

Tricotect®

Regeneration system for Cr(III) passivates



General Metal Finishing

Corrosion resistant coatings

atotech.com



Extending the bath life of passivates

More than

100

units operate worldwide

During the conversion coating process, zinc and iron from exposed base metal, e.g., from non-plated areas inside tubes – are dissolved into the passivation process solution. Those iron and zinc contaminants negatively influence bath stability and performance. In conventional operations, this results in frequent dilutions or the need for new bath make-ups.

MKS' Atotech tried and tested ion exchange system Tricotect® selectively removes contaminating metals from high-performance passivates. Tricotect® allows for continuous on-line purification without interrupting production, providing a potentially unlimited bath life.

Suitable for rack and barrel lines, Tricotect® is compatible with many of MKS' Atotech trivalent chromium passivates. It allows for reduced usage of valuable substances, significant cost savings due to fewer new make-ups, and minimized wastewater production.

Continuous on-line purification for consistent passivation performance



Image 1:
Zinni® 220 + EcoTri® HC 2 +
Sealer 300 W 2.0

Image 2:
Reflectalloy® ZNA +
Tridur® ZINi H5.2 +
Tridur® Finish 300

Image 3:
Protolux® 3000 + EcoTri® NF

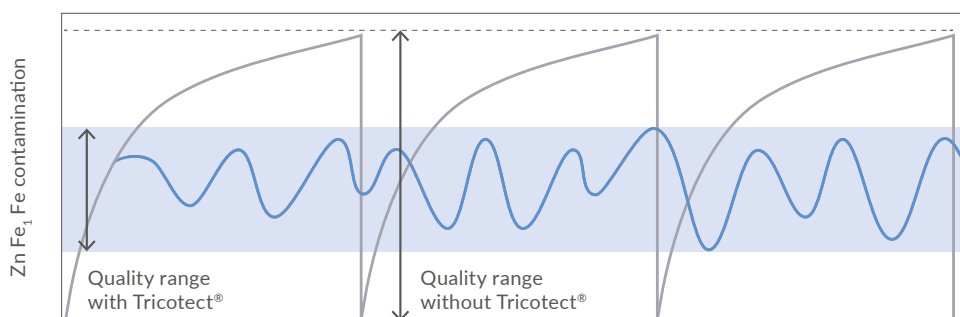
Regeneration system yields prolonged bath life and remarkable annual savings

The Tricotect® regeneration system facilitates consistency in appearance and corrosion protection performance for plated products. At the same time, a two-year-plus increase in the passivate's bath life, along with the preservation of valuable resources, leads to a much smaller ecological burden. In addition, customers using the Tricotect® regeneration system worldwide reported annual savings of up to 50 percent.

Continuous on-line purification in a two-step regeneration process

The Tricotect® two-step regeneration process first purifies the passivate by removing iron and zinc contamination by means of a dedicated resin application (which does not affect the chromium ions), followed by a resin regeneration process using hydrochloric acid. Tricotect® allows for continuous on-line purification without an interruption in production.

Comparison of bath aging with / without Tricotect®



Features and benefits

- Consistent high passivation quality (color and corrosion protection)
- Fulfills automotive industry requirements
- Ability to stabilize the pH of the passivate processes
- Compatible with the majority of MKS' Atotech passivate processes
- Fully automatic and easy operation
- Single Tricotect® unit usable for divers plating lines
- Cost savings due to elimination of new make-ups and wastewater minimization

