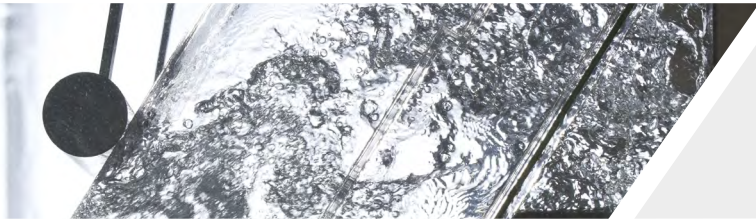


ATLANTIS EASY CAGE & RACK WASHER



Heavy duty, large capacity hydro spray batch-type washer designed for thorough, efficient cleaning and disinfection of cages, racks, IVCs, transport trolleys, debris pans and miscellaneous items used in care of laboratory animals.



STANDARD TECHNICAL FEATURES

► CLEANING EFFICIENCY

Water flow, pressure and coverage are resulting in outstanding cleaning performance, up to 7 cycles and 600 mice cages per hour, making Atlantis Easy ideal for medium scale operation or as complementary unit next to a tunnel washer. The wash solution and fresh rinse water are delivered over the load by 6 arms through complete separate circuits thanks to the nested arms technology. A patented 120° oscillating arm movement pneumatically driven is guarantee of perfect coverage. Atlantis is fully compliant with AK KAB and AAALAC requirements.



▶ WASHING CYCLE

► DOOR DESIGN AND INTERLOCKING INFLATABLE GASKET

Full length tempered glass (13.5mm – 0.5" thickness) hinged doors with safety film inside are synonymous of full process visibility, safety and enhanced communicability across barrier. An integral multi rib inflatable gasket for active and true sealing of the chamber in the SPF barrier application as well as H₂O₂ vapour gassing cycles is equipped as standard.

► QUALITY CONSTRUCTION

Atlantis is entirely made of AISI 304 stainless steel, water

manifolds are featuring pharma standard tri-clamp connections and orbital weldings. Non proprietary components are equipped and international brands for local spare parts availability are appointed as partners.

► COMPACT TECHNICAL COMPARTMENT

The technical compartment is located on the chamber side, hinged panels are guaranteeing the access to it. In case of extreme space saving requirements the unit can be installed "wall-to-wall" where the red plastic panel is becoming a door to access the maintenance space with a width of 800mm (31.5")

► SELF-CLEANING FILTER

The unpleasant operation of manually removal and cleaning of static floor screens typical of older generation machines is only a bad memory. Atlantis is featuring an in-line filter which is back-flushed for self-cleaning purposes every single cycle. The access to the filter, ergonomically located in the technical compartment and removable with a simple tool-free twist and pull movement, will be part of your standard cleaning procedure and no more a "multiple times a day" operations.



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CAGE & RACK WASHER

SAFETY

Atlantis is inclusive of two emergency bars with panic-proof self-deflating door gaskets, when bars are hitten doors are automatically released without requiring any additional manual operations. The unit is inclusive of safety micro-sensors at doors and filter level to place in safety mode the water pumps whenever an operator is accessing chamber or performing maintenance.



▶ EMERGENCY BARS WITH SELF-RELEASING DOORS

POLARIS OPERATOR INTERFACE

An HMI (Human Machine Interface) where on top of the intuitive graphic and usability is available, as a standard, a comprehensive set of embedded functionalities and features:

- LiteView smart-phone and table app for remote monitoring and setting (cycle parameters and self-start data), inclusive of a “blackboard” to send messages to the screen in the cage wash area
- TeleService: remote connectivity via internet (on customer's permission) for troubleshooting and software upgrades directly from the factory without stepping in you facility
- eMeter: data collection and statistics on the machine consumptions (electricity, water and detergents)
- USB port: cycles, alarms and eMeter data downloadable in digital format
- Self-Start: a weekly programmable functionality to automatically switch on and prepare your unit
- Self-Clean: a dedicated cycle to rinse chamber, lines and tanks when a drain process is requested

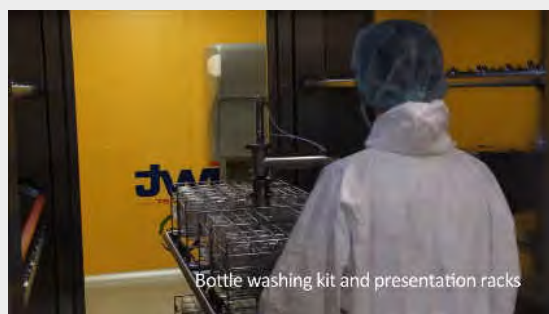


▶ POLARIS OPERATOR INTERFACE

OPTIONS

BOTTLE WASHING

A dedicated hardware and software setup for bottle washing inclusive of chamber quick lock connection allows to use the Atlantis Evo for washing bottle crates on a dedicated presentation rack



▶ BOTTLE WASHING KIT

DETERGENT DOSING SYSTEM

As a standard, the machine is equipped with one detergent pump for each washing tank.

As an option, additional dosing pumps can be provided:

- Neutralizer pump: the chemical is injected into the rinse circuit;
- Rinse aid pump: the chemical is injected in the rinse line;
- Second detergent pump: the chemical is injected in the wash tank and it is used to run alkaline and/or acid cycles;
- Descaling Option Pump: automatic descaling cycle inclusive of dosage pump for acid agent;
- Remote chemical management: provide for each of the selected pumps a remote management solution to work with large chemical drums.

HOT AIR BLOWING-DRYING SYSTEM

The drying system consists of different components, properly designed, which assure the drying of the load.

A fan takes the air from the room: once pushed through a G4 Grade filter, it is warmed and conveyed on the load through the air blade installed on the chamber side panel. The hot air is then exhausted from the chamber and forced through the exhaust ductwork.

The drying system is a modular unit, pre-assembled on a purpose-designed frame and installed inside the technical compartment.

TILTED FLOOR

To help the water run-off and therefore when drying of flat surfaces is required two chamber floor wedges for racks tilting can be provided.

THERMAL DISINFECTION

Clean steam injection into the chamber to expose the load at a temperature of 82°C [181°F] for one minute in order to carry out a pasteurization.

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► HYDROGEN PEROXIDE DECONTAMINATION

Heat-sensitive equipment can be decontaminated in the rack washer chamber using vaporized hydrogen peroxide H_2O_2 . A power socket is available inside the chamber for full equipment running during decon cycles.

The machine is equipped with two cam locks to connect inlet and outlet pipes of the external generator. An I/O interface is included for the signal exchange between Atlantis and the generator itself. At the end of the decontamination cycle, an exhaust fan performs the chamber aeration; therefore, an airtight ductwork is required to safely exhaust H_2O_2 .

► HEAT RECOVERY SYSTEM

to pre-heat incoming water using hot exhausted air.

► DRAIN MONITORING

If required by local normative the unit can feature:

TEMPERATURE WATER TREATMENT - in order to keep the drained water temperature below $60^{\circ}C - 140^{\circ}F$, the machine can feature an automatic system to mix cold water with process water. Cold water (max $20^{\circ}C - 68^{\circ}F$) has to be provided separately;

pH WATER TREATMENT - the pH of the drained water is neutralized by mixing the proper chemical with the process water, as a result, the final pH is between 6 and 9.

► REALVIEW, REMOTE DATA MANAGEMENT SYSTEM

A web-based tool, accessible via any browser, for:

- Real time supervision
- Data gathering and exporting
- Statistics about cycles, alarms, productivity & consumptions
- Quick consult of machine documentation
- Alarm notification via email

► VALIDATION AND QUALIFICATION

A set of tests and protocols are available to verify machine performance:

FACTORY ACCEPTANCE TEST (FAT)
SITE ACCEPTANCE TEST (SAT) - inclusive of IQ, OQ, PQ
FACTORY MICROBIOLOGICAL CHALLENGE TEST

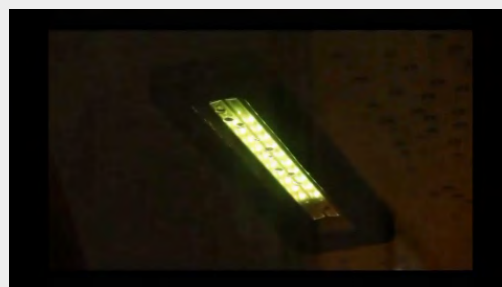
► AUTO-WATERING FLUSHING

The flushing system allows the sanitising of the racks with autowatering on board by means of hot water.

The rinse pump conveys filtered hot water (5 micron) from the rinse tank through the rack autowatering manifold. A quick lock connection is provided inside the chamber.

► CHAMBER LIGHT

The machine can feature an internal LED chamber light. The light turns colour in accordance with the different status of the machine.



► LED CHAMBER LIGHT

EQUIPMENT CONFIGURATION

► TECHNICAL COMPARTMENT (seen from dirty side)

- right
- left
- wall-to-wall (not available in case of drying option)

► DIRTY SIDE DOOR

- right-hand
- left-hand

► CLEAN SIDE DOOR (if purchased)

- right-hand
- left-hand

► HEATING METHOD

- steam
- electrical

► INSTALLATION

- pit (150mm - 6")
- off-pit (consult us for custom ramps)

► POWER REQUIREMENTS

- 400V-50Hz (three-phases + neutral + earth)
- 480V-60Hz (three-phases + earth)
- 380V-60Hz (three-phases + neutral + earth)
- Others



COMPLIANCE TO DIRECTIVE AND STANDARDS

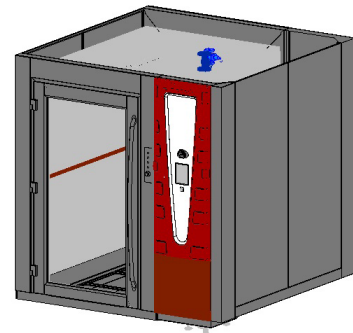
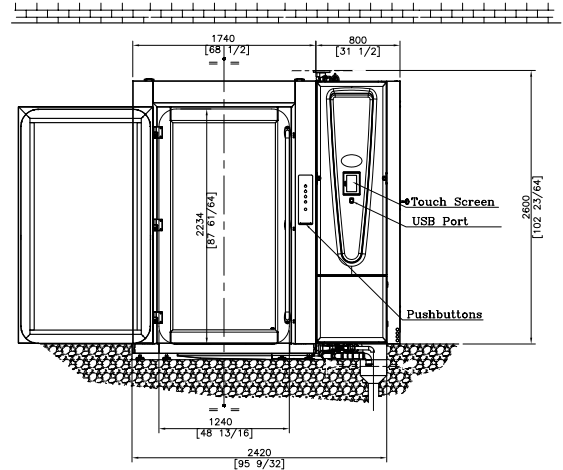
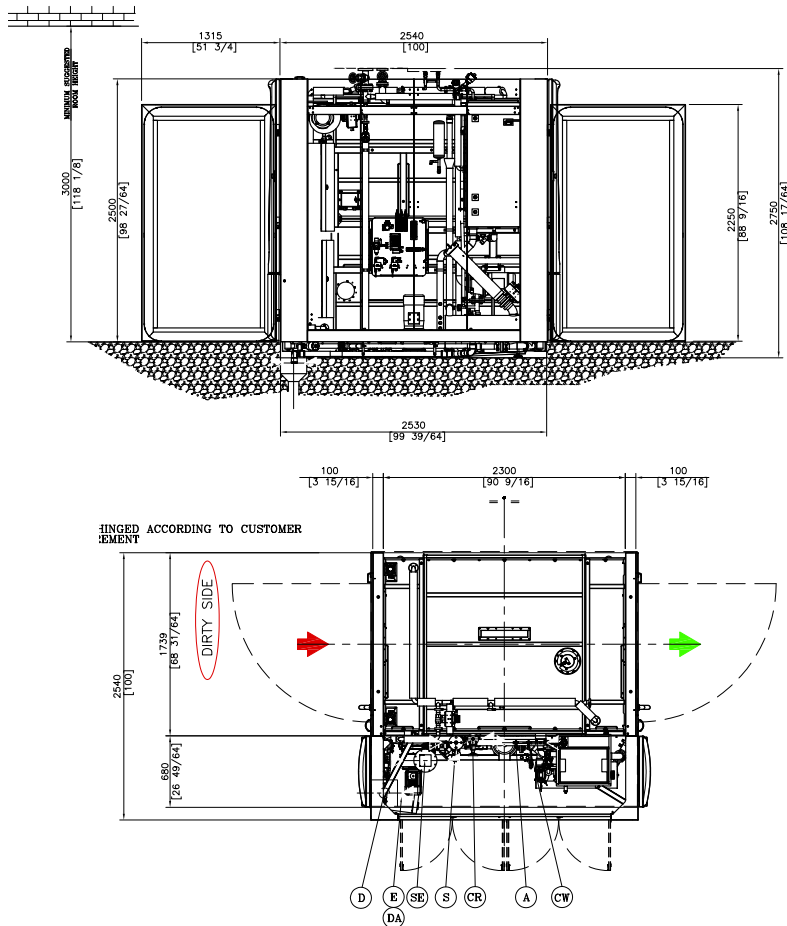
2006/42/EC	Machinery Directive
2014/30/UE	EMC Directive
2014/35/UE	Low Voltage Directive
UNI EN ISO 12100:2010	Safety of machinery. General principles for design. Risk assessment and risk reduction.
CEI EN 60204-1:2016	Safety of machinery. Electrical equipment of machines. General requirements
UNI EN ISO 13849-1:2016	Safety of machinery - Safety-related parts of control systems - Part 1: General principles for design (ISO 13849-1:2015)
UNI EN ISO 13732-1:2009	Ergonomics of the thermal environment - Methods for the assessment of human responses to contact with surfaces - Part 1: Hot surfaces (ISO 13732-1:2006)

DOCUMENTATION

The ATLANTIS Easy rack washer comes in with the following standard documentation:

- User and Maintenance Manual
- P&ID
- Wiring diagram
- Pneumatic diagram
- Spare part list
- EC conformity declaration - UL/CSA listing

TECHNICAL DATA AND SERVICE REQUIREMENTS



REVIT block available

	SERVICE	CONNECTION	SERVICE REQUIREMENTS		
			METRIC UNIT		US IMPERIAL UNIT
E	Electrical supply	Electrical cabinet	Voltage and frequency: Type: Power required: Circuit Breaker: Line fuse:	400V 50Hz 3phases+neutral+earth 7.2 kW 40 A 50 A	480V 60Hz 3phases+earth 7.2 kW 30 A 35 A
E1	Additional Electrical supply	Electrical cabinet	Voltage and frequency: Type: Line fuse:	Not Required Not Required Not Required	115V 60Hz Single phase+earth 35 A
CW	Cold Softened Water	½" G [½" NPT]	Dynamic pressure: Supply temperature: Supply flow rate: Initial fill:	2-3 bar 15°C<T<60°C 3600 l/h 400 l	29-44 psi 59°F<T<140°F 950 gal/h 106 gal
D	Floor Drain	Square shape: 250x250mm [10"x10"]	Max flow rate	4 l/s	1.05 gal/s
A	Compressed air	½" G [½" NPT]	Dynamic pressure: Quality: Min flow rate:	6 bar filtered, dry and oil free 33 l/min @6bar	87 psi filtered, dry and oil free 8.7 gal/min @87 psi
SE	Exhaust	Round bolted flange: Ø220mm [8.7"]	Min flow: Max ductwork resistance:	1000 m³/h 343 Pa	590 CFM 1.38 inches H₂O
S	Steam	DN 32 [1 ¼" NPT]	Dynamic pressure: Quality: Min flow rate:	3-5 bar filtered and dry 150 kg/h	50-72 psi filtered and dry 330 lbs/h
CR	Condense return	DN 20 [¾" NPT]	Same data as "S" utility		
DA	Data management	RJ45 Ethernet socket	Cable + Connection to the network		
WEIGHT					
Empty			2150 kg	4730 lbs	
Operating			2650 kg	5830 lbs	
NOISE LEVEL					
At 1 meter – 3ft			<70 dBA (ISO 11201)		
APPROXIMATE HEAT LOSS					
			4.41 kW – 3800 kcal – 15000 BTU		
PACKAGING					
#3 Crates			2740 x 1140 x 2200 mm	108" x 45" x 87"	

* Machine configuration: double door (left-to-right workflow), steam heated, H₂O₂ decontamination option
Utility requirements may change depending on final product configuration. Please consult with your local representatives for further details