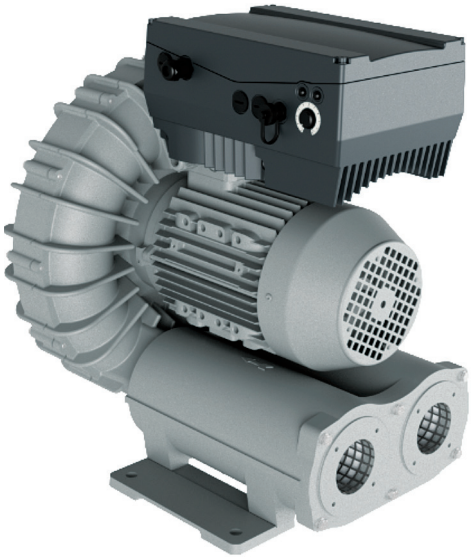


APPLICATION

Side-channel blowers are used in pneumatic transport.
Typical applications:

- pneumatic transport,
- graphic machines, pneumatic lifts, multi-stage filtration devices with a very high degree of dust separation,
- industrial vacuum cleaners, pools, aeration in biological sewage treatment plants, electroplating plants, etc.,
- for oil-free transport of non-aggressive and non-explosive gases.

CONSTRUCTION

- side-channel blower with direct drive,
- the impeller is made of aluminum alloy, dynamically balanced according to ISO 1940-1,
- the housing is cast in aluminum alloy,
- blower adapted to work in horizontal or vertical position,
- standard color of the blower is gray RAL 7042,
- maximum temperature of the transported medium is 60°C,
- ambient temperature range from -20°C to +40°C.

MOTOR

- asynchronous, three-phase 400V, 50Hz (connection in Δ for 87Hz-87Hz technique),
- efficiency class IE3 (from 0,75 kW) or IE2 (below 0,75 kW),
- degree of protection IP55,
- insulation class F,
- thermal protection (TP or TP and PTC) - in selected motors,
- external cooling 230V, 50Hz / 24V DC (option).

FREQUENCY CONVERTER

Integrated with the electric motor, factory configuration in 87Hz technique.

Standard equipment:

- Analog input (0-10V / 0-20mA),
- Built-in or wired control panel (control and configuration).

Optional equipment:

- CANopen, EtherCAT, PROFINET, Sercos III, PROFIBUS communication cards,
- Safety implementation safety function + CANopen, safety + EtherCAT, safety + PROFINET, safety + Sercos, safety.

SPECIAL EXECUTIONS

- motor with other than standard degree of protection,
- motor equipped with sensors or additional cooling,
- ambient temperature range below -20°C and above +40°C.

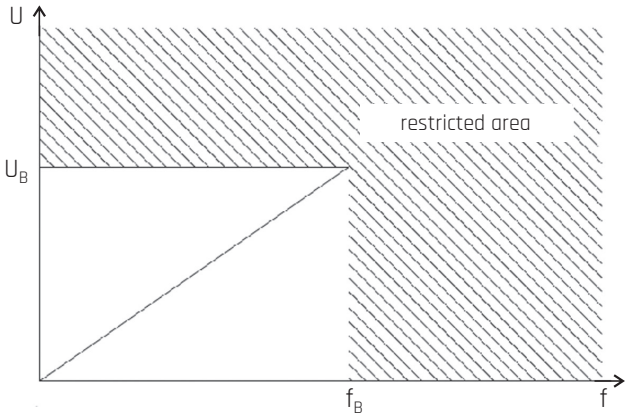
TECHNICAL CHARACTERISTICS

DK01 inverter version without built-in control panel

Type	airflow max	pressure max suction | pressing		motor power at 50Hz	motor power at 87Hz (87Hz technique)	speed	current (87Hz Δ 400V)	default motor connection Δ	weight	article number
	[m³/h]	[mbar]		[kW]	[kW]	[obr/min]	[A]	[V]	[kg]	
SC-F-10-INT-190T F2.2	180	247	283	1,5	2,6	5050	5,25	230Δ/400Y	27	46511617
SC-F-10-INT-260T F2.2	180	313	476	2,2	3,8	5050	7,9	230Δ/400Y	29	46511619
SC-F-20-INT-380T F4	296	259	362	2,2	3,8	5050	7,9	230Δ/400Y	39	46511634
SC-F-20-INT-520T F5.5	295	347	359	3	5,2	5030	11	230Δ/400Y	45,7	46511643
SC-F-30-INT-950T F11	557	371	380	5,5	9,5	5020	17	230Δ/400Y	63,7	46511653
SC-F-40-INT-1900T F15	1089	280	338	11	19	5010	33	230Δ/400Y	176	46511668
SC-F-50-INT-2600T F22 (70Hz)	1430	370	375	15	26 (70Hz)	4050	46	230Δ/400Y	63,7	46511673

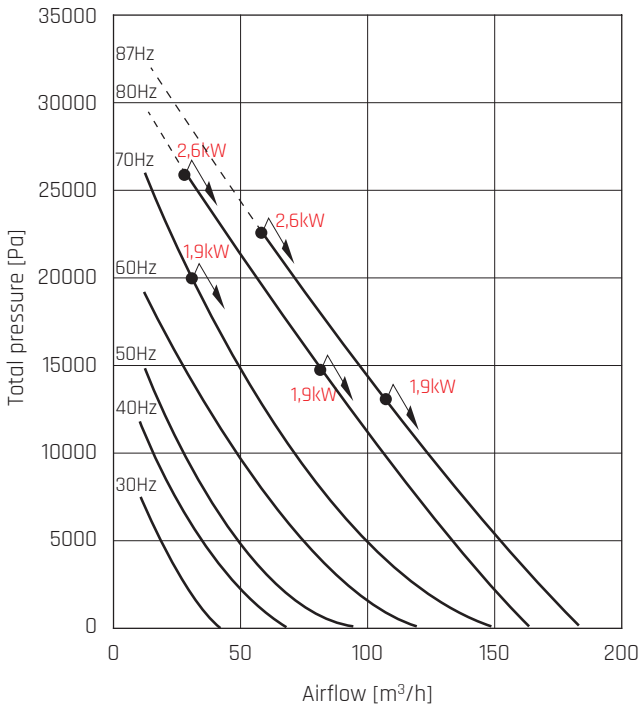
PERFORMANCE CURVES

The converter supplying the motor must have the following U(f) classification:

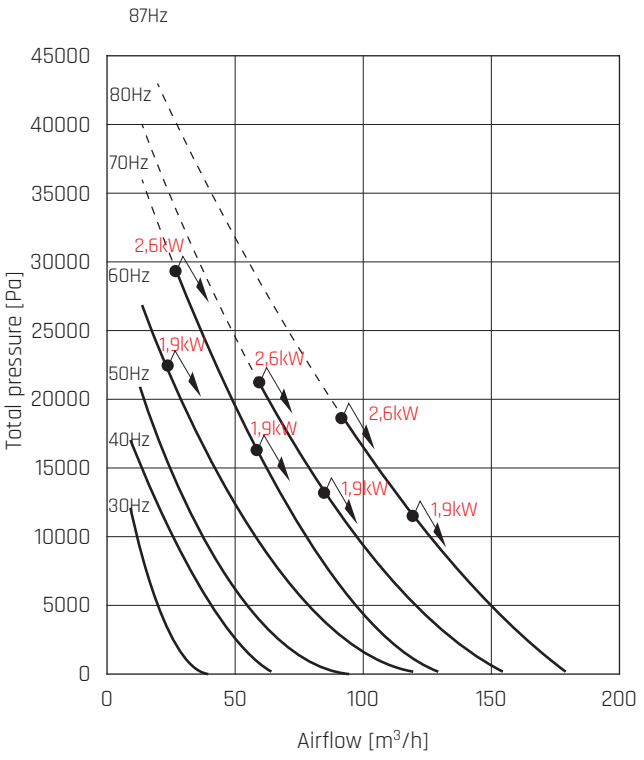


U_B - 400V connection in Δ for 87Hz (87Hz technique)
f_B - frequency 87Hz

SC-F 10 SUCTION

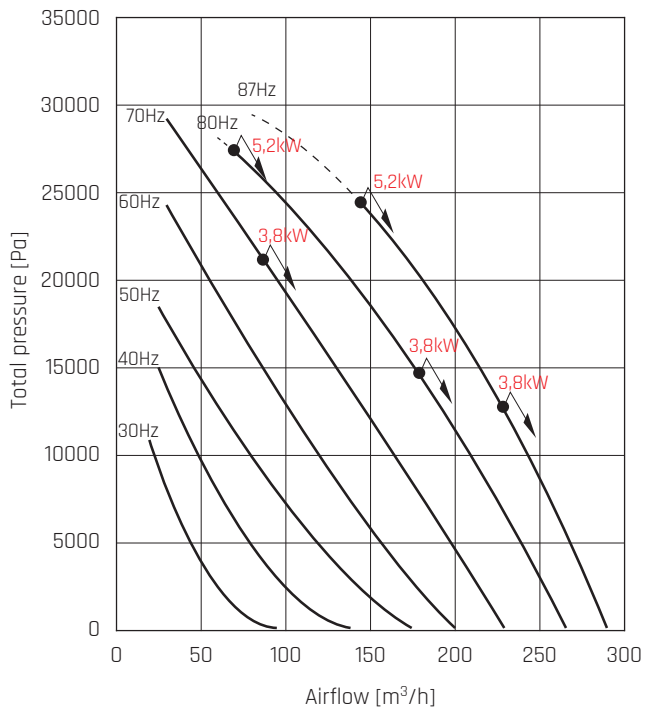


SC-F 10 PRESSING

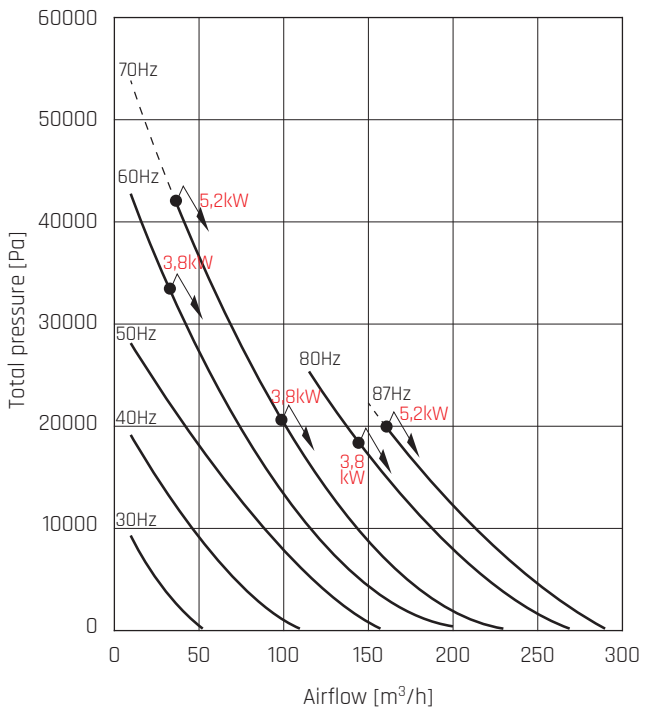


PERFORMANCE CURVES

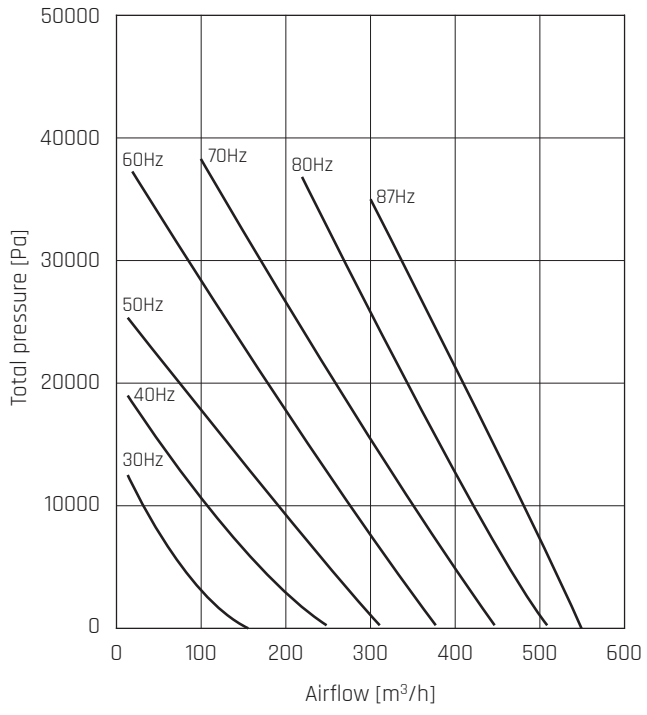
SC-F 20 SUCTION



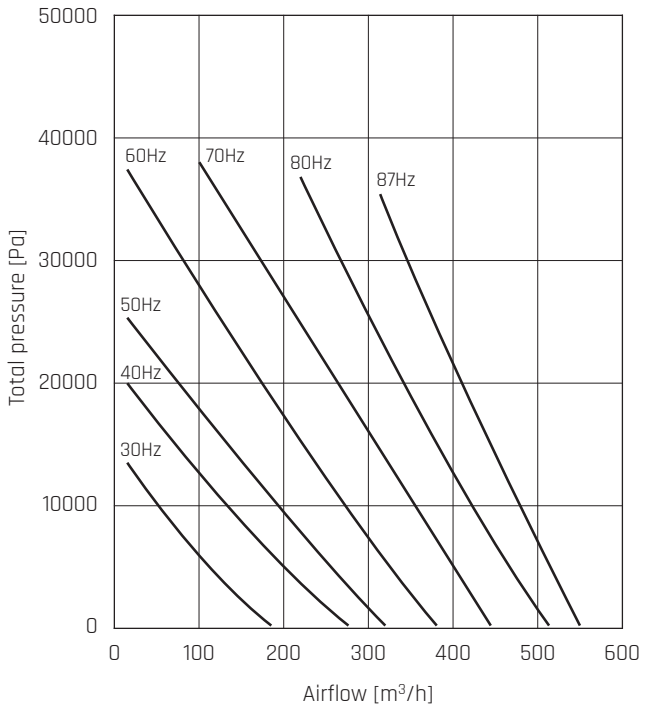
SC-F 20 PRESSING



SC-F 30 SUCTION

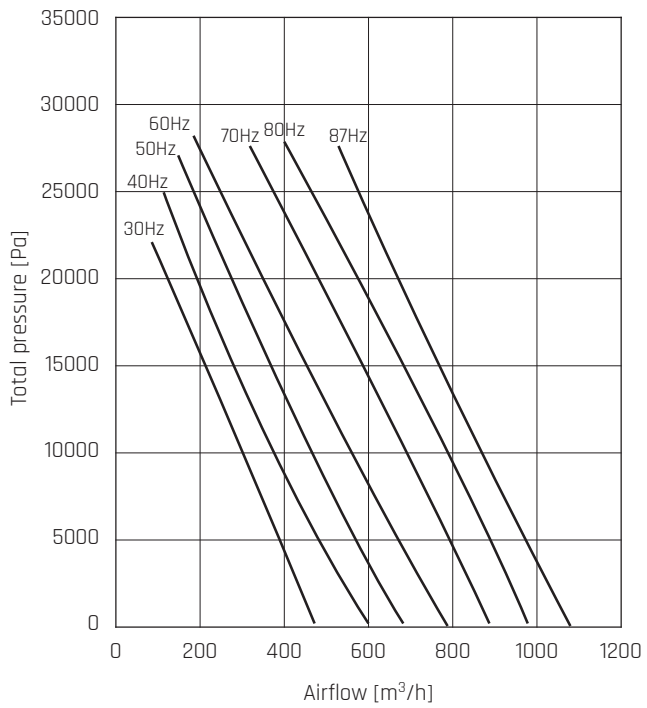


SC-F 30 PRESSING

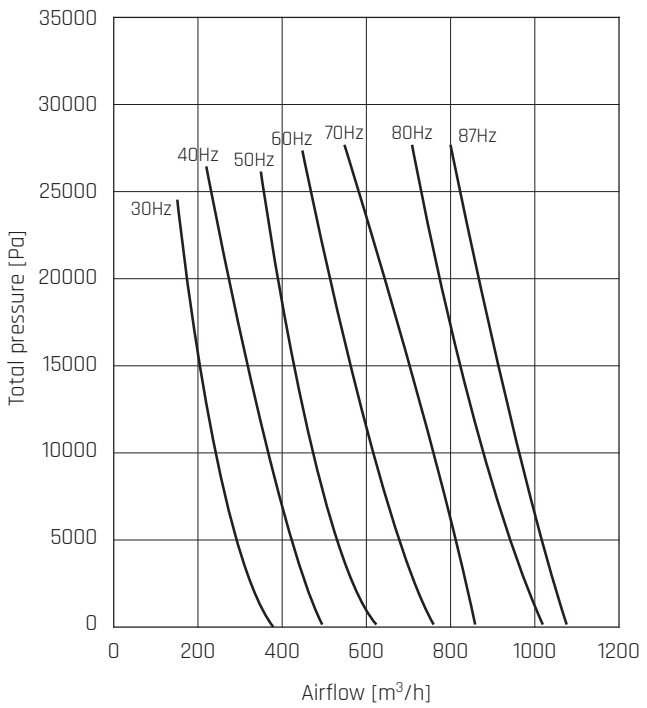


PERFORMANCE CURVES

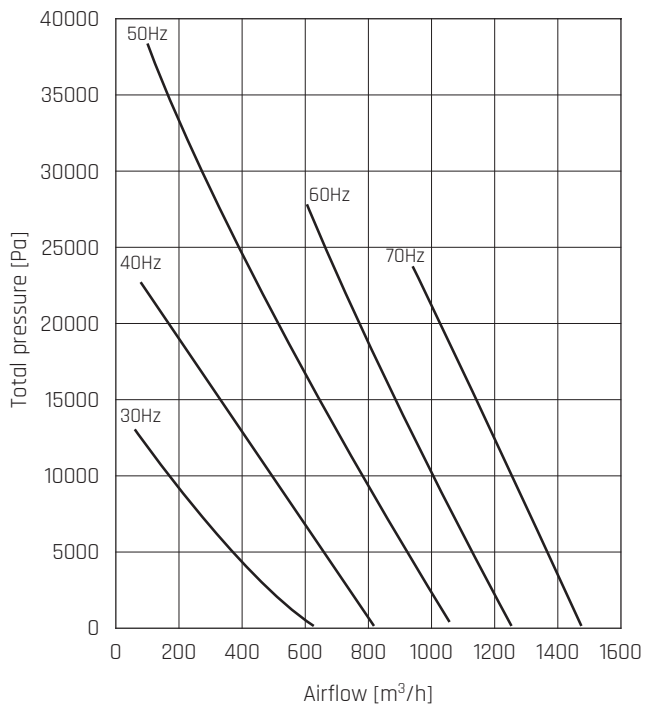
SC-F 40 SUCTION



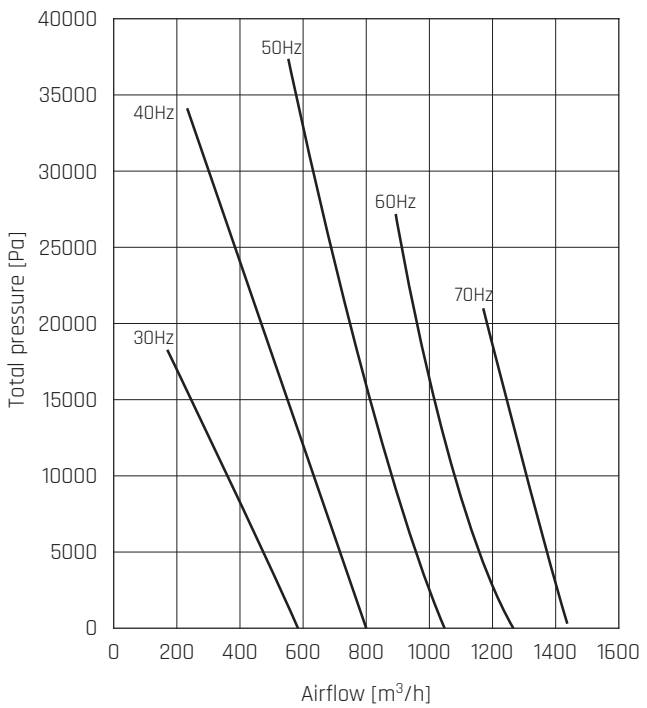
SC-F 40 PRESSING



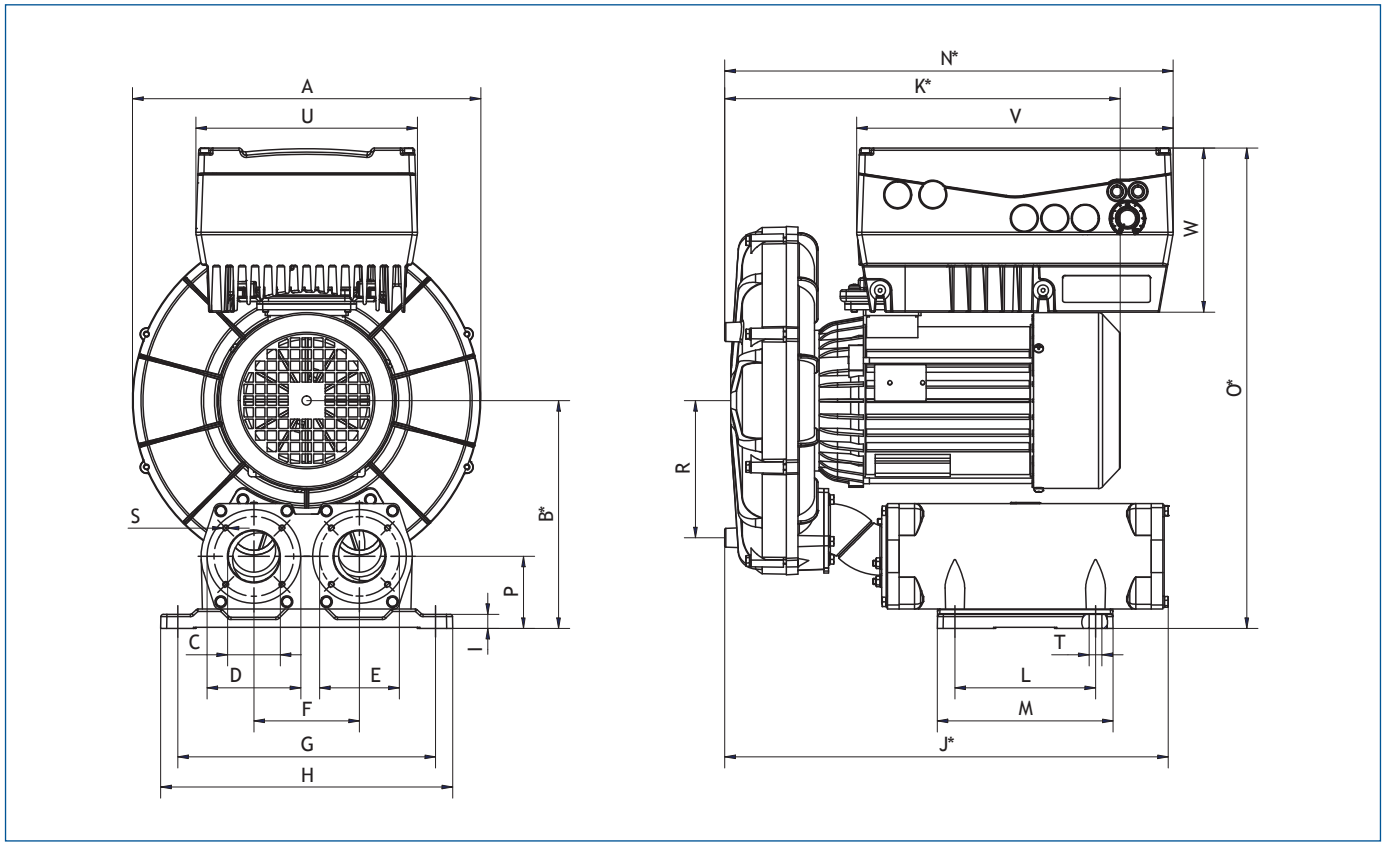
SC-F 50 SUCTION



SC-F 50 PRESSING



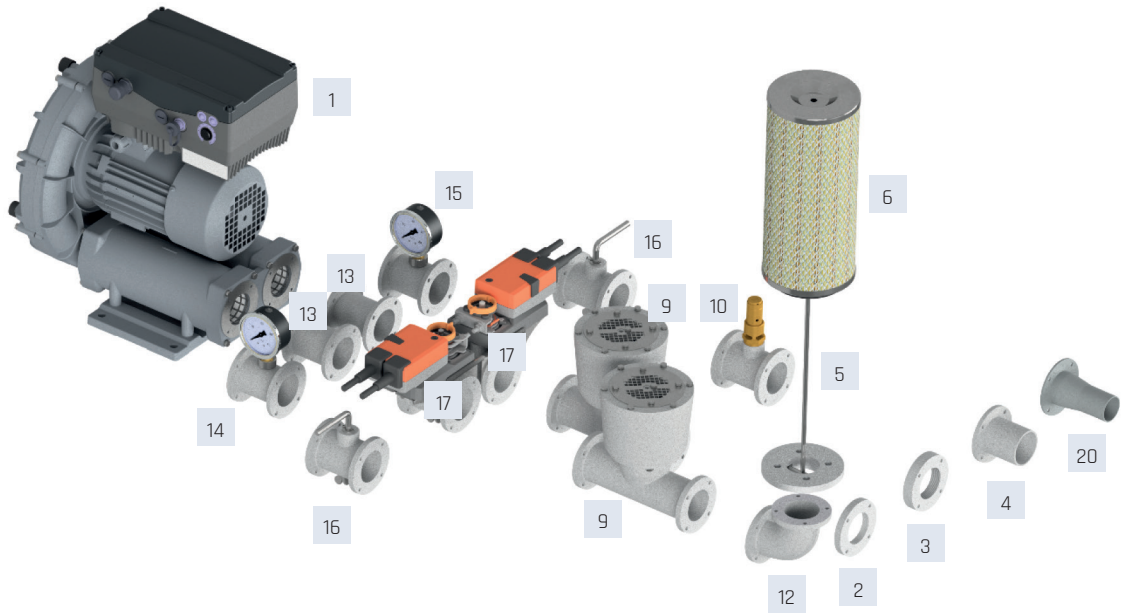
DIMENSIONS [mm]



Type	A	B	ØC	ØD	ØE	F	G	H	I	J	K	L	M	N	O	P	R	S	ØT	U	V	W
SC-F-INT-10	296	189	45	80	68	90	220	250	12	393	331	120	150	407	390	60	117	M5	11	189	270	140
SC-F-INT-20	360	219	45	80	68	90	220	250	12	423	410	120	150	452	410	60	129,5	M5	11	189	270	140
SC-F-INT-30	395	255	55	100	85	125	310	350	12	550	440	160	200	537	482	80	140	M6	13	223	307	181
SC-F-INT-40	480	310	75	130	110	145	365	420	12	598	560	260	300	610	509	80	172	M8	14	223	307	181
SC-F-INT-46	540	355	100	150	130	160	400	450	20	770	640	370	430	734	644	93	182	M8	20	294	414	232
SC-F-INT-50	580	388	100	150	130	160	400	450	25	791	690	370	430	796	674	95	202	M8	20	294	414	232

MOUNTING ACCESORIES

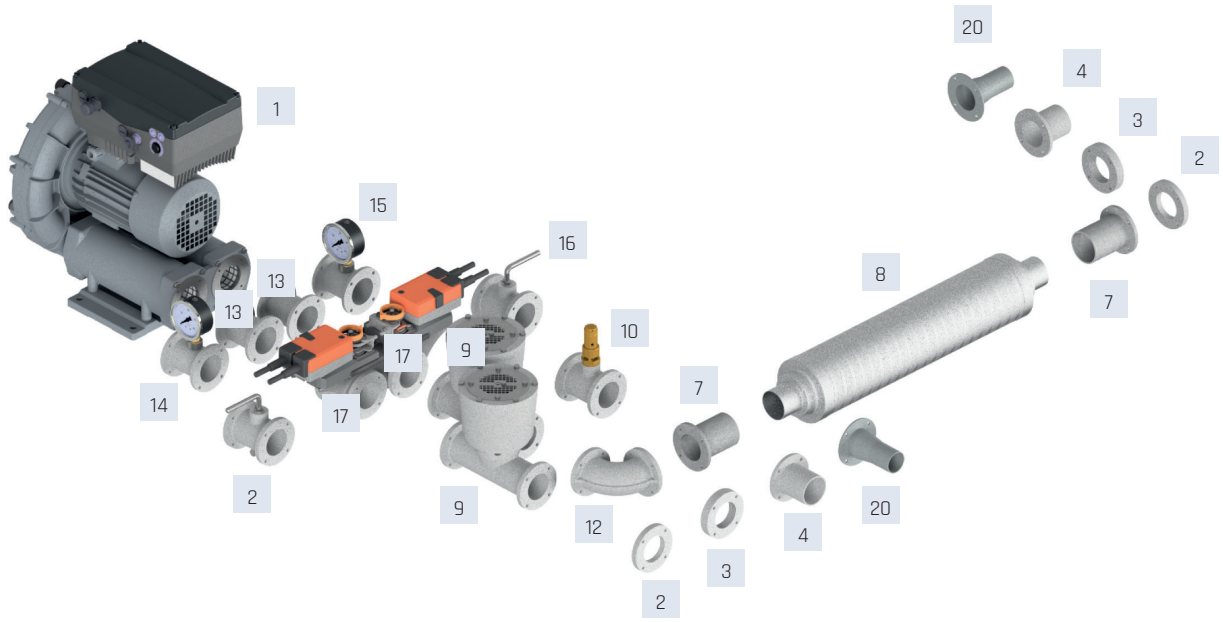
OPTION 1



OPTION 2

MOUNTING ACCESORIES

OPTION 3



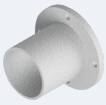
MOUNTING ACCESORIES

1	2	3	4	5	6	7	8	9	10
Type	welding flange	threaded flange	inlet connection	filter flange	filter	connection flange	silencer	overload valve	overpressure valve 0-200mbar 0-300mbar 0-400mbar
SC-F-INT-10	45516500	45516600	46515210	46515110	46515039	46515250	46525310	46515520	72000058 72000059 -
SC-F-INT-20	45516500	45516600	46515210	46515110	46515039	46515250	46525310	46515520	72000058 72000059 72000066
SC-F-INT-30	45516510	45516610	46515220	46515120	46515039	46515260	46525320	46515530	- 72000060 72000066
SC-F-INT-40	45516520	45516620	46515230	46515130	46515038	46515270	46525330	46515540	72000062 72000063 72000066
SC-F-INT-50	45516530	45516630	46515240	46515140	46515038	46515280	46525340	46515550	-

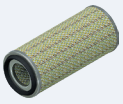
1	11	12	13	14	15	16	17	18	19	20
Type	channel filter	elbow	double flange connection	overpressure manometer	vacuum pressure manometer	manual throttle	automatic throttle	EPDM gasket	sound absorbing housing	reduction
SC-F-INT-10	46515070	25515285	46515160	46515460	46515461	46515162	46515163	91020025-10	70510321	46515290 D=100mm
SC-F-INT-20	46515070	25515285	46515160	46515460	46515461	46515162	46515163	91020025-10	70510321	46515290 D=100mm
SC-F-INT-30	46515075	25515286	46515170	46515470	46515471	46515172	46515173	91020025-11	70510322	46515291 D=130mm
SC-F-INT-40	46515080	25515287	46515180	46515480	46515481	46515182	46515183	91020025-12	70510323	46515292-01 D=60mm 46515292 D=150mm
SC-F-INT-50	46515085	25515288	46515190	46515490	46515491	46515192	46515193	91020025-13	_	-

welding flange

threaded flange


inlet connection

filter flange


filter

connection flange

silencer

overload valve

channel filter

elbow

double flange connection

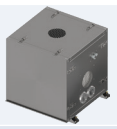
overpressure manometer

vacuum pressure manometer

overpressure valve

manual throttle

automatic throttle


sound absorbing housing

reduction