



**WD7015**



**WD7015**

**CLEANING AND DISINFECTION EQUIPMENT**

**- USER MANUAL -**

Translation of the original instructions issued in Italian



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<b>Cod.</b>	<b>Rev.</b>	<b>Date</b>	<b>Note</b>
193908520 – EN	01	15/09/2022	Revision to insert the CE0051 mark on the cover, alignment of intended use, clarified contraindications.
193908520 – EN	00	20/01/2022	First issue MDR instruction manual.

## 1 INITIAL RECCOMENDATIONS

### READ THE PRESENT INSTRUCTION MANUAL CAREFULLY:

This manual constitutes an integral part of the machine.

**It must be kept intact and at hand for the entire life cycle of the machine.**

**It is necessary to read the following manual carefully prior to using the device.**

Failure to read or thoroughly comprehend the instructions in this manual may cause the device to malfunction and present hazards to the user.



***Machine installation, maintenance, and repair operations must be performed by authorized technical staff.***

***Repair operations performed by unauthorized staff, besides leading invalidating the product warranty, can be source of danger for the user.***

***In case of replacement, an original spare part must be used.***

***If the device was not used in accordance to the instructions presented in this manual, the product may no longer be covered by warranty and the safety of this device could be compromised.***

***The producer declines all liability for any use that differs from what indicated in the present manual.***



***Excluding possible manufacturing defects, consumable materials (Detergents, Air Filters, Thermal Printer Paper...) are not covered under warranty.***

***The product warranty does not cover faulty parts due to negligence, inappropriate use, or failure to comply with the instructions of the device operations; incorrect installation or maintenance; repair and maintenance operations performed by unauthorized staff or with non-original spare parts; transportation damages; and any circumstance that cannot be ascribed to the device manufacturing defects.***

***Moreover, the warranty does not cover operations related to installation and connection of alimentation and drain systems as well as maintenance operations provided in the instruction booklet.***

***The installation of any accessory on the machine must be performed by authorized technical staff.***



***To request further information about accessories: contact your trusted seller and/or the authorized technical assistance, using the contact details provided in this manual.***

The content of this manual is for information purposes only. The content and the equipment described here may be subject to change without notification. The colours used in photographs of the product (finishing panels), in diagrams and in screenshots are all purely guideline aimed at the correct transposition by the operator of the operating concepts described in the text.

## 2 EXPECTED LIFETIME

**Expected lifetime** (or simply “lifetime”) of the device: 10 years or 50000 cycles (whichever limit is reached first), in **conditions of normal use and regular maintenance**, following the intervals and controls recommended in this manual, carried out by technical staff authorized by the manufacturer.

“Lifetime” is considered the period of time when the device characteristics and performances are not affected to such a degree that nor the efficacy of the treatment neither the safety of the operators are compromised.

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*For a medical device, the useful life is that period of time in which the characteristics and performance of the device are not altered in such a way as to compromise the clinical status and safety of patients and possibly third parties.*

*From regulation 2017/745: “[...] **confirming the safety and performance** throughout the **expected lifetime** of the device [...] ”*

### 3 INTENDED USE AND CLASSIFICATION

#### 3.1 INTENDED USE

**PRODUCT DESCRIPTION:** Cleaning and disinfection equipment of re-usable medical devices, commonly identified as “Instrument washer”.

SERIES	Key characteristics
WD7015	Large <b>cleaning and disinfection equipment</b> with forced-air drying system and sliding door, available in both single-door and double-door ("pass-through") versions. Door opening type: sliding (vertical). Washing capacity: up to 18 DIN baskets. Max. power 20.0 kW.

	<p><b>INTENDED USE:</b>  <b>Washer-disinfectors intended to be used for cleaning, rinsing, thermal disinfection and drying of re-usable invasive and non-invasive medical devices.</b></p> <p>The treatment of the device is necessary for the subsequent correct sterilization of the load.</p> <ul style="list-style-type: none"> <li>. The device has been validated according to ISO 15883-1, 15883-2 standards and in accordance with technical specification 15883-5 (refer to the declaration of conformity for the reference versions of the standards applied and the year of publication).</li> <li>. Instruments used for the test: in compliance with paragraphs 15883-2 and 6.3.2.2 “<b>Solid devices,</b>” the following elements have been used to simulate the actual loading of surgical instruments: M12 x 100 EN 10088-2 screws and solid surgical instruments (Examples of “Solid devices”: surgical scissors, dissecting forceps, tissue forceps, retractors).</li> <li>. Validation is carried out using the chemical products recommended in this manual. Using other chemical products is not specified by the manufacturer and may impair the intended use of the device.</li> </ul>
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	<p><b>The appliance does not sterilize the load.</b>  <i>Sterilization is carried out by other devices (e.g. steam sterilizers); this procedure follows the washing and thermal disinfection phase.</i>  <i>The washing cart functions in support of the load and determines the typology of instruments that can be processed in a cycle.</i></p> <p><b>The device cannot work without its own washing trolley.</b>  <i>The device code does not include the washing trolley, which must be chosen according to your needs. Contact the Smeg instruments sales office for information and documentation regarding the trolleys compatible with the device.</i>  <i>When choosing the most appropriate disinfection treatment: always follow the instructions provided by the instruments’ manufacturer.</i>  <i>The operator’s competence and knowledge of the table of programs installed in the machine, as well as the typology of instruments to treat, is essential for the correct choice of the treatment cycle. The device offers options for several cycles, with different values of Time-temperature exposure, Ao parameter, that are determined according to the criticality of the medical devices to be processed.</i>  <i>Shared notion found in the sector’s technical literature: all “semi critical” instruments processed through thermal disinfection which can’t undergo a subsequent sterilization, should be processed with an Ao at least equal to 3000 (achieved, for example, with a process type at 90°C 5min).</i></p>
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	<p><i>It is necessary to verify that the items to be treated and the selected washing cycle are compatible in respect to the maximum temperatures reached and chemical products applied. The elements processed in the machine that are not entitled to a subsequent sterilization must be perfectly dry in order to prevent the building up of bacterial colonies from residual condensation. If necessary, an extra drying phase can be started.</i></p>
	<p><b>Use of this product for purposes not strictly outlined by this manual are considered improper.</b>  <b>The manufacturer declines liability for improper use of this product.</b>  <i>The manufacturer declines liability for any potential damage caused by washing instruments for which the manufacturer has not authorized automatic decontamination through thermal disinfection.</i></p>

### 3.1.1 CONTRAINDICATIONS

	<p><b>Any use other than that indicated in this manual must be considered as "improper".</b>  <i>The manufacturer declines all responsibility for uses other than those indicated.</i></p> <p><b>The device cannot be used to process instruments and medical devices in general whose manufacturers have not authorized the treatment in automatic washing and disinfection machines, such as disposable devices. In these cases, the Manufacturer also declines all responsibility for any damage to them.</b></p> <p><b>The device can only be used in the environmental conditions, temperature, altitude and humidity defined in the paragraph of this manual "TECHNICAL CHARACTERISTICS", "ENVIRONMENTAL CONDITIONS".</b></p> <p><i>For completeness, please refer to the "SAFETY AND WARNINGS FOR USE" section for the precautions for use.</i></p>
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### 3.2 WD CLASSIFICATION

	<p><b>Instrument washers for hospital use, medical devices in class IIb</b></p> <p>Classification in accordance:  - The classification criteria established by Regulation (EU) 2017/745 relating to medical devices, Annex VIII, Rule 16.</p>
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### 3.3 STANDARD 15883

The reference standard for the operating performance of a thermal disinfecter is **EN ISO 15883**.

With reference to paragraph 6 of standard 15883-1, **besides being compliant with the device as supplied, at the manufacturer's expense, the standard requires additional tests for the device as installed**, in a process called validation. **The user (responsible body) is responsible for the device validation.**

#### VALIDATION

Compliant with the EN ISO 15883-1 standard, validation of the device occurs in three different phases:

1. **Installation qualification – IQ**
2. **Operational qualification – OQ**
3. **Performance qualification – PQ**

#### Installation qualification

**QI** - Process of obtaining and documenting evidence that equipment has been provided and installed in accordance with its specification.

#### Operational qualification

**OQ** - Process of obtaining and documenting evidence that installed equipment operates within predetermined limits when used in accordance with its operational procedures.

#### Performance qualification

**PQ** - Process of obtaining and documenting evidence that the equipment, as installed and operated in accordance with operational procedures, consistently performs in accordance with predetermined criteria and thereby yields product meeting its specification.

#### Note on the performance qualification

Performance qualification must be executed after the installation qualification and operational qualification phases have been successfully completed.

Performance qualification is executed after introducing new or modified items to be cleaned and disinfected, or new loading systems, as long as there is demonstrated equivalence to a reference validated load or to an item or loading system previously validated.

Performance qualification is executed after introducing new procedural parameters (including chemical agents).

**Operational qualification should be repeated at preset intervals to check periodically that the appliance operates correctly.**

It is recommended that the machine performance requalification is carried out every year.



#### **WARNING – USE OF PROBES FOR VALIDATION**

*The machine is equipped with a physical door for the introduction of probes. The door is accessible only to authorized technicians, according to the procedure provided by the Manufacturer.*

*In case of use of probes by the user or by other entities: the use of wireless probes (datalogger or similar) is recommended.*

### 3.4 DEFINITION: “RESPONSIBLE BODY” OF THE DEVICE

**Responsible Body:** “individual or group responsible for the use and maintenance of equipment”.

Definition taken from the standard IEC61010-1, par. 3.5.12.

The responsible body should be clearly identified inside the structure where the appliance is operated (i.e. name and responsibility registered on company forms).

### 3.5 TYPICAL OPERATOR AND “SUPERUSER”

**The machine can be only used by staff members who have been specifically trained.**

INTENDED USER PROFILE: characteristics of the “typical operator”:

- staff specifically trained for the use of the appliance.
- staff trained in the thermal disinfection process and in the cycle of treatment of medical devices.

It involves staff working in hospitals, generally paramedics and nurses.

**The installer technician is responsible for training staff when installing the appliance.**

The manufacturer declines all liability in case of any malfunction or accident caused by use of the appliance by untrained staff.

**Staff preparation** includes specifications on possible risks in using the appliance as well as training to perform operating procedures in the safest way possible.

The installer technician must also communicate USER and SUPERUSER passwords to the responsible body in order to access the configuration parameters. The **responsible body** is responsible for preserving the passwords in a safe place.

It's the **RESPONSIBLE BODY's** task to make sure that whoever operates the appliance has been adequately trained on its functioning, safe use and routine controls, and to ensure the continued training of all operators.

**Staff training should be checked regularly.**

The installer technician is responsible for the correct functioning of the appliance after the installation.

## 4 PRESENTATION

The products covered by this manual are available in two main versions:

1. Single door machine.
2. Double door machine.

In both versions the device is equipped with a **touch screen** user interface.

The **touch screen** allows the user to interact with the interface by touching icons on the screen to perform actions based on the options available.

DEVICE VERSION
<p><b>SINGLE DOOR MACHINE:</b> the door to access the tank is used both to load the material to be processed and to remove the finished load (after wash and thermal-disinfection treatment).</p> <p>In the “single door” version there is only one <b>touch screen</b> for all the user interactive operations: select and start program, machine parametrization, door lock and unlock.</p>
<p><b>DOUBLE DOOR MACHINE:</b> the device has two doors to access the tank:</p> <ol style="list-style-type: none"> <li>1. <b>Loading door “unclean side”:</b> used to load contaminated items to be treated with a wash cycle and thermal disinfection in the device, in the washing cart.</li> <li>2. <b>Unload door or “clean side”:</b> used to unload the treated, washed and thermally disinfected items. Opening this door is only possible after a cycle has been successfully completed.</li> </ol> <p>In the “double door” version there are two <b>touchscreens</b>: “unclean side” and “clean side”.</p> <p><b>“Unclean side”:</b> through the interface, the operator can select a wash, start the cycle, block a cycle, and establish machine parameters.</p> <p><b>“Clean side”:</b> the operator can only unlock the door to unload items once the cycle has been completed successfully. From the clean side it is also possible to interrupt a cycle in progress.</p> <p><b>A cycle can be started only if the doors are closed.</b></p>

#### 4.1 WD7015 – MACHINE WITH SLIDING DOORS

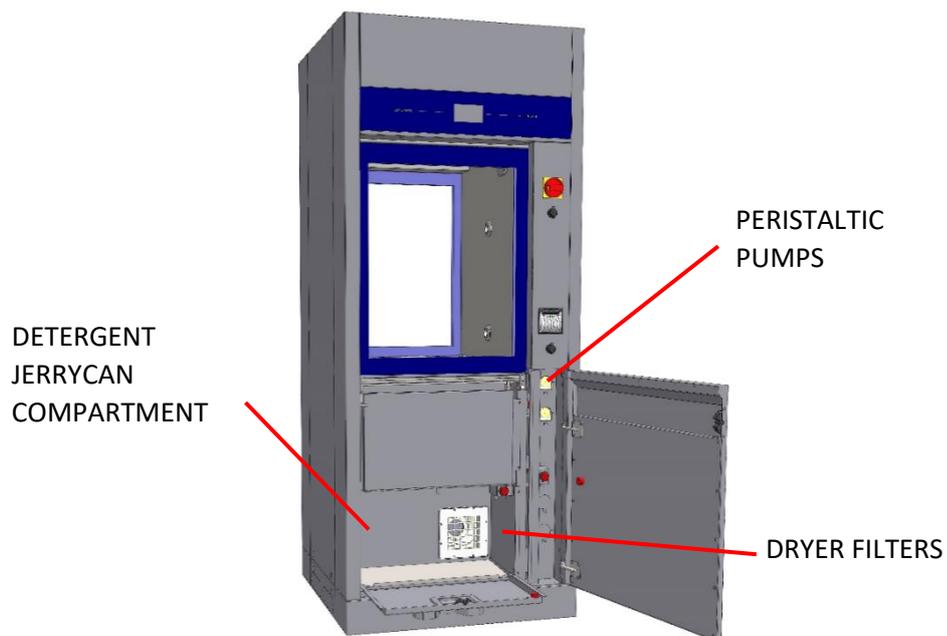
The sliding doors travel up and down to allow the operator access to the washing chamber for loading and unloading of the instruments to be washed and disinfected.

Door opening and closure are activated by the user with the aid of the touch screen interface.





*Loading the chamber using the multi-purpose trolley.*



**Loading side** – opening the door at the bottom gives access to:

- **detergent jerrycan compartment** (detergent jerrycans and intake nozzle)
- **dryer air filters**
- **peristaltic pumps** (liquid detergent dispensing pumps).



**WARNING:**

*If the detergent compartment is open, the loading side door cannot be operated.*



Unloading or "clean" side. Devices:

- **"Mushroom" emergency stop button.**
- **Touch screen display.**

Emergency stop button: allows the user on the unloading (or "clean") side to halt the machine. For example, the button can be pressed if the user notices a malfunction that justifies stopping the current cycle at once, or to halt movement of the doors.

The touch screen display on this side of the machine is read-only; the user can view the active screens but not interact with the machine.

The only function enabled is door opening/closure.

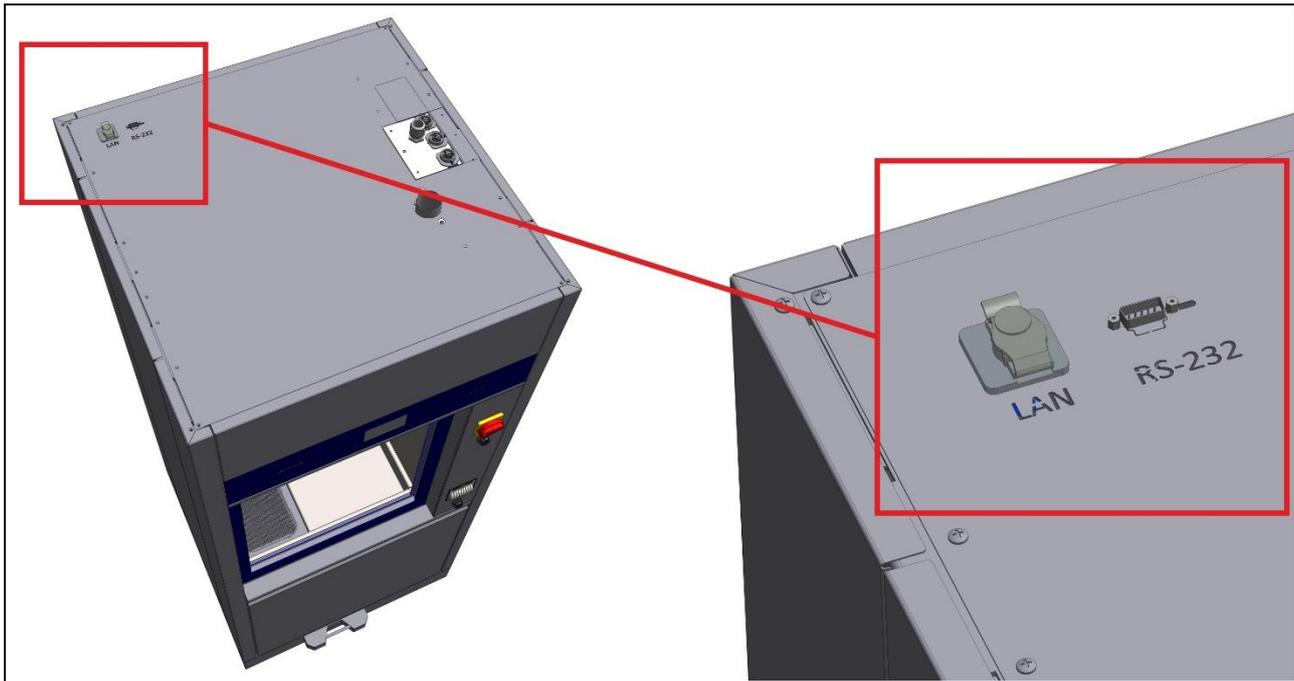
The door can only be opened at the end of the cycle, and only if the wash cycle has been completed successfully.

(The user may have halted the drying phase: in this case opening of the clean side door is possible).



**WARNING:** once the **"emergency button"** has been pressed, it must be rearmed (by turning it) in order to restart the device.

The device should also be switched off and back on with the main switch before restarting normal use.



The following optional data communication ports are available on the TOP of the device:

- **LAN PORT** (optional) – for network communications using software supplied by the manufacturer (ref. optional “WD-LAN60”)

- **RS232** optional for remote printer - see the specification for the optional “WD-PRINTEINK” printer.

Note: the port can only be provided if the device is not fitted with the thermal panel printer (ref. Optional “WD-PRINTP7010”, “WD-PRINTS7010”).

For the connection ports positions, refer to the “Installation Requirements” documents.

#### 4.1.1 OPTIONAL BARCODE SCANNER – WD-CODESCAN

The **WD-CODESCAN** is a **barcode scanner** which can be installed on WD7015 models, **on the loading side**. [If this optional is installed, the printer cannot be placed on the same side. However, the printer can be installed on the unloading or “clean” side].

The scanner is installed to **acquire ID codes**, specifically:

1. user code;
2. rack code.



**The codes acquired are paired with the washing cycle executed and recorded in the appliance’s memory database, and are also printed in the cycle report if the printer is available.**

Codes are only acquired with the door open. Once the door has been closed, the codes which were acquired can no longer be modified.

**N.B.:** When acquired, the rack code is not automatically paired with the program to be executed. For this to take place, the device and racks must be equipped with additional optionals (e.g. **MAGBAR**” and **“RACKREC**” (Rack Recognition) - contact authorised Smeg personnel for further information).

The scanner is designed to acquire **Code 128** type barcodes.

The ID badges for users and washing racks must be provided by the customer.

The customer must decide:

1. The **number of characters to be used** in code creation. Codes may consist of up to a maximum of 14 alphanumeric characters.
2. The unique **ID codes**.

Code creation constraints:

- a. **The rack code must start** with a capital “R” for “Rack” (e.g. “R90465900-001”).
- b. **The user code must start** with a capital “U” for “User” (e.g. “U0000000000001”).
- c. **Codes must not contain spaces.**
- d. Once **the number of characters to be used has been decided**, the same number must be maintained in all cases; the device only acquires codes with the set length (parameter can be set by the superuser). Rack and user codes may consist of a different number of characters.



**Bar code badges for washing racks**

*The badge material and the method used to engrave them with the code must be **suitable for washing in the instrument washer** with the intended detergents and chemical additives, must be approved for the maximum temperatures during the wash cycle, and must not shed substances during the treatment processes used.*

*The engraved (e.g. laser-engraved) **barcode must have suitable resistance** to wash cycles and have size and resolution which allow it to be read using a barcode scanner.*

*[Guideline barcode dimensions: 70x18mm].*

*Contact authorised after-sales personnel for further information.*

WD7015 equipped with barcode scanner	Detail of scanner (guideline illustration)
	

## 5 CONFIGURATIONS AND OPTIONALS

Symbols meaning	
●	feature present
○	optional feature, installable on the model.
-	feature not present and not installable on the model.

	<p><b>WARNING – CHEMICAL AGENTS DOSAGE</b></p> <p>Chemical agents dosage is performed through peristaltic pumps.</p> <p><b>For each installed peristaltic pump the following control procedures are strongly encouraged:</b></p> <ol style="list-style-type: none"> <li><b>Chemical dosage check</b>– through flow sensors “flowmeter”;</li> <li><b>Tank level check</b> – through level sensors</li> </ol> <p>Only when the control systems are installed can the device verify whether the dosage used complies with the default setting and can warn the user of low dosage levels.</p> <p><b>Control devices can be also installed upon use by technical staff authorized by the employer.</b></p> <p><b>Please contact your trusted dealer for more information and clarifications.</b></p>
	<p><b>Notes on variants - Power supply:</b></p> <p>Unless otherwise specified, the device is set for a power supply of three-phase plus neutral with 400V between phases (400V 3N~). This configuration is also referred to as "standard" ("std").</p>

### 5.1 Identification of optional components

The optional components that can be installed on the device are clearly identified in the following table. The configuration tables in the following paragraphs recall the descriptions used here and identify the possible and safe combinations of the devices. Note: only 1 printer can be installed on the device, between the two proposed variants. Contact the Smeg instruments sales office for any clarification and for the dedicated support documentation on optional components.

Descriptive	Commercial name	Identification code
Optional peristaltic pump P3 [complete with tank level sensor and dosage control]	P36010H	903410
Optional peristaltic pump P4 [complete with tank level sensor]	P46010H	903404
Optional peristaltic pump P5 [complete with tank level sensor and dosage control]	P57015H	904375
Dosage control	WD-FLUX6010	903459
Optional tank level control	WD-LS6010	903525
Integrated printer, loading side	WD-PRINTS7010	903464
Integrated printer, unloading side	WD-PRINTP7010	903463
LAN communication port	WD-LAN60	903460
Integrated drain pump for wall drain	WD-DRAIN15	905101
"LED6010" chamber lighting kit	LED6010	903409
Steam condenser	STEAMCO15	904267
Chamber Steam heating	STEAMFEED15	904313
Chamber and boiler steam heating	STEAMFEED15T	904314
WD-CODESCAN barcode scanner reader	WD-CODESCAN	905103
WD-SIGNBOX15 signal box	WD-SIGNBOX15	905135

5.1.1 WASHING TROLLEYS

	<p><b>The device cannot work without its own washing trolley, which is necessary as a support for the instruments to be processed. The trolley is an integral part of the device itself.</b></p> <p><i>The washing trolley must be chosen according to your needs. Consult the Smeg Instruments sales office for information and clarifications.</i></p>
	<p><b>The installation, maintenance and any repairs to the devices must be performed by technical personnel authorized by the manufacturer.</b></p> <p><b>An original spare must be used for any replacement component.</b></p>

The references of the trolleys considered as a reference for the most common needs are provided: CSK1815FLEX and CSK1515FLEX.

Other trolleys are available, in particular dedicated to washing the "Da Vinci" surgical instruments of the manufacturer Intuitive Surgical, ref. Smeg CSKDAV series trolleys.

Descriptive	Commercial name	Identification code
Trolley with load capacity up to 18 CSKDIN baskets	CSK1815FLEX	903863
Trolley with load capacity up to 15 CSKDIN baskets	CSK1515FLEX	904181
"DA VINCI" Trolley - 6 POSITIONS - Si SERIES of Intuitive Surgical Instrument	CSKDAVSI615	904546
"DA VINCI" Trolley - 12 POSITIONS - Si SERIES of Intuitive Surgical Instrument	CSKDAVSI1215	904547
"DA VINCI" Trolley - 6 POSITIONS - Xi SERIES of Intuitive Surgical Instrument	CSKDAVXI615	904544
"DA VINCI" Trolley - 12 POSITIONS - Xi SERIES of Intuitive Surgical Instrument	CSKDAVXI1215	904545
"DA VINCI" Trolley - 6 POSITIONS - Xi SERIES, 6 POSITIONS - Si SERIES of Intuitive Surgical Instrument	CSKDAVXISI15	904743
Basket for surgical instruments	CSKDIN	900018

5.1.1.1 Trolley "CSK1815FLEX"

<b>Name</b>	CSK1815FLEX
<b>Code</b>	903863
<b>Description</b>	<p>FLEXIBLE TROLLEY WITH 6 WASHING LEVELS</p> <ul style="list-style-type: none"> <li>• upper and lower levels served by sprinklers on the bottom and on the top of the chamber</li> <li>• intermediate levels with incorporated spray arm</li> <li>• capacity: up to 18 CSKDIN model baskets</li> <li>• made of stainless steel</li> </ul>



fig. 1 – "CSK1815FLEX" washing trolleys to fit up to n.18 Smeg "CSKDIN" baskets

## 5.1.1.2 Trolley "CSK1515FLEX"

<b>Name</b>	CSK1515FLEX
<b>Code</b>	904181
<b>Description</b>	<p>FLEXIBLE TROLLEY WITH 5 WASHING LEVELS</p> <ul style="list-style-type: none"> <li>• upper and lower levels served by sprinklers on the bottom and on the top of the chamber</li> <li>• intermediate levels with incorporated spray arm</li> <li>• capacity: up to 15 CSKDIN model baskets</li> <li>• made of stainless steel</li> </ul>
	
<p><i>fig. 2 – "CSK1515FLEX" washing trolleys to fit up to n.15 Smeg "CSKDIN" baskets</i></p>	

## 5.2 WD7015 – CONFIGURATIONS



*The product is available in different versions, according to the installed elements.*

*Common elements in versions: tank material AISI316, tempered glass doors, appearance and interface (touch screen), double washing pump with soft start, double dryer engine, floor drain, 3 water pipe connections., Door type: "Sliding". Washing capacity: up to 18 DIN baskets.*

*The WD7015TECO models are equipped with a particular heat exchanger, the "Eco Exchanger" which allows the recovery of demi-hot water from the thermal disinfection rinses.*

*The configuration of these models provides*

- the energy recovery of the heat coming from demi water;*
- water savings resulting from the reuse of the final clean water, for subsequent rinsing between the operating cycle.*

*-Note: On WD7015TECO models it is not possible to install the optional P4 peristaltic pump.*

## 1.1.1 WD7015, 50Hz

Model name	WD7015M	WD7015M3	WD7015TM	WD7015TM3	WD7015	WD7015T	WD7015T3	WD7015-3
Code	860481	-	860482	-	860479	860480	-	860687
Door type (Drop down/ sliding)	Sliding	Sliding	Sliding	Sliding	Sliding	Sliding	Sliding	Sliding
Doors number (tank access: single/ double)	Single	Single	Single	Single	Double	Double	Double	Double
Detergent peristaltic pump P1	●	●	●	●	●	●	●	●
Acid neutraliser peristaltic pump P2	●	●	●	●	●	●	●	●
Optional peristaltic pump P3 [complete with tank level sensor and dosage control]	○	○	○	○	○	○	○	○
Optional peristaltic pump P4 [complete with tank level sensor]	○	○	○	○	○	○	○	○
Optional peristaltic pump P5 [complete with tank level sensor and dosage control]	○	○	○	○	○	○	○	○
Check detergent dosage P1 – FM1	●	●	●	●	●	●	●	●
Check acid neutraliser dosage P2 – FM2	○	○	○	○	○	○	○	○
Check detergent dosage P4 – FM4	○	○	○	○	○	○	○	○
Check tank level P1 – SL1	●	●	●	●	●	●	●	●
Check tank level P2 – SL2	●	●	●	●	●	●	●	●
INTEGRATED printer, loading side	○	○	○	○	○	○	○	○
INTEGRATED printer, unloading side	○	○	○	○	○	○	○	○
LAN communication port	○	○	○	○	○	○	○	○
USB serial port	●	●	●	●	●	●	●	●
Demineralised water pump (pressure re-launch)	○	○	○	○	○	○	○	○
Integrated drain pump for wall drain	○	○	○	○	○	○	○	○
Drying absolute filter HEPA H13	●	●	●	●	●	●	●	●
Lighting tank kit “LED6010”	○	○	○	○	○	○	○	○
Steam condenser	○	○	○	○	○	○	○	○
Warm water boiler	-	-	●	●	-	●	●	-
Demineralized water boiler	-	-	●	●	-	●	●	-
Eco Exchanger (Eco heat exchanger)	-	-	-	-	-	-	-	-
Steam heating – chamber	○	○	○	○	○	○	○	○
Steam heating – chamber and boilers	-	-	○	○	-	○	○	-
Barcode Scanner WD-CODESCAN	○	○	○	○	○	○	○	○
Signals box WD-SIGNBOX15	○	○	○	○	○	○	○	○
Mains frequency	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
Notes for electrical connection	STD	230V 3~	STD	230V 3~	STD	STD	230V 3~	230V 3~

## 1.1.2 WD7015, 60Hz

Model name	WD7015-6	WD7015T6	WD7015T36	WD7015-36
<b>Code</b>	<b>860689</b>	<b>860737</b>	<b>860822</b>	<b>860xxx</b>
Door type (Drop down/ sliding)	Sliding	Sliding	Sliding	Sliding
Doors number (tank access: single/ double)	<b>Double</b>	<b>Double</b>	<b>Double</b>	<b>Double</b>
Detergent peristaltic pump P1	●	●	●	●
Acid neutraliser peristaltic pump P2	●	●	●	●
Optional peristaltic pump P3 [complete with tank level sensor and dosage control]	○	○	○	○
Optional peristaltic pump P4 [complete with tank level sensor]	○	○	○	○
Optional peristaltic pump P5 [complete with tank level sensor and dosage control]	○	○	○	○
Check detergent dosage P1 – FM1	●	●	●	●
Check acid neutraliser dosage P2 – FM2	○	○	○	○
Check detergent dosage P4 – FM4	○	○	○	○
Check tank level P1 – SL1	●	●	●	●
Check tank level P2 – SL2	●	●	●	●
INTEGRATED printer, loading side	○	○	○	○
INTEGRATED printer, unloading side	○	○	○	○
LAN communication port	○	○	○	○
USB serial port	●	●	●	●
Demineralised water pump (pressure re-launch)	○	○	○	○
Integrated drain pump for wall drain	○	○	○	○
Drying absolute filter HEPA H13	●	●	●	●
Lighting tank kit “LED6010”	○	○	○	○
Steam condenser	○	○	○	○
Warm water boiler	-	●	●	-
Demineralized water boiler	-	●	●	-
Eco Exchanger (Eco heat exchanger)	-	-	-	-
Steam heating – chamber	○	○	○	○
Steam heating – chamber and boilers	-	○	○	-
Barcode Scanner WD-CODESCAN	○	○	○	○
Signals box WD-SIGNBOX15	○	○	○	○
Mains frequency	60 Hz	60 Hz	60 Hz	60 Hz
Notes for electrical connection	STD	STD	220-230V 3~	220-230V 3~

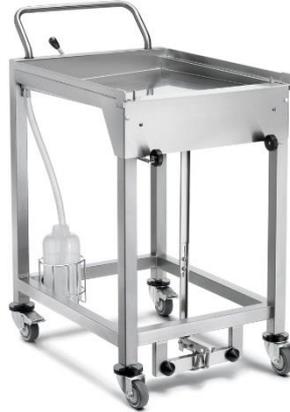
## 1.1.3 WD7015TECO Models [WD7015TECOxxx]

Model name	WD7015TECO	WD7015TECO-3	WD7015TECO-6	WD7015TECO-36
<b>Code</b>	860877	860xxx	860xxx	860xxx
Door type (Drop down/ sliding)	Sliding	Sliding	Sliding	Sliding
Doors number (tank access: single/ double)	<b>Double</b>	<b>Double</b>	<b>Double</b>	<b>Double</b>
Detergent peristaltic pump P1	●	●	●	●
Acid neutraliser peristaltic pump P2	●	●	●	●
Optional peristaltic pump P3 [complete with tank level sensor and dosage control]	○	○	○	○
Optional peristaltic pump P4 [complete with tank level sensor]	-	-	-	-
Optional peristaltic pump P5 [complete with tank level sensor and dosage control]	○	○	○	○
Check detergent dosage P1 – FM1	●	●	●	●
Check acid neutraliser dosage P2 – FM2	○	○	○	○
Check detergent dosage P4 – FM4	-	-	-	-
Check tank level P1 – SL1	●	●	●	●
Check tank level P2 – SL2	●	●	●	●
INTEGRATED printer, loading side	○	○	○	○
INTEGRATED printer, unloading side	○	○	○	○
LAN communication port	○	○	○	○
USB serial port	●	●	●	●
Demineralised water pump (pressure re-launch)	○	○	○	○
Integrated drain pump for wall drain	○	○	○	○
Drying absolute filter HEPA H13	●	●	●	●
Lighting tank kit “LED6010”	○	○	○	○
Steam condenser	○	○	○	○
Warm water boiler	●	●	●	●
Demineralized water boiler	●	●	●	●
Eco Exchanger (Eco heat exchanger)	●	●	●	●
Steam heating – chamber	○	○	○	○
Steam heating – chamber and boilers	-	-	-	-
Barcode Scanner WD-CODESCAN	○	○	○	○
Signals box WD-SIGNBOX15	○	○	○	○
Mains frequency	50 Hz	50 Hz	60 Hz	60 Hz
Notes for electrical connection	STD	230V 3~	STD	220-230V 3~

## 5.3 RELEASE TROLLEY



Sliding door devices: The original release trolley is a device necessary for the safe transport the washing cart inside and outside the machine.  
Contact the authorized dealer for information about the most suitable multi-purpose trolley.



*Sample image of the release trolley for washing cart transport and device tending.*

## 5.4 Automatic loading and unloading system for the washing trolleys

**The Smeg CB7015 Conveyor Belt is a system for the automatic loading and unloading of washing trolleys in the chamber of Smeg WD7015 washer disinfectors for medical use.**

The product constitutes an extension of the washer disinfecter, increasing the autonomy of the process and reducing the need for operator intervention.

Model CB7015 makes it possible to optimise the process, especially overall cycle times, because the device is tended as soon as it is ready and freed from its current load rapidly, also in the absence of operators.

Please refer to the specific user manual for the CB7015 system for further details.

PRODUCT NAME	CODE	NUMBER OF POSITIONS FOR WASHING TROLLEYS	VERSION: LOADING SIDE / UNLOADING SIDE	EQUIPPED WITH DETERGENT TANK COMPARTMENT
CB7015L1	904826	No.1	Loading Side	No
CB7015L2	904973	No.2	Loading Side	No
CB7015L3	904825	No.3	Loading Side	No
CB7015L1T	904839	No.1	Loading Side	Yes
CB7015L2T	904974	No.2	Loading Side	Yes
CB7015L3T	904838	No.3	Loading Side	Yes
CB7015U1	904824	No.1	Unloading Side	No
CB7015U2	904975	No.2	Unloading Side	No
CB7015U3	904823	No.3	Unloading Side	No



## 6 SAFETY AND HANDLING PRECAUTIONS

### 6.1 KEY TO THE SYMBOLS USED IN THE MANUAL AND ON THE MACHINE

Below are the symbols used on the machine and in this manual, in compliance with par. 5.4.4.e IEC61010-2-040.

SYMBOL	MEANING
	<b>Particular attention must be paid when reading this.</b> This symbol indicates particularly important regulations or recommendations.
	<b>“ON” Power</b> Standardized symbol (5007 IEC 60417-1): it is on the disconnecter (main switch) to indicate <b>connection to the electrical supply.</b>
	<b>“OFF” Power</b> Standardized symbol (5008 IEC 60417-1): it is on the disconnecter (main switch) to indicate <b>no connection to the electrical supply.</b>
	<b>Manufacturer</b> The symbol appears on the product’s technical dataplate, accompanied by the name and address of the medical device’s Manufacturer. (Symbol 5.1.1 ISO 15223-1, ISO 7000 no.3082)
	Consult instructions for use. The symbol appears on the product’s technical dataplate to indicate that users must consult the instructions for use of the device. (Symbol 5.4.3 ISO 15223-1, ISO 7000 no.1641)
	<b>Warning, danger: consult the manual.</b> This symbol is placed on the specific plate of the product to highlight that it is necessary to read the manual before using the device. This symbol is found next to the safety regulations as well.
	<b>Warning, warm surface.</b> This symbol is placed on the machine next to parts that can overheat and present burning hazards – avoid any contact with parts next to the symbol. This symbol is also found in the manual to highlight the safety regulations regarding burning hazards.
	<b>Warning, risk of electric shock.</b> The symbol is placed next to live parts – it is necessary to disconnect from the electrical supply source before carrying out any operations on these parts. Avoid any contact with live parts if electricity is on.
	Specific notes and regulations for Hospital sector.
	USB port – data communication and device setup
	Transport, storing and unpacking regulations.
	Biohazard.
	Fire danger.

SYMBOL	MEANING
	<p>Take care to avoid all liquid spills. This symbol is affixed near external parts of the device which must be protected from accidental spills and drips.</p>
 	<p><b>The symbol of a “crossed out wheelie bin”</b> (attachment IV directive 2002/96/EC): placed on the specific label and package of the product: at the end of its service life, the product must be sent to the disposal facilities for recovery and recycling, in compliance with the regulations in force in the country where it is installed. Contact the specialized disposal installations.</p> <p>The management of WEEE (Waste of electrical and electronic equipment) is in the hands of manufacturers, whose duty is to plan and manage the collection system; <b>today it is possible to deliver the waste directly to the dealer for free, when purchasing a device of the same type.</b></p> <p>If purchasing a new equivalent device to replace the previous one, the disposal fees are at the expense of the manufacturer of the new device.</p> <p><b>At the end of its service life the machine might be contaminated</b>, in particular the tank and water circuit (e.g. presence of blood and / or other organic materials, end of service life caused by a malfunction which compromised the efficiency of the last thermal disinfection cycle): use proper caution in the disposal operations. By making sure that this product is disposed of properly, the user contributes in preventing any possible negative effects on the environment and health.</p> <p><b>The disposed device must be made unusable. Remove the power cable after unplugging it / after disconnecting the cable from the power outlet.</b></p> <p><i>Before the old device can be disposed of, all old, accessible and removable batteries and accumulators must be separated. The same goes for lamps that can be removed from the old device without being destroyed. The end user is also responsible for the deletion of personal data on the old device.</i></p>
	<p><b>CE marking, IMQ notified body (CE0051</b> on model series “WD” only, medical devices). The symbol is on the specific label of the machine and in this manual to identify a medical device with CE certification released by IMQ (“0051” is the identification number of the notified body IMQ).</p>
	<p><b>Medical Device - symbol on the characteristic label.</b> (simbol 5.7.7 – ISO 15223-1).</p>

## 6.2 GENERAL RECOMMENDATIONS

**MAXIMUM LOADING WEIGHT**

Apart from the cart and the instrument baskets, the maximum weight of the load to be treated must never exceed:

- **WD7015: 45Kg**

To obtain an optimal DRYING, the load to be treated must never exceed:

- **WD7015: 45kg.**

**RELEASE TROLLEY**

**Sliding door devices: The multi-purpose trolley is a necessary device** for the safe handling of washing carts: for inserting the cart in the chamber and removing it.

**Cart loading and removal operations performed without the aid of the release trolley constitute "misuse".**

**OPERATING AND PERFORMANCE MALFUNCTIONS**

In the event of malfunction (e.g. water leaks or unexpected operation) **disconnect the device from the electrical source and turn off the water taps**. Refer to the "ALARMS" section of this manual and, if necessary, contact the closest authorized Service Center.

The machine can be used only by staff properly trained on its functioning.

The machine tank was not designed for the operator to enter inside. The operator must never enter completely inside the tank – this might compromise its safety (rif. 7.102 IEC61010-2-040).

**If the display (loading or unloading side) remains off or unresponsive** even with the main switch correctly set ON: **do not touch the display as this may trigger unexpected operation of parts of the device. Switch the device off using the main switch.** Wait at least 10 seconds after switching off before switching back on again.

Refer to the "ELIMINATION OF SMALL TROUBLES" section.

**In the event of variations in the performance of the device, evaluate:**

1. That all operating conditions comply with the manufacturer's prescriptions in this manual and in the documentation supplied with the product.
  2. You have followed the instructions and recommended maintenance intervals,
  3. Perform or request a performance qualification to assess whether its performance actually falls within the acceptability parameters (ref. Standard ISO 15883, applied edition).
- If the performance of the device is found to be non-compliant, contact the authorized technical assistance for inspection and restoration (ref. Req. MDR 23.4 s, Annex I).

**REPORTING SERIOUS INCIDENTS**

The person in charge of the equipment is required to report to the manufacturer any serious accident occurring in relation to the device.

The authorized technical assistance will interface with the central after-sales service to promptly inform and manage the incident.

It is also necessary that the report be brought to the attention of the competent authorities of the member state in which the equipment and the user are located.

For the definition of "serious accident", please refer to Regulation 2017/745.

[Information provided in accordance with MDR requirement 23.4].

**WARNINGS ON SAFE ELIMINATION OF THE DEVICE AT THE END OF LIFE**

At the end of its life, the machine can be contaminated (e.g. presence of blood and / or other organic materials, in particular due to end-of-life due to a fault that compromised the effectiveness of the last thermal disinfection cycle): observe the due precautions in the operations of disposal, as per the warnings reported in the paragraph: "PRECAUTIONS FOR ACCESS / REUSE OF THE DEVICE AFTER AN INCOMPLETE CYCLE AND FOR ACCESSING THE DEVICE AT THE END OF LIFE",

The decommissioned appliance must be rendered unusable. Cut off the power cord after unplugging / disconnecting the cord from the power outlet.

**MACHINE WITH SLIDING DOORS**
**DO NOT APPROACH THE DOORS during automatic opening or closure.**

The machine is fitted with doors which are opened/closed automatically.

Before enabling door opening/closure, check that other operators are not in a potentially hazardous position.

Never attempt to open the door with a program running. The appliance's control system prevents this for safety reasons. Never attempt to force the door open by hand.

The tops of the doors are fitted with pressure-sensitive edges: if the sensitive edge encounters an obstacle while the door is in motion, door travel is first stopped and then reversed to prevent crushing hazards.

Pressure-sensitive edges:

1. considerably reduce the crushing hazard for the user;
2. reduce the possibility of closing the door with objects obstructing its travel.

**The user must still take the greatest care** during automatic operation of the doors, and never:

1. allow any incorrectly positioned object to obstruct free travel of the doors;
2. touch moving parts.

The user is unable to open or close the door on the opposite side of the machine. Nor is it possible to open both doors simultaneously.

The tank of the appliance is not designed for users to climb into, even for extraordinary maintenance. The user must never climb into the tank - this might put his safety at risk.

**DETERGENT COMPARTMENT DOOR**

**The bottom door, giving access to the detergent compartment, must be closed correctly to enable automatic door opening and closure.**

Do not open the bottom door during automatic door operation.

**The bottom door must be correctly fitted and closed to allow use of the machine:** safety devices are installed to restrict operation of the machine if the door is not correctly positioned.



	<p><b>INTERNAL TANK LIGHTING - OPTIONAL "LED6010" KIT</b></p> <p>The appliance's lighting system is classified in the "EXEMPT" risk category (under the IEC 62471 standard): there is no photobiological risk in normal conditions of use.</p>
	<p><b>DEMINERALIZED WATER</b></p> <p><b>The demineralized water connection is required to install the device.</b></p> <p>In case demineralized water is not available, it is the user's responsibility to verify that the quality of the water supplied to the device does not cause the deposit of mineral salts or other substances.</p>
	<p><b>FLAMMABLE SUBSTANCES</b></p> <p><b>Do not introduce flammable substances to the device. Do not use flammable detergents.</b></p> <p>Do not introduce alcohol or solvents such as turpentine, which might cause an explosion. Do not introduce materials dirty with ash, wax or paint.</p>
	<p><b>CHEMICAL DISINFECTION</b></p> <p><b>Warning: if possible, thermal disinfection is always more advisable than a chemical disinfection process.</b> According to regional regulations, the decontamination process with chemical agents might be considered invalid by the responsible authorities, and can be used only if the loaded items cannot bear the specific temperature of thermal disinfection. The suggested washing and chemical disinfection cycles are specifically designed for the recommended products and can be inappropriate with other chemical products. Do not use products that were not specified by the manufacturer.</p> <p><b>The authority responsible for the device and the decontamination process is also responsible for the selection of the most appropriate treatment cycle.</b></p>
	<p><b>CLOG WASHING AND DECONTAMINATION</b></p> <p><b>The device where clogs are washed and decontaminated should be assigned to this specific function, in order to avoid mistakes of use. Clogs require specific supports and specific cycles, which are different from those used to process instruments.</b></p>

### 6.2.1 WARNINGS ASSOCIATED WITH CONNECTION TO THE COMPUTER NETWORK

	<p>Connection of the device to the network is possible only when the optional WD-LAN60, code 903460, is installed.</p> <p>The communication protocol is proprietary, the device can be connected to the network using only the application provided by the manufacturer and is accessible on the network only through passwords, differentiated by level.</p> <p>Differentiated passwords for authorized technicians only allow safer management of the parameters associated with the operation of the product.</p> <p>The IT security of the devices as a whole also includes a correct behavior of the personnel who interface with them and a consistent management of accesses, in line with the prescriptions of the MDCG guidelines (in part. Ref. MDCG 2019-16).</p> <p>Pc used for connection, minimum requirements: RJ45 port, Microsoft Windows 32 or 64bit operating system, Windows 7 or higher with Framework 4.0 or higher, updated.</p> <p>Healthcare professionals should adopt a risk management process that adheres to general cybersecurity best practices to maintain the overall security status:</p> <ul style="list-style-type: none"> <li>- physical security to prevent unauthorized physical access to medical devices or network access points;</li> </ul>
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- access control measures (e.g. role-based) to ensure that only authenticated and authorized personnel can access network elements, stored information, services and applications;
- network access controls, such as segmentation, to limit the communication of medical devices;
- Malware protection to prevent unauthorized code execution;
- Security awareness training.
- ability to reliably determine who made what changes to the system.

### 6.2.2 WARNINGS ASSOCIATED WITH EXTERNAL FACTORS, ELECTROMAGNETIC FIELDS



*[This paragraph responds to MDR requirement 23.4 s regarding warnings associated with electromagnetic interference].*

*The device has been tested for electromagnetic compatibility in accordance with EN IEC 61326-1 (ed. Cited in the declaration of conformity), resulting in compliance with the required levels both in terms of immunity and emission.*

*The device is suitable for operation in the environments of health facilities intended for reprocessing surgical instruments; the aforementioned standard 61326-1 is directly referred to by the performance standards dedicated to "Washer-disinfectors" (EN ISO 15883-1).*

*Due attention is drawn from the managers of the healthcare facility to consistently manage the equipment with reference to the installation environments and the correct segmentation of the power supply, differentiating devices with special requirements, such as diagnostic or therapeutic equipment.*

*Equipment particularly sensitive to electromagnetic disturbances and dedicated to diagnostics or therapeutics, should not be installed in the immediate vicinity of the device.*

## 6.2.3 AUTOMATIC LOADING AND UNLOADING SYSTEMS CB7015 SYSTEM SAFETY PRECAUTIONS



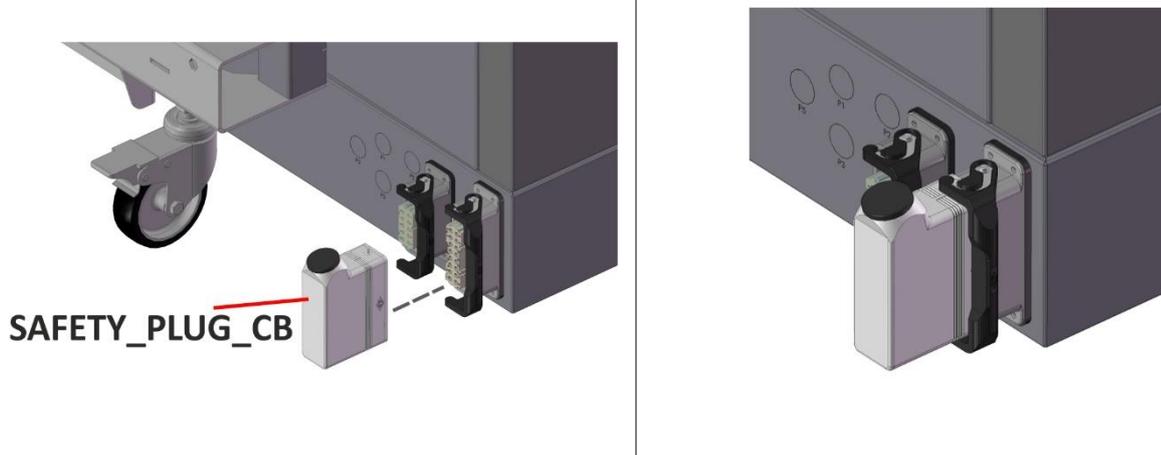
**The CB7015 systems may only be disconnected from the device by one of the manufacturer's authorised technicians, who must have read the CB7015 manual with care.**

*Devices prefitted for connection to CB7015 systems have connectors on their bottom plinth.*

**If the system is disconnected: the safety plug supplied must be used, as described below**  
*Note for the technician: if the safety plug is not used or is not correctly connected, the device may give the alarm that indicates that the emergency button has been pressed, since its electrical connections are replicated on the external system of the CB7015. In this case, the device is unusable.*

## DISCONNECTING CB7015 FROM THE DEVICE

The special "CB SAFETY PIN" (shown here) must always be used when disconnecting the system from the device.

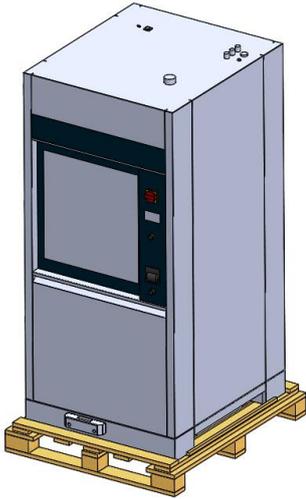


### 6.3 RECOMMENDATIONS FOR TRANSPORT

	<p><b>The machine is initially packaged: it is positioned and secured on wooden pallets, wrapped in protective nylon for dust and water infiltrations and covered in cardboard. Do not use devices which were damaged during transport.</b></p> <p><b>STORING:</b> The device must be preserved in a closed environment, not in the open air, in temperature and moisture conditions similar to those specified for its functioning.</p>
	<p><b>Transport of the machine to the place of its actual installation is at the client's expense and requires a lift truck.</b></p> <p>Refer to the product's technical sheet to know its net weight and gross weight with packaging.</p> <p>When using the lift truck <b>the product must be secured with belts</b> to prevent it from overturning in the event of braking.</p> <p>Unpacking operations:</p> <ol style="list-style-type: none"> <li>1. Take the external strapping off the packaging</li> <li>2. Open and remove the cardboard and the nylon wrapping</li> <li>3. Do not place the machine on its side</li> <li>4. Remove the polystyrene corner protectors</li> <li>5. The machine base is fastened to a pallet to be lifted and transported. When the machine is placed in the position for actual operation, the pallet holders, made with self-tapping wood screws, must be removed.</li> <li>6. Place the machine on a horizontal plane with a maximum gradient of 2°; level it using the adjustable feet.</li> <li>7. Do not place the machine on a flammable surface.</li> <li>8. <b>Do not use the door handles to transport the product.</b></li> </ol>
	<p>Manual transportation of the product must be avoided as far as possible. The use of a <b>tail lift</b> is recommended.</p> <p>If manual transportation is necessary: involve at least 3 people or more to transport the product. Use a "ramp" to take the device off the pallet more easily. Take care to secure the ramp to the wooden pallet to prevent unexpected repositioning.</p>
	<p><b>POSITIONING THE MACHINE</b> in the area of proper use</p> <p>In the "double door" versions: the loading side is characterized by a small lower door which gives access to the detergent compartment and the electric disconnecter – be careful not to confuse the loading side with the unloading side.</p> <p><b>LEVELING</b></p> <p>Once the machine has been placed, screw or unscrew the feet in order to adjust its position and level it with the bubble level so that it is perfectly horizontal (maximum angular tolerance permitted: 0.5°, corresponding to a maximum gap permitted on the extreme points of the machine of about 5mm).</p> <p>Levelling the device properly helps its correct operation.</p>

**Moving the machine, taking it off the pallet**

1. Once the cardboard packaging has been removed, the machine lies on a wooden pallet.



2. The front wooden holder can be removed to take the machine off the pallet more easily. The structure of the machine is fastened to the pallet: it must be unfastened to move the machine. The use of a tail lift is recommended.



## 6.4 ACCESSING AND REUSING THE DEVICE AFTER AN INCOMPLETE CYCLE AND ACCESSING THE DEVICE AT THE END OF LIFE

Instructions on the safety of the device in case of incomplete operation are given in compliance with the par. 5.4.4.g and 13.1.102 IEC61010-2-040.

**In particular, these precautions are applied in the event the device is used to treat biologically contaminated material.**

	<p><b>WARNING</b>  <i>The loaded items and internal parts of the machine might be infected/ biologically contaminated.</i></p> <p><i>If a disinfection cycle is interrupted (by the operator or if an alarm arises): pay attention in handling all instruments of the load inside the washing chamber.</i></p> <p><b>Before handling the instruments or before any maintenance operation:</b> start a complete cycle of thermal disinfection or, if it is not possible to start a complete cycle, handle the instruments cautiously, using the <b>suitable protection devices</b> suitable for handling infected instruments, e.g. gloves, smock, mask, goggles.</p>
	<p><b>WARM SURFACE DANGER</b>  <i>The machine operates a cycle of thermal disinfection using high temperature water, up to 93°C, and detergents. If, in case of malfunction, the door is open and there is water inside the tank: avoid skin contact, for burning and irritation danger due to the toxicity of chemical products.</i></p> <p><b>Never touch the heating elements in the tank.</b>  <i>Contact authorized technicians in case of malfunction.</i></p>

## 6.5 DOOR OPENING, DOOR CLOSING

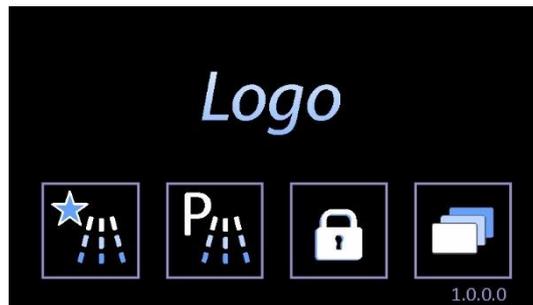
Devices with hinged doors: the machine is equipped with an **automatic door lock system**.

Machine with automatic sliding doors: the machine is equipped with an **automatic door opening and closure system**.

Below is the procedure to open the door of the device:

- Connect the machine to the electricity source.
- Switch the disconnector ON.
- **Check that the bottom door giving access to the detergent compartment is properly closed.**
- Wait for the device to start.
- Unlock / open the door from the touch screen.

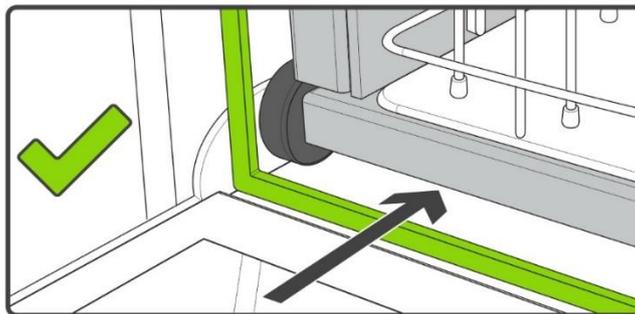
The device is equipped with a *touch screen* user interface, below is the home screen:



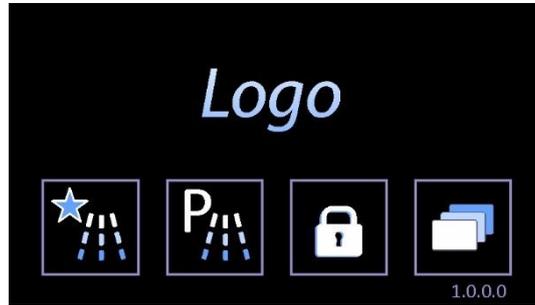
### DOOR CLOSING

#### *Please note*

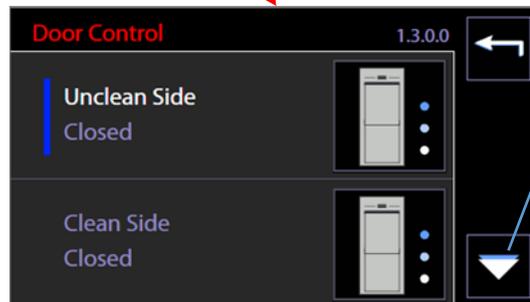
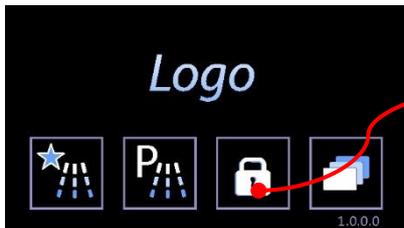
*Before closing the door,  
Always make sure that the  
washing trolley is  
**COMPLETELY INSERTED**  
inside the washing chamber.*



6.5.1 WD7015

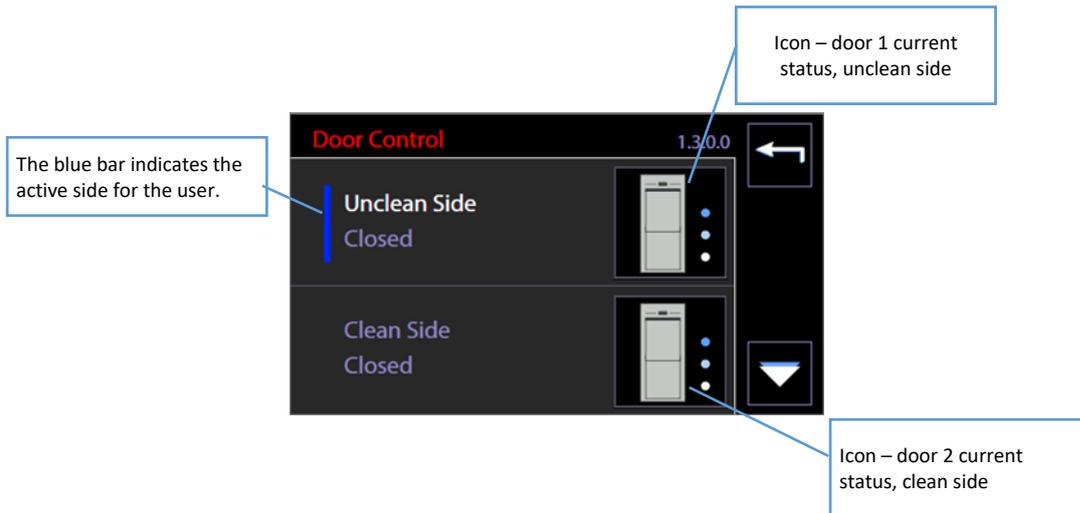


<b>“PADLOCK” button for access to the door operating or "Door Control" screen.</b>	
	<b>DOOR LOCKED ICON</b> - the locked padlock means "door locked". Never force the door open manually if the button is in this status. Machine with "double door": A door can only be opened if the door on the other side is locked.
	<b>DOOR OPEN ICON</b> - The open padlock means "door open".



Door opening button

<b>Icons – buttons in the Door Control screen, sch.1300.</b>	
	<b>OPEN:</b> Button for <b>opening</b> the sliding door (DOWNWARD travel).
	<b>CLOSE:</b> Button for closing the sliding door (UPWARD travel).



**Machine with sliding doors - detailed views**

		
Closing the inner panel covering the detergent compartment.	Closing the bottom door.	Machine correctly closed.
<b><i>N.B.: The bottom door, giving access to the detergent compartment, must be closed correctly to enable automatic door operation.</i></b>		

## 6.6 MANUAL DOOR UNLOCK

**Only if necessary**, or in case of malfunction or power failure, it is possible to open the machine manually using the dedicated device. When the door is opened, the devices that could be dangerous for the operator (such as the washing pump) are automatically blocked.

**At any rate, all precautions must be observed.** To learn more about the precautions in detail, refer to the paragraph called ACCESSING AND REUSING THE DEVICE AFTER AN INCOMPLETE CYCLE.

Contact the authorized technicians for detailed information on how to unlock doors manually.

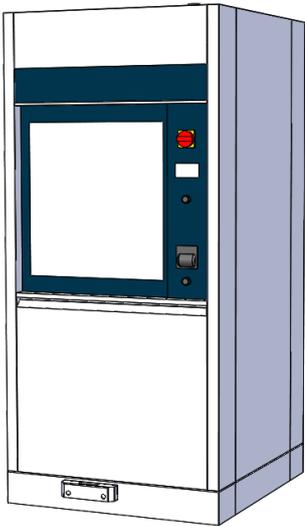
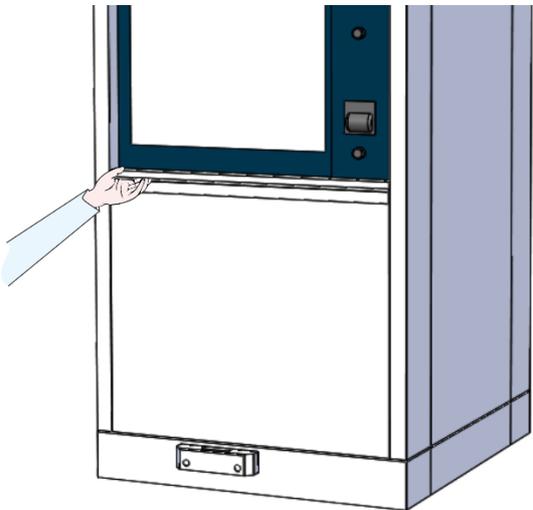
## 7 OPERATING PROCEDURES

After the device has been correctly installed, it must be set for operating use. Execute the following steps:

1. Set current date and time.
2. Set desired language.
3. Prepare the detergent, neutralizer, and any other chemical agents to be used.
4. Upon installation an authorized technician is required to activate the peristaltic pumps manually so that the detergent charging hoses are correctly filled.
5. Run, empty load, a complete program including thermal disinfection.
6. The authorized technician can proceed in a complete manner to the verification and documentation of the correct operation in the user, in accordance with the procedure provided by the Manufacturer (ref. SR113).

Once these steps have been successfully completed, the machine is ready for use.

### 7.1 Access to detergent compartment for replacing exhausted cans

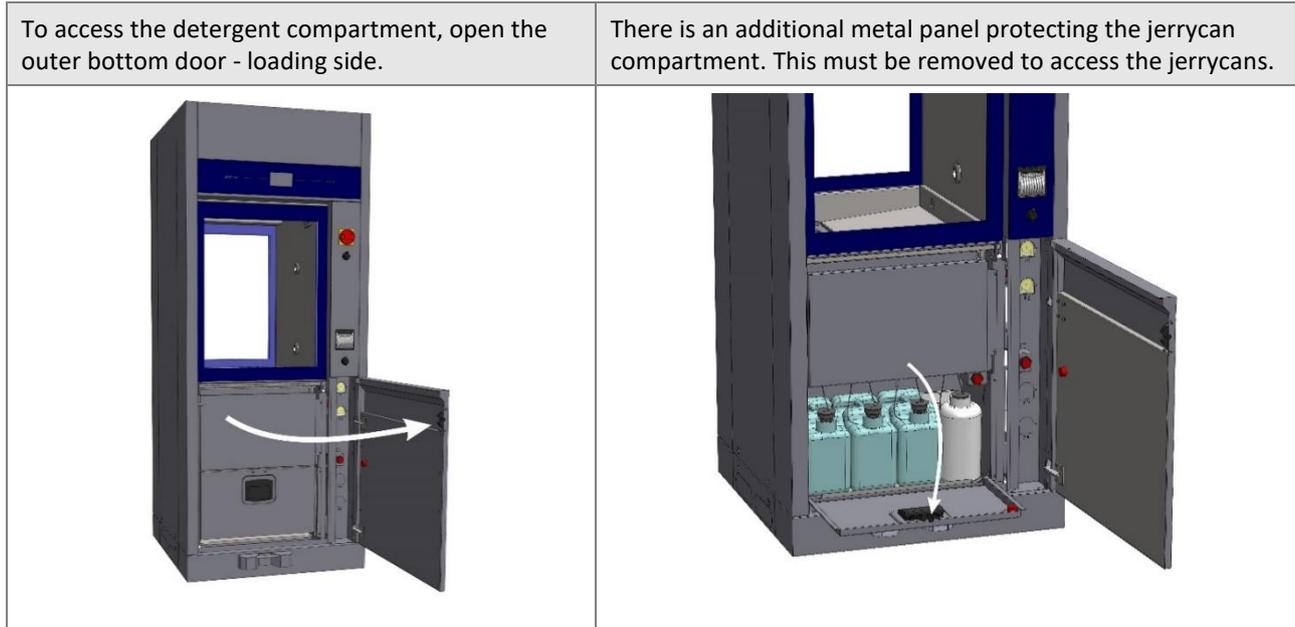
<b>Front view of the device – loading side: the steel bottom door giving access to the detergent compartment is underneath the main door of the tank.</b> The detergent compartment door has a handle allowing it to be opened by hand. The detergent compartment is able to take up to: N.3 x 5 litre jerrycans plus N.2 x 2 litre bottles. (refer to the chemical products and jerrycans supplied by the device's manufacturer).	
Frontal view of the device, indicative view	The detergent compartment door, handle for the opening.
	



#### **ATTENTION**

*For all machines with sliding doors, **opening of the detergent compartment disables the automatic door opening system.***

***Always make sure that the two doors giving access to the detergent compartment are properly closed before giving the command to open the loading side door.***



## 7.2 USE OF DETERGENTS

The machine is equipped with automatic devices for liquid detergent dosage.

1. **Pump P1**, liquid detergent dosage, neutral or weakly alkaline
2. **Pump P2**: acid neutralizer dosage.
3. **Pump P3**: optional.
4. **Pump P4**: optional.
5. **Pump P5**: optional.

DOSAGE DEVICE	Standard Configuration	Pump function on machines hospital sector - WD	Color key
P1	●	Alkaline Detergent	White
P2	●	Acid Neutralizer	Red
P3	○	Optional chemical agent	Blue
P4	○	Lubricant	Green
P5	○	Enzymatic detergent	Yellow

Key: ● present characteristic, ○ Optional characteristic, - non installable characteristic



### WARNINGS

***In case there are no level sensors in the jerrycan, periodically check the product level in the jerrycans / bottles to avoid running empty cycles.***

*During installation and after replacing the jerrycan, run an empty "SERVICE" program to load the liquid. This refills the duct that runs from the jerrycan to the pump and ensures correct product dosage in the following wash cycles.*

### 7.2.1 LIQUID DETERGENT SUCTION SYSTEM

#### Configuration with LEVEL SENSOR.

1. Suction lance with integrated level sensor and a cone-shaped rubber support for positioning in the jerrycan.
2. Flexible silicone tube to connect the suction hose to the peristaltic pump.
3. Detergent suction filter, mounted directly on the lance suction cannula.



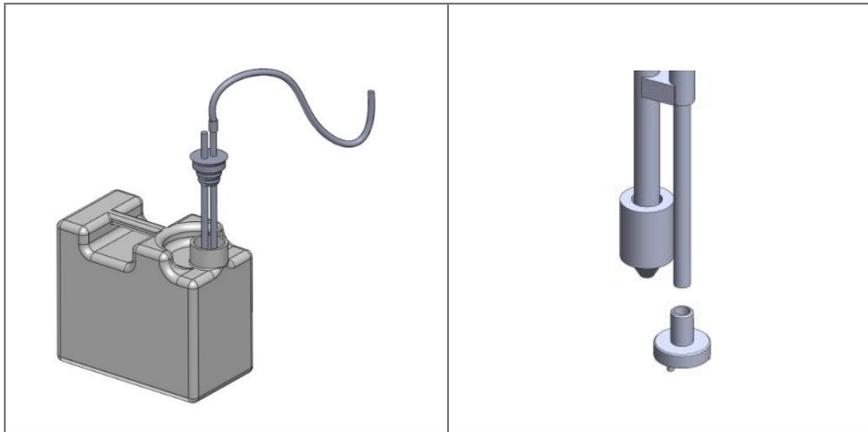
#### **WARNING**

***The label attached to the suction tube must be congruent with the type of detergent used.***

*Please refer to the colour code above.*

*Connection mistakes impair the efficiency of the process and may damage parts of the circuit. Any error leading to improper connection of the detergent suction system voids the warranty agreement between the involved parties.*

*The suction tube is equipped with a suction filter. Make sure that the filter is always there and placed correctly in order to preserve the good functioning of the detergent inflow system. Check periodically that the silicone tube is adequately secured to the suction tube and that there is no leakage.*



*fig. 3 – STANDARD Configuration of detergent suction device. Place of detergent suction tube in the jerrycan. Fit the rubber cap to the jerrycan opening for optimal placement. The tube is equipped with a suction filter.*

## 8 DETERGENTS

Detergent is one of the most important components to a good washing process.

The manufacturer guarantees excellent washing results with the recommended products.

**Please contact the employer for recommendations about the detergent types that most suit your needs, and their proper use.**

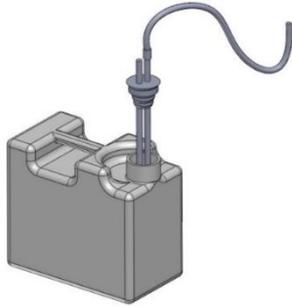
	<p><i>The effectiveness of the machine's washing and related thermal disinfection processes of this device were tested in accordance with the regulations EN ISO 15883-1 e 15883-2 and by using the washing agents mentioned in the manual.</i></p> <p><i>The parameters of each phase of the programmed washing cycles (duration, temperature, extension, dosage) were determined by using these washing agents.</i></p> <p><b><i>The effectiveness and the proper functioning of the machine cannot be guaranteed when non-recommended detergents are used. In particular powder detergents must be absolutely avoided: this may damage the machine's internal functioning as well as corrode the titanium surfaces.</i></b></p>
	<p><b>WARNINGS</b></p> <p><b><i>Always follow the REGULATIONS provided by the detergent MANUFACTURER, in particular for what concerns the ADVISED DOSAGE and the proper TEMPERATURE. Please refer to the product instructions and material safety data sheets. The data sheets are available on request.</i></b></p>

Note: P3, P4 and P5 pumps are optional components.

	<b>Advised detergents for WD products– Hospital sector</b>
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<b>P1 – Alkaline detergents</b>	
DETERLIQUID C2	Function: alkaline liquid detergent. Manufacturer: Smeg S.p.A. Code: 901116
Neodisher® MEDICLEAN FORTE	Function: Automatic cleaning of thermostable and thermolabile instruments. Also suitable for the treatment of da Vinci EndoWrist instruments. Manufacturer: Chemische Fabrik Dr. Weigert GmbH Codes: 405033, 405035, 405030 [depending on the tank size].
<b>P2 – Acid neutralizers</b>	
ACIDGLASS C2	Function: Acid liquid neutralizer. Manufacturer: Smeg S.p.A. Code: 901117
<b>P3 – Optional</b>	
Please contact the manufacturer for suggestions about the best additive, according to use.	
<b>P4 – Lubricants</b>	
Protective lubricating emulsion for stainless steel, for professional washer disinfectors. Please contact the manufacturer for suggestions about the best additive, according to use.	
<b>P5 – Optional – Enzymatic detergent</b>	
DENTALZYM5	Function: Enzymatic detergent. Manufacturer: Smeg S.p.A. Code: 903789

## 8.1 DETERGENTS GENERAL WARNING, TANKS REPLACEMENT

	<p><b>HANDLE THE DETERGENT JERRYCANS WITH CARE</b>  <b>Warning: detergent may be TOXIC.</b>  <b>Please consult the product material safety data sheets.</b>  <i>If you carry out transfer operations in the new tank of the residual product left in the exhausted tank, take the right care not to overfill the new containers, to avoid overflowing when inserting the suction lances.</i>  <b>Protective gloves are recommended during product replacement and jerrycan transfer operations, as well as suction devices insertion. Information provided in accordance to 5.4.3.o, 5.4.4.n, 5.4.4.q IEC61010-2-040.</b></p>
	<p><b>Once finished, the exhausted tank must be replaced with a new one of the same product.</b>  <i>- Place the tank in the detergent compartment and insert the suction device as in the image.</i>  <i>- Match the rubber cap with the mouth of the tank for a perfect and safe positioning. The machine automatically recognizes the full tank, resetting any warning of lack of chemical products.</i></p>
	
	<p><b>EMERGENCY MEASURES IN CASE OF CONTACT WITH DETERGENT</b>  <i>Prescriptions in accordance with par. 5.4.4.p IEC61010-2-040.</i>  <i>Take off contaminated clothing and set them aside in a safe place.</i>  <i>Skin and eye contact: rinse affected area immediately with plenty of water. If possible, apply sterile gauze. Please consult a doctor.</i>  <i>If swallowed: rinse mouth with plenty of water. Consult a doctor immediately.</i></p>
	<p><b>DETERGENT MATERIAL SAFETY DATA SHEETS</b>  <b>The SAFETY DATA SHEETS of the detergents should be kept:</b>  <ol style="list-style-type: none"> <li><b>1. In proximity to the place where detergents are stored.</b></li> <li><b>2. In proximity to the device.</b></li> </ol> <i>In easily accessible locations.</i>  <b>Updated safety data sheets should be regularly (e.g. once a year) requested.</b>  <b>The data sheets will be provided by the manufacturer upon request.</b></p>
	<p><b>DISPOSAL</b>  <i>Information provided in accordance with par. 5.4.4.L IEC61010-2-040.</i>  <b>DISPOSAL</b> of possible product residues and containers (bottles and cans): please refer to the safety data sheet of the product, in the "DISPOSAL CONSIDERATIONS" section.  <i>The person responsible for the equipment must proceed with the disposal of the detergents residues and their containers in accordance to the existing national or local standards.</i></p>
	<p><b>FLAMMABILITY</b>  <i>Always refer to the material safety data sheets of the detergents to assess product flammability.</i>  <b>Never use flammable products in a car.</b></p>

## 9 LOAD PREPARATION FOR WASH CYCLE AND DISINFECTION

Regulations on loading modalities are provided in compliance with 5.4.4-k IEC61010-2-040.

An effective washing begins in the load preparation phase: **the load must be adequately placed in the appropriate supports.**

*Before loading the wash elements into the designated wash baskets, it is necessary to eliminate any coarse residue resulting from previous activities, through the appropriate wash, treatment, and rinse phases.*



**The load must be properly placed to prevent wash elements from overlapping as well as the formation of “grey areas”; all areas of the wash load must be reached by the spray arm and/or injectors’ water in the wash and rinse phases.**

*The open side of the container must face downward so that the load elements are correctly washed and dried at the end of the cycle.*

*The machine is supplied without washing carts.*

*Please refer to the washing cart manuals for instructions on proper use.*

**The operator must avoid direct contact with the dirty load.**



*Use extreme caution by wearing all personal protective equipment both before and after the treatment.*

**Before processing a device in the instrument washer, check the manufacturer instructions to verify that they are approved for automatic treatment in the thermal disinfector and check the compatible maximum washing temperature.**



### SPECIFIC REGULATIONS FOR “WD” PRODUCTS – HOSPITAL SECTOR

Stainless steel instruments cannot be immersed in physiological solutions of sodium chloride because prolonged contact produces deep corrosions and surface cracks due to stress.

Avoid overloading wash baskets. Slags, skin disinfectant residue, physiological solutions, etc. must not go inside the treatment containers, which must be kept closed in order to prevent further desiccation.

Where possible, it is recommended to start a dry process.

In case of treatment with a liquid, the instruments should be immersed in a combined solution of non-protein-fixing disinfectant and detergent. On the other hand, aldehyde-based disinfectants have a fixing effect. Please regard the manufacturer’s indications carefully for solution concentration, action time, and the addition of any adjuvant detergents.

For both methods, given the corrosion risk it is necessary to avoid long intervals between the preliminary treatment and the one in the instrument washer.

In order to obtain an effective cleaning, **joint instruments** (scissors, pliers, forceps) **must be open to minimize surface overlap**. The instrument supports used, such as baskets, racks, securing devices, are designed to prevent grey areas during the cleaning and sanitizing phase.

**Instruments that can be disassembled must be placed according to the manufacturer’s indications. It is necessary to avoid overlap.**

Microsurgical instruments must be placed on special racks or the appropriate securing devices.

Residue on dental instruments, such as material for fillings or acid substances used to remove cement, must be eliminated immediately after use to prevent the risk of hardening and/or corrosion.

Surgical motor systems must be disassembled immediately after use, following the manufacturer’s indications.

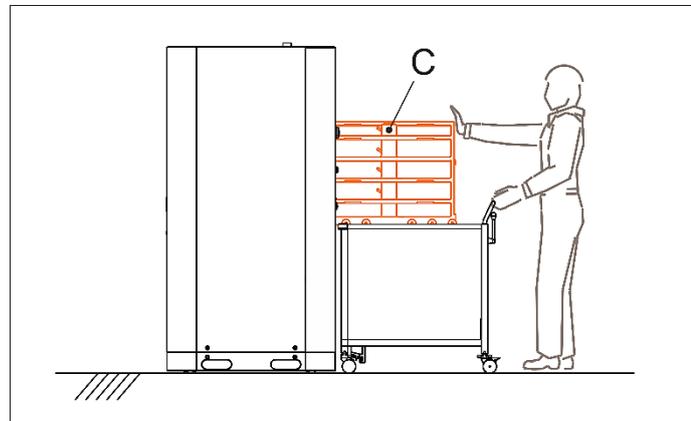
Simple tools, such as drills or saw blades, can be treated as surgical instruments provided that they are reusable medical-clinical products.

**Warning**

Washing carts are never symmetrical; they contain a **manifold** for the cart's water supply. The cart must be placed **so that the manifold is on the right side** of the machine (as viewed from the **unclean side**).

Eg washing trolley with the manifold "C" marked.

Insertion of the trolley in the chamber: the manifold must be placed on the right side.



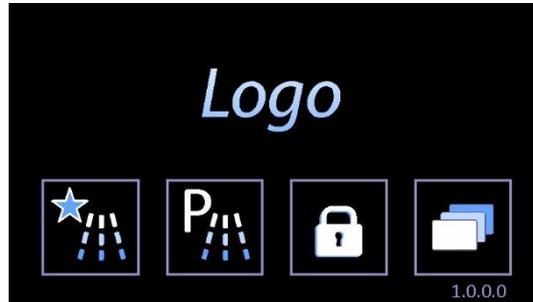
**Correct washing cart loading position: Looking at the device from the loading side ("unclean" side), the cart manifold is on the right-hand side of the machine.**



## 10 BASIC OPERATIONS

### 10.1 HOME SCREEN – ID 1.0.0.0

The device is provided with a *touch screen* user interface.



	Button to enter the <b>FAVOURITE PROGRAMS MENU</b> (last 4 different programs used).
	Button to enter the <b>COMPLETE MENU of WASHING CYCLES</b> .
	<b>Door control</b> – door lock/unlock, open/close button. The button icon changes depending on the door's status (padlock closed means door locked closed, padlock open - door open).
	
	<b>SETUP:</b> Button for settings and diagnostics options.

#### 10.1.1 DOOR CONTROL - MACHINES WITH SLIDING DOORS

##### **Door control screen access button.**

Press this button to access the **Door control** screen.

A user can only operate the door on his own side, and the "clean side" door can only be opened if the wash cycle has been performed and completed successfully.



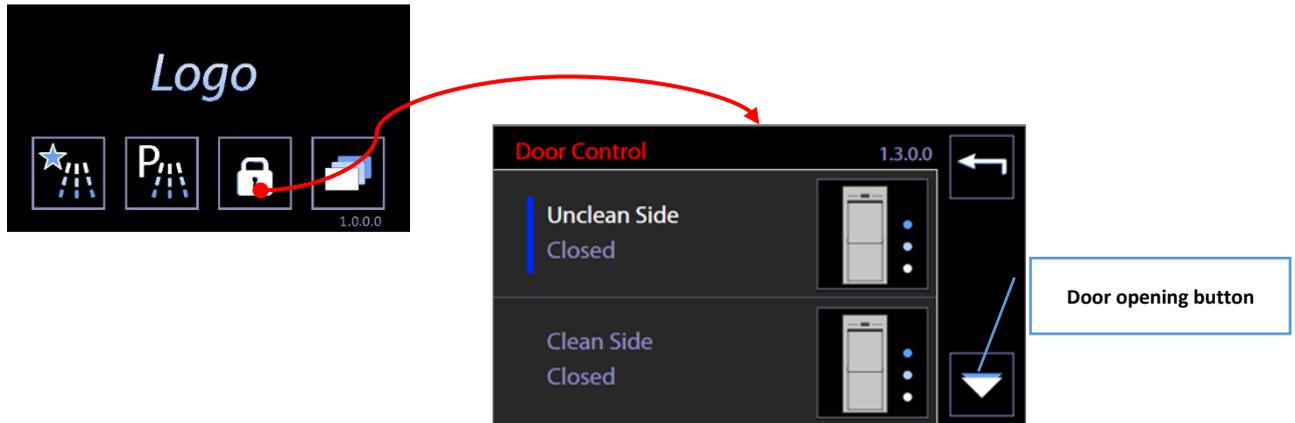
**DOOR LOCKED ICON** - The locked padlock means "door locked".

Never force the door open manually if the button is in this status.

Machine with "double door": A door can only be unlocked if the door on the other side is locked.



**DOOR OPEN ICON** - The open padlock means "door open".



	<b>OPEN:</b> Button for <b>opening</b> the sliding door (DOWNWARD travel).
	<b>CLOSE:</b> Button for closing the sliding door (UPWARD travel).
	<b>STOP:</b> button for halting automatic movement of the sliding doors.

**Door status**

Screen 1300 provides information about the status of the doors. There are three possible stages for each door:

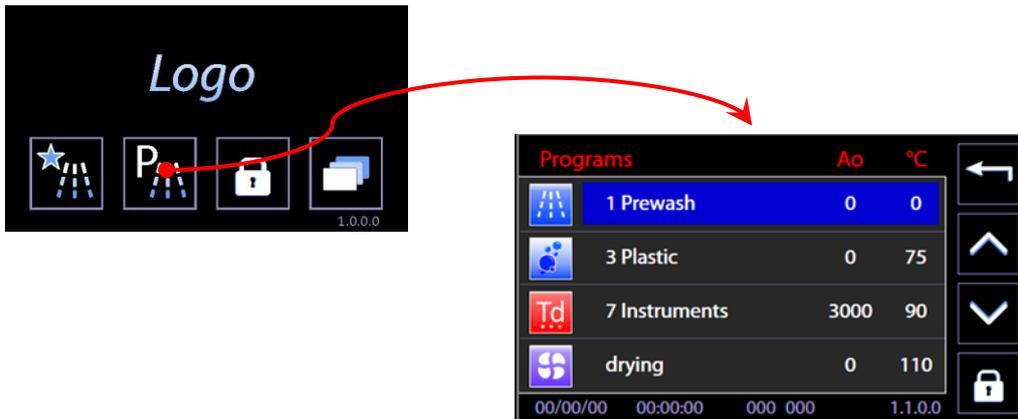
1. **Closed** – door at closed limit stop position. The door can only be opened.
2. **Open** – door at open limit stop position. The door can only be closed.
3. **Intermediate** – door in an intermediate position between the two limit stops. The door can only be closed.

The door can only be in an **intermediate position** if opening or closure has not been correctly completed. The possible causes are:

1. Power failure with door in motion,
2. Travel halted by tripping of safety devices, e.g. due to opening of the detergent compartment door.

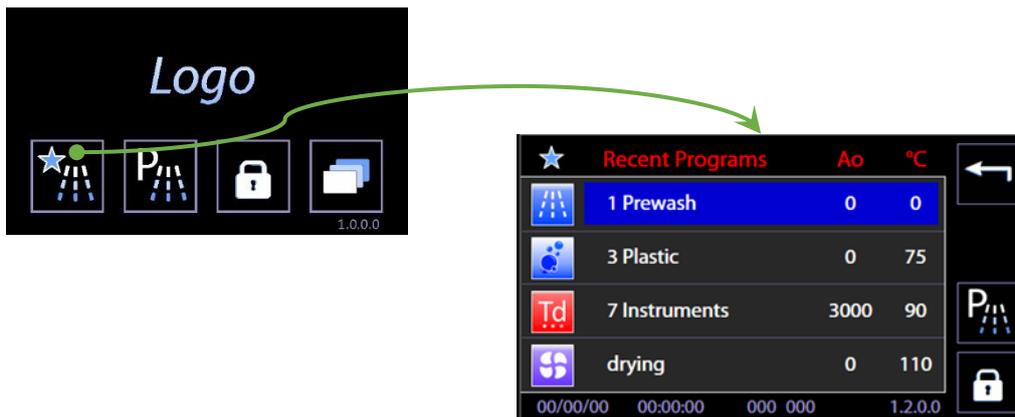


### 10.2 PROGRAMS COMPLETE MENU - ID.1.1.0.0



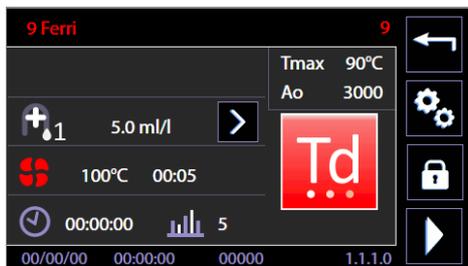
Use the arrow-indicators to the right of the screen (UP/DOWN) to browse the menu entries. Touch the preferred program button to open **PROGRAM START**. Click the “Home” button on the upper-right corner to return to the previous screen. Door lock/unlock button is also active on the main screen.

### 10.3 FAVOURITE PROGRAMS MENU - ID.1.1.0.0



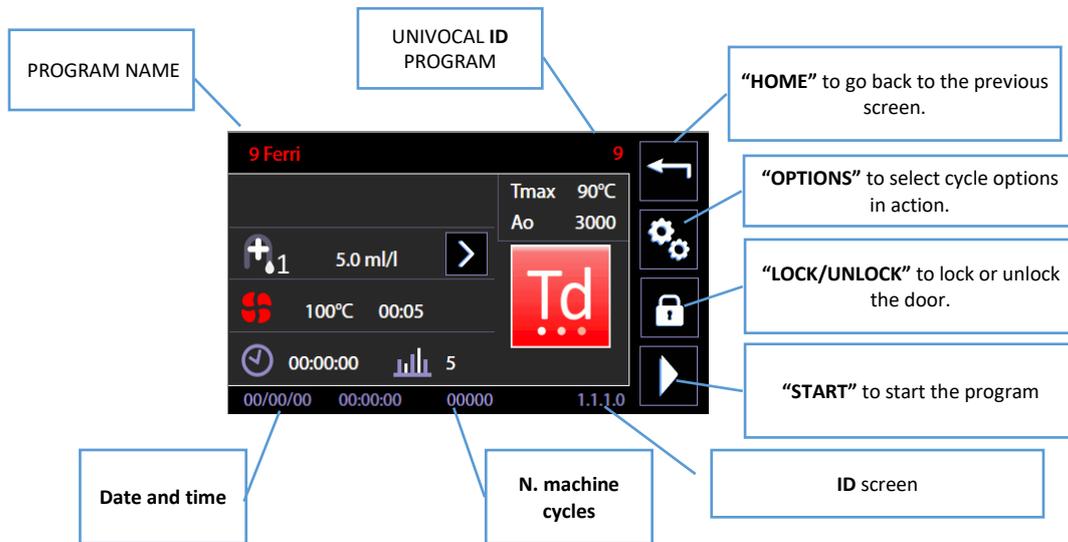
The screen displayed is similar to the COMPLETE PROGRAMS MENU. The last 4 programs chosen by the user are displayed; menu scroll options do not appear since the menu consists only of 4 entries. At the top-right: reference button to return to the complete programs menu.

### 10.4 PROGRAM START - ID. 1.1.1.0

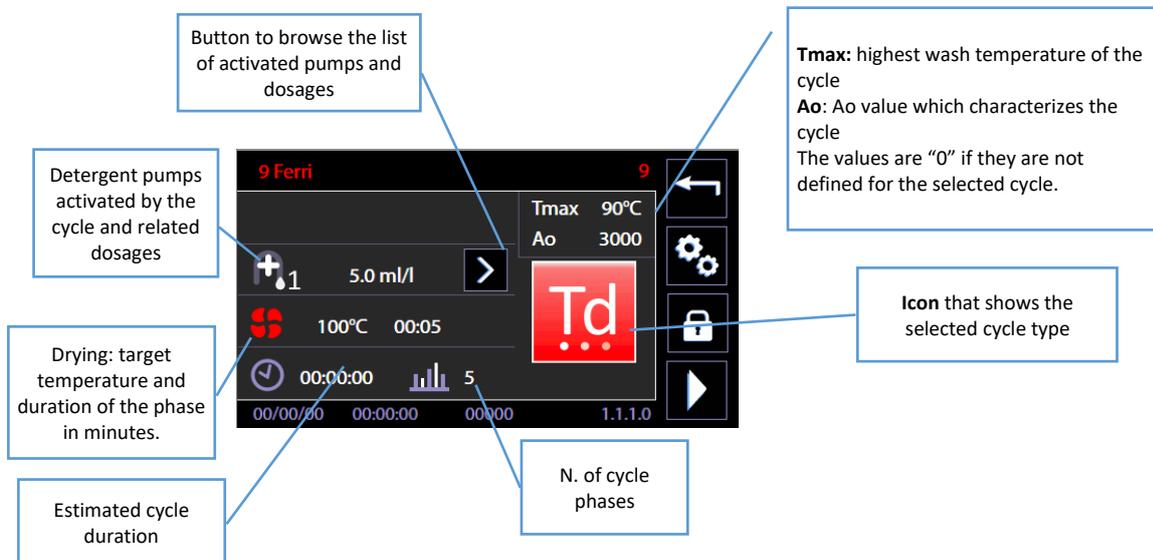


On the screen the main parameters of the selected program are summarized. Press the bottom right button, “START”. The program begins. In the top right window, main cycle parameters are reported (Ao and maximum temperature). These are always visible throughout the cycle execution.

10.4.1 EXTERNAL PERIMETER BUTTONS AND DATA.



10.4.2 "INTERNAL PERIMETER" SCREEN DATA



10.4.3 SELECTED CYCLE OPTIONS – ID. 1.6.1.0

Only staff well-trained in choosing the wash cycle and related options can have access to the following functions.

Through the button on the screen of the selected cycle it is possible to move on to “Cycle options” screen to activate and regulate some options for the ongoing cycle.

In detail, you have the following new options for the cycle:

1. **Select/deselect the conductivity check “Cond. Check”**
2. **Save the drying phase and conductivity check settings**, to make them permanent for the selected cycle;
3. **“Delay start” and “No demi water” options** available: these options apply to the current cycle and, given their meaning, cannot be saved as permanent settings.

<p><b>Selected program 1110.</b> Select the "gear pair" icon on the right to enter the Program options.</p>	
<p><b>Program options - screen 1610.</b> There is a checkbox type box to activate / deactivate the conductivity check for the selected cycle: <b>“Cond. Check”</b> box.  Use the <b>“Save”</b> button on the right to confirm this option for the program in question.</p>	
<p><b>Save button details -</b> button for saving changes to the program.</p>	
<p><b>Temporary options -</b> Press the down arrow to access the temporary options for the current program.</p> <ul style="list-style-type: none"> <li>- Delay start</li> <li>- No demi water</li> </ul>	

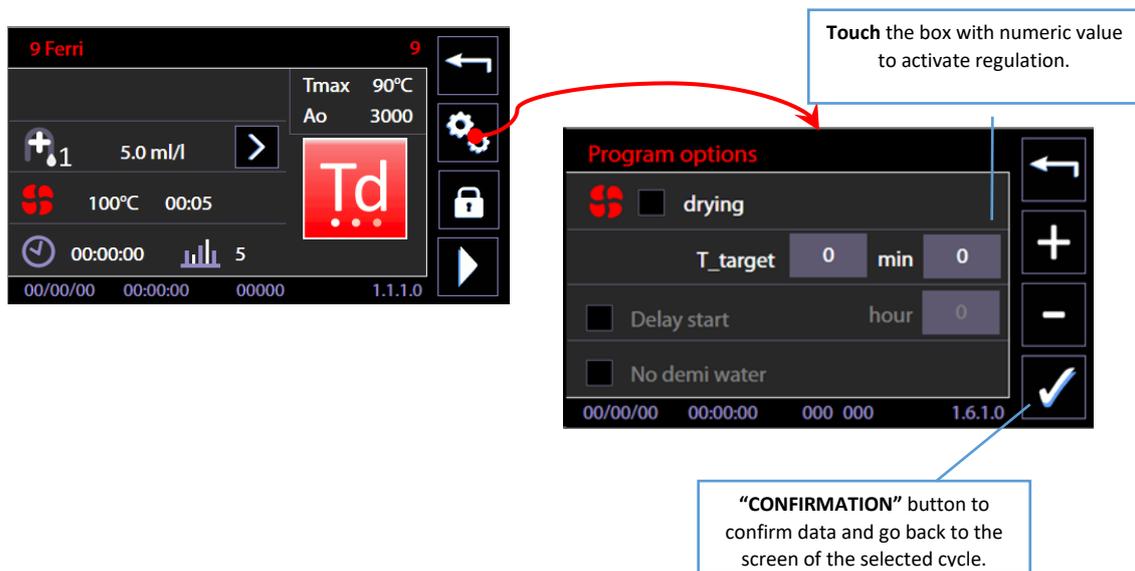
Other cycle options:

1. **Drying.** The drying option is labelled with the symbol “fan”: it is possible to exclude the drying phase from the cycle or to decrease target temperature and duration, within the limits fixed by the device.
2. **Postponement** (“delay start”): it is possible to set up a postponed cycle start, in case the unloading operations of the machine must be synchronized with user availability.
3. **Exclusion of purified water** (“No demi water”): by selecting this option, cold water will be used only during the following cycle instead of purified water.

The option is activated by ticking the related box.

Selected option may be regulated through the +/--buttons, located on the right side.

The data is effectively changed by touching the CONFIRMATION button, located at the bottom right corner of the screen.



#### 10.4.4 CYCLE START – “USER CHECK” FUNCTION ACTIVE

If the *superuser* has activated the “User check” function requiring the user to be identified, in order to start the cycle users must:

1. Be on the list of users enabled by the superuser.
2. Select their user ID (e.g. User\_01) – using the “**Right arrow**” button.
3. **Enter their passwords** and confirm.



#### 10.4.5 NOTES

Regarding thermal disinfection cycles versus chemical disinfection cycles, see suggestions from the product standard ISO EN 15883.

Extracted from ISO EN 15883-1:

*“4.1.5 Disinfection is specified by reference to time and temperature for thermal disinfection or as time, Temperature and concentration for chemical disinfection.  
Whenever practicable, thermal disinfection is preferred. Thermal disinfection processes are more easily controlled and avoid the hazards to staff, patients and the environment that can occur through the use of chemical disinfectants.”*

Regarding significance of the  $A_0$  parameter, see Annex B, EN ISO 15883-1.

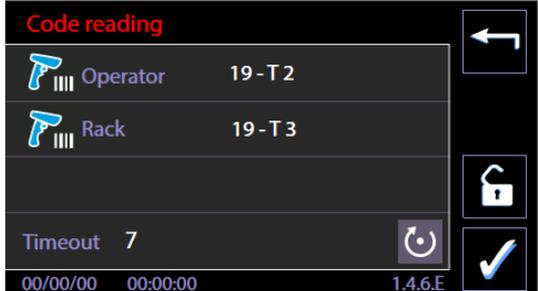
The parameter expresses “comparative lethality of moist heat processes”, and associates a numeric value with thermal disinfection effectiveness.  $A_0$  concept — “Comparative lethality of moist heat processes”

10.5 BARCODE ACQUISITION – WD-CODESCAN

 **Barcode acquisition is performed only if the optional Scanner is installed, ref.prod.: WD-CODESCAN.**

The typical procedure and screens for barcode acquisition are described below.  
 N.B.: The rack and/or user must be equipped with barcodes.

 **Useful advice:**  
*In combination with the optional "Trolley recognition" (ref. Prod. RACKREC), the machine can detect the insertion of the trolley in chamber and propose the code acquisition screen.*  
**For fast reset of the codes acquired in case of problems with scanning or with automatic operating sequences: remove the rack a small distance out of the chamber and then reinsert it.**  
*Reinserting the rack triggers a new RACKREC reading and effectively resets the operating sequence.*  
*When handling racks, always comply with the safety instructions in the user manual.*

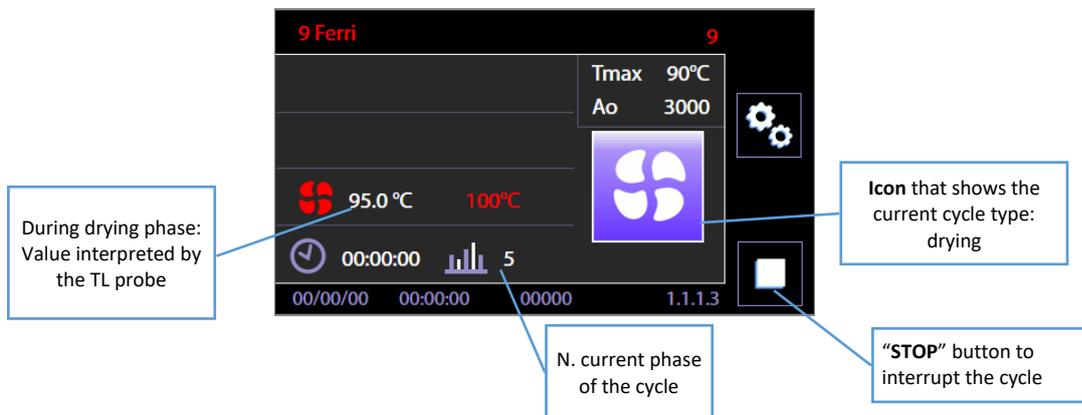
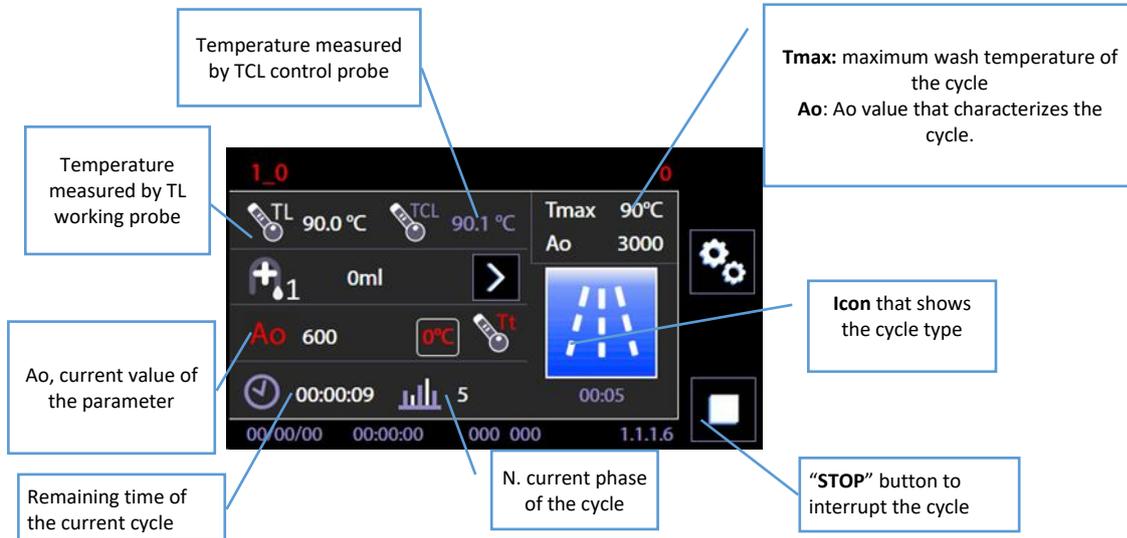
Description	Illustration
<p>The user:</p> <ol style="list-style-type: none"> <li><b>Opens the device’s loading door;</b></li> <li><b>Places the washing rack close to the device,</b> using the multi-purpose trolley or other suitable systems provided by the producer.</li> <li><b>Inserts the rack in the washing chamber.</b></li> </ol> <p>The multi-purpose trolley can now be disengaged and moved away to give the user better access to the device’s display and the scanner.</p>	
<p>Aim the scanner at the barcode to be acquired and press the scan button.</p> <p>The device automatically switches to the “Code scanning” screen 146E.</p>	

Description	Illustration
<ul style="list-style-type: none"> <li>- If the code acquired conforms to the parameters set, a green dot appears next to it.</li> <li>- If it does not conform, the dot is red.</li> </ul> <p>The codes can be deleted to allow them to be acquired again using the “reset” button.</p> <p>The <b>Confirm</b> button, at bottom right, confirms and acquires the codes. [User confirmation can be omitted if the automatic timeout for the transition from this screen to the next has been enabled].</p>	
<p>The user can then:</p> <ol style="list-style-type: none"> <li>1. Close the door.</li> <li>2. Select and start the washing cycle.</li> </ol>	
<p>The information acquired is recorded:</p> <ol style="list-style-type: none"> <li>a. In the database in the device’s memory, which can be acquired via the up-to-date version of WD-Connect.</li> <li>b. In the printed <b>cycle report</b> (if the optional printer is installed).</li> </ol> <p>An example extract from the database containing the User and Rack codes is shown on the right.</p>	<pre> ***** FULL_S/N 2 860480 00521 0001 0314 Name WD7015 Dept. REPROCESSING No. 3 ***** 11/05/20 10:39:57 Cycle_started ID_prog. 141 Operator 255 Cycle_No. 75 Code Operator U1234ABCD5678 Code Rack R9999FABD3547 [ ... ]     </pre>
<p><b>If optionals for automatic rack recognition</b> by the device are installed:</p> <p>the procedure is as described above, but on complete insertion of the rack in the chamber, the system automatically switches to code scanning screen 146E. In this case, however, the screen also contains the “Rack ID” line displaying the magnetic code of the rack inserted.</p>	
<p><b>Notes:</b></p> <p>If the door of the device is closed before the codes are acquired, the cycle cannot be executed. The alert screen 5000 appears, prompting the user to open the door to proceed.</p>	

### 10.6 PROGRAM UNDER WAY - 1.1.1.3

During an ongoing cycle, the only possible action for the user is the cycle interruption, through the bottom right “STOP” button.

The screen summarizes relevant data recorded by temperature probes, peristaltic pumps doses, remaining time. Next to the “CLOCK” icon, the remaining cycle time is displayed. The icon flashes while cycle is active.



ICON	PHASE TYPE
	<p>- <b>Prewash</b> -</p> <p><b>.Structure:</b> phase without any activation of heating elements or addition of chemical agents..</p> <p><b>.Applications:</b> used to remove larger spots and therefore to limit the formation of suds in the following phases.</p>
	<p>- <b>Simple wash</b> -</p> <p><b>.Structure:</b> Basic wash cycle that removes dirt from the load elements, accomplished through appropriate dosage of chemical elements at controlled temperatures.</p> <p><b>.Applications:</b> this phase washes the load without disinfecting it.</p>
	<p>- <b>Thermal disinfection</b> -</p> <p><b>.Structure:</b> phase in which, through combination of time and temperature, the chosen parameter value “Ao” can be reached, and load elements are disinfecting. The thermal</p>

ICON	PHASE TYPE
	<p>disinfection phase is preceded by cycles to remove dirt from the load elements and properly prepare it for the disinfection phase.</p> <p><b>.Applications:</b> used to wash elements that can withstand elevated heat treatment (reference target values are 80°C, 90°C, 93°C). The phase thermo disinfects, with the Ao parameter value dependent on the temperature reached and cycle time.</p> <p><b>.Cautions:</b> Whenever possible, thermal disinfection is preferred. Thermal disinfection processes are more easily controlled and may prevent the hazards to staff, patients and the environment that can occur through the use of chemical disinfectants.</p>
	<p>- <b>Drying</b> -</p> <p><b>.Structure:</b> phase characterized by air target temperature and duration expressed in minutes.</p> <p><b>.Applications:</b> load drying.</p>
	<p>- <b>Service</b> -</p> <p><b>.Cycle structure:</b> "free" structure, cycle functional to maintenance operations, only accessible to authorized technical staff.</p> <p><b>.Applications:</b> cycle for technical staff use. This cycle does not handle the load in the washing drum, but it is functional to technical staff operations, e.g. water circuit and detergent circuit replenishment. This cycle may also be used as test cycle that rapidly verifies the proper operation of the machine parts.</p> <p><b>.Cautions:</b> the cycle cannot be activated to handle the load in the washing drum.</p>

### 10.7 SUBPHASES IN PROGRESS

The information regarding the cycle in progress is supplied with graphic icons, indicating the current subphase. The icons are located in the lower right part of the display.



Table of icons and the indicated subphases

Cold water loading		Hot water loading		Demineralized water loading		Cold + Hot water loading			
	Loading of cold water in progress		Loading of hot water in progress		Loading of demi water in progress		Loading of cold + hot water in progress		
Heating active		Boiler hot water		Boiler demi water		Boiler hot + demi water		Drainage	
	heating element active		Heating hot boiler active		Heating demi boiler active		Heating hot and demi boiler, both active		Tank drainage

#### 10.7.1 SUBPHASES IN PROGRESS – “WD7015TECO” models – Eco Exchanger

[The icons and operating modes described below are only provided on “WD7015TECO” models].

**WD7015TECO** models are equipped with a special heat exchanger, the “**Eco Heat Exchanger**”, for recovery of the hot demi water from thermal disinfection rinses.

These models’ configuration provides

- **energy recovery** of the heat from the demi water
- **water saving** through reuse of the clean final water, for use in subsequent intermediate rinse phases of the operating cycle.

Below we describe the device display icons relating to the Eco Heat Exchanger.

Description	Illustrations
<p><b>At the end of the phase, the demineralised water</b> from thermal disinfection phases is not discharged from the drain; instead it is <b>recovered in the Eco Heat Exchanger</b>.</p> <p>A specific icon shows this recovery phase.</p>	

Description	Illustrations
<p>When the <b>recovered demi water is reused</b> in a rinse phase, a <b>green “inlet turbine flow regulator”</b> icon appears when the water is supplied to the chamber.</p>	

10.7.2 PROGRAM IN PROGRESS “DISPLAY EASY”- 3.4.2.1

It is possible to set up a simplified visualization of the cycle in progress, identified as “Display Easy” (see the section of menu “Setup”).

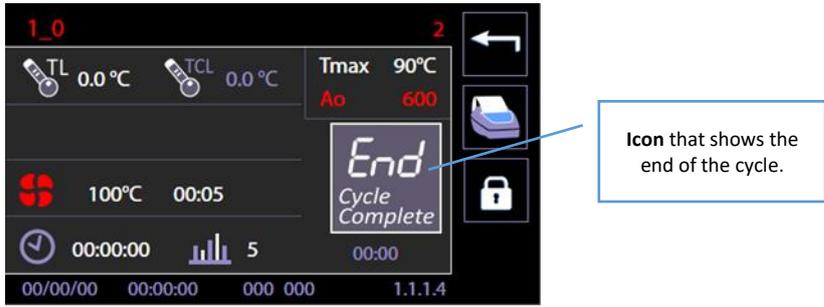
In the simplified visualization of the cycle in progress, the display only shows:

1. The name of the program
2. The time of the cycle in progress (time left or current, depending on the settings).
3. The progress bar



Touching the display, with the “Easy” visualization active, it will show the standard visualization for a few seconds; here it is possible to monitor a greater amount of parameters.

10.8 COMPLETED PROGRAM - 1.1.1.4



At the end of the cycle, the screen displays an icon to indicate the status of the completed cycle (“END – Cycle complete”) relevant data about the cycle performed.

It is possible to execute only the following options:

	1. Unlock the door through “lock/unlock” button to open it and extract load – ordinary operation.
	2. Go back through the “Home” button to select a further additional cycle without unlocking or opening the door – only useful in case a load must undergo additional consecutive cycles.
	3. Last cycle reprint button.  This function, which reprints the last cycle, is available from July 2017 (Master CPU firmware release 7.16.0), and it is only active if the printer is present and enabled. The function reprints a completed program if the previous printout was incomplete, due to lack of paper, for instance. If the printer is enabled but not present on the machine, the button is still present and enabled, but has no effect.

END CYCLE ICON	MEANING
	The cycle was successfully completed.
	The washing part of the cycle was successfully completed, but the drying was interrupted or some problems occurred during the drying.
	The cycle failed. Anomalies occurred during operation or the user forced the cycle to stop.

### 10.9 OPERATION IN COMBINATION WITH ENERGY MANAGEMENT

The **Energy Management** app, prod. ref. “WD-EMS”, is a software application that enables interfacing with one or more network-connected Smeg devices for control of:

1. **Overall view of the status** of the devices;
2. **Electricity supply alerts**, if power is supplied by non-standard remote units and is insufficient for parallel operation of all devices.

The app (also abbreviated to “En.Man” below) is not included in the product’s standard outfit.

**Only authorised engineers can set devices** to operate in association with this software.

Devices must also be equipped with the necessary network connection optional (prod. ref. “WD-LAN60”).

If the app is installed and the device is enabled, specific icons appear on the display to show the operating statuses.

An electricity supply emergency means that the power available is limited. In this case, device boilers are used in energy-saving mode and they are not reactivated at full power until the electrical system is completely restored.

	<p><b>The customer must decide the maximum waiting times before loads are treated</b> best suited to his processes, and set them correctly in the Energy Management program with the aid of the authorised engineers.</p> <p><b>Always refer to your own validated procedures</b> when deciding the maximum permissible times before the treatment of contaminated instruments.</p>
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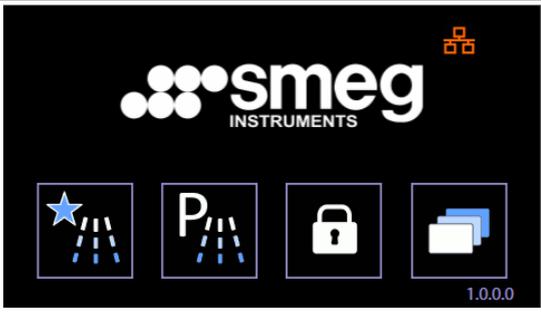
Description	Illustration
<p>In normal operating conditions, with the devices connected to the main electricity supply system, the presence of the Energy Management software has no effect on the product’s operating conditions and no specific icons appear on the display.</p>	
<p>If the program activates the <b>emergency system operating mode</b>, the specific icons appear. <b>The plain “Energy Management” icon</b>, as shown on the right, means that the <b>system is activated and there is sufficient power</b> to start any of the cycles available.</p> <p>[Go to initial screen 1000 to display the En.Man. icons.]</p>	
<p>“Energy Management” active icon (“plug+lightning streak”)</p>	

10.9.1 SYSTEM ACTIVE - POWER TO START PROGRAM NOT AVAILABLE

Description	Illustrations
<p><b>Operation if power is not available</b></p> <p>The system classifies emergency electricity supply situations on the basis of thresholds.</p> <p>If there is not enough power to start any one of the cycles available on the device, a warning sign (triangle and explanation mark) appears next to the icon of the cycle concerned.</p>	
<p><b>“Power not sufficient”</b> icon: appears if the electrical power available in the system is below the maximum power required by the device.</p> <p>It may be possible to start the device, for example for low-power cycles.</p>	
<p><b>The same icons appear in the cycle selected screen, 1110.</b></p> <p>In this case, if the warning icon appears the cycle cannot be started.</p> <p>If only the “Energy Management” icon appears on the top line, there is enough power to start the cycle.</p>	
<p><b>With normal parameter settings, if there is not enough power available the program cannot be started.</b></p>	
<p>If the system <b>Consent Timeout parameter</b> is set with a value <b>other than zero, even if the power is not available the device may set in standby</b>, ready to start the cycle as soon as possible.</p> <p>[Refer to the manual of the Energy Management, “WD-EMS” product].</p> <p>Alert screen 5000 requests confirmation to start the timeout (“OK” button).</p> <p>Otherwise, the start request can be cancelled (“ESC” button).</p>	

10.9.2 NETWORK PROBLEMS AND DISABLING THE SYSTEM - SUPERUSER

Description	Illustrations
<p><b>If the network connection between the device and the energy management system is not functioning correctly</b>, the device cannot receive consent to start the program and remains in <b>lockout status</b>.</p> <p>In this condition, there is a bar across the specific network icon.</p>	
<p>The device provides specific <b>Warning</b> messages to alert the user to <b>network connection problems</b>.</p> <p>In addition to the attempt to start the cycle, if the connection to the program is missing alert screen 5000 displays the “No Energy Man. communication” message.</p>	
<p><b>The superuser can disable control of the consent between the program and the device</b> by removing the “Energy Management Priority” flag.</p> <p>This is done by accessing “Setup” model and selecting “Machine Parameters”.</p> <p>[The Superuser password has to be entered].</p>	
<p>Select the "Automatic Operation" option.</p>	
<p>Go to the automatic function enabling screen.</p> <p><b>Remove the flag</b> from the “<i>Energy Management Priority</i>” option.</p> <p>This disables control by the program: <b>the device can start irrespective of the software signals</b>.</p>	

Description	Illustrations
<p>With Energy Management Priority deactivated: the relative icon disappears from the initial screen.</p> <p>The network connection icon is still visible:</p> <ul style="list-style-type: none"> <li>- Bar across icon: network connection not working.</li> <li>- Icon free (no bar): network connection restored.</li> </ul>	
<p><b>If possible, the system should not be disabled.</b></p> <p>The Energy Management system is structured to enable a set of devices to operate with a limited power threshold.</p> <p>Disabling the program's control function may lead to power draws not compatible with an ongoing emergency.</p> <p>When the network connection is restored, reactivate the Energy Management Priority.</p>	

10.9.3 ENERGY MANAGEMENT - UNLOADING (“CLEAN”) SIDE SCREEN

Description	Illustrations
<p>The Energy Management icons, described above, also appear on the unloading side.</p> <p>Their meanings are as already described.</p> <p>[A guideline illustration of the screen with all icons active is shown on the right ].</p>	

## 11 SETUP OPERATION - 1.4.0.0

The device has a setup modality to modify functional parameters.

The **setup** menu consists of entries that regulate the parameters of the machine, start maintenance and control operations on the device.

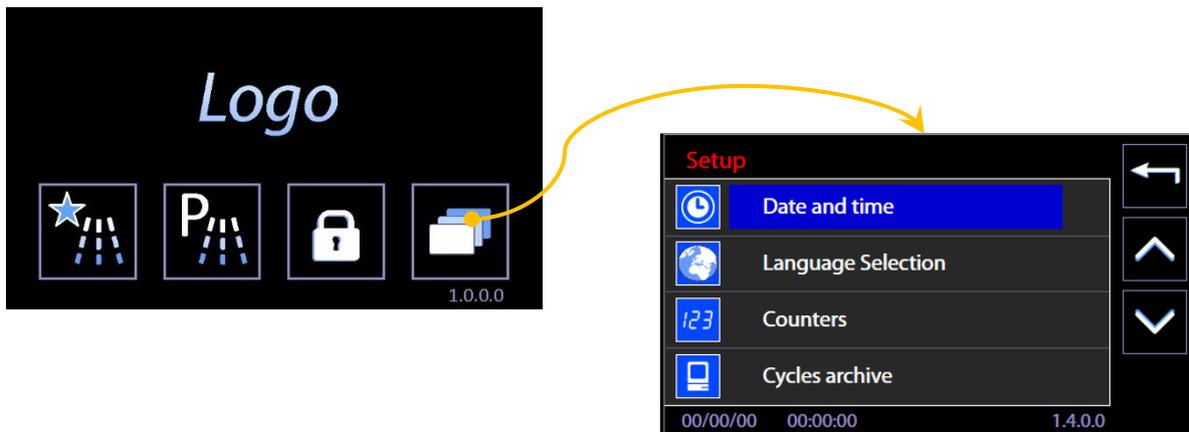
Access to these menus is password-protected and restricted to use only by approved technical staff.

Between the basic user and technical staff there is an intermediate level, called “*superuser*”.

**The *superuser* consists of the authority responsible for the device in the structure where it is installed.**

The *superuser* level password is shared with the individual in charge of the device.

Depending on the firmware versions actually installed, some aspects of the device setup menu may be different from that described in this manual. Contact authorised engineers to have your device's firmware updated.



SETUP ENTRY	DESCRIPTION	PASSWORD LEVEL
Date and time	Setup current date and time	<i>Superuser</i>
Language selection	Select language	User
Counters	Device counters access	User (view only) Technical staff (counters reset)
Archive and printer	Archive and printer parameter setup	<i>Superuser</i>
Machine parameters	Setup operation parameters - Chemical dosing - Water (Technicians only) - Program enable - Optional (Technicians only) - Password - Restore values (Technicians only) - Restore configuration (Technicians only) - Calibrations (Technicians only) - LAN parameters - Full S/N and MAC (Technicians only) - Heating type - Water conductivity - Trolley check - Spray arms check - Automatic operation - Barcode Scanner - Signal Box	<i>Superuser</i> / Technical staff (the <i>superuser</i> has limited access)
Programs editing	Function for customizing the "custom" programs.	<i>Superuser</i>

SETUP ENTRY	DESCRIPTION	PASSWORD LEVEL
I/O Diagnostic	Technical maintenance and control operations	Technical staff
Sounds and Display	Display settings and sound signal activation, "Display easy" mode selection.	User
About...	Description of installed version.	User
User password	For modifying the user's password	User (this option can only be accessed if the "User check" function has been enabled on the device).
Print latest cycle	Last cycle reprint.	User

### 11.1 SET UP DATE AND TIME – ID.1.4.2.1

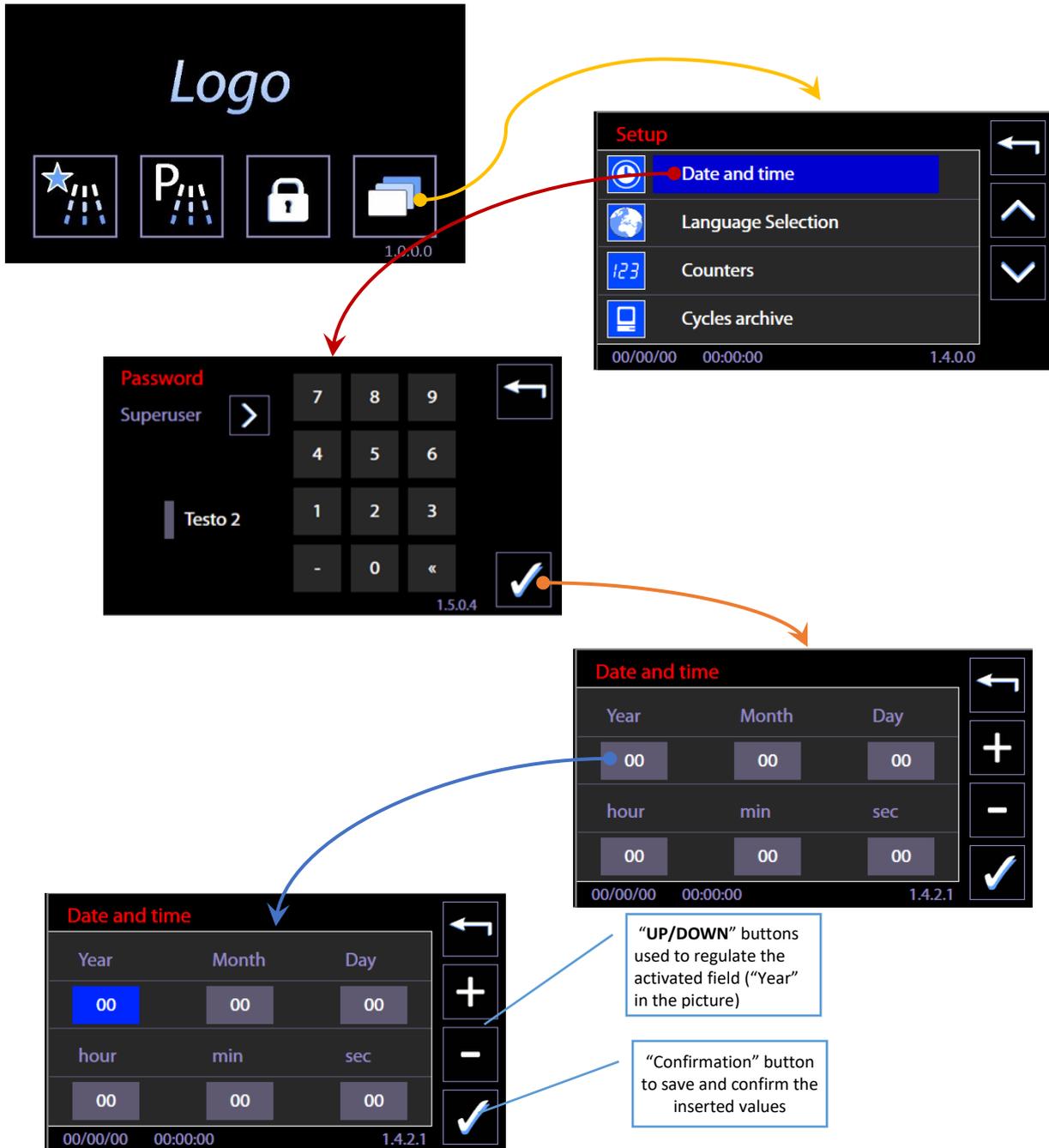
Password level required: *Superuser* or superior level

On the screen: sequence of touch-screen operations to regulate “Date and time” fields.



*Please note: it is very important to set up the date and time correctly for operations traceability.*

*- From the Master CPU 5.6.0 (and later) firmware version, the password input screen requires selection of the current user. The device's manager must select "superuser" to enter the relevant password and then confirm the input.*

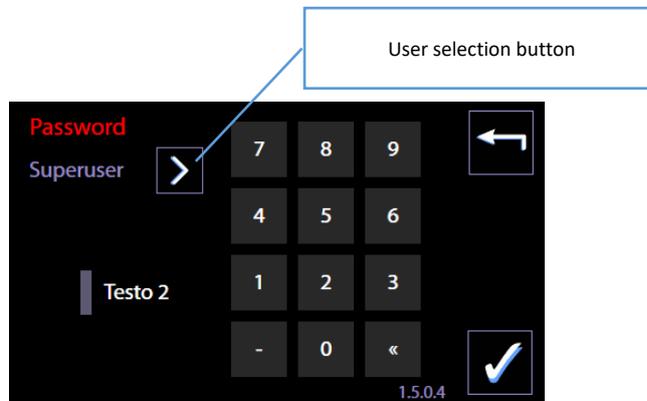


## 11.1.1 ENTER PASSWORD – ID.1.5.0.4



**N.B.:**

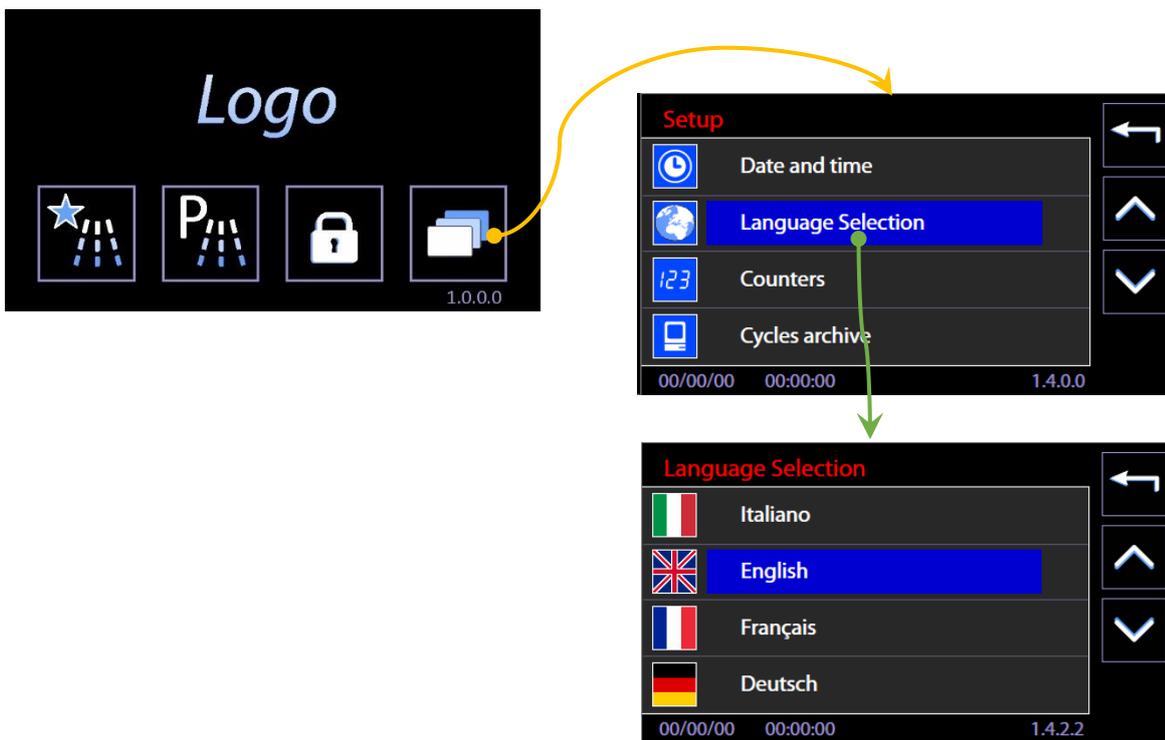
From the Master CPU 5.6.0 (and later) firmware version, the password input screen requires selection of the current user. The device's manager must select "superuser" to enter the relevant password and then confirm the input.



## 11.2 LANGUAGE SELECTION – ID. 1.4.2.2

No password is required to set up this function.

On the screen: sequence of touch-screen operations to select the device LANGUAGE.

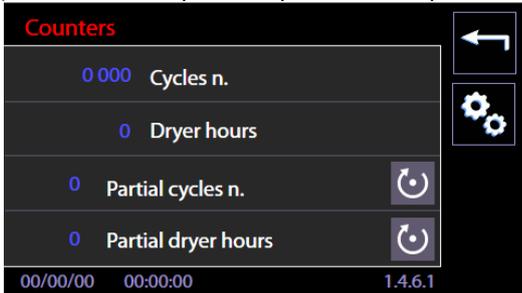


**Note on "Russian" language setting**

When the language selected is Russian, the display will show the Russian text correctly but the **printer** will use the **English language** strings.

### 11.3 COUNTERS – ID. 1.4.6.1

Access from menu “Setup” -> Counters. Access can be visualized by the user.  
 (Access with the possibility to reset the partial counters for the technician).



The screen shows n.4 different counters. The former two are “absolute” counters, the latter two are partial counters and can be reset by the authorized technician.

<b>Number of machine cycles</b>	Absolute counter of the performed cycles.
<b>Dryer hours</b>	Absolute counter of the operation hours of the dryer system (drying)
<b>Partial number of cycles</b>	counter of the performed cycles since the last maintenance (the technician resets it in the moment of maintenance)
<b>Partial dryer hours</b>	counter of the operation hours of dryer since the last technical maintenance (replacement of the drying filter).

### 11.4 ARCHIVE AND PRINTER - ID 1.4.6.2

Access from “Setup” menu -> Archive and printer. Access to *superuser*.  
 Archive and printer parameter setup function.

Description	Illustration
<p>Access the <i>Setup</i> menu.                      Select “<b>Archive and printer</b>”, then enter the “<i>Superuser</i>” password.</p> <p>(N.B.: in firmware releases earlier than 5.6.0 Master Main, this option is called simply “Archive”).</p>	

<p><b>Step 2:</b> this accesses the printer setup screen, screen 1462 <b>“Cycles archive”</b>.          Commands available:          a) To enable printing: <i>flag</i> on <b>“Print enable”</b>;          b) select <b>“Ink”</b> for the <i>WD-PRINTEINK</i> thermal ink transfer printer. Select <b>“Thermal”</b> for purely thermal printer (e.g. <i>PRINTS6010</i> or <i>WDPRINTP6010</i> panel printer).          c) Choose <b>“Reverse”</b> or <b>“Normal”</b> to print the text in the standard or "upside-down" direction. Default: <b>“Reverse”</b>.          d) <b>Confirm</b> with the tick button in the bottom right-hand corner of the screen.</p>	

<b>Archive - Terms and abbreviations and their meanings</b>	
<i>CW</i>	Cold water. Example: "Load CW / 23L" means: load cold water, 23 litres.
<i>HW</i>	Hot water
<i>DW</i>	Demineralised water (demi water)
<i>CW+HW</i>	Cold water and hot water
<i>L</i>	Litres – the amount of water loaded during a phase.
<i>PREWASH, WASH, THERMAL DISINFECTION, RINSE, DRYING</i>	Descriptions of the various types of phases.
<i>P1, P2...</i>	The codes indicate the batching of chemical products by peristaltic pump P1, P2 ... Example: "P1 = 117 ml" – amount batched by peristaltic pump P1.
<i>Holding time</i>	The time for which the phase temperature setpoint is maintained. If no temperature setpoint is set (indicated as "0°C"), the holding time corresponds to the total duration of the phase, once water loading has terminated. If timed heating is set (indicated as "N.D."), the holding time corresponds to the total heating time once water loading has terminated.
<i>Heating ON</i>	<i>Identifies the initial instants when the heating elements are turned on. Not all activations are registered; only those which mark the start of heating.</i>
<i>Min-Max</i>	<i>At the end of the holding time, the min/max temperatures of the holding time are registered.</i>
<i>N.D.</i>	<i>Not Defined, used to indicate when no temperature setpoint has been set for the phase and heating is timed. In this case, "Holding time" identifies the time for which heating is active.</i>
<i>K</i>	<i>Conductivity value read by the probe.</i>
<i>K_t</i>	<i>Conductivity threshold, as set by the superuser</i>
<i>Check OK!</i>	<i>The conductivity check is positive when <math>K &lt; K_t</math>. The phase continues normally.</i>
<i>Check KO</i>	<i><math>K \geq K_t</math>. All the water in the chamber is drained out and the same amount loaded, so that a new check can be run.</i>

### **Notes to aid in understanding the archive**

#### *Each phase:*

- starts by loading a certain amount of water, indicated in the archive since it is characterised by the type and amount of water loaded;
- terminates by completely emptying out the water from the chamber. This is not registered as an event in the archive.

Example cycle archive	Description of items
<p>2017/05/29 12:48:41      Cycle started            ID. 12            Operator 255            Cycle N. 59            .....            12:48:41 Start phase N. 1            WASH            12:48:41 Load CW / 23L            12:52:29 P1 = 117 ml / 27°C            12:52:29 TL 27.90°C Required: N.D.            12:52:29 Holding time: 2:01            12:52:29 Heating ON            12:54:31 Min-Max 27.90°C - 33.70°C            .....            12:55:25 Start phase N. 2            THERMAL DISINFECTION            12:55:25 Load CW / 23L / 34°C            12:58:38 P1 = 117 ml / 23°C            12:58:38 Heating ON            13:13:00 TL 93.10°C Required: 93 °C            13:13:00 Holding time: 5:01            13:14:20 Heating ON            13:18:02 Min-Max 93.10°C - 94.20°C            .....            13:18:59 Start phase N. 3            RINSE            13:18:59 Load HW / 23L / 91°C            13:21:52 P2 = 72 ml / 41°C            13:21:52 TL 41.60°C Required: N.D.            13:21:52 Holding time: 2:01            13:21:52 Heating ON            13:23:54 Min-Max 41.60°C - 46.60°C            .....            [...]           .....            13:35:19 Start phase N. 6            RINSE            13:35:19 Load DW / 23L / 48°C            13:38:24 Heating ON            K = 20 us/cm            K_t = 20 us/cm            Check KO            13:43:35 Heating ON            K = 18 us/cm            K_t = 20 us/cm            Check OK !            13:45:33 Heating ON            13:52:40 TL 75.10°C Required: 75 °C            13:52:40 Holding time: 1:01            13:53:42 Min-Max 75.10°C - 76.60°C            .....            13:54:38 DRYING            TL1 = 75.80 TA1 = 66.80            14:24:42 Drying complete            .....            Successfully completed cycle            Ao 7579.70</p>	<p><b>Cycle started:</b> date and time of cycle start.  <b>ID.12</b> - the ID number of the program (“ID_prog” in the program table).  <b>Cycle N. 59</b> – 59th program run by the machine.            Each phase has a header line: <b>Start phase N.</b>            This is followed by a description of the phase, such as: <b>WASH.</b>  <b>Load CW / 23L</b> Load cold water, 23 litres.  <b>P1 = 117 ml / 27°C</b> amount of detergent batched by pump P1  <b>TL 27.90°C Required: N.D.</b> – temperature of probe TL and phase temperature setpoint. “N.D.” stands for Not Defined: Heating is timed if no temperature setpoint is specified; the duration is equal to the indicated holding time.  <b>Holding time: 2:01</b> – duration of phase, 2 minutes.  <b>Min-Max 27.90°C - 33.70°C</b> the minimum and maximum temperatures TL for the most recent holding time.</p> <p>The record <b>TL 93.10°C Required: 93°C</b> identifies the start of the holding time.            The record <b>Min-Max 93.10°C - 94.20°C</b> identifies the end of the holding and the minimum and maximum temperatures reached by the system during that time.</p> <p>Conductivity check reading  <b>K = 20 us/cm</b>  <b>K_t = 20 us/cm</b>  <b>Check KO</b>  <b>K</b> is the value read by the machine's conductivity probe, in µS/cm.  <b>K_t</b> is the threshold setting (t=threshold)            If <math>K &lt; K_t</math>, the result is positive (“Check OK !”), if not, it is negative (“Check KO”).            If the result is negative, the water is drained out of the chamber, reloaded and a new check is run:  <b>K = 18 us/cm</b>  <b>K_t = 20 us/cm</b></p> <p>Ao 7579 is the value of the parameter Ao, calculated during the thermal disinfection phase.</p>

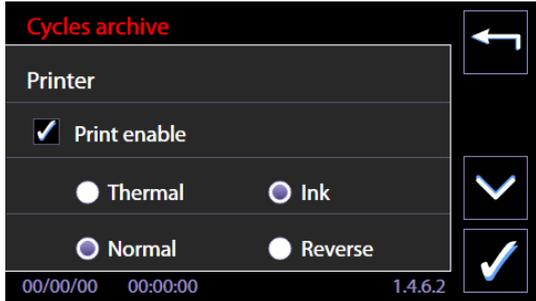
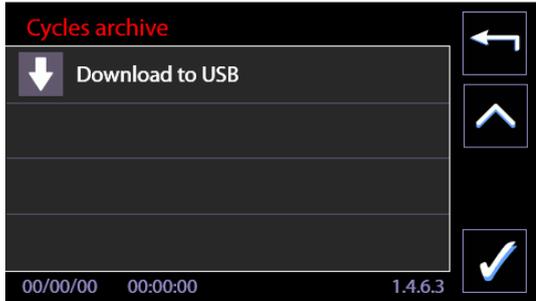
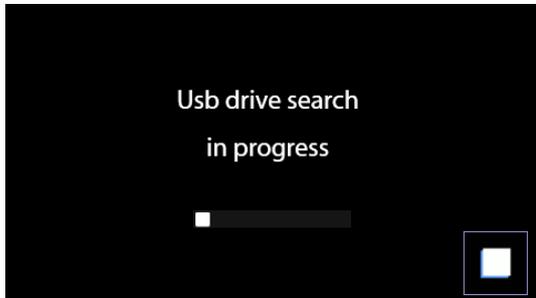
11.4.1 CYCLES ARCHIVE DOWNLOAD TO USB DRIVE

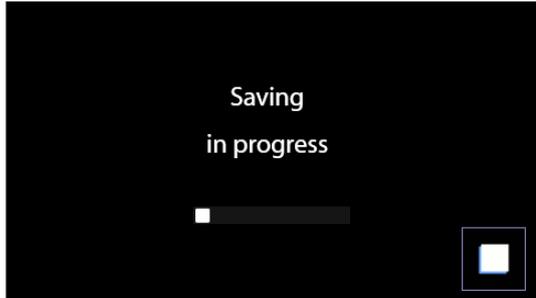
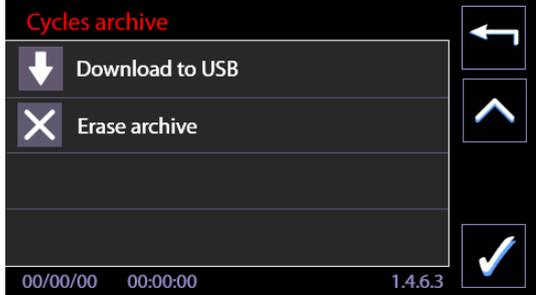
	<p><b>The function allows download to USB drive of the archive of cycles run</b>, stored in the machine's circuit board.</p> <p>Attention: <b>not all USB drives are compatible with</b> the new function.</p> <ul style="list-style-type: none"> <li>- Only use new compatible genuine drives with FAT32 formatting.</li> <li>- Do not use USB extensions to connect the drive to the device: they degrade the signal and may cause saving malfunctions.</li> </ul> <p>Contact the authorised after-sales service for any further explanations.</p> <p>N.B.: if the USB drive does not work, superusers may still connect to the device's USB port using the WDConnect software and an USB cable to acquire the cycles archive. Moreover, if the device features the network connection optional, product cycles can be acquired using the WDConnect LAN communication function (see <i>WD-LAN60</i> Product).</p>
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11.4.1.1 ARCHIVE AND PRINTER MANAGEMENT - screens 1462 and 1463

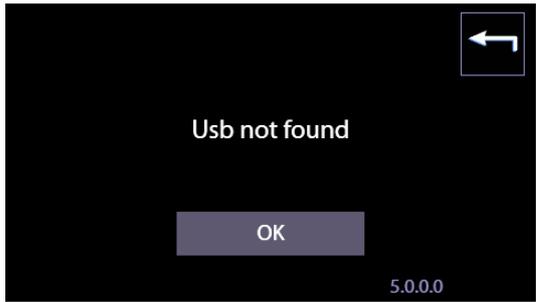
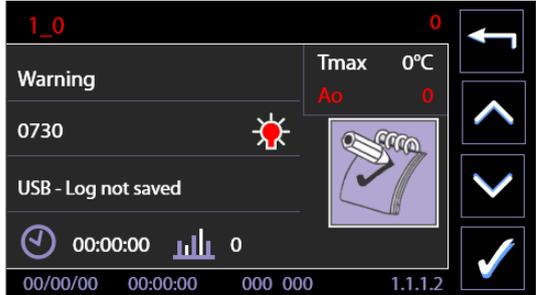
Select the “Setup” menu -> “Archive and printer”. Access only permitted to *superuser* and higher levels. Function for archive and printer parameter setup and for download of cycles archive to USB drive.

Description	Image
<p>Access the <b>Setup</b> menu. Select “<b>Archive and printer</b>”, then enter the “Superuser” password.</p>	

<p>You can now access the printer configuration page (Function described in detail in device user manual). Press the "Up arrow" button to access the screen for downloading the archive onto USB drive, screen 1463.</p> 	
<p>From screen 1463, download the memory archive to USB:</p> <ul style="list-style-type: none"> <li>- Fit the drive into the device's USB slot (loading side)</li> <li>- Press the "Download to USB" button</li> </ul>	 
<p>The system prompts the operator to confirm to proceed and provides indication of the drive search and saving in progress phases.</p>	
<p>-</p>	

<p>The operator can force a stop in the saving process by pressing the "Stop" button.</p>	
<p>When saving is complete, the notifications screen indicates the end of the process. <b>"Operation successfully completed"</b></p>	
<p>Once the archive has been downloaded to USB, the screen displays the option: <b>"Erase archive"</b>.</p> <p>The operator may choose to delete the information stored in the device's internal memory.</p>	

11.4.1.2 USB MANAGEMENT - WARNINGS

Description	Image
<p>If the device is unable to read the USB drive correctly, it displays the general message: "Usb not found".</p> <p>Consult the authorised after-sales service for information regarding compatible USB drives; only use compatible genuine Smeg articles with this function.</p>	
<p>If the USB drive is detected but the devices has problems when writing the archive, the system displays Warning 730 "Log not saved".</p> <p>Repeat the operation, check that the USB drive is in good condition.</p>	

### 11.4.1.3 FORMAT OF SAVED ARCHIVE

Files saved on the USB drive can be read by a PC, preferably using the WDConnect app supplied by the manufacturer.

At each saving process, a folder named with the device's serial number is created on the USB drive.

The folder contains:

- **Report files on the cycles run**, which are text .txt format files and can be read using a word processor. 1 file for each cycle saved in the archive (e.g. *Cycle\_1.txt*, *Cycle\_2.txt* ... etc). These files are written in the language currently set in the product's interface.
- **Complete cycle archive**, File in .dat format - can only be read by WDConnect. The file contains the complete log of the cycles run and allows the production of graphs and more data than the text file (the .dat file name identifies both the device, since it contains the SN, and also the download date and time).
- **Download information file** It contains a synthesis of information on the download performed:
  - o Device SN
  - o Device ID data as set by the superuser ("*Name, Dept, No.*") If the fields have not been initialised, "N.D." (Not Defined) appears next to each item.
  - o Download date and time.

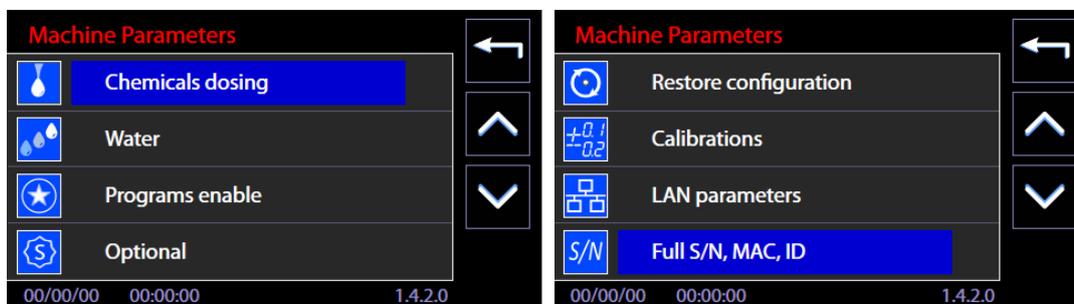
N.B.: If the USB drive already contains a folder associated to the device's serial number, a new folder with an added numerical suffix, (1), (2) etc., is created at each new download.

USB data structure example
SN_28604580063000010312 (folder) <ul style="list-style-type: none"> <li>- Cycle_1.txt</li> <li>- Cycle_2.txt</li> <li>- ...</li> <li>- Cycle_100.txt</li> <li>- 28604580063000010312_20200702-133000.dat</li> </ul>
The dat file contains the date and time of the moment when the archive was downloaded, "20200702-133000" signifies: 2020/07/02 at 13:30:00 hrs.
An example of the structure of folders if the operator performs several downloads on the same device without ever deleting USB memory
SN_28604580063000010312 SN_28604580063000010312(1) SN_28604580063000010312(2) [...]

## 11.5 MACHINE PARAMETERS – ID. 1.4.2.0

**Setup-> Machine parameters:** Submenu of parameter setting accessible with password level “superuser” or superior.

Menu entry	Access level
Chemical dosing	Superuser
Water	Technician
Program enable	Superuser
Optional	Technician
Password	Superuser
Restore values	Technician
Restore configuration	Technician
Calibrations	Technician
LAN parameters	Superuser
Full S/N, MAC, ID	Superuser
Heating type (From CPU Firmware Main 6.2.0 and subsequent).	Superuser (To choose the washing chamber heating type: Steam or electrical. This entry can only be accessed if the optional Steam heating system is installed on the machine). The screen functions provide for the possibility of disabling and re-enabling the <b>Eco Exchanger</b> (component mounted on specific models, ref. "WD7015TECO".)
Conductivity probe	Superuser (This entry can only be accessed if the optional conductivity probe is installed)
Trolley check	Superuser (the option is only enabled if the optional "RACKREC" Trolley Check system is installed)
Spray arms check	Superuser (the option is only enabled if the optional "ARMREC" Spray Arms Check system is installed)
Automatic operation	Superuser (the option is only active for devices with sliding doors). The superuser can disable the Energy Management interfacing function from this screen).
Barcode Scanner	Superuser (the option is only enabled if the optional “WD-CODESCAN” barcode scanner is installed).
Signal Box	Superuser (the option is only enabled if the “WD-SIGNBOX15” optional component is installed).

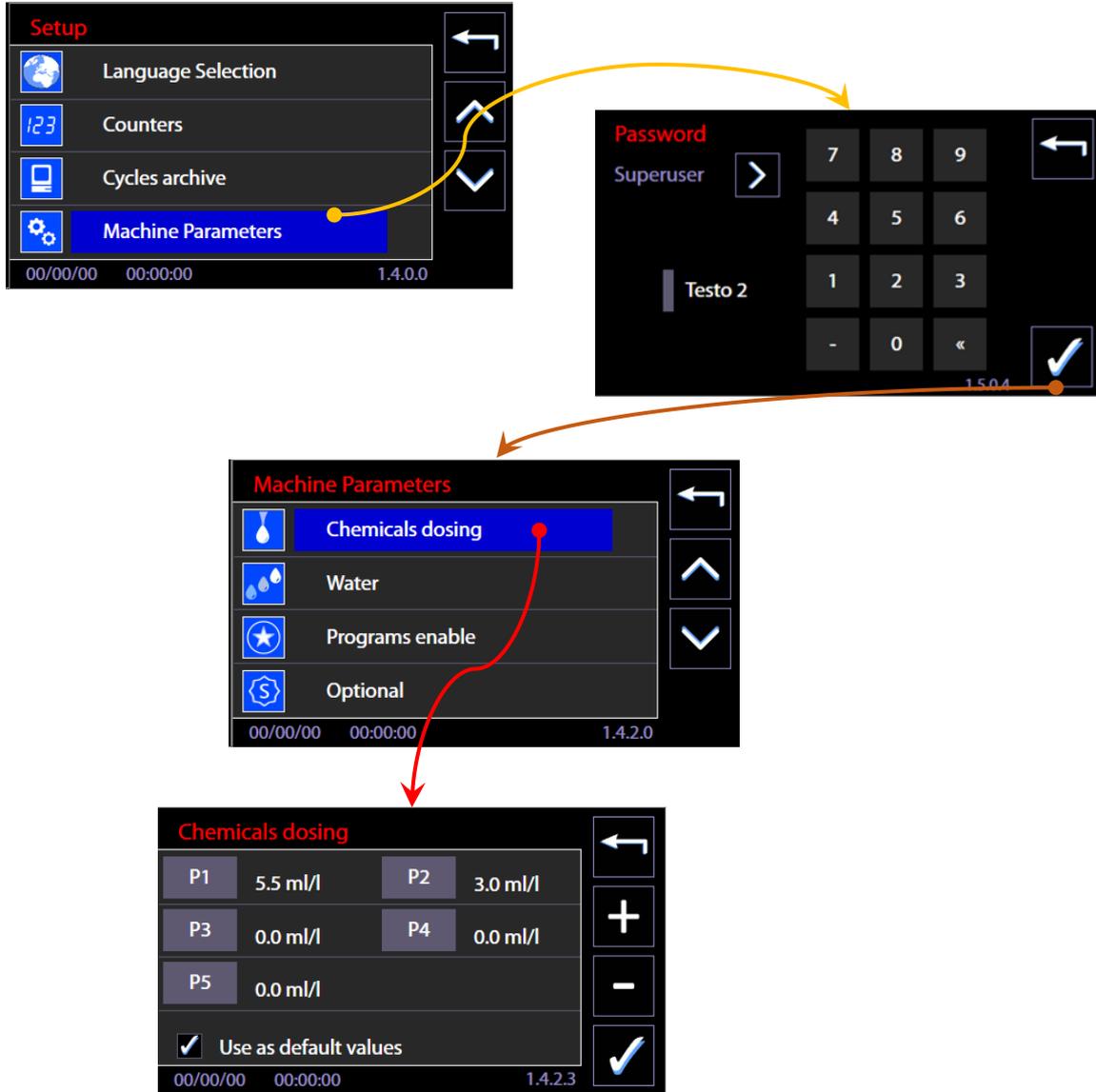


Various active entries are detailed in the following sections.

11.5.1 DETERGENT DOSAGE SETUP (“Chemicals dosing”) – ID. 1.4.2.3

Password-level required: *Superuser* or superior level

From the “Setup” menu, please select “Device parameters” and then “Detergent dosage,” entering the password when requested.



By selecting the preferred measuring pump, e.g. P1 for alkaline detergent, the amount of detergent used during the wash phase can be regulated. The side buttons “Increase” e “Decrease” (+ / -) may be used to adjust the regulation.



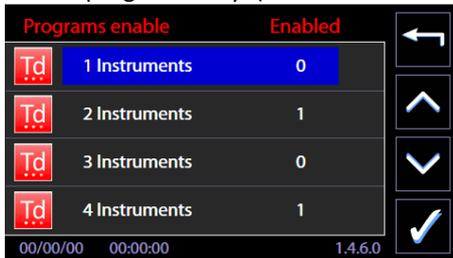
**Please note: Only by ticking the “Use as default values” box and selecting the check-box will the values inserted be active for all washing programs. Otherwise, the values are saved but not active.**

### 11.5.2 PROGRAMS ACTIVATION (“Programs enable”) – ID. 1.4.6.0 - 1.4.6.4

Password level “*superuser*” or superior is required to access the function.

Starting from menu “Setup”, select “Machine parameters” and then “Activate Programs”, entering the password when required.

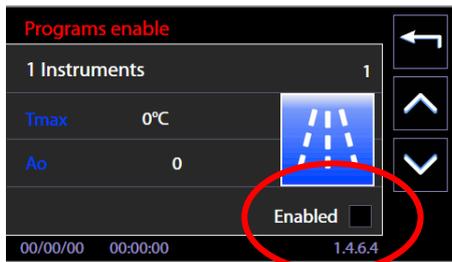
The screen “Activate Programs” allows, through appropriate setting, to view the Programs menu and to start the desired programs only. (This function was introduced since the Firmware Main 2.14.0 version).



Default: all programs are enabled, “1” in the line corresponding to program name.

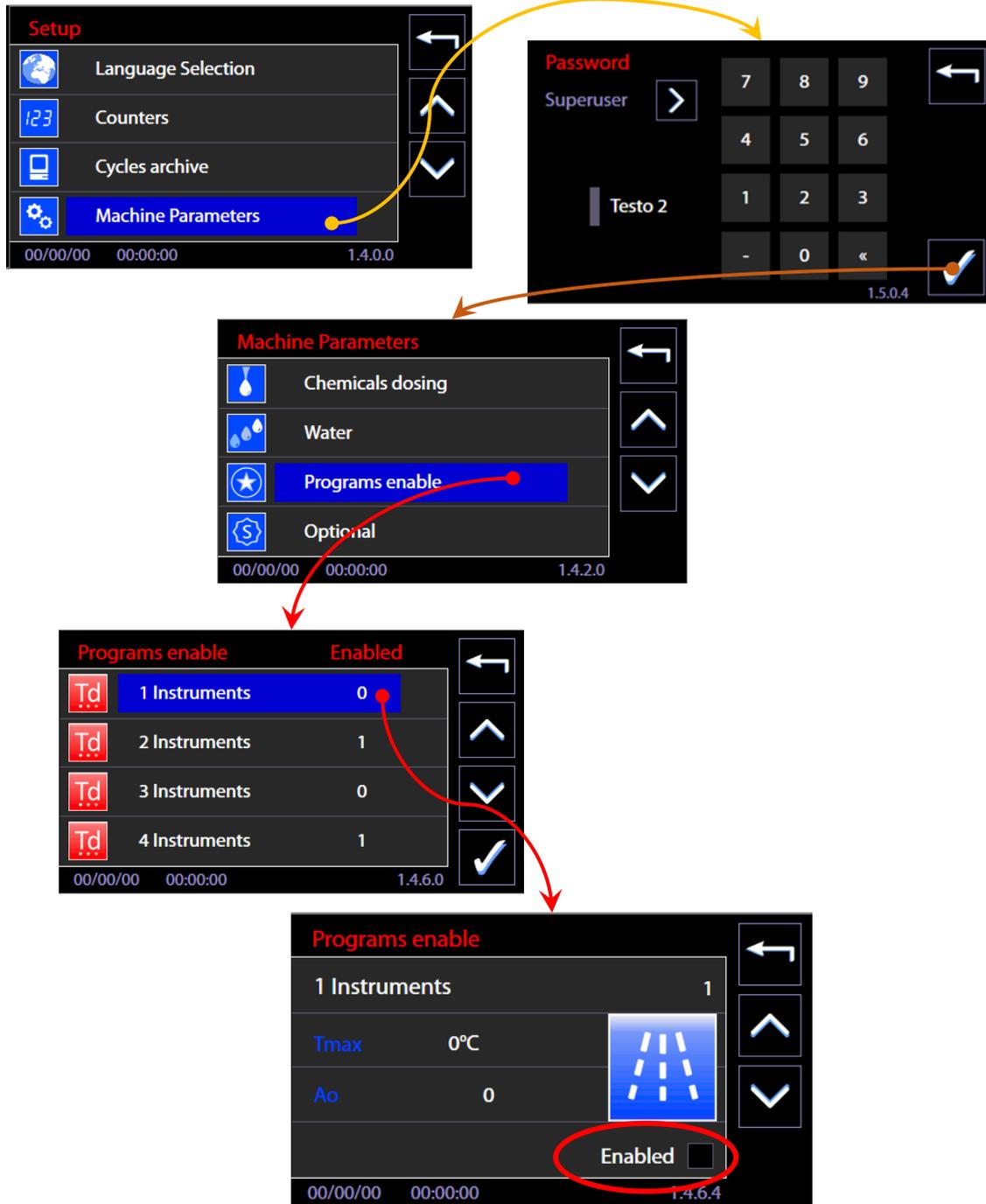
**To exclude a program from visualization** it’s necessary to set “0” next to the program name:

1. Select the program from menu “Activate Programs”
2. You enter in the summary screen of the program itself (it reports the name and program ID in the first line of the screen, and other significant values in the remaining sections).
3. Remove the flag from the “Enabled” entry -> “0” will appear next to program name in the menu.



Always consult the complete table of programs before the deactivation.

See below the sequence to access the function.



11.5.3 PASSWORD – ID. 1.5.0.1

Function introduced from firmware version Master CPU 5.6.0.

The *superuser* (device manager) can use the Password Control functions to:

1. Activate the **User Check** function to identify the user who is selecting and starting the wash cycle.
2. Activate the function which identifies the user who is unlocking/opening the washing tank door at the end of the cycle, by selecting the **“Opening phase”** flag.
3. Enable users to operate the device.
4. Print out a report of the active users and their passwords.
5. Modify his own and the lower level passwords.

<p>Select the <i>“Password”</i> option from the <i>“Machine Parameters”</i> menu.</p>	
<p>This accesses the password control screen. Functions available:</p> <ol style="list-style-type: none"> <li>1. <b>“User Check”</b> – flag for activating the user check at the start of the cycle.</li> <li>2. <b>“Opening phase”</b> – flag for activating the check on the user who is opening the door of the machine.</li> <li>3. <b>“Enable”</b> – button for accessing the user enabling submenu - &gt; screen 1502</li> <li>4. <b>“Modify password”</b> – for customising the passwords. The <i>superuser</i> can modify his own and the lower level user passwords.</li> <li>5. <b>“Print report”</b> -&gt; if the printer is installed and switched on only, pressing this button forces printout of the active users and the associated passwords.</li> </ol> <p>N.B.: The <b>“Reset Tech”</b> button can only be activated by the authorised engineer, for the complete reset of the technical passwords entered.</p>	
<p><b>User enabling menu</b> Press the <i>“Enable”</i> button in screen 1501 to access the User List menu. Next to the ID of each user, the screen shows their enablement status for use of the machine: <i>1 - enabled</i> <i>0 - not enabled.</i> The <i>superuser</i> can press a line to switch the status. The <i>“Confirm”</i> button in the bottom right-hand corner saves the settings made.</p>	

**Change password.**

In this screen, the *superuser* can modify his own and the basic level user passwords.

Procedure:

1. Press next to *New* (the upper one) and enter the new password.
2. Press next to *New* (the lower one) and confirm the new password.

N.B.: a user password is a number between 0 and 999.



11.5.4 LAN PARAMETERS – ID. 1.4.8.0 – 1.4.8.2

Access with password *Superuser*.

The screen is used to manage and insert the parameters for communication in LAN network; it is **accessible only if the optional for communication is installed (WD-LAN60)**.

Fields to set up:

DHCP – enable/disable by touch-screen (flag)

IP - parameter

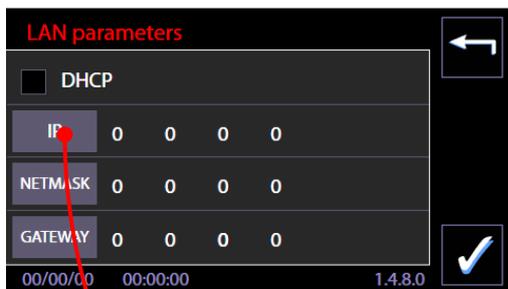
NETMASK - parameter

GATEWAY – parameter

Next to each parameter there is a key to insert and modify the parameter itself.

Next is an example of the IP parameter insertion:

1. Select the button “IP” -> you enter the screen for insertion of the field
2. The parameter consists of 4 fields. Touching a field you activate the modification mode of the field.
3. Field must be cancelled in order to be rewritten, cancellation by button “<<” of the numeric keypad.
4. Field insertion by numeric keypad.
5. Confirmation of the inserted button by lower right button “CONFIRM”.



Button “<<” to cancel the values in the active field.

Button “Confirm” to save and confirm the inserted values.

11.5.5 FULL S/N, MAC, ID (device labels) – ID. 1.4.8.1

This function is for the *superuser* staff, for visualization of FULL S/N (“Full serial number”) e MAC *address* related to the device.

Full S/N and MAC are permanent parameters of the machine: the user can read Full S/N on the characteristic plate of the equipment.

MAC address is defined only if the optional for communication in LAN network is installed. In case it is necessary to know the values because of network settings, the authorized technician should be asked.

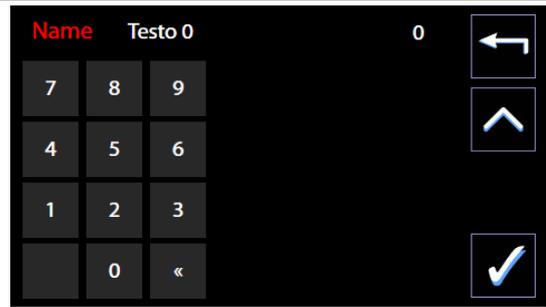
**Features introduced with the firmware update, April 2016.**

Identification labels - there are 3 alphanumeric label, editable by the *superuser*, useful for device identification.

1. Label machine: "Name"
2. Label Department: "Dep."
3. N.ro inventory: "N."

<p>1. From Machine Parameters, select the item “Full S/N, MAC, ID”</p>	
<p>2. From the screen the following item are visible:</p> <ol style="list-style-type: none"> <li>1. Full S/N (non-editable field)</li> <li>2. MAC (non-editable field)</li> <li>3. Name</li> <li>4. Dep.</li> <li>5. N.</li> </ol>	
<p>3. To insert or change any of the 3 fields "Label" (Name, Dep, N.): select the corresponding button. You access the keypad that allows you to assign an identification text.</p>	

- 4. The identification "Label" entered will be recorded in the archive of the machine and in the cycles print report.



## 11.6 DIAGNOSTICS OPERATIONS – ID.1.4.3.0

Password-level required: technical staff only. Through these screens **the device loads can be manually activated and the load entries supervised.**

Note: Authorized technicians are required to consult the dedicated manual for an in-depth study of these features. The screens are separated by operation type:

<b>Drum Water Loading – ID.1.4.3.1:</b>	
	Solenoid valve activation
	Check water turbine calculation
	Check pressure switches status
<b>Detergent loading – ID.1.4.3.2:</b>	
	Detergent peristaltic pumps activation
	Check flowmeter calculation
	Check level sensors in the tank
<b>Wash – ID. 1.4.3.5</b>	
	Wash pump activation
	Heater elements activation
	Check temperature probes
	Check pressure switches
	Check thermostats status
	Check sprinklers rotation sensors
	Check carriages identification sensors
<b>Drying – ID.1.4.3.3</b>	
	Mechanical fan activation
	Drying heater elements activation
	Check temperature probes status
	Check of thermostats status
<b>Doors (hinged) – ID.1.4.3.8</b>	
	Door lock activation, unclean side
	Door lock activation, clean side
	Check door lock status, unclean side
	Check door lock status, clean side
<b>Sliding doors – ID.1.4.4.3</b>	
	Unclean side motor start
	Clean side motor start
	Unclean side limit switch check
	Clean side limit switch check
	"Doors locked" relay status check
	Safety control unit status check
<b>Drain – ID.1.4.4.0</b>	
	Drain valve activation
	Drain pump activation
	Check pressure switches status
	Check thermostats status
<b>Boiler demi – ID.1.4.4.1</b>	
	Demi loading valve activation
	Boiler demi resistance activation
	Boiler demi drainage solenoid activation
	Check boiler temperature probe
	Check boiler thermostats status
	Check boiler water level

<b>Boiler hot – ID.1.4.4.2</b>	
	Hot loading valve activation
	Boiler hot resistance activation
	Boiler hot drainage solenoid activation
	Check boiler thermostats work
	Check boiler safety thermostats status
	Check boiler water level
<b>IO Automation</b>	
<b>Eco Exchanger – 1.4.4.5</b>	
<b>Signal Box – 1.4.4.6</b>	

11.7 PROGRAMS EDITING – ID. 3.4.2.1

	<p><b>Preliminary Note: the editing of a washing program requires specific knowledge</b> in relation to the load-treatment process, and to the device parameters. For this reason, the function is protected by password. Always proceed according to the rules in force in the place of installation: <b>a custom program</b>, used to process the load, <b>must be validated according to the standards and regulations applicable</b>. Consult the authorized technical service for clarification.</p>
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The modifiable programs:

1. are identified in the documents as "custom" programs;
2. Are part of the installed programs;
3. are "queued up" compared to the factory programs that cannot be modified;
4. are marked by specific icons of the custom programs (presence of "little man" icon)

Specific icons for the custom programs

Prewash	Wash	Thermal disinfection	Drying	Service



**Warning:** when creating a custom program, do not include more than two thermal disinfection phases at 93°C for 10min.

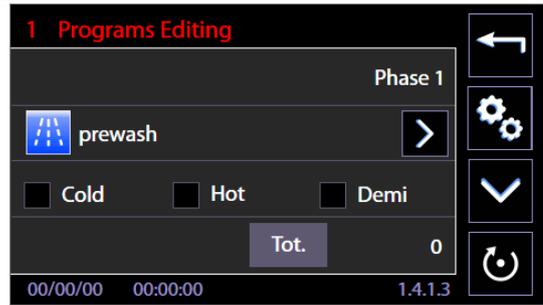
Steps to modify a custom program.

<ol style="list-style-type: none"> <li>1. Select the "Setup" icon in the main screen sch.1000 and then select "Programs Editing".</li> </ol>	

<p>2. Insert the "Superuser" password</p>	
<p>3. You gain access to the list of custom programs from which you can select the specific program you want to change.</p>	
<p>4. "Programs Editing" starting screen (sch.1411) from which you can activate the individual phases using flags and, by pressing the "Phase" buttons (eg. "Phase 1" button), move on to edit the selected phase. Only the phases selected through the flags are actually executed by the program. The Phase 1 must remain always active. To the right of the program name: the ID number of the program "IdProg" can be seen: this identifier cannot be changed.</p>	
<p>5. From the previous screen, pressing the "Arrow Down" button (right part of the screen) will give access to the second program editing screen, where, in addition to the phases, the drying stage can be activated: a. Drying presence through the flag. b. target temperatures and holding time in minutes entered by pressing the appropriate buttons and acting on the side control buttons (+ and -). Only by pressing the "Confirmation" button at the bottom right, the program will be saved.</p>	
<p>6. Press the "Esc" button to exit the editing screen. Confirmation screen request will appear.</p>	

7. Pressing "Phase 1" button to enter in the editing screens for the phase "1 Programs Editing". It is possible to select:

- c. Phase Type (using the "right arrow" button): *pre-washing, washing, thermal disinfection* ... This information is used to display the selected icons while the cycle is in progress. If you select the type "Thermodisinfection": This information is used to calculate and to display the Ao value.
- d. Type of water to be loaded (Cold, Hot, Demi): Multiple selections are allowed.
- e. Amount of water expressed in deciliters.
- f. Using reset button (bottom right) will reset the data entered for the stage.
- g. Press the "down arrow" button to switch to other options for the phase.
- h. "Gears" button for the advanced options.



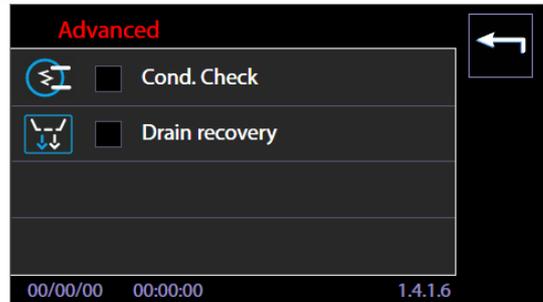
8. Among the advanced options, you can activate for the current phase:

- i. Conductivity check.
- j. Drain recovery

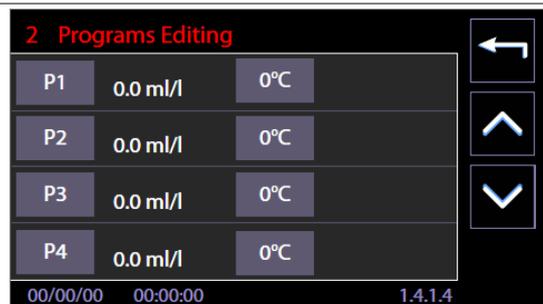
These and other options are effective only if the related option is installed on the device, they are otherwise neglected during the execution of the cycle.

Optional tools and documentation references:

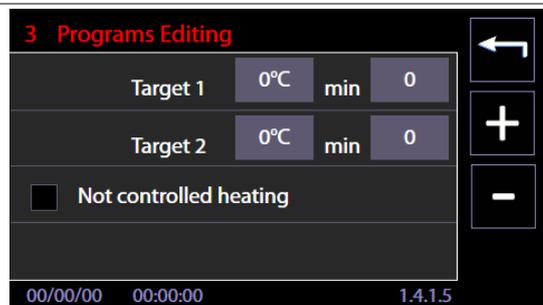
1. Conductivity Sensor.
2. Double drain valve "WD-VDS6010".



9. "2 Programs Editing": Possibility to adjust the detergent dosage and the detergent injection temperatures.



10. "3 Programs Editing" Target temperature settings and holding times. There is an option (flag) for the activation of "Not controlled heating": if selected, the heating will last for the holding time set, without a target temperature value to reach.



<p>11. "3 Programs Editing" Thermodisinfection phase type only: it is possible to enter a specific value for the Ao parameter.</p>	
<p>12. The procedure is similar for every phase.</p>	<p>-</p>
<p>13. The program, once customized and saved, can be selected and started by the user from Programs Menu.</p>	

### 11.7.1 Customizing the program name

<p>1. From the "Programs Editing" screen (sch.1411) by selecting the "Name" button you can give a personalized name to the program.</p>	
<p>2. Indicative screen of the keyboard. Pressing the "Arrow down" you have access to the numeric keypad. Pressing the "confirmation" button at the bottom right, you save the entered name.</p>	
<p>3. Numeric Keypad, can be used to assign a name to the program.</p>	

### 11.7.2 Customizing the program icon

<p>1. From "Programs editing" screen (sch.1411) by selecting "Advanced" ("gears" button), you can assign a custom icon to the program.</p>	
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2. Using the “right arrow” button you can select the icon to assign to the program. Use the table above to select the appropriate icon.



### 11.7.3 NEW PROGRAM PARAMETER: “PASSING / NOT PASSING” FLAG



**Parameter "Passing / Non-passing" program**, for "double-door" machines.

The "Custom" programs can be edited by the superuser, modifying the parameter to define whether, once the program has ended:

- a. In the case of "**Passing**" type: allow opening of the clean side of the door.
- b. In the case of "**Non-passing**" type: once the program is completed, the operator can only open the loading side door ("unclean side").

The flag has been set up to allow the use of custom programs considered "service" programs, and protect the opening of the unloading side.

**Note: it is the superuser's responsibility to correctly assign the parameter value**, depending on the service programs that may have been created.

(The parameter has no effect in the case of a single-door machine).

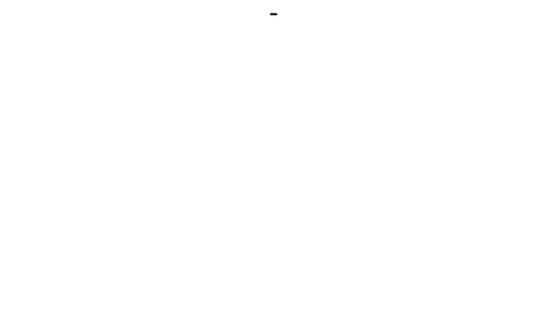
#### **Service programs - Non-passing**

With updated firmware versions, the factory programs with predefined service function, take on the "Non-passing" flag: once the program is completed, only the loading door can be opened.

These are the programs:

- "Empty boiler" (designed to force the emptying of installed boilers/heating tanks).
- "Service 1" (program for loading the detergent by peristaltic pumps).
- "Probes calibration" (program designed to check the calibration of the temperature probes).

<p>3. From "Programs editing" screen (sc.1411) by selecting "Advanced" ("gears" button), you can access the screen that defines the type of Program, (sc.1417).</p>	
<p>4. On the Program Type screen, 1417, you can:</p> <ul style="list-style-type: none"> <li>a. Assign a <b>personalized icon</b> to the program,</li> <li>b. For "double-door" machines only, modify the "<b>Passing / Non-passing</b>" flag, with the meaning shown above.</li> </ul>	
<p>5. If the machine is of "single-door" type, the only possible operation is the choice of the icon associated with the program.</p>	
<p>The customization of the other parameters of the Custom program takes place as for the previous firmware versions.</p>	<p style="text-align: center;">-</p>
<p><b>Display of the "Non-passing" status of the program, for the user.</b></p>	
<p>Upon selecting a "Non-passing" type program, a new icon informs the user of the selected type.</p>	
<p>Icon that identifies "Not pass-through" programs. (The icon is not visible if the machine is "single door").</p>	

<p>In the "Cycle completed" screen, the same icon is used to provide the user with information on the type of cycle.</p> <p>No icon is displayed in that position if the program is a "Passing" type.</p>	
<p><b>Non-Passing Program - Archive and receipt.</b> If the program is a "Non-passing" one: in the archive and receipt this information is recorded.</p> <p>E.g.:</p> <p>[ ... ]</p> <p><i>14:12:22 Cycle Completed Successfulluy Non-passing Program</i></p>	

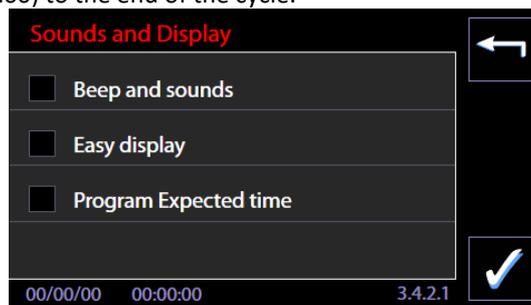
### 11.8 DISPLAY AND SOUNDS – ID. 3.4.2.1

Functions accessible at the level "user" or superior.

Starting from menu "Setup", skim menu entries and select "Display and sounds".

Available entries:

1. "Active sounds" -> if flagged, it enables acoustic signals.
2. "Display easy" -> if flagged, it enables simplified visualization of the cycle in progress.
3. "Cycle remaining time" (or "Program Expected time") ->
  - a. If flagged, the visualized time with cycle in progress is the estimated time left.
  - b. If not flagged: the visualized time with cycle in progress is the progressive time from the start of the cycle (instant 00:00) to the end of the cycle.



**Display easy:** In the simplified visualization of the cycle in progress, the display only shows:

4. Program name
5. Time of the cycle in progress (time left or progressive time depending on the settings).
6. The progress bar



### 11.9 ABOUT – ID. 1.4.5.0 – 1.4.5.1

Screen accessible at the level “user” or superior.

It shows the values and dates of issue of the FW installed on the electronic boards of the device.



### 11.10 USER PASSWORD – ID. 1503

From firmware version Master CPU 5.6.0 the device is equipped with a function allowing identification of:

1. the user who has selected and started the wash cycle,
2. the user who has opened the door of the device at the end of the cycle.

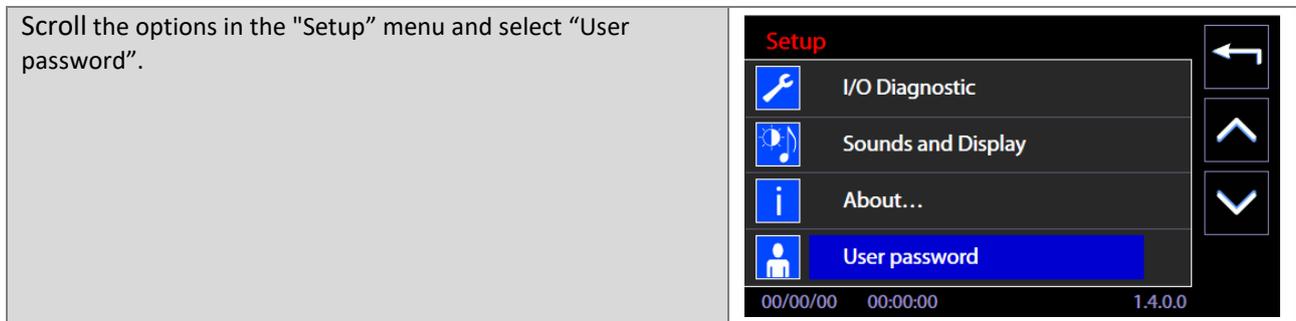
This function is deactivated by default and can be activated by the *Superuser*.

If this "User check" function is activate, a numerical password is associated to every enabled user.

Basic level users - normal users of the device - can only change their own passwords.

Users are identified by a number, e.g.: *user\_01*, *user\_02*, etc.

The password change procedure is described below.



Users must:

1. select their user ID using the "Right arrow" button.
2. Enter their current password.
3. Press the "Confirm" button in the bottom right-hand corner.



The user has access to the change password screen.

3. Press next to the upper *New* and enter the new password.
4. Press next to the lower *New* and confirm the new password.

N.B.: a user password is a number between 0 and 999.

The *superuser* password can also be changed. It is a number between 2000 and 2999.



11.11 HEATING TYPE – ID. 1465

Screen accessible to the level “superuser” or superior.

Starting from Firmware Master CPU 6.2.0, the Machine Parameters menu presents an additional entry: “Heating type”. If the optional Steam Heating system “STEAMFEED60” is installed, the superuser can choose the desired heating type:

1. Electric;
2. Steam;
3. Mixed heating – joint use of the steam and electrical systems.

<p>Starting from the "Machine Parameters" menu, scroll through and select "Heating Type".</p>	<p>The screenshot shows the 'Machine Parameters' menu with options: Calibrations, LAN parameters, Full S/N, MAC, ID, and Heating type (highlighted in blue). The bottom status bar shows '00/00/00 00:00:00 1.4.2.0'.</p>
<p>If the optional system for steam heating is installed, the superuser can select the desired heating type.</p>	<p>The screenshot shows the 'Heating type' selection screen with three radio button options: Electric (selected), Steam, and Mixed heating. A checkmark icon is visible in the bottom right corner. The bottom status bar shows '00/00/00 00:00:00 1.4.6.5'.</p>
<p>If the optional system is not installed, the heating can take place only in electric mode and the superuser cannot make the choice of alternative types. The selection function is not active.</p>	<p>The screenshot shows a dialog box with the text 'Inactive function' and an 'OK' button. The bottom status bar shows '5.0.0.0'.</p>

Only for models equipped with Eco Exchanger - ref. Prod. WD7015TECO - screen 1465 shows an additional option to disable the exchanger if necessary.

Description	Illustrations
<p>The superuser can <b>disable the “Eco Heat Exchanger” component</b> for special requirements, such as if it malfunctions.</p> <p>Select the menu: Setup -&gt; Machine Parameters -&gt; Heating type.</p> <p>The Flag in the “Enable” field enables/disables operation of the system.</p>	<p>The screenshot shows the 'Heating type' selection screen with an additional 'Eco Exchanger' toggle switch set to 'Enable'. Below it are the radio button options: Electric, Steam, and Dual heating. A checkmark icon is visible in the bottom right corner. The bottom status bar shows '00/00/00 00:00:00 1.4.6.5'.</p>

### 11.12 WATER CONDUCTIVITY – ID.1466

Conductivity probe management is performed only if the “IC6010” optional is correctly installed. Required CPU Master firmware version 7.16.0 (july 2017) or subsequents.

The probe present flag is factory set; the operator – if he has a superuser password – can:

1. enable/disable the probe;
2. set the check threshold value.

A single threshold is used for all programs which include a conductivity check.

The maximum possible value of the threshold is 50µS/cm. This is the full range value of the system installed on the machine. If the conductivity reading is higher than 50 µS, the actual value is not displayed, but the generic value “K > 50” displays.

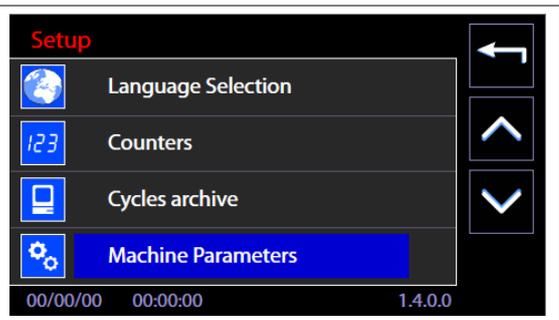


*Measure the conductivity of the demineralised water in your system before using it to ensure you have set an appropriate threshold value.  
The machine's threshold value may not be lower than the conductivity of the demineralised water in your system.  
Check the water supply from time to time to check that it maintains its original characteristics.*

**Setup** - Press the bottom left button in the main screen to enter the Setup menu.

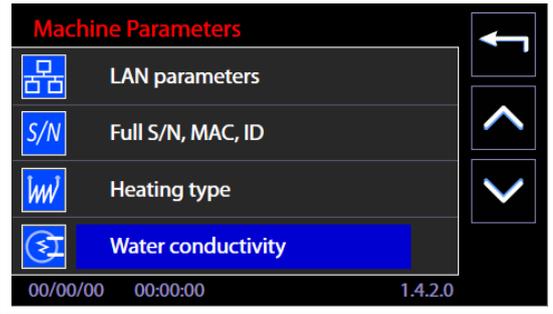
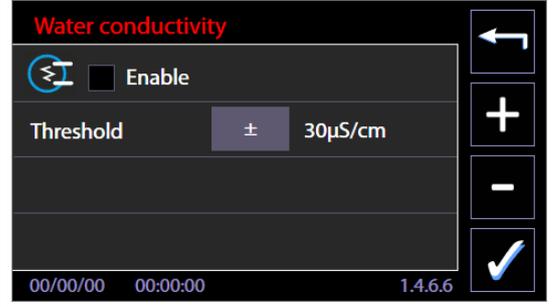


**Machine Parameters** - Scroll through the options and select "Machine Parameters".



You will be prompted for a Superuser **password**.



<p><b>Water conductivity</b> - Scroll through the list of machine parameters to select “<b>Water conductivity</b>”.</p>	
<p>This displays screen 1466.</p> <p><b>Enable</b> - Touch the Enable box: the check mark indicates whether the probe is enabled or not. If the probe is disabled, the cycles run as though the probe is not installed.</p>	
<p><b>Threshold:</b> Touch the “±” button to enable the +/- buttons for adjusting the threshold value. Confirm the setting with the button at the bottom right.</p>	

#### 11.12.1 Purpose of the conductivity probe – optional component

	<p>The <b>conductivity probe</b>, part code <b>IC6010</b>, is an optional kit for determining the conductivity of the rinse water.</p> <p>The conductivity value is used to determine whether further rinses are necessary, depending on whether a given threshold has been satisfied or not.</p> <p>The accessory must be ordered together with the <i>instrument or glassware washer</i>, and can only be installed at the factory.</p>
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#### 11.12.2 Operation of the machine with the probe active: conductivity check function

To use the conductivity check function, the following must obtain:

1. The probe must be installed;
2. The conductivity threshold must be set;
3. The program must include a conductivity check, identified on the display as “*Cond. Check*”.

The standard factory programs are configured to include a conductivity check in the last rinse phase. Custom programs may be edited to include the conductivity check as necessary. In general, we recommend including the check in the last phase of the program, using demineralised water.  
For details on how to edit custom programs, refer to the device's user manual.

Operating mode during the cycle: the machine runs the conductivity check, in the appropriate phase, by comparing the **read value of K** with the **threshold value  $K_t$**  ( $t$ =threshold).

- If  $K < K_t$  - the result is positive and the phase continues normally.
- if  $K \geq K_t$  the chamber is emptied out and supplementary fill and rinse cycles are run (up to 3) until the read value falls below the threshold.

If the read conductivity is still not lower than the threshold at the end of the last rinse, the machine displays a warning. The message is saved and printed out in the report (if the printer is installed). The event is classified as a *WARNING (ID.95)*, not an alarm which stops the machine operating, and the cycle is considered a "Successfully completed cycle".

To obtain the best conductivity reading, the rinse water must be heated to a known reference temperature.

By default, the water is heated to 40°C for the purposes of the conductivity check.

If the water supply is hotter than 50°C, a higher reference temperature is used.

For this reason, if you use hot demineralised water, or a demi water boiler integrated into the machine, you must specify the custom cycles accordingly: for instance, it would not be correct to specify a water supply temperature setpoint of at most 50°C, if the water may already be supplied hotter than this value.

If you need to set a low temperature cycle, use a cold water supply, with a temperature range of 8-35°C.

### 11.13 TROLLEY CHECK – ID.14A0

*[The Trolley Check function can only be used if the "RACKREC" optional is correctly installed on the device, with the "MAGBAR" optional installed on the racks.]*

The purposes of this function are:

1. To allow detection of the presence of the rack in the chamber;
2. To recognise the rack type;
3. To associate a specific washing cycle to a specific rack.
4. To save the ID of the rack used on file and print it out.

Presence of the "Trolley Check" optional is set in the factory and can be verified by the authorised tech user.

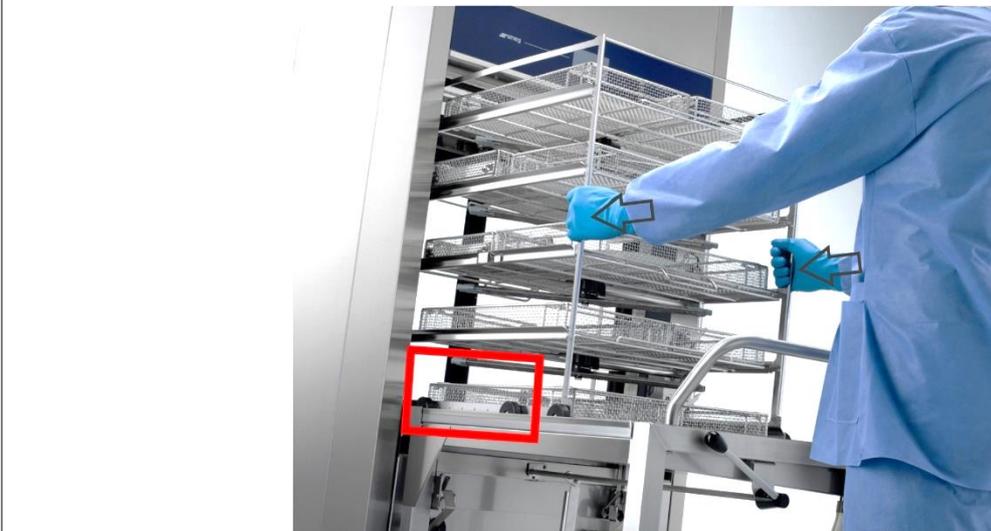
The operator – if he has a superuser password – can:

1. Enable or disable its operation;
2. Associate the relevant program to each coded rack.

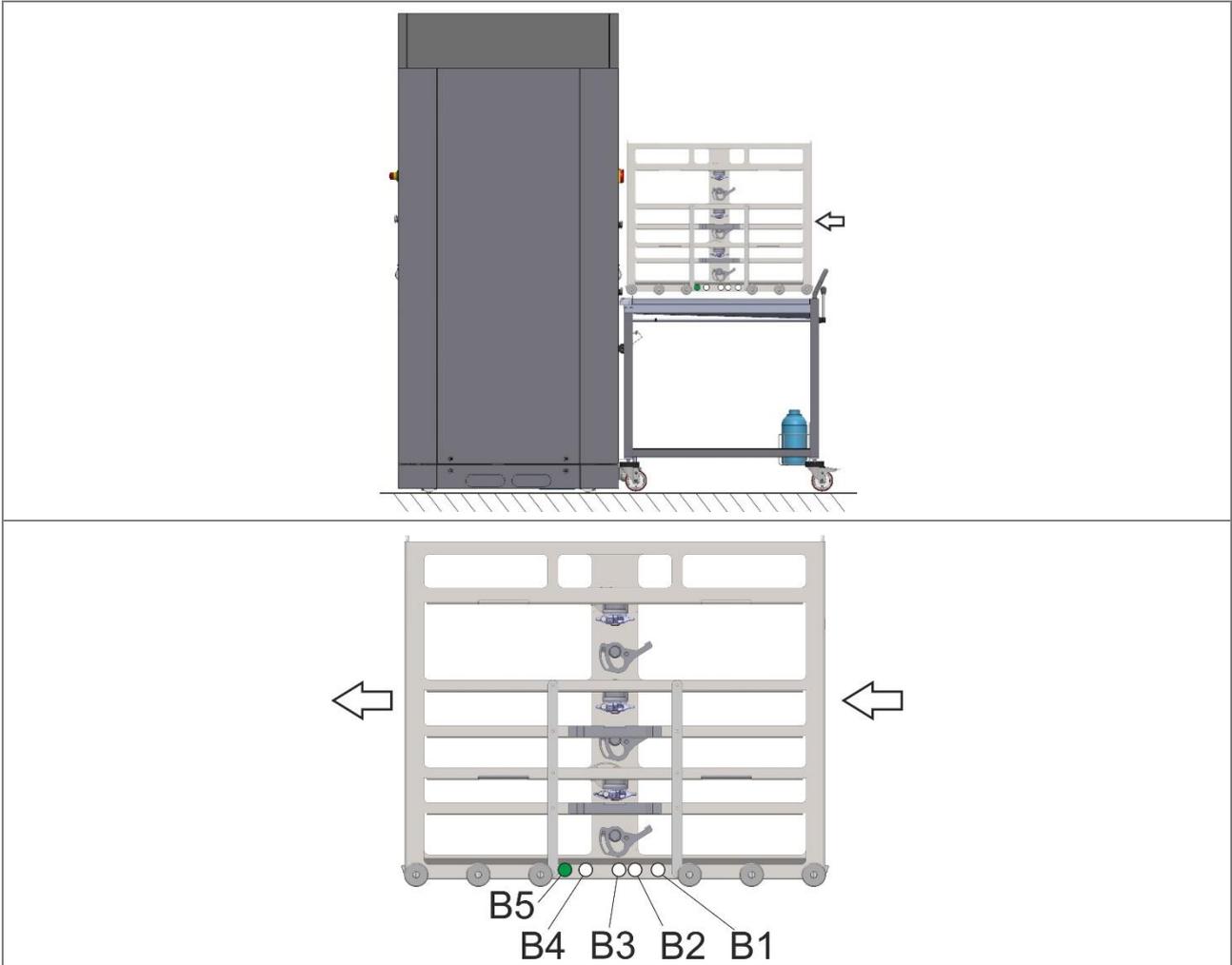
All racks for which the check function is to be used must be fitted with the relevant "MAGBAR" optional. After consulting the authorised tech user, the operator must assign the code to the racks directly, by arranging the magnetic elements of the optional accordingly.

N.B.: in alarms and on screens, the terms "Rack" and "Trolley" are used as synonyms.

The washing rack zone on which the coding magnets are installed are highlighted in the photograph below.



The photograph shows the rack viewed from the left, loading side. The arrows indicate the direction of loading in the washing chamber. B1, B2, B3, B4 and B5 are the elements used for setting the rack code.



**N.B.**

The “MAGBAR” optional consists of a set of magnets used to identify a washing rack via a code.

**The rack presence magnet (B5) must always be fitted on the rack.**

The other magnets must be arranged on the rack on the basis of the codes permitted by the manufacturer, as stated in the table provided below.

**Table of washing rack permitted codes and default names.**

Table of washing rack permitted codes and default names.								
Permitted codes [B1, B2, B3, B4].	1000	0100	0010	0001	0111	1011	1101	1110
Default name of coded rack	Rack_1	Rack_2	Rack_3	Rack_4	Rack_5	Rack_6	Rack_7	Rack_8
Element position in relation to the diagram above	○ ○ ○ ●	○ ○ ● ○	○ ● ○ ○	● ○ ○ ○	● ● ● ○	● ● ○ ●	● ○ ● ●	○ ● ● ●

**Example:**

Code "1000" means:

B1=1, B2=0, B3=0, B4=0

The first element, "B1", is fitted; the others are not.

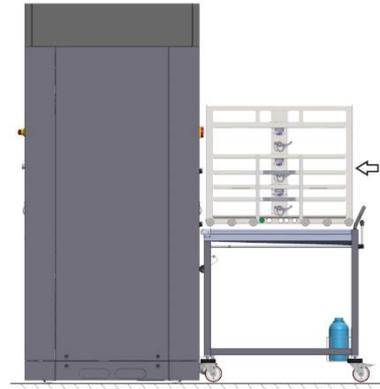
The following is the procedure used to activate the optional and associate the relevant program to your racks coded using the MAGBAR.

<p><b>Setup</b> - Press the bottom left button in the main screen to enter the Setup menu.</p>	
<p><b>Cycle Parameters</b> - Scroll through the options and select "Cycle Parameters".</p>	
<p>You will be prompted for a Superuser <b>password</b>.</p>	
<p>Select the "<b>Trolley Check</b>" option from the <b>Cycle Parameters</b> menu.</p>	
<p>This displays screen <b>14A0 - Trolley Check</b></p> <p><b>Enable</b> - Touch the Enable box: the check mark indicates whether the function is enabled or not.</p> <p>Depending on the type of "Rack-Washing Program" association, the operator has a choice of two operating modes:</p>	

- a) **Binding program:** the association is binding and it is not possible to perform a washing program different from the one associated to the rack loaded.
- b) **Suggested prog:** the association sets a suggested program for the process, but the operator is free to choose a different program by accepting the indication on the display. (The device's log records the operator override).

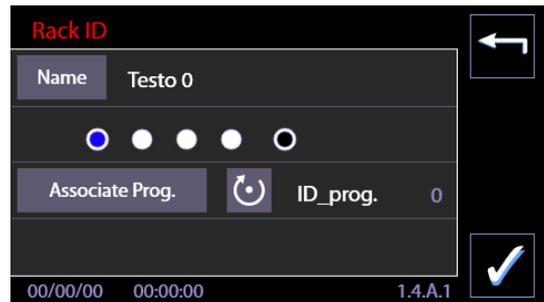
**To proceed** with the association:

- 1 - **Load the device with the relevant washing rack** already equipped with the MAGBAR optional.
- 2 - **Close the door.**
- 3 - **Press the "Read" button** in screen 14A0.

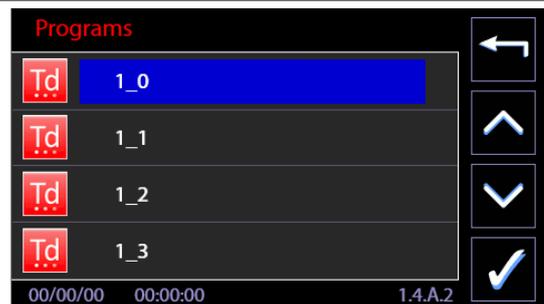


If the rack is read and recognised correctly, this accesses screen 14A1, where you can:

- 1 – **Associate an individual name** to the rack (by clicking the "Name" button).
- 2 – **Display the rack code.**  
[The bit on the far right of the screen relates to the status of the rack presence magnet (B5). The one on the far left is associated to the status of magnet B1].
- 3 – **Associate a preset program** to the rack, using the "Associate Prog." button.
- 4 – **Reset the association** between the program and the rack using the reset symbol button.
- 5 – **Display the ID of the program associated** to the rack "ID\_prog".

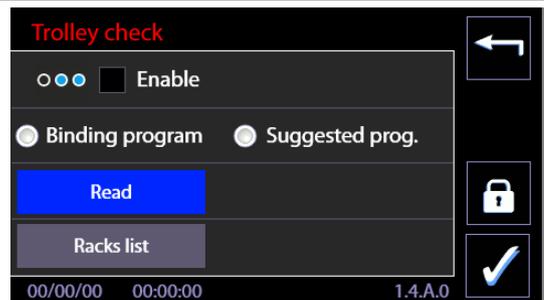


Pressing the "Associate Prog." button accesses the screen for selecting the program to be associated to the rack. Once the program has been confirmed, the display returns to screen 14A1.



**To associate other racks:**

1. Open the door and remove the rack loaded earlier.
2. Load a new rack, with a different code, and repeat the procedure starting from the **Trolley Check screen (screen 14A0)**, pressing the "Read" button to activate reading of the new code.



When all the coded racks available have been configured, the overall status of the associations can be viewed by pressing the "Racks list" button.	-
--	---

11.13.1 OPERATION WITH OPTIONAL ACTIVE – TROLLEY CHECK

The device's operation varies depending on the operating mode chosen by the superuser. There are two possible operating modes, depending on the settings: BINDING PROGRAM and SUGGESTED PROGRAM.

<p><b>A - "BINDING PROGRAM" mode:</b> the RACK - PROGRAM association is binding and it is not possible to perform a washing program different from the one associated to the rack loaded.</p>	
<p>1. <b>When the coded rack is loaded into the chamber:</b> the check screen (14A1) appears. It identifies:</p> <ul style="list-style-type: none"> <li>- The rack loaded ("Rack_2").</li> <li>- the associated program (ID_prog).</li> </ul>	
<p>2. <b>Confirm to access the cycle start screen.</b> Press the <b>Start</b> button to start the cycle.</p>	
<p>3. <b>If the rack code is not recognised:</b> a blocking alarm message is triggered. Accept the alarm message to return to the initial screen (Screen 1000).</p> <p>N.B.: when the racks to be used include uncoded racks, the "Suggested Prog." mode must be selected in the "Trolley Check" screen.</p>	

**B- "SUGGESTED PROG." mode:** the association sets a suggested program for the process, but the operator is free to choose a different program by accepting the indication on the display (the device's log records the operator override).

**When the coded rack is loaded into the chamber:**

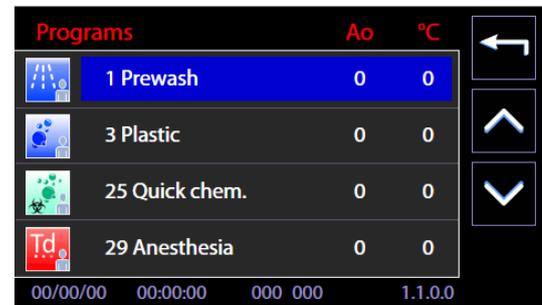
the check screen **14A1** appears. It identifies:

1. The rack loaded ("Rack\_1")
2. the associated program (ID\_prog).



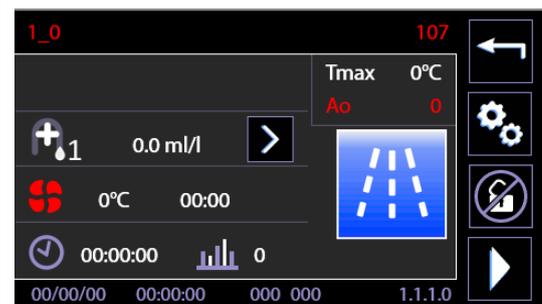
**To select a program other than the associated program: press button "P" to access the complete program menu.**

A program can be chosen from the list.

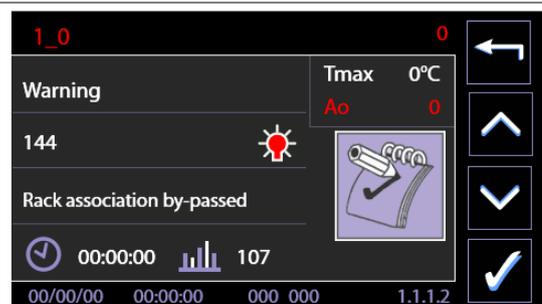


**Pressing the Confirm button in screen 14A1:**

gives direct access to the start screen of the program associated to the rack.



**Only if the program being started is different from the one associated to the rack, a warning message appears,** and the user must agree to it before proceeding. The event is saved in the log (and printed in the cycle report if a printer is installed).



### 11.14 SPRAY ARMS CHECK - ID 14A0

*[The Spray Arms Check function can only be used if the "ARMREC" optional is correctly installed on the device, with the "MAGARM" optional installed on the racks.*

*The firmware includes this function with effect from the Master CPU version 11.2.0, issued in February 2019.]*

The purposes of this function are:

1. to check that the spray arm rotation speed is correct;
2. to signal any spray arm rotation anomalies.

Presence of the "Spray Arm Check" optional is set in the factory and can be verified by the authorised tech user.

The operator – if he has a superuser password – can:

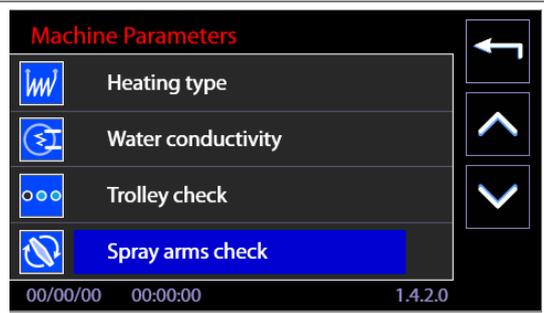
1. **Enable or disable its operation;**
2. **Select the optional's operating mode** from the two options available:
  - a) **Blocking** – device behaviour: if spray arm rotation speed anomalies are detected during the cycle, a **specific alarm message is triggered and the cycle is blocked** and is classified as failed.
  - b) **Non-Blocking** – device behaviour: if spray arm rotation speed anomalies are detected during the cycle, this is **only signalled at the end of the cycle**, via a **"warning"** message. The program is considered successfully concluded if no other anomalous events have occurred.

All racks for which the function is to be used must be fitted with the relevant "MAGARM" optional.

*The following is the procedure used to activate the optional.*

<p><b>Setup</b> - Press the bottom left button in the main screen to enter the Setup menu.</p>	
<p><b>Cycle Parameters</b> - Scroll through the options and select "Cycle Parameters".</p>	
<p>You will be prompted for a Superuser <b>password</b>.</p>	

Select the "Spray Arm Check" option from the Cycle Parameters menu.

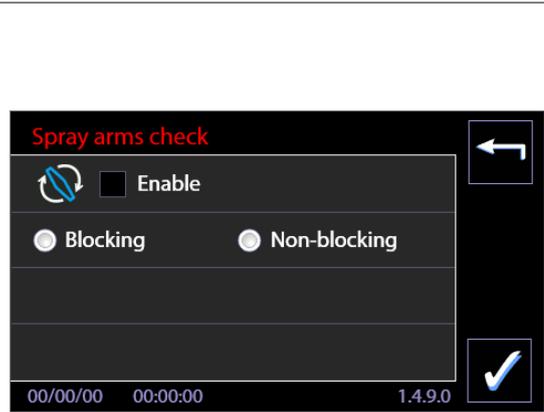


This displays screen 1490 - Spray Arm Check.

**Enable** - Touch the Enable box: the check mark indicates whether the function is enabled or not.

Operating modes:

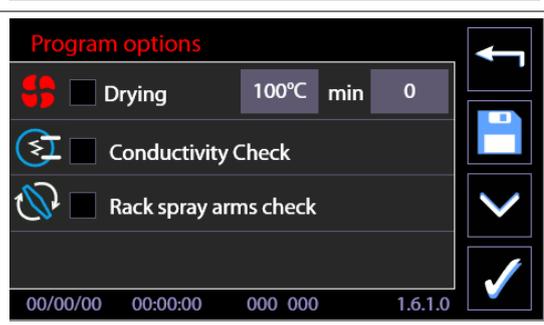
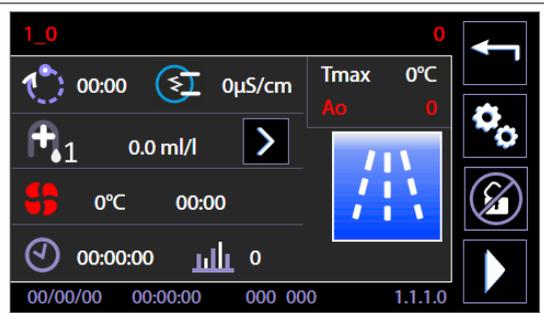
- a) **Blocking**: in the event of a spray arms check anomaly, the current cycle is blocked and an alarm message is triggered.
- b) **Non-blocking**: in the event of a spray arms check anomaly, a warning is given at the end of the cycle, which is still completed and is considered "successfully concluded".



**Note on the Cycle Options**

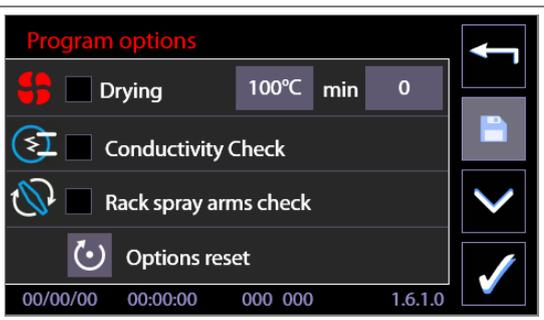
The operator is able to disable or enable the washing rack spray arms check for a specific cycle by removing the flag from the "Rack spray arms check" box. This setting can be used only for the cycle being started, or it can be saved as a program setting (the superuser level password is required to save it).

This option is provided to allow racks without the "MAGARM" optional to be used without triggering warnings or alarms.



**Cycle Options**

A new "Options reset" button is provided to eliminate cycle customisations and restore the default settings.



11.14.1 SPRAY ARMS CHECK – CYCLE IN PROGRESS

With the “Spray arms check” active and a cycle in progress, specific icons indicate the status of the check when it is active.

**Washing rack spray arms check status indicator icons**

<p>The icons are blue if the spray arms have reached the correct rotation speed.</p>	<p>The icons are grey if the spray arms have not reached the correct rotation speed.</p>	<p>Some levels are at the correct rotation speed (blue icons) and others have not reached the set speed (grey icons).</p>
		

**Cycle in Progress screen - Spray Arms Check active**

<p>The icons appear in "grey" if the spray arm rotation speed is below the threshold value set.</p>	<p>The icons appear in "blue" if the spray arm rotation speed is correct.</p>
	

The 4 icons are associated to the 4 levels monitored on the rack.

The upper and lower spray arms mounted directly on the chamber are also monitored, but their status is not displayed in the cycle in progress screen.

**Note - Levels identification on the Rack:**

- Level A is the lower level of the washing rack.
- Levels B and C are the intermediate levels.
- Level D is the upper level.

### 11.15 AUTOMATIC OPERATION - ID.146B

This screen can be accessed by superuser level or above and allows activation of some device automatic mechanisms associated to opening and closing of the doors. N.B.: the screen is only accessible for devices with sliding doors.

<p><b>Cycle Parameters</b> - Scroll through the options and select "Cycle Parameters".</p>	
<p>You will be prompted for a Superuser <b>password</b>.</p>	
<p>Select the "<b>Automatic Operation</b>" option from the <b>Cycle Parameters</b> menu.</p>	
<p><b>The following options can be activated for automatic operation:</b></p> <ol style="list-style-type: none"> <li><b>1. Opening at end of cycle</b></li> <li><b>2. Automatic closing</b></li> <li><b>3. Automatic start</b></li> </ol> <p><b>Opening at end of cycle</b> If the option is active, the unloading door is opened automatically at the end of a successfully completed cycle.</p> <p><b>Automatic closing</b> If selected: once the rack has been loaded into the device correctly, after a short waiting timeout closure of the loading door is activated automatically. [This option can only be activated correctly if the "Trolley check" optional is installed, enabling the device to detect the rack's presence and position].</p> <p><b>Automatic start</b> If selected, it means that the washing cycle is started with no intervention from the user except correct loading of the rack. [It is only visible and can only be activated if the "Trolley check" optional is present with "Binding program" operating mode].</p>	

11.15.1 MANAGEMENT OF AUTOMATIC LOADING AND UNLOADING SYSTEM - CB7015

The Smeg CB7015 product ("CB" stand for "Conveyor Belt") is a system for the automatic loading and unloading of washing trolleys in the chamber of Smeg WD7015 devices (washer-disinfectors for medical use).

They subdivide into:

- Loading side systems, CB7015L ("L" for "Loading")
- Unloading side systems, CB7015U ("U" for "Unloading")

Please refer to the specific manual of the CB7015 product and the "Installation requirements" document for operating details and technical characteristics.

The parameters of the WD7015 device must be suitably set, preferably in the factory, to control the automatic system.

The *superuser*: can verify and modify the parameters associated to enabling of the system and automatic operation of the device. The "Automatic operation" screen, already featured, has additional functions to control the CB7015 system. These are only accessible to the *superuser* level (and above).

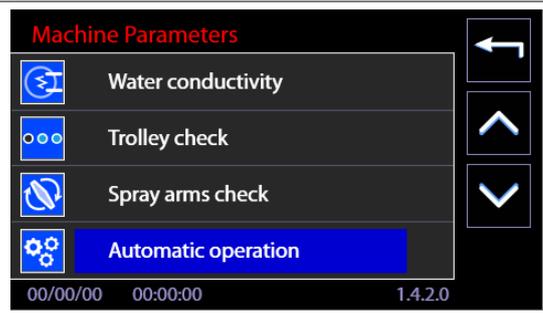
The tech user: can access the automatic operation diagnostic screens to monitor the input and output signals for communication between the washer-disinfectors and the external CB7015 devices.

In this documentation, and in the manuals supplied with the product, the CB7015 may also be referred to as the "conveyor belt".

11.15.1.1 CB7015 AND AUTOMATIC OPERATION – ID.146B - 146C

<p><b>Cycle Parameters</b> - Scroll through the options and select "Cycle Parameters".</p>	
<p>You will be prompted for a Superuser <b>password</b>.</p>	

Select the "Automatic Operation" option from the Cycle Parameters menu.



**The following options can be activated for automatic operation:**

- 1. Opening at end of cycle**
- 2. Automatic closing**
- 3. Automatic start**

**Opening at end of cycle**  
If the option is active, the unloading door is opened automatically at the end of a successfully completed cycle.

**Automatic closing**  
If selected: once the trolley has been loaded into the device correctly, after a short waiting timeout closure of the loading door is activated automatically. [This option can only be activated correctly if the device is fitted with the RACKREC "Trolley recognition" optional, which enables the device to detect trolley presence and position. The trolley must be fitted with the MAGBAR coding and recognition system].

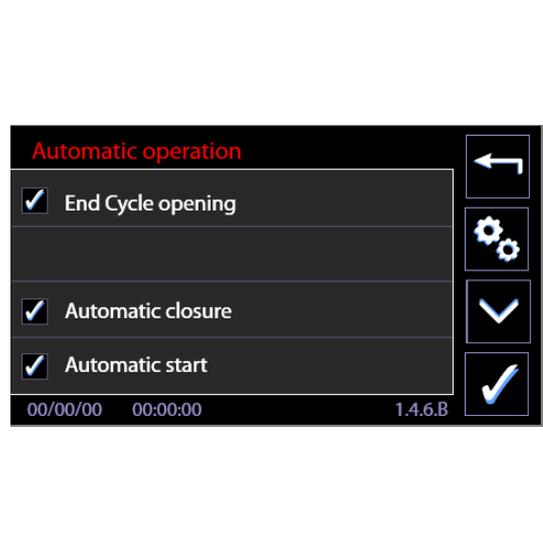
**Automatic start**  
If selected, it means that the washing cycle is started with no intervention from the user except correct loading of the trolley. [It is only visible and can only be activated if the "Trolley recognition" optional is present with "Binding program" operating mode].



**If the CB7015 automatic system is installed, the recommended setup for the Automatic Operation function is with all options enabled, as shown here.**

**N.B.: it is only with all the options enabled that the system is able to operate in fully automatic mode, with no user intervention to open/close the doors and start the cycle.**

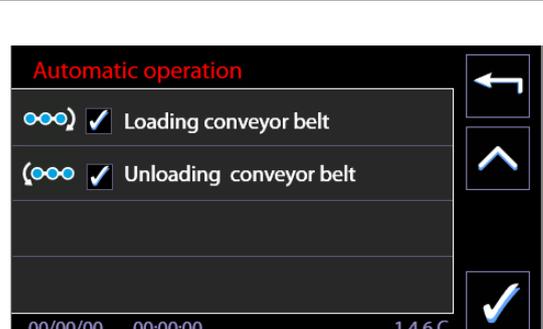
If the CB conveyor belt is correctly installed in the device, the "Down arrow" button appears in screen 146B. Press the "Down arrow" button to access the screen for enabling/disabling operation of the system, screen 146C.

In screen 146C, the superuser can choose whether to enable or disable the automatic systems.

If they are present and enabled, the systems automatically load and unload the washing trolley in the device.

If disabled, the systems can be left in place, deactivated as described in the CB7015 manual (the mobile covers of the turrets must be moved into position to disengage the trolley pulling and pushing hooks).



**If CB7015 systems are installed: the flags of the two options shown below should be kept active.**

The flags can be removed in case of a conveyor belt malfunction. The settings relating to automatic operation of the device, as described above, can be kept active.

11.15.2 AUTOMATIC OPERATION and ENERGY MANAGEMENT SOFTWARE – ID.146B - 146C

<p>Go to the automatic function enabling screen.  <b>Removing the flag from “Energy Management Priority”, the superuser can disable the direct control of the Energy Management software: the device can start irrespective of the software signals.</b></p>	
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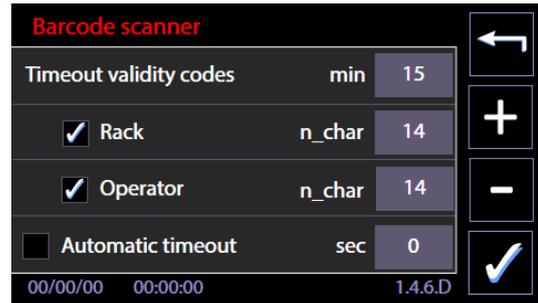
11.16 BARCODE SCANNER - SUPERUSER PARAMETERS

Description	Illustration
<p>The <b>superuser</b> can modify the <b>parameter settings</b> associated to the barcode scanner as required.                      Access Setup -&gt; Machine Parameters                      [The Superuser password has to be entered].</p>	
<p>Select “Barcode Scanner”</p>	

The Superuser can modify the parameters available:

- **Code validity timeout:** the time in minutes available from acquisition of the codes to closing of the door. If the door is not closed by the end of the timeout, the codes are automatically reset and must be reacquired (guideline time max 15 min.).
- **Rack:**
  - The **Flag** enables/disables the need for a rack code before the cycle can be started.
  - **n\_char:** number of alphanumeric characters in the rack code (max 14)
- **User:**
  - The **Flag** enables/disables the need for a user code before the cycle can be started.
  - **n\_char:** number of alphanumeric characters in the code (max 14)
- **Automatic timeout:** time after which the screen automatically switches, once the codes have been acquired.
  - **Flag:** enables automatic switching to the next screen.
  - **Sec:** the seconds for which the acquisition screen is retained before switching to the next screen.

*Default values for number of characters: 13 for both user and rack codes.*



### 11.17 SIGNAL BOX, OPTIONAL prod. Ref. "WD-SIGNBOX"

[The "Signal Box" can only be used if the "WD-SIGNBOX15" optional is correctly installed on the device.]

The **WD-SIGNBOX** is an optional for the remote communication of information regarding the device's operating status. It can be installed on WD7015 models.

The purpose of this optional is to enable **communication to a remote system of the relevant operating statuses**, so they can be made available to independent remote systems (not supplied by the producer as standard).

**Functional implications:** the optional does not affect the device, but only the information made available remotely.

	<p>A WD7015 model can only be equipped with this optional in the factory. The "WD-SIGNBOX" cannot be installed on-site.</p> <p>The optional must be configured on-site by electricians authorised to work on the facility's electrical system, in accordance with the instructions of the producer's authorised engineers.</p> <p>The optional provides 3 remote communication contacts to be set up by the superuser depending on the statuses available and of interest.</p>
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Description	Illustrations
<p>The superuser can set up the signals associated with the WD-SIGNBOX.</p> <p>This is done by accessing "Setup" model and selecting "Machine Parameters".</p> <p>[The Superuser password has to be entered].</p>	
<p>The user can associate the status of interest, indicated by the product, to each of the 3 signals available.</p> <p>Statuses available:</p> <ul style="list-style-type: none"> <li>- <b>Warning</b> -&gt; the contact closes when a Warning signal is active</li> <li>- <b>Alarm</b> -&gt; the contact closes when the device is in alarm status</li> <li>- <b>Cycle On</b> -&gt; the contact closes when the cycle is running</li> <li>- <b>Null</b> -&gt; the contact is always open, irrespective of the device's status.</li> </ul>	

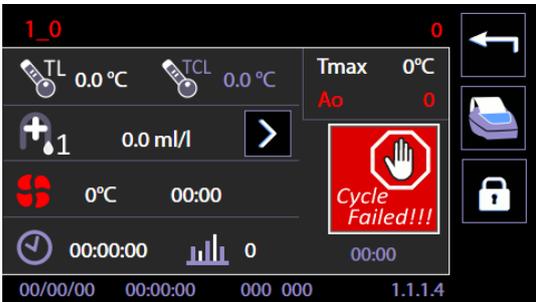
Description	Illustrations
<p>All the signals can be set as “Null”, i.e. inactive: in this case, the 3 contacts available are always open and no information about the device's status is provided remotely.</p>	

## 12 ALARMS and WARNINGS

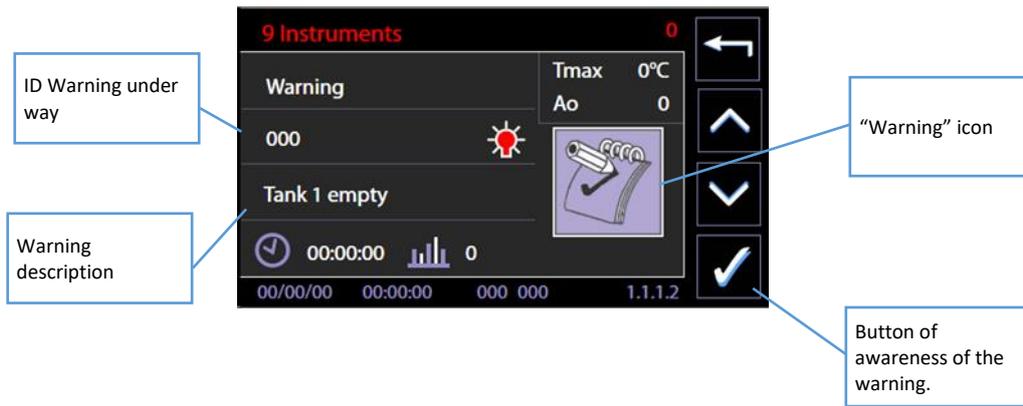
The present paragraph provides instructions to interpret alarm signals and undertake possible countermeasures, information provided in compliance with 5.4.4.j IEC61010-2-040.

The signals associated with unexpected operation are separated into two groups, according to the seriousness:

1. **Warnings:** they consist of signals **provided to users, who must acknowledge them** (e.g. lack of detergent signal). The user must act accordingly to the provided signal, in order to restore the right conditions (E.g. replacement of the exhausted detergent jerrycan with a new jerrycan of the same product).
2. **Alarms:** signals of device malfunctioning. Alarms imply the interruption of the ongoing cycle and the warning to the user. The user must consult the alarms table in the present handbook to take the advised measures.
3. **Blackout** – power failure.
  - a. In case of power failure – case “washing cycle in progress”: when the power supply resumed the device behaves as if the cycle had been interrupted by the user. The machine automatically handles the situation, with a reset cycle which involves the discharge of water from the tank, water loading for sump washing, and final discharge, with a total recovery time of approximately 4 minutes (ID 1115 screen). After the restore, the interface offers the "End of cycle Failed" screen to give clear indication that the cycle, earlier in course, has not completed successfully.
  - b. In the event of a blackout – case “no cycle in progress”: when the power supply resumed, the graphical interface of the device returns to the home screen (ID 1.0.0.0), without any particular actions/activations of input / output.

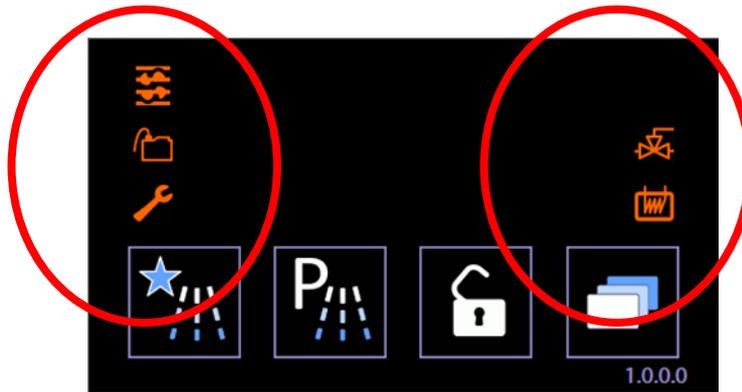
	
<p>A – Cycle interrupted: the device manages automatically the recovery phase.</p>	<p>B - After a recovery from blackout, the 1114 screen appears, indicating that the current cycle failed.</p>
<p>After an electric blackout, the device handles the unexpected interruption and, at the end, offer the screen “Cycle Failed”.</p>	

12.1 WARNING – ID 1.1.1.2



Warnings are provided:

1. At the start of the selected cycle, through the screen shown above.
2. Most common warnings are also displayed on the home screen when the device is started.



Example of home screen where icons related to the most common warnings are visible on the left.

SYMBOL	MEANING
	<p><b>Lack of detergent</b></p> <p>The indicator on the main screen only turns on if detergent level sensors are installed and one of them is at the “minimum” level.</p> <p>Warning codes associated with lack of detergent are:</p> <p>P1: displayed code “68”                      P2: code “69”                      P3: code “70”                      P4: code “71”                      P5: code “72”</p> <p>The warning is provided at the start of a new washing cycle: please replace the exhausted jerrycan with a new one, and then return to the device normal functioning.</p> <p>By such warning active on the device, the wash cycle can still start: just ignore the warning by pressing the <b>Start button</b> again.</p> <p>When two or more similar warnings are on screen (e.g. jerrycans P1 and P2 empty), it is necessary to press the <b>Start button</b> more than once to make the cycle begin. The internal memory of the device stores the event but allows the cycle to continue.</p>

SYMBOL	MEANING
	<p><b>Maintenance: drying filter replacement</b></p> <p>This warning is active if the dryer and the absolute filter are installed. The LED indicates that the absolute filter must be replaced.</p> <p>This warning refers to the operating hours of the drying system, set up at 500h. After this time, a new filter is required. The replacement operation must be done by authorized staff. Continuing to use an exhausted filter may compromise the drying results. If the filter is obstructed, the drying air range decreases.</p> <p>The useful life of the filter can last less than the default 500h, depending on the dirt level of the environment. If the drying performances decline, it is advisable to request a filter replacement in advance. This warning signal refers to a wear only if related to the effective operating hours.</p>
	<p><b>Machine maintenance</b></p> <p>The device monitors the cycles and warns the user about the machine periodical maintenance by LED activation.</p> <p>These are control and maintenance operations, accomplished every 1000 cycles, which must be performed by authorized staff in order to maintain the machine efficient and safe. Such maintenance operation is not covered by product warranty, which does not imply the replacement of parts, when their performances decline as results of normal operating wear.</p>
	<p><b>Boiler installed, functioning in By-pass mode.</b></p> <p>The machine functions correctly while performing the cycle, but the boiler is bypassed. The authorized technician must verify the correct settings of the device.</p>
	<p><b>Boiler is full when the machine is started – emptying boiler cycle is recommended.</b></p>

12.1.1 WARNINGS LINKED TO CB7015

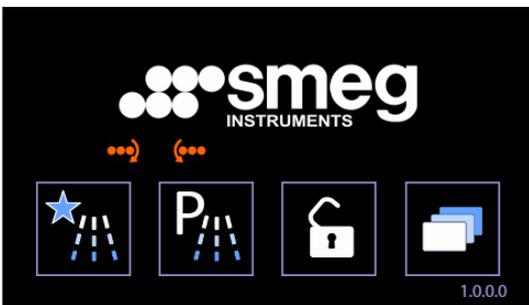
New Warnings are added if the automatic loading and unloading systems are installed. The automatic loading and unloading systems communicate with the WD7015 device and signal any malfunctions or status information.

With one of the warnings active: the device's electronic control temporarily disables the associated automatic system (e.g., if the anomaly relates to the CB7015L, only loading side control is disabled). However, the conveyor belt enabling parameter is not modified: if the conditions which triggered the Warning are corrected, operation is reactivated and the warning lights go out.

If the system is temporarily disconnected/switched off: the Warning appears, but operation restarts as soon as the connection is restored.

The device continues to operate with one of the two warnings active, except for the automatic operation part.

The malfunction is signalled by means of the relative icons on the home screen of the device (screen 1000).



SYMBOL	MEANING
	Loading system CB7015L malfunction.
	Unloading system CB7015U malfunction.

12.1.2 ECO EXCHANGER WARNING - WD7015TECO

<p>The icon signals malfunctions related to the heat Eco Exchanger and automatic disabling of the same. If the icon is on: the Eco Exchanger is disabled. The machine runs the washing cycle exactly as the component was not installed.</p>	
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### 12.1.3 WARNING RELATED TO THE ENERGY MANAGEMENT SOFTWARE

The following icons refer only to installations combined with the Smeg “Energy Management” software.

Description	Illustration
<p>If the program activates the <b>emergency system operating mode</b>, the specific icons appear.  <b>The plain “Energy Management” icon</b>, as shown on the right, means that the <b>system is activated and there is sufficient power</b> to start any of the cycles available.</p> <p>[Go to initial screen 1000 to display the En.Man. icons.]</p>	
<p>“Energy Management” active icon (“plug+lightning streak”)</p>	
<p><b>Operation if power is not available</b></p> <p>The system classifies emergency electricity supply situations on the basis of thresholds.</p> <p>If there is not enough power to start any one of the cycles available on the device, a warning sign (triangle and explanation mark) appears next to the icon of the cycle concerned.</p>	
<p>“<b>Power not sufficient</b>” icon: appears if the electrical power available in the system is below the maximum power required by the device.</p> <p>It may be possible to start the device, for example for low-power cycles.</p>	
<p><b>If the network connection between the device and the energy management system is not functioning correctly</b>, the device cannot receive consent to start the program and remains in <b>lockout status</b>.</p> <p>In this condition, there is a bar across the specific network icon.</p>	
<p>With Energy Management Priority deactivated: the relative icon disappears from the initial screen. The network connection icon is still visible:</p> <ul style="list-style-type: none"> <li>- Bar across icon: network connection not working.</li> <li>- Icon free (no bar): network connection restored.</li> </ul>	

**If possible, the system should not be disabled.**

The Energy Management system is structured to enable a set of devices to operate with a limited power threshold.

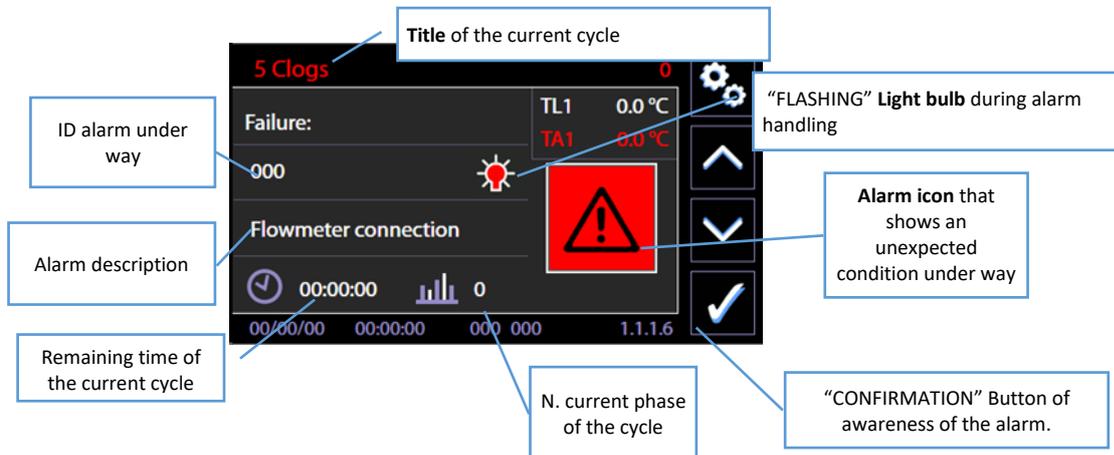
Disabling the program's control function may lead to power draws not compatible with an ongoing emergency.

When the network connection is restored, reactivate the Energy Management Priority.



## 12.2 ALARMS – ID 1.1.1.6

A screen with related icon specifies the arising of an alarm.



### ARISING OF ALARMS – READ CAREFULLY

By arising of an alarm, the device tends to activate safety conditions.

**When an alarm arises it is necessary to: read carefully in the table the code meaning and the applicable countermeasures. Adopt advised countermeasures case-by-case.**

The typical actions charged to the user are, for simplicity, hereinafter summarized:

#### 1. DEFAULT ACTION

The event that provoked the alarm may be caused by a temporary anomaly.

**Wait until the device independently manage the anomaly to restore safety conditions. The "light bulb" icon flashes during handling. It is steady on after the management has finished. At the end of the handling, the "CONFIRMATION" button and the "tick" symbol appear on the screen. The user can select it to accept and confirm awareness. Press the "CONFIRMATION" button.**

#### 2. RECOVERY ACTION

**Wait until the device independently manage the anomaly to restore safety conditions. At the end of the management, the "CONFIRMATION" button and the "tick" symbol appear on the screen and the user can select it to confirm awareness. Press the "CONFIRMATION" button. Please switch off through power disconnecter switch and switch on again through the same device. (Please wait at least 10 seconds from the switching off and the following reactivation).**

#### 3. SAFETY: In the case the alarm, even after the procedures, persists.

1. Turn off the water supply valves.
2. Disconnect the device electrical supply.
3. Verify that the device connection conditions (water and electrical conditions) are correct and that no variations occurred, as compared to the initial installation conditions.
4. Contact technical support.

ID.	DISPLAYED MESSAGE - FAILURE	USER ACTION
<b>ID1</b>	"Water heating failed"	. For the user: perform <b>DEFAULT ACTION</b> as described above. If the alarm doesn't stop, perform the <b>RECOVERY ACTION</b> .
<b>ID2</b>	"TD: Temp. offset TL1-TCL"	
<b>ID4</b>	"Overtemperature TL1"	
<b>ID5</b>	"Failure: Probe TL1"	
	Tank work Probe	
<b>ID9</b>	"Failure: Chamber temperature"	The problem may relate to the steam control solenoid valve. Always take the greatest care to act in conditions of safety. Check that the steam connection has been made correctly and the conditions (temperature, pressure) of the steam in the system.
<b>ID10</b>	"Failure: Probe TCL" Tank Control Probe	For the user: perform <b>DEFAULT ACTION</b> as described above. If the alarm doesn't stop, perform the <b>RECOVERY ACTION</b> .
<b>ID11</b>	"Lack of cold water"	<b>Check the water supply:</b> <ol style="list-style-type: none"> <li>1. Check that the water inlet valve is open.</li> <li>2. Check the supply water pressure.</li> <li>3. Check that the charging hoses are placed correctly.</li> </ol> Perform <b>DEFAULT ACTION</b> as described above. If the alarm doesn't stop, perform the <b>RECOVERY ACTION</b> .
<b>ID12</b>	"Lack of hot water"	
<b>ID13</b>	"Lack of Demi water"	Check the water supply – demi water: <ol style="list-style-type: none"> <li>1. Check that the water inlet valve is open.</li> <li>2. In case of water inside a reservoir (with PAD accessory) verify that it isn't empty or it isn't placed high enough.</li> <li>3. Check the supply water pressure.</li> <li>4. Verify that the settings and the hydraulic connections are consistent with each other (presence or lack of demi water).</li> </ol> Perform <b>DEFAULT ACTION</b> as described above. If the alarm doesn't stop, perform the <b>RECOVERY ACTION</b> .
<b>ID17</b>	"Failure: Cold water load time"	Countermeasures similar to <b>ID11</b> .
<b>ID18</b>	"Failure: Hot water load time"	
<b>ID19</b>	"Failure: Demi water load time"	
<b>ID22</b>	"Failure: Flowmeter cold water"	

ID.	DISPLAYED MESSAGE - FAILURE	USER ACTION
ID25	"Failure: Hydraulic circuit pressure"	<p><b>.Remove the chamber filter unit and clean it thoroughly (see specific section).</b></p> <p><b>.Check the correct arrangement of the load:</b> the load must not be arranged so as to hold water in suspension.</p> <p><b>.Evaluate an increase in the water load</b> recalled per phase / by cycle, in particular for the washing and thermal disinfection phases.</p> <p>.Possible presence of foam in the tank. Check the type of detergent used.</p> <p>.Particularly dirty materials might cause excessive foaming: repeat a washing cycle, use one with initial prewash.</p> <p>For the user: perform <b>DEFAULT ACTION</b> as described above. If the alarm does not stop, perform the <b>RECOVERY ACTION</b>.</p>
ID29	"Failure: Washing chamber drainage"	Verify the water drainage connection, in particular its position compared to that specified, and any narrowing in the drainage pipes.
ID32	"Failure: Sump full"	<p>For the user: perform <b>DEFAULT ACTION</b> as described above. If the alarm doesn't stop, perform the <b>RECOVERY ACTION</b>.</p> <p>In case of leakage: turn the water supply valves off immediately and contact technical support.</p>
ID37	"Failure: T_target drain" [Warning - at the end of the cycle]	<p>The use of a mixture of water is an option adopted in special cases to cool the water discharged into the drain. Check:</p> <ol style="list-style-type: none"> <li>1. The intake water temperature; if the water is not cold enough (recommended <math>T &lt; 25^{\circ}\text{C}</math>) there may be difficult in achieving the target temperature.</li> <li>2. Problems with drain; check that the hoses and drain connections meet the specified requirements.</li> </ol>
ID38	"Failure: Drain cooling" [Warning - at the end of the cycle]	<p>- Check that the temperature of the inlet cold water is low enough to perform a mixed drainage.</p> <p>- Check that the settings of mixed drainage are correct, increase the threshold temperature if necessary.</p>

ID.	DISPLAYED MESSAGE - FAILURE	USER ACTION
ID41	"Failure: Detergent 1 inflow"	<ol style="list-style-type: none"> <li>1. Check if the detergent dip tube is correctly placed in the jerrycan</li> <li>2. Check for any detergent leakage, highlighted by detergent stagnation close to the machine.</li> <li>3. Check that dip tubes are placed correctly, <b>not compressed</b>.</li> </ol> <p>The code corresponds to a <b>warning</b>, it is not a blocking alarm. It is possible for the machine to continue operating by pressing button Start/Stop.</p>
ID42 ... ID45	Similar to above, for detergents 2, ..., 5.	Proceed in the same way as ID41.
ID46	"Pump 1 tube clogged"	Countermeasures similar to ID41.
ID47... ID50	Similar to above, for detergents 2, ..., 4.	Countermeasures similar to ID41.
ID62	"Heating thermostat ON"	<p>Remove the chamber filter unit and clean it thoroughly (see specific section).</p> <p>Perform <b>DEFAULT ACTION</b> as described above. If the alarm doesn't stop, perform the <b>RECOVERY ACTION</b>.</p>
ID68	"Jerrycan P1 empty"	<p><b>Check for detergent in the relative jerrycan</b> or for the correct operation of the level sensor.</p> <p>This is a signal, not a real alarm; it is still possible to start the washing cycle ignoring the signal and pressing <b>Start</b> again.</p> <p>The signal is activated when attempting to start a new program. (The internal memory of the device stores the event but allows the cycle to continue).</p>
ID69 ... ID72	"Tank P2 empty" Similar to ID68 per P2, P3, P4, P5.	Similar to "ID68"
ID73	"Memory error"	Perform <b>DEFAULT ACTION</b> as described above. If the alarm doesn't stop, perform the <b>RECOVERY ACTION</b>
ID78	"Recovery failed"	
ID79	"Program not coherent"	<p>The alarm activates at the start of the cycle, if the program refers to a peristaltic pump which is not included in the equipment parameters.</p> <p>Verify that the performed programs are congruent with the actually installed configuration.</p>
ID80	"Failure: Hot water flowmeter"	Countermeasures similar to <b>ID11</b>
ID81	"Failure: Demi water flowmeter"	Countermeasures similar to <b>ID11</b>
ID92	"Change dry filter"	Warning: contact the assistance to replace the dryer filters. The signal might be temporarily bypassed pressing the confirmation button.
ID93	"Maintenance requested"	Warning: contact the assistance to perform the ordinary maintenance. The signal might be temporarily bypassed pressing the confirmation button.

ID.	DISPLAYED MESSAGE - FAILURE	USER ACTION
ID95	"Warning: Water conductivity"	<p>The value measured by the conductivity probe is higher than the threshold value set.  <math>K \geq K_t</math></p> <p>If <math>K \geq K_t</math> the water in the chamber is pumped out and filling and rinsing is repeated until the value read is below the threshold value. The Warning is given if the conductivity read is not below the threshold value after the last attempt.</p> <ul style="list-style-type: none"> <li>.Check that the threshold value set is correct.</li> <li>.Check the conductivity of the incoming demineralised water.</li> <li>.Check the compatibility of the programme on which the conductivity check is being performed.</li> </ul>
ID96	"Chamber pressure switch PLV"	<p>For the user: perform <b>DEFAULT ACTION</b> as described above. If the alarm doesn't stop, perform the <b>RECOVERY ACTION</b>.</p>
ID97	"Failure: Unsteady pressure PAP1"	<ul style="list-style-type: none"> <li><b>.Remove the chamber filter unit and clean it thoroughly</b> (see specific section).</li> <li><b>.Check the correct arrangement of the load:</b> the load must not be arranged so as to hold water in suspension.</li> <li><b>.Evaluate an increase in the water load</b> recalled per phase / by cycle, particularly for the washing and disinfection phases.</li> <li>.Possible presence of foam in the tank: check the type of detergent used.</li> <li>.Particularly dirty materials might cause excessive foaming: repeat a washing cycle, use one with initial prewash.</li> </ul> <p>[ Causes and remedies as for ID.25 ]</p>
ID98	"Failure: Pressure switch PAT"	Verify the drain connections.
ID125	"Hydraulic circuit pressure PAP2"	Countermeasures similar to ID25.
ID127	"Failure: Unsteady pressure PAP2"	<ul style="list-style-type: none"> <li><b>.Remove the chamber filter unit and clean it thoroughly</b> (see specific section).</li> <li><b>.Check the correct arrangement of the load:</b> the load must not be arranged so as to hold water in suspension.</li> <li><b>.Evaluate an increase in the water load</b> recalled per phase / by cycle, particularly for the washing and disinfection phases.</li> <li>.Possible presence of foam in the tank: check the type of detergent used.</li> <li>.Particularly dirty materials might cause excessive foaming: repeat a washing cycle, use one with initial prewash.</li> </ul> <p>[ Causes and remedies as for ID.25 ]</p>

#### Spray arm rotation alarm messages [130-135]

These events trigger an alarm message and stop the cycle if the "Spray Arms Check" function is set in "Blocking" mode.

ID.	DISPLAYED MESSAGE - FAILURE	USER ACTION
130	Chamber lower spray arm fault	With a cycle in progress, water intake complete, fault if: $spray\_arm\_rpm < threshold\_rpm$ If the rotation speed of a spray arm is not correct, check: 1. That no parts of the load are obstructing rotation. 2. For foam in the chamber, due to the type of dirt or the type and amount of detergents used. 3. Water circuit malfunctions. 4. Check the condition of the rack and spray arms.  The check verifies rotation of 4 levels on the rack. Some racks may not have one of these levels, so the relative alarm message/warning will be triggered.
131	Chamber upper spray arm fault	
132	Lev. A Spray Arm Fault [ level A is the bottom level of the washing rack].	
133	Lev. B Spray Arm Fault	
134	Lev. C Spray Arm Fault	
135	Lev. D Spray Arm Fault [ level D is the top level of the washing rack].	
<b>Alarm messages associated to the Trolley Check function (in alarm messages and on screens, the terms "Rack" and "Trolley" are used as synonyms).</b> The alarm messages and warnings from ID.142 to ID.146 only emerge if the "Trolley Check" optional is installed and enabled.		
142	Fault: Not recognised rack	A rack code is considered "not recognised": - If the code is not one of those permitted, or - It is a permitted code but is not associated to a program. The event is classified as an alarm if the rack-program association is "binding program" type. 1. Check the association between the code being used and the program. The program must have been actually installed on the device. 2. Warning: during firmware updates, if the identifier "IdProg" of the programs changes, the operator must set the association again. 3. Re-check the settings of the "Trolley check" function.
143	Warning: Not recognised rack	Event as per ID.142, but with "Suggested Program" rack-program association. Remedies as per ID.142.
144	Warning: Rack association by-passed	Occurs if the user selects a program different from the one associated to the rack. "Suggested Program" type rack-program association. No remedies; simply a warning to the user, which is also saved in the log.

ID.	DISPLAYED MESSAGE - FAILURE	USER ACTION
145	Fault: Program disabled	The program associated to the rack is disabled. If the rack-program association is of "Binding Program" type, the program cannot be started. Enable the program using the menus, or associate a new program. See "Enable program" menu option. If the association is of "Suggested Program" type, a new program can be selected. When the start command is given, warning 144 will be triggered; the operator can accept it to continue.
146	Fault: IdProg incorrect association	The program (IdProg) to which the rack is associated is not installed in the device. Further to an update of the CPU firmware or the set of custom programs, the identifier (IdProg) of the program associated to the Rack has been deleted. Check the rack-program association settings.
<b>DRYER 1 ALARMS: FROM ID200 -&gt; ID219</b>		
ID200	"Failure: Drying 1 heating"	.Check status of air filters. Perform <b>DEFAULT ACTION</b> as described above. If the alarm doesn't stop, perform the <b>RECOVERY ACTION</b> .
ID201	"Safety switch Drying 1"	
ID203	"Failure: probe TA1" Drying 1 Probe	
ID204	"Failure: Blower1"	
ID207	"Overtemperature TA1"	
<b>DRYER 2 ALARMS: FROM ID220 -&gt; ID239 (only where installed)</b>		
ID220	"Failure: Drying 2 heating"	.Check status of air filters. Perform <b>DEFAULT ACTION</b> as described above. If the alarm doesn't stop, perform the <b>RECOVERY ACTION</b> .
ID221	"Safety switch Drying 2"	
ID223	"Failure: probe TA2" Drying 2 Probe	
ID224	"Failure: Blower2"	
ID227	"Overtemperature TA2"	
<b>BOILER DEMI ALARMS: FROM ID300 -&gt; ID319 (valid only if boiler is present)</b>		
ID300	"Failure: probe TBD" (Boiler "demi" temperature probe: anomalous signal)	Perform <b>DEFAULT ACTION</b> as described above. If the alarm doesn't stop, perform the <b>RECOVERY ACTION</b>
ID301	"Failure: Demi Boiler heating"	
ID302	"Failure: TBD demi boiler overtemp."	
ID304	"Failure: Demi boiler safety switch"	
ID310	"Failure: Demi boiler drain fail"	
ID311	"Failure: Demi boiler water level fail"	
ID312	"Failure: Demi boiler water level fail" (anomaly in water supply)	
ID314	"Boiler demi disabled"	Warning: contact the assistance to control the boiler. Boiler is disabled and operates in "bypass" mode. The signal might be temporarily bypassed pressing the confirmation button.
<b>BOILER MAINS ALARMS (HOT): FROM ID320 -&gt; ID339</b>		
ID324	"Failure: Hot water boiler safety switch"	Perform <b>DEFAULT ACTION</b> as described above. If the alarm doesn't stop, perform the <b>RECOVERY ACTION</b> .
ID330	"Failure: Hot water boiler drain"	

ID.	DISPLAYED MESSAGE - FAILURE	USER ACTION
ID331	"Failure: Hot water boiler level"	
ID332	"Anomaly water level boiler hot" (anomaly in loading water)	
ID334	"Boiler hot disabled"	
<b>DOOR 1 ALARMS ("LOAD" side also known as "UNCLEAN" side): FROM ID400 -&gt; ID419</b>		
ID400	"Door 1 unlocked" (Door 1 = Load Door = Unclean side door).	<p>If the doors are open, close them manually: Push the handle to close the door until the lock clicks. Switch the machine off and restart it. Perform <b>DEFAULT ACTION</b> as described above. If the alarm doesn't stop, perform the <b>RECOVERY ACTION</b>.</p>
ID401	"Door 1 unlock fail" (Door 1 = Load Door = Unclean side door).	
ID402	"Failure Door 1 closing" "door 1: door sensors NOT corresponding"	
ID410	"Door 1 unlocked" (Sliding)	<p>"Unclean " side - loading side. Warning:</p> <ol style="list-style-type: none"> <li>No external objects must obstruct automatic movement of the door.</li> <li>The door cannot be operated unless the detergent compartment is properly closed.</li> </ol> <p>Switch the device off and back on. Follow the <b>DEFAULT PROCEDURE</b> described above. If the alarm does not disappear, follow the <b>RESET PROCEDURE</b>.</p>
ID411	"Failure: Door 1 closing" (closure timeout - sliding)	
ID412	"Failure: Door 1 opening" (opening timeout – sliding).	
ID413	"Failure: Door 1 sensors" (sliding).	
<b>DOOR 2 ALARMS ("UNLOAD" side also known as "CLEAN" side): FROM ID420 -&gt; ID439</b>		
ID420	"Door 2 unlocked" (Door 2 = Unload Door = Clean side door).	<p>If the doors are open, close them manually: Push the handle to close the door until the lock clicks. Switch the machine off and restart it. Perform <b>DEFAULT ACTION</b> as described above. If the alarm doesn't stop, perform the <b>RECOVERY ACTION</b>.</p>
ID421	"Door 2 unlock fail"	
ID422	"Door 2 closing" or "door 2 sensors NOT corresponding"	
ID430	"Door 2 unlocked" (Sliding)	<p>"Clean" side - unloading side. Warning:</p> <ol style="list-style-type: none"> <li>No external objects must obstruct automatic movement of the door.</li> <li>The door (especially the unclean side) cannot be operated unless the detergent compartment is properly closed.</li> </ol> <p>Switch the device off and back on. Follow the <b>DEFAULT PROCEDURE</b> described above. If the alarm does not disappear, follow the <b>RESET PROCEDURE</b>.</p>
ID431	"Failure: Door 2 closing" (closure timeout - sliding)	
ID432	"Failure: Door 2 opening" (opening timeout – sliding).	
ID433	"Failure: Door 2 sensors" (sliding).	
ID440	"Failure: KPB relay" ("doors locked" relay).	
ID442	"Emergency button pressed"	
ID443	"Failure: Relay KPB2"	
<b>ALARMS RELATED TO RELAY ANOMALIES: FROM ID.500 -&gt; 520</b>		
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ID.	DISPLAYED MESSAGE - FAILURE	USER ACTION
<b>ID500</b>	“relay KRG fail” (master relay)	Perform <b>DEFAULT ACTION</b> as described above. If the alarm doesn't stop, perform the <b>RECOVERY ACTION</b> .
<b>ID501</b>	“relay KRVA fail” (relay - chamber heating elements A)	
<b>ID502</b>	“relay KRVB fail” (relay - chamber heating elements B)	
<b>ID503</b>	“relay KRA1 fail” (relay – dryer RA1 heating element)	
<b>ID504</b>	“relay KRBD fail” (relay DEMI BOILER – heating element)	
<b>ID505</b>	“relay KRBC fail” (relay BOILER water mains – hot – heating element)	
<b>ID506</b>	“Failure: Relay KRA2” (dryer heating elements relay – dryer 2)	
<b>ALARMS RELATED TO RELAY ANOMALIES: FROM ID.500 -&gt; 520</b>		
<b>600</b>	Failure: Program table	Perform <b>DEFAULT ACTION</b> as described above. If the alarm doesn't stop, perform the <b>RECOVERY ACTION</b> .
<b>601</b>	Init error	
<b>602</b>	Communication display 1	
<b>603</b>	Communication display 2	
<b>604</b>	Communication error with board SLAVE IO 1	
<b>605</b>	Communication error with board SLAVE I/O 2	
<b>606</b>	Anomaly: communication board SLAVE I/O 1 (fault of the board I/O)	
<b>607</b>	Anomaly: communication board SLAVE I/O 2 (fault of the board I/O)	
<b>608</b>	Anomaly: alarm (firmware versions compatibility).	

Chamber filter cleaning warnings / Washing warnings		
701	Warning PAP1, Chamber filter cleaning	<p><b>.Remove the chamber filter unit and clean it thoroughly</b> (see specific section).</p> <p><b>.Check the correct arrangement of the load:</b> the load must not be arranged so as to hold water in suspension.</p> <p><b>.Evaluate an increase in the water load</b> recalled per phase / by cycle, particularly for the washing and disinfection phases.</p> <p>.Possible presence of foam in the tank: check the type of detergent used.</p> <p>.Particularly dirty materials might cause excessive foaming: repeat a washing cycle, use one with initial prewash.</p> <p>[ Causes and remedies as for ID.25 - ID.125]</p>
702	Warning PAP2, Chamber filter cleaning	
<b>Spray arm rotation warnings</b> These events trigger a warning at the end of the cycle if the "Spray Arms Check" function is set in "Non-blocking" mode.		
703	Lower spray arm warning	<p>With a cycle in progress, water intake complete, fault if:</p> <p><math>spray\_arm\_rpm &lt; threshold\_rpm</math></p> <p>If the rotation speed of a spray arm is not correct, check:</p> <ol style="list-style-type: none"> <li>1. That no parts of the load are obstructing rotation.</li> <li>2. For foam in the chamber, due to the type of dirt or the type and amount of detergents used.</li> <li>3. Water circuit malfunctions.</li> <li>4. Check the condition of the rack and spray arms.</li> </ol> <p>The check verifies rotation of 4 levels on the rack. Some racks may not have one of these levels, so the relative alarm message/warning will be triggered.</p>
704	Upper spray arm warning	
705	Lev. A spray arm warning [ level A is the bottom level of the washing rack].	
706	Lev. B spray arm warning	
707	Lev. C spray arm warning	
708	Lev. D spray arm warning [ level D is the top level of the washing rack].	

<b>Warnings associated to loading and unloading system malfunctions</b>		
<b>720</b>	Loading conveyor belt (CB7015L) Warnings	<p>This warning refers to an anomaly on the CB7015L loading system:</p> <ul style="list-style-type: none"> <li>- Check that the washing trolleys are correctly positioned; follow safe procedures to return them to the correct position.</li> <li>- Press the Reset button (BLUE) to reset the safety ECU which has been tripped.</li> <li>- Press the Start button (GREEN) to start the CB7015 system.</li> <li>- Switch off the WD7015 device and switch it back on 10 seconds later to retry the reset.</li> <li>- If the system does not reset, the CB7015 can be disabled by pressing the Stop button and moving the cover of the mobile turret to mechanically deactivate the trolley pushing lever.</li> </ul> <p>Consult the CB7015 system manual with care to ensure the correct procedures are adopted.</p>
<b>721</b>	Unloading conveyor belt (CB7015U) Warnings	<p>This warning refers to an anomaly on the CB7015U unloading system: Deal with the problem as described above.</p>
<b>Other warning</b>		
<b>730</b>	Warning: USB - Log not saved	<p>The circuit board is unable to verify that the archive has been correctly written on the USB drive.</p> <p>Causes:</p> <ol style="list-style-type: none"> <li>1. The drive was removed during the process.</li> <li>2. A USB extension was used, degrading the signal.</li> <li>3. The USB drive used is not a genuine part compatible with the function.</li> <li>4. The drive's formatting is not compatible.</li> </ol>
<b>735</b>	Eco Heat Exchanger disabled warning	<p>The Eco Exchanger is disabled, the machine can work, but the Eco group is not used.</p>
<b>Energy Management malfunction warnings</b>		
<b>740</b>	No Energy Man. Connection Warning	<p>The Warning screen appears as soon as the connection is found to be missing.</p> <p>The user can accept the warning, in which case the information is stored in the database.</p> <p>[To start the cycle with an emergency present, the superuser has to disable the Energy Management priority control mode].</p>
<b>741</b>	Energy Management disabled.	<p>When control of this consent function ("Energy Management Priority") is disabled, the user can start the cycle even without the program's consent.</p> <p>The Warning will be shown to indicate the anomaly.</p> <p>The cycle start is permitted and "Warning 741" is recorded.</p>

## 13 CLEANING AND MAINTENANCE

### 13.1 PRELIMINARY WARNING

	<p><b>Before each cleaning or maintenance intervention, it is recommended to perform a full thermodisinfection cycle with the machine unloaded (empty).</b></p>
	<p><i>Unplug the electrical power with the specific switch and close the water feeding faucets.</i></p>
	<p><b>During the maintenance or cleaning procedure: always use personal protection equipment.</b></p>
	<p><b>FREE SPACE:</b> <i>It is necessary to have a free space of about 1m<sup>2</sup> in front of the machine to be able to correctly work on it.</i></p>
	<p><b>AUTHORIZED TECHNICAL STAFF</b></p>
	<p><i>Interventions performed on the device by unauthorized staff are not covered by the warranty, and are at the user's responsibility.</i></p>

### 13.2 CLEANING OF THE DEVICE and its parts

#### General Cleaning

The device's external surfaces and the counterdoor shall be regularly cleaned (recommended: every month) with a soft cloth moistened with water.

The door's gaskets shall be cleaned with a wet sponge.

**After the cleaning it is recommended to perform a full wash cycle with the machine unloaded (empty),** to eliminate possible detergent remains.



Fig. 4 – External cleaning of the device is required.

### CLEANING THE DETERGENT COMPARTMENT

On both hinged and sliding door machines, the **detergent jerrycan compartment must be inspected daily:**

- check for any leaks or spills of chemicals;
- **Remove any standing liquids;**
- When cleaning, it is essential to use the appropriate personal protective equipment, as recommended in the technical and safety data sheets of the chemicals used;
- **The detergent jerrycans and intake lines must be tidily arranged** in the jerrycan compartment so that they do not obstruct closure of the panels.
- **The interior panels and bottom door that enclose the detergent compartment must be carefully closed on completion of cleaning operations.**



*fig. 5 – The detergent compartment should be cleaned and the positions of the jerrycans and intake lines checked every day.*

### Cleaning of the water inlet filter

The water inlet filter "A", located after the water tap, needs periodical cleanings. The recommended schedule is **once every two to six months, depending on the quality of the incoming water**. After closing the water tap, unscrew the top of the water supply pipe, remove the filter "A" and wash it gently under running water. Reinsert the filter "A" in its position and carefully screw the water pipe.

Pay close attention to the top of the pipe, to avoid water leakage in the environment.

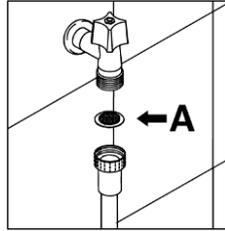


Fig. 6 – Water inlet filter "A"

### Cleaning of the sprayers

The sprayers can be easily removed, by unscrewing the knurled nut which fastens them to the rotation pin, to allow the periodical cleaning of the injection nozzles and prevent possible clogging.

Wash the sprayers and the injection nozzles under clean running water, and insert them back into their location.

Please verify that their circular movement is not hindered in any way.

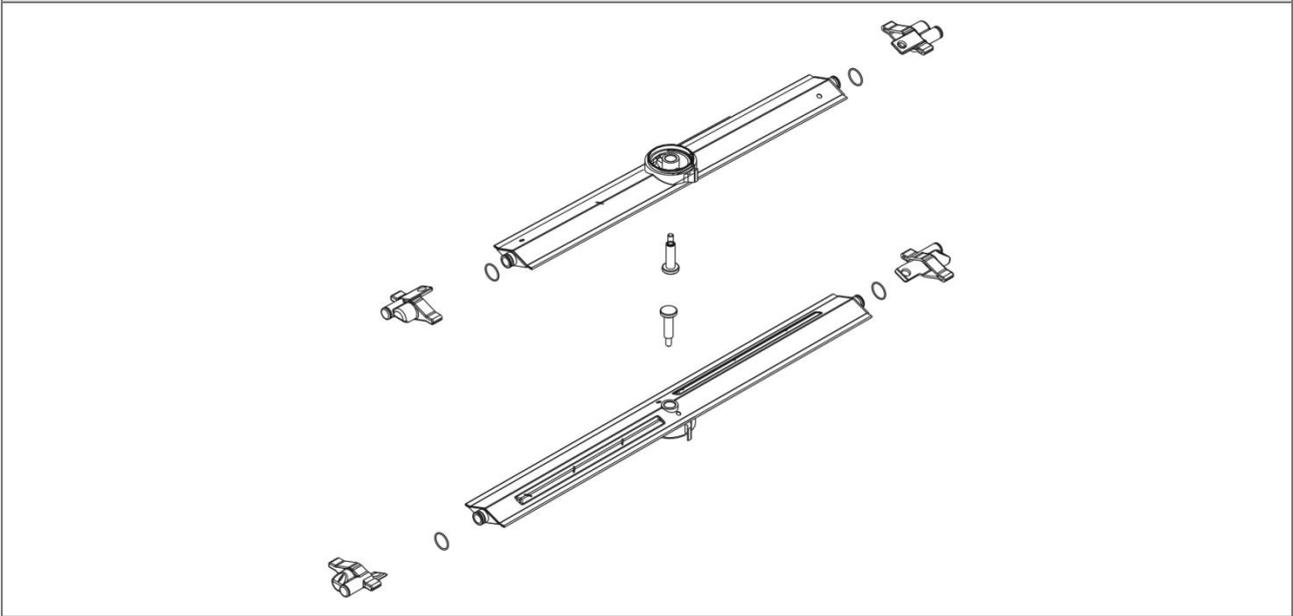
Recommended schedule for the cleaning of the sprayers: **every week**.

**In case of carts which are equipped with fixed spraying injection nozzles:** see the cart's manual for cleaning instructions.



Fig. 7 – Device's lower sprayer: periodically disassemble and clean all the sprayers to maintain effectiveness in the cleaning.

Completely removable sprayers, for cleaning purposes



### 13.3 Cleaning of the Filter Unit

The filter unit is made of different filtering elements. Keeping the filters clean is extremely important in order to guarantee the effectiveness of the machine. It is recommended to inspect them frequently to remove sediments which can compromise their functioning; in conditions of two to three cycles per day, it is suggested to **clean the filters once a week**.

<p>Accessible tank with the door open</p>	<p>View of the pit – after the removal of the main water filter</p>
<p>Filter, as seen when assembled</p>	<p>Filter, disassembled for cleaning</p>

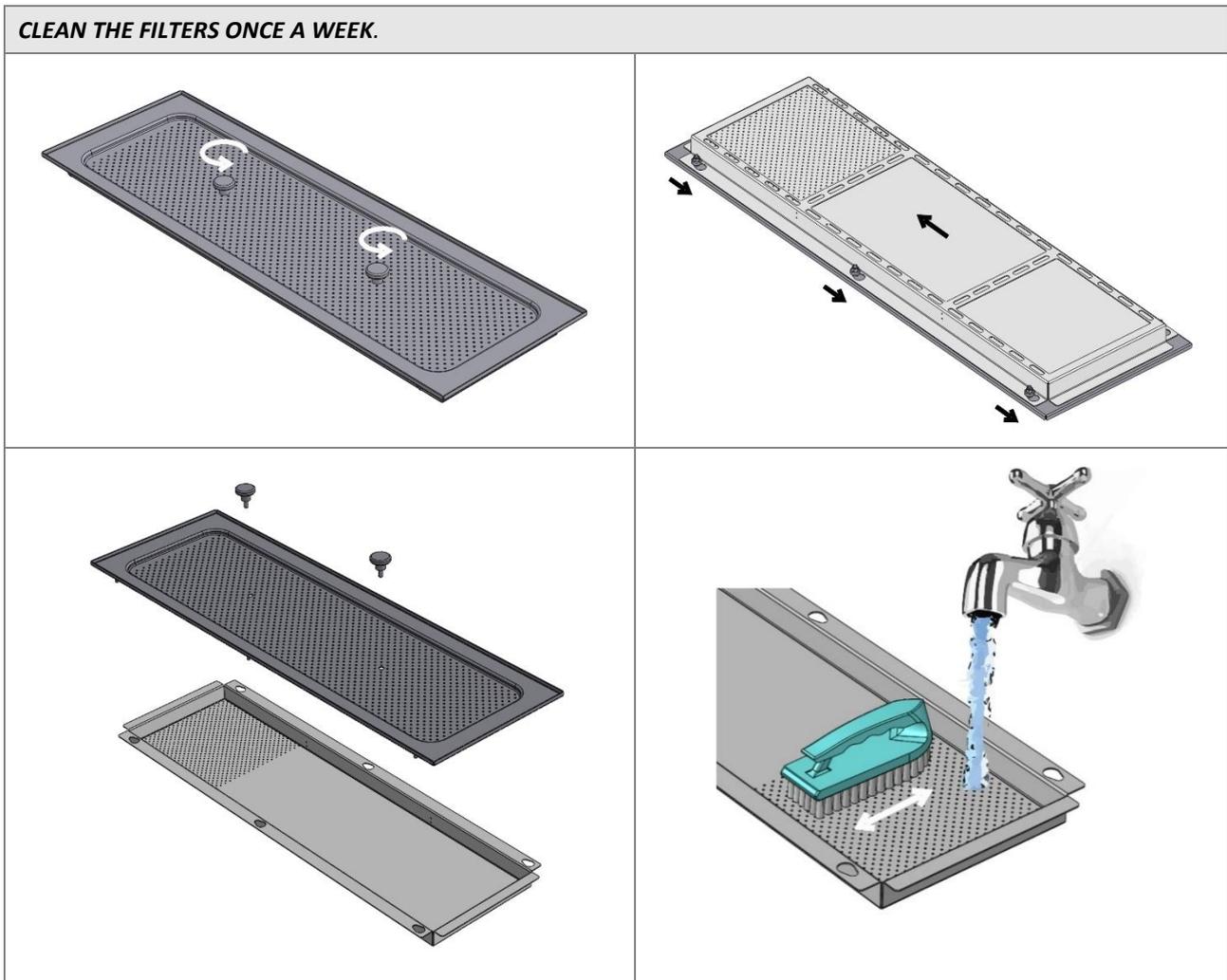
**WARNING**

The filters can retain biologically contaminated materials, which must be handled with due precautions and using protective equipment (e.g. gloves, glasses, white coats).

The potentially contaminated material present in the filter, and possibly in other parts of the device, must be appropriately treated and disposed of.

**Advice for good maintenance**

- The filters disassembled must be cleaned with water and using a hard brush.
- It is necessary to carefully clean the filters according to the instructions: the device can't work correctly if the filters are clogged.
- Carefully place the filters back onto their place before you start a washing cycle. Do not absolutely start the device without its filters on.

**CLEAN THE FILTERS ONCE A WEEK.**

### 13.4 IN CASE THE DEVICE REMAINS UNUSED

If the appliance is to be left unused for a long time, follow these recommendations.

The procedure is recommended **for periods of 24 hours or more out of use.**

- **If contaminated materials are processed: run a program with a thermal disinfection Td phase with no load in the appliance.**
- **Flushing the detergent system: if the device is expected to be out of use for more than 10 days:**
  - Remove the detergent intake lines from the jerry cans and insert them into containers of warm (approximately 30°C) softened (preferably demineralised) water.
  - Put the caps firmly back on the jerry cans of detergent.
  - Run the “Service 1” program (ID\_prog 202) twice in succession with no load in the tank.
- Disconnect the electricity supply.
- Leave the door slightly open to prevent unpleasant odours from forming inside the washing chamber.
- Turn off the water intake tap.
- Turn off the steam intake tap (if present).



***Flushing of the detergent system is vital to prevent the chemicals from crystallising and possibly damaging the detergent dispensing system.***

### 13.5 DEVICE RE-USE AFTER A PERIOD OF IDLENESS

If the device is unused for a long time, abide by the recommendations listed below before a cycle is started.

- Check the filters at the entrance of the water pipes and verify that there is no mud nor rust deposited; in case sediments are present, let the water from the inlet tap run for some minutes.
- Plug the power (if unplugged).
- Fasten the inlet water pipe and open the tap.
- Verify date and time settings.
- If the detergent system has been flushed, proceed as follows:
  - Return the detergent intake nozzles to the jerry cans of the relative products, taking care to put the right nozzle in each can;
  - Run the “Service 1” program (ID\_prog 202) twice in succession with no load in the tank.
- **Perform a program containing a TD thermodisinfection step, with no load in the device.**



***The thermodisinfection cycle with the unloaded device is recommended before use in case the device has been idle for more than 24 hours.***

*The cycle must be performed with the device **empty**, with no load in the wash tank (recommended T\_target=93°C).*

## 13.6 TIME SCHEDULE FOR ROUTINE MAINTENANCE AND CHECKS

### 13.6.1 DAILY

1. Check the level of detergent and neutralizer in the tanks: fill if necessary.
2. Check the movement of the sprayers and visually verify that the sprayers' outlet water holes are clean.

### 13.6.2 WEEKLY

1. **Disassemble and clean the filters in the pit**, following the instructions.
2. Perform a program containing a TD thermodisinfection step, with no instruments to be treated in the device, for the precautional cleaning / disinfection of the wash tank.

### 13.6.3 EVERY SIX MONTHS

1. Verify the conditions of the inlet water electrovalves filters: clean them, if necessary, with warm water running in the opposite direction of the filter usage.
2. Verify the conditions of the suction and discharge pipes of the detergent and neutralizer pumps.

### 13.6.4 EVERY YEAR

At the end of the warranty period, and once a year in the following years, or, if more frequent, when the warning led light "**Manutenzione macchina**" ("Device Maintenance") is on, contact the closest authorized technical centre and have a **complete check-up** of the device.



**Maintenance interventions are not covered by the product's Warranty.** The warranty does not include the replacement of components whose lower performance is due to normal wear and tear.

In particular, the operations performed by authorized personnel are:

1. Check and possible replacement of worn out parts in the peristaltic pumps (specially the internal tubing).
2. Check of the conditions and possible replacement of the **detergent lift pipes**.
3. Check of the conditions and possible replacement of the **door gasket**.
4. Check of the conditions and possible replacement of the **filters** (relative and absolute) of the **drying system**.
5. Check and possible cleaning/replacement of the **filters** (water inlet filters in the loading tubing, detergent filters in the suction system).
6. Check of the correct **detergent dosing settings**. **Check on correct detergent dosing using the technical procedure (Peristaltic calibration)**.
7. Check of the vapour **condenser unit** (if present):
  - a. check of the **injection nozzles**, with verification of the correct water flow
  - b. check of the connecting **pipes**, water inlet, water outlet, level pressure switch connections
8. **Check of the calibration of the temperature probes** (tank and drying if present) and possible correction or replacement of the probes.
9. **If the optional steam heating system is installed, check:**
  - a. **Tightness of threaded connections and fittings.**
  - b. **State of insulation, with repairs if necessary.**
10. **Execution of a complete working cycle**, including the drying phase, in order to verify possible leaking or functioning anomalies.



#### **WARNING**

*In case of device malfunctioning or damages to things or persons due to non-compliance to the above recommendations, the manufacturer shall not be liable.*

### 13.7 ELIMINATION OF SMALL TROUBLE

In some cases it is possible to eliminate possible small trouble with the help of the following instructions.

**1. If the program doesn't start, verify that:**

- The instrument washer is plugged to the power.
- Power supply has not been interrupted.
- Water faucets are open.
- The instrument washer's door is correctly closed.

**2. If water is stagnant in the device's tank, verify that:**

- The outlet pipe is not bended.
- The discharge siphon is not clogged.
- The instrument washer's filters are not clogged.

**3. If the general loading elements do not get cleaned, verify that:**

- Detergent has been inserted, and in the proper quantity.
- **Instruments have been correctly placed.**
- **The selected program is suitable to the type and quantity of dirt on the instruments.**
- **All the filters are clean, and they are correctly inserted in their places.**
- The water outlet holes in the sprayers are not clogged.
- **Objects haven't blocked the sprayers rotating movement.**

**4. In case the loaded elements don't dry or are opaque, verify that:**

- Conditions of the absolute drying filter: hour of functioning viewable as device parameter (the hours of default functioning are established in reference to normal usage conditions; environments with higher quantity of dirt reduce the residual life of the drying filter)
- Neutralizer is present in the appropriate container and its distribution is correctly set.
- The detergent in use is of good quality and has not lost its properties (for example because of wrong preservation, with its box open).

**5. In case the processed elements show strips, stains or similar signs, verify that:**

- The dosage quantity of the neutralizer is not excessive.

**6. In case there are rust traces in the tank:**

- The tank is made of steel which is corrosion resistant, therefore possible rust traces are usually due to external elements (traces of rust coming from water pipes, etc). Specific products are available to eliminate such traces
- **Verify that the right dosage of detergent is being used.** Some detergents can be more corrosive than others.

**7. In case the optional printer doesn't work:**

- Verify that thermal paper is present and suitable for usage with the device.
- Verify that the device is correctly connected (both to power and data connection).

**8. If the sliding door doesn't close or doesn't open:**

- Check that the detergent compartment and bottom door are closed correctly.
- Check that the technical safety key (for manual operation of the loading door), if fitted, is correctly positioned: turn it to "0".

**9. If the display (loading or unloading side) remains off or unresponsive even with the switch correctly set ON:**

- Wait a few seconds, the display PCB might be initialising.
- If the display still does not come on after a few moments (screen completely dark): do not touch the display and switch the device off using the main switch. Wait at least 10 seconds after switching off before switching back on again.
- If the display does not reset correctly and remains "dead": contact the after-sales service, as no procedures are possible on the machine if the interface is not active and correctly operational.

If the functioning trouble is still persisting even after following of the above mentioned instructions, it will be necessary to ask the intervention of the closest authorized technical assistance centre.

## 14 INSTALLATION

Refer to the document “Installation Requirements” for the dimensions of the machine and for the location of electrical and water connections.

**All procedures performed prior to starting the machine are at the Client’s expense:**

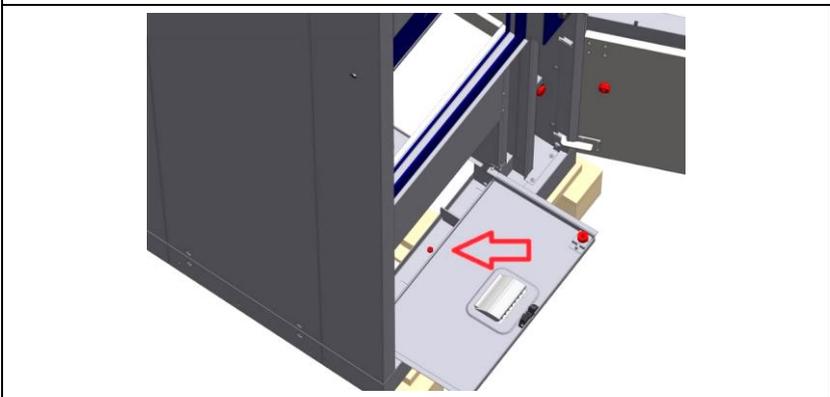
- **space setup;**
- **preparation of properly operating facilities,** in compliance with the regulations enforced;
- **placement of the machine** in the designated area provided for effective operation.

During installation, it is necessary to remove the anti-scratch coating off the outer steel surface. The assembly tool kit (seals for charging and waste pipes and ties) is located inside the washing tank. The machine can be placed so that it lays adjacent the adjoining furniture, taking care of clearing the steam vent on top. **For that reason, it is recommended that the walls of the space where the machine is being installed be waterproof or made of stone.**

### 14.1 PACKAGE REMOVAL and PREPARATION FOR MOVEMENT

Procedure	Image
<p><b>1. Remove the packaging</b> and handle the parts in compliance with the separate collection requirements.</p>	
<p><b>2. Check in the lower side of the machine</b> that the lower panels are not present, otherwise remove them (During the packing phase, the panels are packaged separately and stored in the detergent compartment).</p>	

**3. Open the lower front door and the lower rear panel. Remove the screws fixing the machine to the pallet (one in the front area and one in the rear area).**

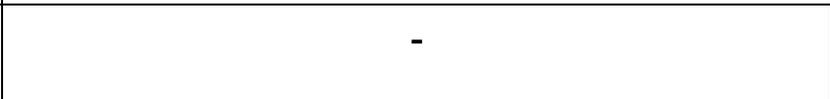


**4. Side unloading of the machine with forklift with adjustable forks: insert the forklift forks from the side (fork width approx. 640mm).**

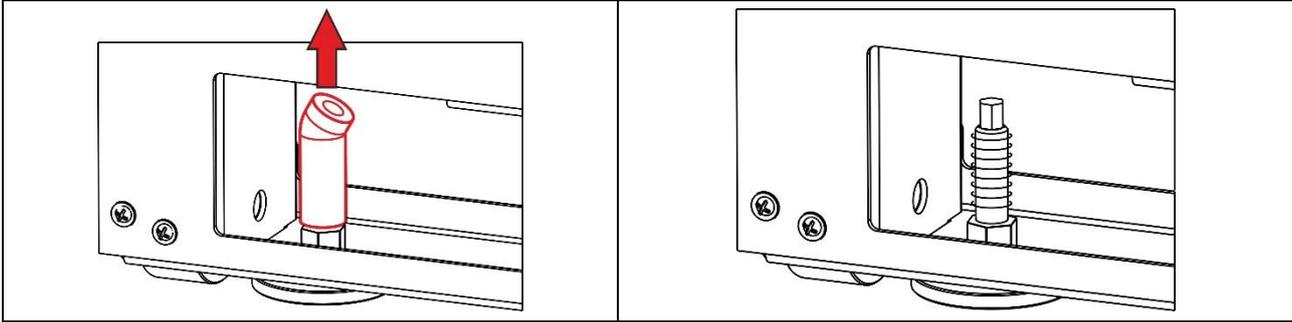
**Place the machine on the floor.**



5. The machine now stands on wheels and can be positioned (short distances).



Note: in some case there is a rubber tube used to prevent the pin from being unscrewed: this must be eliminated to allow height adjustment.

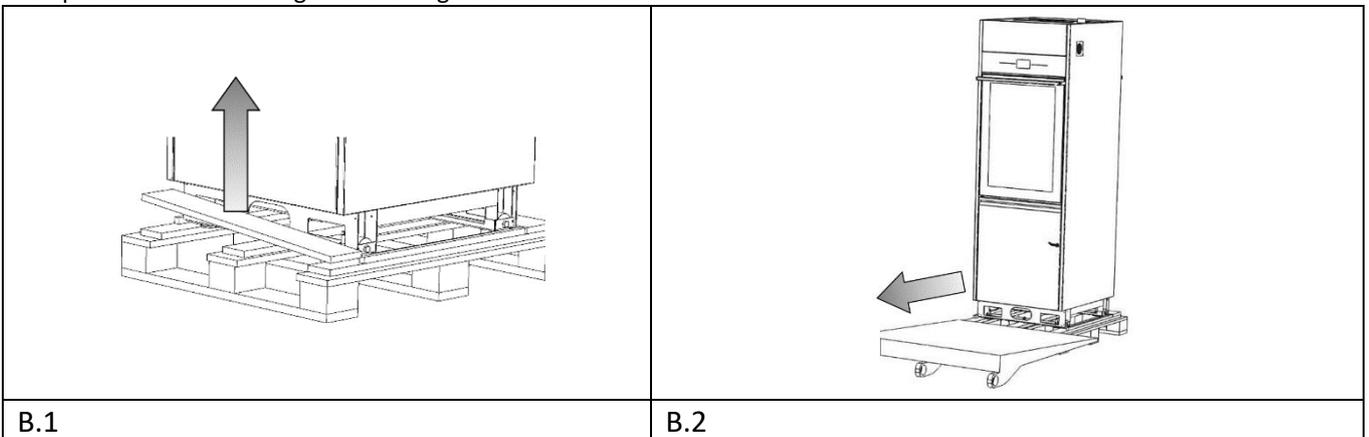


### **Procedure for removing the machine from the pallet - using a tail-lift:**

**B.1 – Remove the wooden front retainer strip from the pallet.**

**B.2 – Position the tail lift next to the pallet at the front of the machine, slide the machine onto the lift platform and then carefully transfer the machine to the ground.**

Then proceed with handling and levelling as described above.



B.1

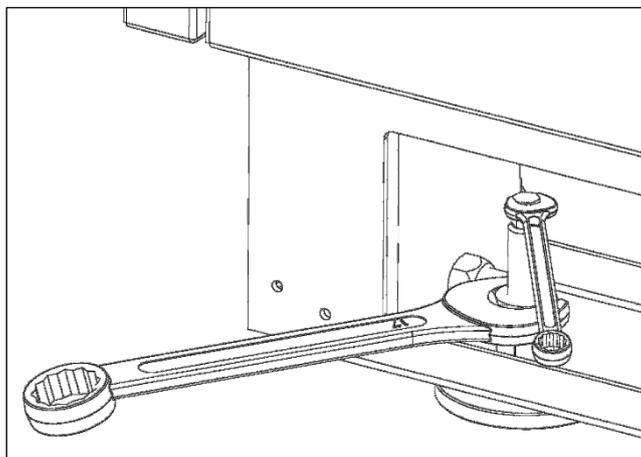
B.2

## 14.2 POSITIONING AND LEVELING



**LEVELING:** Once the machine has been placed, **screw or unscrew the feet** in order to regulate its position and level it with the bubble level so that it is perfectly horizontal (maximum angular tolerance permitted: 0.5°, corresponding to a maximum gap of about 5mm permitted at the extreme points of the machine).

Levelling the device properly helps it to function properly.



Detail image: leveling must be performed with wrenches to regulate the feet and tighten the lock nut.



#### **DEVICE HEIGHT ADJUSTMENT**

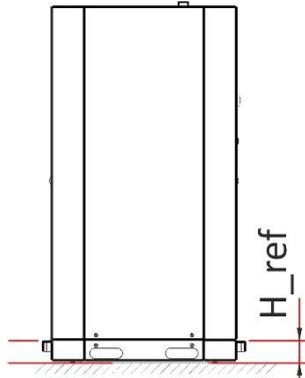
**If several devices** are served by the same multi-purpose trolley, as well as being correctly levelled they must also be adjusted so that they are **at the same height above the ground**.

The theoretical heights “H<sub>ref</sub>” are provided below for guidance when adjusting.

**N.B.:** The actual adjustment height may differ from the theoretical value due to levelling requirements; the fundamental factor is that all devices served by the same multi-purpose trolley must have the same H<sub>ref</sub> value.

#### **Devices with sliding doors**

Referring to the image below, take the height of the bottom trolley hooks in relation to the ground as reference [theoretical H<sub>ref</sub> = 118 mm].



### 14.2.1 "SINGLE DOOR" MACHINE



The single door machine must be placed with its rear side against a wall. The client takes care of positioning the machine.

### 14.2.2 "DOUBLE DOOR" MACHINE



The "standard" positioning of the product is to align the front part against a wall, separating the unclean and clean sides.

The distinguishing feature of the "double door" machine is the separation of washing areas:

1. Unclean side (or "loading side"): receives dirty items that have not been processed.
2. Clean side (or "unloading side"): receives items that have already been treated with thermal disinfection

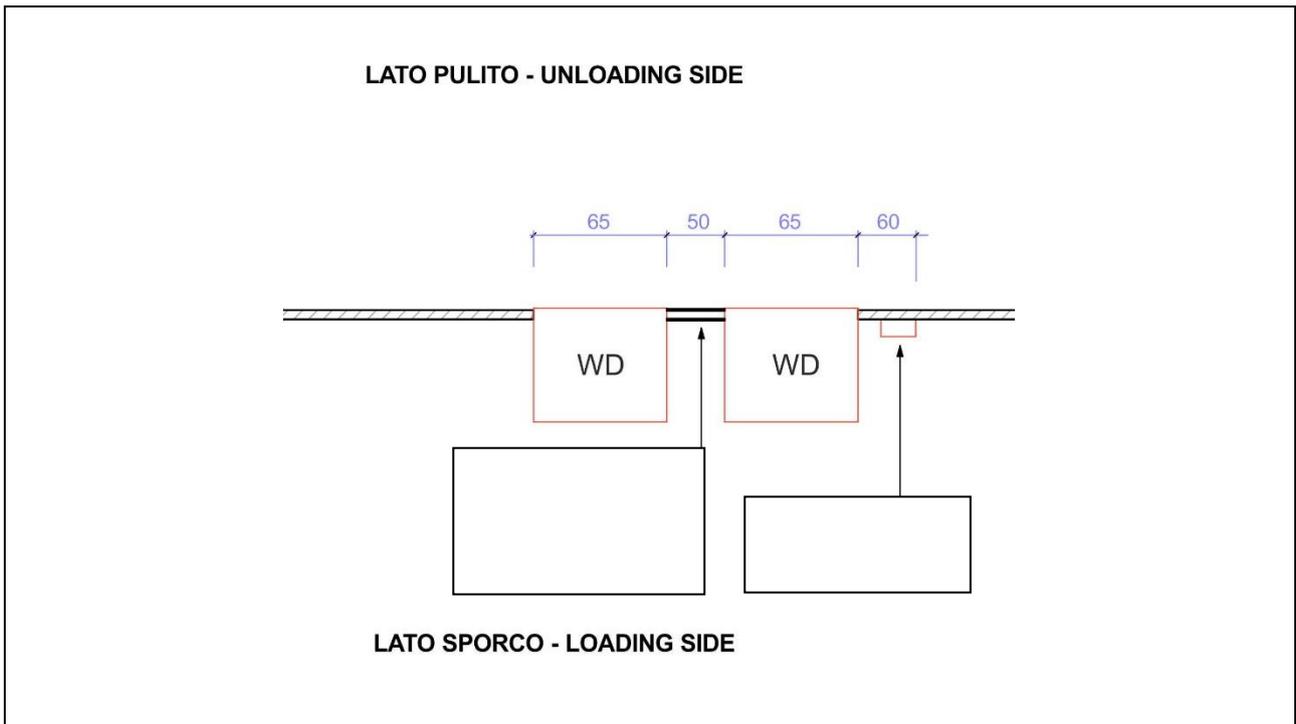


Figure 14.1 – Example of “feedthrough” positioning of two WDs

Additional installation option: position the machine so that the two free sides are aligned against two walls in order to create an intermediate compartment which is always free and available for technical assistance.

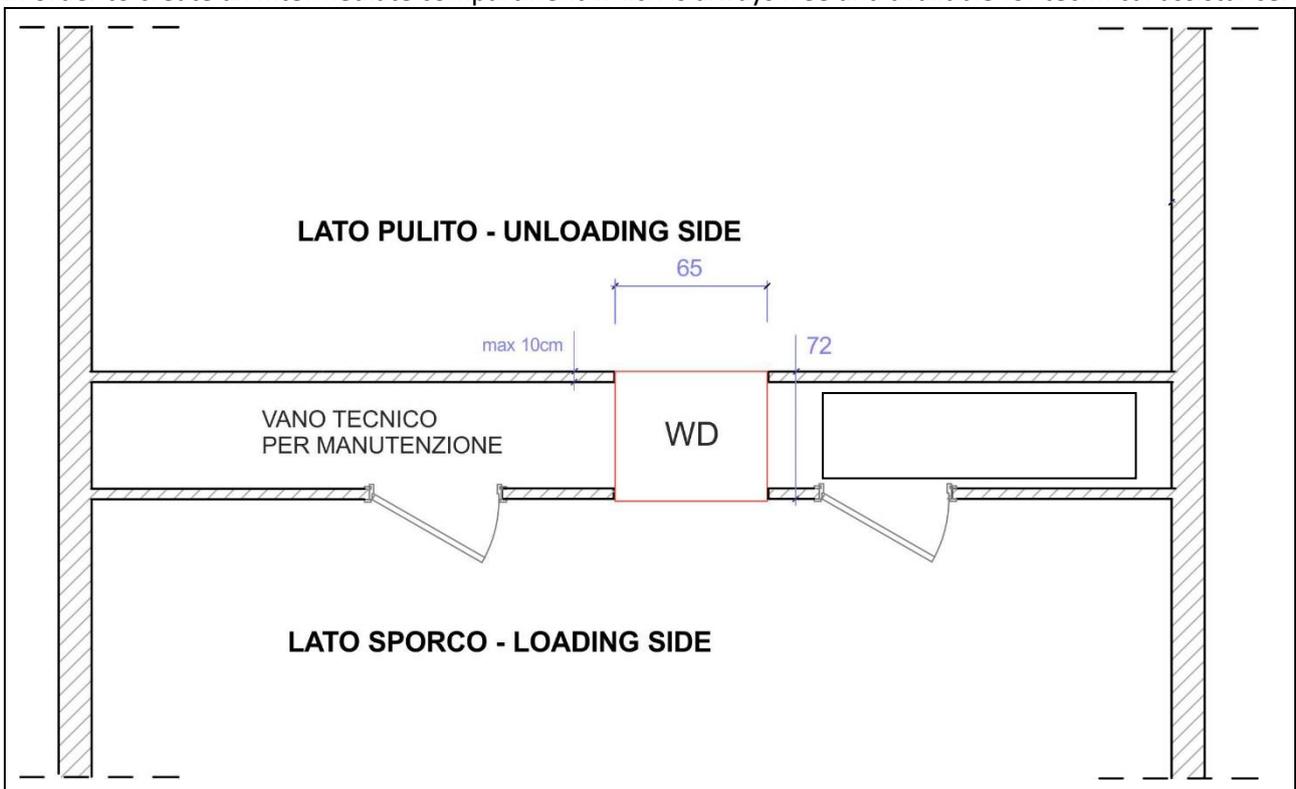


Figure 14.2 – Example: positioning of the machine between two walls, with access to the technical compartment. Measurements in cm.

## 14.3 ELECTRICAL WIRING REGULATIONS

**CAUTION**

*It is essential that the electrical system to which the machine is connected complies with current regulations.*

*All electrical testing operations and equipment installation should be made by qualified and trained personnel.*

***The designated personnel is responsible for ensuring the safety and efficiency of earth connection.***

**CONNECTION TYPE**

***The electrical connection of the device must be carried out with a permanent connection.***

*The device is supplied with a cable with insulated wire terminals; it is not supplied with a plug.*

**CIRCUIT-BREAKER**

***A CIRCUIT-BREAKER must be installed for each appliance.***

*Circuit-breaker characteristics:*

- a. Omnipolar: must break all live conductors;*
- b. Easily accessible to the user;*
- c. Easily operated (no additional tools required);*
- d. Located in close proximity to the appliance;*
- e. Clearly marked as the appliance circuit-breaker.*

*The same specifications apply to the main switch on the machine: it must be easily accessible. Do not place objects in a way that limits accessibility.*

**OVERCURRENT PROTECTIVE DEVICE**

***A PROTECTIVE DEVICE specifically for the appliance (e.g. magneto thermal breaker or fuse on every phase), with appropriate dimensions **based on the electrical characteristics indicated**, should be installed in the room's electrical panel.***

*Refer to the **Technical Data** sheet for the device's electrical connection specifications.*

## 14.4 ACCESS TO THE ELECTRICAL CABLE AND TO THE WATER CHARGING HOSES

The **standard factory setting** foresees that the connections of the power cable, of the water inlet pipes and of the connections for the optional steam system, are accessible **from the top of the devices**.

**N.B.:** The authorised technician may set up the device so that the power cable and water connection pipes are accessible from the back instead of the top.

### 14.4.1 CONNECTIONS ACCESS FROM TOP OF DEVICE

In the transport phase the hoses and cables are placed in a safety position, protected by the top panel of the device.

**At the first installation the authorized technician will make the hoses accessible:**

1. Removing the **MOULDED PLATE** on the top of the machine.
2. Placing the hoses in the most correct position and **using the hose stops provided** in the accessories pack:
  - a. Red hose: hot water.
  - b. Blue hose: cold water.
  - c. White hose: demineralized water.
3. At the end, replacing and fastening the top.



**N.B.:** The authorised technician may set up the device so that the power cable and water connection pipes are accessible from the back instead of the top.



**WARNING**

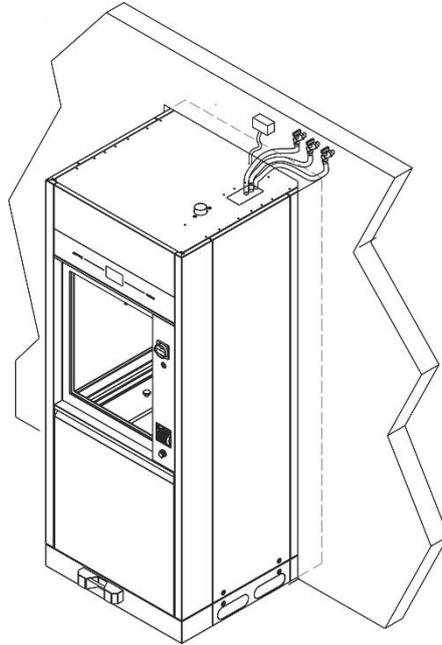
**The air and steam vent tube has hot surfaces:** during installation, fix the power cable and water charging hoses so that they are always a suitable distance from the vent (at least 10 cm).

### SPECIFIC VIEW OF "MOULDED PLATE" ON THE TOP OF THE DEVICE



**EXAMPLE OF CORRECT INSTALLATION**

N.B.: As specified in the "Installation Requirements" document, **the water inlet taps must be set to one side (not directly above the machine)** so that any leaks or drips do not fall on top of the device.

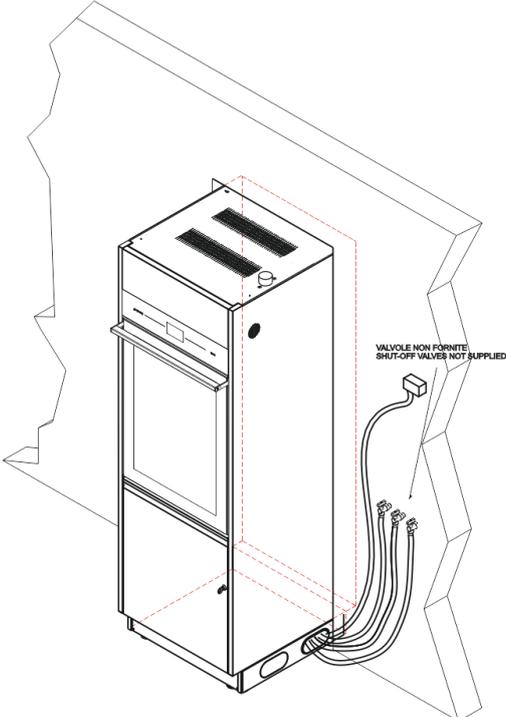


14.4.2 CONNECTIONS FROM THE BOTTOM OF THE DEVICE

**NB:** The authorized technician can prepare the device because the electric cable and the pipes for the water supply is accessible from the bottom of the device, rather than from the top.

The connections of the connections can be made on the left or right side of the Device as per attached document "*INSTALLATION REQUIREMENTS*".

Below is the description of the steps and fundamental elements for a correct positioning of the cable and the water charging hoses.

First steps description	Images	
<p>Lower metal panels: “pre-sheared” for the water loading pipes, water discharge pipe and power cord positioning.</p> <p>After removing the preblanking: <b>use protection rubber on metal rim to protect the tubes that can be cut.</b></p>		
<p>The pipes and cables must be positioned correctly, using the rubber protection on sharp metal edges.</p>		
<p>Example of correct positioning of the pipes and of the power cord.</p>		

## 14.5 WATER SYSTEM SETUP

Refer to the installation scheme for the device dimensions, technical requirements and positioning of the water drainage system – refer to Doc. “Installation Requirements”. Key to the abbreviations used for water connections:

INITIALS	LOAD/DRAIN	WATER TYPE
<b>CW</b>	LOAD	Cold water tube – cw ( <i>cold water</i> )
<b>HW</b>	LOAD	Hot water tube – hw ( <i>hot water</i> )
<b>DW</b>	LOAD	Pressure demineralized water tube – dw ( <i>demineralized water</i> )
<b>D, FD</b>	DRAIN	Machine Drainage tube – d (drain) [FD (floor drain) for the floor drain connection]

### 14.5.1 WATER LOAD

The machine is equipped with **three charging hoses**.

The hoses connect to taps with threaded bushing **3/4” gas**.

Use the supplied filter “A” in the image below to connect the charging hose end.

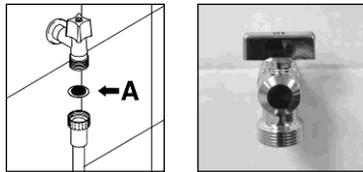


fig. 8 – to connect the charging hose insert the supplied filters.

TOT. NUMB. LOAD CONNECTIONS	CONNECTION TYPE		
	CW	HW	DW
3	1	1	1

**POSITIONING THE INLET VALVES:** The water inlet taps must be placed next to the device so that they can be easily reached by the user.



**WARNING**

Valves and hoses should be placed in such a way **that the removal of the hoses from the valves, for service procedures, does not cause water spilling on the device.**

**Note to prevent clogging or damage risk:** In the event that the water piping system is new or has not been used for a long time, check that the water is clean and free from contaminants before connecting it to the water supply.

If there is not a double supply of hot / cold water, the two supply pipes (**cw** and **hw**) must be connected through the “Y” pipe fitting (see image below).

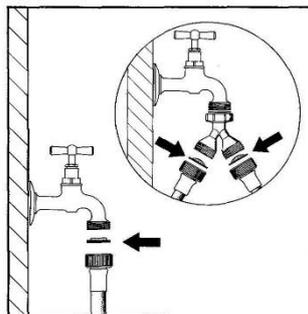


fig. 9 – “Y”-shaped connection to supply water by insertion of filters.

The supply water characteristics must satisfy the requirements outlined in the product manual's TECHNICAL CHARACTERISTICS section.

If the water supply does not meet the outlined characteristics, a treatment system may be required. Contact your trusted dealer for more information.



**WARNING – MAINTAINING WATER CHARACTERISTICS**

**Regular inlet water inspections are necessary (e.g. 6 months/1 year) to check that the initial values are maintained and to make any necessary corrections to the machine parameters in case of modification.**

#### 14.5.2 DEMINERALIZED WATER

**DW: DEMINERALIZED WATER – optional connection, strongly recommended**

If available, dematerialized water is recommended to optimize elimination of salt and chemical residues included in the network supply water.

Note: lack of demineralized water does not compromise the elimination of dirt residue.



**WARNING – LACK OF DEMI WATER**

*If demi water is not available, do not connect its pipe to the cold or hot water inlets. Leave the demi water pipe unconnected.*

***If demi water is not available it will be necessary to correct the machine settings. This is the duty of the Authorized Service Center.***

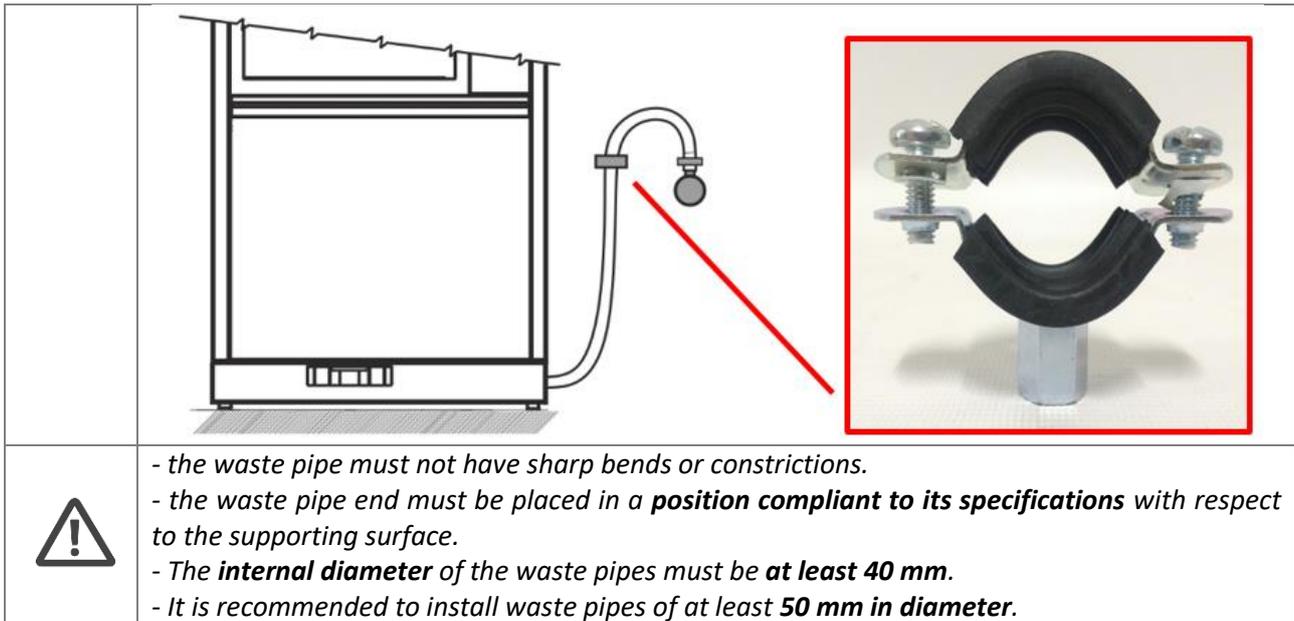
### 14.6 WATER DRAIN

Refer to the installation scheme for the dimensions of the device and the position of the water drainage system requested.

**If the optional drain pump is installed**, refer to the specific diagram of positioning of the drain connections. The pump is necessary if the premises do not have a floor drain.

<p><b>Over view of “Clean side”:</b> the lower steel small door (the rear panel in case of single door machine) must be removed to access the water drainage connections of the device.</p>	<p>Once the lower small door has been removed, the <b>drainage solenoid valve</b> (in the center) must be connected to the machine’s drainage system according to the specifications outlined in the “SYSTEM SETUP” section of the product manual. In addition, the following regulations must be met:</p>

	<p><b>WARNING</b> <b>Water must be drained according to international regulations:</b> the manufacturer is not liable in case of improper use of the machine resulting in pollution.</p>
	<p><b>WARNING</b> Drained water may contain biologically hazardous materials. It must be handled and treated according to the regulations enforced by the country in which the machine is installed.</p>
	<p><b>The waste pipe end must be fastened to the rubber hose connector using the supplied ties. The temperature of the drain water is 95°C.</b></p> <p><b>WALL DRAIN HOSE CONNECTION, if the drain pump (optional) is fitted: Fix the end of the hose to the wall securely with hose clamps to prevent "whiplash" effects which could weaken the drain connection and potentially damage components. (The hose clamps are not supplied).</b></p>



#### General regulations for drainage system installation

A drainage system with a trap is recommended. During installation it is necessary to observe the following precautions:

- The waste pipe must not have sharp bends or constrictions.
- The waste pipe end must be placed **in a position compliant to its specifications** with respect to the supporting surface.
- The pipe end must never be immersed in water. The **internal diameter** of the waste pipe must be **at least 40 mm**.
- It is recommended to install waste pipes with a **50 mm diameter**.

Procedure for the hydraulic connection to the drainage when there is a floor drain.

Description of fundamental steps	Images
<p>Typical example of a drain compatible with the fitted drainage.</p>	
<p>The provided membrane must be slipped over the red waste pipe of the machine in order to limit the flows of drainage vapors. Connect the red waste pipe to the drain.</p>	
<p>Make the membrane stick to the floor; this will prevent leaks of drainage vapors.</p>	

## 14.7 STEAM SYSTEM CONNECTION (OPTIONAL)

Steam heating is an optional of this device which can only be installed in the factory.

The following connections are necessary for the operation of this system:

1. To the steam system;
2. To the steam return line, marked "Condensate";
3. To the compressed air, for operation of the control valve.

The connection characteristics required are specified in the "TECHNICAL CHARACTERISTICS" section of this manual. The positions of the connections are detailed in the "INSTALLATION REQUIREMENTS" document.

	<p><b>DEDICATED SHUT-OFF TAPS</b></p> <p><i>All steam connections must have dedicated shut-off devices suitable for the system's characteristics. The taps must be:</i></p> <ol style="list-style-type: none"> <li><i>a. Easily accessible by the user;</i></li> <li><i>b. Easy to operate (no tools required);</i></li> <li><i>c. Located in the immediate vicinity of the appliance;</i></li> </ol> <p><i>Flush out the system pipes before connecting them to the device, in order to prevent fouling of the filters.</i></p>
	<p><b>REGULATOR AND SAFETY DEVICES</b></p> <p><i>The system must include regulator and safety devices to ensure that the maximum pressure value specified in the technical characteristics is never exceeded.</i></p> <p><i>The system's safety components must be checked and if necessary calibrated regularly.</i></p>
	<p><i>The heating coil inside the washing chamber sump and the steam system outlet and return pipes may become very hot; always avoid direct contact with these components.</i></p>

## 14.8 CHAMBER VENT CONNECTION (AIR AND STEAM)

**The area must be prepared so that the vent tube of the machine can be connected.**

The top of the machine has a CHAMBER vent tube, marked in the scheme as “EX” which must be properly connected to the vent pipes (suction) of the system.

EX – Air and steam vent		
		<b>WD7015</b>
	Connection type	DN 60 on the upper side of the machine
	Capacity	500 m <sup>3</sup> /h
	Temperature	Max 95°C

**The fitting elements are at the client’s expense** and must be chosen and dimensioned by an authorized technician taking into consideration:

1. Temperature involved.
2. The maximum capacity of the vent steam.
3. Accessibility and maintainability of the parts.

### WARNING – STEAM VENT



The fitting unit of the vent conduct must be made so that condensation is not discharged onto the outer surface of the machine.

(Requirement 5.24.4 standard EN ISO 15883-1 “When a ductwork connection is required the connection shall ensure that any condensate will not discharge onto the outer surface of the WD, e.g. the connection should be of the spigot type with the connecting ductwork inside the spigot up stand on the WD.”).

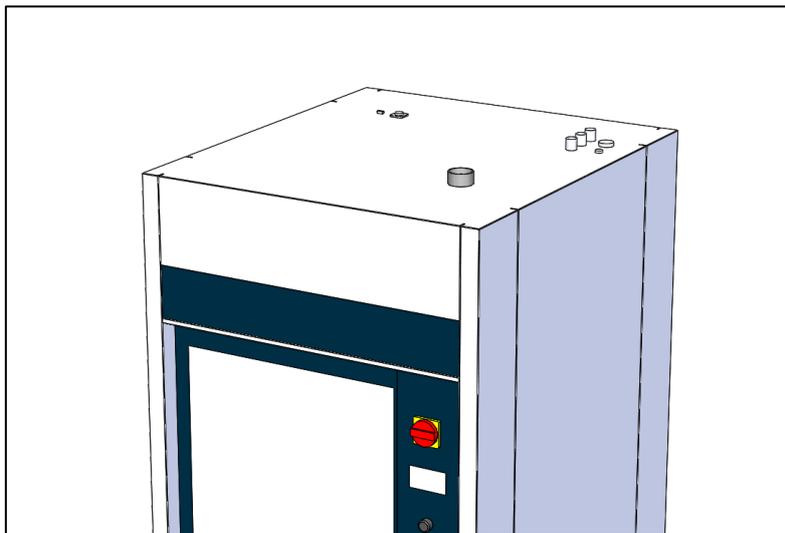


Figure 14.3 – view of the upper side of the machine, tank vent tube.

## 15 TECHNICAL CHARACTERISTICS

REQUIRED WATER SUPPLY			
<b>Required water type</b>	1 – Cold Network <b>CW</b> (compulsory)	2 – Hot Network <b>HW</b> (optional)	3 – Demineralized <b>DW</b> (advised)
<b>Pressure Range</b>	<b>100 kPa – 600 kPa</b> <b>(1 bar – 6 bar)</b>		<b>100 kPa – 600 kPa</b> <b>(1 bar – 6 bar)</b>
<b>Threaded connection type</b>	3 / 4 "		3 / 4 "
<b>Required flow rate [min – max]</b>	4 – 12 litres / min.		4 – 12 litres / min.
Max. hardness	<b>8 °f</b>		-
Fe2+ / Fe3+ [max.]	0.5 ppm		-
Min. - Max. temperature	8 – 25 °C	8 – 60 °C	8 – 60 °C
Max. Conductivity	-	-	<b>30 µS/cm</b>
<b>Microbial contamination limits</b>	Minimum microbiological quality required: "drinking water type" (ref. limits provided by European Directive 98/83/CE)		-
STEAM CONNECTIONS (OPTIONAL HEATING SYSTEM)			
<b>Steam connection</b>	1 / 2 "		
<b>Pressure Range</b>	200 kPa – 400 kPa (2 bar – 4 bar)		
<b>Flow rate</b>	0.8 kg/min (a 400kPa)		
<b>Condensate connection</b>	1 / 2 "		
<b>Max. Counter-pressure</b> (condensate)	30 kPa (0.3 bar)		
<b>Compressed air, pressure range</b>	400 kPa – 800 kPa (4 bar – 8 bar)		
<b>Air tube fitting</b>	Ø 6 mm		
For the connection of the steam optional system, the machine has male threaded connections; required for the system, female fittings.			
The steam optional system also requires the connection of compressed air.			

WEIGHT AND DIMENSIONS			
Models	WD7015	WD7015T*	WD7015TECO**
<b>WD7015T*</b> : reference column for all WD7015 models equipped with heating tanks [Suffix "T"] <b>WD7015TECO**</b> : reference column for models equipped with Eco Exchanger. [Suffix "TECO"]			
<b>External Standard</b> [Height x Width x Depth] unit: mm	1950 x 900 x 1000	1950 x 900 x 1000	2167 x 900 x 1000
<b>External considering also the protruding elements</b> (chimney vent and hooks for disengagement trolley).	2000 x 900 x 1000	2000 x 900 x 1000	2167 x 900 x 1000
<b>Net weight</b> (without water in the chamber)	345 kg	375 kg	410 kg
<b>Machine weight + packaging</b>	385 kg	415 kg	450 kg
<b>Maximum weight in use (trolley loaded + water)</b>	500 kg	595 kg	670 kg
<b>Maximum floor load</b>	555 kg/m <sup>2</sup>	660 kg/m <sup>2</sup>	740 kg/m <sup>2</sup>

[The weight values shown here are appropriately increased to consider the presence of optional components, the maximum water load, the maximum processable load in the tank and the presence of detergent tanks].

MATERIALS	
<b>Washing tank</b>	AISI 316L
<b>Exterior covering</b>	AISI 304

ELECTRICAL POWER SUPPLY				
	DESCRIPTION	ELECTRICAL POWER SUPPLY	CABLE SUPPLIED	ADVISED CIRCUIT BREAKER [ required on the building side ]
<b>WD7015</b>				
<b>ELECTRICAL CONNECTION 50Hz</b>	DEFAULT 400V (Default connection)	400V 3N~ / 50Hz / 30A / 20000W	5G10 FG16OR16-0,6/1 kV	3P+N, 40A, 400V
	THREE-PHASE VARIANT 230V WITHOUT NEUTRAL	230V 3~ / 50Hz / 45A / 17000W	4G10 FG16OR16-0,6/1 kV	3P, 50A, 400V
<b>ELECTRICAL CONNECTION 60Hz</b>	DEFAULT 400V (Default connection)	380-400V 3N~ / 60Hz / 30A / 20000W	5G10 FG16OR16-0,6/1 kV	3P+N, 40A, 400V
	THREE-PHASE VARIANT 230V WITHOUT NEUTRAL	220-230V 3~ / 60Hz / 45A / 17000W	4G10 FG16OR16-0,6/1 kV	3P, 50A, 400V

OTHER DATA	
<b>DATA COMMUNICATION</b>	<b>USB SERIAL PORT</b> (ON LOADING SIDE OF DEVICE)
	<b>LAN PORT</b> (OPTIONAL - ON TOP OF DEVICE)
	<b>RS232 FOR REMOTE PRINTER</b> (OPTIONAL PORT PROVIDED ON TOP OF DEVICE, INSTALLABLE IF THE PANEL PRINTER IS NOT INSTALLED)
<b>MAX. NOISE</b>	66 dBA
ENVIRONMENTAL CONDITIONS	
<b>USE</b>	Internal
<b>ALTITUDE</b>	Up to 1000m
<b>ENVIRONMENT TEMPERATURE</b>	From 10°C to 40°C
<b>MINIMUM LIGHTING LEVEL REQUIRED</b>	300 lx
<b>WD7015</b>	
<b>HEAT EMISSION INTO THE ROOM - CYCLE RUNNING</b> (assessed considering a cycle containing a 93°C thermal disinfection cycle - not including the heat emitted by the steam vent)	1500 W (5250 BTU/h)
<b>MAX. RELATIVE HUMIDITY</b>	80% for temperature up to 31°C with lineal decrease to 50% at the temperature of 40°C.
<b>INSTALLATION CATEGORY (or OVERVOLTAGE CATEGORY)</b>	II
<b>ELECTRICAL INSULATION CLASS (ref. IEC 61140)</b>	I
<b>POLLUTION DEGREE</b>	2 (ref. 61010-1, par.3.6.8)

REGULATIONS AND CLASSIFICATION	
<b>WD CONFORMITY</b>	
	<ul style="list-style-type: none"> <li>- Regulation (EU) 2017/745 on medical devices</li> <li>- European directive 2014/35/EU [Safety]</li> <li>- European directive 2014/30/EU [EMC]</li> <li>- 2011/65/UE including delegated directive (EU) 2015/863</li> </ul> <p>UNI EN ISO 15883-1 :2014 (EN ISO 15883-1:2009 + A1:2014), EN ISO 15883-2:2009</p> <p>UNI CEI EN ISO 14971:2022 (EN ISO 14971:2019, EN ISO 14971:2019/A11:2021) EN 62304:2006 + A1:2015 EN 62366-1:2015 EN 61010-1:2010 /A1:2019/AC:2019-04, EN 61010-1:2010/A1:2019 EN IEC 61010-2-040:2021 EN 62471:2008 EN 61326-1:2013 EN IEC 63000:2018 EN 15223-1:2021</p>
<b>COMPLIANCE - MANAGEMENT SYSTEM FOR QUALITY</b>	
	UNI EN ISO 13485:2021 (EN ISO 13485:2016, EN ISO 13485:2016/A11:2021, EN ISO 13485:2016/AC:2018)
<b>MEDICAL DEVICE CLASS</b>	II b (in compliance with the classification criteria established by Regulation (EU) 2017/745, ref.Rule 16).

## 16 MANUFACTURER REFERENCES AND AFTER-SALES SERVICE

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