

## **SOGEVAC B** The full range of single stage, oil-sealed rotary vane vacuum pumps for Industrial Applications



### Features and Design

Oil sealed rotary vane vacuum pumps are being used in all areas of vacuum engineering. They are equally suited for both industrial production and research applications. SOGEVAC are used to generate a rough and medium vacuum or as backing pumps in pump combinations with Roots vacuum pumps or high vacuum pumps. The SOGEVAC pumps excel with low noise levels and smooth operation.

Many years of experience in vacuum engineering and the latest developments in pump technology combine in the SOGEVAC range the capability to adapt to the requirements of both the industry and the environment.

The comprehensive range (pumping speeds ranging from 10 to 750 m<sup>3</sup> x h<sup>-1</sup> (5.9 to 707 cfm)) allows every customer to select the right pump for his particular needs.

#### **Typical Applications**

- Automotive industry
- Food industry
- Heat treatment
- Vacuum coating
- Metallurgy
- Power engineering
- Space simulation
- Medical technology
- Composites and resin degassing
- Vacuum drying
- Leak testing
- Central vacuum systems

Please refer to the full application listing matrix on page 4.



Typical SOGEVAC B models

#### **Our Solution**

- Continuous operation from atmospheric pressure to ultimate pressure
- High pumping speed also at low pressures
- Low noise and vibration levels
- Exhaust gas free of oil mist thanks to integrated efficient exhaust filters
- Efficient air cooling (standard)
- Water cooling (optional)
- Low space requirement, easy to install
- Rugged and maintenance-friendly
- For direct fitting to Roots pumps from SOGEVAC SV 100 B up
- High water vapor tolerance
- Wide range of accessories

#### **Design Principle**

SOGEVAC pumps are oil sealed rotary vane pumps. Oil injected into the pump chamber for sealing, lubrication and cooling of the pump is recycled from the pump's oil reservoir and filtered, if required, before it is injected. The lubricant system is rated for continuous operation at high intake pressures (max. 1000 mbar abs.) so that the pumps may be used in a versatile manner in most rough vacuum applications (accessories are required for some pumps).

The oil carried with the process gas is roughly separated in the oil box before the discharged gas enters the integrated exhaust filters where the fine oil mist is trapped. The thus filtered oil is collected in the oil box and then supplied back to the pump.

The SOGEVAC vacuum pumps distinguish themselves by their very low power consumption, typically 15% lower compared to competitive pumps.

#### Materials used:

Steel, Cast iron, Aluminium, Bronze, FPM (FKM), Glass, Polyamid 6.6, Filter material (Polymers, Paper), Epoxy resin and Glass fibre.

### **Customer Benefits**

Leybold rotary vane vacuum pumps from the SOGEVAC series excel through numerous special features:

#### **Compact Design**

The pumps have been so designed that efficiency of the pumps will be high.

For the SV 10 B through SV 65 B, the motor and pumping section use the same shaft. For the SV 100 B to SV 750 the motor is linked depending on requirements to the pumping section directly via a coupling or via belts.

All vacuum components like anti-suckback, exhaust filter with oil return line needed for a complete vacuum unit as well as the optimized placement of all controls and monitoring components allow for an extremely compact unit.

#### **Quiet Operation**

SOGEVAC pumps are designed throughout to keep the noise level as low as possible. This is ensured by optimized calculation, lubrication and vane sliding speeds.

#### **Anti-Suckback Valve**

A valve is built into the intake of the SOGEVAC pumps. This "anti-suckback valve" is protected by a metal wire-mesh filter. During standstill of the pump (for example due to shutting down or a power failure) the valve closes the intake.

This prevents the pressure from rising in the connected chamber while the pump is vented at the same time. Any suckback of pump oil into the vacuum system is thus also effectively prevented. This blocking process operates under all operating conditions (below 800 mbar (600 Torr)) and even when the gas ballast valve is open.

In SOGEVAC models from SV 470 B, the anti-suckback valve can be controlled hydraulically or electrically, providing up to 25 % more pumping speed the low pressure range.

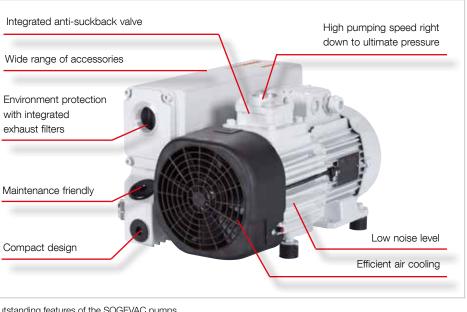
#### **Environment Protection**

The built-in exhaust filter ensures an oil-mist free exhaust gases over the entire range of operating pressures from atmospheric pressure to ultimate pressure.

## **Supplied Equipment**

All pumps are delivered with the required quantity of oil: SV 10 B to SV 65 B in a separate canister, whereas the SV 100 B and larger pumps already contain the oil and are thus ready for operation.

PFPE variants are typically delivered without fluid LVO 400.



### Matching vacuum pumps for every application

		SOG	EVAC I	model	S				
Brief technial data (50 Hz)		SV 16 D	SV 25 D	SV 10 B	SV 16 B	SV 25 B	SV 40 B	SV 65 B	SV 100 B
Nominal pumping speed (DIN 28 400 ff)	m³/h	16	25	11	16	26	44	59	97.5
Pumping speed, according to DIN 28 400 ff	m³/h	14.5	22.5	9.5	15	22.5	38.5	54	87.5
Ultimate total pressure without gas ballast	mbar	≤ 0.5	≤ 0.5	≤ 1.5	≤ 1.0	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5
Ultimate total pressure with standard gas ballast	mbar	≤ 1.5	≤ 1.5	≤ 2.5	≤ 2.0	≤0.8	≤1,5	≤1,5	≤1,5
Water vapor tolerance with standard gas ballast, max.	mbar	15	15	10	10	10	30	30	30
Motor power	kW	0.75	0.75	5.5	5.5	0.9	1.1	1.5	2.2
Noise level	dB(A)	59	59	62	62	64	58	60	61
Oil filling capacity (min.)	I	2.0	2.0	0.5	0.5	0.5	1.0	2.0	2.0
Protection class	IP	55-F							
See page		6	6	7	7	7	8	8	9

\* ATEX Cat. IIA

Applications						
Vacuum coating						•
Research and development						
Chemistry / Pharmaceuticals	•				•	
Metallurgy / Furnaces					•	
Lamps and tubes manufacture	•		•		•	
Automotive industry	•	•	•			•
Space simulation						
Environment engineering	•		•	•	•	
Cooling and air-conditioning	•	•	•			
Electrical engineering	•				•	
Mechanical engineering	•				•	
Medical technology	•		•		•	
Freeze drying systems	•				•	
Backing pump for high vacuum pump systems	•		•		•	
Food industry **						
Plant engineering	•		•			
Power engineering / District heating	•				•	
Cleaning						
Packaging	•		•			

 $^{\star\star}$  please refer to our special catalog «Vacuum pumps for Food Packaging and Processing»

SV 120 B	SV 200	SV 300 B	SV 320 B	SV 470 B	SV 570 B	SV 630 B	SV 750 B	SV40 ATEX Cat. 1	Va	icuu	m O	il Re	com	men	datio	on
130	180	280	330	470	570	700	840	46								
110	170	240	284	400	470	640	755	35*								
≤ 0.5	≤ 0.08	≤ 0.08	≤ 0.08	≤ 0.08	≤ 0.08	≤ 0.08	≤ 0.08	≤ 0.8								
≤1,5	≤0.7	≤0.7	≤ 0.7	≤ 0.7	≤ 0.5	≤ 0.7	≤ 0.7	≤1,5								
30	30	10.0	10.0	15.0	20.0	40.0	50.0	30								
2.4	4.5	5.5	6.0	9.2	11.0	15.0	18.5	1.5	o	0				0	0	
61	69	72	70	72	75	72	75	63	/ 130	/ 150				/ 420	171	
2.0	5.0	8.5	8.5	20	20	20	20	2.0	50	<b>6</b>	200	210	300	400 /	1007	_
55-F	55-F	55-F	55-F	55-F	55-F	55-F	55-F	55-F	-	-						DOT 4
9	10	10	10	11	11	12	12	13	LVO	LVO	LVO	LVO	LVO	LVO	LVO	ă

•	•					•						•				
											•	•			•	
•	•		•					•			•		•		•	
•	•	•			•	•					•					
											•					
•	•				•	•		•								
	•				•	•										
•	•	•	•					•	•		•					
													•			
•		•			•	•							•			
•	•				•	•	•	•						•		
•	•	•	•								•					
•	•	•	•	•	•	•			•				•		•	
															•	
				•		•			•	•			•		•	
•	•		•			•										
•	•	•	•						•		•	•			•	
									•							
•	•	•	•			•	•		•		•					
	1	1	1	1	1	1	1	1	•	= Stand	ard		<b>=</b> C	ontact L	eybold	

### SOGEVAC SV 16 D and SV 25 D

#### **Our Solution**

- Compact and rugged design
- Optimized pump temperature owing to a new air cooling concept
- Additional water cooling (optional) allowing deployment in rough applications, thereby extending oil lifetime
- Longer oil service life due to an increased oil volume within the pump (up to 4 times increased oil capacity compared to equivalent pumps)
- Integrated lubrication with oil recovery system without any external oil lines
- Low noise level across the entire operating pressure range due to low generator speeds
- Integrated anti-suckback valve
- Customer-oriented variants concept
- 3 phase wide range motors
- Different single phase motors with overload protection in accordance to EN 61010-1



Technical Data					
SOGEVAC		SV 1	16 D	SV 2	25 D
Rotary vane pump		50 Hz	60 Hz	50 Hz	60 Hz
Nominal pumping speed 1)	m³/h	16.0	18.7	25.0	29.0
Pumping speed 1)	m³/h	14.5	17.0	22.5	25.5
Ultimate total pressure		1			
without gas ballast 1)	mbar	≤ (	).5	≤ (	).5
with gas ballast 1)	mbar	≤ '	1.5	≤ '	1.5
Nater vapor tolerance <sup>1)</sup> mbar		1	5	1	5
Oil filling	I	2	2	2	2
Noise level	dB (A)	5	9	5	9
Motor power (1~ + 3~), max.	kW	0.75	0.90	0.75	0.90
Nominal speed	rpm	1440	1750	1440	1750
Weight (with oil filling)	kg	2	5	2	5
Connections, intake and exhaust side		G 1	/2"	G 1	/2"
Dimensions (L x W x H)	mm	268 x 24	17 x 440	268 x 24	17 x 440
Ordering Information *		SV 1	16 D	SV 2	25 D

 SOGEVAC rotary vane pump with UL/CSA three-phase world motor and integrated gas ballast

 200 - 240 V ±10% and 380 - 415 V ±10%, 50 Hz/
 960 181V
 960 211V

 200 - 240 V ±10% and 380 - 460 V ±10%, 60 Hz
 960 181V
 960 211V

960 180V

SOGEVAC rotary vane pump with single phase AC motor and integrated gas ballast

200 - 240 V / ±10%, 50/60 Hz	960 185V	960 215V <sup>2)</sup>
110 - 115 V ±10% and 220 - 230 V ±10%, 50/60 Hz	960 186V	upon request

<sup>1)</sup> in acc. with DIN 28 400 et. seq.

200 V +10-15%, 50/60 Hz

 $^{\scriptscriptstyle 2)}$  230 V ±10% only

\* Excerpt from our line of products. Details on other motor voltages/frequencies as well as accessories and maintenance materials are available upon request.

960 210V



### SOGEVAC SV 10 B, SV 16 B and SV 25 B

#### **Our Solution**

- Compact design thanks to integrated motor
- Different motors available (3 phase and single-phase)



SOGEVAC		SV	10 B	SV	16 B	SV	25 B
Rotary vane pump		50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz
Nominal pumping speed 1)	m³/h	11.0	13.0	16.0	19.0	26.0	31.0
Pumping speed 1)	m³/h	9.5	11.5	15.0	17.0	22.5	25.0
Ultimate total pressure							
without gas ballast 1)	mbar	≤ 1	1.5	$\leq$	1.0	≤	0.5
with gas ballast 1)	mbar	≤ 2.5	≤ 1.5	$\leq$	1.0	≤	0.8
Water vapor tolerance 1)	mbar	10	15	10	15	10.0	10.0
Oil filling	I	0	.5	0	.5	0	.5
Noise level	dB (A)	62	66	62	66	64	67
Motor power (1~ + 3~), max.	kW	0.55	0.75	0.55	0.75	0.9	1.1
Nominal speed	rpm	3000	3600	3000	3600	3000	3600
Weight (with oil filling)	kg	2	0	20	).5	2	26
Connections, intake and exhaust side				G 3/4"	+ 1/2"		
Dimensions (L x W x H)	mm		315 x 28	31 x 199		356 x 2	75 x 246

SOGEVAC rotary vane pump with three-phase motor an	nd permanent gas ballast		
220–240/380–415 V, 50 Hz and 220–266/380–460 V, 60 Hz (CEI)	960 100	960 160	960 251
200 V +10-15%, 50/60 Hz	960 115	960 175	upon request
SOGEVAC rotary vane pump with single-phase motor a	nd permanent gas ballast		
230 V, 50/60 Hz (CEI)	960 105	960 165	960 256
110–120 V, 60 Hz	960 110	960 170	upon request
100 V, 50/60 Hz	960 114	960 174	upon request

 $^{\scriptscriptstyle 1)}$  in acc. with DIN 28 400 et. seq.

\* Excerpt from our line of products. Details on other motor voltages/frequencies as well as accessories and maintenance materials are available upon request.

### SOGEVAC SV 40 B - SV 65 B

#### **Our Solution**

- Compact design thanks to integrated motor
- Different 3 phase motors available
- Variants suitable for every application
- Fastest cycle time on the market



Technical Data						
SOGEVAC		SV 4	40 B	SV	65 B	
Rotary vane pump		50 Hz	60 Hz	50 Hz	60 Hz	
Nominal pumping speed 1)	m³/h	44.0	53.0	59.0	71.0	
Pumping speed 1)	m³/h	38.5	47.0	54.0	64.0	
Ultimate total pressure						
without gas ballast 1)	mbar	≤ (	0.5	≤ (	0.5	
with gas ballast 1)	mbar	≤ `	1.5	≤ 1	1.5	
Water vapor tolerance 1)	mbar	3	0	3	0	
Oil filling	I		1	2	2	
Noise level	dB (A)	58	60	60	64	
Motor power (1~ + 3~), max.	kW	1.1	1.5	1.5	1.8	
Nominal speed	rpm	1500	1800	1500	1800	
Weight (with oil filling)	kg	43	45	49	52	
Connections, intake and exhaust sid	de		G or NP	T 1 1/4"		
Dimensions (L x W x H)	mm	425 x 28	84 x 265	480 x 32	20 x 264	
Ordering Information *		SV 4	40 B	SV	65 B	
SOGEVAC rotary vane pump with U	IL/CSA three-ph	ase world mot	tor, without ga	s ballast, with	oil filter	
230/400 V, 50 Hz and 460 V, 60 H	Iz (CEI)	960	302	960	402	
200 V +10-15%, 50/60 Hz		960	319	960 419		
SOGEVAC rotary vane pump with U	IL/CSA three-ph	ase world mot	tor, standard g	gas ballast and oil filter		
230/400 V, 50 Hz and 460 V, 60 H	Iz (CEI)	960	307	960	407	

<sup>1)</sup> in acc. with DIN 28 400 et. seq.

\* Excerpt from our line of products. Details on other motor voltages/frequencies as well as accessories and maintenance materials are available upon request.

960 319

960 419



### SOGEVAC SV 100 B - SV 120 B

#### **Our Solution**

- Different 3 phase motors available
- Variants suitable for every application
- Fastest cycle time on the market
- High process resistance thanks to big oil volume



Technical Data					
SOGEVAC		SV 1	00 B	SV 1	20 B
Rotary vane pump		50 Hz	60 Hz	50 Hz	60 Hz
Nominal pumping speed 1)	m³/h	97.5	117.0	120.0	147.0
Pumping speed 1)	m³/h	87.5	105.0	110.0	122.0
Ultimate total pressure					
without gas ballast 1)	mbar	≤ (	0.5	≤ (	0.5
with gas ballast 1)	mbar	≤ (	).8	≤ .	1.5
Water vapor tolerance 1)	mbar	3	0	3	0
Oil filling	l	2	.0	2	.0
Noise level	dB (A)	61	64	61	64
Motor power (1~ + 3~), max.	kW	2.2	3.5	2.4	3.2
Nominal speed	rpm	1500	1800	1500	1800
Weight (with oil filling)	kg	92	93	9	4
Connections, intake and exhaust side			G or NP	T 1 1/4"	
Dimensions (L x W x H)	mm	755 x 40	00 x 270	755 x 40	00 x 290
Ordering Information *		SV 1	00 B	SV 1	20 B

SOGEVAC rotary vane pump with three-phase work	d motor, without gas ballast,	with oil filter
230/400 V, 50 Hz and 460 V, 60 Hz (CEI)	960 502	-
230/400 V ±10%, 50 Hz and 230/400/460 V ±10%, 60 Hz	_	upon request
SOGEVAC rotary vane pump with three-phase work	d motor, standard gas ballas	t and oil filter
230/400 V ±10%, 50 Hz and 230/400/460 V ±10%, 60 Hz	960 524	960 557
200 V +10-15%, 50/60 Hz	960 519	-

<sup>1)</sup> in acc. with DIN 28 400 et. seq.

\* Excerpt from our line of products. Details on other motor voltages/frequencies as well as accessories and maintenance materials are available upon request.

### SOGEVAC SV 200, SV 300 B and SV 320 B

#### **Our Solution**

- Longest oil life time due to coolest pump on the market
- Different 3 phase motors available
- Variants suitable for every application
- Fastest cycle time on the market
- High process resistance thanks to big oil volume
- Monitoring possibilities
- 20 % lower power consumption vs. competition



SOGEVAC		SV	200	SV 3	00 B	SV 3	320 B
Rotary vane pump		50 Hz	60 Hz	50 Hz	60 Hz	50 Hz	60 Hz
Nominal pumping speed 1)	m³/h	180.0	220.0	280.0	340.0	330.0	385.0
Pumping speed 1)	m³/h	170.5	200.0	240.0	290.0	284.0	330.0
Ultimate total pressure							
without gas ballast 1)	mbar	≤ C	.08	≤ 0	.08	≤ C	.08
with gas ballast 1)	mbar	≤ (	0.7	≤ (	).7	$\leq$	0.7
Water vapor tolerance 1)	mbar	30	40	10	12	10	12
Oil filling	Ι	5.0	- 9.0	8.5 -	11.5	8.5 -	11.5
Noise level	dB (A)	69	73	72	76	72	73
Motor power (1~ + 3~), max.	kW	4.5	4.6	5.5	6.3	7.5	7.5
Nominal speed	rpm	1450	1750	1500	1800	1500	1800
Weight (with oil filling)	kg	150	160	223	225	2	11
Connections, intake and exhaust side				G or N	IPT 2"		
Dimensions (L x W x H)	mm	1070 x 5	35 x 425	1115 x 5	55 x 450	1120 x 5	65 x 450
Ordering Information *		SV	200	SV 3	00 B	SV 3	320 B

109 27

960 702

<sup>1)</sup> in acc. with DIN 28 400 et. seq.

230/400 V, 50 Hz and 460 V, 60 Hz (CEI) 2)

\* Excerpt from our line of products. Details on other motor voltages/frequencies as well as accessories and maintenance materials are available upon request.

960 722V



### SOGEVAC SV 470 B - SV 570 B

#### **Our Solution**

- Longest oil life time due to coolest pump on the market
- Different 3 phase motors available
- Variants suitable for every application
- Fastest cycle time on the market
- High process resistance thanks to big oil volume
- Monitoring possibilities
- 20 % lower power consumption vs competition
- Quietest pump on the market
- 4 times quicker overhaul thanks to belt drive
- Direct Roots coupling without any additional base frame, up 5000 m<sup>3</sup>/h



Technical Data								
SOGEVAC		SV 4	70 B	SV 570 B				
Rotary vane pump			60 Hz	60 Hz				
Nominal pumping speed 1)	m³/h	470.0	570.0	570.0				
Pumping speed 1)	m³/h	400.0	470.0	470.0				
Ultimate total pressure		I.						
without gas ballast 1)	mbar	≤ C	.08	≤ 0.08				
with gas ballast 1)	mbar	≤ (	0.7	≤ 0.7				
Water vapor tolerance 1)	mbar	15	20	20				
Oil filling	I		20	0.0				
Noise level	dB (A)	72	75	75				
Motor power (1~ + 3~), max.	kW	9.2	13.2	13.2				
Nominal speed	rpm	820	1000	1000				
Weight (with oil filling)	kg	480	550	550				
Connections, intake and exhaust side		G or NPT 3"						
Dimensions (L x W x H)	mm	1305 x 863 x 733		1305 x 863 x 733				
Ordering Information *		SV 4	70 B	SV 570 B				
SOGEVAC rotary vane pump with three-phase EU motor								
230 V / 400 V, 50 Hz and 460 V, 60 Hz		960	753V	-				
230 V / 400 V, 50 Hz		-	960 765V					
SOGEVAC rotary vane pump with thre	e-phase world	d motor						

<sup>1)</sup> in acc. with DIN 28 400 et. seq.

230 V / 400 V, 50 Hz

230 V / 400 V, 50 + 60 Hz / 460 V, 60 Hz

\* Excerpt from our line of products. Details on other motor voltages/frequencies, water-cooled pump versions as well as accessories and maintenance materials are available upon request.

960 754V

\_

960 766V

### SOGEVAC SV 630 B - SV 750 B

#### **Our Solution**

- Fastest cycle times
- Longest oil life time due to coolest pump on the market
- Different 3 phase motors available
- Variants suitable for every application
- High process resistance thanks to big oil volume
- Monitoring possibilities
- 20 % lower power consumption vs. competition
- Quietest pump on the market
- 4 times quicker overhaul thanks to belt drive
- Direct Roots coupling without any additional base frame, up 7000 m<sup>3</sup>/h



Technical Data								
SOGEVAC		SV 6	30 B	SV 750 B				
Rotary vane pump		50 Hz	60 Hz	50 Hz				
Nominal pumping speed 1)	m³/h	700.0	840.0	840.0				
Pumping speed 1)	m³/h	640.0	755.0	755.0				
Ultimate total pressure								
without gas ballast 1)	mbar	≤ 0	.08	≤ 0.08				
with gas ballast 1)	mbar	≤ (	).7	≤ 0.7				
Water vapor tolerance 1)	mbar	40	50	50				
Oil filling	Ι		20	0.0				
Noise level	dB (A)	72	75	75				
Motor power (1~ + 3~), max.	kW	15.0	18.5	18.5				
Nominal speed	rpm	820	1000	1000				
Weight (with oil filling)	kg	730	750	750				
Connections, intake side			DN 100 PN 1	0 / 100 ISO-K				
Dimensions (L x W x H)	mm	1510 x 9	09 x 740	1510 x 909 x 740				
Ordering Information *		SV 6	30 B	SV 750 B				
SOGEVAC rotary vane pump with th	ree-phase moto	or (NEMA)						
200 V, 50 Hz (JIS) and 200 V, 60 H	lz	960	862	_				

200 V, 50 Hz (JIS) and 200 V, 60 Hz	960 862	-						
380/400/415/690 V, 50 Hz and 440/460 V, 60 Hz	960 863	-						
SOGEVAC rotary vane pump with three-phase world motor								
380/400/415/690 V, 50 Hz	-	960 875						

<sup>1)</sup> in acc. with DIN 28 400 et. seq.

\* Excerpt from our line of products. Details on other motor voltages/frequencies, water-cooled pump versions as well as accessories and maintenance materials are available upon request.



### SOGEVAC SV 40 ATEX Cat.1

The SOGEVAC SV 40 ATEX Cat. 1 rotary vane vacuum pumps comply with the European Directive 2014/34/EU. These pumps are equipped with corresponding ATEX motors. The plastic parts are antistatic as well as the exhaust oil mist separator filters.

They are suited for pumping solvents, for drying, filling applications including IIB +  $H_2$  or IIA material groups.

#### Classification

-	Equipment gro	up: II
-	Categories:	1 G inside
		2G outside
-	Zone:	0 inside
		1 outside
-	Material group:	$IIB + H_2 \text{ or }IIA$
-	Temperature cla	asses:
	$IIB + H_2$	at 50 Hz, T4
		at 60 Hz, 160 °C
	IIA	at 50 and 60 Hz, T3

### Additional ATEX compliant SOGEVAC models:

ATEX SOGEVAC pumps in Cat 2 inside / outside available in sizes from SV 40 B to SV 300 B with ATEX marking Ex II (i) 2G h IIB + H2 T3 Gb / (o) 2G IIC T4 Gb (10 °C  $\leq$  Ta  $\leq$  40 °C) X.

ATEX SOGEVAC pumps in Cat 3 inside / outside available in sizes from SV 40 B to SV 750 B with ATEX marking

Ex II (i) 3G IIC T3 Gb / (o) 3 GDh IIC T3 Gb (150 °C)(10  $\leq$  Ta  $\leq$  40 °C) X.

For details on ATEX Cat 2 and 3 pumps, please refer to our general catalogue.



Technical Data					
SOGEVAC		SV 40	ATEX		
Rotary vane pump		50 Hz	60 Hz		
Nominal pumping speed 1)	m³/h	46.0	55.2		
Pumping speed 1)					
$IIB + H_2$	m³/h	26.0	29.0		
IIA		35.0	42.0		
Ultimate total pressure		I			
without gas ballast $^{1)}$ IIA / IIB + H <sub>2</sub>	mbar	≤ 0.8			
with gas ballast $^{\mbox{\tiny 1)}}$ IIA / IIB + $\rm H_{2}$	mbar	≤ 1.5			
Water vapor tolerance 1)	mbar	30			
Oil filling	I	2.0			
Noise level	dB (A)	63	68		
Motor power (1~ + 3~), max.	kW	1.5	1.8		
Nominal speed	rpm	1500	1800		
Weight (with oil filling)	kg	1.	10		
Connections, intake IIB + $H_2$ and exhaust side		G 1	1/4"		
Connections, intake IIA		GS	3/4"		
Dimensions (L x W x H)	mm	768 x 4	90 x 437		
Ordering Information *	SV 40	ATEX			
SOGEVAC SV 40 ATEX IIA / IIB + $\rm H_{_2}$ (50 Hz) in accordance with	h 2014/34/EU				
$\langle E_X \rangle$ II 1/2 Gh IIB + H <sub>2</sub> T4 Gb (+5 °C ≤ t <sub>a</sub> ≤ 40 °C) EC Type Examination Certificate: PTB0/ATEX/013X	1	060	345		

EC Type Examination Certificate: PTB04ATEX4013X] with permanent gas ballast	960 345
$I(\xi x)$ II 1/2 Gh IIB + H <sub>2</sub> 160 °C Gb (+5 °C ≤ t <sub>a</sub> ≤ 40 °C) EC Type Examination Certificate: PTB04ATEX4013X]	960 346
EC Type Examination Certificate: PTB04ATEX4013X]	
without gas ballast	

<sup>1)</sup> in acc. with DIN 28 400 et. seq.

\* Excerpt from our line of products. Details on other motor voltages/frequencies as well as accessories and maintenance materials are available upon request.

For all enquiries and orders relating to category 1 and 2 ATEX products please use our ATEX questionnaire. This document is available for download "**www.leybold.com**" or simply contact us.

### TwinFilter 500

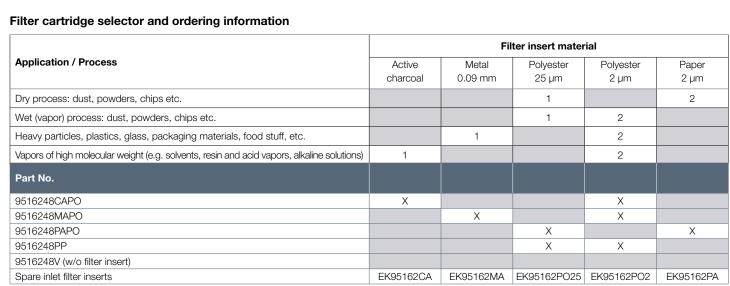
Double inlet filter and roots adapter combination for SOGEVAC models SV 470 B(F), SV 570 B(F) and SV 630 B(F).

To avoid dust particles in your process use the double inlet filter and Roots adapter TwinFilter 500.

The TwinFilter replaces the otherwise needed Roots pump adapter to adapt a Roots vacuum pump. The Roots pump can be fitted directly on to the TwinFilter.

#### **Our Solution**

- Protects the pump against dust and particles
- Compact forevacuum pump combination
- No external frame required: costs and space savings
- Very compact combinations: space savings yet roughing pump protection
- Allows to have two different protection filters in series: more efficient filtration and longer filter lifetime
- No elbows, bellows, adapters required for filter mounting: cost savings and easy installation



1 = Filter no. 1

2 = Filter no. 2

#### For our full line of accessories for SOGEVAC B pumps, please refer to our general catalogue or simply contact us.



Ordering Information *	Roots adapter
Adapter for Roots vacuum pumps	
RUVAC WH 700/702	9516241V
RUVAC WA(U)/WS(U) 1001	9516242V
RUVAC WA(U)/WS(U) 2001	9516243V
RUVAC WH(U) 2500	9516244V

\* Excerpt from our line of products. Details on other motor voltages/frequencies as well as accessories and maintenance materials are available upon request.

### Oil for SOGEVAC pumps

LEYBONOL oils and lubricants from Leybold are especially designed with regard to the high demands in vacuum technology. Their vapour pressure is low at high temperatures and the water content and water uptake is minimal. Their viscosity characteristics are flat, lubricating properties excellent, and they have high resistance against thermal decomposition and increased mechanical stress. Depending on the requirements (resistance to hydrolysis or oxidation, non-flammability, DOT-compatibility, approvability for food industry, etc.) different oil fractions, greases and pump fluids are available.



SOGEVAC models LEYBONOL Oils	SV 16 D	SV 25 D	SV 10 B	SV 16 B	SV 25 B	SV 40 B	SV 65 B	SV 100 B	SV 120 B	SV 200 B	SV 300 B	SV 320 B	SV 470 B	SV 570 B	SV 630 B	SV 750 B	SV40 ATEX Cat. 1
LVO 120 (Standard mineral oil)						<b>1</b> )											
LVO 130 (Standard mineral oil)						<b>a</b> 2)											
LVO 140 (Food Grade Oil)	•	•	•	•	•												
LVO 150 (Food Grade Oil)						•	•	•	•	•	•	•	•	•	•	•	
LVO 200 (Synthetic ester oil)	•	•	•	•	•												
LVO 210 (Synthetic ester oil)	<b>(</b> 2)	<b>2</b> )				•	•	•	•	•	•	•	•	•	•	•	
LVO 300 (PAO synthetic oil)	•	•				•	•	•	•	•							
LVO 400 (PFPE oil)	_						•	•	•	•	•	•	•	•	•	•	
LVO 420 (PFPE oil)	•	•															
LVO 700 (Synthetic cyclic hydrocarbon oil)	•	•	•	•	•												
LVO 710						•	•	•	•	•	•	•	•	•	•	•	
DOT 4						•											
<ul> <li>= Standard</li> <li>= Possible</li> <li>A = Please contact Leybold</li> </ul>											<ul> <li><sup>1)</sup> = with single-phase motor</li> <li><sup>2)</sup> = with three-phase motor</li> <li><sup>3)</sup> = ATEX outside only</li> </ul>						

For further questions, please contact our technical sales support. For information on oil specifications please refer to our general catalogue.

#### Leybold Services - all from a single source Fast, competent and reliable.

### Our Global Support for You



**Your local contact** 

Belgium Phone: +32 2 711 00 83 sales.zv@leybold.com

Brasil Phone: +55 11 2152 0499 sales.ju@leybold.com

China Phone: +86 22 2697 0808 sales.tj@leybold.com

France Phone: +33 1 69 82 48 00 sales.or@levbold.com

Germany Phone: + 49 221 347 1112 sales.kn@leybold.com

India Phone: +91 80 278 3992 sales.pu@leybold.com

Italy Phone: +39 02 27 22 31 sales.mi@leybold.com

Japan Phone: +81 45 471 3330 sales.yh@leybold.com In addition to high-quality products, Leybold offers you comprehensive services worldwide in accordance with our internationally unified quality standards. Our fully-trained and certified engineers are experts in repairing and servicing your vacuum equipment.

Benefit from the densest service network in the entire vacuum industry!

No matter whether you use our products directly or integrate them into your plants - we are always close to you!

Korea Phone: +82 31 785 1367 sales.bd@leybold.com

Netherlands Phone: +31 30 242 6330 sales.ut@leybold.com

Singapore Phone: +65 6303 7030 sales.sg@leybold.com

Spain Phone: +34 93 666 4311 sales.ba@leybold.com

Switzerland Phone: + 41 44 3 08 40 50 sales.zh@leybold.com

Taiwan Phone: +886 3 500 1688 info.hc@leybold.com

UK Phone: +44 13 7273 7300 sales.ln@leybold.com

USA Phone: +1 800 764 5369 info.ex@leybold.com

#### **Our Performance**

- Global Sales and Service network
- Factory overhaul of your vacuum components in one of our local service centers
- Preventive maintenance
- On-site service by our field service
- Tailor-made service contracts
- Extended warranty programs
- Exchange and back-up pool
- Remote maintenance
- Calibration of your measuring systems
- Installation and operator trainings
- Expertise and application consulting in all matters of vacuum technology
- Multi brand repairs on request

# Leybold

3611 0419 02 Technical alterations reserved