

KABE Powder coatings

Low temperature powder coating system from KABE maintains the value of vineyard machines

The vineyard machines produced by ERO are used all over the world to automate the grape harvest. The components of these machines require the best possible corrosion protection because of the weather conditions, the tartaric acid from the grapes and the chemicals that are used. ERO relies on KABE's proven system consisting of the KORROFLEX primer and the POLYFLEX® low temperature powder coating. The performance of this combination lives up to all the promises!



Picture: ERO GmbH

The self-driving grape harvesters from ERO need excellent corrosion protection.



KARL BUBENHOFER AG



ERO GmbH is Germany's largest manufacturer of machinery and equipment for use in vineyards. Their products, including their impressive self-driving grape harvesters, are exposed to the tartaric acid produced by the grapes and to other chemicals. Another challenge is sea transport, as Georg Ehlen, production manager at ERO explains: "We export our machines to the USA, Australia and South Africa. Reliable corrosion protection is essential while they are on-board ship."

Coating shop integrated into the new factory

In 2014 the management team at ERO began planning to centralise the company's production and to build a new plant on a greenfield site. They opted for an electrostatic powder coating to improve the resistance of their products to corrosion, because the two-component liquid paint that had previously been used often provided inadequate protection against aggressive tartaric acid. In the past ERO had outsourced its powder coating. Having decided to bring it back in-house, the company needed to get up to speed with the process. Because ERO intended to continue using liquid paint for the majority of its components, it needed a single system supplier that could coordinate all the colours across both the systems.

At PaintExpo 2016 in Karlsruhe, ERO met the specialists from Karl Bubenhofer AG. "We are both family-owned businesses with a lean organisation and we immediately hit it off. From the first day we were on the same wavelength. Together with Geholit+Wiemer, we were able to provide ERO with expert advice on powder coatings and paints. The coordination of the

different colours across the paints and the powder coatings, which was one of ERO's requirements, allowed us to demonstrate our expertise," says Markus Ammann, regional manager at KABE Pulverlack Deutschland GmbH. The company colours, which include ERO red and grey plus orange for the BINGER product range, are not RAL shades. KABE reproduced them, evaluated them on sample panels and subjected them to corrosion testing before submitting them to ERO for approval.

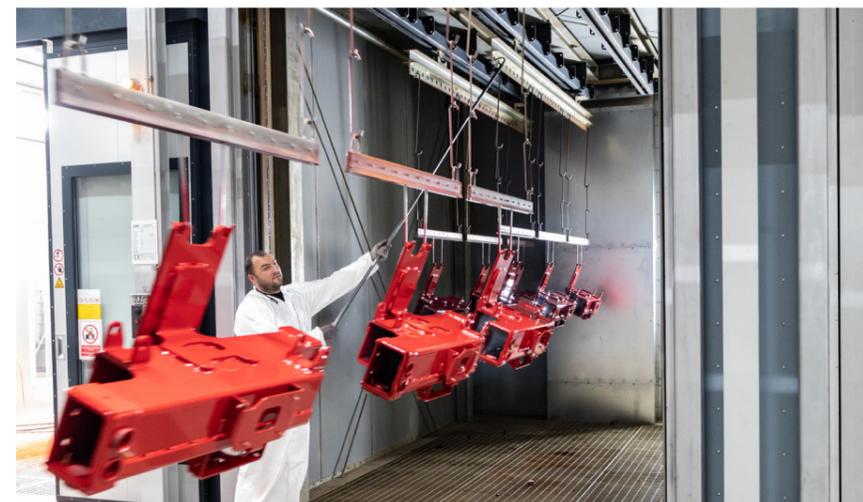
Manual application in two coats

The range of parts at ERO is very varied in both shape and colour, but it is limited to small batches of no more than 50 items. For this reason, the coating shop was set up for manual application. The POLYFLEX® PES-166-NT low temperature powder coating from Karl Bubenhofer AG is the ideal solution for parts with wall thicknesses between 1 mm and 10 mm. "This powder coating has been specially developed for outdoor use and is very cost-effective and flexible. It also has a high level of mechanical and chemical resistance, which is a big advantage in the case of the tartaric acid," explains Markus Ammann. Since the PES low temperature range was launched nearly 10 years ago, the coatings have been used successfully across a wide variety of industries.

ERO applies two coats to its components. The first is the POLYFLEX® EP-20-NT-GU KORROFLEX primer with a thickness of 80 µm. After this has been cured and cooled, a gloss top coat (POLYFLEX® PES-166-NT) is applied. The parts are cured in two ovens at 190–200°C for a maximum of 30 minutes. The specialists at Karl Bubenhofer AG have carried out tests to identify the



The primer and the top coat are applied manually in a walk-in booth.



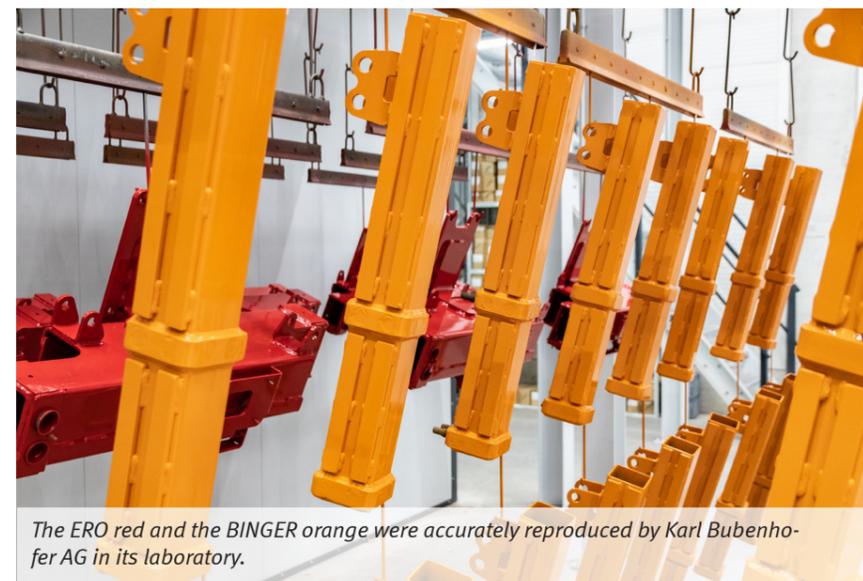
The KORROFLEX primer and the POLYFLEX® PES-166-NT powder coating are cured in two ovens at 190–200°C for a maximum of 30 minutes.

curing period for each component. “The carefully planned workflow and the central location of the coating shop in our new plant have resulted in a lean, ergonomic and cost-effective production process,” says Ehlen, the production manager.

Consultancy far beyond the coatings

When Georg Ehlen looks back over the cooperation with KABE Pulverlack Deutschland GmbH, the things that he values most are the high level of technical expertise, the consultancy that goes far beyond the coating process and the straightforward service. As a newcomer to the field, ERO had a lot to learn about powder coating and was very pleased to have comprehensive support from KABE. “We can still call the specialists from the KABE powder coating department now and we know that they will help us out straightaway. Their support has played a major

role in allowing us to set up our new coating shop quickly and in ensuring its success,” says Georg Ehlen. The POLYFLEX® PES-166-NT low temperature powder coating from KABE, combined with the POLYFLEX® EP-20-NT-GU KORROFLEX primer, guarantees long-term corrosion protection for ERO’s products. The powder coatings have been coordinated with the paints supplied by Geholit+Wiemer to provide ERO with a system that has complete colour consistency, is highly resistant to corrosion and protects the investments that ERO’s customers make in their vineyard machines. The perfect high-quality solution.



The ERO red and the BINGER orange were accurately reproduced by Karl Bubenhof AG in its laboratory.

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Markus Ammann from KABE Pulverlack Deutschland GmbH (left) and Georg Ehlen from ERO (right) have had an excellent relationship from day one.