



// DIVING INTO THE NEW SWIMMING  
POOL SEASON WITH  
INNOVATIVE TECHNOLOGY

// POSITIVE DEVELOPMENTS  
IN THE STANDARD PLUS AREA

// APPRENTICE EXCHANGE  
PROGRAMME IN  
THE LUTZ HOLDING COMPANY

// WATER TREATMENT FOR  
PUBLIC SWIMMING POOLS

## LUTZ-JESCO UNVEILS NEW DOSING PUMP

THE NEW MAGDOS LD WILL BE UNVEILED FOR THE FIRST TIME AT THE AQUANALE TRADE FAIR

At this year's aquanale, from 22 - 25 October 2013 in Cologne, Lutz-Jesco will be launching its new MAGDOS LD solenoid diaphragm dosing pump on the market. Solenoid diaphragm dosing pumps play an important role in reliably and accurately dosing of liquids in process sequences. They are appropriate for low-pressure

applications and small dosing quantities.

MAGDOS LD is available in seven power ranges. The capacity range extends from 0.5 to 15 l/h with back pressures up to 16 bar. Double-ball valves ensure accurate dosing. To adapt the dosing performance, the stroke frequency can be adjusted manually or via

an external control contact.

Several different materials and connections are available for the suction and discharge side, depending on the specific applications. The use of adapted materials allows the MAGDOS LD to be used in most process applications.

A matching accessory set consisting of 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.

### **SIMPLE TO USE AND SPACE-SAVING**

Thanks to the sturdy, low-maintenance solenoid drive, the media being supplied (acids, alkalis, coagulants and flocculants, for example) are reliably and accurately dosed.

The MAGDOS LD doesn't just impress with its elegant design,

the graphical display as well as the dosing pump's operation using the integrated keyboard make it easier to use.

The dosing pump is compact and, thanks to the small mounting area, can be integrated into every dosing system in a very space-saving way. It can be mounted in three different positions without further attachments: standing, left- or right-oriented on a wall. //



## **DIVING INTO THE NEW SWIMMING POOL SEASON WITH INNOVATIVE TECHNOLOGY**

### **THE NEWLY DEVELOPED MAGDOS LK IN USE WITH THE BERLINER BÄDER-BETRIEBE**

Shortly before the start of the new indoor swimming pool season 2013/2014, Lutz-Jesco received the order from the Berliner Bäder-Betriebe to replace an existing installation for dosing concentrated sulphuric acid.

At the heart of the dosing system are two solenoid diaphragm dosing pumps of the newly developed model



**Dosing system with two mounted MAGDOS LK**

MAGDOS LK 2 in the PVC version. One pump doses into the water circuit of the pool for swimmers, the second into the circuit of the pool for non-swimmers.

### **THE IDEAL SOLUTION**

In this context, the MAGDOS LK with its comprehensive equipment and straightforward operation is the ideal solution. Both pumps are connected to the control system by means of the integrated contact input and corresponding cables. The suction lines with pre-empty and empty detection that are connected to the corresponding level inputs on the MAGDOS LK ensure the requisite process reliability if a metered medium container needs to be replaced. The length of both suction lines is adjusted to permit the use of containers of different sizes.

Due to local conditions, both dosing pumps are mounted on a shared wall console and are thus convenient to operate. Two type PDS 80 pulsation dampers minimise line pulsations.

To keep the system compact and manageable, these are screwed onto a PVC plate, which in turn was fitted to the wall console. This keeps both dosing circuits within the same field of vision. The output lines on the pulsation damper are con-

nected to the existing system connections in the indoor bathing pool.

Once the installation was complete, Lutz-Jesco commissioned the system. The integrated venting function is useful when it comes to filling the system. After venting, pulse operation is activated and the correct setting determined for each pump. In this case, the 'pulses per stroke' dosing type was selected. The setting can easily be changed if customers want to use a metered medium of a different concentration.

An added benefit of the MAGDOS LK is its ability to operate in ECO-mode. This involves reducing the current sent to the pump, which conserves the material and consumes less energy. Although the possible pumping back pressure falls, ECO-mode was the perfect solution for the installation in the "Zingster Straße" indoor bathing pool, which uses a maximum system pressure of 1.5 bar.

After the level inputs on the dosing pumps had been activated and a visual inspection for leakages performed, the system was handed over to the satisfied customer. //

## POSITIVE DEVELOPMENT IN THE STANDARD PLUS AREA

### RISING DEMAND FOR PRE-ASSEMBLED DOSING SYSTEMS



Plate-mounted dosing system with MAGDOS LK pumps

The focus over the past few months has been on developing and putting into operation tank-mounted dosing stations with a volume of up to 2000 litres

The Standard Plus department was founded around four years ago and is developing in a very positive direction. Soaring demand for pre-assembled assemblies over the past few years has resulted in a noticeable growth in sales.

The Standard Plus team is tasked with combining individual Lutz-Jesco products to create a self-contained and functional assembly that is specifically designed to meet the requirements set by the customer. The scope of services ranges from development through to the delivery of plant assemblies all the way to the commissioning of complex dosing systems with customised plant control, process visualisation, production data acquisition and an interface to the process control system.

and wall consoles with up to four dosing pumps. The process of taking customer requirements and chemical compatibility into account called for the processing of PVC, PE, PP and stainless steel in all sizes and nominal widths.

The scope of delivery also includes comprehensive documentation such as a description of the unit, part lists, operating instructions, production drawings, P&I schedules, terminal plans, wiring diagrams and 3-D drawings. These are already created during the detailed engineering phase and support the planning of the complete system.

The plan for the coming months is to accelerate development of customer-oriented solutions for chlorine dioxide systems and other disinfection methods including associated metrology and control technology.

The completely revised MAGDOS, MEMDOS and MEMDOS SMART pump series also open up numerous additional and completely new applications for intelligent dosing technology solutions. Consequently, Lutz-Jesco looks forward to many more interesting assignments for the Standard Plus team! //

## APPRENTICE EXCHANGE PROGRAMME WITHIN THE LUTZ HOLDING COMPANY

### TWO DAYS OF COMPLETELY NEW IMPRESSIONS AND EXPERIENCES

The firm Karl Lutz Maschinen- und Apparatebau established in 1954 and now known as Lutz Pumpen with its head office in Wertheim (Baden-Württemberg) is an established manufacturer of complete systems covering all aspects of transferring and filling fluids.

In addition to a permanent staff of around 130, Lutz Pumpen employs 12 apprentices – the perfect scenario for arranging reciprocal visits between apprentices.

Full of anticipation, our seven apprentices set off for Wertheim at the end of March. After a warm welcome on arrival, our apprentices attended a presentation that gave them a first impression of Lutz Pumpen.

This was followed by a tour of the offices and the production facility. Along with the scale of production, it was the modern high-bar warehouse that was particularly impressive. The production hall at Lutz Packaging represented completely new territory for our apprentices. Here, the company manufactures glass ampoules and bottles.

On the second day, all of the apprentices had the opportunity to take a closer look at a company department of their choice.



Across the most diverse departments, the apprentices were given an understanding of the processes and activities. This revealed not only the similarities but also the differences in working procedures at the two companies – an interesting experience.

Overall, the two days proved to be highly informative and exciting - our apprentices were introduced to many new faces and gained an impression of the activities at Lutz Pumpen. A return visit by the Wertheim apprentices to Wedemark is planned for the future. //

# WATER TREATMENT FOR PUBLIC SWIMMING POOLS...

## AS PER THE REVISED DIN 19643 STANDARD

All swimming pools that are operated commercially or are open to collective use by the wider community, e.g. swimming pools in clubs, hotels or residential communities, are designated as public swimming pools.

Today's bathing facilities offer a wide range of attractions. In particular, modern bathing facilities often feature salt water pools or hot jacuzzis with water massages, fountains, slides or counter-current swimming pools along with various sauna and wellness installations. Last but not least, these bathing houses also include restaurant facilities. Water attractions combined with higher water temperatures call for more complex technical measures to treat swimming pool and wading pool water so that it meets the required hygiene standards.

The objective of every water treatment plant for swimming pool and wading pool water is to ensure a constant high quality of pool water in terms of hygiene, safety and aesthetics such that damage to human health, particularly due to pathogens, is not to be feared through its use.

### DIN SERIES 19643

The treatment of swimming pool and wading pool water is governed by DIN Series 19643. The responsible DIN working group "swimming pool water" was established in 2005. The Deutsche Institut für Normung e.V. (DIN) appointed 29 members and five permanent guests as experts to the committee assembled from all interested parties. It then tasked the

committee with revising the DIN 19643 standard and updating it to incorporate the most recent findings and developments. The standard describes the generally acknowledged state of the art with regard to the treatment of pool water and the process combinations that are adequately tested in practice, scientifically validated and recognised by the majority of specialists.

For the revised standard, a new open form of standard series was selected to facilitate the integration of future supplements. Consequently, the committee is already working on an application to standardise the bromine-ozone process or an application for floating pools.

### REVISED VERSION OF DIN 19643

The revised version of DIN 19643 is attracting broad interest outside Germany. For this reason, an English edition of the standard is due to be published shortly.

The changes in the revised DIN 19643 standard will be presented to you by Mr. Thomas Beutel, Lutz-Jesco, together with Mr Alexander Reuß, Ospa Apparatebau Pauser, and Mr Jürgen Elgg, Wassertechnik Wertheim, at the 5th Cologne Swimming Pool and Wellness Forum. The forum coincides with the aquanale trade fair and attendance is free of charge. Those who are interested in gaining overview of all changes can order the standard from Beuth Verlag or wait for the commentary on DIN 19643, which is currently being drafted.

### KEY CHANGES IN THE REVISION

#### PART 1 OF DIN 19643

- + Requirements for filling water
- + Plan of measures for Legionella sp.
- + Upper value for bromate 2 mg/l
- +  $\Sigma$  chlorite + chlorate of 30 mg/l
- + Arsenic concentration of 0.2 mg/l
- + Adjusting the pH-value
- + Spa pool, alt. ultrafiltration
- + Pool volume flow QB new
- + Chlorine electrolysis in in-line operation
- + Partial load operation during operation

#### PART 2 OF DIN 19643

- + Parts 2 and 5 (1997) are merged
- + Load capacity factor k (k-value) 0.5
- + PAC for flocculation included
- + Filtration velocity of 30 m/h for all types of water
- + UV radiation new

#### PART 3 OF DIN 19643

- + Parts 3 and 4 (1997) are merged
- + Process combination with ozone
- + Load capacity factor k (k-value) 0.6
- + Ozone control in accordance with the requirements of Part 4 of DIN 19643
- + New standard part with ultrafiltration
- + Load capacity factor k (k-value) 1.0
- + Operation as dead-end filtration //

### CONVENTION AND EXHIBITION DATES

+ aquanale, 22 – 25 October, 2013 Cologne

+ 5th Cologne Swimming Pool and Wellness Forum,  
22 – 25 October, 2013 Cologne

+ BDS Landesfachtagung, 08 – 09 November, 2013, Eibenstock



EDITOR: Lutz-Jesco GmbH / P.O. Box 100164 /  
30891 Wedemark / Germany

www.lutz-jesco.de

CONTACT PERSON: Kathleen Klettke /

Phone: +49 5130 5802-135 /

Fax: +49 5130 580268 /

E-mail: kathleen.klettke@lutz-jesco.com

EDITORIAL STAFF: Alexander Bischof, Nadine Lehmann,  
Thomas Beutel