

sharing the same goal.



## AF 2 PROFESSIONAL LINE

Washer disinfector for human waste containers



# Guarantee of “professionalism” all over the world for more than 50 years

AT-OS, international leader, designs, and manufactures machines for washing and disinfecting human waste containers, such as bedpans, urinals, supports for disposable bedpans, commodes, kidney-shaped basins, bowls, urology bottles and other containers used in healthcare.

Containers used in hospitals, elderly homes, clinics.

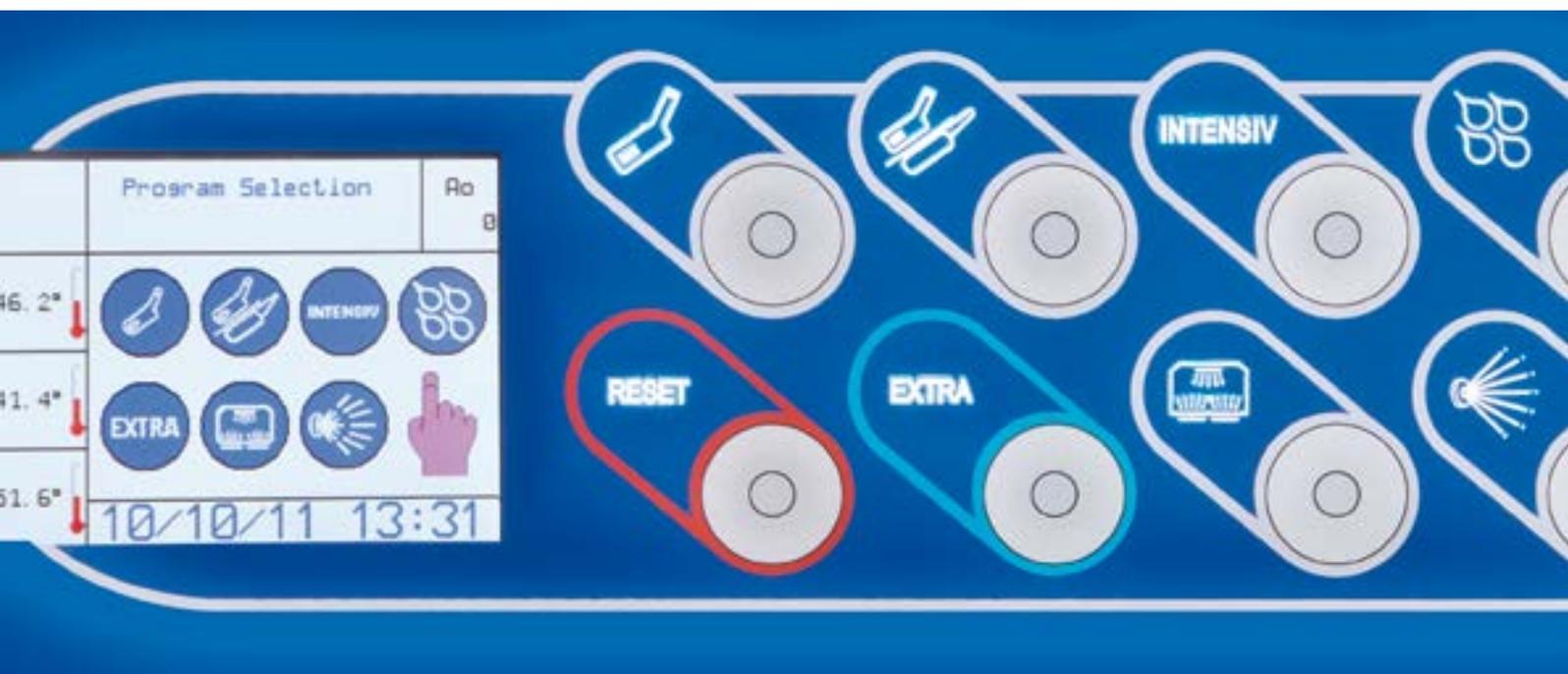
The main features of these machines are the high technology and the constant research.

The AF2 machines are produced in compliance with the EC 93/42 directive for medical devices class

2A, guaranteeing in that way high quality and a high security level. Total compliance with the European standards concerning machines for washing and disinfection: EN ISO 15883 part 1 and part 3. The plumbing system is DVGW certified and isolates the potable water pipeline system as prescribed by the European Standard EN1717 in order to avoid any risk of contamination.

Moreover, these machines are characterised by flexibility in use, customized programs based on operator needs and a warning system for routine maintenance.

AT-OS gives attentive and expert after-sales technical service, guaranteeing on-site intervention whenever necessary and scheduling training sessions for employees in the health sector, in order to guarantee a correct use of the machines.



# Contamination Risk "0"

One of the biggest problem which has to be eliminated in the hospitals is the transmission of infections from one patient to an other due to badly cleaned containers.

The achieved aims of the AF2 bedpan washers are: **high technology, highest hygiene and disinfection results.**

The contamination risk for both the user and patient is completely eliminated, thanks to the automatic door closure system, automatic emptying of the containers, cleaning and disinfection.

The door opens only after the disinfection of the articles. A particular security system ensures

that the door remains closed during the disinfection phase avoiding premature opening of the door and possible contamination. Thanks to the AT-OS technology **the machine calculates the disinfection value  $A_0$  during each cycle of the thermal disinfection.** At the end of every cycle the machine displays the reached  $A_0$  value, which mustn't be under 60.



## AT-OS Monitor

Software for programming and monitoring



# High-tech features of AF2 Professional line



## DWC - Disinfected Water Cooling

After the disinfection phase for cooling down the temperature, the water, immediately previous to be flushed in washing chamber is automatically disinfected to ensure freedom from microbial contamination according to the standard EN ISO 15883-1 5.3.2.5



## ETS - Emptying Total System

System for automatically emptying all the water present at the end of each cycle from the water pump, the water storage tank and pipes in order to ensure freedom from microbial contamination inside the machine. According to the standard EN ISO 15883-1 5.3.2.1 & 5.5.1.1



## SDS - Self Disinfection System

Function that allows the machine with a disinfection program after 24 hours from the last cycle.



## DCS - Drain Control System

Safety device that prevents use of the machine if drain trap is clogged.



## HANDS FREE STARTING

The user can start the machine without remove his gloves by actioning the program with the elbow. This feature supports the cross infection prevention.



## AUTOMATIC DOOR OPENING

The operator can open and close the door by pushing the foot pedal or activating the optical sensor on the touch panel.



## DVS - Disinfection Validation System

3 temperature probes PT1000 in the wash chamber to ensure accurate disinfection monitoring.



OPTIONAL





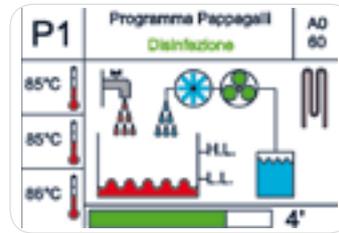
### High Load Capacity

Up to 4 urine bottles can be disinfected at once in this machine.



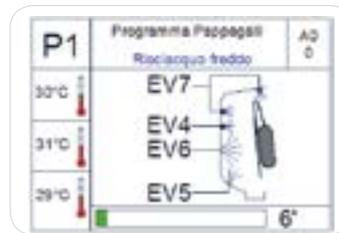
### EHMI - Easy Human-Machine Interface

Graphic display for an easy communication between machine and user. Top technology visualization to assure a detailed information for friendly control of machine features.



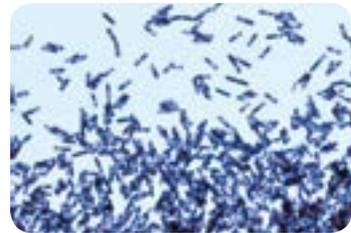
### ENC - Electronic Nozzles Control

Intelligent control of water flow, pressure and injection system to improve the washing performance.



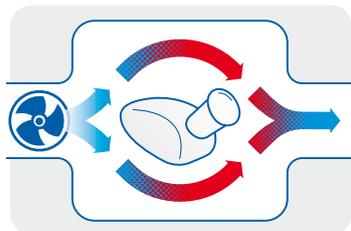
### HDS - High Disinfection System

Special ©AT-OS disinfection program with direct spraying appliance against CLOSTRIDIUM DIFFICILE bacterium. Test approved by the German University of Bonn.



### ACS - Air Cooling System

After the disinfection phase cold air will be introduced by a fan in the washing chamber, to cool down the temperature, condense the steam and dry the containers. This appliance also avoid the aerosol effect for the operator and the thermodynamic contamination of the room.



### Multiwasher Function

Complete application for washing and disinfecting other utensils and containers that cannot be cleaned in a standard support for bedpan and urine bottles. See more details on page 11.



# The Professional Line Product Range

AF2-60

Dimension: WxDxH mm



## AF2-60P Stand alone

Column floor mounted with plinth, wall or floor drain trap connection. Thermal disinfection with built-in steam generator.

▶ Dimension 600 x 450 x 1650



## AF2-60M Wall-hung

Wall-Hung mounted with wall fixing support brackets, wall drain trap connection. Thermal disinfection with built-in steam generator.

▶ Dimension 600 x 450 x 1550



## AF2-60I Wall built-in

Built-in with assembly frame, and drain trap connection. Thermal disinfection with built-in steam generator.

▶ Dimension 720 x 1835



## AF2-60I/WC Wall built-in with WC

Built-in with assembly frame, completed with the toilet and drain trap connection. Thermal disinfection with built-in steam generator.

▶ Dimension 720 x 1835

AF2-90

Dimension: WxDxH mm



## AF2-90B Counter-top

Counter Top floor mounted with plinth and work top surface, wall or floor drain trap connection. Thermal disinfection with built-in steam generator.

▶ Dimension 900 x 600 x 1000



## AF2-90 970/860 Under-top

Under-Top floor mounted with plinth to be placed under a work-plate. Wall or floor drain trap connection. Thermal disinfection with built-in steam generator.

▶ Dimension 900 x 600 x \*970/860



## AF2-90L Counter-top with sink

Counter-top with plinth and work top surface complete with hands-wash-basin wall or floor drain trap connection. Thermal disinfection with built-in steam generator.

▶ Dimension 900 x 600 x 1000



### AF2-105P Column stand alone

Column floor mounted combined sluice unit complete with Slop-sink with plinth, wall or floor drain trap connection. Thermal disinfection with built-in steam generator.

► Dimension 1050 x 450 x 640/1650



### AF2-105M Wall-hung

Wall-hung mounted combined sluice unit complete with Slop-sink with wall fixing support brackets, wall drain trap connection. Thermal disinfection with built-in steam generator.

► Dimension 1050 x 450 x 540/1550



### AF2-135B Counter-top stand alone

Counter Top floor mounted combined sluice unit complete with work top surface, Slop-sink and plinth, wall or floor drain trap connection. Thermal disinfection with built-in steam generator.

► Dimension 1350 x 600 x 640/1000



### AF2-135L Counter-top stand alone with sink

Combined sluice unit with slop sink, with plinth, wall or floor drain trap connection. Work table with basin. Thermal disinfection with built-in steam generator.

► Dimension 1350 x 600 x 640/1000



### AF2-180B/V Counter-top stand alone with sink and cabinet

Combined sluice unit with slop sink, with Plinth, wall or floor drain trap connection. Work table with 1 basin and cabinet with 1 door. Thermal disinfection with built-in steam generator.

► Dimension 1800 x 600 x 640/1000



### AF2-225L/W Counter-top stand alone with double sink and cabinet

Combined sluice unit with slop sink, with plinth, wall or floor drain trap connection. Work table with 2 basins and cabinet with 2 doors. Thermal disinfection with built-in steam generator.

► Dimension 2250 x 600 x 640/1000

# Opening and closing system

## Manual version



OPENING



CLOSING



START-UP

## Automatic opening with elbow start: version E



OPENING



CLOSING/START-UP

## Automatic opening: version A



OPENING



CLOSING/START-UP

# Technical features

## AF2 Professional Line Bedpan Washer Disinfector

TECHNICAL FEATURES	AF2 P-LINE
Exterior Lab. Certificate for validation of Type Test according to Norms EN ISO 15883-1 / 3	•
DVGW Certified plumbing system, designed to isolate the potable water pipeline system (water-gap) as prescribed by European Standard EN1717 just like all the plumbing	•
Manufactured totally out of AISI 304 (DIN 1.4301) stainless steel Scotch Brite finish	•
Washing chamber made of AISI 316 (DIN 1.4404) stainless steel MOLDED one-piece without welds and with rounded wide-radius corners for maximum hygiene	•
USB port for connection to a personal computer and for software upgrades	•
Complete with 4 washing programs: NORMAL for solid waste - ECONOMY for liquid waste INTENSIVE for tough waste - EXTRA additional custom program	•
THERMAL DISINFECTION WITH A BUILT IN STEAM GENERATOR complete with internal water controlling probe and a protected thermostat	•
Ao Value setting between 60 to 6000. The machine displays the Ao value reached and its calculation so that it shall be verified with the disinfection conditions according to EN ISO 15883-1 / 3 European Standards	•
Temperature sensor PT1000 in the washing chamber	•
Softener dosing pump complete with level monitoring in the canister and dosage adjustable from the control keyboard	•
Detergent dosing pump complete with level monitoring in the canister and dosage adjustable from the control keyboard	+
Flow-meter for monitoring the correct quantity of chemical liquid used during the cycle (EN ISO 15883-1 p.4.2.2 - 4.2.3)	•
Printer application on the front panel of the machine	+

• standard | + optional

# Support and accessories

## Bedpans and urine bottles support

### AF2 Standard Supports

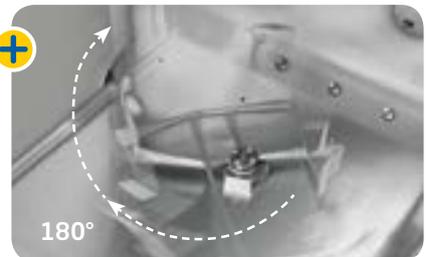
- ▶ Bedpan and urinal
- ▶ Commode and urinal
- ▶ Bedpan with cover and urinal
- ▶ Commode with cover and urinal

The urinals are emptied automatically during the closing of the door. It is possible to disinfect up to **4 urinals** per cycle.



### AF2 60 PET automatic turning system version ET

The patented AT-OS rotating support allows the operator to position the bedpan into the machine and leave it turn 180° automatically in order to avoid the spilling of organic waste and to guarantee more security for the user.



# Multiwasher concept

## Special supports

### Multiwasher basket

This revolutionary appliance ©AT-OS makes possible to use the washer disinfector as a multipurpose application proper for decontamination of general items in hospitals, clinics or elderly homes where the hygiene standards must be in accordance to the last most exigent principles of disinfection. The multiwasher basket is suitable for all kind of items or containers that do not have to be reprocessed in the sterilization department. The use of this additional application in the washer disinfector professional line allows:

- ▶ Washing through spray arms (**mechanical action**), reinforce the disinfection processes with the use of detergent washing (**chemical action**) and **thermal disinfection** in less than 15 minutes
- ▶ Thermal disinfection up to 95°C and  $Ao=6000$  (accomplishing the standards EN ISO 15883)
- ▶ High disinfection for medical general utensils (not for operating theatre)
- ▶ Load flexibility to wash a big variety of general items



Special program for multiwashing function (this application can be also installed afterwards).





# Turn Key Utility Room Projecting

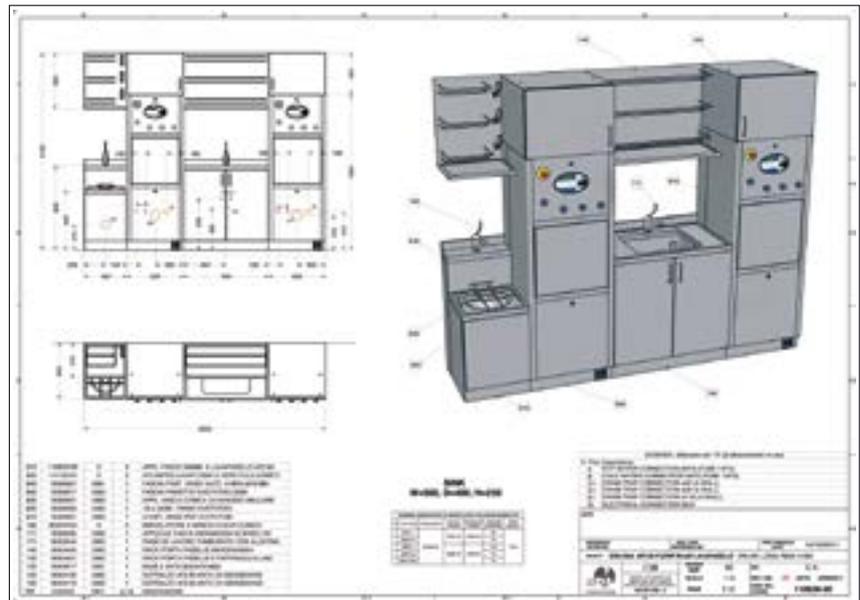


The AF2 Professional line is adaptable to each room and fulfils any planning requirement. The wide range of models available of this line solves any installation problem for completely furnished sluice rooms or for assisted bathrooms without additional costs and with the advantage of fast installation and assembly both in new structures and, above all, when renovating old structures or replacing old machines.

There are different solutions for the installation of bedpan washers: on the floor, wall-hung or built-in bedpan washers. Moreover, it is possible to install

the compact solution which combines slop sinks, basins and cabinets. These combined sluice units, adaptable to Individual requirements of the customer, may be delivered also with a single water supply and drain system.

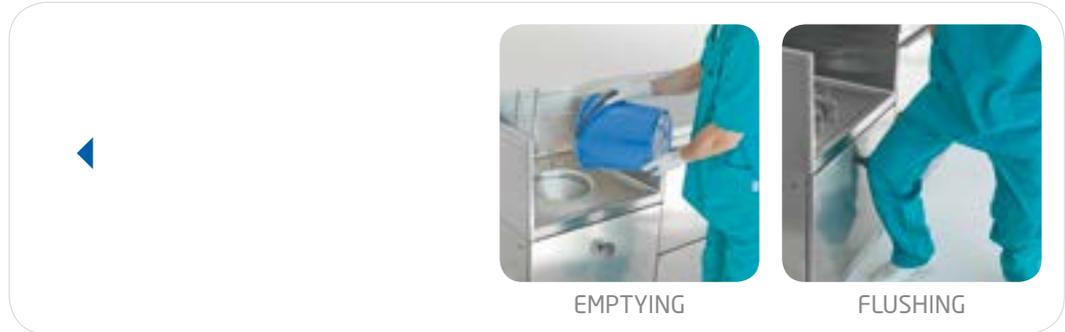
AT-OS supports his distributors providing every technical documentation (installation drawing, customized layout, plumbing and electrical connection drawing) for turn key projects of the utility room.



AT-OS drawings and technical documentation for turn key projects.

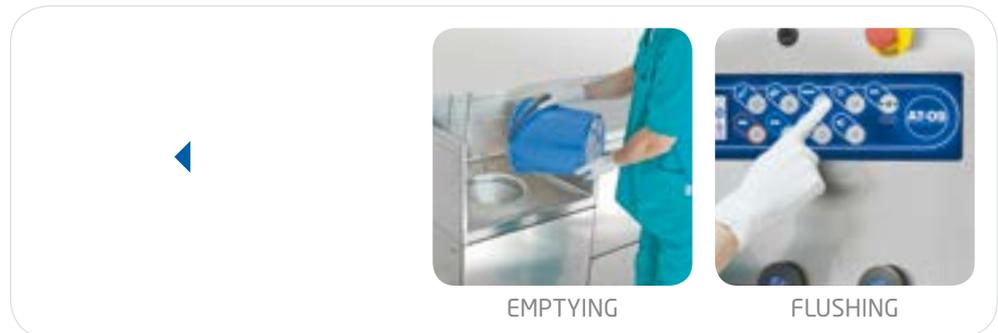
# Slop sink range

Stand alone with automated ring washing system activated by water pump



Different dimension: 45 | 60 cm width

BPW Controlled with ring washing activated from Bedpan Washer



Different dimension: 45 | 60 cm width – For the following models available: AF2-60 | AF2-90

RADIUS 15°  
FINISHING  
ON REQUEST



# Sluice room accessories

## Stainless steel dripping and storage shelves



**URINALS&BEDPANS**  
Wall mounted dripping and storage shelf



**URINALS**  
Wall mounted dripping and storage shelf



**BEDPANS**  
Wall mounted dripping and storage shelf



**MULTI FUNCTIONAL**  
Wall mounted storage shelves

## Storage cabinets and work plates with basins



**STAINLESS STEEL TOP CABINET**

With hinged door to install above washing and disinfecting machine.



**WALL CABINETS**

Stainless steel wall mounted cabinets open or with hinged doors. Internally heating available.



**WORKPLATE WITH BASIN**

Stainless steel workplates with welded basins with customized dimensions. Radius 15° version available to prevent any deposit of dirty and make the cleaning easier.

### Further accessories

- ▶ Stand alone cabinetry and cupboards
- ▶ Stainless steel or Corian customized work tables
- ▶ Stainless steel blinding and paneling
- ▶ Micro-controlled soap dispenser
- ▶ Manual or automatic photo cell water taps





AT-OS Srl

Viale del Lavoro, 19 - 37030 Colognola ai Colli - Verona - ITALY

Tel (+39) 045 6159411 - Fax (+39) 045 6159422

[info@at-os.com](mailto:info@at-os.com) | [www.at-os.com](http://www.at-os.com)

