

# WASH GENE INTELLIGENT GLASSWARE WASHER

Glassware washer

## APPLICATION SCOPE

Applied to cleaning, disinfection and drying of various utensils in laboratories and production départements of pharmaceutical companies, disease control centers, scientific research institutes, food factories, chemical companies, electronic companies, etc.



## STANDARDIZED CLEANING

- By controlling the cleaning process and monitoring key clean the automation and standardization of vessel cleaning can be
- The cleaning effect of different batches and each cleaning point .
- Can achieve traceability management of cleaning data.

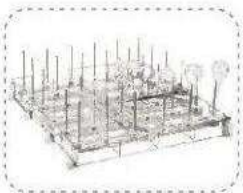
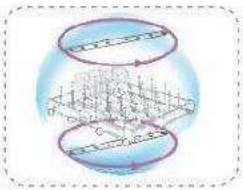
We can provide for you  
Standard cleaning verification solution



## CLEANING

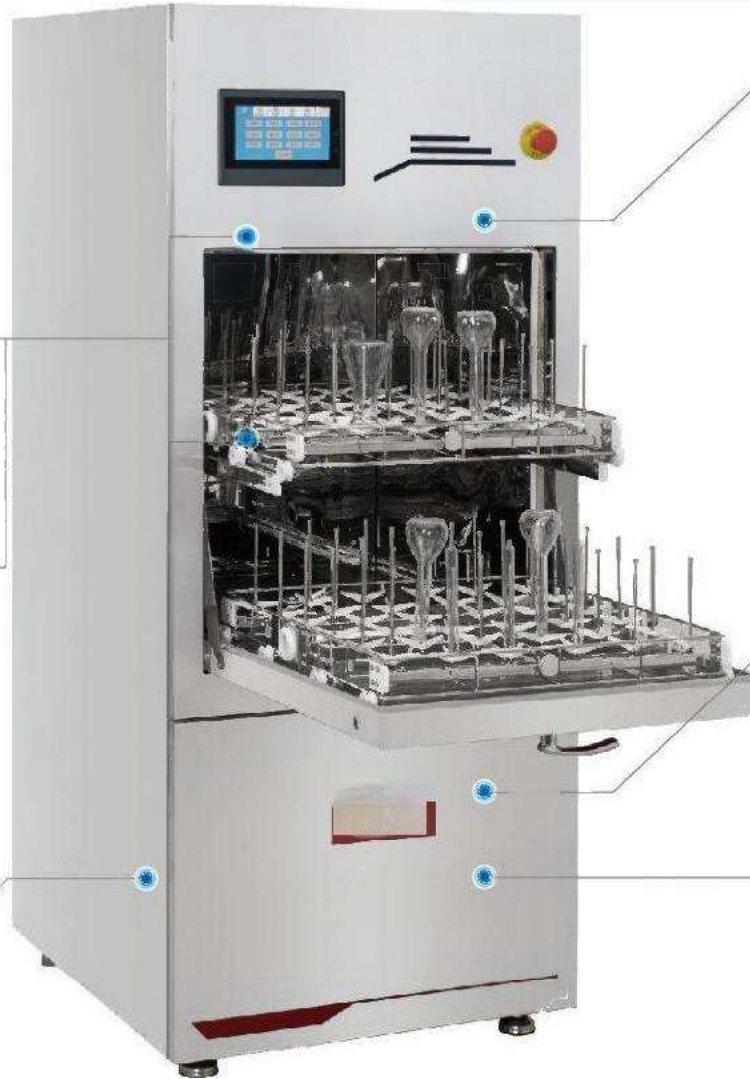
Glassware washer

Specially designed spray arm, and sector water curtain spray to ensure 360-degree cleaning without dead ends.



The nozzles of cleaning rack are distributed in parallel and equidistant, which effectively increases the cleaning capacity.

The cleaning aids are automatically and quantitatively added by peristaltic pump.



Multi-layer washing racks with parallel water intake independently to avoid pressure difference between layers. The central water distribution ensures that the nozzles spray water evenly.

Circulating pump is imported from Europe, with large water volume and customized structure to achieve the best matching of cleaning pressure and water flow.

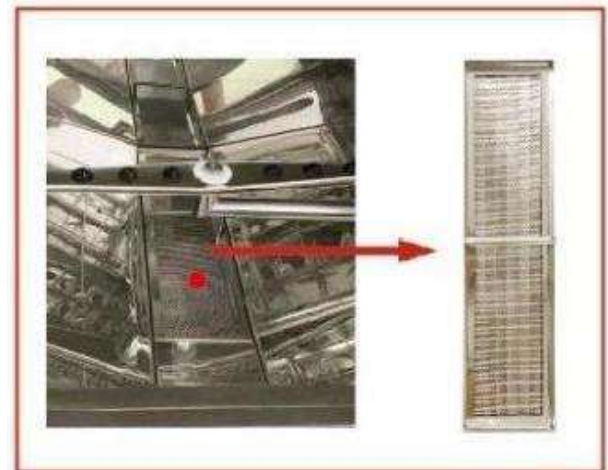
PLC micro-computer control, three anti-design more reliable; self-setting cleaning procedures, automatic operation; with audit tracking, three-level authority, Automatic alarm and other management, monitoring functions.

- Spray 360° inside and outside the container, avoid cleaning dead angle, ensure the washer cleaning effect;
- Two water inlets controlled by electromagnetic valve, users can choose the tap water and pure water in wash and rinse phase;

- Pure water inlet adopts built-in booster pump, which can directly inhale pure water without external booster;
- With overflow protection, if there is too much water in cleaning chamber, the program will be stopped after alarm, and the water will be automatically drained at the same time; Independent drainage pump, with the water seal design of the drainage pipeline to prevent the backflow of sewage;
- The cleaning agent shortage reminder function, which can remind to add cleaning agent in time;
- Through electrical safety, electromagnetic compatibility, salt spray test (corrosion resistance) and other comprehensive performance testing, more reliable, more durable.

## 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 & Neutralizer)

- Disinfection effectiveness mainly depends on the correct performance of the washing phases and the neutralization of the treated material. LabGeni glassware 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

- The patented TWINS system combines drying hot air with cleaning pipes, bringing hot air to every corner with 360° no dead-end angle.
- The utensils and the circulation pipeline synchronous drying, avoids the pipeline because of the long-term moisture and causes the pipeline internal to breed the bacterium.

When drying, hot air quickly blows the inner and outer surfaces of the utensils through the nozzles of the spray arm on the top and bottom of the cleaning chamber and the nozzles of the cleaning column.

Independent air heater with high-pressure fan, improve the drying efficiency of utensils.



Adopt HEPA high-efficiency air filter to ensure the cleanliness of dry air, avoid utensils by air pollution.

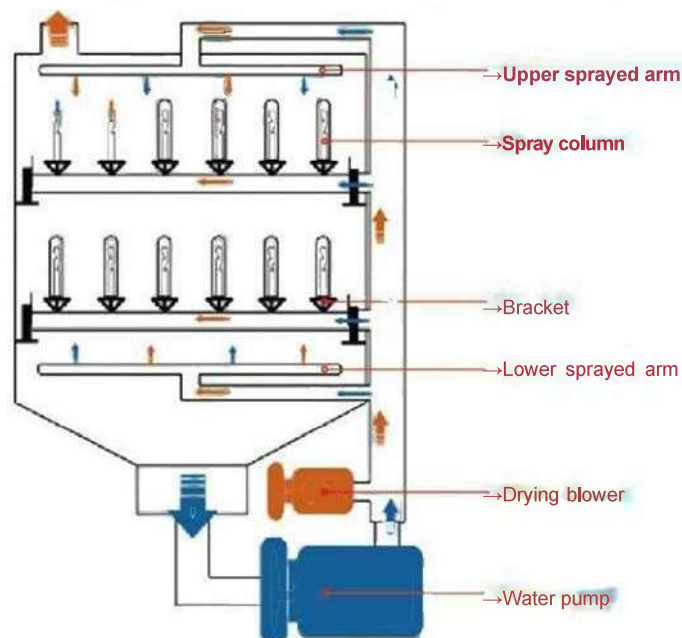
After drying, the utility model can quickly cool the utensils, so as to ensure that the users can safely take the utensils out for use.

## HUMANIZED OPERATING SYSTEM

- Man-machine interface is 7-inch color LCD touch screen,touch operation in visual field,convenient operation,pressure sensing,more suitable for complex operating environment;
- PLC programmable micro-computer operating system,stable and reliable performance,anti- magnetic,anti-breakdown;self-design and development of control system,to meet the needs of operation and management;
- Cleaning temperature,time, cleaning agent added,water type,water intake,cleaning time and other parameters can be set;
- LCD screen real-time display the current operating procedures and working parameters;
- It has power-off memory function. If power is cut off for some reason during the process of program execution, the equipment can continue to execute after power supply again].

## WASHING & DRYING CYCLE

- Water flow
- Drying air flow



## 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 which enhanced washing, rinsing and sanitize glassware, and faster drying.



## MICROPROCESSOR CONTROL SYSTEM

- 7"color LCD touch screen display, microprocessor with PLC system which is various of programmable washer cycles, detergent volume etc. User programmable with 99 storable programs and denable.
- All Signiant parameters can be set. These include: execution times, operating temperatures, quantity of additives, water source, inuent water volume,etc.The LCD screen displays the current running steps and working parameters in real time.Access to the control operations is protected by a system of 3 levels password.It also with power-o memory function.

## CLEANING PROGRAM

WASH GENE 120-320: 12 pre-set programs, which covers cleaning of common contaminants. Also, with 99 PLC free programming. Users can do different washing steps such as 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.





## 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;
- Cleaning racks are universal for all levels, and the cleaning racks of WASH GENE120,200,220,and 320 can be used in common with each other;
- Users can only use the lower cleaning rack, and the upper or middle racks can be removed to facilitate cleaning of utensils with different heights.

## 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 tap 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 easy.

## 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.



## RELIABILITY

- Microprocessor with PLC control system anti-EMI (electrical magnetic interface).
- 7" colorful touch screen is easy control, observe and it display the work situation.
- Password protection with three levels can meet different management needs which block the authorized entry.
- Parameters setting memory for power failure, washer cycles is going on as soon as power comes back.
- Safety protection water temperature and dry air temperature, when the temperature exceeds the setting, it will stop working.
- Safety lock with electromagnetic release to prevent door opening while it is in wash/dry cycle.
- Safety electrical system for circuit overload, short circuit, over current and leakage current.
- Safety emergency button for stop the unit in time.
- The door is anti-fall and anti-rebound design, and can be stopped at any angle from 0 to 90 degrees after opening.
- Alarm system: circulating pump overheated, water heating abnormal, air heating abnormal, cleaning agent shortage, door is not closed, water abnormal, overDow alarm, etc.
- USB port for exporting all the data relative to completed washing and disinfection programs.



## OPTIONAL ACCESSORIES

- **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. Confirm that detergent, rinse aid and purified water have been properly dispensed.



- **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.



Glassware washer



WASH GENE 60



WASH GENE 200A



WASH GENE 120



WASH GENE 200

Glassware washer



WASH GENE 220



WASH GENE 320



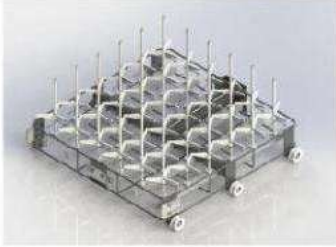
WASH GENE 420

## TECHNICAL PARAMETER

Items	Model	WASH GENE60	WASH GENE200A	WASH GENE120	WASH GENE200	WASH GENE220	WASH GENE320	WASH GENE420	
Cleaning	Capacity (L)	80	200	120	200	220	320	420	
	Washer Load Level	1	2	1	2	2	3	2	
	Water Wash Power(kW)	0.25	0.4	0.4	0.75	0.75	1.5	1.5	
	Water Heater Power(kW)	3	3	5	5	5	5	5	
	MAX.Power (kW)	3.5	4	6	6	6	7	7	
	Water Consumption/Cycle(L)	8	15	17	18	20	22	25	
	Tank Internal Temperature(C)	0-99	0-99	0-99	0-99	0-99	0-99	0-99	
	Water Supply Pressure(Mpa)	0.3-1.0							
	Peristaltic Pump for Cleaning Agent	2 independent pumps control detergent agent and neutralizing agent							
	Cleaning Agent Level Sensor	YES	YES	YES	YES	YES	YES	YES	
Washing Pump	Sweden 150L/min	Sweden 400L/min	Sweden 400L/min	Sweden 800L/min	Sweden 800L/min	Sweden 1000L/min	Sweden 1000L/min		
Drying	Drying Function	NO	NO	YES	YES	YES	YES	YES	
	Steam Condenser	NO	NO	YES	YES	YES	YES	NO	
	Dry Power(kW)	NO	NO	3	3	3.6	3.6	3	
Control System and Traceability	Control System	4.3"color LCD touch screen display, microprocessor	7"color LCD touch screen display, microprocessor	7"color LCD touch screen display, microprocessor	7"color LCD touch screen display, microprocessor	7"color LCD touch screen display, microprocessor	7"color LCD touch screen display, microprocessor	7"color LCD touch screen display, microprocessor	
	Cleaning Program	3 pre-set programs (editable)	12 pre-set programs (editable)+ 99 PLC free programming	12 pre-set programs (editable)+ 99 PLC free programming	12 pre-set programs (editable)+ 99 PLC free programming	12 pre-set programs (editable)+ 99 PLC free programming	12 pre-set programs (editable)+ 99 PLC free programming	12 pre-set programs (editable)+ 99 PLC free programming	
	Password Protection	3 levels password	3 levels password	3 levels password	3 levels password	3 levels password	3 levels password	3 levels password	
	Safety Emergency Button	NO	NO	YES	YES	YES	YES	YES	
	USB port	YES	YES	YES	YES	YES	YES	Optional	
	Integrated printer	NO	NO	Optional	Optional	Optional	Optional	Optional	
	Online Monitor Performance of Washing	NO	NO	Optional	Optional	Optional	Optional	NO	
Dimensions & Weight	Chamber Dimension (W*D*H,mm)	470*462*422	526*542*645	600*629*539	600*629*679	600*629*754	600*629*915	688*700*703	
	Exterior Dimension (W*D*H,mm)	529*648*650	607*824*1050	980*740*870	990*740*1145	693*790*1825	693*790*1985	1110*900*2165	
	Package Dimension(W*D*H,mm)	650*780*850	720*980*1230	1110*940*1075	1110*940*1345	810*990*2015	810*990*2185	1230*1070*2290	
	Net Weight(Host only,kg)	65	125	169	193	220	237	370	
	Gross Weight (Host with rack,kg)	104	165	200	260	300	320	460	
Others	Door	Foam SS door	Foam SS door	Double-layered Glass Door	Double-layered Glass Door	Double-layered Glass Door	Double-layered Glass Door	Double-layered Glass Door 2Doors,Electric	
	Safety Door Lock	YES	YES	YES	YES	YES	YES	YES	
	Built-in RO Water Pump	YES	YES	YES	YES	YES	YES	NO	
	Noise(dBa)	<50	<50	<50	<50	<55	<55	<60	
	Voltage(V/Hz)	220V-240V/50-60Hz	220V-240V/50-60Hz	220V-240V/50-60Hz	220V-240V/50-60Hz	220V-240V/50-60Hz 380V 50-60Hz	220V-240V/50-60Hz	380V/50-60Hz	220V-240V/380V/50-60Hz
	Certificate	CE+ISO9001	CE+ISO9001	CE+ISO9001	CE+ISO9001	CE+ISO9001	CE+ISO9001	CE+ISO9001	

## CLEAN SHELVES AND ACCESSORIES

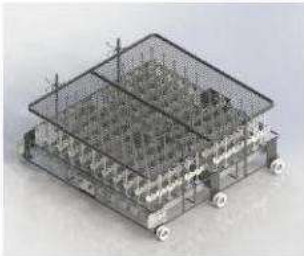
### Accessories suit for WASH GENE60



**WASH-B36B**  
36 nos. of injectors,  
distance between  
injectors 6cm, only  
one layer can be placed



**WASH-B52B**  
52 nos. of injectors,  
distance between  
injectors 4.8cm, only  
one layer can be placed



**WASH-B126B**  
126 nos. of injectors,  
wash test tubes, liquid  
bottles, small  
volumetric asks, etc,  
only one layer can be placed



**WASH-B6018B**  
Hybrid rack, 60 nos. of  
test tubes, liquid asks  
+18 nos. of beakers,  
volumetric asks



**CWBR02B**  
Double-layer integr-  
ated, 4 cleaning  
baskets, wash medical  
and forensic surgical  
instruments, knives  
and scissors



**CWBR04B**  
Single layer with 4  
nos. of 1/4 round  
cleaning baskets for  
cleaning test tubes

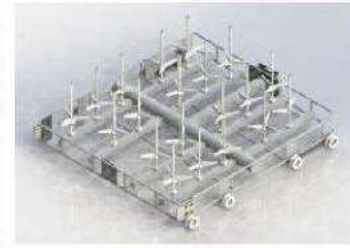


**WASH-B9024B**  
Double-layer integr-  
ated, wash 12 nos. of culture dishes each layer, and total 24  
culture dishes

## Accessories suit for WASH GENE200A



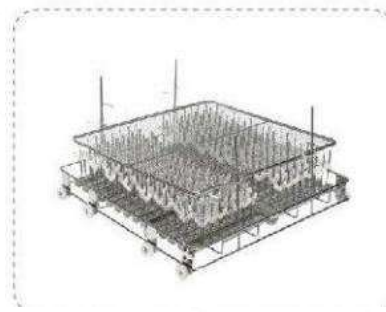
**WASH-B01A**  
Without injector,  
directly placed on  
the cleaning basket



**WASH-B20A**  
20 nos. of injectors,  
distance between  
injectors 105mm



**WASH-B36A**  
36 nos. of injectors,  
distance between  
injectors 75mm



**WASH-B210A**  
210 nos. of injectors  
for autosamper vials



**WASH-B8018A**  
80 nos. of injectors  
for autosamper vials,  
+18nos. of injectors for  
erlenmeyer flask



**WASH-B56A**  
56 nos. of pipettes,  
only one layer can be  
placed



**WASH-B9044LA**  
Can wash 44 pieces at  
a time for culture  
dishe with a diameter of  
90mm



**WASH-B9044UA**  
Can wash 44 pieces at  
a time for culture  
dishe with a diameter of  
90mm

Glassware washer

Accessories suit for WASH GENE120,200,220,320,420



Optional printer, can print cleaning process parameters



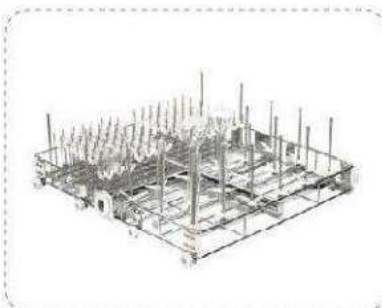
Online monitor performance of washing through test conductivity of water



**WASH-B80**  
80 nos. of beaker rack (distance between injectors 56mm), which can wash small beakers, centrifuge tubes, volumetric asks, etc.



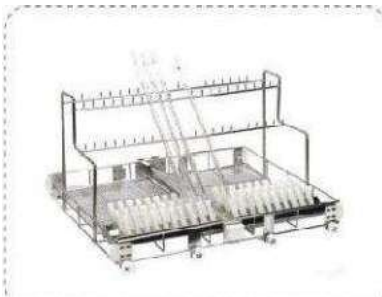
**WASH-B01**  
Without injector, directly placed on the cleaning basket



**WASH-B11218**  
112 nos. of injectors (distance between injectors 30\*30mm) +18 nos. of injectors (distance between injectors 90\*86mm)



**WASH-B10072**  
100 nos. of pipettes +72 nos. of autosampler vials, upright cleaning



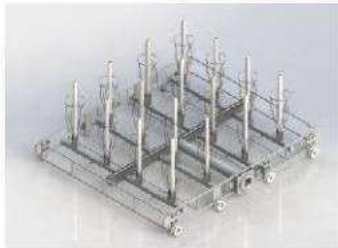
**WASH-B60**  
60 nos. of pipettes



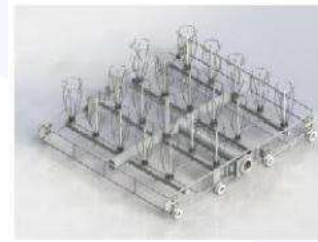
**WASH-B6060**  
60 nos. of pipettes +60 nos. of autosampler vials

Glassware washer

## Accessories suit for WASH GENE120,200,220,320,420



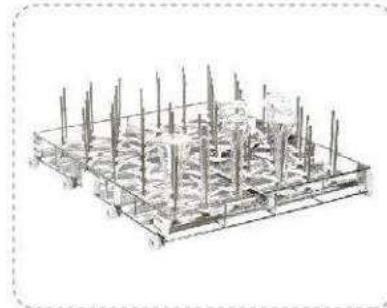
**WASH-B16**  
16 nos.of 1000ml erlenmeyer asks, volumetric asks etc. (distance between injectors 135\*129 mm)



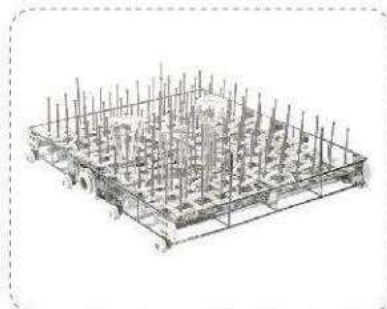
**WASH-B20**  
20 nos.of 500ml erlenmeyer asks, volumetric asks etc. (distance between injectors 126\*116mm)



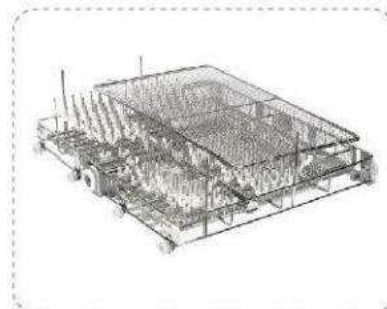
**WASH-B36**  
36 nos.of 250ml erlenmeyer asks, volumetric asks, beakers, test tube etc. (distance between injectors 99\*90mm)



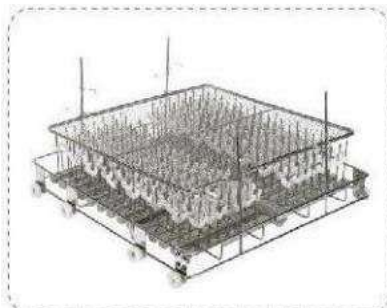
**WASH-B60**  
60 nos.of erlenmeyer asks, test tubes, measuring cylinders beakers, etc. (distance between injectors 72\*70mm)



**WASH-B120**  
120 nos.of injectors, can wash centrifuge tubes, test tubes and less than 50ml volumetric asks, etc. (distance between injectors 53\*48.5mm)



**WASH-B222**  
222 nos.of injectors, can wash autosamper vials, test tubes (distance between injectors 31\*23mm)+1 set of basic basket (for wash caps of autosamper vial)



**WASH-B260**  
260 nos.of injectors, can wash autosamper vials, test tubes (distance between injectors 38\*23mm)



**CWBR04**  
Without injector, with 4 cleaning baskets, can wash a large number of penicillin bottles, test tubes, etc.

Accessories suit for WASH GENE120,200,220,320,420

Glassware washer



WASH-B9070U  
Can wash 70 pieces at a time for culture dishe with a diameter of 90mm



WASH-B9070L  
Can wash 70 pieces at a time for culture dishe with a diameter of 90mm



WASH-B90210  
Put it in the washing machine as a whole, which can wash 210 culture dishes at a time, and it can be used for WASH GENE-220



WASH-B90280  
Put it in the washing machine as a whole, which can wash 280 culture dishes at a time, and it can be used for WASH GENE-320



WASH-B38  
38 nos. of graduated cylinders



CWRTR20  
20 nos. of rubber tubes(3-5 m)





CWAB40  
40 nos. of absorption bottles



Optional for injector racks, for big bottles, conventional rack with plastic supporter, this stainless steel supporter is for supplementary use

## CLEANING SOLUTION

Product Name	Model	Capacity	Description
Cleaningsolution combination (imported from Belgium RBS)	Detergent 	5L/barrel	Multi-purpose concentrated alkaline acid cleaner,made in Belgium,manufacturer is Chemical Products S.A.,suitable for automatic cleaning
		2.5L/barrel	
	Neutraliser 	5L/barrel	Multi-purpose concentrated acid neutralizer, made in Belgium,manufacturer is Chemical Products S.A.,suitable for automatic cleaning
		2.5L/barrel	

## EFFECTIVE CLEANING HEIGHT

Model	Layers	Upper Layer(mm)	Middle Layer(mm)	Lower Layer (mm)
WASH GENE320	1	/	/	686
	2	228	/	401
	3	228	227	117
WASH GENE220	1	/	/	525
	2	242	/	228
WASH GENE200	1	/	/	463
	2	177	/	232
WASH GENE200A	1	/	/	439
	2	153	/	230
WASH GENE120	1	/	/	345
WASH GENE60	1	/	/	222