Washer-Sterilizers



EN.1.2.1

PROCESSES

Sterilization

Washing

Chemical bio-decontamination Contamination control Dense-phase fluids plants

SPECIAL APPLICATIONS

Rotating sterilizers
Pharmaceutical closures
processing

COMPONENTS

Pressure vessels

Doors

Piping

Process controller
Wireless sensors

ACCESSORIES

Un/loading conveyors
Customized racks

FOWS is not just a dual machine but an innovative multipurpose, flexible system capable of operating in different modes and offering a cost-effective solution where both cleaning and/ or sterilization processes are needed.

It is capable of washing, decontaminating, sterilizing and drying various types of loads in one single process or even just single sub-processes as no traditional machine can ever do.

FOWS brings in fact features and performances typical of a steam sterilizer into a jet washer. It uses steam for improving washing/degreasing performances and vacuum for drying thus being a more environmental friendly machine with lower energy consumption than any traditional alternative.



Not only. FOWS uses the same Thema4 process controller as all other Fedegari machines.

Thema4 is the most complete, safest and most reliable process controller money can buy. Its architecture, based on a comprehensive library of elementary process phases, allows the user to create, within minutes, complete new processes with the highest safety, wasting no time in designing fully customized cycles.

Typical Application Fields

Washing and sterilization of:

- All types of containers
- Animal cages
- Machine parts (also some pumps outside the machine)
- Flexible hoses
- Glassware
- Assorted components

Sterilization of:

Everything (solids & liquids)
 that is typically processed with
 a steam sterilizer

Chemical decontamination of:

 Temperature sensitive goods (pass-through function)

Unique Advantages

- Reduction of the number of installed machines
- •Reduction of floorspace needed
- Reduction of total process time
- Reduction of installation, qualification, maintenance, revalidation and personnel training costs
- Simplification of procedures and process (it's possible to develop and validate the entire process)
- Optimization of the production layout
- Optimization of material flows, by reducing cross-contamination risks
- Optimization of process data management (thanks to Thema4 process controller)
- Increased specific throughput
- Reduction of overall energy consumption
- Capability of removal of large masses of sticky ointments/creams
- •The parts used in a clean room are processed and unloaded again in the same area
- Lower overall CAPEX

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Highest Performances Thanks to Optimized Design

The integrated washing system is customized for every application and requirement. Dedicated washing racks allow to standardize each load thus simplifying validation.

Fully customized washing racks can be designed to meet any specific requirements. No matter how challenging the task, there will never be a good solution for every application because every load has its unique peculiarities.

The core of FOWS washer-sterilizers is the washing rack on which several spray nozzles are installed for covering all load surfaces as well as the process chamber.

The washing rack is connected to the water feeding system through a sanitary maintenance-free auto-coupling.

Detergents and additives in general are injected in the water loop through a load cell-controlled system for exact metering; steam impacting the load through the same spray nozzles dramatically improves cleaning performances often sparing the need of additives.

To further improve washing performances an innovative solution for rotating the load (based on a water turbine) is available for those machines



Static load



Rotating load

where the load geometry allows to rotate the rack inside the process chamber. All static and rotating spray nozzles have been custom designed for achieving the highest sanitary features as well as washing performances.

Decontamination

For the most critical applications where the contaminants also represent a threat for the safety of the operators (such as with citotoxic or high potency drugs) it is also possible to decontaminate the load before washing for preventing harmful contaminants to be drained.