

# BIFLOW SB

**ELTA**

Bifurcated Axial Flow Fan

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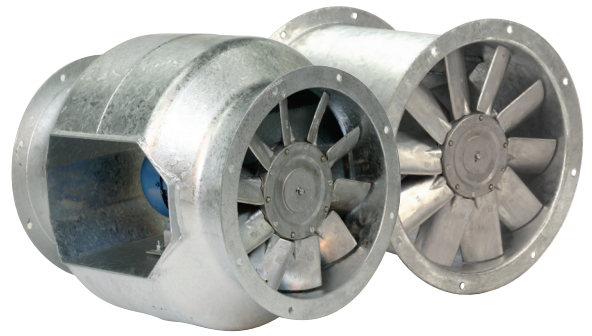
>> **Select** models available for next day delivery



# BIFLOW SB

## Product Overview

- 5 standard sizes from 250mm to 630mm
- Air volume flow rates up to 4.501m<sup>3</sup>/s
- Static pressures up to 608 Pa
- Suitable for operating temperatures up to +200°C
- Available in **AC**



**A range of bifurcated axial fans, specially developed with motor out of the airstream to handle more hostile air movement applications.**

### High Temperature

Class H motors out of the airstream are not effected by contaminates in the ventilated air. Suitable for elevated temperatures up to +200°C

### Efficient Performance

High efficiency adjustable pitch aerofoil impellers are provided with blades made from high quality pressure die cast aluminium.

### Corrosion resistance

The fan casing is dip galvanised after fabrication to BS 729 offering enhanced corrosion resistance.

### Weather Resistance

The fans are suitable for external mounting as standard.

### Long life

Motor is isolated from hot and contaminated air, prolonging the life of the fan.

### Warranty

Each SB has a 12 month warranty.

### Construction

Constructed from sheet steel with both motor and impeller mounted within the length of the unit casing.

### Motor

Motors are foot mounted, totally enclosed fan cooled, IP55, with sealed for life bearings with a standard industrial paint finish and Class H insulation to EN 60034-5.

### Impeller

Adjustable pitch aerofoil impellers are provided with blades made from high quality pressure die cast aluminium (LM6), natural finish. Impellers are factory set at an angle to provide maximum performance. The hubs are manufactured from die cast aluminium alloy (LM24). Assembled impellers are to be dynamically balanced to ISO 14694 Grade G6.3.

### Typical Applications

- Kitchen Extract
- Spray Booths
- Hot Gas Situations
- Corrosive Atmospheres
- Boiler Houses
- Heavy Industrial

### Contents

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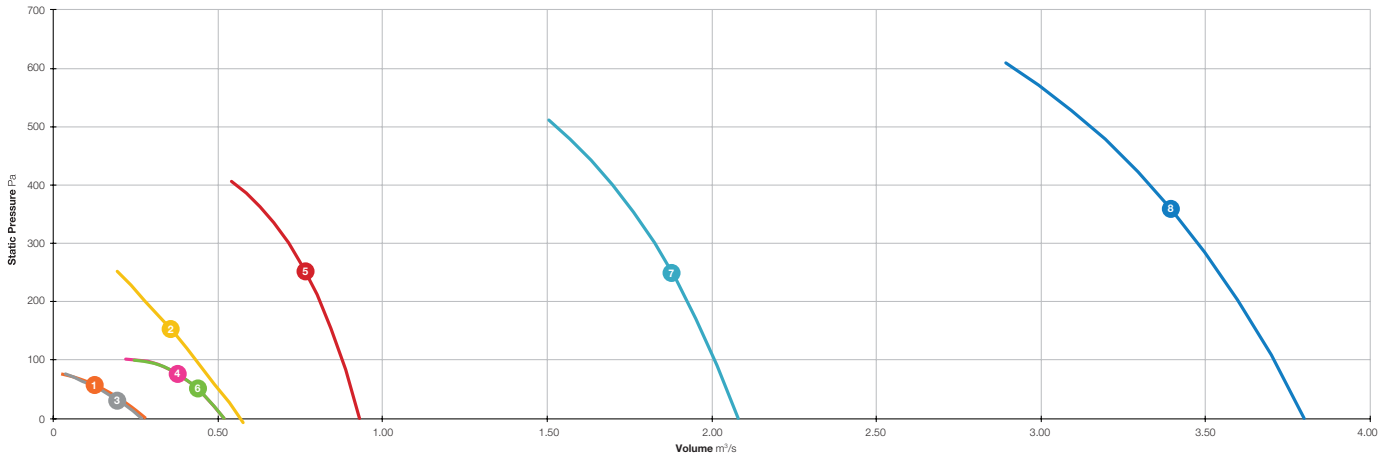
### Product Coding

Code	Reference
<b>SB</b>	Product Range
<b>CYL</b>	Cylindrical
<b>CON</b>	Conical
<b>400</b>	Diameter (400/500/630)
<b>/</b>	
<b>4</b>	Number of Poles (2/4/6)
<b>-</b>	
<b>3</b>	Voltage Supply (Single Phase / Three Phase)
<b>AC</b>	Motor Type (AC/EC)
<b>A - Z</b>	Additional Coding (A - Z) Product Variants
e.g.	<b>SB400 / CYL4 - 3AC</b>

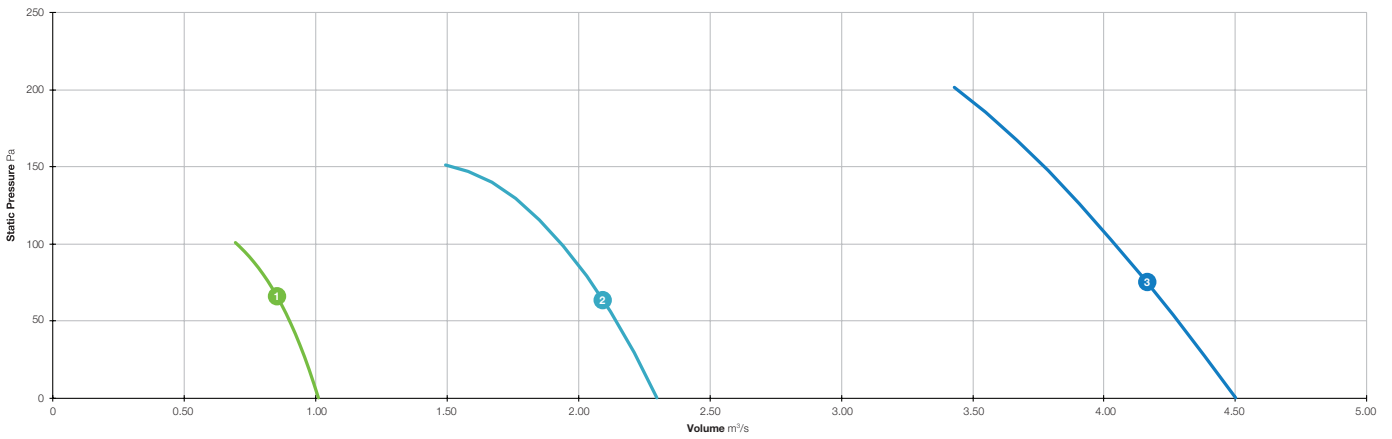
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## Performance Range Curves



- 1 SB250 / CON4-1
- 2 SB250 / CON2-3
- 3 SB250 / CON4-3
- 4 SB315 / CON4-1
- 5 SB315 / CON2-3
- 6 SB315 / CON4-3
- 7 SB400 / CON2-3
- 8 SB500 / CON2-3



- 1 SB400 / CYL4-3
- 2 SB500 / CYL4-3
- 3 SB630 / CYL4-3

## Performance, SFP & Electrical Data

### Single Phase 220V to 240V / 50Hz

Product Code	Speed r/min	Airflow SFP	Airflow m <sup>3</sup> /s @ Static Pressure Pa								At Best Efficiency Point	Electrical Data		dBA @ 3m			
			0	25	50	75	100	150	200	250	Output kW	Peak Amps					
<b>SB250-CON4-1</b>	1450	m <sup>3</sup> /s	<b>0.280</b>	<b>0.223</b>	<b>0.150</b>	<b>0.029</b>	-	-	-	-	-	-	-	0.120	1.13	Inlet	48
<b>SB315-CON4-1</b>	1370	m <sup>3</sup> /s	<b>0.521</b>	<b>0.483</b>	<b>0.439</b>	<b>0.383</b>	<b>0.257</b>	-	-	-	-	-	-	0.120	1.13	Inlet	51

Data provided is at standard air density of 1.2 kg/m<sup>3</sup>.

Exempt from ErP of the European Parliament.

Peak Amps @ 230V / 1PH / 50Hz.

The overall A-weighted sound pressure level is at a distance of 3m with spherical free-field propagation. It is expressed in dB re-20μPa and is presented for comparative purposes only.

### Three Phase 380V to 415V / 50Hz

Product Code	Speed r/min	Airflow SFP	Airflow m <sup>3</sup> /s @ Static Pressure Pa												At Best Efficiency Point	Electrical Data			dBA @ 3m	
			0	25	50	75	100	150	200	250	300	350	400	500	Output kW	Peak Amps	Δ / Y			
<b>SB250-CON2-3</b>	2780	m <sup>3</sup> /s	<b>0.566</b>	<b>0.535</b>	<b>0.502</b>	<b>0.468</b>	<b>0.434</b>	<b>0.360</b>	<b>0.282</b>	<b>0.198</b>	-	-	-	-	0.250	0.68	Mains	Inlet	61	
<b>SB250-CON4-3</b>	1370	m <sup>3</sup> /s	<b>0.270</b>	<b>0.211</b>	<b>0.140</b>	<b>0.040</b>	-	-	-	-	-	-	-	-	0.120	0.48	Mains	Inlet	48	
<b>SB315-CON2-3</b>	2780	m <sup>3</sup> /s	<b>0.931</b>	<b>0.919</b>	<b>0.906</b>	<b>0.892</b>	<b>0.878</b>	<b>0.848</b>	<b>0.810</b>	<b>0.768</b>	<b>0.716</b>	<b>0.648</b>	<b>0.554</b>	-	0.550	1.18	Mains	Inlet	64	
<b>SB315-CON4-3</b>	1370	m <sup>3</sup> /s	<b>0.521</b>	<b>0.483</b>	<b>0.439</b>	<b>0.383</b>	<b>0.257</b>	-	-	-	-	-	-	-	0.120	0.48	Mains	Inlet	51	
<b>SB400-CON2-3</b>	2800	m <sup>3</sup> /s	<b>2.082</b>	<b>2.065</b>	<b>2.047</b>	<b>2.029</b>	<b>2.010</b>	<b>1.969</b>	<b>1.926</b>	<b>1.878</b>	<b>1.825</b>	<b>1.766</b>	<b>1.698</b>	<b>1.527</b>	2.200	4.42	Mains	Inlet	70	
<b>SB500-CON2-3</b>	2840	m <sup>3</sup> /s	<b>3.803</b>	<b>3.780</b>	<b>3.756</b>	<b>3.732</b>	<b>3.707</b>	<b>3.655</b>	<b>3.600</b>	<b>3.541</b>	<b>3.477</b>	<b>3.408</b>	<b>3.332</b>	<b>3.152</b>	4.000	7.49	Mains	Inlet	80	

Data provided is at standard air density of 1.2 kg/m<sup>3</sup>.

Exempt from ErP of the European Parliament.

Peak Amps @ 400V / 3PH / 50Hz.

The overall A-weighted sound pressure level is at a distance of 3m with spherical free-field propagation. It is expressed in dB re-20μPa and is presented for comparative purposes only.

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## Performance, SFP & Electrical Data

Three Phase 380V to 415V / 50Hz

Product Code	Speed r/min	Airflow	Airflow m <sup>3</sup> /s @ Static Pressure Pa							At Best Efficiency Point Output kW	Electrical Data			dBA @ 3m
			0	25	50	75	100	150	200		Peak Amps	SC	Δ / Y	
<b>SB400-CYL4-3</b>	1400	m <sup>3</sup> /s	<b>1.010</b>	<b>0.961</b>	<b>0.900</b>	<b>0.821</b>	<b>0.699</b>	-	-	0.250	0.69	3.80	Mains	55
<b>SB500-CYL4-3</b>	1415	m <sup>3</sup> /s	<b>2.300</b>	<b>2.230</b>	<b>2.140</b>	<b>2.040</b>	<b>1.920</b>	<b>1.520</b>	-	0.750	1.65	10.90	Mains	62
<b>SB630-CYL4-3</b>	1410	m <sup>3</sup> /s	<b>4.501</b>	<b>4.393</b>	<b>4.280</b>	<b>4.162</b>	<b>4.039</b>	<b>3.771</b>	<b>3.442</b>	2.200	4.43	30.90	Mains	70

Data provided is at standard air density of 1.2 kg/m<sup>3</sup>.

Exempt from ErP of the European Parliament.

Peak Amps @ 400V / 3PH / 50Hz.

The overall A-weighted sound pressure level is at a distance of 3m with spherical free-field propagation. It is expressed in dB re-20μPa and is presented for comparative purposes only.

## Sound Data

### Single Phase 220V to 240V / 50Hz

Product Code		Sound Power Level dBW @ Octave Band Hz								Total dB
		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
SB250-CON4-1	Inlet	77	74	71	64	62	60	57	47	80
SB315-CON4-1	Inlet	80	77	74	68	66	64	62	53	83

Data provided at standard air density of 1.2 kg/m<sup>3</sup>.  
 Tests and preparation of the sound data have been carried out in accordance with BS 848 Part 2:1985 at 50% peak pressure.  
 The Sound Power Level Spectra are in dB re-1pW.

### Three Phase 380V to 415V / 50Hz

Product Code	Speed r/min		Sound Power Level dBW @ Octave Band Hz								Total dB
			63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
SB250-CON2-3	2780	Inlet	83	81	79	78	77	75	73	69	88
SB250-CON4-3	1370	Inlet	77	74	71	64	62	60	57	47	80
SB315-CON2-3	2780	Inlet	90	86	82	81	80	77	77	71	93
SB315-CON4-3	1370	Inlet	80	77	74	68	66	64	62	53	83
SB400-CON2-3	2800	Inlet	94	87	86	90	84	83	80	73	97
SB500-CON2-3	2840	Inlet	98	93	90	96	96	95	93	89	104

Data provided at standard air density of 1.2 kg/m<sup>3</sup>.  
 Tests and preparation of the sound data have been carried out in accordance with BS 848 Part 2:1985 at 50% peak pressure.  
 The Sound Power Level Spectra are in dB re-1pW.

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## Sound Data

**Three Phase** 380V to 415V / 50Hz

Product Code	Speed r/min		Sound Power Level dBW @ Octave Band Hz								Total dB
			63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
<b>SB400-CYL4-3</b>	1400	Inlet	80	77	76	72	71	69	66	56	84
<b>SB500-CYL4-3</b>	1415	Inlet	80	79	78	77	79	76	73	66	86
<b>SB630-CYL4-3</b>	1410	Inlet	89	87	85	85	85	85	83	78	95

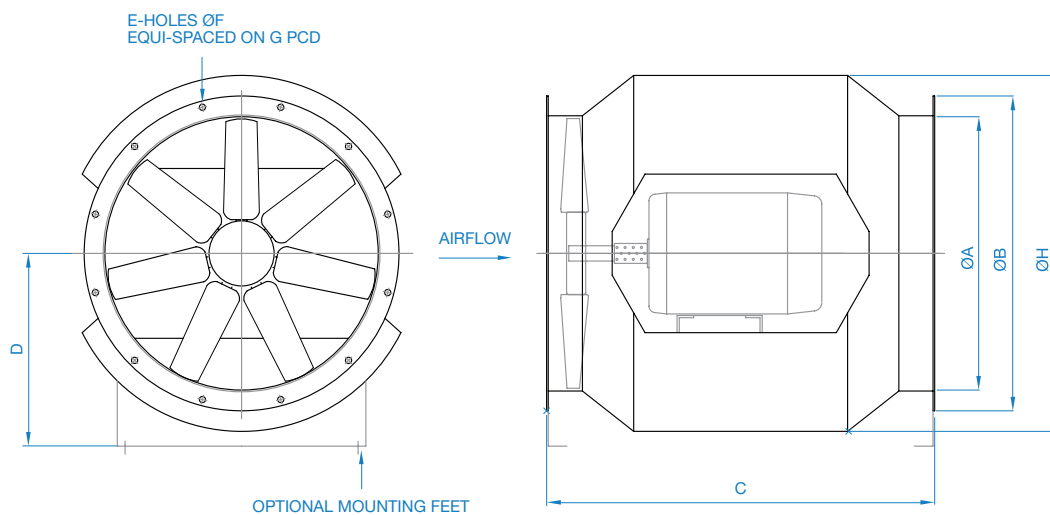
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Tests and preparation of the sound data have been carried out in accordance with BS 848 Part 2:1985 at 50% peak pressure.  
The Sound Power Level Spectra are in dB re-1pW.

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## Dimensional Data

### Single & Three Phase

Product Code	A	B	C	D	E	F	G	H	Weight kg
SB250-CON4-1	250	325	460	220	8	10	299	400	23
SB250-CON2-3	250	325	460	220	8	10	299	400	23
SB250-CON4-3	250	325	460	220	8	10	299	400	23
SB315-CON4-1	315	380	500	250	8	10	355	460	30
SB315-CON2-3	315	380	500	250	8	10	355	460	31
SB315-CON4-3	315	380	500	250	8	10	355	460	30
SB400-CON2-3	400	485	650	305	8	12	450	570	49
SB500-CON2-3	500	585	710	370	12	12	560	700	86



Dimensions are in mm.



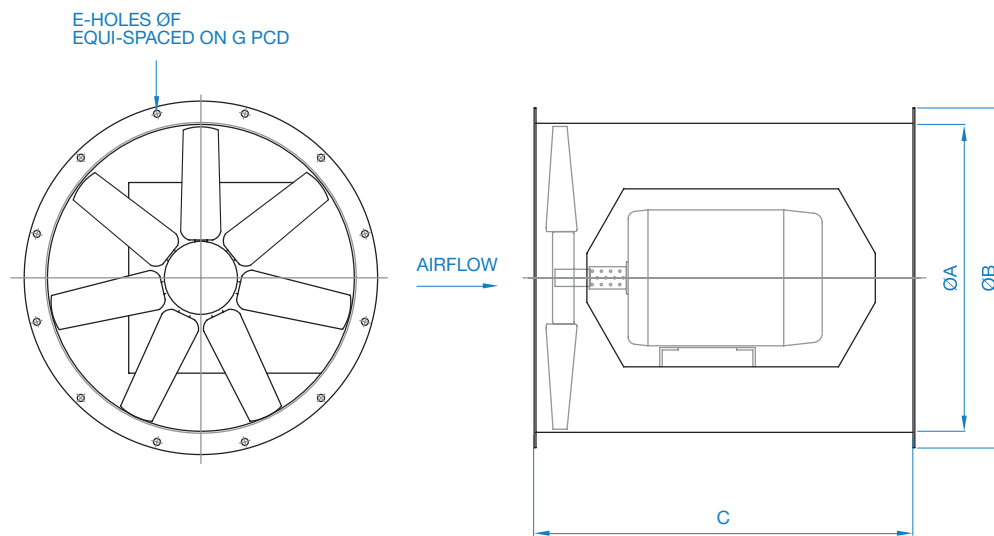
# BIFLOW SB



## Dimensional Data

### Three Phase

Product Code	A	B	C	E	F	G	Weight kg
SB400-CYL4-3	400	475	450	8	12	450	29
SB500-CYL4-3	500	585	450	12	12	560	47
SB630-CYL4-3	630	715	570	12	12	690	78



Dimensions are in mm.

Elta Limited has a policy of continuous product development and improvement and therefore reserves the right to supply products which may differ from those illustrated and described in this publication. Confirmation of dimensions and data will be supplied on request.

## Accessories

### Single Phase

Product Code	Ancillary Pack*	AV Mounts (set of 4)**	Bell Mouth Inlet	Flanged Damper	Flanged Silencer 1D Podded	Flanged Silencer 1D Unpodded
<a href="#">SB250-CON4-1</a>	APK250SBCON/002	062-002	241B-0250	019-0250-STD	068-0250-1DEP	068-0250-1DENP
<a href="#">SB315-CON4-1</a>	APK315SBCON/003	062-003	241B-0315	019-0315-STD	068-0315-1DEP	068-0315-1DENP

Product Code	Flanged Silencer 2D Podded	Flanged Silencer 2D Unpodded	High Temperature Flexible Connectors (each)	Impeller Side Guard	Matching Flanges (each)	Mounting Feet (each)	Wiring Diagrams
<a href="#">SB250-CON4-1</a>	068-0250-2DEP	068-0250-2DENP	063-0250-PU250	078C-0250-C	061B-0250-B	060B-0250-B	152-521
<a href="#">SB315-CON4-1</a>	068-0315-2DEP	068-0315-2DENP	063-0315-PU250	078C-0315-C	061B-0315	060B-0315-B	152-521

### Three Phase

Product Code	Ancillary Pack*	AV Mounts (set of 4)**	Bell Mouth Inlet	Flanged Damper	Flanged Silencer 1D Podded	Flanged Silencer 1D Unpodded
<a href="#">SB250-CON2-3</a>	APK250SBCON/002	062-002	241B-0250	019-0250-STD	068-0250-1DEP	068-0250-1DENP
<a href="#">SB250-CON4-3</a>	APK250SBCON/002	062-002	241B-0250	019-0250-STD	068-0250-1DEP	068-0250-1DENP
<a href="#">SB315-CON2-3</a>	APK315SBCON/003	062-003	241B-0315	019-0315-STD	068-0315-1DEP	068-0315-1DENP
<a href="#">SB315-CON4-3</a>	APK315SBCON/003	062-003	241B-0315	019-0315-STD	068-0315-1DEP	068-0315-1DENP
<a href="#">SB400-CON2-3</a>	APK400SBCON/003	062-003	241B-0400-BELL	019-0400-STD	068-0400-1DEP	068-0400-1DENP
<a href="#">SB500-CON2-3</a>	APK500SBCON/004	062-004	241B-0500-BELL	019-0500-STD	068-0500-1DEP	068-0500-1DENP

Product Code	Flanged Silencer 2D Podded	Flanged Silencer 2D Unpodded	High Temperature Flexible Connectors (each)	Impeller Side Guard	Matching Flanges (each)	Mounting Feet (each)	Wiring Diagram
<a href="#">SB250-CON2-3</a>	068-0250-2DEP	068-0250-2DENP	063-0250-PU250	078C-0250-C	061B-0250-B	060B-0250-B	152-600
<a href="#">SB250-CON4-3</a>	068-0250-2DEP	068-0250-2DENP	063-0250-PU250	078C-0250-C	061B-0250-B	060B-0250-B	152-600
<a href="#">SB315-CON2-3</a>	068-0315-2DEP	068-0315-2DENP	063-0315-PU250	078C-0315-C	061B-0315	060B-0315-B	152-600
<a href="#">SB315-CON4-3</a>	068-0315-2DEP	068-0315-2DENP	063-0315-PU250	078C-0315-C	061B-0315	060B-0315-B	152-600
<a href="#">SB400-CON2-3</a>	068-0400-2DEP	068-0400-2DENP	063-0400-PU250	078C-0400-C	061B-0400	060B-0400-B	152-600
<a href="#">SB500-CON2-3</a>	068-0500-2DEP	068-0500-2DENP	063-0500-PU250	078C-0500-C	061B-0500	060B-0500-B	152-601

\* Consists of Flexible Connections, Matching Flanges, AV Mounts and Mounting Feet.

\*\* Supplied as a single mount.

## Accessories

### Three Phase

Product Code	Ancillary Pack*	AV Mounts (set of 4)**	Bell Mouth Inlet	Flanged Damper	Flanged Silencer 1D Podded	Flanged Silencer 1D Unpodded
<b>SB400-CYL4-3</b>	APK400SBCYL/002	062-002	241B-0400-BELL	019-0400-STD	068-0400-1DEP	068-0400-1DENP
<b>SB500-CYL4-3</b>	APK500SBCYL/003	062-003	241B-0500-BELL	019-0500-STD	068-0500-1DEP	068-0500-1DENP
<b>SB630-CYL4-3</b>	APK630SBCYL/003	062-003	241B-0630-BELL	019-0630-STD	068-0630-1DEP	068-0630-1DENP

Product Code	Flanged Silencer 2D Podded	Flanged Silencer 2D Unpodded	High Temperature Flexible Connectors (each)	Impeller Side Guard	Matching Flanges (each)	Mounting Feet (each)	Wiring Diagram
<b>SB400-CYL4-3</b>	068-0400-2DEP	068-0400-2DENP	063-0400-PU250	078C-0400-C	061B-0400	060B-0400	152-600
<b>SB500-CYL4-3</b>	068-0500-2DEP	068-0500-2DENP	063-0500-PU250	078C-0500-C	061B-0500	060B-0500	152-600
<b>SB630-CYL4-3</b>	068-0630-2DEP	068-0630-2DENP	063-0630-PU250	078C-0630-C	061B-0630	060B-0630	152-600

\* Consists of Flexible Connections, Matching Flanges, AV Mounts and Mounting Feet.

\*\* Supplied as a single mount.

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