



## Customer Report

August 2019

### **WAGNER AquaCoat saves 50% paint on couplings**

**After only four months, the investment in a new liquid coating system with electrostatics paid for itself. 50% material savings, improved coating quality and high process reliability make the AquaCoat system from WAGNER, realized by Mewes Oberflächentechnik GmbH, the perfect application solution for ZF in Bielefeld.**

#### **The challenge:**

ZF Friedrichshafen AG, headquartered in Friedrichshafen (Germany), is a globally active technology group that supplies systems for the mobility of passenger cars, commercial vehicles, and industrial technology. The company employs 149,000 people worldwide at approximately 230 locations.

In Bielefeld, ZF reconditions used clutch units for commercial vehicles. In June 2017, the Bielefeld location was awarded for its sustainable product refurbishment for the first time. To date, a large part of the product range has been certified according to the cradle-to-cradle principle at the ZF location in Bielefeld. Around 95 percent of the materials used in an aggregate are reused for recycling purposes.

Reprocessing includes first-class coating of couplings for trucks in order to prevent corrosion of the reworked parts in the long term. ZF has been using a water-based electrostatic coating system for several years. However, this installation no longer met the current requirements in terms of paint consumption and cleaning effort. ZF decided to invest in a modern, efficient and resource-saving system.



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### **The solution:**

ZF had already made positive experiences with Mewes Oberflächentechnik GmbH in other projects. In this case, too, the experts from Wedemark-Brelingen in Lower Saxony (Germany) proved to be excellent planners and project partners. They recommended ZF's AquaCoat system from WAGNER for the electrostatic processing of water-based paints. In the laboratory at Mewes, test coatings with clutches were carried out together with the users. The concept, coating results and handling of the WAGNER application convinced the ZF managers right from the start.

For ZF, an AquaCoat 5010 automatic system with two GA 5000EACW electrostatic automatic spray guns was custom configured. Mewes also developed a pneumatic pre-air control system. The compressed air supply cabinet specially designed for this application is used to adjust the atomizing and forming air of the electrostatic automatic guns centrally and externally, as well as to adjust the spray material quantities. The exact and repeatable adjustment saves the user time and increases the process reliability of the application.

WAGNER always sets a high value on easy handling when designing its liquid paint equipment. The housing of the GA 5000 automatic gun can be removed quickly and safely. The nozzle and air cap are also quickly replaced and can be rinsed without switching off the material and compressed air. The production process is thus only minimally interrupted. The AquaCoat 5010 control unit has two safety systems with mechanical locking of the interior during application.

### **The customer experience:**

In March 2019, Mewes installed the new painting system at ZF Bielefeld within one day, and operation started the following day without a hitch. On-site user and service training with ZF personnel rounded off the Mewes service package.

The technical concept with the WAGNER application, the excellent coating results at Mewes, their competent advice in the planning phase and the comprehensive after-sales service offer convinced ZF. WAGNER's liquid paint application has also proven itself in the field. "Material consumption alone was reduced by 50 percent thanks to the high application efficiency of the AquaCoat system. In addition, the overspray was significantly reduced, which minimizes cleaning and filter costs," confirms Alexander Biehl, Project Manager in Process Management at ZF. Overall, the VOC content and the associated disposal of solvents and paint residues dropped considerably.



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Thanks to the excellent economic efficiency, the investment paid for itself after only four months. The support and service provided by Mewes Oberflächentechnik GmbH and the high application quality and user-friendliness of WAGNER's liquid electrostatic system consistently meet the strict requirements that ZF places on its suppliers and their products.



Left: Interior view of the AquaCoat 5010 automatic system with feeding pump and hobcock cover with compressed air gear agitator



Right: Electrostatic automatic gun GA 5000EACW in the coating line



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#### About WAGNER:

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 1,600 employees in 15 operative companies and around 300 agencies. Owners of the WAGNER Group are the Josef Wagner Foundations, which pursue exclusively charitable goals.

More information can be found at [www.wagner-group.com](http://www.wagner-group.com)