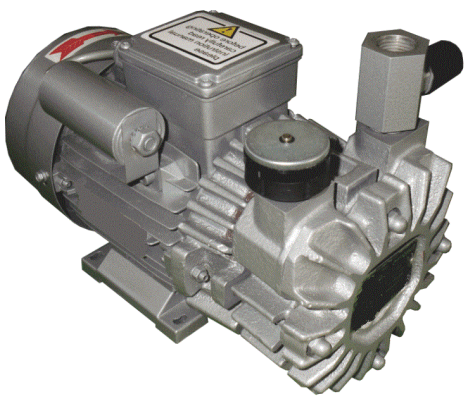
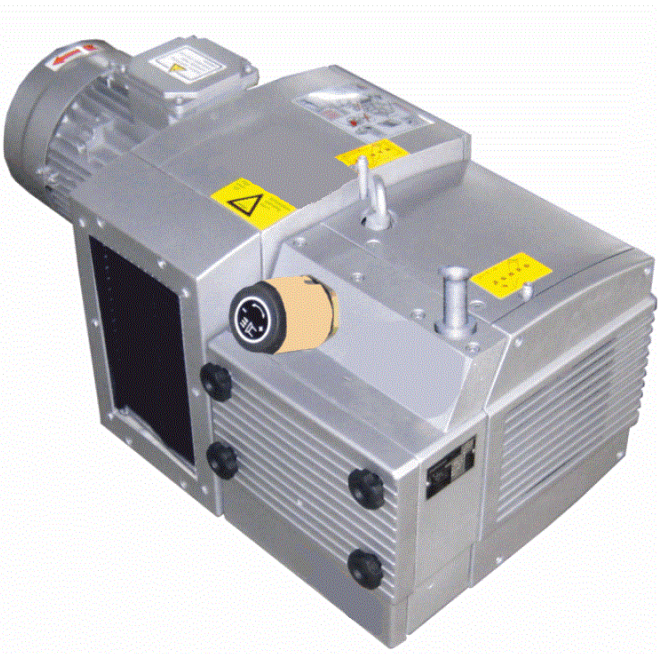
KLEE blower®

Rotary Vane Pumps





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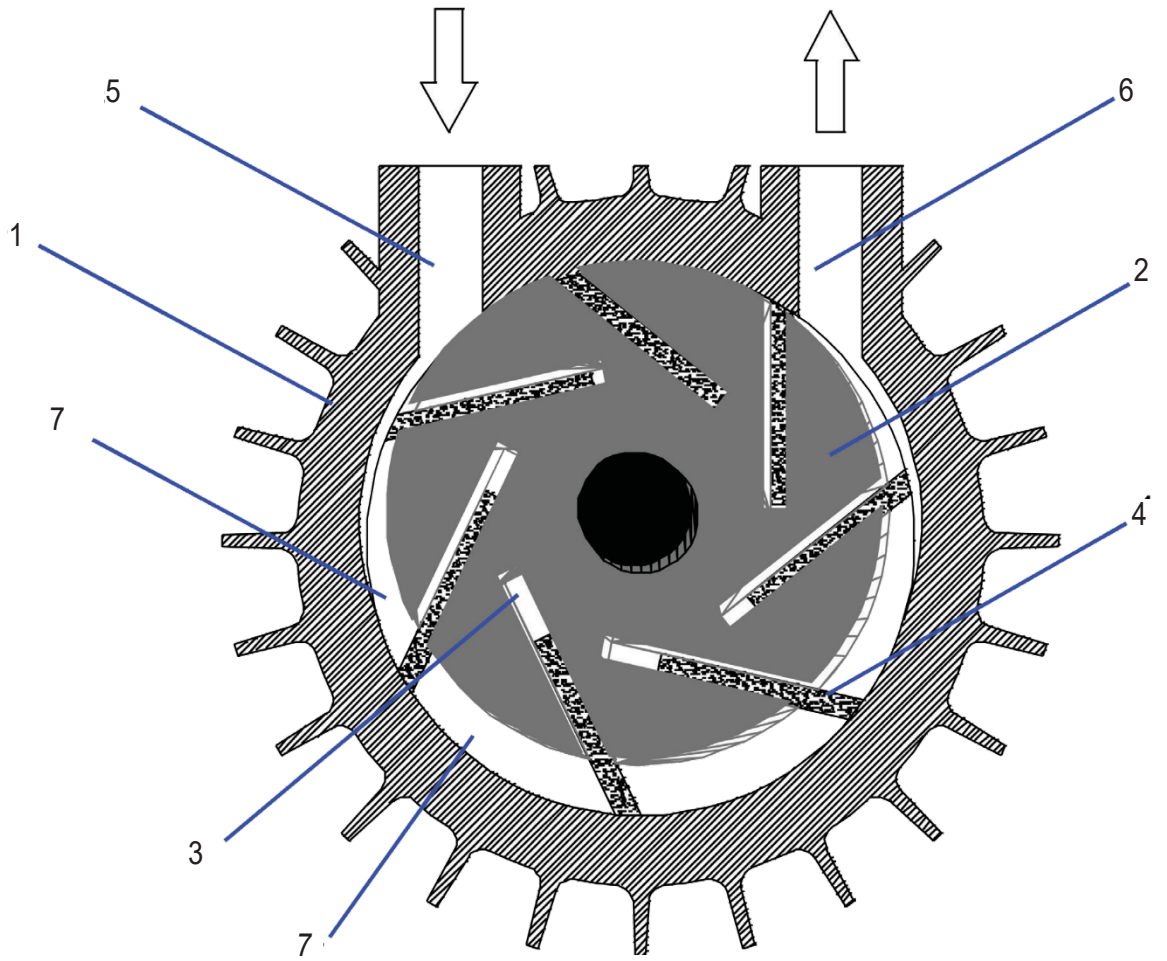
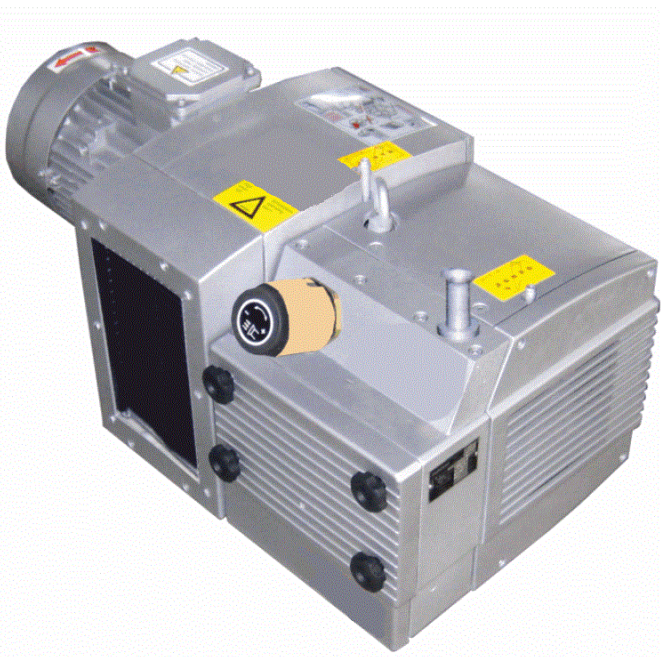


Rotary vane pump working principle
A rotor (2) is positioned eccentrically in the pump cylindrical housing (1). The free moving vanes (4) are inserted into a numerous rotor slots (3). When the rotor turns the centrifugal force throws the vanes against the cylindrical wall and creates a chamber between the rotor and the cylinder. As the rotor continues to turn the chamber volume between the blades keep changing due to the rotor positioned eccentrically. From the inlet (5) to outlet (6) The chamber volume (7) becomes bigger and then smaller. When the volume gets bigger a vacuum is produced as a result from the rotation of the vanes making air entering the chamber from the inlet (5). When the chamber gets smaller due to the compressed air a pressure is produced at the outlet (6).

Type overview

Type KBV, KBP and KBC size 410-440
Capacity 10 to 40 m^3/h at 50 Hz.
Capacity 12 to 48 m^3/h at 60 Hz.

KBV - for vacuum
KBP - for pressure
KBC - for pressure/vacuum / combi model



Type KBV, KBP and KBC size 3060-3360
Capacity 60 to 351 m^3/h at 50 Hz.
Capacity 72 to 402 m^3/h at 60 Hz.

KBV - for vacuum
KBP - for pressure
KBC - for pressure/vacuum / combi model

KLEE blower

Technical data Size 410-440

Model	Capacity max. m^3/h		Vacuum mbar (abs.)		Pressure bar		Motor output max. capacity kW		Voltag e3 ~ V		Noise level by 1 m dB		Weight kg.
	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	
KBV 410	10	12	150	150	-	-							
KBP 410	10	12	-	-	+1.0	+1.0	0.37	0.45	△ 175-260 Y 330-450	△ 202-300 Y 350-520	60	62	15
KBV 416	16	19	150	150	-	-	0.55	0.66	△ 190-255 Y 330-440	△ 202-300 Y 350-520	61	64	22
KBP 416K	16	19	-	-	+1.0	+1.0	0.75	0.90					
KBC 416	16	20	600	600	±0.6	±0.6	0.75	0.90	△ 195-255 Y 330-440	△ 190-290 Y 330-550	66	69	36
KBV 425	25	30	150	150	-	-	0.75	0.90	△ 195-255 Y 330-440	△ 190-290 Y 330-550	62	67	28
KBP 425K	25	30	-	-	+1.0	+1.0	1.25	1.50			65	67	36
KBC 425	25	30	600	600	±0.6	±0.6	1.25	1.50	△ 195-255 Y 330-440	△ 190-290 Y 330-550	69	71	36
KBV 440	40	48	150	150	-	-	1.25	1.5			67	72	39
KBP 440K	40	48	-	-	+1.0	+1.0	1.85	2.2	△ 190-255 Y 330-440	△ 190-290 Y 330-500	67	69	46
KBC 440	40	48	600	600	±0.6	±0.6					68	71	45

Model KBV is for vacuum applications down to an ultimate pressure of 120/150 mbar. Model KBP is for max. positive pressure of 1000 mbar (2000 mbar abs.)
Model KBC is a combi version for both vacuum and pressure.
KBC 416K to 440K have a cooler to reduce the temperature of the exhaust air.

Operating conditions:

- *Air temperature at inlet: +5°C ~ + 45°C*
- *Altitude above sea level: 800 M (max.)*
- *Relative humidity: 80% (max.)*

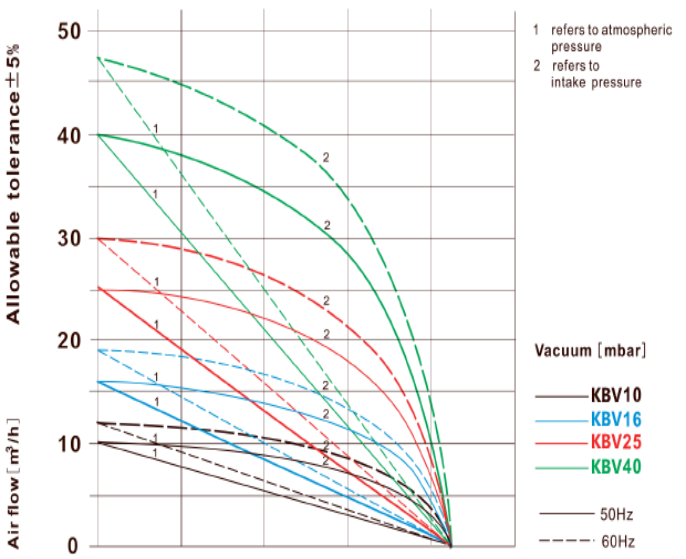
Storage:

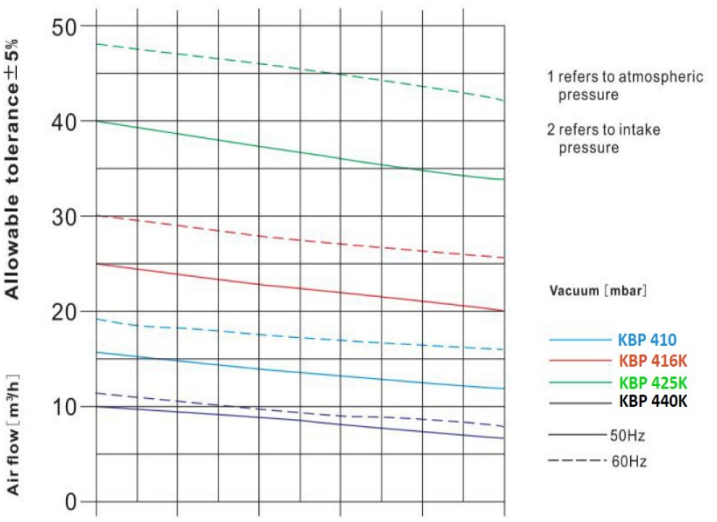
- *Store the rotary vane pump in dry surroundings*
- *Store in a place free of dust*
- *Store in a place with low vibrations (<2,8 mm/s)*
- *Ambient temperature: <40 C (104 F)*

Motor data for vacuum pump

- *EN 60034*
- *IP 54, 55*
- *Operating cycle S1*
- *CE and UL approvals*
- *Insulation class F(155°C)*

Operating supply must be within 5% of rated vol- tage, and the frequency variance 2%





Performance for KBC size 416-440 (combi)

Type		Pressure bar	50 Hz Vacuum (bar)			60 Hz Vacuum (bar)		
			0	-0.25	-0.5	0	-0.25	-0.5
KBC 416	Vacuum m^3/h Pressure m^3/h Motor capacity kW Temperature increase °C	+0.25	15.4 15.4 0.41 61	11.1 11.1 0.43 66	6.51 6.51 0.44 75	18.2 18.2 0.52 69	13.1 13.1 0.54 74	8.01 8.01 0.55 83
	Vacuum m^3/h Pressure m^3/h Motor capacity kW Temperature increase °C	+0.5	15 15 0.48 69	10 10 0.48 79	6.01 6.01 0.52 83	17.8 17.8 0.59 77	12.2 12.2 0.60 85	7.3 7.3 0.63 93

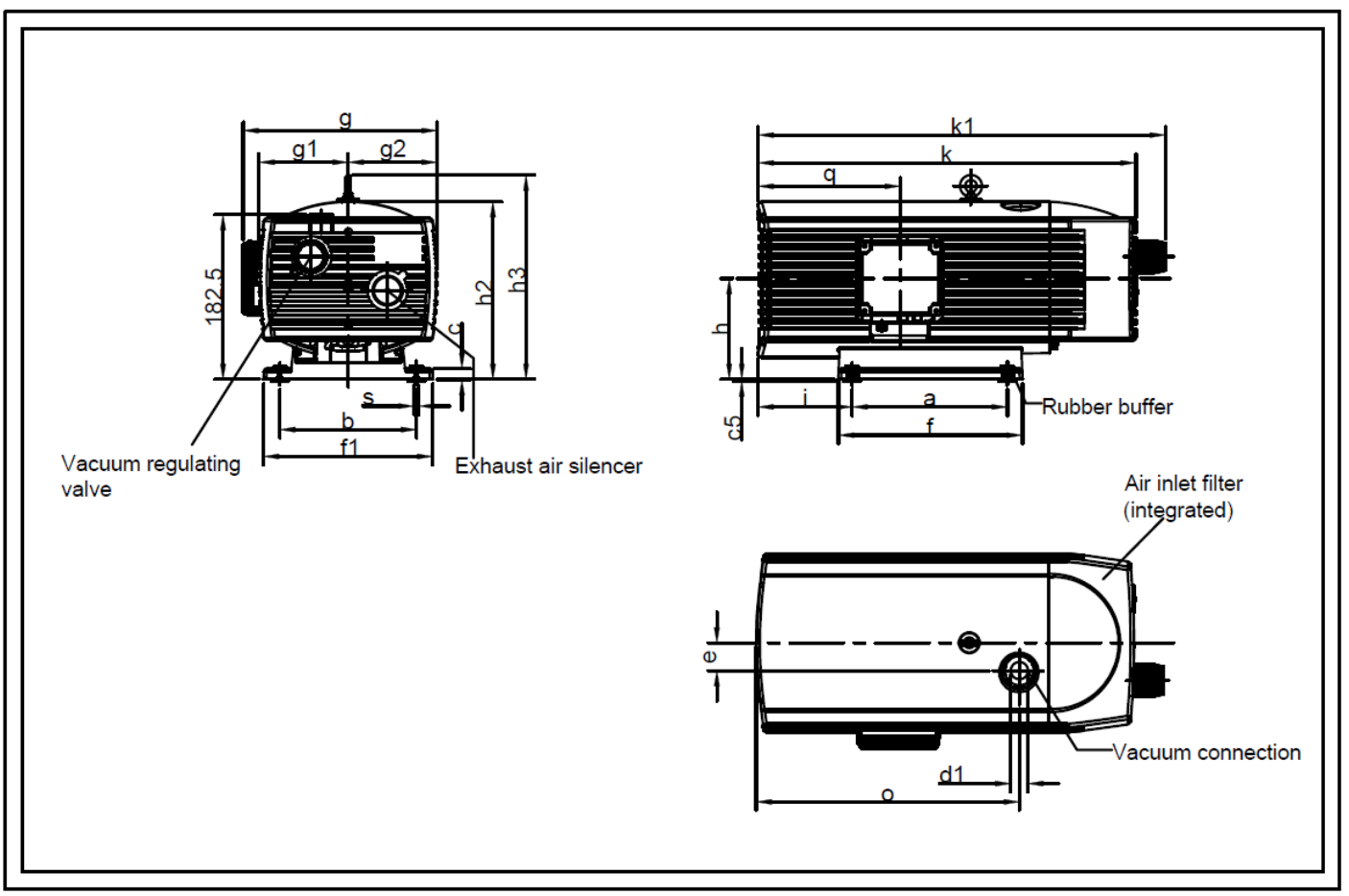
Type		Pressure bar	50 Hz Vacuum (bar)				60 Hz Vacuum (bar)			
			0	-0.4	-0.5	-0.6	0	-0.4	-0.5	-0.6
KBC 425	Vacuum m^3/h Pressure m^3/h Motor capacity kW Temperature increase °C	+0.4	23.8 25.2 0.73 37	12.7 20 0.93 38	10.1 18.6 0.97 39	7.2 17.2 1.1 40	28.5 30.6 0.94 37	16.5 23.5 1.1 41	12.2 21.5 1.12 42	9.1 19.7 1.12 43
	Vacuum m^3/h Pressure m^3/h Motor capacity kW Temperature increase °C	+0.5	23.2 24.7 0.78 36	12.4 29.5 0.93 39	9.9 16.1 1 40	7.11 16.8 1.06 41	28.3 30.1 1.04 38	15.5 23.1 1.16 42	12.1 21.4 1.19 43	9.02 19.5 1.24 44
	Vacuum m^3/h Pressure m^3/h Motor capacity kW Temperature increase °C	+0.6	23 24.3 0.83 38	12.1 19 0.98 39	9.7 17.7 1.05 40	7 16.5 1.1 42	28.1 30.2 1.05 40	15.3 23 1.22 43	12.2 21.1 1.25 44	9 19.3 1.3 45
KBC 440	Vacuum m^3/h Pressure m^3/h Motor capacity kW Temperature increase °C	+0.4	34.6 34.2 1.09 37	17.7 26.1 1.33 41	13.8 23.5 1.37 42	10.1 20.6 1.43 43	42.3 42.2 1.45 40	21.3 30.7 1.75 43	17.1 27.3 1.78 43	13.2 24.4 1.87 44
	Vacuum m^3/h Pressure m^3/h Motor capacity kW Temperature increase °C	+0.5	34.4 33.8 1.13 39	17.4 25.2 1.41 41	13.3 22.9 1.47 42	9.9 19.9 1.53 43	42.2 41.7 1.53 41	21.4 30.6 1.81 45	17 27.1 1.85 44	12.5 23.7 1.96 43
	Vacuum m^3/h Pressure m^3/h Motor capacity kW Temperature increase °C	+0.6	34.1 33.3 1.21 39	17.1 25 1.48 41	13.2 22.6 1.53 42	9.6 19.1 1.62 42	40.9 40.9 1.56 43	21.2 30.2 1.9 44	16.5 26.4 1.96 45	12 22.8 2.03 45

Dimensions KBV size 410-440 (vacuum)

By vacuum (or pressure) close to or above the value of the stamp plate a vacuum-pressure relief valve must be mounted to protect the motor against overload.

Fittings and accessories:

- *External air filter. For extension of life of suction filter in very dusty environments.*
- *Vacuum reduction valve. Protects against overload. (KBV only)*
- *Check valve. For protection against loss of pressure/vacuum in case the system must be stopped. In case piping layout exceeding 5 meters we recommend mounting a check valve. If the pump is switched off air can drift back into the suction valve. This can be prevented by using a check valve or solenoid valve.*



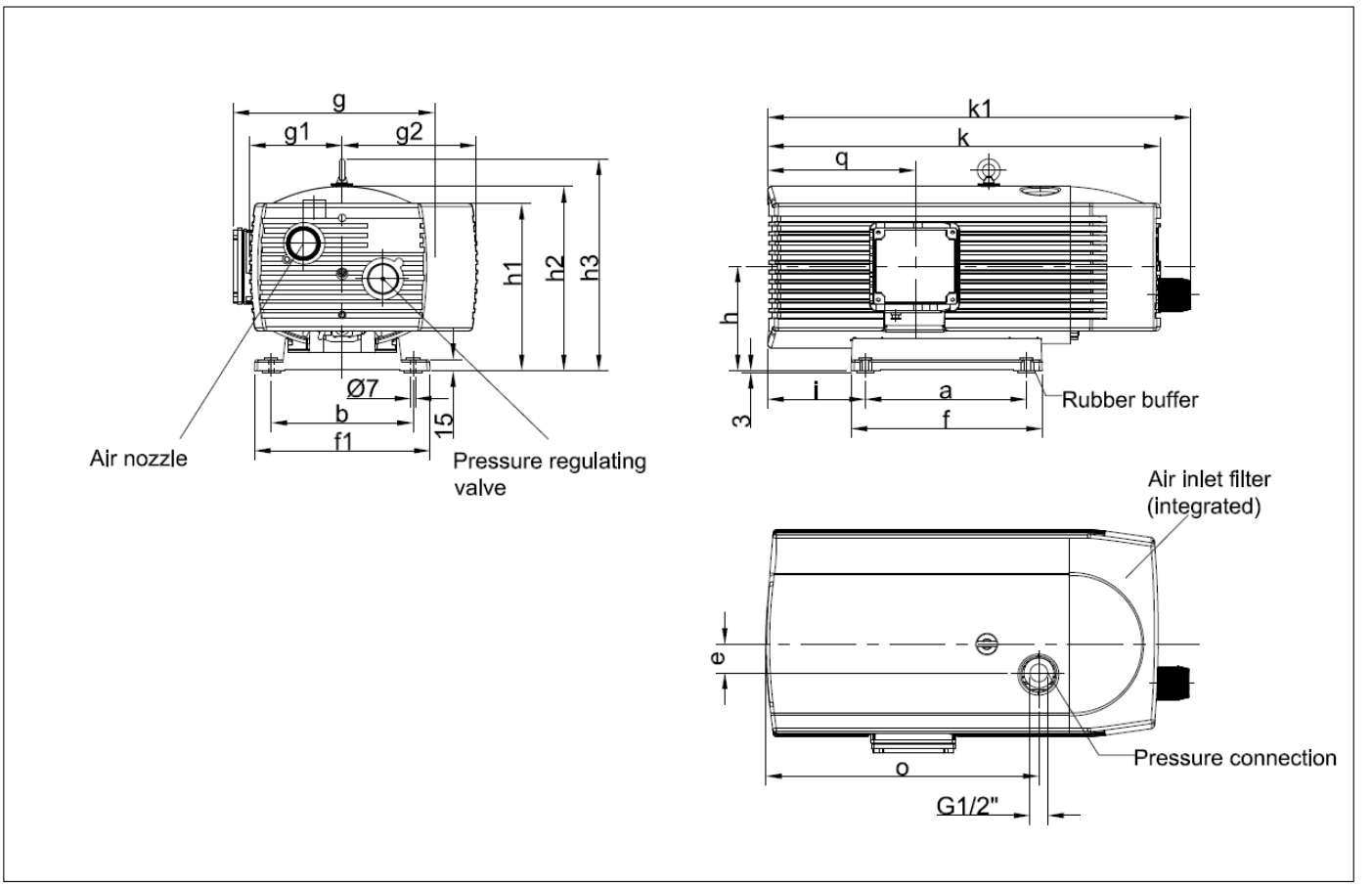
Model	a	b	c	C5	d1	e	f	f1	g	g1	g2	h	H2	H3	l	k	k1	o	q	Øs
KBV 410	205	128	15	3	G1/2"	35	244	156	202	89	89	107	189	192	60	387	426	257	118.5	7
KBV 416	205	128	15	3	G1/2"	35	244	156	225	102	102	113	182.5	208	70	415	454	289	151.5	7
KBV 425	220	198	15	3	G3/4"	40	260	240	252	125	125	140	227	292	101	465	502	300	170	7
KBV 440	220	198	15	3	G3/4"	40	260	240	270	125	125	140	227	292	136	531	570	362	195.5	7

Dimensions KBP size 410 (pressure)

By vacuum (or pressure) close to or above the value of the stamp plate a vacuum-pressure relief valve must be mounted to protect the motor against overload.

Fittings and accessories:

- *Eksternal air filter. For extension of life of suction filter in very dusty environments.*
- *Pressure relief valve. Protects against overload. (KBP only)*
- *Check valve. For protection against loss of pressure/vacuum in case the system must be stopped. In case piping layout exceeding 5 meters we recommend mounting a check valve. If the pump is switched off air can drift back into the suction valve. This can be prevented by using a check valve or solenoid valve.*



Model	a	b	e1	f	f1	g	g1	g2	h	h1	h2	h3	l	k	k1	q	q1
KBP 410	205	128	35	200	142	206	90	90	107	176	189	195	106	387	429	123	134

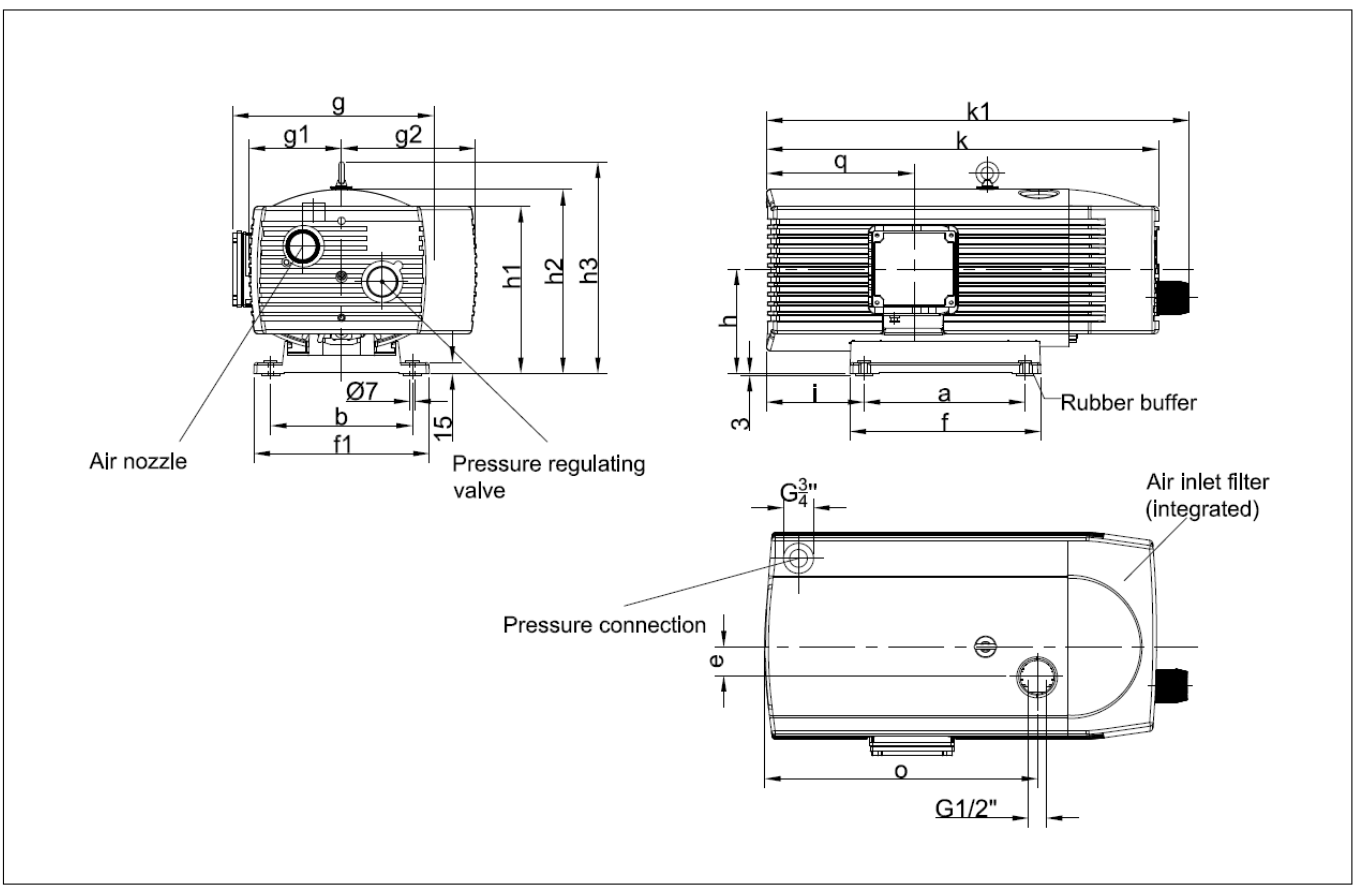
Dimensions KBP size (416K-440K)

Version: Pressure with cooling.

By vacuum (or pressure) close to or above the value of the stamp plate a vacuum-pressure relief valve must be mounted to protect the motor against overload.

Fittings and accessories:

- *External air filter. For extension of life of suction filter in very dusty environments.*
- *Pressure relief valve protects against overload. (only KBP version)*
- *Check valve. For protection against loss of pressure/vacuum in case the system must be stopped. In case piping layout exceeding 5 meters we recommend mounting a check valve. If the pump is switched off air can drift back into the suction valve. This can be prevented by using a check valve or solenoid valve.*



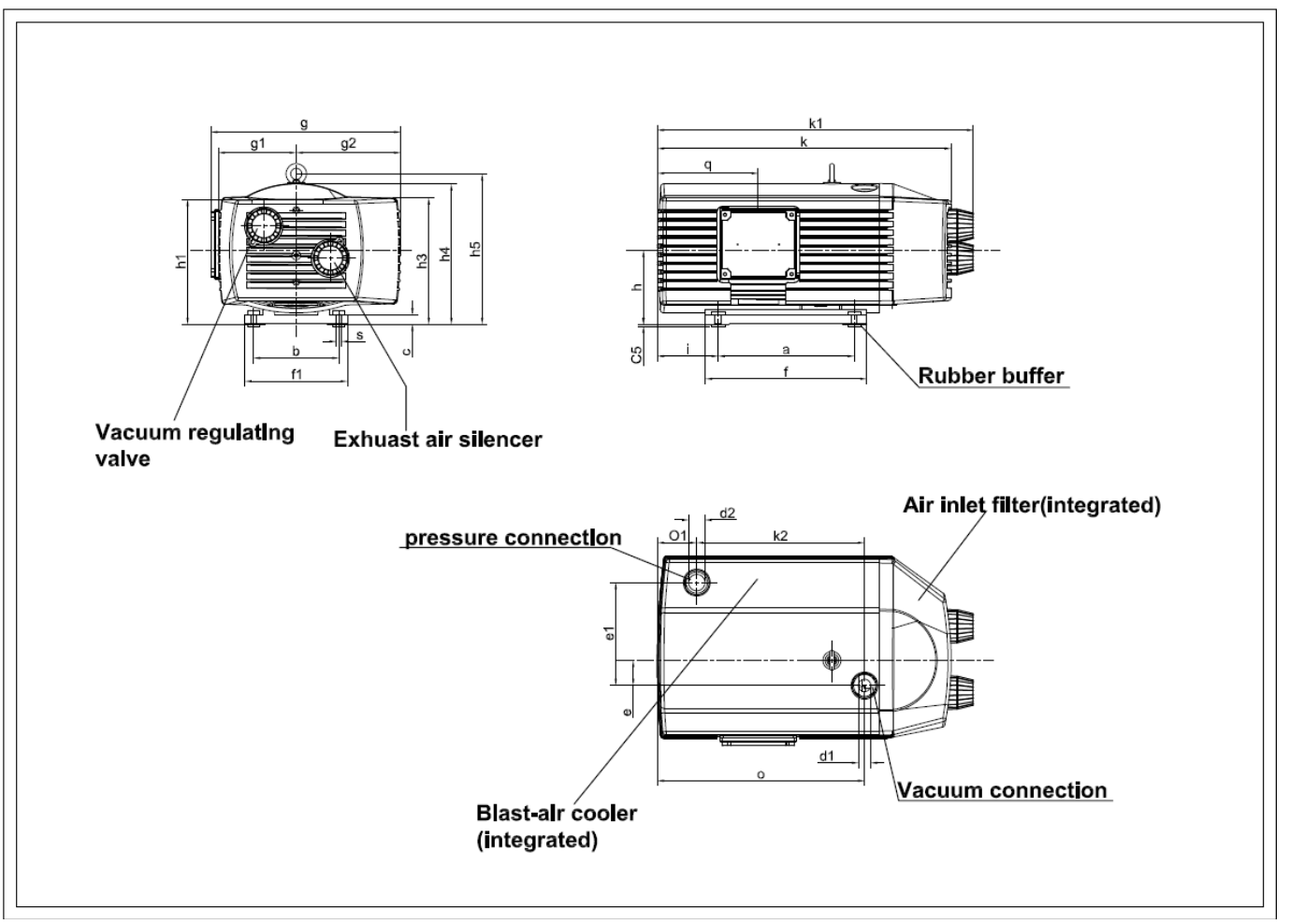
Model	a	b	e	e1	f	f1	g	g1	g2	h	h1	h2	h3	l	k	k1	e	q	q1
KBP 416K	205	128	-	35	242	155	231	102.5	102.5	113	186	205	211	73	416	452	-	151.5	140
KBP 425K	220	198	130	-	260	238	328	173	173	140	227	253	290	130	505	545	54.8	178	-
KBP 440K	220	198	130	-	260	238	328	173	173	140	227	253	290	178	585	625	54.8	245	-

Dimensions KBC size 416 to 440 (combi)

By vacuum (or pressure) close to or above the value of the stamp plate a vacuum-pressure relief valve must be mounted to protect the motor against overload.

Fittings and accessories:

- *External air filter. For extension of life of suction filter in very dusty environments.*
- *Vacuum reduction valve and pressure relief valve protects against overload. (only KBC version)*
- *Check valve. For protection against loss of pressure/vacuum in case the system must be stopped. In case piping layout exceeding 5 meters we recommend mounting a check valve. If the pump is switched off air can drift back into the suction valve. This can be prevented by using a check valve or solenoid valve.*

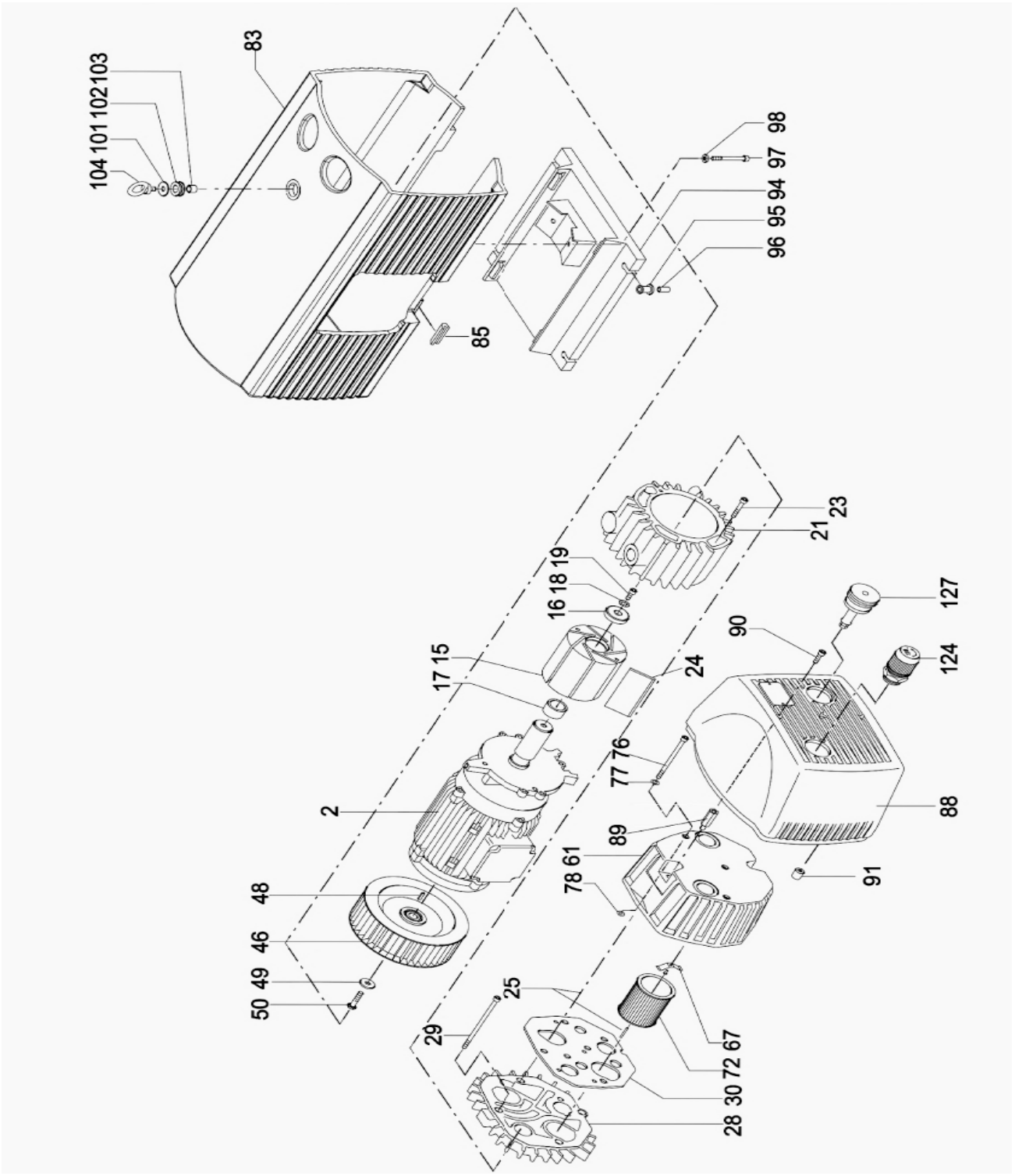


Model	a	b	c	c5	d1	d2	e	e1	f	f1	g	g1	g2	h
KBC 416	205	128	15	3	G1/2"	G1/2"	37.5	155	244	156	283	105.5	155.5	110
KBC 425	220	198	15	3	G3/4"	G3/4"	40	170	260	238	328	125	173	140
KBC 440	220	198	15	3	G3/4"	G3/4"	40	170	261	240	321	126	174	140.5
Model	**h1**	**h3**	**h4**	**h5**	**l**	**k**	**k1**	**k2**	**o**	**o1**	**q**	**S**		
KBC 416	205	205	210	225	110	465	511	296	331	34.8	182	7		
KBC 425	229	227	250	290	130	505	545	281.5	336.3	54.8	178	7		
KBC 440	229	223.5	249	295	177.5	586	617	362	414	55	241	7		

System drawing size 410 to 440K

Rotary Vane Pump

KBP has a pressure relief valve which is set for max. pressure (full engine load).
This calibration must not be adjusted.
KBC 425/440 has a cooler for reduction of the temperature of the outlet air.
The drawing shows KBV410~440



Parts list size 410 to 440K

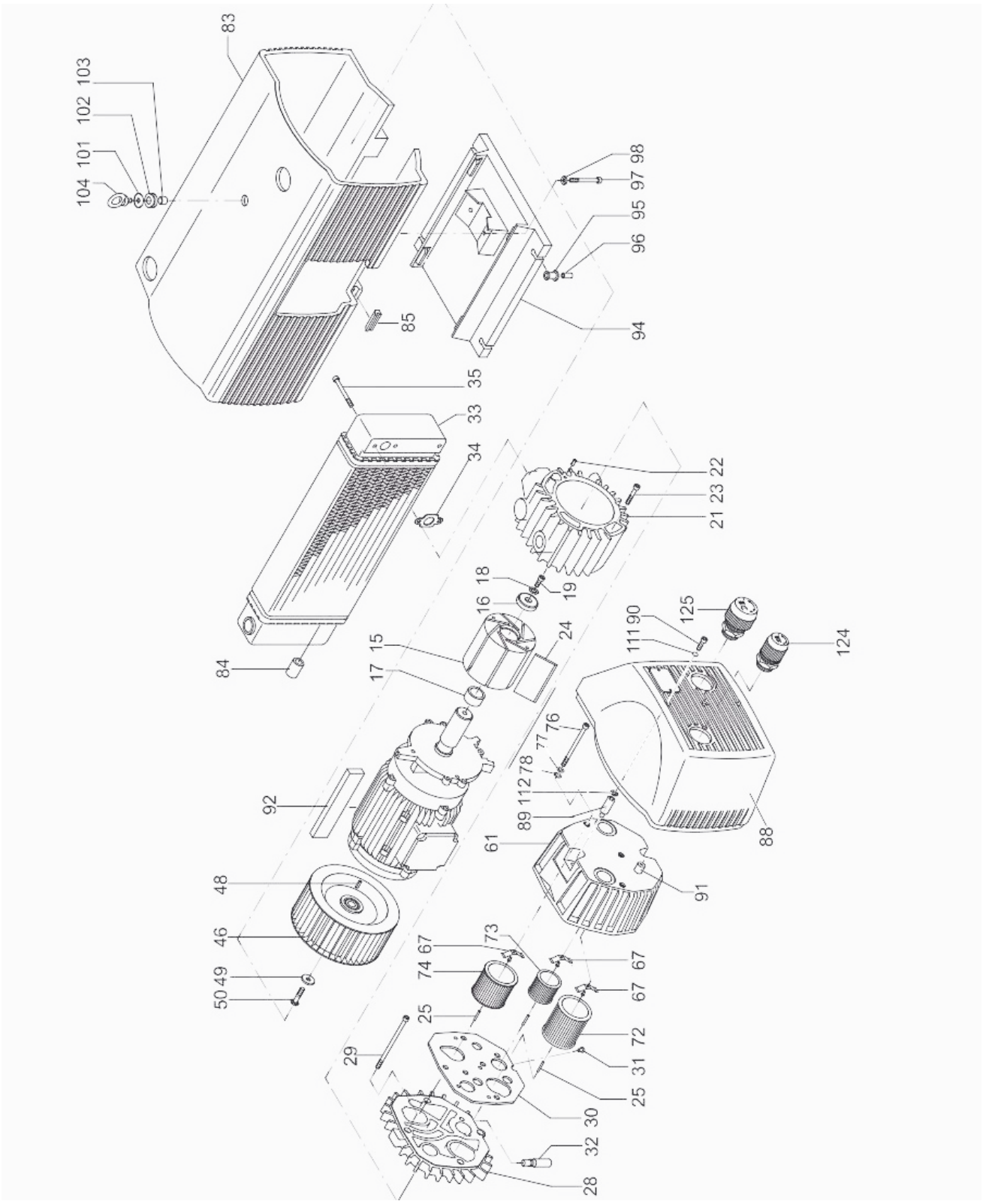
Article no.	Description	No.
15	ROTOR	
16	CLAMPING DISC	
17	STAR-TOLERANCE-RING	
18	TOOTHED SPRING WASHER	
19	SOCKET HEAD SCREW	
21	PUMP BODY	
23	SOCKET HEAD SCREW	
24	CARBON VANES(KIT)	
25	LOCATING PIN	
28	LID	
29	SOCKET HEAD SCREW	
30	GASLKET	
46	FAN	
48	KEY	
49	WASHER	
50	SHAFT END BOLT	
61	FILTER COVER	
67	BLADE SPRING	
72	FILTER CARTRIDGE(1X)	
76	SOCKET HEAD SCREW	
77	SEALING RING	
78	O-RING	
83	PROTECTING HOOD	
85	RUBBER ELEMENT	
88	PROTECTING HOOD(FRONT)	
89	SPACER	
90	SOCKET HEAD SCREW	
91	RUBBER ELEMENT	
92	EDGE PROTECTION	
94	FOOT	
95	RUBBER ELEMENT	
96	SPACING COLLAR	
97	SOCKET HEAD SCREW	
98	WASHER	
101	DISC	
102	RUBBER BUSHING	
103	SPACER TUBE	
104	EYE SCREW	
111	O-RING	
112	RUBBER DISC	
124	VACUUM REGULATING VALVE	
127	BLOW-OFF VALVE	

Replacement of parts and extraordinary maintenance of the vacuum pump must be carried out by authorised dealer and by authorised personnel only. If maintenance is carried out in another way than prescribed the warranty stops and the manufacturer will disclaim any responsibility for defects and personal injury related to unauthorized repair of the product. Do always order spare parts from your authorized dealer and remember to state type of model, the name of the spare part as well as its spare part number.

System drawing size 410 to 440K

Rotary Vane pump

Model KBP has a pressure relief valve which is set for max. pressure (full engine load).
This calibration must not be adjusted.
KBC 425/440 has a cooler for reduction of the temperature of the outlet air.
The drawing shows KBP 416K~440K



Parts list size 425K and 440K

Article no.	Description	No.
15	ROTOR	
16	CLAMPING DISC	
17	STAR-TOLERANCE-RING	
18	TOOTHED SPRING WASHER	
21	PUMP BODY	
22	LOCATING PEG	
23,29,35,76,90,97	SOCKET HEAD SCREW	
24	CARBON VANES(KIT)	
25	LOCATING PEG	
28	LID	
30	GASKET	
31	SLOTTED PIN	
32	NOZZLE	
33	COOLER	
34	GASKET	
46	FAN	
48	KEY	
49	WASHER	
50	SHAFT END BOLD	
61	FILTER COVER	
67	LEAF SPRING	
72,73,74	FILTER CARTRIDGE	
77	SEALING RING	
78	O-RING	
83,88	PROTECTING HOOD	
84	TUBE FLEXIBLE	
85,91,95	RUBBER ELEMENT	
89	SPACER	
92	EDGE PROTECTION	
94	FOOT	
96	SPACING COLLAR	
98	WASHER	
101	VALVE DISC	
102	RUBBER BUSHING	
103	SPACER TUBE	
104	RING SCREW	
111	O-RING	
112	RUBBER DISC	
124	VACUUM REGULATING VALVE	
125	PRESSURE REGULATING VALVE	

Replacement of parts and extraordinary maintenance of the vacuum pump must be carried out by authorised dealer and by authorised personnel only. If maintenance is carried out in another way than prescribed the warranty stops and the manufacturer will disclaim any responsibility for defects and personal injury related to unauthorized repair of the product. Do always order spare parts from your authorized dealer and remember to state type of model, the name of the spare part as well as its spare part number.

Technical data KBV 3060 to 3140 (vacuum)

Model KBV for vacuum-applications
max. pressure down to 100/200 mbar abs.

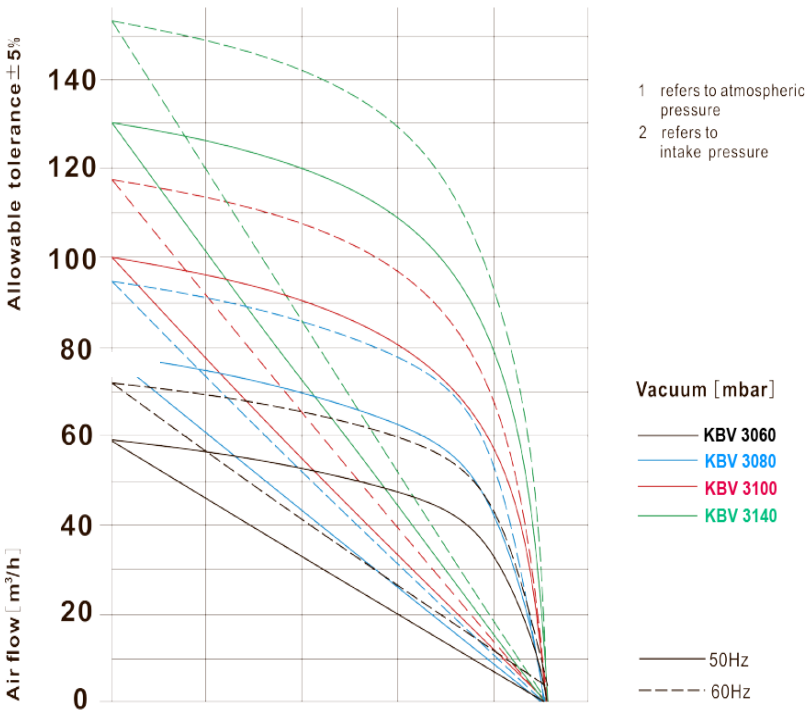
Rotary vane pumps KBV are running completely without oil.

Operating conditions:
Air temperature inlet: 5°C ~ 45°C
Altitude above sea level: max. 800 m.
Relative humidity: 80% max.

Storage:
Store the rotary vane pump in dry surroundings.
Store in a place free of dust.
Store in a place with low vibrations (<2,8 mm/s)
Ambient temperature <40°C

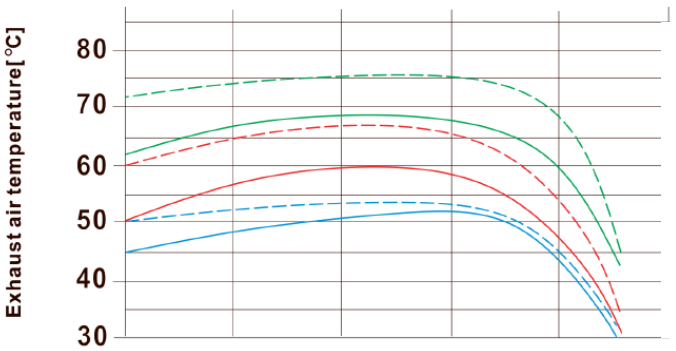
Motor data:
EN 60034
IP54, 55
Operating cycle S1
CE and UL approvals
Insulation class F (155°C)

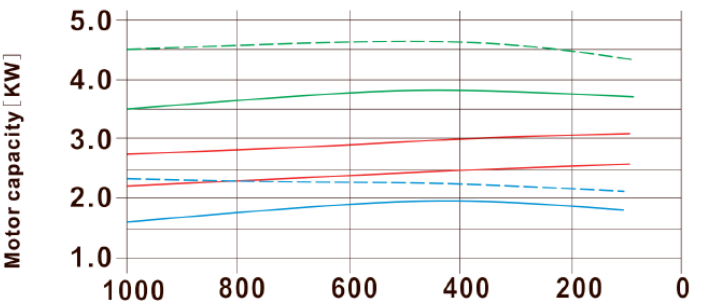
Operating supply must be within 5% of the rated voltage, and the frequency variance 2%.



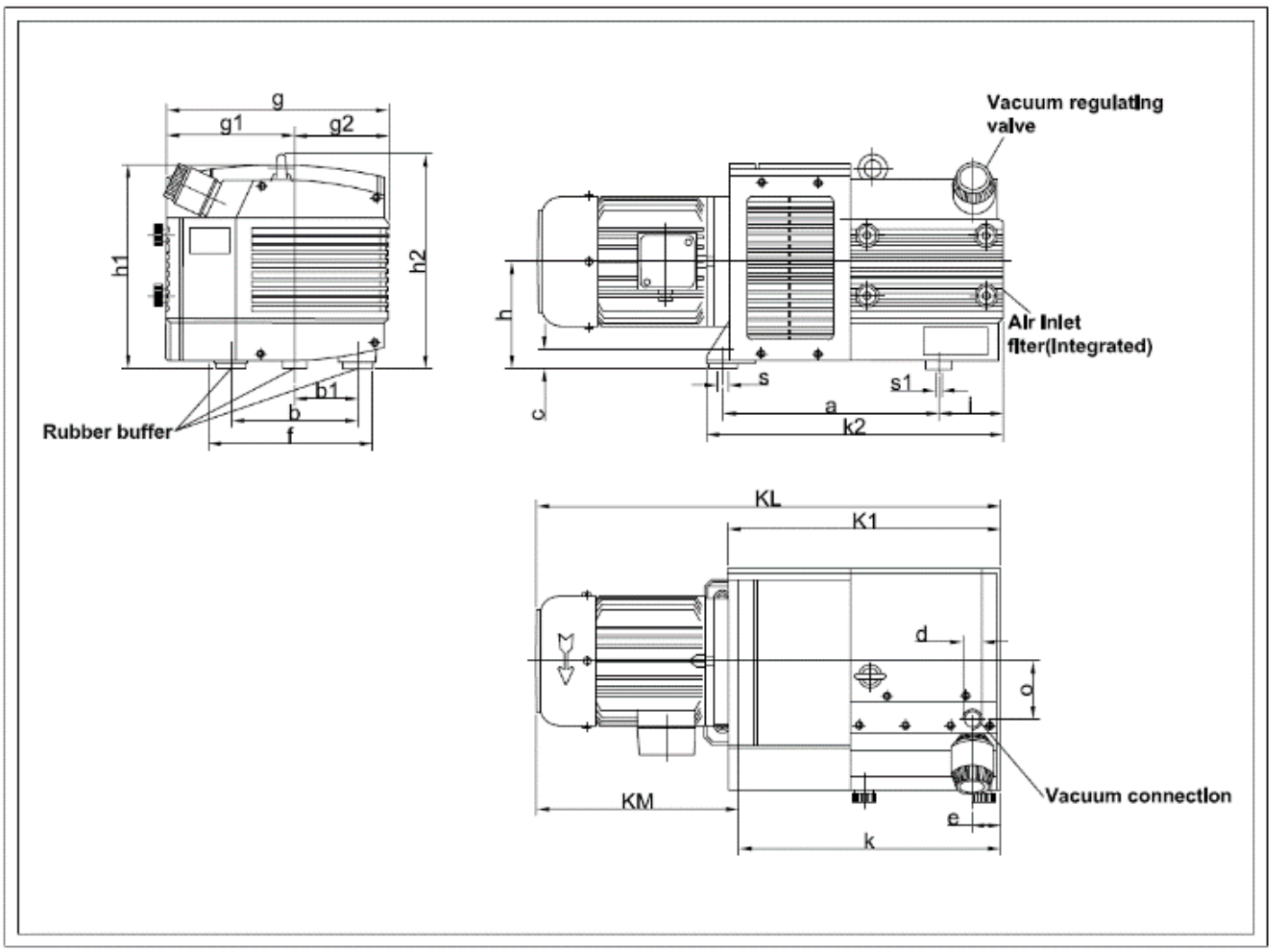
Type	Air flow (m3/h)		Motor power (KW)		Moter voltage (V)		Speed (RPM)		Vacuum (mbar)	Noise level (dB)		Weight (kg)	Motor type
	50HZ	60HZ	50HZ	60HZ	50HZ	60HZ	50HZ	60HZ		50HZ	60HZ		
KBV 3060	60	72	2.2	2.6	230/400V +/-10%	230/400V +/-10%	1420	1700	150	71	72	70	B5/250
KBV 3080	80	96	2.2	2.6	230/400V +/-10%	230/400V +/-10%	1420	1700	150	72	75	70	B5/250
KBV 3100	100	120	3.0	3.6	230/400V +/-10%	230/400V +/-10%	1420	1700	150	75	77	105	B5/250
KBV 3140	140	168	4.0	3.8	230/400V +/-10%	230/400V +/-10%	1420	1700	150	76	79	125	B5/250

- *Reference atmosphere: 1000 mbar, +20OC*
- *Tolerance ± 5%*





Dimensions KBV 3060 to 3140 (vacuum)



Model	a	b	b1	c	d1	e	f	g	g1	g2	H1	H2
KBV 3060	327	190	95	33	G1"	49.5	235	335	189	150	314	331
KBV 3080	327	190	95	33	G1"	49.5	235	355	189	150	314	331
KBV 3100	401.5	245	134	33	G1-1/2"	60	295	470	232.5	221.5	376	382
KBV 3140	401.5	245	134	33	G1-1/2"	60	295	470	232.5	221.5	376	382

Model	l	k	k1	k2	KM	kL	o	øs	S1
KBV 3100	93.5	401	419	451	330"	728.5	65	12	M8
KBV 3080	93.5	401	419	451	330	731	65	12	M8
KBV 3100	146.5	527.5	543	570	398	870	95	12	M8
KBV 3140	146.5	527.5	543	570	398	870	95	12	M8

Technical data KBP 3060 to 3140 (pressure)

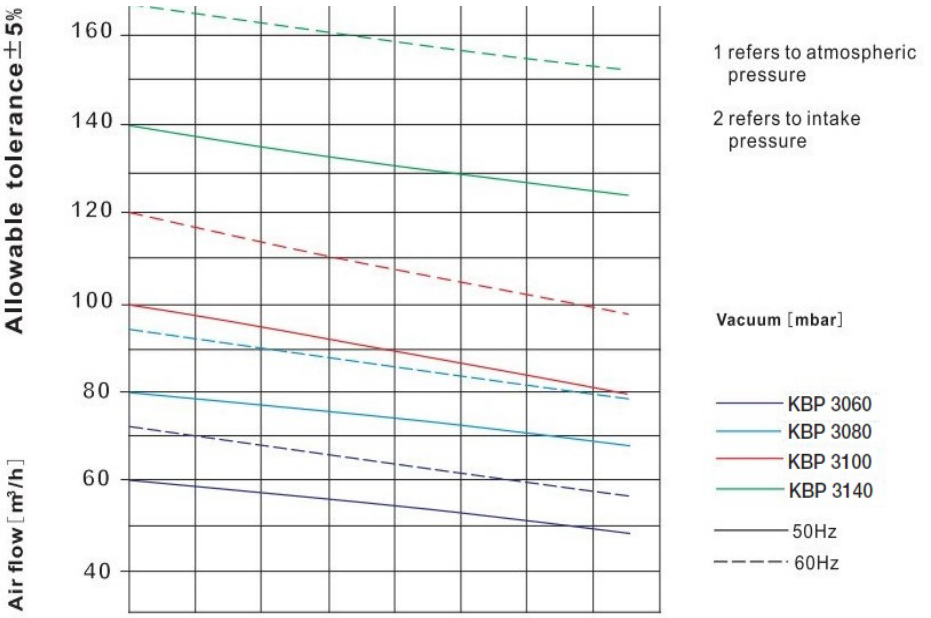
Model KBP for pressure applications up to 1500 mbar (2500 mbar abs.).

Rotary vane pumps KBP are running completely without oil.

Operating conditions:
Air temperature inlet: 5°C ~ 45°C
Altitude above sea level: max. 800 m.
Relative humidity: 80% max.

Storage:
Store the rotary vane pump in dry surroundings.
Store in a place free of dust.
Store in a place with low vibrations (<2,8 mm/s)
Ambient temperature <40°C

Motordata:
EN 60034
IP54, 55
Operating cycle S1
CE and UL approvals
Insulation class F (155°C)

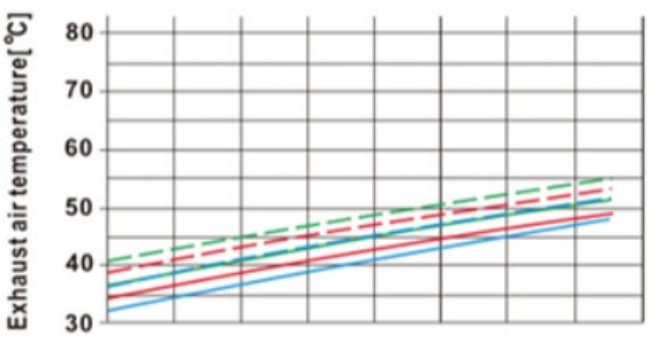


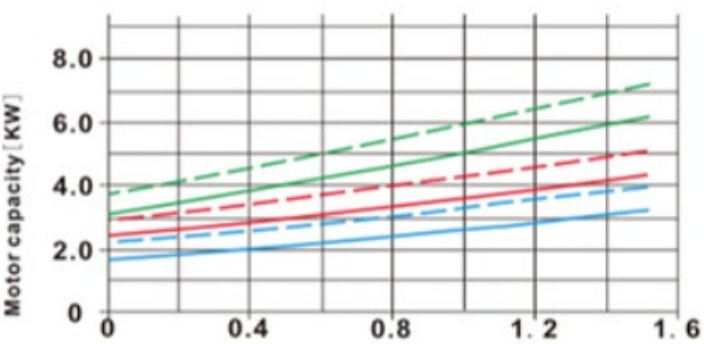
Type	Air flow (m3/h)		Motor power (KW)		Moter voltage (V)		Speed (RPM)		Pressure (bar)	Noise level (dB)	Weight (kg)	Motor type
	50HZ	60HZ	50HZ	60HZ	50HZ	60HZ	50HZ	60HZ				
KBP 3060	60	72	3.0	3.6	230/400V +/- 10%	230/400V +/- 10%	1450	1740	+1.5	72	69	B5/300
KBP 3080	80	96	4.0	4.8	230/400V +/- 10%	230/400V +/- 10%	1450	1740	+1.5	74	77	B5/300
KBP 3100	100	120	5.5	6.6	400/690V +/- 10%	400/690V +/- 10%	1450	1740	+1.5	76	127	B5/300
KBP 3140	140	168	7.5	9.0	400/690V +/- 10%	400/690V +/- 10%	1450	1740	+1.5	82	146	B5/300

Operating supply must be within 5% of the rated voltage, and the frequency variance 2%.

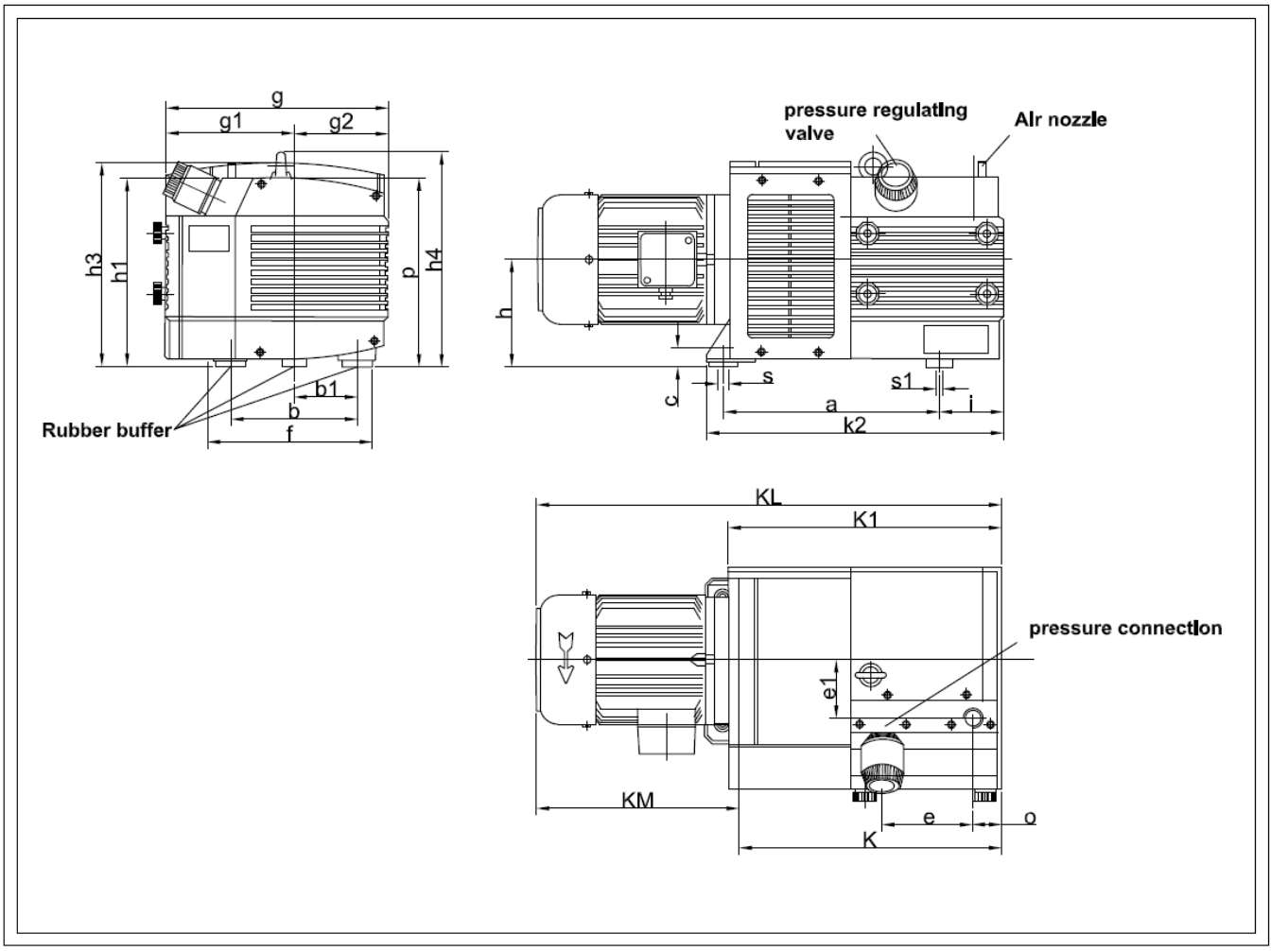
Reference atmosphere: 1000 mbar, +20OC

Tolerance ± 5%





Dimensions KBP 3060 and 3140 (pressure)



Model	a	b	b1	c	d2	e	e1	f	g	g1	g2	h	h1	h3	h4	l
KBP 3060	327	190	95	30	G1"	138	65	250	353	195	141	162	289	312	328	96
KBP 3080	327	190	95	30	G1"	138	65	250	353	195	141	162	289	312	328	96
KBP 3100	401.5	245	122.5	30	G1-11/2"	190	95	295	470	223	230	162	297	330	336	140
KBP 3140	401.5	245	122.5	30	G1-11/2"	190	95	295	470	223	230	162	297	330	336	140

Model	k	k1	k2	km	kl	o	p	o	S1
KBV 3060	397	415	448	306	700.5	46	289	12	M8
KBV 3080	397	415	448	306	703	46	289	12	M8
KBV 3100	501	539	563	370	370	60	297	12	M8
KBV 3140	501	539	563	408	408	60	297	12	M8

Technical data KBC 3060 to 3140 (combi)

Model KBC for pressure- and vacuum applications

Rotary vane pumps KBP are running completely without oil.

Operating conditions:
Air temperature inlet: 5°C ~ 45°C
Altitude above sea level: max. 800 m.
Relative humidity: 80% max.

Storage:
Store the rotary vane pump in dry surroundings.
Store in a place free of dust.
Store in a place with low vibrations (<2,8 mm/s)
Ambient temperature <40°C

Motor data:
EN 60034
IP54, 55
Operating cycle S1
CE and UL approvals
Insulation class F (155°C)

Operating supply must be within 5% of the rated vol- tage, and the frequency variance 2%.

Type	Air flow (m3/h)		Motor power (KW)		Moter voltage (V)		Speed (RPM)		Pressure (bar)	Noise level (dB)	Weight (kg)	Motor type
	50HZ	60HZ	50HZ	60HZ	50HZ	60HZ	50HZ	60HZ				
KBC 3060	60	72	3.0	3.6	230/400V +/-10%	230/400V +/-10%	1450	1740	+1.5	72	69	B5/300
KBC 3080	80	96	4.0	4.8	230/400V +/-10%	230/400V +/-10%	1450	1740	+1.5	74	77	B5/300
KBC 3100	100	120	5.5	6.6	400/690V +/-10%	400/690V +/-10%	1450	1740	+1.5	76	127	B5/300
KBC 3140	140	168	7.5	9.0	400/690V +/-10%	400/690V +/-10%	1450	1740	+1.5	82	146	B5/300

-
Reference atmosphere: 1000 mbar, +20OC
- Tolerance ± 5%

Dimensions KBP 3060 and 3140 (pressure)

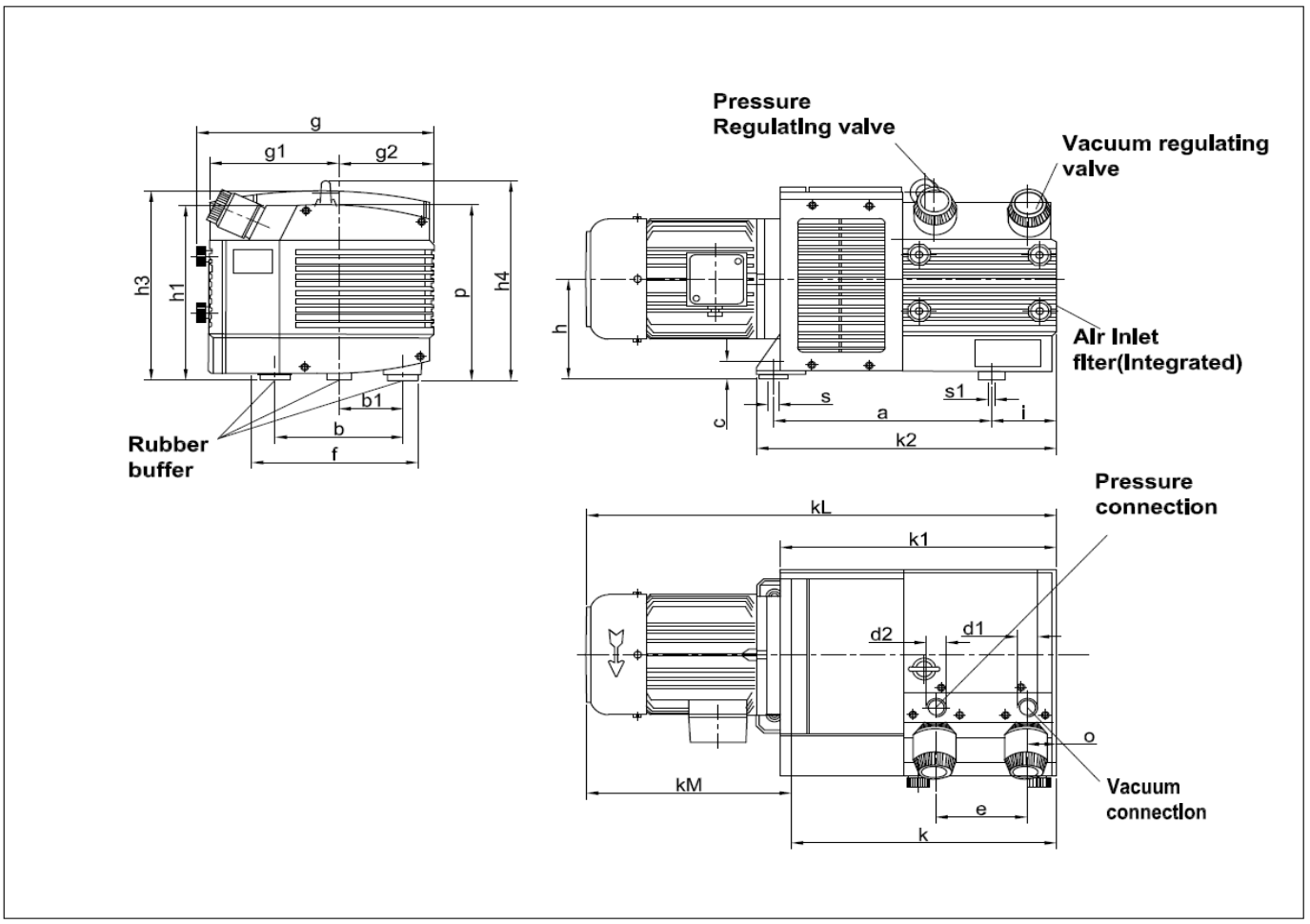
Type		Pressure (bar)	50 Hz Vacuum (bar)				60 Hz Vacuum (bar)			
			0	-0.4	-0.5	-0.6	0	-0.4	-0.5	-0.6
KBC 3060	Vacuum m^3/h Pressure m^3/h Motor capacity kW Temperature increase ℃	+0.4	56 58 1.78 40	29 42.7 2.1 44	21.8 37.4 2.17 45	16.6 33.9 2.18 46	65.1 68.4 2.41 42	35.2 49.7 2.71 46	28 44.6 2.76 46	21.6 39.1 2.82 46
	Vacuum m^3/h Pressure m^3/h Motor capacity kW Temperature increase ℃	+0.5	55 56.8 1.87 41	28.3 42 2.1 44	22.1 37.2 2.23 45	16.1 32.7 2.33 46	65 68.2 2.52 44	34.7 49.5 2.86 46	27 43.4 2.85 46	21.1 38.5 2.9 47
	Vacuum m^3/h Pressure m^3/h Motor capacity kW Temperature increase ℃	+0.6	54.5 56.1 1.9 40	28.2 41.3 2.25 44	21.8 37 2.35 46	15.5 32.3 2.41 46	63.7 67.1 2.6 45	33.7 48.2 2.91 48	27.2 43.3 3 49	20.5 38 3.05 49
KBC 3080	Vacuum m^3/h Pressure m^3/h Motor capacity kW Temperature increase ℃	+0.4	64 65.9 2.11 41	32.4 51.8 2.56 46	25 47.3 2.63 45.8	17.9 43.1 2.7 45.8	77.5 82.5 3.3 49	40.5 62.9 3.3 49	31.7 56.7 3.33 50	23.6 50.8 3.39 50
	Vacuum m^3/h Pressure m^3/h Motor capacity kW Temperature increase ℃	+0.5	63.8 65 2.15 41	32.1 51.2 2.65 48	25 47 2.72 48	18.1 43 2.82 49	76.2 81.2 2.93 45	40.5 62.8 3.36 50	31.8 56.6 3.42 52	23.3 50.3 3.47 51
	Vacuum m^3/h Pressure m^3/h Motor capacity kW Temperature increase ℃	+0.6	62.8 64.5 2.25 43	32 51 2.73 46	24.6 46.6 2.8 49	17.5 42.3 2.9 48	75.9 80.6 3 46	40.5 62.5 3.45 52	31.5 55.8 3.53 52	23.4 50.1 3.57 52
KBC 3100	Vacuum m^3/h Pressure m^3/h Motor capacity kW Temperature increase ℃	+0.4	95.6 98 3.1 38	51 74.5 3.85 42	40.5 67 3.97 43	29.6 58.5 4.1 44	112.3 117.2 4.45 42	62 87.2 5 46	49.6 77.7 5.04 46	37.5 67.5 5.12 46
	Vacuum m^3/h Pressure m^3/h Motor capacity kW Temperature increase ℃	+0.5	95.6 97.8 3.25 40	51 74.5 4 43	40.1 66.6 4.1 45	29.5 58.7 4.23 46	113.5 119 4.52 44	62.5 88.1 5.11 47	50 78 5.2 48	37.5 67.6 5.3 48
	Vacuum m^3/h Pressure m^3/h Motor capacity kW Temperature increase ℃	+0.6	96 98.5 3.4 40	50.1 73.5 4.17 45	39.6 66.2 4.3 46	29.7 58.7 4.23 46	112.7 117.6 4.65 44	61.7 87.7 5.3 47	49 77.5 5.37 47	37.5 67.6 5.44 48
KBC 3140	Vacuum m^3/h Pressure m^3/h Motor capacity kW Temperature increase ℃	+0.4	126.5 140 5 46	72 103 5.26 56	58 86 5.35 57	43 82 5.35 57	150 164 6.56 53	84 118.1 6.5 59	67 105 6.3 60	51 91.3 6.3 61
	Vacuum m^3/h Pressure m^3/h Motor capacity kW Temperature increase ℃	+0.5	125 138 5.1 48	69 101 5.4 56	54.8 91 5.43 57	41 80 5.45 57	149 162.8 6.75 54	83 117 6.59 59	66.3 104 6.53 61	50 90.8 6.5 62
	Vacuum m^3/h Pressure m^3/h Motor capacity kW Temperature increase ℃	+0.6	125.9 138 5.2 50	65 99 5.55 57	51 89 5.55 59	38 77.8 5.6 58	147.8 162 6.83 55	83 116 6.75 60	65.9 102.7 6.8 60	50 89.8 6.85 62

Dimensions KBC size 3060 to 3140 (combi)

By vacuum (or pressure) close to or above the value of the stamp plate a vacuum-pressure relief valve must be mounted to protect the motor against overload.

Fittings and accessories:

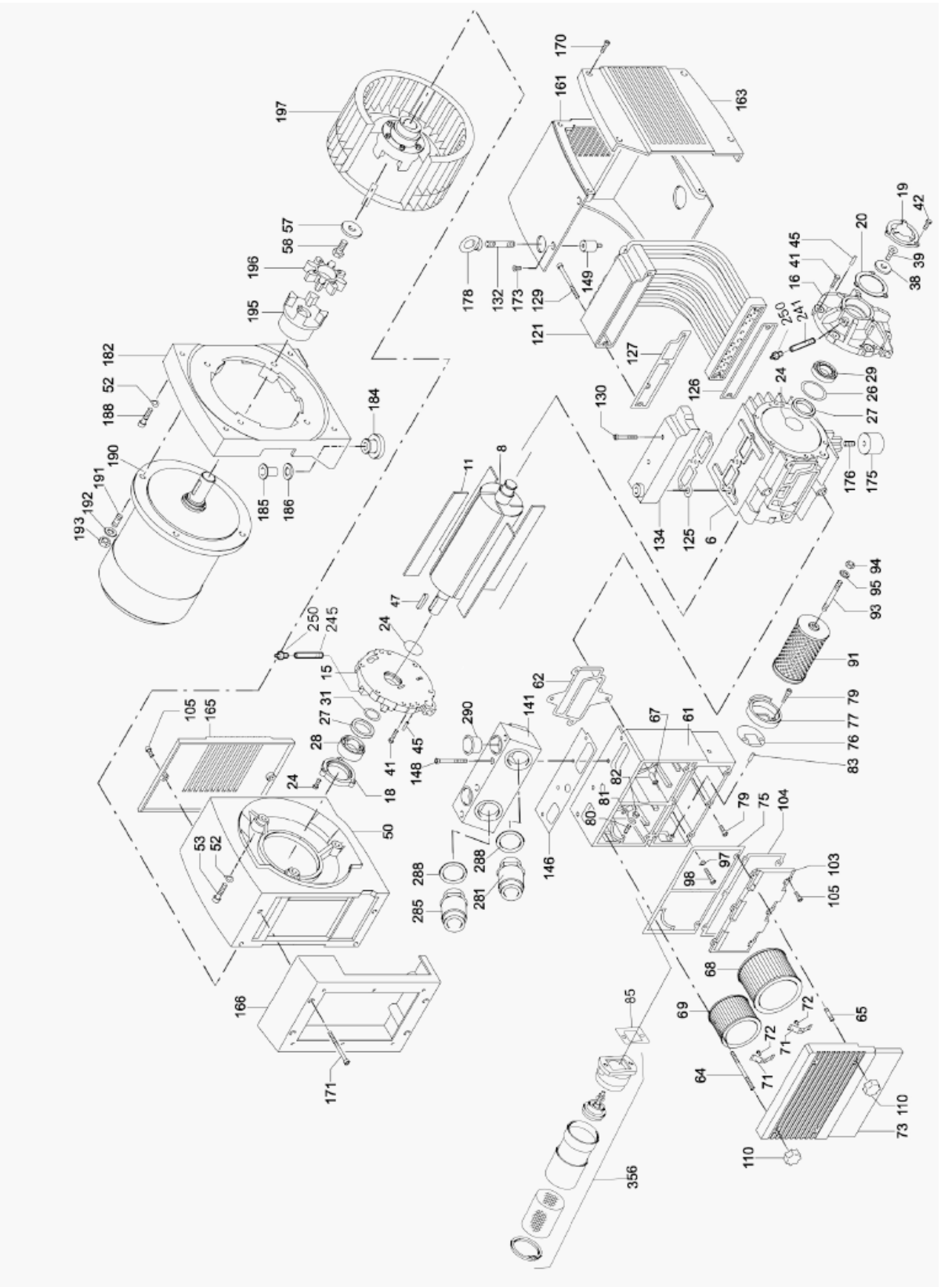
- *External air filter. For extension of life of suction filter in very dusty environments.*
- *Vacuum reduction valve and pressure relief valve protects against overload. (only KBC version)*
- *Check valve. For protection against loss of pressure/vacuum in case the system must be stopped. In case piping layout exceeding 5 meters we recommend mounting a check valve. If the pump is switched off air can drift back into the suction valve. This can be prevented by using a check valve or solenoid valve.*



Model	a	b	b1	c	d1	d2	e	e1	f	g	g1	g2	h
KBC 3060	327	190	95	33	G1"	G1"	138	65	235	355	189	150	161
KBC 3080	327	190	95	33	G1"	G1"	138	65	235	355	189	150	161
KBC 3100	401.5	245	134	33	G1-1/2"	G1-1/2"	234	95	295	470	232.5	221.5	162
KBC 3140	401.5	245	134	33	G1-1/2"	G1-1/2"	234	95	295	470	232.5	221.5	162
Model	**h1**	**h3**	**h4**	**l**	**k**	**k1**	**k2**	**km**	**kl**	**o**	**p**	**s1**	
KBC 3060	275	314	331	93.5	397	415	448	306	703	46	289	M8	
KBC 3080	275	314	331	93.5	397	415	448	306	703	46	289	M8	
KBC 3100	335	376	382	140	501	539	563	370	895	60	297	M8	
KBC 3140	335	376	382	140	501	539	563	408	925.5	60	297	M8	

System drawing size 3060 and 3140

Rotary Vane Pump - vacuum, pressure and combi
KBP has a pressure relief valve which is set for max. pressure (full engine load).
This calibration must not be adjusted.
KBP 3060/3080 has a cooler for reduction on the temperature of the outlet air.
The drawing shows KBV/KBP 3060



Parts list size 3060 and 3140

Article no.	Description	No.
06	PUMP	
09	ROTOR	
11	CARBON VANES(KIT)	
15	LID	
16	LID	
18	VEARING COVER	
19	BEARING COVER	
20	GASKET	
24	SEAL	
26	COMPENSATING DISC	
27	SHAFT-SEALING RING	
28	BALL BEARING	
29	BALL BEARING	
31	SET DISTANCE DISC	
37	HEX HEAD SCREW	
38	CLAMPING DISC	
39	SCREW	
41	HEX-HEAD SCREW	
42	HEX-HEAD SCREW	
45	STRAIGHT PIN	
47	KEY	
50	CONNECTION FLANGE	
52	WASHER	
53	SOCKET HEAD SCREW	
57	WASHER	
58	SHAFT END BOLD	
61	FILTER HOUSING	
62	GASKET	
64,65	STUD	
67	SILENCER TUBE	
68	FILTER CARTRIDGE	
71	LEAF SPRING	
73	FILTER-COVER	
75.76	GASKET	
77	FILTER COVER	
79	SOCKERT HEAD SCREW	
81	WASHER	
83	LOCATING PEG	
85	GASKET	
91	FILTER CARTRIDGE C713(1X)	
93	STUD	
94	HEX.NUT	
95	WASHER	
97	WASHER	
98	SOCKET HEAD SCREW	

Article no.	Description	*No.*
103	COVER	
104	GASKET	
105	SOCKET HEAD SCREW	
106	WASHER	
110	HANDLE	
121	COOLER	
125,126,127	GASKET	
129,130,131	SOCKET HEAD SCREW	
132	STUD	
134	COVER	
142	CONNECTING PIECE	
146	GASKET	
148	SOCKET HEAD SCREW	
149	RUBBER BUFFER	
150	WASHER	
161	COVERING HOOD	
163	AIR GUIDE HOOD	
165	VENTILATOR HOOD	
170,171,172	SOCKET HEAD SCREW	
173	SCREW	
174	SPRING DISC	
175	RUBBER BUFFER	
176	THREADED PIN	
178	RING NUT	
182	FLANGES	
184	RUBBER BUSHING	
185	PIPE RIVET	
186	WASHER	
188	SOCKET HEAD SCREW	
189	WASHER	
190	STUD	
191	WASHER	
192	HEX.NUT	
195	COUPLING	
196	COUPLING DISC	
197	COUPLING WITH FAN	
210	VENTILATOR HOOD, COMPL.	
282	VACUUM REGULATING VALVE	
288	SEALING RING	
293	BLOW-OFF VALVE	

System drawing size 3200 and 3360

Model KBV for vacuum-applications
max. pressure down to 100/200 mbar abs.

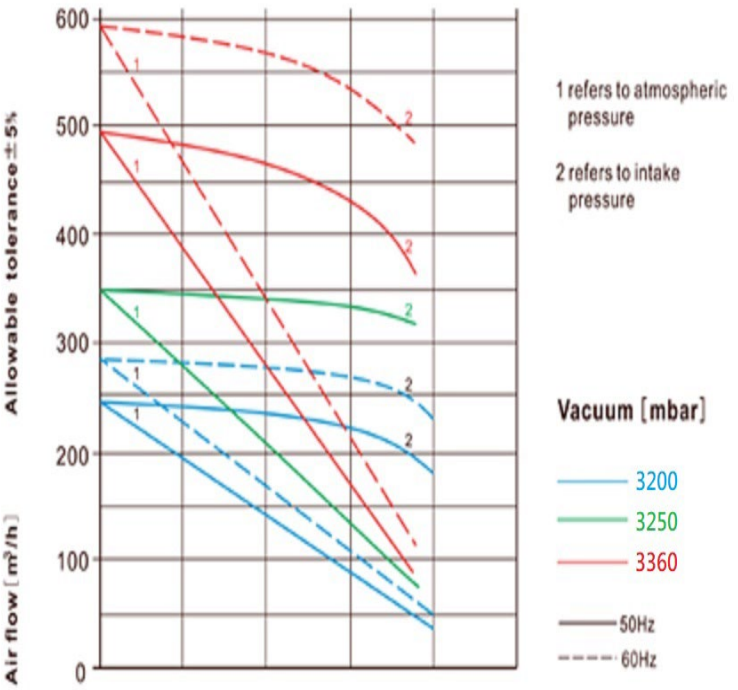
Rotary vane pumps KBV are running completely without oil.

Operating conditions:
Air temperature inlet: 5°C ~ 45°C
Altitude above sea level: max. 800 m.
Relative humidity: 80% max.

Storage:
Store the rotary vane pump in dry surroundings.
Store in a place free of dust.
Store in a place with low vibrations (<2,8 mm/s)
Ambient temperature <40°C

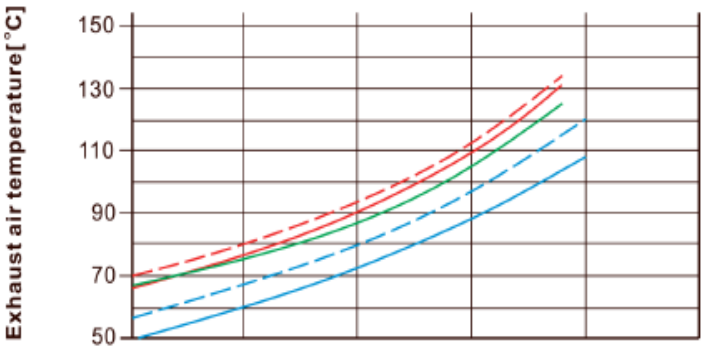
Motor data:
EN 60034
IP54, 55
Operating cycle S1
CE and UL approvals
Insulation class F (155°C)

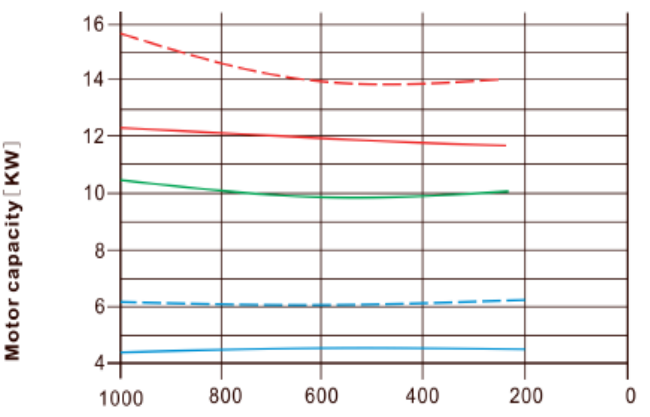
Operating supply must be within 5% of the rated voltage, and the frequency variance 2%.



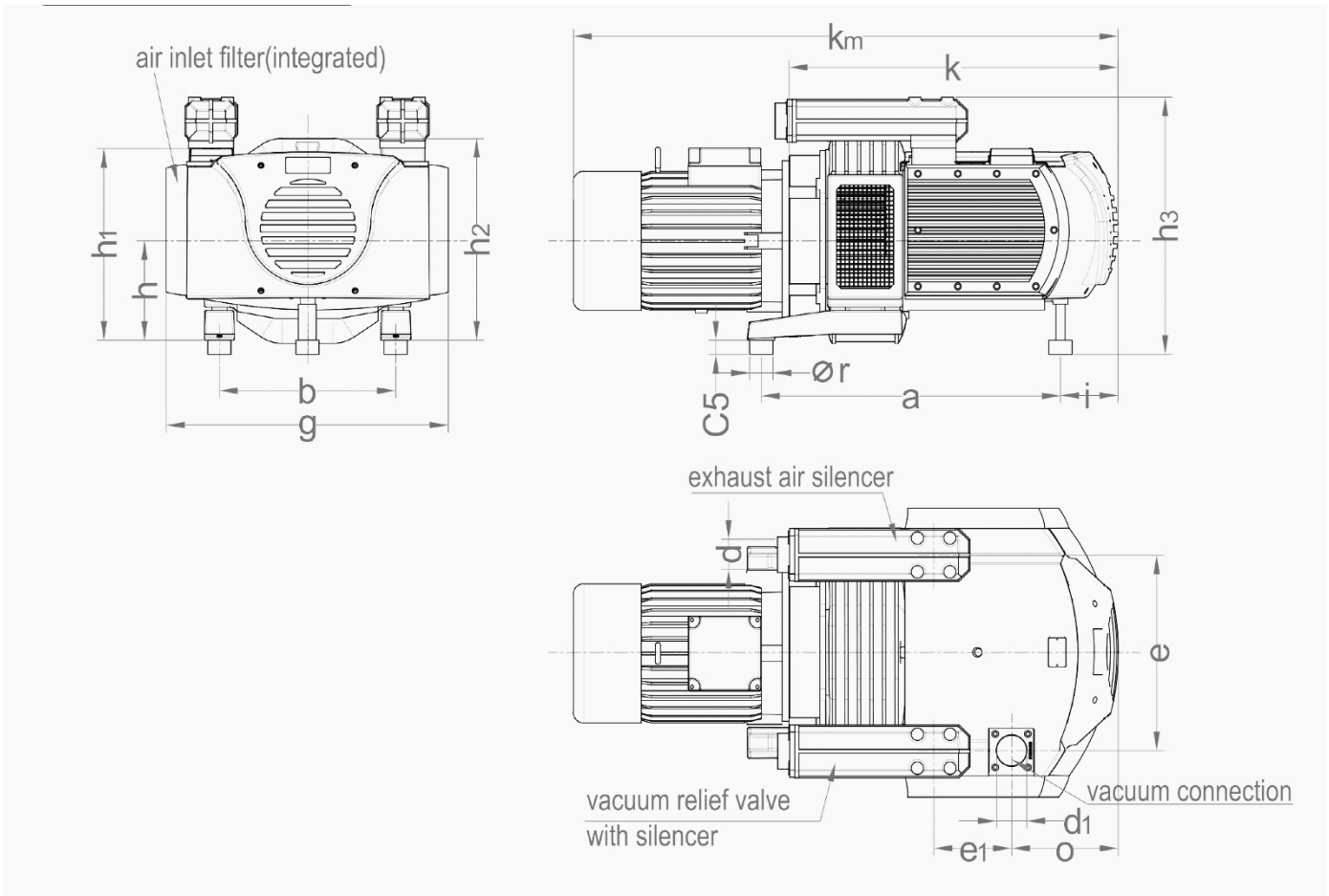
Type	Air flow (m3/h)		Motor power (KW)		Speed (RPM)		Vacuum (mbar)	Noise level (dB)		Weight (kg)	Motor type
	50HZ	60HZ	50HZ	60HZ	50HZ	60HZ		50HZ	60HZ		
KBV 3200	178	218	4.0	4.8	960	1150	200	75	77	258	B5/300
KBV 3250	250	300	5.5	6.6	960	1150	200	81	81	280	B5/350
KBV 3360	351	----	11.0	-----	1430	-----	250	81	----	312	B5/350

- *Reference atmosphere: 1000 mbar, +20°C*
- *Tolerance ± 5%*
-





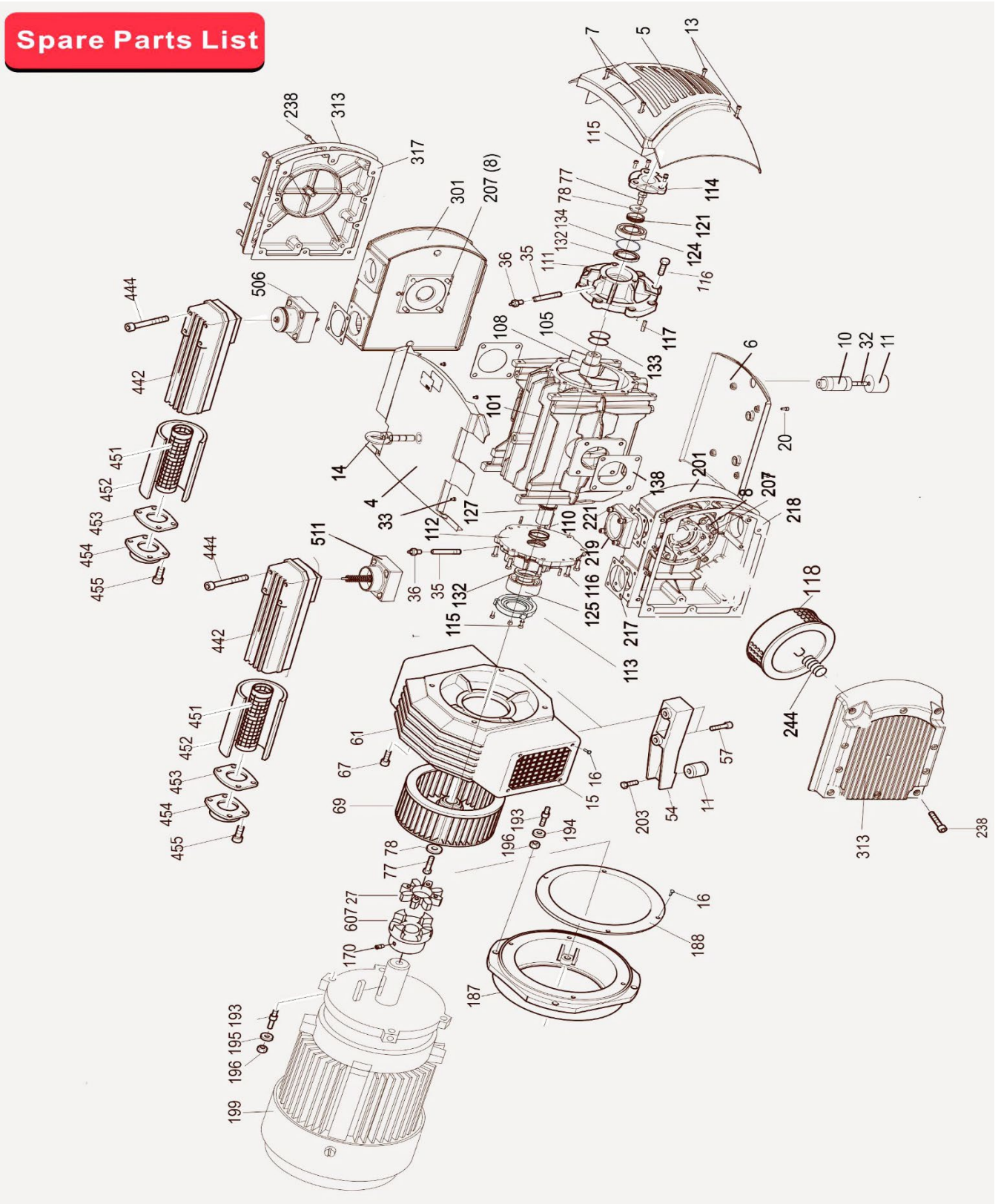
Dimensions KBC size 3200 to 3360 (vacuum)



Model	a	b	C5	d	d1	e	e1	g	h
KBC 3200	645	380	40	G2"	G2 ½"	423	216	612	225
KBV 3250	645	380	40	G2"	G2 ½"	423	216	612	225
KBV 3360	645	380	40	G2"	G2 ½"	423	216	612	225
Model	**h1**	**h2**	**h3**	**i**	**k**	**kw**	**o**	**Ør**	**s**
KBV 3200	388.5	426	493.5	125	684	1092	171.5	50	M10
KBV 3250	388.5	426	493.5	125	684	1092	171.5	50	M10
KBV 3360	388.5	426	493.5	125	684	1092	171.5	50	M10

System drawing size 3200and 3360

The drawing shows KBV 3200~3360



Parts list size 3200 and 3360

Article no.	Description
02	CONNECTION FLANGE
03	MOTOR FLANGE
04	COVERING HOOD(VLTF)
04	COVERING HOOD(DTLF)
04	COVERING HOOD(DVTLF)
05	AIR GUIDE COVER RING
06	COVERING HOOD
07	SOCKET HEAD SCREW
08	SPRING DISC
09	SOCKET HAED SCREW
10	DISTANCE-DISC
11	RUBBER BUFFER
12	SHAFT END BOLD
13	SOCKET HEAD SCREW
14	RING UNIT
15	VENTILATOR HOOD
20	SOCKET HEAD SCREW
24	COUPLING WITH FAN
25,35	WASHER
27	COUPLING RING
28	CENTERING BUSH
29,36	HEX-HEAD SCREW
32,38	STUD
33	RUBBER ELEMENT
52	GREASE PISTOL
57	HOLDER
101	PUMP BODY
105	ROTOR
105	ROTOR(DTLF+VTLF2.360)
108	ROTOR VANES-KIT
110	KEY
111	LID RIGHT
112	LID LEFT
113,114	BEARING COVER
115	SOCKET HEAD SCREW
116	HEX-HEAD SCREW
117	STRAIGHT PIN
119	SPRING DISC
121	GREASE DISTRIBUTION WASHER
124,125	BALL BEAING
127	SPACER SET
132	SHAFT-SEALING RING
133	SEAL
138	GASKET
139	CONDUIT-GREASE

Article no.	Description
200	FILTER HOUSING(VTLF-DVTLF)
201	FILTER HOUSING(DTLF)
203	FILTER CARTRIDGE
207	SOCKET HEAD SCREW
209	FILTER COVER
211,213	STUD
215	HANDLE
217,218	GASKET
219	CONNECTING FLANGE
221	SOCKET HEAD SCREW
225	GREASE NIPPLE
227	HOSE CONNECTOR
228	LUBRATION LINE
229	FIXING SLEEVE
230	FLEXIBLE HOSE
235	NON RETURN VALVE-OPTIONAL
236	GASKET
238	SOCKET HEAD SCREW
244	RUBBER ELEMENT
301	FILTER HOUSING (VTLF)
301	FILTER HOUSING (DTLF+DVTLF)
313	FILTER COVER
317	GASKET
501	SULENCER
504	SOCKET HEAD SCREW
506	SLOW-OFF VALVE
508	PRESSURE RELIED VALVE
511	VACUUM RELIEF VALVE
515	CAP-OPTIONAL
520	DUST SERPARATOT-OPTIONAL
601	STUD
605	HEX.NUT
607	COUPLING MOTOR SIDE,38mm (B5/300)
607	COUPLING MOTOR SIDE,42mm (B5/300)
607	COUPLING MOTOR SIDE, 48mm (15KW)
608	INTERMEDIATE FLANGE (B5/300)
609	SOCKET HEAD SCREW

Replacement of parts and extraordinary maintenance of the vacuum pump must be carried out by authorised dealer and by authorised personnel only. If maintenance is carried out in another way than prescribed the warranty stops and the manufacturer will disclaim any responsibility for defects and personal injury related to unauthorized repair of the product. Do always order spare parts from your authorized dealer and remember to state type of model, the name of the spare part as well as its spare part number.

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Side channel blowers and Turboblowers
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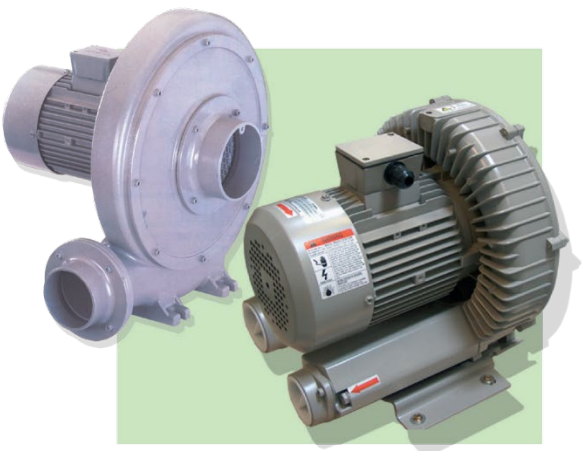

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