

## Overview for deconex® products and processes

The deconex® CIP product range is compliant with the demands of the pharmaceutical industry. Suitable analytical methods (specific and non-specific) are available for the detection of possible residues of detergents.

|   | ↓<br>Flooding, manual cleaning | ↓<br>CIP processes, spray cleaning | ↓<br>Free of phosphates | ↓<br>Free of surfactants |
|---|--------------------------------|------------------------------------|-------------------------|--------------------------|
| <b>Cleaning</b>   |                                |                                    |                         |                          |
| <b>Neutral detergents. Highest material compatibility.</b>                        |                                |                                    |                         |                          |
| deconex® CIP alu-pro  | ●                              | ●                                  | ○                       | ●                        |
| deconex® CIP seven  | ●                              | ●                                  | ○                       | ●                        |
| deconex® SURFAX   | ●                              | ○                                  | ●                       | ○                        |
| <b>Alkaline detergents. Efficient cleaning with a broad spectrum of activity.</b> |                                |                                    |                         |                          |
| deconex® CIP alpha-x  | ●                              | ●                                  | ●                       | ●                        |
| deconex® CIP basic-x  | ●                              | ●                                  | ○                       | ●                        |
| deconex® CIP power-x  | ●                              | ●                                  | ○                       | ●                        |
| deconex® FORMULA 1  | ●                              | ●                                  | ●                       | ○                        |
| deconex® CIP wash-x   | ●                              | ○                                  | ○                       | ○                        |
| <b>Acidic detergents and neutralizers.</b>  |                                |                                    |                         |                          |
| deconex® CIP fresh  | ●                              | ●                                  | ●                       | ●                        |
| deconex® CIP acid   | ●                              | ●                                  | ○                       | ●                        |
| deconex® CIP care   | ●                              | ●                                  | ●                       | ●                        |
| <b>Additives</b>  |                                |                                    |                         |                          |
| <b>Oxidizing booster.</b>   |                                |                                    |                         |                          |
| deconex® CIP boost  | ○                              | ●                                  | ●                       | ●                        |
| <b>Top performing surfactants. Active at minimum dosage.</b>                      |                                |                                    |                         |                          |
| deconex® CIP surf   | ●                              | ●                                  | ●                       | ○                        |
| <b>Derouging and Passivation</b>  |                                |                                    |                         |                          |
| <b>Derouging at neutral pH value.</b>   |                                |                                    |                         |                          |
| deconex® DEROUGE System   | ●                              | ●                                  | ○                       | ●                        |
| <b>Surface passivation and protection for stainless steel.</b>                    |                                |                                    |                         |                          |
| deconex® CIP protect  | ●                              | ●                                  | ○                       | ○                        |
| deconex® CIP boost  | ●                              | ●                                  | ●                       | ●                        |
| <b>Cleaning and conservation of tableting tools in one process.</b>               |                                |                                    |                         |                          |
| <b>Conservation step after alkaline cleaning with deconex® detergent</b>          |                                |                                    |                         |                          |
| deconex® HT 1191  | ●                              | ●                                  | ●                       | ●                        |



borer life sciences

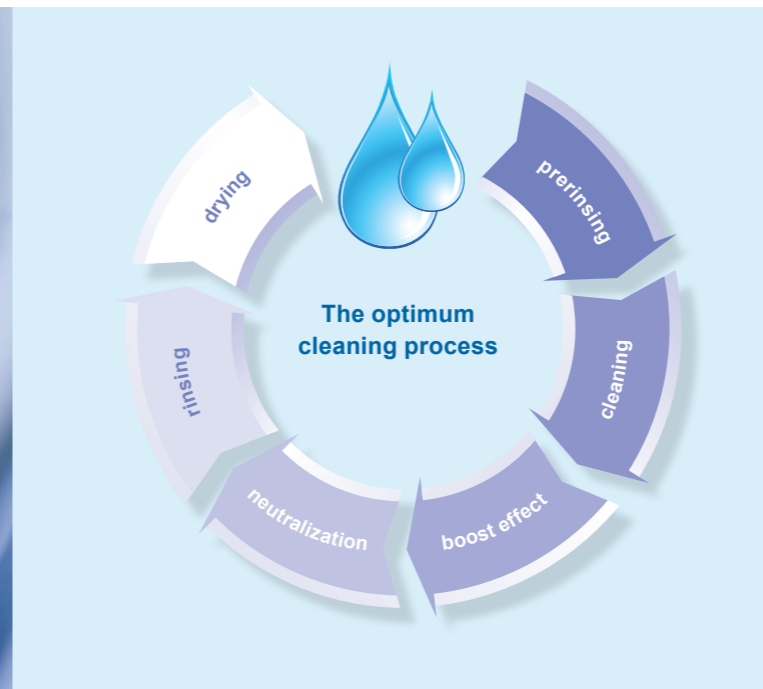
## Cleaning Validation GMP-compliant cleaning

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 **borer**  
advanced cleaning solutions



## How clean is your equipment?

### Borer Chemie AG – your competent partner

Are you looking for a partner who understands your needs and cleaning chemistry as well?

The users of our products and services work in regulated environments concerned with the production of active pharmaceutical ingredients and drugs.

Manufacturers and authorities set high standards for the effective and reliable cleaning of production equipment in order to prevent cross contamination.

Cleaning validation is now just as important as the production process and the process validation. It therefore deserves the same careful attention.

Regulations, tight deadlines and increasing awareness of costs necessitate efficient and residue-free cleaning processes.

### The ideal cleaning process - Our strength

Borer Chemie AG has many years of experience and competence in applications in the laboratory, industrial and medical fields. This enables us to offer efficient cleaning processes throughout the different stages of product development and production in the pharmaceutical industry.

Together, we develop the optimum cleaning process.

Our products and services help you achieve your ultimate goal – successful cleaning validation.

### Cleaning validation – made easy

Residue-free cleaning is a key factor in the life cycle of any chemical-pharmaceutical product – from research and development in the laboratory, during scale-up in the pilot plant, and finally at the production site.

An effective cleaning process takes all the individual factors into account and is based on a precise knowledge of the product mix and cleaning chemistry.

The ideal process can therefore only be developed and defined in close cooperation with the operator. This results in greater efficiency and lower costs.

Together with Borer Chemie AG, you can systematically develop or optimize an efficient cleaning process.

### Typical program for a project - CLEAN

- Definition of the cleaning task
- Technical considerations
- Evaluation of the cleaning process
- Definition of the optimum cleaning process
- Verification of performance at the production site
- Analysis for possible residues
- Completion of cleaning validation

Documentation is an integral part of process development with Borer Chemie AG. We actively support you in the design and development of cleaning processes with comprehensive documentation. In addition, we provide specific methods for the analysis of possible cleaner residues.

A customized cleaning process enables you to meet the requirements for cleaning in a GMP-compliant environment.

Take full advantage of our expertise.