

INNOVA

GLASSWARE WASHER



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INNOVA Bio-Meditech

Is one of the leading global providers of laboratory and medical devices. Firmly committed to our mission of “sharing innovative bio-meditech solutions with the world”, we are dedicated to innovation in the fields of Biology Project, Life Science, Pharmacy Industry and Medical Treatment.

Headquartered in Boston, USA, Innova Bio-Meditech possesses a sound distribution and service network with business partners in North and Latin America, Europe, Africa and Asia-Pacific etc.

Innova has built up a well estab-

lished R&D, manufacture network with 4 centers in Boston, Beijing, Qingdao, and Shanghai. Inspired by the needs of our customers, we adopt advanced technologies and transform them into accessible innovation. This means constant effort and research, in order to more fully understand and anticipate the developments of the market, produce constantly upgraded product ranges by adding new products year after year.



AMERICA

CHINA



Secure quality, Continuous Innovation

INNOVA INOGW glassware washer are designed to provide unmatched flexibility, excellent cleaning and drying efficiency. When combined with especially formulated chemistries and global service offering, INNOVA' unique certified cleaning process provides a higher level of assurance that expected cleaning results are achieved.

Feature

Stainless steel interior, exterior, racks and inserts withstand heavy use and reduce corrosion and contaminant build-up. Internal components such as pumps and seals are laboratory-grade, engineered for long life.

- Interior work area: #316L stainless Steel
- Exterior body : #304 stainless steel
- Washer trolley:#304 stainless steel and optional for : #316L stainless Steel



Microprocessor Control System

7" LCD display touch screen, microprocessor with PLC system which is various of programmable washer cycles, detergent volume etc. User programmable with 99 storable programs and definable. All significant parameters can be set. These include: execution times, operating temperatures, quantity of additives, number of phases, and so on. Access to the control operations is protected by a system of four user passwords.



Drop Down Door

- Counterbalanced for ease of operation
- Ensures proper rack placement and connection to manifold
- Manufactured of solid 304L stainless steel with safe double glass window
- Fully insulated to reduce heat loss and noise
- Provides loading platform eliminating need for loading cart

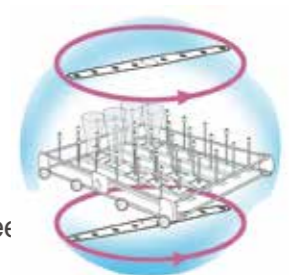


System Wash Levels

- 1 to 3 levels according to the models
- Rack actuated via automatic manifold connections when door is closed
- Rack accessories independent and easily removable for use on all levels

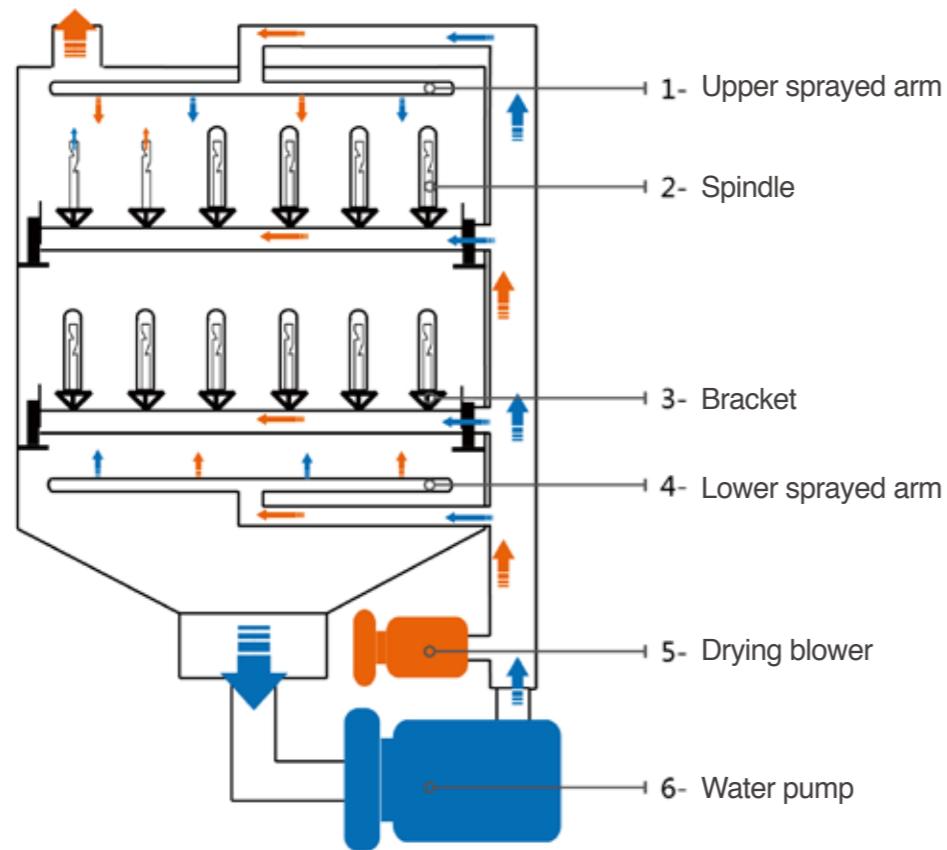
Spray System

- Two rotary spray arms are located top of and bottom of chamber
- Rotary sprayer made of # 4 sanitary high-grade 304L stainless steel
- Easily disassembled for cleaning and maintenance



Washing & Drying Cycle

- Water flow
- Drying air flow



Programming Cycle Operation

Users can define different washing steps such Pre-Wash ,Wash, Running Water, Acid Rinse, Neutralized Washing, Hot Water Washing, Drying etc. in one washing cycle. It can also adjust water temperature, washing time, volume of detergent, drying temperature and drying time in related washing step.

Monitoring System

- Audible and visual alarms provide quality control for each wash cycle water level sensors
- Two independent sensors control chamber water level and prevent overflow.

Water Injection System

Two water inlets Controlled by electromagnetic valve, users can choose the cold water and pure water in wash and rinse phase. Washer trolley can connect the water and gas outlet automatically on each level which reduces the pressure loss and ensures wash and dry efficacy.

Dual Powerful Pumps

one for washing and one for draining, reduce the potential risk of cross contamination between wash and drain water.

Powerful pump recirculates water at a high rate to dislodge dried contaminants for thorough cleaning.

Drain pump is associated with water seal drainage pipeline design avoid polluted water backflow.

Filter System

- Two stainless steel filters protect recirculation and drain pumps from debris
- Filters easily removed for cleaning
- Filters on all incoming water
- Filters on air intakes



Dual Peristaltic Pumps: Detergent & Neutraliser

Disinfection effectiveness mainly depends on the correct performance of the washing phases and the neutralization of the treated material. Innova washers are with two peristaltic pumps dedicated to dispensing the alkaline detergent during the cleaning phase and the acid neutralizer during the neutralization phase respectively.

Automatic Detergent Dispenser

A peristaltic pump are equipped with separate sensors which automatically draws a programmed amount of automatic washer liquid detergent during wash cycles.

360 rotary sprayed upper and lower wash arms with rotary speed monitor devices can distribute water and detergent more efficient.

Drying System

The forced-air “Drying System” is a high-performance rapid drying system. The system, comprising an efficient hot air generator and a powerful fan, is directly managed by the programmer which allows both operating time and temperature parameters . The microprocessor PLC system assures intelligent management of the drying circuit by automatically adjusting fan speed (thereby reducing power consumption) according to the temperature measured in the washing chamber.

The Efficient hot air temperature can be adjustable to 120 °C which enhanced washing, rinsing and sanitize glassware, and faster drying.



Clean Air System

The air intake passes through a HEPA filter with at 99.7% (0.1um~0.3um) efficiency rating to washing chamber, top and bottom Rotary sprayers and spindles which avoid the air pollution and improve the dry efficacy. The drying system also effect on washing tube and avoid mould. If the HEPA filter is failed or broken, There is a alarm on it.



Steam Condenser

The steam condenser rapidly reduces the saturated steam from the washing water, especially during the thermal disinfection phases. This device eliminates the formation of condensation near the glassware washer and prevents humidity and smells from escaping into the air, especially in the versions positioned underneath worktops. In air-conditioned rooms moreover, limiting the dispersion of heat from the glassware washer reduces the work load of the air-conditioning system, considerably decreasing electricity consumption and unwanted temperature



Reliability

- 1 Microprocessor with PLC control system anti-EMI (electrical magnetic interface)
- 2 7" colorful touch screen is easy control and observation, It display the work situation.
- 3 Password protection with three levels can meet different management needs which block the authorized entry.
- 4 Parameters setting memory for Power failure, washer cycles is going on as soon as power comes back.
- 5 Safety protection water temperature and dry air temperature, when the temperature exceed the setting, it will stop working.
- 6 Safety lock with electromagnetic release to prevent door opening while it is in wash/dry cycle.
- 7 Safety electrical system for circuit overload, short circuit, over current and leakage current
- 8 Safety emergency button for stop the unit in time.
- 9 Alarm system: drainage malfunction alarm, detergent/neutralizer shortage alarm, high water heating alarm etc.



Optional Accessories

Connections RS232 And USB

A significant feature of is that it incorporates the devices required for the complete communication of data relative to completed process. One standard RS232 outputs, one for connection with the printer and the other for connection with the PC in order to download all the information relative to completed washing and disinfection programs.

Optional Water Conductivity Monitoring

Sensor measures the level of dissolved inorganics such as calcium and ferrous ions in the tank water, providing validation of water cleanliness, hardness and rinsing thoroughness. Confirms that detergent, rinse aid and purified water have been properly dispensed.

Optional PH Test

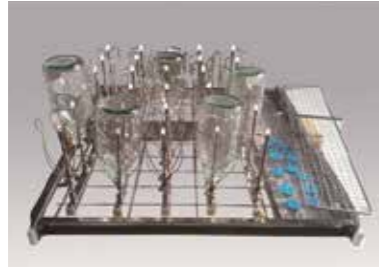
Sensors measures the water PH level of drain water which ensures the wash efficacy.

Optional Printer

The traceability of the washing and thermal disinfection cycles performed in professional glassware washers is required in order to check the operations have been successfully completed. The printer is an accessory which can provide a detailed report

MODEL	INOGW -120	INOGW -220		INOGW -320		INOGW -420
Capacity(L)	120	220		320		420
Voltage(V/HZ)	220V~240V 50~60HZ	220V~240V 50~60HZ	380V/50~60HZ	220V~240V 50~60HZ	380V/50~60HZ	380V/50~60HZ
Washer Load Level	1	2		3		2
Water Wash Power(KW)	1.1	1.5		1.5	2.8	2.8
Water Heater Power(KW)	5	5	15	5	15	17
Dry Power(KW)	2.1	3.6		3.6		3.6
MAX. Power(KW)	6	6.5	16.5	6.5	18	20
Water Consumption/Cycle(L)	15	15			15	25
Tank internal temperature (C)	0~99	0~99		0~99		0~99
Noise(dBa)	<50	<55		<55		<60
Water Supply Pressure (Mpa)	0.3~1.0					
Chamber Dimension (W*D*H,mm)	600*629*465	600*629*658		600*629*820		688*700*703
Exterior Dimension (W*D*H,mm)	980*740*830	690*790*1765		690*790*1905		1100*900*2165
Package dimension (W*D*H,mm)	1080*990*1065	990*840*2090		990*840*2250		1300*1040*2350
Net/Gross Weight (KG)	130/150	310/340		350/380		380/420

INO30



To wash Max. 30ea of 250ml infusion bottles and caps; or other volumetric flasks conical flasks or beakers

INO38



To simultaneously wash measure cylinder 16 ea of 5~25ml, 12 ea of 50~250ml, 6 ea of 500ml and 4 ea of 1000~2000ml

INO36



To wash Max.36ea of 10~250ml volumetric flasks, conical flasks or beakers(diameter within 90mm)

INO56



To wash Max.36ea of 10~250ml volumetric flasks, conical flasks or beakers(diameter within 60mm)

INO3060



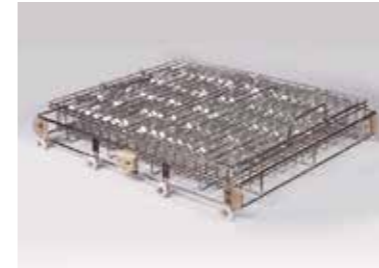
To wash 30ea of pipettes and 60ea of Samples vials /tubes

INO90



To wash 90ea of 50ml flasks or beakers

INO9075U



Upper rack to wash 75ea of petri dishes or caps within diameters 90mm

INO9075L



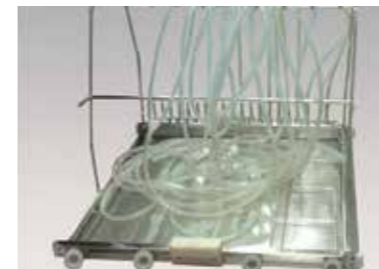
Upper rack to wash 75ea of petri dishes or caps within diameters 90mm

INO26



To wash max 26ea of transfer pipettes with its length less than 550mm; meanwhile a 510x280mm area can be used to wash beakers or other wide mouth bottles

INO20



To wash 20ea of rubber tubes with its inner diameters 3~8mm and length less than 3m

INO 60



To wash 60 ea of 550mm pipettes/straws. It can also wash some wide mouth glassware such as beaker

INO1218



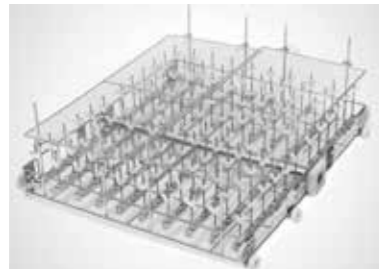
130 position of injection tubes and adjustable trolley. It can wash 112 ea of chromatography sampling bottle/ vials. It can also wash 18 ea of 10~250ml volumetric flask, triangle bottle, beaker.

INO220



220 position of injection tubes and adjustable trolley. It can wash 220 ea of tubes or vials and capes.

INO120



To wash 120 ea of centrifuge tubes, test tubes, 50ml volumetric flask

INO40



To wash 40 ea of different specification of absorbent bottle and sample bottle

INO-MR



To wash all kinds of dental apparatus.

INO01



To wash wide mouth flasks such as beaker, the area is 560mmx510mm.

