



# GENEVA SCIENTIFIC

LAB EQUIPMENT SOLUTIONS

## CAGE AND BOTTLE WASHER - AC 1200



Model	AC 1200
Exterior Dimensions (WxDxH)*	47.24" x 39.37" x 74.8"
Chamber Dimensions (WxDxH)*	30.12" x 35.43" x 44.49"
Door Opening (WxH)*	30.12" x 31.1"

\*Dimensions based on single door design

The AC 1200 is an efficient system able to wash and disinfect all types of animal cages granting an easy maintenance of the cages cleanliness and effective cleaning results with the thermal/chemical destruction of micro-organisms by rinsing at 85°C through an independent rinsing circuit.

Highest flexibility is granted by the compact design, which assures low cycle costs by reduced consumption of water and energy.

AC 1200 design provides an installation set for any facility:

- Single Door
- Double Door pass through

The washer can be equipped with dedicated accessories for the optimized loading of animal cages and washing carts with injection systems for bottles.

An optional configuration allows the effective cleaning process of aquatic tanks fully compatible with cage plastic materials and without chemical residuals after the rinse phase.

# CAGE AND BOTTLE WASHER - AC 1200

## **STANDARD FEATURES**

### **Doors:**

- Door is made of AISI 316L (DIN 1.4404) stainless steel on the washing chamber side, AISI 304 (DIN 1.4301) on the external side.
- Manual opening. The door is composed by two sections, the upper section opens with a sliding up movement, the lower one is hinged.
- The lower section of the door, when open, acts as a loading platform for the loading tray allowing a convenient loading and unloading job.
- Opening of the door during the washing cycle stops the execution granting the operator safety.
- In the double door version, the doors are interlocked.

### **Loading Trays:**

- The lower loading tray slides on rollers and uses the door as a loading platform.
- Upper loading tray slides on fully extendable telescopic bearing rails.
- Standard loading trays are suitable for the washing of cages. An accessory upper loading tray allows the injection washing and rinsing of the inner part of animal feeding bottles.

### **Washing Chamber:**

- Washing chamber made in AISI 316L (DIN 1.4404) stainless steel
- Construction system with total removal of angles, self cleaning sump with rounded edges.
- Sump provided with 18 kW power electrical heating elements.

### **Washing System:**

- The washing system operates with independent washing and rinsing hydraulic circuits.
- Washing water is loaded in the washing chamber sump and heated up to the temperature defined for the washing water.
- Rinsing water (demineralized) is loaded into an AISI 316L pre heating tank placed under the washing chamber. Pre heating tank is equipped with 18 kW power electrical heating elements.
- Final rinse water for sanitification is heated up at 85°C / 185°F.
- Temperatures in the sump and in the pre heating tank are checked by two PT1000 temperature probes.
- Two rotary washing spray arms, one on the bottom and one on the top of the chamber.
- Two rotary rinsing spray arms, one on the bottom and one on the top of the chamber.
- One rotating washing arm and one rinsing arm are dedicated to the middle upper level (in the single door version the arms are integrated in the loading tray).
- Spray arms made of AISI 316L stainless steel (DIN 1.4404)

### **Circulation Pumps:**

- 1 x 2.0kW power pump, 800 l/min flow each dedicated to recirculation of the washing water
- 1 x 0.55kW power pump, 110 l/min flow dedicated to the rinsing circuit
- Pump activity is controlled by pressure checks on both the washing and rinsing circuits.

### **Water and Energy Saving System:**

- Water saving feature allows the operator to retain water used during the final rinse treatment for reuse during the first treatment of the next cycle.
- The demineralized water at 85°C / 185°F used during the sanitizing phase dilutes the washing water solution. Helps in keeping the washing solution at the proper temperature allowing relevant saving in the energy and water consumption.

### **Water Connections and Filtration:**

- Two (2) water line connections for cold/mixed or demineralized water.
- Water level sensor into the washing chamber.
- Water filtering system on three (3) stages.
- First and second stage filters are easily accessible directly from the washing chamber.
- Automatic self cleaning filter on the third stage.

### **Chemical Dosing:**

- Equipped with one (1) dosing pump of chemical products, under a complete microprocessor control, with the possibility to modify the required products quantity in each cycle.
- Check of chemical product quantity, with minimum level alarm

### **Chemical Storage:**

- AC 1200 is endowed with a stainless steel drawer for the storage of up to four (4) chemical tanks with 10lt capacity.
- Level sensor check

### **Microprocessor Control System:**

- Possibility of up to 40 storable programs (user manual reports the list of the factory programs)
- Different programs can be programmed and selected directly from the control panel.

### **System Control Panel:**

- Push button control panel
- 32 digit LCD display

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### STANDARD FEATURES cont.

#### **System Monitoring:**

- Constantly informs the operator regarding machine status, cycle phase, remaining cycle time to the end of treatment and the chamber temperature.
- At the end, it points out that the cycle has been correctly processed.
- Audible and visual alarms provide quality control for each wash cycle.
- Water level sensor for water sump load.
- RS 232 port for printer connection to monitor and validate washing cycle.

#### **Electric Control Panel:**

- The electric control panel is installed on sliding rails, access for maintenance is simplified.

### CONSTRUCTION

#### **Washing Chamber**

- Constructed using AISI 316L BA Ra<30µin (Ra<0.8µm)
- Designed and constructed with smooth edges and corners removing areas where dirt can accumulate and allow bacterial growth.

#### **Exterior**

- AISI 304 Scotch Brite finish Ra<40µin (Ra<1.2µm)

#### **Components**

- Constructed using stainless steel and other materials which are resistant against the effects of aggressive detergents

#### **Insulation**

- High performance melamine insulation guards against heat loss and reduces noise level.

### OPTIONAL FEATURES

- Steam Heating:** washer total power kW 2.5
- Heat Recovery System:** heat exchanger using the hot vapors leaving the chamber to pre-heat the incoming water used for the wash and the final rinse phases
- Aquatic Tank Processing:** the washer is configured with a special hydraulic circuit and 3 peristaltic liquid chemical dosing pumps to perform a dedicated washing and sanitization cycle composed by the following phases: recirculated pre wash with cold water, recirculated main wash with the addition of alkaline and peroxide based detergents, recirculated neutralization wash (the liquid neutralizer chemical also acts as a rinse aid), not recirculated pre rinse, not recirculated final rinse at 85°C / 185°F
- 2nd or 3rd Chemical Dosing Pumps:** peristaltic pumps providing precise addition of liquid chemical agents, check of chemical product quantity with minimum level alarm
- Steam Extractor:** allows the air discharge into non-aspirated ducts
- Steam Condenser**
- Drain Pump**
- Printer:** integrated printer for validating washing phases with detailed information
- USB Port:** allows the download of the cycles data, the upload and download of the cycle parameter
- Network Connection:** ethernet connection for the remote recording of cycle parameters through SteelcoData traceability software
- Accessories:** a variety of inserts for the optimized loading of animal cages and washing carts with injection systems for bottle trays
- Cleaning Chemicals:** dedicated cleaning chemicals are available  
& Much More



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