



Dry Vacuum Pumps

Keep your Food Packaging and Processing lines running at all times!



**FRESH.
FRESHER.
LEYBOLD.**



Dry Vacuum for Packaging & Processing

Improved Food Production Safety



Vacuum pumps are essential for most production processes in the Food Packaging and Processing Industry.

The Leybold dry screw pumps provide high pumping speeds to the lowest vacuum pressure levels required in food packaging and processing applications.

The pumps provide continuous production output in your stressful environment minimizing the risk of food contamination thanks to modern oil-free technology.

If you already own a mechanical booster, consider that dry pumps have the same, low level of requirement in terms

of maintenance and service. Going dry, there will be no big oil volume to drain, and no exhaust filter cartridges to exchange as with an oil sealed rotary vane pump.

Dry Technology Advantages

- Oil free compression design
- Robust, reliable and repeatable performance
- Low cost of ownership
- Reduced maintenance intervention and consumable costs
- Absolutely clean technology preserving the food product from oil contaminations
- Superior water vapor handling
- Very low noise level

Dry Technology Applications

- **Food Packaging**
 - Chamber machines
 - Thermoforming
 - Tray sealing
 - Carousel packaging
 - Rollstock packaging
 - Modified atmosphere packaging
- **Food Processing**
 - Vacuum conditioning
 - Vacuum cooling
 - Freeze drying
 - Tumbling
 - Mixing
 - VMD (vacuum microwave drying)



Dry Vacuum Pumps

Pioneering Vacuum Technology



DRYVAC

for packaging and standard processing applications

DRYVAC dry pumps are rugged, reliable and durable, ready to fulfill the stringent requirements of chamber packaging or thermo-forming.

All versions from the **DRYVAC** family are water cooled, very compact and offer excellent flexibility of installation, thanks to multiple orientation inlet flanges. The extremely low noise level significantly improves the working conditions in the production area.

DRYVAC Benefits

- Highly compact design
- Flexible inlet arrangement
- Wash down compatible when fitted with optional IP66 control box
- Highest energy efficiency with available stand-by capability
- Oxygen versions available for MAP packaging of red meat
- **DRYVAC FP** "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

SCREWLINE

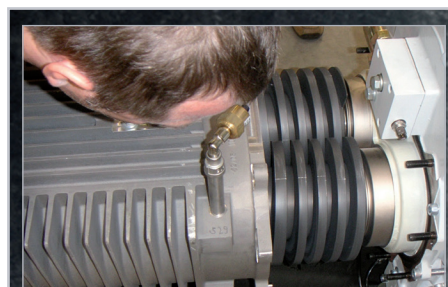
for demanding food processing applications

SCREWLINE dry screw vacuum pumps meet the special demands of harsh food processing applications.

The innovative, modular design of the **SCREWLINE** allows these pumps to be used where reliable, and low maintenance vacuum technology is demanded. The cantilevered design allows easy access to the rotors for in-situ cleanability in short time.

SCREWLINE Benefits

- Very rugged, for demanding processes such as tumbling
- Aluminium chamber construction
- Air-cooling
- Easy to disassemble pump chamber for on site cleaning by end user
- Monitoring system



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

NOVADRY

for food & packaging applications

NOVADRY is a 100% oil-free pump. Say goodbye to the risk of contaminating your processed foods with pump oil!

NOVADRY combines the concept of a 100% oil-free pump with a design complies with basic hygienic principles. This makes **NOVADRY** a vacuum benchmark for food safety!

NOVADRY Benefits

- Maximum robustness
- Extended uptime
- Fast & consistent
- Minimum TCO
- Optimized noise level
- 100% Food Safety
- Clean exhaust – no oil or particle emission

Dry Vacuum Screw Pumps

Technical Data

Dry Screw Pumps	Units	DRYVAC						SCREWLINE	NOVADRY			
Technical data at 50 Hz		DV 200	DV 300	DV 500	DV 650	DV 650 FP Hygienic	DV 800	SP 630	ND 65	ND 100	ND 160	ND 200
Effective pumping speed	m³ x h	210	280	460	650	650	800	630	65	105	150	200
Ultimate total pressure	mbar	< 0.05	< 0.01		≤ 0.005			≤ 0.01	0.1			
Max. permissible ambient temperature	°C	50					48	40	40			
Water vapour tolerance (with gas ballast)	mbar	50			60			40	60			
Water vapour capacity (with gas ballast)	kg x h ⁻¹	5			25		30	14	1.9	2.9	5.2	6.9
Cooling		Water						Air	Air			
Nominal motor power	kW	4.1	4.5	4.4	15	15	19.6	15	1.5	2.2	3.0	4.0
Type of protection	IP	54						55	55			
Lubricant filling	l	1.0			1.2			13	-			
Intake flange	DN	63 ISO-K			100 ISO-K			100 ISO-K	G 2"			
Exhaust flange	DN	DN 40 ISO-KF		63 ISO-K			100 ISO-K					
Weight, approx.	kg	370		490	580	580	590	530	85	95	105	115
Dimensions (W x H x D)	mm	1115 x 612 x 478			1280 x 420 x 570	1468 x 773 x 568	1280 x 570 x 420	1630 x 880 x 660	644 x 488 x 315	736 x 488 x 315	889 x 488 x 315	
Noise level	dB (A)	65					70	73	67		70	

Market experience

Treating, conserving and packaging food is a demanding application considering that these processes protect us daily against exposure to air, bacteria, mold, decay and dryness, but vacuum technology can do so much more.

In modern industrial manufacturing, vacuum can help to reduce cost of ownership, facilitate working conditions and improve on logistics.

Leybold offers a broad range of advanced vacuum solutions for use in food processing and packaging applications, backed up by the experience in vacuum technology since 1850.

The product range of Leybold comprises fore vacuum and high vacuum pumps, vacuum systems, vacuum gauges, leak detecting instruments, flanges, fittings and valves, as well as consulting and engineering of complete vacuum solutions for specified customer applications.

This full range of vacuum technology is supported by one of the largest worldwide sales and after sales network.

Sales and Service

Worldwide service network

- On-site support by our field service team
- 24 hours / 7 days a week
- Exchange program with back-up pool management
- Customized service contracts
- Remote service
- Extended warranty program



Pioneering products. Passionately applied.