



// DOSING SYSTEMS WORK
IN A 3-SHIFT SYSTEM

// KÖNIGSBAD OPENS
ITS GATES

// SWIMMING LIKE IN THE
DEAD SEA

// PRESENTATION OF THE
CZECH AGENCY

// INTEGRATION OF TECHNOPOOL

LUTZ-JESCO DOSING SYSTEMS WORK IN A 3-SHIFT SYSTEM

WASTE WATER TREATMENT IN THE INDUSTRIAL PARK KALLE-ALBERT

Infraserv GmbH & Co. Wiesbaden KG operates among other things the supply and disposal for the industrial park Kalle-Albert in Wiesbaden. The removal of waste water today takes place in a complete enlargement of the waste water cleaning in-

stallation from approx. 300,000 EGW to 1,200,000 EGW, started in 2006 and completed in 2009 at the location in Wiesbaden Rheininsel Petersaue. The fluctuating load of up to 80 t CSB per day originates from different industrial operations of the

industrial park Kalle-Albert in Wiesbaden and reaches the system via a new pressure line over the Rhine. New anaerobic reactors, with which sewage gas is generated, are part of this system.

In the diverse cleaning stages of the



View of the anaerobic cleaning stage

waste water cleaning installation fully automatic dosing systems have been equipped with industrial dosing pumps manufactured by Lutz-Jesco GmbH. For the lower dosing capacities the reliable solenoid diaphragm dosing pumps of the MAGDOS DX series are used, which are designed for applications with low pressures and small dosing quantities.

All dosing systems are installed in compact design on PP plates with collecting pans.



Subsystem for dosing nutrients in the cleaning process

RELIABLE DOSING OF CHEMICALS

Solenoid diaphragm dosing pumps play an important role in the reliable and accurate dosing of liquids in process sequences. Besides their high dosing accuracy the non-leakage of diaphragm dosing pumps is also decisive for many applications, especially when product purity or sterility are vital or aggressive and toxic media must be conveyed. Diaphragm dosing pumps are used in many branches of industry that work with liquid chemicals - not excluding toxic and aggressive media.

Through its versatility in external control the MAGDOS DX provides a high de-

gree of flexibility and yet is simple to handle and easy to operate. Double-ball valves ensure highest accuracy - even at the lowest delivery rates. Diverse applications are possible due to powerful stroke solenoids, because the delivery rate can be set variably per stroke. The

control of any contacts of commercial water meters is possible for proportional dosing.

Due to their operating principle, solenoid diaphragm dosing pumps are particularly suitable for the proportional control dependent on pulses or input signals 0/4 ... 20 mA. They function without start-up delay or run-out sluggishness and react to every control pulse with an exactly defined dosing quantity.

Their modular separation in control unit, drive and dosing head enable a tailored solution through the combination of different options according to the case of application.

DOSING SYSTEM FOR CAUSTIC SODA

In a factory building with room temperatures of up to 35 °C, several dosing systems work in a redundant configuration. Here one giant bunker tank made from PE-HD for the stockpiling of several tanker fillings of caustic soda serves the dosing systems. For the necessary stabilising of the pH value in the anaerobic reactors, the dosing systems have been equipped with motor-driven diaphragm dosing pumps of the MEMDOS DX series from Lutz-Jesco.



Dosing system with MEMDOS DX pumps

Motor-driven diaphragm dosing pumps are designed for the reliable and precise dosing of fluids in process sequences for applications with low pressures and high dosing quantities. The suitability of the pumps for diverse media and applications is also supported in particular by their design, which enables a wide range of materials to be used for the production of the individual components and/or modules. For aggressive media those components coming into contact with the media, such as dosing head, diaphragms or valves are offered made from materials such as stainless steel, PVC or PVDF. Depending on the design, with diaphragm dosing pumps, outgassing or shear sensitive media can also be dosed. Thanks to a robust 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 MEMDOS is also available with double diaphragm system. This prevents any uncontrolled leakage of media, even if the dosing diaphragm is worn.

VERSATILE AND FLEXIBLE

The MEMDOS E is used when the integration of the pump in controls or control circuits is required. For constant dosing without control, the motor of MEMDOS E is directly connected to the terminal box. A variety of three-phase and alternating current motors are 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 intelligence of the MEMDOS DX is derived from the well-proven series of MAGDOS DE/DX solenoid diaphragm dosing pumps. The control of the MEMDOS DX permits a versatile adaption to a variety of control signals and system monitoring equipment. It controls e.g. the reserve of metered medium by means of advance and empty signal alarm. The signals required for the external activation of the pump can be both simple potential-free closing contacts from water meters or controllers as well as analogue 0/4 ... 20 mA signals. Depending on the version, the MEMDOS DX can be adjusted variably between 0 and 142 strokes/min.

for internal control. One single stroke is executed for each cycle.

As an option, MEMDOS DX Net allows for a connection to an Ethernet. There is also the possibility of batch dosing.

All dosing systems in the entire waste

water cleaning installation are monitored by a process control system in the central control room, target and actual values are recorded and process-relevant faults are signaled immediately to the operating personnel.

Lutz-Jesco dosing pumps can today be equipped for all possibilities of modern data exchange in demand in the market. An interfacing to industrial networks is also possible. //

KÖNIGSBAD OPENS ITS GATES

UNCLOUDED BATHING FUN FOR YOUNG AND OLD



Outside view of KönigsBad

In June of this year the KönigsBad was opened in Forchheim. Not only an indoor adventure pool, but also an outdoor pool facility and a sauna landscape guarantee unclouded bathing fun for young and old.

To keep the water parameters in a perfect state at all times, the TOPAX DX measurement and control equipment was installed in the KönigsBad. These multi-channel controllers monitor the so-called auxiliary hygiene parameters of free chlorine, bound chlorine, pH value, Redox potential as well as the temperature. The disinfection of the bathing water is carried out

by dosing chlorine gas into the bathing water. This combination represents a safe solution and is able to react at any time to fluctuations of the water parameters.

In the field of engineering, innovation and new technologies have also been implemented by the building owners. Here, not as is normally the case, the bathing water is filtered with a sand filter, ultrafiltration modules carry out the filtration of the bathing water and ensure for sterile water. Of course dosing technology from Lutz-Jesco is also used on these filter systems for the chemical flushing of the diaphragms.

Through the use of the membrane filtration, space could be saved in the engineering room. The saving on space was also noticeable on the setup of the measurement, control and dosing technology. Because of the short routes these could be arranged centrally in the technique. This simplifies the operation and enables a fast overview of the modes of operation of the systems.

The use of a central building control system enables the personnel to intervene in the dosing technique directly from the control room. Here the Lutz-Jesco systems have been connected directly via bus. The

use of this technique consequently saves time and personnel.



Lutz-Jesco measurement, control and dosing technology

Because of the technical outfitting of the KönigsBad with the latest technology it can be drawn as a summary, that here too Lutz-Jesco has been able to set clear accents with its products. //

SWIMMING LIKE IN THE DEAD SEA

NEW BRINE FLOATING POOL IN SEEHOTEL BINZ-THERME RÜGEN

Swimming like in the Dead Sea - You can experience this feeling in the Seehotel BINZ-THERME Rügen.

In June of this year the new covered outdoor pool of the sea hotel was completed after 9 months of construction. The 78 m² large swimming pool is filled with healing water with a high mineral content from the richest source of sea coast iodine in Eu-

rope, discovered in the 90's during drilling operations. The special feature is, that the water has the same original purity as the ancient brine at a depth of over 1000 metres. Due to its high mineralisation, the 220 million year old healing water pumped from 1222 metres containing io-



Opening of the outdoor pool

dine and fluoride is blended with pure glacier water from 300 metres. The bathers can sense a buoyancy of the body in the 32 °C warm water, caused by the high brine content. This buoyancy relieves joints and intervertebral discs and the skin becomes smooth and soft. In addition the brine sup-

ports dermatological treatments as well as therapies for various respiratory system illnesses.

The disinfection of the swimming pool water takes place with four Technostar 2000 AT electrolysis systems. These systems use salt as a resource, whereby even

a small salt content of 0.2 percent is enough to produce sufficient hypochlorous acid and safely disinfect the swimming pool water. The exact control of the disinfection is carried out by the EASYPOOL water sampling stations. //

AQUINA S.R.O. - SPECIALIST IN WATER TREATMENT

PRESENTATION OF THE CZECH AGENCY



Company building of aquina, s.r.o. in Proßnitz, Czech Republic

Aquina, s.r.o., the Czech agency of Lutz-Jesco, was founded in 1997 as a specialist in the field of water treatment. The

company head office is located in Proßnitz, approx. 250 km south-east of the capital of the Czech Republic, Prague.

In the first years the program of deliveries and services mainly comprised sof-

tening plants.

The Lutz-Jesco diaphragm dosing pumps of the MAGDOS series have been sold by aquina, s.r.o. since 2002. Due to increasing inquiries in recent years the range of products has been expanded with

other dosing pumps, centrifugal pumps, chlorinators as well as measuring and control technology from Lutz-Jesco.

Besides customers in the sectors of swimming pool and drinking water treatment, mainly heating systems and hotels are supplied with the Lutz-Jesco products.

In the past 13 years aquina has been able to develop to become one of the largest suppliers in the field of water treatment in the Czech Republic due to the versatile delivery program.

In future aquina s.r.o. will also optimally advise our Czech customers in matters of water treatment! //

QUALITY AND KNOW-HOW FROM A SINGLE SOURCE

TECHNOPOOL HAS BEEN INTEGRATED INTO THE LUTZ-JESCO GROUP

At the start of the new year the subsidiary company Technopool Schwimmbadtechnologie GmbH was integrated 100 % into the Lutz-Jesco Group.

The range of services provided by Technopool Schwimmbadtechnologie GmbH includes the conceptual design, creation and the sale of systems, equipment and products for disinfecting swimming pool water based on salt water electrolysis. Technopool systems have proven their

worth for many years in the private sector, in hotel installations, therapeutic and exercise pools, as well as municipal and commercial indoor and outdoor pools.

You can obtain the reliable Technopool products immediately from Lutz-Jesco, as the Technopool brand continues to exist.

We look forward to continuing our good collaboration with you! //



www.technopool.de

CONVENTION AND EXHIBITION DATES

+ 4th Österreichischer Kleinkläranlagentag, 23.09.10, Vienna

+ interbad 2010, 13.10. – 16.10.10, Stuttgart

+ Internationaler Bäder-Kongress, 09.11.10, Baden-Baden

+ DVGW Meistererfahrungsaustausch, 07.12. – 08.12.10, Travemünde



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