

SYSTEMS + SOLUTIONS

Partnering with our customers
for better solutions





EDWARDS THE PARTNER OF CHOICE

Edwards is a world leader in the design, technology and manufacture of vacuum pumps for industrial applications with over 100 years' history.

We believe in delivering results that bring value to our customers by using our breadth of industry experience to identify and apply solutions. Using the most innovative and up-to-date modelling techniques, we can optimise the pumping configuration for customers to provide a system design giving the maximum performance in the most reliable and cost-effective way.

WHAT IS SYSTEMS + SOLUTIONS

Edwards' 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, Edwards 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 Edwards, we focus on increasing our customers' productivity. With experience in specific industrial and scientific applications and processes, we offer consulting services from conceptual design to project handover.



Design

We innovate to make your manufacturing cleaner, smarter, economical, and environmentally friendly. Our state-of-the-art vacuum solutions support your business now and in the future.



Engineering

From identifying new markets and tapping into new business opportunities, we innovate new technology integrations and system optimisations.



Software

Our vacuum systems can reduce operating costs, increase productivity, while improving the working environment. They fully support the latest communication protocols including Modbus, Profinet, Profibus, Ethercat, Ethernet IP. etc.



Procurement

Sustainable, flexible, high performing supply chain and reliable partners are key to meeting market and customer expectations. Our procurement team help to reduce risks and environmental challenges, while delivering greater effectiveness and agility.

Consulting



Design



Engineering



Software



Procurement



Project management



Production



International application systems



Commissioning & after-sales support



New applications development



Innovative technology



Sustainability



Marketing & product development





Project management

Our skilled project managers ensure project objectives are met in a timely manner. Our methods and techniques meet our customers' acceptance criteria and comply with agreed parameters.



International application systems

Our applications group and regional specialists offer expert support throughout your selection and installation process. Through years of experience, we offer comprehensive design and systemisation solutions.



New applications development

We take pride in our recognised global position as a leading supplier of vacuum and environmental solutions in support of our customers productivity targets.



Sustainability

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



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.



Commissioning and after-sales support

We combine production data with expertise to enhance your productivity and quality. Experience fast and efficient support in your local language and tailor-made maintenance solutions.



Marketing and products development

Our marketing plans and product development strategically oversee advertising, promotion, distribution for sale, customer service and public relations.



Innovative technology

Innovative solutions including dry and wet vacuum technology.

HOW WE WORK



Requirements and proposals

- Consulting
- Calculation
- Sourcing
- Applications and proposals



Implementation

- Assembly
- Software programming
- Commissioning



Customisation and integration

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

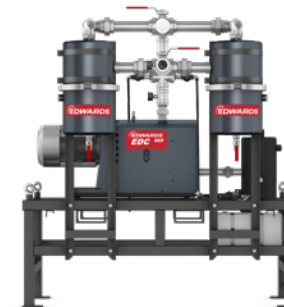


After-sales support

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

STANDARD SYSTEMS PORTFOLIO

From heat treatment, metallurgy, coating, solar, drying, pharmaceutical chemicals, steel degassing, coating, vacuum packaging to almost all general manufacturing, utility vacuum is everywhere. Our standard vacuum systems give you the performance you require, with a low cost of ownership making processes environmentally friendly.



EXDM system for extruder degassing

The EXDM range of pumping systems for extruder degassing can be easily integrated into your system. The stainless-steel claws and coated chamber ensure corrosion free and efficient degassing. The system offers reliable pumping with robust liquid and solid handling capability and an integrated solvent flush for longer service cycles.



EDS and EDP single and two stage dry vacuum system

Through our expertise in pumping potentially flammable gases, we offer a safe system for your vacuum needs making use of different technologies like screw and claw mechanism. Our dry vacuum pumping system come with HazLoc certification and can be systemised to fit your process and application requirements.



EDS ATEX dry vacuum system

Whether pumping potentially flammable gases or working in an atmosphere extensive where potentially flammable gases are present, we have dry vacuum pumps fit for the job. Translating your vacuum requirements into bespoke technical solutions, we design systems according to local legislation for HazLoc areas. Pumping speeds range from 80 m³/hr to 1,000 m³/hr for our dry vacuum pumps and booster from 250 m³/hr to 40,000 m³/hr.



ESDM steel degassing system

Edwards has the largest installed base of dry pumps in the global steel industry, including the world's first mechanical vacuum pumping system for RH, in China. Used for degassing 230-tonne batches of liquid steel, the system has a pumping capacity of 1,000,000 m³/hr at 0.67 mbar and has now refined more than 15 million tons of steel during 10 years of operation.

STANDARD SYSTEMS PORTFOLIO



Calibration system ECAL1

Calibration System ECAL1 is a fully automatic pumping system based on the Edwards T-Station 85H. A vacuum chamber equipped with two reference gauges is attached. The calibration system provides output comparison between reference gauges and test gauges for a pressure range from 1,000 to 10^{-4} mbar



RGA system ERGA1

Edwards RGA rigs are configurable with pumping system, sealing type and RGA version. Whether oil-free, all metal seal of a simple rotary vane pump or O ring seal version, the Edwards RGA rig provides a solution. A wide range of inlets are available from a simple high conductance valve to variable pressure options or fully customisable inlets are available.



TIC Cart XL pumping station

The TIC Cart XL is a large volume turbomolecular pumping station that is fully mobile and is required where fast, reliable pump down to low pressure is essential in a variety of environments. Configurable with turbomolecular pump speeds ranging from 240 to 930 ls^{-1} and a dry backing nXRi multistage roots pump that enables the range to pump from 30 to 90 m^3h^{-1} .



Plastic degassing system

For plastic extrusion processes that need higher capacities or further systemisation, we design the system as an individual package from modules and accessories built as per your specifications. This will typically include multiple pump systems and integrated control mechanism. Systems + Solutions gives the full flexibility, quality, and acceptable lead times. System + Solutions will build a stand-alone dry vacuum system with multiple pump sets in combination.

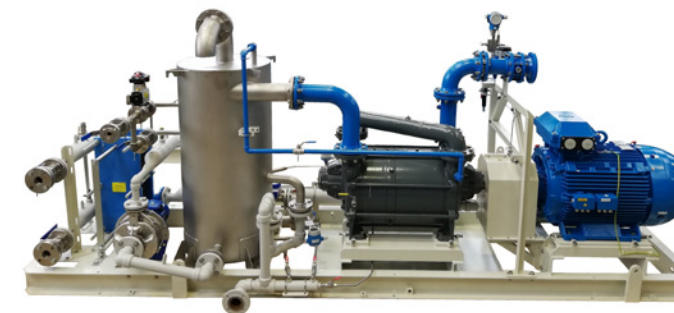
SPECIALISED SYSTEMS PORTFOLIO

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.



Customised liquid ring vacuum pump system

Making use of our extensive range of single-stage and two-stage liquid ring vacuum pumps and compressors to provide custom solutions for your general industry, CPI, Power/Energy generation and Oil & Gas application requirements. Compliance with international standards, including API, ASME, EN, ISO, TEMA, ATEX etc., together with various material and shaft sealing options enable us to meet the most demanding specifications. When combined with steam and gas ejectors, and mechanical boosters, or with the use of low vapour pressure ring liquids, the traditional performance envelope of LRP's can be extended to optimise your process.



Condenser air extraction package

Edwards's condenser air extraction packages are designed to meet or exceed all applicable HEI performance specifications. The venting equipment is selected to operate at 1"Hgabs (33.86 mbara). The condenser ITD (Initial Temperature Difference) is an important consideration in optimum pump sizing. As the ITD decreases the capacity of the venting equipment increases. Edwards two stage liquid ring pumps are an ideal solution for condenser operation and will handle liquid carryover, condensate and large volumes of water vapor from the condenser together with eliminating cavitation at high vacuum levels. As the ITD decreases further to cover more of the condenser curve at lower temperatures and part loads, Edwards offer hybrid systems with air or steam operated ejector in combination with either single or two stage liquid ring vacuum pump. Edwards has vast experience in this field and will help you select the best condenser air removal equipment for your specific requirement.



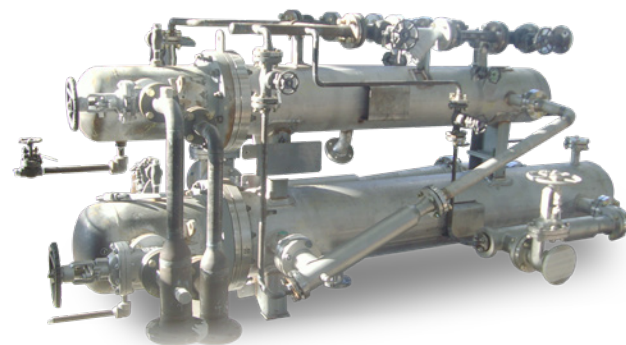
Seawater deaerators

Our field-proven designs for water injection seawater deaerators are based on our experience in floating production vessels, including installations on FPSO's, semi-submersibles and tension leg platforms. You can choose between spray/pack deaerators, packed column deaerators or trace gas stripping deaerators.



Mechanical Vapor Recompression (MVR)

Our MVR packages excel in recovering and reusing energy from vapor, minimising energy consumption and environmental impact. They are ideal for various industries such as evaporation and solvent recovery of pharmaceutical, chemical, petrochemical, sewage, electronics, and semiconductor. Our MVR systems deliver a cost-effective and eco-friendly solution with lower operating costs, helping you achieve a lower carbon footprint.



Custom designed 2 stage steam ejector system with intercondenser, aftercondenser, interconnecting piping, valves and instruments

Ejector systems

We can help you to replace your single-stage ejector systems with multi-stage systems, providing improved energy-efficiency and the capability to handle high vapour loads without the risk of cavitation. A relatively low capital cost provides an attractive return on investment. We have over 100 years of experience in the design and supply of steam ejector systems. Our experience in steam ejector applications include refinery vacuum systems, vacuum distillation units, flash evaporation for seawater desalination turbine condenser air extraction, edible oil processing, polymerisation, crystallisation and evaporative cooling.



LR Compressor

Our customised liquid ring compressors package, up to 8barG, designed for excellence and efficiency in Oil & Gas, Petrochemical, chemical process industries, vapor recovery, carbon capture and storage industries. Our diverse product line ensures reliability across a wide range of applications.

Offering end-to-end vacuum solutions to diverse markets

Edwards 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 Edwards vacuum solutions portfolio features dry claw and screw technologies, mechanical boosters, turbo pumps, liquid ring pumps, ejectors, combined with intelligent vacuum pump control systems.

Investment in research and development

At Edwards, continuous improvement is a part of our process of excellence. Our investments in our R&D team lead to innovations that are game-changing.

Custom solutions and specialised systems

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

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.



For a complete list of our vacuum solutions, please scan the QR code.



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.



Cologne, Germany



Pune, India



Pittsburgh, USA



Tianjin, China



Bolton, UK



Lutín, Czech Republic



Kerpen, Germany



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

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.



Service centers worldwide

Edwards 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.



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.



Field service

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



Publication Number: 3602 5133 01
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