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INSTRUMENTS

washing disinfection catalogue

washing and disinfection machines
laboratory sector

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Founded in Guastalla in
1948, the Smeg Group with almost 2000 employees and 15 branches around the world today represents a point of excellence for Made in Italy. Smeg has made a name for itself with its unique profile in the panorama of domestic and professional appliance manufacturers thanks to a deep-rooted corporate culture paying the utmost attention to the quality, technological content and design of its products.
Smeg Instruments has for more than 25 years stood by these values also in the design and manufacture of laboratory glassware washers enriching them with know-how gained through collaboration with professional operators in more than thirty countries around the world.
With an integrated structure from design to after-sales service Smeg Instruments offers the laboratory world state-of-the-art washing and disinfection products, customised solutions, and flexible and efficient services.


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smegservice

CE

MADE IN ITALY

SERVICE

Smeg also takes care of its customers throughout the lifetime of the product with its numerous specialised technical service centres spread across the entire national and world market. Installation, testing and personnel training are done directly by Smeg.
A toll-free number can be called for round-the-clock qualified assistance for every need. Putting your trust in Smeg means finding an after-sales service working from a warehouse of 5,000 m^2 and able to deliver spare parts in 24 hours by means of simple and complete Web management (Smeg Tech).

INNOVATION

A team of expert designers, supported by the most modern equipment and in collaboration with sector experts, design high-quality products in conformity with the most recent directives and regulations. In the design of the entire new range of Smeg glassware washers we set ourselves the objective to be in the vanguard and set new standards in the sector.

QUALITY

Manufacturers of professional devices cannot improvise. Achieving impeccable washing and disinfection results is an absolute must for both Smeg and its customers. With tens of thousands of machines installed in Italy and across the world, Smeg can boast consolidated and extensive experience in the field of laboratory glassware and material washing, which has allowed us to design a range of professional products to the highest quality standards. Smeg has obtained ISO 9001:2000 and ISO 13485:2004 quality certification.

RELIABILITY

All the Smeg products are made using top quality materials and the best components available on the market today.
Smeg particularly stands out for its careful selection of the steels employed and its masterly work. Smeg moreover implements an articulated quality system testing 100% of its production at the end of the line followed by statistical quality control by simulating 10-year machine use. Smeg has been a reliable partner of the main national and international distributors of laboratory materials for over twenty years.

OVER 25 YEARS SERVICE, TECHNOLOGY AND SAFETY

MISSION

Our customers are professionals who live and work in extremely complex organisations and require professional solutions that guarantee impeccable performance, perfect efficiency and the highest possible reliability.
Our mission is to offer these solutions and win their trust.

VISION

Those who work in this sector always require top performance.
Every day they are aware of the value of their commitment and expertise, give and demand the best.
They know that their working tools are an integral part of their professional performance and that their success and personal satisfaction also depend on them. We give these persons peace of mind offering them faultless performance: impeccable results and utmost reliability.
We are well aware that achieving these results and maintaining the level of excellence is not easy. It requires continual investments in research and technology, product inventiveness and creativity, unfailing customer care, and personal dedication and commitment.
This is what we demand of ourselves and of our collaborators, this is what we offer our customers.

VAST RANGE OF WASHING ACCESSORIES

Smeg offers a vast range of specific trolleys and accessories for washing glassware in chemical, pharmaceutical and petrochemical laboratories They are made of AISI 316L or 304 steel and of chemical refractory and heat-resistant materials. The combination and choice of the various accessories depend on the type and quantity of glassware to be washed. Particular attention has been paid to shapes and sizes in order to ensure that the accessories are easily interchangeable. The water intakes are automatically coupled to the internal drying air ducts when the door is closed.
All the accessories are dimensionally compatible with the various models.

AUTOMATIC WASHING

The automatic washing process of the Smeg glassware washers guarantees extremely high performance quality ensuring excellent controllable results, verifiable and repeatable over time.
Automatic washing allows achieving impeccable results and the margin of error is reduced to a minimum.
The efficiency and thoroughness of automatic washing guarantee an impeccable result and effective disinfection even for the most complex and delicate materials. The risks of damaging the material are eliminated resulting in a longer life and guaranteeing perfect drying.

WASTEWATER SEPARATION

The Smeg models can be equipped with a wastewater separation system.
This allows separating the washing wastewater full of potentially polluting substances from the rinsing water containing a negligible concentration of pollutants and can therefore be drained into the normal sewerage.

DISINFECTION

The Smeg disinfection machines guarantee impeccable washing and effective disinfection of also complex and delicate instruments. The GW2045, GW1060, GW4060, GW3060 and GW4090 models are equipped with automatically regenerated washing water softeners and use freshly drawn water in every phase.

CONTROLLED DETERGENT DISPENSING SYSTEM

Washing effectiveness is first and foremost based on proper execution of the detergent and neutralising phases of the material treated.
The models GW2045, GW1060 e GW4060 are equipped with a dispenser for alkaline powder and a peristaltic pump for the acid neutraliser.
While the GW3060 and GW4090 models have two peristaltic pumps, respectively dedicated to feeding alkaline detergent in the washing phase and acid-based neutraliser in the neutralisation phase. Each pump is equipped with a level sensor to be positioned directly in the can of the products used.
The machines are designed to dispense up to 4 different additives. Liquid alkaline detergents, new enzyme-based detergents or acid-based neutralisers, caustic soda, disinfectants and/or defoaming additives can be used.

PROGRAMMABLE WASHING CYCLES

The heart of the new-generation Smeg disinfection machines is the ultra modern control system with microprocessors that control every activity carried out and monitor (by means of redundant system) the entire flow of information processed by the machine.
The entire GW series offers the possibility of programming all the washing parameters by means of a multifunction membrane keyboard or directly from the PC thanks to the RS232 and the WD-TRACE ® registered software.
All the most significant parameters can be set, for example: execution times, operating temperature, additive quantity, number of phases. Access to the control operations is protected by a system of four user passwords.

WIDE CHOICE IN WASHING VOLUMES - BASIC LINE

The range of professional Smeg washing machine, Basic line, is projected and manufactured specifically with quality materials as stainless steel AISI 316L. At the same time, those models maintains as specific distinctive features, the reduced dimensions and the simplicity of their utilization. Since years, Smeg keeps to improve its products for guaranteeing to its clients any answers for an efficient washing and disinfection. At the same time, those models can meet space and quality requirements.

GW2045

GW2045 is a glassware washer with reduced dimensions projected to work at 1 or 2 washing levels and to treat substances of different nature. Washing chamber 380x480x580 mm. Possibility of washing and disinfecting.

GW1060

GW1060 is designed to operate with 1 or 2 levels for treating various types of substances. Washing chamber 520x515x545 mm. Possibility of washing and disinfecting.

Smeg spa has developed a new generation machine, GW4060, even if in a compact space, it presents the more advanced technologies as drying system with forced air and integrated peristaltic pumps

GW4060

GW4060 is designed to operate with 1 or 2 levels for treating various types of substances. Washing chamber 520x515x545 mm. Possibility of washing, disinfecting and drying with “Drying system”.

WIDE CHOICE IN WASHING VOLUMES - PROFESSIONAL LINE

The range of professional Smeg washing and disinfection machines is manufactured according to specific projects using professional materials and special components in order to achieve the best results from a technological point of view. The wash chambers are made of AISI 316 L quality stainless steel resistant to strong acids (as used in the pharmaceutical and food industries).

GW3060

GW3060 is designed to operate with 1 or 2 levels for treating various types of substances. Standard washing chamber 520x515x545 mm. Possibility of washing, disinfecting and drying.

GW4090

GW4090 is designed to operate with 1 or 2 levels for treating various types of substances. Standard washing chamber 520x515x545 mm. Possibility of washing, disinfecting and drying with Drying System.

The plastic materials used are the result of more than 25 years of testing and direct experience in the most varied application fields. They are heat-resistant and inert and offer excellent resistance to corrosive substances and selected organic solvents. The range of machines meets the glassware decontamination requirements of laboratories operating in the general chemical, organic and petrochemical fields. For laboratories operating in the biological sector, Smeg guarantees complete biological decontamination (in accordance with BGVV standards).

GW6090

GW6090 is a machine with a high loading capacity capable of handling large quantities of material in a short space of time and of washing large-sized instruments.
Washing chamber 670x650x835 mm (three times the useful volume of medium-sized machines).
Able to load up to three direct injection glassware levels or 3 levels with rotating spray arms.

The new generation of Smeg glassware washers GW2045, GW1060, GW4060, GW3060, GW4090 and GW6090 may today be considered the technological benchmark in the glassware washing and disinfection sector.
Every laboratory has its own particular professional washing problems: all of them, be it in general chemistry or bacteriology, organic chemistry or petrochemistry, food or pharmaceutics, Have residues that need to be treated in a different and appropriate way to achieve the required level of cleaning and disinfection.

PROGRAMMABLE

The heart of the new generation of Smeg disinfectors is the leading-edge management system controlled by microprocessors which can control at all the activities performed and monitor, using redundant systems, the entire flow of information processed by the equipment. The entire GW series allows operators to programme all washing parameters as they prefer, using the multi-function membrane keypad or the PC directly via the RS232 or LAN connections and the WD-TRACE software ®. 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.

DRYING SYSTEM

The forced-air “Drying System”, completely modified in the new GW series, 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 to be modified. The microprocessor 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 air intake passes through a class C filter with a 98% efficiency rating.

PERISTALTIC PUMPS: DETERGENT AND NEUTRALISER

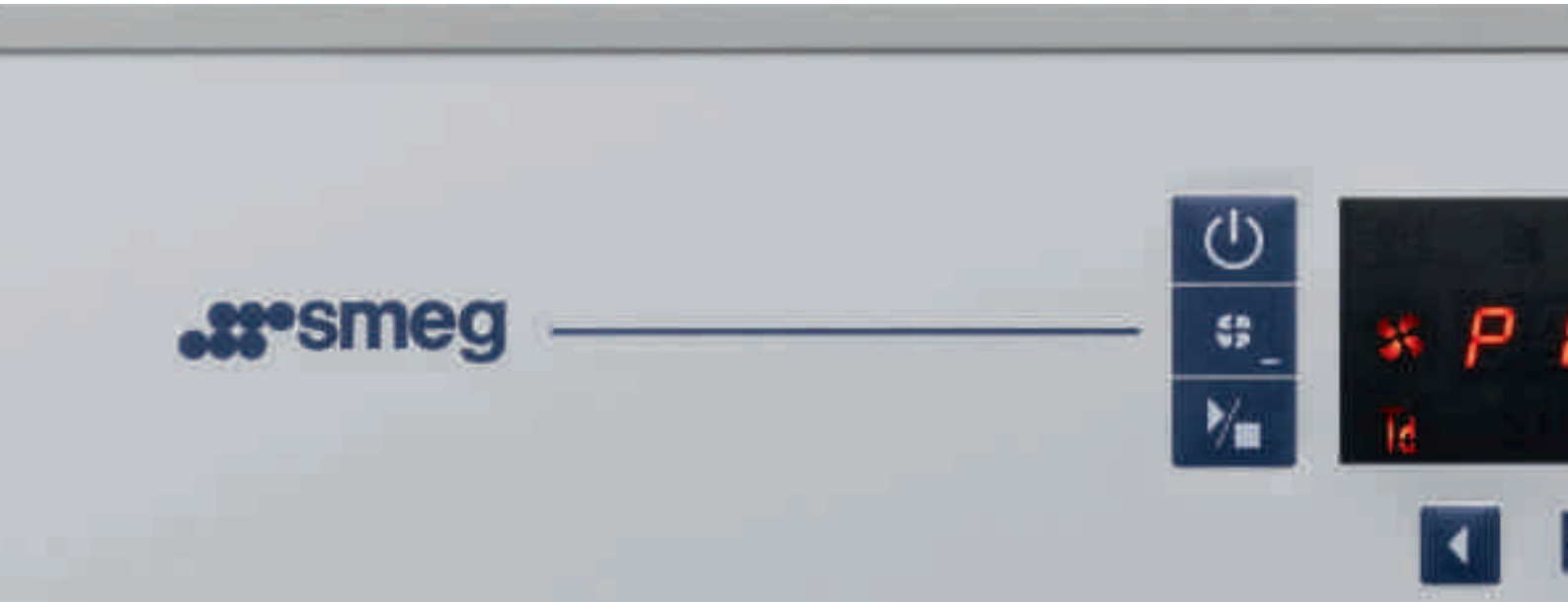
Disinfection effectiveness mainly depends on the correct performance of the washing phases and the neutralisation of the treated material. Models GW3060 and GW4090 feature two peristaltic pumps dedicated to dispensing the alkaline detergent during the cleaning phase and the acid neutraliser during the neutralisation phase respectively. Each pump is equipped with a level sensor to be positioned directly in the can of the products used.
About the models GW2045, GW1060 e GW4060, it is possible to install a specific optional pump to dispensing the alkaline detergent.

ADDITIONAL PERISTALTIC PUMPS FOR ADDITIVES

The new GW models can have up to two additional peristaltic pumps dedicated to dispensing additives (caustic soda, defoamers, inhibitors, disinfectants). Each pump is equipped with a level sensor to be positioned directly in the can of the products used.

DETERGENT STORE

Ergonomics, reduced dimensions and practicality are indispensable requirements for all equipment used in busy professional surroundings. With these requirements in mind, Smeg has designed a detergent store located inside the reduced dimension of the glassware washer itself. It can contain up to four 2-litre containers for the GW4090 series and four 5-litre containers for the GW6090 series. No product feed pipes project from the volume of the glassware washer.



LAN CONNECTION

Thanks to the dedicated Smeg WD-TRACE software ® it is possible to visualise each piece of equipment as though it were a terminal, thus being able to store all the machine data directly on PC. As information communication is two-way, it is possible to directly dialogue with the disinfector microprocessors, for example, in order to change the cycle parameters or display a chart of internal temperatures.

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 containing all information relative to cycle performance. In both the free-standing and panel versions, the thermal printers used in the GW series provide complete supporting documentation for operators.

CONNECTION RS232

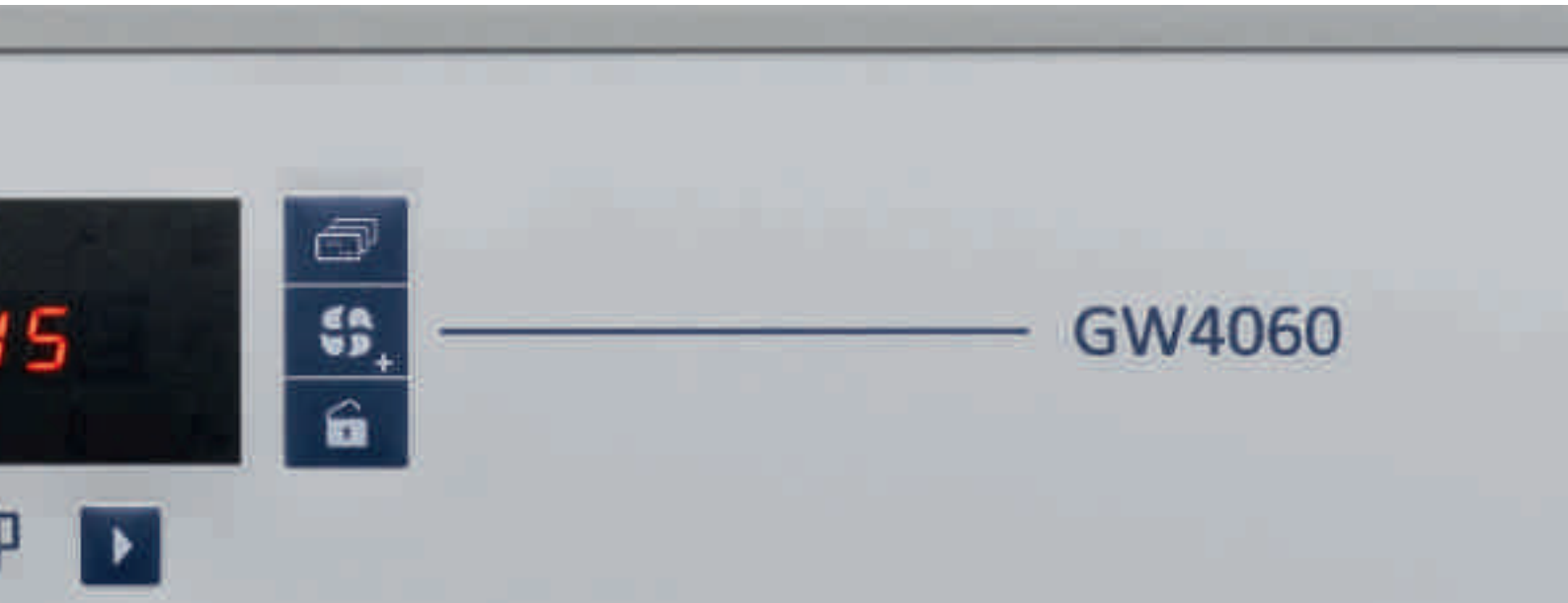
A significant feature of the new-generation equipment is that it incorporates the devices required for the complete communication of data relative to completed processes. The range of last-generation GW features two standard RS232 outputs, one for connection with the printer and the other for connection with the PC in order to download all the information relative to completed washing and disinfection programmes.

THE PARAMETER A_0

Is a numerical value deriving from an equation that directly relates two fundamental parameters: temperature and thermal disinfection time.
Basically, the value of A_0 defines the level of lethality of the process expressed in seconds. The value appears directly on the display and, if a printer is installed, it is also included in the end-of-cycle report.

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 changes.



GW2045

TECHNICAL DATA SHEET

GW2045 TECHNICAL FEATURES	All versions
Electronic control	Microprocessor
Standard programs stored	6
Customisable programs	2
Display with segments and warning light	yes
Clock and calendar	yes
Reprogrammable phases	8
Phase parameters	type of water, detergent quantity, target temperature, extension time in minutes, temperature
Tank internal temperature	from room temperature to 95°C
Accuracy	0,1°C
Temperature sensors in tank	PT 1000 CLASS B IEC 60751
Display	2 digits
Detergent dosing system	max. 1 powder dispenser and 2 liquid pumps
Detergent level sensor	optional
Alkaline powder detergent dispenser	yes
Pump to dispense acid neutralized liquid	yes
Pump to dispense alkaline liquid detergent	optional
Safety lock	yes, with electromagnetic release
Safety devices	safety thermostats, door interlock
Alarm display	30
Troubleshooting menu	yes, using PC connection
Programme editing	yes, using 2 spare programmes
AUXILIARY FUNCTIONS	
Traceability	storage of data for 100 most recently run programmes
RS232 serial port for PC connection	yes
RS232 serial port for printer	yes
Cycle storage	yes, WD-TRACE®/Excel format
Cycle file download	yes, WD-TRACE® format
WATER SUPPLY (PRESSURE 1,5-5 BAR)	
Cold water inlet	yes, max 42° F hardness
Demineralised water inlet	yes, < 20 µS/cm
Demineralised water booster pump	optional
Water softener incorporated	yes
Recirculation pump	200 l/min
WATER HEATING	
Electrical	3,0 kW max
STEAM CONDENSER	optional
DIMENSIONS LxDxH mm	
Outside (with built-in top)	450x620x850 (830)
Inside	380x480x590
Net weight (Kg)	61
STAINLESS STEEL	
Wash tank	AISI 316L
Exterior covering	AISI 304
ELECTRICAL POWER SUPPLY	
Max. voltage/power	1/N/PE 230V ~ 50Hz 3,3 kW
NOISE LEVEL	max 50 dB

GW1060

TECHNICAL DATA SHEET

OPTIONAL OPTIONAL OPTIONAL OPTIONAL

GW1060 TECHNICAL FEATURES	All versions
Electronic control	Microprocessor
Standard programs stored	6
Customisable programs	2
Display with segments and warning light	yes
Clock and calendar	yes
Reprogrammable phases	8
Phase parameters	type of water, detergent quantity, target temperature, extension time
Tank internal temperature	from room temperature to 95°C
Accuracy	0,1°C
Temperature sensors in tank	PT 1000 CLASS B IEC 60751
Display	2 digits
Detergent dosing system	max. 1 powder dispenser and 3 liquid pumps
Detergent level sensor	optional
Alkaline powder detergent dispenser	yes
Pump to dispense acid neutralized liquid	yes
Pump to dispense alkaline liquid detergent	optional
Safety lock	yes, with electromagnetic release and automatic opening
Safety devices	safety thermostats, door interlock
Alarm display	30
Troubleshooting menu	yes, using PC connection
Programme editing	yes, using 2 spare programmes
AUXILIARY FUNCTIONS	
Traceability	storage of data for 100 most recently run programmes
RS232 serial port for PC connection	yes
RS232 serial port for printer	yes
Cycle storage	yes, WD-TRACE®/Excel format
Cycle file download	yes, WD-TRACE® format
WATER SUPPLY (PRESSURE 1,5-5 BAR)	
Cold water inlet	yes, max 42° F hardness
Demineralised water inlet	yes, < 20 µS/cm
Demineralised water booster pump	optional
Water softener incorporated	yes
Recirculation pump	400 l/min
WATER HEATING	
Electrical	6,3 kW on tri-phase version, 2,3 kW on mono-phase version
STEAM CONDENSER	optional
DIMENSIONS LxDxH mm	
Outside (with built-in top)	600x650x850 (830)
Inside	520x515x545
Net weight (Kg)	77
STAINLESS STEEL	
Wash tank	AISI 316L
Exterior covering	AISI 304
ELECTRICAL POWER SUPPLY	
Max. voltage/power	1/N/PE 230V ~ 50Hz 2,8 kW 3/N/PE 400V ~ 50 Hz 7,0 kW
NOISE LEVEL	max 50 dB

GW4060

TECHNICAL DATA SHEET

GW4060 TECHNICAL FEATURES	All versions
Electronic control	Microprocessor
Standard programs stored	15
Customisable programs	6
Display with segments and communication led icons	yes
Clock and calendar	yes
Reprogrammable phases	8
Phase parameters	type of water, detergent quantity, target temperature, extension time in minutes, drying temperature and time
Tank internal temperature	from room temperature to 95°C
Accuracy	0,1°C
Temperature sensors in tank	PT 1000 CLASS B IEC 60751
Display	4 digits
Detergent dosing system	max. 1 powder dispenser and 2 liquid pumps
Detergent level sensor	optional
Alkaline powder detergent dispenser	yes
Pump to dispense acid neutralized liquid	yes
Pump to dispense alkaline liquid detergent	optional
Safety lock	yes, with electromagnetic release and automatic opening
Safety devices	safety thermostats, door interlock
Alarm display	30
Troubleshooting menu	yes, using PC connection
Programme editing	yes, using 6 spare programs
AUXILIARY FUNCTIONS	
Traceability	storage of data for 100 most recently run programs
RS232 serial port for PC connection	yes
RS232 serial port for printer	yes
Cycle storage	yes, WD-TRACE®/Excel format
Cycle file download	yes, WD-TRACE® format
DRYING SYSTEM	
Drying fan	yes
Drying heating element	0,8 kW
Prefilter class C 98%	yes
HEPA filter Class S 99.999%	optional
WATER SUPPLY (PRESSURE 1,5-5 BAR)	
Cold water inlet	yes
Demineralised water inlet	yes, < 20 µS/cm
Demineralised water booster pump	optional
Water softener incorporated	yes
Recirculation pump	400 l/min
WATER HEATING	
Electrical	6,3 kW on tri-phase version, 2,3 kW on mono-phase version
STEAM CONDENSER	optional
DIMENSIONS LxDxH mm	
Outside (with built-in top)	600x650x850 (830)
Inside	520x515x545
Net weight (Kg)	77
STAINLESS STEEL	
Wash tank	AISI 316L
Exterior covering	AISI 304
ELECTRICAL POWER SUPPLY	
Max. voltage/power	1/N/PE 230V ~ 50Hz 2,8 kW mono-phase version 3/N/PE 400V - 50 Hz 7,0 kW
NOISE LEVEL	max 50 dB

GW3060

TECHNICAL DATA SHEET

OPTIONAL OPTIONAL OPTIONAL OPTIONAL

GW3060 TECHNICAL FEATURES	All versions
Electronic control	3 microprocessors +1 (optional communication card)
Standard programs stored	20
Customisable programs	10 (expandable to 50)
Backlit graphic LCD display	128 x 64 pixels
Clock and calendar	yes
Reprogrammable phases	10
Phase parameters	type of water, detergent quantity, target temperature, extension time
Tank internal temperature	from room temperature to 95° C
Accuracy	0.1°C
Temperature sensors in tank	PT 1000 CLASS B IEC 60751
Detergent level sensor	optional
Detergent pumps	4 max
Powder detergent dispenser	optional
Safety lock	yes, with electromagnetic release and automatic opening
Safety devices	safety thermostats, door interlock
Alarm display	80
Troubleshooting menu	yes
Program editing	yes (via password)
Password	4 levels
Display languages	Italian, English, French, German, Russian and others on request
AUXILIARY FUNCTIONS	
External sensor duct	optional
Traceability	Storage of data for 100 most recently run programs
Waste water separation solenoid valve control	optional
RS232 serial port for PC connection	yes
RS232 serial port for printer	yes
Cycle storage	yes, WD-TRACE®/Excel format
Cycle file download	yes, WD-TRACE® format
WATER SUPPLY (PRESSURE 1.5-5 BAR)	
Cold/hot water inlet	yes, 42 °F hardess
Demineralised water inlet	yes, <20µS/cm
Demineralised water booster pump	optional
Water softener incorporated	yes
Recirculation pump	400 l/min
WATER HEATING	
Electrical	6.3 kW max
Water pre-heating via boiler	optional
STEAM CONDENSER	optional
DIMENSIONS LxDxH mm	
Outside (with built-in top)	600x640x850 (830)
Inside	520x515x545
Net weight (kg)	76
STAINLESS STEEL	
Wash tank	AISI 316L
Exterior covering	AISI 304
ELECTRICAL POWER SUPPLY	
Max. voltage/power	1/N/PE 230V ~ 50Hz 2.8 kW 3/N/PE 400V ~ 50Hz 7.0 kW
NOISE LEVEL	max 50 dB

GW4090

TECHNICAL DATA SHEET

GW4090 TECHNICAL FEATURES	
Electronic control	3 microprocessors +1 (optional communication card)
Standard programs stored	20
Customisable programs	10 (expandable to 50)
Backlit graphic LCD display	128 x 64 pixels
Clock and calendar	yes
Reprogrammable phases	10
Phase parameters	type of water, detergent quantity, target temperature, extension time in minutes, drying temperature and time
Tank internal temperature	from room temperature to 95° C
Accuracy	0.1°C
Temperature sensors in tank	PT 1000 CLASS B IEC 60751
Detergent level sensor	optional
Detergent pumps	4 max
Safety lock	yes, with electromagnetic release and automatic opening
Safety devices	safety thermostats, door interlock
Alarm display	80
Troubleshooting menu	yes
Program editing	yes (via password)
Password	4 levels
Display languages	Italian, English, French, German, Russian and others on request
AUXILIARY FUNCTIONS	
External sensor duct	optional
Traceability	Storage of data for 100 most recently run programs
Waste water separation solenoid valve control	optional
RS232 serial port for PC connection	yes
RS232 serial port for printer	yes
Cycle storage	yes, WD-TRACE®/Excel format
Cycle file download	yes, WD-TRACE® format
DRYING SYSTEM	
Drying fan	yes
Drying heating element	2 kW
Prefilter class C 98%	yes
HEPA filter Class S 99.999%	optional
WATER SUPPLY (PRESSURE 1.5-5 BAR)	
Cold/hot water inlet	yes, max 42°F hardness
Demineralised water inlet	yes, <20µS/cm
Demineralised water booster pump	optional
Water softener incorporated	yes
Recirculation pump	400 l/min
WATER HEATING	
Electrical	6.3 kW max
Water pre-heating via boiler	optional
STEAM CONDENSER	optional
DIMENSIONS LxDxH mm	
Outside (with built-in top)	900x640x850 (830)
Inside	520x515x545
Net weight (kg)	83
STAINLESS STEEL	
Wash tank	AISI 316L
Exterior covering	AISI 304
ELECTRICAL POWER SUPPLY	
Max. voltage/power	1/N/PE 230V ~ 50Hz 2.8 kW 3/N/PE 400V ~ 50Hz 7.0 kW
NOISE LEVEL	max 50 dB

MACHINE OPTIONALS

PAD

Booster pump for non-pressurised demineralised water.
Allows feeding the machine with demineralised water
drawn from a non-pressurised tank positioned at a minimum height of 85 cm from the ground.

PAD 2

Booster pump for non-pressurised demineralised water.
Allows feeding the machine with demineralised water
drawn from a non-pressurised tank positioned on the ground.

ADU

Universal peristaltic pump for liquid additive

- For the dosing of a liquid additive, for ex: alcaline detergent, caustic soda or antifoam
- With st/steel drawing pipe
- Suitable for tanks of 2l, 5l, 10l

IC5090

On the basis of demineralized water conductivity used during the last rinse phase, it allows to detect any impurities and to activate also further rinse phases for achieving a perfect rinse with low conductivity

WD-VDS

Double discharge valve that allows separating and ducting the polluted wastewater from the first washing cycles from the final rinsing water. This wastewater separation device is composed of 1 and 1/2” valves with Viton membrane and valve opening is controlled by the machine microprocessor.

WD-LS3060

Detergent level sensor. Allows controlling the level of liquid additives and signals when the detergent has run out. Equipped with an adjustable drawing tube for scans of different heights.

STAINLESS STEEL BASES AND FRAMES

B9040

Base for 90 cm wide models only.
The frame allows bringing the machine loading level up to an ergonomic height approximately 70 cm from the ground. Entirely made of stainless steel.
A detergent compartment with anti-drip bottom and front door with push-pull opening is integrated in the base.
Dimensions l x d x h = 900x530x400 mm
B6040 (not shown in the photo): for 60 cm wide models only.
Dimensions l x d x h = 600x530x400 mm

B9040QWC

Base with integrated demineralised water boiler. For 90 cm wide models only. A boiler is housed in the base to preheat the demineralised water to get fastest cycles
Dimensions: l x d x h = 900x530x400 mm

T9040

Frame for 90 cm wide models only.
The frame allows bringing the machine loading level up to an ergonomic height approximately 70 cm from the ground.
The frame also facilitates cleaning the machine underneath.
Entirely made of stainless steel.
Dimensions l x d x h = 900x530x400 mm
T6040 (not shown in the photo): frame for 60cm models only.
Dimensions l x p x h = 600x530x400 cm

TRACEABILITY OPTIONALS

WD-PRINT

External 24-character impact matrix printer with real-time clock function.
Complete with thermal paper roll.
WD-PAPER Thermal paper roll. Diameter 50 mm, width 57 mm.

GW2045 CONFIGURATIONS

The machine bodies in the BASIC series must be equipped with carriages and supports most suited to the specific treatment requirements of the different types of glassware used in the laboratory.
The various possible machine/carriage configurations described below are meant as a guide to help you choose the most appropriate solution for the type of glassware used.

TWO SPRAYING LEVELS

This configuration has two washing levels with rotary sprays where supports for all types of glassware can be located (beakers, test tubes, flasks, plates and various other materials).

Photo:
D-CS1 upper rack: SB9 straight tine support for beakers and flasks to the left, SB14 spring tine support to the right. Each support occupies ½ the rack for machines with width of 45 cm.
D-CS2 lower rack: SB28 universal spring support for beakers and flasks, standard on 60-cm models, occupying all of the lower base but cannot be positioned on the upper rack.

TWO SPRAYING LEVELS

This configuration has two washing levels with rotary sprays where supports for all types of glassware can be located (beakers, test tubes, flasks, plates and various other materials).

Photo:
D-CS1 upper rack: the carriage is fitted with 2 racks equipped with compartments (CP192 and CP222) to wash test tubes.
D-CS2 lower rack: SB9 straight tine support for beakers and flasks to the left, SB14 spring tine support to the right. Each support occupies ½ the rack for machines with width of 45 cm to optimise the load on the rack.

ONE INJECTION LEVEL

The LM24 is secured to the lower D-CS2 base using two special fastenings. This solution is suitable for washing narrow-necked glassware of different sizes. It has a capacity of 24 items and can wash both large items and small flasks or bottles. ULB 40 adaptor nozzles for pipettes can also be fitted. The maximum height of glassware is 500 mm.

Photo:
LM24 support

Note: the configurations shown on these two pages are only available with models of 45 cm.

TWO SPRAYING/INJECTION LEVELS

In this configuration there are two washing levels: lower level with rotary sprayers to hold various supports (beakers, test tubes, flasks). The D-CS1 upper base is fitted with the 24-position LM22S injection base. This configuration allows simultaneous washing of narrow-necked and other types of glassware.

Photo:
D-CS2 lower rack: SB9 straight tine support for beakers and flasks to the left, SB14 spring tine support to the right. Each support occupies ½ the rack for machines with width of 45 cm to optimise the load on the rack.

ONE MIXED INJECTION LEVEL

This configuration allows simultaneous washing of narrow-necked glassware (flasks, and beakers) and 12 pipettes with a maximum height of 510 mm. This is an ideal solution for washing various types of glassware simultaneously without having to use dedicated separate carriages with a greater capacity.

Photo:
LPM24 carriage

TWO SPRAYING/INJECTION LEVELS

In this configuration there are two washing levels: the upper level is fitted with the KP60 seventy-item base for centrifuge vials and test tubes. The lower level is spare.

Photo:
D-CS1 upper rack: KP60 base.
D-CS2 lower rack: SB9 straight tine support for beakers and flasks to the left, SB14 spring tine support to the right.

TWO INJECTION LEVELS

LM46 carriage consisting of two injection levels for a capacity of 46 items. This version maximises the injection washing capacity. The maximum height of glassware is 225 mm. Recommended for flasks (ISO1042) with volume of 5 to 200 ml, bottles (ISO 4796) up to 1000 ml and flasks up to 1000 ml.

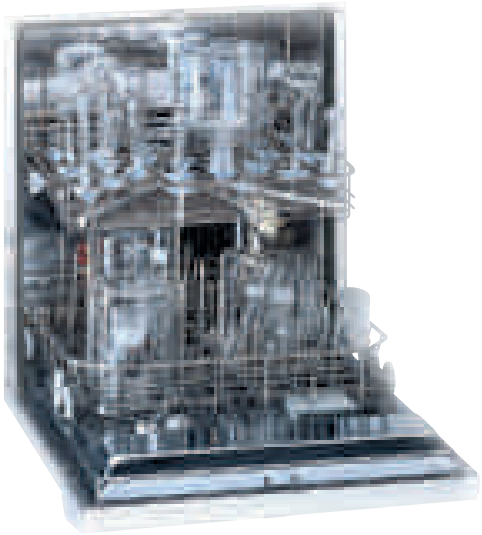
Photo:
LM46 carriage composed by 22-position upper rack and 24-position lower rack.

GW1060, GW4060, GW3060 AND GW4090 CONFIGURATIONS

The machine bodies of the GW1060, GW4060, GW3060 and GW4090 series must be equipped with trolleys and supports most suited to the specific treatment requirements of the different types of glassware used in the laboratory.
The various possible machine/trolley configurations described below are meant as a guide to help you choose the most appropriate solution for the type of glassware used.

TWO SPRAYING LEVELS

Standard lower basket CS2 and upper basket with sprayer CS1-1. In this configuration there are two washing levels with rotary sprayers where all the supports for the various glass items can be positioned (it can be used for washing beakers, test tubes, flasks, plates and various other materials). The upper basket CS1-1 can be positioned on two levels to make better use of the space.



TWO SPRAYING/INJECTION LEVELS

Standard lower basket CS2 and upper injection basket. In this configuration there are two washing levels: a lower level with rotary sprayers to hold various supports (beakers, test tubes, flasks) and an upper level with a 40-position injection trolley LM40S (LM40SDS for machines with drying system).
This configuration allows simultaneous washing of narrow-necked and other types of glassware.

ONE SPRAYING/INJECTION LEVEL

LM20 trolley (LM20DS for machines with drying system) one half with a multi-spigots injection system and the other half to hold supports. In this case, narrow-necked glassware up to 500 mm in height can be washed at the same time as test tubes. Compared to the configuration with two spraying/injection levels, this one has the advantage that you can wash glassware more than 245 mm in height.

ONE INJECTION LEVEL

LM40 trolley (LM40DS for machines with drying system).
It may be considered as a universal injection trolley as it optimises washing of narrow-necked glassware of different sizes. It has a capacity of 40 items and can wash both large items and small flasks or bottles.

TWO INJECTION LEVELS

LM80 trolley (LM80DS for machines with drying system) with two injection levels for a capacity of 68 items.
This version maximises the injection washing capacity.

ONE MIXED INJECTION LEVEL

LPM20/20 trolley (LPM2020DS for machines with drying system): this system allows simultaneously washing narrow-necked glassware (flasks, beakers, round-bottom flasks) and 20 pipettes. It is a valid solution when needing to wash many different types of glassware at the same time without having to resort to a specific larger capacity trolley.

BASIC TROLLEYS

D-CS1 (only on GW2045 model)

Upper carriage with sprayer.
Made for stainless steel and suitable for positioning racks and supports.

CS1-1 (not in photo)

Upper carriage with sprayer.
Made for stainless steel and suitable for positioning racks and supports.

D-CS2 (only on GW2045 model)

Lower carriage with sprayer.
Made for stainless steel and suitable for positioning racks and supports.

CS2 (not in photo)

Basic lower carriage.
Made for stainless steel and suitable for positioning racks and supports.

FLASK AND BEAKER SUPPORTS

SB9 (only on GW2045 model)

Stainless steel 9-position support for tunnels and breakers with max volume of 100 ml. Occupies 1/2 of the D-CS1/D-CS2 carriages.
Dimensions: l x d x h = 420x145x160 mm

SB14 (only on GW2045 model)

Stainless steel 14-position support for beakers and flasks with volume of 250 to 1000 ml. Occupies 1/2 of the D-CS1/D-CS2 carriages.
Dimensions: l x d x h = 422x146x184 mm

SB15

16-position spring support for flasks, beakers, etc. For use in combination with standard CS1-1/CS2 racks and LM20 carriage.
It has a capacity of 16 items and is made of stainless steel.
Reccomended for flasks with a capacity of up to 1000 ml.
SB28 (not in photo): 28-position spring support for flasks, beakers, etc.
For use in combination with standard CS1-1/CS2 racks and LM20 carriage.
It has a capacity of 28 items and is made of stainless steel.
Recommended for flasks with a capacity up to 1000 ml.

SB30

30-position support to hold beakers of any size and to be used with the standard baskets CS1-1 and CS2 and the trolley LM20. It has a capacity of 30 items and is made of stainless steel.
Recommended for beakers with a capacity smaller than 500 ml.
SB25 (not shown in the photo): 28-position spring support to hold flasks and beakers and to be used with the standard baskets CS1-1 and CS2. It has a capacity of 28 items and is made of stainless steel.
Recommended for flasks with a capacity smaller than 500 ml.

PLATE AND SLIDE SUPPORTS

PV105

Microscope slide basket made of stainless steel.
Suitable for positioning 105 standard microscope slides.
Dimensions l x d x h = 220x143x60 mm.

SL6

Olympus-type plate support for optical recognition of the blood unit.
Suitable for positioning 6 plates.
Hinged lid included.
Dimensions l x d x h = 485x145x80 mm.

SL9

Universal support for chromatographic plates made of stainless steel.
Capacity of 9 items. Suitable for positioning flat materials.
It takes up 1/2 the space of a standard basket.

SL18

Support for standard 20x20 chromatographic plates.
Capacity of 18 items. The guides are shaped in such a way that the support points are outside the working surface.

BOTTLE SUPPORTS

PB50

Support for 56 wide-necked bottles of 50 ml (screw cap GL32 ISO4796 or ground cap DIN 12038 or non-standard cap).
Max bottle dimensions: diam. 46 mm - H 87 mm.
PB100 for 32 wide-necked bottles of 100 ml.
(screw cap GL45 ISO4796 or ground cap DIN 12038 or non-standard cap). Max bottle dimensions: diam. 56 mm - H 100 mm.

PB250

Support for 25 wide-necked bottles of 250 ml.
(screw cap GL45 ISO4796 or ground cap DIN 12038 or non-standard cap). Max bottle dimensions: diam. 70 mm - H 138 mm.

PB500

Support for 21 wide-necked bottles of 500 ml.
(screw cap GL45 ISO4796 or ground cap DIN 12038 or non-standard cap). Max bottle dimensions: diam. 86 mm - H 176 mm.

PB1000

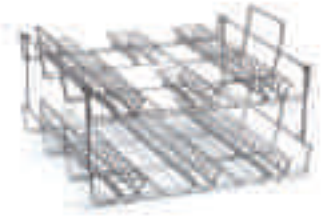
Support for 16 wide-necked bottles of 1000 ml.
(screw cap GL45 ISO4796 or ground cap DIN 12038 or non-standard cap). Max bottle dimensions: diam. 101 mm - H 225 mm.

TEST TUBE SUPPORTS

Additional accessory for the standard baskets CS1-1 and CS2 and the trolley LM20 for washing analysis test tubes. It has a capacity of approximately 160 standard test tubes with 3 removable compartments and lid. It takes up a ¼ of the space of a standard basket and is available in four standard sizes:

CP105: test tubes up to 75 mm in height
CP132: test tubes up to 105 mm in height
CP192: test tubes up to 165 mm in height
CP222: test tubes up to 200 mm in height

PETRI DISH SUPPORTS



PD70S - 40 items, 50-70 mm positioned on the upper level CS1-1.
PD100S - 38 items, 70-120 mm positioned on the upper level CS1-1.
PD70I - 40 items, 50-70 mm positioned on the upper level CS2.
PD100I - 38 items, 70-120 mm positioned on the upper level CS2.

RACKS FOR SMALL GLASSWARE, BASKETS AND HOLDING NETS

PF1/2

Additional accessory for CS1-1 and CS2 racks made from flat AISI 304 stainless steel mesh with small mesh openings as a rack to hold small glass items or as rigid rack as an alternative to the Nylon holding nets. Available in 3 versions: PF1 (not shown in the photo) bottom rack with hole for positioning on the top level; PF2 (not shown in the photo) complete bottom rack for positioning on the bottom level only; PF1/2 (shown in the photo) half bottom rack for positioning on the upper level.

D-PF1 (only for GW2045)

Full bottom rack for upper carriage, made from stainless steel 10x10 mesh with central hole, for positioning on the upper carriage D-CS1. Dimensions: l x d x h = 305x425x11 mm

D-PF2 (only for GW2045)

Full bottom rack for upper carriage, made from stainless steel 10x10 mesh with central hole, for positioning on the lower carriage D-CS1. Dimensions: l x d x h = 305x425x11 mm

RC1

Holding nets with plastic-coated metal edges and Nylon ties to hold small glass items in place in the standard baskets CS1-1 and CS2; available in three models: RC1 fits in the whole basket, RC1/2 fits in half the basket, RC1/4 fits in a quarter of the basket.

RC1/2 - RC1/4

Holding nets with plastic-coated metal edges and Nylon ties to hold small glass items in place in the standard baskets CS1-1 and CS2; available in three models: RC1 fits in the whole basket, RC1/2 fits in half the basket, RC1/4 fits in a quarter of the basket.

BASKETS

CPF1

Complete bottom level basket with edging and handles.
Made of flat stainless steel mesh with mesh openings of 10x10 mm.
Dimensions l x d x h = 445x444x68 mm (height with handles 110 mm).
Positioning on the lower trolley CS2.
CPF1/2 (not shown in the photo): bottom level basket with edging and handles. Made of flat stainless steel mesh with mesh openings of 10x10 mm.
Dimensions l x d x h = 225x444x68 mm (height with handles 110 mm).
It takes up ½ the space of the lower trolley CS2.

CSK2

Baskets with stainless steel handles, suitable for medium-sized instruments.
Mesh openings of 5x5 mm.
Dimensions l x d x h = 450x225x50 mm.

SPECIAL TROLLEYS

CSK-C

Stainless steel trolley with 3 washing levels for butchery utensils available on request, suitable for positioning three **SCL-23** knife and utensil holders. Upper levels with spraying arm incorporated. Lower level with sprayer at the bottom of the machine.

CPB1

Stainless steel upper trolley for wine-tasting glasses.
Suitable for washing 14 wine-tasting glasses of max. 220 mm in height.

CPB2

Stainless steel lower trolley for wine-tasting glasses.
Suitable for washing 14 wine-tasting glasses of max. 240 mm in height.

SPIGOTS

Injection spigots available in the following versions:
- spigot for 6% and 12% butyrometers
- Nylon spigot for pipettes
- Spigots for glassware with the following heights:
  90, 110, 140, 160, 180, 220, 240, 260 mm.

NARROW-NECKED GLASSWARE INJECTION CARRIAGES

LPM24 (only for GW2045 model)

Mixed stainless steel flask/pipette carriage with 12+12 positions, suitable for washing narrow-necked glassware up to 490 mm in height. Fitted with the following nozzles: 4 x U6240, 2 x U6220, 2 x U4160, 2 x U4140, 2 x U3110, 12 x LB40. Maximum glassware height of 490 mm and positioning on the D-CS2 carriage lower level.

LM24 (only for GW2045 model)

Universal 24-position stainless steel flask washer, suitable for washing narrow-necked glassware up to 490 mm in height. Fitted with the following nozzles: 6 x U6240, 5 x U6220, 6 x U4160, 5 x U4140, 2 x U3110. Positioning on the D-CS2 carriage lower level.

LM22S (only for GW2045 model)

Universal 22-position stainless steel flask washer, suitable for washing narrow-necked glassware up to 225 mm in height. Fitted with the following nozzles: 12 x U4140, 5 x U3110, 5 x U390, positioning on the D-CS1 carriage upper level.

INJECTION TROLLEYS
NARROW-NECKED GLASSWARE

LM20DS

20-position universal flask washing trolley in stainless steel with 20 spigots and drying system connection. Suitable for washing and drying narrow-necked glassware up to 490 mm in height. Half the trolley space is free for mixed glassware suitable for a ½ basket accessory.
Positioning on the lower level.
LM20 (not shown in the photo): version without drying system connection.

LM40DS

40-position universal flask washing trolley in stainless steel with 40 spigots and drying system connection. Suitable for washing and drying narrow-necked glassware up to 490 mm in height, flasks, round-bottom flasks and graduated cylinders of various sizes. Positioning on the lower level.
LM40 (not shown in the photo): version without drying system connection.

LM40SDS

40-position flask washing trolley in stainless steel with forty U4140 spigots and drying system connection. Suitable for washing narrow-necked glassware up to 225 mm in height. Positioning on the upper level.
LM40S (not shown in the photo): version without drying system connection.

LM80DS

Two-level flask washing trolley with 68 U4140 spigots and 1 UC6 spigot and drying system connection. Suitable for internal injection washing of narrow-necked glassware with a maximum height of 225 mm. Positioning on two levels.
LM80 (not shown in the photo): version without drying system connection.

N.B. The models with drying system connection (DS versiones) are specific for GW4090 and GW4060 glassware washers.

REACTOR WASHING

LR4DS

Stainless steel trolley with drying system connection.
Suitable for inside washing and drying of 3/5-way reactors of maximum 3 litres or up to 12 narrow-necked glass items.
Fitted with 20 U6260 spigots. Positioning on the lower level.
LR4 (not shown in the photo): version without drying system connection.

FISCHER BOTTLE WASHING

LT20DS

Stainless steel trolley with drying system connection for washing and drying of 12 Fischer bottles and graduated cylinders with a maximum height of 55 cm. 6 positions for injection washing of narrow-necked glassware. Fitted with 18 spigots. Positioning on the lower level.
LT20 (not shown in the photo): version without drying system connection.

BUTYROMETER WASHING

LB40DS

Stainless steel trolley for butyrometer washing with drying system connection. Suitable for washing and drying of 40 butyrometers. Specify the type of butyrometer in the order. Positioning on the upper level.
LB40 (not shown in the photo): version without drying system connection.

BOTTLE WASHING

LB4DS

Stainless steel trolley for washing large glass items with drying system connection. Suitable for washing two 10-litre bottles + two 5-litre Schott-type bottles. Fitted with 8 special spigots.
Positioning on the lower level.
LB4 (not shown in the photo): version without drying system connection.

LBT5DS

Stainless steel trolley for bottle washing with drying system connection. Suitable for washing and drying of five 5-litre bottles
(diam. 180 x h.500mm, max neck diameter 80 mm). Fitted with 5 special spigots.
Positioning on the lower level.
LBT5 (not shown in the photo). Version without drying system connection: LBT5.

LB8DS

Stainless steel trolley for washing large glass items with drying system connection. Suitable for washing 8 bottles of maximum 50 cm in height. Fitted with 8 U6260 spigots and 8 special spigots.
Positioning on the lower level.
LB8 (not shown in the photo): version without drying system connection.

LB32DS

Two-level stainless steel trolley for injection washing of bottles with drying system connection. Suitable for washing 32 narrow- or wide-necked bottles of 250-1000 ml, max. diam. 101 mm, H.245 mm. Fitted with 32 U6170 spigots.
Positioning on 2 levels.
LB32 (not shown in the photo): version without drying system connection.

LB1-20DS

Stainless steel trolley for washing universal large glass items with drying system connection.
Positioning on lower level.

N.B. The models with drying system connection (DS versiones) are specific for GW4090 and GW4060 glassware washers.

PIPETTE WASHING

LPV40DS

Stainless steel trolley for washing volumetric pipettes up to 55 cm in length. 20 positions for pipettes of 55 cm in height and 20 positions for pipettes and/or flasks of 45-49 cm in height.
LPV40 (not shown in the photo): version without drying system connection.

LPT100DS

Stainless steel pipette washing trolley with drying system connection for washing and drying of 100 pipettes with a capacity of 1 to 20 ml and a height up to 450 mm. The pipette washing disc is fitted in a trolley to allow fast loading and unloading access.
LPT100 (not shown in the photo): version without drying system connection.

VIALS AND TAPERED CENTRIFUGE TEST TUBES

KP200DS

Trolley with drying system connection for washing of tapered and cylindrical test tubes by internal injection. It has a maximum capacity of 100 test tubes. Positioning on the upper washing level.
KP200 (not shown in the photo): version without drying system connection.

MIXED INJECTION TROLLEYS (PIPETTES + NARROW NECK)

LPM2010DS

20-position stainless steel trolley with drying system connection for mixed washing of flasks, pipettes and test tubes. Suitable for washing and drying of 10 pipettes up to 55 cm + 20 narrow-necked glass items + ¼ free space to be filled with a CP series test tube basket. Fitted with the following spigots: 2 x U6260, 2 x U6240, 2 x U6220, 3 x U4180, 2 x U4160, 2 x U4140, 3 x U3110, 4 x U390, 1 x UC6, 10 x ULB40 for pipettes with a maximum height of 55 cm. Positioning on the lower level.
LMP2010 (not shown in the photo): version without drying system connection.

LPM2020DS

Injection washing trolley with drying system connection for mixed washing of pipettes and flasks with 20 positions for pipettes up to 550 mm in height and 20 positions for narrow-necked glassware with a maximum height of 49 cm. Fitted with 38 spigots.
Positioning on the lower level.
LPM20/20 (not shown in the photo): version without drying system connection.

GW6090

TECHNICAL DATA SHEET

GW6090 TECHNICAL FEATURES	
Electronic control	3 microprocessors +1 (optional communication card)
Standard programs stored	20
Customisable programs	10 (expandable to 50)
Backlit graphic LCD display	128 x 64 pixels
Clock and calendar	yes
Reprogrammable phases	10
Phase parameters	type of water, detergent quantity, target temperature, extension time, drying temperature and time
Tank internal temperature	from room temperature to 95° C
Accuracy	0.1°C
Temperature sensors in tank	1 PT 1000 CLASS B IEC 60751
Dosing pumps	5 max
Detergent level sensor	optional
Safety lock	yes, with electromagnetic release and automatic opening
Safety devices	safety thermostats, door interlock
Alarm display	80
Troubleshooting menu	yes
Program editing	yes (via password)
Password	4 levels
Display languages	Italian, English, French, German, Russian and others on request
AUXILIARY FUNCTIONS	
External sensor duct	optional
Traceability	Storage of data for 100 most recently run programs
Waste water separation solenoid valve control	optional
RS232 serial port for PC connection	yes
RS232 serial port for printer	yes
Water quality check	optional
Cycle storage	yes, WD-TRACE®/Excel format
Cycle file download	yes, WD-TRACE® format
DRYING SYSTEM	
Drying fan	yes
Drying heating element	4 kW
Prefilter class C 98%	yes
HEPA filter Class S 99.999%	optional
WATER SUPPLY (PRESSURE 1.5-5 BAR)	
Cold/hot water inlet	yes, max 42° F hardness
Demineralised water inlet	yes, <20µS/cm
Demineralised water booster pump	optional
External water softener	optional
Recirculation pump	2 pumps of 400 l/min
WATER HEATING	
Electrical	17.7 kW max
Water pre-heating via boiler	yes
DIMENSIONS LxDxH mm	
Outside	2035x801x902 (drying system versions) and 1835x801x902 (version without drying system)
Inside	670x650x835
Net weight (kg)	282
STAINLESS STEEL	
Wash tank	AISI 316L
Exterior covering	AISI 304
ELECTRICAL POWER SUPPLY	
Max. voltage/power	3/N/PE 400V ~ 50Hz 18.5 kW
NOISE LEVEL	max 50 dB

GW6090 OPTIONALS

WD-PRINT

Printer integrated in the panel.
WD-PAPER Thermal paper roll. Diameter 50 mm, width 57 mm.

WD-LS6090

Detergent level sensor. Allows controlling the level of liquid additives and signals when the detergent has run out. Equipped with an adjustable drawing tube for cans of different heights.

IC6000

Digital indicator to monitor wastewater conductivity. Particularly useful when using demineralised water for final rinsing. If the wastewater has high conductivity values it is suggested to execute further rinsing. Measuring range between 0 and 1000 µs/cm. Value reading shown on a backlit LCD display. Display of out-of-scale parameters. Built into the front panel of the machine.

PAD 2

Booster pump for non-pressurised demineralised water.
Allows feeding the machine with demineralised water
drawn from a non-pressurised tank positioned on the ground.

WD-FLUX FLOW METER FOR PERISTALTIC PUMPS

Allows controlling the quantity of additive the peristaltic pumps deliver. Installed directly on the machine on each single detergent feed duct leading into the tank. It signals any feeding malfunctions or when the products run out by showing a warning on the display.

AD13

Additional peristaltic pump for feeding an additional additive complete with level sensor. The quantity of detergent delivered by the pump is directly controlled by the machine microprocessor.

WD-VDS

Double discharge valve that allows separating and ducting the polluted wastewater from the first washing cycles from the final rinsing water. This wastewater separation device is composed of 1 and 1/2” valves with Viton membrane and valve opening is controlled by the machine microprocessor.

GW6090 WASHING CONFIGURATION

The strong point of the GW6090 washing system is that the direct injection systems can be exchanged with the rotating sprayer systems on all three washing levels. By placing the 6 available systems on different levels, many different configurations can be obtained, thus allowing loading capacity to by optimised according to washing requirements. Glassware of various sizes with heights up to 790 mm and volumes up to 25 litres can be washed.

	DIRECT INJECTION SYSTEMS	MAXIMUM HEIGHT OF GLASSWARE (mm)				ROTATING SPRAYER SYSTEM	MAXIMUM HEIGHT OF GLASSWARE (mm)			
3° LEVEL	**C63_L690** Telescopic base linjection system	170	450	170	720	**C62** Telescopic base with rotating sprayer	105	380	105	835
2° LEVEL	**C63_L680** Telescopic base injection system	210				**C62** Telescopic base with rotating sprayer	195		640	
1° LEVEL	**C61_L685** Telescopic base with rotating sprayer	260	260	545		**C61** Telescopic base using the rotating sprayer at the bottom of the wash tank	365	365		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GW6090 WASHING CONFIGURATION

THREE WASHING LEVELS

DIRECT INJECTION

Level 1: C61 basic trolley with L685 direct injection system.
Maximum useful height 260 mm 76 spigots.
Level 2: C63 trolley with L680 direct injection system.
Maximum useful height 210 mm 76 spigots.
Level 3: C63 trolley with L690 direct injection system.
Maximum useful height 170 mm 87 spigots.

DIRECT INJECTION/ ROTATING SPRAYERS

Level 1: C61 basic trolley with L685 direct injection system.
Maximum useful height 325 mm 76 spigots.
Level 2: C62 upper trolley with rotating sprayer.
Maximum useful height 150 mm, useful washing surface 625x625 mm.
Level 3: C63 telescopic support with L690 direct injection system.
Maximum useful height 170 mm 76 spigots.

ROTATING SPRAYERS

Level 1: C61 basic trolley . Maximum useful height 325 mm.
Level 2: C62 upper trolley with rotating sprayer.
Maximum useful height 195 mm.
Level 3: C63 telescopic support with L690 direct injection system.
Maximum useful height 105 mm.
Washing surface 625x625 (1.18m^2 total).

TWO WASHING LEVELS

DIRECT INJECTION

Level 1: C61 basic trolley with L680 direct injection system.
Maximum useful height 260 mm, 76 spigots.
Level 2: C63 telescopic support with L685 direct injection system.
Maximum useful height 440 mm, 76 spigots.

DIRECT INJECTION AND ROTATING SPRAYERS

Level 1: C61 basic trolley. Maximum useful height 330 mm.
Level 2: C63 telescopic support with L685 direct injection system.
Maximum useful height 450 mm, 76 spigots.

DIRECT INJECTION AND ROTATING SPRAYERS

Level 1: C61 basic trolley with L680 direct injection system.
Maximum useful height 300 mm 76 spigots.
Level 2: C62 upper trolley with rotating sprayer.
Maximum useful height 380 mm.

GW6090 WASHING CONFIGURATION

TWO WASHING LEVELS

ROTATING SPRAYERS

Level 1: C61 basic trolley. Maximum useful height 365 mm.
Level 2: C62 telescopic base with rotating sprayer.
Maximum useful height 385 mm.
Washing surface 625x625 (0.78m^2 total).

DIRECT INJECTION

Level 1: C61 basic trolley with L685 direct injection system.
Maximum useful height 545 mm 76 spigots.
Level 3: C63 telescopic support with L690 direct injection system.
Maximum useful height 170 mm, 87 spigots.

DIRECT INJECTION/ ROTATING SPRAYERS

Level 1: C61 basic trolley. Maximum useful height 605 mm.
Level 3: C63 telescopic support with L690 direct injection system.
Maximum useful height 170 mm, 87 spigots.

ONE WASHING LEVEL

INJECTION WASHING

Level 1: C61 basic trolley with L685 direct injection system.
Maximum useful height 720 mm, 76 spigots.

ROTATING SPRAYERS

Level 1: C61 basic trolley.
Maximum useful height 835 mm.

DIRECT INJECTION

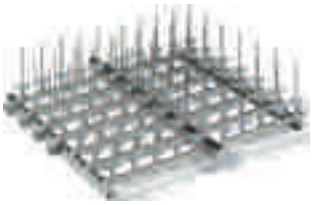
This special C64 trolley can be used to wash drums with heights up to 530 mm and diameters up to 30 mm using spigots.
Trolleys can be developed for special applications on request.
Level 1: C64 basic trolley.
Maximum useful height 835 mm.

LM6-10U

Stainless steel trolley for bottle washing with drying system connection. Suitable for washing and drying large glasswares of different sizes.

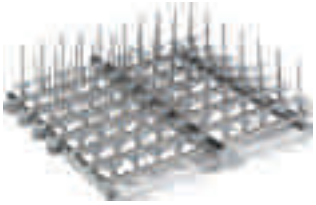
PB6000

Support for wide-mouthed bottles. Capacity 25 flasks from 1000 ml to 5000 ml and/or 1000 ml wide-mouthed bottles (screw cap GL45 ISO4796 or ground cap DIN 12038 or non-standard cap). Made of stainless steel.



L685

Injection system for large, medium and small glassware with 76 spigots of differing heights: 90/110/140/160/180/240 mm. The differing spigot heights make it possible to optimise loading of different sized glassware. This spigot configuration allows the system to be used on washing levels 1 and 2.



L680

Injection system for small and medium glassware with 76 spigots at the same height of 140 mm. This spigot configuration makes it suitable for preferential use on 2 work levels.

L690

Injection system for small glassware with 86 spigots at the same height of 110 mm. This spigot configuration makes it suitable for use on the 3rd work level.

C61

Basic level 1 trolley with grid. It is used on its own and is suitable for positioning various glassware supports. Washing is performed by the internal sprayer at the bottom of the machine.
The C61 basic trolley is also used to position the injection systems (L685/L680/L690) on level 1. The injector trolleys are inserted into the guide rails of the C61.

C63

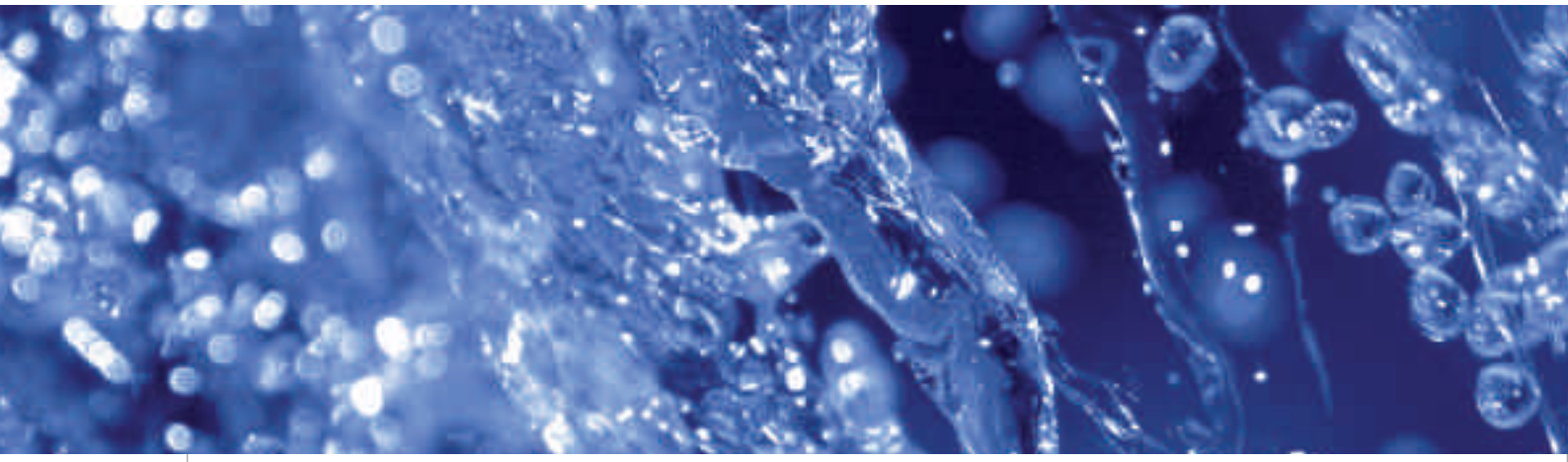
Telescopic support for injection systems. The support is used to position the injection systems on levels 2 and 3.
The C63 is inserted into guide rails of the machine.
The injector trolleys (L680/685/690) are inserted in turn into the guide rails of the C63. The system allows the injection systems to be completely removed in order to simplify loading the glassware.

C62

Basic trolley with rotating sprayer for levels 2 and 3.
It is used on its own and is suitable for positioning glassware supports.
The system is divided into 2 parts:
1. Base with sprayer
2. Telescopic support with top.

WATER TREATMENT

To obtain high quality washing standards, it is fundamentally important to used correctly treated water. In the prewash, washing and neutralisation phases, softened water should always be used. Models GW2045, GW1060, GW4060, GW3060 and GW4090 range have an efficient built-in decalcifier capable of reducing the hardness of the supply water so as to prevent the classic formation of whitish stains inside the chamber and on the instruments.



Smeg also supplies a range of high-performance WS water softeners which are compact and easy to install. Equally important is the rinsing of the instruments with demineralised water in order to eliminate any contaminants remaining in the washing chamber. For this purpose, Smeg has the compact and efficient WP3000 mixed resin bed demineraliser.

WP3000
RESIN COLUMN WATER PURIFIER
The WP3000 water purifier is used to produce deionised water at 0.8-1 µS/cm, suitable for the final rinsing of instrument washers. The system uses mixed bed resins (disposable) which can also retain silica. When the resins run out, they can simply be replaced with the MI700WP kit.
The resin cartridge is made out of stainless steel, as is the entire machine.

Net capacity of cartridge: 15 litres.
Dimensions: l x d x h = 300x600x850 mm.

MI700WP
Anion/cation mixed bed resins kit for the WP3000 water purifier. Total exchange capacity 42700 litres/°F* end of cycle at 5µS/cm (*Hardness in French degrees). Supplied with used resin disposal bag.

WS9E, WS11E, WS14E, WS17E
WATER TREATMENT SYSTEMS
The WSE series of appliances are technological water softeners capable of completely eliminating lime from water.
The resins are regenerated using normal sodium chloride.
Available in versions with flow rates of up to 2700 litres/hour.
The models are fitted with an electronically controlled head which can be programmed depending on the hardness of the water. They provide backflow regeneration based on the volume of water (bearing in mind the resin saturation rate) and proportional brine in order to optimise water and salt consumption.

	WS9E	WS11E	WS14E	WS17E
MAXIMUM FLOW RATE	1600 l/h (16.7 l/min)	1800 l/h (43 l/min)	2000 l/h (43 l/min)	2200 l/h (43 l/min)
NOMINAL FLOW RATE	1000 l/h (16.7 l/min)	1500 l/h (43 l/min)	1600 l/h (43 l/min)	1800 l/h (43 l/min)
RESIN CAPACITY IN LITRES	9	11	14	17
EXCHANGE CAPACITY (m^3/°F)	54	66	84	102
CYCLE CAPACITY AT 40°F	1350	1650	2250	2700
PROGRAMMABLE RESIDUAL HARDNESS	0-10° F	0-10° F	0-10° F	0-10° F
REGENERATING AGENT TYPE	NaCl SALT	NaCl SALT	NaCl SALT	NaCl SALT
REGENERATING AGENT CONSUMPTION	0.9 kg/cycle	1.0 kg/cycle	1.2 kg/cycle	1.8 kg/cycle
DIMENSIONS ØxH (mm)	300 x 470 x 540	300 x 470 x 660	300 x 470 x 815	300 x 470 x 1070
SALT TANK DIMENSIONS L x P x H (mm)	INTEGRATED	INTEGRATED	INTEGRATED	INTEGRATED
CAPACITY LITRES (SALT)	about 15	about 20	about 30	about 40
CONNECTIONS	1"	1"	1"	1"

DETERGENTS AND ADDITIVES

To achieve excellent washing results and optimise the thermal disinfection of laboratory instruments, specific detergents should be used. Smeg has a complete range of alkaline detergents (for use during the washing phase) and neutralising acid detergents (for use during the neutralisation phase) especially designed to guarantee efficient cleaning and optimise the efficiency of the final thermal disinfection phase. Smeg also has numerous disinfectants designed for thermolabile instruments and anaesthesia tools for use in the machine during the thermochemical cycle, as well as special lubricants and additive that can lengthen the lifetime of the medical devices.

POWDER ALKALINE DETERGENTS

DETERGLASS

Universal powdered alkaline detergent.
10 kg pack

DETERGLASS SP

Universal powdered alkaline detergent, phosphate-free.
10 kg pack

LIQUID ALKALINE DETERGENTS

DETERLIQUID D

Liquid alkaline detergent.
10 litre container.

DETERLIQUID D2

Liquid alkaline detergent, phosphate-free.
5 litre container.

DETERLIQUID SP

Liquid alkaline detergent for
water and pharmaceutical analysis, phosphate-free. 5 litre container.

LIQUID ACID NEUTRALISERS

ACIDGLASS P

Liquid acid neutraliser for laboratory glassware.
5litre container.

ACIDGLASS P2

Liquid acid neutraliser for laboratory glassware.
5litre container.

ACIDGLASS C2

Neutralizing acid detergent.
5-liter container, phosphate-free

SPECIAL ADDITIVES

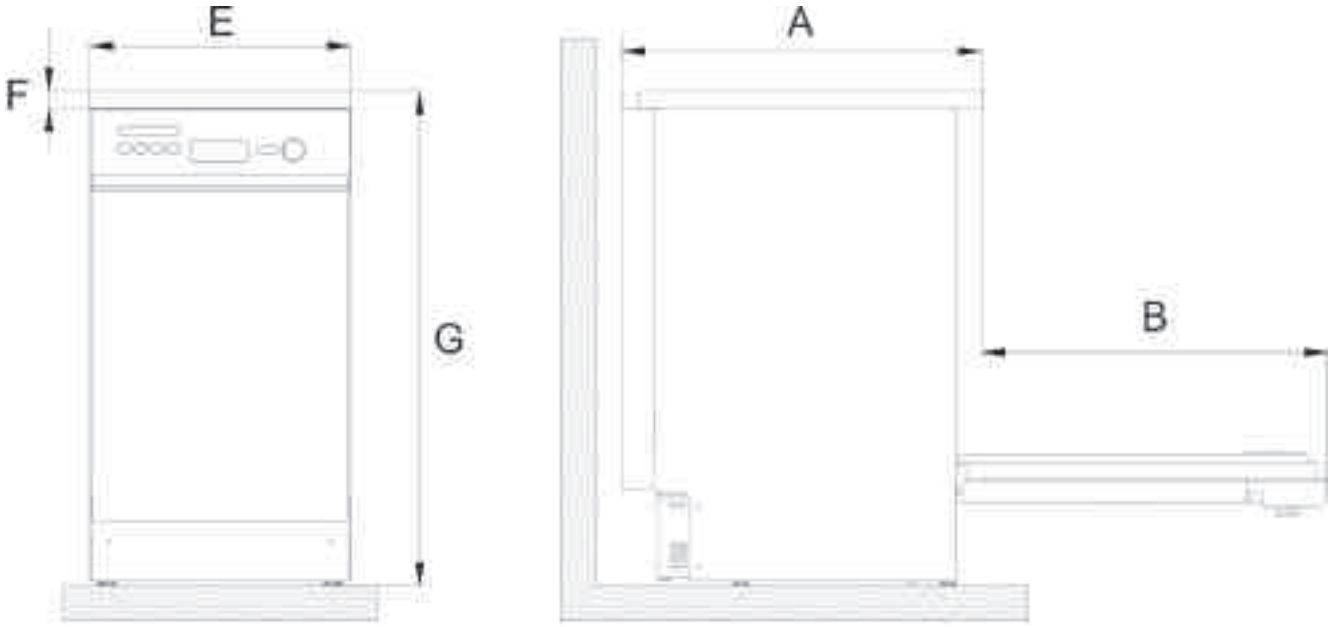
DRY CLEAN

Sspecial additive for promoting drying
after the rinse phases. 5litre container.

F1S

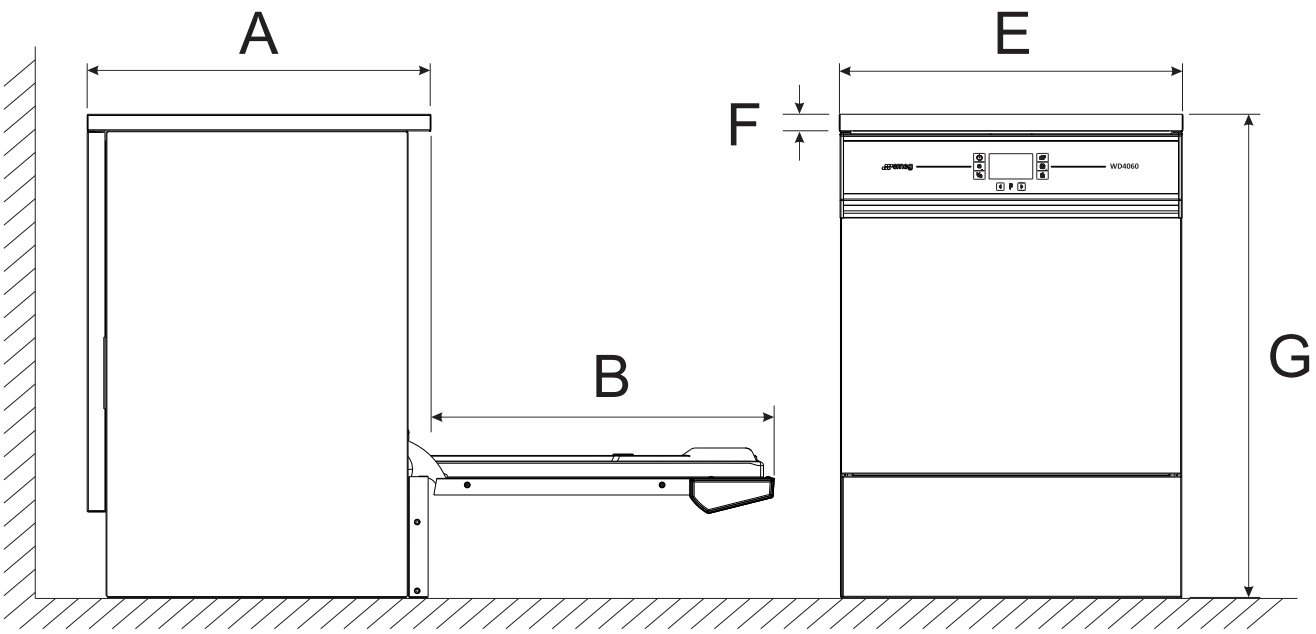
Silicon defoaming additive for petrol cycles, phosphate-free.
1 litre container.

GW2045 and GW1060 EXTERNAL DIMENSIONS



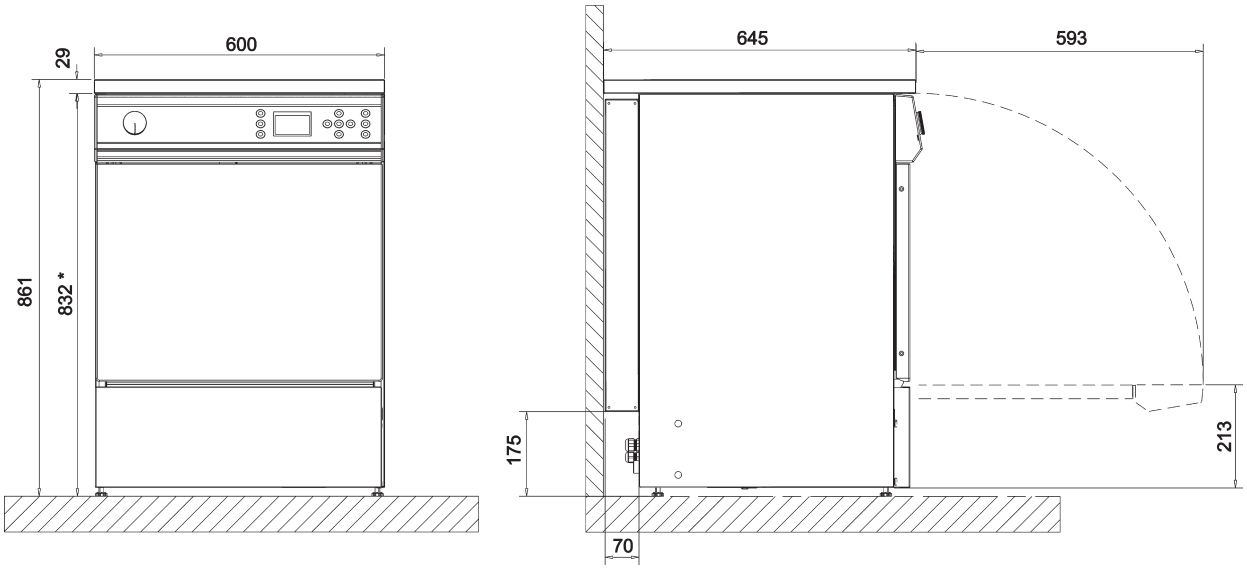
QUOTA	GW2045 (mm)	GW1060 (mm)
A	620	670
B	600	600
E	450	600
F	30	30
G	850	850

GW4060 EXTERNAL DIMENSIONS



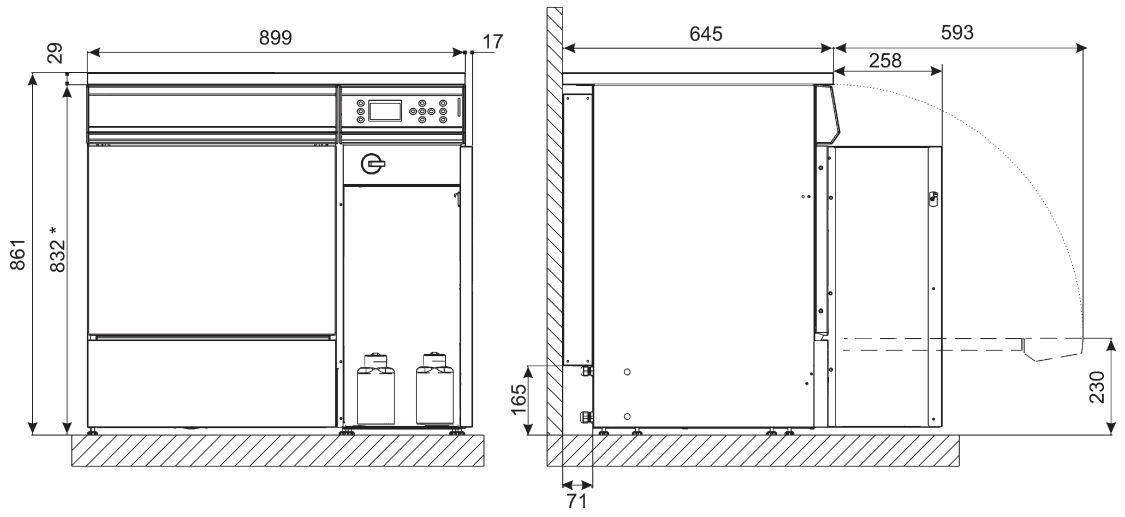
QUOTA	GW4060 (mm)
A	600
B	600
E	600
F	30
G	850

GW3060 EXTERNAL DIMENSIONS



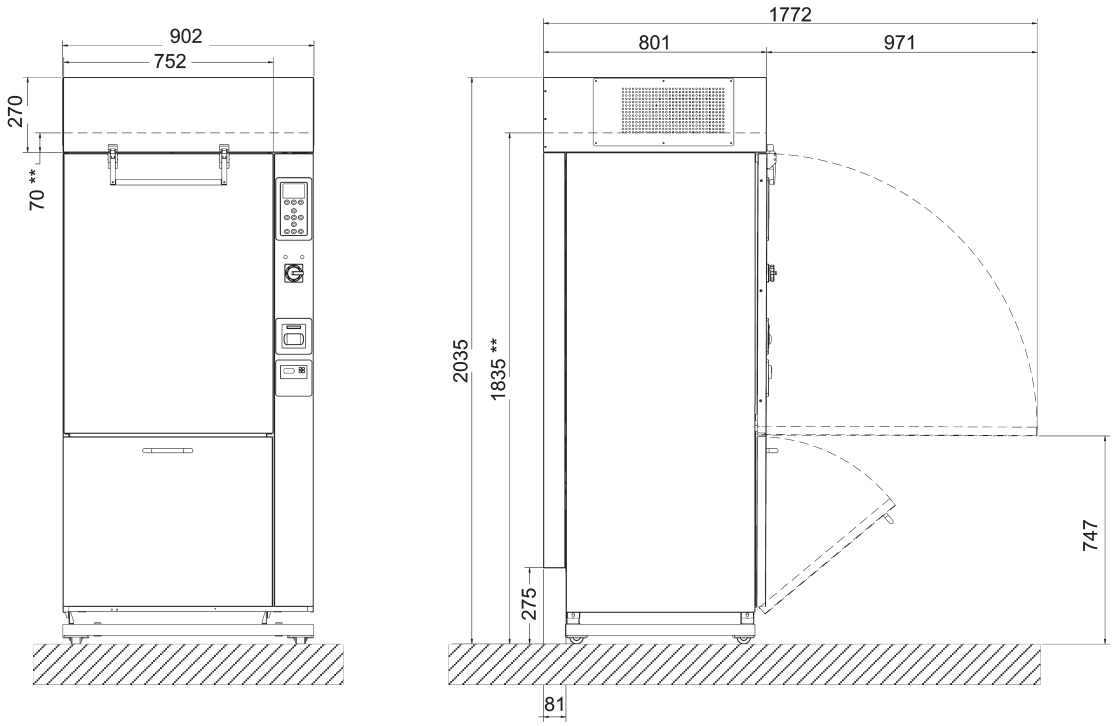
* Height of built-in version.

GW4090 EXTERNAL DIMENSIONS



* Height of built-in version.

GW6090 EXTERNAL DIMENSIONS



** Height of GW6090 model (without drying).

TECHNICAL FEATURES - BASIC LINE

	GW2045	GW1060	GW4060
Internal dimensions (LxDxH mm)	380x480x590	520x515x545	520x515x545
External dimensions (LXDXH mm)	450x620x850 (830 with built-in top)	600x650x850 (830 with built-in top)	600x605x850 (830 with built-in top)
Standard programmes stored	6	6	9
Modifiable programs	2	2	6
Detergent dosing system	Powder dispenser or peristaltic pump (as optional)	Powder dispenser or peristaltic pump (as optional)	Powder dispenser or peristaltic pump (as optional)
Neutralizing dosing pump type	Peristaltic pump	Peristaltic pump	Peristaltic pump
Max nr. of dosing pumps	2	3	3
Possibility of volume detergent control	optional	optional	optional
Detergent cabinet	n.a.	optional	optional
Display	With segments and warning light	With segments and warning light	With segments and communication led icons
Control panel	Control buttons and program selector knob on the panel	Control buttons and program selector knob on the panel	Membrane keyboard
Steam Condenser	optional	optional	optional
Drying system	Thermodynamic	Thermodynamic	Forced hot air through “drying system”
Pre-filter class C	n.a.	n.a.	yes
HEPA filter class S 99,999%	n.a.	n.a.	optional
Cold water supply	yes	yes	yes
Hot water supply	no	no	no
Demineralized water supply	yes	yes	yes
Integrated water softener	yes	yes	yes
Washing pump	200l/min	400l/min	400l/min
Conductivity control	n.a.	n.a.	n.a.
Trolleys Included	yes, upper and lower standard rack	no	no
Printer	optional	optional	optional
Door interlock	yes	yes	yes
Net weight (kg)	61	77	70
Conformity	2006/95/CEE, 93/68/CEE, 2004/108/CEE	2006/95/CEE, 93/68/CEE, 2004/108/CEE	2006/95/CEE, 93/68/CEE, 2004/108/CEE
Supply/Max Power	1/N/PE/230V- 50Hz-3,3kW	1/N/PE/230V- 50Hz-2,8kW As an alternative: 3/N/PE/400V- 50Hz-7,0kW	1/N/PE/230V- 50Hz-2,8kW As an alternative: 3/N/PE/400V- 50Hz-7,0kW
Possibility of 60Hz supply	yes	yes	yes
Equipped with plug	yes	no	no

	GW3060	GW4090	GW6090
Internal dimensions (LxDxH mm)	520x515x545	520x515x545	670x650x835
External dimensions (LXDXH mm)	600x640x850 (830 with built-in top)	900x640x850 (830 with built-in top)	902x801x2035 (with drying system) 902x801x1835 (without drying system)
Standard programmes stored	20	20	20
Modifiable programs	10 (expandable to 50)	10 (expandable to 50)	10 (expandable to 50)
Detergent dosing system	Powder dispenser or peristaltic pump	Peristaltic pump	Peristaltic pump
Neutralizing dosing pump type	Peristaltic pump	Peristaltic pump	Peristaltic pump
Max nr. of dosing pumps	4	4	5
Possibility of volume detergent control	optional	optional	optional
Detergent cabinet	optional	yes	yes
Display	Backlit graphic LCD display 128x64 pixel	Backlit graphic LCD display 128x64 pixel	Backlit graphic LCD display 128x64 pixel
Control panel	Membrane keyboard	Membrane keyboard	Membrane keyboard
Steam Condenser	optional	optional	No
Drying system	Thermodynamic	Forced hot air through “drying system”	(as optional) Forced hot air through “drying system”
Pre-filter class C	n.a.	yes	yes
HEPA filter class S 99,999%	n.a.	optional	optional
Cold water supply	yes	yes	yes
Hot water supply	yes	yes	yes
Demineralized water supply	yes	yes	yes
Integrated water softener	yes	yes	optional (externally)
Washing pump	400l/min	400l/min	2 x 400l/min
Conductivity control	optional	optional	optional
Trolleys Included	no	no	no
Printer	optional	optional	optional
Door interlock	yes	yes	yes
Net weight (kg)	76	83	282
Conformity	2006/95/CEE, 93/68/CEE, 2004/108/CEE	2006/95/CEE, 93/68/CEE, 2004/108/CEE	2006/95/CEE, 93/68/CEE, 2004/108/CEE
Supply/Max Power	1/N/PE/230V- 50Hz-2,8kW As an alternative: 3/N/PE/400V- 50Hz-7,0kW	1/N/PE/230V- 50Hz-2,8kW As an alternative: 3/N/PE/400V- 50Hz-7,0kW	3/N/PE/400V – 50Hz- 18,5kW
Possibility of 60Hz supply	yes	yes	yes
Equipped with plug	no	no	no

NOTE

NOTE

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