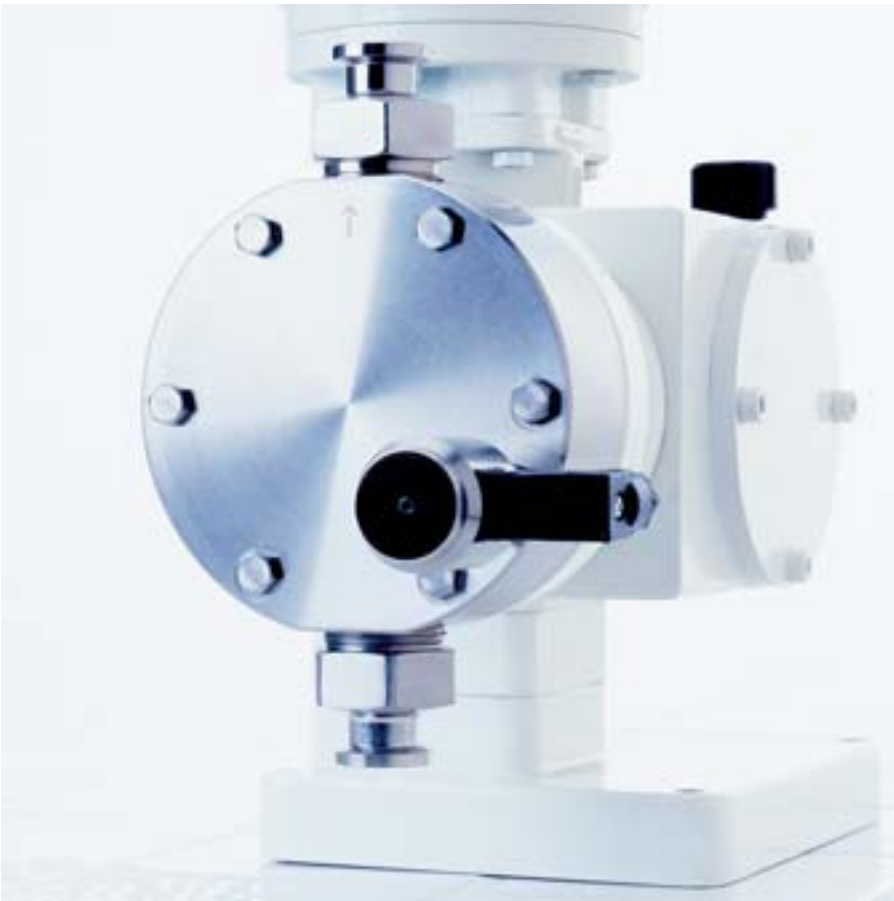
LEWA
pumps + systems

LEWA ecodos *sanitary*
Diaphragm pump series



Sealless pumps for metering, proportional blending, and transfer of fluids in the food and beverage, personal care, cosmetic, biotechnology and pharmaceutical industries.

- **hermetically tight – no sliding seals**
- **accurate and repeatable metering**
- **low hold-up volume**
- **gentle, low shear handling of fluids**
- **FDA approved materials of construction**
- **reliable, economical, low maintenance**

LEWA pump design – setting the standards for industry

One pump for many applications: production of jellied sweets…

transfer of mustard and other viscous products…

proportional blending of liquid ingredients for soap…

metering of colours, flavours, or preservatives

Performance

LEWA ecodos *sanitary* pumps provide fluid metering and transfer from 0,4 l/h to 1.500 l/h per pump head. Up to six pumps can be multiplexed for additional versatility or to smooth pulsation. Whether using open loop control for simple systems or closed loop control for complex applications, the end result is a process with exactly metered ingredients to achieve consistent product quality. LEWA ecodos *sanitary* pumps are suited to applications with discharge pressures up to 20 bar.

Main features of the pump

- Sealless, and hermetically tight
- No sliding seals or packing
- Low hold-up volume
- Suitable for CIP
- Run-dry safe
- Easy disassembly and re-assembly of the pumping chamber
- Multiplex capable
- Compact for small footprint
- Long uptimes

Surface finishes

All pump head components are manufactured of 1.4571 (316 Ti) stainless steel, and wetted surfaces are mechanically polished to sanitary industry standards (≤ 0,8 µm). This provides corrosion resistant and easy-to-clean surfaces.

Leaktight and fail-safe

The LEWA ecodos "safety diaphragm" is made of pure, solid pure PTFE compatible with biological tissue (USP Class VI). Should perforation of the working diaphragm layer occur, an immediate signal is given by the diaphragm condition monitor for shutdown.

FDA approved materials

All materials of construction wetted by the process fluids are FDA approved and therefore compatible with food and drug products.

Tri-clamp or other sanitary fittings

For easy integration into existing or new process lines, tri-clamp or other design sanitary fittings are available to meet user requirements.

Proper documentation

Extensive documentation is a matter of course at LEWA. Included in addition to operating manuals are technical data sheets, cross-sectional drawings and wear and spare parts lists. Test reports, pressure tests and output diagrams are available as options.

LEWA technology – putting it all together

Proportional blending

LEWA metering technology satisfies customer requirements for continuous production, resulting in cost savings and reduction in waste. Whether for simultaneous blending of different ingredient streams in proportional amounts, or for injecting accurate and repeatable amounts of micro-ingredients into a main process stream, LEWA ecodos pumps have been proven in operation for years.

Fluid transfer

LEWA diaphragm pumping technology makes it possible to handle shear-sensitive and expensive ingredients in a hermetically sealed pumping environment and with gentle pumping action. Due to the extreme low hold-up volume in the pump head and the pressure-stiff characteristics of diaphragm pumps, fluids pass through the pump head quickly and without inefficient slippage.

Ideal for your applications: the sealless diaphragm pump with low hold-up volume and polished wetted surfaces

APPLICATIONS

Food
- flavours
- enzymes
- vinegar
- glucose
- colours
- juices
- confections
- vitamins
- molasses
- syrups
- lecithin
- chocolate
- honey
- gelatine

Personal Care
- shampoo
- shower gel
- shaving cream
- liquid soap
- perfume essence
- emulsions
- preservatives
- lotion
- toothpaste
- cream

Detergents
- dishwashing products
- fabric softeners
- liquid detergents

Biotechnology
- biochemicals
- buffer solutions
- nutrients
- chromatography

Pharmaceutical industry
- suspensions
- toxic liquids
- alcoholic solvents
- ointments
- herbal extracts

Chemical industry
- photographic emulsions
- herbicides
- cleaning solutions
- wastewater

LEWA – the advantage of experience

LEWA pump configurations run the range from simple metering skids for introducing micro-ingredients…

… to complex systems for proportional blending or transfer of multiple product streams

Service around the globe

The LEWA organization partners with our clients. Our service is not limited to delivering pumping equipment and systems. With our manufacturing facility in Leonberg, Germany, 15 centers of competence worldwide and qualified representatives and sales offices in 50 countries, we are available to respond to your fluid transfer and metering needs at any time.

LEWA GmbH in Leonberg, Germany, is a DIN EN ISO 9001 certified company.

A proven Total Quality Management System has been in place at LEWA for years. This guarantees that not only the delivered product meets high requirements, but also that all manufacturing processes are reliably monitored and documented according to strict ISO procedures.

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LEWA pumps + systems

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