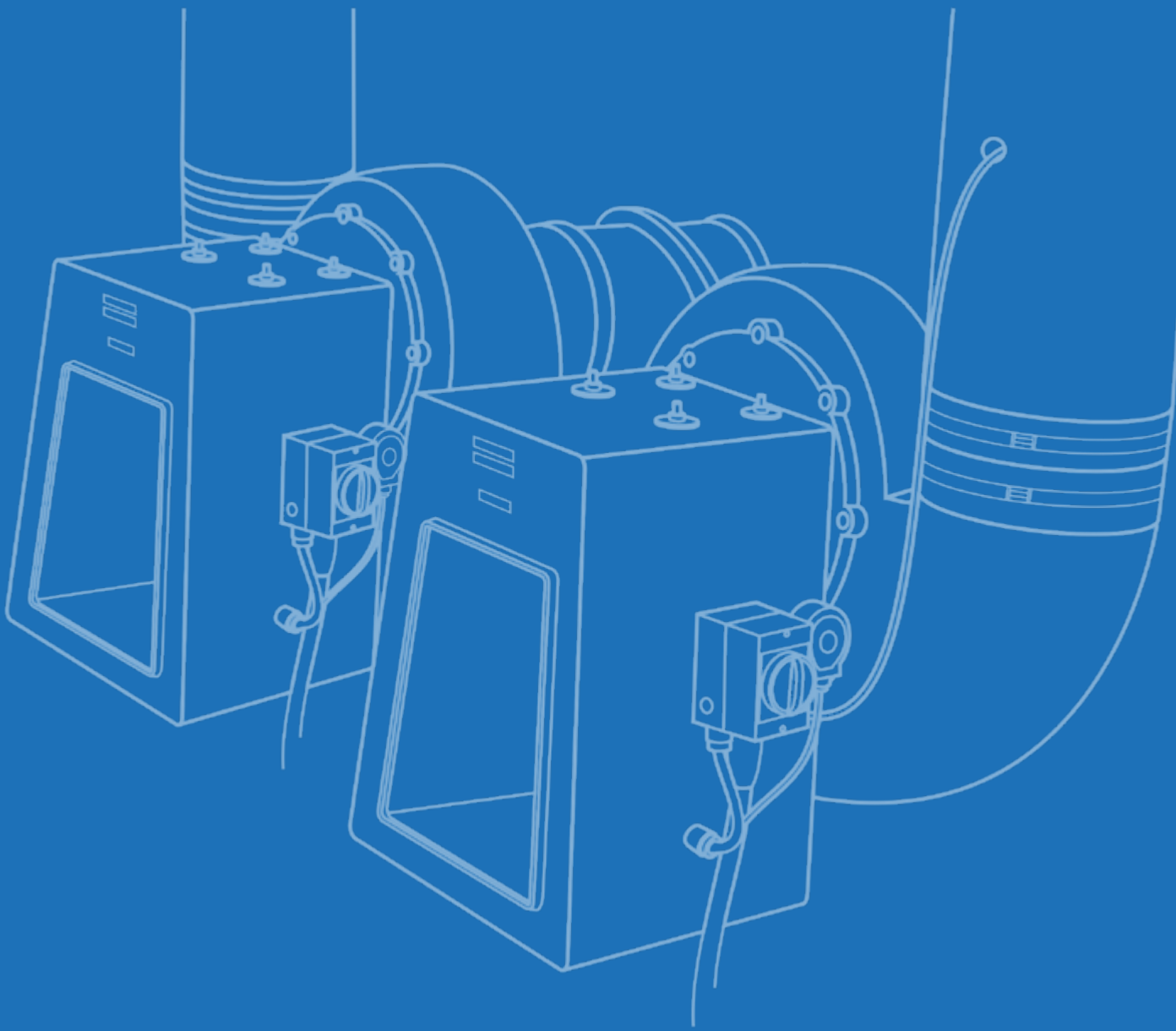


# Corrosion Resistant Fans & Controllers for Laboratory & Industrial Fume Extraction

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*Polypropylene fans designed to extract and resist the widest range of corrosive and hazardous fumes in chemical and industrial extraction from the UK's leading independent fan integration specialists.*



# Who Are Axair Fans?

*We're UK industrial fan suppliers with a solid goal: To help you.*

*Revolutionary fan selection and technical integration advice that revolves around you and your system. With over 30 years experience in the UK fan market, we revolutionise the way our customers do business, that's why we're fast becoming the independent fan supplier of choice in the UK market.*

## Industrial Applications

**Chemical Storage Ventilation** where ammonia, hydrogen and other corrosive fumes are present.

**Fume Cupboards** whether in laboratory, educational settings, extract arms, dust or fume extraction.

**Environmental Fume Extraction** for anaerobic and aerobic digestion plants and other toxic environments.

**Biomass, Biofuel & Renewables** for combustion, material handling, drying, explosion protection and corrosion management.

**Sewage & Waste Water Treatment** for sludge drying, toxic fume removals and eliminating hazardous gases.

**Mortuary & Autopsy** where formaldehyde is present and corrosive gas ventilation is required.

**ATEX Applications** to prevent explosions in potentially hazardous Zone 1, 2 gas or 21, 22 dust applications. ATEX fans are certified in line with the ATEX Directive 2014/34/EU.



## ATEX Fan Labelling

In accordance with UK & European ATEX regulations and legislation, all equipment that is certified for use in the UK hazardous area market is labelled with a code that defines its use. This ensures all equipment is traceable back to its origin source should the rare event of an issue arise.

## Certifications & Groups

Axair are a carbon zero, ISO 9001 certified company. We are proud active members of the fan manufacturers and smoke control associations. Download a copy of our policies at [www.axair-fans.co.uk](http://www.axair-fans.co.uk).

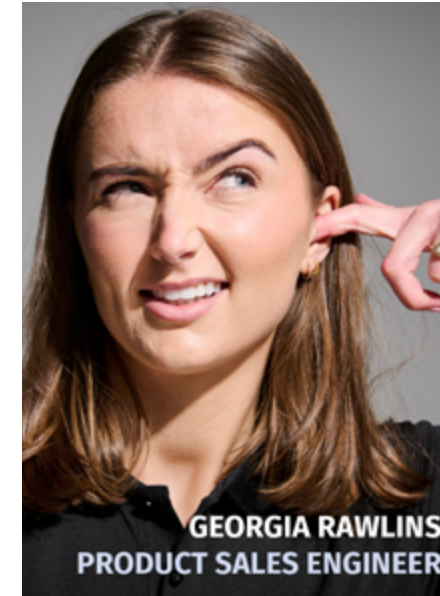
# We're Revolting!

*You heard us right, we're revolting - we're changing the rules of the industrial fan game, breaking the mould Response times that take some companies days, take us minutes. Pre-sales advice and after sales support is built around you, because our job is to empower you to make the right fan selection for your application.*



**Michael Hambleton**  
Head of Qualifications

When your enquiry comes into Axair you'll speak to Michael and his team of qualification engineers. They'll work with you to figure out what would be best for your application. From here they'll pass you to our product engineers for fan selections.



**Georgia Rawlins**  
Industrial Product Engineer

Following your enquiry qualification, our departmental product engineers will produce a detailed quotation and provide datasheets for you to sign off. Each engineer has a specialist niche, Georgia for example, is extensively DSEAR and ATEX trained.



**Andrew Jones**  
Technical Director

Sometimes your enquiry needs a little more technical TLC, that's where our heavy technical guys step in. AJ leads from the front on all ATEX, net zero, hydrogen and emerging technologies, and helps our customers with the tricky side of fan integration.

## Important Information Regarding ATEX Fan Selection

The Axair team have undertaken extensive training in ATEX regulations but have a duty of care to ensure we supply a suitable fan based upon a customer's correct ATEX coding specifications. ATEX has to be understood as an ever evolving subject requiring competence and training that is now provided by UK notified bodies and consultancies. We advise that if anyone requires additional training in ATEX that they contact an independent body for assistance. Axair can supply fans suitable for ATEX applications within zone 1 & 2 for gas and Zone 21 & 22 for dust, manufactured from either metal, or corrosion resistant polypropylene depending on the specification.



# Polypropylene Fans

- Single piece moulded, high density polypropylene casing
- 10 sizes to cover a wide range of applications
- A range of motor sizes available for each fan size
- Industry standard round spigot sizes
- Compact design and easy assembly
- Lightweight & transportable
- Direct driven motors
- Held in stock



## Options for your application

### Electrical options:

- 230V 1~ motor. EC available
- 230/400V 3~ direct-on-line or inverter supplied motor. EC available.
- 400/690V 3~ motors in larger sizes
- Pre-wired electrical isolators
- Motor starters
- Inverter drives
- Airflow controllers
- ATEX motors

### Mechanical options:

- Multiple orientations
- Metal or weather proof box pedestal
- Anti-vibration mountings
- Flexible connectors
- Flange pairs
- Manual dampers
- Drain hose connectors
- ATEX polypropylene/carbon fans

## Technical Expertise

We have over 25 years' of experience in corrosive air movement and explosive environments. Our team of sales engineers are industry experts.

## Stock Availability

Our customers benefit from short lead times and unrivalled stock availability on an extensive range of fume fans. We're confident that our stock and logistics policy enables us to maintain a position that will provide continuity of business and a cost effective solution to industrial corrosion resistant fan procurement.

## Customer Support

From enquiry through to delivery and after-sales care, our team will provide any technical support you may need. Our team have a thorough knowledge of corrosive and ATEX explosive atmospheres.



*Axair supports a large network of UK fume cupboard manufacturers and those within the environmental corrosive fume market with our range of industrial fans. Corrosion resistant fans are supplied with metal or outdoor polypropylene pedestals and are specified to match the exact requirements of the applications operating and performance duty.*

*We specialise in sub manufacturing SEAT polypropylene moulded fans designed to extract and resist a wide range of corrosive fumes in laboratory and industrial extraction applications.*

*Our highly focused engineers work alongside our international supplier partners and customers in all stages of product development, specification, and design integration to ensure each component satisfies the specific needs and requirements of the application.*

*Whatever your corrosive fume extraction requirements we're here to support you when you need us.*

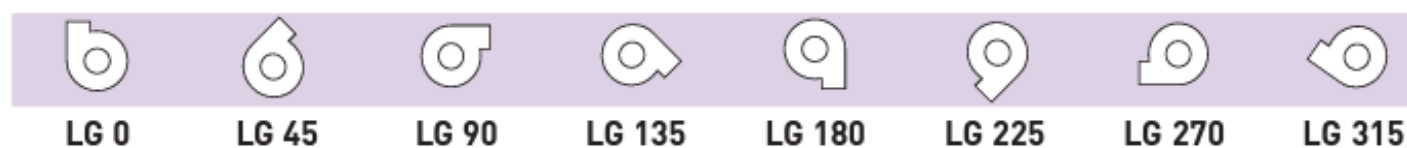
## Handings by Fan Model - ST Range

All handings are viewed from the inlet side and are 45 degrees adjustable.  
Always check the available discharge handings for your specific fan model.

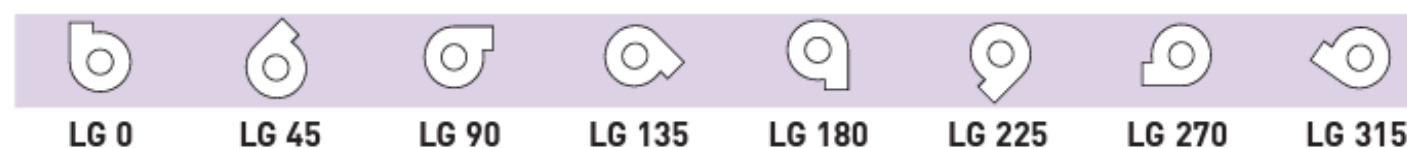
### ST10 - LG Position Only



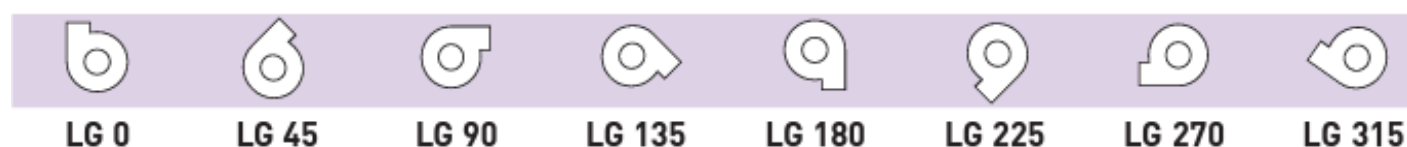
### ST12 - LG Position Only



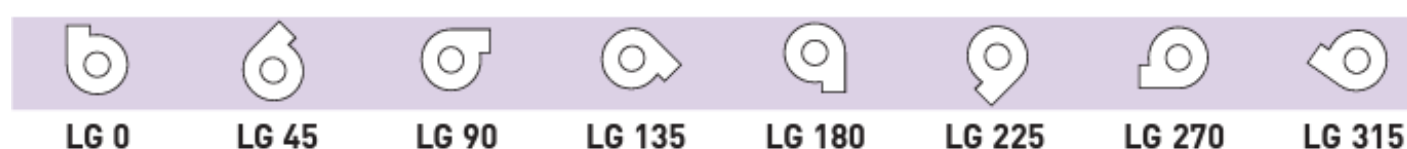
### ST14 - LG Position Only



### ST16 - LG Position Only



### ST18 - LG Position Only

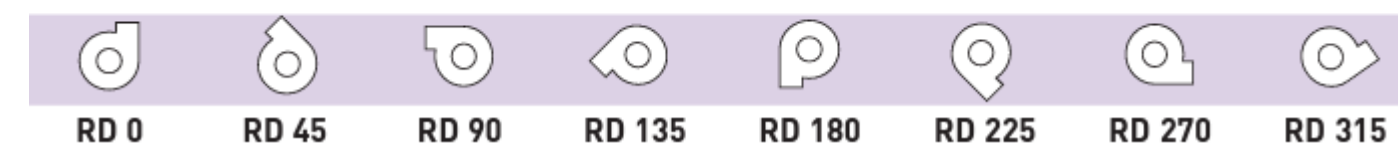
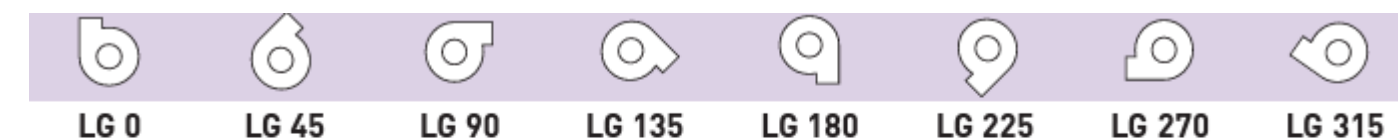


Please Note: We do not advise that any contractors change the handing themselves, this can lead to the system only achieving 30% of the duty.

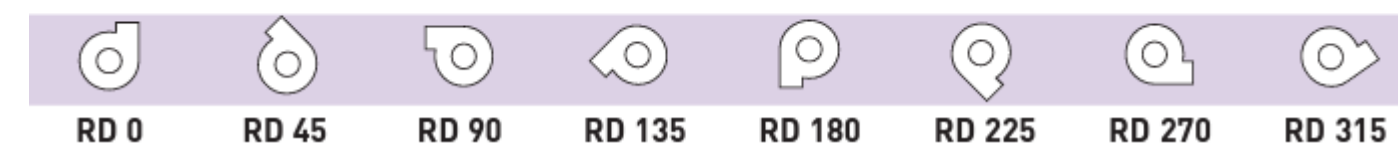
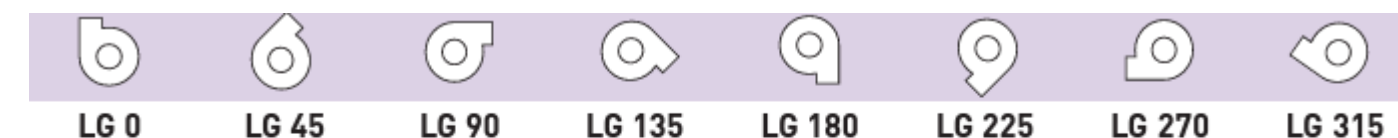
## Handings by Fan Model - S Range

All handings are viewed from the inlet side and are 45 degrees adjustable.  
Always check the available discharge handings for your specific fan model.

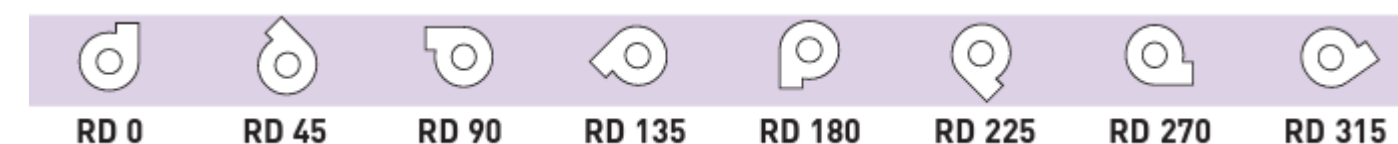
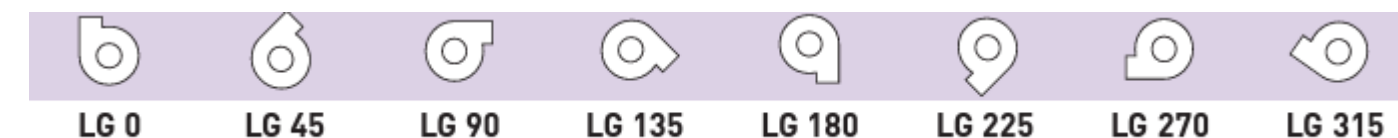
### S15



### S20



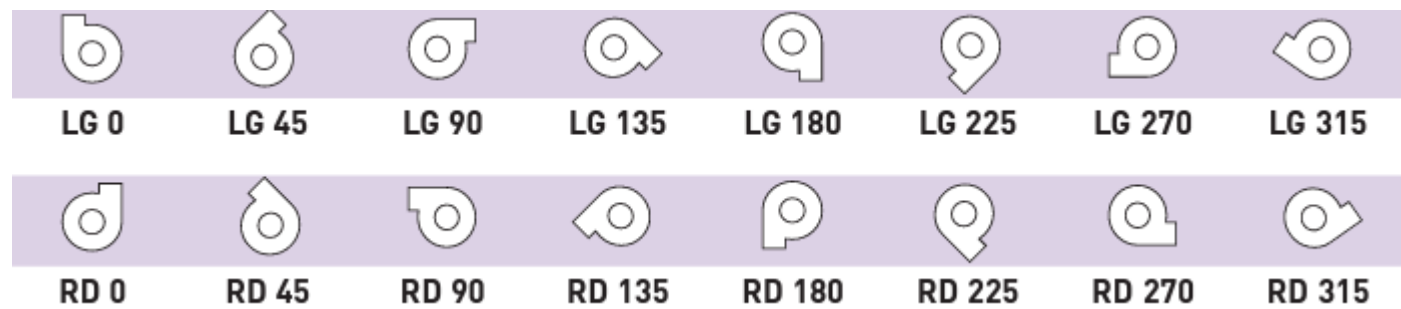
### S25



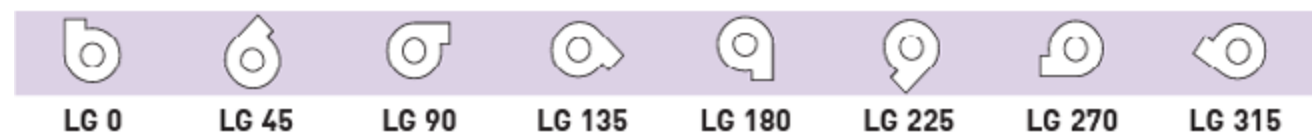
Please Note: We do not advise that any contractors change the handing themselves, this can lead to the system only achieving 30% of the duty.



### S30



### S35 - LG Positions Only



### S50 - LG Positions Only

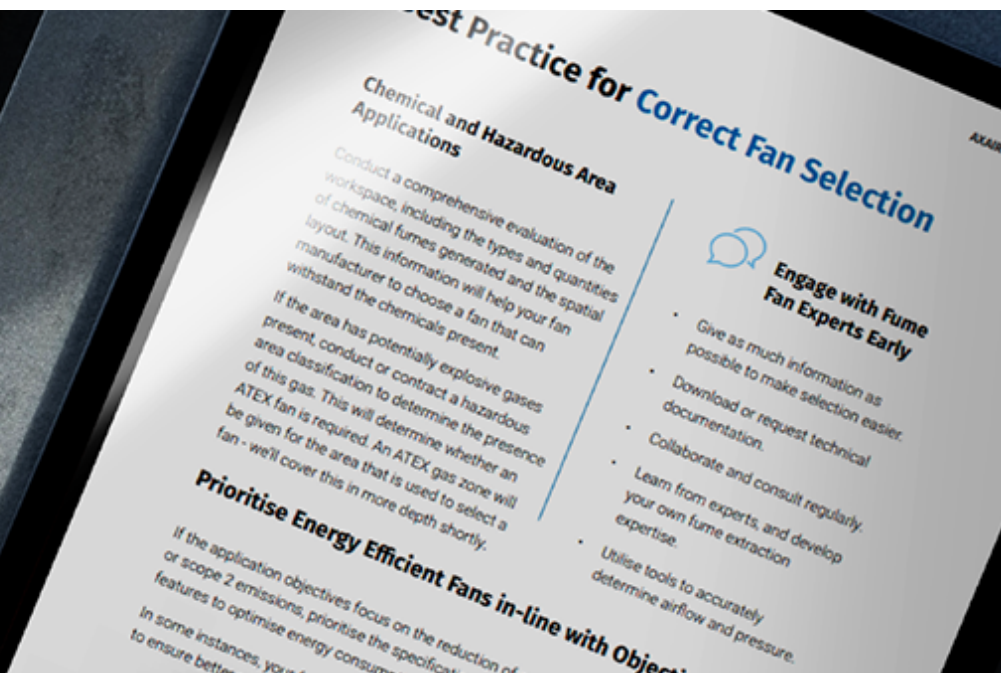


Note: ATEX certified S range fans certified to zone 2 gas are also available in the above model specific discharge handings.

## Handings Visual Representation

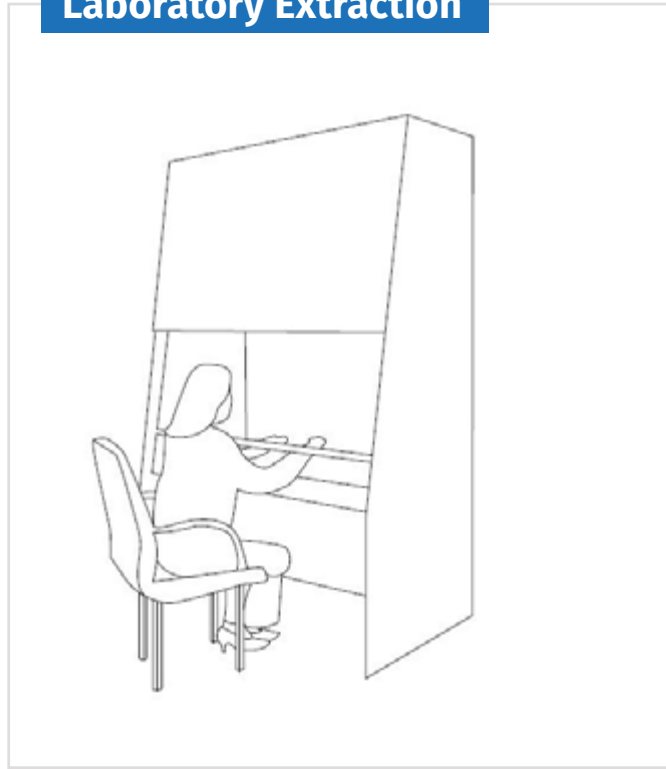


**FREE Whitepaper**  
**DOWNLOAD**  
visit [www.axair-fans.co.uk](http://www.axair-fans.co.uk)



# Typical Applications

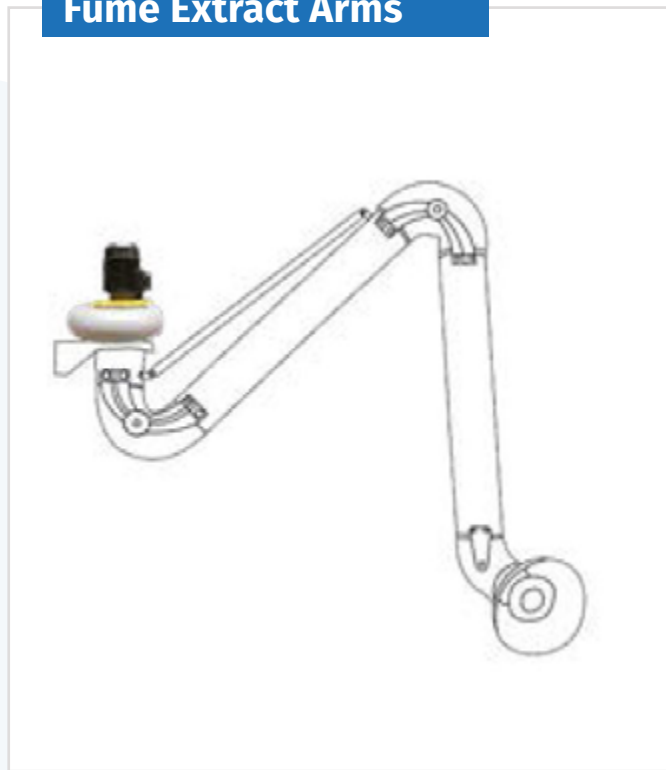
**Laboratory Extraction**



**Environmental Chambers**



**Fume Extract Arms**



**Process Fume Extraction**



# S Range

Our 'S' range of polypropylene fans are designed to provide high air flow against medium system pressures. Typical applications include the extract of corrosive fumes from laboratory fume cupboards.



**Page 12: S15**



**Page 15: S20**



**Page 18: S25**



**Page 21: S30**

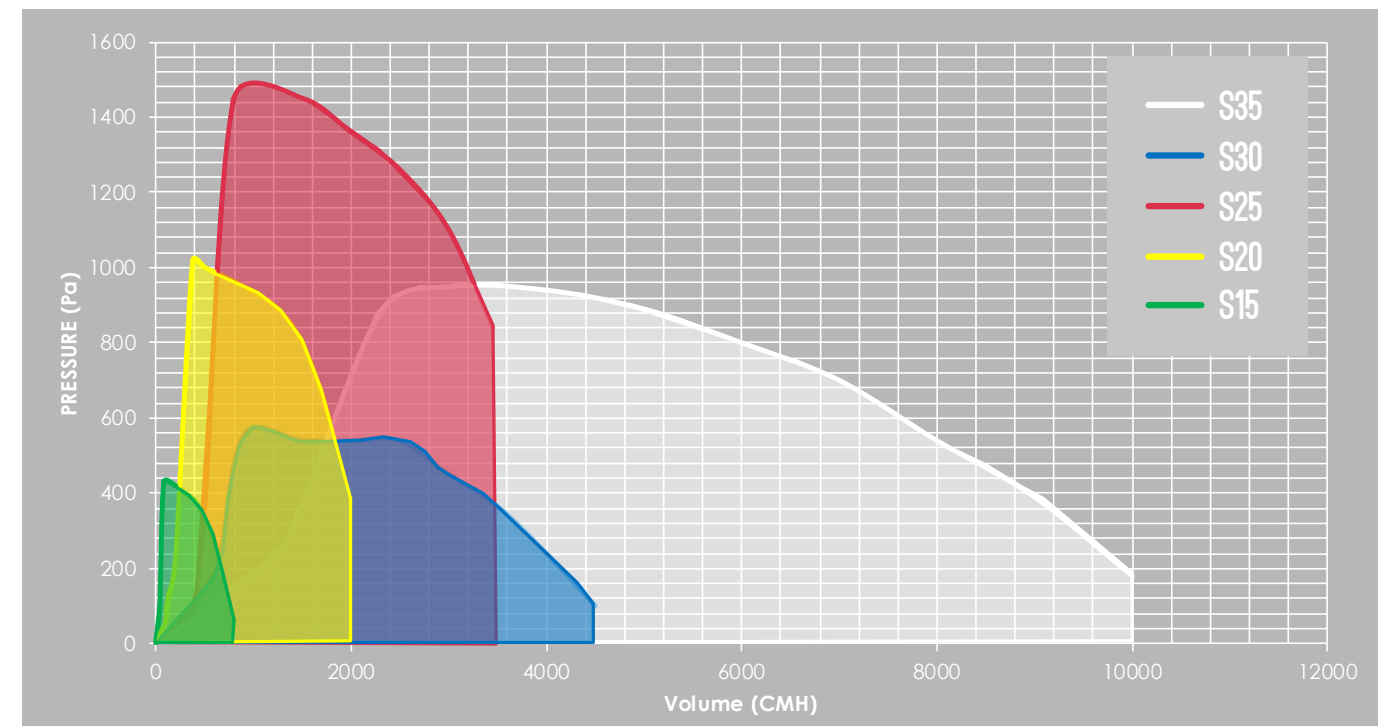


**Page 24: S35**

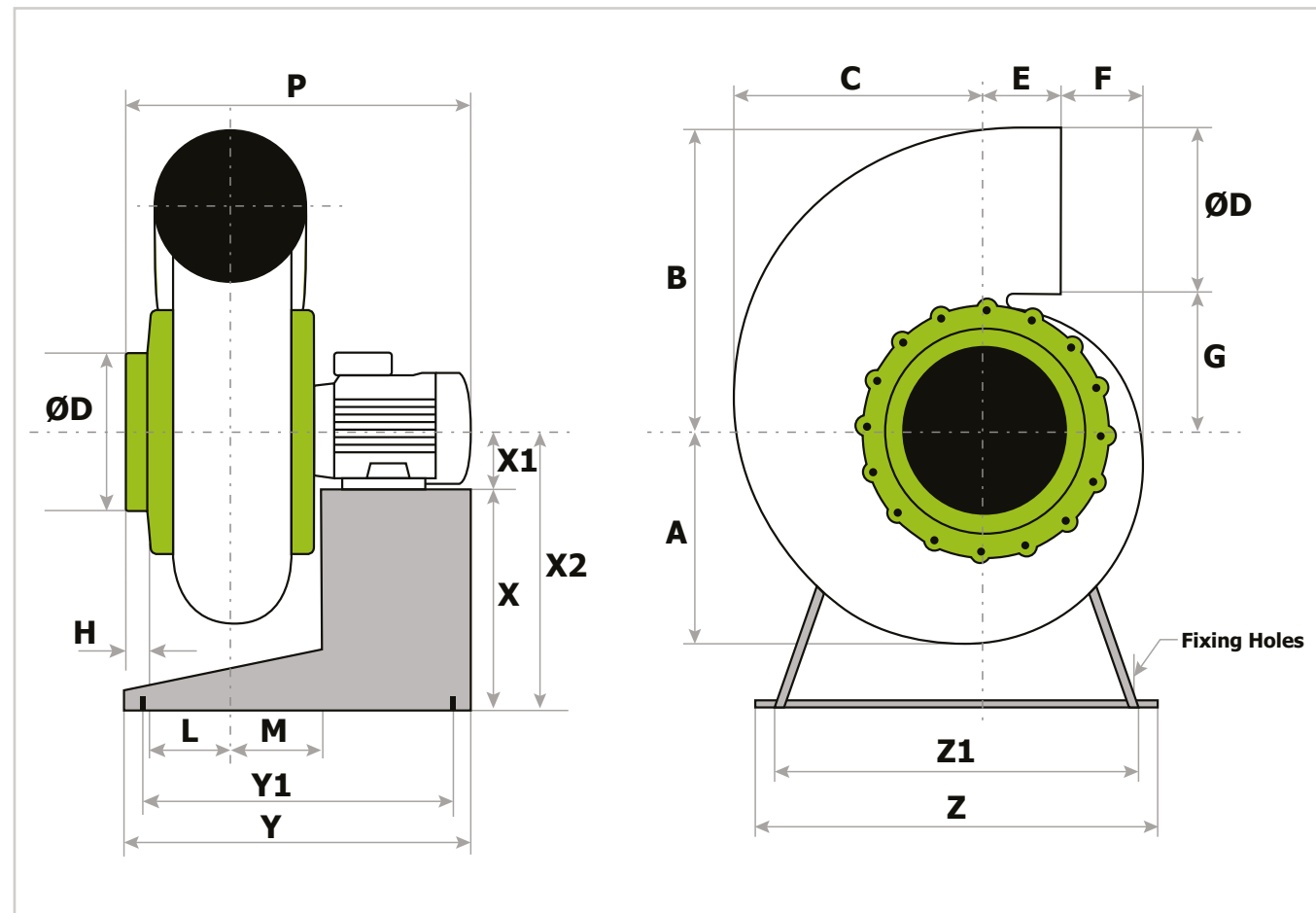


**Page 27: S50**

## Performance Range



## S15/125/Metal Pedestal



### Dimensions

ØD	A	B	C	E	F	G	H	L	M	Y	Y1	Z	Z1
125	170	240	203	100	32	115	30	70	80	350	250	410	350

Motor Size	Motor	X	X1	X2	P
0.37kW (2p) & 0.25kW (4p)	'71' frame	280	71	351	380

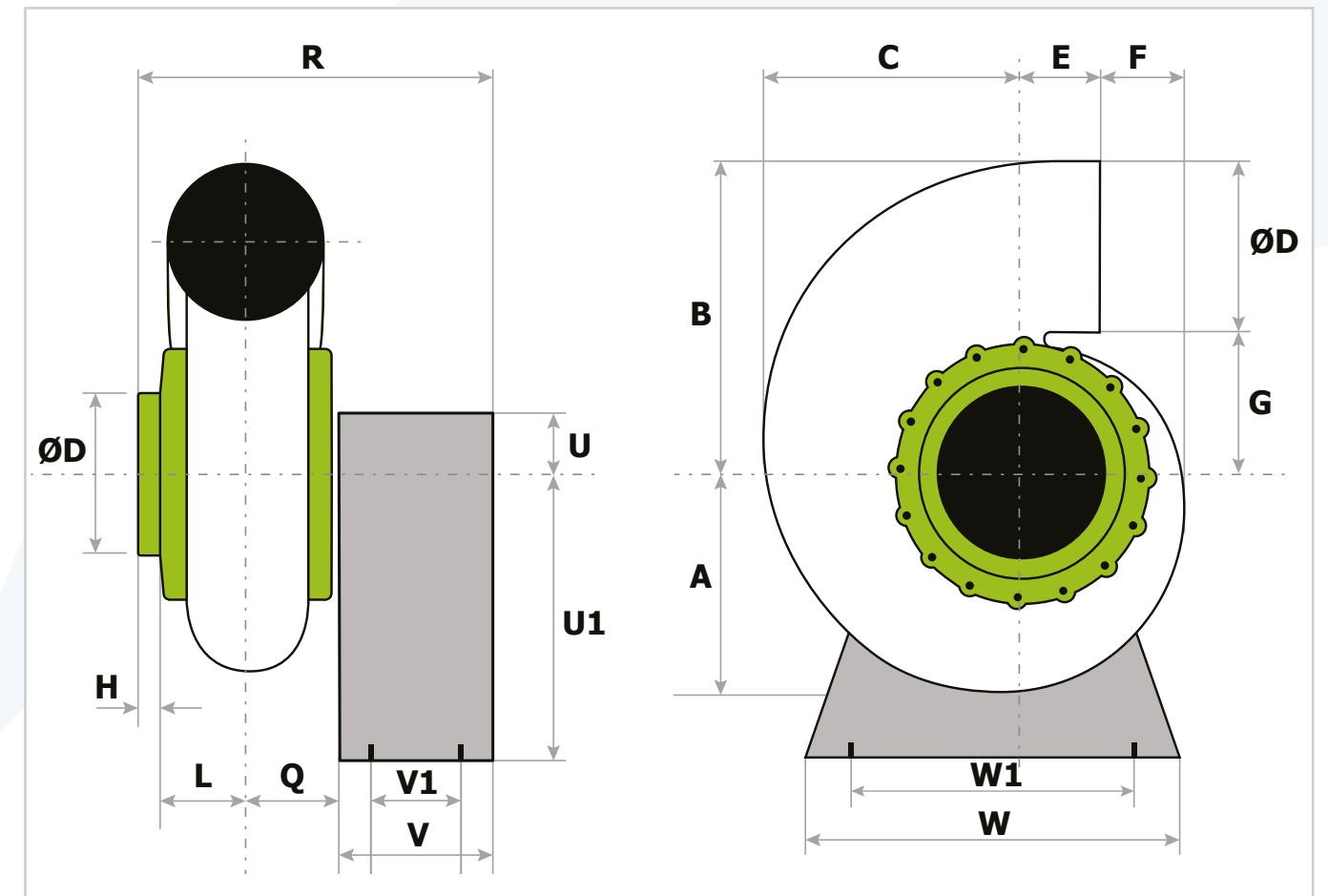
Motor dimensions may vary according to source.

Performance curve on p14

### Handing & Orientation

All handings are viewed from the inlet side and are 45 degrees adjustable. Always check the available discharge handings for your specific fan model, see pages 6-9 for reference.

## S15/125/Box Pedestal



### Dimensions

ØD	A	B	C	E	F	G	H	L	Q	R	U	U1	V
125	170	240	203	100	32	115	30	70	80	530	369	81	340

Motor Size	Motor	V1	W	W1
0.37kW (2p) & 0.25kW (4p)	'71' frame	267	410	318

Motor dimensions may vary according to source.

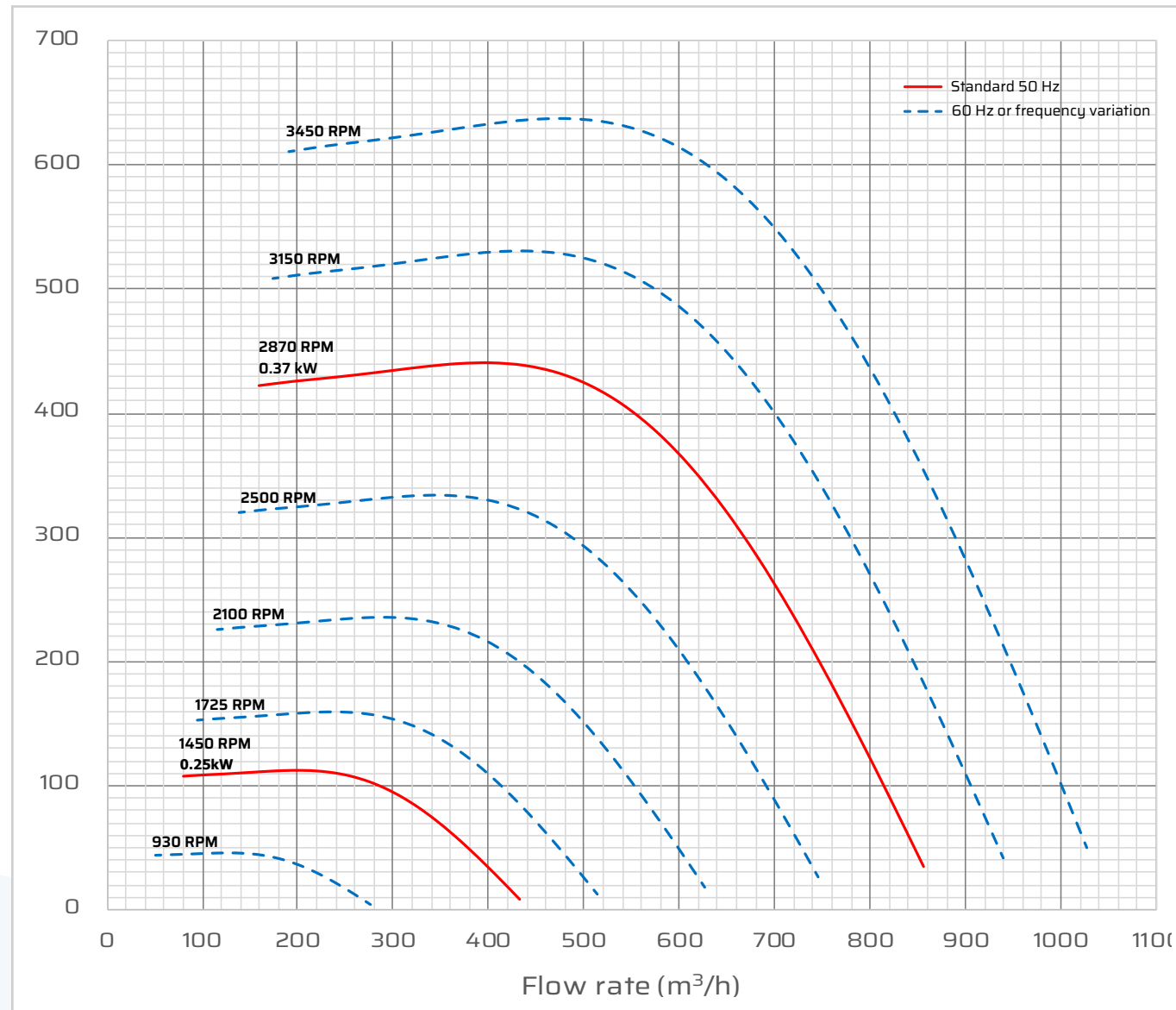
Performance curve on p14

### Handing & Orientation

All handings are viewed from the inlet side and are 45 degrees adjustable. Always check the available discharge handings for your specific fan model, see pages 6-9 for reference.



## S15 Performance Curve



## Electrical Data

Model	Motor=	Supply	1~			3~			Weight (kg) Box Pedestal & Fan		Weight (kg) Metal Pedestal & Fan	
			Full Load	Start	Supply	Full Load	Start	1~	3~	1~	3~	
S15/4	0.25kW	230/1/50	2A	7A	400/3/50	1.0A	5A	11	9	19	18	
S15/2	0.37kW	230/1/50	2.6A	10A	400/3/50	1A	6A	11	9	19	18	

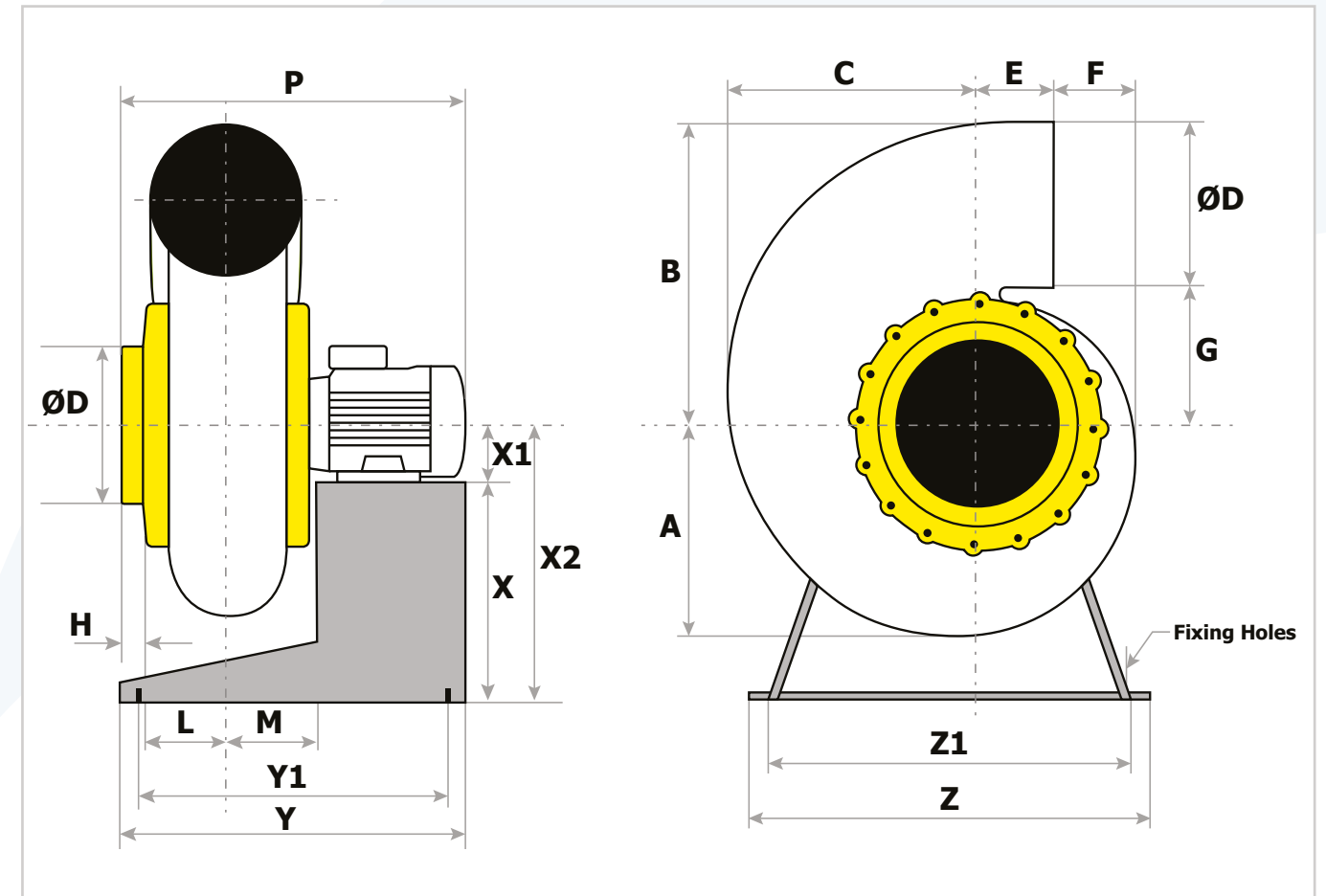
Maximum airflow temperature: 50°C

## Sound Data

Speed RPM	Qv (m³/h)	SP (Pa)	LwA dB(A)	LpA * dB(A)	Octave band (Hz)							
					63	125	250	500	1000	2000	4000	8000
1450	245	106	67	46	82	76	71	64	59	48	42	24
2870	414	485	81	61	97	91	86	79	74	63	57	49

\* Acoustic pressure Lp at 3 metres - Outlet acoustic data available on request

## S20/160/Metal Pedestal



## Dimensions

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

Motor Size	Motor	X	X1	X2	P
0.25kW & 0.55kW	'71' frame	280	71	351	410
0.75kW & 1.1kW	'80' frame	280	80	360	410

Motor dimensions may vary according to source.

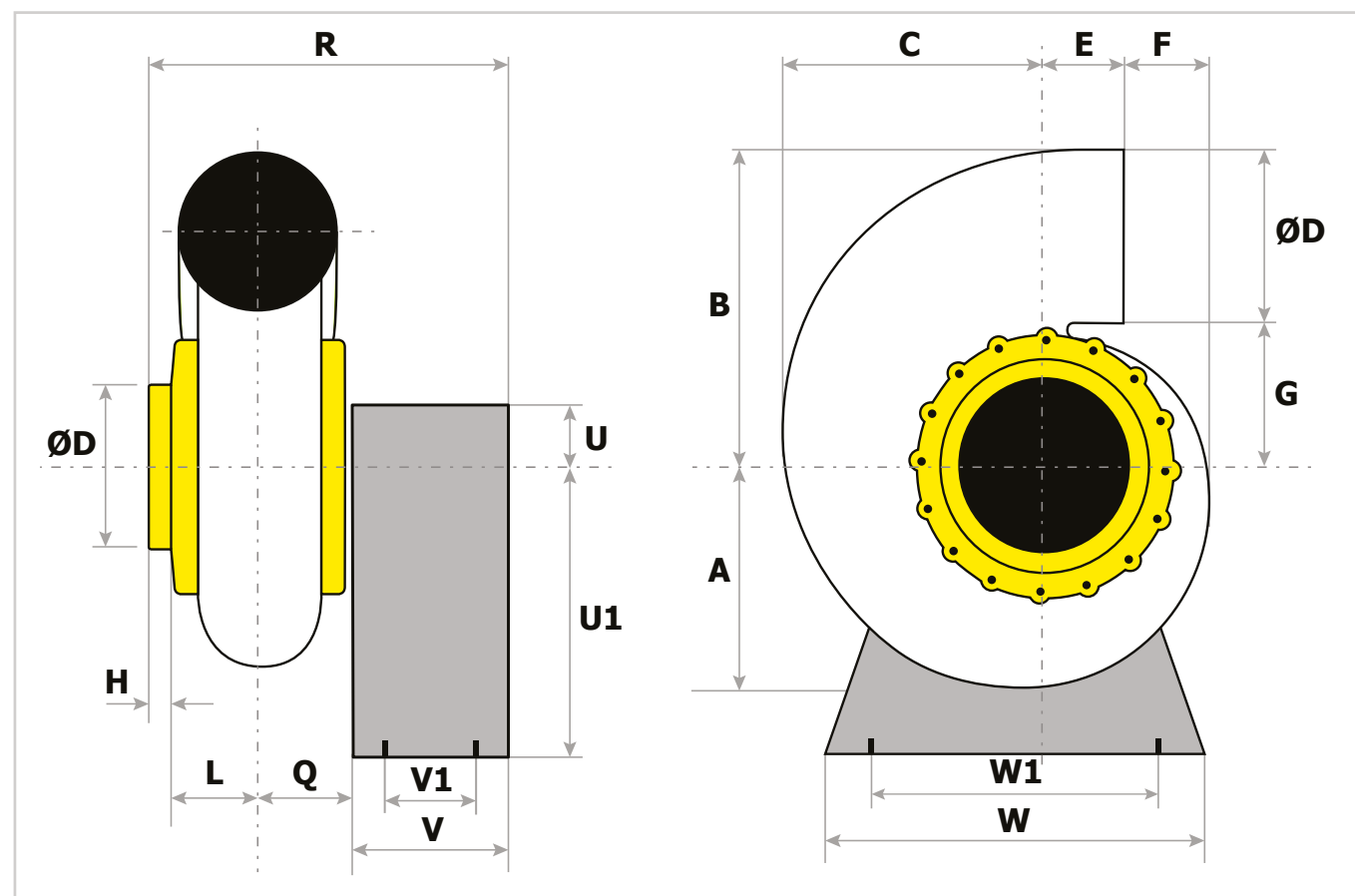
Performance curve on p17

## Handing & Orientation

All handings are viewed from the inlet side and are 45 degrees adjustable. Always check the available discharge handings for your specific fan model, see pages 6-9 for reference.



## S20/160/Box Pedestal



### Dimensions

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

Motor Size	Motor	R	U	U1	V	V1	W	W1
0.25kW & 0.55kW	'71' frame	552	81	369	340	267	410	318
0.75kW & 1.1kW	*When '71'	552	81	369	340	267	410	318
0.75kW & 1.1kW	*When '80'	552	90	360	340	267	410	318

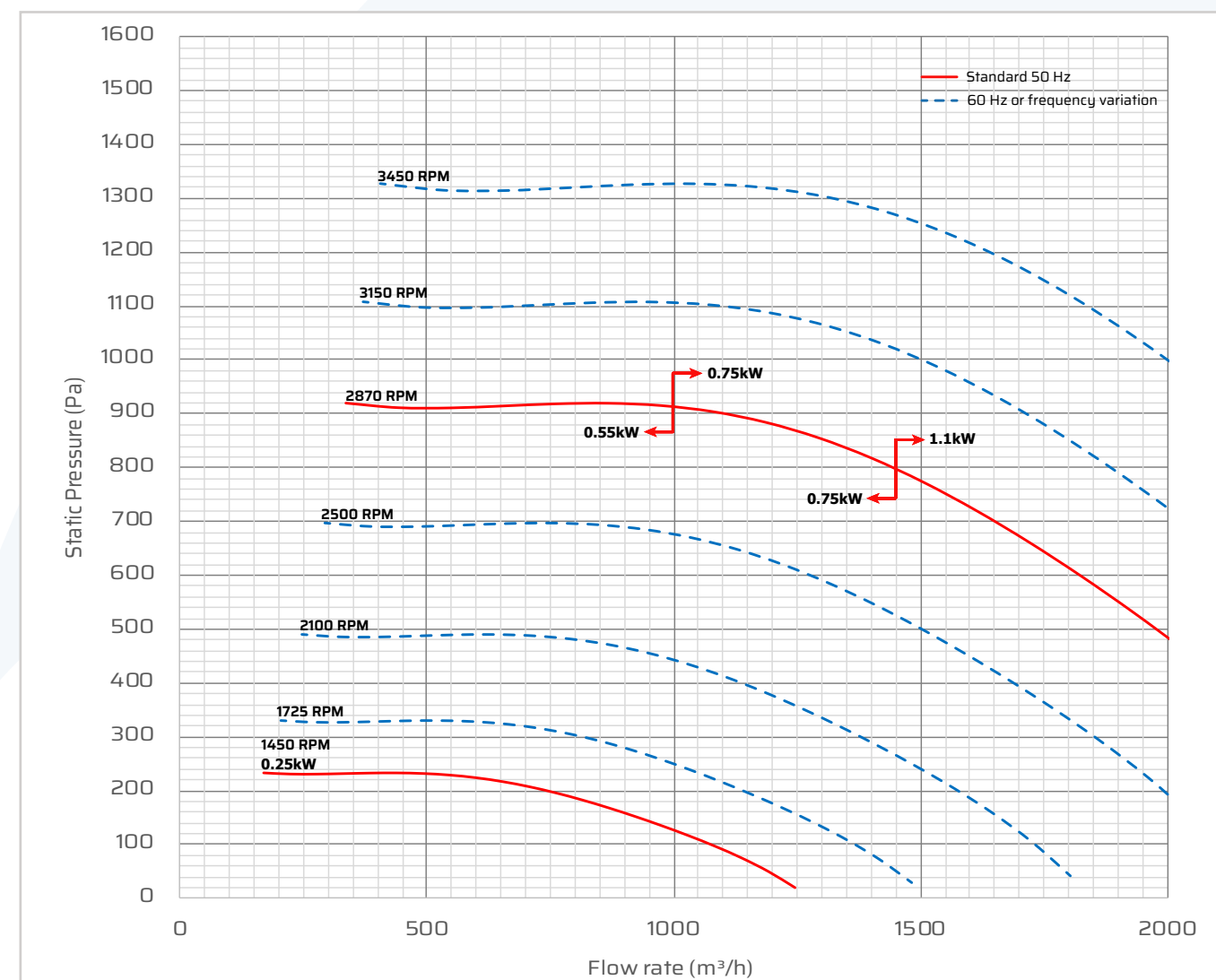
Motor dimensions may vary according to source.

### Handing & Orientation

All handings are viewed from the inlet side and are 45 degrees adjustable. Always check the available discharge handings for your specific fan model, see pages 6-9 for reference.

Performance curve on p17

## S20 Performance Curve



### Electrical Data

Model	Motor	Supply	1~			3~			Weight (kg) Box Pedestal & Fan		Weight (kg) Metal Pedestal & Fan	
			Full Load	Start		Supply	Full Load	Start	1 ~	3 ~	1 ~	3 ~
S20/4	0.25kW	230/1/50	2A	7A		400/3/50	1A	5A	11	10	20	18
S20/2L	0.55kW	230/1/50	3.8A	15A		400/3/50	1.3A	8A	12	10	21	19
S20/2M	0.75kW	230/1/50	5A	20A		400/3/50	1.8A	12A	15	12	22	20
S20/2H	1.1kW	230/1/50	7A	30A		400/3/50	2.5A	17.5A	16	13	24	23

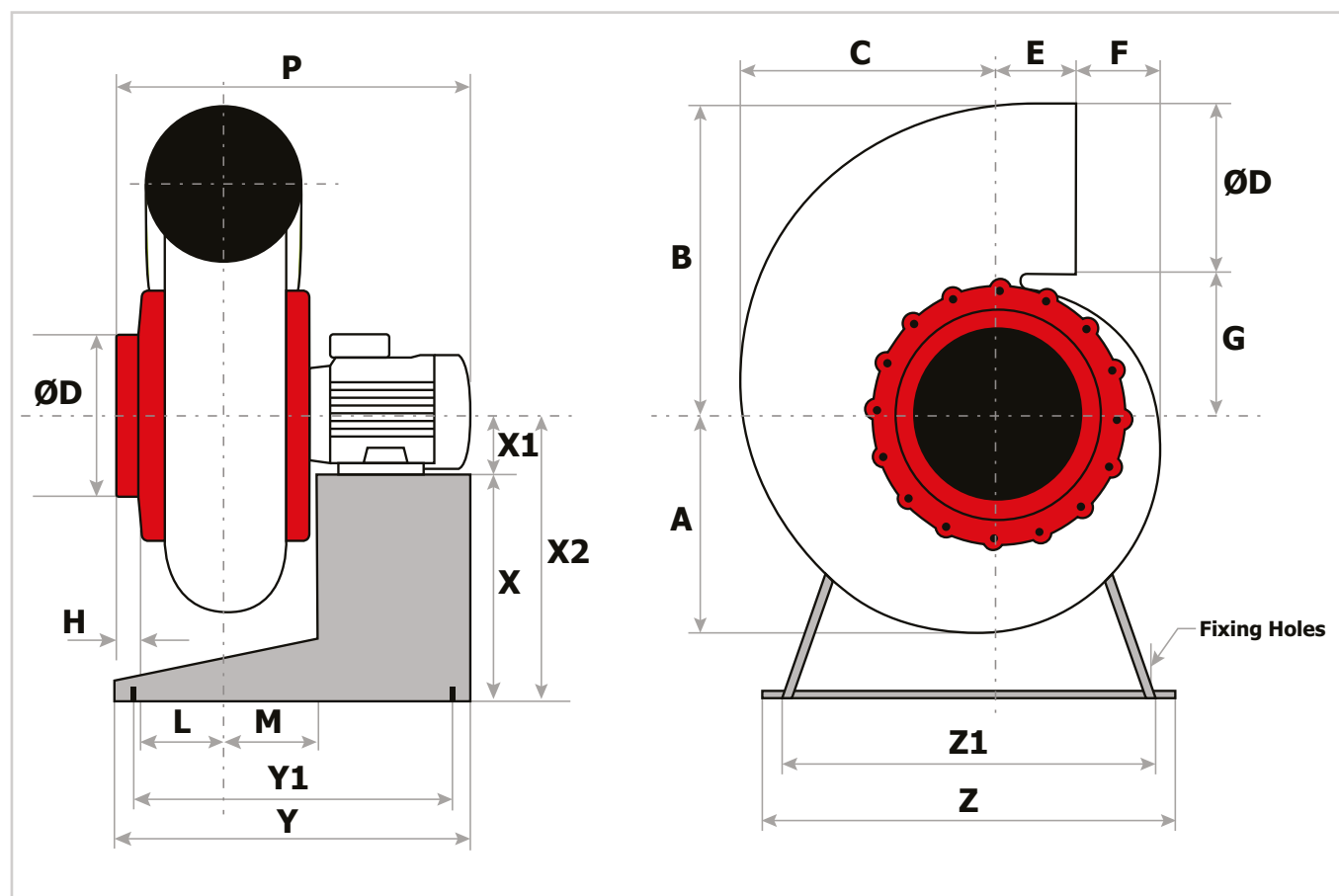
### Sound Data

Speed	Qv	SP	LwA	LpA *	Octave band (Hz)							
					(m³/h)	(Pa)	dB(A)	dB(A)	63	125	250	500
1450	760	188	76	56	93	76	80	73	66	55	53	46
2870	1500	735	91	70	108	91	95	88	81	70	67	61

Maximum airflow temperature: 50°C

\* Acoustic pressure Lp at 3 metres - Outlet acoustic data available on request

## S25/200/Metal Pedestal



### Dimensions

ØD	A	B	C	E	F	G	H	L	M	Y	Y1	Z	Z1
200	248	365	310	103	92	165	35	95	105	450	345	450	385

Motor Size	Motor	X	X1	X2	P
0.37kW	'71' frame	450	71	521	465
1.5kW, 2.2kW & 3kW	'90' frame	450	90	540	465

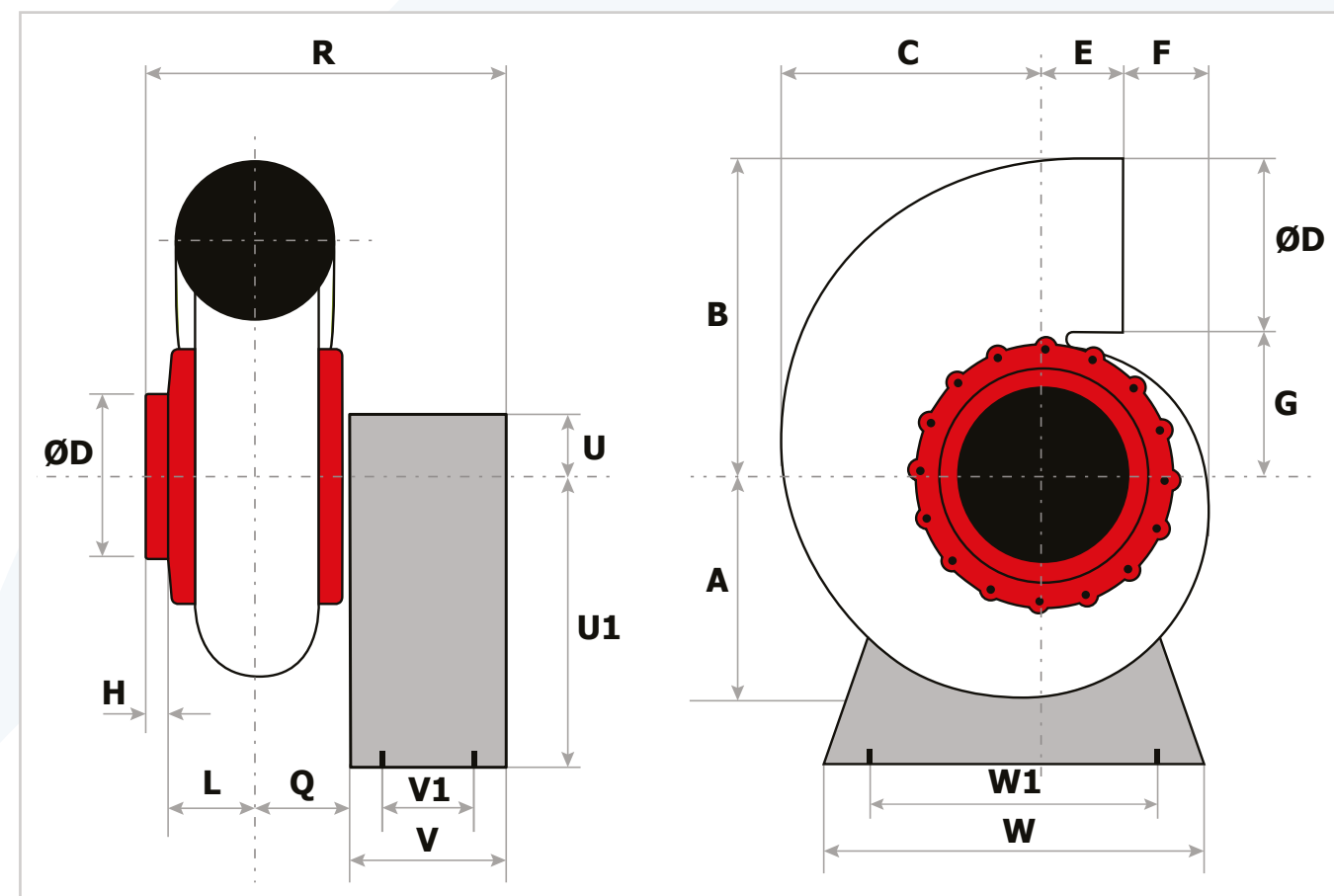
Motor dimensions may vary according to source.

Performance curve on p20

### Handing & Orientation

All handings are viewed from the inlet side and are 45 degrees adjustable. Always check the available discharge handings for your specific fan model, see pages 6-9 for reference.

## S25/200/Box Pedestal



### Dimensions

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

Motor Size	Motor	R	U	U1	V	V1	W	W1	Q
0.37kW (4p)	'71' frame	580	81	369	340	267	410	318	100
1.5kW, 2.2kW & 3kW (2p)	'90' frame	610	95	455	340	267	405	330	115

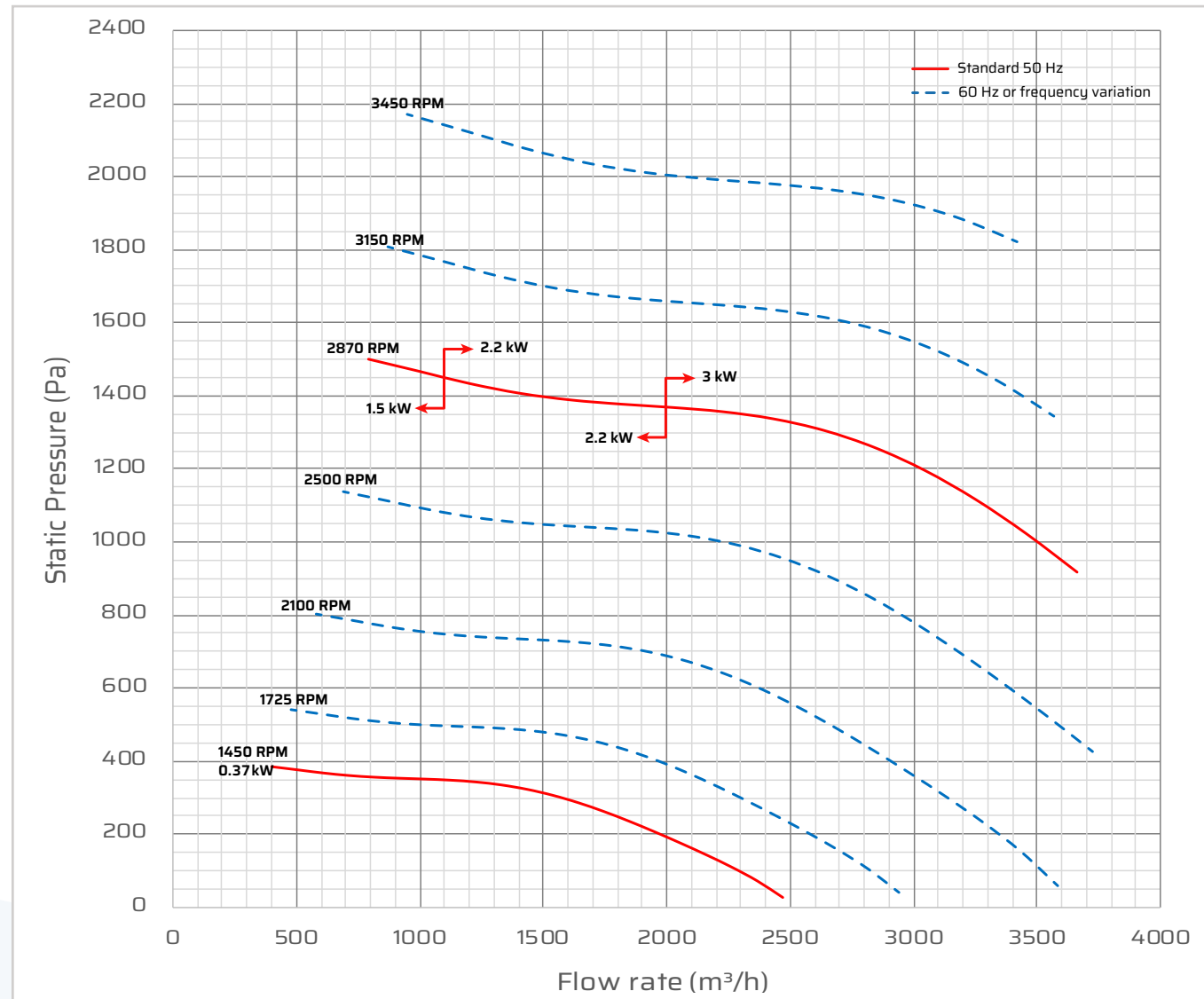
Motor dimensions may vary according to source.

### Handing & Orientation

All handings are viewed from the inlet side and are 45 degrees adjustable. Always check the available discharge handings for your specific fan model, see pages 6-9 for reference.

Performance curve on p20

## S25 Performance Curve



## Electrical Data

Model	Motor	1~			3~			Weight (kg) Box Pedestal & Fan		Weight (kg) Metal Pedestal & Fan	
		Supply	Full Load	Start	Supply	Full Load	Start	1~	3~	1~	3~
S25/4	0.37kW	230/1/50	3A	10A	400/3/50	1.1A	6.5A	14	11	28	26
S25/2L	1.5kW	230/1/50	9A	40A	400/3/50	3.1A	24A	26	22	36	33
S25/2M	2.2kW	230/1/50	14A	65A	400/3/50	4.4A	34.5A	28	25	38	36
S25/2H	3kW	-	-	-	400/3/50	6A	47.5A	-	29	-	44

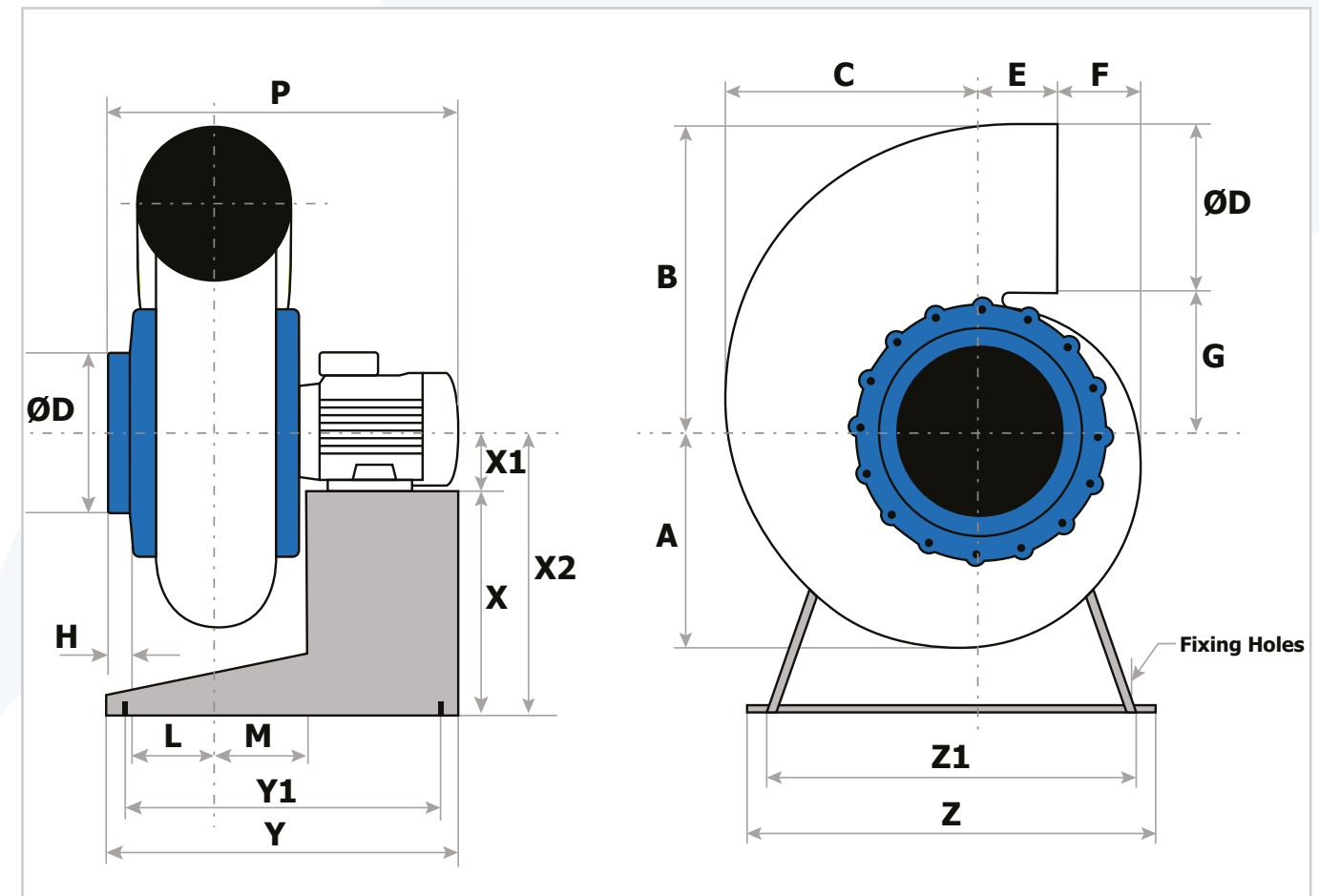
## Sound Data

Speed RPM	Qv (m³/h)	SP (Pa)	LwA dB(A)	LpA * dB(A)	Octave band (Hz)							
					63	125	250	500	1000	2000	4000	8000
1450	1330	322	78	57	100	81	81	75	69	61	58	53
2870	2630	1261	93	72	115	96	96	90	84	76	73	68

\* Acoustic pressure Lp at 3 metres - Outlet acoustic data available on request

Maximum airflow temperature: 50°C

## S30/250/Metal Pedestal



## Dimensions

ØD	A	B	C	E	F	G	H	L	M	Y	Y1	Z	Z1
250	300	450	373	117	112	198	35	110	120	450	345	450	385

Motor Size	Motor	X	X1	X2	P
All sizes	'90' frame	450	90	540	495

Motor dimensions may vary according to source.

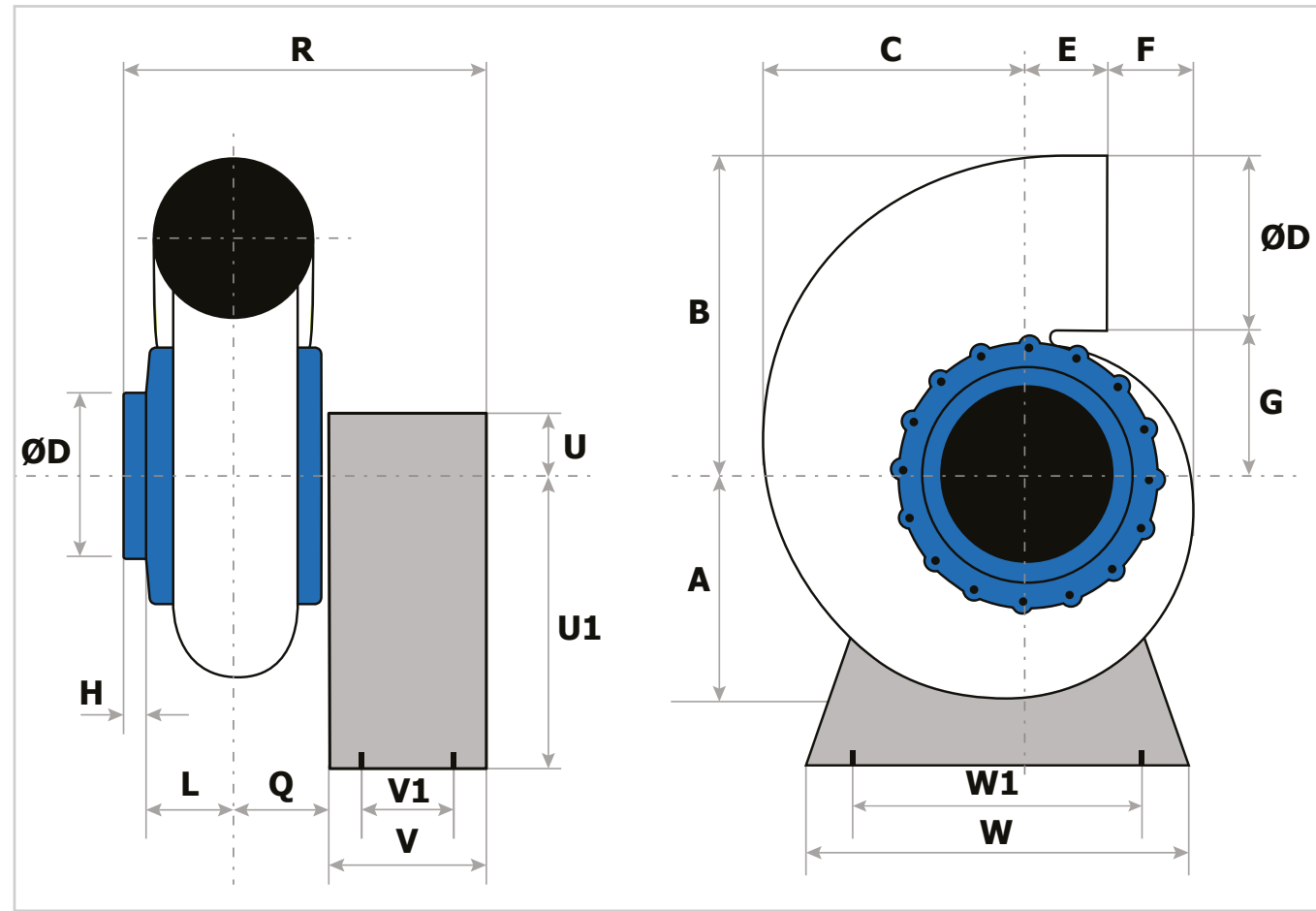
## Handing & Orientation

All handings are viewed from the inlet side and are 45 degrees adjustable. Always check the available discharge handings for your specific fan model, see pages 6-9 for reference.

Performance curve on p23



## S30/250/Box Pedestal



### Dimensions

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

Motor Rating	Motor	R	U	U1	V	V1	W	W1
0.75kW, 1.5kW (4p)	'90' frame	630	95	455	340	267	405	315

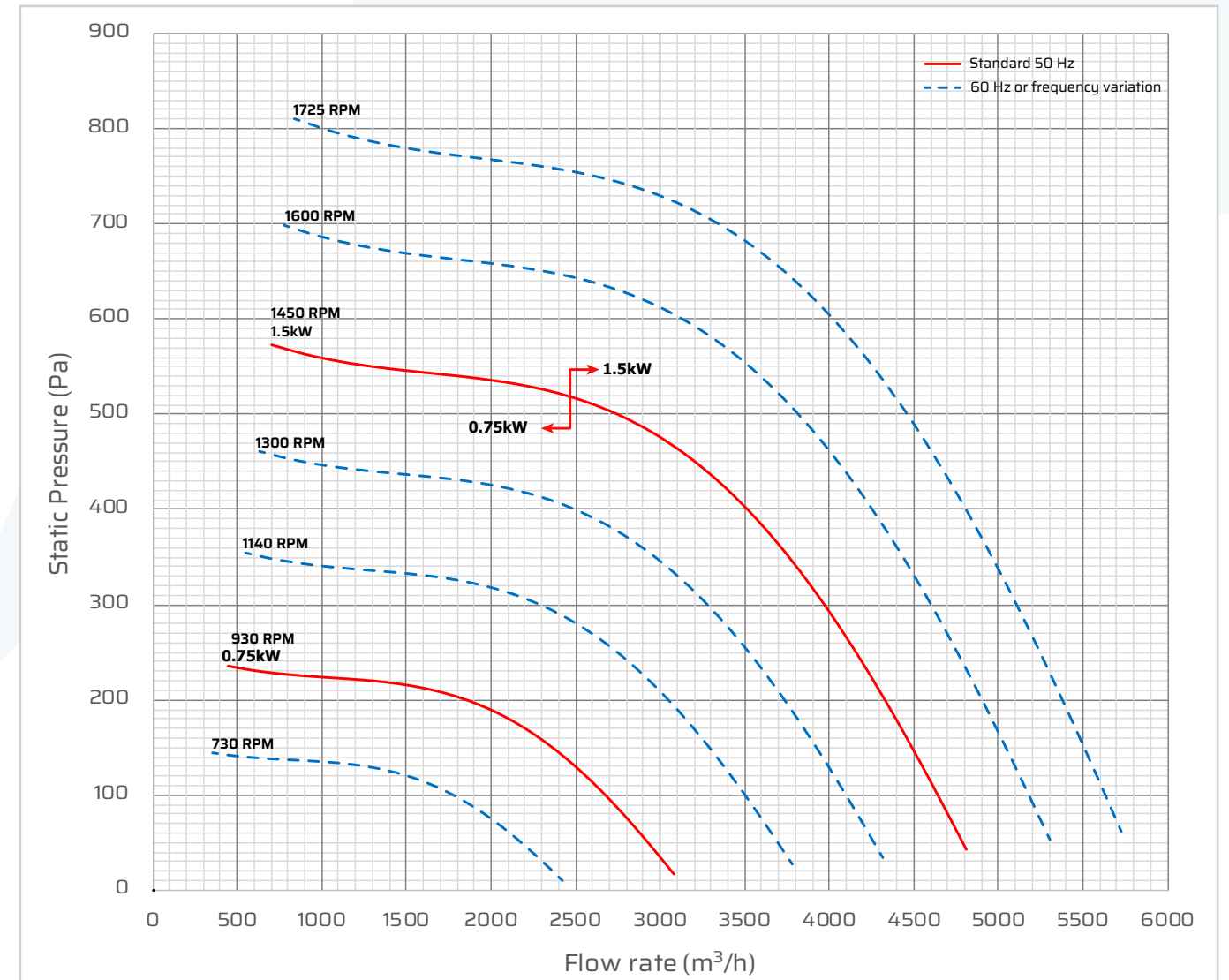
Motor dimensions may vary according to source.

### Handing & Orientation

All handings are viewed from the inlet side and are 45 degrees adjustable. Always check the available discharge handings for your specific fan model, see pages 6-9 for reference.

Performance curve on p23

## S30 Performance Curve



### Electrical Data

Model	Motor	1~			3~			Weight kg Box Pedestal & Fan		Weight kg Metal Pedestal & Fan	
		Supply	Full Load	Start	Supply	Full Load	Start	1 ~	3 ~	1 ~	3 ~
S30/4	1.5kW	230/1/50	9.5A	40A	400/3/50	3.5A	24A	30	27	39	38
S30/4L	0.75kW	230/1/50	5.2A	27A	400/3/50	3A	10A	30	27	37	36
S30/6	0.75kW	-	-	-	400/3/50	3.6A	10A	-	27	-	36

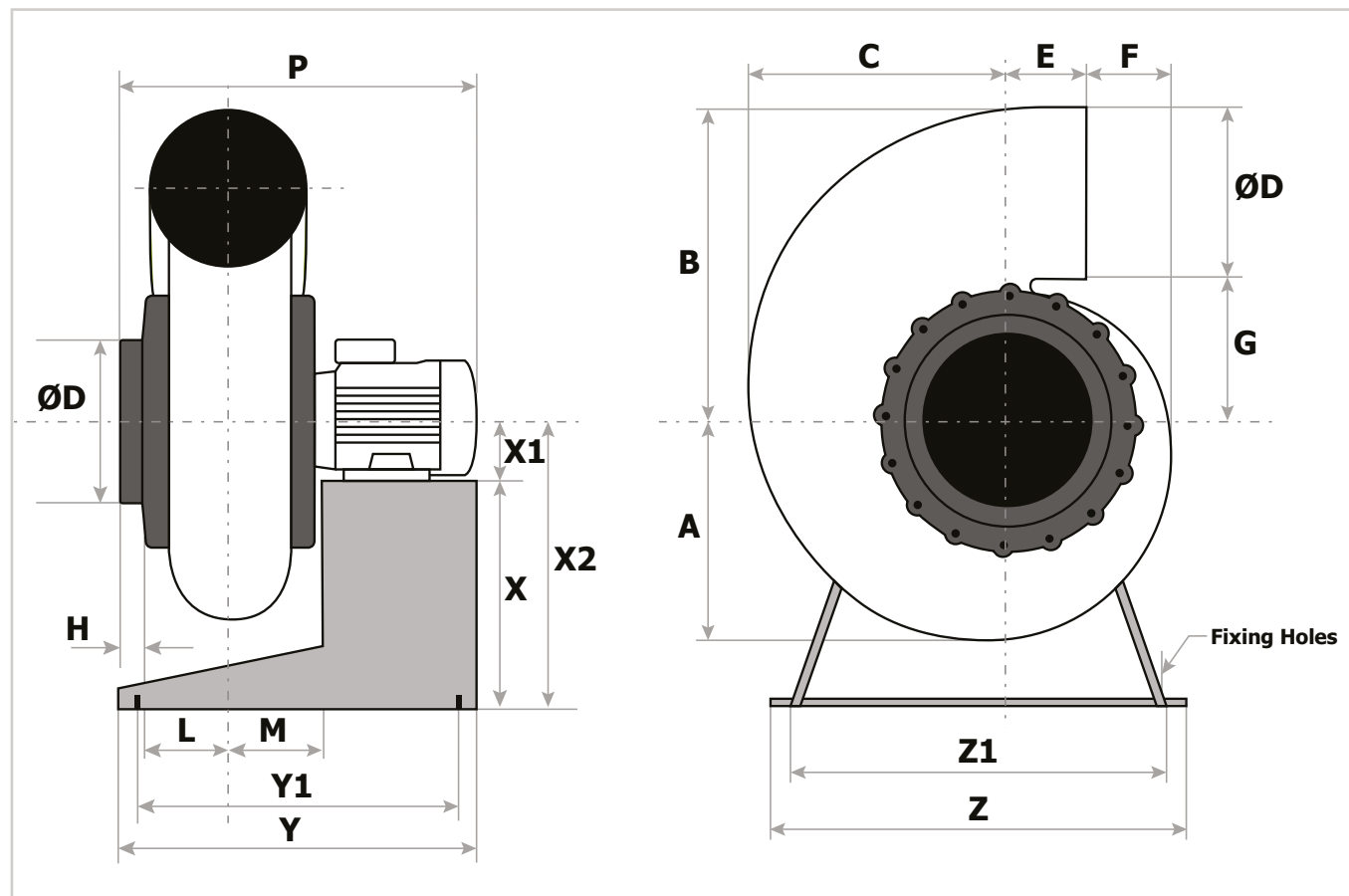
### Sound Data

Speed	Qv	SP	LwA	LpA *	Octave band (Hz)							
					63	125	250	500	1000	2000	4000	8000
930	1590	206	72	51	86	82	72	68	66	62	57	52
1450	2476	500	82	61	96	91	81	78	76	72	67	61

Maximum airflow temperature: 50°C

\* Acoustic pressure Lp at 3 metres - Outlet acoustic data available on request

## S35/315/Metal Pedestal



### Dimensions

ØD	A	B	C	E	F	G	H	L	M	Y	Y1	Z	Z1
315	370	570	450	130	170	255	60	150	170	650	545	600	570

Motor Size	Motor	X	X1	X2	P
2.2kW, 4kW & 5.5kW	'112' frame	550	112	662	724
7.5kW	'132' frame	550	132	682	822

Motor dimensions may vary according to source.

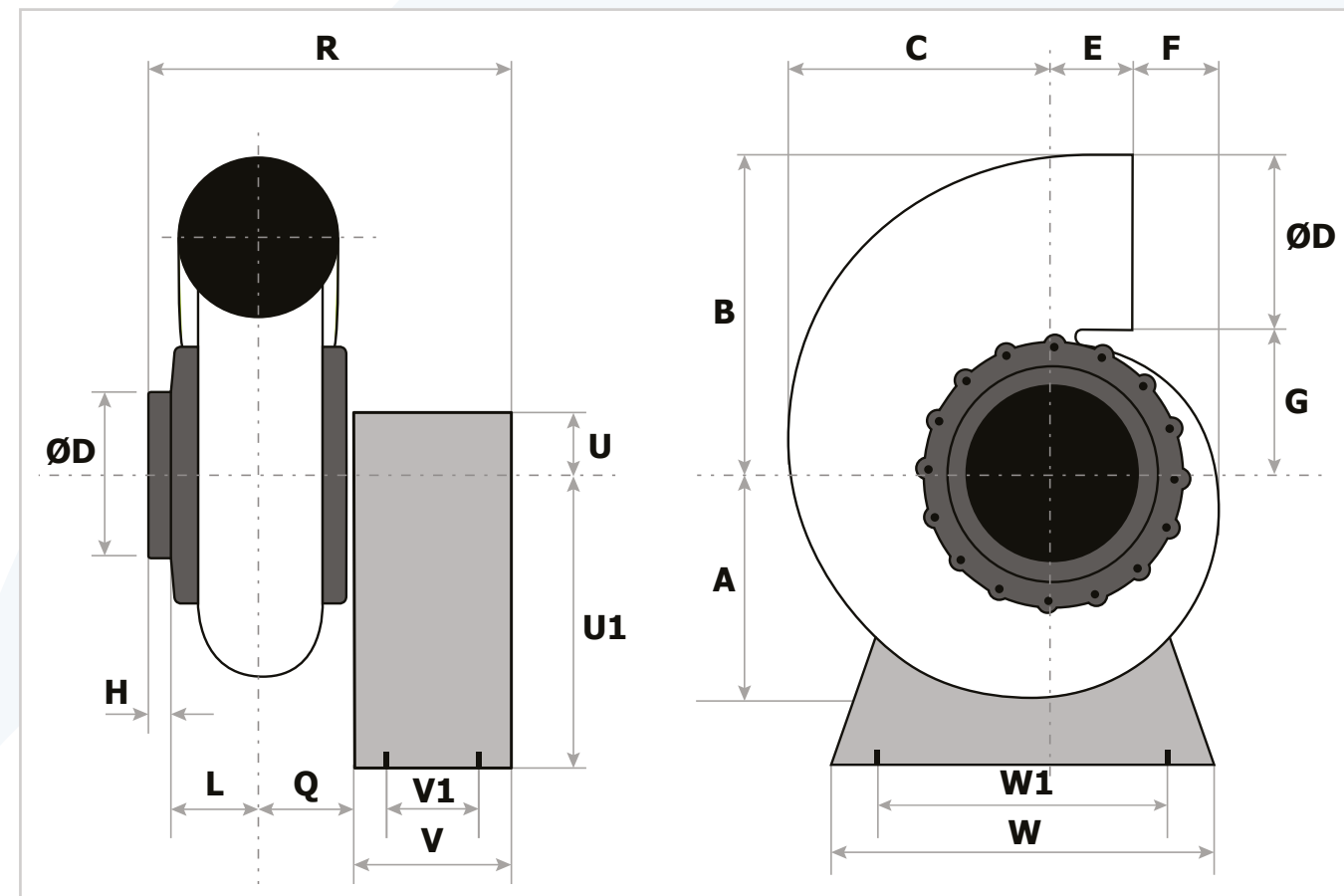
### Handing & Orientation

All handings are viewed from the inlet side and are 45 degrees adjustable. Always check the available discharge handings for your specific fan model, see pages 6-9 for reference.

Performance curve on p26

**!**  
We recommend this fan be run with an inverter & set for a slow ramp up time.  
**All DOL applications MUST be confirmed by Axair in writing.**

## S35/315/Box Pedestal



### Dimensions

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

Motor Rating	Motor	R	U	U1	V	V1	W	W1
4kW, 5.5kW & 2.2kW	'112' frame	880	122	578	500	400	585	480
7.5kW	'132' frame	822	122	578	500	400	585	480

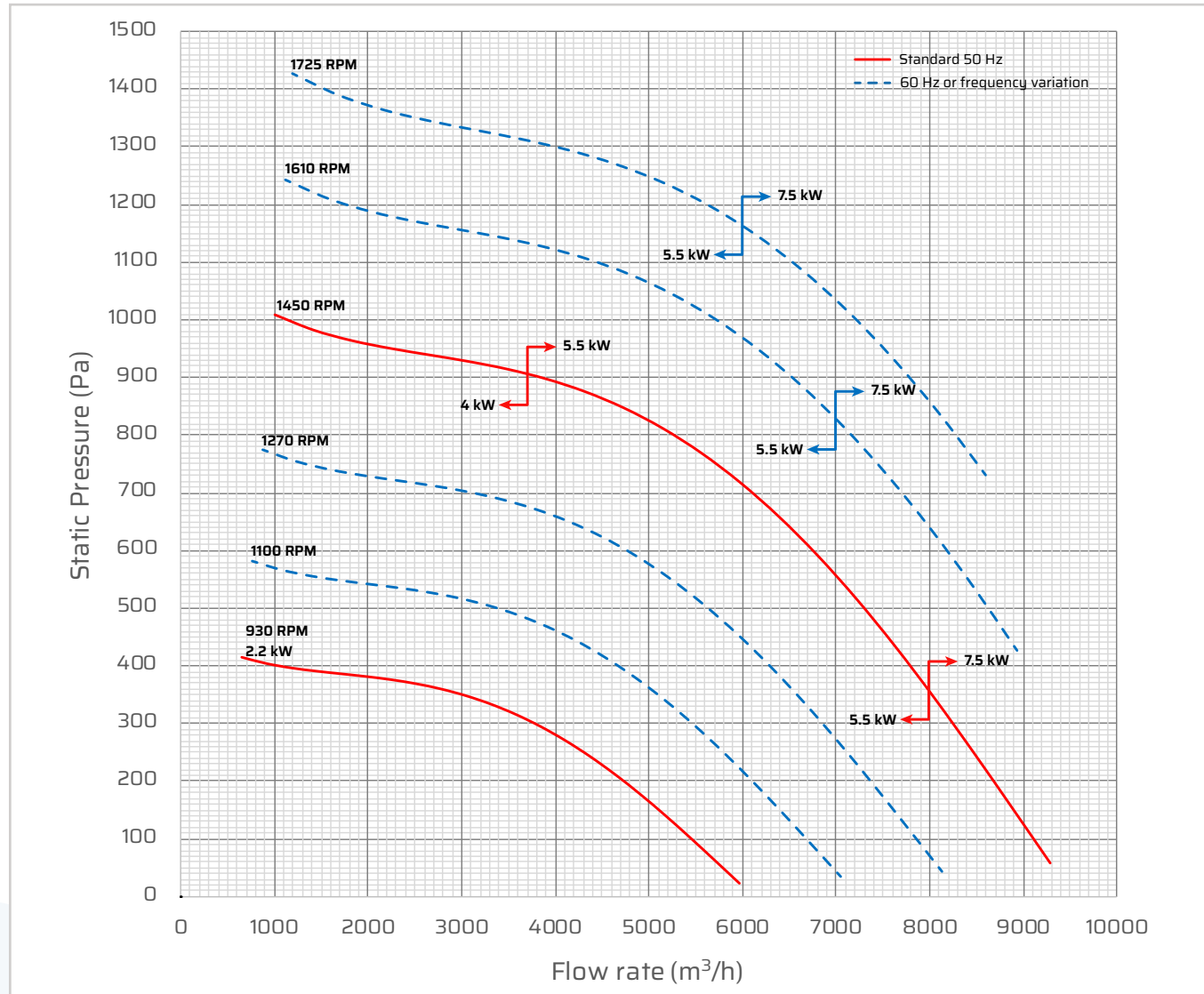
Motor dimensions may vary according to source.

### Handing & Orientation

All handings are viewed from the inlet side and are 45 degrees adjustable. Always check the available discharge handings for your specific fan model, see pages 6-9 for reference.

Performance curve on p26

## S35 Performance Curve



### Electrical Data

Model	Motor	Supply	Full Load	Start	Weight kg	Weight kg
					Box Pedestal & Fan	Metal Pedestal & Fan
S35/6	2.2kW-930/min	400/3/50	5.3A	31.5A	3 ~ Only	3 ~ Only
S35/4L	4kW-1450/min	400/3/50	8A	62A	60	55
S35/4M	5.5kW-1450/min	400/3/50	11.4A	94A	65	65
S35/4H	7.5kW-1450/min	400/3/50	14.7A	109A	65	65
					102	80

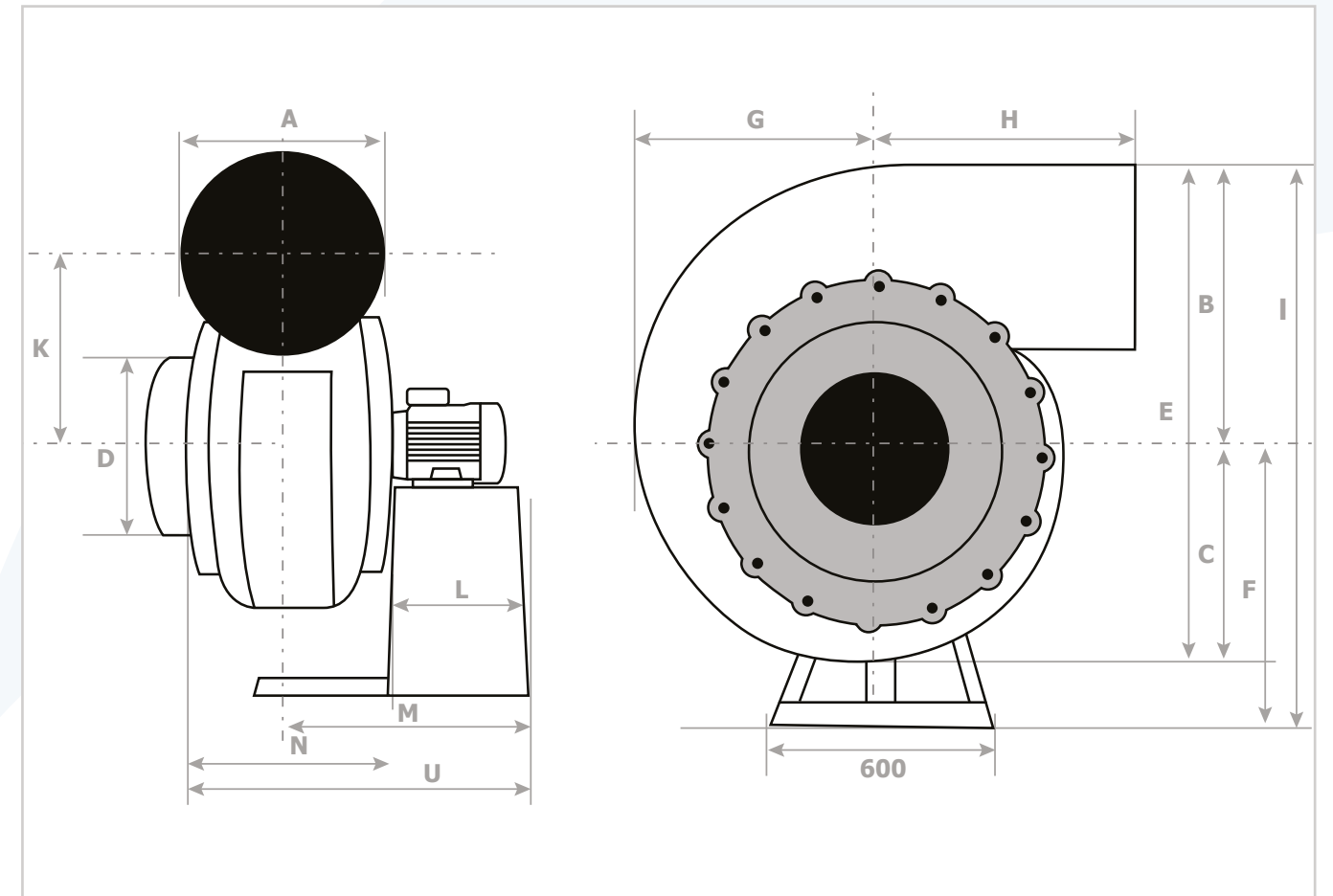
### Sound Data

Speed	Qv	SP	LwA	LpA *	Octave band (Hz)							
					RPM	(m³/h)	(Pa)	dB(A)	dB(A)	63	125	250
930	3770	290	79	59	86	88	79	76	73	71	68	62
1450	5880	704	89	69	96	98	89	85	82	81	77	71

\* Acoustic pressure Lp at 3 metres - Outlet acoustic data available on request

Maximum airflow temperature: 50°C

## S50 Metal Pedestal



Please note, the S50 is only available with a metal pedestal.

### Dimensions

A	B	C	D	E	F	G	H	I	I LG90
500	765	550	600	1315	740	660	610	1350	1505

K+F	K	L	M	N	U
1255	515	400	715	620	1020

Motor dimensions may vary according to source.

### Handing & Orientation

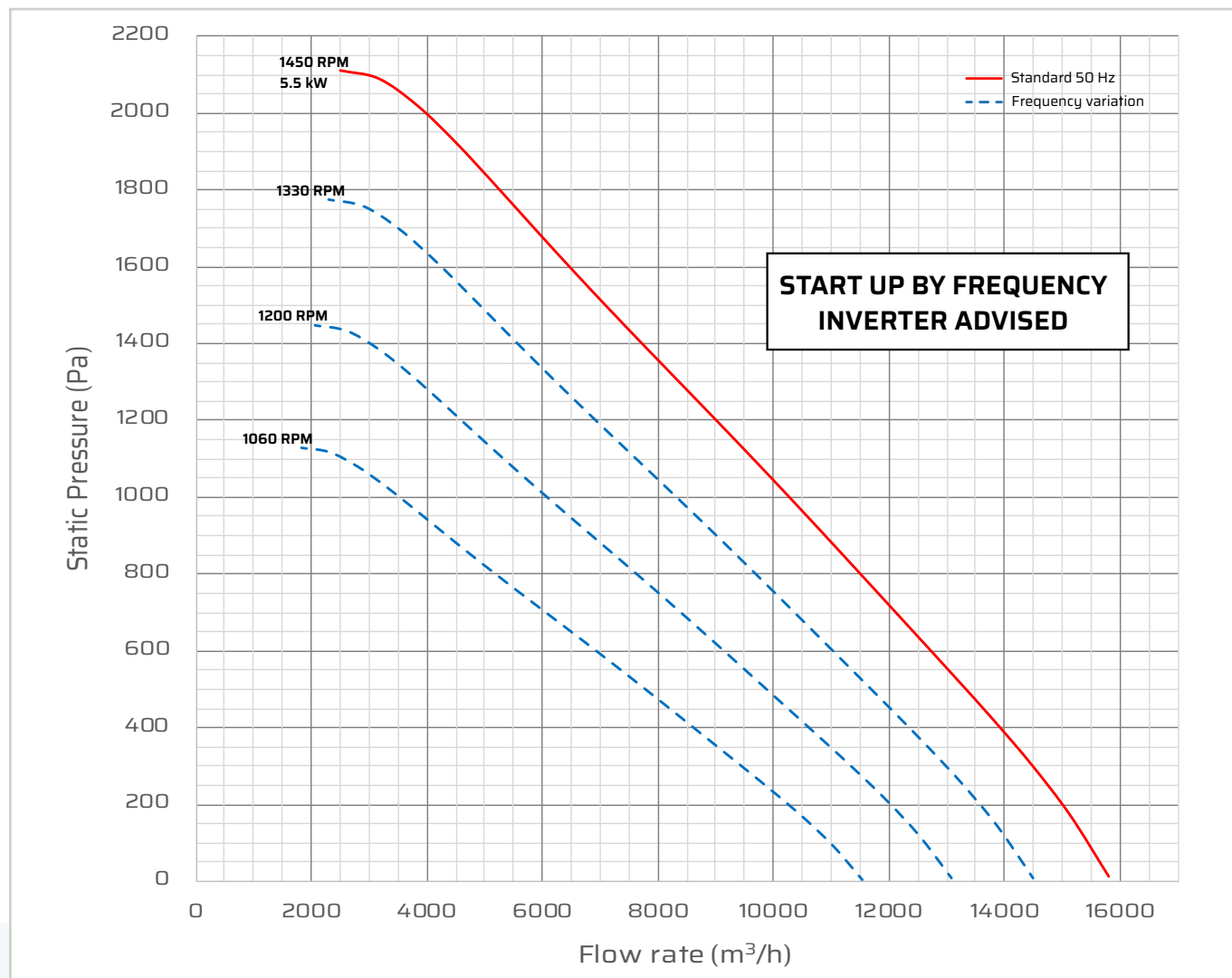
All handings are viewed from the inlet side and are 45 degrees adjustable. Always check the available discharge handings for your specific fan model, see pages 6-9 for reference.

**!**  
We recommend this fan be run with an inverter & set for a slow ramp up time.

Performance curve on p28



## S50 Performance Curve



### Electrical Data

Model	Motor	Supply	Full Load	Start	Weight kg Metal Ped & Fan (3~ Only)
S50	5.5kW - 1450/min	400/3/50	11.4A	75A	215

### Sound Data

Speed	Qv	SP	LwA	LpA *	Octave band (Hz)								
					63	125	250	500	1000	2000	4000	8000	
RPM	(m³/h)	(Pa)	dB(A)	dB(A)									
930	3165	723	79	58	95	87	82	73	71	65	58	53	
	5100	533	78	58	93	83	80	74	74	64	57	52	
1450	4935	1757	88	68	105	96	92	83	81	75	68	63	
	7950	1300	88	67	103	93	90	83	84	74	67	62	

\* Acoustic pressure Lp at 3 metres - Outlet acoustic data available on request

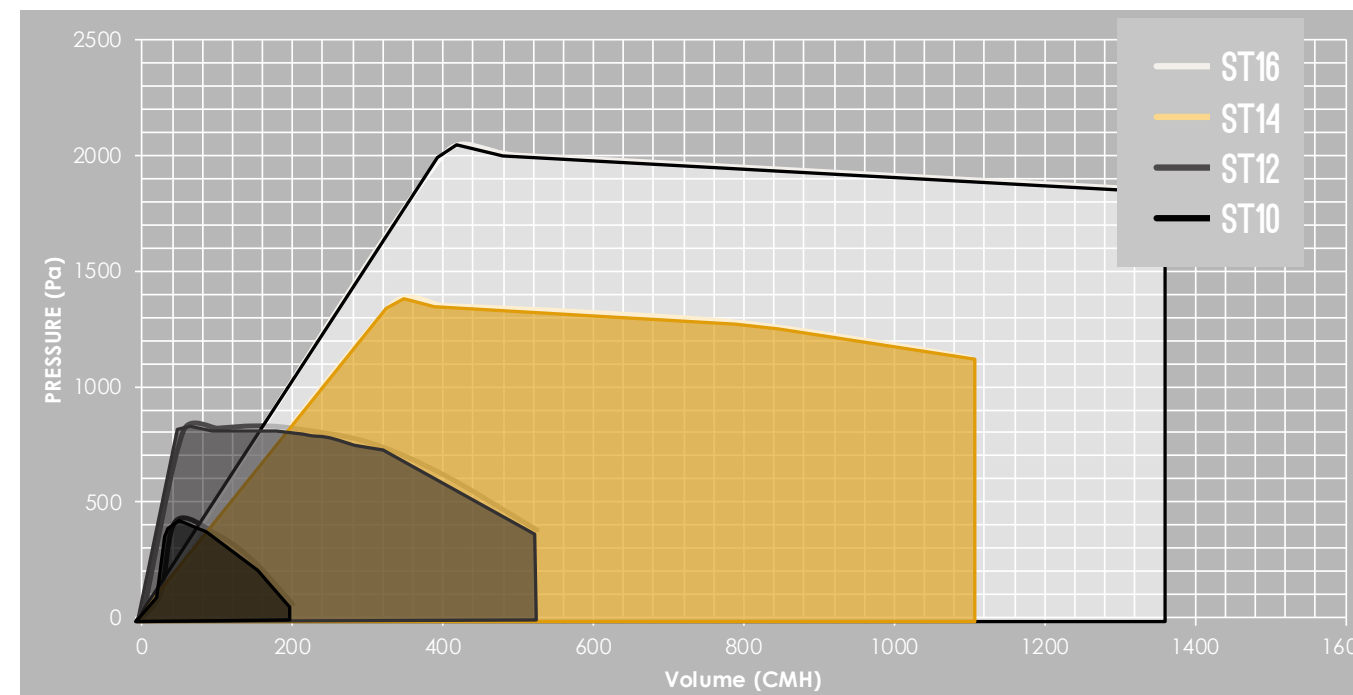
Maximum airflow temperature: 50°C

## ST Range

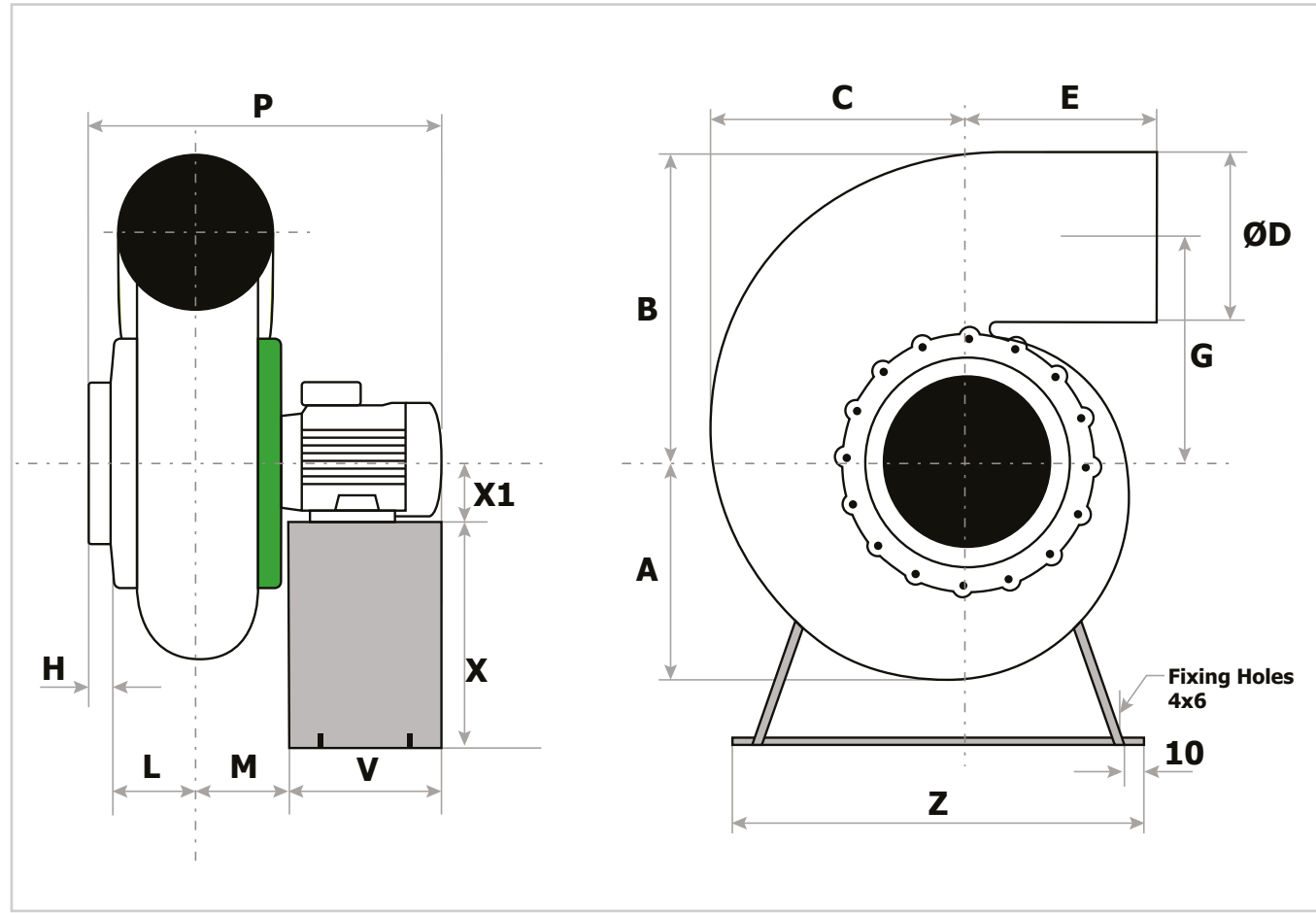
The Axair 'ST' Storm range of polypropylene fans are designed to provide relatively low air flow against elevated system pressures. Typical applications include air filtration, local extraction arms, fume scrubbers and chemical stores.



### Performance Range



# ST10/75/Metal Pedestal



## Dimensions

ØD	A	B	C	E	G	H	L	M	V	X	X1	Z
75	115	135	127	158	97	32	48	57	140	160	56	260

Motor Size	Motor	P
0.12kW & 0.09kW	'56' frame	285

Motor dimensions may vary according to source.

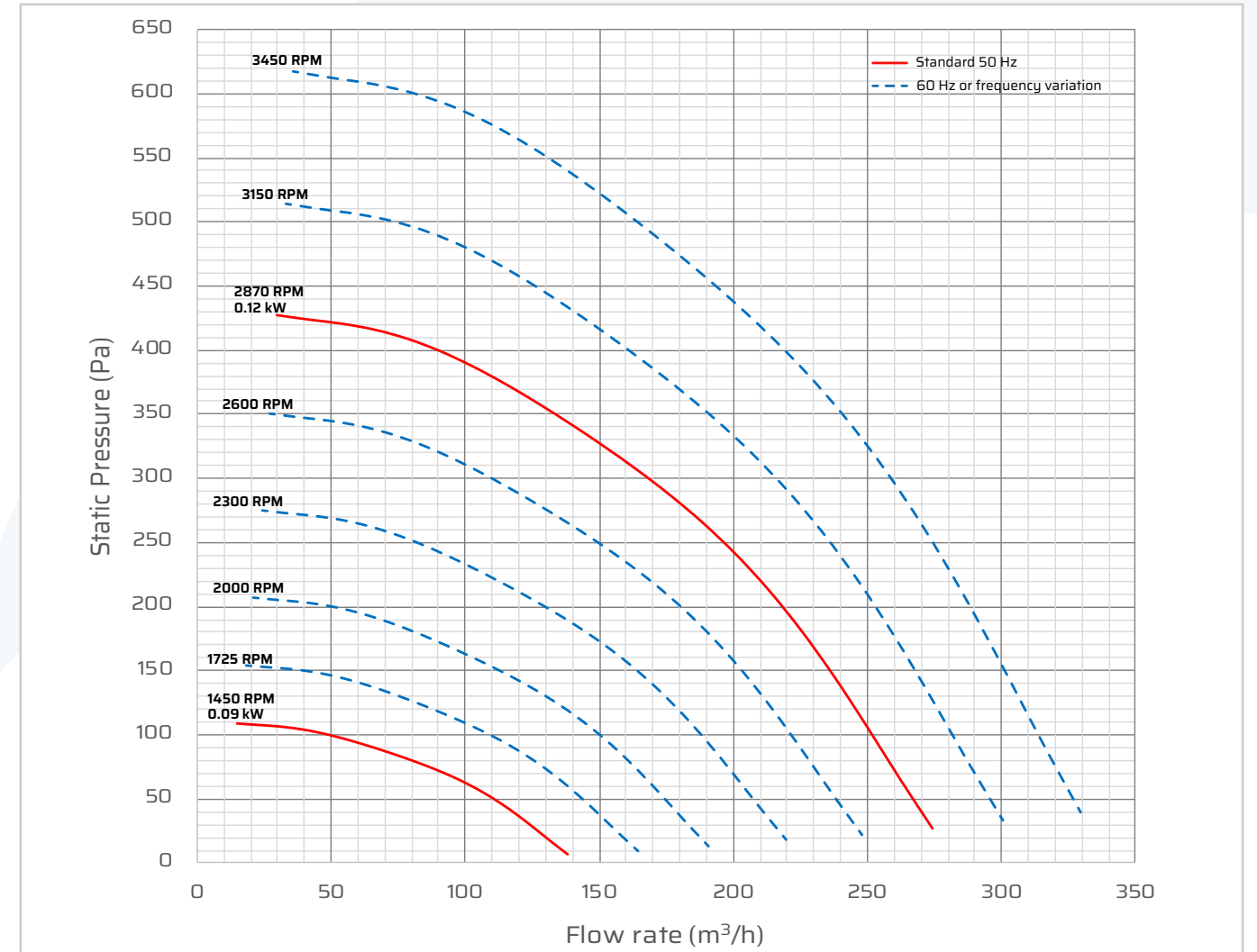
## Handing & Orientation

All handings are viewed from the inlet side and are 45 degrees adjustable. Always check the available discharge handings for your specific fan model, see pages 6-9 for reference.

Performance curve on p31

Please note: the ST10 is only available with a metal pedestal.

# ST10 Performance Curve



## Electrical Data

Model	Motor	/min	1~			3~			Weight kg Metal Ped & Fan	
			Supply	Full Load	Start	Supply	Full Load	Start	1 ~	3 ~
ST10/2	0.12kW	2870	230/1/50	1A	4A	400/3/50	0.5A	2A	10	10
ST10/4	0.09kW	1450	230/1/50	1A	3A	400/3/50	0.4A	2.5A	10	10

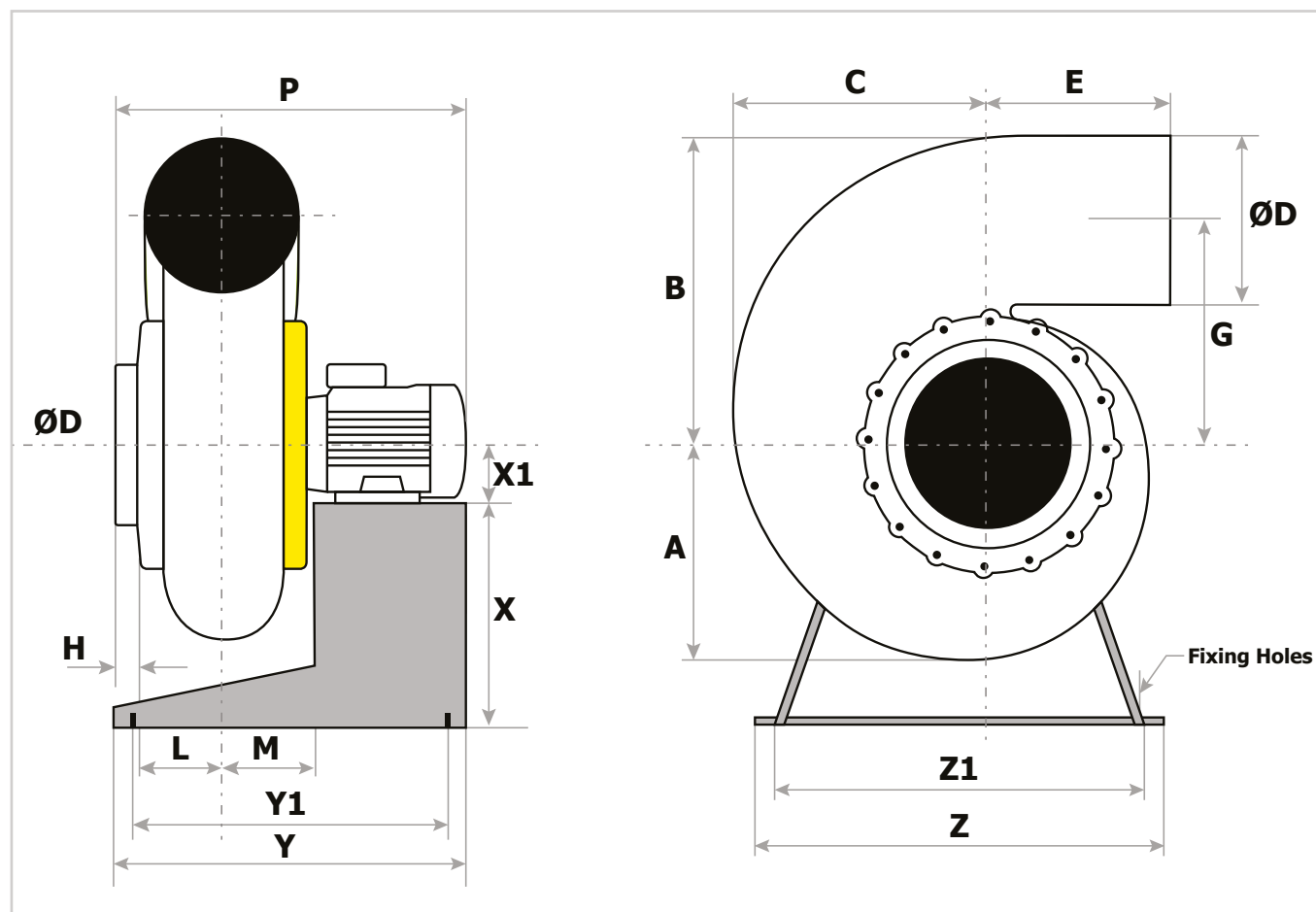
## Sound Data

Speed	Qv	SP	LwA	LpA *	Octave band (Hz)							
					RPM	(m³/h)	(Pa)	dB(A)	dB(A)	63	125	250
1450	80	79	67	46	82	79	72	61	59	47	40	34
2870	157	308	81	61	97	94	86	76	74	62	55	49

\* Acoustic pressure Lp at 3 metres - Outlet acoustic data available on request

Maximum airflow temperature: 50°C

## ST12/90/Metal Pedestal



### Dimensions

ØD	A	B	C	E	G	H	L	M	Y	Y1	Z	Z1
90	145	175	163	212	130	45	80	72	350	250	410	350

Motor Size	Motor	X	X1	P
0.37kW & 0.25kW	'71' frame	280	71	380

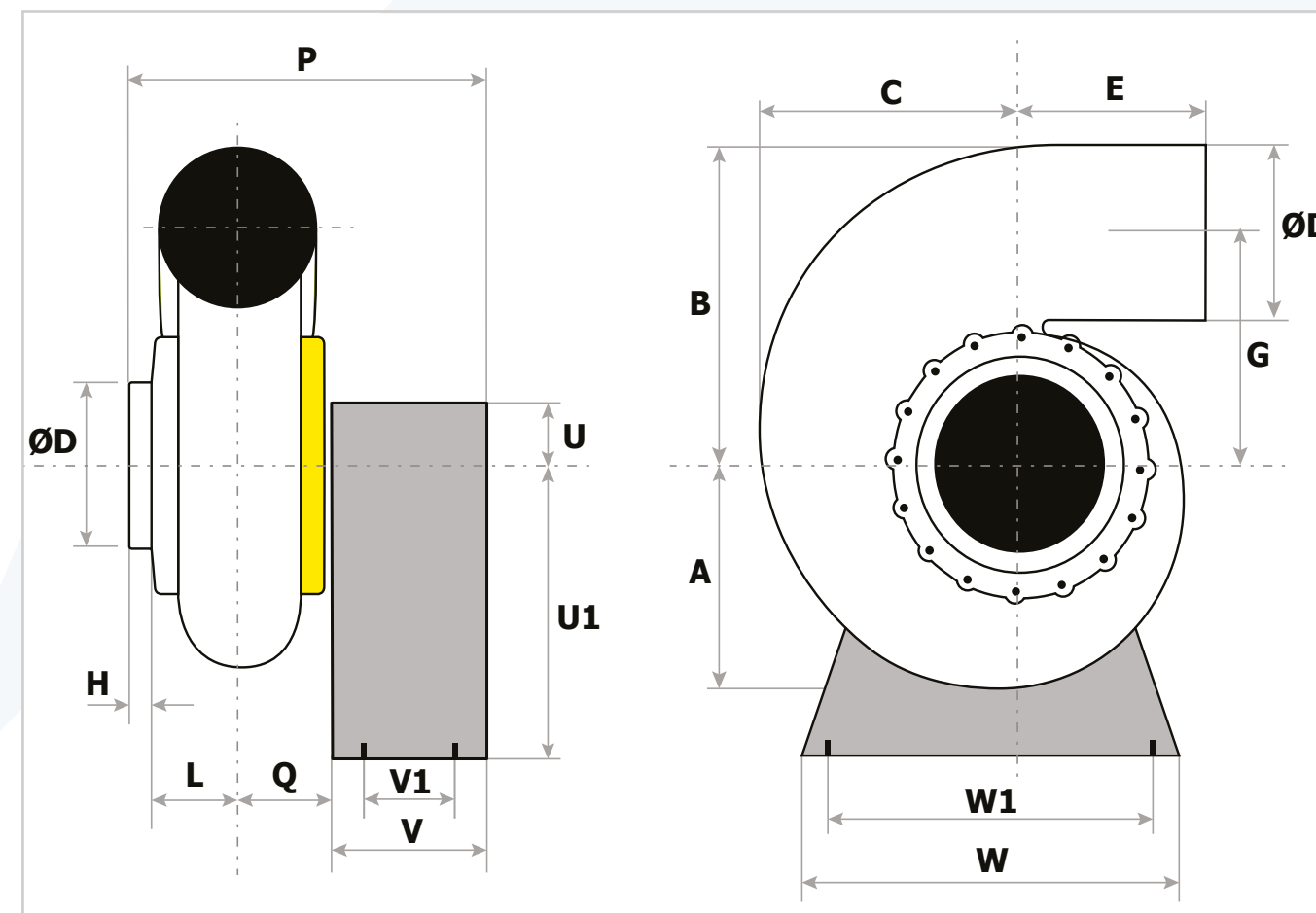
Motor dimensions may vary according to source.

Performance curve on p34

### Handing & Orientation

All handings are viewed from the inlet side and are 45 degrees adjustable. Always check the available discharge handings for your specific fan model, see pages 6-9 for reference.

## ST12/90/Box Pedestal



### Dimensions

ØD	A	B	C	E	G	H	L	Q	P
90	145	175	163	212	130	45	80	82	530

Motor Rating	Motor	U	U1	V	V1	W	W1
4kW, 5.5kW & 2.2kW	'112' frame	81	365	340	267	410	318

Motor dimensions may vary according to source.

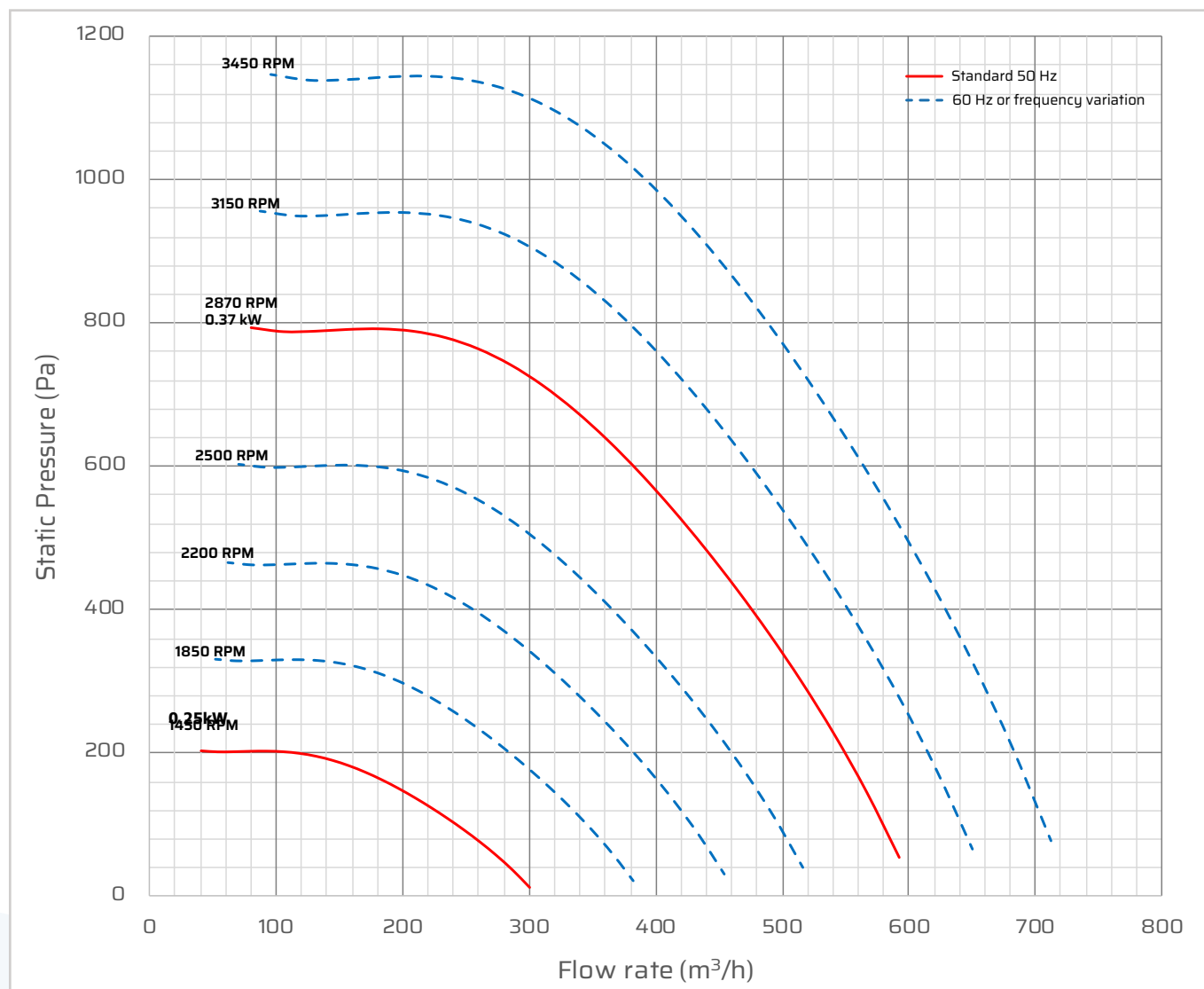
### Handing & Orientation

All handings are viewed from the inlet side and are 45 degrees adjustable. Always check the available discharge handings for your specific fan model, see pages 6-9 for reference.

Performance curve on p34



## ST12 Performance Curve



### Electrical Data

Model	Motor	1~			3~			Weight (kg) Box Pedestal & Fan		Weight (kg) Metal Pedestal & Fan	
		Supply	Full Load	Start	Supply	Full Load	Start	1~	3~	1~	3~
ST12/2	0.37kW	230/1/50	2.8A	10A	400/3/50	1.0A	6A	14	12	18	16
ST12/4	0.25kW	230/1/50	2.0A	7A	400/3/50	1.0A	4.5A	14	12	18	16

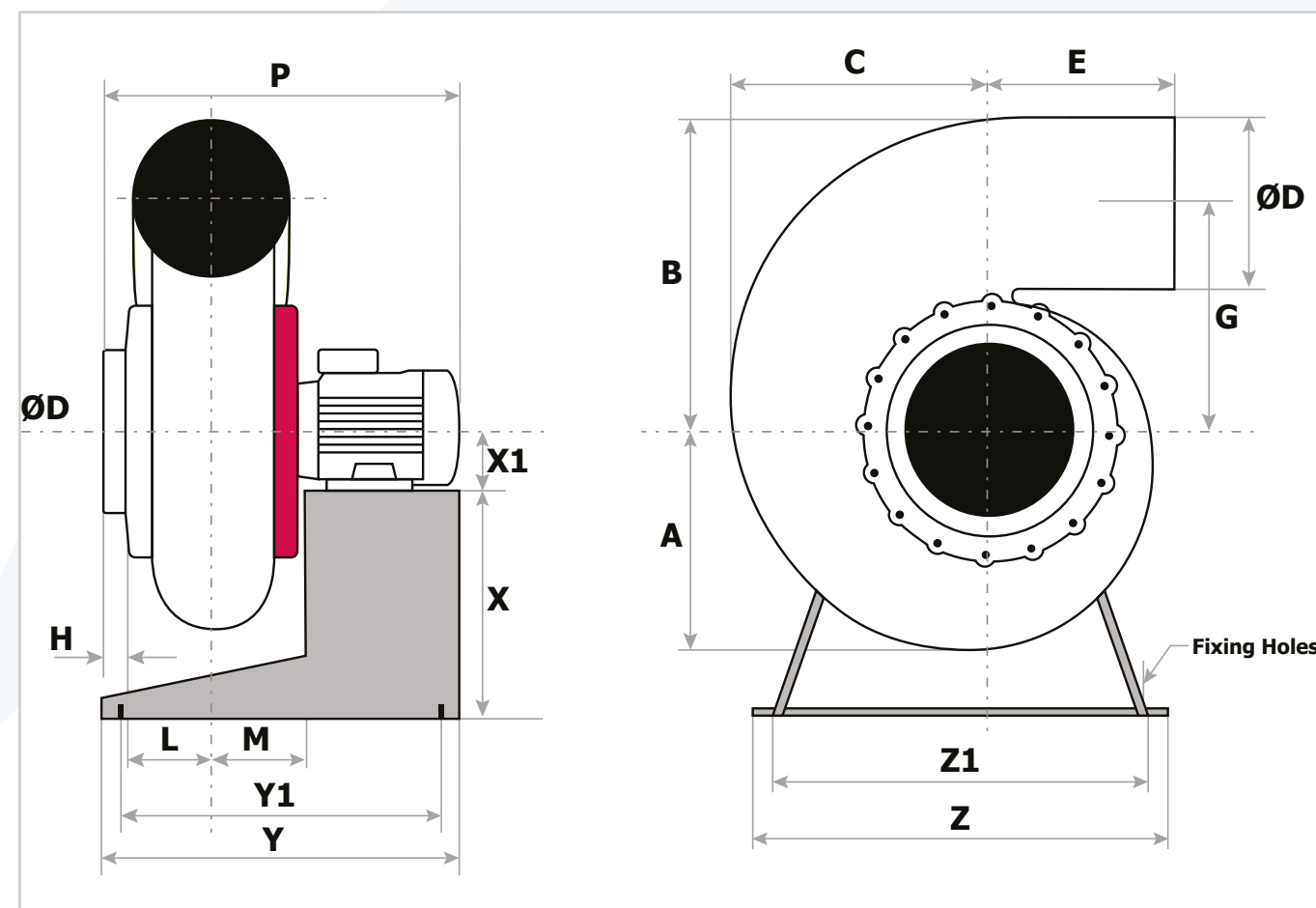
### Sound Data

Speed	Qv	SP	LwA	LpA *	Octave band (Hz)							
					RPM	(m³/h)	(Pa)	dB(A)	dB(A)	63	125	250
1450	175	167	71	51	86	80	69	69	68	57	50	43
2870	346	652	86	65	101	95	84	83	83	72	65	58

\* Acoustic pressure Lp at 3 metres - Outlet acoustic data available on request

Maximum airflow temperature: 50°C

## ST14/125/Metal Pedestal



### Dimensions

ØD	A	B	C	E	G	H	L	M	X	X1	Y	Y1	Z	Z1
125	188	232	227	218	170	55	110	83	450	80	450	345	450	385

Motor Size	Motor	P
1.1kW	'71/80' frame	393

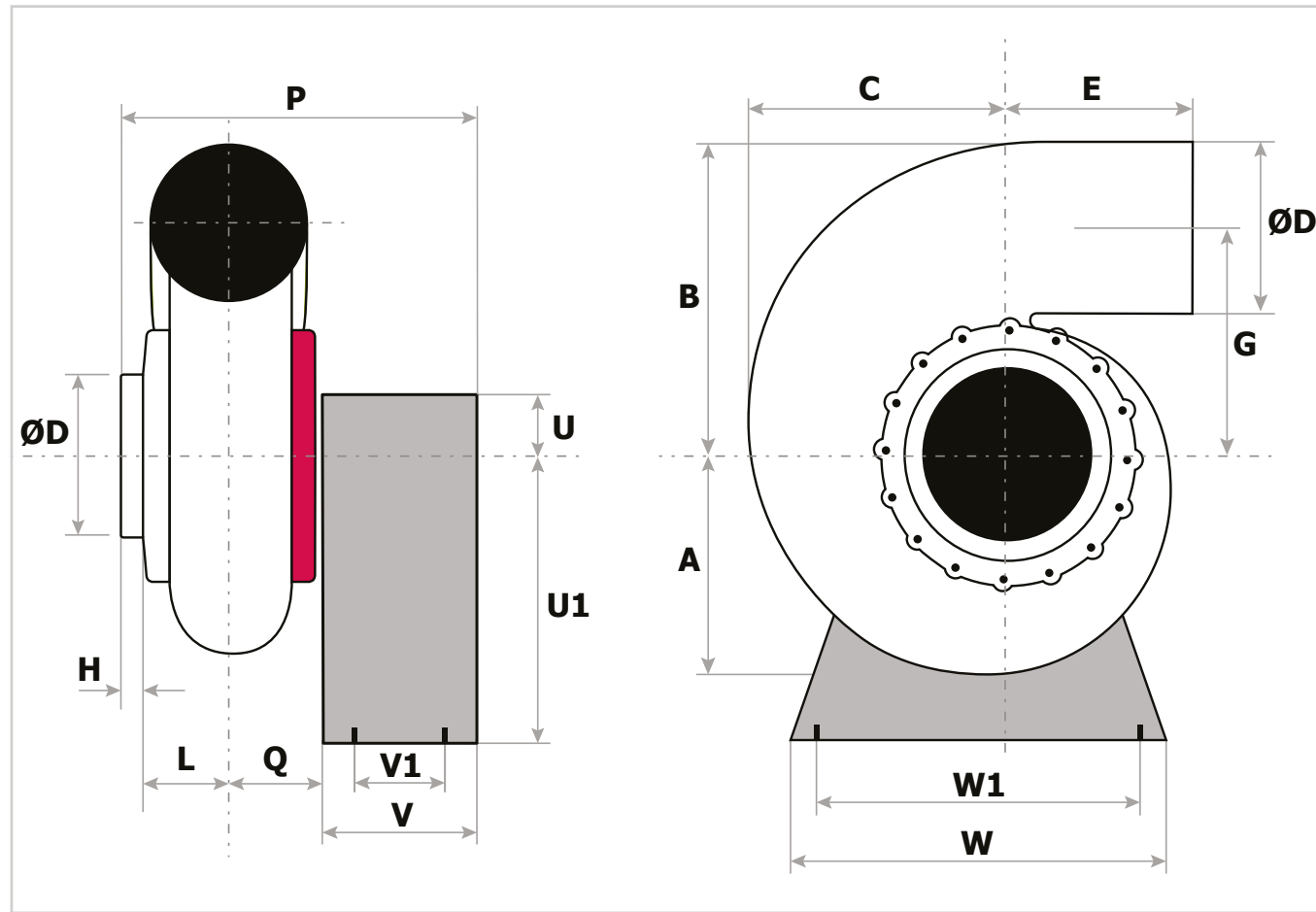
Motor dimensions may vary according to source.

### Handing & Orientation

All handings are viewed from the inlet side and are 45 degrees adjustable. Always check the available discharge handings for your specific fan model, see pages 6-9 for reference.

Performance curve on p37

# ST14/125/Box Pedestal



## Dimensions

ØD	A	B	C	E	G	H	L	Q
125	188	232	227	218	170	55	110	93

Motor Rating	Motor	P	U	U1	V	V1	W	W1
1.1kW	'71/80' frame	463	85	365	260	200	330	260

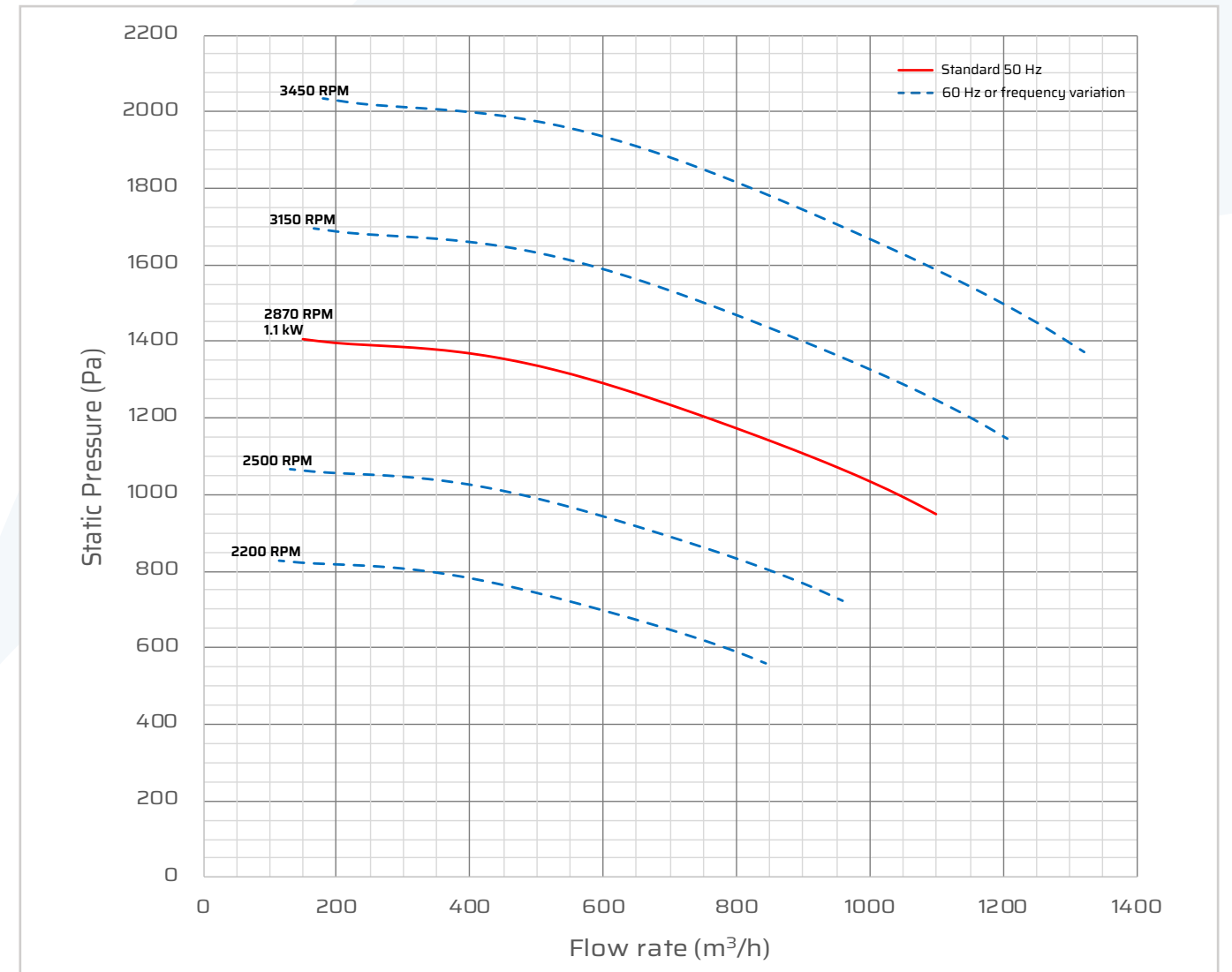
Motor dimensions may vary according to source.

## Handing & Orientation

All handings are viewed from the inlet side and are 45 degrees adjustable. Always check the available discharge handings for your specific fan model, see pages 6-9 for reference.

Performance curve on p37

# ST14 Performance Curve



## Electrical Data

Model	Motor	1 ~			3 ~			Weight (kg) Box Pedestal & Fan		Weight (kg) Metal Pedestal & Fan	
		Supply	Full Load	Start	Supply	Full Load	Start	1~	3~	1~	3~
ST14/2	1.1kW	230/1/50	7A	30A	400/3/50	2.5A	18A	21	19	22	20

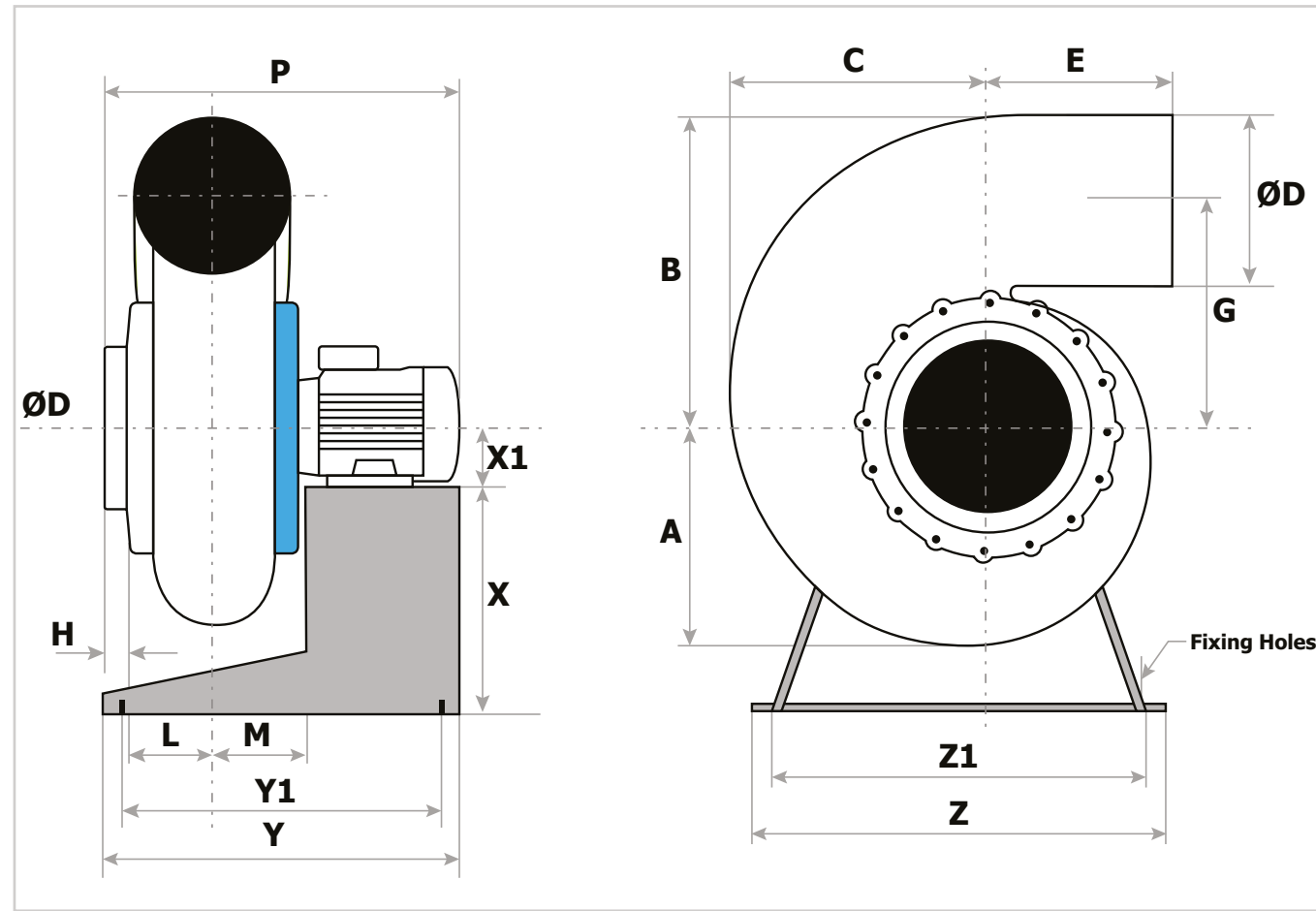
## Sound Data

Speed	Qv (m³/h)	SP (Pa)	LwA (dB(A))	LpA* (dB(A))	Octave band (Hz)							
					63	125	250	500	1000	2000	4000	8000
1725	468	418	79	59	93	84	83	76	73	66	68	56
2870	780	1155	90	70	104	95	94	87	84	77	79	67

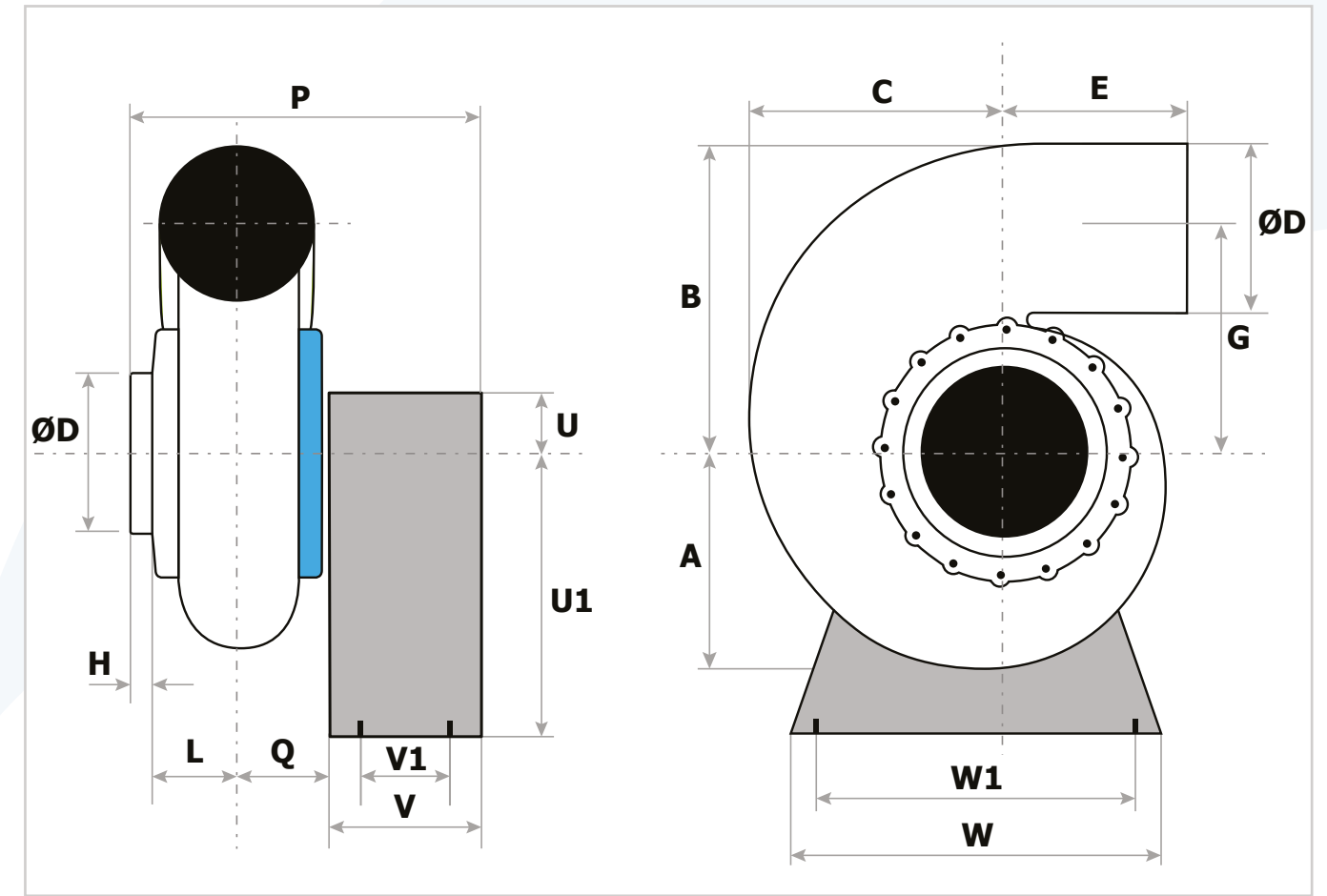
\* Acoustic pressure Lp at 3 metres - Outlet acoustic data available on request

Maximum airflow temperature: 50°C

## ST16/160/Metal Pedestal



## ST16/160/Box Pedestal



### Dimensions

ØD	A	B	C	E	G	H	L	M	Y	Y1	Z	Z1
160	235	288	278	262	205	40	100	97	450	345	450	385

Motor Size	Motor	X	X1	P
2.2kW	'90' frame	450	90	465

Motor dimensions may vary according to source.

Performance curve on p40

### Handing & Orientation

All handings are viewed from the inlet side and are 45 degrees adjustable. Always check the available discharge handings for your specific fan model, see pages 6-9 for reference.

### Dimensions

ØD	A	B	C	E	G	H	L	Q	P
160	235	288	278	262	205	40	100	115	572

Motor Rating	Motor	U	U1	V	V1	W	W1
2.2kW	'90' frame	95	455	340	267	405	330

Motor dimensions may vary according to source.

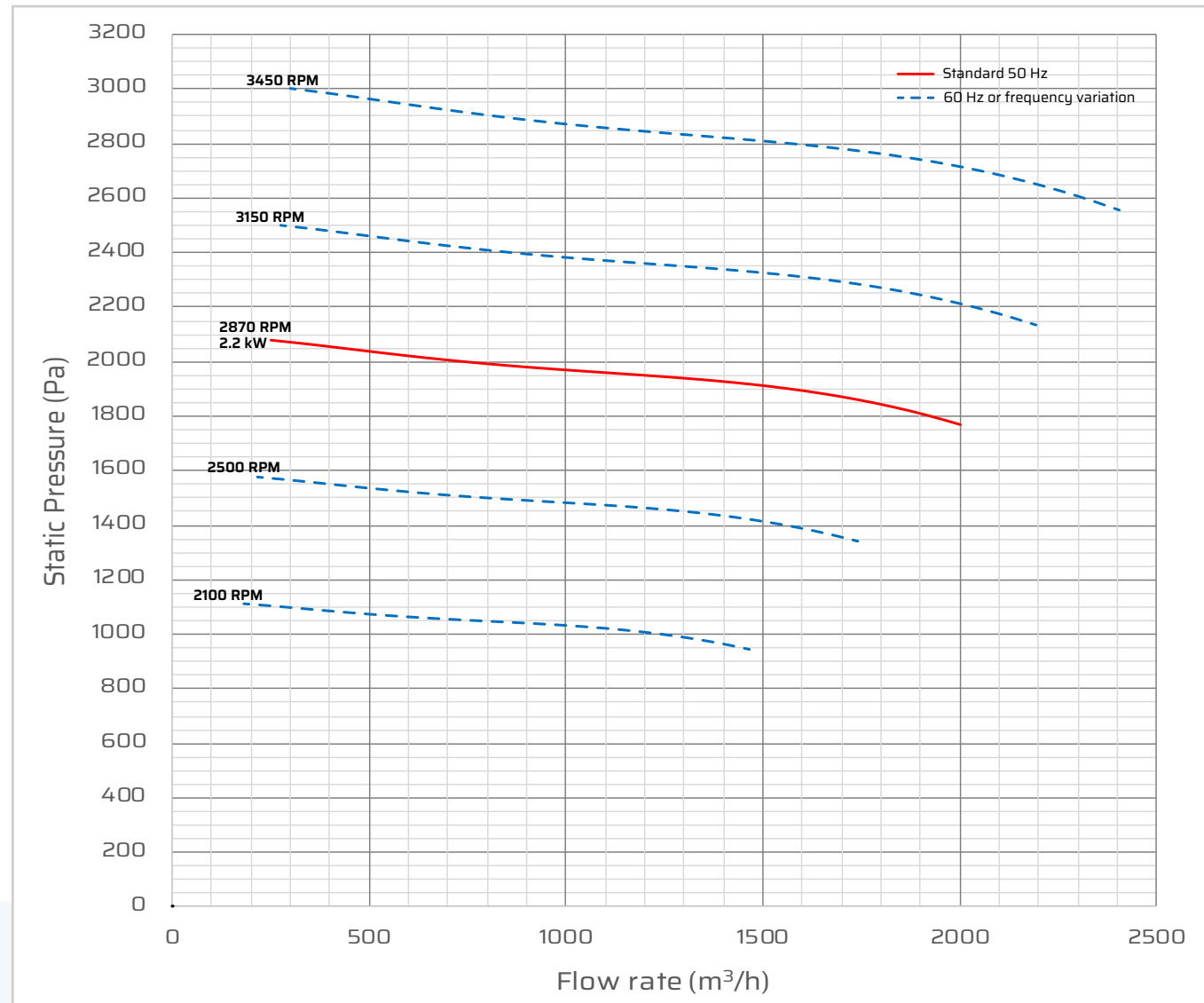
### Handing & Orientation

All handings are viewed from the inlet side and are 45 degrees adjustable. Always check the available discharge handings for your specific fan model, see pages 6-9 for reference.

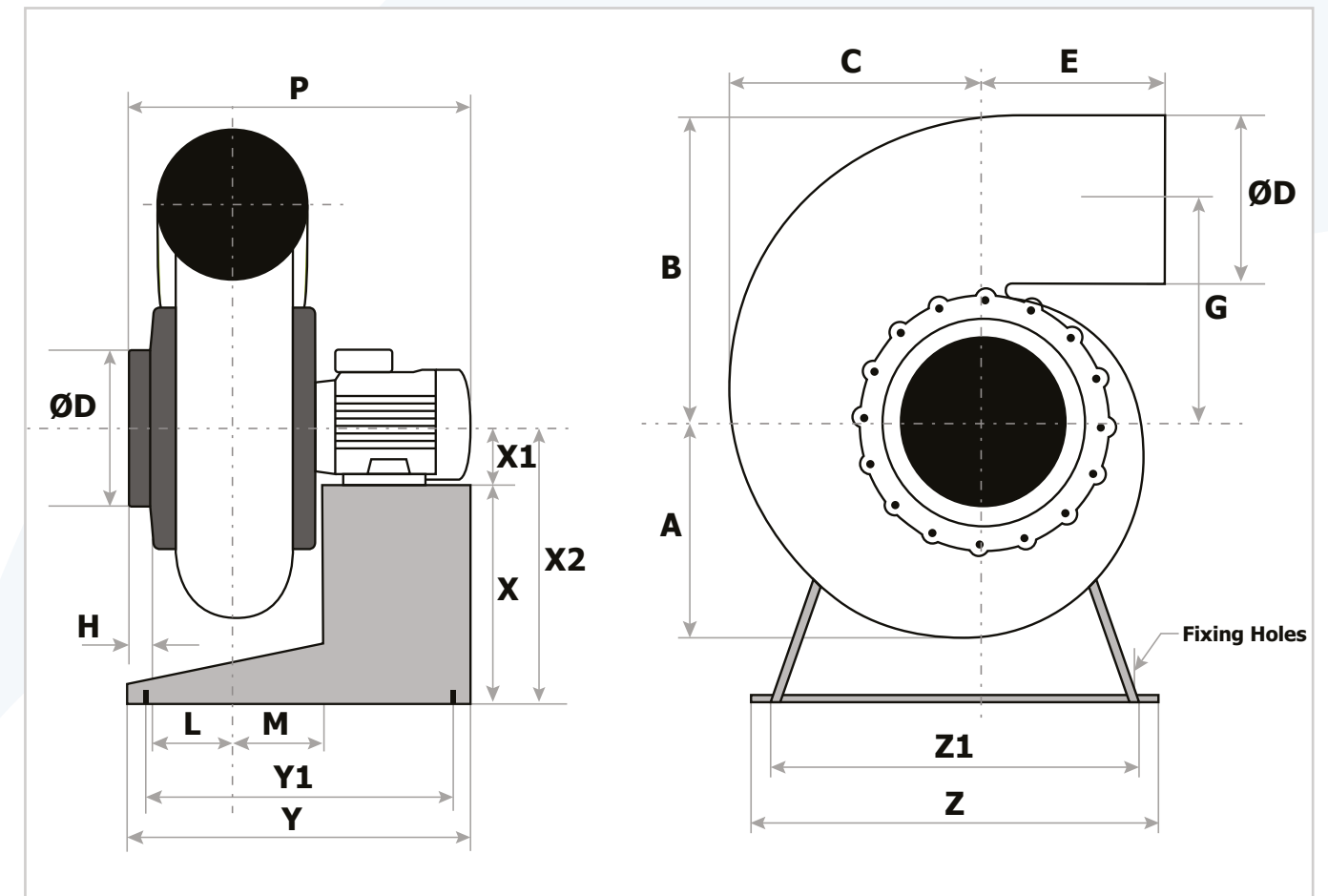
Performance curve on p40



## ST16 Performance Curve



## ST18/ 200/ Metal Pedestal



### Dimensions

ØD	A	B	C	E	G	H	L	M	Y	Y1	Z	Z1
200	291	350	338	280	250	40	110	100	650	545	600	570

Motor Size	Motor	X	X1	X2	P
7.5kW	'132' frame	550	132	682	680

Motor dimensions may vary according to source.

Performance curve on p43

### Handing & Orientation

All handings are viewed from the inlet side and are 45 degrees adjustable. Always check the available discharge handings for your specific fan model, see pages 6-9 for reference.

### Electrical Data

Model	Motor	Supply	1 ~			3 ~			Weight (kg) Box Pedestal & Fan		Weight (kg) Metal Pedestal & Fan	
			Full Load	Start	Supply	Full Load	Start	1~	3~	1~	3~	
ST16/2	2.2kW	230/1/50	14A	65A	400/3/50	4.5A	35A	26	24	37	35	

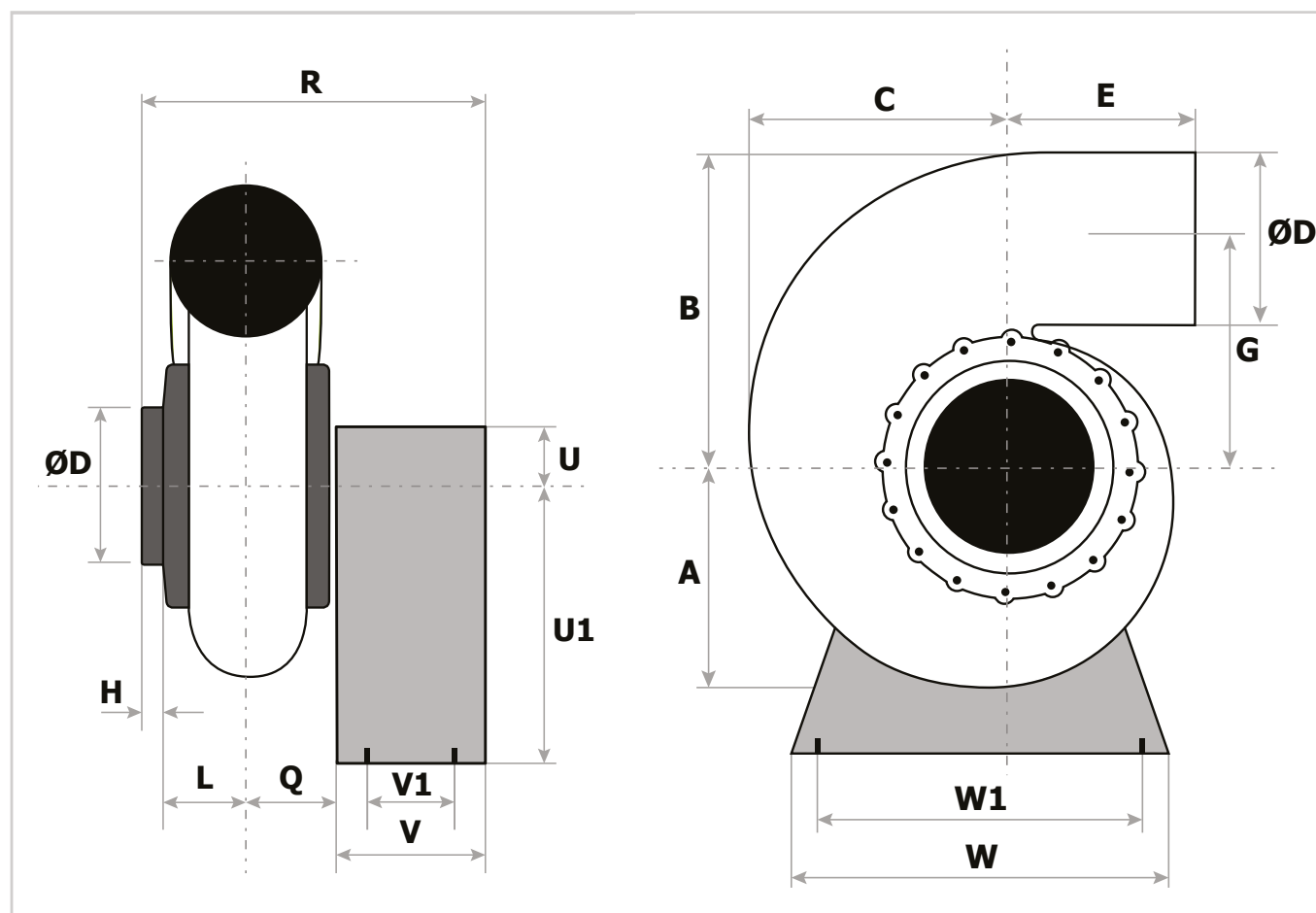
Maximum airflow temperature: 50°C

### Sound Data

Speed RPM	Qv (m³/h)	SP (Pa)	LwA dB(A)	LpA * dB(A)	Octave band (Hz)							
					63	125	250	500	1000	2000	4000	8000
1725	514	711	82	62	95	86	83	78	76	73	69	66
2870	855	1970	93	73	106	97	94	89	87	84	80	77

\* Acoustic pressure Lp at 3 metres - Outlet acoustic data available on request

# ST18 / 200/ Box Pedestal



## Dimensions

ØD	A	B	C	E	G	H	L	Q	R
200	291	350	338	280	250	40	110	100	750

Motor Rating	Motor	U	U1	V	V1	W	W1
7.5kW	'132' frame	122	578	500	400	585	480

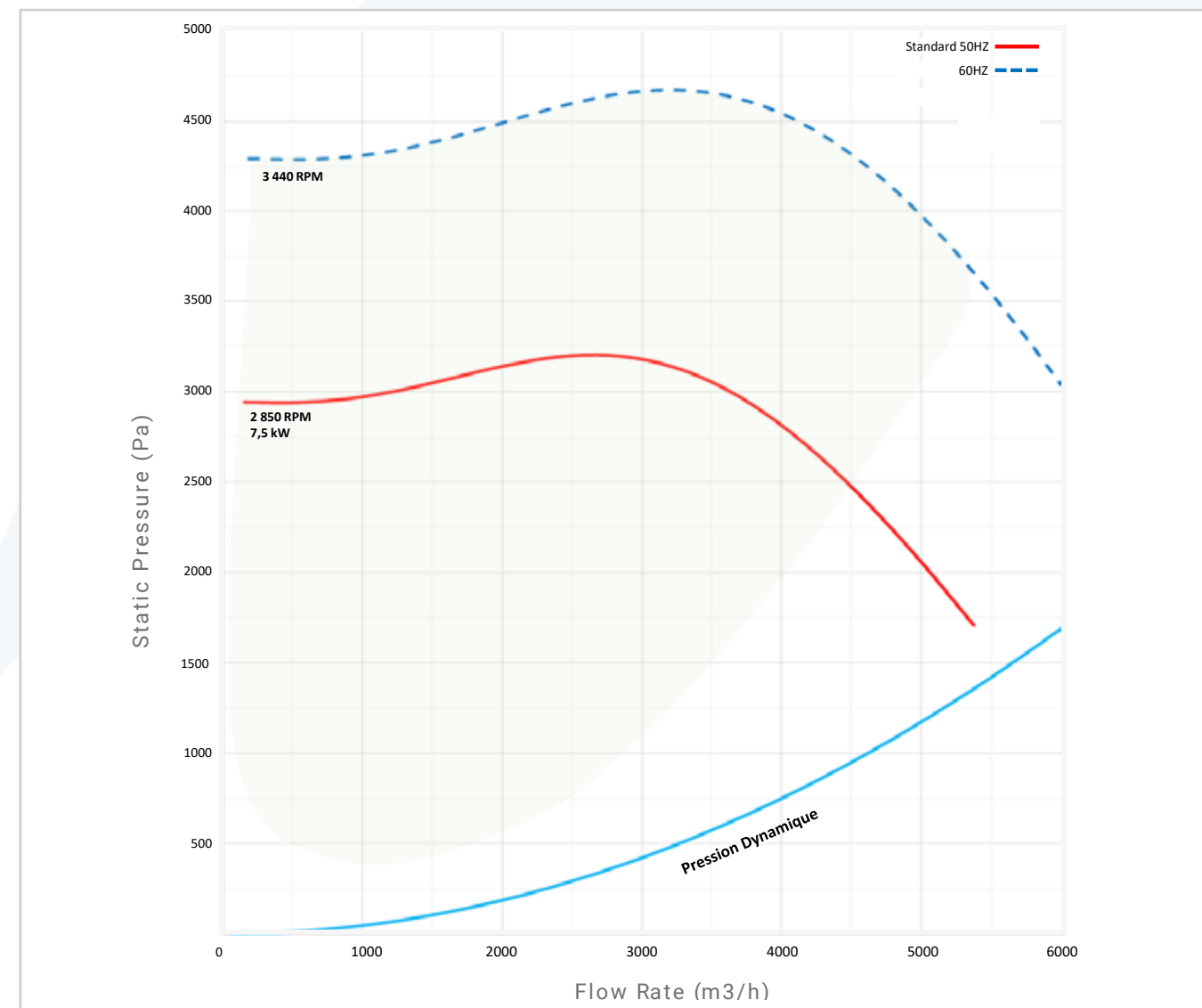
Motor dimensions may vary according to source.

## Handing & Orientation

All handings are viewed from the inlet side and are 45 degrees adjustable. Always check the available discharge handings for your specific fan model, see pages 6-9 for reference.

Performance curve on p43

# ST18 Performance Curve



## Electrical Data

Model	Motor	Supply	Full Load	Start	Weight kg	Weight kg
					Box Pedestal & Fan	Metal Pedestal & Fan
ST18	7.5kW-2870/min	400/3/50	14.3A	132A	3 ~ Only	3 ~ Only
					119	123

## Sound Data

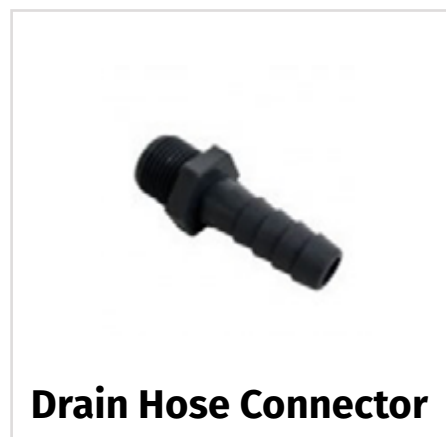
Speed	Qv	SP	LwA	LpA *	Octave band (Hz)							
					T/min	(m³/h)	(Pa)	dB(A)	dB(A)	63	125	250
2000	2141	1567	89	69	104	92	89	87	83	82	77	71
2870	3073	3227	97	77	112	100	97	95	90	90	85	78

\* Acoustic pressure Lp at 3 metres - Outlet acoustic data available on request

Maximum airflow temperature: 50°C

# Accessories

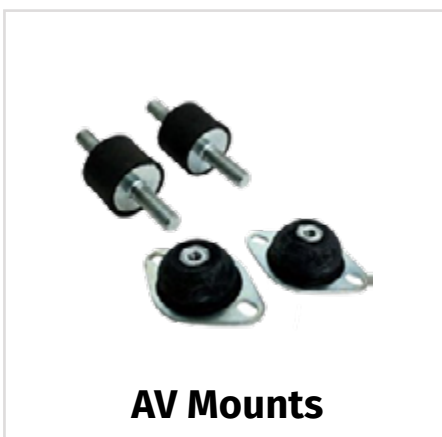
We offer a range of accessories to facilitate installation of our polypropylene corrosion resistant fans including our complete solution for education establishments: The educational fan pack. Talk to our experienced industrial team to discuss the best accessories to simplify the fume extraction installation process.



Drain Hose Connector



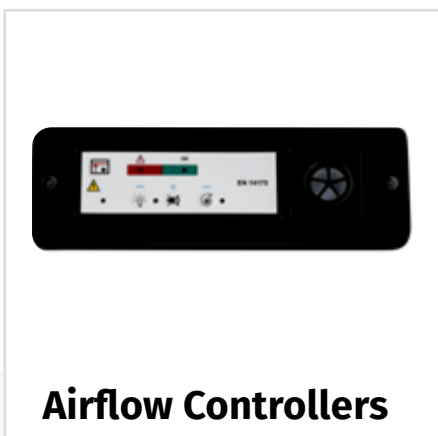
Isolators



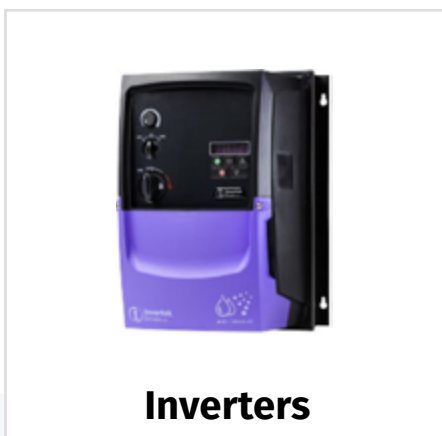
AV Mounts



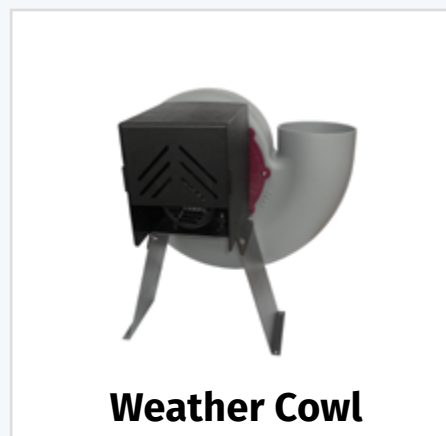
Flexible Connectors



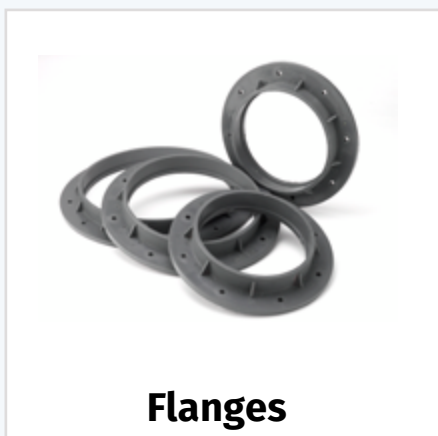
Airflow Controllers



Inverters



Weather Cowl



Flanges



School Fan Pack



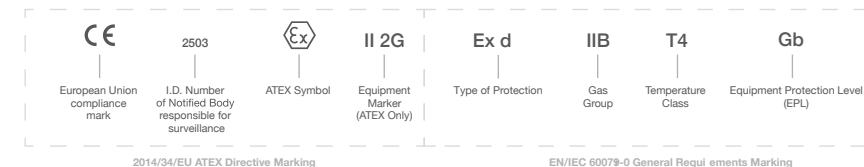
## EC Corrosion Resistant Fans

Talk to our Industrial team about our range of 1~ & 3~ EC Fume Extraction Fans Reduce fan energy consumption by up to 20% without affecting performance.

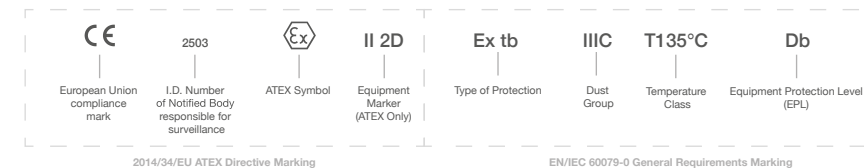
# Hazardous Area Guide

It is strictly the responsibility of the end user to perform a DSEAR risk assessment to ensure that flameproof zones are properly defined in terms recognised by ATEX 2014/34/EU. The below guide is intended for guidance only.

### Typical Equipment Marking for Gas Atmospheres



### Typical Equipment Marking for Dust Atmospheres



Gas Zones				
Gas Zones	Definition	ATEX Category	EPL	Required Protection
Methane	Mines with methane and dust. Equipment remains energised in explosive atmosphere	M1	Ma	Two Faults
Methane	Mines with methane and dust. Equipment is de-energised in explosive atmosphere	M2	Mb	Severe Normal Operation
Zone 0	Explosive atmosphere present continuously or for long periods, frequently	1G	Ga	Two Faults
Zone 1	Explosive atmosphere is likely to occur under normal conditions, occasionally	2G	Gb	One Fault
Zone 2	Explosive atmosphere is unlikely to occur under normal conditions, short periods	3G	Gc	Normal Operation

Dust Zones				
Dust Zones	Definition	ATEX Category	EPL	Required Protection
Zone 20	Explosive atmosphere present continuously or for long periods, frequently	1D	Da	Two Faults
Zone 21	Explosive atmosphere is likely to occur under normal conditions, occasionally	2D	Db	One Fault
Zone 22	Explosive atmosphere is unlikely to occur under normal conditions, short periods	3D	Dc	Normal Operation

Enclosure Ingress Protection (IP) Level	
Enclosure Ingress Protection (IP) Level: To EN/IEC 60529	
First Number (Solid objects / dust)	Second Number (Water)
0 No protection	0 No protection
1 Objects > Ø50 mm	1 Vertically dripping water
2 Objects > Ø12.5 mm	2 Vertically dripping water with enclosure tilted by 15°
3 Objects > Ø2.5 mm	3 Sprayed water up to 60° from the vertical
4 Objects > Ø1.0 mm	4 Sprayed water from all directions
5 Dust protected	5 Water jets
6 Dust tight	6 Powered water jets
-	7 Temporary submersion < 1m depth
-	8 Extended submersion > 1m depth

Ambient Temperature Range (T amb)	
T amb =	Temperature relating to the immediate surroundings of the equipment (assumed to be -20°C to +40°C, unless stated)
-	-

Protection Concept - Electrical - Gas	
Type of Protection (electrical - gas)	Reference
General Requirements	EN/IEC 60079-0
Flameproof - Ex d / da / db / dc	EN/IEC 60079-1
Purge/Pressurised - Ex p / pxb / pyb / pzc	IEC 60079-2
Quartz/Sand Filled - Ex q / qb / qc	EN/IEC 60079-5
Oil Immersion - Ex o / ob / oc	EN/IEC 60079-6
Increased Safety - Ex e / eb / ec	EN/IEC 60079-7
Intrinsic Safety - Ex i / ia / ib / ic	EN/IEC 60079-11
Non Sparking - Ex nA / nC / nL	EN/IEC 60079-15
Encapsulation - Ex m / ma / mb / mc	EN/IEC 60079-18
Optical Radiation - Ex op is / op pr	EN/IEC 60079-28
Trace Heating Systems - Ex e / Ex 60079-30-1	EN/IEC 60079-30-1
Special Protection Ex s	EN/IEC 60079-33
Caplights	EN/IEC 60079-35-1
Controlled Spark Duration Power-i	TS 60079-39
Process Sealing	TS 60079-40
Flame Arresters	EN 16852
Diesel Engines	EN 1834-1,2,3

Protection Concept - Electrical - Dust		
Type of Protection (electrical - dust)	Reference	IECEX
General Requirements	EN/IEC 60079-0	-
Enclosure - ta / tb / tc	EN/IEC 60079-31	-
Purge/Pressurised - Ex p / pxb / pyb / pzc	EN/IEC 60079-2	-
Intrinsic Safety - Ex i / ia / ib / ic	EN/IEC 60079-11	-
Encapsulation - Ex m / ma / mb / mc	EN/IEC 60079-18	-

Protection Concept - Non Electrical		
Type of Protection (non-electrical) (gas & dust)	Reference (ATEX only)	IECEX
General Requirements	EN 80079-36	IEC / ISO 80079-36
Flow Restricting Enclosure - fr	EN 13463-2	-
Flameproof - d	EN 13463-3	-
Constructional Safety - c / h	EN 80079-37	IEC / ISO 80079-37
Control of Ignition - b / h	EN 80079-37	IEC / ISO 80079-37
Pressurisation - p	EN 60079-2	-
Liquid Immersion - k / h	EN 80079-37	IEC / ISO 80079-37

Gas Groups	
Gas Groups	Gases are classified according to the ignitability of the gas/air mixture as defined in EN/IEC 60079-20-1
IIA	Acetic Acid, Acetone, Ammonia, Butane, Cyclohexane, Propane, Gasoline (petrol), Methane (natural gas, non-mining), Toluene, Xylene, Methanol (methyl alcohol), Propane-2-ol (iso-propyl alcohol)
IIB	Group IIA gases plus, Di-ethyl ether, Ethylene, Ethanol Methyl ethyl ketone (MEK), Propane-1-ol (n-propyl alcohol)
IIC	Group IIA and IIB gases plus, Acetylene, Hydrogen

Dust Groups	
Dust Groups	Dusts are classified by the types of material that make up the dust
IIIA	Combustible Fibres and Flyings
IIIB	Group IIIA dusts plus, Non-Conductive Dusts
IIIC	Group IIIA and IIIB dusts plus, Conductive Dusts

Equipment Group	
Equipment Group	Definition
Group I	Electrical equipment intended for use in mines susceptible to fire damp
Group II	Electrical equipment intended for use in explosive gas atmospheres
Group III	Electrical equipment intended for use in explosive dust atmospheres

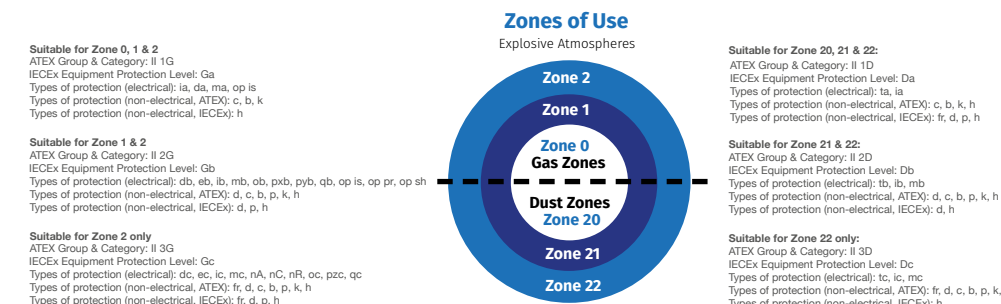
Temperature Class (T Class)	
Temperature Class	Highest temperature achieved under the most adverse equipment rating and heating conditions. (Flashpoint temperature of some gases)
T1: 450°C	Ammonia (630°C), Hydrogen (560°C), Methane (537°C), Propane (470°C)
T2: 300°C	Ethylene (425°C), Butane (372°C), Acetylene (305°C)
T3: 200°C	Cyclohexane (259°C), Kerosene (210°C)
T4: 135°C	Di-ethyl Ether (160°C)
T5: 100°C	-
T6: 85°C	Carbon Disulphate (85°C)

## ATEX Gas & Dust Zones

If an explosive atmosphere of flammable substances is specified, the following zones may exist:

ATEX Category	ATEX Zone (Gas & Vapour)	ATEX Zone (Dust)	Presence	ATEX Description
Category 2	Zone 1	Zone 21*	Present Intermittently	An explosive mixture may be present occasionally in normal operation
Category 3	Zone 2	Zone 22*	Present Abnormally	An explosive mixture is not expected to be present in normal operation or will only be present for a short time

Zone 22 dust fans available on request





# All About Axair Fans

Back in 1983, our passionate managing director set up Axair in a spare room with a solid goal: *to provide air movement and fan components that create better systems, systems that help our customers to be more successful.*

Today the growing family business retains these values at its core. Through thoughtful selection of employees and solid leadership, the company has become a mature and well developed UK industrial fan supplier with a unique approach to fan selection, customer support, technical fan integration and resourcefulness.



### We Challenge the Status Quo

We provide alternative ideas that challenge existing procedures and thinking, so that we can improve and develop new solutions for our customers.

### We Leverage Collective Genius

We focus on utilising our combined knowledge for best results each time. This means our customers get the most efficient solution every single time.

### We're Resourceful & Solution Led

Our resourcefulness enables us to find ways to speedily overcome difficulties and achieve customer goals smartly

# Revolutionary Fan Expertise

*We advise and help to integrate the best industrial fan solutions that increase efficiency, improve performance, and solve a problem. We're a united team dedicated to your success, and we're excited to demonstrate how working with us can revolutionise the way you do business with your fan component supplier.*



## WE'RE REVOLTING!

**We're Revolutionising An Antiquated Industry.**

We understand that in today's fast paced business environment, time is of the essence, that's why we've enhanced our enquiry efficiency by integrating a singular technical team to handle your enquiries from start to finish. With this streamlined approach, we guarantee **no continuous team handovers**, rapid response times and highly accurate solutions that propel your success.

If you're looking for technical support on a fan we've supplied, we'll be with you in no time. Work with a fan supplier who works hard to improve the inefficiencies our customers experience in the UK fan industry.

[www.axair-fans.co.uk](http://www.axair-fans.co.uk)



## Contact Us

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*Whatever your issue, concern or question, contact our industrial team using the below contact details. Alternatively, visit our website and open a live chat to start discussions.*

**01782 349 430**

**[sales@axair-fans.co.uk](mailto:sales@axair-fans.co.uk)**

