

MULTIFlow
SMC



Circular Cased
Mixed Flow Fans

Multiflow SMC – Cylindrical Features & Benefits



Multiflow SMC is a range of circular cased mixed flow fans with a unique adjustable pitch mixed flow impeller, ideally suited for installation within ductwork and suitable for extract or supply for a broad range of industrial, commercial and residential applications.

- **Unique adjustable pitch mixed flow impeller.**
- **9 standard case sizes from 315mm to 1000mm.**
- **Air volume flow rates of up to 8.00 m³/sec.**
- **Static pressures of up to 600 Pa.**
- **Wide operating range.**
- **Greater pressure capability than axial fans.**
- **Greater airflow capability than centrifugal fans.**
- **Non overloading power curve.**
- **Non-stall characteristic.**
- **Suitable for operating temperatures of up to 50° C.**
- **Motors are foot mounted totally enclosed metric type.**
- **Sealed for life ball bearings to operate at any angle.**
- **Motors are weatherproofed to IP55 with Class 'F' insulation to EN 600345.**

Features & Benefits

Aerodynamic appeal – The inherent aerodynamic benefits of good mixed flow impeller design provide marked advantages over axial and centrifugal air performance characteristics.

Distinctive – The unique design of Multiflow SMC fans enables the required performance to be attained from a smaller fan size than is normally achievable with typical conical style, fixed blade mixed flow fans.

Material strength – Multiflow SMC mixed flow fans have a long lasting, robust casing design for added strength and durability. Casings are manufactured from heavy gauge steel, roll formed and welded, then hot dipped galvanised to BS 729 after fabrication. All the motor supports are hot dipped galvanised to BS 729 after manufacture.

Quality Impellers – Aluminium spinnings and pressings in a natural finish, together with steel hubs which are suitably zinc plated and dynamically balanced to Grade G6.3 for maximum efficiency.

Stock Availability – The stocked range of SMC fans are available on 'Next day' delivery.

Cost effective – Multiflow SMC offers a cost effective alternative against two stage axial fans by its higher pressure development characteristics.

Inspection access – All units are supplied with an inspection hole which means the correct rotation of the impeller can be checked for ease of commissioning and general maintenance checks.

Mounting - Units can be fitted in-line or end of ductwork, either horizontally or vertically, into existing ductwork, or with a greater selection of airflows when designing into new ductwork systems.

Better performance – Mixed flow “non-stall” airflow properties and a non-overloading absorbed power curve allow a wide range of operating performance to be achieved.

Fully speed controllable – Multiflow SMC single and three phase units can be adjusted on site for duty requirements.

Blade settings – Adjustable pitch mixed flow impellers have the blade angles factory set to meet the required duty.

Circular ducting - Casings incorporate metric flange connections to suit industry standard duct sizes which means they can be installed quicker and easier.

Ease of installation – All motors are pre-wired to an integral IP55 terminal box so they are ready for customer installation.

Tested to the very latest standards – SMC 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.

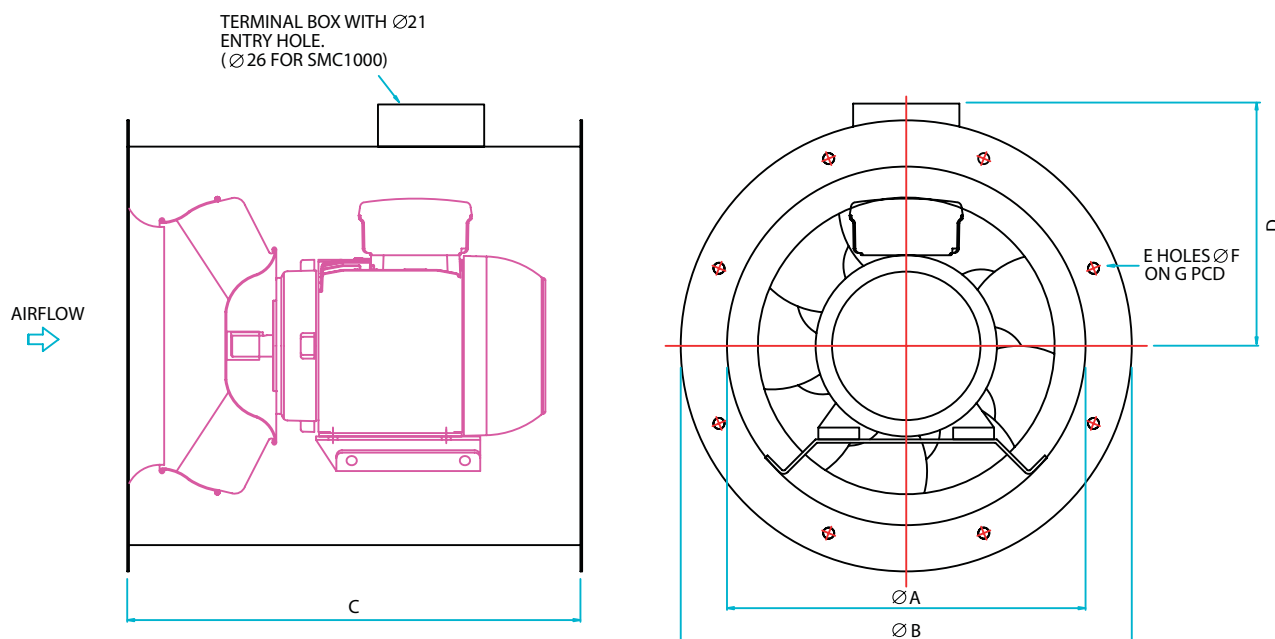
Warranty – Each Multiflow SMC has a 12 month warranty.

Full accessory range – Speed controllers, inverters, mounting feet, anti-vibration mounts, matching flanges, flexible connectors, silencers, bell mouth inlets, non return dampers and wire guards.

Applications

Where higher pressure developments are required such as in kitchen canopies, restaurants, lift motor rooms or general HVAC installations.

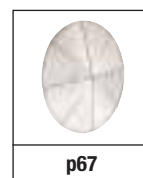
Multiflow SMC - Cylindrical Dimensional Data



MIXED FLOW

Product Code	A	B	C	D	E	F	G	Impeller Dia	Weight kg
SMC315	315	375	400	225	8	10	355	250	28
SMC400	400	425	460	265	8	12	450	315	35
SMC450	450	530	450	290	8	12	500	350	32
SMC500	500	585	500	315	12	12	560	400	37
SMC560	560	645	550	345	12	12	620	450	53
SMC630	630	715	600	380	12	12	690	500	61
SMC710	710	795	650	420	16	12	770	560	69
SMC800	800	885	710	465	16	12	860	630	97
SMC1000	1000	1110	790	565	16	15	1070	800	125

Accessories



Multiflow SMC - Cylindrical

Sound Data



SMC - SINGLE Phase

Product Code	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	dBA @ 3m
SMC315/2-5-2	79	74	76	72	71	70	68	60	56
SMC400/2-3-2	89	82	83	85	84	81	78	72	67
SMC315/4-5-2	63	61	61	59	56	54	51	44	41
SMC400/4-5-2	72	68	67	68	66	60	59	49	49
SMC450/4-5-2	76	74	71	69	68	65	62	54	52
SMC500/4-5-2	77	78	75	77	75	72	68	60	59
SMC560/4-5-2	80	79	80	80	77	66	72	63	61
SMC630/4-5-2	85	82	85	86	84	81	77	70	68

SMC - THREE Phase

Product Code	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	dBA @ 3m
SMC560/4-5-3	79	78	79	79	76	74	70	62	60
SMC630/4-4-3	85	82	85	86	84	81	76	70	68
SMC710/4-5-3	86	83	86	86	84	82	78	70	68
SMC560/6-5-3	77	78	76	75	73	71	57	47	57
SMC630/6-5-3	77	78	77	75	75	71	68	56	58
SMC710/6-5-3	79	80	80	77	74	69	66	56	58
SMC800/6-5-3	86	84	80	85	79	74	66	58	64
SMC1000/6-5-3	90	89	86	86	83	79	70	63	67
SMC800/8-5-3	80	80	77	77	74	71	65	54	58
SMC1000/8-5-3	82	84	83	80	76	73	66	58	61

Multiflow SMC - Cylindrical Performance & Electrical Data



SINGLE Phase - 220V-240V / 50Hz

Product Code	Speed r/min	Airflow m ³ /s @ Static Pressure Pa.										Motor Electrical Data			A.V. Mounts	Speed Control		dBA @ 3m
		0	50	100	150	200	250	300	400	500	600	FLC Amps	SC Amps	Output kW		Electr- onic	Trans- former	
SMC315/4-5-2	1300	0.32	0.24	0.08								1.09	2.30	0.12	S1G	EL31	TC12	41
SMC315/2-5-2	2750	0.68	0.65	0.63	0.58	0.54	0.46	0.38	0.20	0.12		2.55	7.00	0.37	S1G	EL31	TC14	56
SMC400/4-5-2	1300	0.76	0.67	0.54	0.25	0.09						1.51	3.69	0.18	S1G	EL31	TC12	49
SMC400/2-3-2	2750	1.28	1.24	1.20	1.17	1.11	1.07	1.03	0.93			6.15	22.7	1.0	S1G	-----	TC112	67
SMC450/4-5-2	1350	1.21	1.12	1.00	0.80	0.44	0.18					2.56	5.93	0.37	S1G	EL31	TC14	52
SMC500/4-5-2	1350	1.61	1.50	1.40	1.26	1.02	0.56	0.32				3.70	11.9	0.55	S1G	EL61	TC18	59
SMC560/4-5-2	1350	2.42	2.35	2.22	2.07	1.87	1.63	1.10	0.23			6.28	16.4	1.0	S2B	EL101	TC110	61
SMC630/4-5-2	1350	3.30	3.20	3.08	2.90	2.75	2.55	2.32	1.40	0.40		10.1	25.9	1.5	S2B	-----	TC112	68

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

THREE Phase - 380-415V / 50Hz

Product Code	Speed r/min	Airflow m ³ /s @ Static Pressure Pa.										Motor Electrical Data			A.V. Mounts	Speed Control Transformer	dBA @ 3m
		0	50	100	150	200	250	300	400	500	600	FLC Amps	SC Amps	Output kW			
SMC560/6-5-3	920	1.67	1.49	1.26	0.54							1.27	4.70	0.37	S2B	TC33	57
SMC560/4-5-3	1410	2.58	2.44	2.33	2.20	2.04	1.84	1.50	0.30			2.90	15.4	1.1	S2B	TC33	60
SMC630/6-5-3	920	2.28	2.10	1.87	1.58	0.74						1.77	6.60	0.55	S2B	TC33	58
SMC630/4-4-3	1420	3.15	3.08	2.95	2.83	2.69	2.53	2.36	1.90	0.82		3.70	20.4	1.5	S2B	-	68
SMC710/6-5-3	920	3.24	3.00	2.70	2.39	1.97	0.88					2.12	8.70	0.75	S2B	TC35	58
SMC710/4-5-3	1415	4.90	4.73	4.60	4.43	4.27	4.09	3.88	3.42	2.65		6.78	47.5	3.0	S2B	-	68
SMC800/8-5-3	700	3.40	3.15	2.80	2.20	1.11						2.33	10.7	0.75	S2B	-	58
SMC800/6-5-3	940	4.44	4.27	4.06	3.79	3.43	2.93	2.22	0.62			4.30	22.3	1.5	S2B	-	60
SMC1000/8-5-3	710	6.99	6.73	6.43	6.07	5.63	5.00	3.77				5.31	32.9	2.2	S2G	-	61
SMC1000/6-5-3	940	8.00	7.80	7.58	7.35	7.10	6.82	6.51	5.73	4.54	2.03	8.95	47.5	4.0	S2G	-	67

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

Silencer Data - SINGLE Phase

Product Code	dBA Attenuation		ΔP (Pa)	dBA Attenuation		ΔP (Pa)
	1DENP	1DEP		1DEP	2DEP	
SMC315/4-5-2	-9	-12	2	-15	-19	3
SMC315/2-5-2	-8	-13	8	-15	-19	13
SMC400/4-5-2	-8	-12	4	-15	-18	6
SMC400/2-3-2	-10	-14	19	-16	-21	29
SMC450/4-5-2	-9	-13	7	-15	-19	11
SMC500/4-5-2	-9	-14	9	-16	-21	14
SMC560/4-5-2	-9	-13	13	-16	-19	20
SMC630/4-5-2	-11	-16	16	-16	-25	24

Silencer Data - THREE Phase

Product Code	dBA Attenuation		ΔP (Pa)	dBA Attenuation		ΔP (Pa)
	1DENP	1DEP		1DEP	2DEP	
SMC560/6-5-3	-10	-13	7	-16	-19	11
SMC560/4-5-3	-9	-13	16	-16	-20	25
SMC630/6-5-3	-10	-15	8	-15	-23	13
SMC630/4-4-3	-11	-17	15	-16	-25	24
SMC710/6-5-3	-11	-14	10	-16	-22	15
SMC710/4-5-3	-10	-16	25	-15	-24	38
SMC800/8-5-3	-10	-14	7	-15	-22	11
SMC800/6-5-3	-12	-16	10	-17	-23	16
SMC1000/8-5-3	-10	-14	14	-14	-20	22
SMC1000/6-5-3	-10	-15	16	-15	-21	25

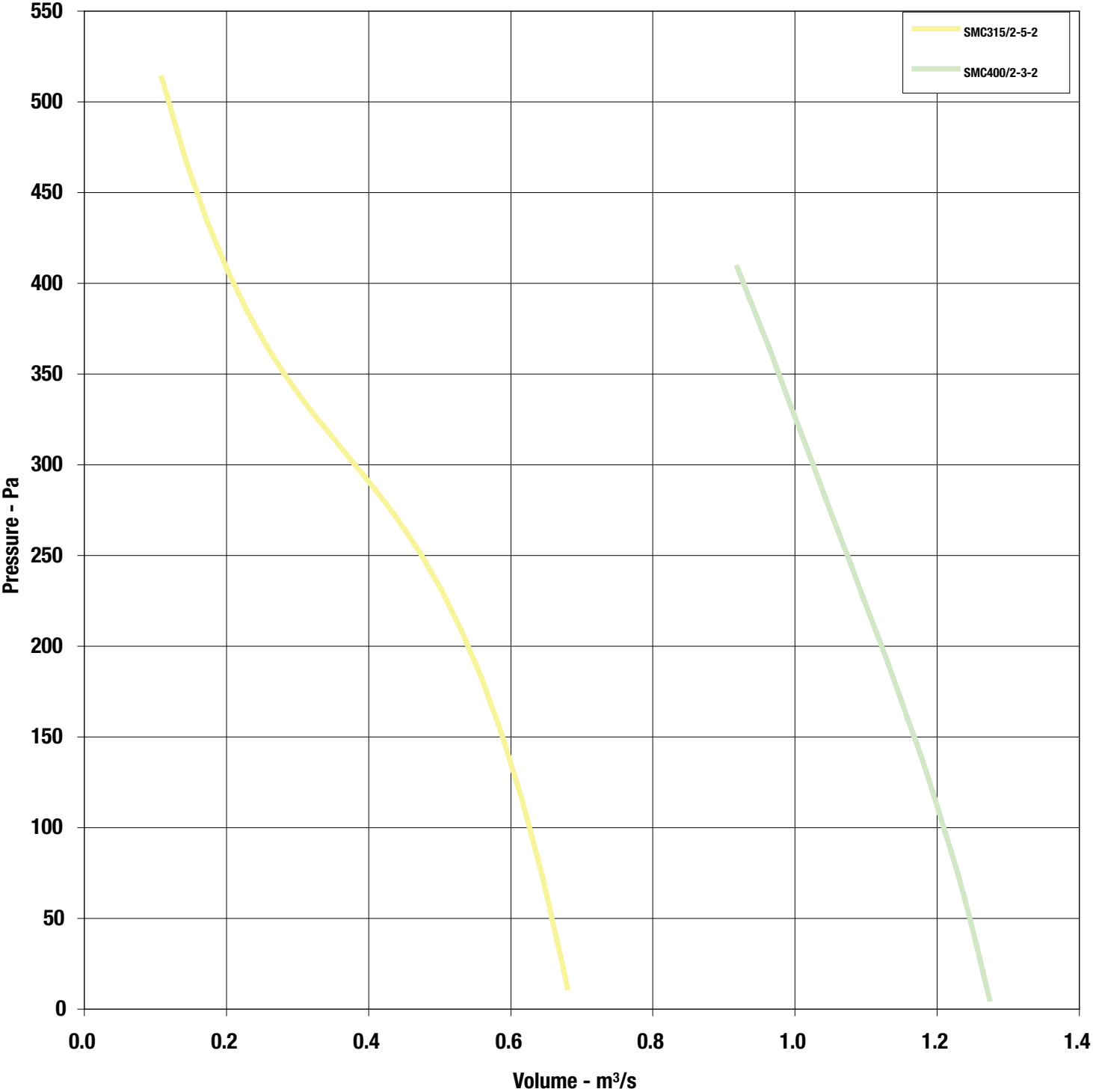
MIXED FLOW

Multiflow SMC - Cylindrical



Performance Curves

2 Pole 1Ph Range

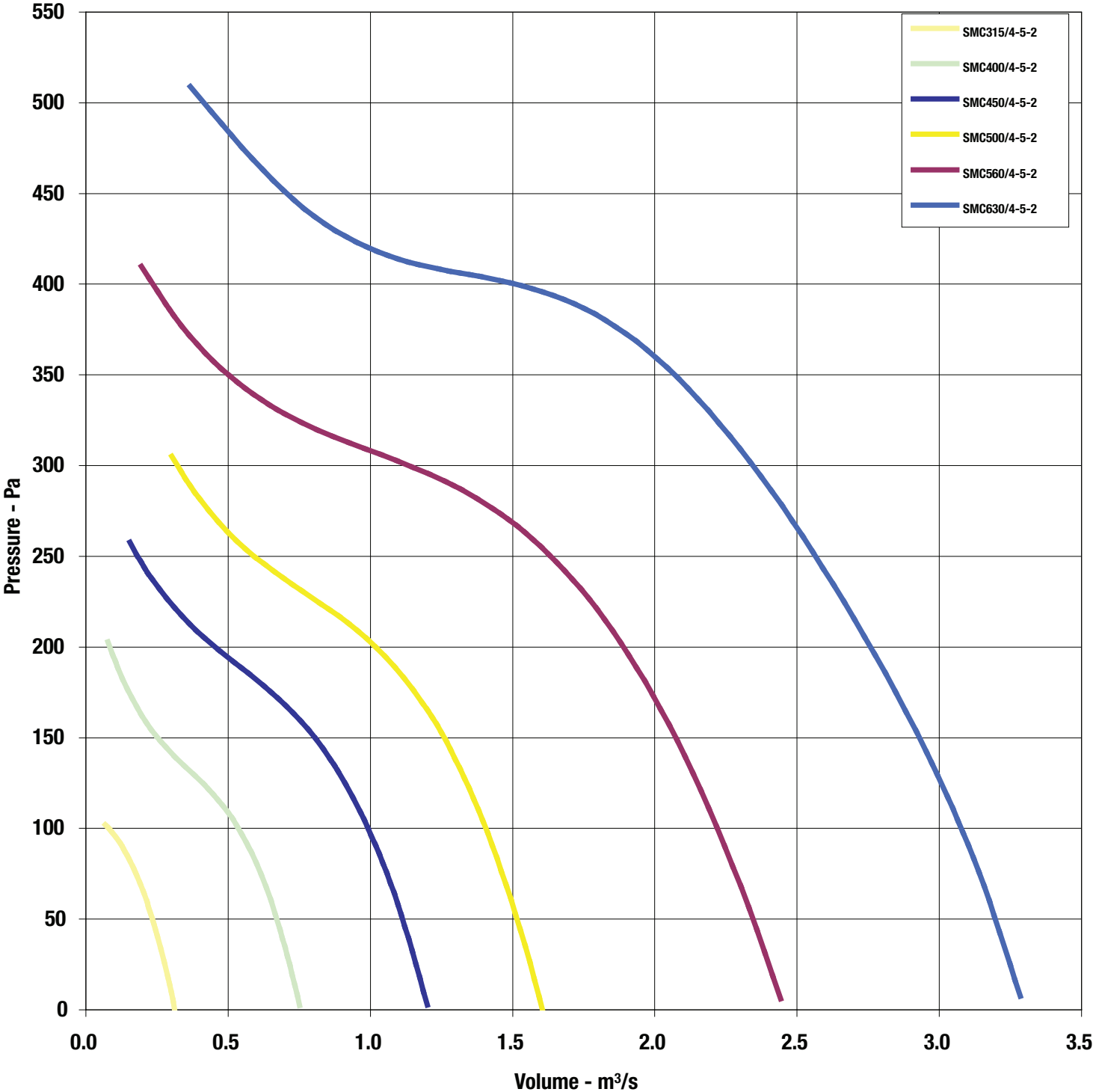


Multiflow SMC - Cylindrical

Performance Curves



4 Pole 1Ph Range

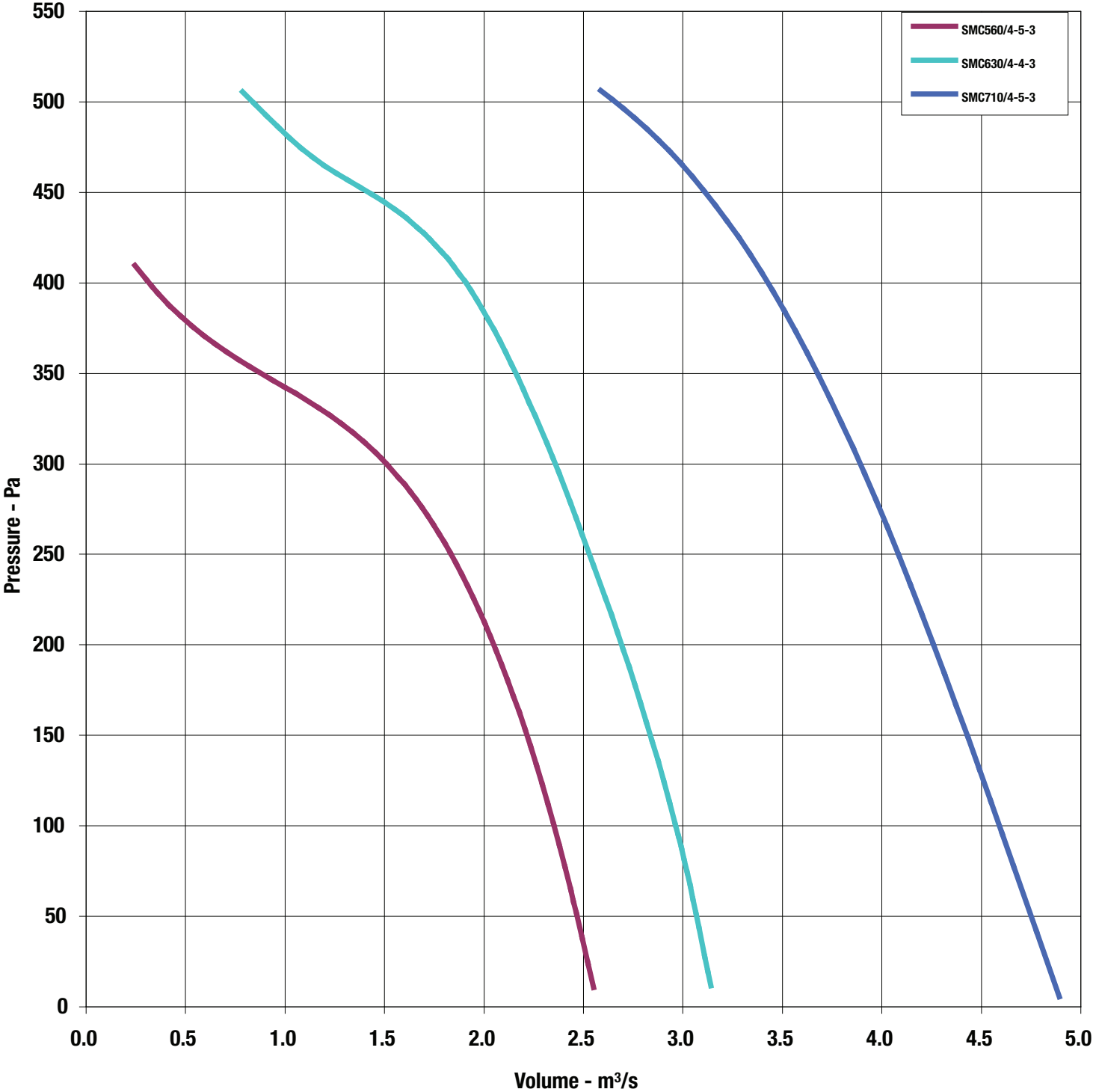


Multiflow SMC - Cylindrical

Performance Curves



4 Pole 3Ph Range

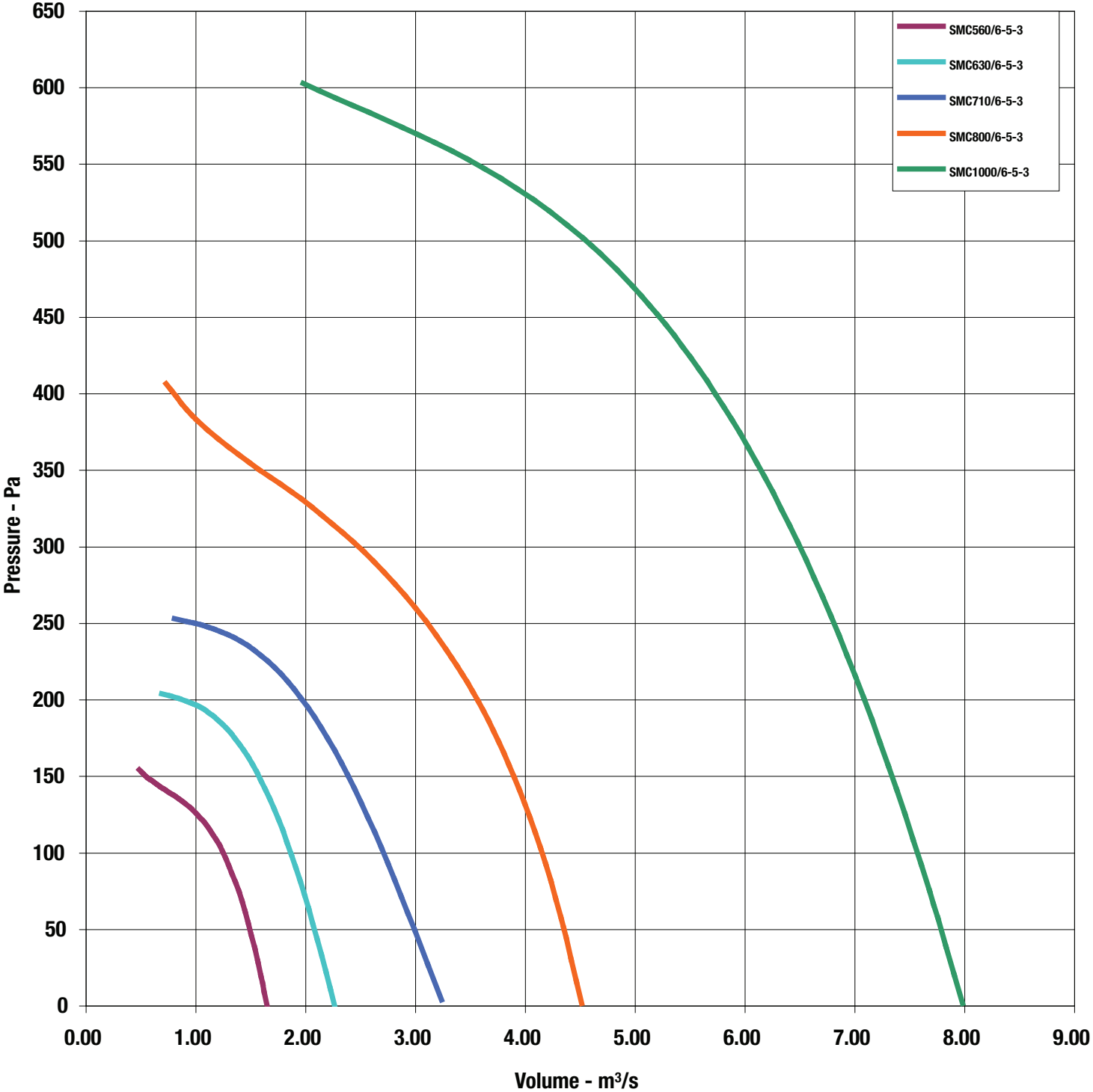


Multiflow SMC - Cylindrical

Performance Curves



6 Pole 3Ph Range

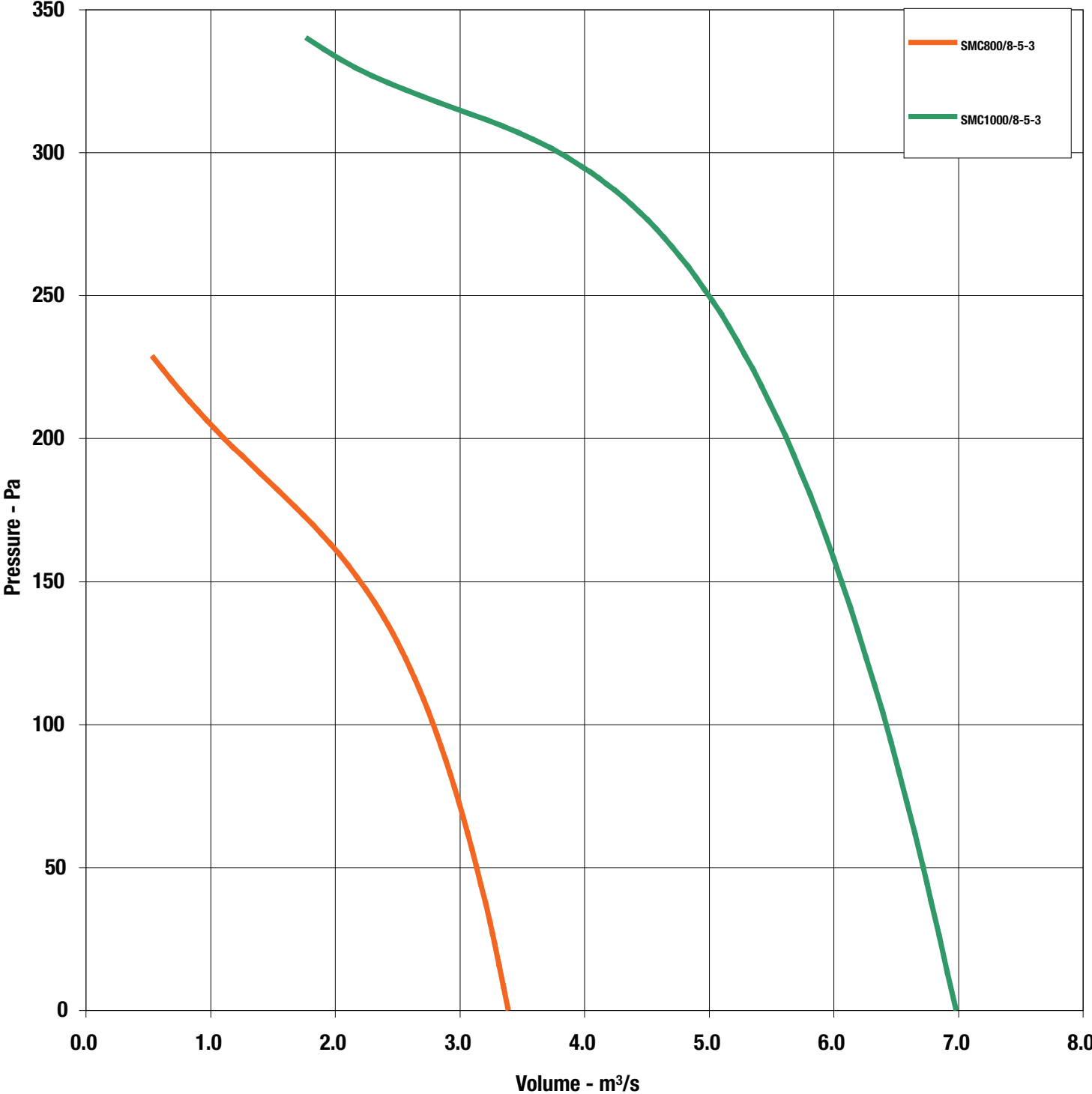


Multiflow SMC - Cylindrical

Performance Curves



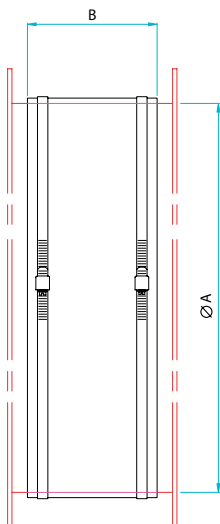
8 Pole 3Ph Range



Multiflow SMC – Cylindrical Accessories



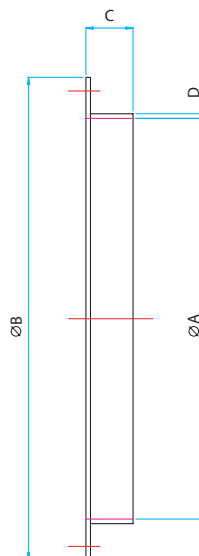
Flexible Connectors



- Fit to matching flanges to provide flexible connection
- PVC coated polyester
- Supplied with plated steel band fixings
- Alternative materials available to order

Product Code	Fan Dia. A	B	Weight kg
063-0315-MAN150	315	150	0.6
063-0400-MAN150	400	150	0.9
063-0450-MAN150	450	150	1.1
063-0500-MAN150	500	150	1.2
063-0560-MAN150	560	150	1.3
063-0630-MAN200	630	200	1.4
063-0710-MAN200	710	200	2.0
063-0800-MAN200	800	200	2.3
063-1000-MAN250	1000	250	3.0

Flanges

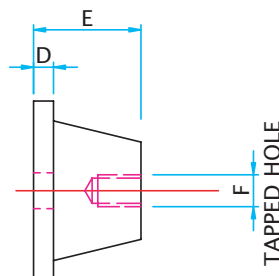
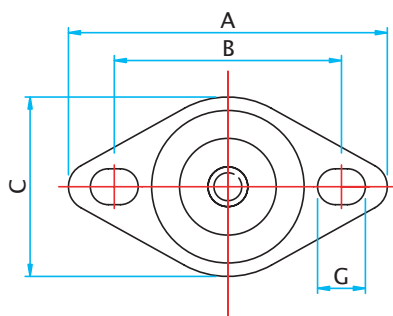


- Fit directly to fan case flange
- Provides easy connection to flexible connector or ducting
- Hot dipped galvanised steel

Product Code	Fan Dia. A	B	C	D	Weight kg
061B-0315	315	375	30	1.5	0.7
061B-0400	400	475	40	1.5	1.2
061B-0450	450	530	40	1.5	2.2
061B-0500	500	585	45	2.0	2.6
061B-0560	560	645	45	2.0	3.0
061B-0630	630	715	45	2.0	3.5
061B-0710	710	795	45	2.0	3.7
061B-0800	800	885	50	2.5	5.0
061B-1000	1000	1110	50	2.5	6.5

MIXED FLOW

Anti-Vibration Mounts



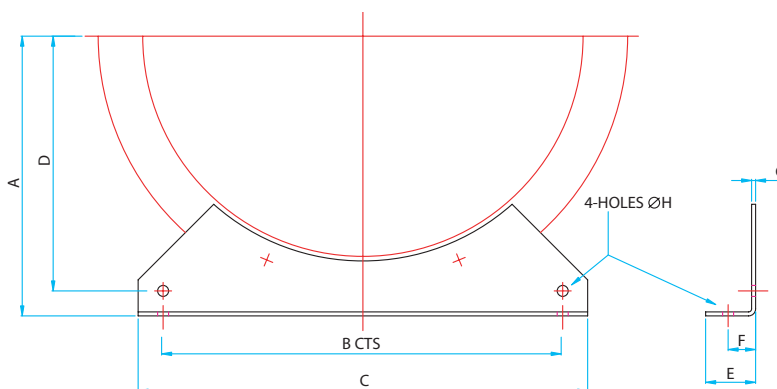
Product Code	A	B	C	D	E	F	G	Weight kg
062-S1G	64	50	43	5.5	20	M6	∅7	0.040
062-S2B	80	57	45	5	32	M8	12 x 9	0.100
062-S2G								0.102

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

Multiflow SMC - Cylindrical Accessories



Mounting Feet

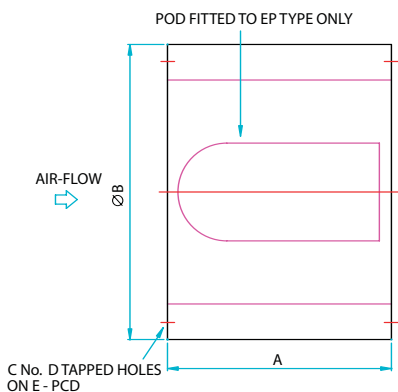


Product Code	Fan Dia.	A	B	C	D	E	F	G	H	Weight kg
060B-0315	315	200	265	315	180	40	23	3	9	1.0
060B-0400	400	250	350	400	230	50	27.5	4	9	1.5
060B-0450	450	280	400	450	255	50	27.5	4	11	2.0
060B-0500	500	315	450	500	290	50	27.5	4	11	2.5
060B-0560	560	355	510	560	330	60	32	5	11	4.0
060B-0630	630	400	580	630	375	60	32	5	11	5.0
060B-0710	710	450	660	710	425	60	32	5	11	5.5
060B-0800	800	500	750	800	475	60	32	5	11	6.0
060B-1000	1000	630	950	1000	595	70	36	6	13	12.0

- For free standing mounting of ducted fans
- Fixes directly to fan case flange
- Hot dipped galvanised steel

MIXED FLOW

Silencers



- For information on silencers and an explanation of the data, see p20
- Pre-galvanised sheet steel with perforated steel lining
- Infill of glass tissue faced high density mineral wool
- For saturated or other special applications please refer to Elta

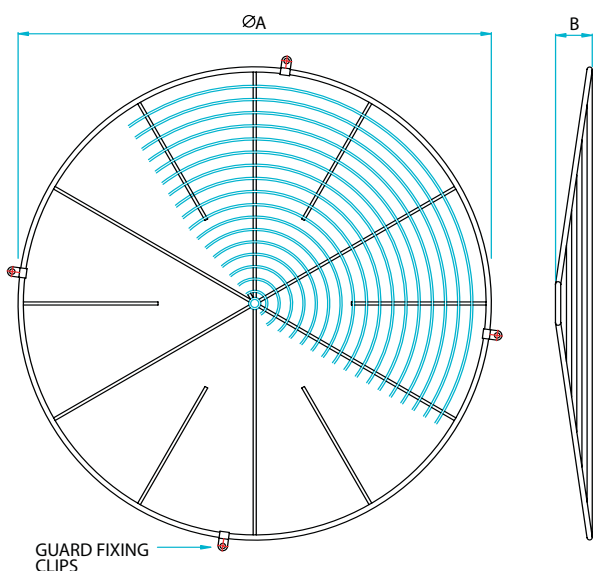
Product Code	Fan Dia.	A 1D	A 2D	B	C	D	E	Weight kg			
								1DENP	1DEP	2DENP	2DEP
068-0315-*D**P	315	315	630	417	8	M8	355	9	11	15	17
068-0400-*D**P	400	400	800	500	8	M10	450	13	16	22	26
068-0450-*D**P	450	450	900	602	8	M10	500	15	18	27	31
068-0500-*D**P	500	500	1000	652	12	M10	560	18	22	32	37
068-0560-*D**P	560	560	1120	712	12	M10	620	22	26	39	46
068-0630-*D**P	630	630	1260	782	12	M10	690	26	32	48	57
068-0710-*D**P	710	710	1420	862	16	M10	770	32	39	59	71
068-0800-*D**P	800	800	1600	952	16	M10	860	40	49	74	90
068-1000-*D**P	1000	1000	2000	1202	16	M12	1070	66	82	124	151

1 or 2 SEE DIM 'A' → E = WITH POD or EN = WITHOUT POD

Multiflow SMC - Cylindrical Accessories



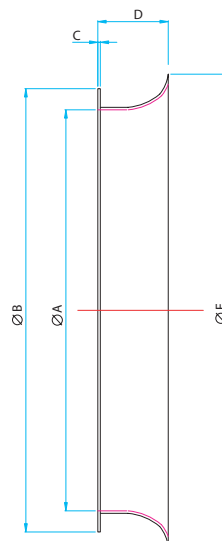
Impeller Guards



Product Code	Fan Dia.	A	B	Weight kg
078C-0315-C	315	335	21	1.1
078C-0400-C	400	420	26	1.6
078C-0450-C	450	470	29	1.8
078C-0500-C	500	520	32	2.2
078C-0560-C	560	585	32	2.5
078C-0630-C	630	655	40	2.6
078C-0710-C	710	730	50	3.2
078C-0800-C	800	820	50	3.5
078C-1000-C	1000	1020	60	4.5

- Bright zinc plated steel
- Fix with clips & screws provided

Bell Mouth Inlets

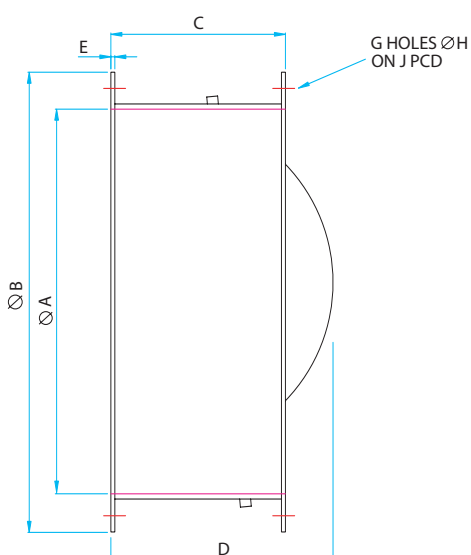


- For improved airflow in end of duct applications
- Fixed directly to fan case flange
- Hot dipped galvanised steel
- Available to order

Product Code	Fan Dia. A	B	C	D	E	Weight kg
241B-0400-BELL	400	485	3	75	515	4.5
241B-0450-BELL	450	535	3	85	570	5.3
241B-0500-BELL	500	585	3	93	630	6.2
241B-0560-BELL	560	645	3	105	700	7.5
241B-0630-BELL	630	715	3	105	780	9.0
241B-0710-BELL	710	795	3	120	870	11.1
241B-0800-BELL	800	885	3	135	970	13.5
241B-0900-BELL	900	1005	3	150	1090	17.3
241B-1000-BELL	1000	1110	3	165	1200	20.0

MIXED FLOW

Non Return Dampers



- Prevents reverse flow of air when fan not operating
- Fixed directly to fan case flange
- Hot dipped galvanised steel
- Galvanised steel butterfly type blades
- Suitable for horizontal or vertical (upward airflow) mounting
- Available to order

Product Code	Fan Dia. A	B	C	D	E	G	H	J	Weight kg
019-0315-STD	315	375	180	210	2.0	8	10	355	7.5
019-0400-STD	400	475	220	270	3.0	8	12	450	9.0
019-0450-STD	450	530	220	280	3.0	8	12	500	12.0
019-0500-STD	500	585	220	315	3.0	12	12	560	18.0
019-0560-STD	560	645	220	375	3.0	12	12	620	21.0
019-0630-STD	630	715	250	420	3.0	12	12	690	25.0
019-0710-STD	710	795	250	470	3.0	16	12	770	29.0
019-0800-STD	800	885	300	525	3.0	16	12	860	34.0
019-1000-STD	1000	1100	420	646	4.0	16	15	1070	85.5



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