

Highest performance
on smallest footprint



WD 200

Single-chamber washer-disinfector in compliance with EN ISO 15883



Making reliably reprocessed instruments available – as fast and economically as possible.

The demands placed on instrument reprocessing within Central Sterile Supplies Departments (CSSD) and in Theater Sterile Supply Units (TSSU) have never been more stringent than now. With a vast diversity of material and equipment to be cleaned, disinfected and dried, this volume is increasing all the time. CSSDs and TSSUs are obliged to make reliably sterilized articles available at the required time and place for any agreed purpose in the hospital as economically as possible.

The challenge

CSSDs and TSSUs are challenged with achieving higher productivity levels than ever before. As a result, customers need a washer-disinfector that can process high volumes of medical devices, utensils and delicate instruments quickly, efficiently and safely. Customers also need a system that requires small footprint and is simple to operate and maintain.

High quality

Our customers' requirements as well as current guidelines are our benchmark for safety, quality, efficiency and ecology. This is once again highlighted by the new product generation of the WD 200. Exclusive use of high-quality materials combined with careful workmanship make our products durable and robust. The best proof of this is the scratchresistant and extremely tough glass front of our machines and the smart design of the wash chamber with a minimum of welding joints. The device comply with international as well as country-specific directives, such as for example the most important standard EN ISO 15883-1 and 15883-2.

Belimed WD 200 – 12 DIN tray washer-disinfector with manual hinged doors

Developed to comply with the latest EN ISO 15883 directive, the WD 200 washer-disinfector ensures high capacity, smallest footprint and low media consumption.

Highest performance, smallest footprint

The WD 200 washer-disinfector was developed for professional use in hospitals and small clinics. The unique capacity of 12 DIN trays, the small foot print – only 68 cm wide –, low media consumption and the high quality of the washing chamber and components are distinguishing features of the device. Developed in compliance with EN ISO 15883, the machine is simple to operate and ensures fast and reliable reprocessing of medical devices.

ECO-features for low media consumption and high productivity

With the unique Belimed ECO-feature “Dynamic Filling” water, detergents and energy can be saved up to 20 %. The optional heat recovery from the exhaust-air can be used to reduce energy and media consumption by an additional 20 %. The unique Belimed ECO generation of water-saving and pressure optimized instrument wash racks need approx. 10 % less water as common wash rack designs.

Dimensions	
Outer dimensions H × W × D (mm)	1840 × 680 × 710
Chamber dimensions H × W × D (mm)	625 × 575 × 628
Chamber volume (l) (incl. ceiling, sump and drain)	280
Cycle capacity	
Surgical instruments (DIN trays 485 x 260 mm)	up to 12
MIS instruments (connections, jets / DIN trays)	48 / 4
Anaesthesia materials	15 breathing bags max. 1.5 m, 3 breathing bags, 5 masks, 5 catheters, 5 tubes
Sterile goods containers	3 DIN container
H × W × D (210 × 300 × 600 mm)	3 lids
OR shoes (pieces)	up to 40
Baby bottles including caps (pieces)	84

See page 11 for further technical data.



WD 200 – High user convenience in each detail

High-quality materials, intelligent manufacturing – the WD 200 meets highest requirements in terms of design and workmanship. Sturdy double-glazed hinged doors are a standard feature, as well as an illuminated, excellently worked AISI 316L stainless steel chamber.

Docking coupler: high cleaning action

The machine and rack connect to form one whole system. A hydraulically activated docking device connects the washer and rack providing a water tight seal resulting in an improved cleaning action in comparison to many other conventional docking systems.

Self-cleaning: thorough disinfection of the entire system

To meet hygiene standards, the entire system including wash chamber and RO water preheating system, is cleaned and disinfected automatically during the defined site operational procedure downtimes. Therefore, the washer-disinfector is in a hygienic condition for operation at all times.

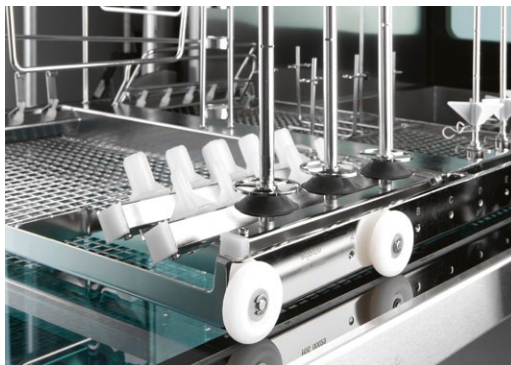
Complete drainage: automatically and reliably after each program phase

The design and construction of Belimed chambers and its associated pipework eliminates the risk of carry-over between each phase of the cycle. The entire system is drained completely after each process step.

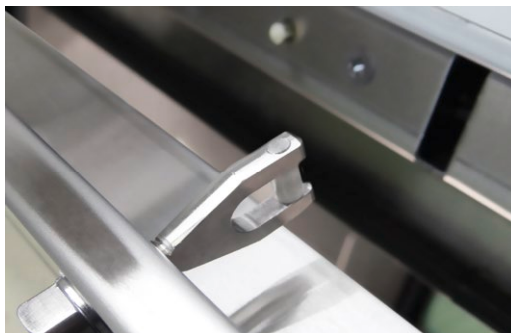
Electrically Assisted locking door: more ergonomics and reliability for your daily work

A new electrical latch mechanism ensures that the doors are closed and sealed, so risks of false closing or leakage are dramatically reduced. This reduces the efforts and saves time during your daily work.

Easy loading and unloading due to guiding notches integrated in glass door; robust door construction: up to 80 kg loading weight possible



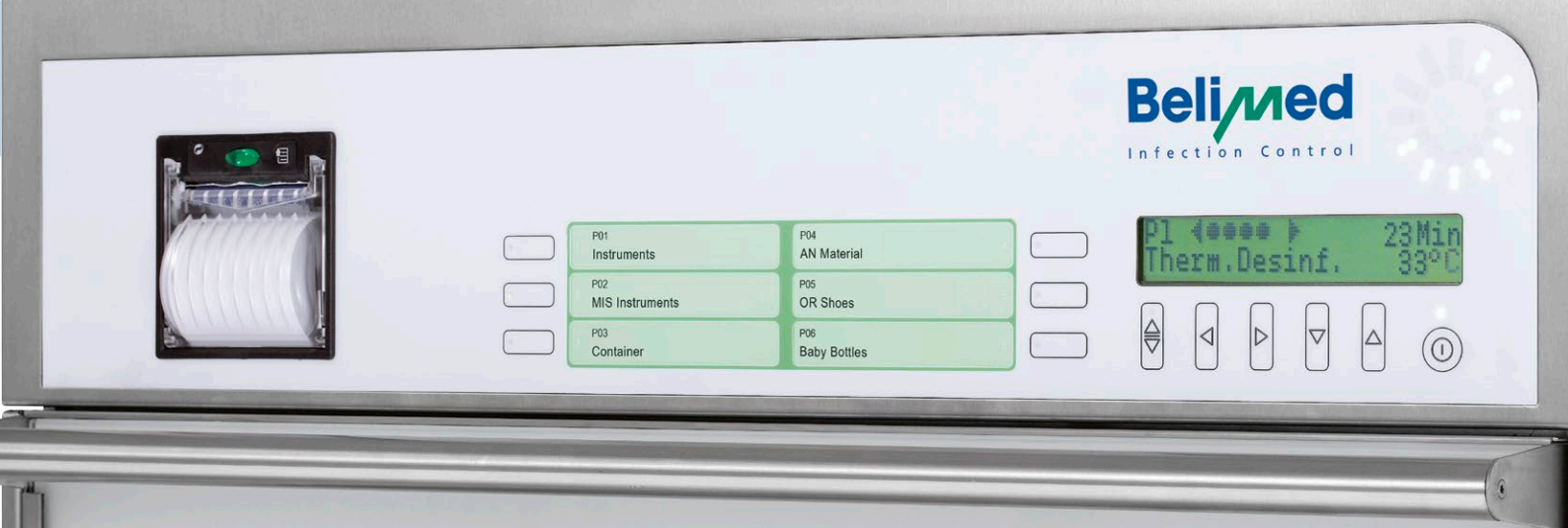
Chamber light



Electrically Assisted locking door



For cleaning removable filter



Ergonomic operating panel with integrated printer



Hygiene of the highest standard

The welding seams of the chamber were reduced to a minimum. The chamber floor features a 5 percent incline, allowing the water to drain off optimally after the cleaning process. This significantly reduces the risk of cross-contamination and carry-over of rinsing media.

Increased capacity thanks to an intelligent rack concept

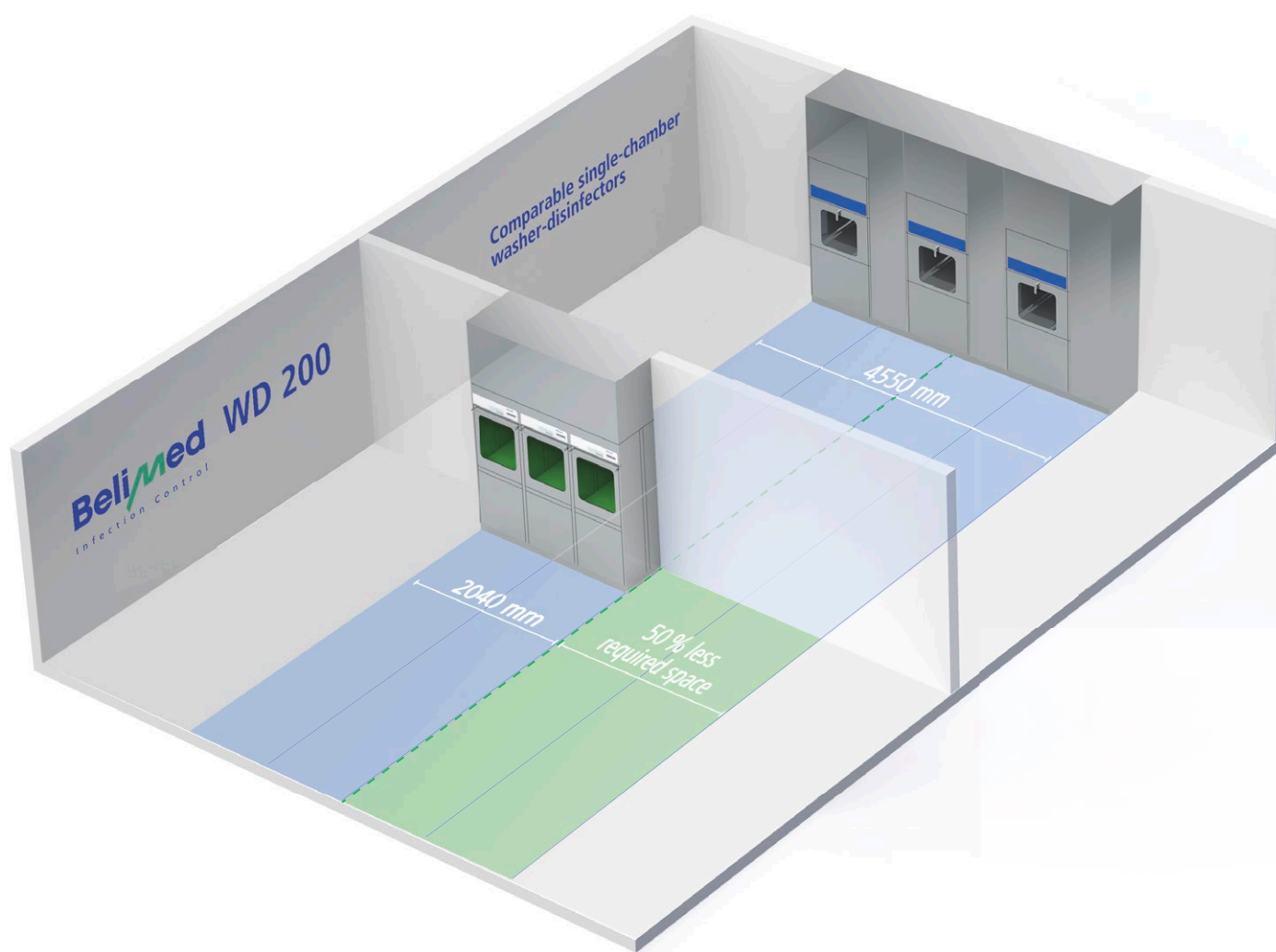
The compact construction design is not the only new feature of the WD 200. Also a new instrument rack concept was developed. The rack washing system consists of just one component, a distribution pipe located at the center. The wash arms emanate from the distribution pipe without additional mechanical mounting. This arrangement contributes to reducing water consumption and optimizing cleaning performance. At the same time, the rack capacity is up to 12 DIN instrument trays.



Storage of 2 x 10 l detergents

WD 200 – Small footprint saves space

With a width of only 68 cm the Belimed washer-disinfector range of machines achieves one of the smallest footprints of any unit on the market. No lateral maintenance room needed.



Belimed WD 200

- Capacity: 36 DIN instrument trays per cycle
- 20 % more capacity per cycle
- Up to 50 % less required space
- Easy maintenance from the front only needed

Comparable single-chamber washer-disinfectors

- Capacity: 30 DIN instrument trays per cycle
- Maintenance access from the side needed

Efficient and economical operation

The Belimed commitment to high economic efficiency includes a focus on cost savings and maximizing the investment in your equipment. Our systems feature economical use of resources like water, detergents and energy.

Low media consumption and high productivity

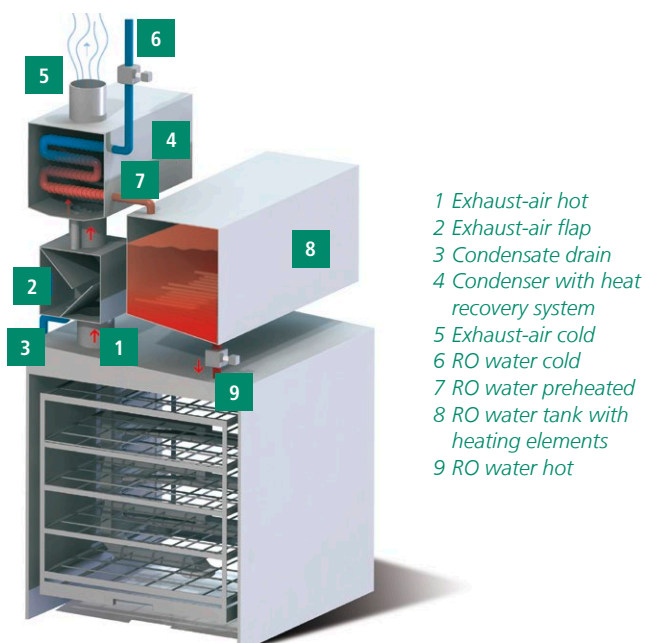
"Dynamic Filling" is a unique economic feature. Water volume is automatically matched to the rack and the material to be processed. This optimizes utilization of water, detergents and energy resulting in savings of up to 20 % in utility and additive consumption per cycle.

Energy saving by heat recovery

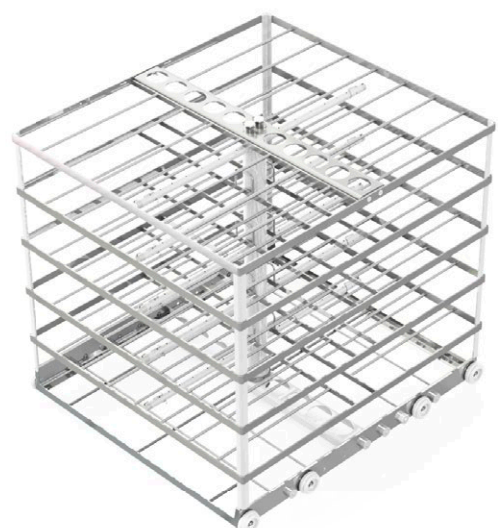
As an optional feature, heat recovery from the exhaust-air can be used to pre-heat RO water in a separate tank with a counter-flow heat exchanger – positioned above the wash chamber. This reduces energy and media consumption by an additional 20 %, increases productivity of up to 25 % and avoids the condensation in the exhaust-air pipe and thus protects against microbial contamination and corrosion.

Unique ECO instrument racks with additional capacity and less media consumption

The new and unique generation of instrument wash racks is based upon the concept of a water distribution unit made out of one piece only. As a consequence this leads to water savings and pressure optimized performances and exceptional cleaning results. This new design saves approx. 10 % less water as common wash rack design. With a maximum capacity of 12 DIN trays per cycle the WD 200 is also able to process 20 % instruments more per cycle as any other washer-disinfector in its class.



WD 200 pre-heating RO water tank



6-level ECO instrument rack for 12 DIN trays

Improved work quality due to easy operation

CSSDs manage high workloads with little staff. Belimed systems help the staff and relieve the workload by focusing on ease of operation and maximum process reliability.

Comfortable and transparent user guidance

Clear menu navigation and the illuminated color display ensure even greater user comfort. Activation of the respective keys with a simple touch is confirmed by an acoustic signal.

Automatic program selection and efficient reprocessing

Another advantage is the automatic program selection option. This allows programs to be automatically or manually selected. The control identifies the relevant rack using special sensors and automatically begins the cleaning process, based on rack identification.

Correct and fast information

Important process data, such as remaining duration, loading or removal readiness or error messages are displayed via our patented process status display that is visible from afar. The employee can see the relevant information clearly at a glance, even from a distance. The display works in the manner of an analogue clock by means of LED technology.

Ergonomic and functional

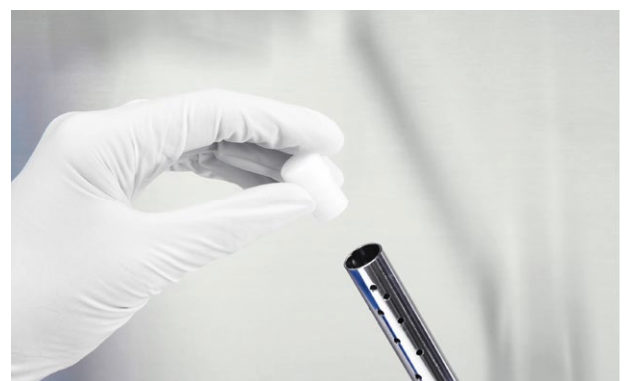
Convenient, cleverly designed and ergonomically expedient – loading and unloading the WD 200 is easy as can be. Thus, the racks can be loaded at a height of 87 centimeters while being secured by a hinged door which can at the same time serve as loading and unloading table. This is not only most convenient, but also saves space. The work is rendered especially safe and easy thanks to a transport cart which can be docked directly onto the hinged door.

Easy to clean wash arms

The WD 200 as well as the corresponding wash racks are equipped with easy-to-clean washarms with removable caps.



Great user comfort due to easy operation



Easy to clean: Belimed wash arm with removable end caps

Monitoring and documentation made easy

WD 200 is offering several ways and levels of monitoring and documentation of the process cycles.

A₀ value

Belimed's programmable microprocessor control provides the A₀ value during each cycle. The disinfection phase is only completed when the appropriate A₀ value is reached. This prevents unnecessary resource consumption and saves time. The A₀ value is a measure of the effectiveness of thermal disinfection as a function of temperature and time. Mathematically, this is described with the integral of temperature over time. The standard states variable A₀ in seconds.

Greater safety and reliability due to independent process data monitoring

Optional monitoring sensors ensure maximum process reliability. Relevant performance parameters are monitored continuously:

- Number and type of process step
- Pump pressures
- Temperature-time profiles of water and air
- Quantity and volume of detergents used
- Conductivity of the final rinse water

Exceptional Support Services –

Improve system uptime with remote diagnostics

To maximize system uptimes Belimed offers its customers Belimed Remote Services, an innovative approach to monitoring sterile processing equipment. Unexpected downtime is minimized. When problems arise, the service technician can analyse the error message via the remote connection, modify programmes if necessary or initiate further problem solving steps. Should an on-site service call be unavoidable, the service technician already has valuable information about your system. All current Belimed products can be equipped with a remote diagnostics modem. Many older models can also be refitted with this modem.

Belimed Infection Control Software ICS 8535

All process information, the measured values and program parameters are automatically downloaded to either a stand-alone PC or to a clients network. The data may be retrieved at any time and used to provide documentation for quality assurance or product release purposes. At any time Belimed's Infection Control Software ICS 8535 may be extended for use with other decontamination equipment such as cart washers or sterilizers. Due to using an SQL platform, the ICS 8535 allows either machine's process data or independent monitoring data to be easily exported, to ensure full integration and connectivity with any client's electronic tracking and traceability system.



The Belimed Management and Tracking Software allows each item to be uniquely identified and traced throughout the entire cycle.

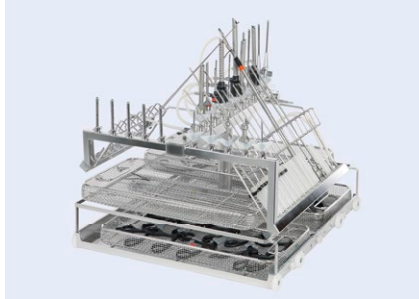
High flexibility, extensive range of accessories

Belimed offers the right accessory solution within its comprehensive range of accessories whether it be for surgical instruments, minimal invasive equipment, anesthetics tubing, operating room shoes, containers and baby bottles.



ECO instrument racks

- Art. no. 870 126 3-level instrument rack, 6 DIN trays
- Art. no. 870 128 4-level instrument rack, 8 DIN trays
- Art. no. 870 130 5-level instrument rack, 10 DIN trays
- Art. no. 870 132 6-level instrument rack, 12 DIN trays



MIS instrument rack, Art. no. 870 118

- 48 different connections
- Max. instrument length 545 mm
- 4 DIN trays
- Up to 4 tube reels



Container rack

Art. no. 870 120

- 3 DIN container
- H x W x D = 210 x 300 x 600 mm
- 3 lids



AN rack, Art. no. 870 115

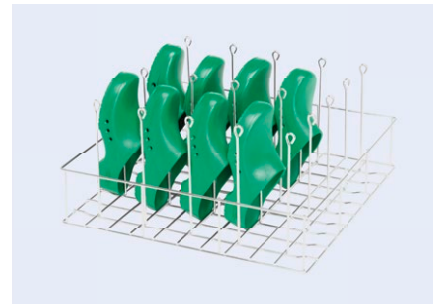
For loading with

- 10 breathing hoses, max. 1.5 m (5 x ø 21 mm, 5 x ø 11.2 mm)
- 3 suction hoses, max. 1.5 m
- 3 breathing bags
- 5 breathing masks
- 5 catheters, 5 tubes, 5 throat masks
- Various spouts, Y-pieces, etc.
- Jet bar for 4 connections; can be replaced and changed according to individual needs
- 1 box for small items



Rack for utensils

- Art. no. 870 122 Basic rack 1-level
- Art. no. 870 124 Basic rack 2-level



Inserts for OR shoes

- For the usage of 1-level and 2-level basic rack
- Art. no. 870 137 for 10 OR shoes up to size 44*
- Art. no. 870 138 for 15 OR shoes up to size 48**

*Capacity per level: 2 x 10 OR shoes

**upper level only



Insert for baby bottles

- Art. no. 773 843 for 21 bottles, 250 ml
- Art. no. 771 287 for 21 bottles, 125 ml
- Art. no. 817 302 for 21 bottles, 90 ml



Transport cart, art. no. 870 134

- For manual docking at the WD 200 hinged glass door
- Space for one additional rack in the lower level of the trolley

Technical Data

Technical data	WD 200
Type tested according to EN ISO 15883-1 and 15883-2	■
MPG certificat CE 0044, VDE, EMV, DVGW, SVGW etc.	■
Double door pass-through model with door interlock (Manual hinged doors with glass window)	■
Single-door front loading model with door interlock	■
Storage space for 2 × 10 l detergent cans	■
Wash chamber made of high quality stainless steel, AISI 316L	■
Front covers made of stainless steel AISI 304, grinded 4N	■
Base panels	■
Wash pump capacity (l/min)	625
Electrically heated wash chamber; heating power (kW)	18
Tank heating with steam heat exchanger	○
Peak load cut-off for electrical heater	■
Validation port for external measuring devices and sample drawing tap	■
Electrically heated drying unit (kW)	3.5
Heavy duty drying ventilators with HEPA filter H13 (capacity: m³/h)	324
Sterile filter monitoring by pressure measurement	○
Exhaust-air flap to prevent thermal energy loss	■
High capacity valves for fast filling with temperature control during filling for hot, cold and DI water (40 l/min)	■
High-capacity drain valve (5 l/s)	■
"Dynamic Filling" system to reduce media consumption	■
Pump pressure monitoring (wash dynamic)	■
Foam control	■
12 programs freely programmable via code, program library	■
A ₀ value control function and controller	■
Temperature monitoring during complete cycle	■
Wash chamber illumination	■
Patented status display; remaining cycle time, loading or removal readiness and error messages are displayed well visible from afar	■
Acoustic signal at program end	■
User interface with touch response, with 2 line LCD display at loading side	■
2 line LCD display at unloading side (H × W = 25 × 120 mm)	■
Automatic maintenance reminder	■
Interfaces: RS 232 for printer, RS 485 for PC cycle documentation, RS 232 for barcode reader	■
Dosing units for detergents (standard/optional); max. 4	2/2
Flow control for dosing units (standard/optional); max. 4	2/2
Recognition of coded racks	○
Empty level indicator	○
Exhaust air condenser operated either by fresh water or by cooling water loop	○
Electrically heated RO water tank 9 kW	○
Heat recovering system by condenser and RO water pre-heating	○
Barcode reader for registering wash goods	○
Built-in cycle printer at loading or unloading side	○
Independent process documentation (IPD) to monitor process data by independent sensors (water temperature, pump pressure and detergent dosing, conductivity control for final rinsing phase)	○
Conductivity measurement	○
Modem connection for remote access and diagnosis	○
Drain pump	○
Floor tube made of stainless steel with drain and leakage sensor	○
Side panels (left/right) project specific additional panels made of stainless steel AISI 304, grinded 4N	○
Electrically assisted latch door closing system	○

■ = standard ○ = optional

Subject to modification

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