

# Report

## Sieve and Filter Cleaning



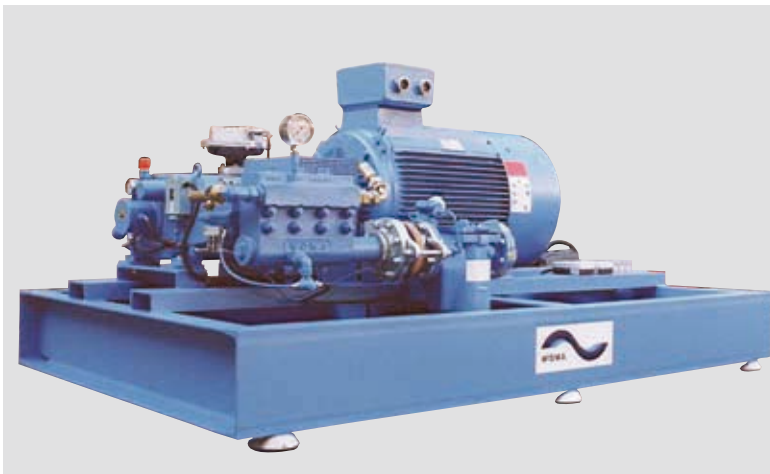
Sieves and filters are important process engineering devices that are applied in almost any areas of modern industry. Their reliability mainly depends on the condition of their surface. Thus, sieves and filters need frequently to be cleaned.

In this area, the WOMA high-pressure water jet technology is successfully used since more than 30 years for the following applications:

- ▶ Removal of incrustations and impurities from sieves and filters.
- ▶ Cleaning of candle filters in the ammonium industry.
- ▶ Cleaning of viscose filters in the synthetic fiber industry.
- ▶ Cleaning of filter clothes.
- ▶ Calcium removal from sieve-suction-rollers.
- ▶ Removal of deposits from hurdles in the brewer industry.
- ▶ Cleaning of long- and round-sieves.
- ▶ Cleaning of plastic sieves.
- ▶ Cleaning of wet feltings.
- ▶ Removal of impurities from drainage filter presses.

### Why High-Pressure Water Jets?

- ▶ Very wide range of applications in all areas of cleaning.
- ▶ Very wide range of tools and accessories.
- ▶ High efficiency even in areas of difficult access.
- ▶ Excellent cleaning quality.
- ▶ Small tool dimensions and low weight.
- ▶ Possibility of mechanization of the cleaning tools.
- ▶ Disburdening of operators from manual, dirty and insanitary jobs.



Mobile high-pressure cleaning system type 250 ARP



Electrically driven traverse beam with fan nozzles



Filter cleaning using a high-pressure water jet

Cleaning of sieve-suction-rollers with high-pressure water lances



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- ▶ Avoidance of any gas and slags.
- ▶ Avoidance of chemical or abrasive additives.
- ▶ Very sensitive and selective removal of coatings, impurities and deposits without damaging the base materials.
- ▶ Applications possible during active production.

### The Material Range

Using high-pressure water jets, among others, the following materials can reliably be removed from sieves and filters: Calcified agents, coatings, deposits, germs, impurities, incrustations, lacquers, oxide layers, paint systems, slurries.

### The Technique

WOMA offers stationary and mobile high- and ultra-high pressure water jetting systems with operating pressures up to 3,000 bar and water flow rates up to 1,679 l/min, consisting of electric or combustion drive, high pressure plunger pump, guiding and control devices, water tools, and high-pressure accessory. Furthermore, WOMA offers hot waterjetting systems with operating pressures up to 800 bar and mobile compact systems with operating pressures up to 1,000 bar. For operating pressures up to 400 bar, abrasive resistant high-pressure pumps are available for running impurified

water. The special high-pressure program for sieve and filter cleaning also includes the following components:

- ▶ High-pressure guns in modular design for cleaning and selective material removal.
- ▶ Pneumatically driven traverse systems.
- ▶ Electrically driven traverse systems with splash water protection and isolating box.
- ▶ Nozzle beams and traverse tubes.
- ▶ Flexible high-pressure hoses.
- ▶ Round and fan shape nozzles.
- ▶ High-pressure valves for impurified water.



Hot waterjetting system Ecotherm® 800 for efficient sieve cleaning



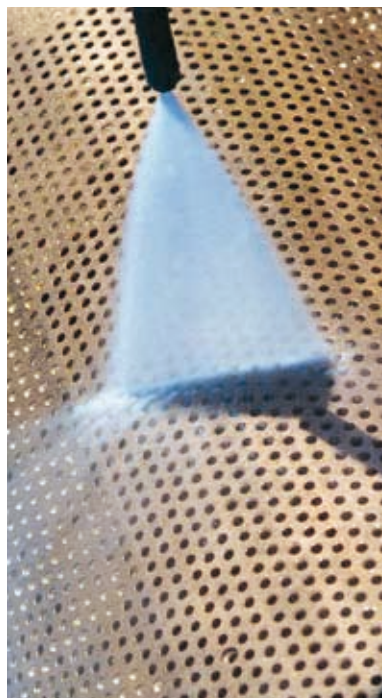
Cleaning results on a filter cleaned by high-pressure water jetting

left: prior to cleaning

right: after cleaning



Cleaning of sieve sections with hand-held water jet tools



Cleaning of sieve sections with a high-pressure water fan jet