



**Newer. Better. Faster.**

**BECKER U5** - High-performance vacuum pumps  
Specifically designed for the food packaging industry.



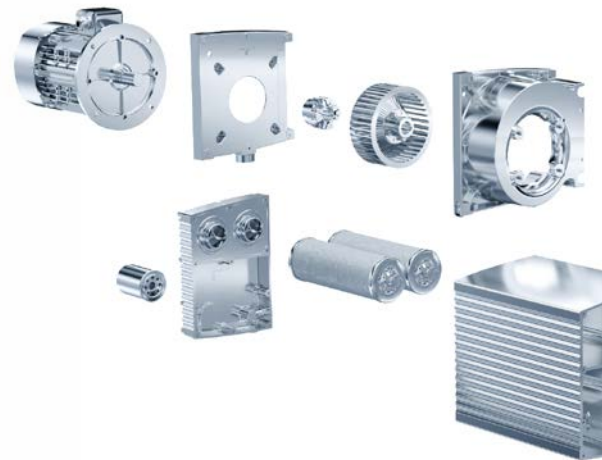
# The more efficient the design, the fresher the result...

The demand for ever fresher foods is increasing around the world. The growing requirements to food packaging arising from this trend are a great challenge for modern machines. The industry needs even more efficient packaging processes and ever more efficient facilities and systems for vacuum packing meat, sausages and cheese, or to create a modified atmosphere for fresh fish.

“There is no further potential to reduce the evacuation times with standard vacuum pumps. Therefore, our engineers at Becker have critically assessed each and every known part of a vacuum pump and replaced them with advanced components and designs. The result is the brand new Becker U5 series. With at least 7% faster evacuation times they are among the most efficient and powerful high-performance vacuum pumps in the food packaging industry. Are you looking for a robust, light-weight, compact, energy-efficient, hygienic, reliable, safe and economical solution for your packaging process? We are proud to present our new U5 series.”

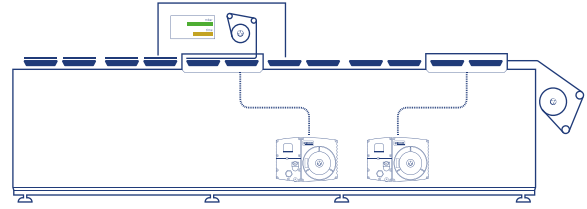


Frank Rischewski  
Project Manager  
R&D-P New Product Projects



# 10,752

Becker solutions allow producing 10,752 more packages every day!



This figure is based on typical production conditions: A packaging machine can produce 10 cycles per minute, 60 minutes per hour in two-shift operation. Using a typical filling format of 4 x 2, this setup can produce 8 packages per cycle.

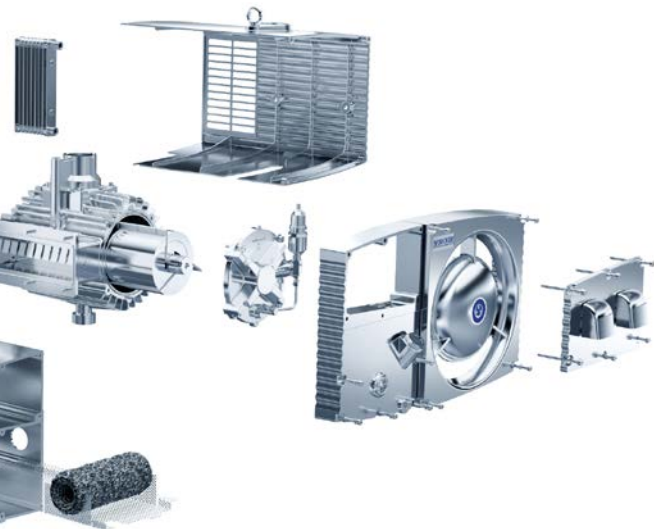
$$10 \times 60 \times 16 = 9,600 \text{ cycles per day}$$

In a facility with 6 packaging machines, the daily output therefore amounts to 460,800 packages. Using Becker high-performance vacuum pumps under the same production conditions will yield a 7% increase in evacuation speed. This means an increase in production speed of 2.33% per machine.

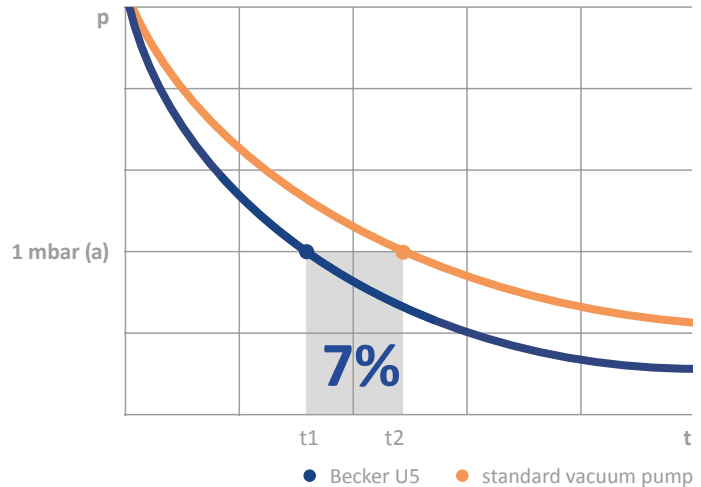
$$\begin{aligned} \text{with Becker US} &= 471,552 \text{ packages per day} \\ &= + 10,752 \text{ packages per day} \end{aligned}$$

# 7%

Faster evacuation time compared to the industry standard.



Pressure in mbar (a)



# Designed for the highest food quality.



Shortest evacuation time compared to industry standard



Made in Germany



Extended maintenance intervals and low maintenance costs



Optional gas ballast valve for higher water vapour capacity



Fast and simple installation and integration into the system control



Low installed motor capacity in direct comparison and high energy efficiency



Smooth surfaces for fast and hygienic cleaning

O<sub>2</sub>-PACK

O<sub>2</sub> version for packaging units with overconcentration of oxygen



Highly efficient oil separation element for most effective oil separation



# The BECKER U5 product family

## Becker provides the right solution for every application:

From traditional vacuum packaging in table-top and chamber machines to advanced process gas supply for tray packaging with oil-sealed or oil-free rotary vane pumps. Becker offers a broad range, from series products to customised solutions.



### U5

Quick and efficient way to package meat and sausages, cheese and dairy products or pastries in vacuum or protective atmosphere.

- Shortest evacuation times compared to industry standards
- Low installed motor capacity in direct comparison
- Highly efficient oil separation for extended maintenance intervals
- Compact structural dimensions: minimal footprint, easy integration into packaging machines without expensive special-purpose machinery
- Ideal for sensitive fresh products thanks to minimal heat emission



### U5 O<sub>2</sub>-PACK

The safe and simple way to package red meat under O<sub>2</sub> atmosphere

- Lifelong oil lubrication, no oil changes required
- Compact design, same overall length as the U5 series (series is not extended by an additional separation)
- New highly efficient 3-stage oil separation with minimum footprint
- Plus the same advantages as the other models of the U5 series



## U4

**Time-proven and robust workhorse  
for continuous smooth processes**

- Robust vacuum pump for use in the pump stand or the central vacuum system
- Good evacuation times compared to industry standards
- Compact structural dimensions compared to industry standards
- Optimised energy efficiency: ideal performance at low power consumption



## Booster/pump stand

**The compact version for partial centralisation**

- Efficient solution for both booster and pump stand applications
- Significant increase in evacuation speed compared to vacuum pumps which are integrated into packaging machines
- Various customisation options (frequency control, monitoring sensor system, signal output to the packaging machine)
- Booster pump with integrated bypass as a backup for packaging processes with quick cycling times for high operational reliability and availability
- Mounted on a stainless steel frame for highest hygienic standards in all areas



## Central vacuum system

**Improving system efficiency**

- Consulting, commissioning, maintenance and repair from one single source
- Adaptation of the operational vacuum supply based on actual operational requirements
- Optimisation of the overall energy balance
- Centralisation in one location prevents the development of heat within the production hall saving energy costs for air-conditioning and reducing noise emission
- Dry compressing vacuum pumps as an alternative to compression principles based on oil lubrication
- Medium, rough, forming and high vacuum for even more efficient evacuation times and more economical operation of your centralised facility
- Control electronics compatible with all systems: allows simple adaptation, expansion and integration to various customer-specific requirements

# The BECKER U5 series at a glance.

Our robust and safe high-performance vacuum pumps in proven Becker premium quality turn your machines into highly efficient and fast packaging units while reducing the costs of your packaging process.

The Becker U5 high-performance vacuum pumps outperform any conventional standard vacuum pump.

The compact design and the various performance levels of the different Becker U5 vacuum pumps help making special purpose machinery more efficient. The option to use several optimised vacuum pumps allows reducing the size and increasing flexibility and efficiency of packaging machines for both original equipment and retrofitting. All Becker vacuum pumps have an IE3 energy efficiency rating allowing for sustainable reduction of energy costs.



	U 5.70	
Hz	50	60
m <sup>3</sup> /h	70	84
mbar abs.	0.1/0.5	0.1/0.5

	U 5.100	
Hz	50	60
m <sup>3</sup> /h	100	120
mbar abs.	0.1/0.5	0.1/0.5

	U 5.165	
Hz	50	60
m <sup>3</sup> /h	165	198
mbar abs.	0.1/0.5	0.1/0.5

	U 5.200	
Hz	50	60
m <sup>3</sup> /h	200	240
mbar abs.	0.1/0.5	0.1/0.5

	U 5.300	
Hz	50	60
m <sup>3</sup> /h	300	360
mbar abs.	0.1/0.5	0.1/0.5



	U 5.70 O <sub>2</sub> -PACK	
Hz	50	60
m <sup>3</sup> /h	70	84
mbar abs.	0.5/1.0	0.5/1.0

	U 5.100 O <sub>2</sub> -PACK	
Hz	50	60
m <sup>3</sup> /h	100	120
mbar abs.	0.5/1.0	0.5/1.0

	U 5.165 O <sub>2</sub> -PACK	
Hz	50	60
m <sup>3</sup> /h	165	198
mbar abs.	0.5/1.0	0.5/1.0

	U 5.200 O <sub>2</sub> -PACK	
Hz	50	60
m <sup>3</sup> /h	200	240
mbar abs.	0.5/1.0	0.5/1.0

	U 5.300 O <sub>2</sub> -PACK	
Hz	50	60
m <sup>3</sup> /h	300	360
mbar abs.	0.5/1.0	0.5/1.0



	U 4.400	
Hz	50	60
m <sup>3</sup> /h	435	508
mbar abs.	0.5/3.0	0.5/3.0

	U 4.630	
Hz	50	60
m <sup>3</sup> /h	624	733
mbar abs.	0.5/3.0	0.5/3.0



	RBP 500	
Hz	50	60
m <sup>3</sup> /h	500	600
Δp mbar (max.)	60	60

	RBP 1000	
Hz	50	60
m <sup>3</sup> /h	1000	1200
Δp mbar (max.)	60	60

	RBP 2000	
Hz	50	60
m <sup>3</sup> /h	2000	2400
Δp mbar (max.)	60	60

# Our services

## Becker Service for vacuum pumps, compressors and blowers

We offer a wide range of high-quality services throughout the entire service life of your vacuum pumps and compressors. Tailor-made to suit your particular needs for products sold under the Becker brand as well as other manufacturers' products.

## Maximum service quality

Inspection of your devices and facilities by our permanently trained and skilled Becker service technicians. Our broad industry-specific know-how ensures first-class services for your individual requirements.

## At your side, worldwide

Our service organisation has offices all over the world. Our service and sales network and our reliable spare parts logistics system ensure that we are always near when you need us.

## Service portfolio

Our services range from installation to modernisation of your facilities. To guarantee the optimal economic efficiency of your facilities our services are tailored to the particular requirements of your vacuum pumps, compressors and components. This also includes specific well-concerted training and instruction programs. Choose between customised individual services or long-term all-inclusive full service packages. We create individual and cost-efficient solutions tailored to your needs and your specific environment.

## Your advantages:

- Highest safety level
- Maximum availability of your facility
- Cost-effective operation
- Long-term conservation of value





# Company

The company Gebr. Becker, founded in 1885, is renowned for its long tradition, comprehensive know-how and a portfolio of innovative products. Today, the family-run business is known in the industry for the high quality of its vacuum pumps and compressors.

With our 800 employees worldwide and the three production facilities in the German towns of Wuppertal and Apolda as well as in Shanghai, we are able to be flexible and close to our customers. A global service and sales network with 16 company-owned subsidiaries and 30 agencies guarantees reliable local support. Our products are used in almost all segments of the industry. We are a reliable long-term partner to our customers offering them individual solutions and technical innovations compliant with our high quality standards. We manage to build-on our traditions while focusing on the future to combine a wealth of ideas with long-standing experience.

Our company is a leading OEM partner and technology supplier. In the area of research and development, we maintain close collaborations with recognised universities.

Becker develops customised vacuum pumps and systems which meet the highest international standards.

Do you have any questions or particular requirements?  
We are here to help you. What can we do for you?

[www.becker-international.com](http://www.becker-international.com)



# At your side, worldwide.

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