



## On-site Service

Surface treatment directly on the customer's premises.

## Refurbishment of Complete Systems.

In the day-to-day running of a system, a smooth operational flow is ideal. Longer periods of downtime should be minimised. Essential maintenance windows should therefore be utilised effectively.

Cleaning/refurbishment activities should be synchronised with these maintenance windows to ensure the relevant systems are returned to their desired operating state.

Existing installations (e.g. tanks or tube systems) cannot be refurbished in the service centre without causing a complete outage. This is why HENKEL offers an on-site service as an alternative. Customers benefit from the high HENKEL quality they are used to from professional specialist staff- including when working on permanently installed systems.



For complete systems, we offer the following services:

### **New systems prior to initial commissioning**

- \* Chemical cleaning (degreasing, pickling)
- \* Passivation
- \* Pressure tests

### **Existing installations**

- \* Chemical cleaning (degreasing, pickling)
- \* Derouging and repassivation
- \* Electrochemical polishing
- \* Passivation
- \* Refurbishment and corrosion removal

## Customised Derouging.

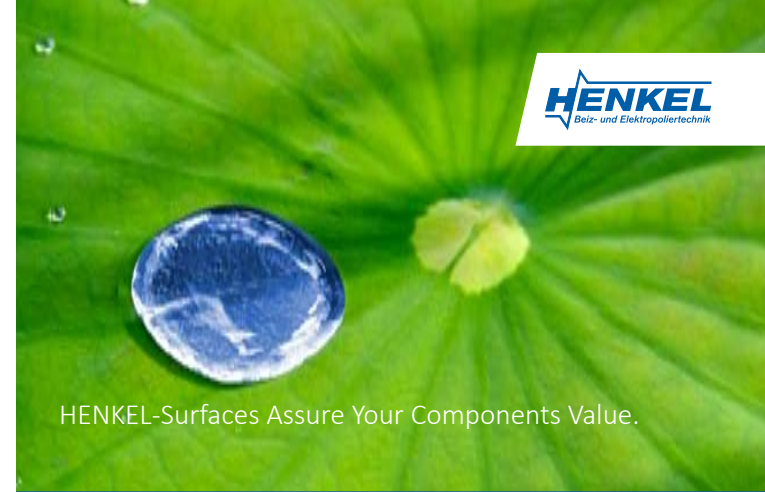
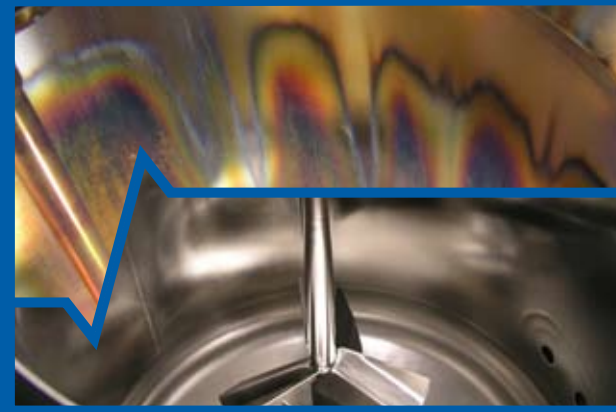
Equipment in the pharmaceutical and biotechnology industries, such as tube systems for clean water (AP, PW, HPW, WFI, etc.), production distillers, storage tanks, clean-steam systems, autoclaves, steam sterilisers, etc., are usually made of austenitic stainless steel (e.g. 1.4404, 1.4435, etc.).

After an operating period of 6 – 12 months, the inner surfaces of these systems often show red/brown surface contamination. These are usually heavy metal particles resulting from a change in the stainless steel surface, known as rouging.

Downstream production systems become contaminated by the spread of these particles. Even with regular CIP system cleaning, the heavy metal particles cannot be removed.

Expert removal of rouging, i.e. derouging, is performed using targeted cleaning measures as part of our on-site service. The teams are specially trained for the GMP field and use their own technical apparatus and safety technology, as well as intra-system equipment (CIP systems). The HENKEL chemicals used have been specially developed for use in sensitive pharmaceutical production plants. All work is thoroughly documented and the rinsing water produced is processed in an environmentally responsible and professional manner with certificate.

Pharmaceutical container before and after derouging treatment by HENKEL.



HENKEL-Surfaces Assure Your Components Value.

## Our Service Range.

- | On-site and factory service
- | Electrochemical polishing
- | Anodic cleaning
- | Chemical polishing / deburring
- | Chemical pickling and passivation
- | Professional cleaning (also in clean room)
- | Derouging and repassivation
- | Process and cleaning chemicals
- | Documentation
- | Construction



### **HENKEL Beiz- und Elektropolieretechnik**

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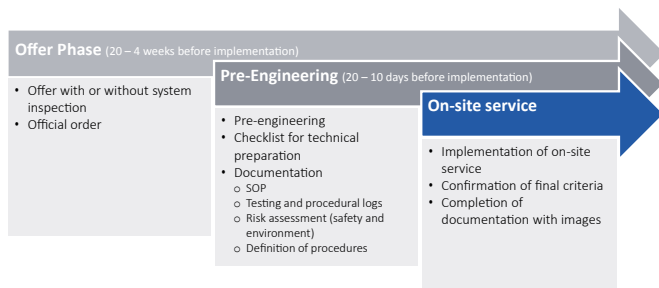


## On-site Electropolishing.

During routine maintenance activities - such as replacing an agitator- or during subsequent welding work, new damage to the electropolished surfaces may be caused through welding discolouration and scratches. In such cases, it is desirable to restore the surface in accordance with the defined specifications as quickly as possible.

Electrochemical polishing in particular can also be carried out in situ using the wipe-polishing method, enabling deviations from the specifications to be rectified as quickly as possible. Electropolishing is very often also used in electrochemical cleaning to remove coatings, discolouration and corrosion covering large areas. This procedure is particularly suitable if, for example, circuit flushing of containers is not possible due to structural reasons. A major advantage of this lies in the micro-

## Typical Procedure.



smoothing of the surface. Not only does this remove coatings and corrosion, but the overall cleaning behaviour (easy-to-clean) and film propensity of the surface are improved. This type of electrochemical procedure can also be carried out during partial shutdowns, with resulting time and cost benefits.

## Implementation in accordance with GMP.

To ensure a high quality standard, we always work according to good manufacturing practices:

- \* Permanent on-site team for maximum reliability
- \* GMP-trained staff for the pharmaceutical and biotechnology industries
- \* Procedures in line with the relevant SOPs
- \* Documentation in accordance with GMP
- \* Full traceability of the chemical batches
- \* Chemicals and additives are soluble in water and have an effect on the pH value and conductivity
- \* We provide all documentation, which must be countersigned by the customer

## Your Benefits.

In addition to HENKEL's proven quality, you receive extensive additional benefits with our on-site service:

- \* Minimal downtime
- \* Rapid restoration of surfaces in accordance with the defined specifications
- \* Efficient technologies
- \* Experienced staff
- \* State-of-the-art technical apparatus und safety technology
- \* Documentation and chemicals in accordance with GMP
- \* Expert processing of waste water



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