HEAT EXCHANGER CLEANING

The thermal exchange process in heat exchangers often leads to a build up of stubborn deposits, which can harden and reduce flow, or even completely block the apparatus. Clean surfaces and unhindered material flow are, however, the basis for efficient production processes, which are required for constant production temperatures.

Through a regular and residue-free cleaning process for the heat exchangers, process efficiency can be improved, and energy can be simultaneously saved. Technical requirements and local conditions can be very different and are already consistently taken into consideration during the planning for the cleaning:

- Large total surface areas that are hard to clean, with partly complicated geometric build, such as U-shaped pipes or narrow pipes with just a 12 mm diameter
- Various deposits with often extremely hard top layers
- In some cases, both internal and external cleaning is necessary

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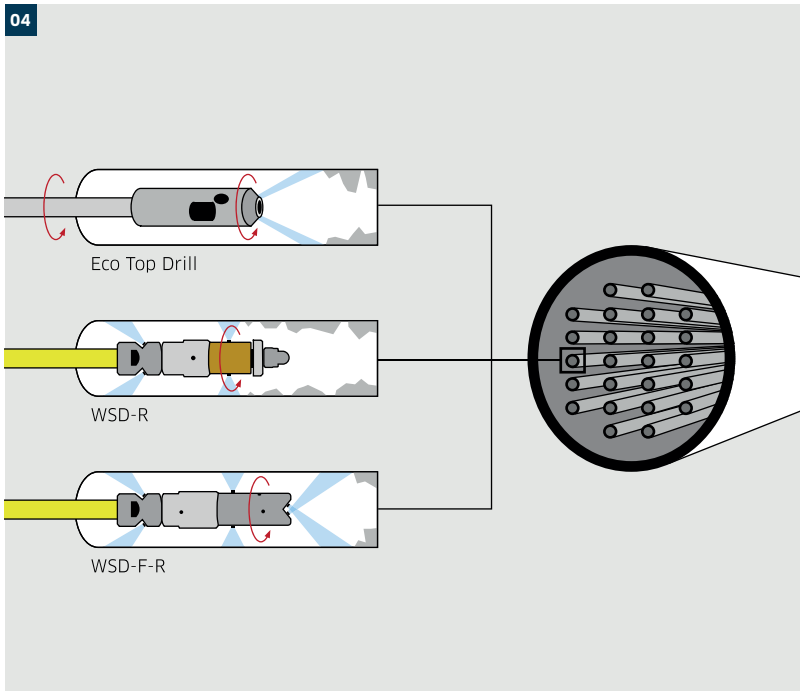

01_ Stubborn deposits in heat exchangers can completely block production lines.

02_ Clean surfaces are the basis for efficient production processes.

03_ Optimal for danger zones: Remote controlled system by WOMA® for cleaning of tube bundles.

04_ The accessory programme from WOMA® offers diverse water tools for the cleaning of heat exchangers.

- Often it is not possible to clean the heat exchanger on site, because there is too little space or no access. Then, the heat exchanger must be dismantled and transported to a washing area
- The cleaning tasks must be completed as soon as possible so that production can continue
- Liquid mediums often contain dirt and fixed components, for example, carbonate, minerals, oxide, burned chemicals or deposits from oil and sulphite

Every cleaning method has systemic pros and cons. High pressure water jetting, on the other hand, is usable universally for internal and external cleaning, varying surfaces, mediums and coatings. In comparison, other cleaning processes have considerable disadvantages in part, namely usability, cleaning results and cost.

Chemical washing in acid baths is very complicated and requires large tubs. Cleaning with ultrasound is very time-consuming and does not reach deep crevices well. Sandblasting is abrasive and linked to high material and disposal costs. Mechanical drilling is complex and only suitable for straight pipes.

Advantages at a glance

- Universally usable cleaning method for the internal and external cleaning of heat exchangers
- Heat exchangers with particularly complex geometrics and particularly small pipes can be reliably cleaned
- Work in areas with threat of explosion is possible

EXPERTISE PLATE HEAT EXCHANGERS

Plate heat exchangers often consist of plates with a wide surface area. These must be deconstructed in order to be cleaned, and every plate must be cleaned on both sides. These surfaces are a considerable challenge to clean. Regular surface cleaning with UHP devices and work tools targets perfect results every time.