

Series
SM - SMR - SMT

SIDE CHANNEL BLOWERS



SERIES SM - SMR - SMT

About us

Ing. **Enea Mattei SpA** is an Italian company that has been producing air compressors since 1919. Over the years, the company has continually evolved and is today one of the world's foremost companies in the compressed air sector and the leader in the production of rotary vane compressors. Behind the success of Mattei are the choices the company has made in terms of design, production and marketing, driven by the results of its continual and in-depth research and development programmes. During these years of continual change, Mattei has been able to adapt to the requirements of the market and through the results of its research has created products that are always innovative and technologically advanced.



Certified quality

Quality as an integral part of all company functions and constant improvement of all production processes so as to always guarantee the maximum level of reliability and satisfaction. This, in brief, is the value and the meaning of **Mattei's** operational philosophy. A way of approaching the market and customers that makes **Mattei** an absolute point of reference in the compressed air sector. Since 1994, **Mattei** has been operating with a Quality System certified by the DNV Institute under UNI EN ISO 9001 regulations.



Side channel blowers

The “heart” of the **blower** is an impeller inside a toroidal channel. Subjected to centrifugal force, the fluid flows into the channel, which, due to its shape, immediately pushes it toward the roots of the impeller vanes. In such a way, the fluid undergoes a new acceleration and assumes a helicoidal trajectory along with a progressive increase in energy.

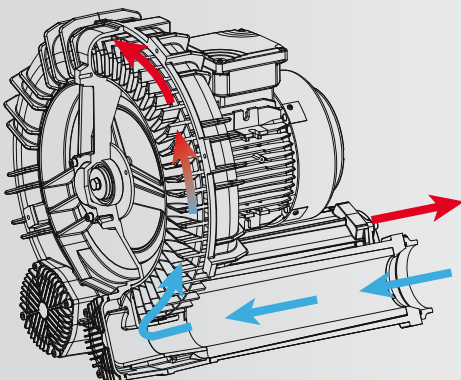
Mattei side channel blowers can find applications in the most varied sectors: water purification, drying systems, industrial suction, pneumatic conveying for production and manufacturing, the food and pharmaceutical industries, textiles, aerospace, medical, agricultural, etc..

Mattei’s blower range ensures better performances, efficiency and reliability: the best you can have in order to achieve significant energy savings.

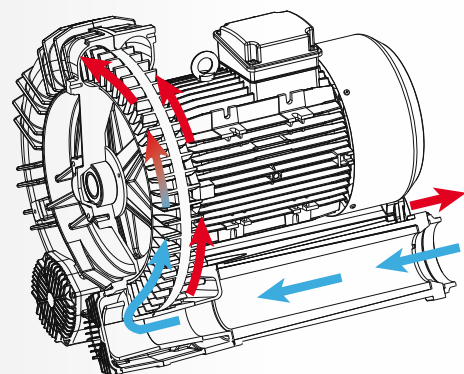
MATTEI SM - SMR - SMT RANGE

- **Maximum pressure 1850mbar (Abs)**
- **Maximum vacuum - 500mbar (Abs)**
- **Flow up to 2600 m³/h**
- **No wearing parts / maintenance free operation**
- **No pulsations in the conveyed fluid**
- **Extremely modular and easy to install**
- **Availability of special surface treatments**
- **Customizations and/or construction specifications to meet the customer’s needs and requirements**

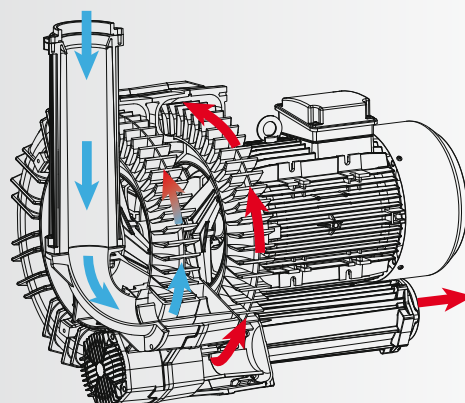
SM single impeller single stage



SMR single impeller double stage



SMT twin impeller double stage



SERIES SM - SMR - SMT

Series SM 3 ÷ 8 - SMT 6 - SMR 30 ÷ 40

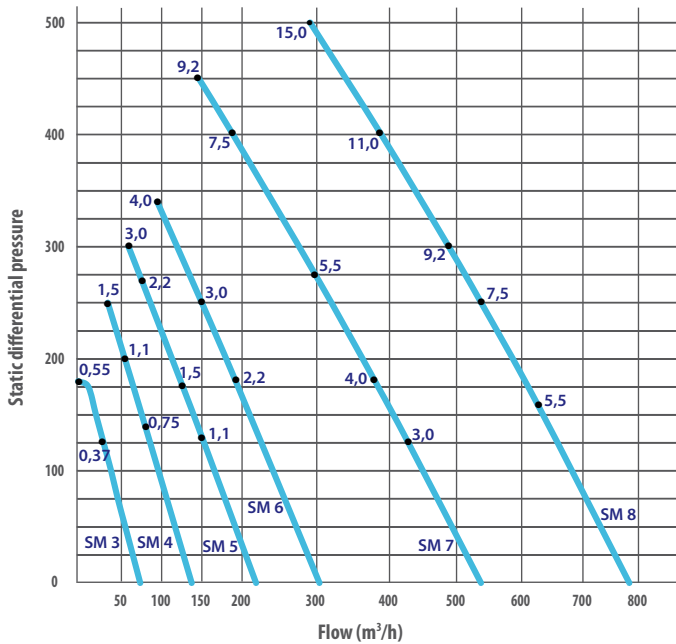
50 Hz

Models	Max. flow		Flow Installed motor size																Max. motor power kW	Max. pressure mbar	Sound level dB(A)	Connections [G"]* = mm	Weight kg								
	m³/h	kw	+ 100 hPa (mbar)		+ 150 hPa (mbar)		+ 200 hPa (mbar)		+ 250 hPa (mbar)		+ 300 hPa (mbar)		+ 350 hPa (mbar)		+ 400 hPa (mbar)		+ 450 hPa (mbar)							+ 500 hPa (mbar)		+ 550 hPa (mbar)					
IN COMPRESSION																															
SM 3	74	0,37	39	0,37	21	0,55																					0,55	180	60,0	1 1/4	12,0
SM 4	137	0,75	96	0,75	76	1,1	55	1,1	35	1,5																	1,5	250	63,0	1 1/2	19,5
SM 5	219	1,1	166	1,1	140	1,5	113	2,2	86	2,2	60	3,0															3,0	300	69,1	2	30,5
SM 6	304	2,2	242	2,2	211	2,2	181	3,0	150	3,0	119	4,0															4,0	340	71,6	2	41,0
SM 7	536	3,0	450	3,0	406	4,0	363	5,5	320	5,5	276	7,5	233	7,5	190	7,5	146	9,2									9,2	450	78,6	3	77,5
SM 8	782	5,5	684	5,5	635	5,5	586	7,5	537	7,5	487	9,2	438	11,0	389	11,0	340	15,0	291	15,0							15,0	500	79,6	4	95,0
SMT 6	312	4,0	284	4,0	270	4,0	256	4,0	241	4,0	226	5,5	212	5,5	199	5,5	184	7,5	170	7,5	155	7,5					7,5	550	75,0	2	61,5
SMR 30	90	1,1	76	1,1	70	1,1	63	1,1	57	1,1	51	1,1	46	1,1	40	1,5											1,5	425	69,7	1 1/4	26,0
SMR 40	140	2,2	116	2,2	105	2,2	94	2,2	83	2,2	73	2,2	63	2,2	54	2,2	45	3,0	37	3,0							3,0	500	72,0	1 1/2	38,0
IN VACUUM																															
SM 3	74	0,37	35	0,37	12	0,55																					0,55	160	59,0	1 1/4	12,0
SM 4	137	0,75	92	0,75	65	1,1	35	1,1																			1,5	225	62,0	1 1/2	19,5
SM 5	219	1,1	160	1,1	126	1,5	87	2,2																			2,2	240	67,8	2	26,5
SM 6	304	2,2	235	2,2	195	2,2	151	3,0	100	3,0																	4,0	270	70,6	2	41,0
SM 7	536	3,0	440	3,0	384	4,0	320	5,5	249	5,5	167	7,5	73	7,5													7,5	350	77,4	3	68,0
SM 8	782	5,5	673	5,5	609	5,5	537	7,5	456	7,5	364	9,2	257	11,0													11,0	350	78,5	4	90,0
SMT 6	312	4,0	281	4,0	262	4,0	242	4,0	217	4,0	192	5,5	160	5,5	125	5,5											5,5	400	73,6	2	56,5
SMR 30	90	1,1	75	1,1	66	1,1	57	1,1	48	1,1	37	1,1	26	1,5													1,5	350	66,2	1 1/4	26,0
SMR 40	140	2,2	118	2,2	105	2,2	90	2,2	73	2,2	54	2,2	32	2,2													2,2	350	72,0	1 1/2	34,0

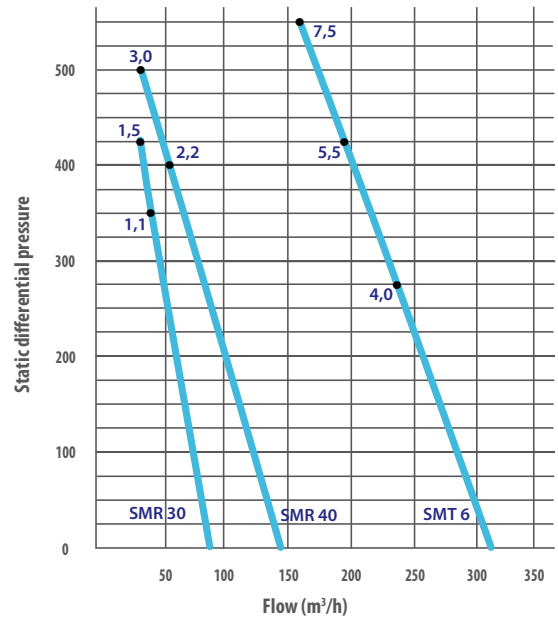
High performance IE2 motor

Performances in compression 50 Hz

SM 3 ÷ 8



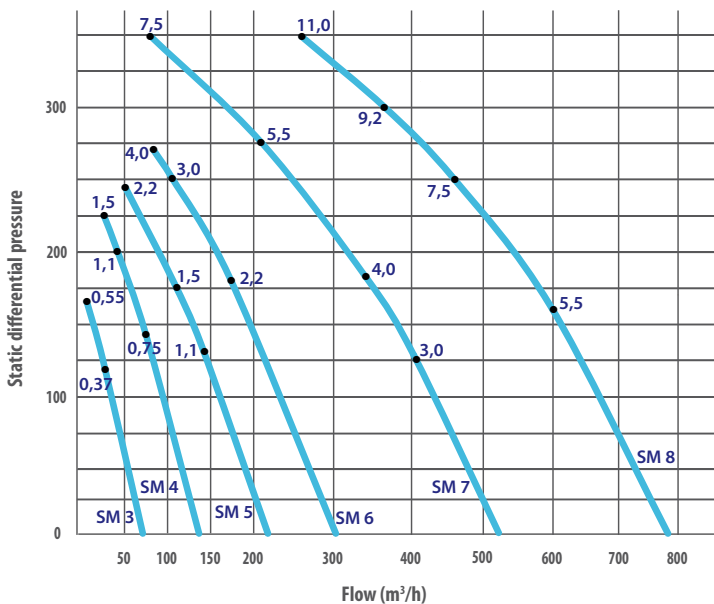
SMR 30 - 40 & SMT 6



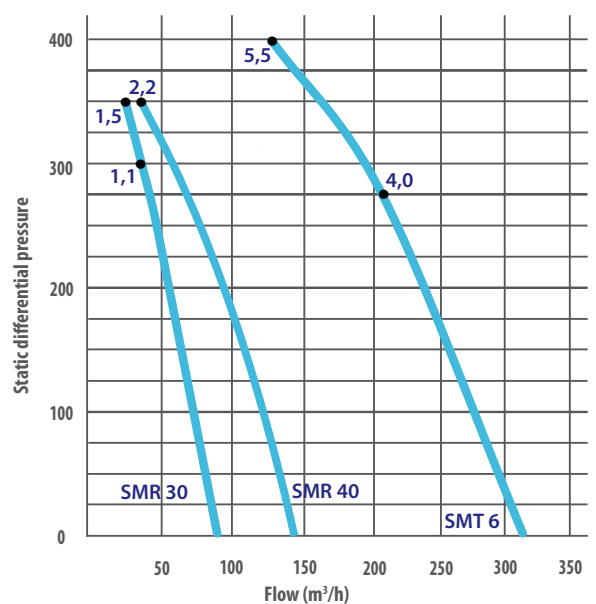
Performances referred to air at 20°C temperature, and 1013 mbar (abs) atmospheric pressure measured at inlet port

Performances in vacuum 50 Hz

SM 3 ÷ 8



SMTR 30 - 40 & SMT 6



Curves refer to air at 20°C temperature, measured at inlet port and 1013 mbar atmospheric backpressure (abs)

SERIES SM - SMR - SMT

Series SM 3 ÷ 8 - SMT 6 - SMR 30 ÷ 40

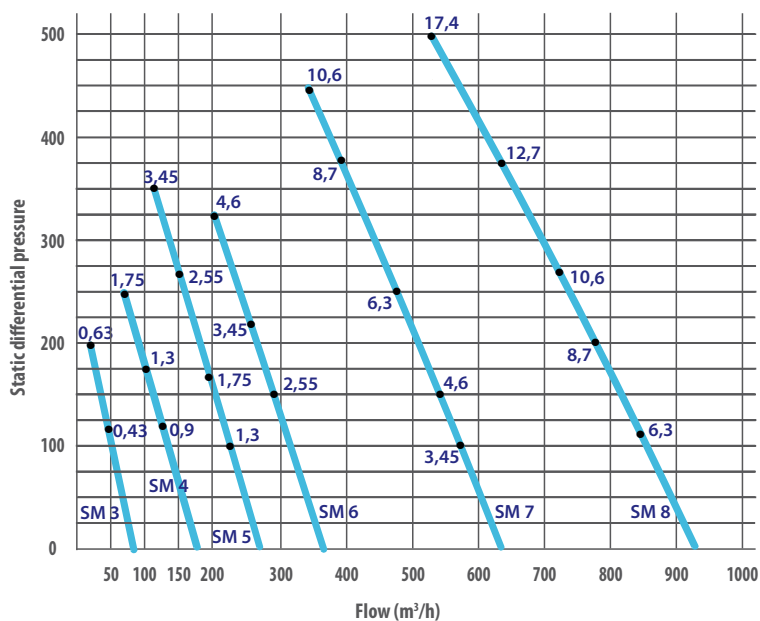
60 Hz

Models	Max. flow		Flow Potenza installata																Max. motor power kW	Max. pressure mbar	Sound level dB(A)	Connections [G"]* = mm	Weight kg			
	m³/h	kw	+ 100 hPa (mbar)		+ 150 hPa (mbar)		+ 200 hPa (mbar)		+ 250 hPa (mbar)		+ 300 hPa (mbar)		+ 350 hPa (mbar)		+ 400 hPa (mbar)		+ 450 hPa (mbar)							+ 500 hPa (mbar)		
60 Hz		m³/h	kw	m³/h	kw	m³/h	kw	m³/h	kw	m³/h	kw	m³/h	kw	m³/h	kw	m³/h	kw	m³/h	kw	m³/h	kw					
SM 3	89	0,43	60	0,43	45	0,63	31	0,63														0,63	200	62,0	1 1/4	12,0
SM 4	166	0,9	132	0,9	115	1,3	98	1,75	81	1,75												1,75	250	65,0	1 1/2	19,5
SM 5	265	1,3	221	1,3	199	1,75	177	2,55	155	2,55	133	3,45	111	3,45								3,45	350	71,1	2	30,5
SM 6	366	2,55	315	2,55	290	2,55	265	3,45	239	4,6	214	4,6										4,6	325	73,6	2	41,0
SM 7	647	3,45	575	3,45	539	4,6	504	6,3	468	6,3	432	8,7	396	8,7	360	10,6	324	10,6				10,6	450	80,6	3	77,5
SM 8	944	6,3	863	6,3	822	8,7	781	8,7	740	10,6	700	12,7	659	12,7	618	17,4	578	17,4	537	17,4		17,4	500	81,6	4	95,0
SMT 6	377	4,6	353	4,6	341	4,6	330	4,6	317	6,3	306	6,3	294	6,3	283	8,7	270	8,7	259	8,7		8,7	525	77,0	2	61,5
SMR 30	108	1,3	97	1,3	91	1,3	86	1,3	80	1,3	75	1,3	70	1,75	65	1,75						1,75	400	72,7	1 1/4	26,0
SMR 40	165	2,55	147	2,55	139	2,55	130	2,55	122	2,55	113	2,55	104	2,55	96	3,4	87	3,4	79	3,4		3,45	500	75,0	1 1/2	38,0
60 Hz		IN VACUUM		- 100 hPa (mbar)		- 150 hPa (mbar)		- 200 hPa (mbar)		- 250 hPa (mbar)		- 300 hPa (mbar)		- 350 hPa (mbar)		- 400 hPa (mbar)		- 450 hPa (mbar)		- 500 hPa (mbar)						
60 Hz		m³/h	kw	m³/h	kw	m³/h	kw	m³/h	kw	m³/h	kw	m³/h	kw	m³/h	kw	m³/h	kw	m³/h	kw	m³/h	kw					
SM 3	89	0,43	57	0,43	38	0,63	17	0,63														0,63	200	61,0	1 1/4	12,0
SM 4	166	0,9	128	0,9	106	1,3	81	1,75	53	1,75												1,75	250	64,0	1 1/2	19,5
SM 5	265	1,3	216	1,3	187	1,75	155	2,55	119	2,55												3,45	275	70,1	2	30,5
SM 6	366	2,55	310	2,55	277	2,55	240	3,45	197	4,6	150	4,6										4,6	325	72,6	2	41,0
SM 7	647	3,45	567	3,45	521	4,6	468	6,3	409	6,3	341	8,7	263	8,7								8,7	375	79,4	3	68,0
SM 8	944	6,3	854	6,3	801	8,7	741	8,7	674	10,6	597	12,7	509	12,7								12,7	375	80,5	4	90,0
SMT 6	377	4,6	351	4,6	335	4,6	318	4,6	298	6,3	277	6,3	250	6,3	222	8,7						8,7	400	76,6	2	61,5
SMR 30	108	1,3	95	1,3	88	1,3	81	1,3	72	1,3	63	1,3	53	1,75								1,75	350	69,2	1 1/4	26,0
SMR 40	165	2,55	161	2,55	157	2,55	151	2,55	142	2,55	129	2,55	110	2,55								2,55	350	75,0	1 1/2	34,0

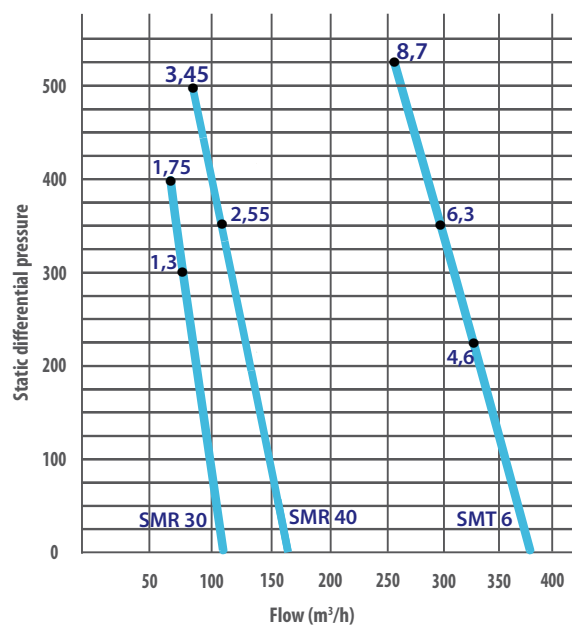
High performance IE2 motor

Performances in compression 60 Hz

SM 3 ÷ 8



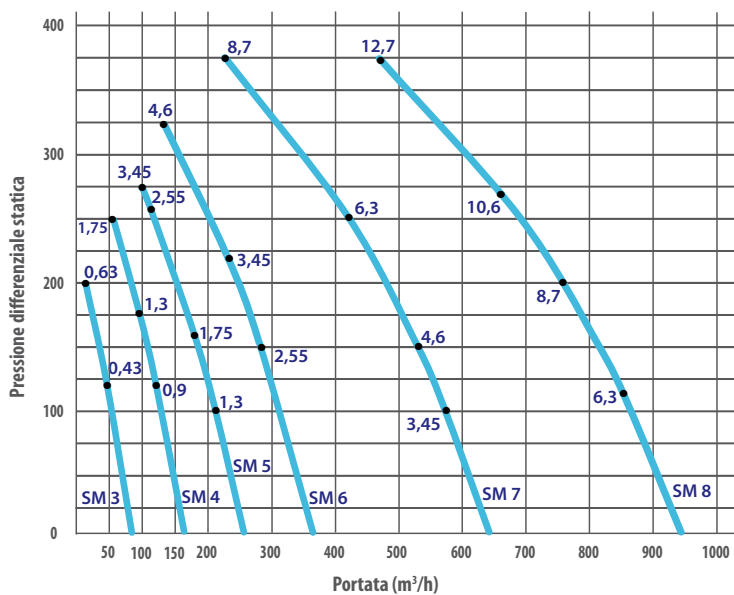
SMR 30 - 40 & SMT 6



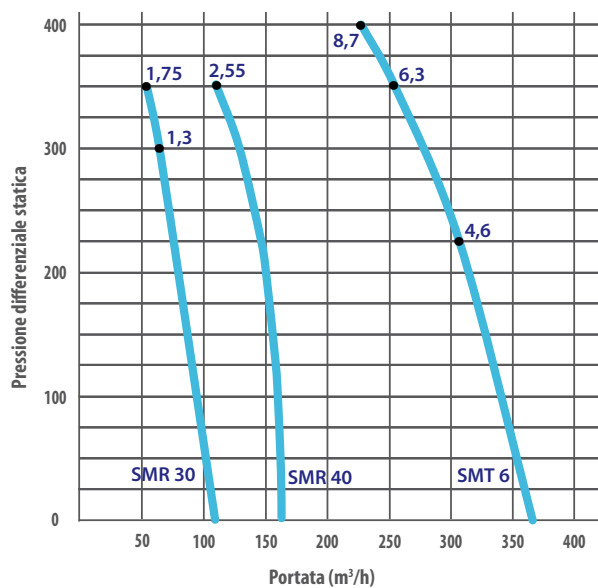
Performances referred to air at 20°C temperature, and 1013 mbar (abs) atmospheric pressure measured at inlet port

Performances in vacuum 60 Hz

SM 3 ÷ 8



SMR 30 - 40 & SMT 6

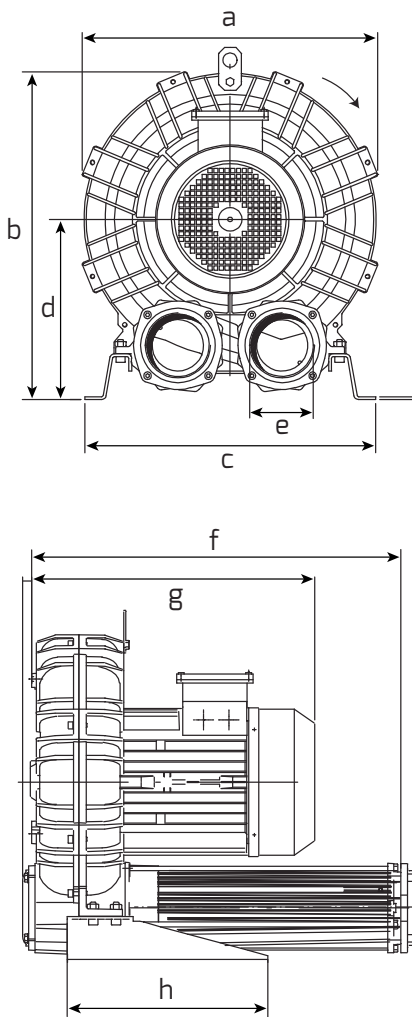



Curves refer to air at 20°C temperature, measured at inlet port and 1013 mbar atmospheric backpressure (abs)

SERIES SM - SMR - SMT

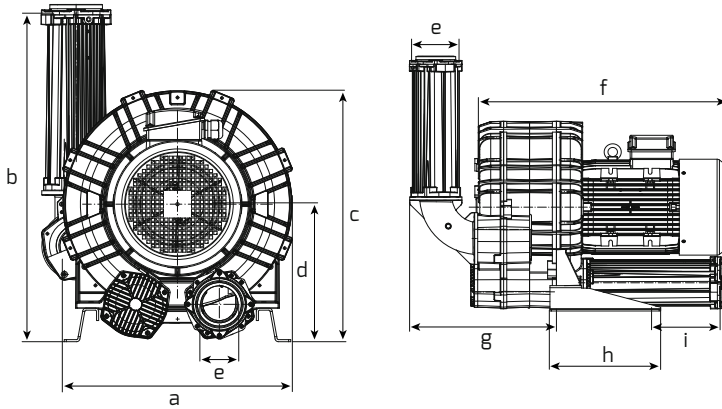
Overall dimensions (mm)


SM 3 ÷ 8



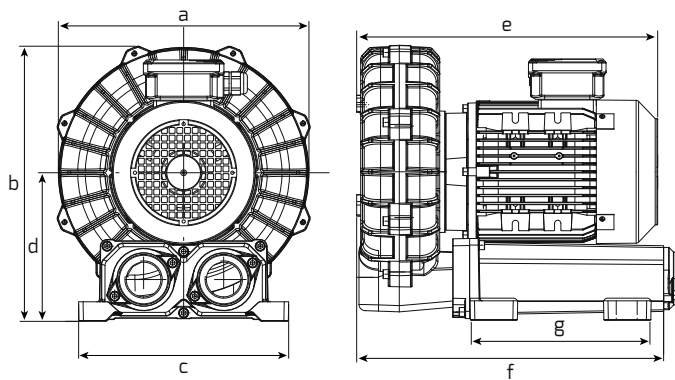
	A	B	C	D	E	F	G	H
SM 3	241	268	230	147	G 1" 1/4	205	241	142
SM 4	285	315	255	172	G 1" 1/2	222	310	171
SM 5	327	365	320	200	G 2"	320	375	265
SM 6	376	393	325	205	G 2"	334	400	272
SM 7	457	498	478	269	G 3"	512	480	350
SM 8	516	573	508	315	G 4"	586	490	350

SMT 6

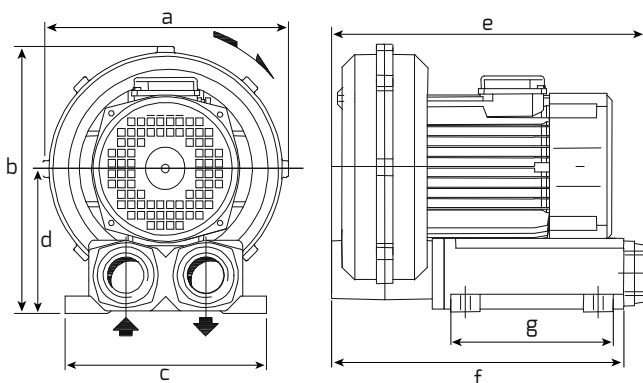



	A	B	C	D	E	F	G	H	I
SMT 6	290	325	420	232	G 2"	506	354	265	136

SMR 30



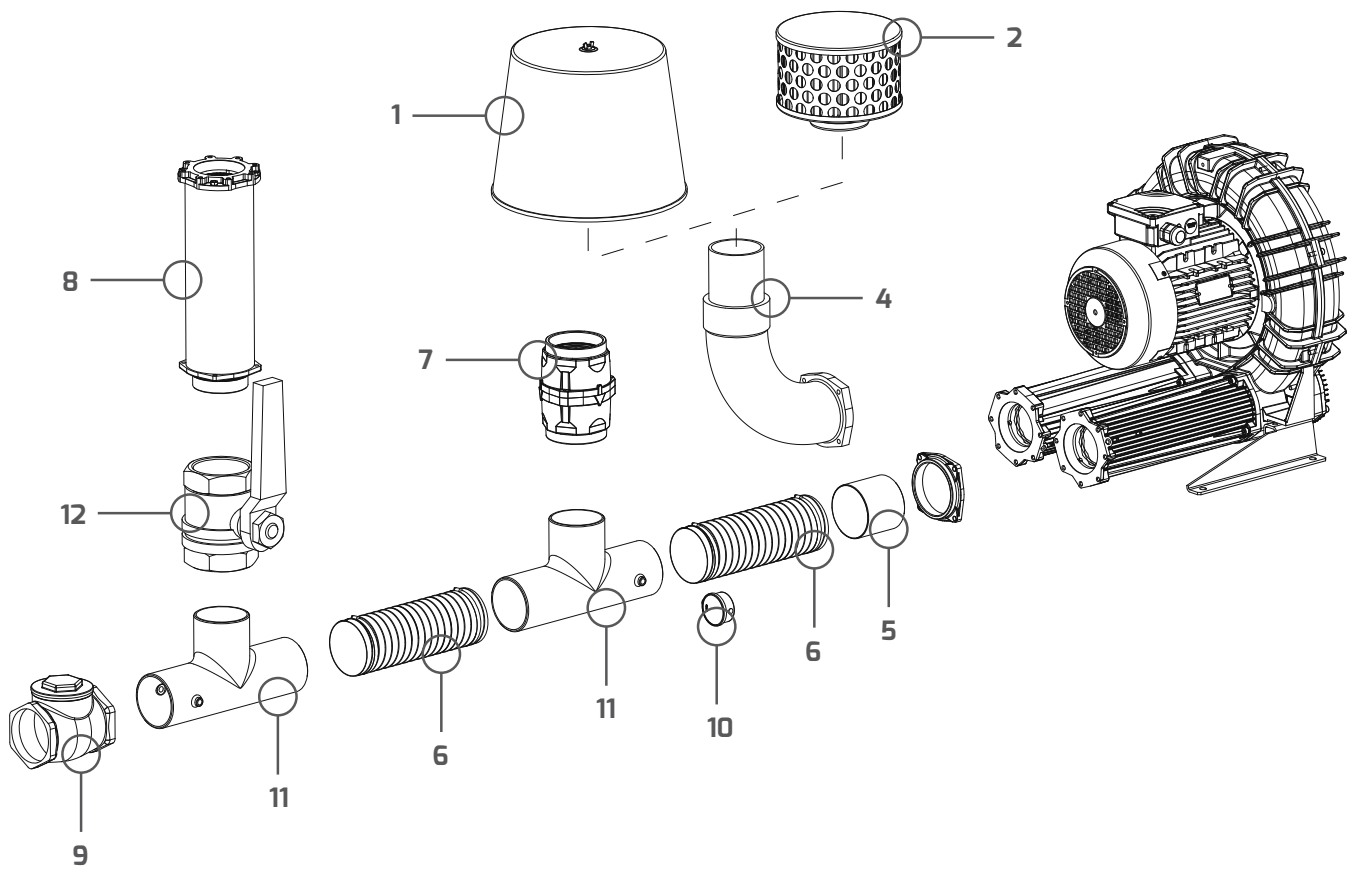
SMR 40




	A	B	C	D	E	F	G
SMR 30	318	347	230	187	366	354	195
SMR 40	350	370	270	195	430	440	235

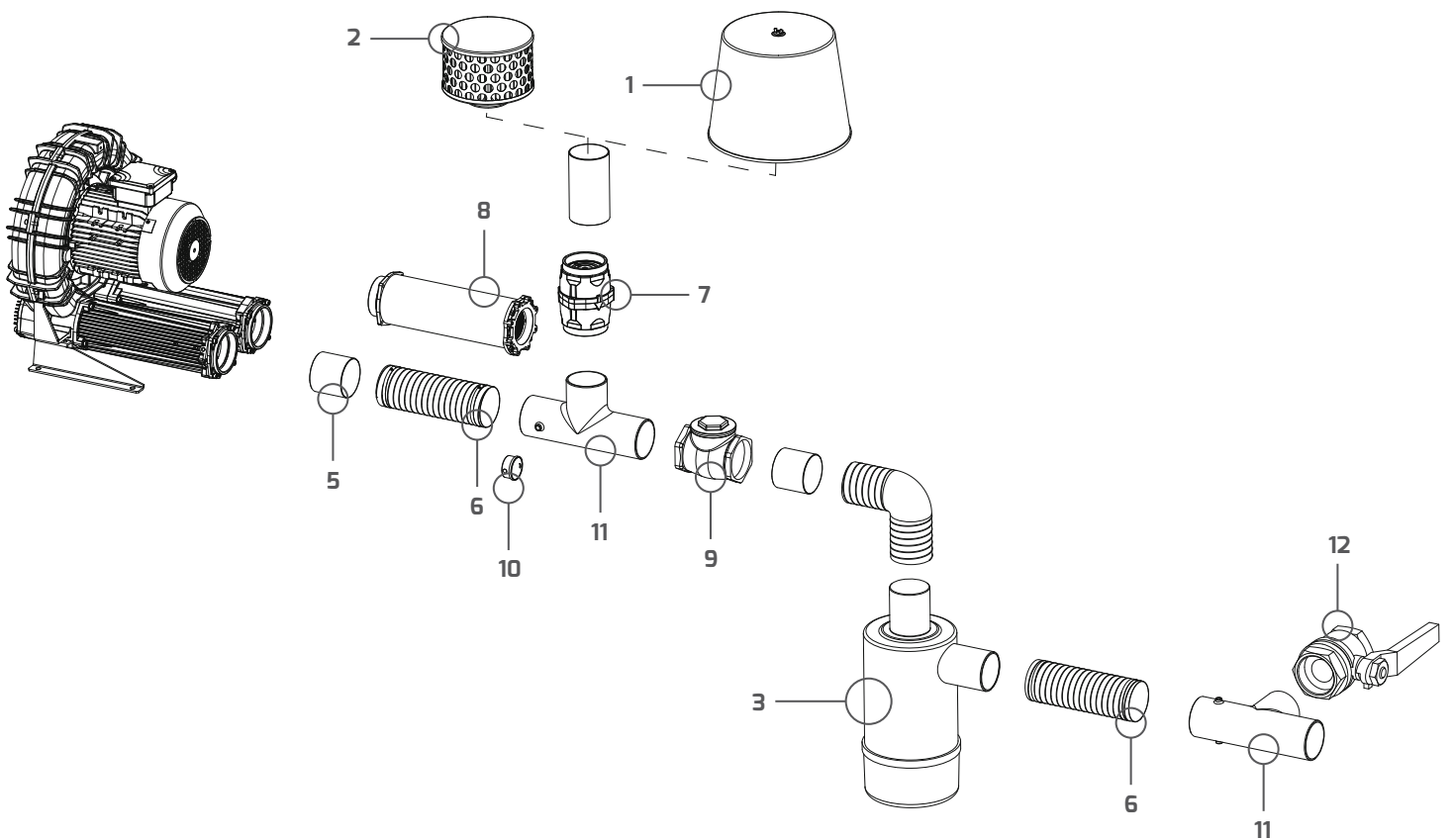
SERIES SM - SMR - SMT


Accessories for compression



	
1	Cartridge filter
2	Indoor intake filter
3	Cyclone filter
4	Filter manifold
5	Hose sleeve
6	Flexible hose

Accessories for vacuum



	
7	Vacuum / pressure relief valve
8	Additional silencer
9	Non return
10	Pressure / vacuum gauge
11	Relief valve / gauge holder
12	Isolation valve



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