

fairnews

Information about the new **sera** products 2009

New Piston and Multilayer Diaphragm Pumps

Compact Standardised Dosing Systems Type CVD

Solenoid Diaphragm Pumps for Smallest Dosing Volumes



A new definition of process reliability!

The new piston diaphragm pumps and multilayer diaphragm pumps of the 4-series

sera offers from now on four new series of multilayer diaphragm pumps and piston diaphragm pumps featuring the multilayer diaphragm technology. These include two series for the local, manual control (R-series) as well as two series with integrated control electronics (C-series).

By offering the new piston diaphragm pumps, **sera** has responded to the customer requests for performances between 7.5 l/h and 900 l/h at an operating pressure of up to 80 bar. For operating pressures up to 20 bar **sera** is offering the new multilayer diaphragm pumps for capacities of 10 l/h to 1,200 l/h.

Especially when aggressive and toxic chemicals are to be dosed in an environmentally friendly way and precisely, the new pumps will be the ideal choice.

The areas of application for the piston diaphragm pumps include the chemical, petrochemical and pharmaceutical industry, e.g. the dosing of additives, as well as the disinfection of drinking and process water in systems at pressures higher than 10 bar.

Another important area of application includes the dosing of additives and flavours in the food and beverage industry. In power plant engineering the piston diaphragm pumps are used for the dosing process during the boiler feed water treatment.

The new pump types impress the user with their multilayer diaphragms made of PTFE with an integrated diaphragm rupture indication. In addition, they are ideally suited for the pumping and dosing of almost all liquids of low and medium viscosity as well as conductive and non-conductive liquids. The multilayer diaphragm ensures the separation of the drive from the parts in contact with media.

The new multilayer diaphragms are designed as to prevent any contact between the pump hydraulic and the medium even in case of a breakdown, thus preventing both corrosion within the pump and any contamination of



For highest dosing accuracy at high pressures. The new piston diaphragm pumps: R410.2-120KM and C409.2-10KM

the pumped medium or the environment. This reduces the life cycle costs (LCC) and makes the process reliable.

The C-series include the proven control electronics from **sera**. This is a new approach for dosing pumps that are used in medium pressure applications. The control electronics allow, amongst others, the monitoring of container filling levels, the monitoring of the status of the diaphragm, the flow control or flow measurement as well as the adaptation of the stroke speed to the viscosity of the pumped medium. It is also suited for the control with conventional analogue and digital signals. It is cost-efficient and can be easily used for automated processes thanks to the „plug & dose“ principle and can thus

be integrated into nearly all existing systems of the operating company.

Optionally, the control electronics features a Profibus-DP-interface and is suited for the communication with the latest generation of bus systems.

The mechanical equipment of the piston diaphragm pumps has another distinctive feature: A continuously adjustable, integrated hydraulic overflow valve which protects the pump against excess pressure.

When equipped accordingly, the R-series can even be used in ATEX-Zone 1.



Multilayer diaphragm technology for highest process reliability: A manually controllable R410.2-1200ML for the ATEX zone 1 and a controllable C409.2-45ML

CVD – state of the art in dosing technology

Standardised dosing systems in a cost-efficient compact design

Application- and customer-specific dosing systems from sera have proven themselves many times in practice worldwide. Many years of experience in the exact and optimum design of turn-key dosing systems are now integrated in a new possibility to solve simple dosing tasks economically and within the shortest possible time.

Wherever the matter is not a highly complex and expensive dosing, but a controlled and precise dosing of a liquid into a process or another medium, the new standardised dosing systems from **sera** are the ideal solution.

These are compact in size and were especially designed for a space-saving wall mounting. The benefit for the customer is not only the short ordering and delivery times, but also the attractive prices.

Three types of dosing systems for conveying capacities up to 60 l/h and 550 l/h to 1,500 l/h are offered under the name CVD 1 (Compact Vertical Dosing System).

The systems in the basic version are composed of the following subsystems:

- **sera** motor diaphragm pump
- Two-part ball valves on the pressure side (shut-off and discharge valves)
- Diaphragm overflow valve
- Wall mounting plate of PP (with collecting basin)
- Pipework of PVC-U, PP or PVDF on the pressure side
- Gaskets of EPDM or FPM

Due to the modular system design a multitude of optional, standardised accessories is available. These include, for example, a pulsation damper, terminal boxes for the electric power supply, leakage sensors or a splash guard for the total system.

For higher conveying capacities or when two different media are to be dosed simultaneously a greater system called CVD 2 is offered. As compared with the CVD 1, this dosing system has two diaphragm pumps with the corresponding components. Just as the smaller system, it can be expanded by a number of optional accessories.



sera CVD 1 with optional pulsation damper and suction side pipework.

Interested customers can now contact the specialists from **sera** directly and discuss whether one the new standardised CVD dosing systems or an individually designed and application-specific dosing unit should be used.

When each drop counts

New solenoid diaphragm pumps type 204.1 for smallest dosing volumes up to 0.4 l/h

The powerful and reliable sera solenoid diaphragm pumps of the series 204.1 are extended by a new series with a conveying capacity up to 0.4 l/h. sera has thus responded to the customer requests for a multifunctional solenoid diaphragm pump for smallest dosing volumes.

The new pump type is equipped with a high-quality full PTFE diaphragm for extending the diaphragm service life and improving the resistance to media of the standard series. This results in excellent

dosing values due to the combination with a new valve series, which distinguishes itself by an optimised clearance volume and highly improved suction behaviour.

The proven electronics of the R- and C-series are used for the exact and process-dependent dosing of liquid media. These are complemented by the self-venting series, version RS and CS.



For smallest dosing volumes: C204.1-0,4e

More than 60 years of expertise in dosing, feeding and compressor technology



Fair calendar 2009

ACHEMA 2009	ACHEMA, Frankfurt , Hall 8, Stand D17-D19	11.-15.05.2009
drinktec 09	DRINKTEC, Munich , Hall A4, Stand 206	14.-19.09.2009

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