

SPECIFICATION

General

The Powerduct square-cased in-line centrifugal fan SPD shall be from the Select range of Elta Fans Ltd.

The all metal casing shall be manufactured using pre-galvanised sheet steel suitably stiffened. Casings shall incorporate Ductmate flange connections at each end. A pre-wired terminal box is fitted on the outside of the casing for ease of wiring.

Impeller Assemblies

Aerodynamically designed backward curved centrifugal impellers constructed in aluminum or galvanised sheet steel. Motor and impeller are dynamically balanced to quality class G6.3.

Motors

Motors shall be of external rotor motor design, with sealed for life ball bearings allowing the unit to be mounted at any angle. Motors shall be IP44 protected and Class 'F' insulation.

All units are suitable for operating temperatures of up to +40°C.

All motors are pre-wired to an external weatherproof IP55 terminal enclosure.

Quality Management

Units are to be designed and manufactured with procedures as defined in BS EN ISO 9001:2000. EEC directives shall be met.

All SPD units are to be tested to ISO 5801:1997 (airside performance) and BS 848 pt 2:1985 (sound performance).

Size	A	B	C	D	E	F	Ductmate Flange size	Weight kg.
SPD400	400	450	300	9	425	265	25	18
SPD450	450	500	400	9	475	290	25	22
SPD500	500	550	400	9	525	315	25	28
SPD550	550	620	500	11	585	340	35	34
SPD650	650	720	500	11	685	390	35	50
SPD700	700	770	500	11	735	415	35	52

ACCESSORIES

- ◆ Speed Controllers
- ◆ Mounting Brackets
- ◆ Anti-Vibration Mounts
- ◆ Flexible Connectors
- ◆ Silencers

SINGLE PHASE - FIXED OR VARIABLE SPEED 220V-240V / 1PH / 50HZ

Product Code	Speed rpm	Airflow m³/sec @ Static Pressure Pa.										Motor Electrical Data		A.V. Mounts	Speed Controllers		Sound Level dBA @ 3m	Silencer Data		
		0	50	100	150	200	250	300	400	500	600	FL Amps	Output kW		Electronic	Transformer		dBA Attenuation	ΔP (Pa)	
SPD400/6-2	900	0.27	0.21	0.10									0.54	0.07	S1G	EL13	TC12	42	-22	1
SPD400/4-2	1380	0.42	0.38	0.33	0.28	0.21							0.66	0.15	S1G	EL13	TC12	50	-21	3
SPD450/6-2	900	0.43	0.35	0.24									0.32	0.07	S1G	EL13	TC12	45	-21	2
SPD450/4-2	1380	0.75	0.71	0.67	0.62	0.56	0.49	0.39					1.08	0.24	S1G	EL13	TC12	53	-17	6
SPD500/6-2	900	0.72	0.65	0.56	0.43	0.18	0.30						0.88	0.20	S1G	EL13	TC12	47	-18	2
SPD500/4-2	1380	1.10	1.05	1.00	0.94	0.88	0.80	0.72	0.49				2.20	0.52	S1G	EL13	TC14	56	-18	7
SPD550/6-2	900	1.05	0.96	0.86	0.74	0.58	0.30	0.49					1.85	0.36	S2B	EL13	TC12	49	-15	4
SPD550/4-2	1380	1.60	1.51	1.45	1.38	1.32	1.25	1.18	1.00	0.74			3.60	0.76	S2B	EL16	TC18	59	-15	10
SPD650/6-2	900	1.45	1.37	1.27	1.12	0.95	0.77	0.49					2.50	0.53	S2B	EL13	TC14	52	-15	4
SPD650/4-2	1380	2.20	2.15	2.08	2.01	1.93	1.84	1.74	1.53	1.30	1.02		5.70	1.35	S2B	EL16	TC18	63	-14	10
SPD700/6-2	900	2.10	1.96	1.81	1.65	1.49	1.31	1.10					4.10	0.84	S2B	EL16	TC18	54	-16	7

THREE PHASE - FIXED OR VARIABLE SPEED 380V-415V / 3PH / 50HZ

Product Code	Speed rpm	Airflow m³/sec @ Static Pressure Pa.											Motor Electrical Data		A.V. Mounts	Speed Controllers		Sound Level dBA @ 3m	Silencer Data	
		0	50	100	150	200	250	300	400	500	600	800	FL Amps	Output kW		Inverter 3Ph-3Ph	Transformer		dBA Attenuation	ΔP (Pa)
SPD400/6-3	900	0.27	0.21	0.10									0.15	0.09	S1G	28E/75	TC33	42	-22	1
SPD400/4-3	1380	0.42	0.38	0.33	0.28	0.21							0.37	0.18	S1G	28E/75	TC33	50	-21	3
SPD450/6-3	900	0.43	0.35	0.24									0.39	0.24	S1G	28E/75	TC33	45	-21	2
SPD450/4-3	1380	0.75	0.71	0.67	0.62	0.56	0.49	0.39					0.72	0.32	S1G	28E/75	TC33	53	-17	6
SPD500/6-3	900	0.72	0.65	0.56	0.43	0.18	0.30						0.73	0.23	S1G	28E/75	TC33	47	-18	2
SPD500/4-3	1380	1.10	1.05	1.00	0.94	0.88	0.80	0.72	0.49				0.90	0.50	S1G	28E/75	TC33	56	-18	7
SPD550/6-3	900	1.05	0.96	0.86	0.74	0.58	0.30	0.49					0.90	0.44	S2B	28E/75	TC33	49	-15	4
SPD550/4-3	1380	1.60	1.51	1.45	1.38	1.32	1.25	1.18	1.00	0.74			1.47	0.77	S2B	28E/150	TC33	59	-15	10
SPD650/6-3	900	1.45	1.37	1.27	1.12	0.95	0.77	0.49					1.20	0.65	S2B	28E/75	TC33	52	-15	4
SPD650/4-3	1380	2.20	2.15	2.08	2.01	1.93	1.84	1.74	1.53	1.30	1.02		2.60	1.3	S2B	28E/150	TC35	63	-14	10
SPD700/6-3	900	2.10	1.96	1.81	1.65	1.49	1.31	1.10					1.60	1.0	S2B	28E/150	TC33	54	-16	7
SPD700/4-3	1380	3.07	3.03	2.97	2.90	2.81	2.71	2.60	2.36	2.14	1.91	0.85	3.60	1.5	S2B	28E/150	TC35	68	-15	14

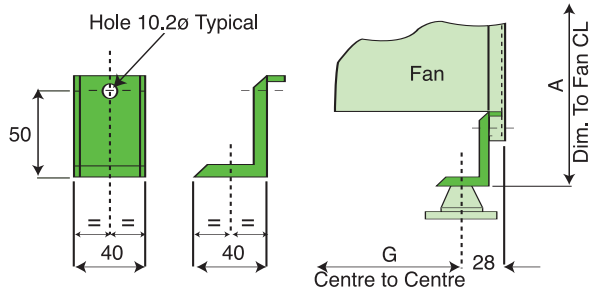
Sound levels are average spherical free field values (for comparative use only). Value at 50% peak pressure.

Inverters are fully enclosed in an IP55 enclosure c/w with control knob and RFI filters.

34 Performance & Electrical Data

Products detailed within this data sheet represent the stocked range of Elta Square-Cased In-Line Centrifugal fans. Many more options, selections and sizes are available on a made to order basis.

MOUNTING BRACKETS



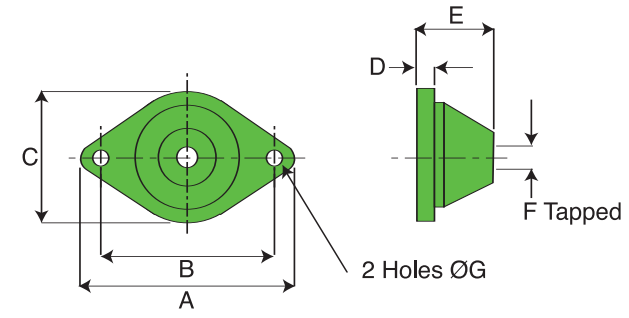
Fan Size	A	G
400	263	424
450	288	414
500	313	444
550	343	494
650	393	544
700	418	594

For free standing support or for use with anti-vibration mounts. Mount directly to flange. Supplied in sets of 4, less fixings

Material & finish
Folded galvanised sheet.

Note: For product codes please refer to price list

ANTI-VIBRATION MOUNTS

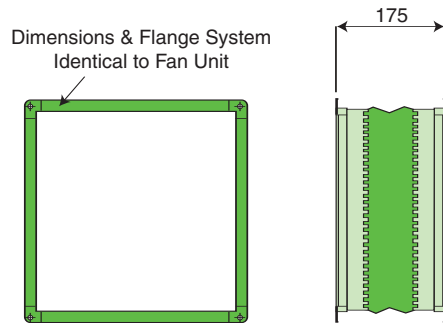


Fan Dia	Type	A	B	C	D	E	F	G
400	S1G	64	50	43	5.5	20	M6	7
450	S1G							
500	S1G							
550	S2B	80	57	45	5.0	32	M8	12_9
650	S2B							
700	S2B							

Fits directly to mounting feet to help minimise noise and vibration. Supplied in sets of 4, complete with fixings to feet.

Material & finish
Rubber with steel insert.

FLEXIBLE CONNECTORS



Fan Size	Wt. kg.
400	2.6
450	2.9
500	3.2
550	4.6
650	5.4
700	5.8

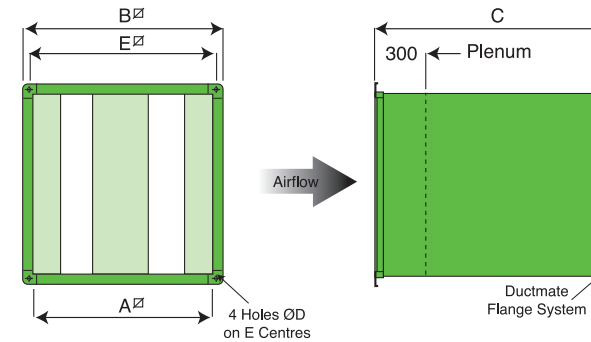
The assembly provides flexible interconnection with any matched ducting. Supplied as an assembly less fixings.

Material & finish

Dark grey, elastomer coated, fibreglass material.
Galvanised sheet steel flanges.

Note: For product codes please refer to price list

SILENCERS



Type	A	B	C	D	E	Ductmate Flange Size	Wt. kg.
400	400	450	1200	9	425	25	31.0
450	450	500	1200	9	475	25	38.0
500	500	550	1200	9	525	25	42.0
550	550	620	1200	11	585	35	49.0
650	650	720	1500	11	685	35	74.0
700	700	770	1500	11	735	35	81.0

Baffle type silencers have been developed for use with SMB fan units to give good attenuation whilst minimising the resultant airside pressure loss.

Material & finish

Galvanised sheet steel casing and perforated steel baffles. Mineral wool in-fill to all baffles.