AF2 PROFESSIONAL LINE
Washer disinfecter
for human waste containers
AT-OS, acknowledged as an international leader and EN ISO 13485 certified, designs, manufactures and distributes machines for washing and disinfecting human waste containers, such as bedpans, urinals, supports for disposable bedpans, commodes, kidney-shaped basins, bowls, urology bottles, bottles for blood collection and other containers used in hospitals, homes for the elderly, healthcare and clinics. AT-OS products provide innovative technology in constant evolution. The AF2 machines are produced in compliance with the EC 93/42 EUROPEAN DIRECTIVE for class 2A medical devices, guaranteeing high quality and a high level of safety. Total compliance with the European standards regarding machines for washing and disinfection: EN 15883 part 1 and part 3.

The plumbing system is DVGW certified and isolates the drinking water pipeline system as prescribed by the European Standard EN1717 in order to avoid any risk of contamination. AT-OS machines are characterised by flexibility of use, customised programs based on operator needs and a digital warning system for routine maintenance. AT-OS gives mindful 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 the correct use of the machines.

Professionalism guaranteed all over the world for more than 50 years

Training centre
Zero contamination risk

One of the biggest problems that has to be eliminated in hospitals is the transmission of infection from one patient to another due to poorly cleaned containers.

Hygiene, safety, total practicality and disinfection at the highest levels are the goals achieved by the entire range of AF2 machines that represent the highest technological standard in the field. The contamination risk for both users and patient is completely eliminated, thanks to the automatic door closure system, automatic emptying of the containers in a sealed chamber, cleaning and disinfection. The door opens only after the items have been completely disinfected.

A safety device ensures that the door remains closed during the disinfection phase, thus avoiding premature opening of the door and possible contamination.

Thanks to the AT-OS technology, during each thermal disinfection cycle the machine automatically calculates the disinfection value A0, set by AT-OS at 300: this must never be lower than 60.

This value is constantly updated during the cycle and monitored until the start of the following process.

The machine can be programmed and monitored through a Windows PC, installing the WinATOSMonitor software and connecting it to the machine with a USB cable. Alternatively, AT-OS APP AF2 can be installed on Android devices such as tablets or smartphones, to connect to the device without wires in a more convenient and faster way.

AT-OS APP AF2

The user-friendly application, for Android tablets and smartphones, simplifies and speeds up machine monitoring and programming with PDF AND EXCEL reports, that can be downloaded directly on your device.
High-Tech Features of the AF2 Professional line

**OPTIONAL**

**DWC - Disinfected Water Cooling**
Automated system for prompt disinfection of the water used in the final rinse to lower the washing chamber temperature before being flushed to ensure freedom from microbial contamination according to the standard EN ISO 15883-1 p. 5.3.2.5.

**ETS - Emptying Total System**
System to automatically drain water at the end of each cycle from the water pump, the water storage tank and the 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 to automatically perform a disinfection program 24 hours after the last cycle. This system prevents bacterial growth inside the machine.

**DCS - Drain Control System**
Safety device that prevents the use of the machine if the drain trap is clogged.

**HANDS FREE STARTING**
The user can start the machine without removing his gloves by pushing buttons with his elbow. This feature also prevents cross infection.

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

**DVS - Disinfection Validation System**
3 PT1000 temperature probes in the washing chamber to ensure accurate disinfection monitoring.
High load capacity
Up to 4 urine bottles can be disinfected at once using device.

EHMI - Easy Human-Machine Interface
Graphic display for easy communication between machine and user. Top technology display to ensure detailed and clear information during operation and instructions in case of alarm.

ENC - Electronic Nozzles Control
Intelligent and optimised 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 to eliminate CLOSTRIDIUM DIFFICILE bacterium. Test approved by the University of Bonn (Germany).

ACS - Air Cooling System
After the disinfection phase, cold air is introduced by a fan in the washing chamber, to lower the internal temperature and partially dry the disinfected containers. By condensing the excess steam, it prevents 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 treated in a standard support for bedpans and urinals. See more details on page 11.

At-OS APP AF2 with bluetooth application
The user-friendly application, for Android tablets and smartphones, simplifies and speeds up machine monitoring and programming with on-line improvement updates. The connection between AT-OS machines and Android device can be done without wires, requesting a bluetooth application, or via a USB connection with a special adaptor.
The Professional Line product range

**AF2-60**

- **AF2-60P Stand alone**
  Column floor mounted with plinth and wall or floor drain trap connection. Thermal disinfection with built-in steam generator.
  - **Dimensions** 600 x 450 x 1650

- **AF2-60M Wall-hung**
  Wall-hung, mounted with wall fixing support brackets and wall drain trap connection. Thermal disinfection with built-in steam generator.
  - **Visible front dimensions** 720 x 1835
  - **Dimensions** 600 x 450 x 1550

- **AF2-60I Wall built-in**
  Wall built-in with assembly frame and drain trap connection. Thermal disinfection with built-in steam generator.
  - **Visible front dimensions** 720 x 1835

**AF2-90**

- **AF2-90B Counter-top**
  Counter-top floor mounted with plinth and upper work top and wall or floor drain trap connection. Thermal disinfection with built-in steam generator.
  - **Dimensions** 900 x 600 x 1000

- **AF2-9070/860 Under-top**
  Under-top floor mounted with plinth to be placed under a work top and wall or floor drain trap connection. Thermal disinfection with built-in steam generator.
  - **Dimensions** 900 x 600 x *970/860

- **AF2-90L Counter-top with sink**
  Counter-top with plinth, complete with upper work top with washbasin and wall or floor drain trap connection. Thermal disinfection with built-in steam generator.
  - **Dimensions** 900 x 600 x 1000

**Dimensions: WxDxH mm**
**AF2–105P Column stand alone**
Column floor mounted, combined sluice unit, complete with slop-sink with plinth and wall or floor drain trap connection. Thermal disinfection with built-in steam generator.

> **Dimensions** 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 and wall drain trap connection. Thermal disinfection with built-in steam generator.

> **Dimensions** 1050 x 450 x 540/1550

**AF2–135B Counter-top stand alone**
Counter-top floor mounted combined sluice unit, complete with upper work top, slop-sink and plinth and wall or floor drain trap connection. Thermal disinfection with built-in steam generator.

> **Dimensions** 1350 x 600 x 640/1000

**AF2–135L Counter-top stand alone with sink**
Counter-top floor mounted combined sluice unit, complete with upper work top with washbasin, slop-sink and plinth and wall or floor drain trap connection. Thermal disinfection with built-in steam generator.

> **Dimensions** 1350 x 600 x 640/1000

**AF2–180B/V Counter-top stand alone with sink and cabinet**
Counter-top floor mounted combined sluice unit, complete with slop-sink and plinth, upper work top with basin and cabinet with 1 door and wall or floor drain trap connection. Thermal disinfection with built-in steam generator.

> **Dimensions** 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, upper work top with 2 basin and cabinet with 2 doors and wall of floor drain trap connection. Thermal disinfection with built-in steam generator.

> **Dimensions** 2250 x 600 x 640/1000
Opening and closing system

**Manual version**

**Version E: automatic opening with elbow start buttons**

**Version A: automatic opening and closing**
## Technical features

### AF2 Professional Line washer disinfector

<table>
<thead>
<tr>
<th>TECHNICAL FEATURES</th>
<th>AF2 P-LINE</th>
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<tbody>
<tr>
<td>External Laboratory Certificate for validation of Type Test according to Standards EN ISO 15883-1/3</td>
<td>+</td>
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<tr>
<td>DVGW certified plumbing system, designed to isolate the potable water pipeline system (water-gap) as prescribed by European Standard EN1717</td>
<td>+</td>
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<tr>
<td>Manufactured in AISI 304 stainless steel brushed Scotch Brite finish</td>
<td>+</td>
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<tr>
<td>Washing tank made of AISI 316 stainless steel (DIN 1.4404) with rounded corners and no welding</td>
<td>+</td>
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<tr>
<td>USB port for connection to a PC and for software upgrades, statistical data on the last 10,000 cycles, technical operation check, disinfection monitoring during the operating cycle</td>
<td>+</td>
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<tr>
<td>Complete with 4 washing programs: Reduced - Normal - Intensive - EXTRA</td>
<td>+</td>
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<tr>
<td>Thermal disinfection with a built-in 2.7 /3.2 kW steam generator complete with internal temperature control</td>
<td>+</td>
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<tr>
<td><strong>A0 value setting between 60 and 6000.</strong> The machine displays the A0 value reached and its calculation so that disinfection conditions according to EN ISO 15883-1/3</td>
<td>+</td>
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<tr>
<td>PT1000 temperature sensor in the washing chamber</td>
<td>+</td>
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<td>Descaler liquid dosing pump with reserve warning, leak indicator and machine block in the event there is no more liquid</td>
<td>+</td>
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<tr>
<td>Flow-meter to monitor the correct quantity of liquid used during operation (EN ISO 15883-1 p.5.7.1 - 5.7.2)</td>
<td>+</td>
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<tr>
<td>Dosing pump for liquid detergent with reserve warning, leak indicator and machine block in the event there is no more liquid</td>
<td>+</td>
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<tr>
<td>Printer application on the front panel of the machine</td>
<td>+</td>
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<tr>
<td>The following applications can be included:</td>
<td>+</td>
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<tr>
<td>-Bluetooth application: module for wireless communication between machine and Android devices on which the AT-OS APP AF2 is installed;</td>
<td>+</td>
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<tr>
<td>-USB application for uploading programs directly from a USB flash drive</td>
<td>+</td>
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Support and accessories

Supports for bedpans and urinals

AF2 standard supports

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

The urinals are emptied automatically when the door is closed. It is possible to disinfect up to 4 urinals per cycle.

AF2 60 PET automatic turning system for slipper bedpans ET Version

The patented AT-OS rotating support allows the operator to position the slipper bedpan with the handle towards the outside. At the start of the program the support will rotate 180°, allowing automatic drainage of organic waste without the help of the operator. Reduction of contamination risk is ensured.
Multiwasher concept

Multiwasher basket
This revolutionary AT-OS appliance makes it possible to use the washer disinfecter as a multi-purpose piece of equipment to decontaminate general items in hospitals, clinics or homes for the elderly where standards of hygiene must comply with the most exigent principles of disinfection. The Multiwasher basket is suitable for any kind of accessory or container that does not have to be retreated in the sterilisation department. The use of this additional application in the Professional line washer disinfecter allows:

- Washing by rotating spray arms (mechanical action), disinfection process enhanced by the use of detergent (chemical action) and thermal disinfection in less than 15 minutes.
- High disinfection for general medical utensils (not for use in the operating theatre)
- Thermal disinfection up to 95°C and A0=6000 (in compliance with EN ISO 15883)
- Flexible and easy loading to treat a wide variety of devices

Special program for MULTI WASHER function (this application can be installed afterwards)
The AF2 PROFESSIONAL LINE is adaptable to each room and fulfills any planning requirement. The wide range of models available in 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 installing bedpan washers: on the floor, wall-hung or built-in. Moreover, it is possible to install the compact solution which combines slop-sinks, basins and cabinets.

These combined sluice units, adaptable to individual customer requirements, can be delivered with a single water supply and drain system.

AT-OS supports its customers providing technical documentation (installation drawings, customised layouts, plumbing and electrical connection drawings) for turn key utility room projects.
Slop-sink range

**Slop-sink with automated ring washing system and internal tank and pump**

Different dimensions: **width 45 | 60 cm**

**Slop-sink with automated ring washing system connected to the Professional line machine**

Available dimensions: **width 45 | 60 cm** — Available for models: **AF2-60 | AF2-90**

RADIUS 15° FINISHING AVAILABLE ON REQUEST
Sluice room accessories

**Stainless steel drip and storage shelves**

Wall mounted drip and storage shelf

BEDPANS AND URINALS

Wall mounted drip and storage shelf

URINALS

Wall mounted drip and storage shelf

BEDPANS

WALL MOUNTED STORAGE WITH SHELVES

**Storage cabinets and work tops with basins**

**TOP CABINET IN STAINLESS STEEL**
Closed with hinged door to be installed above the washing and disinfecting machine.

**WALL CABINET IN STAINLESS STEEL**
Stainless steel wall-hung cabinets open or with hinged doors. Internal heating available.

**WORK TOP WITH BASIN**
Stainless steel work tops with basins in customised dimensions. RADIUS 15 version available to prevent dirt deposits and to ease cleaning.

**Other accessories**

- Stand alone cabinetry and cupboards
- Stainless steel or CORIAN customised work tops
- Stainless steel covering and panelling
- Micro-controlled soap dispenser/mixer
- Manual or automatic photocell water taps

AT-OS also provides water softener and detergent liquids in 5 litre cans, tested and approved in compliance with EN ISO 15883-1/3 to ensure better cleaning and longer equipment life.