

# Galvanotechnik

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'Oldest German trade magazine covering the practice of electroplating'

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Presented by: **HARTER**  
drying solutions

### **Drying – faster, better, cheaper**

Comte of Sulingen had built a new workshop and bought a used rack plating facility for zinc and zinc-iron deposition. To complement the plating facility, a custom-built dryer had to be acquired to meet the special drying requirements of a very large variety of items to be processed. The plating contractor, being dissatisfied with the power requirement and performance quality of the conventional hot air dryers integrated in their existing facilities, chose to try another tack.



Rack entering the drying trough

Established as a craft workshop in 1836, Comte's business today is focussed on metal surface finishing. The sixth generation family run enterprise largely employs innovative process and production technology to satisfy industrial production standards. Comte Metallveredlung GmbH & Co. KG was established in 2001 to render the company structure more efficient. This division is primarily

responsible for the deposition of various zinc alloys. The company has now a total of eight rack and barrel plating facilities. These facilities, as well as the waste water and exhaust air treatment installations, are in conformance with current environmental regulations.

### **Fast, power saving and reliable**

Comte received recommendations, from various sides, to contact the condensation drying specialist Harter GmbH. Following extensive discussions of the drying challenge to be faced, the surface finishing provider chose two rack dryers with an Airgenex® dehumidification module. These were integrated in the existing facility with minimum space required. The contract processor can now completely dry a large variety of components at a nominal six minute cycle time. The company appreciates the 30 to 40 percent time saving achieved by Airgenex® drying in comparison with the hot air dryers used in their other facilities. Harter GmbH confirms such savings to be typical. Zinc-related passivation layers and post-dip solutions are dried at no more than 70 °C.

The contract processor's concern that the sealing quality might be impaired by 70 °C drying could be dispelled. There is no problem cross-linking the sealant with low temperature drying. The exacting requirements of the automobile

industry, to which the company supplies, are thus met while high process reliability is ensured.



*In-situ Airgenex® 6000*

### *High air recirculation rate*

The two rack dryers made from polypropylene have an internal size of 600 by 2500 by 1800 mm (length x width x height). While in operation, 48,000 m<sup>3</sup>/h of air are recirculated at 8.5 m/s approx. The low temperatures used for drying are not only gentle to the products but also a power consumption factor. The power rating of the Airgenex® dehumidification module is only 21 kW. In addition, the waste heat from the block-unit power station is used in support

of the Airgenex®. Drying is effected in a closed-loop system with practically no emission.

### *Much experience*

Harter Oberflächen- und Umwelttechnik GmbH is a small, owner-managed business specialised in developing, producing and selling high-tech drying facilities. Harter has installed more than 700 sludge, retained water and paint drying facilities since 1991. The company has often and successfully implemented customised solutions where quality, process reliability and power saving were essential.

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