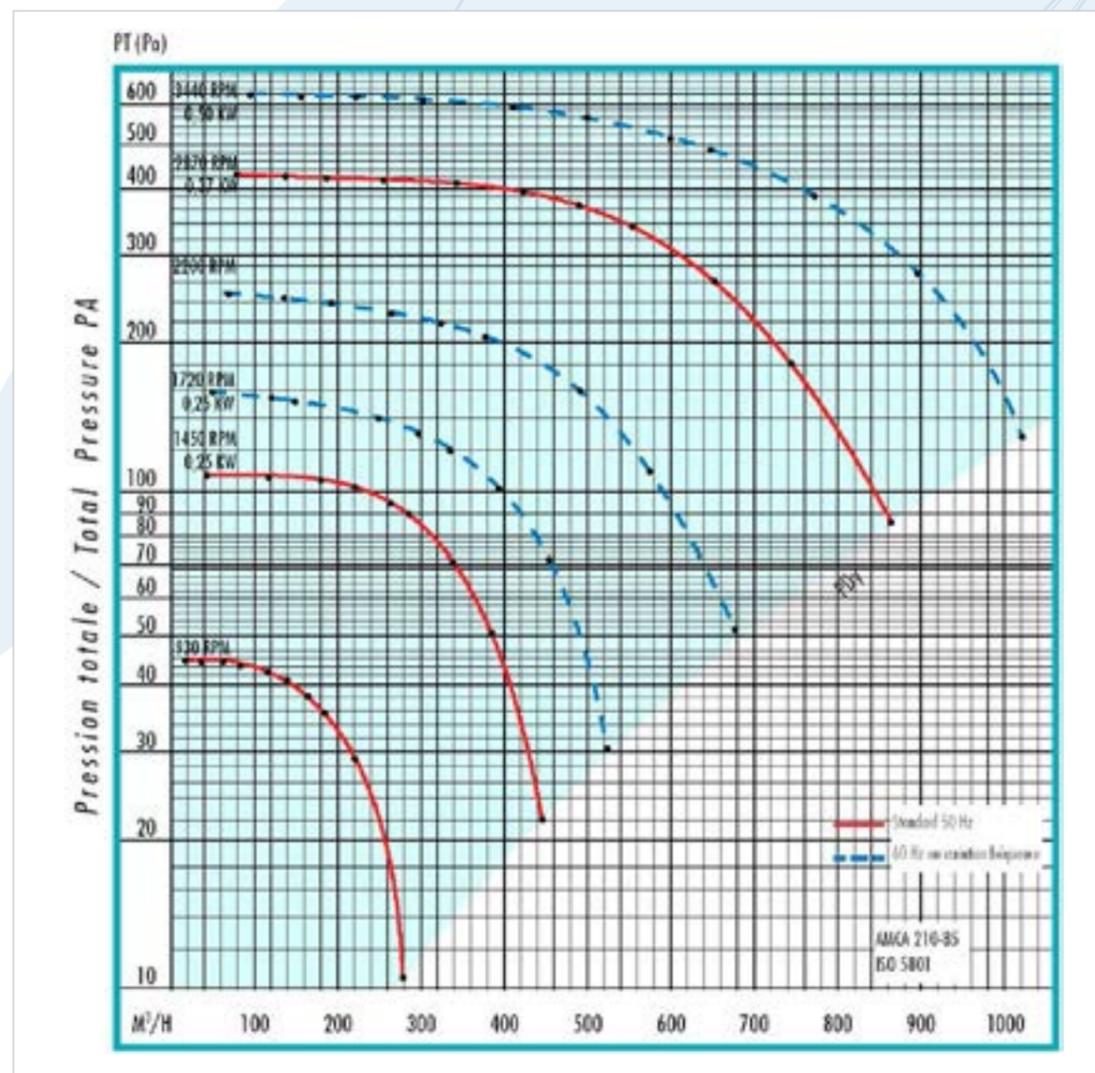
Fan - Motor Rating	Motor	R	U1	U2	V	V1	W	W1
S15 - 0,37-2 & 0,25-4	'71' Frame	530	81	369	340	267	410	318

Fans shown above are also available on metal pedestals for indoor installations.

Available handing & orientation viewed on air inlet

ATEX versions are available on request, please contact us.

### S15 / 125



ELECTRICAL DATA

Model	Motor	Supply	Full load	Start	Supply	Full load	Start	Box Pedestal & Fan Weight (Kg)		Metal Pedestal & Fan Weight (Kg)	
								1 Phase	3 Phase	1 Phase	3 Phase
S15/4	0,25kW	230/1/50	2,0A	5A	400/3/50	1,0A	5A	11	9	16	15
S15/2	0,37kW	230/1/50	2,8A	7A	400/3/50	1,2A	6A	11	9	16	15

SOUND DATA

/min	dB(A)	63	125	250	500	1000	2000	4000	8000	Hz
1450	58	39	52	60	64	64	60	56	48	dB(A)
2870	75	56	69	77	81	81	77	73	65	dB(A)

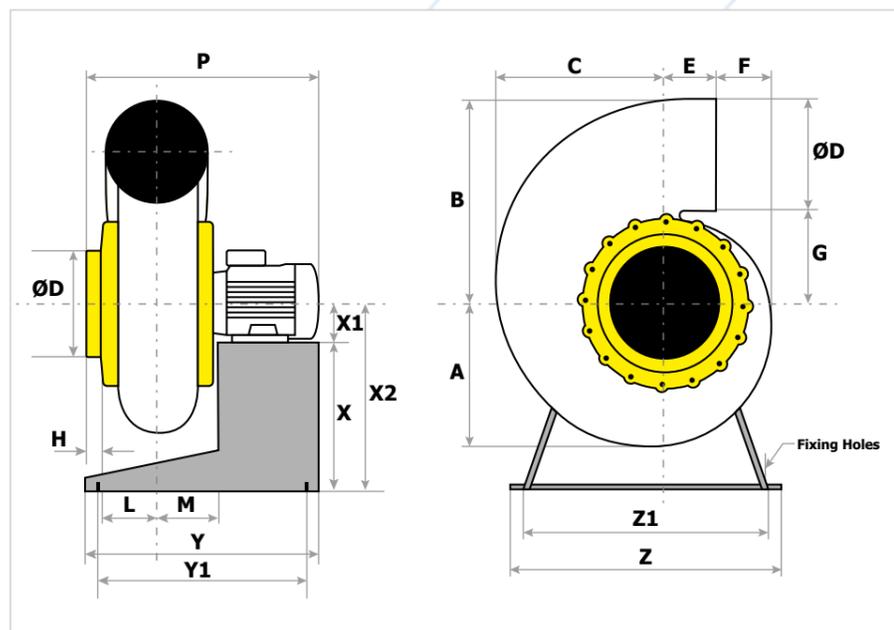
SOUND POWER (Lw) in dB(A)  
SOUND PRESSURE at 3m range in dB(A)

Maximum airflow temperature 50°C

ATEX versions are available on request, please contact us.

### S20 / 160 / METAL PEDESTAL

The fan shown is mounted on a metal pedestal but is also available with a weather protecting box pedestal. Motor dimensions will vary according to source.



HOUSING DIMENSIONS

Fan	ØD	A	B	C	E	F	G	H	L	M	P	Y	Y1	Z	Z1
S20	160	208	303	240	100	57	143	32	84	94	410	350	250	410	350

PEDESTAL DIMENSIONS

Fan - Motor Size	Motor	X	X1	X2
S20 - 0,25kW & 0,55kW	'71' frame	300	71	371
S20 - 0,75kW & 1,1kW	'80' frame	300	80	380

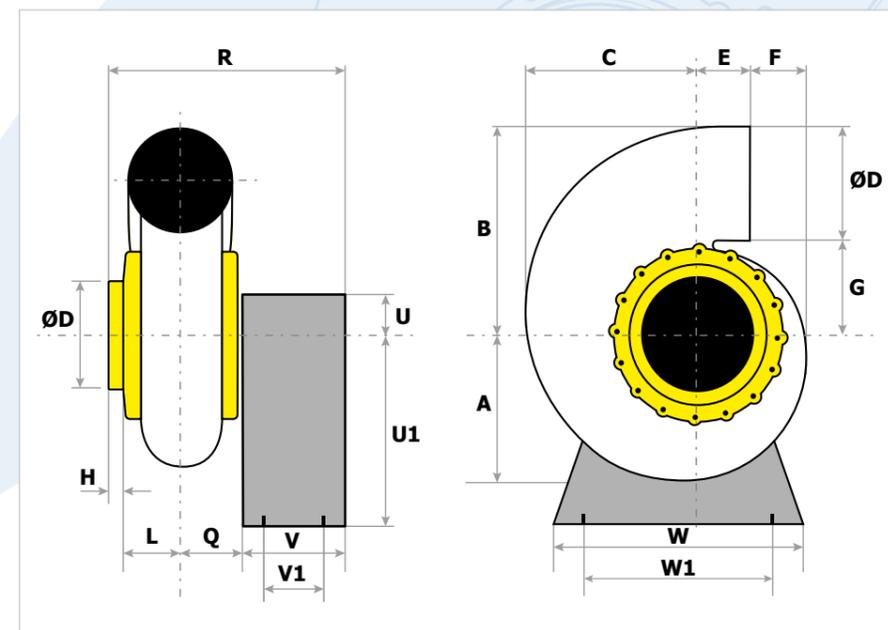
Available handing & orientation viewed on air inlet

Euro	RD 180	RD 270	RD 0	RD 90	LG 180	LG 270	LG 0	LG 90
B.S.	R 270	R 0	R 90	R 180	L 270	L 0	L 90	L 180

ATEX versions are available on request, please contact us.

### S20 / 160 / BOX PEDESTAL

The fan shown is mounted on a weather protecting box pedestal but is also available mounted on a metal pedestal. Motor dimensions will vary according to source.



HOUSING DIMENSIONS

Fan	ØD	A	B	C	E	F	G	H	L	Q
S20	160	208	303	240	100	57	143	32	84	90

PEDESTAL DIMENSIONS

Fan - Motor Rating	Motor	R	U1	U2	V	V1	W	W1
S20 - 0,25 & 0,55	'71' frame	552	81	369	340	267	410	318
S20 - 0,75 & 1,10	*When '71'	552	81	369	340	267	410	318
S20 - 0,75 & 1,10	*When '80'	552	90	360	340	267	410	318

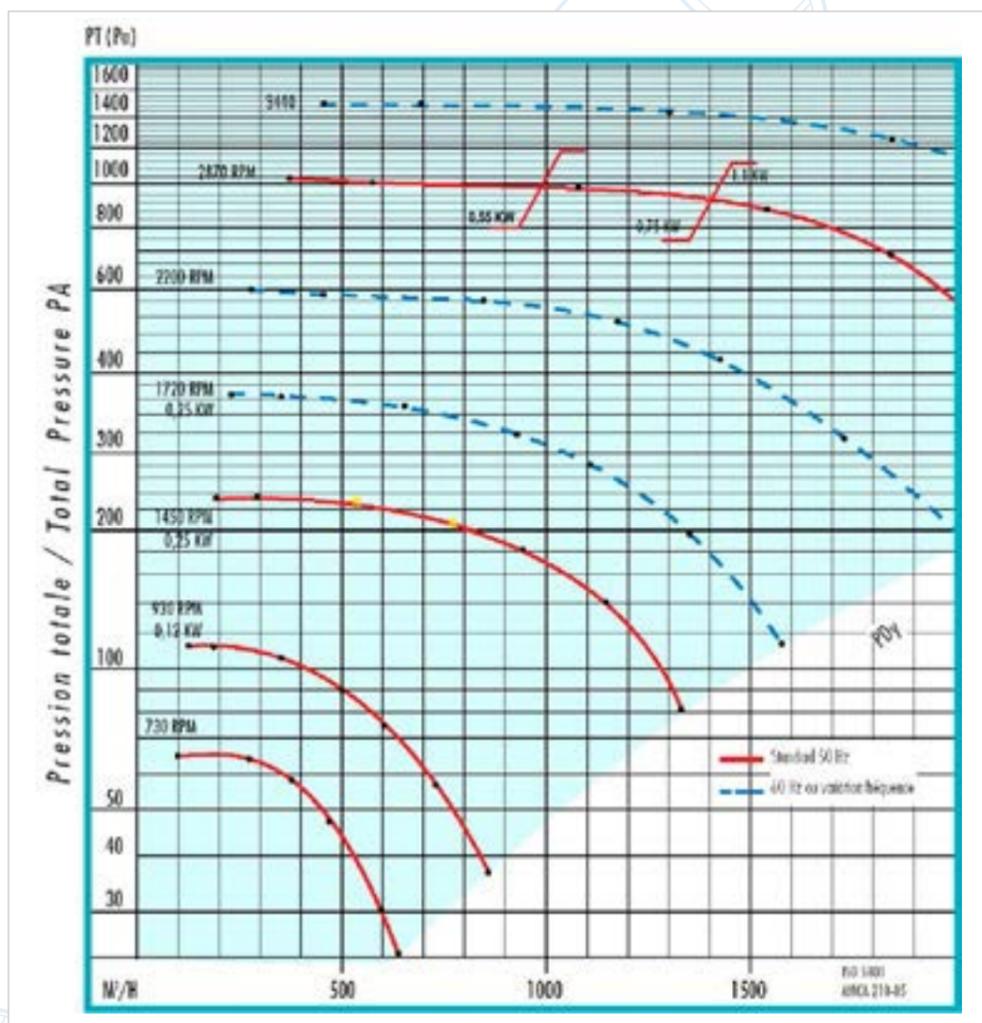
Fans shown above are also available on metal pedestals for indoor installations.  
\* Choice depends on the make and model selected

Available handing & orientation viewed on air inlet

Euro	RD 180	RD 270	RD 0	RD 90	LG 180	LG 270	LG 0	LG 90
B.S.	R 270	R 0	R 90	R 180	L 270	L 0	L 90	L 180

ATEX versions are available on request, please contact us.

### S20 / 160



#### ELECTRICAL DATA

Model	Motor	Supply	Full load	Start	Supply	Full load	Start	Box Pedestal & Fan Weight (Kg)		Metal Pedestal & Fan Weight (Kg)	
								1 Phase	3 Phase	1 Phase	3 Phase
<b>S20/4</b>	0,25kW	230/1/150	2A	5A	400/3/50	1A	5A	11	10	17	15
<b>S20/2L</b>	0,50kW	230/1/150	3,8A	9A	400/3/50	1,5A	7A	12	10	18	16
<b>S20/2M</b>	0,75kW	230/1/150	5,1A	14A	400/3/50	1,8A	10A	15	12	19	17
<b>S20/2H</b>	1,1kW	230/1/150	7A	19A	400/3/50	2,5A	14A	16	13	21	20

#### SOUND DATA

/min	dB(A)	63	125	250	500	1000	2000	4000	8000	Hz
1450	<b>65</b>	46	59	67	71	71	67	63	55	dB(A)
2870	<b>81</b>	62	75	83	87	87	83	79	71	dB(A)

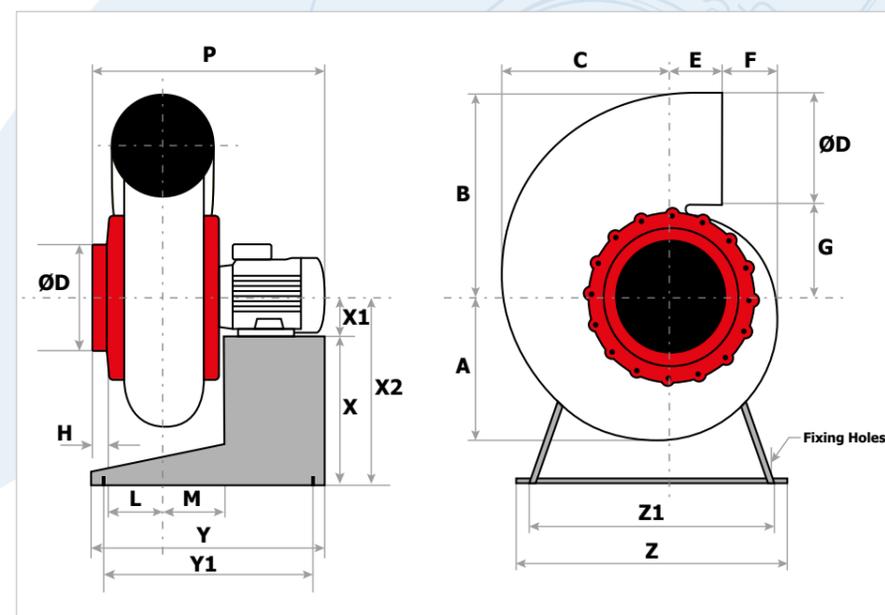
SOUND POWER (Lw) in dB(A)  
SOUND PRESSURE at 3m range in dB(A)

**Maximum airflow temperature 50°C**

ATEX versions are available on request, please contact us.

### S25 / 200 / METAL PEDESTAL

The fan shown is mounted on a metal pedestal but is also available with a weather protecting box pedestal. Motor dimensions will vary according to source.



#### HOUSING DIMENSIONS

Fan	ØD	A	B	C	E	F	G	H	L	M
<b>S25</b>	<b>200</b>	248	365	310	103	92	164	35	95	105

#### PEDESTAL DIMENSIONS

Fan – Motor Size	Motor	X	X1	X2	P	Y	Y1	Z	Z1
S25 - 0,37kW	'71' frame	450	71	521	465	465	360	475	410
S25 - 1,5kW, 2,2kW & 3kW	'90' frame	450	90	540	465	465	360	475	410

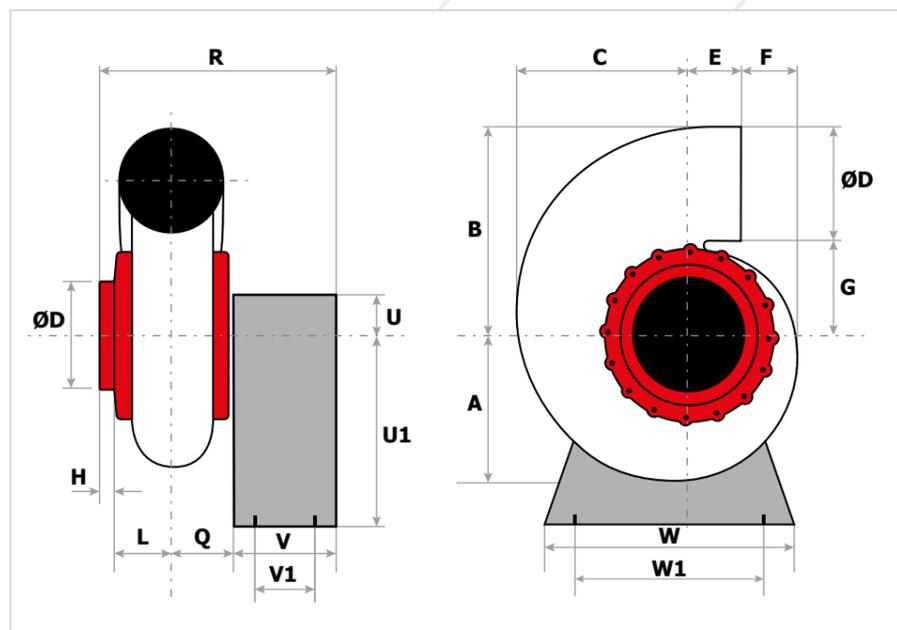
Available handing & orientation viewed on air inlet



ATEX versions are available on request, please contact us.

### S25 / 200 / BOX PEDESTAL

The fan shown is mounted on a weather protecting box pedestal but is also available mounted on a metal pedestal. Motor dimensions will vary according to source.



HOUSING DIMENSIONS

Fan	ØD	A	B	C	E	F	G	H	L
S25	200	248	365	310	103	92	165	35	95

PEDESTAL DIMENSIONS

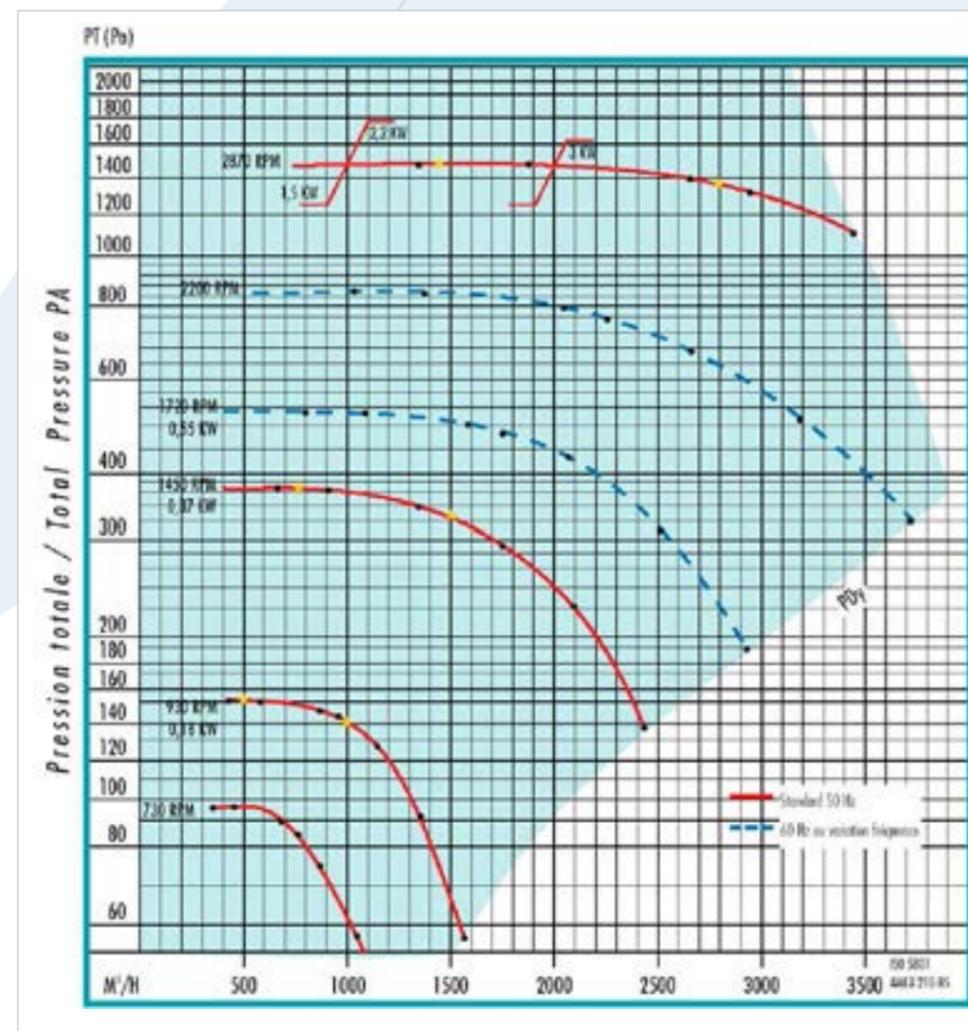
Fan - Motor Rating	Motor	R	U1	U2	V	V1	W	W1	Q
S25 - 0,37 - 4	'71' frame	580	81	369	340	267	410	318	100
S25 - 1,5, 2,2 & 3,0 - 2	'90' frame	610	95	455	340	267	405	330	115

Fans shown above are also available on metal pedestals for indoor installations.

Available handing & orientation viewed on air inlet

ATEX versions are available on request, please contact us.

### S25 / 200



ELECTRICAL DATA

Model	Motor	Supply	Full load	Start	Supply	Full load	Start	Box Pedestal & Fan Weight (Kg)		Metal Pedestal & Fan Weight (Kg)	
								1 Phase	3 Phase	1 Phase	3 Phase
S25/4	0,37 kW	230/1/50	3,4A	8A	400/3/50	1,2A	5A	14	11	22	20
S25/2L	1,50 kW	230/1/50	10,8A	28A	400/3/50	3,7A	20A	26	22	30	27
S25/2M	2,20 kW	230/1/50	14,6A	63A	400/3/50	5,1A	34A	28	25	32	30
S25/2H	3,00 kW				400/3/50	6,9A	49A	n/a	29	n/a	38

SOUND DATA

/min	dB(A)	63	125	250	500	1000	2000	4000	8000	Hz
1450	69	52	65	73	77	78	74	70	61	dB(A)
2870	87	70	83	91	95	96	92	88	79	dB(A)

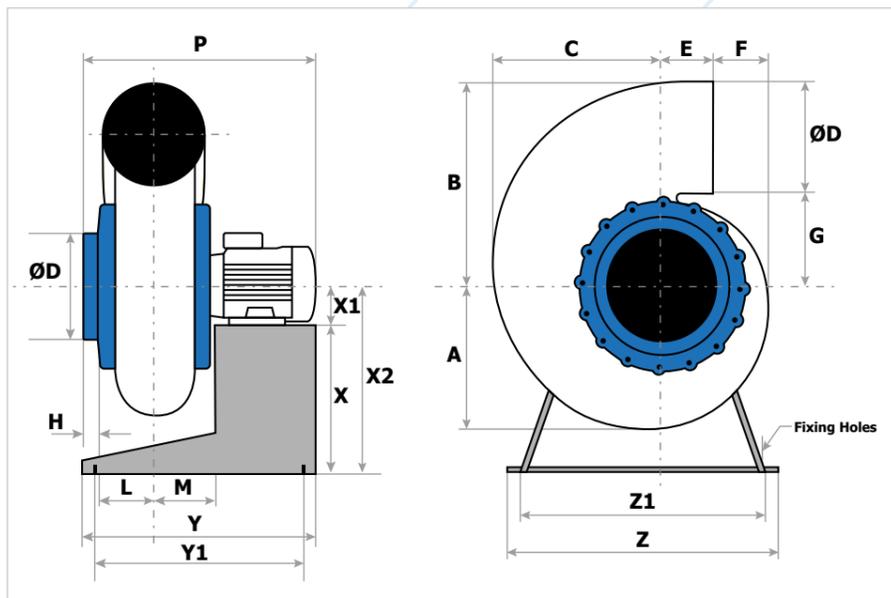
SOUND POWER (Lw) in dB(A)  
SOUND PRESSURE at 3m range in dB(A)

Maximum airflow temperature 50°C

ATEX versions are available on request, please contact us.

### S30 / 250 / METAL PEDESTAL

The fan shown is mounted on a metal pedestal but is also available with a weather protecting box pedestal. Motor dimensions will vary according to source.



HOUSING DIMENSIONS

Fan	ØD	A	B	C	E	F	G	H	L	M	Y	Y1	Z	Z1
S30	250	300	450	373	117	112	198	35	110	120	240	220	460	400

PEDESTAL DIMENSIONS

Fan – Motor Size	Motor	X	X1	X2	P
S30 – all sizes	'90' frame	45	90	505	495

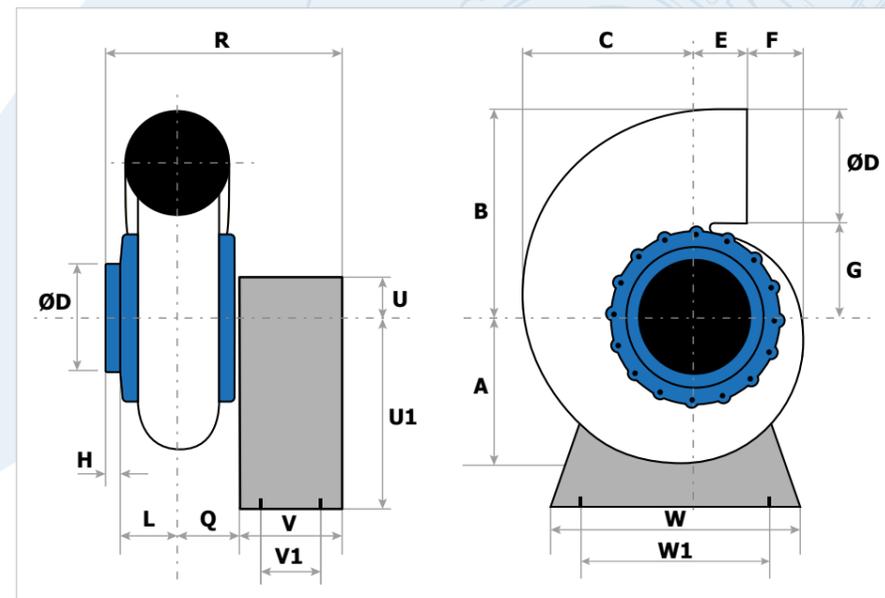
Available handing & orientation viewed on air inlet

Euro	RD 180	RD 270	RD 0	RD 90	LG 180	LG 270	LG 0	LG 90
B.S.	R 270	R 0	R 90	R 180	L 270	L 0	L 90	L 180

ATEX versions are available on request, please contact us.

### S30 / 250 / BOX PEDESTAL

The fan shown is mounted on a weather protecting box pedestal but is also available mounted on a metal pedestal. Motor dimensions will vary according to source.



HOUSING DIMENSIONS

Fan	ØD	A	B	C	E	F	G	H	L	Q
S30	250	300	448	373	117	112	198	35	110	130

PEDESTAL DIMENSIONS

Fan - Motor Rating	Motor	R	U1	U2	V	V1	W	W1
S30 - 0,75 & 1,5 - 4	'90' frame	630	95	455	340	267	405	315

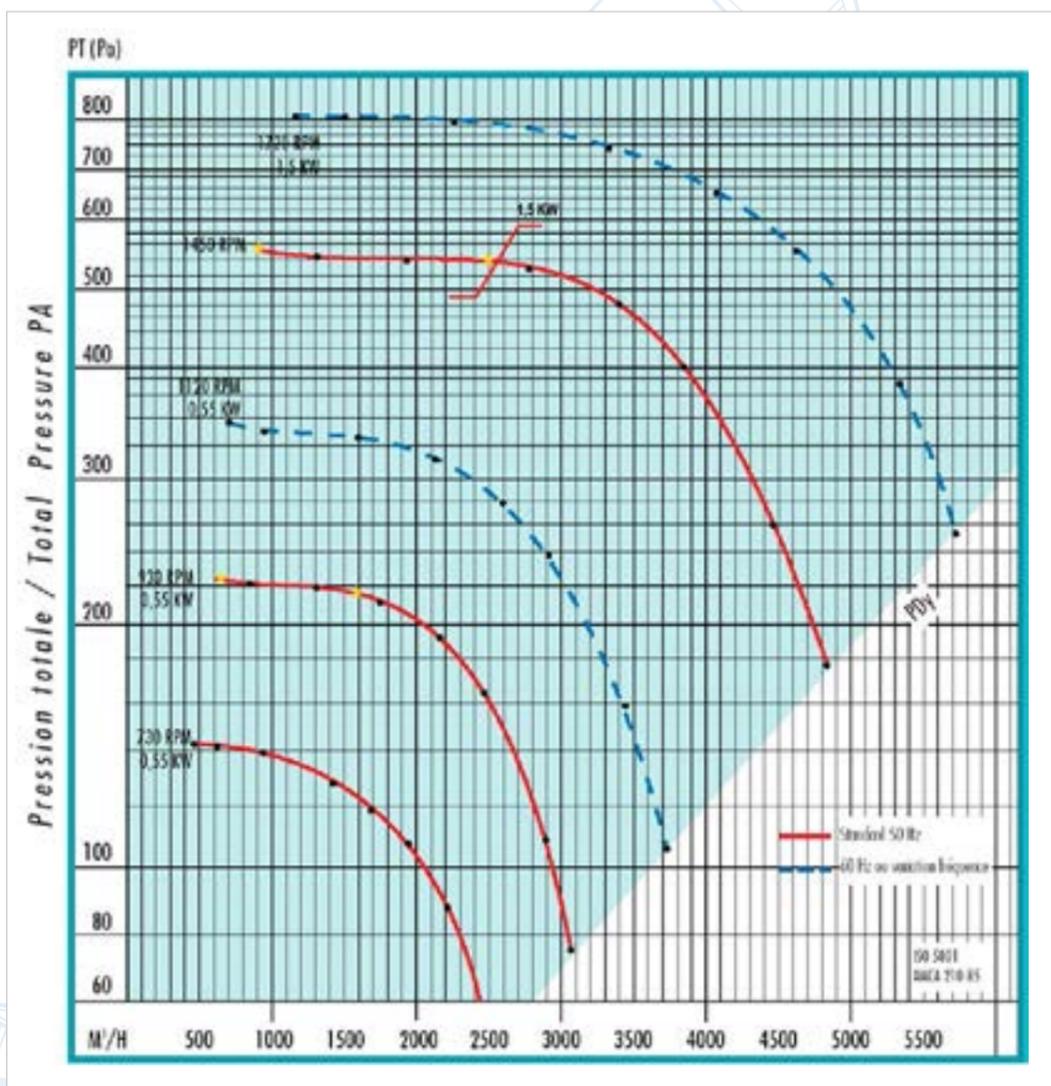
Fans shown above are also available on metal pedestals for indoor installations.

Available handing & orientation viewed on air inlet

Euro	RD 180	RD 270	RD 0	RD 90	LG 180	LG 270	LG 0	LG 90
B.S.	R 270	R 0	R 90	R 180	L 270	L 0	L 90	L 180

ATEX versions are available on request, please contact us.

**S30 / 250**



**ELECTRICAL DATA**

Model	Motor	Supply	Full load	Start	Supply	Full load	Start	Box Pedestal & Fan Weight (Kg)		Metal Pedestal & Fan Weight (Kg)	
								1 Phase	3 Phase	1 Phase	3 Phase
<b>S30/4</b>	1,5kW	230/1/50	10,5A	28A	400/3/50	3,7A	20A	30	27	33	32
<b>S30/4L</b>	0,75kW	230/1/50	4,9A	27A	400/3/50	2,2A	10A	30	27	31	30
<b>S30/6</b>	0,75kW	230/1/50	4,8A	16A	400/3/50	2,2A	8A	30	27	31	30

**SOUND DATA**

/min	dB(A)	63	125	250	500	1000	2000	4000	8000	Hz
930	<b>63</b>	48	61	69	73	74	70	66	57	dB(A)
1450	<b>75</b>	60	73	81	85	86	82	78	69	dB(A)

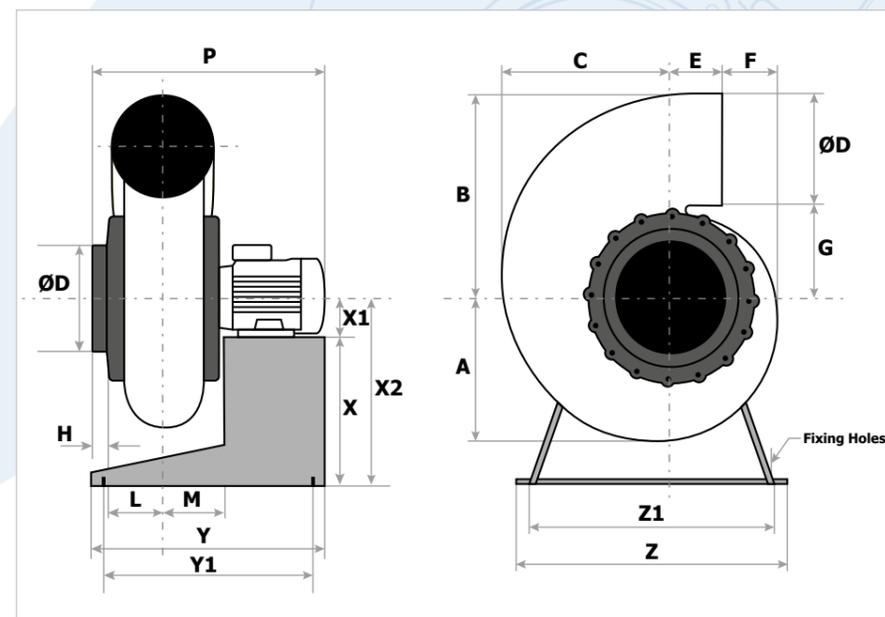
SOUND POWER (Lw) in dB(A)  
SOUND PRESSURE at 3m range in dB(A)

**Maximum airflow temperature 50°C**

ATEX versions are available on request, please contact us.

**S35 / 315 / METAL PEDESTAL**

The fan shown is mounted on a metal pedestal but is also available with a weather protecting box pedestal. Motor dimensions will vary according to source.



**HOUSING DIMENSIONS**

Fan	ØD	A	B	C	E	F	G	H	L	M	Y	Y1	Z	Z1
<b>S35</b>	<b>315</b>	370	570	450	130	170	255	60	150	170	350	314	600	540

**PEDESTAL DIMENSIONS**

Fan – Motor Size	Motor	X	X1	X2	P
S35 - 4kW, 5,5kW & 2,2kW	'112' frame	468	112	580	724
S35 - 7,5kW	'132' frame	468	132	600	822

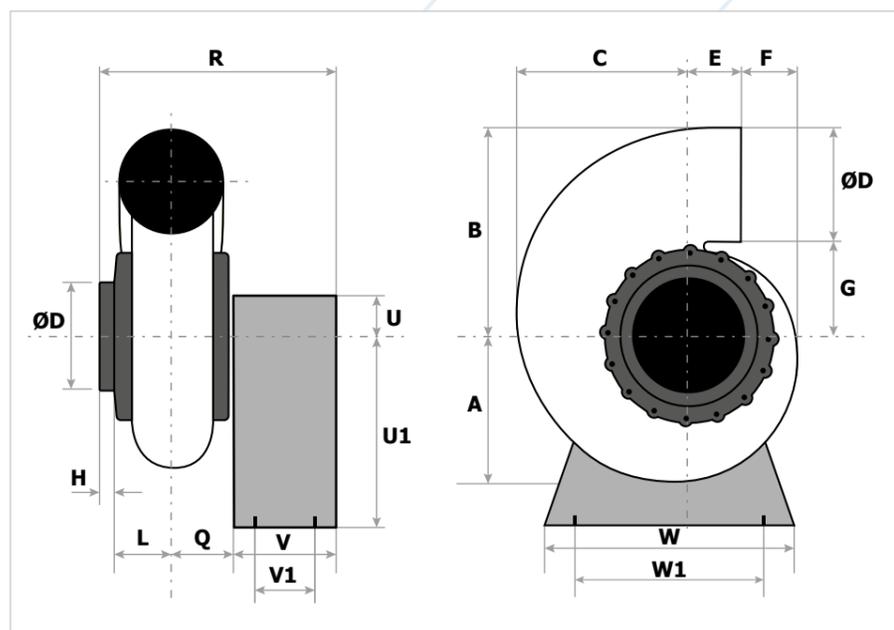
Available handing & orientation viewed on air inlet

The block contains four circular icons representing different fan orientations. Below each icon is a label: Euro, B.S., LG 180, LG 270, LG 0, LG 90, L 270, L 0, L 90, L 180.

ATEX versions are available on request, please contact us.

### S35 / 315 / BOX PEDESTAL

The fan shown is mounted on a weather protecting box pedestal but is also available mounted on a metal pedestal. Motor dimensions will vary according to source.



HOUSING DIMENSIONS

Fan	ØD	A	B	C	E	F	G	H	L	Q
S35	315	370	570	450	130	170	255	60	150	180

PEDESTAL DIMENSIONS

Fan - Motor Rating	Motor	R	U1	U2	V	V1	W	W1
S35 - 4kW, 5.5kW & 2.2kW	'112' frame	880	122	578	500	400	585	480

Fans shown above are also available on metal pedestals for indoor installations.

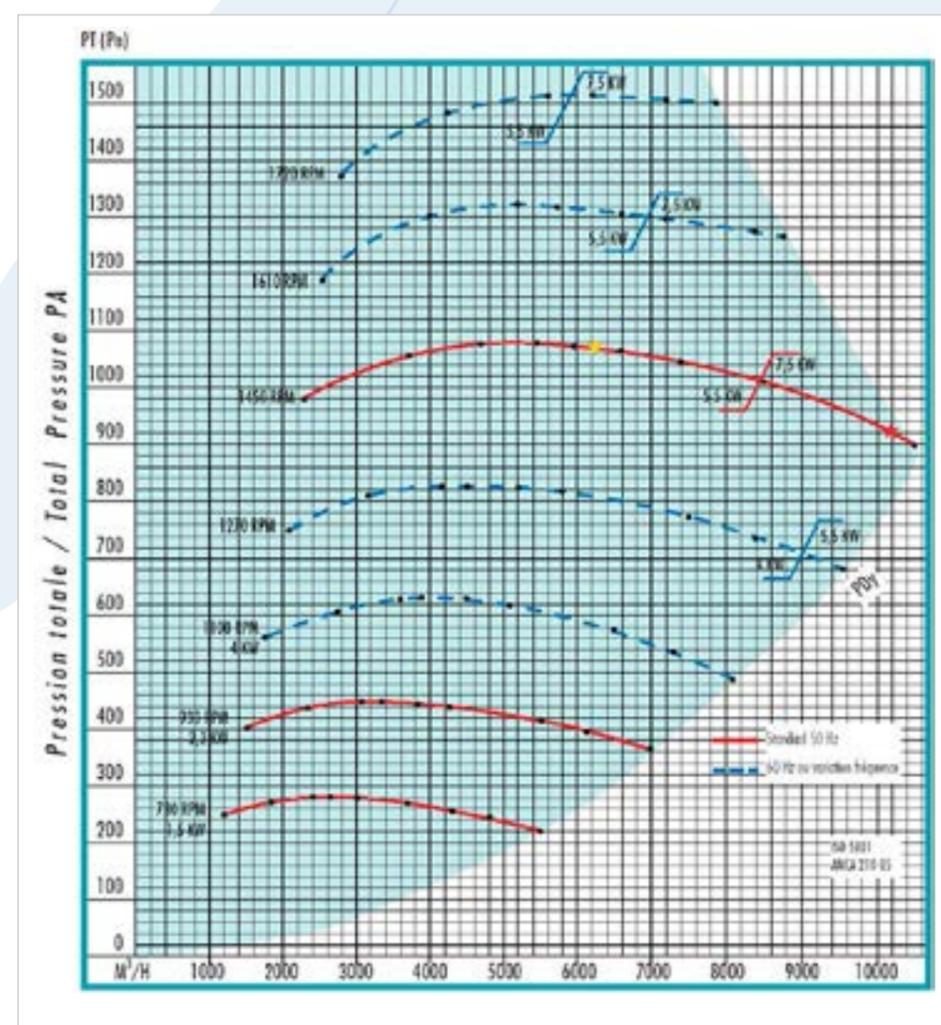
Available handing & orientation viewed on air inlet

**Euro**
**LG 180**
**LG 270**
**LG 0**
**LG 90**

**B.S.**
**L 270**
**L 0**
**L 90**
**L 180**

ATEX versions are available on request, please contact us.

### S35 / 315



ELECTRICAL DATA

Model	Motor	Supply	Full load	Start	Box Pedestal & Fan	Metal Pedestal & Fan
					Weight (Kg)	Weight (Kg)
					3 Phase Only	3 Phase Only
S35/6	2,2kW-930/min	400/3/50	5,3A	24A	60	55
S35/4L	4,kW-1450/min	400/3/50	11,4A	75A	65	65
S35/4M	5,5kW-1450/min	400/3/50	11,4A	75A	65	65
S35/4H	7,5kW-1450/min	400/3/50	14,7A	96A	102	80

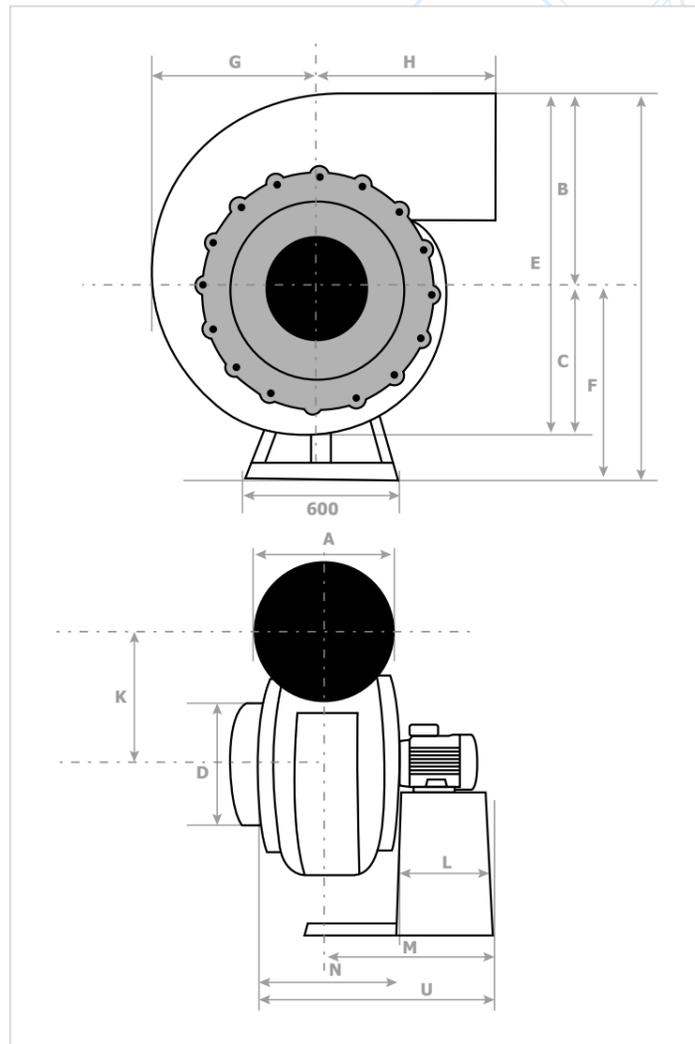
SOUND DATA

/min	dB(A)	63	125	250	500	1000	2000	4000	8000	Hz
930 - 2,2kW	75	71	81	83	86	85	85	83	74	dB(A)
1450 - 4kW, 5,5kW	79	75	85	87	90	89	89	87	78	dB(A)

SOUND POWER (Lw) in dB(A)  
SOUND PRESSURE at 3m range in dB(A)  
**Maximum airflow temperature 50°C**

ATEX versions are available on request, please contact us.

S 50



DIMENSIONS - METAL PEDESTAL INCLUDED

A	D	B	C	E	F	G	H	I	I	K+F	K	L	M	N	U
500	600	765	550	1315	740	660	610	1350	1505	1255	515	400	715	620	1020

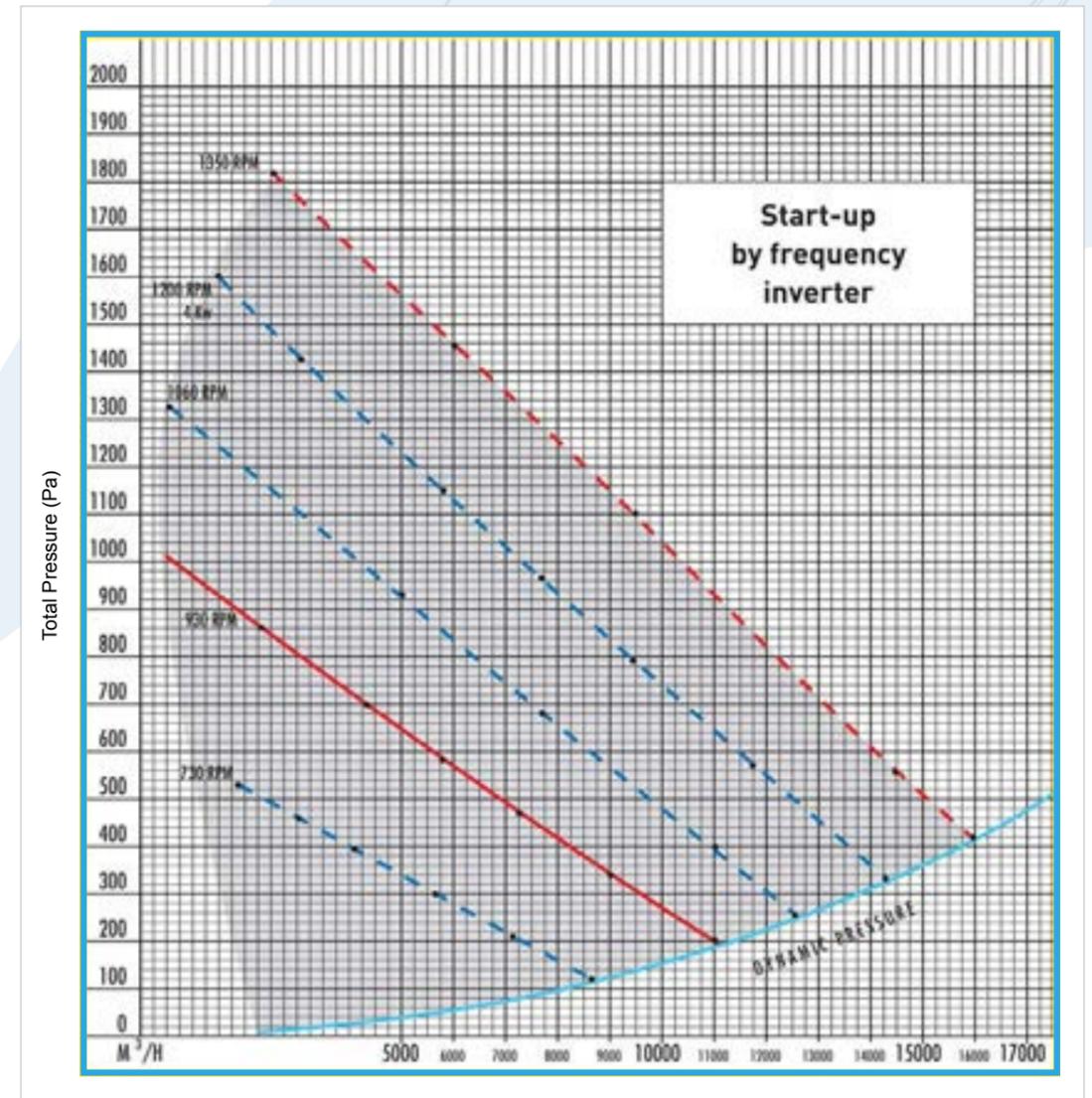
Available handing & orientation viewed on air inlet



The S50 is only available with a metal pedestal

ATEX versions are available on request, please contact us.

S 50



ELECTRICAL DATA

Model	Motor	Supply	Full load	Start	Weight (Kg) 3 Phase Only
S50	5,5kW - 1450/min	400/3/50	11,4A	75A	215

SOUND DATA

/min	dB(A)	63	125	250	500	1000	2000	4000	8000	Hz
930 - 2,2kW	75	71	81	83	86	85	85	83	74	dB(A)
1450 - 4kW, 5,5kW	79	75	85	87	90	89	89	87	78	dB(A)

SOUND POWER (Lw) in dB(A)  
SOUND PRESSURE at 3m range in dB(A)

Maximum airflow temperature 50°C

ATEX versions are available on request, please contact us.

# AXAIR STORM 'ST' FANS

STORM 'ST' range fans are designed to provide a relatively low air flow rate against elevated system pressures; typical applications being air filtration, local extraction arms, fume scrubbers and chemical stores.



## OUR ST FAN RANGE

PAGE 25

ST10

PAGE 28

ST12

PAGE 31

ST14

PAGE 34

ST16

## ELECTRICAL DATA

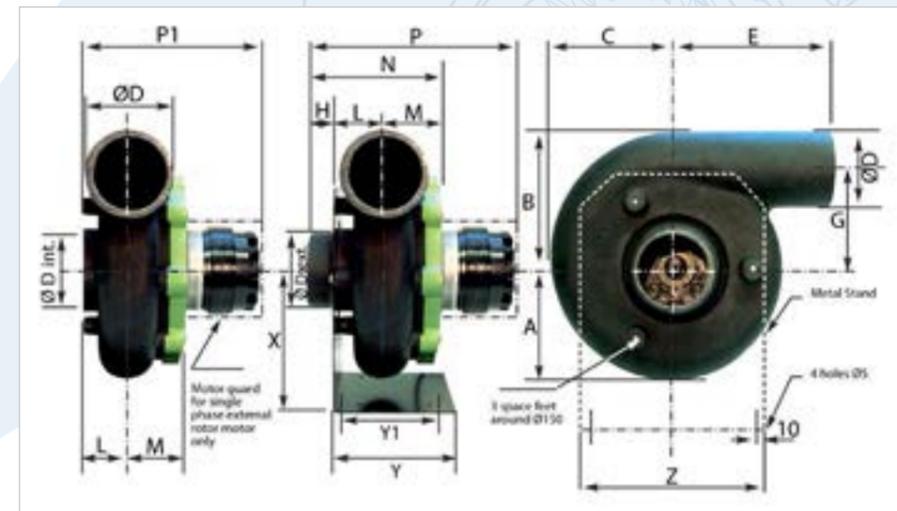
Model	/min	kW	Motor	SINGLE PHASE			THREE PHASE		
				V	A (full load)	A (start)	V	A (full load)	A (start)
ST10/2	2870	0,12	56-2	230	1,4	2	400	0,5	6
ST10/4	1450	0,09	56-4	230	1,0	1,5	400	0,4	1
ST10/2/1E	1450	0,07	ERM (1)	230	0,11				
ST12/2	2870	0,37	71-2	230	2,8	7	400	1,2	6
ST12/4	1450	0,25	71-4	230	2,0	5	400	1,0	5
ST14/2	2870	1,10	80-2	230	7,0	19	400	2,5	14
ST16/2	2870	2,20	90L-2	230	14,6	63	400	5	34

Notes: Tabulated current values are approximate and depend on the make and model of each motor. Size the wiring with a built-in safety factor. Set current overload protection to A (Full Load)  
 A (Full Load) = Motor full load current - to select wiring and current overload protection.  
 A (Start) = Motor starting current - mainly advisory for motors with Y/Δ facility.  
 To obtain 230V 3phase current multiply 400V (Full Load) by 1,732.

ATEX versions are available on request, please contact us.

## ST10 / 75 / METAL PEDESTAL

The fan shown has an external rotor motor. Also available with a standard induction motor. Motor dimensions will vary according to source.



## HOUSING DIMENSIONS

Fan	ØD	A	B	C	E	G	H	L	M	N	Y	Y1	Z	X
ST10	75	115	135	127	158	97	32	48	57	137	120	100	165	135

P1	P	Motor type
173	205	Single phase 4 pole External rotor motor

Available handing & orientation viewed on air inlet

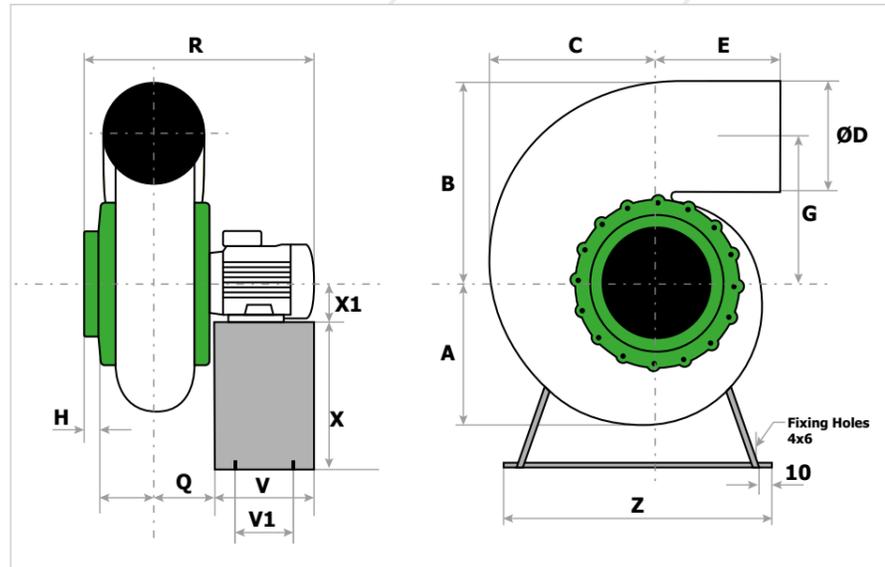
**Euro** LG 180 LG 270 LG 0 LG 90  
**B.S.** L 270 L 0 L 90 L 180

The ST10 is only available on a metal pedestal

ATEX versions are available on request, please contact us.

### ST10 / 75 / METAL PEDESTAL

The fan shown is mounted on a metal pedestal.  
Motor dimensions will vary according to source.



HOUSING DIMENSIONS

Fan	ØD	A	B	C	E	G	H	L	M	N	P	Y	Y1	Z	X	X1	X2
ST10	75	115	135	127	158	97	32	48	57	137	285	350	250	260	56	56	112

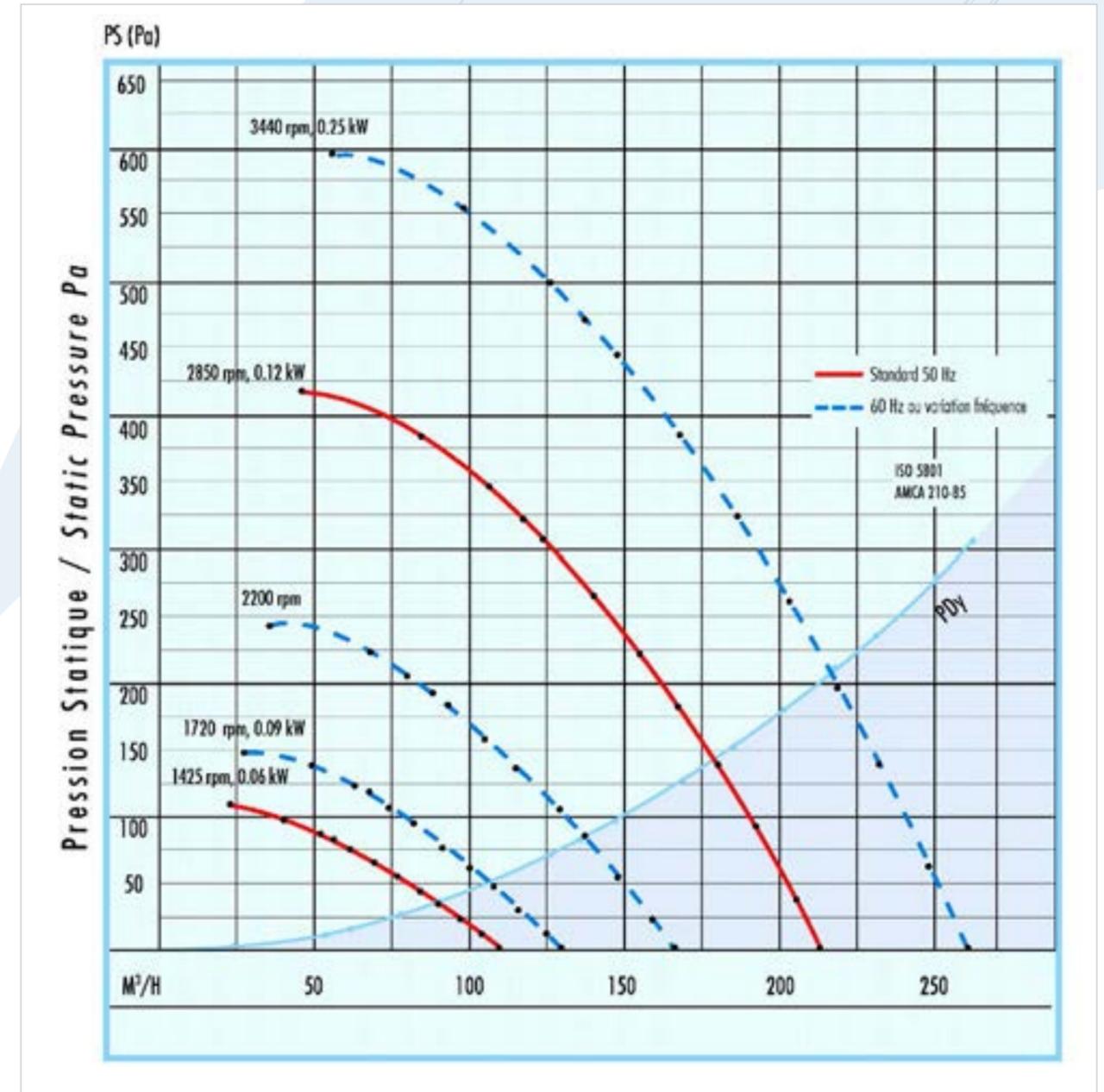
Available handing & orientation viewed on air inlet

<b>Euro</b>	LG 180	LG 270	LG 0	LG 90
<b>B.S.</b>	L 270	L 0	L 90	L 180

The ST10 is only available on a metal pedestal

ATEX versions are available on request, please contact us.

### ST10 / 75



ELECTRICAL DATA

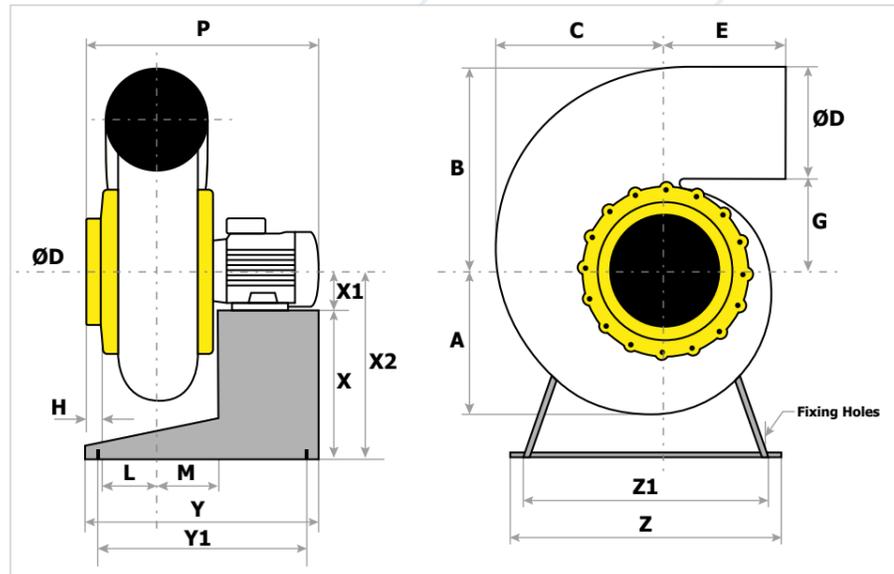
Model	Motor	/min	Supply	Full Load	Start	Supply	Full Load	Start	Metal Pedestal & Fan Weight (Kg)	
									1 Phase	3 Phase
ST10/2	0,12kW	2870	230/1/50	1,4A	2A	400/3/50	0,5A	6A	10	10
ST10/4	0,09kW	1450	230/1/50	1,0A	1,5A	400/3/50	0,4A	1A	10	10

ATEX versions are available on request, please contact us.

Maximum airflow temperature 50°C

### ST12 / 90 / METAL PEDESTAL

The fan shown is mounted on a metal pedestal but is also available with a weather protecting box pedestal. Motor dimensions will vary according to source.



HOUSING DIMENSIONS

Fan	ØD	A	B	C	E	G	H	L	M	P	Y	Y1	Z	Z1	X	X1	X2
ST12	90	145	175	163	212	130	45	35	72	380	350	250	410	350	300	71	371

Available handing & orientation viewed on air inlet

  
**Euro** LG 180  
**B.S.** L 270

  
**Euro** LG 270  
**B.S.** L 0

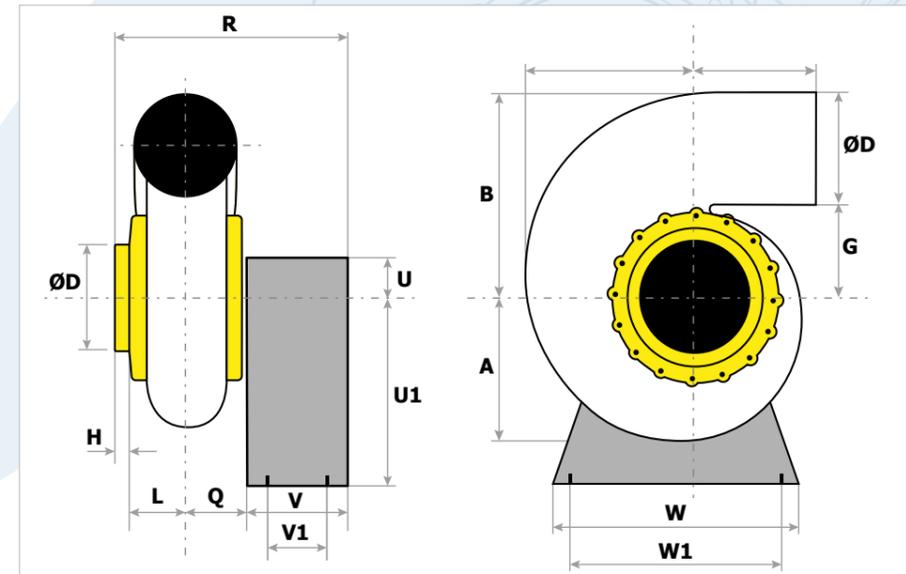
  
**Euro** LG 0  
**B.S.** L 90

  
**Euro** LG 90  
**B.S.** L 180

ATEX versions are available on request, please contact us.

### ST12 / 90 / BOX PEDESTAL

'ST' Fan fan shown is mounted on a weather protecting box pedestal but is also available mounted on a metal pedestal. Motor dimensions will vary according to source.



HOUSING DIMENSIONS

Model	ØD	A	B	C	E	G	H	L	Q	R	U1	U2	V	V1	W	W1
ST12	90	145	175	203	212	130	45	35	82	530	75	315	260	200	320	250

Available handing & orientation viewed on air inlet

  
**Euro** LG 180  
**B.S.** L 270

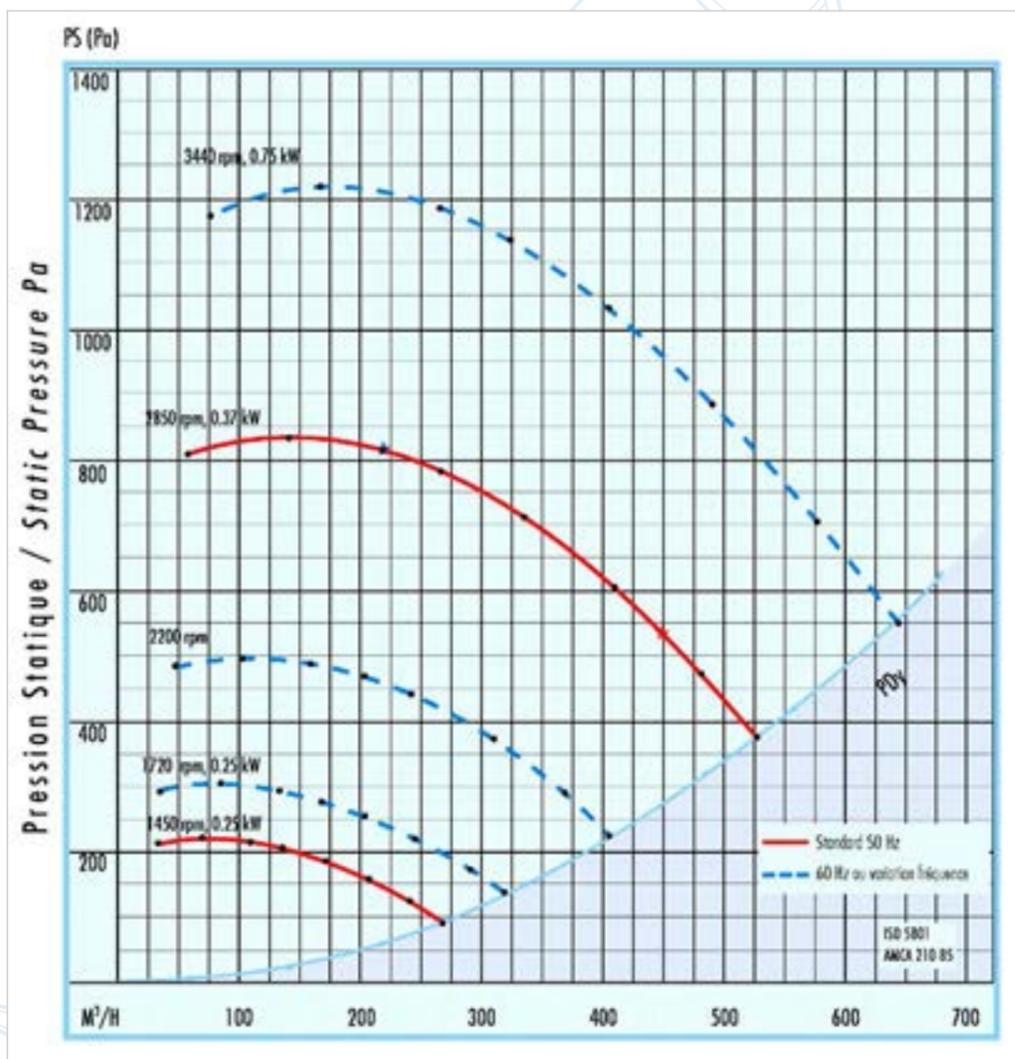
  
**Euro** LG 270  
**B.S.** L 0

  
**Euro** LG 0  
**B.S.** L 90

  
**Euro** LG 90  
**B.S.** L 180

ATEX versions are available on request, please contact us.

ST12 / 90



ELECTRICAL DATA

Model	Motor	Supply	Full load	Start	Supply	Full load	Start	Box Pedestal & Fan Weight (Kg)		Metal Pedestal & Fan Weight (Kg)	
								1 Phase	3 Phase	1 Phase	3 Phase
ST12/2	0,37kW	230/1/50	2,8A	7A	400/3/50	1,2A	6A	14	12	15	13
ST12/4	0,25kW	230/1/50	2A	5A	400/3/50	1A	5A	14	12	15	13

SOUND DATA

/min	dB(A)	63	125	250	500	1000	2000	4000	8000	Hz
2870	75	56	69	77	81	81	77	73	65	dB(A)
*1450	70	52	65	73	77	77	74	70	71	dB(A)

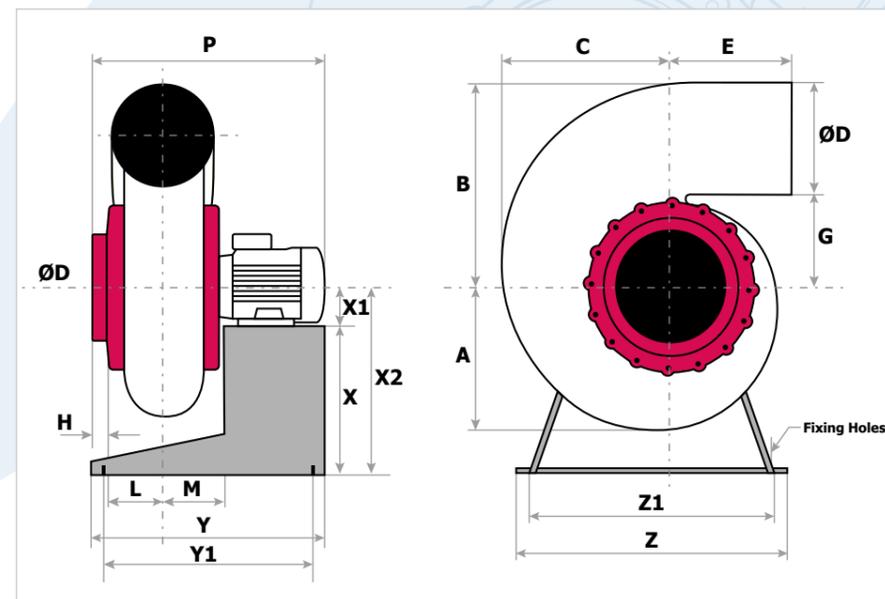
SOUND POWER (Lw) in dB(A)  
 SOUND PRESSURE at 3m range in dB(A)  
 \* Estimated figures

Maximum airflow temperature 50°C

ATEX versions are available on request, please contact us.

ST14 / 125 / METAL PEDESTAL

The fan shown is mounted on a metal pedestal but is also available with a weather protecting box pedestal. Motor dimensions will vary according to source.



HOUSING DIMENSIONS

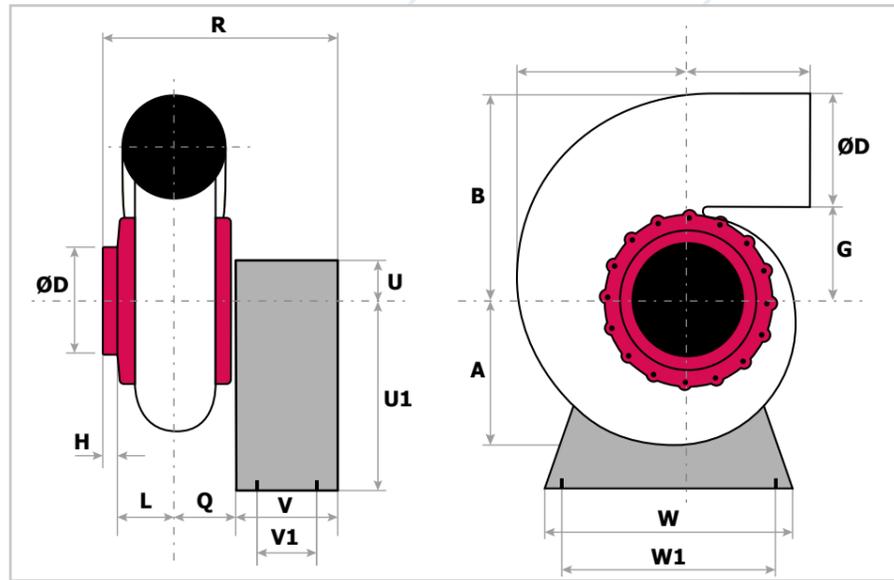
Fan	ØD	A	B	C	E	G	H	L	M	P	Y	Y1	Z	Z1	X	X1	X2
ST14	125	188	232	227	218	170	55	55	83	393	350	250	410	350	300	80	380

Available handing & orientation viewed on air inlet

ATEX versions are available on request, please contact us.

### ST14 / 125 / BOX PEDESTAL

'ST' Fan fan shown is mounted on a weather protecting box pedestal but is also available mounted on a metal pedestal. Motor dimensions will vary according to source.



HOUSING DIMENSIONS

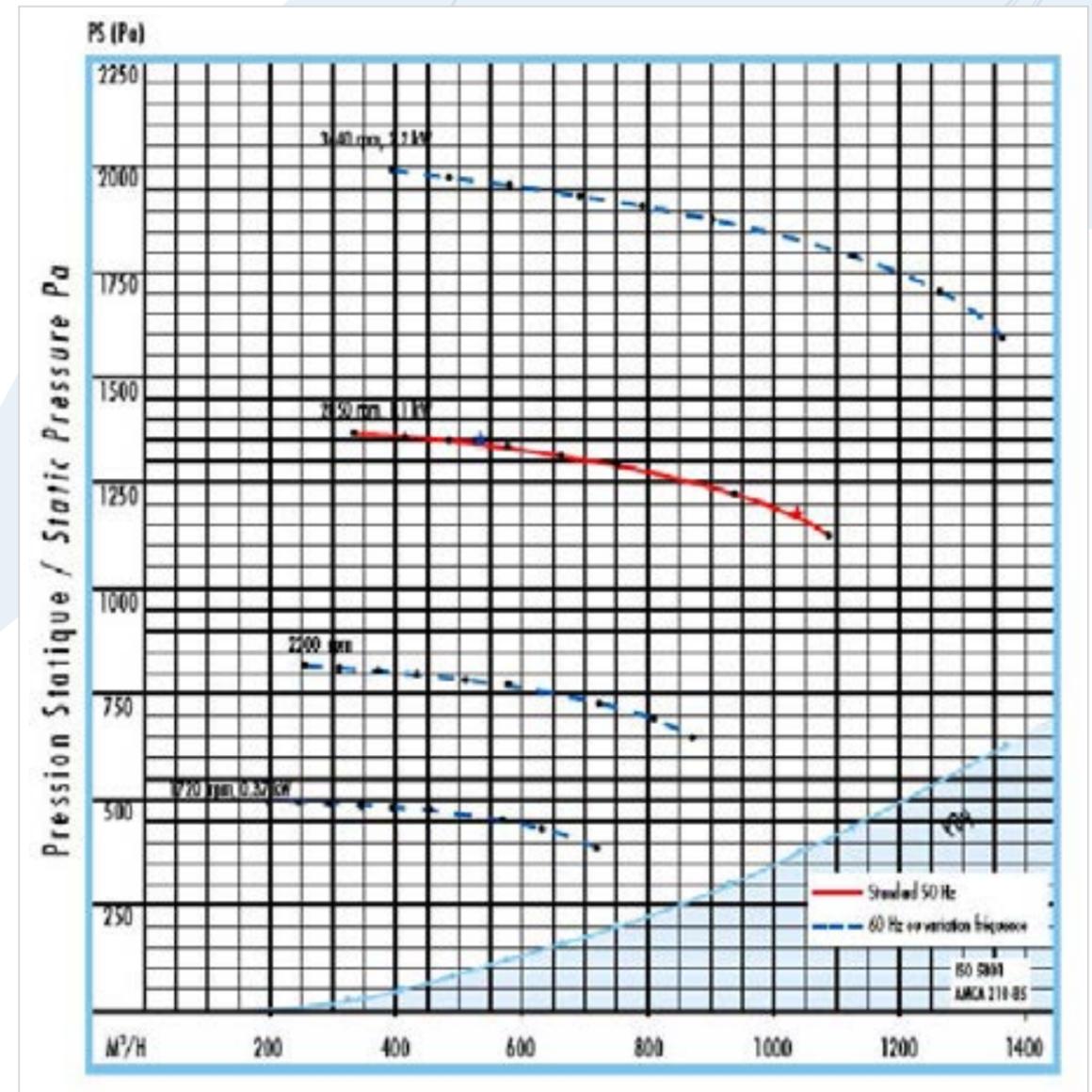
Model	ØD	A	B	C	E	G	H	L	Q	R	U1	U2	V	V1	W	W1
ST14	125	188	232	227	218	170	55	55	93	463	85	365	260	200	330	260

Available handing & orientation viewed on air inlet

<b>Euro</b>	LG 180	LG 270	LG 0	LG 90	
<b>B.S.</b>	L 270	L 0	L 90	L 180	

ATEX versions are available on request, please contact us.

### ST14 / 125



ELECTRICAL DATA

Model	Motor	Supply	Full load	Start	Supply	Full load	Start	Box Pedestal & Fan Weight (Kg)		Metal Pedestal & Fan Weight (Kg)	
								1 Phase	3 Phase	1 Phase	3 Phase
ST14/2	1,1kW	230/1/50	7A	19A	400/3/50	2,5A	14A	21	19	19	17

SOUND DATA

/min	dB(A)	63	125	250	500	1000	2000	4000	8000	Hz
2870	79	60	73	81	85	85	81	77	69	dB(A)

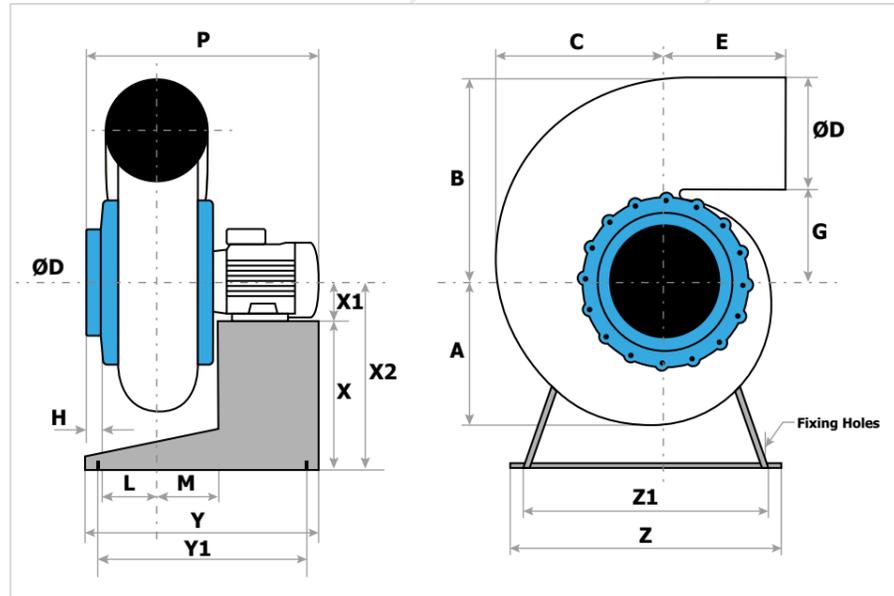
SOUND POWER (Lw) in dB(A)  
SOUND PRESSURE at 3m range in dB(A)

Maximum airflow temperature 50°C

ATEX versions are available on request, please contact us.

### ST16 / 160 / METAL PEDESTAL

The fan shown is mounted on a metal pedestal but is also available with a weather protecting box pedestal. Motor dimensions will vary according to source.



HOUSING DIMENSIONS

Fan	ØD	A	B	C	E	G	H	L	M	P	Y	Y1	Z	Z1	X	X1	X2
ST16	160	235	288	278	262	205	40	60	97	465	465	360	475	415	450	90	540

Available handing & orientation viewed on air inlet

  
**Euro** LG 180

  
**B.S.** LG 270

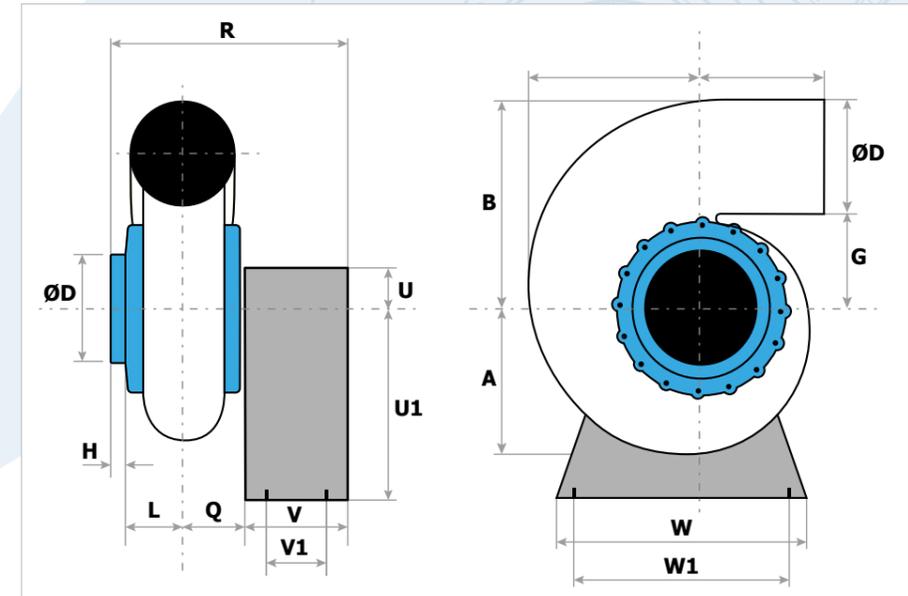
  
**Euro** LG 0

  
**B.S.** LG 90

ATEX versions are available on request, please contact us.

### ST16 / 160 / BOX PEDESTAL

'ST' Fan fan shown is mounted on a weather protecting box pedestal but is also available mounted on a metal pedestal. Motor dimensions will vary according to source.



HOUSING DIMENSIONS

Model	ØD	A	B	C	E	G	H	L	Q	R	U1	U2	V	V1	W	W1
ST16	160	235	288	278	262	205	40	60	107	572	95	455	365	300	400	330

Available handing & orientation viewed on air inlet

  
**Euro** LG 180

  
**B.S.** LG 270

  
**Euro** LG 0

  
**B.S.** LG 90

ATEX versions are available on request, please contact us.

ST16 / 160

ACCESSORIES

To facilitate the effective installation of our corrosion resistant polypropylene fans, Axair supply a wide range of high quality accessories including AV mounts, starters, relays, inverters and weather cowls.

See the full range by using the guide below:

OUR ACCESSORIES RANGE

PAGE 38

ANTI VIBRATION MOUNTS

PAGE 39

ELECTRICAL STARTER & OVERLOAD RELAY

PAGE 39

ELECTRICAL ISOLATORS

PAGE 40

FLEXIBLE CONNECTORS

PAGE 41

INVERTERS

PAGE 42

PVC FITTINGS & SCROLL DRAIN

PAGE 43

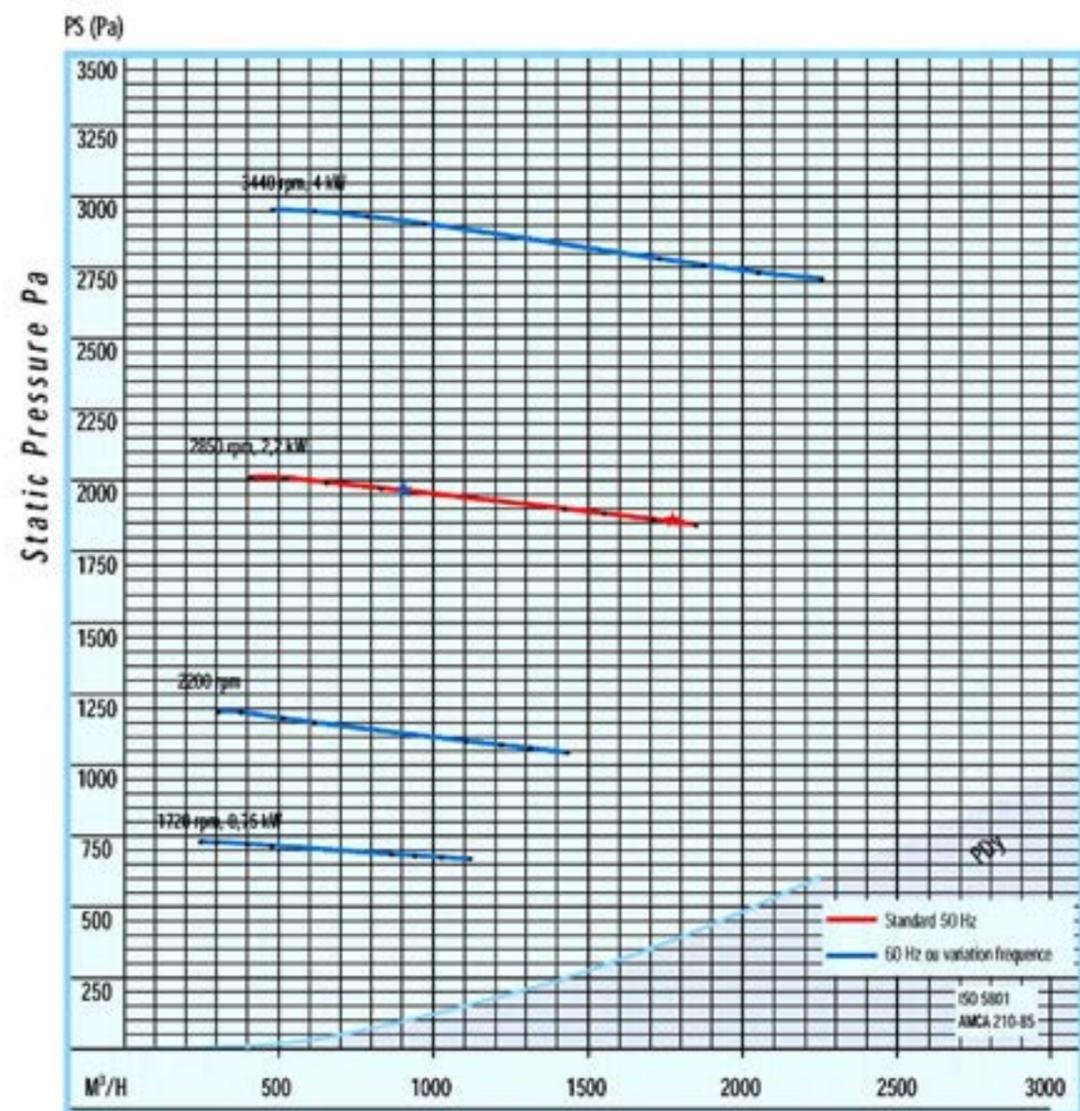
MOTOR WEATHER COWL

PAGE 44

STACK SUPPORT

PAGE 45

PEDESTAL & WALL BRACKET



ELECTRICAL DATA

Model	Motor	Supply	Full load	Start	Supply	Full load	Start	Box Pedestal & Fan Weight (Kg)		Metal Pedestal & Fan Weight (Kg)	
								1 Phase	3 Phase	1 Phase	3 Phase
ST16/2	2,2kW	230/1/50	14,6A	63A	400/3/50	5A	34A	26	24	31	29

SOUND DATA

/min	dB(A)	63	125	250	500	1000	2000	4000	8000	Hz
2870	84	65	78	86	90	90	86	82	74	dB(A)

SOUND POWER (Lw) in dB(A)  
SOUND PRESSURE at 3m range in dB(A)

Maximum airflow temperature 50°C

ATEX versions are available on request, please contact us.

## ANTI-VIBRATION MOUNTINGS



(Turret Type)



(Bobbin Type)

Axair Fans has a range of accessories to help make installation of our polypropylene fans easier.

Within our range of accessories we have two types of Anti Vibration mountings to suit fans on weather pedestals and metal pedestals. The weather pedestal mounts are designed to fit under the pedestal. The metal pedestal mounts are designed to fit between the pedestal and the feet of the electric motor.

They are available as a kit of parts which includes 4 Anti Vibration Mounts, bolts, nuts, washers and basic fitting instructions.

### WHY USE AV MOUNTS?

Our range of Anti vibration mounts are designed to isolate the fan from the mounting frame or floor and can be used with our 'S' and 'ST' ranges of fans. If you need any additional information please do not hesitate to contact the office.

These type of mounts may not be suitable for ATEX installations.



Axair AVT kit



Axair AVB kit

## ELECTRICAL STARTER AND OVERLOAD RELAY



As part of our accessories range we can offer a motor starter fitted with an overload relay.

Available as a remote type fitted with a reset button. This type is intended to work in conjunction with a switch sited away from the starter i.e in a fume cupboard.

We can also offer a starter with a start and stop button to be mounted near to the equipment. The starter would be supplied with the overload relay to suit the fan motor kW rating.

### WHY USE A STARTER AND RELAY?

Fitting a starter and an overload relay will help protect the motor from overloading. It works by measuring current drawn by the motor and will not allow it to go higher than the set current. If it does the overload will trip and then need to be reset.

## ELECTRICAL ISOLATORS



The electrical isolator we offer is prewired to the fan motor. It is to be sited as near to the fan as possible to allow the electricians to be shut off if attention is required on the fan or motor.

## FLEXIBLE CONNECTORS



(Duct Adapter)



(Duct Reducer)

Our flexible connectors are designed to fit the 'S' and 'ST' range of fans and suit both the fans inlet and discharge spigots.

There are two types of flexible connector in our range. The straight type which has the same connection size at both ends and the taper type which have different sizes at each end. For details see our data sheets.

### WHY USE FLEXIBLE CONNECTORS?

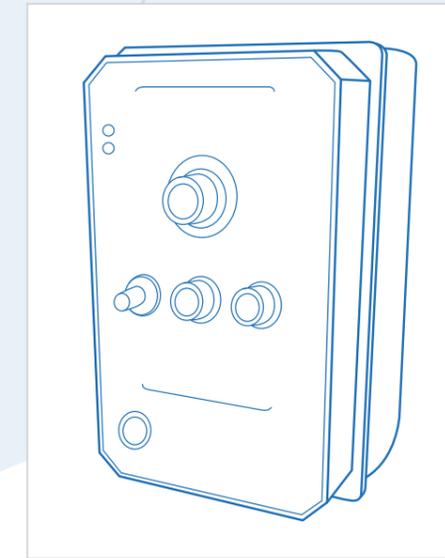
Flexible connectors are supplied as a kit which includes one sleeve and two stainless steel fixing clips and basic fitting instructions.

Flexible connectors are designed to isolate the fan from the connecting ductwork. The tapered type may be used to match different diameters.



Axair flexible connector kit

## INVERTERS



### WHY USE AN INVERTER?

Installing an inverter allows the user to control the speed of the fan motor to match the actual ventilation needs. Reducing the speed of a motor will reduce the amount of energy needed to power it, which in turn will cut your costs.

- Reduce strain on the motor and any related components.
- Lower maintenance therefore lower costs.
- Easier to stop the system when needed.
- Reduced energy consumption.

## PVC DUCT FITTINGS



### WE HAVE THE FOLLOWING IN OUR RANGE:

- Gravity dampers also known as backdraft dampers. Only suitable for certain applications.
- Reducers or tapers to fit the inlet or discharge of the fan.
- Volume control dampers to help achieve the required duty.
- Socket flanges to fit the inlet or discharge of the fan.
- Scroll drain, to be fitted at the lowest point of the fan scroll to allow water to run away. Thread size 3/8" BSP, hose connection 12mm Ø. Fan housing predrilled and tapped to hose connector.

The above fittings are intended to help with the equipment needed to install the fan. All parts shown above are sized to connect to the fan.

## MOTOR WEATHER COWL



The motor cover or cowl is designed to provide increased weather protection for IP55 motors. It can be fitted to new fans from the factory or retro fitted to existing fans already on site.

The cowl is offered as a motor shelter and is not intended to replace the successful weather protecting pedestal we have supplied for many years. It is offered as a rain cover to help protect the fan motor.

### FEATURES OF THE WEATHER COWL

- Mounts directly onto the pedestal
- Available in Three sizes
- Easy assembly
- Suitable for new or existing projects

## STACK SUPPORT

This galvanised steel stack support is designed to support the discharge stack and comes as three parts making it a versatile addition

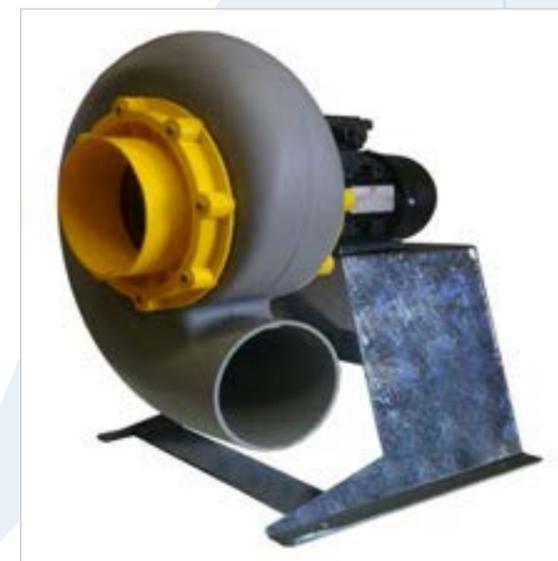
### FEATURES OF THE STACK SUPPORT

- One size fits all
- Made to support the discharge stack to 1.5m
- Bolts straight onto the new pedestal
- Galvanised steel construction



## PEDESTAL AND WALL BRACKET

### METAL PEDESTAL



### FEATURES OF THE METAL PEDESTAL

- Suitable for both indoor and outdoor installations
- Two sizes available
- 3mm thick galvanised folded mild steel
- Fixing holes for removable weather cowl

### WALL BRACKET



### FEATURES OF THE METAL WALL BRACKET

- Metal pedestal as above with an additional piece of sheet metal to create a flat base.
- Fixing holes
- Two sizes available

# LABORATORY AIRFLOW CONTROLS & MONITORS

EN 14-175 & ROHS COMPLIANT

Fume cupboard standards recommend that an airflow indicator should be incorporated to show unambiguously, the correct functioning of the fume cupboard airflow. Axair Fans has a range of digital airflow controls to enable the user to easily check the system. We also supply airflow controls with alarms suitable for safety cabinets if required.

## OUR RANGE LABORATORY OF AIRFLOW CONTROLS AND MONITORS

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TYPE A AND C LED & DIGITAL CONTROLS

PAGE 49

SPECIFICATIONS

PAGE 50

DIMENSIONS

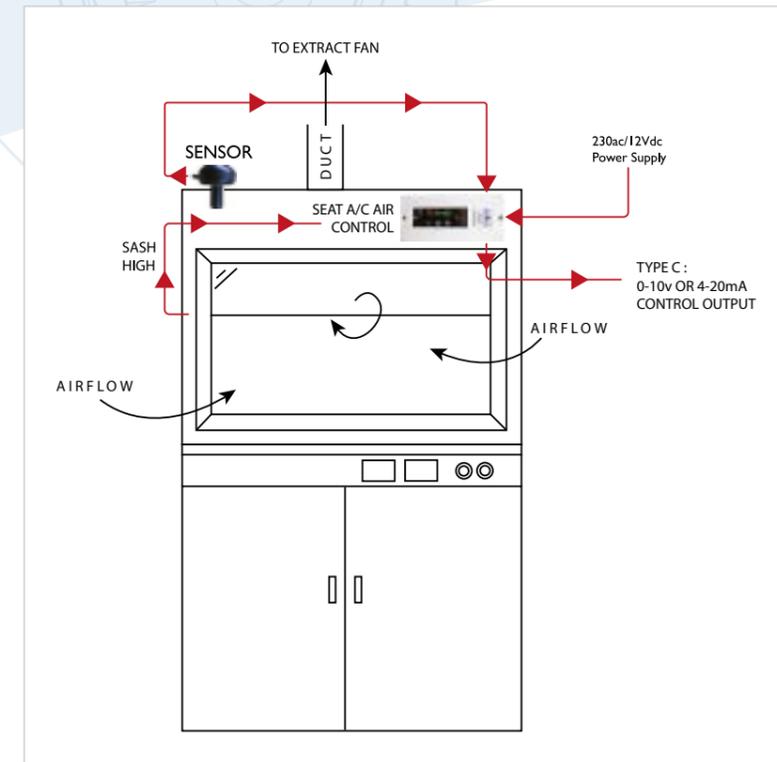
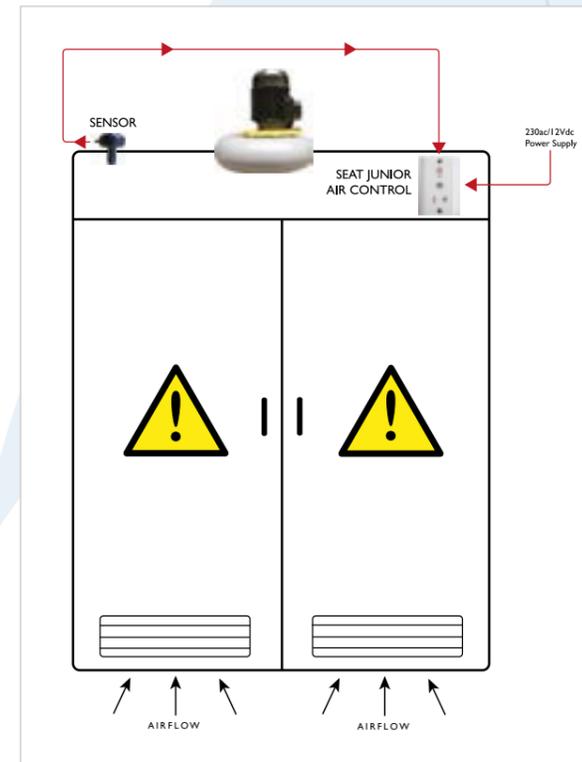
PAGE 51

TECHNICAL INFORMATION

## GENERAL DESCRIPTION

Labair Airflow Controls and Monitors are for use with fume cupboards and chemical cabinets. Available in A and C versions, these range from a basic airflow alarm to an airflow sash high alarm. Version C includes a control output for extract and make up fans.

## SCHEMATIC DIAGRAMS AND OPERATING PRINCIPLES



### WHY USE ON AIRFLOW CONTROL?

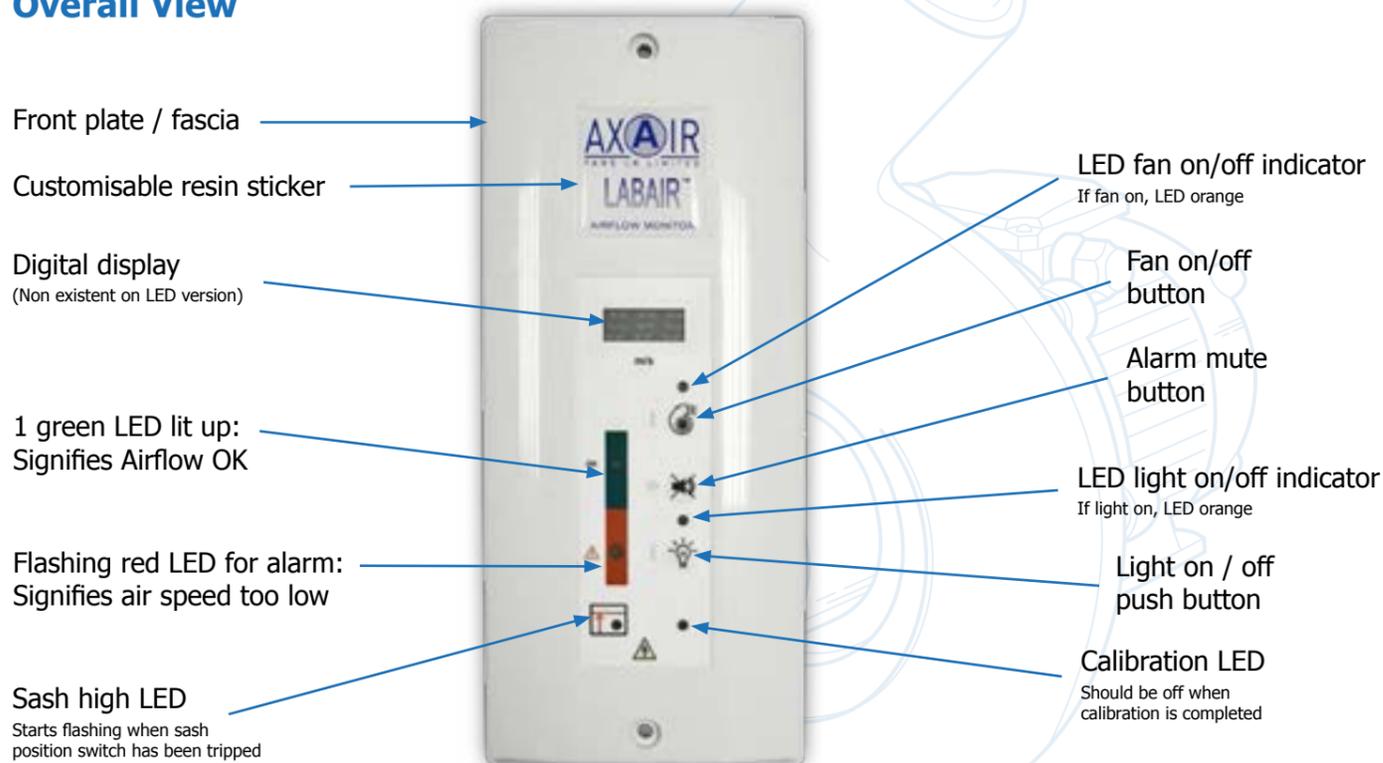
When the fume extract fan is running, it causes negative pressure inside the fume cupboard. If the sash is lowered, the negative pressure increases causing air to be drawn faster through the sash opening. Conversely, if the sash is raised the negative pressure reduces and air velocity reduces.

The Labair sensor detects this change in velocity and sends a signal to the control which is used to produce a visual indication of velocity through the sash.

Labair A and C give both a visual and audible alarm for low velocity whilst the Labair C can also send a signal to the fan speed controller to maintain a constant velocity, irrespective of the sash height.

## TYPE A AND C LED & DIGITAL CONTROLS

### Overall View



### BENEFITS

#### A Series Controller

- All in one/multifunctional unit
- Fast and simple installation
- Attractive design

### FEATURES

- Audible alarm and led visual
- Digital display of air velocity in meter per second (m/s) or feet per minute (digital version only)
- 3 push buttons: fan on/off, light on/off & alarm mute
- Factory precalibrated
- High precision numerical airflow sensor
- Sash high contact
- Alarm relay, battery back up optional
- Available in vertical or horizontal configuration (version A/LED only)
- White colour

### OPTIONS

- Surface Box mounting: Plastic enclosure to mount the face plate and to avoid profile cutting the service panel
- Alarm Relay: A remote alarm can be triggered from a relay on the controller pcb

#### C Series Controller

- Energy savings :only the lowest amount of air is exhausted
- User confort: low air speeds ensures reduced noise level
- Flexibility: fan speed can be adjusted at any moment
- Simple wiring: the VAV system and inverter derive their power from 230V single phase

- Audible alarm and led visual
- VAV control system to inverter or damper
- Digital display of air velocity in meter per second (m/s) or feet per minute (digital version only)
- 3 push buttons: fan on/off, light on/off & alarm mute
- Factory precalibrated
- High precision numerical airflow sensor
- Sash high contact
- Alarm relay, battery back up optional
- Available in vertical or horizontal configuration (version A/LED only)
- White color

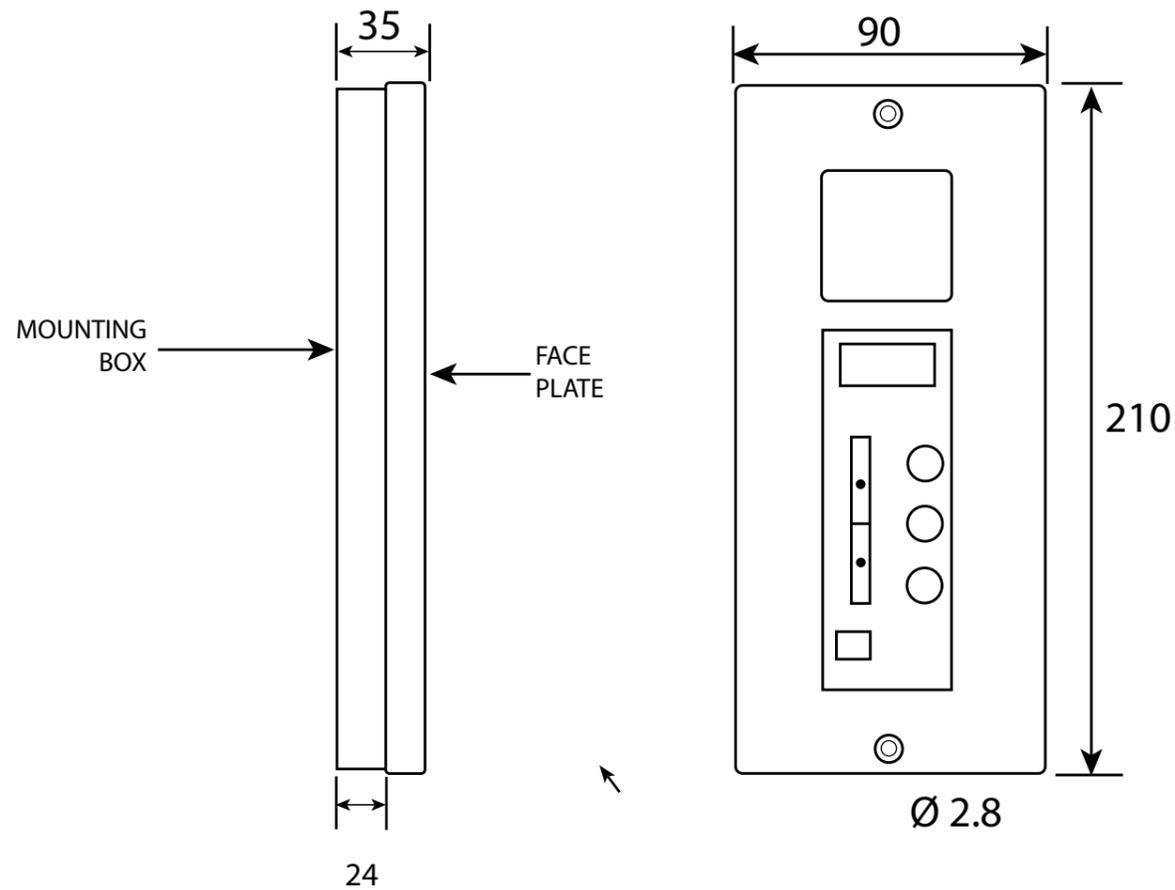
- Battery Back up: Red LED alarm is still functional up to 12 hours when unit loses power
- Custom resin stickers: Customisable resin stickers with logo, address, etc.

## SPECIFICATIONS

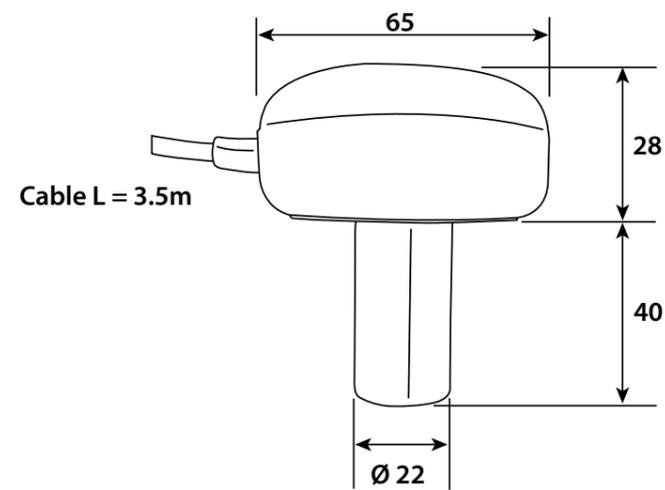
Part Number	AirControl Standard		AirControl Digital	
	A: 819700	C: 819703	A: 819701	C: 819704
<b>Display-Visual</b>	1 Green LED for right air speed 1 Red LED flashing for alarm No digital display		1 Green LED for right air speed 1 Red LED flashing for alarm 3 digit display with velocity reading	
<b>Units</b>	N/A		meter per second (m/s)	
<b>Display Range</b>	N/A		0 - 2.00 m/s	
<b>Alarm Setpoint</b>	Standard : below 0.39m/s		Standard: below 0.39m/s	
<b>Alarm Delay</b>	Selectable: 15s or 30s		Selectable: 15s or 30s	
<b>Analog Output</b>	A: N/A	C: 0-10V	A: N/A	C: 0-10V
<b>Alarm Indication</b>	1 red LED flashing and audible buzzer		1 red LED flashing and audible buzzer	
<b>Alarm Mute</b>				
<b>Light On/Off</b>				
<b>Fan On/Off</b>				
<b>Alarm Relay</b>	Yes, optional		Yes, optional	
<b>Battery Back up</b>	Yes, optional		Yes, optional	
<b>Sash High Input</b>	Audible and orange flashing LED indicate sash position switch has been tripped		Audible and orange flashing LED indicate sash position switch has been tripped	
<b>Mounting</b>	Flush or surface box (option)		Flush or surface box (option)	
<b>Calibration</b>	Factory pre-calibrated @ 0.5m/s. Re-calibration possible		Factory pre-calibrated @ 0.5m/s. Re-calibration possible	
<b>Power Requirement</b>	12Vdc (Power supply included)		12Vdc (Power supply included)	
<b>Orientation</b>	Vertical/Horizontal		Vertical Only	
<b>Monitor Dimensions</b>	Front fascia: 210L x 90W x 10D mm Surface box: 205L x 85W x 14D mm		Front fascia: 210L x 90W x 10D mm Surface box: 205L x 85W x 14D mm	

## DIMENSIONS

### MONITOR & MOUNTING BOX



### SENSOR



All dimensions in mm

## TECHNICAL INFORMATION

With over 25 years of experience in air movement, we appreciate that products and components used must perform to their optimum level.

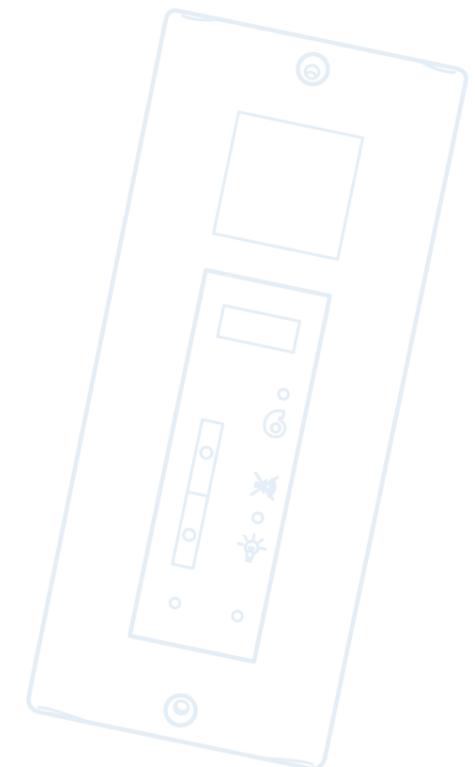
This section includes a series of guides and installation instruction to assist with corrosion fan applications, maintenance and general installation of our fans and accessories.

PAGE 52

PRODUCT ORDER CODING

PAGE 53

PEDESTAL INSTALLATION INFORMATION



## PRODUCT ORDER CODING GUIDE

<b>S</b>	<b>25</b>	<b>-</b>	<b>LG</b>	<b>-</b>	<b>4(L)</b>	<b>-</b>	<b>1</b>	<b>XN</b>	<b>-</b>	<b>S</b>
<b>Model Abbreviation</b>										
<b>S:</b> SEAT fan <b>ST:</b> STORM fan										
<b>Model Number</b>										
<b>Scroll Housing 'Handing'</b>										
<b>LG:</b> Clockwise Rotation on the fan inlet <b>RD:</b> Anti-clockwise rotation on the fan inlet										
<b>Motor &amp; Impeller Rotational Speed</b>										
<b>2</b> 2 pole or 2870/min <b>4</b> 4 pole or 1450/min <b>6</b> 6 pole or 930/min										
<b>Motor Power (If Applicable)</b>										
<b>L:</b> Low <b>M:</b> Medium <b>H:</b> High										
<b>Electrical Supply</b>										
<b>1</b> Single phase electrical supply <b>3</b> Three phase electrical supply										
<b>ATEX Flameproof</b>										
<b>XN</b> EEx-nA where stated <b>XD</b> EEx d where stated										
<b>Pedestal</b>										
<b>S</b> Standard steel pedestal for indoor and sheltered installations <b>B</b> Weather protecting polypropylene box pedestal										

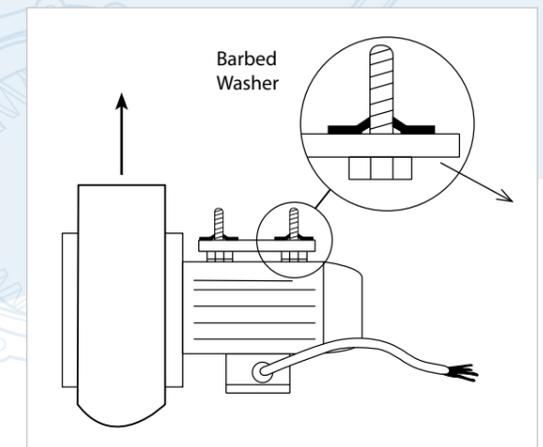
## INSTALLATION DIAGRAMS

### ATTACHING THE MOTOR TO A WEATHER PROTECTING PEDESTAL

With the motor feet pointing vertically upwards check that the fan housing is correctly handed.

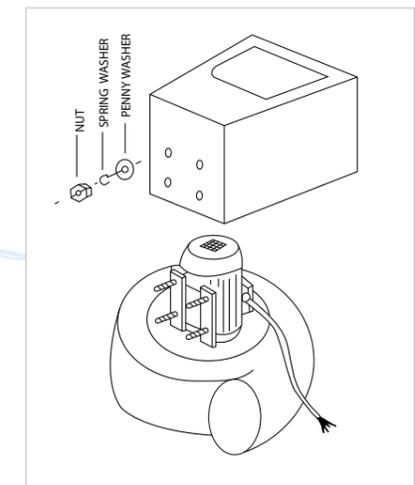
Before attaching the pedestal to the motor:

1. Make a note of the motor full load current for the appropriate supply voltage.
2. Wire the electrical cable to the motor.
3. Insert the hexagon headed bolts through the holes in the motor feet.
4. Press the barbed washers onto the screw threads to secure the bolts in position.



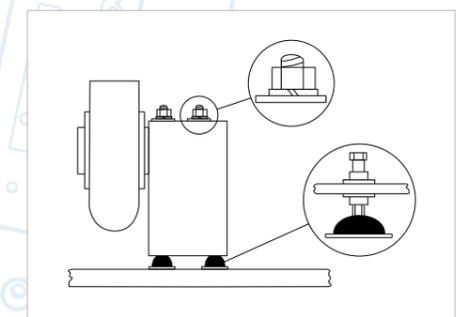
With the fan inlet pointing upwards, guide the bolts through the holes in the top of the pedestal.

Fasten the motor feet to the pedestal using the stainless steel washers, spring washers, and nuts.



The pedestal must be fastened to a horizontal surface or bracket.

Anti-vibration mountings of the turret type are recommended to be fitted to each underside corner of the pedestal base.



## INSTALLATION DIAGRAMS

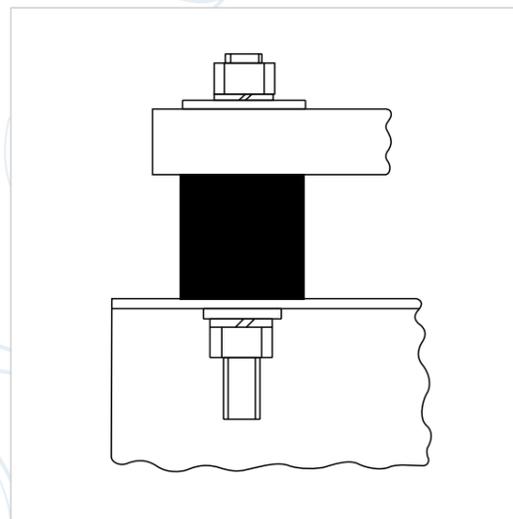
### ATTACHING ANTI-VIBRATION MOUNTINGS TO A STEEL PEDESTAL

Place the motor feet on the pedestal to identify the set of 4 holes to be used to attach the motor.

Fit the four a.v. bobbin mountings to the motor mounting holes and secure with the stainless steel plain washers, spring washers, and nuts.

Place the motor feet onto the a.v. bobbin mounting threads and secure with the stainless steel plain washers, spring washers, and nuts.

Fasten the four corners of the pedestal feet directly to the mounting base.



## INSTALLATION INSTRUCTIONS 'S' & 'ST' RANGE POLYPROPYLENE FANS

### DELIVERY

Inspect the carton and its contents for signs of damage. Check that the contents are exactly as ordered for the project. Any discrepancies should be reported immediately to the supplier.

### STORAGE

Protect fan motors from extremes of temperature, high humidity, damp conditions, and rain water. Motors that have been in damp or wet conditions must be dried-out by passing a low current through the windings or by energising anti-condensation heaters where fitted. The winding insulation resistance between phases and from each phase to earth should be at least 10MΩ.

### APPLICATIONS

Ventilation of air-diluted corrosive fumes or flammable vapours from Fume Cupboards, Fume Hoods, Fume Extraction Arms, Chemical Stores, Chemical Tanks, Process Equipment.

### LIMITATIONS TO USE

Polypropylene is highly resistant to corrosive substances but advice must be sought concerning its suitability for use with particular fumes, their concentrations and temperatures. In general, 'S' & 'ST' Range fans will not endure air-stream temperatures above 50°C; neither should they handle dust or other airborne materials. They must not be installed in ambient temperatures above 40°C or in designated Flameproof Zones unless they are ATEX certified models.

### MECHANICAL PRECAUTIONS

Flexible duct connectors secured by stainless band clips should be used to isolate fan vibration from and correct slight misalignment with the ventilation ductwork. Do not fit solid connectors to the fan inlet, it is not designed to take weight. In non-ducted applications, fans should be equipped with finger guards. Locate anti-vibration mountings between the motor feet and steel pedestal, or beneath a polypropylene BOX pedestal, and then secure them with corrosion resistant fasteners. Rubber A.V. Mountings should only be used in compression. The fan should run without excessive electro-magnetic vibration or mechanical imbalance. The fan discharge position may be adjusted by removing the screws securing the motor mounting plate to the fan housing, then indexing the scroll to a new angular location and re-fitting the screws, taking care to ensure that the 'O' ring seal remains in place.

**DO NOT REVERSE THE SCROLL HOUSING – THE IMPELLERS ONLY WORK ONE WAY!**

### WEATHER PROTECTION

Standard motors are dust and hosed-water protected to IP55 classification, but are not 'weather protected'. No motor manufacturer provides a warranty for IP55 motors installed outdoors unless a ventilated cover or weather-protecting BOX pedestal has been fitted. All cables and wires entering the motor terminal box should pass through liquid-tight glands compression-sealed to the cable outer sheath. Cables should loop downwards from the gland to take water away from the seal. A hose connector should be fitted to the scroll housing at its lowest point to enable water to drain safely away.

## INSTALLATION INSTRUCTIONS 'S' & 'ST' RANGE POLYPROPYLENE FANS

### ELECTRICAL CONNECTION

Fan impeller rotation must be in the direction of the arrow symbol moulded into the scroll housing. The motor should be connected in accordance with the diagram contained in its terminal box, then wired to a local Isolator. All terminal post nuts should be tightened to provide solid and vibration resistant electrical connection. First switch-on should be brief enough to establish correct direction of impeller rotation. Single phase motors are normally pre-connected in the terminal box for correct rotation. Three phase motors can run in the wrong direction when first switched-on, in which case they must be corrected by reversing any two of the three phase supply leads.

### ELECTRICAL PROTECTION

The fan motor has no in-built thermal protection devices, unless specified, and must therefore be wired via a Motor Starter fitted with an Overload Relay set at the motor full-load current. If the Relay 'trips' the Starter check that a) the relay is correctly set, b) the ventilation system is sufficiently damped c) the motor is correctly connected in the terminal box, d) a three phase motor is not 'single-phasing' e) the current is below nameplate full load. Where PTC thermistors are specified and fitted to the motor they should be connected to a thermistor relay or to a frequency inverter that has the necessary terminals.

### ELECTRIC MOTORS MUST NOT BE OVER-CURRENT PROTECTED USING FUSES.

When controlling a fan by frequency Inverter, the motor terminals must be correctly linked in either STAR or DELTA to suit the three phase voltage output from the inverter. All relevant instructions contained in the Inverter manual should be meticulously followed. Inverter controlled flameproof motors must be fitted with thermistors for connection to the inverter to provide over-temperature cut-out.

### RESPONSIBILITY

The above instructions are issued for general guidance. The installation contractor bears the ultimate responsibility for determining that the work is carried-out by a qualified technician observing local regulations, and that the fan receives adequate protection from adverse electrical, mechanical, thermal and environmental conditions.

## SAFETY NOTES

Safety Notes for Seat polypropylene centrifugal fans for applications in a potentially explosive atmospheres.

The following safety instructions refer to the installation, use and maintenance of polypropylene centrifugal fans to be used in classified (zone 2) explosive areas.

Centrifugal fans are suitable for group EXII cat 3G (Zone 2) installation, to be used in classified zones with the presence of gas (zone 2, group II, IIB or IIC category 3G) dependant on the application. They are designed and constructed in accordance to the General Requirements of ATEX 2014-34 directive, in accordance to norm EN 1127-1, EN 13463-1. The fan is marked in accordance with the ATEX 2014-34-EU Directive.

Electric motors fitted onto centrifugal fans are subjected to appropriate certification in accordance with ATEX Directive and they are suitable for use in classified zones (zone 2) with presence of gas, groups II, IIB or IIC protection EEx, temperature classes T3,T4, T5 & T6 depending on the application. The technical characteristics of the fan (airflow, pressure, rpm, efficiency, etc.) are on individual fan data sheets.

Motor electrical data is shown on the motor nameplate.

### MARKING

The fan assembly (fan + motor assembled together) **CE © II 3 G II, IIB or IIC – T3, T4, T5, or T6. Maximum air temperature should be checked with fan manufacturer.**

### GENERAL REQUIREMENTS

Before the installation please read carefully the installation and maintenance instructions. The installation and maintenance of the centrifugal fans must be done in accordance to the plant and maintenance classified area with the presence of explosive gases and/or other national norms/standards).

Electric motors to be coupled with centrifugal fans must have the following requirements:

1. Subject to separate ATEX certification,
2. Suitable to be used in the classified zone and with the existing substance (gas group)
3. Temperature class (gas) suitable with the existing substances and environment of the installation area.

For motor safety requirements please refer to the motor maintenance, use, and safety instructions.

Motors must not be opened when in use.

Centrifugal fans must be earthed through appropriate connections (anti-loosening and anti-rotation device).

All maintenance operations must be performed in accordance with the instructions detailed in the maintenance manual.

## SAFETY NOTES

### WARNINGS

The fan inlet if not coupled with a duct must be installed with a protection grid IP20, to protect the impeller against contact with external bodies and/or dirt. If the fan is duct mounted it is necessary to have the appropriate protection devices in accordance regulations.

Earthing of the conductive areas of the motor/casing is made through the external earthing. Check Atex regulations for details. The fan should be checked for wear, damage or build up of dust/dirt. Ensure the fan is running correctly ie no vibration or any abnormal noises.

If on inspection the fan is not operating as normal the fan should be stopped. Then try to identify the origin of the problem and contact the installer.

If the fan is to work in conjunction with an Inverter speed controller the thermistor connections must be used. They need to be connected to the inverter if it has thermistor connections or a thermistor relay.

## POLYPROPYLENE FAN SPECIFICATIONS

### APPLICATIONS

Suitable for operation in corrosive applications including plating, fume handling and lab hood exhaust systems etc.

### HOUSINGS: PP

Single block strong high density UV treated and recyclable polypropylene (PPH) with no welded joint. Reversible and rotatable to any of the 8 standard discharge positions by 45° increments. All fan mounting hardware in stainless steel.

### IMPELLER: PP

Forward curved centrifugal type impeller made of injection molded PPH. Fan wheel supplied with motor shaft bushing and hub cap constructed of PPH. Wheels electronically and dynamically balanced to ISO 1940, ISO 90-600.

### MOTOR SUPPORT

Several options: no stand, metal stand, polypropylene motor pedestal or roof unit kit.

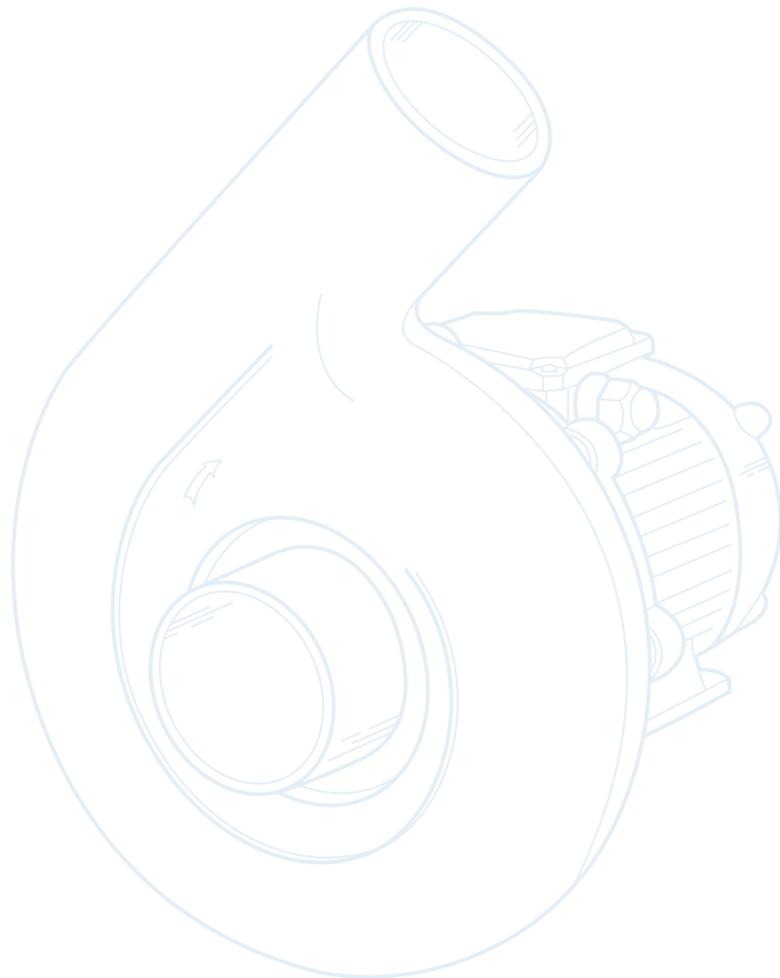
### MOTORS

Direct drive, asynchronous, single or three phase, IP55, Single speed three phase 230/400 V - 50/60 Hz, single phase 230 V - 50 Hz.

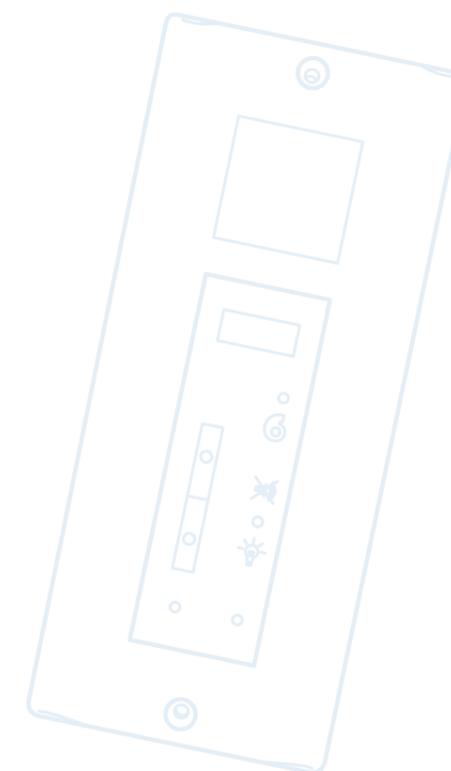
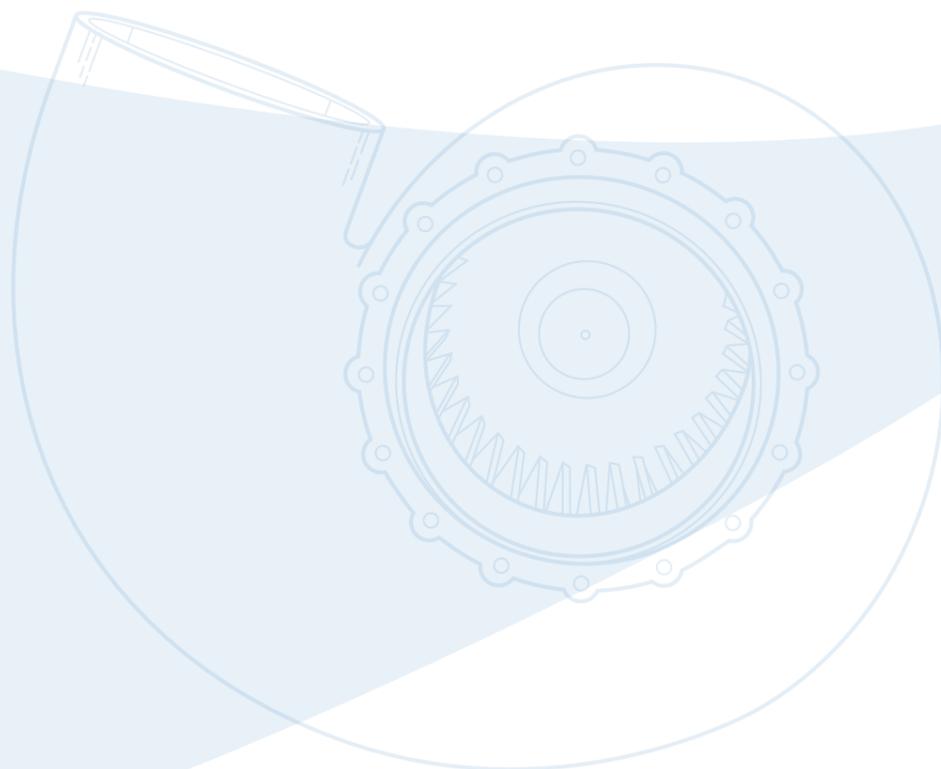
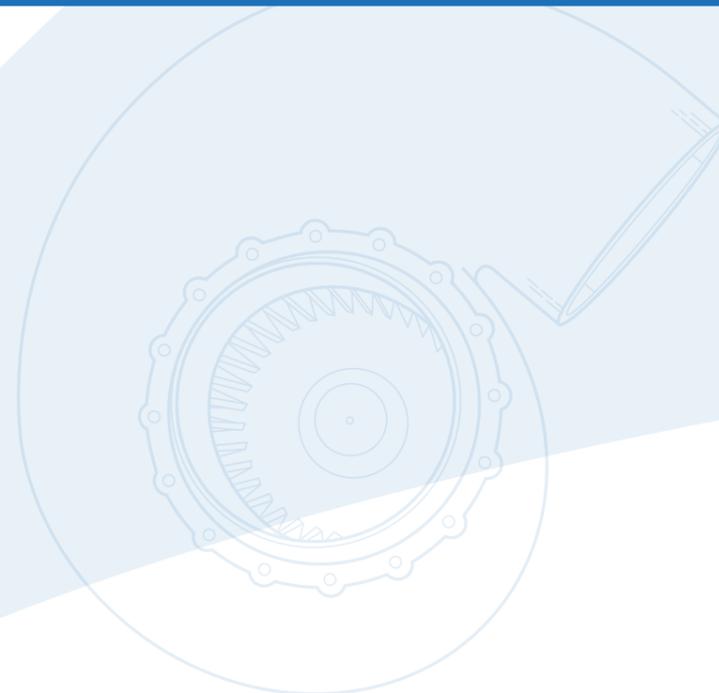
### TEMPERATURE RESISTANCE

PPH casing and wheel recommended up to 50°C.

# NOTES



# NOTES



# AXAIR

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