

30 percent material savings in silo coating: Oltrogge establishes electrostatic application at Awila Anlagenbau.

Bielefeld, May 2022: When coating large or particularly angled parts, it is often difficult to achieve a uniform coating thickness. This is especially true for large industrial plants such as silos for animal feed and grain as well as biomass pellets. At Awila Anlagenbau GmbH, the long-standing service partner, Oltrogge GmbH & Co. KG from Bielefeld, installed a system for electrostatic coating. With this, a uniform coating thickness is now achieved on all components and, in addition, material and costs are effectively saved.

TAILOR-MADE SOLUTIONS FOR CUSTOMER-SPECIFIC REQUIREMENTS

In many industries, there are preliminary, intermediate or end products that have to be transported, metered or stored in the form of powder or as bulk goods. This applies to food and animal feed products as well as to color pigments, pharmaceutical substances, cement or coal. Silos of the appropriate size are ideal for storing these products. For more than 100 years, Awila Anlagenbau GmbH from Lastrup in Lower Saxony/Germany has been planning and building such plants and assembling them in 57 countries worldwide. For its customers, who come from the feed, plastics and food industries, the company realizes turnkey and, on request, modular small to large feed plants as well as plants for grain handling. Depending on the customer's wishes and adapted to regional conditions and requirements, Awila creates both comprehensive overall solutions and individual components.

Tomas Schulze, Head of Production and Manufacturing at Awila, sums up the company's claim: "Our primary goal is to multiply our customers' success. We are always on the lookout for innovative solutions to effectively help them refine valuable raw materials into high-quality products." For example, employees have in-depth know-how in mechanical and thermal process engineering related to conveying, cleaning, sorting, grinding, mixing, dosing, sanitizing, drying, and shaping raw products, among other things.

FROM AIRLESS TO ELECTROSTATIC COATING

As a reliable technology partner, Awila develops and builds silos, plants and individual components for a wide range of industries. A special challenge for the employees lies in the coating of the often very imposingly dimensioned plants. Up until now, Awila has used the tried-and-tested airless technique for this work step. In this airless spraying process, the spray material is fed to the airless spray gun via a hose using a high-pressure pump. Due to the high pressure, the material is atomized very finely and effectively applied to the surface.

During a product demonstration by its long-standing service partner Oltrogge from Bielefeld, Awila got to know another painting process, as Marco Dahlkötter, area sales manager at Oltrogge, recalls: "We were able to get Awila interested in electrostatic coating during a product demonstration and provided our customer with this system for a few days. This allowed both coating processes to be tested live and in actual application in a direct comparison." A practical test that was completely

convincing at Awila: The customer bought the system, which was fully established at the Lastrup site just a few days later.

QUALITY PRODUCTS FROM OLTROGGE PARTNER WAGNER

For electrostatic painting, Awila now uses a system from Oltrogge partner WAGNER. It consists of an electrostatic manual gun of the latest generation and the corresponding control unit. In addition to their robustness and comfortable, ergonomic handling, the GM 5000 manual guns offer a soft and homogeneous spray jet for high coating quality and a very high application efficiency. "Thanks to the intelligent control unit, all parameters in the coating process can be adjusted in real time," explains Reiner Feldkamp, application engineer at Oltrogge. "This ensures that the gun delivers optimum performance under any condition." For example, he says, setting the voltage and amperage in accordance with the material properties, ambient conditions and workpiece requirements is essential for this. The control unit also ensures maximum safety in the electrostatic coating process and monitors the gun's grounding: if the gun's grounding is interrupted, the high voltage automatically switches off.

ELECTROSTATIC COATING: MORE EFFICIENT, SUSTAINABLE AND COST-EFFECTIVE

The switch from airless to electrostatic coating has paid off for Awila. "We observe that, especially on large parts, the coating thickness is now perfect: thanks to the new technology, the paint is optimally distributed in an even thickness at all times," says Tomas Schulze. "For small or angled parts, we also notice a significant material saving of 30 to 50 percent compared to the conventional coating process!" In this process, for example, the attraction of the grounded workpiece to the charged paint droplets - depending on the paint, workpiece geometry and set parameters - ensures significantly less overspray and thus a higher application efficiency and more sustainable as well as cost-effective use of material. Paint savings, lower disposal costs and lower VOC emissions lead to a rapid payback of the system and provide further arguments that the investment in electrostatic coating at Awila was absolutely the right decision.

PICTURES

Pictures: ©Oltrogge



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Until now, Awila used the proven airless technology for coating. Awila learned about electrostatic coating during a product demonstration by its long-standing service partner Oltrogge. A practical test was completely convincing.



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ABOUT OLTROGGE GMBH & CO. KG

Founded in 1866, Oltrogge GmbH & Co. KG develops efficiency-enhancing solutions for existing or new production routes in industry. The Bielefeld-based company, which is managed by Daniel Oltrogge and Marcus Scheiber, makes production processes safe and reliable. As an engineering partner for technically sophisticated industrial solutions, Oltrogge takes care of the optimization of existing plants and the design of new production routes with holistic service. With four locations nationwide, in Bielefeld, Aichach, Altenburg and Mülheim a. d. Ruhr, and expertise from over 150 years in the fields of surface and compressed air technology as well as machine tools, Oltrogge supports its partners directly on site and thus promotes sustainable production success. With 150 employees, the medium-sized company generates annual sales of 30 million euros (2019) and advises around 15,000 industrial customers from various sectors worldwide.

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