

Grundfos pumps guarantee fun at Aquashow Park

Every year, all those who visit the Aquashow Park Hotel are greeted by new attractions and surprises. This year, the water park inaugurates two new rides and has chosen Grundfos pumps to boost the adrenaline of its visitors.

Summer is synonymous with heading south in search of the warmth ensured by the Sun. Algarve is one of the most sought-after beach destinations in Europe, however, in the hottest of days it is not only by the sea that tourists find amusement. In Quarteira, the Aquashow Park Hotel is now a national reference in water parks, welcoming as many as 11,000 people per day during the high season.

For over 16 years, the water park has been managed by Celestino Santos, a former civil construction entrepreneur. Since then, the Aquashow Park has grown, and today employs 160 collaborators (low season), but it has always remained true to the pride of being a family company. Every year, the goal is the same: to surprise the visitors with new services or new attractions. And, of course, 2016 was no exception, after inaugurating the biggest water slide in Europe in 2015, two new rides are now available: Twin Space Shuttle (Comboslide) and Aquakids. The first, an imposing red and yellow doubleslide, 17-metre tall and 178-metre long, includes two giant capsules with special effects inside. The second promises less adrenaline, but a lot of fun for the little ones and rest for the parents, offering, therefore, a vast area with different slides for children, where they can find mermaids, octopuses and giant mushrooms.

Behind the vibrant colours of the new slides, the decorations and the refreshing water, we find the mechanism which gives life to this entertainment and which is ensured by Grundfos pumps. Away from the sight of visitors, the system includes a

TOPIC:

Hotel and leisure: Water supply and water treatment

LOCATION:

Algarve, Portugal

COMPANY:

Aquashow park hotel

buffer tank, a pumping and treatment station, electric facilities and cabinets with control equipment, and compression and return pipes. Overall, there are 13 Grundfos devices which ensure water supply to systems, as well as water treatment for the two new rides of the Aquashow Park Hotel.

For the Comboslide, four Grundfos pumps were installed, models NB 150-315.1/302 and NB 125-250/315, with a combined flow rate of 1,140 m³/hour. At Aquakids, the engine room houses nine Grundfos devices, with the total flow rate amounting to 1,215 m³/hour: five NB 125-250/334 pumps, two NB 100-250/229, and two NB 100-250/265.

Durability and precision, in a short period of time

Having new attractions every year entails an added challenge for the Aquashow Park Hotel team. All novelties have to be designed and installed in record time, during the low season (October to April). This is also when weather is less kind and during a particularly rainy winter, like the one we had this 2015-16, the task is made more challenging. In this race against time, it is important to minimise failures. "In this project, it was important to provide service quality, satisfy customer needs, and complete the project on time, and, of course, complete it according to regulations so the relevant authorities would approved it", refers Gaspar Pedro, from Rolear, the company responsible for the project pertaining to electro mechanical and electrical equipment. For the engineer, "the tight regulations imposed on water parks contribute to enrich the technical aspects of the project, in works of this nature. Through out the seven months of the low season, during which installation takes place, we must keep in mind that we need to assign, at least, one month for the necessary inspections", he adds.

On part of the customer, the demand is clear: "We want a solid solution without problems", says Celestino Santos. Bearing this in mind, the project required a system which minimised failure and the need for maintenance, besides being energy efficient. For Rolear's production director, after a market analysis, Grundfos was the obvious choice. "It is the product that makes the difference, the best currently on the market", he confirms.

How to get a highly durable and efficient solution for pumps which work ten hours per day, for five consecutive months, and where nothing can fail? "We chose pumps with 4-pole motors, 1,450 rpm, which are less prone to wear, and which were optimised with help from Grundfos, in order to have maximum performance", explains Gaspar Pedro. "In the cases where it is was not possible to do so, we installed frequency converters to regulate energy needs, in other words, the motor only produces energy when necessary for hydraulic performance", he clarifies.

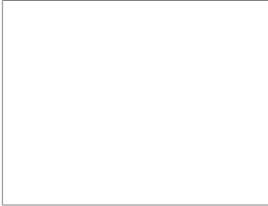
As a result of the low motor rotation, the noise level of the pumps is significantly decreased, which may not be relevant for those who are enjoying the rides, but is certainly important for those who work there.

Moreover, the fact that we are dealing with chemically treated water, for disinfection and pH correction, required the selection of equipment with non conventional characteristics. “Impellers are in bronze and the mechanical seal is custom made. It is a more expensive pump, but, under these conditions, there are gains in durability”, clarifies Rolear’s expert.

The new rides at the Aquashow Park Hotel are not the only ones employing Grundfos pumps. The Free Fall, the biggest water slide in Europe, also has equipment from this Danish brand fuelling the fun. The satisfaction is confirmed by Celestino Santos, who guarantees that “we haven’t had any problems with the pumps.”

The satisfaction of the Aquashow Park Hotel is complemented by the pride of Rolear’s technical team. They attest that the success of the installation resulted from product quality, but also from precise designing, which included Grundfos’ contribution in terms of equipment sizing, in order to optimise pump curve and obtain the best performance possible.

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