



Vacuum Solutions for Food Processing and Packaging

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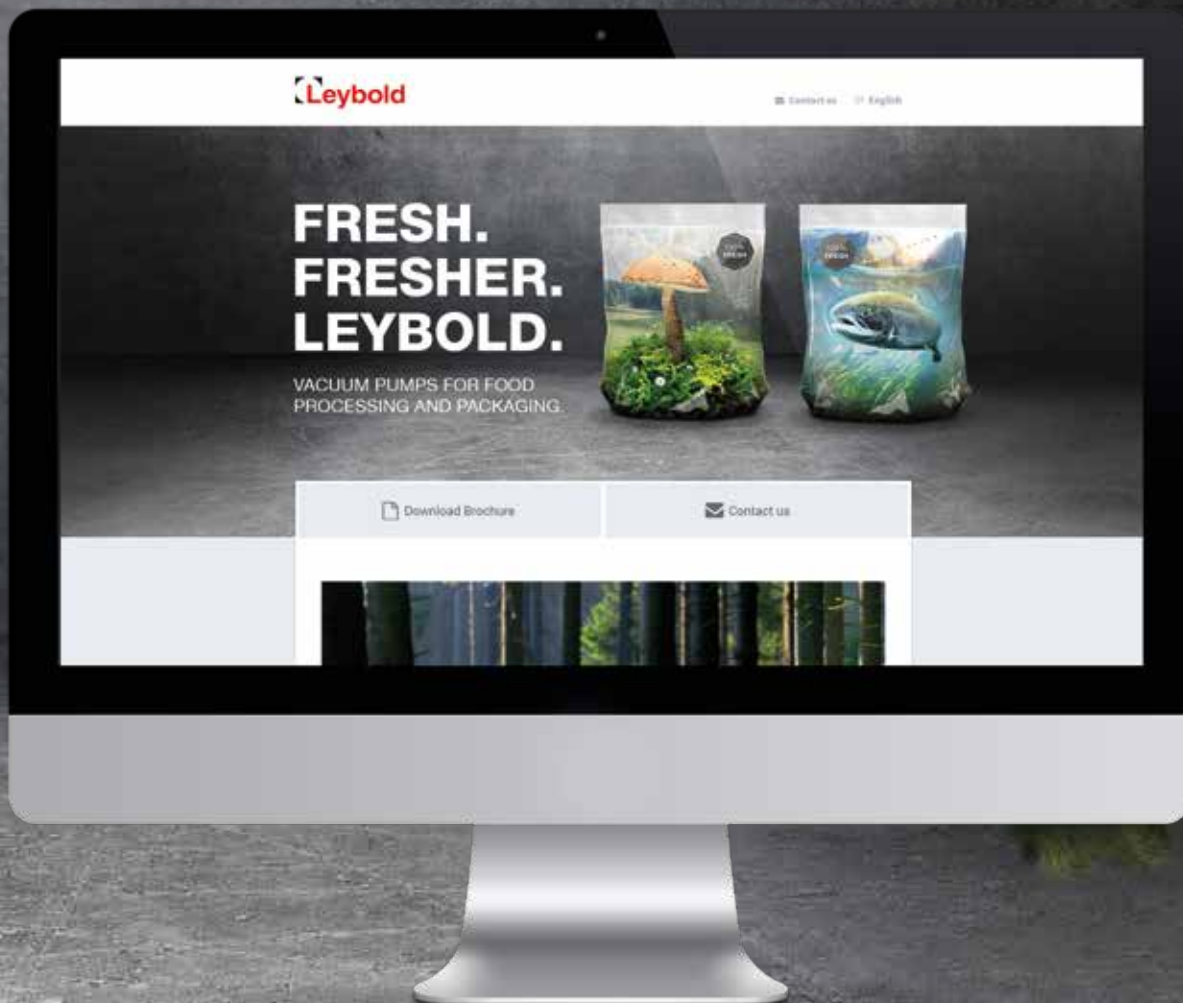
**NEW! 100% OILFREE
NOVADRY PRODUCT SERIES**



Explore the world of freshness now

Learn more about the possibilities of vacuum: On our webpage you will not only learn about food processing and packaging, you will also find more about our customer solutions and application specific products.

Please “dive in” and experience our world of freshness.
See for yourself: **www.leybold-foodandpack.com**



Vacuum Solutions for Food Processing and Packaging

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| Application Matrix Food and Packaging Market | 4 |
|--|---|

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Pumps and solutions for every food application

| Vacuum Pumps | NOVADRY | DRYVAC | SCREWLINE |
|------------------------------|--------------------------|------------------|------------------|
| Size available (m³/h) | 65/100/160/200 | 200 - 650 | 250 / 630 |
| Cooling | Air | Water | Air or Water |
| Washdown | Yes (housing version) | Yes (-r version) | No |
| Technology | Dry screws | Dry screws | Dry screws |
| Pressure range (mbar) | 1000 - 0.1 | 1000 - 0.005 | 1000 - 0.01 |
| See pages | 8 | 10 | 12 |

Food Processing

| | | | |
|--------------------------------------|-------|-------|-------|
| Freeze drying | ★★★★★ | ★★★★★ | ★★★★★ |
| Tumbling / Marinating / Mixing | ★★★★★ | | ★★★★★ |
| Vacuum cooling | ★★★★★ | ★★★★★ | ★★★★★ |
| Slaughterhouse applications | ★★★★★ | | |
| Filling / Stuffing | ★★★★★ | | |
| Vacuum cutting / grinding | ★★★★★ | | |
| Bottling | ★★★★★ | | |
| Controlled Atmosphere storage | ★★★★★ | | |
| Pasta processing | ★★★★★ | | ★★★★★ |
| Vacuum cooking / frying | ★★★★★ | | ★★★★★ |
| Vacuum conveying | ★★★★★ | | |
| Vacuum microwave drying | ★★★★★ | ★★★★★ | ★★★★★ |
| Central vacuum system for processing | ★★★★★ | ★★★★★ | ★★★★★ |

Food Packaging

| | | | |
|--|-------|-------|--|
| Belt chamber packaging machines | | ★★★★★ | |
| Thermoforming / Rollstock | ★★★★★ | ★★★★★ | |
| Tray sealing | ★★★★★ | ★★★★★ | |
| Carousel packaging | | ★★★★★ | |
| Skin packaging | ★★★★★ | ★★★★★ | |
| MAP with O ₂ | ★★★★★ | ★★★★★ | |
| Leak testing | | | |
| Metal can sealing (powder milk, coffee...) | ★★★★★ | | |
| Table top packaging machines / Clipping | ★★★★★ | | |
| Central vacuum system for packaging | | | |

- ★★★★★ Best in class
- ★★★★ Recommended
- ★★★ Suitable, lower capital cost with increased user maintenance

| CLAWVAC | RUVAC FP | SOGEVAC FP | SOGEVAC B | SOGEVAC Oxygen | VACUBE | |
|---------------|------------|------------------------|------------------------|------------------------|-------------------|--|
| 65/150/300 | 250 - 2000 | 10 - 300 | 470 - 750 | 16 - 630 | 400 - 1650 | |
| Air | Air | Air | Air or Water | Air | Air | |
| Yes | Yes | Yes | No | Yes | No | |
| Dry claws | Roots | Oil sealed rotary vane | Oil sealed rotary vane | Oil sealed rotary vane | Lubricated screws | |
| 1000 - 50/140 | ----- | 1000 - 1 | 1000 - 1 | 1000 - 1 | 1000 - 1 | |
| 14 | 16 | 18 | 20 | 22 | 24 | |
| | ★★★★★ | ★★★ | ★★★ | | | |
| ★★★★★ | | ★★★ | | | | |
| | ★★★★★ | ★★★ | ★★★★ | | | |
| ★★★★★ | | | | | | |
| ★★★★★ | | ★★★ | | | | |
| ★★★★★ | | | | | | |
| ★★★★★ | | | ★★★ | | ★★★ | |
| | | ★★★★ | ★★★★ | | | |
| | | ★★★ | ★★★ | | ★★★★ | |
| ★★★★★ | | | | | | |
| ★★★★★ | | | | | | |
| | | | | | | |
| ★★★★★ | | | ★★★ | | ★★★★★ | |
| | ★★★★ | | ★★★★ | | ★★★★ | |
| ★★★★ | ★★★★ | ★★★★ | ★★★★ | | ★★★★ | |
| | ★★★★ | ★★★★ | ★★★★ | | ★★★★ | |
| | ★★★★★ | | ★★★★ | | ★★★★ | |
| | ★★★★ | ★★★★ | ★★★★ | | ★★★★ | |
| | | | | ★★★★★ | | |
| ★★★★ | | ★★★★ | | | | |
| | | ★★★★ | ★★★★ | | ★★★★ | |
| | | ★★★★★ | | | | |
| | ★★★★★ | | ★★★★ | | ★★★★★ | |

NOVADRY



NOVADRY ND 65



The NOVADRY is the new benchmark for food packaging and processing applications.

It is the only 100% oil free and air cooled vacuum pump on the market. It provides improved noise quality to the user.

Maintenance and service requirement are reduced to the minimum.

Its design already incorporates hygienic design rules, not allowing accumulations of liquids. Full process room wash-down capability can be reached with the optional stainless enclosures.

Our Solution

- Non contact dry screw technology
- Air cooled
- Sizes 65, 100, 160 and 200 m³/h

Typical Applications

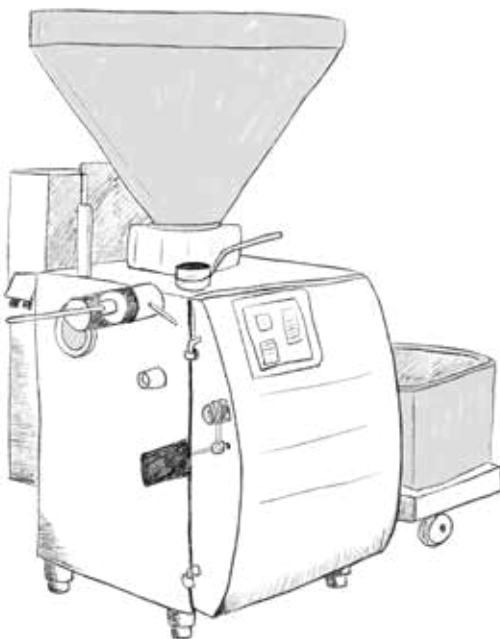
- Thermoforming
- Chamber packaging
- Tray sealing
- Skin packaging
- Tumbling / mixing
- Stuffing filling

Customer Benefits

- Oil free generation (no oil migration into process, no oil contamination to the environment) guarantees maximal food safety
- Highest uptime and performance
- Low total cost of ownership by most robust design
- Simple installation and operation
- Comfort of use for the operators: low and comfortable noise thanks to optimized rotor design and integrated silencer

Options

- Stainless steel hygienic enclosures for full wash-down capability



NOVADRY

Technical Data

| | | NOVADRY | | | |
|--|---|--------------------|--------------------|-------------------|-------------------|
| | | ND 65 | ND 100 | ND 160 | ND 200 |
| Nominal speed | | | | | |
| without gas ballast ¹⁾ | m ³ x h ⁻¹ (cfm) | 65 (39) | 105 (63) | 150 (88) | 200 (118) |
| Ultimate pressure | | | | | |
| without gas ballast ¹⁾ | mbar (Torr) | 0.1 (0.075) | 0.1 (0.075) | 0.1 (0.075) | 0.1 (0.075) |
| Water vapor tolerance | | | | | |
| with gas ballast | mbar (Torr) | 20 (15) | 20 (15) | 20 (15) | 20 (15) |
| Water vapor capacity | | | | | |
| with gas ballast | kg x h ⁻¹ (gal x h ⁻¹) | 0.6 (0.63) | 1 (1.05) | 1.5 (1.6) | 2 (2.1) |
| Permissible ambient temperature | °C | 0 to 40 | 0 to 40 | 0 to 40 | 0 to 40 |
| Cooling | | Air | Air | Air | Air |
| Mains voltage | | | | | |
| 50 Hz versions | V | 400 or 200, ±10% | 400 or 200, ±10% | 400 or 200, ±10% | 400 or 200, ±10% |
| 60 Hz versions | V | 460 or 230, ±10% | 460 or 230, ±10% | 460 or 230, ±10% | 460 or 230, ±10% |
| Motor power | kW (HP) | 1.5 (2) | 2.2 (3) | 3 (4) | 4 (5.5) |
| Permissible motor speed ²⁾ | Hz | 50/60 | 50/60 | 50/60 | 50/60 |
| Protection class EN 60529 | IP | 55 | 55 | 55 | 55 |
| Noise level with integrated silencer at ultimate pressure ³⁾ | dB(A) | 64 | 65 | 69 | 71 |
| Connections | | | | | |
| Intake side | DN | G 2" | G 2" | G 2" | G 2" |
| Pressure side | DN | G 1 1/2" | G 1 1/2" | G 1 1/2" | G 1 1/2" |
| Weight, approx. | kg (lbs) | 85 (187) | 95 (210) | 105 (231) | 115 (253) |
| Dimensions (W x H x D) | mm | 488 x 315 x 644 | 488 x 315 x 736 | 488 x 315 x 889 | 488 x 315 x 889 |
| | in. | 19.2 x 12.4 x 25.4 | 19.2 x 12.4 x 28.9 | 19.21 x 12.4 x 35 | 19.21 x 12.4 x 35 |

¹⁾ To DIN 28 400 ff.

²⁾ Depending on version 50 Hz or 60 Hz. Please refer to the pump nameplate.

³⁾ To DIN EN ISO 2151

Ordering Information

| | | NOVADRY | | | |
|--|--|------------------|------------------|------------------|------------------|
| | | ND 65 | ND 100 | ND 160 | ND 200 |
| | | Part No. | Part No. | Part No. | Part No. |
| NOVADRY dry screw pump with 3 phase motor | | | | | |
| 400V+/-10% or 200V+/-10%, 50 Hz | | 111065N10 | 111100N10 | 111160N10 | 111200N10 |
| 460V+/-10% or 230V+/-10%, 60 Hz | | 111065N11 | 111100N11 | 111160N11 | 111200N11 |

DRYVAC



DRYVAC DV 650



Our DRYVAC is a rugged, dry screw vacuum pump with excellent energy efficiency. Compactness and low noise level enable installation close to the machine resulting in shorter cycle time and lower cost of installation.

Our Solution

- Non contact dry screw technology
- Water cooled
- Driven by frequency converter
- PFPE versions for MAP of red meat with oxygen
- Direct connection of RUVAC Roots blower via adapter
- “Hygienic design” versions include stainless steel protection housing for installation in wash down areas and optionally:
 - Plug and Play device to control the purge valves, gas ballast and flushing valve according to the process
 - E-saver allowing up to 50% energy savings at low pressure

Typical Applications

- Freeze drying
- Thermoforming
- Vacuum baking and cooling
- Modified Atmosphere Packaging (MAP) and skin packaging
- Vacuum cooling
- Belt chamber packaging machines
- Rotary packaging

Customer Benefits

- Oil free generation (no oil migration into process, no oil contamination to the environment) guarantees maximal food safety
- Water cooling removes excess heat load in the production area
- Compact design allows for location in the production floor and improved cycle time
- Extremely compact design and water cooling allows installation directly inside the air-conditioned process area
- Highest energy efficiency
- Three inlet ports available allowing flexible installation and connection to the machine
- Integrated frequency converter for optimal process control and easy networking



DRYVAC DV 650 FP Hygienic design with stainless steel housing for installation in wash-down areas

Technical Data

| | | DRYVAC | | |
|---------------------------------|---|---------------------|---------------------------|--------------------|
| | | DV 650 | DV 650 FP Hygienic | DV 650-r FP |
| | | 50/60 Hz | 50/60 Hz | 50/60 Hz |
| Nominal speed ¹⁾ | m ³ x h ⁻¹ (cfm) | 650 (383) | 650 (383) | 650 (383) |
| Ultimate pressure ¹⁾ | mbar (Torr) | ≤ 0.005 (0.0005) | ≤ 0.005 (0.0005) | ≤ 0.005 (0.0005) |
| Maximum permissible | | | | |
| Water vapor capacity | kg x h ⁻¹ (gal x h ⁻¹) | 25 (6.8) | 25 (6.8) | 25 (6.8) |
| Cooling | | Water | Water | Water |
| Motor power | kW (HP) | 15 (20) | 15 (20) | 15 (20) |
| Protection class EN 60529 | | IP 54 | IP 65 | IP 54 |
| Lubricant filling | l | 1.2 | 1.2 | 1.2 |
| Noise level ²⁾ | dB(A) | 65 | < 65 | 65 |
| Connections | | | | |
| Intake side | DN | 100 ISO-K | G 3" | 100 ISO-K |
| Pressure side | DN | 63 ISO-K | G 3" | 63 ISO-K |
| Weight, approx. | kg (lbs) | 580 (1280) | 580 (1280) | 550 (1210) |
| Dimensions (W x H x D) | mm | 1280 x 420 x 570 | 1468 x 773 x 568 | 1280 x 400 x 450 |
| | in. | 50.4 x 15.75 x 22.5 | | 50.4 x 22.4 x 16.5 |

¹⁾ To DIN 28 400 ff.

²⁾ Operated at the ultimate pressure without gas ballast, free-field measurement at a distance of 1 m (3.5 ft)

Ordering Information

| | | DRYVAC | | |
|---|--|---------------------|---------------------------|---------------------|
| | | DV 650 | DV 650 FP Hygienic | DV 650-r FP |
| | | Part No. | Part No. | Part No. |
| DRYVAC | | | | |
| with double purge - with LVO210 with gas ballast and blow-off valve | | - | - | - |
| with on-board frequency converter with epoxy painting, with LVO210 | | 112065FP18-1 | - | - |
| with external frequency converter with epoxy painting, with LVO 210 | | - | - | 112065FP08-1 |
| with on-board frequency converter with epoxy painting, with LVO410 | | 112065FP28-1 | - | - |
| without Plug and Play device without E-Saver device - with LVO410 | | - | 504807V901 | - |
| without Plug and Play device with E-Saver - with LVO210 | | - | 504816V901 | - |
| with Plug and Play device with E-Saver - with LVO210 | | - | 504779V901 | - |
| with Plug and Play device without E-Saver - with LVO210 - with flushing valve | | - | 504857V901 | - |
| with Plug and Play device without E-Saver - with LVO410 | | - | 504860V901 | - |
| Inlet threaded adapter 3" | | 112005A18 | - | - |
| Inlet threaded adapter 4" | | 112005A19 | - | - |
| Exhaust silencer | | 119002 | already included | - |
| E-Saver device (only for LVO210 versions) | | 112005A60 | 112005A60 | - |

SCREWLINE



Our SCREWLINE is an extremely robust dry screw pump for food processing applications with on-site cleanability of pump chamber and screw rotors by the user.

Our Solution

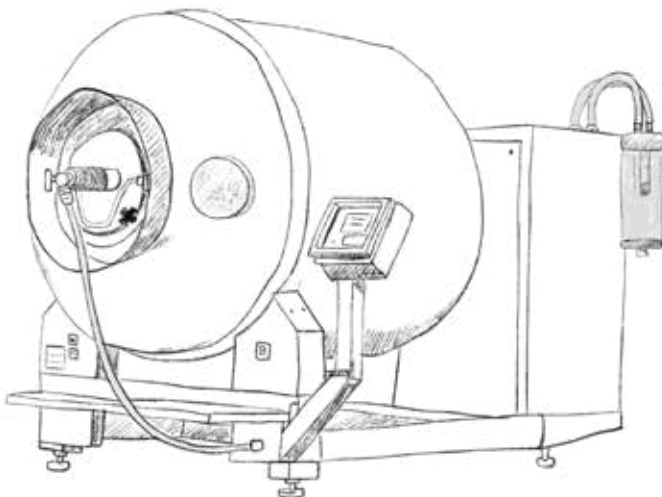
- Non contact dry screw technology
- Cantilevered design
- Air cooled
- Hardened aluminum screws
- Pumping speed 250 and 630 m³/h
- Ultimate pressure $\leq 1 \times 10^{-2}$ mbar
- Monitoring system
- Direct connection of RUVAC Roots pumps via adapter

Typical Applications

- Freeze drying
- Tumbling
- Vacuum conveying
- Vacuum cooling

Customer Benefits

- Oil free generation (no oil migration into process, no oil contamination to the environment) guarantees maximal food safety
- Designed for demanding processes
- Highest uptime
- Low total cost of ownership
- Easy to disassemble pump chamber for rapid cleaning



SCREWLINE pumps enable simple disassembly of the pump chamber for on-site cleaning by the customer

Technical Data

SCREWLINE

| | | SP 250 | | SP 630 | |
|--|----------------------------------|------------------|------------------|------------------|------------------|
| | | 50 Hz | 60 Hz | 50 Hz | 60 Hz |
| Nominal speed ¹⁾ | m ³ x h ⁻¹ | 270 | 330 | 630 | 630 |
| Ultimate pressure ¹⁾ | mbar | ≤ 0.01 | ≤ 0.005 | ≤ 0.01 | ≤ 0.01 |
| Maximum permissible water vapor capacity | kg x h ⁻¹ | 10 | 18 | 14 | 14 |
| Cooling | | Air | Air | Air | Air |
| Motor power | kW | 7.5 | 7.5 | 15 | 15 |
| Protection class EN 60529 | | IP 55 | IP 55 | IP 55 | IP 55 |
| Lubricant filling | l | 7 | 7 | 13 | 13 |
| Noise level ²⁾ | dB(A) | 67 | 72 | 73 | 75 |
| Connections | | | | | |
| Intake side | DN | 63 ISO-K | 63 ISO-K | 63 ISO-K | 63 ISO-K |
| Pressure side | DN | 100 ISO-K | 100 ISO-K | 100 ISO-K | 100 ISO-K |
| Weight, approx. | kg | 450 | 450 | 530 | 530 |
| Dimensions (W x H x D) | mm | 1350 x 880 x 530 | 1350 x 880 x 530 | 1630 x 880 x 660 | 1630 x 880 x 660 |

¹⁾ To DIN 28 400 ff.

²⁾ Operated at the ultimate pressure without gas ballast, free-field measurement at a distance of 1 m (3.5 ft)

Ordering Information

SCREWLINE

| | | SP 250 | SP 630 |
|---|----------------|--------------------------------|--------|
| | | 50/60 Hz | |
| | Part No. | Part No. | |
| SCREWLINE with manual gas ballast and SPGuard 400V, 50Hz / 200V, 50Hz / 460V, 60Hz / 210V, 60Hz | 115 001 | - | |
| SCREWLINE with manual gas ballast and SPGuard 190V-210V / 380V-420V, 50Hz 190V-210V / 380V-420V, ±5%, 60Hz | - - | 117007 117008 | |
| SCREWLINE Oxygen version with electromagnetic gas ballast and SPGuard 190V-210V / 380V-420V, ±5%, 50Hz 190V-210V / 380V-420V, ±5%, 60Hz | - - | 117039 117040 | |
| Exhaust silencer | 119002 | 119001 | |

CLAWVAC



CLAWVAC CP 150

The CLAWVAC operates smoothly with a pair of wearfree rotating claw rotors. The CLAWVAC differentiates itself from conventional claw pumps mainly through its material selection.

Stainless steel rotors as well as the corrosion-resistant coated vacuum chamber deliver stable operation even under very harsh process conditions.

The CLAWVAC offers great advantages for a wide range of rough vacuum applications.

Our Solution

- Non contact dry claw technology
- Air cooled
- Pumping speed 65,150 and 300 m³/h
- Compact design, small space requirements
- Extremely efficient air cooling, low heat emission
- Stainless steel claws and corrosion resistant pumping chamber
- Low noise level

Typical Applications

Food processing

- Bottling
- Dairy products (e.g. milking)
- Vacuum conveying (e.g. slaughterhouse)
- Beverage production
- Tumbling / Marinating
- Mixing / Cutting

Food packaging

- Thermoforming of foil containers
- Tray sealing
- MAP (Modified Oxygen Packaging)

Customer Benefits

- Oil free generation (no oil migration into process, no oil contamination to the environment) guarantees maximal food safety
- Comfort of use for the operator thanks to low noise level
- Low maintenance requirements and low operating cost
- Simple and complete on-site cleaning of all surfaces wetted by media



Stainless steel claws and corrosion resistant pumping chamber

Technical Data

CLAWVAC

| | | | CP 65 | CP 150 | CP 300 |
|---------------------------------------|-----------------|----------------------------------|------------------------------------|------------------------------------|--------------------------------|
| Pumping speed ¹⁾ | 50 Hz | m ³ x h ⁻¹ | 65 | 150 | 300 |
| | 60 Hz | m ³ x h ⁻¹ | 79 | 184 | 347 |
| Ultimate vacuum | | mbar | 50 | 50 | 140 |
| Continuous operation range | | mbar | 50-1000 | 50-1000 | 140-1000 |
| Permissible ambient temperature range | | °C | 0 - 40 | 0 - 40 | 0 - 40 |
| Connections | Inlet Outlet | | G 1 1/4" or NPT G 1 1/4" or NPT | G 1 1/4" or NPT G 1 1/4" or NPT | G 2" or NPT G 1 1/4" or NPT |
| Motor power | 50 Hz | kW | 1.8 | 4.0 | 6.2 |
| | 60 Hz | kW | 2.2 | 3.7 | 7.5 |
| Operation range | | Hz | 20 - 60 | 20 - 60 | 20 - 60 |
| Noise level (50/60 Hz) | | dB(A) | 66 / 77 | 75 / 80 | 77 / 84 |
| Weight | | kg | 120 | 160 | 252 |
| Motor protection class | | IP | 55 | 55 | 55 |

¹⁾ To DIN 28 400 ff.

Ordering Information

CLAWVAC

| | CP 65 | CP 150 | CP 300 |
|--|------------------|------------------|------------------|
| | Part No. | Part No. | Part No. |
| CLAWVAC dry vacuum pump with 3 phase motor | | | |
| 230 V, 50 Hz | 178065V01 | 178150V01 | 178300V01 |
| 380 V, 60 Hz | 178065V02 | 178150V02 | 178300V02 |
| 400 V, 50 Hz | 178065V03 | 178150V03 | 178300V03 |
| 575 V, 60 Hz | 178065V04 | 178150V04 | 178300V04 |
| 200 V, 60 Hz | 178065V05 | 178150V05 | 178300V05 |
| 460 V, 60 Hz | 178065V06 | 178150V06 | 178300V06 |
| 230/460 V, 60 Hz | 178065V07 | 178150V07 | 178300V07 |
| 200 V, 50 Hz | 178065V08 | 178150V08 | 178300V08 |
| 230 V, 60 Hz | 178065V09 | 178150V09 | 178300V09 |
| 500 V, 50 Hz | 178065V10 | 178150V10 | 178300V10 |

RUVAC WAU FP



RUVAC WAU 2001 FP Roots vacuum pump

Roots blowers, also called boosters are contactless dry impellers pumps.

In combination with forevacuum pumps, the use of RUVAC Roots blowers features:

- increased pumping speed
- improved ultimate pressure
- shortened cycle times

Our Solution

- Air-cooled line WAU FP with four blower sizes
- Reliable and trouble-free operation
- Easy installation, direct coupling without a support frame for SOGEVAC SV 100 FP or larger
- Available with special motors if required
- Integrated pressure equalization line for protection against overloading at high pressures
- Conversion from vertical to horizontal flow
- Maintenance-friendly
- Mineral oil LVO 100 is used as standard. The required lubricant filling is included with the delivery
- Gasket in the intake flange with dirt sieve

Typical Applications

- Large capacity chamber packaging machines
- Vacuum cooling of fruits and vegetables
- Freeze drying

Customer Benefits

- Shorter cycle time and/or higher production output
- Low total cost of ownership

Optional Equipment

- Wash-down duty motors
- Base frame with hose barb connections

Technical Data

RUVAC

| | | WAU 251 FP | WAU 501 FP | WAU 1001 FP | WAU 2001 FP |
|--|--|--|--|--|--|
| Nominal speed ¹⁾ | | | | | |
| at 50 Hz | m ³ x h ⁻¹ | 253 | 505 | 1000 | 2050 |
| at 60 Hz | m ³ x h ⁻¹ (cfm) | 304 (179) | 607 (357) | 1200 (707) | 2462 (1449) |
| Ultimate pressure for combination with SOGEVAC ... FP | mbar (Torr) | 6.7 x 10 ⁻² (5 x 10 ⁻²) | 6.7 x 10 ⁻² (5 x 10 ⁻²) | 6.7 x 10 ⁻² (5 x 10 ⁻²) | 6.7 x 10 ⁻² (5 x 10 ⁻²) |
| Motor power | kW (hp) | 1.1 (1.5) | 2.2 (3.0) | 4.0 (5.4) | 7.5 (10.0) |
| Noise level | dB(A) | < 64 | < 67 | < 75 | < 80 |
| Oil capacity | l (qt) | 0.7 (0.74) | 1.2 (1.3) | 1.8 (1.9) | 1.8 (1.9) |
| Connecting flanges | DN | 63 ISO-K | 63 ISO-K | 100 ISO-K | 160 ISO-K |

¹⁾ To DIN 28 400 ff.

Ordering Information

RUVAC

| | WAU 251 FP | WAU 501 FP | WAU 1001 FP | WAU 2001 FP |
|------------------------------|------------------|------------------|------------------|------------------|
| | Part No. | Part No. | Part No. | Part No. |
| RUVAC WAU ... FP | | | | |
| 3 phase motor | | | | |
| 200-240 V / 380-400 V, 50 Hz | 117 21 FP | 117 31 FP | 117 41 FP | 117 51 FP |
| 200-240 V / 380-480 V, 60 Hz | | | | |

SOGEVAC SV FP



SOGEVAC FP range

SOGEVAC FP are proven oil sealed rotary vane pumps. This technology has been used by the food industry since decades and is today recognized as a standard.

SOGEVAC FP are delivered in serial with food grade oil.

Our Solution

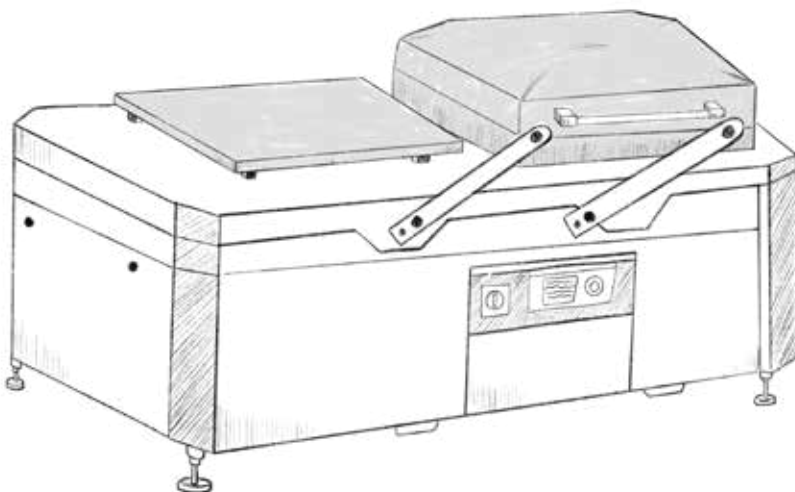
- High pumping speed / footprint ratio by compact design
- Maximum tightness and low complexity thanks to integrated functions and no external pipes
- Lowest noise level on the market
- Wide range of motors available for all pump sizes
- Complete pump range from 10 m³/h to 300 m³/h
- Based on proven SOGEVAC design with manual gas ballast and oil filter
- Delivery with food grade oil NSF H1 (LEYBONOL LVO 140 or LVO 150)

Typical Applications

- Thermoformers / Rollstock machines
- Chamber packaging machines
- Modified Atmosphere Packaging (except with O₂)
- Rotary chamber packaging
- Blenders
- Stuffers
- Vacuum cutters
- Freeze drying
- Vacuum cooling

Customer Benefits

- Lowest cost of ownership by easy maintenance and minimized after sales costs



Universal inlet flange for easy retrofit

| Technical Data | | SOGEVAC SV 10 FP | | SOGEVAC SV 16 FP | |
|---|--|------------------|---------------|------------------|---------------|
| | | 50 Hz | 60 Hz | 50 Hz | 60 Hz |
| Nominal speed ¹⁾ | m ³ x h ⁻¹ (cfm) | 11 (6.5) | 13.0 (7.7) | 16.0 (9.4) | 19.0 (11.2) |
| Pumping speed ¹⁾ | m ³ x h ⁻¹ (cfm) | 9.5 (5.6) | 11.5 (6.8) | 15.0 (8.8) | 17.0 (10.0) |
| Ultimate partial pressure without gas ballast ¹⁾ | mbar (Torr) | ≤ 1.5 (≤ 1.1) | ≤ 1.5 (≤ 1.1) | ≤ 1.0 (≤ 0.8) | ≤ 1.0 (≤ 0.8) |
| Ultimate total pressure with gas ballast ¹⁾ | mbar (Torr) | ≤ 2.5 (≤ 1.9) | ≤ 2.5 (≤ 1.9) | ≤ 2.0 (≤ 1.5) | ≤ 2.0 (≤ 1.5) |
| Maximum permissible Water vapor capacity | kg x h ⁻¹ (qt/hr) | 0.02 (0.02) | 0.03 (0.03) | 0.03 (0.03) | 0.05 (0.05) |
| Motor power | kW (hp) | 0.55 (0.75) | 0.75 (1.02) | 0.55 (0.75) | 0.75 (1.02) |
| Noise level ²⁾ | dB(A) | 60 | 64 | 60 | 64 |
| Oil capacity | l (qt) | 0.5 (0.53) | 0.5 (0.53) | 0.5 (0.53) | 0.5 (0.53) |
| Connections ³⁾ | | | | | |
| Intake side ⁴⁾ | G or NPT | 3/4" + 1/2" | 3/4" + 1/2" | 3/4" + 1/2" | 3/4" + 1/2" |
| Pressure side | G or NPT | – | – | – | – |

Remark: The SV 10 FP and SV 16 FP cannot work continuously above 150 mbar. Please consult Leybold for this application

| Technical Data | | SOGEVAC SV 25 FP | | SOGEVAC SV 45 FP | |
|---|--|------------------|---------------|------------------|---------------|
| | | 50 Hz | 60 Hz | 50 Hz | 60 Hz |
| Nominal speed ¹⁾ | m ³ x h ⁻¹ (cfm) | 26.0 (15.3) | 31.0 (18.3) | 44.0 (25.9) | 53.0 (31.2) |
| Pumping speed ¹⁾ | m ³ x h ⁻¹ (cfm) | 22.5 (13.3) | 25.0 (14.7) | 38.5 (22.7) | 47.0 (27.7) |
| Ultimate partial pressure without gas ballast ¹⁾ | mbar (Torr) | ≤ 0.5 (≤ 0.4) | ≤ 0.5 (≤ 0.4) | ≤ 0.5 (≤ 0.4) | ≤ 0.5 (≤ 0.4) |
| Ultimate total pressure with gas ballast ¹⁾ | mbar (Torr) | ≤ 0.8 (≤ 0.6) | ≤ 0.8 (≤ 0.6) | ≤ 1.5 (≤ 1.1) | ≤ 1.5 (≤ 1.1) |
| Maximum permissible water vapor capacity | kg x h ⁻¹ (qt/hr) | 0.085 (0.09) | 0.1 (0.11) | 0.76 (0.81) | 0.9 (0.95) |
| Motor power | kW (hp) | 0.9 (1.2) | 1.1 (1.5) | 1.1 (1.5) | 1.5 (2.0) |
| Noise level ²⁾ | dB(A) | 64 | 67 | 58 | 60 |
| Oil capacity | l (qt) | 0.5 (0.53) | 0.5 (0.53) | 1.0 (1.05) | 1.0 (1.05) |
| Connections ³⁾ | | | | | |
| Intake side ⁴⁾ | G or NPT | 3/4" + 1/2" | 3/4" + 1/2" | 1 1/4" | 1 1/4" |
| Pressure side | G or NPT | 3/4" | 3/4" | 1 1/4" | 1 1/4" |

¹⁾ To DIN 28 400 and following numbers

²⁾ Operated at the ultimate pressure without gas ballast, free-field measurement at a distance of 1 m (3.5 ft)

³⁾ 1/2" adapter supplied. Basic port is 3/4"

⁴⁾ Single-phase motors do not have plugs, cords or ON/OFF switches

SOGEVAC SV FP

| Technical Data | | SOGEVAC SV 70 FP | | SOGEVAC SV 105 FP | |
|---|--|------------------|---------------|-------------------|---------------|
| | | 50 Hz | 60 Hz | 50 Hz | 60 Hz |
| Nominal speed ¹⁾ | m ³ x h ⁻¹ (cfm) | 59.0 (34.8) | 71.0 (41.8) | 97.5 (57.4) | 117.0 (68.9) |
| Pumping speed ¹⁾ | m ³ x h ⁻¹ (cfm) | 54.0 (31.8) | 64.0 (37.7) | 87.5 (51.5) | 105.0 (61.8) |
| Ultimate partial pressure without gas ballast ¹⁾ | mbar (Torr) | ≤ 0.5 (≤ 0.4) | ≤ 0.5 (≤ 0.4) | ≤ 0.5 (≤ 0.4) | ≤ 0.5 (≤ 0.4) |
| Ultimate total pressure with gas ballast ¹⁾ | mbar (Torr) | ≤ 1.5 (≤ 1.1) | ≤ 1.5 (≤ 1.1) | ≤ 1.5 (≤ 1.1) | ≤ 1.5 (≤ 1.1) |
| Maximum permissible Water vapor capacity | kg x h ⁻¹ (qt/hr) | 1.0 (1.1) | 1.25 (1.33) | 1.6 (1.7) | 1.7 (1.8) |
| Motor power | kW (hp) | 1.5 (2.0) | 1.8 (2.4) | 2.2 (3.0) | 3.5 (4.7) |
| Noise level ²⁾ | dB(A) | 60 | 64 | 61 | 64 |
| Oil capacity | l (qt) | 2.0 (2.1) | 2.0 (2.1) | 2.0 (2.1) | 2.0 (2.1) |
| Connections | | | | | |
| Intake side | G or NPT | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |
| Pressure side | G or NPT | 1 1/4" | 1 1/4" | 1 1/4" | 1 1/4" |

| Technical Data | | SOGEVAC SV 200 FP | | SOGEVAC SV 320 FP ⁵⁾ | |
|---|--|-------------------|-----------------|---------------------------------|-----------------|
| | | 50 Hz | 60 Hz | 50 Hz | 60 Hz |
| Nominal speed ¹⁾ | m ³ x h ⁻¹ (cfm) | 180 (106) | 220 (130) | 330 (194) | 385 (227) |
| Pumping speed ¹⁾ | m ³ x h ⁻¹ (cfm) | 170 (100) | 200 (118) | 284 (168) | 330 (194) |
| Ultimate partial pressure without gas ballast ¹⁾ | mbar (Torr) | ≤ 0.08 (≤ 0.06) | ≤ 0.08 (≤ 0.06) | ≤ 0.08 (≤ 0.06) | ≤ 0.08 (≤ 0.06) |
| Ultimate total pressure with gas ballast ¹⁾ | mbar (Torr) | ≤ 0.7 (≤ 0.5) | ≤ 0.7 (≤ 0.5) | ≤ 0.7 (≤ 0.5) | ≤ 0.7 (≤ 0.5) |
| Maximum permissible Water vapor capacity | kg x h ⁻¹ (qt/hr) | 3.4 (3.6) | 5.4 (5.7) | 1.3 (1.4) | 1.8 (1.9) |
| Motor power | kW (hp) | 4.0 (5.4) | 4.6 (6.2) | 7.5 (10) | 7.5 (10) |
| Noise level ²⁾ | dB(A) | 69 | 73 | 72 | 76 |
| Oil capacity | l (qt) | 9.0 (9.5) | 9.0 (9.5) | 11.5 (12.2) | 11.5 (12.2) |
| Connections | | | | | |
| Intake side | G or NPT | 2" | 2" | 2" | 2" |
| Pressure side | G or NPT | 2" | 2" | 2" | 2" |

¹⁾ To DIN 28 400 and following numbers

²⁾ Operated at the ultimate pressure without gas ballast, free-field measurement at a distance of 1 m (3.5 ft)

³⁾ 1/2" adapter supplied. Basic port is 3/4"

⁴⁾ Single-phase motors do not have plugs, cords or ON/OFF switches

⁵⁾ SV 320 FP replaces SV 300 FP

Ordering Information

SOGEVAC

| | SV 10 FP | SV 16 FP | SV 25 FP | SV 45 FP | SV 70 FP |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|
| | Part No. | Part No. | Part No. | Part No. | Part No. |
| SOGEVAC SV 10 - 70 FP | | | | | |
| Three-phase world motor | 960 100 FP | 960 160 FP | 960 251 FP | 960 324 FP | 960 424 FP |
| Three-phase world motor 230 V / 400 V, 50 + 60 Hz / 460 V, 60 Hz | – | – | – | 960 307 FP | 960 407 FP |
| Single-phase world motor 230 V, 50/60 Hz; G | 960 105 FP | 960 165 FP | 960 256 FP | – | – |
| 230 V, 50/60 Hz; NPT | – | – | 960 257 FP | – | – |
| 110 - 120 V, 60 Hz | 960 110 FP | 960 170 FP | 960 261 FP | – | – |
| Other voltages/frequencies ¹⁾ | On request | On request | On request | On request | On request |

For accessories, see pumps SOGEVAC SV 10 B, SV 16 B, SV 25 B, SV 40 B and SV 65 B

¹⁾ Variants with wide range motor, NEMA motors and NPT flanges are available

Ordering Information

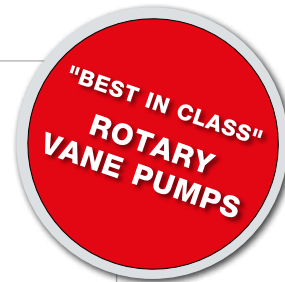
SOGEVAC

| | SV 105 FP | SV 200 FP | SV 320 FP |
|--|-------------------|---------------------|-------------------|
| | Part No. | Part No. | Part No. |
| SOGEVAC SV 105 - 300 FP | | | |
| Three-phase Europe motor 230 V / 400 V, 50 Hz and 460 V, 60 Hz | 960 507 FP | 109 27 FP | 960 722 FP |
| Three-phase USA motor ¹⁾ 230 V / 460 V, 60 Hz and 400 V, 50 Hz UL/CSA with terminal board | 960 514 FP | 950 27 FP | – |
| Three-phase world motor 230 V / 400 V, 50 + 60 Hz / 460 V, 60 Hz | 960 524 FP | 109 2 791 FP | – |

For accessories, see pumps SOGEVAC SV 40 B, SV 65 B, SV 100 B, SV 200 and SV 320 B

¹⁾ Pumps with USA motors have NPT inlet and outlet flanges

SOGEVAC SV B



SOGEVAC SV 630 B

SOGEVAC are proven oil sealed rotary vane pumps with high recognition from the industrial market.

Our Solution

- Very low rotational speed increases the lifetime of the pump and leads to noise level reduction
- Extremely low noise level in any working conditions
- Long lifetime of oil and exhaust filters
- Simplified maintenance thanks to an easy access to all key components
- Small footprint
- Air or water-cooling and many motors and options available
- Adaptors for direct mounting of Roots blowers

Typical Applications

- Big thermoforming and chamber packaging machines
- Freeze drying
- Vacuum cooling
- Central vacuum systems for packaging and processing

Customer Benefits

- Low operating costs
- Shorter cycle times versus competition
- Excellent comfort of use thanks to low noise level

Technical Data

SOGEVAC SV 630 B 60 Hz

SOGEVAC SV 630 BF 60 Hz

| | | | |
|---|--|-----------------------------|---------------------------------|
| Nominal speed ¹⁾ | m ³ x h ⁻¹ (cfm) | 840 (494.4) | 840 (494.4) |
| Pumping speed ¹⁾ | m ³ x h ⁻¹ (cfm) | 755 (444.4) | 755 (444.4) |
| Ultimate partial pressure without gas ballast ¹⁾ | mbar (Torr) | ≤ 0.08 (≤ 0.06) | ≤ 0.08 (≤ 0.06) |
| Ultimate total pressure with gas ballast ¹⁾ | mbar (Torr) | ≤ 0.7 (≤ 0.5) | ≤ 0.7 (≤ 0.5) |
| Cooling | | air | water |
| Water vapor tolerance ¹⁾ | mbar (Torr) | 50.0 (37.5) | 30.0 (22.5) |
| Maximum permissible Water vapor capacity | kg x h ⁻¹ (qt/hr) | 24.0 (25.4) | 14.0 (14.8) |
| Motor power | kW (hp) | 18.5 (25.0) | 18.5 (25.0) |
| Noise level ²⁾ | dB(A) | 75 | 75 |
| Oil capacity | l (qt) | 20/23 | 20/23 |
| Connections | | | |
| Intake side | G or NPT | DN 100 PN 10 / DN 100 ISO-K | DIN 160 Roots adapter 100 ISO-K |
| Pressure side | G or NPT | Option | |

Please refer to our general catalogue for the 60 Hz versions specifications

¹⁾ To DIN 28 400 and following numbers

²⁾ Operated at the ultimate pressure without gas ballast, free-field measurement at a distance of 1 m (3.5 ft)

Ordering Information

SOGEVAC SV 630 B

SOGEVAC SV 630 BF

| | Part No. | Part No. |
|--|----------------------|---------------|
| SOGEVAC SV 630 B or SV 630 BF Three-phase USA motor 230V / 460 V, 60 Hz and 400 V, 50 Hz UL/CSA with terminal board | 960 865 | 960869 |
| Three-phase world motor 230V/400V, 50 + 60 Hz / 460 V, 60 Hz | 960 863 V3021 | - |

SOGEVAC SV Oxygen



SOGEVAC SV 100 B



FOR
RED MEAT
MAP
PROCESSES

As soon as oxygen is pumped at concentrations exceeding 21% (atmospheric air) the SOGEVAC pump needs to be prepared especially for such operation.

This is typically the case in red meat Modified Atmosphere Packaging processes (MAP).

Our Solution

- SOGEVAC Oxygen version pumps are available in the following sizes: SV 25 B, SV 65 B, SV 100 B, SV 200, SV 300 B, SV 470 B, SV 630 B (F) and SV 750 B
- Hydrocarbon-free pump parts and inert PFPE oil filling for use in oxygen applications, respective when gas mixtures are pumped with O₂ concentrations exceeding 21%
- Air or water cooled
- Available in many different variants, motor voltages, ports etc.

Typical Applications

- MAP (Modified Atmosphere Packaging) or red meat and tuna

Customer Benefits

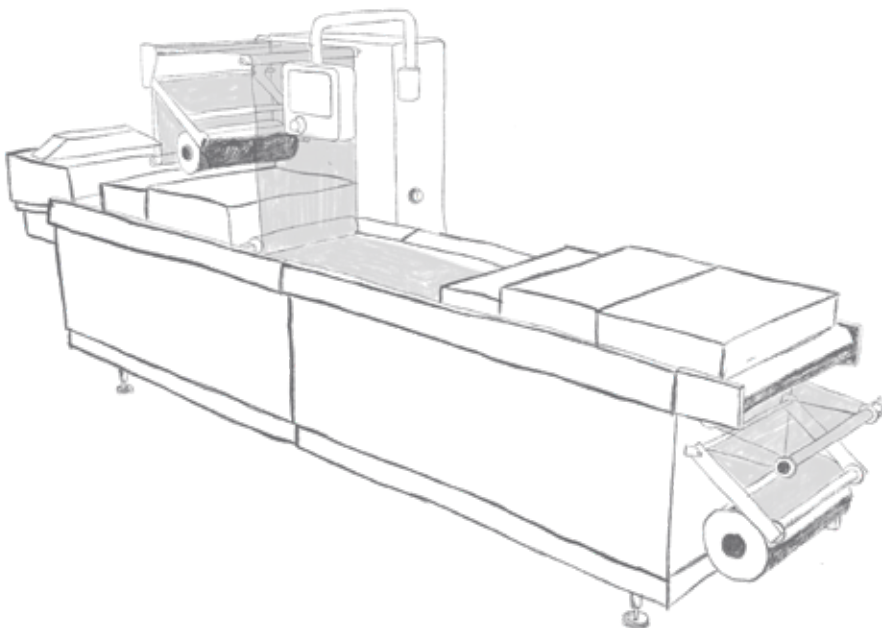
- Maximal safety level related to oxygen use
- Low cost of ownership thanks to lifetime of PFPE oil

Safety Precautions

As standard, the pumps are equipped with FPM (FKM) seals and an oil filter bypass. Before assembly, all parts are degreased and the pumps are tested with PFPE lubricant.

Thereafter the pumps are emptied and delivered without PFPE lubricant.

The pumps are supplied with special Operating Instructions (GA) and Spare Parts List (ET).



SOGEVAC SV Oxygen

Pumps

Ultimate pressure (mbar (Torr))
without gas ballast with gas ballast

| | Part No. | | |
|-------------|--|-------------|------------|
| SV 25 B | 960211V2016 960215V2016 | 1.0 (0.75) | 1.5 (1.13) |
| SV 65 B | 960401V2016 960412V2016 | 1.0 (0.75) | 2.5 (1.88) |
| SV 100 B | 960505V2016 960512V2016 | 1.0 (0.75) | 2.5 (1.88) |
| SV 200 | 1092716, 9502716 | 0.5 (0.375) | 1.5 (1.13) |
| SV 300 B | 960702V2016, 960707V2016, 960717V2016 | 0.5 (0.38) | 1.5 (1.13) |
| SV 470 B | 960753V2016 | 1.0 (0.75) | 1.5 (1.13) |
| SV 630 B(F) | 960863V3011 | 1.0 (0.75) | 1.5 (1.13) |
| SV 750 B(F) | 960877V3001 | 1.0 (0.75) | 1.5 (1.13) |

Oil for SOGEVAC pumps

SOGEVAC models

| SV 10 FP / 16 FP | SV 25 FP | SV 45 FP SV 70 FP SV 105 FP | SV 200 FP SV 320 FP | SV 630 B / 750 B(F) | SV Oxygen version | SV Hydro version |
|------------------|----------|-----------------------------------|------------------------|---------------------|-------------------|------------------|
|------------------|----------|-----------------------------------|------------------------|---------------------|-------------------|------------------|

LEYBONOL Oils

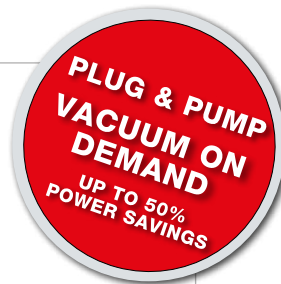
| | | | | | | |
|--------------------------------|---|---|---|---|---|---|
| LVO 120 (Standard Mineral Oil) | ● | ● | | | | |
| LVO 130 (Standard Mineral Oil) | | | ● | ● | ■ | ■ |
| LVO 140 (Food Grade Oil) | ■ | ■ | | | | |
| LVO 150 (Food Grade Oil) | | | ■ | ■ | ● | ● |
| LVO 400 (PFPE Oil) | | | | | ■ | |

■ = Standard

● = Possible, please contact Leybold

The table only lists general applications. Your specific requirements might be subject to deeper analysis. For further questions, please contact our technical sales support. **For information on oil specifications please refer to our general catalogue.**

VACUBE



VACUBE 800 iCH

The VACUBE range is a new generation of intelligent, single-stage, oil-sealed screw vacuum pumps with variable speed drive (VSD) technology.

VACUBE generates vacuum on demand. The pump is controlled and maintained by an internal controller. The system offers superior performance for a wide range of rough vacuum applications.

Four models are available. Next to the standard model, the „iH“ model should be used for vapour handling, the „iC“ model is ideal for high cycling applications. „iHC“ is there to cover humid cycling applications.

Our Solution

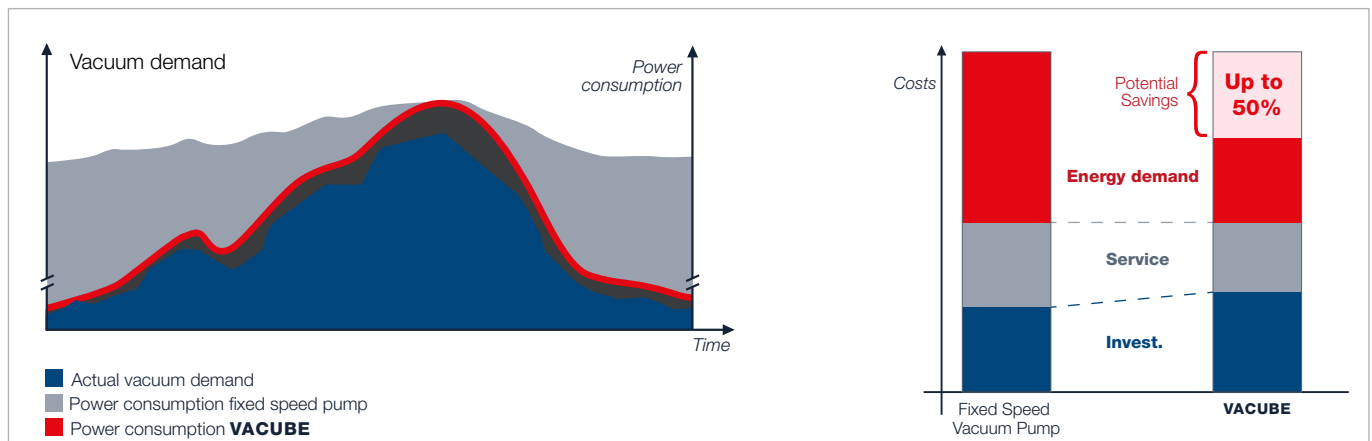
- Plug and pump system set up
- Highly efficient oil-sealed rotary screw technology
- Pumping speed 420 to 1,620 m³/h
- Ultimate pressure ≤ 0.35 mbar
- Integrated frequency inverter for load depending speed control
- Controller with intuitive menu navigation for configuration and control
- Small footprint
- Programmable operation modes
- Long maintenance intervals

Typical Applications

- Central vacuum systems for packaging and processing

Customer Benefits

- Sustainable power saving due to on-demand vacuum generation
- Low total cost of ownership



Energy optimised operation with VACUBE: The power consumption changes proportional to the real vacuum demand, often allowing energy savings up to 50% compared to other vacuum pump technologies

Technical Data

VACUBE

VQ 400 VQ 550 VQ 700 VQ 800 VQ 1250 VQ 1500 VQ 1650

| | | | | | | | | |
|--|----------------------------------|---------|---------|---------|---------|---------|---------|---------|
| Pumping speed, max. eff. ¹⁾ | m ³ x h ⁻¹ | 420 | 530 | 700 | 790 | 1250 | 1490 | 1620 |
| Ultimate pressure | mbar | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 |
| Motorshaft power | kW | 5.5 | 7.5 | 11 | 15 | 22 | 30 | 37 |
| Noise level | dB(A) | 51 - 65 | 51 - 65 | 51 - 73 | 51 - 76 | 65 - 75 | 65 - 75 | 65 - 80 |
| Ambient temperature | °C | 0 - 46 | 0 - 46 | 0 - 46 | 0 - 46 | 0 - 46 | 0 - 46 | 0 - 46 |
| Weight | kg | 500 | 500 | 510 | 520 | 1058 | 1058 | 1073 |
| Protection class | IP | 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| Supply voltages* | 380 - 460 V, 3 phase, 50/60 Hz | | | | | | | |

¹⁾ To DIN 28 400 ff.

* Other voltages available on request

Ordering Information

VACUBE

i Models

iH Models

iC Models

iCH Models

| | Part No. | Part No. | Part No. | Part No. |
|---------------------------------------|-----------|-----------|-----------|-----------|
| VACUBE VQ 400 | 177040V01 | 177040V10 | - | - |
| VACUBE VQ 550 | 177055V01 | 177055V10 | 177055V05 | 177055V15 |
| VACUBE VQ 700 | 177070V01 | 177070V10 | 177070V05 | 177070V15 |
| VACUBE VQ 800 | 177080V01 | 177080V10 | 177080V05 | 177080V15 |
| VACUBE VQ 1250 | 177125V01 | 177125V10 | - | - |
| VACUBE VQ 1500 | 177150V01 | 177150V10 | 177150V05 | 177150V15 |
| VACUBE VQ 1650 i | 177165V01 | 177165V10 | 177165V05 | 177165V15 |
| LEYBONOL vacuum oil LVO 320, 20 liter | L320 20 | L320 20 | L320 20 | L320 20 |

Liquid Separator, see-through



See-through liquid separator with insert for the collection of large particles



Dimensional drawing of the liquid separators.
For the dimensions please refer to the technical data



Operating principle

Liquids and larger particles are separated by the integrated baffle and accumulate in a transparent polycarbonate container.

A float ball in the separator rises with the liquid level. At maximum filling level, it interrupts the gas flow on the outlet side to protect the pump.

Technical features

- High impact, shatter resistant, polycarbonate bucket
- Corrosion resistant cast aluminum head with integrated knockout baffle
- Stainless steel float ball for emergency shut off
- 1/2" drain
- 1/4" differential gauge ports 2" to 4"

Customer Benefits

- Protects vacuum valves and pumps from particles and deposits
- Quick visual inspection through transparent collection container
- Simple installation, minimal connection costs due to T-shaped design
- Compact filter, space-saving - ideal for tight installation situations

Technical Data

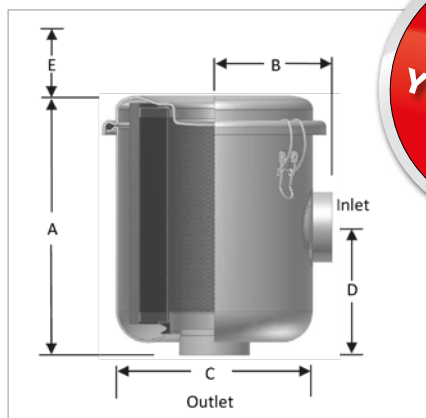
Liquid separator

| Inlet / outlet flange | NPT | 1" 1/4 NPT | 2" NPT | 3" NPT | 4" NPT |
|-----------------------------|-------------------|------------|-----------|-----------|-----------|
| Rated for flow | m ³ /h | 102 | 297 | 510 | 850 |
| Dimensions | mm | | | | |
| A | | 340 | 413 | 502 | 502 |
| B | | 303 | 362 | 432 | 432 |
| C | | 178 | 229 | 343 | 343 |
| D | | 264 | 318 | 356 | 356 |
| Suggested service height E | mm | 228 | 228 | 228 | 228 |
| Weight | lbs | 3.5 | 8.2 | 12.6 | 12.6 |
| Ordering Information | Part No. | 95140 FPN | 95144 FPN | 95146 FPN | 95147 FPN |

Inlet Filter kits



Dust filter



Dimensional drawing for the dust inlet filter kits



Operating principle

This kit consist of a filter made of a steel housing and a lid with three quick locking pins delivered with a double and an elbow for horizontal assembly.

Technical features

- Metal Filter Cartridge
- 0.08 mm (0.003 in.) mesh
- Collects solid particles down to 0.08 mm (0.003 in.), like plastics, paper, packaging materials, food-stuffs

Customer Benefits

- The filter is mounted horizontally which prevents particles from falling into the intake line when disassembling the filter.
- High separation capacity
- Quickly exchangeable cartridge

Technical Data

Dust filter inlet kits

| Size | NPT | 1" 1/4 NPT | 2" NPT |
|----------------|-----|-------------|-------------|
| Inlet / outlet | | 1.25 / 1.25 | 2.00 / 2.00 |
| Style | | FPT | FPT |
| Dimensions | mm | | |
| A | | 6.75 | 10.00 |
| B | | 4.13 | 4.59 |
| C | | 7.33 | 7.68 |
| D | | 4.50 | 5.00 |
| E | | 5.25 | 9.00 |
| Weight | lbs | 5 | 15 |

Ordering Information

| | 1" 1/4 NPT | 2" NPT |
|------------------------------|------------|-----------|
| | Part No. | Part No. |
| Filter inlet kit | 180559V | 180560V |
| Replacement filter inlet kit | 190187138 | 190187139 |

Vacuum Pressure Gauges



DIAVAC DV 1000



The DIAVAC DV 1000 is a rugged mechanical diaphragm vacuum gauge with high measurement accuracy for pressure measurements in the rough vacuum range from 1000 to 1 mbar.

Our Solution

- Vacuum connection: DN 40 ISO-KF
- Individual scale calibration
- Absolute pressure gauge
- Readout is independent of gas type and changes in atmospheric pressure
- Dimensions (W x H x D): 180 x 166 x 100 mm

Customer Benefits

- Wide measurement range from 1000 to 1 mbar with high resolution in the 100 to 1 mbar range
- Stainless steel diaphragm for excellent media compatibility
- Easy measurement chamber cleaning due to the removable measurement flange

PIEZOVAC PV 101



Digital Piezo gauge with data logger

Typical Applications

- Food and packaging industry
- Vacuum process quality assurance

Our Solution

- Measurement range 1200 to 0.1 mbar
- Usage possible directly in a vacuum
- Data logging via USB interface and internal memory for up to 2000 measured values
- Online measurement via USB possible; measuring data exportable
- Cordless power supply with standard 9 V battery or 15 V DC adapter
- Pressure unit selectable amongst mbar, Torr and Pascal
- Windows software VacuGraph for measuring data storage and PC analysis (optional)

Customer Benefits

The temperature compensated handheld gauge PIEZOVAC PV 101 is equipped with an internal piezoresistive silicone sensor and offers gas type independent measurement in the range of 1200 to 0.1 mbar.

The PIEZOVAC PV 101 measurement gauges are universal to use - as a mobile handheld instrument or fixed to a vacuum installation. Operates even under full vacuum conditions. For example: These gauges can be enclosed to the packaging during the packing process to monitor the real pressure in the inner packaging.

Ordering Information

Vacuum pressure gauges

| | Part No. |
|---|------------------------|
| DIAVAC DV 1000, complete with sintered filter, mbar readout / Torr readout | 160 67 / 896 06 |
| PIEZOVAC PV 101, DN 16 ISO-KF incl. AIMn block battery, 9V 6LR61 | 230 080 V01 |
| VacuGraph Windows software accessory set, including USB interface cable (2 m), 12V AC adapter (100-260V, 50/60 Hz), protection case | 230 082 V01 |

For detailed information please refer to our General Catalog or contact us.

LEYBONOL LVO Vacuum Oil



LEYBONOL food-grade oil

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.

The food-grade LEYBONOL is registered at NSF (Lev. H1). So it is ideal for use in food processing and packaging areas.

LVO 140 and LVO 150

Mineral oil with additives

- Resistant against oxidation
- Highly resistant to contamination

Product examples:

- LVO 140: SOGEVAC (A-series ≤ SV65, B-series ≤ SV25B)
- LVO 150: SOGEVAC (A-series ≥ SV 100, B-series ≥ SV 40 B)

LVO 300 and LVO 320

Synthetic oil (PAO with additives)

- High thermal and oxidative stability

Product examples:

- SOGEVAC, VACUBE

LVO 400 and LVO 410

Synthetic oil (perfluoropolyether PFPE, free of additives)

- Chemical inert, highest thermal stability; for MAP packaging of red meat with high oxygen concentration

Product examples:

- RUVAC, DRYVAC, SOGEVAC

LVO 700

Synthetic cyclic hydrocarbon

- Very high thermal stability and highly resistant against oxidation and decomposition, long lifetime

Product examples:

- SOGEVAC

Ordering Information

| | Part No. | | Part No. |
|----------------------------|---------------|-----------------------------|---------------|
| LEYBONOL LVO 140, 1 liter | L14001 | LEYBONOL LVO 320, 20 liter | L32020 |
| LEYBONOL LVO 150, 1 liter | L15001 | LEYBONOL LVO 410, 0,6 liter | L41000 |
| LEYBONOL LVO 150, 20 liter | L15020 | LEYBONOL LVO 410, 1 liter | L41001 |
| LEYBONOL LVO 300, 1 liter | L30001 | LEYBONOL LVO 700, 2 liter | L70002 |
| LEYBONOL LVO 300, 5 liter | L30005 | LEYBONOL LVO 700, 5 liter | L70005 |
| LEYBONOL LVO 300, 20 liter | L30020 | LEYBONOL LVO 700, 20 liter | L70020 |

For detailed information please refer to our General Catalog or contact us.

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

Our Global Support for You



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.

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



Pioneering products. Passionately applied.

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