

Surface passivation for pharmaceutical equipment

New process clearly improves passivation layer of stainless steel surfaces

Protect your surfaces against corrosion!



The innovative process of Ateco Services AG is excellent for the surface passivation of stainless steel.

Apply this new procedure in CIP-spray processes for production equipment and in washers but also for flooding the equipment and connecting pipes.

Improving the passivation layer of stainless steel surfaces

Analytical investigations clearly demonstrate a superior passivation effect by using the new process in comparison to traditional methods such treatment with HNO₃, citric acid and sequestering agents.

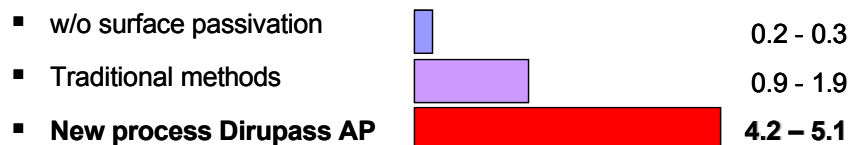
Treatment of surface

- w/o surface passivation
- Traditional methods
- **New process Dirupass AP**

Comparison of the ratio of Cr / Fe



Ratio of Cr oxides / Fe oxides



Application No. 1 - before first use of new equipment

We recommend surface passivation for brand new production equipment. Before starting up, the passivation process removes residues from manufacturing and installation. Typical soils like organic matter, grease, abraded metal particles and fingerprints are cleaned off steadily.

Your advantages: defined surface condition, improved protection against corrosion

Application No. 2 - routine passivation of production equipment

Depending on the intensity of using your equipment we recommend a repassivation of the surfaces. Carry out surface passivation on a routine base in order to maintain and conserve the equipment without risk for longer downtime due to heavy revision.

Your advantage: conservation of surfaces of valuable equipment

Detection of possible residues

Analyse possible residues from the passivation process. Ateco Services AG supports you with specific and validated analytical methods according to GMP.

The new passivation process

Suitable for clean surfaces made of stainless steel such as 304L and 316L (1.4301, 1.4404, 1.4435)



Instructions

- pretreatment: 5.0 % (v/v) Diruclean BX at 60-80°C for 60-120 min.
- rinsing: tap water, ambient temperature for 2 min.
- passivation: 2.0 % (v/v) Dirupass AP in deionized water at 80-85°C for 60 min.
- rinsing steps: at least three times, deionized water, ambient temperature for 2 min. contact time each
- drying of the equipment

For derouging operations or the removal of deposits and traces of corrosion before the passivation process, please contact info@ateco.ch for any further information.

New process - your advantages at a glance

Take benefit from

- low concentrations compared to traditional methods
- suitable for CIP spray processes
- qualified products instead of using «chemical cocktails»
- no use of halogenides
- excellent material compatibility
- specific and validated analytical methods for the determination of residues
- ideal for electropolished surfaces

Disclaimer

This suggested procedure shall be understood as a recommendation, based on the present state of science and technology. The procedure shall be supplemented by the user's own trials. The user shall be fully liable for the procedure selected. No warranty, guarantee or liability claims whatsoever may be lodged against Ateco Services AG.

Supplier:

Ateco Services AG □ Weidenweg 17 □ CH-4310 Rheinfelden □ Switzerland
Phone +41 61 835 50 50 □ info@ateco.ch □ www.ateco.ch