

EDITORIAL

PRODUCTION BUILDING
Investment and innovation

The building currently under construction at Tannheim near Memmingen in Germany is of almost gigantic proportions.



A floor area of 20 x 50 metres will create around 1000 m² of new production area in the building (which has a height of 20 metres) for the manufacture of stainless steel filter tanks and large-capacity tanks. All in all, this has meant investment on a scale of more than 900,000 Euros. Is this a risky investment in the current economic climate?

This question can be answered with an unambiguous 'no'. Indeed it is rather an investment in the future of a strong company which is an enthusiastic innovator. If the products are right and enjoy a leading position in the market, then half of the road to success has already been covered.

With good reason, top company management has the responsibility for quality policy. With well-trained, motivated employees who are open to what is new and for whom customer satisfaction has a meaning, the second half of the road to success should not be a problem either. Manfred Brugger

DRINKING WATER STORAGE**HydroSystemTanks are the winners**

Hydro-Elektrik GmbH has brought together the very latest manufacturing methods and the most modern hydrotechnics in its new „HST“ drinking-water storage system. The HydroSystemTanks guarantee the very highest drinking-water quality and safety – an aspect which these days is more important than ever for the suppliers! What is especially impressive is that for about the same investment costs the system is considerably cheaper to operate and in particular it is no longer necessary to refurbish water chambers. In the long term this represents an extremely economic solution.

For more than a hundred years drinking water has been stored in underground storage tanks made of concrete. This method has now encountered some serious competition. In the photograph, what looks like an agricultural barn is in fact an ultra-modern drinking-water storage facility. The building

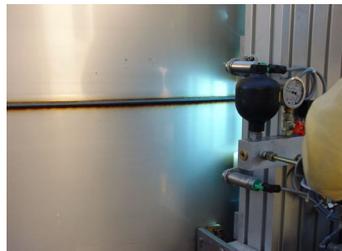


accommodates one or more stainless steel tanks, each of which can hold anything up to 800 m³.

The tanks, made of stainless steel plate at least 4 mm thick, are manufactured on the spot by a special process. Here the pickled and passivated stainless steel plate is processed directly from the coil. Like the welding machine, this semi-automatic production facility was specially developed by Hydro-Elektrik GmbH. The welding procedure – patent applied for – works at a speed of around 1.5 metres per minute, welding from the inside and outside simultaneously.

This results in a continuous, even and tension-free weld

seam. The seams are brushed clean and passivated, thereby



creating an outstanding surface of high quality. The tanks are constructed by the spiral welding process, working from bottom to top. Tanks up to 12 metres high can be built by this method. The conical roof and any necessary mounted components are also fitted during the process. This means that in the great majority of cases no scaffolding is required. Once the final height has been reached,



the cylindrical outer mantle is cut horizontal, the tank lowered and finally welded to the floor plate on the inside and outside. A view into the interior of the tank reveals the smooth surface finish of the stainless steel.



Once all mounted components and connections have been fitted to the tanks, a cleaning system especially developed for this purpose cleans the entire interior surface of the tanks at high pressure (up to 200 bar). Routine cleaning as well is carried out exclusively with this system. It only takes 20 – 30 minutes to clean a tank. It is not necessary for anyone to enter the tank. This means that no germs are carried into the tanks even during the cleaning process. All in all, this is a very economic and extremely hygienic system.

NEWS & TRENDS**WATER PURIFICATION FOR BURGAU**

Hydro-Elektrik has supplied the Swabian town of Burgau with a water treatment plant for iron removal, demanganisation, removal of arsenic and disinfection. Also supplied were sealing struc-

tures for three wells including well installation with integration of the complete system into the existing tank concept.

The value of this order is in the region of 750,000 Euros. The complete system went into operation in 2002.

WATER AND FUTURE

The World Bank has estimated that around \$600,000,000,000 will have to be invested globally in the water sector till 2010. In Asia and Latin America alone, the required investment will be around \$250,000,000,000 in each case.

NEW TVO 2003

The new Drinking Water Directive became law in January 2003. The subject of water treatment in particular is now being given more attention. This is ideal for our high-performance water treatment installations.

WWW.HYDRO-ELEKTRIK.COM

A new look on the internet

Since 1998 Hydro-Elektrik GmbH has had an informal showcase site on the world-wide web. The introduction of a content management system (CMS) facilitating maintenance of the contents was linked with a comprehensive relaunching of the site.

QUALITY MANAGEMENT

DIN EN ISO 9001 : 2000

DQS-certified

January 23rd, 2003 and the day had arrived. The German Management Systems Certification Society (DQS) inspected the quality management system which had been introduced at Hydro-Elektrik GmbH and passed it. As the certificate was handed over, the CEO, Bruno Bachhofer, said that the company's



CEO Bruno Bachhofer (left) congratulates quality manager Martin Heider

employees had always worked to a very high standard of quality. This awareness of quality would be even more evident outside the company now that the QM certificate had been awarded.

Hydro-Elektrik GmbH was amongst the first medium-sized companies to have its own site on the internet. However, the first site no longer reflected the nature of this innovative company. Nor was it a simple matter even to maintain the data. For this reason the change to a content management system meant the creation of an entirely new basis for the site. In addition, the contents have been considerably expanded, with some of the information being made available only to registered users. The new system is also easier to navigate and now has a search function.

Another useful feature is the automatic creation of a printed version allowing documents to be viewed in hard copy. Quite intentionally the site does not include any animations or other tedious bells and whistles. Instead the site should impress



by loading rapidly and by its informational content. The content management system (CMS) makes editing and maintenance of the site contents easier. This ensures that the site is kept right up to date for the site users. This applies not only to the web pages themselves but also to the associated pdf files.

In the password-protected part of the site, registered users can access and download further information. Users can register directly from the site page. Access data are then sent by email. The English version of the site is currently in preparation and will also be on-line in about 4-6 weeks' time.

INFORMATION REQUEST

- ... about HydroSystemTanks
- ... about the company
- ... Please give me a call

Name _____

Company _____

Address _____

Phone _____

Fax _____

E-mail _____

OZONE: WHAT IT IS, WHERE IT COMES FROM, WHAT IT DOES

Ozone as an efficient disinfectant and oxidation agent for water purification

Ozone is activated oxygen. It is created by the effect of activation energy on molecules of oxygen. In the natural world, this energy might be provided by a flash of lightning, for example. In the case of artificial generation in the ozone generator the requisite energy is supplied by strong electrical fields (high-voltage fields). The correct technical term for this process is corona discharge or even dark electrical discharge. In this way atomic oxygen is created in the high-tension field from the normally molecular oxygen and this atomic oxygen immediately

attaches itself back onto an oxygen molecule by a double bond. This substance is referred to as ozone. However, ozone is not chemically stable and breaks up again, releasing the oxygen atom. The reaction of this free atom of oxygen with the impurities in the water or its penetration into living organisms is what is ultimately responsible for the disinfective and oxidising effect of the ozone. Ozone disinfects the water and oxidises dissolved solids contained in the water such as iron, manganese and arsenic to create insoluble compounds. It also splits organic com-

pounds and makes them available for biological mineralization. This makes ozone one of the most efficient water purification agents.



Publisher
 Hydro-Elektrik group
 Angelestraße 48/50
 D-88214 Ravensburg
 Telephone +49 (0) 751 / 6009 - 0
 Fax +49 (0) 751 / 6009 - 33
 info@wasseraufbereitungssysteme.de

Editor
 Manfred Brugger
 redaktion@wasseraufbereitungssysteme.de

Layout
 Silvia Mesmer

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