INSTRUCTIONS FOR INSTALLATION, USE AND MAINTENANCE

CS2000

ASEP2000

(VERSION ASEP2000.8 EN 01/01/08)

MACHINE N°/SERIAL NUMBER :

Alliance Laundry Systems

1300624
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Model Identification

Information in this manual is applicable to the following models:

UHM027D
UHM033D
UHM049D
UHM067D

TECHNICAL DOCUMENT
ASEPTIC AND CS WASHING MACHINE SERIES 2000

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ELECTRICAL DIAGRAMS AND SPARE PARTS LIST ***Refer to technical manual***				

1. GENERAL WORKING PROCEDURE

1.1 Description

- Correct usage in accordance with design:
  - The dirty laundry is loaded into the front part of the machine and the clean laundry is unloaded from the rear part of the machine, using portholes situated opposite to the loading ports (for the Aseptic machines) or into the front part of the machine (for the CS machines).
  - When a separating wall is constructed at the middle plane of the machine this will then avoid any contact between the dirty and the clean laundry.

- Simple usage:
  - Loading and unloading of the laundry through one or two large ports opening by 180°.

- Easy-to-use programs:
  - Control of the machine by a microprocessor with five standard programs - washing types. It provides the possibility to create 25 other programs according to your requirements.

- No concrete base is required. However, a stable and level floor is absolutely necessary.

- No vibrations are transmitted to the floor.

- The machine only requires one electrical connection, one connection for the heating system of the machine (electricity or steam or gas) and one channel for the drainage of used water.

- Various types of detergents may be used:
  - Classical detergent in powder form or liquid detergent supplied by a dosing pump.

Note: The supplier of the liquid detergents must carry out the adaptation of the dosing pumps and their electrical connection (since the system is specific for each type of product).

1.2 Construction

1.2.1 Chassis - frame

- Mechanically soldered frame of hot de-scaled steel plating, protected against oxidation by phosphation, and covered with epoxy paint.
- Protection panels in stainless steel plating with 1.2 mm thickness.
- The design of the lower part of each tub port inhibits the laundry from slipping in-between the tub and the drum.

1.2.2 Tub and drum

- The tub consists of a rolled stainless steel plate, closed at its extremities by 2 flanges, also stainless steel. The tub flanges are bolted to the tub and a seal assures waterproofing.
- The drum consists of a perforated and pressed stainless steel plate. The plate is then rolled and nested in two bead plates, also stainless steel. 4 beaters mounted peripherally around the interior allow the laundry to be stirred correctly. This assembly is held together by 4 tension rods that traverse the drum from one end to the other.

1.2.3 Suspensions

The tub - drum assembly is suspended by four springs that are attached to the frame and held in place by eight stabilisators, thus absorbing all vibration.

1.2.4 Porthole

The large-size portholes are of stainless steel and equipped with SECURIT panes of tempered glass. Thus they permit a visual control of the washing operation.

1.2.5 Bearings, transmission and motor

- The connecting rod bearings are waterproof and have a hardened steel base.
- The transmission consists of one belt, providing a driving mechanism without slippage.
- The asynchronous motor with variable frequency provides a gradual acceleration, without shocks, which avoids drawing a large current when initiating centrifugal motion.

1.2.6 Programming

Of the integral type with a microprocessor, regulation of:

- Four soap trays.
- Admission of hot, cold and/or soft water.
- Bath levels adjustable.
- Temperature adjustable from 0 to 90°C with microprocessor.
- Reduced mechanical washing motion for delicate laundry.
- Normal mechanical washing motion.
- Intermediate and final centrifuge.

1.3 Working principle

The following operations: loading the dirty laundry, loading the various detergents, and starting and controlling the operations by means of the control panel, are all done on the "dirty laundry" side of the machine.
Once the program is finished, the drum ports are automatically aligned with the "clean laundry" side for the Aseptic machines (the laundry may then be unloaded on the other side of the separation wall, in another room, without risking contamination of the clean laundry by contact with the dirty laundry) or “dirty laundry” side (for the CS machines).

1.4 Security

1.4.1 Total protection against opening doors

This protection is designed to prevent accidents that might be caused by opening a porthole while the drum is rotating.

- Depending on the machine type, either one or two magnetic latches inhibit the opening of the porthole(s) of the tub.
- The microprocessor orders their release automatically.
- After centrifuging the release of the latches is retarded by about 90 seconds.

In case of an electrical outage and after verifying that the drum has come to a complete stop, it is possible to unlock the doors by take away the front panel under the door and pulling down the small cord.

1.4.2 Protection against unbalance

The suspended aseptic or CS machines are fitted with one or two unbalance protections, according to their load capacity. These avoid excessive oscillations caused by a strong unbalance by interrupting the centrifugal motion.

Effect of the protections in case of a strong unbalance

- During the final centrifuge, the centrifugal motion is interrupted and the drainage is maintained, but the cycle is frozen. The message “E9 or unbalance fault” is shown on the display. One must restart the cycle and move fast forward through the program to arrive at the centrifuge phase again.

1.4.3 Heater protection

The bath heating system is not switched on unless the pressure meter, installed for this purpose, detects the correct water level.

1.4.4 Security related to gas heating system

Four security systems guarantee the correct operation of the system.

- When no flame is detected in the burner, the igniter and control plug of the flame causes the closure of the electronic valve in the gas feed, while message “E13” appears on the micro control display. After waiting for about 20 seconds you may then restart the system by a key combination for machine with micro control. If the default appears again, one of the following faults has occurred:
    - No gas feed: check whether the gas feed valves are open.
    - Igniter plug broken.

- The thermostat (chimney obstructed” interrupts the power supply to the command module, in case the chimney is obstructed, and informs you of this fault on the terminal display showing “E10 or chimney obstructed”. After several minutes, you may restart the cycle by pressing “start”. Check your chimney when the fault persists.

- The thermostat “heating security” also interrupts the command module when the temperature in the heater is abnormal and informs you of this fault on the terminal display showing “E11 or heating security”.

- The thermostat “water failure security” also interrupts the command module when the heating element overheats and informs you of this fault on the terminal display showing “E12 or water failure security”.

When a fault occurs in the water circulation pump, the power supply of the command module is interrupted and the indicator “pump fault” lights up. When the faults persist, check with qualified technical service.

1.5 Heating

Three heating methods are available, providing the flexibility to adapt the machine to the available energy supply.

- Electrical heating: by several shielded resistors mounted in the heater bath (the number of resistors being in accordance with the power of the machine).

	UHM027D	UHM033D	UHM049D	UHM067D
Number of resistors	6	9	12	15
Total power (kW)	18	27	36	45

- Steam heating: through the release of steam pressure delivered by an injector situated in the heater bath.

- Gas heating: by a gas heater that is incorporated in the machine. A pump provides the required water circulation.

The efficiency of the machine is given by the number of stars on the identifying label of the machine, in accordance with the norm G45-106. Four stars correspond to an efficiency superior to 80%.

2. TECHNICAL INFORMATION REGARDING INSTALLATION

2.1 Technical specifications

The identification label of machine is situated on upper part of left side of casing.

Pays	Categories	Gas	Pressure (mbar)
Allemagne (DE)	I2ELL	G20 G25	20 20
	I3P	G31	50
Autriche (AT) Danemark (DK) Finlande (FI) Italie (IT) Suède (SE) République Tchèque (CZ) Norvège (NO)	I2H	G20	20
SUISSE (CH) Espagne (ES) Irlande (IE) Portugal (PT) Royaume-Uni (GB) Grèce (GR) Estonie (EE) Lituanie (LT) Lettonie (LV) Slovaquie (SK) Slovénie (SL) Roumanie (RO) Bulgarie (BU)	II2H3P	G20 G31	20 37
SUISSE (CH) Espagne (ES)	II2H3P	G20 G31	20 50
Belgique (BE) Belgique (BE) Chypre (CY) Malte (MT)	I2E+ I3P	G20/G25 G31	20/25 37
France (FR)	II2Esi3P	G20/G25 G31	20/25 37 et 50
Luxembourg (LU)	II2E3P	G20 G31	20 50
PAYS-BAS (NL)	II2L3P	G25 G31	25 50

2.2 Installation

***Attention*:** The machine must only be installed, adjusted and started up by a team of technicians of the manufacturer or by technicians or resellers that are recognised by the manufacturer.

Likewise, it is strongly recommended that the client be present during the installation and the first trials.

The installation of the device must be in accordance with the current regulations and norms and in a room with sufficient ventilation.

The flow of fresh air required for combustion is 90 cubic metres per hour when gas heating is used.

2.2.1 Maintenance and unpacking

Upon delivery the machine must be in perfect shape and the packing must not be incomplete or damaged. Take note of the indications on the packing (e.g., fragile, top and bottom, protect from rain, etc.). The machine is quite heavy and has imposing dimensions (see below). Provide lifting and handling devices in order to proceed safely. The machine must be handled using a lift-truck of sufficient capacity. The truck forks must be placed at their maximum distance to avoid toppling the device.
One must lift the device at its centre (centre of gravity on the axis).
Do not turn the machine over or let it drop, e.g. when unloading.

Note: When lifting by slings (not recommended), the manipulation will be under the entire responsibility of the person handling the machine (since the machine may suffer deformation).

Type		**Dimensions**	
	Machine only	Land packing	Sea packing
	L x l x H (mm)	L x l x H (mm)	L x l x H (mm)
	Weight (Kg)	Weight (Kg)	Weight (Kg)
UHM027D	1172x1053x1690	1342x1320x2050	1342x1320x2050
	880	980	1080
UHM033D	1292x1053x1690	1462x1320x2050	1462x1320x2050
	1060	1160	1260
UHM049D	1612x1053x1690	1782x1320x2050	1782x1320x2050
	1300	1400	1500
UHM067D	1965x1053x1690	2135x1320x2050	2135x1320x2050
	1570	1670	1770

2.2.2 Characteristics of the room

- The machine must be installed in a very well ventilated room with correct lighting and a temperature in the range from -10 to + 40°C (temperature limits for the electronic frequency regulator of the driving motor) .
- Sufficient space must be left around the machine to allow for its correct functioning.
- On each side sufficient space must be left in front of the portholes so that the machine operator can work correctly and without danger.

- Levelling should be carried out correctly on a hard and stable floor surface, capable of supporting the considerable weight of the machine (430 kg on 1 m²). The floor must at least be able to support 500 kg per m^2 for the installation of such a machine.

Correct levelling also guarantees an optimum performance of the suspensions and the water bath, which is balanced horizontally.

All machine types should further be fixed to the floor by self-boring plugs of size M12. Indeed, when an important unbalance occurs, the machine may move slightly, no longer be perfectly horizontal (see drawing), and exert forces on the feeding and draining tubes.

With this type of machine it is possible to insert wedges between the frame and the floor in order to level it.

Construction work required:

- No concrete support is needed.
- No vibration is transmitted to the floor.

To evacuate used water, a drain of at least 150 x 150 mm must be located right under machine.

2.2.3 Connections

Water supply connection:

All machines are fitted with two water supply connections (hot and cold water). Please consult manufacturer for optional soft water connection.

For machines with gas heating, it is important to ensure correct operation of boiler, to supply water for washing step with a maximum TH of 10°. A higher TH will involve a permanent clogging of boiler.

Install two pipes (hot and cold water) vertically behind machine; install two blocking valves in an accessible location. Install a filter in each pipe, upstream from blocking valves.

The pressure must be between 2 and 6 bars; install a motion absorber system as well as an escape valve to handle high water pressure.

Diameter of the tubing

Machine type	Diameter of water connection
UHM027D	20/27 (3/4 in.)
UHM033D	20/27 (3/4 in.)
UHM049D	20/27 (3/4 in.)
UHM067D	26/34 (1 in.)

	UHM027D	UHM033D	UHM049D	UHM067D
Water consumption (litres)				
Pre-washing	47	70	90	130
Washing	47	70	90	130
Rinsing	73	100	120	200
Longest cycle	532	740	900	1460

Drain connection:

All machine types have 1 drain of diameter 80 (drainage of the tub).

The minimum cross section of the used water drain below the machine should be respected (at least 150 x 150 mm).

Electrical connection:

Electrical power connection consists either of a cable with four wires, 230 V, three-phase or of a cable with five wires, 400 V, three-phase.

Wire colors
THREE 380 V + N + T
Black - black - brown ...…..... Phases
Blue ..... Neutral
Green / yellow ..... Earth

THREE 220 V + T
Black - brown - blue ..... Phases
Green / yellow..... Earth

Important:
Install an additional upstream fuse cabinet.
Furthermore, install a residual current operated circuit breaker (300 ma) for the general protection of your launderette against electrical faults.
These installations must be in accordance with valid regulations.

Note: Fuses protect the control and power circuitry.

Table: motor power

	UHM027D	UHM033D	UHM049D	UHM067D
Power in kW	4	4	5.5	5.5
Nominal velocity in tr/min	1500	1500	1500	1500

Electrical heating:

Machines that have electrical heating have connections for:

- The control and motor circuits.
- The heating power circuit.

Table: heating power

	UHM027D		UHM033D		UHM049D		UHM067D	
	230V	400V	230V	400V	230V	400V	230V	400V
Power in kW	18		27		36		45	
Inter combined AM	50	32	80	50	100	60	100	60
Cable section MM^2	4x10	5x6	4x10	5x6	4x16	5x6	4x16	5X10

Steam connection:

- The steam pressure must be between 5 and 10 bars.
- Install a steam escape valve to avoid overpressure.

Table: steam consumption

	UHM027D	UHM033D	UHM049D	UHM067D
Steam consumption	18kg/h	26kg/h	40kg/h	60kg/h
Steam entry connection	¾ in.	¾ in.	¾ in.	¾ in.

Vent connection:

- For security reasons, lead the air tube to the exterior of the room.

⚠ **Attention: Protect the far end of this tube to avoid possible obstruction, which would affect machine operation.**

Gas connection:

Connect the device to the existing gas conducts and install a blocking valve between the device and the rest of the installation.

The installation must be in accordance with the valid norms and regulations of the country involved.

The gas supply conducts must have sufficient dimensions to minimise pressure loss. Its diameter must be calculated as a function of its path (length, number of bends, etc.) and the power of the device.

Check that settings of device correspond to type and pressure of gas of installation.

Connect a manometer to the pressure connection situated on top of the electronic valve module when all burners are on, to check the pressure of the gas feed.

The measured gas pressure must be equal to the pressure indicated on the identification label for the used gas type.

Gas feed connection is 1 inch in diameter and in agreement with the norm ISO 228/1.

Connection with exhaust conduct

Place draught-diverter system supplied with the device between the exit of the heater and the gas exhaust conduct. The tubes that connect with the chimney are of diameter 150 and should be as short as possible.

2.2.4 First start-up

- Verify that the machine is stable and level upon first start-up.
- Check that all connections and drains are correctly established.
- Check that the device is connected to earth correctly.
- Take away brackets transport (see instruction at the end).
- Check that all switches are in their position 0.
- Turn the circuit breaker with guard to position 1.
- Check that the pump (gas heating) rotates in the correct direction.

Note: If the machine turns the wrong way, check the technical service centre of the manufacturer.

Attention: Take care not to touch or come close to any moving parts.

- **Mount all protection panels back on the machine.**

2.3 Adaptation of the device to another type of gas

2.3.1 Actions to be taken

- Dismount the access panels of the heater on the side of the dirty laundry.
- Unscrew the 4 fixing bolts of the gas ramp as well as the bolt of the hose of the gas connection.
- Extract the ramp.
- Unscrew the injectors and replace them.
- Proceed in reverse order to mount the system and check that the gas feed pressure at the entry valves of the module is in agreement with the pressures indicated in the table below (device operating).
- Seal the air adjustments with a little paint.

2.3.2 Table of adjustments and flow rates

Gas type	G20 **(1)**	G25 **(2)**	G31	G31
Pres. feed.(mbar)	20	20	37	50
Injector marking	180	200	120	110
Adjustment of air pres.	Max opening of vent	Idem	Idem	Idem
Flow of burner	2.64(cubic m/h)	3.07(cubic m/h)	1.96 (kg / h)	1.96 (kg / h)
Nominal heat flow kW (hi)	24.9	24.9	24.9	24.9

(1) Identical adjustment for G25 at 25 mbar
(2) Germany only

* G20: natural gas type H (Lacq)
* G25: natural gas type L (Groningen)
* G31: propane

3. TECHNICAL INFORMATION FOR THE USER

Note:

- The user must not handle parts that are protected by the manufacturer or his representative.
- The user must appeal to a qualified installer to adapt the device to a different type of gas.
- The exhaust gas evacuation chimney must be swept periodically in accordance with the valid rules of the concerned country.

3.1 Details of the various elements

3.1.1 Opening and closing the doors

Drum portholes

Important: Door locking system of the drum consists of a lock with two latches and two buttons to move those two latches.

Check that the latches are in their correct positions and that there is a gap of 50mm minimum between the two buttons (an incorrect door closure will lead to the destruction of the lock parts and may damage the doors).

Not following these instructions annuls the guarantee; the costs of repair of the caused damage will therefore revert automatically to the client.

Outer port or porthole

- Close the door carefully to obtain good waterproofing (the handle door must be horizontal).

⚠ **Attention: Risk of burning; please do not touch the glass of the porthole when the machine is functioning, in particular after the heating phase of the washing bath.**

3.1.2 Soap trays

⚠ Attention: All products used are harmful and must be handled with caution. Read the recommendations of the product suppliers carefully.

Before all manipulation: you must use appropriate protective clothing, e.g. gloves, boots, glasses, respiratory masks, etc.

Detergent:

- Fill the soap trays with the corresponding products when starting a cycle.
- The detergents for washing and pre-washing must be in powder form (or liquid when automatic feeding by a dosing pump is used).
  - There are several different types of detergent, and some of them are more easily dissolved in water. Consult your supplier, who will provide indications.

Bleach:

- 5 to 10 g of 12° bleach per litre of water.
- Never surpass the lower marking of the siphon of the bleach tray.

Softener:

- Consult supplier. The doses vary according to the products used.

3.1.3 Unbalance and direction of rotation

When you receive the message “unbalance fault“ before ending a cycle, you must restart the cycle (refer to Ch. 1.4.2).

If the unbalance persists, check the following points:

- Machine has insufficient load:
  Loads must be in the following ranges (dry laundry weight)
  UHM027D..... 19 to 27 kg
  UHM033D..... 22 to 33 kg
  UHM049D..... 38 to 49 kg
  UHM067D..... 52 to 67 kg
- Water drainage defective.
- Long pieces of clothes tangle and create knots.
- Heterogeneous load of clothes, differing in type, weights or size.
- Poorly adjusted water level: Upper level ... 140 mm
  Lower level ... 60 mm
- Shockbreaker got stuck: the symptom of this problem is an escape of oil on the skirt of the shockbreaker.
- Wrong direction of rotation of the centrifuge.

Note: Centrifuge must always switch on with the same velocity and direction as the washing rotation. This rotation is downward when you are on the dirty laundry side of the machine.

3.2 Usage of washing machines with micro control

Refer to Programming Manual for micro control information.

4. PERIODIC MAINTENANCE

4.0 Every day

Clean dust filter located below the tub once a day when using gas heating.

4.1 Every week (0.5 h)

- Clean the soap trays.
- Clean the machine using a dry or slightly humid cloth (not dripping).

4.2 Every month (1 h)

- Check the condition of the shockbreakers (no oil traces should be visible on the outside of the shockbreaker).
- Check that the frictional gliders between which the tub-drum assembly is wedged laterally make contact correctly (if the pressure is not sufficient, withdraw a spacer of the frictional arm connection).
- Check the condition and waterproofing of the steam circuit for those machines that are heated by steam.
- Check the working condition of the gas heating system (boiler, safety and filter).
- Check the working condition of the unbalance detector switch.

4.3 Every 3 months (2 h)

- Check and retighten the main bolts, when necessary.
- Clean the protective filters of the electronic valves.
- Grease the rod bearings of the drum lightly.
- Clean the steam nozzle on machines with steam heating.

- De-scale the heater unit using a de-scaling product (consult manufacturer for supplies) on those machines that use gas heating. This product is introduced in the tub of the washing machines. Then, a washing cycle at 60°C is carried out lasting about 20 minutes, after which the machine is drained and rinsed.
- Check the working condition of the door locking system of the drum ports:
    - The spring of both latches.
    - The spring of the holding receptacle of the controller rod.

4.4 Every 6 months (2 h)

- Check the condition of the driving belts of the drum.
- Grease the drive shaft and the sliding parts of the transmission very lightly using a high temperature grease applied with a pulverising pump.
- Clean, de-scale and clear the electrical heating elements (when the machine uses this type of heating).
- Check the waterproofing and toughness of the tubing.
- Check the working condition of the heating assembly (flame, exhaust, chimney draw, lighter plug, and security).

IMPORTANT: Check the working condition of gas heating system (boiler, flame, safety, chimney…) and clean the boiler's body with a high pressure pump (with two sense of flow) connected at inlet and outlet of the boiler.

4.5 Every year (2 h)

- Grease the suspension springs lightly.
- Clean, check and de-scale the drainage assembly, if needed.

5. MAINTENANCE INSTRUCTIONS

5.1 Replacement of the sealing kit

1) Remove the strips.
2) Remove the hub (remove the two hub screws and place one of the two screws in the third hole).
3) Remove the wheel (first make a mark so you can later replace it in the same position).
4) Secure the drum with two wooden wedges.
5) Remove the cover and clean off the lubricant.
6) Release the flap of the blocking washer that is fixed by a screw.
7) Undo the screw until the base of the conical section.
8) Undo the bearing screws.
9) Insert the four 8x70 bolts into the base of the bearing and loosen it from the conical section.
10) Tap on the screw of the pressing cone.
11) Extract the bearing and the cone.
12) Remove the lock ring.
13) Remove the supporting ring with the extractor.
14) Extract the sealing ring.
15) Clean the drum shaft (use solvent and a polishing cloth).
16) Place the sealing ring and apply a little lubricant to the shaft.
17) Place the supporting ring using a roller by way of wedge, as well as a mallet (applying a little lubricant to the toric joint).
18) Compress the sealing ring using adequate tools.
19) Place the lock ring.
20) Extract the two bearing spi joints.
21) Place the pressing cone in the bearing.
22) Place the spi joint in the bearing base.
23) Adjust the bearing position.
24) Place the blocking washer and the blocking screw, tighten the screw and then trim the flap of the blocking washer.
25) Adjust the position of the spi joint with respect to the cover.
26) Lubricate the bearing.
27) Replace the cover.
28) Adjust the position of the pin on the shaft and replace the wheel.
29) Fasten the hub using the two fixing screws.

    ⚠ **Make sure the hub and the wheel are in the same position as they were originally.**

30) Tighten the screw at the base of the shaft.
31) Place the strips.

6. TROUBLESHOOTING

6.1 Checks

- The electrical power supply.
- The protective fuses.
- Water supply interruption.
- Filter blocking.
- Water pressure failure.
- Waterproofing of the drainage system.
- The driving belts.
- The water levels.

Attention: When the water levels are not correct, consult reseller and replace the pressure switch.

- When the drainage is obstructed, clean it.
- When the machine vibrates, check the following:
    - It is loaded with a heterogeneous load of laundry.
    - Its load is too small.
    - It is overloaded.
    - Check the condition of the shockbreakers.
    - Check that the lateral frictional gliders exert enough pressure.
- When the machine experiences frequent unbalance problems or when an oil trace appears on the body of a shockbreaker, the shockbreakers must be changed.

6.2 Other breakdowns

- When other breakdowns or unusual noises are produced (scrubbing, knocking, etc.) interrupt work and contact the manufacturer immediately, describing the problem in detail.

7. PROBLEMS DURING OPERATION AND START-UP

Problem	Check
Cycle does not start	- doors not closed correctly - emergency stop activated - contact breaker or electricity outage
Control panel does not light up	- fuses tripped - emergency stop activated - processor off - electricity outage
Cycle starts but drum does not turn	- fuse of regulator tripped - press yellow indicator light on front side when it is on
Cycle starts but water does not enter	- water inlet closed - pressure switch out of service - electronic valve out of service - fuse tripped - electronic valve of inlet out of service
Cycle starts but water inflow does not stop	- pressure switch out of service - electronic valve dirty - tub pressure switch clogged - drainage valve still open
Cycle starts but heating does not engage	- required water level not reached - fuse tripped - contact coil heating out of service - HS probe
Heating is on but temperature does not rise	- resistor out of service

Machine does not drain	- drainage valve dirty - exhaust tube blocked
Machine does not centrifugate	- improper loading of laundry or loading limits not respected, causing an unbalance fault - no high level before centrifugation - drainage blocked

PROGRAM DETAILS

ASEPTIC WASHING MACHINE TYPE 2000/CS 2000 WITH MICRO CONTROL

PROGRAM N°: 1	**LAUNDRY TYPE: VERY SOILED WHITE** **Wash energic speed: 45 tr/min**

STAGE	**TIME**	**WATER TYPE**	**LEVEL**	**PRODUCT**	**TEMP. °C**	**COMMENT**
Soaking						M15-A10
Prewash **P2**	240	Cold	27 cm/high	tray A	38	M15-A10
Wash 1						
Wash 2 **P3**	300	Hot	21 cm/low	tray B	80	M15-A10
Cooling	no					
Rinsing 1 **P4**	120	Cold	27 cm/high			M15-A10
Bleaching **P5**	240	Cold	24 cm/middle	tray C		M15-A10
Rinsing 2 **P4**	120	Cold	27 cm/high			M15-A10
Rinsing 3						M15-A10
Rinsing 4						
Final Rinsing **P6**	240	Hot and cold	27 cm/high	tray D		M15-A10
Centrifugation **P7**						
Distribution 1	5					100 tr/min
Distribution 2	60					100 tr/min
Centrifugation 1	120					300 tr/min
Centrifugation 2	240					700 tr/min
Centrifugation 3	120					1000 tr/min
Separation **P8**	60					M10-A5

***Additional information*:**

Duration of product drainages:

Tray A:	Tray B:	Tray C:	Tray D:	Rinsing tray:
50	50	50	50	60

Note: - All time intervals expressed in seconds, not counting loading and heating times.
- All drainage intervals are automatically adjusted to 90 seconds.
- After every product drainage, a rinsing of the soap tray is programmed.
- Door positionning is automatic.

PROGRAM DETAILS

ASEPTIC WASHING MACHINE TYPE 2000/CS 2000 WITH MICRO CONTROL

PROGRAM N°: 2	**LAUNDRY TYPE: SOILED WHITE** **Wash energic speed: 45 tr/min**

STAGE	**TIME**	**WATER TYPE**	**LEVEL**	**PRODUCT**	**TEMP. °C**	**COMMENT**
Soaking						M15-A10
Prewash						
Wash 1						
Wash 2 **P9**	480	Hot	21 cm/low	tray B	80	M15-A10
Cooling	no					
Rinsing 1						
Bleaching **P5**	240	Cold	24 cm/middle	tray C		M15-A10
Rinsing 2 **P4**	120	Cold	27 cm/high			M15-A10
Rinsing 3						M15-A10
Rinsing 4						
Final rinsing **P6**	240	Hot and cold	27 cm/high	tray D		M15-A10
Centrifugation **P7**						
Distribution 1	5					100 tr/min
Distribution 2	60					100 tr/min
Centrifugation 1	120					300 tr/min
Centrifugation 2	240					700 tr/min
Centrifugation 3	120					1000 tr/min
Separation **P8**	120					M10-A5

***Additional information*:**

Duration of product drainages:

Tray A:	Tray B:	Tray C:	Tray D:	Rinsing tray:
50	50	50	50	60

Note: - All time intervals expressed in seconds, not counting loading and heating times.
- All drainage intervals are automatically adjusted to 90 seconds.
- After every product drainage, a rinsing of the soap tray is programmed.
- Door positionning is automatic.

PROGRAM DETAILS

ASEPTIC WASHING MACHINE TYPE 2000/CS 2000 WITH MICRO CONTROL

PROGRAM N°: 3	**LAUNDRY TYPE: COLOUR** **Wash energic speed: 45 tr/min**

STAGE	**TIME**	**WATER TYPE**	**LEVEL**	**PRODUCT**	**TEMP. °C**	**COMMENT**
Soaking						M15-A10
Prewash **P10**	180	Cold	27 cm/high	Tray A	30	M15-A10
Wash 1						
Wash 2 **P11**	300	Hot and cold	21 cm/low	tray B	60	M15-A10
Cooling	no					
Rinsing 1						
Bleaching						
Rinsing 2 **P4**	120	Cold	27 cm/high			M15-A10
Rinsing 3 **P4**	120	Cold	27 cm/high			M15-A10
Rinsing 4						
Final rinsingl**P16**	240	Cold	27 cm/high	tray D		M15-A10
Centrifugation **P12**						
Distribution 1	5					100 tr/min
Distribution 2	60					100 tr/min
Centrifugation 1	120					300 tr/min
Centrifugation 2	300					700 tr/min
Centrifugation 3	120					1000 tr/min
Separation **P8**	60					M10-A5

***Additional information*:**

Duration of product drainages:

Tray A:	Tray B:	Tray C:	Tray D:	Rinsing tray:
50	50	50	50	60

Note: - All time intervals expressed in seconds, not counting loading and heating times.
- All drainage intervals are automatically adjusted to 90 seconds.
- After every product drainage, a rinsing of the soap tray is programmed.
- Door positionning is automatic.

PROGRAM DETAILS

ASEPTIC WASHING MACHINE TYPE 2000/CS 2000 WITH MICRO CONTROL

PROGRAM N°: 4	**LAUNDRY TYPE: POLYESTER/ COTON** **Wash energic speed: 45 tr/min**

STAGE	**TIME**	**WATER TYPE**	**LEVEL**	**PRODUCT**	**TEMP. °C**	**COMMENT**
Soaking						
Prewash						
Wash 1						
Wash 2 **P14**	480	Cold	21 cm/low	tray B	60	M15-A10
Cooling	45°level 7cm					
Rinsing 1						
Bleaching						
Rinsing 2 **P15**	180	Cold	27 cm/high			M15-A10
Rinsing 3						
Rinsing 4						
Final rinsing **P16**	240	Cold	27 cm/high	tray D		M15-A10
Centrifugation **P17**						
Distribution 1	5					100 tr/min
Distribution 2	60					100 tr/min
Centrifugation 1	120					300 tr/min
Centrifugation 2	300					700 tr/min
Centrifugation 3	0					1000 tr/min
Separation **P8**	60					M10-A5

***Additional information*:**

Duration of product drainages:

Tray A:	Tray B:	Tray C:	Tray D:	Rinsing tray:
50	50	50	50	60

Note: - All time intervals expressed in seconds, not counting loading and heating times.
- All drainage intervals are automatically adjusted to 90 seconds.
- After every product drainage, a rinsing of the soap tray is programmed.
- Door positionning is automatic.

PROGRAM DETAILS

ASEPTIC WASHING MACHINE TYPE 2000/CS 2000 WITH MICRO CONTROL

PROGRAM N°: 5	**LAUNDRY TYPE: WOOLEN** **Wash energic speed: 45 tr/min**

STAGE	**TIME**	**WATER TYPE**	**LEVEL**	**PRODUCT**	**TEMP. °C**	**COMMENT**
Soaking						M4 A10
Prewash						
Wash 1						
Wash 2 **P19**	480	Cold	21 cm/low	tray B	30	M4 - A10
Cooling	No					
Rinsing 1						
Bleaching						
Rinsing 2 **P20**	180	Cold	27 cm/high			M4 - A10
Rinsing 3						
Rinsing 4						
Rinsing final **P21**	240	Cold	27 cm/high	tray D		M4 - A10
Centrifugation **P22**						
Distribution 1	5					100 tr/min
Distribution 2	60					100 tr/min
Centrifugation 1	120					300 tr/min
Centrifugation 2	0					700 tr/min
Centrifugation 3	0					1000 tr/min
Separation **P8**	60					M4- A10

***Additional information*:**

Duration of product drainages:

Tray A:	Tray B:	Tray C:	Tray D:	Rinsing tray:
50	50	50	50	60

Note: - All time intervals expressed in seconds, not counting loading and heating times.
- All drainage intervals are automatically adjusted to 90 seconds.
- After every product drainage, a rinsing of the soap tray is programmed.
- Door positionning is automatic.

PROGRAM DETAILS

ASEPTIC WASHING MACHINE TYPE 2000/CS 2000 WITH MICRO CONTROL

PROGRAM N°:	**LAUNDRY TYPE:** **Wash energic speed:**

STAGE	**TIME**	**WATER TYPE**	**LEVEL**	**PRODUCT**	**TEMP. °C**	**COMMENT.**
Soaking						
Prewash						
Wash 1						
Wash 2						
Cooling						
Rinsing 1						
Bleaching						
Rinsing 2						
Rinsing 3						
Rinsing 4						
Rinsing final						
Centrifugation **:**						
Distribution 1						
Distribution 2						
Centrifugation 1						
Centrifugation 2						
Centrifugation 3						
Separation						

***Additional information*:**

Duration of product drainages:

Tray A:	Tray B:	Tray C:	Tray D:	Rinsing tray:
50	50	50	50	60

Note: - All time intervals expressed in seconds, not counting loading and heating times.
- All drainage intervals are automatically adjusted to 90 seconds.
- After every product drainage, a rinsing of the soap tray is programmed.
- Door positionning is automatic.

Cycle n.1

1.	Step n. 2	Prewash	PREWASH38
2.	Step n. 3	Wash	WASH80
3.	Step n. 4	Rinse	RINSE120
4.	Step n. 5	Rinse	BLEACH240
5.	Step n. 4	Rinse	RINSE120
6.	Step n. 6	Rinse	FINALRINS
7.	Step n. 7	Spin	SPIN1000
8.	Step n. 8	Distribution	TUMBLE60

Cycle n.2

1.	Step n. 9	Wash	WASH80
2.	Step n. 5	Rinse	BLEACH240
3.	Step n. 4	Rinse	RINSE120
4.	Step n. 6	Rinse	FINALRINS
5.	Step n. 7	Spin	SPIN1000
6.	Step n. 8	Distribution	TUMBLE60

Cycle n.3

1.	Step n. 10	Prewash	PREWASH30
2.	Step n. 11	Wash	WASH60
3.	Step n. 4	Rinse	RINSE120
4.	Step n. 4	Rinse	RINSE120
5.	Step n. 16	Rinse	FINALRINS
6.	Step n. 12	Spin	SPIN1000
7.	Step n. 8	Distribution	TUMBLE60

Cycle n.4

1.	Step n. 14	Wash	WASH60CD
2.	Step n. 15	Rinse	RINSE180
3.	Step n. 16	Rinse	FINALRINS
4.	Step n. 17	Spin	SPIN700
5.	Step n. 8	Distribution	TUMBLE60

Cycle n.5

1.	Step n. 19	Wash	WASH30G
2.	Step n. 20	Rinse	RINSE180G
3.	Step n. 21	Rinse	RINS240G
4.	Step n. 22	Spin	SPIN300
5.	Step n. 8	Distribution	TUMBLE60

Step n. 1 Soak SOAK120

ENABLE SPEED

VLL	NO
VLN	YES
VDN	NO
VDA	NO
VCL	NO
VCI	NO
VCA	NO

DRUM ACTION

Move	15 sec.
Pause	10 sec.

SET TEMPERATURE

HEATING	
Temperature	0 °C
Maintain time	120 sec.
COOLING	
Temperature	0 °C
2° Level	4 cm.

WATER LEVEL TO BE REACHED

Water level	27 cm.
Maintain time	120 sec.
Alarm timeout	0 sec.

FILLING WATER INTAKE

ACVAS = WARM WATER	NO
ADUV = HARD WATER	YES
ADOVAS = SOFT WATER	NO
Drum movement	YES

DRAIN

Drain enabling delay	0 sec.
Drum movement	YES
End step unload	YES

SOAP INTAKE

ADOL(disp.A)	0 sec.
ACDI(disp.B)	0 sec.
ADUDI(disp.C)	0 sec.

SOAP PUMP ENABLING

N. 1	0 sec.
N. 2	0 sec.
N. 3	0 sec.
N. 4	0 sec.
N. 5	0 sec.
N. 6	0 sec.
N. 7	0 sec.

Step n. 2 Prewash PREWASH38

ENABLE SPEED

VLL	NO
VLN	YES
VDN	NO
VDA	NO
VCL	NO
VCI	NO
VCA	NO

DRUM ACTION

Move	15 sec.
Pause	10 sec.

SET TEMPERATURE

HEATING	
Temperature	38 °C
Maintain time	240 sec.
COOLING	
Temperature	0 °C
2° Level	4 cm.

WATER LEVEL TO BE REACHED

Water level	27 cm.
Maintain time	240 sec.
Alarm timeout	0 sec.

FILLING WATER INTAKE

ACVAS = WARM WATER	NO
ADUV = HARD WATER	YES
ADOVAS = SOFT WATER	NO
Drum movement	YES

DRAIN

Drain enabling delay	0 sec.
Drum movement	YES
End step unload	YES

SOAP INTAKE

ADOL(disp.A)	50 sec.
ACDI(disp.B)	0 sec.
ADUDI(disp.C)	0 sec.

SOAP PUMP ENABLING

N. 1	0 sec.
N. 2	0 sec.
N. 3	0 sec.
N. 4	0 sec.
N. 5	0 sec.
N. 6	0 sec.
N. 7	0 sec.

Step n. 3 Wash WASH80

ENABLE SPEED

VLL	NO
VLN	YES
VDN	NO
VDA	NO
VCL	NO
VCI	NO
VCA	NO

DRUM ACTION

Move	15 sec.
Pause	10 sec.

SET TEMPERATURE

HEATING	
Temperature	80 °C
Maintain time	300 sec.
COOLING	
Temperature	0 °C
2° Level	4 cm.

WATER LEVEL TO BE REACHED

Water level	21 cm.
Maintain time	300 sec.
Alarm timeout	0 sec.

FILLING WATER INTAKE

ACVAS = WARM WATER	YES
ADUV = HARD WATER	NO
ADOVAS = SOFT WATER	NO
Drum movement	YES

DRAIN

Drain enabling delay	0 sec.
Drum movement	YES
End step unload	YES

SOAP INTAKE

ADOL(disp.A)	0 sec.
ACDI(disp.B)	50 sec.
ADUDI(disp.C)	0 sec.

SOAP PUMP ENABLING

N. 1	0 sec.
N. 2	0 sec.
N. 3	0 sec.
N. 4	0 sec.
N. 5	0 sec.
N. 6	0 sec.
N. 7	0 sec.

Step n. 4 Rinse RINSE120

ENABLE SPEED

VLL	NO
VLN	YES
VDN	NO
VDA	NO
VCL	NO
VCI	NO
VCA	NO

DRUM ACTION

Move	15 sec.
Pause	10 sec.

SET TEMPERATURE

HEATING	
Temperature	0 °C
Maintain time	120 sec.
COOLING	
Temperature	0 °C
2° Level	4 cm.

WATER LEVEL TO BE REACHED

Water level	27 cm.
Maintain time	120 sec.
Alarm timeout	0 sec.

FILLING WATER INTAKE

ACVAS = WARM WATER	NO
ADUV = HARD WATER	YES
ADOVAS = SOFT WATER	NO
Drum movement	YES

DRAIN

Drain enabling delay	0 sec.
Drum movement	YES
End step unload	YES

SOAP INTAKE

ADOL(disp.A)	0 sec.
ACDI(disp.B)	0 sec.
ADUDI(disp.C)	0 sec.

SOAP PUMP ENABLING

N. 1	0 sec.
N. 2	0 sec.
N. 3	0 sec.
N. 4	0 sec.
N. 5	0 sec.
N. 6	0 sec.
N. 7	0 sec.

Step n. 5 Rinse BLEACH240

ENABLE SPEED

VLL	NO
VLN	YES
VDN	NO
VDA	NO
VCL	NO
VCI	NO
VCA	NO

DRUM ACTION

Move	15 sec.
Pause	10 sec.

SET TEMPERATURE

HEATING	
Temperature	0 °C
Maintain time	240 sec.
COOLING	
Temperature	0 °C
2° Level	4 cm.

WATER LEVEL TO BE REACHED

Water level	24 cm.
Maintain time	240 sec.
Alarm timeout	0 sec.

FILLING WATER INTAKE

ACVAS = WARM WATER	NO
ADUV = HARD WATER	YES
ADOVAS = SOFT WATER	NO
Drum movement	YES

DRAIN

Drain enabling delay	0 sec.
Drum movement	YES
End step unload	YES

SOAP INTAKE

ADOL(disp.A)	0 sec.
ACDI(disp.B)	0 sec.
ADUDI(disp.C)	50 sec.

SOAP PUMP ENABLING

N. 1	0 sec.
N. 2	0 sec.
N. 3	0 sec.
N. 4	0 sec.
N. 5	0 sec.
N. 6	0 sec.
N. 7	0 sec.

Step n. 6 Rinse FINALRINS

ENABLE SPEED

VLL	NO
VLN	YES
VDN	NO
VDA	NO
VCL	NO
VCI	NO
VCA	NO

DRUM ACTION

Move	15 sec.
Pause	10 sec.

SET TEMPERATURE

HEATING	
Temperature	0 °C
Maintain time	240 sec.
COOLING	
Temperature	0 °C
2° Level	4 cm.

WATER LEVEL TO BE REACHED

Water level	27 cm.
Maintain time	240 sec.
Alarm timeout	0 sec.

FILLING WATER INTAKE

ACVAS = WARM WATER	YES
ADUV = HARD WATER	YES
ADOVAS = SOFT WATER	NO
Drum movement	YES

DRAIN

Drain enabling delay	0 sec.
Drum movement	YES
End step unload	NO

SOAP INTAKE

ADOL(disp.A)	0 sec.
ACDI(disp.B)	0 sec.
ADUDI(disp.C)	0 sec.

SOAP PUMP ENABLING

N. 1	0 sec.
N. 2	0 sec.
N. 3	0 sec.
N. 4	0 sec.
N. 5	0 sec.
N. 6	0 sec.
N. 7	0 sec.

Step n. 7 Spin SPIN1000

ENABLE SPEED

VLL	0 sec.
VLN	0 sec.
VDN	5 sec.
VDA	60 sec.
VCL	120 sec.
VCI	240 sec.
VCA	120 sec.
START WITH WATER	YES

TILTING

Number of spin attempts	6

Step n. 8 Distribution TUMBLE60

ENABLE SPEED

VLL	0 sec.
VLN	60 sec.
VDN	0 sec.
VDA	0 sec.
VCL	0 sec.
VCI	0 sec.
VCA	0 sec.

DRUM ACTION

Move	10 sec.
Pause	5 sec.

Step n. 9 Wash WASH80

ENABLE SPEED

VLL	NO
VLN	YES
VDN	NO
VDA	NO
VCL	NO
VCI	NO
VCA	NO

DRUM ACTION

Move	15 sec.
Pause	10 sec.

SET TEMPERATURE

HEATING	
Temperature	80 °C
Maintain time	480 sec.
COOLING	
Temperature	0 °C
2° Level	4 cm.

WATER LEVEL TO BE REACHED

Water level	21 cm.
Maintain time	480 sec.
Alarm timeout	0 sec.

FILLING WATER INTAKE

ACVAS = WARM WATER	YES
ADUV = HARD WATER	NO
ADOVAS = SOFT WATER	NO
Drum movement	YES

DRAIN

Drain enabling delay	0 sec.
Drum movement	YES
End step unload	YES

SOAP INTAKE

ADOL(disp.A)	0 sec.
ACDI(disp.B)	50 sec.
ADUDI(disp.C)	0 sec.

SOAP PUMP ENABLING

N. 1	0 sec.
N. 2	0 sec.
N. 3	0 sec.
N. 4	0 sec.
N. 5	0 sec.
N. 6	0 sec.
N. 7	0 sec.

Step n. 10 Prewash PREWASH30

ENABLE SPEED

VLL	NO
VLN	YES
VDN	NO
VDA	NO
VCL	NO
VCI	NO
VCA	NO

DRUM ACTION

Move	15 sec.
Pause	10 sec.

SET TEMPERATURE

HEATING	
Temperature	30 °C
Maintain time	180 sec.
COOLING	
Temperature	0 °C
2° Level	4 cm.

WATER LEVEL TO BE REACHED

Water level	27 cm.
Maintain time	180 sec.
Alarm timeout	0 sec.

FILLING WATER INTAKE

ACVAS = WARM WATER	NO
ADUV = HARD WATER	YES
ADOVAS = SOFT WATER	NO
Drum movement	YES

DRAIN

Drain enabling delay	0 sec.
Drum movement	YES
End step unload	YES

SOAP INTAKE

ADOL(disp.A)	50 sec.
ACDI(disp.B)	0 sec.
ADUDI(disp.C)	0 sec.

SOAP PUMP ENABLING

N. 1	0 sec.
N. 2	0 sec.
N. 3	0 sec.
N. 4	0 sec.
N. 5	0 sec.
N. 6	0 sec.
N. 7	0 sec.

Step n. 11 Wash WASH60

ENABLE SPEED

VLL	NO
VLN	YES
VDN	NO
VDA	NO
VCL	NO
VCI	NO
VCA	NO

DRUM ACTION

Move	15 sec.
Pause	10 sec.

SET TEMPERATURE

HEATING	
Temperature	60 °C
Maintain time	300 sec.
COOLING	
Temperature	0 °C
2° Level	4 cm.

WATER LEVEL TO BE REACHED

Water level	21 cm.
Maintain time	300 sec.
Alarm timeout	0 sec.

FILLING WATER INTAKE

ACVAS = WARM WATER	YES
ADUV = HARD WATER	YES
ADOVAS = SOFT WATER	NO
Drum movement	YES

DRAIN

Drain enabling delay	0 sec.
Drum movement	YES
End step unload	YES

SOAP INTAKE

ADOL(disp.A)	0 sec.
ACDI(disp.B)	50 sec.
ADUDI(disp.C)	0 sec.

SOAP PUMP ENABLING

N. 1	0 sec.
N. 2	0 sec.
N. 3	0 sec.
N. 4	0 sec.
N. 5	0 sec.
N. 6	0 sec.
N. 7	0 sec.

Step n. 12 Spin SPIN1000

ENABLE SPEED

VLL	0 sec.
VLN	0 sec.
VDN	5 sec.
VDA	60 sec.
VCL	120 sec.
VCI	300 sec.
VCA	120 sec.
START WITH WATER	YES

TILTING

Number of spin attempts	6

Step n. 14 Wash WASH60CD

ENABLE SPEED

VLL	NO
VLN	YES
VDN	NO
VDA	NO
VCL	NO
VCI	NO
VCA	NO

DRUM ACTION

Move	15 sec.
Pause	10 sec.

SET TEMPERATURE

HEATING	
Temperature	60 °C
Maintain time	480 sec.
COOLING	
Temperature	45 °C
2° Level	7 cm.

WATER LEVEL TO BE REACHED

Water level	21 cm.
Maintain time	480 sec.
Alarm timeout	0 sec.

FILLING WATER INTAKE

ACVAS = WARM WATER	NO
ADUV = HARD WATER	YES
ADOVAS = SOFT WATER	NO
Drum movement	YES

DRAIN

Drain enabling delay	0 sec.
Drum movement	YES
End step unload	YES

SOAP INTAKE

ADOL(disp.A)	0 sec.
ACDI(disp.B)	50 sec.
ADUDI(disp.C)	0 sec.

SOAP PUMP ENABLING

N. 1	0 sec.
N. 2	0 sec.
N. 3	0 sec.
N. 4	0 sec.
N. 5	0 sec.
N. 6	0 sec.
N. 7	0 sec.

Step n. 15 Rinse RINSE180

ENABLE SPEED

VLL	NO
VLN	YES
VDN	NO
VDA	NO
VCL	NO
VCI	NO
VCA	NO

DRUM ACTION

Move	15 sec.
Pause	10 sec.

SET TEMPERATURE

HEATING	
Temperature	0 °C
Maintain time	180 sec.
COOLING	
Temperature	0 °C
2° Level	4 cm.

WATER LEVEL TO BE REACHED

Water level	27 cm.
Maintain time	180 sec.
Alarm timeout	0 sec.

FILLING WATER INTAKE

ACVAS = WARM WATER	NO
ADUV = HARD WATER	YES
ADOVAS = SOFT WATER	NO
Drum movement	YES

DRAIN

Drain enabling delay	0 sec.
Drum movement	YES
End step unload	YES

SOAP INTAKE

ADOL(disp.A)	0 sec.
ACDI(disp.B)	0 sec.
ADUDI(disp.C)	0 sec.

SOAP PUMP ENABLING

N. 1	0 sec.
N. 2	0 sec.
N. 3	0 sec.
N. 4	0 sec.
N. 5	0 sec.
N. 6	0 sec.
N. 7	0 sec.

Step n. 16 Rinse FINALRINS

ENABLE SPEED

VLL	NO
VLN	YES
VDN	NO
VDA	NO
VCL	NO
VCI	NO
VCA	NO

DRUM ACTION

Move	15 sec.
Pause	10 sec.

SET TEMPERATURE

HEATING	
Temperature	0 °C
Maintain time	240 sec.
COOLING	
Temperature	0 °C
2° Level	4 cm.

WATER LEVEL TO BE REACHED

Water level	27 cm.
Maintain time	240 sec.
Alarm timeout	0 sec.

FILLING WATER INTAKE

ACVAS = WARM WATER	NO
ADUV = HARD WATER	YES
ADOVAS = SOFT WATER	NO
Drum movement	YES

DRAIN

Drain enabling delay	0 sec.
Drum movement	YES
End step unload	NO

SOAP INTAKE

ADOL(disp.A)	0 sec.
ACDI(disp.B)	0 sec.
ADUDI(disp.C)	0 sec.

SOAP PUMP ENABLING

N. 1	0 sec.
N. 2	0 sec.
N. 3	0 sec.
N. 4	0 sec.
N. 5	0 sec.
N. 6	0 sec.
N. 7	0 sec.

Step n. 17 Spin SPIN700

ENABLE SPEED

VLL	0 sec.
VLN	0 sec.
VDN	5 sec.
VDA	60 sec.
VCL	120 sec.
VCI	300 sec.
VCA	0 sec.
START WITH WATER	YES

TILTING

Number of spin attempts	6

Step n. 18 Wash WASH40

ENABLE SPEED

VLL	NO
VLN	YES
VDN	NO
VDA	NO
VCL	NO
VCI	NO
VCA	NO

DRUM ACTION

Move	15 sec.
Pause	10 sec.

SET TEMPERATURE

HEATING	
Temperature	40 °C
Maintain time	300 sec.
COOLING	
Temperature	0 °C
2° Level	4 cm.

WATER LEVEL TO BE REACHED

Water level	21 cm.
Maintain time	300 sec.
Alarm timeout	0 sec.

FILLING WATER INTAKE

ACVAS = WARM WATER	YES
ADUV = HARD WATER	YES
ADOVAS = SOFT WATER	NO
Drum movement	YES

DRAIN

Drain enabling delay	0 sec.
Drum movement	YES
End step unload	YES

SOAP INTAKE

ADOL(disp.A)	0 sec.
ACDI(disp.B)	50 sec.
ADUDI(disp.C)	0 sec.

SOAP PUMP ENABLING

N. 1	0 sec.
N. 2	0 sec.
N. 3	0 sec.
N. 4	0 sec.
N. 5	0 sec.
N. 6	0 sec.
N. 7	0 sec.

Step n. 19 Wash WASH30G

ENABLE SPEED

VLL	NO
VLN	YES
VDN	NO
VDA	NO
VCL	NO
VCI	NO
VCA	NO

DRUM ACTION

Move	4 sec.
Pause	10 sec.

SET TEMPERATURE

HEATING	
Temperature	30 °C
Maintain time	480 sec.
COOLING	
Temperature	0 °C
2° Level	4 cm.

WATER LEVEL TO BE REACHED

Water level	21 cm.
Maintain time	480 sec.
Alarm timeout	0 sec.

FILLING WATER INTAKE

ACVAS = WARM WATER	NO
ADUV = HARD WATER	YES
ADOVAS = SOFT WATER	NO
Drum movement	YES

DRAIN

Drain enabling delay	0 sec.
Drum movement	YES
End step unload	YES

SOAP INTAKE

ADOL(disp.A)	0 sec.
ACDI(disp.B)	50 sec.
ADUDI(disp.C)	0 sec.

SOAP PUMP ENABLING

N. 1	0 sec.
N. 2	0 sec.
N. 3	0 sec.
N. 4	0 sec.
N. 5	0 sec.
N. 6	0 sec.
N. 7	0 sec.

Step n. 20 Rinse RINSE180G

ENABLE SPEED

VLL	NO
VLN	YES
VDN	NO
VDA	NO
VCL	NO
VCI	NO
VCA	NO

DRUM ACTION

Move	4 sec.
Pause	10 sec.

SET TEMPERATURE

HEATING	
Temperature	0 °C
Maintain time	180 sec.
COOLING	
Temperature	0 °C
2° Level	4 cm.

WATER LEVEL TO BE REACHED

Water level	27 cm.
Maintain time	180 sec.
Alarm timeout	0 sec.

FILLING WATER INTAKE

ACVAS = WARM WATER	NO
ADUV = HARD WATER	YES
ADOVAS = SOFT WATER	NO
Drum movement	YES

DRAIN

Drain enabling delay	0 sec.
Drum movement	YES
End step unload	YES

SOAP INTAKE

ADOL(disp.A)	0 sec.
ACDI(disp.B)	0 sec.
ADUDI(disp.C)	0 sec.

SOAP PUMP ENABLING

N. 1	0 sec.
N. 2	0 sec.
N. 3	0 sec.
N. 4	0 sec.
N. 5	0 sec.
N. 6	0 sec.
N. 7	0 sec.

Step n. 21 Rinse RINS240G

ENABLE SPEED

VLL	NO
VLN	YES
VDN	NO
VDA	NO
VCL	NO
VCI	NO
VCA	NO

DRUM ACTION

Move	4 sec.
Pause	10 sec.

SET TEMPERATURE

HEATING	
Temperature	0 °C
Maintain time	240 sec.
COOLING	
Temperature	0 °C
2° Level	4 cm.

WATER LEVEL TO BE REACHED

Water level	27 cm.
Maintain time	240 sec.
Alarm timeout	0 sec.

FILLING WATER INTAKE

ACVAS = WARM WATER	NO
ADUV = HARD WATER	YES
ADOVAS = SOFT WATER	NO
Drum movement	YES

DRAIN

Drain enabling delay	0 sec.
Drum movement	YES
End step unload	NO

SOAP INTAKE

ADOL(disp.A)	0 sec.
ACDI(disp.B)	0 sec.
ADUDI(disp.C)	0 sec.

SOAP PUMP ENABLING

N. 1	0 sec.
N. 2	0 sec.
N. 3	0 sec.
N. 4	0 sec.
N. 5	0 sec.
N. 6	0 sec.
N. 7	0 sec.

Step n. 22 Spin SPIN300

ENABLE SPEED

VLL	0 sec.
VLN	0 sec.
VDN	5 sec.
VDA	60 sec.
VCL	120 sec.
VCI	0 sec.
VCA	0 sec.
START WITH WATER	YES

TILTING

Number of spin attempts	6