

Laboratory Washer (Process Monitorable)

MADE
IN
JP

AWD-510 / AWD-510DRY

Washing
tank

W500 x D480 x H480 mm

Washing
water temp.

Pre-wash and wash: 45~80°C / Rinse and final wash: 45~93°C
Pre-drying: Fixed at ~60°C

Washing time

1~60 minutes.

- Provides safer, more consistent cleaning and disinfection than hand washing
- Color-coded lighting indicates current stage of the washing process



- Cleaning progress can be monitored from a distance via the front-panel LED and the tank's internal lighting color.
- Rinsing can be done at any temperature setting up to 93°C.
- Hot water is cooled to below 60°C before being discharged, eliminating the need for heat-resistant piping
- Effluent temperature is controlled to remain at or below 60 °C.
- A large double glass window provides a clear view of the interior.
- Double-glazed window ensures that the surface does not get hot even during hot water disinfection.
- Sliding two-tier rack allows for large quantities of instruments to be washed at once.
- Rotating nozzle showers at the top, middle and bottom allow for even cleaning.
- Detergent is automatically measured and dispensed (liquid detergent).
- Jet rack (optional) allows for the cleaning of flasks and other containers whose interiors are difficult to clean.
- Feed-water connection between the rack and main unit is automatically established when the door is closed.
- Electronic lock eliminates the risk of accidentally opening the door during cleaning.
- A wide variety of racks (optional) are available to suit your cleaning equipment.

FRONT LED LAMP/ INTERNAL COLOR LIGHTING:

Five color lighting to differentiate each process enables quick confirmation of the current progress even from a distance

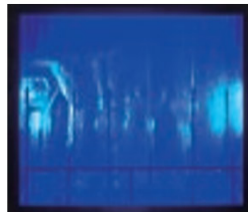
AWD510



Pre-washing (green)



Washing (yellow)



Rinsing (blue)



Rinsing by pure water
light blue (optional)

AWD510DRY



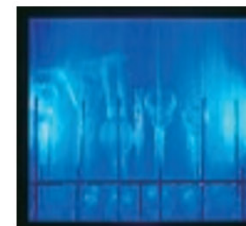
Pre-washing (green)



Washing (yellow)



Rinsing (blue)



Rinsing by pure water
light blue (optional)



Pre-drying
(purple) (optional)

Specifications

Model		AWD-510	AWD-510DRY
Type		Upper / middle / lower stage pressure jet type rotary jet nozzle	
Objects to be washed		Glassware as a whole including test tubes, flasks, beakers (excluding pipet)	
Detergent		Liquid detergent/supplied by automatic supply unit Powder detergent/manually supplied during operation	
Performance	Operation panel	Touch panel 4.3 inch LCD	
	Washing program	Pre-wash -> wash -> rinse -> final wash	Pre-wash -> wash -> rinse -> final wash -> pre-drying
	Arbitrary selection of the process	Washing temperature setting: OFF, pre-wash and wash: 45~80°C, rinse and final wash: 45~93°C	Washing temperature setting: OFF, pre-wash and wash: 45~80°C, rinse and final wash: 45~93°C, pre-drying: fixed at about 60°C
	Washing time	1~60 minutes (~10 minutes for 90°C or more), Wait, Repeat count: 1~10	1~60 minutes (~10 minutes for 90°C or more), Wait, Repeat count: 1~10, Pre-drying process: Time setting: 1~360 min, Wait OFF, Repeat Count: 1
	Program	Nine patterns of above program can be stored	
	Process display	Operation panel LED ON for each process pre-wash, wash, rinse, final wash, predrying): green Lighting color inside the bath: Pre-wash [green], wash [yellow], rinse [blue], final wash [light blue], predrying [purple]	
	Maximum washing volume	With two stages: Upper stage 10kg (effective height 150mm), Lower stage 15kg (effective height 165mm) With one stage: Lower stage 15kg (effective height 300mm) * with optional low-stage rack used	
Installation	Ambient environment	Operating ambient temperature: 5~40°C, Humidity 65±20%RH (no dewing), Elevation: 1500m or less above sea level	
	Water supply conditions	Tap water (mandatory): G3/4 connections (G1/2 on the equipment side), flow 10L/min or more, temperature: 5~25°C Feedwater pressure: 0.1~0.5MPa Hot water (optional): G3/4 connection port (G1/2 on the equipment side), flow 10L/min or more, temperature: 5~60°C Feedwater pressure: 0.1~0.5MPa Pure water (optional): φ10.5mm connection port, gravity water supply, temperature: 5~60°C Feedwater pressure: 0.02~0.1MPa Feedwater rate: 11L	
	Draining	Temperature: 60°C or less, φ31.5mm connection port, on the equipment side: nominal 40 (40A) piping Forced drain with pump	
	Overflow	Connection port 13mm	
Composition	Legs	Level adjuster (M10 screw)	
	Exterior	Overall dimensions: W580×D600×H845mm (excluding protrusions) Side/top surfaces: SUS304 hairline, bottom plate/backside: SUS304 2B Front panel (front below): SPCC	
	Door	Front loading type (damper mechanism) Double glass inside structure (heat-resistant reinforced), Outside: Polycarbonate Operation panel (door upper portion): ABS resin	
	Inner tank	Washing tank dimensions: W500×D480×H480mm (excluding protrusions), material: SUS316 Rotary nozzle shower type, internal filter 10 mesh, water tank filter 40 mesh, heater 2kW Bath internal temperature sensor (Pt100)	
	Pre-drying unit	-	Heater 700W, hot air drying with external air introduced via HEPA
	Heat insulation material	Melamine resin	
	Main power switch	Leakage breaker function with overcurrent (provided in the front panel (lower front))	
	Standby power switch	Tact switch (provided on the right side of panel)	
	Steam cooling function	Reduction of the steam amount due to steam cooling	
	Controller	Calendar function (battery backup), set memory function	
Safety device		Interlock, overcurrent/sensitivity current, door lock, overtemperature prevention, water full detection, circulation water pressure drop detection, leakage detection, prevention of water overtemperature	
Standard	No. of rack stages	2 or 1 (option)	
	Power supply	Single phase AC220V 13A (breaker capacity 15A), Power cord: 3m, 3 wires. Round terminal for M5	
	Internal dimension	500×480×480 mm (W×D×H)	
	External dimension	580×600×845 mm (W×D×H)	
Weight		Dry weight 87kg (excluding racks and circulation water)	
Accessories		Water supply hose [20A(G3/4) female - 15A(G1/2) female 1.5m] (2 pieces), Drain hose (inside dia. 31×2m), Detergent bottle housing rack, detergent tube, operation manual, cover to be used after removal of upper rack, overflow hose (inside dia. φ12×1.5m), upper and lower rotation nozzles	

* The performance is under conditions of power supply of AC220V, room temperature of 23°C ±5°C, the humidity of 65 RH±20%

* The performance range is for the raw water pressure at 0.1 0.5MPa and water temperature at 20 °C The water sampling rate differs depending on fluctuation of the water temperature.

Rack Mounting Examples

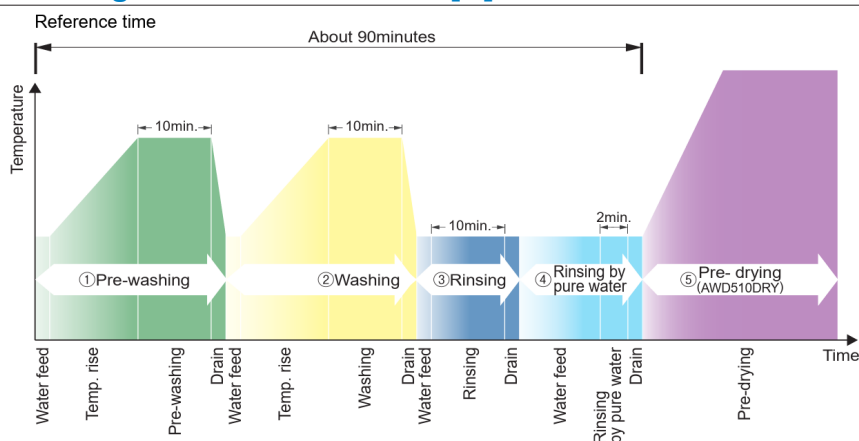


**Jet rack, Slide-type A5
(291063)**
Flask not included
The end of each pipe is
a nozzle



**Test tube rack
(291068)**
Test tubes not included
Rack base, Slide-type
upper/lower-stage

Washing Period Guide: Mode [B]



Operating conditions: Room temperature : $23\pm 5^{\circ}\text{C}$
Water temperature: 23°C
Raw water pressure: 0.1 MPa
Power supply: 200V $\pm 5\%$ /
Mode (without rinsing with pure water): Mode [B]
(Frequency of rinsing and rinsing with pure water changed to once + preliminary drying)

Optional items

No.	Product name	Description	Product code
(1)	Rack base, slide type upper stage	Upper rack in the tank. Installed on the lower stage in the washing tank and can carry various racks.	291061
(2)	Rack base, slide type lower stage	Lower rack in the tank. Installed on the lower stage in the washing tank and can carry various racks.	291062
(3)	Jet rack, slide type A5	Enables washing of the inside of measuring flasks. This jet rack cannot be used together with lower and upper racks	291063
(4)	Test tube rack	Used for washing of test tubes. Set of four 90°-divided pieces. Used as a set with rack base.	291068
(5)	Band to hold glassware items	Use this band to prevent test tubes from tipping when only a few are loaded on the test tube rack. 4 pc. set.	291071
(6)	Beaker rack A5	Used for washing of beakers. Used as a set with rack base. Applicable beaker: 50 to 3000ml.	291064
(7)	Beaker rack net for beaker rack A5	Used for washing 50 to 200ml beakers with the beaker rack A5. To prevent overturn of beakers.	291069
(8)	Stand	W580×D600×H535, with casters/adjuster	291067
(9)	Mesh tray	Used for washing of small objects. Size: W220×D140×D50 (with lid)	291072



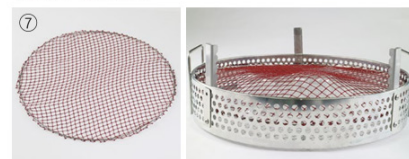
Slide-type upper-stage rack base



Test tube rack



Beaker rack net



Slide-type lower-stage rack base



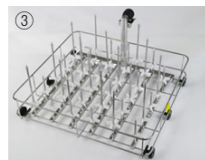
Beaker rack A5



Band to hold a small number of glassware items



Slide-type jet rack A5



Mesh tray



Stand



Dimensions (mm)

