

Grundfos pump factory puts its trust in EnwaMatic® Technology

The market-leading Scandinavian company for chemical-free water treatment is gaining a foothold on the German market.

At the beginning of the year Scandinavia's largest supplier for water treatment, ENWA Water Treatment AS, has opened a subsidiary in Germany. With its chemical-free, patented and TÜV-certificated EnwaMatic® Technology ENWA AS Deutschland, based in Bonn, offers an environmentally friendly and at the same time cost-saving alternative to chemical water treatment. One of the first customers ENWA convinced of the advantages of this innovative technology was the pump producer Grundfos. An EnwaMatic® bypass filter now ensures consistently high quality of the system water in the new heating plant at their Wahlstedt site.



The Grundfos pump factory in Wahlstedt has been equipped with EnwaMatic® Technology.

“Grundfos products represent modern, energy-efficient and sustainable technology, and we make the same requirements of our production sites. Thanks to the use of EnwaMatic® Technology, we will be able to set new standards in future with regard to energy efficiency and the reduction of emissions“, asserts Matthias Wiese, head of Repair and Maintenance at the Grundfos pump works.

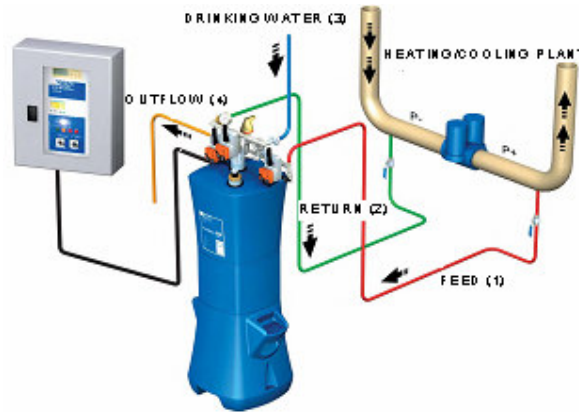
The Weishaupt Company was contracted for the refurbishment of the boiler plants and control technology. This optimisation was necessary in order to reduce the use of fossil fuels and the associated CO2 emissions.

With the Weishaupt Company as leading contractor, new burners, a Weishaupt-MKR control system for multiboiler plants and a new hydraulic system were incorporated. Another important component of the system was delivered by Enwa AS Deutschland - an EnwaMatic® bypass filter type EM1672. “Enwa has many years of experience in the water treatment sector and great engineering know-how“. The optimised heating plant was commissioned by Grundfos at the beginning of this year.

EnwaMatic® Technology in accordance with VDI 2035 offers many advantages in comparison with chemical water treatment.

The EnwaMatic® bypass filter system is incorporated into the main centrifugal pump in the system supply between suction and discharge. The high system temperatures support the processes taking place inside the EnwaMatic®. The differential pressure of at least one bar is used to create a reliable flow through the filter with a partial volume flow of the system water, without using any auxiliary energy. The standard EnwaMatic® bypass filters treat system water up to a system volume of 130 m³ as individual filter bodies – in the case of greater volumes, several filters can be incorporated into a

system. EnwaMatic® Technology triggers a self-regulating process which influences various properties of the water in accordance with VDI 2035. It regulates the pH-value of the water thus ensuring complete corrosion protection. The genuine reduction in water hardness effectively prevents the formation of deposits. At the same time, the EnwaMatic® eliminates the need for any kind of conventional sludge or particle filter, due to its high level of filtration (5 µ) and acts as a natural barrier to bacteria. The combination of the filter body and an automatic air separator means that even the tiniest micro-bubbles are removed from the system fluid. As a result of the optimised water properties, the operator benefits from the optimum heat or cold transmission, while the kind of long-term damage to systems described in VDI Guideline 2035 is avoided.



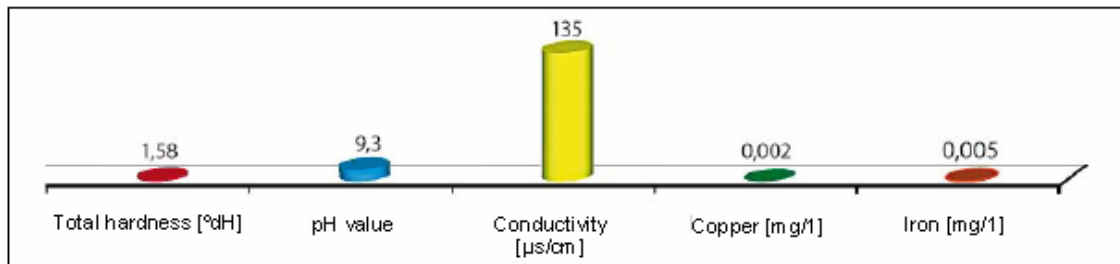
High system water quality guarantees cost-efficient operation of the Grundfos heating plant



Handing over of the water treatment plant by Björn Dörum (l.), Managing Director of ENWA Water treatment, to Frank Gries (r.), Manager of the Weishaupt branch in Hamburg and Matthias Wiese (centre), Head of Repair and Maintenance in Grundfos pump factory.

Since the new heating system has been commissioned, a constant heat output without deviation has been guaranteed. The EnwaMatic® bypass filter ensures long-term constant high quality of the system water. Depending on the existing water quality, optimum water quality can be achieved within a short time following commissioning of the plant. If the system is replenished with untreated fresh water, the filter media of the EnwaMatic® react and re-establish the original balance in a self-regulating process. Further advantages for Grundfos: The high efficiency of the water as an energy carrier results in

significantly longer service life of all plant components. The results of the latest laboratory analysis of May 2010 by the independent laboratory Eurofins, confirm optimum water quality in all respects.



The appearance of the water is clear, free from particles and floating matter. “The fixed running costs for maintenance of the EnwaMatic® are very low for the size of the plant. The maintenance intervals have been reduced to one per year! In addition, all of the components of EnwaMatic® Technology are extremely simple to maintain and install. The bypass filter can easily be incorporated into new or existing plants“, explains Christian Barth, Country Manager of Enwa AS Deutschland. “The low energy consumption, the low life cycle costs and the fact that all components are completely recyclable make this product particularly environmentally friendly“, adds Herr Barth.

Matthias Wiese: “Our pump production installation is a living thing; we are constantly changing and expanding the plant. With the EnwaMatic® and its self-regulating water treatment, any added water will always be adjusted to the high quality of the existing plant water.“

The results of the water samples speak for themselves, and the laboratory values confirm the optimal quality of the system water. “Due to this highly efficient operating mode, the system will have paid for itself in the near future“, states Matthias Wiese.



EnwaMatic® Technology: Water samples of a plant within a time period of 30 days

The advantages of Enwa-Matic® compared with chemical dosing, at a glance:

- No toxic or aggressive substances are added to the system fluid.
- Chemical additives are often a food source for bacteria
- Self-regulating process within the parameters of VDI 2035
- No negative effects on the water quality due to over- or under-dosing
- A “chemical cocktail“ of many different dosing substances with different effects is avoided
- The water is put into a natural balanced state

Following the successful trade fairs **SHK Essen** and **IFH Nürnberg**, Enwa AS Deutschland will be represented at the **DENEX® in Wiesbaden** and the forthcoming **GET Nord in Hamburg**.

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Video for EnwaMatic® under: <http://www.youtube.com/user/reeve8888#p/a/u/0/qXYSOiHxdPs>