

LEWA metering and mixing packages

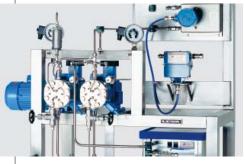
For process engineering



- reliable
- economical
- easy to integrate

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LEWA metering systems and metering packages



All from one source: all components of the LEWA metering system



... of the standard metering packages and of the ...



... individually designed metering packages are optimally matched to each other.

Accurate metering and mixing of fluids is important to the production cycle of modern process plants.

The widespread increase in the automation of process plants makes it critical to correctly interface fluid metering and mixing systems to other process systems as well as with plant controls that include process displays and supervisory control and data acquisition systems (SCADA).

LEWA designs and manufactures fluid metering and mixing systems. These systems are used in many different industries and address a wide variety of applications and configurations. LEWA offers a complete range of system services including basic design, process engineering, fabrication, startup and commissioning and ongoing maintenance.

Based on our years of experience and extensive knowledge of process and control engineering LEWA is equipped to advise our customers through all stages of the project.

LEWA has the required facilities to support any customer requirement. These facilities include a process research laboratory with data measurement and recording equipment, CAD systems, computerized pipeline analysis programs and a comprehensive database for packaged system components. Also available is our fully equipped instrumentation and control department with extensive experience in control concept design.

- metering systems
- standard metering packages
- tailor-made metering packages as solution for specific applications

The LEWA Advantage

- World leader in liquid metering technology
- More than fifty years experience
- Single source for engineering and fabrication
- Customized solutions from the pump to turn-key plant installations
- Full system and component integration
- In-house software development for process control and display
- State-of-the-art facilities and equipment for development and production
- In-depth knowledge of process engineering and control technology
- Several thousand systems installed worldwide



Highest levels of safety and availability are maintained in all operational environments including conditions experienced at aggressive offshore locations

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Repeatable solution concepts: LEWA standard metering packages



Flow proportional: precisely controlled odourant addition e.g. in the natural gas supply

In addition to our customized packaged units LEWA provides a range of **standard metering packages**. These standard packages are supplied to various industries and include precisely **controlled gas odorant** addition systems for the **natural gas industry**, **acid dilution**, polyethylene **cross-linking** and metering, **chemical injection systems** for enhanced gas well production. All components making up LEWA standard packages are selected for long-term availability, extended operational life and for simplicity and safety of operation and maintenance.

Considerable research, engineering and manufacturing resources are available at LEWA and ensure that our standard metering packages provide our customers with reliable and economic solutions.



Different concentrations: metering- and mixing packages e.g. for acid dilution



Precise metering and mixing: metering of peroxide for cross-linking of polyethylene





Hygienic and reproducible recipe metering in the food industry

Single Source Supply: The heart of any metering system is the metering pump



Precise and continuous: metering- and mixing packages for the production of fabric softeners



Precise at high pressure: LEWA metering pumps and packages for the chromatography



Precise and reproducible: fully automatic compact package for recipe controlled production of dispersion adhesives

LEWA, as a manufacturer of metering and process pumps, is positioned to offer complete turnkey packages where all aspects of a project, including initial concept, precise specification, engineering, pump selection, fabrication, testing, commissioning and documentation, have a single point of responsibility.

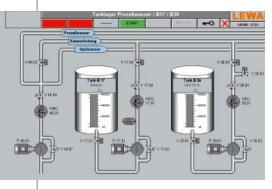
Customers need only one contact



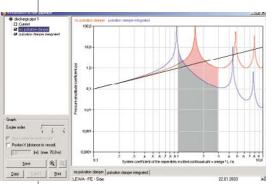


Minimum Downtime: Long, reliable service life is assured with LEWA for metering packages on offshore installations

Partnership with the Customer: Total system responsibility



Easy integration: reliable process monitoring and control



Consultation at an early stage: fluid evaluations and sound pipeline calculations save money even before

the actual investment has started



Utilize competence: LEWA's know-how and experience includes the full range of liquid metering technology LEWA is not only a manufacturer of metering pumps, metering systems, process diaphragm pumps and control technology, LEWA is also a close partner with the customer in all associated activities connected with the pumps and packaged systems we supply.

The associated activities include consultation with the customer both before and after an order is placed, engineering solutions for system expansion, extensive worldwide repair and maintenance service and training and the recommendation and supply of spare parts.

Complete solutions

- vibration analysis and design calculation for pipelines and pulsation dampers
- fluid evaluations
- software development, also for individual controls
- system tests
- commissioning on-site
- service and maintenance contracts
- service worldwide
- consultation for changed operating conditions
- extension and modification of existing pumps and systems

From the pump to the system: LEWA designs and supplies solutions for the most different tasks





For every occasion: The LEWA product range



LEWA micro-flow metering pumps



LEWA ecodos



LEWA ecoflow



LEWA process diaphragm pumps

For laboratories and & pilot plants: **LEWA** micro-flow pumps

These micro metering pumps with hydraulically actuated metal diaphragms are primarily used in laboratories and for test procedures in pilot plants.

.5 USgph

Performance	range
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Flow rate	up to 10.5 USgpl
	up to 0.04 m ³ /h
Discharge pressure	up to 8,100 psig
	up to 560 bar

For low pressures: **LEWA ecodos**

Standard diaphragm metering pumps for low pressure use, using a mechanically actuated PTFE 4-layer diaphragm for multiple security. Can also be combined as a multiple pump.

Performance range	
Flow rate	up to 400 USgph
	up to 1.5 m³/h
	per pump head
Discharge pressure	up to 300 psig
	up to 20 bar
Discharge pressure	up to 300 psig

For medium to high pressures: **LEWA** ecoflow

LEWA ecoflow offers the most advanced metering diaphragm pumps with leak-free safety for medium and high pressures - not least because of our unique Diaphragm Protection System (DPS).

Performance range	
Flow rate	up to 2,650 USgph
	up to 10 m³/h
	per pump head
Discharge pressure	up to 17,400 psig
	up to 1,200 bar

For sterile applications: LEWA Sanitary&Hygienic

LEWA supplies special sanitary and hygienic diaphragm pumps for metering tasks in hygienic, aseptic or sterile processes, whether for food and beverages or for pharmaceuticals and cosmetics.

Performance range

Flow rate	up to 1,200 USgph
	up to 4.5 m³/h
	per pump head
Discharge pressure	5,100 psig
	up to 350 bar

For high pressures: LEWA process diaphragm pumps

The leak-free LEWA process diaphragm pumps for high flow rates are the tightness standard in high-pressure process technology. Using LEWA triplex process diaphragm pumps, even critical, toxic or flammable liquids can be conveyed safely. Even extremely low viscosity, nonlubricating fluids or abrasive suspensions can be handled successfully.

Performance range	
Flow rate	up to 47,520 USgph
	up to 180 m³/h
Discharge pressure	up to 17,400 psig

up to 1,200 bar

For more information, request our brochures.

Take advantage of our know-how

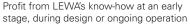
LEWA is a global supplier of metering pumps, process pumps, and metering systems. We strive for a close partnership with our customers in all activities related to our products. Your complete satisfaction begins with consultation before order is even placed.

Our services extend from comprehensive documentation for our products through fast spare parts supply, expert repairs and rebuilds, and field service for maintenance and training. This increases the up-time of LEWA pumps and packages and assures trouble-free operation. We would be pleased to present detailed information on our resources of supply, our services and the resources that can be made available to you. Our over 50 years of experience in fluid metering and controlled volume applications is behind the design support we offer.

These include:

- Correct pipeline calculation
- Fluid evaluation from the expert
- Worldwide, competent service
- Maintenance directly from the manufacturer
- Seminars from the specialist
- Spare parts supply with 24/7 Service Capability
- Installation and system diagnosis







On-site without delay: Consulting, maintenance or service. Being close to our customers is very important to us



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Worldwide:

With more than 10 LEWA Centers of Competence around the globe, and over 60 experienced representatives, we never are far away