

Safe disinfection in Kulmbach

THE SWIMMING POOL IN KULMBACH FEATURES SAFE DISINFECTION

Kulmbach, a small town in Bavaria, has approximately 27,000 inhabitants and is also called the “secret capital of beer”. The town has a lot to offer in the cultural area, for example, the historic Plassenburg (the Plassen Castle). In addition, the town has manifold possibilities for leisure time activities, such as an indoor and an outdoor swimming-pool with a skating rink close-by.

In June 2008, there was an incident at the ice rink: poisonous ammonia gas escaped through a leakage in the technical installation. 50 people in the adjacent outdoor pool were hurt. Fortunately, most of them could go home after having spent a short period of time in medical care. This incident has caused the town to have all leisure facilities checked for potential security risks.

WBG, a local water treatment company, was asked to check the chlorine gas dosing unit in the swimming pool and to look for possible alternatives. As WBG had successfully cooperated with Grundfos Water Treatment (at that time still called Grundfos Alldos) in the past, they approached us to find a safe and reliable solution to replace the chlorine gas installation.

THE SITUATION:

As chlorine gas units were installed in both, the outdoor and the indoor swimming pool, a new chlorine gas dosing system would not have been a real alternative. Disinfection with ozone or UV was also not an option as both methods need additional chlorine disinfection to maintain the chlorine content required by the European Badewasserverordnung. And if you need chlorine

TOPIC:

The swimming pool in Kulmbach features safe disinfection

LOCATION:

Kulmbach, Germany

COMPANY:

City of Kulmbach

disinfection in any case, why not use chlorine bleaching for the complete disinfection process? As investment costs would be low, the only flaw would be high running costs.

Therefore, Grundfos Water Treatment proposed the following: why should they not manufacture their own sodium hypochlorite on-site with an electrolyzer? You only need salt, water and electricity as basic materials and all of them are easy to handle and not hazardous in itself.

THE GRUNDFOS WATER TREATMENT SOLUTION:

To produce sodium hypochlorite electrolytically, you can either use an undivided cell or a membrane cell. The membrane cell offered by competitors has less salt consumption per kg chlorine, but their system is more complicated and therefore more susceptible to failures. It also has higher investment and maintenance costs. Therefore, the solution offered by Grundfos Water Treatment, an electrolyzing system with an undivided cell, was highly appreciated. Grundfos and WBG discussed and explained the offer to the operators in detail and in the end, Kulmbach opted for a Selcoperm electrolyzer made by Grundfos for both swimming pools.

The Selcoperm only requires minimal maintenance while running. This was an important decisive factor, as the staff should mainly take care of the guests and only spend little time on solving technical issues.

Grundfos and WBG delivered and set-up the following:

Outdoor swimming pool:

Selcoperm 500, max. 500 g Cl₂/h incl. salt and batch tank,
DDI 222-60 (swimming pool),
DDI 209-13,8 (children's pool)

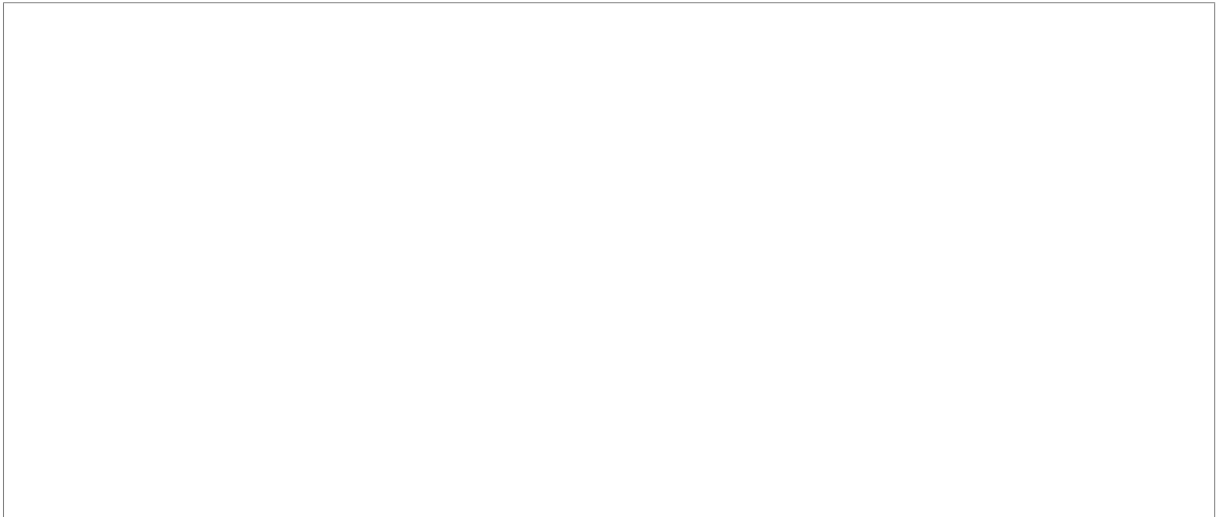
Indoor swimming pool:

Selcoperm 2000, max. 2000 g Cl₂/h, incl. salt and 5 m³ batch tank
1 x DME 940 l/h (swimming pool)
2 x DME 375 l/h (fun pool)
1 x DME 150 (children's pool)

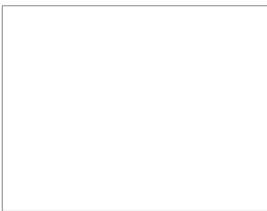
THE OUTCOME:

Both Selcoperm systems have run flawlessly since their installation three years ago. The limit values of the Badewasserverordnung are met at any time. Staff and operators have been very satisfied with the Grundfos systems and said that it was the right decision to install the two Selcoperm units.

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