

Expanite surface hardening replaces hard chrome plating

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LIAG LÄUFER is a specialist in hygienic shutter valves and pigging systems. The products are designed to meet the highest safety demands in the food industry and must withstand significant abrasive wear and corrosion aggressive environment.

Their stainless steel cones were originally specified with hard chrome plating. Due to the potential health risks however, hard chrome plating is increasingly prohibited in the food industry. LIAG LÄUFER needed to find an alternative. In their attempt to solve these challenges LIAG LÄUFER tried different surface hardening solutions, which all failed, including a commonly used carburizing process, which caused corrosion after short time in use.

LIAG LÄUFER finally tested Expanite and found a hardening solution that effectively reduces wear and galling, and at the same time improves the corrosion resistance of the parts.

LIAG LÄUFER is determined to offer environmentally sustainable solutions to comply with the industry demand to exclude chrome in the food industry. Expanite hardening solution is a diffusion-based process and therefore significantly more environmentally friendly and sustainable compared to other hardening methods.

The patented Expanite process doesn't add anything to the material (besides nitrogen and carbon), it just makes the surface harder as much as 10 times harder.

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