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B. Braun counts on Reinhardt-Technik for Europe's most modern production facility for dialyzers

Dialysis filters are medical products with highest quality requirements. Reinhardt-Technik designed a new dosing technology for a completely automated production line in Germany, which ensures the customer process reliability and high production quality.



The dialyzer is important for the dialysis therapy of patients with renal insufficiency. It functions as an "artificial kidney" and takes over important functions of the natural organ. The dialyzer uses various physical processes to remove toxins from the metabolism and excess water from the blood.

B. Braun Avitum Saxonia GmbH, a member of the medical technology manufacturer B. Braun Melsungen AG, manufactures dialyzers for extracorporeal blood treatment, or dialysis for short, in three production facilities at their Dresden location. With the help of around 1000 employees, fibers are spun, housings are formed, assembled and packaged in Radeberg, Berggießhübel and Wilsdruff.

For the process-safe production of these complex and high-quality dialysis filters, B. Braun was looking for a competent partner for the automated processing and application of the 2-component casting and encapsulation material.

An exact dosing quality, the monitoring of process parameters such as temperature and mixing ratio as well as the communication of the dosing system with the higher-level factory control system were important requirements for the new system. These are specifications which ensure that the very strict process tolerances are followed and finally enable a reliable dialysis process for the patient.

During the evaluation phase, the medical experts at B. Braun made contact with Reinhardt-Technik via a specialized integrator in the pharmaceutical industry. The technical concept and the easy maintenance of



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the proposed dosing system were convincing right from the start. The dosing system was tested extensively in Reinhardt-Technik's technical center. After successful tests, the mixing system was adapted exactly to B. Braun's special requirements in several joint coordination rounds and integrated into the production line.

The application at B. Braun in Wilsdruff takes place in a clean room. The system prepares the mediumviscosity material outside the production area using temperature control and evacuation. The 2-component material is transported into the clean room via a long and complex piping system.

For the application B. Braun uses the "Conti Flow" gear metering system from Reinhardt-Technik. This system is integrated in a centrifuge and has servo-motor-driven precision pumps. The dynamic mixers dose fully automatically and precisely at the defined application points. Despite complex material supply, the system from Reinhardt-Technik works continuously with very high process accuracy.

High automation level and digital networking

Before commissioning, several test operations have been carried out at Reinhardt-Technik's technical center in Kierspe. In close coordination between all experts, the system was completely integrated into the production line at the Wilsdruff factory by the specialists of Reinhardt-Technik, optimized and tested. For this reason, regular coordination and optimizing rounds were conducted on site and virtually.

The data exchange and the communication of the dosing system with the control system was specifically adapted by Reinhardt-Technik to the requirements of B. Braun and integrated into the automated production line. The system is basically completely automated; the operators access the dosing system via the higher-level control system. As expected from B. Braun, only very few interventions are necessary during regular operation. A complex system of this type requires intensive operator training, which Ralf Müller from Reinhardt-Technik organized and which was described by B. Braun as "the best training on a system we have had so far".

The dosing system manufacturer also supplies subsequent solutions and optimizations at very short term and B. Braun confirms to have taken the right step with Reinhardt-Technik.

The customer's goals fulfilled

The process accuracy of the system, the fulfillment of all medical technology requirements, as well as the readiness and skill to be actively involved in the special process were important conditions for B. Braun in



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this project.

"The specialists from Reinhardt-Technik have implemented all requirements to our complete satisfaction. The impressive know-how, the excellent dosing technology and great support during commissioning enabled us to run a continuous production in three shifts after a short time. We have a dosing system that fully meets our quality requirements for a medical product. Reinhardt-Technik has therefore fulfilled our high requirements," says Thomas Pritzke, project manager at B. Braun in Wilsdruff.

This project was also a special experience for Reinhardt-Technik, as regional manager Michael Müller explains: "Dialysis filters are medical products with the highest quality standards. It was exciting for us to work together with the experts from B. Braun and to use all our experience in this project. With creative solutions we were able to implement ideas and meet the high demands".

The application solution developed especially for B. Braun ensures continuous process reliability and is digitally networked with the higher-level system. With the installation at B. Braun, Reinhardt-Technik has proven that a high degree of automation and optimized production processes will enable cost-intensive products to be manufactured in Central Europe in the future.



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About Reinhardt-Technik GmbH:

Within the WAGNER Group we represent the worldwide competence center for bonding and sealing. We are one of the leading suppliers of dosing and mixing technology for the processing of liquid plastics in the areas of bonding, sealing, potting and surface coating. Furthermore, we offer our customers the complete automation of the systems in cooperation with partners as a complete solution.

More information at www.reinhardt-technik.com

About WAGNER Group:

J. Wagner GmbH is one of the world's leading manufacturers of equipment and systems for surface coating with powder and liquid lacquers, paints and other liquid materials. The WAGNER Group portfolio also includes bonding, sealing and encapsulation technology including injection moulding with the brands WAGNER, Titan, Walther Pilot, Reinhardt-Technik and CA Technologies. The beginnings of the company go back to the year 1947. Today the innovative coating technologies of WAGNER are used in industry as well as by craftsmen and do-it-yourselfers and set standards in the industry. The WAGNER Group is represented worldwide by around 1,700 employees in 16 operative companies and around 400 agencies. Owners of the WAGNER Group are the Josef Wagner Foundations, which pursue exclusively charitable goals.

More information is available at www.wagner-group.com

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