

## Product Specification

# WD 290 Washer–Disinfector

### Product Description

The WD 290 washer–disinfector is engineered to provide the most effective wash of instruments, containers and basins with minimal use of natural resources.

With an efficiently designed stainless steel chamber and unique high volume / low pressure water circulation system, they can process up to 15 DIN trays of instruments and ensure Intermediate Level Disinfection with an  $A_0 > 3000$ , per ISO 15883-1.

The WD 290 is available with 2 powered, vertically sliding doors with full glass for complete viewing.

### Application

For use in Healthcare facilities for the processing of re-usable instruments, utensils and other hard goods.

### Dimensions

**Chamber:** 24.75" w x 27" h x 31.5" d  
630mm x 690mm x 800mm  
**External:** 35.5" w x 72.5" h x 37" d  
900mm x 1840mm x 940mm

### Configuration & Options

#### Heating Options

- House Steam
- Electric, 208V
- 3 Phase

#### Options

- Drain Discharge Cool Down
- Printer
- Additional Dosing Pump
- Detergent Flow Meter
- Seismic Anchoring Kit
- DI Pre-heater

#### Accessories

- 1 Level Rack
- 2 Level Rack
- 3 Level Rack
- 4 Level Rack
- 5 Level Rack
- Endoscopic Rack
- Endoscopic 2 Level Rack
- 1 Level Utensil Rack
- 2 Level Utensil Rack
- 1 Level Basin Rack
- 2 Level Basin Rack
- Transport Cart

### Standards

- UL60601-1, ISO 15883-1:2006



### Standard Features

#### Construction/Design

**Doors & Seal** – Double wall safety glass with silicon polymer door seal. Powered, vertically sliding doors.

**Chamber** – Stainless steel, type 316L

**Exterior** – Stainless steel

**Service Access** – Service access panels on the front, above and below the chamber as well as a pull out area for access to control system electronics.

**Dryers** – Two high performance blowers force air through a 10.5 kW heater to produce hot, dry air. Air is filtered through a HEPA system.

**Vented Exhaust** – Drying air is exhausted through a damper flap.

**Control System** – Microprocessor based control system with touch sensitive keys.

**Internal Diagnostics** – Components and parameters are monitored and any fault or error conditions are logged for retrieval to aide in repair diagnosis.



For more information, visit [belimed.com](http://belimed.com)

# WD 290 Washer–Disinfecter

### Standard Features (continued)

#### Construction/Design

**Smart Water Filling** – During each cycle phase, water enters the sump and the circulating pump starts as soon as there is sufficient water. Sensors monitor water levels and additional water is added, as needed, depending upon the load size. With this active system, smaller loads will use less water and detergent than larger loads.

**Fully Draining Pump** – The water circulation pump fully drains between each cycle phase to ensure no residual water remains inside the pump housing. This reduces the potential for bacterial build up and cross contamination.

**Rotary Spray Arms** – Located on the top and bottom of the chamber, and on each level of the loading racks, the design includes specifically located, large spray holes for maximum coverage, high water flow rates and effective cleaning.

**Water Circulation Pump** – A 3 HP (2200 watt) stainless steel pump circulates water through the spray arms at a 195-234 gallons per minute rate.

**Dosing Pumps** – Three (3) peristaltic dosing pumps are included with options to add an additional, up to a total of five (5). Optional flow meters can be added to monitor detergent dosing levels.

**Flow Meters** – One flow meter is placed in series with each dosing pump to ensure detergent and lube flow is occurring.

**Available Cycles** – Leaves the factory with 6 pre-programmed cycles that can be tailored, in the field, to meet user requirements and conditions. A total of 12 program cycles can be stored.

**Dual Temperature Sensors** – Two sensors provide a cross check that proper water temperatures are met. If readings deviate beyond a set tolerance a message is displayed.

### Cycle Description

**Pre-wash** – Cold water is used to rinse blood and other loose contaminants before the wash phase. Water enters the sump and the pump starts when a minimum level is reached. Water continues to fill the sump, as needed, while being circulated. At the end of this phase the water is sent to the drain.

**Wash** – Hot and cold water are mixed, depending upon the type of detergent being used, to reach the proper temperature. Detergent solution is dosed for the proper concentration. At the end of this phase the water is sent to the drain.

**Rinse** – Hot water is used to rinse off any detergent residue. The standard cycle set-up uses one (1) rinse phase. If an alkaline detergent is used, an additional rinse with acid neutralizer is necessary. At the end of this phase the water is sent to the drain.

**Thermal Rinse** – Hot water, preferably DI, is used and heated, as it is circulated, to 93°C. Water is circulated, at temperature, for 2.5minutes (factory default) to reach a disinfection  $A_0 > 3000$ .

**Drying** – Fresh air is pulled through a HEPA filter then passed over electric heating elements into the wash chamber. The air is vented through a damper, typically to the HVAC system.

The above cycle description, with one post wash rinse step, will result in a typical cycle time of about 32 minutes. Time will vary depending upon variations in utilities such as water temperature and pressure, steam pressure, and DI/RO water flow rate.

### Installation

Matching stainless enclosures, fabricated for various ceiling heights, are available to provide a smooth finish to wall recessed washers. For single, standalone units, a full stainless enclosure is provided.

All utility connections are easily accessible at the top of the washer.

### Preventive Maintenance

Belimed recommends regular preventive maintenance to ensure proper operation of the equipment. Belimed maintains a nationwide, factory trained Service Technician Group who can perform this maintenance and/or train Biomedical staff on the proper procedure.

**Belimed offers a number of PM Plans. Contact Belimed Technical Service at 1.800.451.4118 for more details or visit [www.belimed.com](http://www.belimed.com).**

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