

# Systems + Solutions



Partnering with our customers  
for better solutions

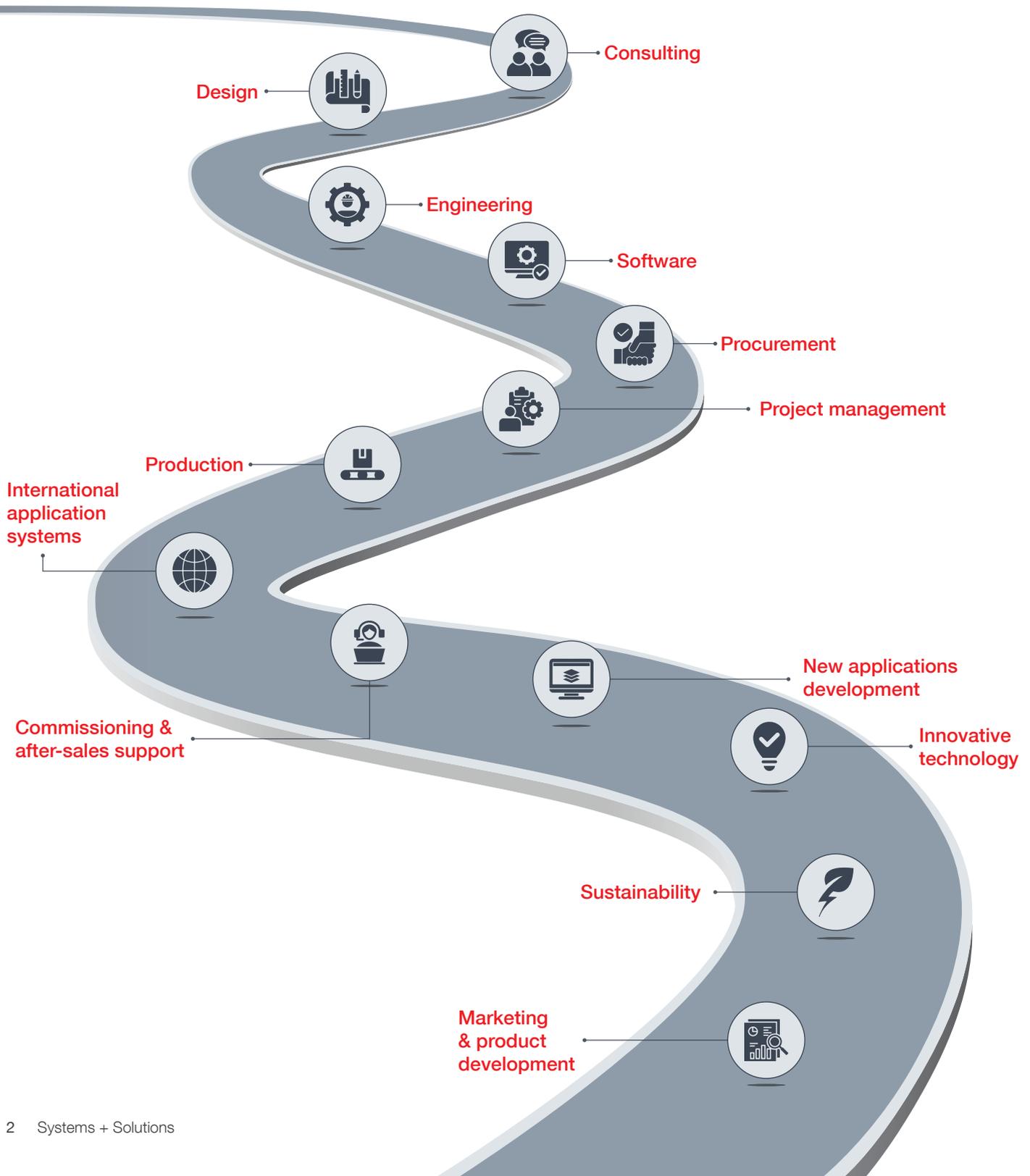


# What is Systems + Solutions

Leybold's longstanding experience in successfully solving our customers' issues leads to designing and manufacturing the best solutions in vacuum pumps and systems.

Our systems portfolio varies from standard solutions for common applications to tailored engineered turnkey projects. Our worldwide network and solutions specialists are ready to support you at every step.

Through collaboration with local sales organisation, Leybold's Systems + Solutions provide support from conceptual design to project handover. Production sites in North America, Europe and Asia ensure proximity to our customers, providing local design and compliance, assembly, test capabilities and efficient order execution.





### Consulting

At Leybold we are committed to offering innovative solutions that help increase our customers' productivity. Our vacuum experts have decades of experience in understanding specific industrial and scientific applications and processes and offer comprehensive collaborative consulting services from conceptual design through to project handover.



### Design

We constantly innovate our vacuum pump technology and systems capability to help make your manufacturing cleaner, smarter, economical, and environmentally friendly. We offer state-of-the-art vacuum solutions designed to suit your business now and into the future.



### Engineering

Our engineering teams design next-generation vacuum pumping systems to meet the evolving needs of our customers in diverse industrial and scientific applications. These innovations stem from identifying new markets and tapping new business opportunities. These include new technology integrations, system optimisation and adoption of the latest technologies.



### Software

We are dedicated to delivering a complete solution for your vacuum needs. Our central vacuum systems can reduce operating costs, increase productivity, while improving the working environment on the production floor. Our connected vacuum pumps and systems fully support the latest and most common protocols found in industrial markets today including Modbus, Profinet, Profibus, Ethercat, Ethernet IP. etc.



## Procurement

In today's fast-moving, connected world, a sustainable, flexible, high performing supply chain and reliable partners are key to meeting market and customer expectations. Our dedicated procurement team help to reduce risks and environmental challenges, whilst continuously striving to deliver greater effectiveness, agility, and cost competitiveness to enable sustainable growth.

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## Project management

With our highly skilled and experienced project managers providing project governance, our customers can always be assured that project objectives are met and delivered in an efficient and timely manner. Our methods and techniques encompass all requirements to ensure project deliverables satisfactorily meet our customers' acceptance criteria and comply with agreed parameters.

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## Production

Our production teams are attuned to the evolving needs of customers, and strive to deliver vacuum equipment, exhaust management systems and services on-time, every time.

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## International application systems

Our central applications group and regional networks of application specialists are on hand to offer expert support throughout your selection and installation process. Our expertise and in-depth knowledge enables us to offer comprehensive design and customized solutions.

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## Commissioning and after-sales support

Our service solutions are designed to help you get the most out of your vacuum systems investment. We combine analyses of production data with expertise in order to enhance your productivity and quality. Our service capability guarantees fast and efficient support in your local language and offer tailor-made solutions for your maintenance requirements.

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## New applications development

We understand your challenges when it comes to vacuum and environmental requirements. We take pride in our recognised global position as a leading supplier of vacuum and environmental solutions in support of our customers productivity targets.

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## Innovative technology

Innovative solutions including dry and wet vacuum technology.

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## Marketing and training products development

Our global marketing promotes our extensive product range through performing market research, marketing plans and product development; as well as strategically overseeing advertising, promotion, distribution for sale, customer service and public relations.

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## Sustainability

Our innovative systems and services support our customers' productivity, reduce cost and help them meet their sustainability ambitions.



# How we work



## Requirements and proposals

- Consulting
- Calculation
- Sourcing
- Applications and proposals



## Customization and integration

- System development
- Design
- Solutions and standards
- Purchasing
- Co-ordination
- Engineering

## Implementation

- Assembly
- Software programming
- Commissioning



## After-sales support

- System upgrades
- Training
- 24/7 support
- On-site service and maintenance

# Standard systems

Leybold's standard vacuum systems are engineered with precision and address a wide range of vacuum applications and markets including integration with specific production environments. These systems ensure optimal performance across industries and deliver efficient, high-quality vacuum solutions, empowering businesses with dependable systems for their applications and requirements.



DRYVAC System



TRIVAC System



SOGEVAC System



## EXTRUVAC

A pumping system that caters to your vacuum needs for processing plastics. The system can provide vacuum on demand while ensuring control and reducing the environmental impact with a low cost of ownership.



## Beer Bottling Vacuum System

Are you still using liquid ring vacuum pumps in your beer bottling processes? Our vacuum system for beer bottle filling machines, based on dry screw vacuum pump technology, allows you to dramatically reduce your operating costs and improve your environment footprint. You will significantly reduce your water and energy consumption and profit from a better vacuum performance compared to the current water ring pump technology. The optimized performance will lead your bottling process to a new level. Better and more stable bottling pressures - reduces CO<sub>2</sub> consumption and results in increased shelf life of your product.



## CVS

CVS Central vacuum systems basic or full featured. Modular system combinations and configurations in order to meet customers' expectations and demands vessel from 60, 160, 300, 500 or 1000 liter in standard configuration.

Customer benefits: Energy saving, reduced number of vacuum pumps, high reliability and quality, short lead time, high flexibility and efficiency, equal wear.

Full featured options like Electro-magnetic valves, oil thermal switch, oil level monitor, exhaust overpressure switch or indicator, remote control and computer interface possible.

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## TURBOLAB

Mobile and adaptable platform to create high vacuum conditions for your application with pumping speeds from 90-950 l/s. These systems can be adapted and customized to your needs using different accessories. The on-board controller with different interface options, allows the end-user to control and monitor the state of the system.

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## CS Calibration System

Process reliability via regular checks, adjustments and recalibration of vacuum gauges and sensors. Universal calibration systems with a special vacuum chamber, turbomolecular pump system, vacuum gauges and additional components depending on the calibration pressure.

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## Leak Detection System

The various pre-designed combinations offer the perfect choice for your needs: All PHOENIX cart versions come fully assembled and leak-checked to offer a time-saving, ready-to-go solution. With this, the PHOENIX carts guarantee best performance from the minute you turn it on. Plug in and ready to start.

# Specialized systems

As a leading innovator in the industrial and scientific vacuum market, we keenly focus on energy efficiency that translates into savings for our customers. Our vacuum specialists are constantly improving the performance of our products, targeting new application areas and meeting new challenges.



## UNIVEX Space Simulation

Leybold's space simulation vacuum system, the UNIVEX S offers experimental chamber systems to replicate space conditions. Tailored for universal usability in the R&D and space industries, these specialized systems are suitable for thermal cycling, ion thruster testing, MLI-blanket baking, and more. Whether for satellites, scientific expeditions like ESA's Rosetta Mission, or NASA's Mars Rover, these systems offer rigorous testing in high and ultra-high vacuum environments. Our turnkey solutions, ranging from compact setups for circuit boards to vast chambers for spacecraft, offer integrated vacuum pumps ensuring reliability across uninterrupted test cycles. With optimized layouts, automatic control, and customizable configurations available for intensive use, UNIVEX S guarantees precision, reliability, and adaptability.



## UNIVEX Systems

The UNIVEX system range is well established for experimental coating and thin film deposition applications in university and industrial research as well as pilot production. UNIVEX stands for universal experimentation systems that enable professional, high-quality results for different high vacuum processes.



## Helium leak detection systems for industry and research

As global demand for leak detection in various industries rises, Leybold addresses the growing need with PHOENIX 4. Ensuring quality and functionality, these systems are pre-designed, fully assembled, and leak-checked for a seamless, time-efficient solution. Equipped with modern communication protocol such as I/O module, Profibus®, Profinet®, Devicenet® or Ethernet/IP and fully automated setups cater to diverse production needs. We offer tailored solutions for precise product testing, offering optimal performance. With a plug-and-play approach, the helium leak detection system delivers solutions for efficient leak detection in both industrial and research settings.



## Steel Degassing

Our degassing systems include the DRYVAC dry screw pumps and mechanical blowers such as the RUVAC series which offer high performance, reduced energy consumption while ensuring the necessary vacuum levels for top-quality steel production. We optimize energy balance and profitability with a combination of our standard pumps and custom system design expertise to achieve maximum intake at minimal cost. The benefit is maximum uptime through redundancy, easy installation, prompt maintenance, minimal pressure increase and optimal power consumption. Our space-saving, easily expandable systems ensure uninterrupted processes and furnace uptime.



## PET Extruder Degassing

Leybold's advanced PET extruder degassing system delivers a spectrum of benefits for diverse sectors. Our system maximizes recyclable PET material potential while ensuring cost efficiency and product quality. With the reliable SCREWLINE SP dry screw vacuum pumps at the heart of the system, you benefit from streamlined PET production processes with stable vacuum levels, customizable pressure regulation and minimal maintenance needs. The system allows for flexible usage for other polymers as well with multi-purpose extrusion systems. From reducing downtime to enhancing material properties, you get a versatile extrusion solution for best results in plastic component fabrication. Moreover, the end-users of the system are empowered with easy, self-service maintenance that prioritizes safety and adaptability.



## Hyperloop

The feasibility of Hyperloop relies on pioneering vacuum systems. Leybold's solution for Hyperloop is a compact, transportable system housed within a 12m (40ft) shipping container. Featuring a three-stage pump system utilizing 12 RUVAC WH and DRYVAC pumps, the system is designed for effortless installation via its fully accessible side. With inlet and outlet flanges pre-installed, it only needs connecting the pipework to the container for it to be ready to operate. Equipped with self-supplied compressed air, cooling water, and air-conditioning, it only requires external electrical power. With advanced accessibility and rapid assembly, Leybold's Hyperloop system sets the stage for future vacuum container projects.



# Systems + Solutions advantage

## Offering end-to-end vacuum solutions to diverse markets

Leybold serves a wide range of requirements across various industries and applications. Our vacuum pumps and systems are known among our customers for their vacuum performance, high levels of efficiency and low running costs. Our solutions include custom bundling of products and services to value-added processes for a particular application.



### Extensive vacuum technology portfolio

The Leybold vacuum solutions portfolio features dry claw and screw technologies, mechanical boosters, turbo pumps, liquid ring pumps, air ejectors combined with intelligent vacuum pump control system.

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### Custom solutions and specialized systems

Our Systems + Solutions teams can design and develop standard solutions for common applications and create custom engineered turnkey projects tailored to your needs.

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### Global 24/7 reach

Our network is worldwide, and we have solutions specialists near your area, ready to support you through every aspect of your project.





# Reliable original equipment maintenance from one source



## Customer care program

The customer care program has been developed as a comprehensive, global solution for your service requirements and covers the whole range of vacuum engineering.

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## All brand repairs

Our customers deserve a trusted partner they can turn to for their vacuum needs. Therefore, we have qualified service engineers who can repair vacuum pumps of other brands.

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## Service centers worldwide

Leybold has service centers and support bases worldwide to ensure the shortest possible door-to-door time for pump repairs. We have over 1500 experienced service engineers all over.

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## Field service

When required, our professional field service engineers will be your direct contact to find an on-site solution for your vacuum demands.

# Our global presence

Our markets are geographically dispersed and the industrial and scientific vacuum applications we build solutions for are varied. This makes us a true global player and a market leader.



1. Pittsburgh, USA
2. Bolton, UK
3. Burgess Hill, UK
4. Lutin, Czech Republic
5. Cologne, Germany
6. Kerpen, Germany
7. Dresden, Germany
8. Pune, India
9. Singapore, Singapore
10. Tianjin, China



Pioneering products. Passionately applied.

