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LUTZ-JESCO COMPANY NEWSLETTER

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LUTZ-JESCO SHOWCASES NEW DOSING PUMPS

LUTZ-JESCO WILL BE EXHIBITING INNOVATIVE NEW DEVELOPMENTS AT ACHEMA 2012

At this year's ACHEMA, held in Frankfurt am Main from 18th to 22nd June 2012, Lutz-Jesco will be launching its new models of MAGDOS solenoid diaphragm dosing pumps, MEMDOS motor-driven diaphragm dosing pumps and MEMDOS SMART stepper motor-driven diaphragm dosing pumps.

Dosing pumps play a key role in the reliable and precise dosing of liquids in processes and can be used throughout all branches of industry.

SOLENOID DIAPHRAGM DOSING PUMPS MAGDOS LK AND MAGDOS LP



Solenoid Diaphragm Dosing Pump MAGDOS LK

MAGDOS LK and MAGDOS LP pumps are each available in seven capacity ranges. The power ranges cover from 0.5 to 15 l/h with back pressures up to 16 bar. Double-ball valves ensure accurate dosing. The stroke frequency of MAGDOS LK pumps can be adjusted manually or by means of external control contacts to adapt the dosing capacity, while the stroke frequency of MAGDOS LP pumps can also be adjusted via a 0/4...20 mA signal.

You can thus dose with a flick of the wrist.

Several different materials and connections are available for suction and discharge side, depending on the specific applications. Both pumps can be used in the majority of process applications by the use of appropriate and recommended materials.

A matching accessory set with hoses, injection nozzles and suction lines from our comprehensive accessory range means that nothing stands in the way of a quick installation, and you get the best results.

Thanks to the sturdy, low-maintenance solenoid drive, the

media being supplied (acids, alkalis, coagulants and flocculants, for example) are reliably and accurately dosed. MAGDOS LK and LP pumps are not only impressing customers with their stylish design but their use is simplified by their graphical display with multilingual menu as well as their operation using the integrated keyboard.

The MAGDOS LP is also available with an optional Ethernet interface. This network connection enables you to control the stroke frequency and the number of strokes. In addition, all error messages can be transmitted in the opposite direction.

The space-saving design and footprint of these dosing pumps means that they can be integrated into all dosing systems and can be wall-mounted in three different positions - standing, left-orientated and right-orientated - without the need for any additional equipment.



Solenoid Diaphragm Dosing Pump MAGDOS LP

MOTOR-DRIVEN DIAPHRAGM DOSING PUMPS MEMDOS LB AND MEMDOS LP



MEMDOS LB

MEMDOS LP

MEMDOS LB and LP ranges are both available in two sizes. A large coverage in terms of performance and resistance is available, thanks to the variety of dosing heads, combined with a wide range of dosing head materials.

The performance ranges from 0 – 4 up to 0 – 150 l/h for the first size, and 0 – 110 up to 0 to 1010 l/h for the second size. The maximum permitted pressure, depending on the size, is between 4 and 16 bar. Thanks to the sturdy tappet drive with manual or automatic capacity adjustment, the conveyed media such as acids, lyes, coagulants and flocculants are dosed reliably and precisely.

On request, both dosing pumps can also be supplied with a double-diaphragm system. Then uncontrolled leakage of media is avoided even if the dosing diaphragm wears out.

For constant dosing without a controller, the motor of MEMDOS LB is directly connected to the terminal box. A great variety of three-phase and single-phase motors is available for this purpose. To adapt the dosing capacity, either the stroke length can be adjusted mechanically or the speed of the three-phase motor can be regulated by means of a separate frequency converter.

The MEMDOS LP is used when the integration of the pump into controls or control circuits is required. For integration into demanding automation

networks, a version with an Ethernet-based MODBUS interface is available.

The MEMDOS LP doesn't just impress with its elegant design; the graphical display with a multi-language menu as well as the dosing pump's operation using the integrated keyboard simplifies its use. If required, the dosing pump can be controlled via an analogue or pulse input. To react to any variations in the control circuit, the pump has many additional functions; stroke remote reporting, external operation consent, level monitoring, fault reporting via a relay as well as diaphragm rupture monitoring.

STEPPER MOTOR-DRIVEN DIAPHRAGM DOSING PUMPS MEMDOS SMART LB AND MEMDOS SMART LP

The MEMDOS SMART LB and MEMDOS SMART LP ranges are both available in four capacity ranges, delivering between 5 and 20 l/h against pressures of up to 16 bar.

The compact stepper motor-driven pumps, coupled with their intelligent drive concept, combine the major benefits of solenoid-driven diaphragm dosing pumps with the precision of motor-driven diaphragm dosing pumps.

Several different materials and connections are available for suction and discharge side, depending on the specific applications. Stepper motor-driven pumps can be used in the majority of process applications by the use of appropriate and recommended materials.

A matching accessory set with hoses, injection nozzles and suction lines from our comprehensive accessory range means that nothing stands in the way of a quick installation, and you get the best results.

The drives of both pumps are fully controllable. The stepper motor with its wear-free tooth belt drive, ensures a particularly homogeneous and gentle dosing process. Pressure and suction strokes can be performed at different speeds. This produces a constant supply stream, which gives you a low-pulsation dosing.

In addition, the MEMDOS SMART LP gives you the possibility to reduce the suction speed in two steps to easily and more precisely supply even viscous dosing media.

As a plug & play dosing pump with a large-range power supply unit, the MEMDOS SMART LB pump is immediately and unrestrictedly available for use worldwide. It can also be wall-mounted in three different positions - standing, left-orientated or right-orientated - without the need for further equipment.

The MEMDOS SMART LP doesn't just impress with its elegant design; the graphical display with a multi-language menu as well as the dosing pump's operation using the integrated keyboard simplifies its use.

If required, the dosing pump can be controlled via an analogue or pulse input. For integration into demanding automation networks, a version with an Ethernet-based MODBUS interface is available.

Over-dosage as a result of unexpected pump shut-down and the associated downtime is ruled out thanks to the diaphragm position detector. //



MEMDOS SMART LB

MEMDOS SMART LP

RIEGELE BREWERY – BEER ENJOYMENT WITH TRADITION

LUTZ-JESCO CHLORINE DIOXIDE SYSTEM EASYZON D USED FOR DISINFECTION PURPOSES

The history of the privately owned brewery Riegele can be traced back to the year 1386. The Augsburg-based brewery, which was initially known under the name 'Zum Goldenen Roß', became a family owned and operated brewery in 1884 under the leadership of Sebastian Riegele. The brewery was newly constructed in 1911 just outside the city gates of Augsburg, and has remained unchanged ever since.

Today, Riegele brewery is the largest privately owned brewery in Augsburg, and employs around 100 staff. The current management represents the fifth generation of the Riegele family.

In addition to hand-picked beer specialties, the brewery also produces a premium mineral water from its own mineral spring. Non-alcoholic beverages, like the original 'Spezi' and 'Chabeso', a lactic acid-based soft drink specialty, round off a varied product spectrum.

An EASYZON 35 D for the centralised chlorine dioxide supply for various disinfectant applications throughout the production process was installed for Riegele brewery to guarantee premium quality for all their products. The system has an output of 35 g/h and works with diluted source chemicals.



Chlorine dioxide system EASYZON 35 D



Feeding tank MEMDOS for chlorine dioxide solution dosing

The stock solution in the feeding tank contains 1 g of chlorine dioxide per litre. From this feeding tank, Lutz-Jesco motor-driven diaphragm dosing pumps (MEMDOS series) are used for dosing each of the applications proportional to volume and in strict compliance with food regulations.

Chlorine dioxide disinfection is used in the areas outlined below:

FRESH WATER TANK OF THE CENTRAL CIP SYSTEM

All automated cleaning processes for all production systems and lines are initiated at the fresh water tank of the central CIP system. Each cleaning step (alkaline or acidic) is followed by a rinsing step. Chlorine dioxide is added to the rinsing water proportional to volume in accord-

ance with the Drinking Water Ordinance (November 1, 2011); the dose is continuously monitored, measured and documented. The aim of this preventive measure is the elimination of biofilm throughout the line system.

FRESH WATER SUPPLY FOR THE CENTRAL HP CLEANING STATION

At Riegele brewery, which is equipped with state-of-the-art technology, the floors and walls in the filling and filtration areas are cleaned daily with HP water. A central pressure unit with a separate water supply has been installed for that purpose. The cleaning water is also dosed with chlorine dioxide proportionate to volume in accordance with the Drinking Water Ordinance and in compliance with work safety protocol. The optimised depot effect of the disinfectant chlorine dioxide guarantees the prevention of microbes reaching production areas via these systems at all times.

OPEN COOLING CIRCUIT IN THE MACHINE BUILDING

The machine building, where cooling devices and air compressors ensure the energy supply necessary for production, houses an open cooling water circuit. This flushing system was traditionally dosed with biocides. This method is, however, highly cost-intensive and measuring processes are very costly. The handling of canisters and associated risk potential has been completely eliminated. Dosing occurs in the water supply line for the water tower and is adjusted according to season. Biological resistance against disinfectants is effectively prevented with the use of chlorine dioxide, which elimi-

nates the formation of biofilms on the heat exchangers. System efficiency is therefore guaranteed all year round.

EXTERNAL DISINFECTION OF THE BOTTLE FILLING PLANT

In the production area of the bottle filling plant, the method of interrupting the filling process in predefined intervals to clean the exterior of the machinery of beverage residue has proven highly effective. The empty bottle supply is stopped automatically, and an external rinsing step with minimally dosed cleaning water sprayed via cleaning nozzles begins. The process lasts only a few seconds, after which the bottle supply restarts to continue the filling of approx. 30,000 bottles per hour.

FRONT TABLE FLUSHING SYSTEM

The capping station is located in this part of the bottle filling plant. For safety reasons, this area of the filling process is entirely encased. Minimal beverage residue may also collect under the capping station. A timer controlled valve initiates a rinsing step here, which removes any collected residue.

Chlorine dioxide has become an indispensable option for low-cost water and process water disinfection in the beverage industry. This proven and very easy to handle method is - as implemented at Riegele brewery - the best option for satisfying sustainable and affordable, yet optimised quality requirements for end products. Low maintenance costs, high process safety and machine maintenance intervals few and far between, make this technology particularly attractive. //

CONVENTION AND EXHIBITION DATES

+ **ACHEMA, 18.06. – 22.06.12, Frankfurt/Main**

+ **interbad, 09.10. – 12.10.12, Stuttgart**

+ **biogas expo & congress, 24.10. – 25.10.12, Offenburg**

+ **DVGW Meistererfahrungsaustausch, 04.12. – 05.12.12, Lübeck**

ACHEMA 2012



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