



Creating Fluid Solutions.

DosingPump.ir

Values characterize our actions:

Appreciation

for our customers and employees

Integrity

as the foundation and guiding principle of our actions

Reliability

in everything we do

Creating Fluid Solutions.

Driven by our commitment, our trendsetting products and innovative technologies have set benchmarks for diaphragm pumps and metering systems for over 70 years. We solve complex tasks from a single source. That ranges from custom pump design, basic and system engineering, global project management, and pretesting to commissioning and maintenance on-site. Our consistent drive always to develop the best solutions for the customer provides you with a competitive advantage and visible added value.

From family business to global player. LEWA Milestones.

Founding of the company

Herbert Ott and Rudolf Schestag found LEWA The initials stand for LEonberger WAsseraufbereitung (Leonberg water treatment). The startup phase was difficult. The only company vehicle – a motorcycle used to make the first delivery – soon had to be sold. Some business trips had to be done by hitch-



1952

First patent

The rocker arm pump was registered as the company's first patent

It was the starting shot for a series of innovations. LEWA matures as an expert in fluids of all kinds.



1954

LEWA triplex®

Process diaphragm pump in compact monoblock design The LEWA triplex enables a more uniform metering capacity and precise adjustability. LEWA thus offers a solution for high-pressure processes that meets the much more rigorous environmental protection and safety requirements.



1984

LEWA ecoflow® LEWA presents the innovative metering diaphragm pump

The M900 pump head with patented diaphragm monitoring is a universal, operationally reliable solution for handling hazardous, environmentally harmful, and high-viscosity fluids.



2003

Acquisition

DBAG and Quadriga Capital acquire LEWA

Deutsche Beteiligungs AG, along with Quadriga Capital, takes over LEWA GmbH and all its sales



2005

Record project

Largest order in the company's history

LEWA receives the largest order in the company's history so far, valued at \$40 million USD. 40 customer-specific pump systems were built in the Leonberg



2012

Digital Services

LEWA Smart Monitoring Digital pumps for more efficiency, system availability and profitability of the entire production: LEWA

introduces the first Smart Monitoring system for diaphragm metering and process diaphragm pumps that uses measurement data to determine characteristic values and diagnoses.



2021

1968



Patent

Patent for sandwich diaphragm The development of the 4-layer sandwich diaphragm made of PTFE makes it possible to detect damage via sensor before reaching the breaking point. This ensures the greatest possible plant safety. In addition, early replacement of a defective diaphragm will not break the hermetic tightness, which is very environmentally friendly.

1990



LEWA ecodos®

LEWA has developed a mechanically driven diaphragm pump for pressures up to 20 bar Mechanical actuation protects the pumped fluid against contamination, since the pump does not use hydraulic oil. For pharmaceutical applications in particular, many customers prefer the LEWA ecodos 2004



G4T

Largest process diaphragm pump in the world LEWA designs and builds

the two largest pumps of their kind. They are used in Hammerfest, Norway for CO₂ reinjection in a natural gas field. This project shows how LEWA can meet customerspecific requirements while

2009



NIKKISO

LEWA GmbH and NIKKISO Co. Ltd. join forces The integration into the Japanese NIKKISO Group extends the product portfolio and expands the regional presence. Both companies strengthen their position on the world market.

2016



Expansion

Construction of new factory buildings

The construction of the new factory building, including high-bay storage and adjacent offices, will facilitate a transition to continuous-flow manufacturing resulting in increased production capacity.

2022



Atlas Copco

LEWA becomes part of the Atlas Copco Group

Atlas Copco is a leading global manufacturer of compressors, vacuum solutions, generators, pumps, power tools and assembly systems. With the acquisition of LEWA, Atlas Copco strengthens the foundation for expansion in the industrial pumps business.

Rooted in Leonberg, at home in the world. LEWA – an international group.



Operative Management of the LEWA Group:

Dr. Martin Fiedler, who is head of the Operations Division
with Stefan Glasmever, who is responsible for sales.

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LEWA company portrait

As a market leader in the segment of metering and process diaphragm pumps, LEWA is outstandingly well-positioned internationally, with 14 subsidiaries and more than 80 sales partners worldwide. Process reliability and high efficiency have always been the typical characteristics of our pumps and systems, with their use being synonymous with economic, safe, long-lasting operation. As an industry innovator, we rely on well-founded engineering knowledge, continually developing our technology and using it as the basis for innovative solutions for a wide variety of applications. Around the globe, more than 1,200 employees develop specific concepts together with our customers from the chemical and petrochemical industries. Our extensive application expertise also covers the requirements of the cosmetics industry, pharmaceuticals and biotechnology, the food and beverage segment, and the needs of the energy utilities or oil and gas sectors. From basic engineering to pretesting to commissioning on-site, we supply it all from a single source.

Creating Fluid Solutions is our passion

LEWA is an ambitious, creative manufacturer who redefines (technical) boundaries for their customers. We are the experts when it comes to handling critical fluids and in their interaction with different materials. Wherever people are metering, injecting, conveying, mixing, filling, separating, heating, or cooling fluids, we are right in our element. The crucial factor is our deep process understanding. We identify the specific challenges of our customers to offer custom-tailored solutions.

LEWA Headquarters in Leonberg/Germany.



Pressure

Processes with the strictest of requirements for quality and operational reliability need the right equipment. LEWA pumps and systems meet a wide variety of requirements.

Here is an example: For difficult operating conditions such as very low suction pressure, our M900 pump heads are just the thing. Thanks to their unique design, they are also suitable for use in vacuum extraction.

High-pressure

Process pumps from LEWA are the benchmark for reliable, robust, energy-efficient pumps in high-pressure process technology. For pressures up to 1,200 bar hermetically tight metal diaphragms can be used.

If not only hermetic tightness but also a small pump footprint is required, we are the only pump manufacturer in the world that offers a PTFE diaphragm that saves space while handling pressures up to 1,000 bar.

The LEWA diaphragm metering pumps and packed plunger metering pumps, which are included in the oscillating positive-displacement pumps, offer the maximum metering accuracy. They are the benchmark for safety, reliability and efficiency, especially when the conveyance of critical fluids is in demand.

To broaden the solution spectrum for our customers even more, we also offer complementary pump technologies from well-known partners like Pomac or NIKKISO. Thus, among other things LEWA markets rotating positive-displacement pumps and centrifugal pumps for a wide variety of applications.

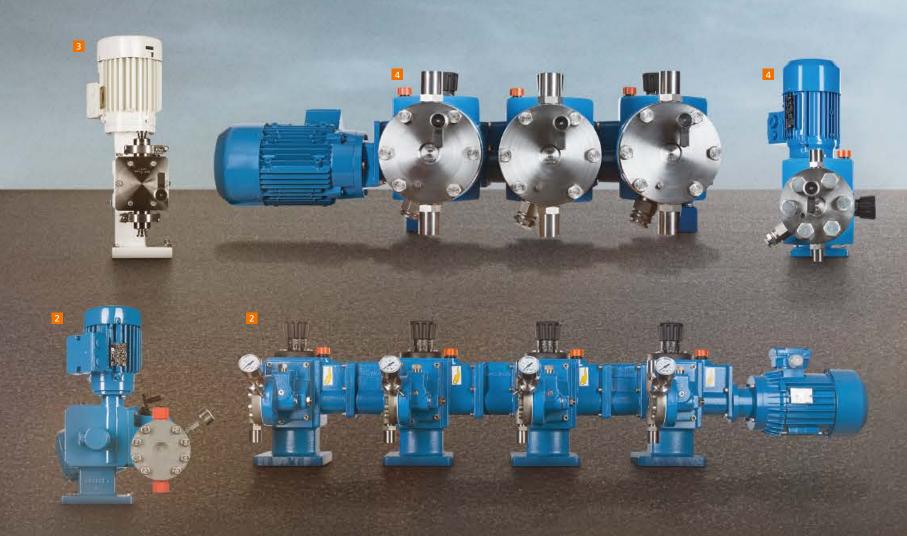
Dos







Our pumps at a glance.

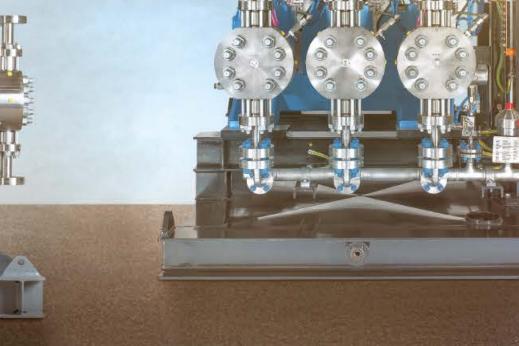












Diaphragm metering pumps for very small flow rates. An especially economic solution when fluid components must be metered proportionally to a variable reference value.

diaphragm pump at a smart price. The proverbial LEWA quality is still included: Also available from our webshop.

reliable, rich in options, and economic, in reliability and quality for a wide range of Its multiplex capability opens additional areas plunger head, in hygienic design, etc. of application, as for example low pulsation metering, recipe metering and mixing jobs. In hygienic design, the surfaces are specifically adapted for hygienic production requirements.

The compact, multiplex-capable metering
This metering diaphragm pump is absolutely This world-class metering pump offers top particular when hydraulically actuated dia- applications. We configure the ideal metering All ecosmart pumps are equipped with the phragms are not allowed. It was designed diaphragm pump for your application: as a patented DPS diaphragm protection system. for applications in the low-pressure range. multiplex variant, with diaphragm or packed

The most advanced process diaphragm

The most compact process diaphragm pump for high-pressure process technology pump in the world for high-pressure prooffers maximum safety for production and cesses in all branches of industry. Its space the environment. The perfect solution for and weight saving monoblock design also your application requirements can be conmakes it suitable for any application with figured from a wide variety of standardized extremely small installation space. assemblies. LEWA combines various pump heads and drive units in variable segment design, in series or boxer design.

Discharge pressure up to 560 bar

Discharge pressure up to 2,000 bar

Discharge pressure up to 20 bar

0.4-1,500 l/h per pump head Flow rate

up to 19 m³/h per pump head Discharge pressure up to 1,200 bar

up to 19 m³/h per pump head Flow rate up to 180 m³/h Discharge pressure up to 1,200 bar

Discharge pressure up to 1,200 bar

02

Systems

Offshore

Offshore, extreme environmental conditions prevail, and access for maintenance work is often difficult.

Requirements such as certain paints, resistance to seawater or ship movements are combined with challenging conditions like high operating pressure or demanding fluid characteristics – whether high viscosity, high vapor pressure, poor lubrication activity, flammability, or abrasive solid fractions.

For these applications, LEWA pumps and packages are the preferred choice.

Onshore

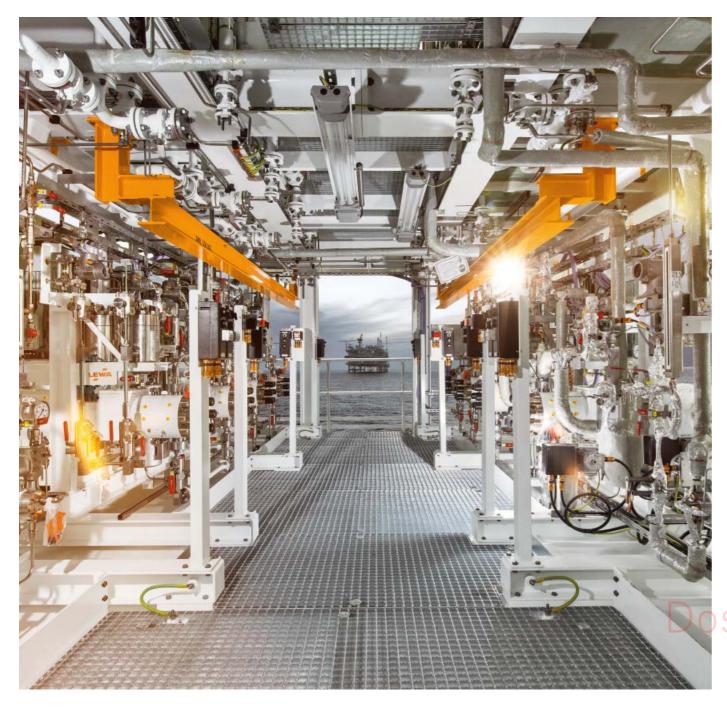
On land, too, there are remote regions where oil and gas must be conveyed through areas with extreme climate. Especially in desert regions, there is frequently no infrastructure for the operation of machines.

Solar-powered packages from LEWA permit energy independence when injecting chemicals. That ensures the reliable, low-maintenance metering of raw materials.



Complete solutions from a single source. LEWA packages and systems.

For decades, LEWA has fabricated customer-specific systems, skids, and packages based on intensive prior planning and data recording on-site, including testing and calculation of downstream systems and pressure conditions. Our knowledge of intelligent process management and the instrumentation and control technology it requires guarantee optimum results.



Chemical Injection Packages

Developed and manufactured by the leading pump manufacturer: Customer-specific packages for chemical injection in the oil and these pump skids we assume the complete gas industry.

Performance data

ow rate	5 ml/h – 180 m³/h
ischarge pressure	up to 3,500 bar

Pump Skids

Ready for operation, individually designed pump units in small-footprint design. For selection of the pumps, materials and accessories.

Performance data

Flow rate	5 ml/h-180 m³/h
Discharge pressure	up to 3,500 bar

Bellows pulsators

The optimum solution for achieving vibrating or oscillating fluid movements in a vertical container for quicker chemical reactions.

Performance data

Pulsierendes Volumen		200 cm ³ -21 l
	max. realisierte Säulenhöhe	18 m

Odorizing systems

LEWA has built odorizing systems for over 40 years, e.g., for natural gas, oxygen, nitrogen and carbon dioxide. In LEWA odorizing systems the appropriate odorant is metered reliably, proportionally and economically.

LEWA ecofoam®

Performance data

Redundantly designed, absolutely leakproof system for metering various blowing agents in plastic manufacture in combination with

Performance data

Flow rate	0-40 l/h	Flow rate	0.5-250 kg/h
Discharge pressure	up to 300 bar	Discharge pressure	50-500 bar

Customer-specific production units

Customer-specific batch/continuous system for the production process. Metering, mixing, loop control with monitoring and plausibility filling, separating, controlling temperature – we work out the proper process-related flow with an optimally adjusted pump for fluid with you and using this we produce the system that fits your production, right up to the end product.

Customer-specific metering systems

Ready-to-connect metering system in closed test. Your custom-configured metering system metering in automated processes.

Performance data

low rate	10 ml/h-180 m ³ /h	
Pischarge pressure	up to 3,500 bar	

Performance data

h	Flow rate	10 ml/h-180 m³/h
	Discharge pressure	up to 1,200 bar





Continuous progress. LEWA is the technology leader in diaphragm metering pumps.

Every progress is based on innovation that is ahead of its time. Here, you can learn which of our technologies are already shaping the market today, and enjoy what is still to come. Because LEWA continues to build for progress.

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Pump head technology

LEWA offers the most advanced diaphragm pump head technology in the world. Four series meet the requirements for the most of the pump to the requirements of your system and your procritical process conditions. Maximum operational reliability is our cess. The stroke adjustment normally required for metering pumps top priority. The highest possible metering accuracy and a hermetican then be omitted. Infinitely variable stroke times permit the cally tight working chamber are standard. For high pressures and metering pump to handle new application areas with special fluid temperatures, we offer a metal diaphragm that can be used up to kinematics. This applies specifically to filling jobs or highly precise 1,200 bar or +200 °C. If space is tight, we are the only manuchromatography systems in the pharmaceutical industry. facturer to offer compact PTFE diaphragms that can handle up to 1,000 bar. Also globally unique is the suction lift capability of LEWA smart control our pump heads – thanks to patented DPS (diaphragm protection Based on the systematically collected experience with flow system) technology.

Diaphragm monitoring system

very hazardous liquids. Leaks caused by diaphragm damage are ated. Since the controller saves the characteristic curves of differnot permissible. For this reason LEWA already developed and patent pumps, deviations can be controlled faster and more precisely ented a reliable and simple sandwich diaphragm with monitoring without significant overshooting. functionality in 1968.

Diaphragm Protection System DPS

The patented DPS diaphragm protection system ensures that the pulsations and vibrations in pipeline systems and diaphragm is always moving in the optimum working area. Freedom optimization of stand-by concepts. from leaks and operational reliability are ensured – regardless of Features:

LEWA intellidrive®

Using the highly-dynamic servomotor, you can model the stroke

controlled metering systems, LEWA designed a controller that meets all the important requirements on the "brain" of metering systems. The control unit continually compares the flow rates with LEWA diaphragm pumps are also used for metering or conveying target values. If there are deviations, corrective measures are initi-

Pump synchronization

Pump synchronization produces a reduction in

- external influences, extreme operating conditions, or operator errors. Parallel operation of multiple pumps in the same pipeline system
 - Synchronization of all pumps at low pump frequencies instead of stand-by concepts
 - Increase in flow rate by starting up an additional synchronized pump
 - Improvement in the pulsation and resonance behavior of the pipeline system

Edible

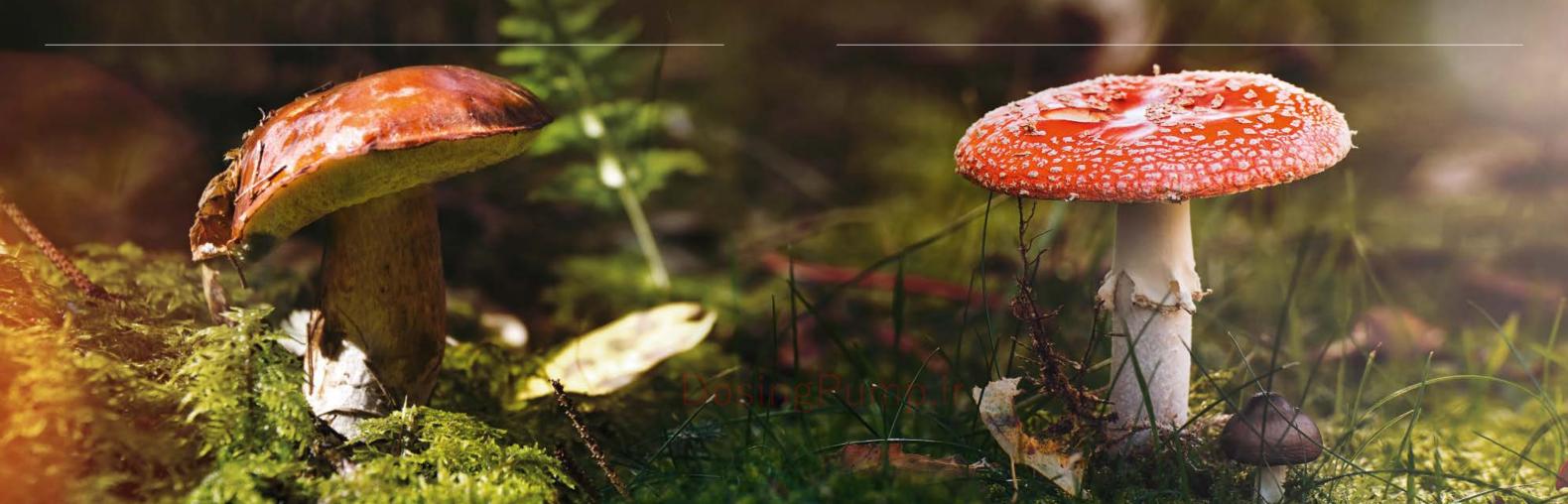
The manufacture and processing of edible or high-purity materials and fluids such as are found in the food and life sciences sectors require high process integrity and recipe constancy.

Thanks to hermetic tightness and the best possible cleanability, our products prevent both cross-contamination as well as contamination by wear.

This is ensured by a hygienically appropriate design in accordance with national and international guidelines and standards. EHEDG certificates are available for the relevant products.

Toxic

When environmentally endangering, toxic or flammable fluids and suspensions are to be reliably conveyed or metered in high-pressure processes, there is no alternative to hermetically tight metering pumps, process diaphragm pumps and metering systems from LEWA.



Fluent in the language of our customers. Industries and applications.

As a researching and producing company, we develop technologies and work out solutions for a wide variety of our customers' applications. Thanks to decades of experience with the challenges of a wide variety of markets, our experts speak the language of our customers fluently.

Our pumps and systems are mainly used in refineries and the petrochemical industry, but are also ideal for the production of plastics, detergents and cleaning agents. Additional application areas include the chemical industry, the cosmetics industry, pharmaceuticals and biotechnology, the food and beverage segment, and in the oil and gas industry and energy utilities.



LEWA pumps and systems for onshore and offshore applications: designed, and produced from one source and used around the world.



Natural gas, oxygen, and nitrogen are odorless, however they are potentially dangerous. This is why these gases are "odorized" with as strong-smelling a substance as possible. For over 40 years LEWA has developed systems for odorization of natural, liquid, and biogases with a strong-smelling substance.



In separation/distillation, transformation/ conversion, and in finishing/refining in the refinery, LEWA pumps and systems meter a wide variety of chemicals safely, reliably, and efficiently.



Petrochemistry generates starting products for the manufacture of plastics, pharmaceuticals, paints, detergents and other ing as well as the conveyance and treatment of washing water and sour water.



Hermetically tight LEWA pumps for use up to 1,200 bar are the first choice for the manufacture of chemical intermediate and end products. We plan, develop, and convey reactants and meter catalysts with manufacture custom pumps and systems for a wide variety of application areas and processes from the chemical industry.



We can offer special know-how in all compounding processes in the plastic processing industry. During manufacture, you can



Processes with the strictest of quality and hygienic requirements need the right equipment for the task. Our products can be used for conveying and dosing, as well as processing, Batch, continuous, and mixed processes are all possible.



Cleaning and detergents
LEWA offers continually operating, recipe controlled systems for the manufacture of household and industrial cleaners in all commercially available surfactant concentrations – from raw product up to end



Special expertise is required in the production of pharmaceuticals in order to, for example, ensure meeting the legal requirements. We supply systems with in-house engineering, which meet all the requirements relevant to the industry (cGMP, GAMP, 21 CFR, etc.). We can also offer complete documentation, acceptance testing, validation/qualification, installation and commissioning services.



Food and beverages
Process integrity, recipe constancy, and product reliability are a basic prerequisite in food technology. Hygienic aspects and cleanability play a central role: The process must remain closed and contamination of the process media must be impossible in every phase of production. LEWA pumps and systems make it possible.



"Power supply" is defined as the processes of power generation, transport, distribution and storage. Our customers are operators, suppliers, plant construction companies, and planners, who we have supported with our products and knowl-

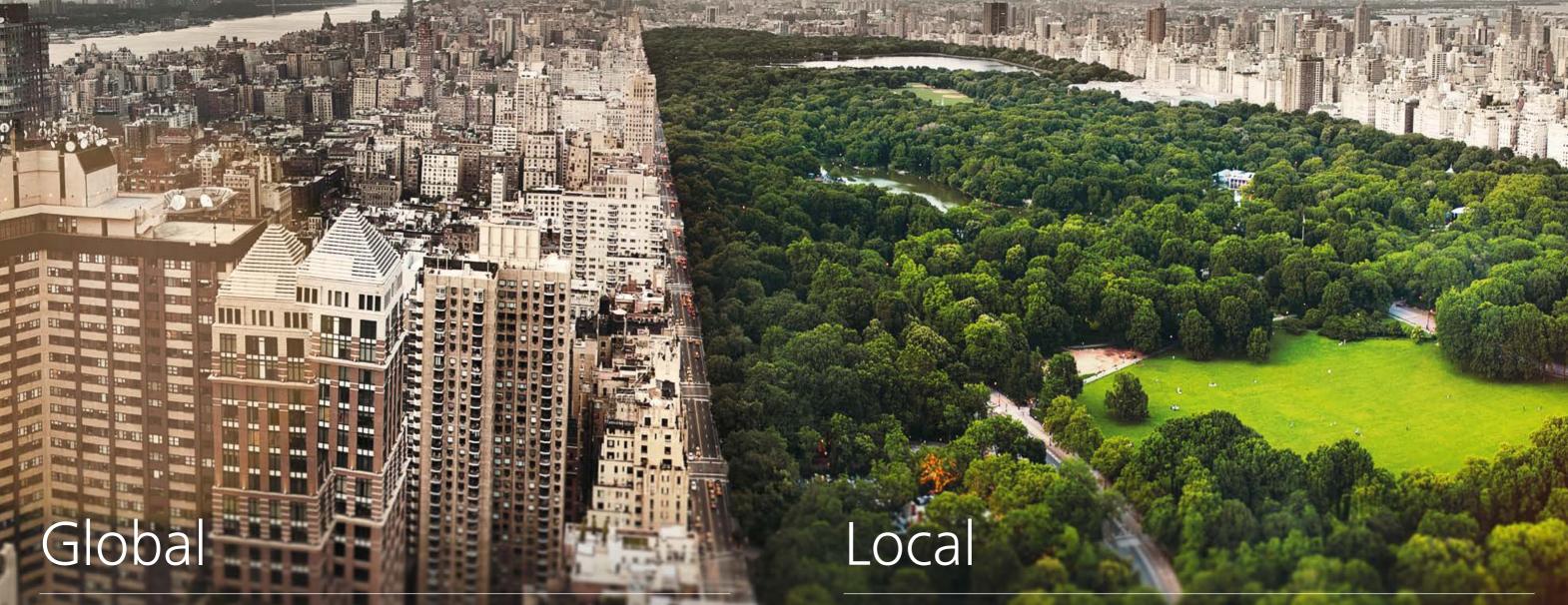


LEWA solutions are used in explosives manufacturing, ore extraction and metal and mineral recovery to waste water treatment and final product finishing. We support our customers to save energy and consumables while keeping high operational safety and low cost of ownership



Other industries
As a specialist in fluid handling, we of course also have experience in areas that lie out of our main markets. That includes building materials, paints and lacquers, mining, metal or paper manufacturing, for example. Ask us about it!





LEWA is globally active as a system integrator and packager. The LEWA Group acts together in a strong network, supported by appropriate processes, procedures, and systems.

From engineering to technical consulting and commissioning on-site, more than 1,200 experts around the world make the successful implementation of international projects possible.

We are there for you wherever you are. With subsidiaries and representatives in over 80 countries, we are next door anywhere – from Australia to Venezuela. We provide support throughout the product lifecycle, ensuring rapid availability of spare parts and service.

For the entire life cycle. LEWA services.

Our long-lived, low-maintenance products are designed specifically to your needs. With a mature service offering adapted to your individual requirements, we also support you throughout the life cycle of the products.

Technical consulting

We perform fluid evaluations, calculate and evaluate your entire system, and if necessary, create acoustic simulations of complex systems. Especially with oscillating positive-displacement pumps, interactions with connected pipelines and system parts must be taken into consideration.

Global project management

The success of any project depends on many factors. Dates and processes must be coordinated and quality must be controlled. We can coordinate the complex interplay of customers, engineers, production and operators for you. For the entire duration of your plans, you have a single contact. He or she plans and controls your project, from planning and construction to commissioning the system and training your people.

Engineerin

With decades of experience and the latest procedures and technologies, we can create a solution for any requirement. Together with you, we develop skids, packages, or systems. Of course, our designs also meet the requirements of national and international standards and directives. The entire process takes place in house.

Global commissioning

You benefit from optimum processes and machine performance. Right from the start. Because our service technicians work to ensure proper commissioning of the system. That means we not only reduce the commissioning time for systems, but also permit production to start earlier. Immediately after commissioning, our service technician will inform you of the configured system parameters and train users.

Service and maintenance

Regular preventive maintenance by our service technicians increases operational reliability, lowers operating costs, and extends the lifetime of a pump or system. To ensure this, we offer – among other options – service contracts tailored to our customers' specific requirements. We carry out maintenance with highest accuracy following the quality quidelines for new pumps.

The LEWA customer portal provides you with an overview of your pumps, the associated digital documents, a life cycle file, and additional services such as a digital spare parts catalogs and operating data analyses. For customers with particularly critical applications in the chemical, pharmaceutical or food industry, we offer LEWA Smart Monitoring. This is a pump monitoring system that determines characteristic values, error states and KPIs. It is suitable for the LEWA triplex and LEWA ecoflow process diaphragm pump series.

Enabling the smart factory

LEWA supports modern smart factory concepts. Production plants are networked and individual components such as pumps are available as IoT devices. We rely on generally applicable standards for data models, transmission paths for data flows and safety architectures from VDMA and VDI.



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We support every phase of the project – from idea to commissioning on-site.
We also provide training and service concepts.



/A offers various digital services to port customers on their way to the tal factory. They include the LEWA art Monitoring System.



Responsibility

Present

Taking responsibility starts with your own actions. We have committed to sustainable development of all our products and services. The LEWA eco-seal stands for that commitment. Careful handling of natural resources, honest and forthright treatment of customers, employers, and suppliers, as well as transparency in our activities are important pillars of our philosophy.

Future

We think for the long term. So we value our social responsibility. In the company, we offer our employees a number of continuing education opportunities as well as events for intercultural understanding and knowledge transfer between the employees of our global companies.

But we also look beyond our own backyard. We support talent in research, sports, and culture, cooperating with schools and associations.



Taking Responsibility.

That's what we stand for at LEWA.



The LEWA eco-seal: By combining engineering knowledge on the product and system levels, and due to their intensive application knowledge, LEWA can develop customer-specific, energy-saving solutions for a wide range of industrial branches.

Responsibility for our region

The support of children, youth, and disadvantaged members of our society is a matter close to LEWA's heart. This is why we are involved in numerous social and school projects, around and in Leonberg.

These include our support for the Spitalhof nursery as part of the TECHNOlino Project.* For the older kids, there is a cooperation project with the Johannes-Kepler High School. This introduces tenth grade girls to the options of engineering careers by means of demanding projects. In addition, we work together with the DAA (Deutsche Angestellten-Akademie Böblingen) and the BSZ Leonberg vocational school to integrate refugees. By offering internships we help provide occupational orientation and prepare for a career or training.

In sports and music, values and standards are communicated which are also relevant in professional life. Characteristics such as tolerance and creativity are promoted in the same way. That is why LEWA supports the SV Eltingen club located in Leonberg as well as other sports clubs in the region. LEWA also supports the Jugendmusikschule (music school for youth) in Leonberg. Primary school children can participate in an instrumental work group through the project.

The important thing in all this is the reciprocity of the relationships. That means that LEWA offers the funds and support, but simultaneously improves its social competence by contact with different people. After all, this is the reason that involvement in projects is a fixed part of apprenticeship at LEWA.

Environmental protection

LEWA sees it as a part of their corporate responsibility to handle resources sustainably and to protect the environment. This is what our pump systems stand for – with hermetic tightness, high efficiency, and energy-saving drive systems. They permit more environmentally friendly processes and energy-efficient production.



^{*}TECHNOlino was founded by the Súdwestmetall Employer's Association and sets up researcher comers in childcare facilities and elementary schools to support playful engagement with natural sciences and technology.

Responsibility in the team. Work at LEWA.

About 1,200 people around the world work daily for the success, growth, and continuing development of our company. So our responsibility for our employees is a particular priority for us. Our goal is to create a working environment for all employees based on partnership, supporting their engagement for the company.

lot of freedom in their own working area. Responsible action and the good of our community are top priority. The roots and values of the family company are firmly anchored and give LEWA its resilience. Passionate engagement and disciplined teamwork give us the advantage we need in international business.

We place great value on a variety of continuing education options, investing specifically in individual development. The LEWA Academy offers global learning and qualification solutions that make it possible for our employees to gain experience in their areas and build know-how.

Education: outstanding at LEWA!

We are always looking for motivated people we can train into highly qualified employees. Therefore, we offer the ideal structural and personal prerequisites, including a commercial training center, the latest in workflows and information technology, and our own training staff and the option of working on social projects. Specifically, we train industrial mechanics, mechatronics engineers, warehouse logistics LEWA employees value flat hierarchies, fast decision pathways, and a specialists, and industrial clerks. We also offer a dual college curriculum in the area of mechanical engineering.





Your local representative:

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www.lewa.com