

Oldest German trade magazine covering the practice of electroplating

## **Offprint**

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Presented by: HARTER
drying solutions

## Drying in Double Pack

Drying facility builder Harter installed an engineering masterpiece with the Swiss RUAG. It was the first design ever of a dryer with barrels perpendicular to one another. This way, a long-time knot in the production process could finally be undone.

For a long time, drying had been the bottleneck in the RUAG's in-house plating shop. The hot air dryer in the dual barrel line failed to dry the bulk material inside the barrels. The material in the barrels had to be transferred to centrifuges where it was dried and then returned to the production line.

This effort required a lot of time and handling. And implied high stress on the material to be dried owing to high loads imposed by the centrifuges. Resulting damage to the material surfaces could not be avoided.



RUAG Technology of Altdorf (Switzerland) is a competence centre for special machining, forming and surface technologies, engineering, aircraft structures, machine assemblies and environmental technology.

The Swiss enterprise supplies high precision parts, components, assemblies and systems to the engineering, semiconductor, wind power, automobile and aircraft industry. RUAG Technology is a company of the globally operating RUAG Holding AG. Various sites ship material to the plating shop in Altdorf for processing.

The throughput of the plating line had to be raised in response to increased orders. For this to be achieved, drying had to be accomplished inside the dual barrel. On the recommendation of a Swiss plant construction firm, RUAG turned to Harter GmbH, who has long since specialised in energy saving drying solutions.

Harter conducted a series of experiments. They showed that Harter's Airgenex® technique was capable of performing the desired in-barrel drying. Six minutes, only, were required for the drying process.

Also, considering the potency of Harter's proprietary process and the specified maximum cycle time of 15 minutes, Harter manager Reinhold Specht did not foresee any problem with drying bulk material in two barrels perpendicular to one another.

This is how it came that Harter built another engineering masterpiece for the Swiss enterprise. The drying time of the dual barrel dryer is between six and ten minutes as appropriate for the type of material being dried. The cycle time of the plating line is 15 minutes. The material is dried fully and in a gentle way. The Airgenex® dehumidification module attached to the dryer is power efficient (9.5 kW rating) while providing high quality drying. The operator's choice of investing in a Harter Airgenex® dryer was a good one in many respects. Long processing times and resulting overtime work are past. The break in the production process has been eliminated. Excellent drying quality in much less time and at less power cost is an impressive result, RUAG says.

Harter is a small, owner-managed business specialised in developing, producing and selling high-tech retained

water, paint and sludge drying facilities. The drying systems are suitable for both continuous and batch operation of any type. The innovative Airgenex® is a closed-loop system with waste heat recuperated. This helps reduce cost of operation and increase economy. The HARTER Airgenex® can save up to 50 percent of drying time compared with conventional dryers. Low drying temperatures are used so that the material to be dried is processed gently, there is no need for cooling zones, and the cost of quality is reduced. Also, constant drying parameters provide highest process reliability.

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