Leybold

BOISWOOD
GAS AND LIQUID CONTROL TECHNOLOGIES
Pressure & Vacuum
Flow
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Custom Services

SOGEVAC NEO D

Three times a hit.

Less noise. Less emissions. Less maintenance.

172.10.02

The new generation of SOGEVAC vacuum pumps. Triple-hitting for cleaner, quieter, longer-running performance.

Pairing health and safety with efficient processes is a vital need for any workplace, from research labs to industrial manufacturers. When processes rely on continuous vacuum, choosing the right components becomes all the more essential. Reliable, high-performance vacuum technology not only gets the job done, but also contributes to a better work environment with less noise and fewer emissions. The result is greater well-being and peace of mind – for higher employee productivity and precision in demanding applications.

When it comes to these universal challenges, the new SOGEVAC NEO D rotary vane vacuum pump offers a bundle of advantages. But most of all, it is cleaner, quieter and virtually maintenance-free.

Because good things come in threes

Quieter performance by design

Our designers and engineers went to great lengths to improve the acoustic properties of the rotary vane vacuum pump. And they delivered: the SOGEVAC NEO D sets a new benchmark in perceived noise levels and sound quality. It is 3 dB(A) quieter than competitors' products on average – for quality that you cannot hear.

- 54 dB(A) for SOGEVAC NEO D 16 & 25
- 57 dB(A) for SOGEVAC NEO D 40 & 65

Cleaner technology

The SOGEVAC NEO D features a top-quality exhaust filter inside the oil casing. Built-in filtration reduces the required integration volume of the pump and ensures a clean environment without oil smoke or loss while pumping down. The result is far less oil loss compared to competitors' pumps without exhaust filtration – up to 100 times less! This innovative design also makes the SOGEVAC NEO D incredibly compact.

Longer running – maintenance-free for up to 3 years

Thanks to cutting-edge shaft seal technology designed exclusively for Leybold, combined with long-life hydrocarbon oils, the SOGEVAC NEO D is built for maximal uptime. The new generation of vacuum pumps permits maintenance-free operation for up to three years in clean applications. "Fit it and forget it" for a new level of performance and convenience.

The new revolution in medium vacuum – ideal for all medium vacuum applications

Reliable vacuum is indispensable to numerous applications across a variety of industries. The SOGEVAC NEO D can operate continuously at any inlet pressure and features the same sturdy industrial design as other members of the SOGEVAC series. The latest generation of SOGEVAC rotary vane vacuum pumps is suitable for all dual-stage pump applications.

Selected applications

Analytics

In analytical instruments like mass spectrometers, the vacuum pump is an essential component for reliable operation.

SOGEVAC NEO D advantages:
- Eliminates noise enclosures
- Flexible interfaces for remote control
- Pumping speeds from 16 to 80 m^3/h with 180 … 264 V; 50 & 60 Hz 1-phase power supply
- No external exhaust filter required
- Up to 3 years of maintenance-free operation!

Glove boxes

In glove boxes, the vacuum pump is an indispensable component that provides reliable vacuum to evacuate the load lock.

SOGEVAC NEO D advantages:
- Silent, user-friendly pump
- Pumping speeds from 16 to 80 m^3/h with 180 … 264 V; 50 & 60 Hz 1-phase power supply
- No external exhaust filter required
- Up to 3 years of maintenance-free operation!

Sterilization

In sterilization, vacuum pumps are critical components that are exposed to harsh conditions such as high quantities of water vapor, residual H_2O_2 or ethylene oxide.

SOGEVAC NEO D advantages:
- Silent, user-friendly pump
- Pumping speeds from 16 to 80 m^3/h with 180 … 264 V; 50 & 60 Hz 1-phase power supply or a wide range of 3-phase motors
- No external exhaust filter required
- ATEX in Cat 2 or 3 variants available

R&D

Ultra-high vacuum (UHV) applications require reliable fore-vacuum generation for turbomolecular pumps. To avoid disturbing sensitive measurements, noise and vibrations must be kept to an absolute minimum.

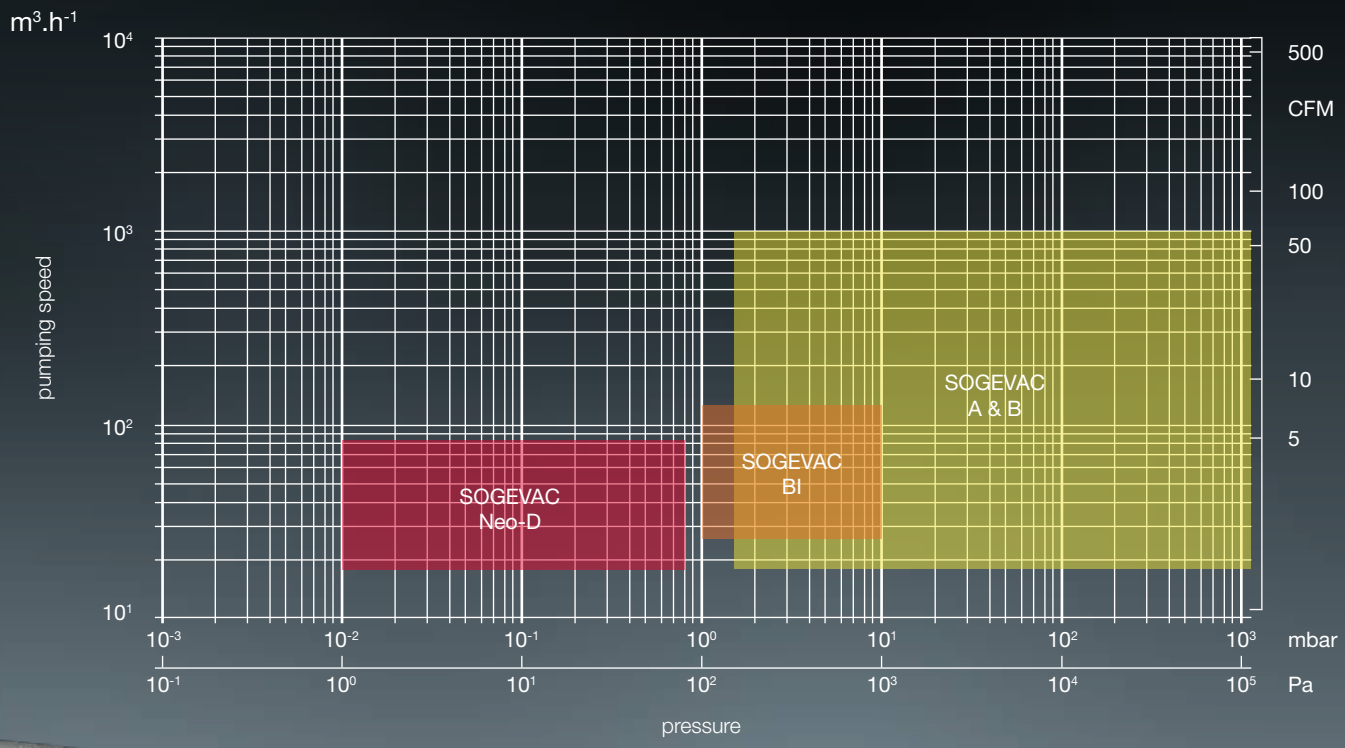
SOGEVAC NEO D advantages:
- Extremely quiet and easy to operate
- Sufficient ultimate pressure for UHV performance
- No external exhaust filter required
- Up to 3 years of maintenance-free operation!
- ATEX in Cat 2 or 3 variants available

Heat treatment & plasma processes

In heat treatment furnaces and plasma processes, vacuum pump technology needs to perform reliably while exposed to difficult processes.

SOGEVAC NEO D advantages:
- Rugged industrial design with oil filter
- No external exhaust filter required
- Different oil types available depending on process!

Working pressure



Integrated exhaust filter eliminates oil emissions and oil loss while pumping down

Performance-boosting accessories for pump monitoring and control

Would you like to benefit from pump control options and receive access to predictive maintenance data? We offer a frequency converter (FC) driven version of the SOGEVAC NEO D in all four pump sizes.

Frequency converter drive (optional):

Black box FC drive enables
- Speed control
- Monitoring (RS485 interface)
- Constant pumping speed independent of mains frequency
- Soft start w/o inrush current
- Even lower noise and vibration levels than a 1-phase motor
- 1-phase power supply 180 … 264 V at 50 & 60 Hz, for all pump sizes!

Pump failure indicator (optional):

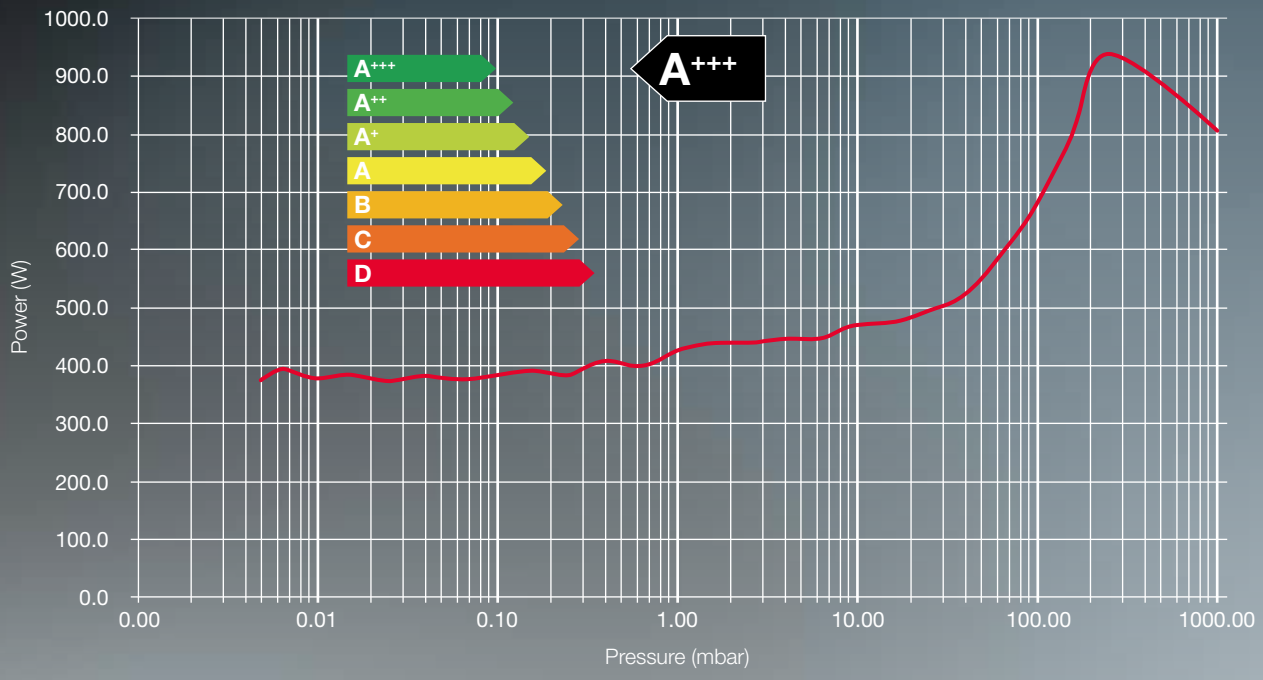
Do you need to keep an eye on the status of your pump, even when you are not on site? Our pump failure indicator enables remote monitoring:

1. **Oil level**
   Indicates a too low oil level

2. **Oil temp**
   Indicates overheating

3. **Exhaust filter condition (back-pressure)**
   Indicates that the exhaust filter needs to be changed

Reduce your energy consumption



Power consumption of SOGEVAC NEO D 25 as a function of inlet pressure

The SOGEVAC NEO D rotary vane vacuum pump is available in four different sizes: 16, 25, 40 or 65 m^3/h at 50 Hz. We also offer a variety of motors, oils and accessories, depending on your requirements.

Technical data

Size		16		25		40		65	
Frequency	Hz	50	60	50	60	50	60	50	60
Rated pumping speed	m^3/h	19	23	28	34	47	56	74	89
Eff pumping speed	m^3/h	16	19	24	29	40	48	63	76
Ult pressure w/o GB	mbar	< 8 x 10-3		< 8 x 10-3		< 8 x 10-3		< 8 x 10-3	
Ult pressure with GB	mbar	< 1 x 10-1		< 1 x 10-1		< 1 x 10-1		< 1 x 10-1	
Water vapor tolerance	mbar	10		10		10		10	
Motor power 3-phase motor 1-phase motor Frequency converter	 kW kW kW	 0.55 0.75 0.75	 0.7 0.9 0.9	 0.9 0.9 0.9	 1.1 1.1 1.1	 1.15 1.3 1.5	 1.5 1.5 1.5	 2.0 - 2.0	 2.6 - 2.6
Noise level	dB(A)	54		54		57		57	
Oil volume	l	1.5		1.5		3		3	
Flanges		25 KF		25 KF		40 KF		40 KF	
Weight	kg	49		50		80		96	
Dimensions L x W x H	mm	516 x 288 x 294		518 x 288 x 294		632 x 356 x 320		669 x 359 x 320	

Technical data
Ordering information

One model, four sizes.
Find your perfect SOGEVAC NEO D…

SOGEVAC NEO D models				
Size	**SOGEVAC NEO D 16**	**SOGEVAC NEO D 25**	**SOGEVAC NEO D 40**	**SOGEVAC NEO D 65**
3-phase world motor 180…264 / 342…457 V, 50 Hz & 180…264 / 342…506 V, 60 Hz	970102V	970202V	970302V	970402V
3-phase ATEX Cat 2 or 3 230/400 V, 50 Hz ATEX marking	970102A22	970202A22	970302A22	970402A22
1-phase 180 - 264V, 50 & 60 Hz with overload protection	970100V	970200V	970300V	N/A
1-phase driven F/C 180 - 264V, 50 & 60 Hz with overload protection	970101V	970201V	970301V	970401V

… plus all the right accessories!

We also offer a range of accessories for enhanced monitoring and control on our pump models. All accessories can be retrofitted on any pump and are designed according to the same basic principles of the SOGEVAC series. SOGEVAC NEO D pumps are also compatible with TRIVAC B inlet accessories.

SOGEVAC NEO D accessories Pump monitoring and control				
Size	**SOGEVAC NEO D 16**	**SOGEVAC NEO D 25**	**SOGEVAC NEO D 40**	**SOGEVAC NEO D 65**
Oil level switch	9700LS	9700LS	9700LS	9700LS
Exhaust filter over-pressure switch	971471210	971471210	971471210	971471210
Exhaust filter pressure manometer	95193	95193	95193	95193
Temperature switch	9700TS	9700TS	9700TS	9700TS
PT100	N/A	N/A	971444320	971444320

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