

SINGLEFLOW

SSDD/SSBD



Direct & Belt Drive
Single In-Line Fans

Singleflow SSDD & SSBD

Features & Benefits



The Singleflow SSDD and SSBD is a range of direct and belt driven in-line centrifugal fans for duct mounting, with rectangular spigot connections all manufactured in galvanized sheet steel with a natural finish.

These compact, reliable units are designed to overcome space restrictions in buildings such as ceiling voids, as well as providing the option of acoustic lining where lower breakout noise levels are required.

- SSDD & SSBD Air volume flow rates of 1.41 m³/s and 2.7 m³/s respectively.
- SSDD & SSBD Static pressures of between 400 Pa and 600 Pa respectively.
- SSDD has 7 standard sizes.
- SSBD has 4 standard sizes.
- Robust galvanised sheet steel casing.
- Supplied with or without acoustic lining.
- Double inlet, double width, forward curved centrifugal fan.
- Single speed motor.
- External rotor, squirrel cage induction motor.
- Suitable for operating temperatures of up to 40°C (SSDD) and 50°C (SSBD).
- In built vibration isolation.
- Lower noise levels.

Features & Benefits

Material Strength - A robust, lightweight unit with a galvanised sheet steel casing which is suitably braced to provide rigidity.

Reliability – Motors have sealed for life bearings.

Low noise - Single fans have the option of being acoustically lined with Class O acoustic foam so that breakout noise levels are significantly lowered.

Low profile - Casings have a low profile design which allows ease of fitting in roof spaces.

Design appeal – Anti-vibration mounts are fitted between the motor mounting arms and the fan casing which ensures smooth running.

Quality impellers – Either direct or belt driven double inlet, double width forward curved centrifugal impellers, housed in a purpose designed scroll with integral deep drawn inlet rings to maximize efficiency and a smooth airflow.

Easy access - There is access to the fan via the lid which means easier servicing.

Ease of installation – All models are designed for direct connection to standard ductwork with 50 mm long rectangular spigots for ease of connection.

Motor protection – All SSDD units have integral thermal overload protection which prevents the motor from overheating.

Flexibility – SSBD Belt driven options provide the flexibility to change duties via belt and pulley changes to match the system requirements, easily adjustable on site.

Ease of wiring – The motors are pre-wired to a terminal box on the outside of the casing.

Mounting - Mounting brackets are supplied fixed to the sides of the SSDD casing for ease of installation (Optional for SSBD).

Space saving - The impeller axis runs horizontally across the unit which minimises the overall height of the unit and enables it to be fitted into roof voids.

Tested to the very latest standards – SSDD & SSBD units are tested to ISO 5801:1997 (airside performance) and to BS 848 Pt 2:1985 (sound performance) at Elta Fans own test facility, meaning accurate, up to date information on performance and noise data that can be relied upon.

Quality assurance – All units are designed and manufactured with procedures as defined in BS EN ISO 9001: 2000.

Warranty – Each SSDD & SSBD has a 12 month warranty.

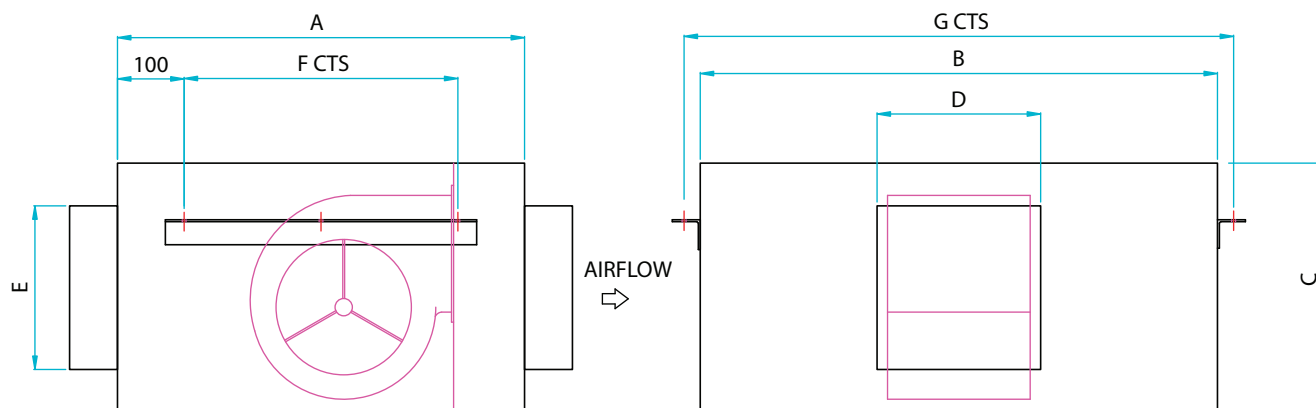
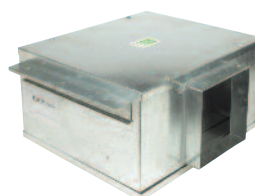
Full accessory range - SSDD accessories include speed controllers, anti-vibration mounts, isolators and flexible connectors. SSBD accessories include inverters, mounting brackets, flexible connectors and isolators.

Typical Applications

Industrial buildings, banks, hospitals, offices, hotels and shopping malls.

Singleflow SSDD

Dimensional Data



Product Code	A	B	C	D	E	F	G	Weight kg
SSDD1/L*	400	375	210	125	125	200	425	10
SSDD2/L*	425	500	260	150	150	225	550	16
SSDD3/L*	425	500	260	200	200	225	550	22
SSDD4/L*	475	550	300	250	250	275	600	28
SSDD5/L*	575	700	440	315	315	375	750	33
SSDD6/L*	700	800	460	400	400	500	850	36
SSDD7/L*	850	900	570	500	500	650	950	52

* Suffix 'L' applicable to acoustically lined units.

Singleflow SSDD

Performance & Electrical Data



Direct Drive SINGLE Phase - 220V-240V / 50Hz

Product Code	Speed r/min	Airflow m ³ /s @ Static Pressure Pa.											Motor Electrical Data			Speed Control		Sound Level dBA @ 3m	Breakout dBA @ 3m
		0	25	50	75	100	150	200	250	300	350	400	FLC Amps	SC Amps	Input kW	Electr- onic	Trans- former		
SSDD1/L	2250	0.056	0.053	0.050	0.047	0.043	0.036	0.028	0.019				0.37	1.41	0.085	EL31	TC12	32/31	27/26
SSDD2/L	1330	0.179	0.158	0.133	0.107	0.070							0.43	1.38	0.098	EL31	TC12	38/37	31/30
SSDD3/L	1220	0.280	0.257	0.232	0.209	0.184	0.133	0.082	0.028				1.20	4.80	0.250	EL31	TC12	45/43	36/34
SSDD4/L	1415	0.465	0.436	0.404	0.372	0.340	0.272	0.190	0.104	0.030			2.70	9.60	0.500	EL61	TC14	50/48	44/42
SSDD5/L	1250	0.800	0.778	0.760	0.734	0.716	0.660	0.604	0.534	0.430	0.279	0.100	4.40	12.60	0.960	EL61	TC18	50/48	43/41
SSDD6/L	1310	0.960	0.945	0.915	0.898	0.875	0.825	0.770	0.682	0.565	0.302	0.150	5.20	18.90	1.100	EL61	TC18	54/52	46/44
SSDD7/L	820	1.410	1.370	1.320	1.280	1.220	1.100	0.965	0.785	0.430	0.150		7.00	20.70	1.400	EL101	TC110	55/53	47/45

Sound levels are average spherical free field values at 50% peak pressure for comparative purposes only.

Motors wound for 220-240V/1Ph/60Hz supply are available upon request - Contact Elta Fans for these requirements.

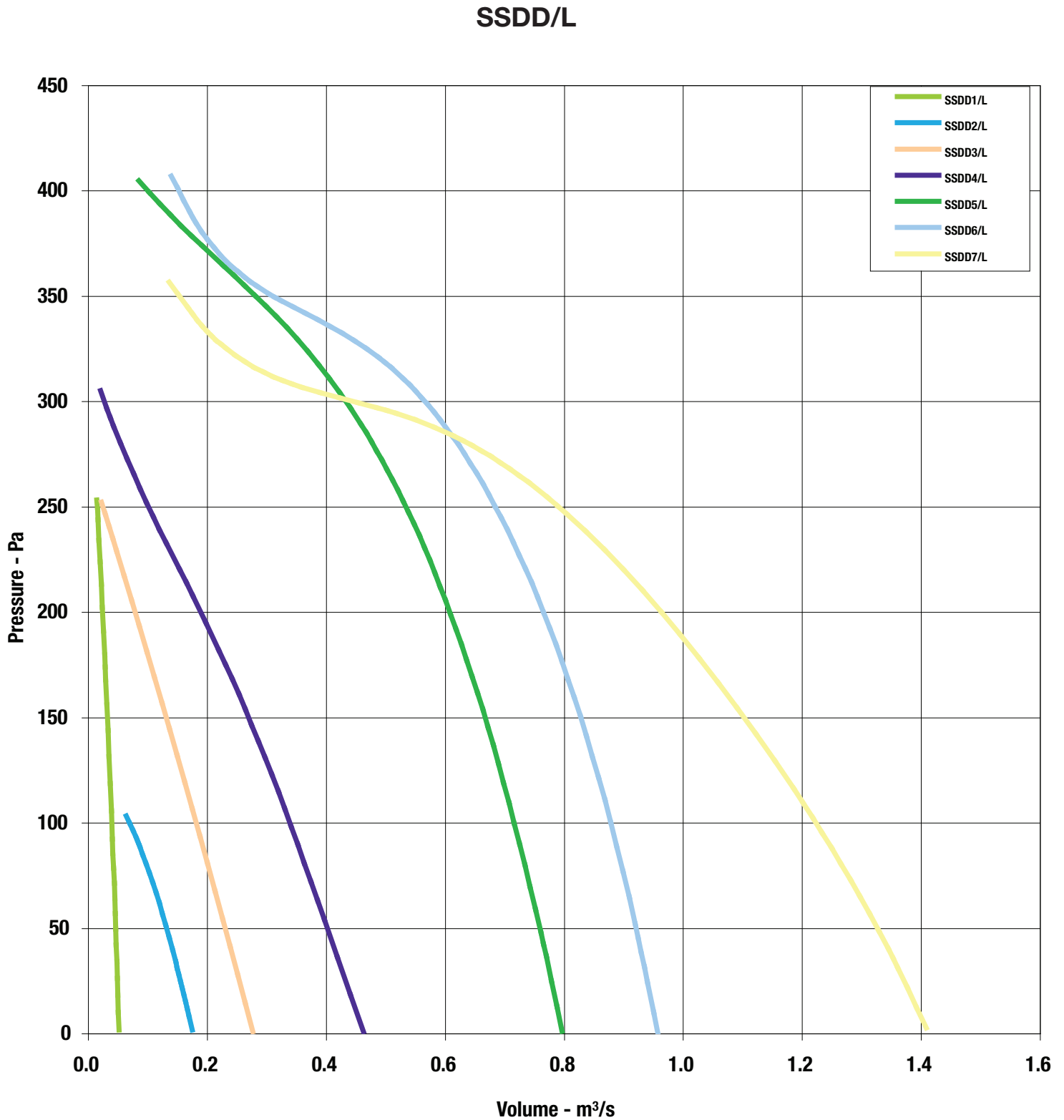
Silencer Data

Product Code	dBA Attenuation			ΔP (Pa)		
	600L	900L	1250L	600L	900L	1250L
SSDD1/L	-7	-9	-11	10	11	12
SSDD2/L	-7	-9	-11	18	20	22
SSDD3/L	-6	-8	-9	26	28	30
SSDD4/L	-6	-8	-10	12	13	14
SSDD5/L	-7	-9	-12	21	23	25
SSDD6/L	-7	-9	-11	20	22	24
SSDD7/L	-8	-11	-14	16	17	18

Singleflow SSDD - Direct Drive



Performance Curves

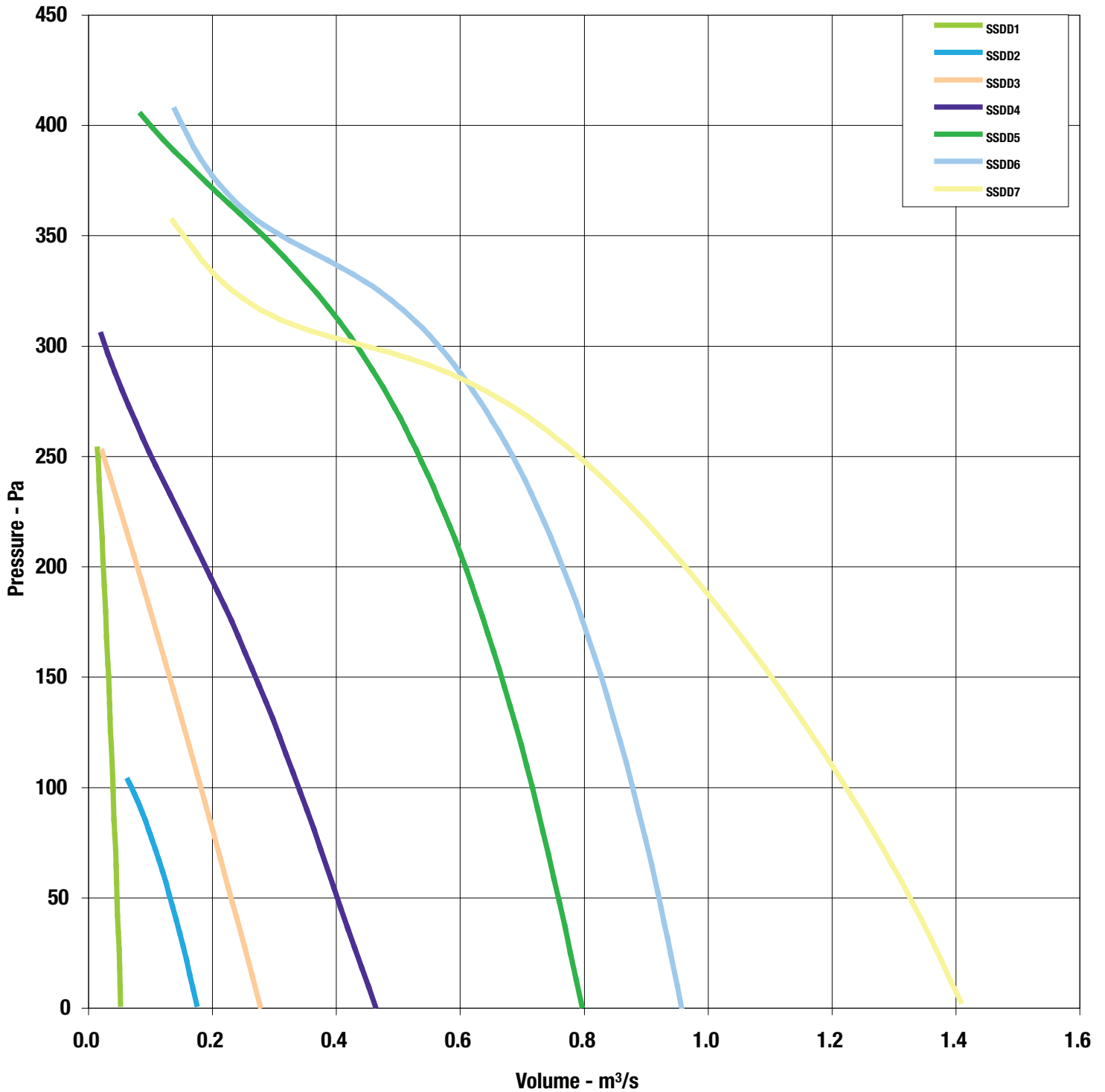


Singleflow SSDD - Direct Drive

Performance Curves



SSDD



Singleflow SSDD - Direct Drive

Sound Data

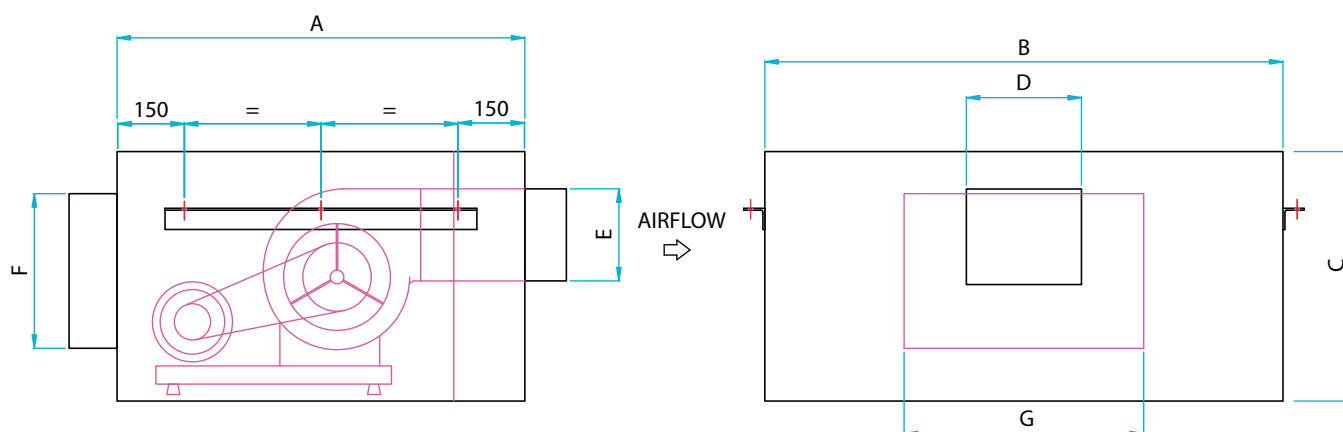


SSDD - SINGLE Phase

Product Code	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	dBA @ 3m
SSDD1	57	61	54	48	47	42	39	34	32
SSDD2	66	64	60	56	52	50	46	42	38
SSDD3	73	73	64	62	60	57	54	49	45
SSDD4	82	77	71	63	65	62	62	53	50
SSDD5	82	77	67	65	65	64	61	53	50
SSDD6	85	80	75	67	68	70	64	55	54
SSDD7	81	80	74	67	71	71	64	56	55
SSDD1-L	57	61	54	48	45	38	36	31	31
SSDD2-L	66	64	60	56	49	47	43	39	37
SSDD3-L	73	73	64	60	57	53	51	46	43
SSDD4-L	82	77	71	62	62	58	59	50	48
SSDD5-L	82	77	67	64	62	60	58	50	48
SSDD6-L	85	80	75	66	65	66	61	52	52
SSDD7-L	81	80	74	67	68	67	61	53	53

Singleflow SSBD

Dimensional Data



Product Code	A	B	C	D	E	F	G	Weight kg
SSBD1/L	800	600	450	235	225	350	500	75
SSBD2/L	1000	800	550	300	265	450	650	90
SSBD3/L	1200	950	650	315	345	550	700	115
SSBD4/L	1200	1100	750	375	405	650	900	150

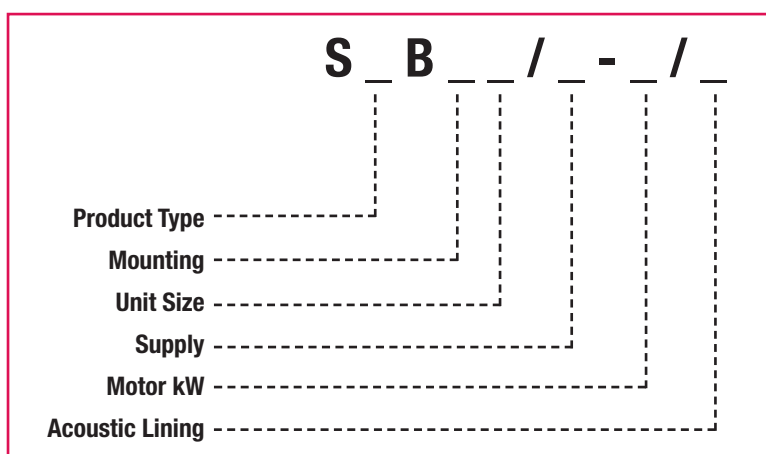
N.B. Units illustrated with optional mounting brackets.

Singleflow SSBD

Performance & Electrical Data



Belt Drive Product Selector



Example

Duty: 0.5m³/s @ 200Pa

Unit Type: Single Flow

Unit Size: 1

Mounting: Duct

Supply: 3 phase

Acoustic Lining: No

From Graph SSBD1

Motor = 0.55kW

r/min = 1500r/min

Product Code

SSBD1/3-C

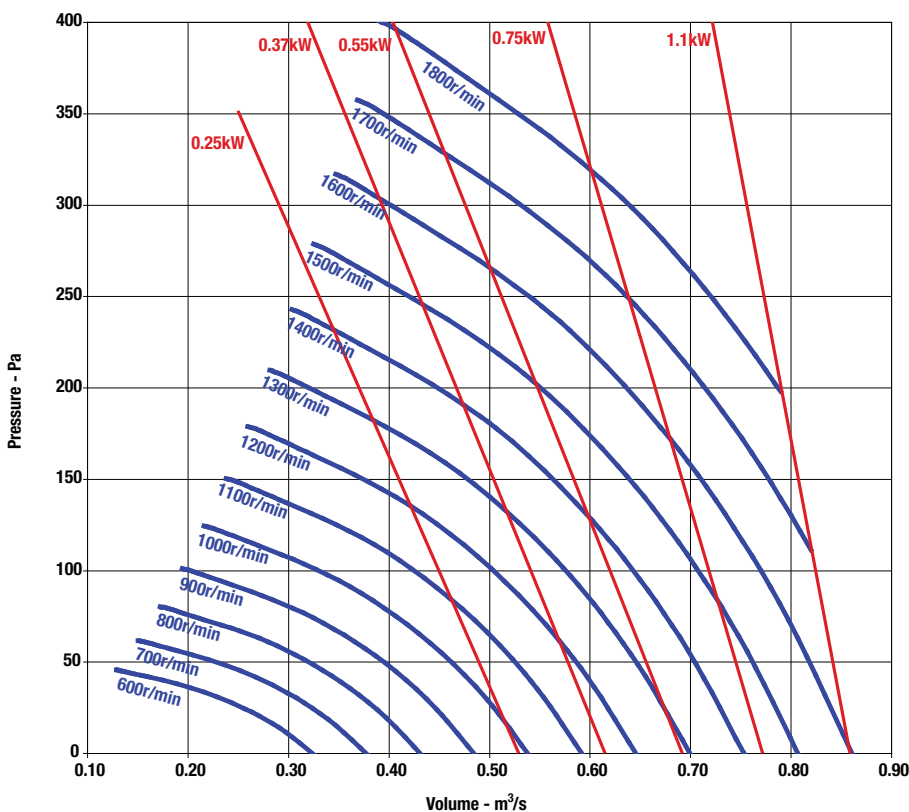
Product Type	Mounting	Unit Size	Acoustic Lining
S – Singleflow T – Twinflow	D – Duct R – Roof	1, 2, 3, 4, 5, 6	No code – Unlined L – Lined
Supply	Motor kW		
1 – Single Phase (Maximum 1.1kW) (Sizes 1-4 only) 3 – Three Phase	A – 0.25 B – 0.37 C – 0.55 D – 0.75 E – 1.1 F – 1.5 G – 2.2 H – 3.0 J – 4.0 K – 5.5 L – 7.5		

Singleflow SSBD

Performance & Electrical Data



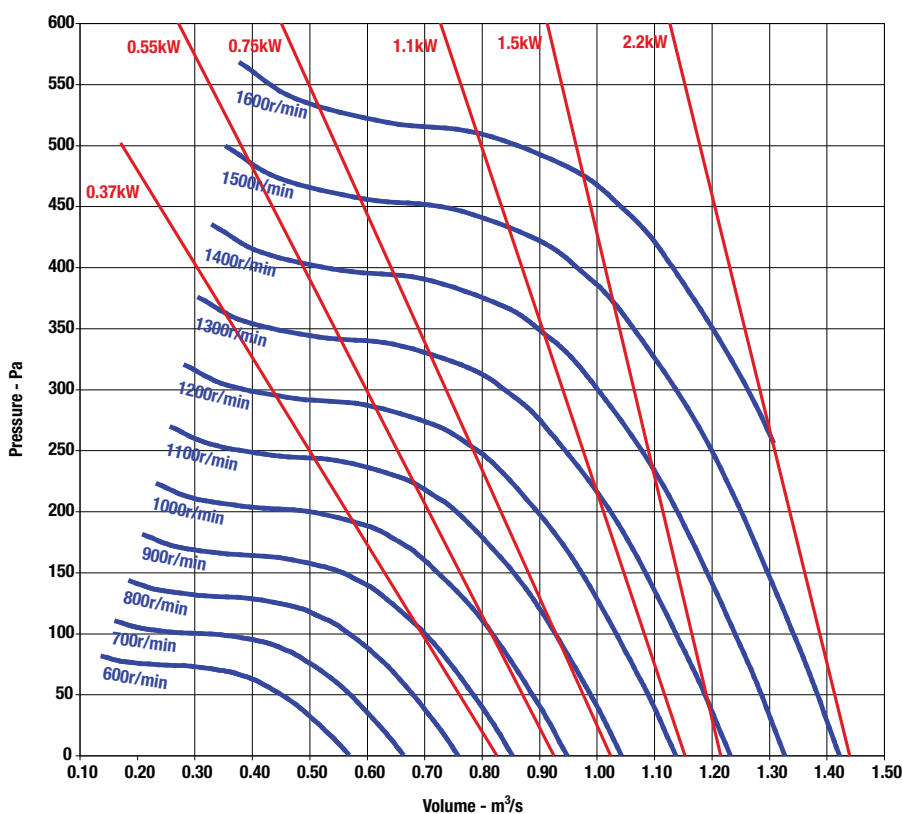
Belt Drive SSBD1 SSBD1/L



Speed r/min	dBA @3m
600	39
700	42
800	46
900	49
1000	50
1100	53
1200	55
1300	57
1400	58
1500	60
1600	61
1700	63
1800	64

Sound levels are average spherical free field values at 50% peak pressure for comparative purposes only.

SSBD2 SSBD2/L



Speed r/min	dBA @3m
600	39
700	44
800	47
900	50
1000	53
1100	56
1200	57
1300	59
1400	61
1500	62
1600	63

Sound levels are average spherical free field values at 50% peak pressure for comparative purposes only.

CENTRIFUGAL

Singleflow SSBD

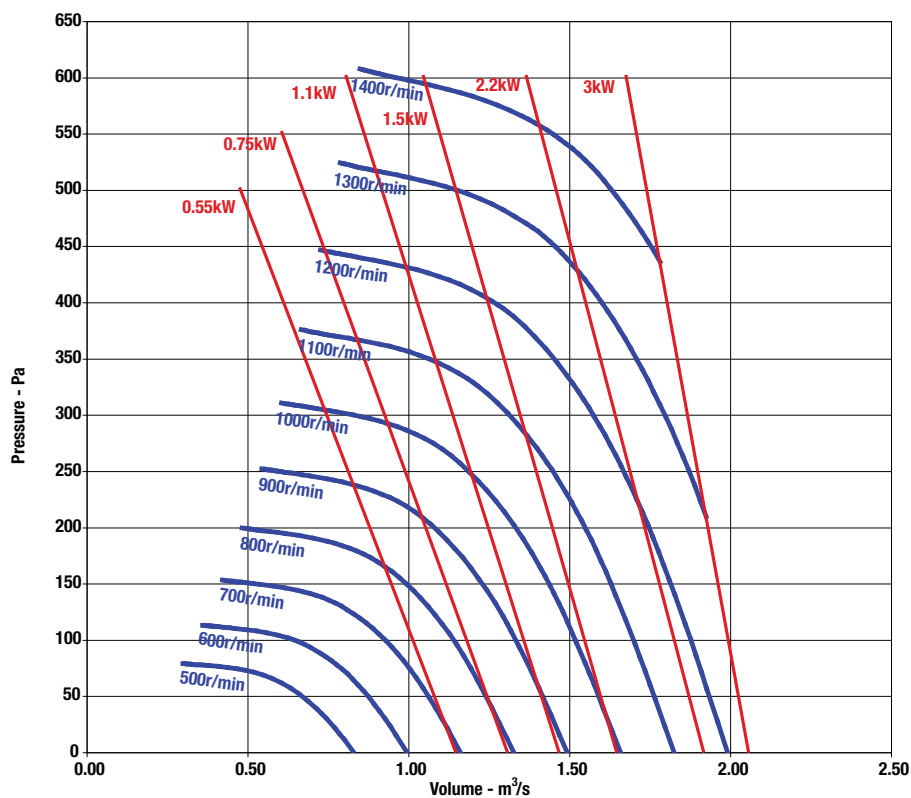
Performance & Electrical Data



SSBD3 SSBD3/L

Speed r/min	dBA @3m
500	41
600	43
700	49
800	50
900	55
1000	57
1100	59
1200	61
1300	63
1400	64

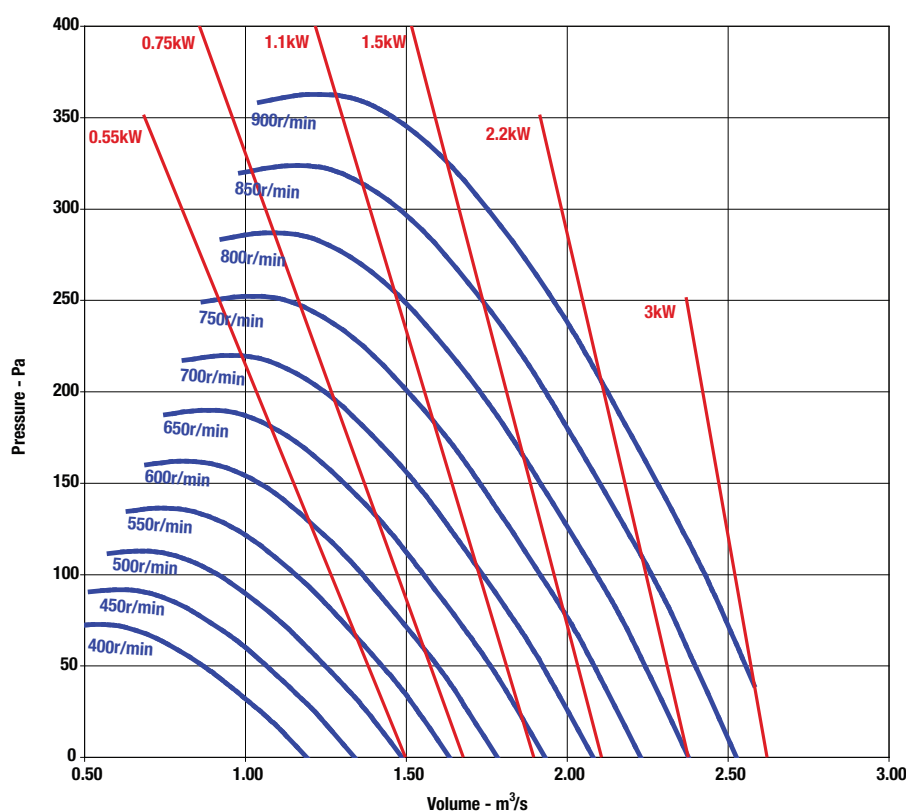
Sound levels are average spherical free field values at 50% peak pressure for comparative purposes only.



SSBD4 SSBD4/L

Speed r/min	dBA @3m
400	41
450	44
500	46
550	49
600	50
650	52
700	53
750	55
800	57
850	58
900	60

Sound levels are average spherical free field values at 50% peak pressure for comparative purposes only.



Singleflow SSBD

Performance & Electrical Data



Electrical Data

230V / 1Ph / 50Hz

Product Code	4 pole Motor Size kW				
	0.25	0.37	0.55	0.75	1.1
FLC (A)	2.2	3	4.4	5.5	7.6
Start (A)	13.64	18	24.2	30.25	53.2

400V / 3Ph / 50Hz

Product Code	6 pole Motor Size kW									
	0.25	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5
FLC (A)	0.96	1.11	1.61	1.95	2.9	4.3	5.36	7	8.95	12.3
Start (A)	4.99	5.77	8.53	10.14	15.37	22.36	30.55	42.7	57.28	86.1

400V / 3Ph / 50Hz

Product Code	4 pole Motor Size kW										
	0.25	0.37	0.55	0.75	1.1	1.5	2.2	3	4	5.5	7.5
FLC (A)	0.78	1.06	1.42	1.77	2.71	3.26	4.74	6.2	8.15	10.6	14.2
Start (A)	4.29	4.66	9.94	11.51	20.33	24.45	35.55	46.5	61.13	84.8	113.6

Singleflow SSBD - Belt Drive

Sound Data



SSBD - SINGLE & THREE Phase

Product Code	Speed	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	dBA @ 3m
SSBD1	600	31	44	52	57	55	53	48	40	39
SSBD1	700	32	47	55	59	58	57	53	44	42
SSBD1	800	34	50	58	62	62	60	58	47	46
SSBD1	900	36	51	60	64	65	63	60	51	49
SSBD1	1000	36	51	61	66	67	64	61	52	50
SSBD1	1100	38	52	63	68	70	67	64	56	53
SSBD1	1200	39	53	63	69	72	68	66	59	55
SSBD1	1300	41	54	66	72	74	71	68	62	57
SSBD1	1400	41	55	66	73	75	72	69	64	58
SSBD1	1500	43	56	68	75	76	74	71	66	60
SSBD1	1600	43	57	69	76	77	75	72	68	61
SSBD1	1700	45	58	70	77	79	77	74	70	63
SSBD1	1800	46	59	70	79	80	79	76	71	64

Product Code	Speed	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	dBA @ 3m
SSBD2	600	33	47	54	58	55	53	46	38	39
SSBD2	700	36	50	58	62	59	57	52	42	44
SSBD2	800	37	52	62	65	63	60	56	45	47
SSBD2	900	39	54	64	67	66	63	60	49	50
SSBD2	1000	41	56	66	70	70	66	63	52	53
SSBD2	1100	43	57	68	72	73	69	65	56	56
SSBD2	1200	42	56	67	73	74	69	66	57	57
SSBD2	1300	44	57	69	75	76	71	68	60	59
SSBD2	1400	45	59	70	77	78	73	70	63	61
SSBD2	1500	45	59	70	78	79	74	70	64	62
SSBD2	1600	46	59	71	79	80	76	72	66	63

Acoustic data: tests and preparation of data have been carried out in accordance with BS848 Part 2(1985). The In-duct Sound Power Level Spectra are in dB re 1pW. The overall A-Scale sound pressure level is at a distance of three metres with spherical propagation. In duct sound power level spectra and overall A-Scale spherical free field sound pressure level at 3m for mid-point of the operating curve. It is expressed in dB re 20uPa and is presented for comparative purposes only as in practice the semi-reverberant nature of any installation and directivity effects can give a different level.

Singleflow SSBD - Belt Drive

Sound Data



SSBD - SINGLE & THREE Phase

Product Code	Speed	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	dBA @ 3m
SSBD3	500	46	54	58	59	57	55	49	40	41
SSBD3	600	50	57	60	64	54	53	50	45	43
SSBD3	700	49	60	63	68	65	60	55	48	49
SSBD3	800	51	62	66	70	66	54	60	50	50
SSBD3	900	54	66	70	72	71	68	64	54	55
SSBD3	1000	55	67	72	74	73	70	66	60	57
SSBD3	1100	56	68	73	76	75	71	68	60	59
SSBD3	1200	57	70	76	78	78	73	70	62	61
SSBD3	1300	58	70	77	79	80	75	71	64	63
SSBD3	1400	58	71	78	80	81	76	72	65	64

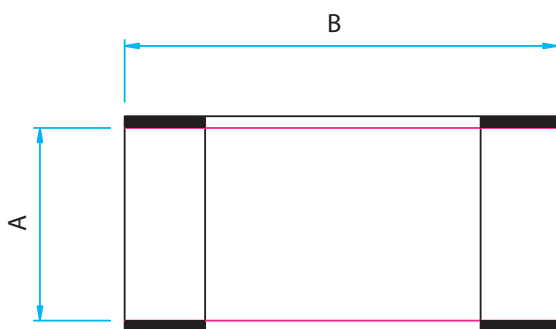
Product Code	Speed	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	dBA @ 3m
SSBD4	400	32	42	52	55	57	57	52	47	41
SSBD4	450	32	44	53	58	59	59	55	49	44
SSBD4	500	34	46	55	61	61	61	58	52	46
SSBD4	550	35	48	56	63	63	64	61	54	49
SSBD4	600	35	49	57	65	64	65	62	56	50
SSBD4	650	36	51	58	67	66	67	64	58	52
SSBD4	700	36	52	58	68	67	68	66	59	53
SSBD4	750	38	54	61	70	70	70	68	62	55
SSBD4	800	39	55	62	71	71	72	70	63	57
SSBD4	850	40	56	64	72	73	73	71	65	58
SSBD4	900	41	56	65	73	75	74	73	67	60

Acoustic data: tests and preparation of data have been carried out in accordance with BS848 Part 2(1985). The In-duct Sound Power Level Spectra are in dB re 1pW. The overall A-Scale sound pressure level is at a distance of three metres with spherical propagation. In duct sound power level spectra and overall A-Scale spherical free field sound pressure level at 3m for mid-point of the operating curve. It is expressed in dB re 20uPa and is presented for comparative purposes only as in practice the semi-reverberant nature of any installation and directivity effects can give a different level.

Singleflow SSDD & SSBD Accessories



Flexible Connectors



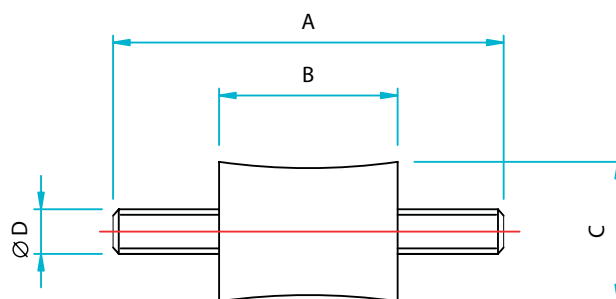
- Fix directly onto spigot
- Provides flexible connection between fan and accessory or duct
- PVC coated polyester with galvanised sheet steel

Product Code	A	B	Weight kg
063-SDD01-FLEX	125 x 125	150	0.2
063-SDD02-FLEX	150 x 150	150	0.2
063-SDD03-FLEX	200 x 200	150	0.3
063-SDD04-FLEX	250 x 250	150	0.4
063-SDD05-FLEX	315 x 315	150	0.5
063-SDD06-FLEX	400 x 400	150	0.7
063-SDD07-FLEX	500 x 500	150	1.0
063-SBD01-IFLEX	500 x 350	150	1.0
063-SBD02-IFLEX	650 x 450	150	1.0
063-SBD03-IFLEX	700 x 550	150	1.3
063-SDD04-IFLEX	900 x 650	150	1.5
063-SBD01-OFLEX	235 x 235	150	0.4
063-SBD02-OFLEX	300 x 265	150	0.5
063-SBD03-OFLEX	315 x 345	150	0.6
063-SBD04-OFLEX	375 x 405	150	0.7

'IFLEX' refers to inlet connection.

'OFLEX' refers to outlet connection.

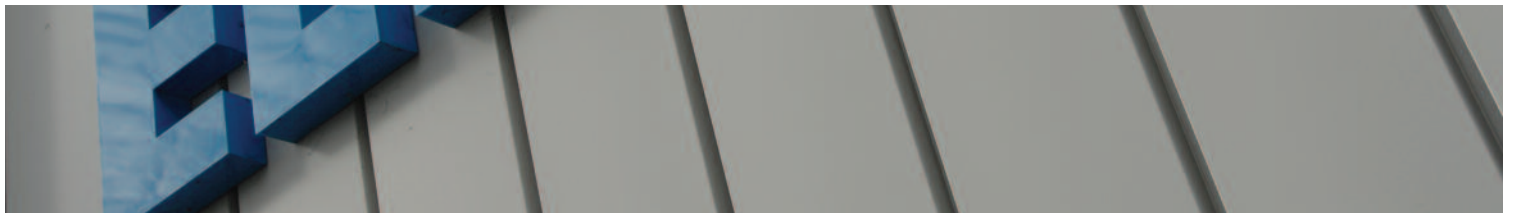
Anti-Vibration Mounts



- Fit directly to fan
- Rubber with steel insert
- Supplied as set of 4, complete with fixings

Product Code	A	B	C	D	Weight kg (Per Set)
062-SEL01	45	19	13	M5	0.044
062-SEL02	40	15	15	M5	0.052
062-SEL03	70	32	25	M8	0.210
062-SEL04	60	20	25	M8	0.186
062-SEL05	60	20	25	M8	0.187

For use with SSDD models only.
SSBD models have internal A.V. mounts.



Elta Fans Ltd - Applied Technology

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