GW0160
BASIC LINE – LABORATORY GLASSWARE WASHER, 60 CM

GENERAL FEATURES

- Manufacturer: Smeg S.p.A.
- Basic Model: GW0160 and available in the following versions:
  - GW0160S equipped with peristaltic pump for alkaline detergent.
- Year of sales on the market: 2014
- Use: wash and thermal disinfection of laboratory glassware.
- Main fields of application: small laboratories in food industries, general chemistry, research laboratories and schools, applications for podiatrist, veterinary, tattoo.

TECHNICAL SPECIFICATIONS

- Front loading with drop down door
- Wash chamber and inner door made in stainless steel AISI 304, in nickel–chrome molybdenum, thickness of 6/10 for the chamber and 8/10 for the inner door.
- Outer panels in polished stainless steel AISI 304 for easy cleaning.
- External dimensions: (L x D x H): 600 x 605 x 850 mm (820 mm under counter version - 1250 mm upon stainless steel bases and frames)
- Useful chamber dimensions (L x D x H): 520 x 515 x 545 mm
- Net Weight: Kg. 70
- Washing chamber capacity: 146lt
- 1 or 2 washing levels with baskets equipped with rotating spray arms or injection trolleys.
- Total washing surface: from 0,52 to 1 m² (depending on the type of baskets or trolleys used)
- Possibility to install the machine under a counter (also with a specific optional top cover) or on a plinth for ergonomic reasons.

FUNCTIONAL CHARACTERISTICS

- The GW0160 glassware washers is designed and manufactured to operate with 7 wash programs - basic fixed programs (not modifiable). Each program differs from others in time, temperature and use of detergents, in order to offer to the end user a complete selection of programs suitable to treat many different types of materials and to meet various washing needs.
- Each wash program is composed of up to 10 wash phases, one or more of them are rinse phase made with cold or demineralized water. All relevant parameters of each program are set according to the specific requirements that are to be met.
- For each washing step it is defined: the type of water to be used (cold, demineralized), the type of detergent or chemical additive to be used, the duration of spraying without heating, the temperature of the hot step and its duration, the right time when the additive must be added. The basic phases are linked together in sequence to create the most suitable washing and / or disinfection program for the materials that are to be treated.
- Timer makes the control of the detergents dosage.
- LED segment display, to show all the main operating parameters and alarm messages and breakdowns.

- The control buttons on the panel, easy to use and understand, allow a simple and automatic use of the machine and an immediate control of the parameters.
- Temperature control with viewing of the chamber temperature.
- Temperature controlled by a PT1000 probe.
- Electronic control of the maximum temperature permitted.
- End of cycle warning, both optical and acoustic.
- Automatic door opening at the end of the cycle
- Immediate display of error detected.
- Automatic counter of cycles performed.
- Real time clock with backup battery in case of blackout.
- Control and viewing of the cycle progress showing in real time the following information:
  - Current program name
  - Program progress with indication of the residual time
  - Identification of the current phase
  - Temperature detection in the wash chamber
- Control of the correct working of the washing pump through an high pressure switch
- Heat shock prevention inside the chamber by "shock start" function
- Exclusion demineralized water in real time to the selected program
- Repeat cycle function
- Last rinse function
- Possibility to cool down the drain water, to preserve the piping

WASHING SYSTEM

The glassware washer Smeg GW0160 uses a washing system who takes-in fresh water at each cycle phase. The machine uses about 10 liters of pre-filtered water for each phase. At the end of each phase, the water is completely drained by means of a drain pump, before taking in fresh water for the next phase. After the filling phase, the detergents are added via peristaltic pumps and / or detergent dispenser directly to the wash chamber at right time, predetermined by the program. The program determines the concentration of the detergents. During the washing phase, the wash pump forces water and detergents to circulate through the rotating spray arms. The high ratio of flow rate / pressure, combined with the factors of temperature and time, remove and dilute the residual contaminants present in the water. The water in the washing chamber is brought to the set temperature by means of internal heaters. During heating phase the machine continues the process of spraying and washing.
To ensure a constant pressure on the spray arms, and a good quality of cleaning, the machine continuously monitors the wash pump proper functioning.

SAFETY FEATURES

- Safety features: wash pump stops if door is opened, water level control, overheating control, error messages displayed, malfunctioning of wash pump, safety thermostats, flow meter to control the volume of water added to the wash chamber.
- Electric interlock on the door with automatic security system with the door closed. Locking and unlocking of the door microprocessor-controlled (in case of need the emergency manual release is possible).
- Wash chamber temperature reduction at the end of the cycle before draining.

WASH / DRAIN / DETERGENT PUMPS

- Circulating Pump: 400 l/min.
- Drain Pump: flow rate 18 l/min
- Peristaltic Detergent Dosing Pump: flow rate 55 ml/min
- 1 Powder Detergent Box
- 1 Peristaltic Detergent Dosing Pump for Acid Neutralizer
- 1 Peristaltic Detergent Dosing Pump for liquid Alkaline (optional)

WATER CONNECTIONS

- Onboard water softener with automatic volumetric regeneration with salt. Water treatment capacity from 33°dH/60°F to < 4°dH/7°F
- LED signal for refilling of salt.
- Separate water connections for cold water (pressure between 1,5 to 5 bars) and demineralised water
- Water Consumption: 9 – 10 litres per phase
- Cold water Hardness Max 42 °F (French degrees)
- Demineralised water conductivity <30 µS/cm

FILTERS

- Sump Macro Filters in stainless steel.
- Sump Micro Filter in stainless mesh.
- Coarse filter visible in the tub
- Median Micro Filter in stainless mesh
- Micro filters in correspondence of the 2 water inlet pipes to stop impurities of the utilized water

POWER SUPPLY

- Three Phase Version: 3PH/N/PE 50Hz 400V 7kW or, Single Phase Version: 1/N/PE 50Hz 230V 2.8kW
- The machine is supplied with the mains cable without a plug. The end user must supply it during installation.

DETERGENT CONSUMPTION TABLE PER CYCLE

Detergent consumption for a standard cycle of 5 phases.

ALKALINE POWDER DETERGENT	35-40 mg
ALKALINE LIQUID DETERGENT	50 ml
NEUTRALIZING ACID	30 ml

Products recommended by Smeg:

ALKALINE POWDER DETERGENT	DETERGLASS, DETERGLASS SP
ALKALINE LIQUID DETERGENT	DETERLIQUID C2, DETERLIQUID C, DENTALNE5
NEUTRALIZING ACID	ACIDGLASS C2, ACIDGLASS C, DENTALAC5

AVAILABLE OPTIONS

- Demineralised water booster pump.
- Peristaltic dosing pump for liquid alkaline detergent
- Acquastop
- Plinth in stainless steel with detergent compartment or raised frame.
- Additional ceiling spray arm, made in stainless steel AISI 304, to improve the washing efficiency on glass ware with complex shapes