



# NOVADRY

Get in Touch with  
the New Vacuum Star...



**FRESH.  
FRESHER.  
LEYBOLD.**

VACUUM SOLUTIONS FOR FOOD  
PROCESSING AND PACKAGING

NOVADRY Dry Screw Vacuum Pumps

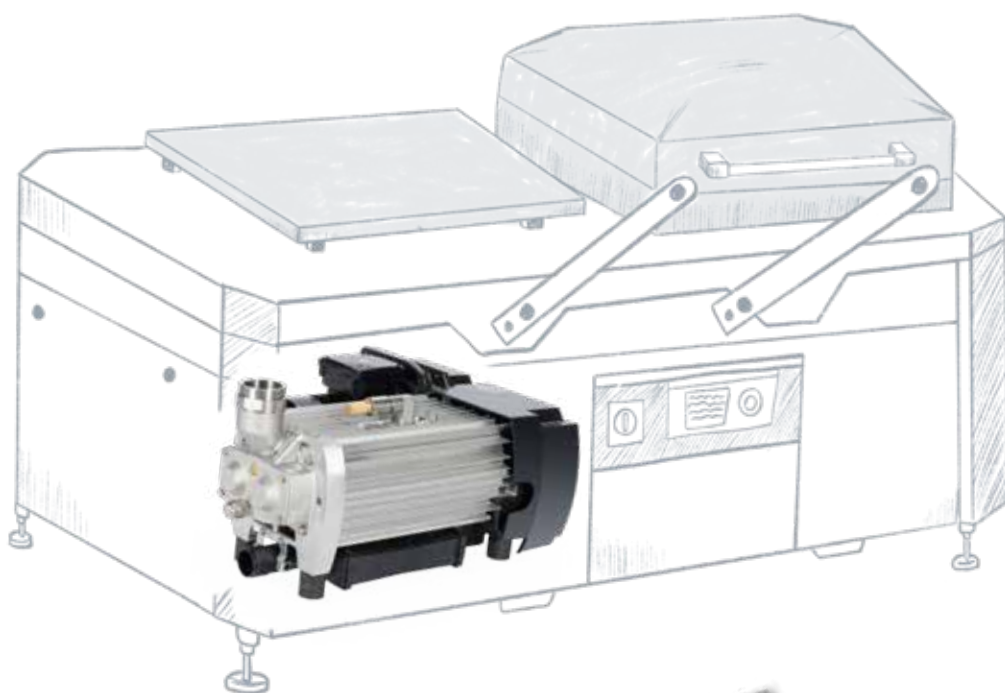
# NOVADRY

## Dry Screw Vacuum Pumps

**Vacuum is an important and widely-used utility in the food industry.** Until today, oil-sealed rotary vane pumps were the norm. However, using such pumps bears

risks as the pump oil could end up polluting your workspace or, even worse, your food. To avoid these risks and **to ensure product freshness, Leybold has developed the**

**“NOVADRY”. This 100% oil-free vacuum pump will revolutionise the market.** The following key pump features will demonstrate you.



### Maximum Robustness

NOVADRY was developed with all your applications in mind. It can handle water vapour, droplets, organic acids and even particles. NOVADRY's robustness is based on for example its innovative belt drive and the self-draining pump design.



### Extended Uptime

NOVADRY's uptime has been maximized by reducing the maintenance requirements. The only consumables, belt and bearings, are optimized for serviceability and extended service intervals.



### 100 % FOOD SAFETY

NOVADRY combines a 100 % oil-free pump concept with a design compliant with the basic hygienic principles. That makes NOVADRY the vacuum benchmark for Food Safety!

### 100 % OIL FREE

NOVADRY is a 100% oil-free pump. Thus say goodbye to any possible risk, contaminating your processed food with pump oil!



### Fast & Consistent

NOVADRY is recognized for its high performance, which is constant over time for each working pressure. This consistency is a direct consequence of using a wear-free dry screw design.



### Minimum TCO

NOVADRY offers energy savings with its energy-efficient design. The additional air cooling, simple commissioning and reduced maintenance needs, offer you a minimal Total Cost of Ownership.



### Optimized Noise Level

NOVADRY features a quiet operation combined with a pleasant sound, without any rattling or high-pitched noise. NOVADRY clearly improves the working environment.



# Double Chamber Packaging Machine

Packaging under vacuum is used to remove air which leads to an extended food shelf life.

The challenges for vacuum pumps in packaging machines, include the frequent pump down and the built-in use of the pump.

None of these are a problem for NOVADRY:



**NOVADRY offers the shortest pump down times, even until the lowest pressures.**



**NOVADRY's compact design & optimised noise level make it ideal to be built in.**



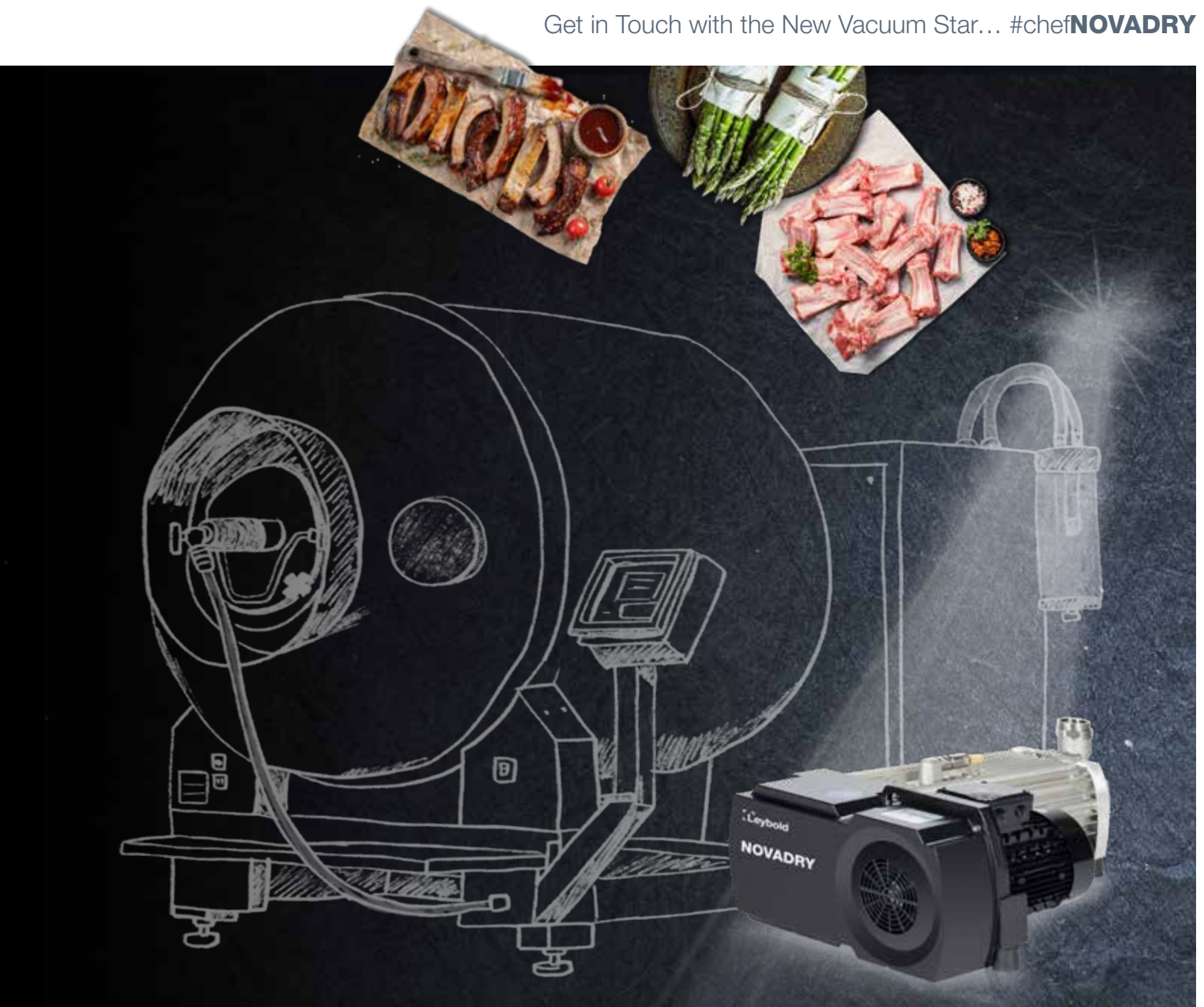
**NOVADRY is 100% oil free, therefore it doesn't emit oil via the exhaust into the environment.**



## HYGIENIC ENCLOSURE

Even in the harshest applications, NOVADRY is still the ideal choice. The optional stainless steel DIY enclosure kit makes the NOVADRY suitable for your daily wash down, even with aggressive industrial cleaners.





# Tumbler



Vacuum tumbling is a widely-used method, e.g. for marinating meat. The vacuum supports the meat's absorption of the marinades and enhances product taste, colour and texture. The process ingredients and the rough operating pressures make tumbling a real challenge for oil-lubricated vane pumps, resulting in high maintenance efforts.

NOVADRY is especially designed for these challenges:



**NOVADRY can handle heavy forms of contamination as marinade, oils, etc.**



**NOVADRY offers a high and consistent level of performance at any operating pressure.**



**NOVADRY is completely oil free, so there's no chance for an oil back-flow into the tumbler.**



# Thermoformer

Thermoformers are the most efficient & sophisticated machines for fast packaging of a wide variety of food products. The packaging varies from standard vacuum packs to skin and MAP packs.

This application versatility and the required fast cycle-times are challenging for vacuum pumps.

NOVADRY distinguishes itself clearly:



**NOVADRY can work efficient at any operating pressure.**



**NOVADRY guarantees a maximum uptime and a high yield for intensively utilized machines.**



**The NOVADRY ensures the highest level of food safety, even for the highest output.**





# Stuffer

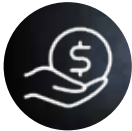
Stuffer machines are used to produce a wide range of food products, such as sausage or dough. Vacuum helps to create a better product by removing air and improving texture.

The main vacuum pump challenges are the built-in use and the possible ingestion of process ingredients.

NOVADRY is perfectly equipped for these challenges:



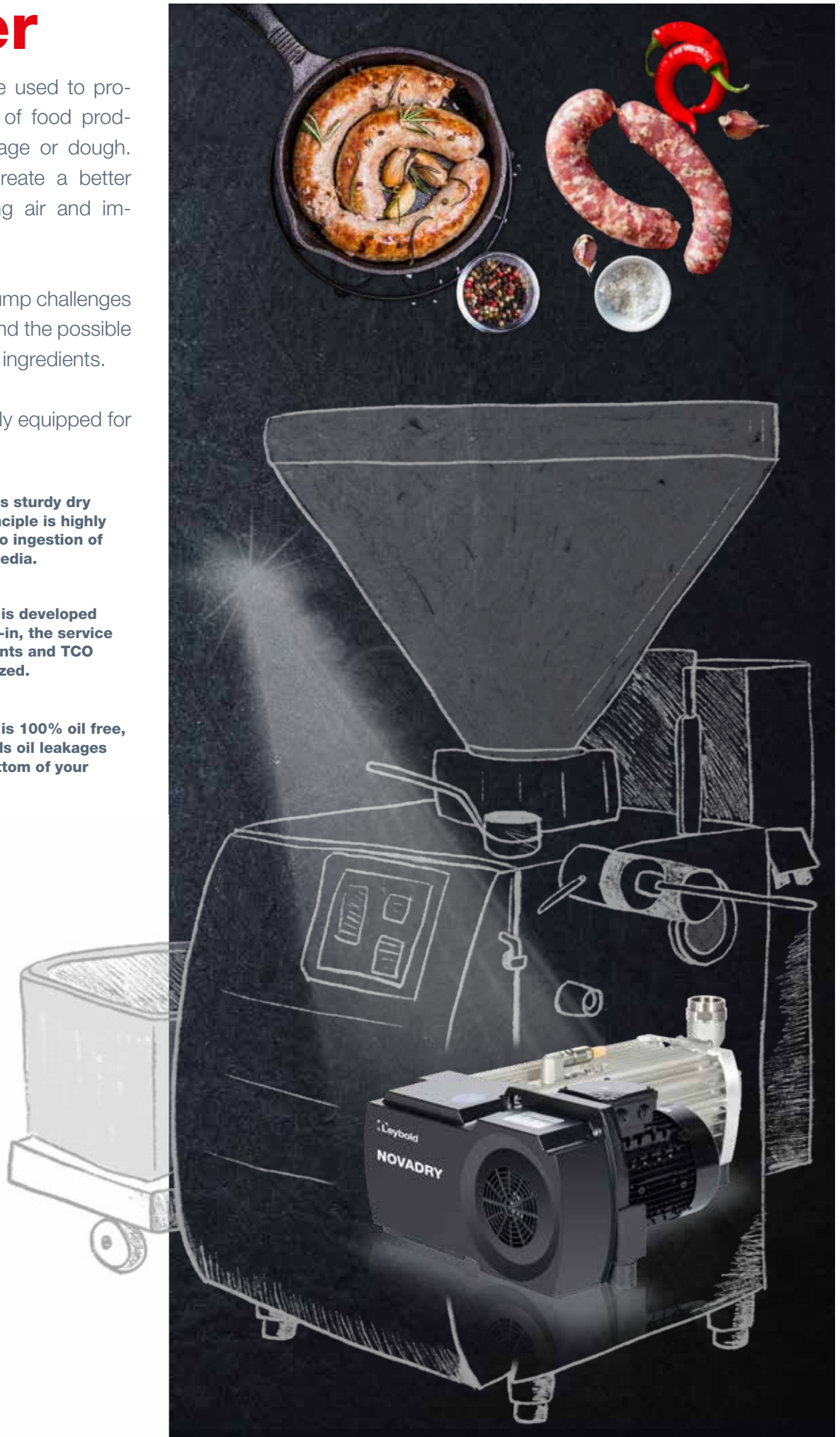
**NOVADRY's sturdy dry screw principle is highly resistant to ingestion of process media.**



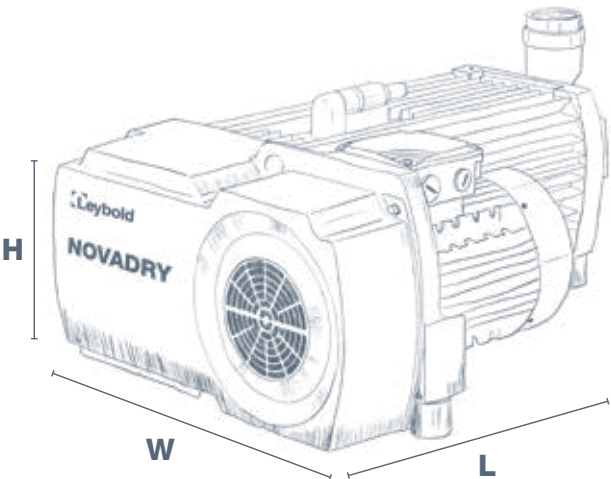
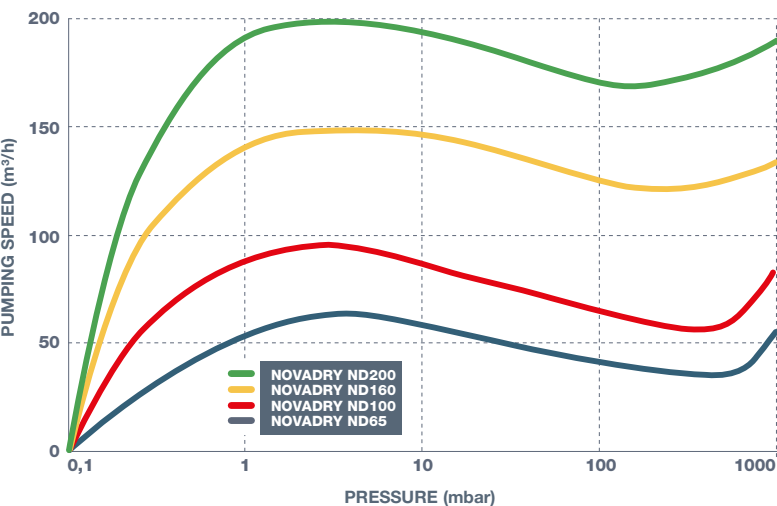
**NOVADRY is developed to be built-in, the service requirements and TCO are optimized.**



**NOVADRY is 100% oil free, what avoids oil leakages via the bottom of your stuffer.**



Pumping Speed



Technical Data		NOVADRY			
		ND 65	ND 100	ND 160	ND 200
Max. pumping speed	m³ / h	65	105	150	200
Ultimate pressure without gas ballast	mbar	0.1			
Max. permissible outlet pressure (rel. to ambient)	mbar	200			
Water vapor tolerance with gas-ballast	mbar	20			
Water vapor capacity with gas ballast	kg/h	0.6	1.0	1.5	2.0
Noise level at ultimate pressure (50/60 Hz)	dB(A)	64	65	69	71
Permissible ambient temperature	°C	0 - 40			
Motor power	kW	1.5	2.2	3.0	4.0
Protection class		IP 55			
Dimensions [L x W x H]	mm	644 x 488 x 315	736 x 488 x 315	889 x 488 x 315	889 x 488 x 315
Weight	kg	85	95	105	115
In- & outlet connection		G 2" (In)    G 1 1/2" (Out)			

Ordering Information	ND 65	ND 100	ND 160	ND 200
50 Hz, 200/400 V ±10 %, 3 ph	111065N10	111100N10	111160N10	111200N10
60 Hz, 230/460 V ±10 %, 3 ph	111065N11	111100N11	111160N11	111200N11