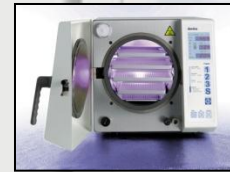
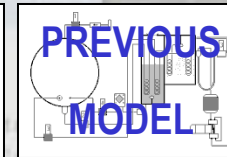
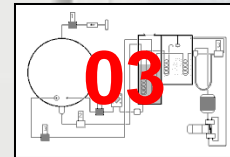


# Domina PLUS B

**INSTALLATION**



**WORKING DIAGRAMS**



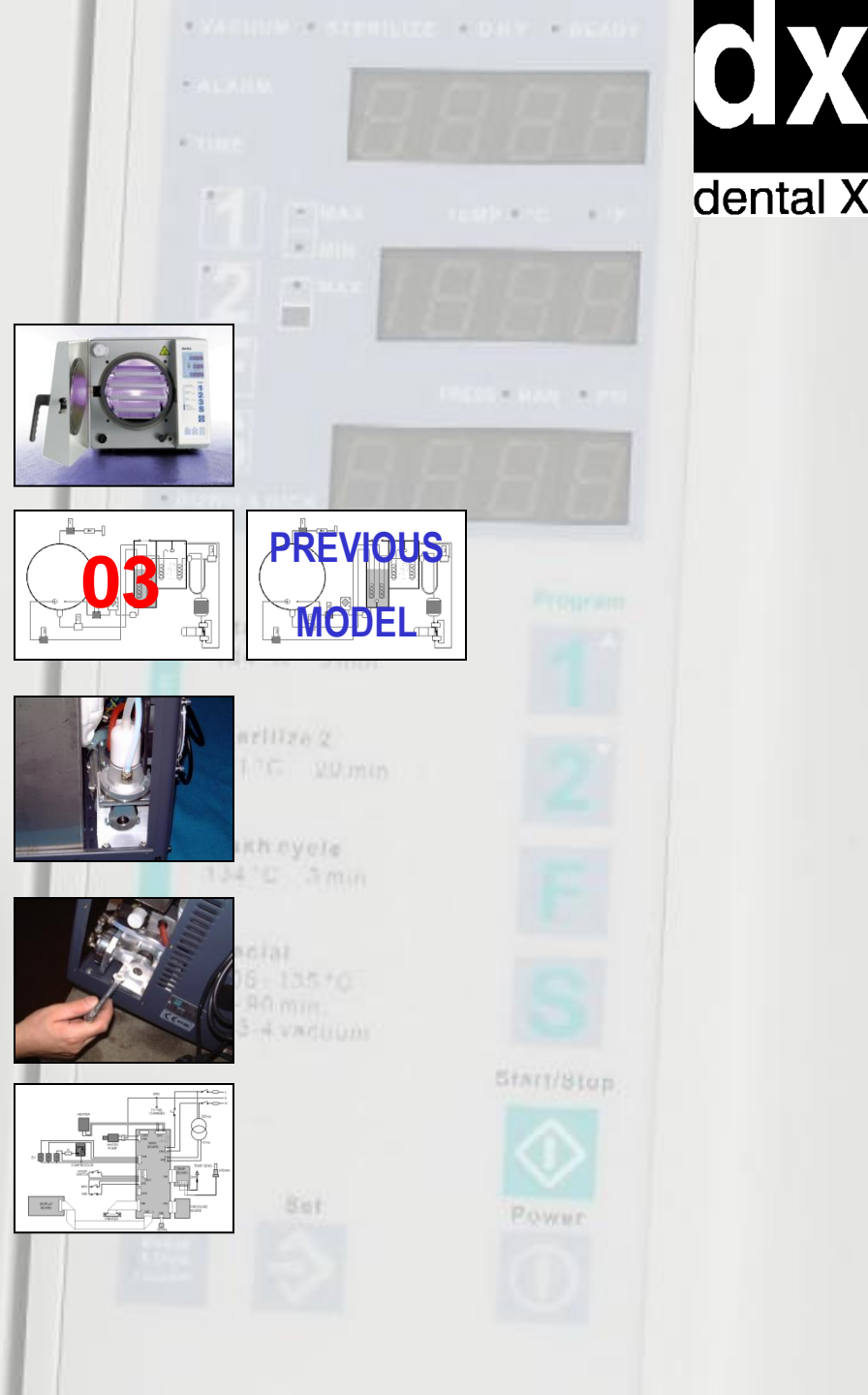
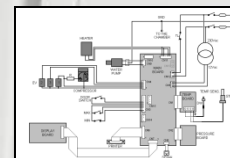
**INTERNAL VIEWS**

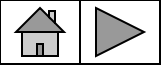


**TROUBLESHOOTING**



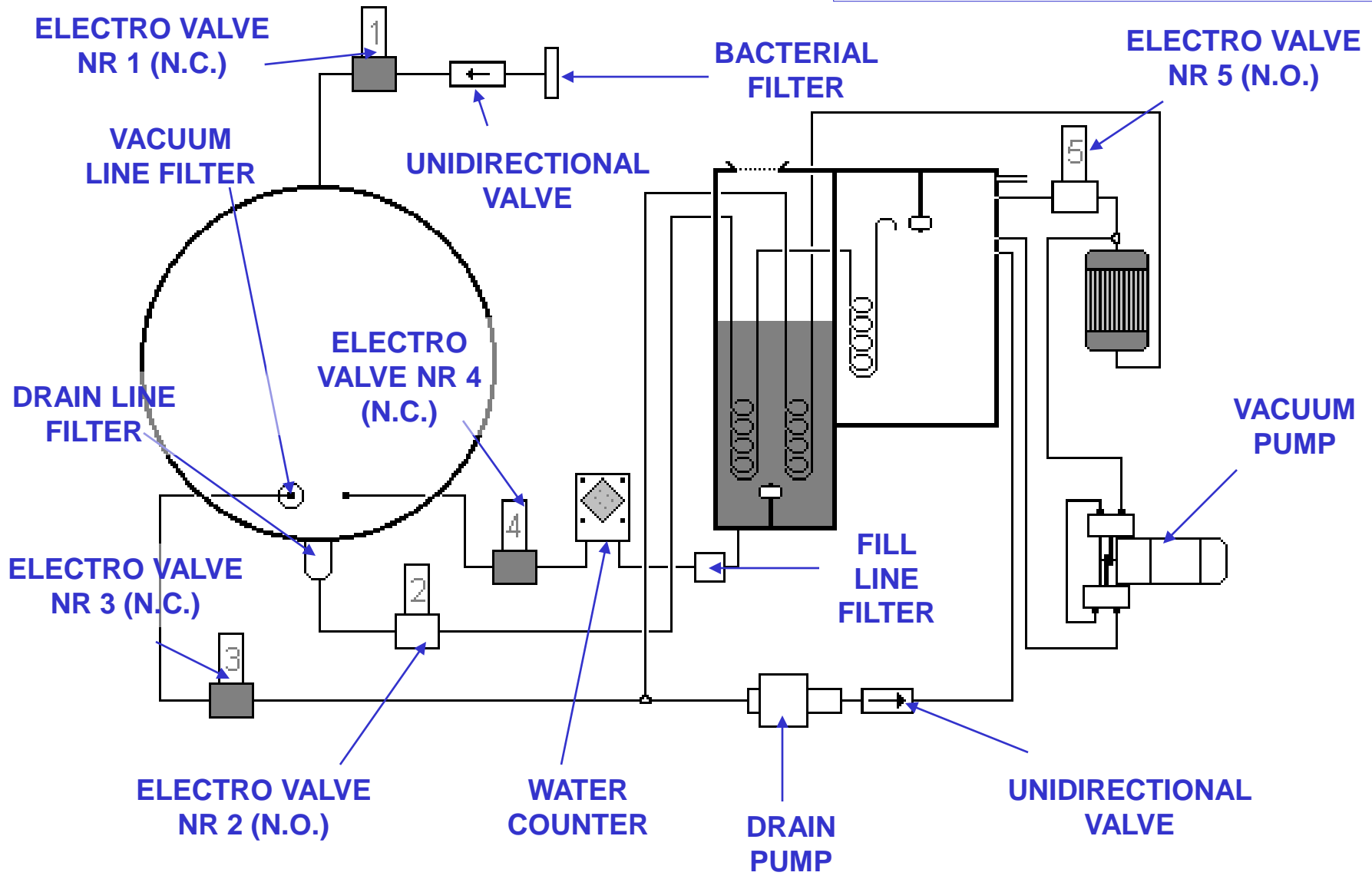
**WIRING DIAGRAMS**

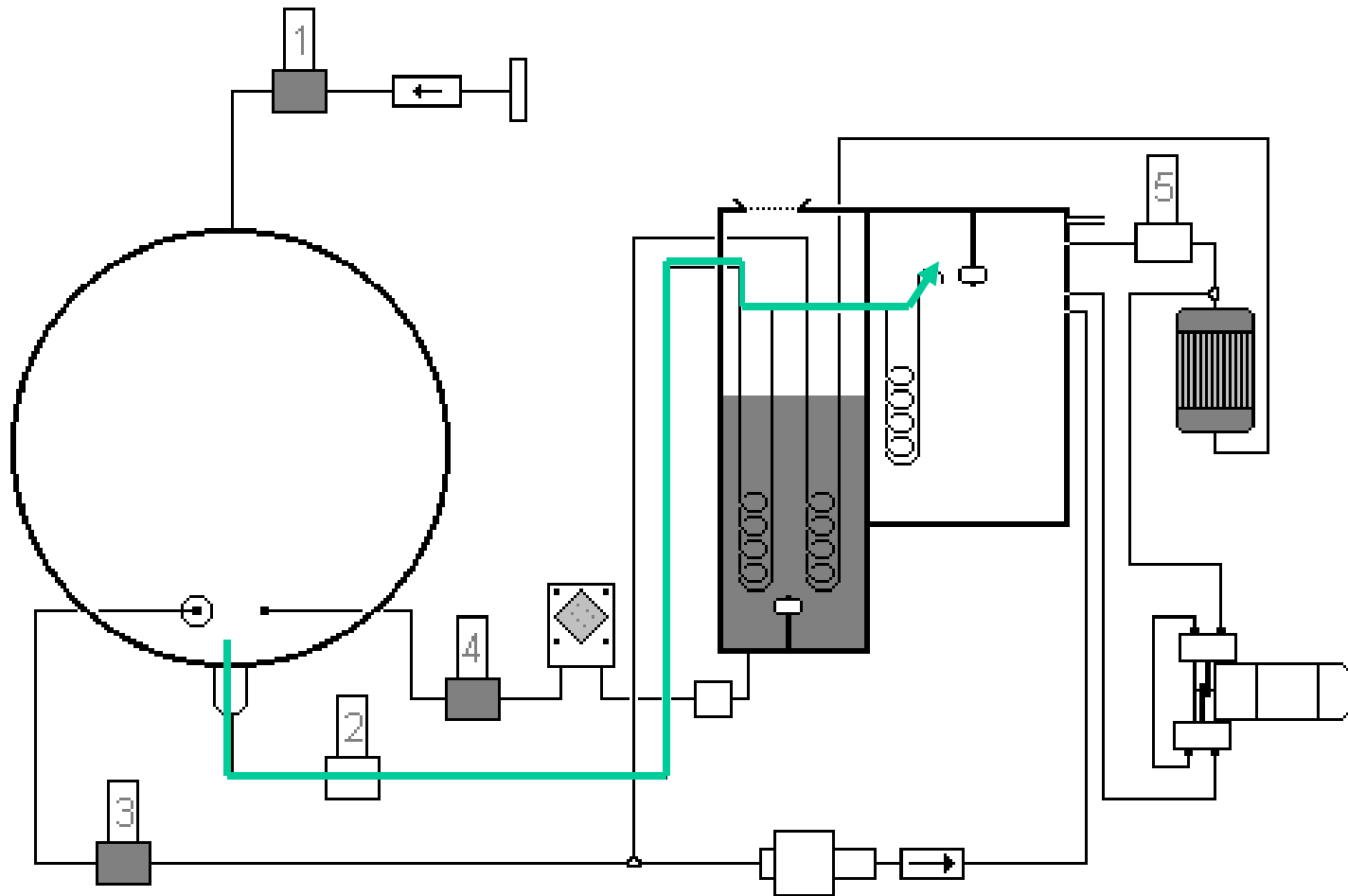




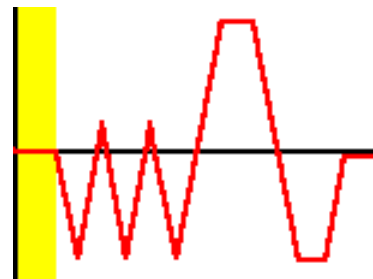
# Domina PLUS B

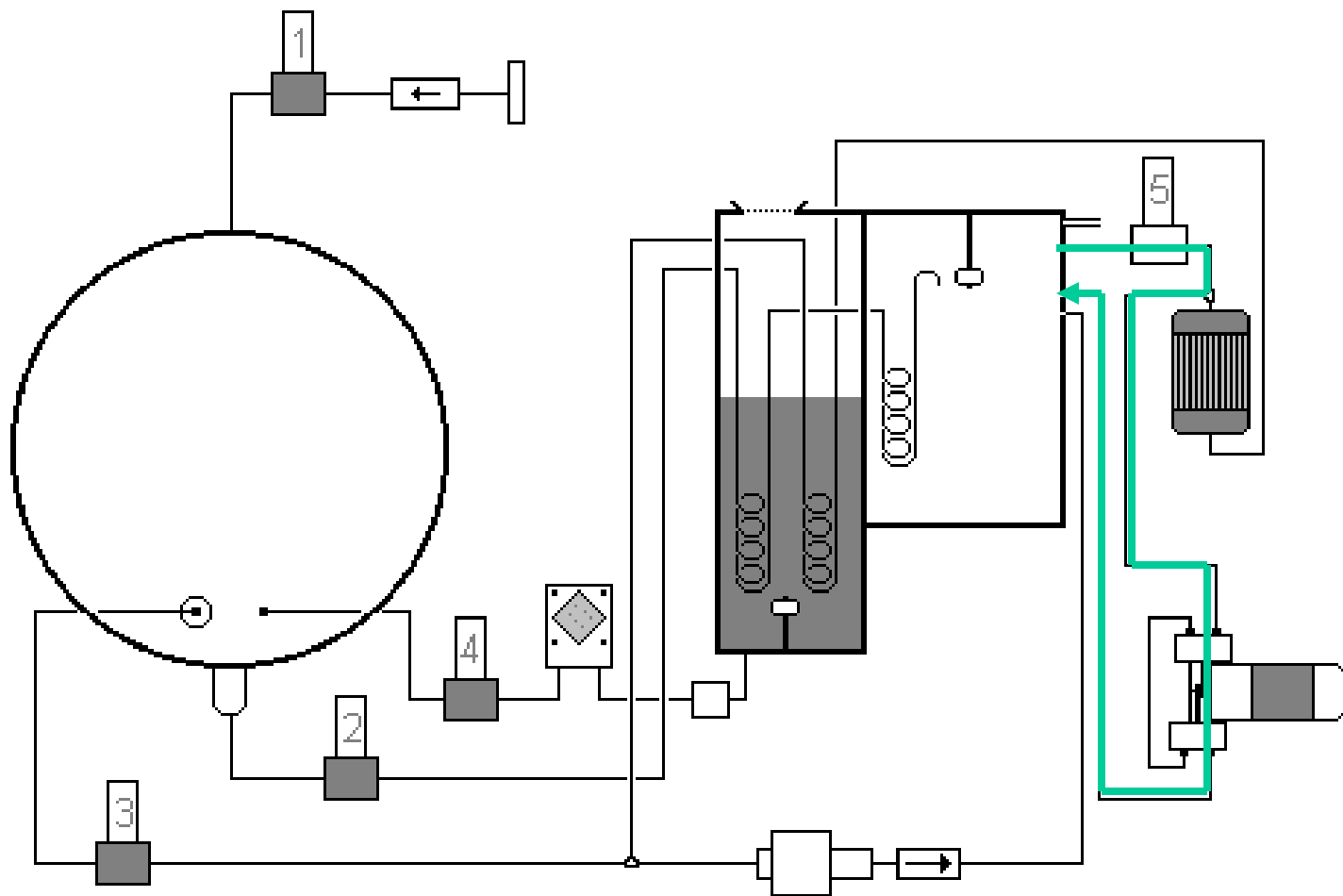
2003 MODEL



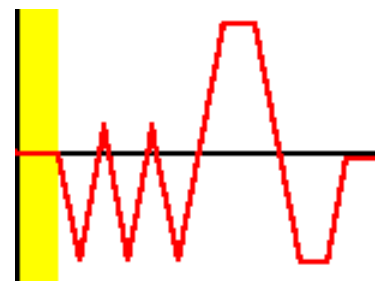


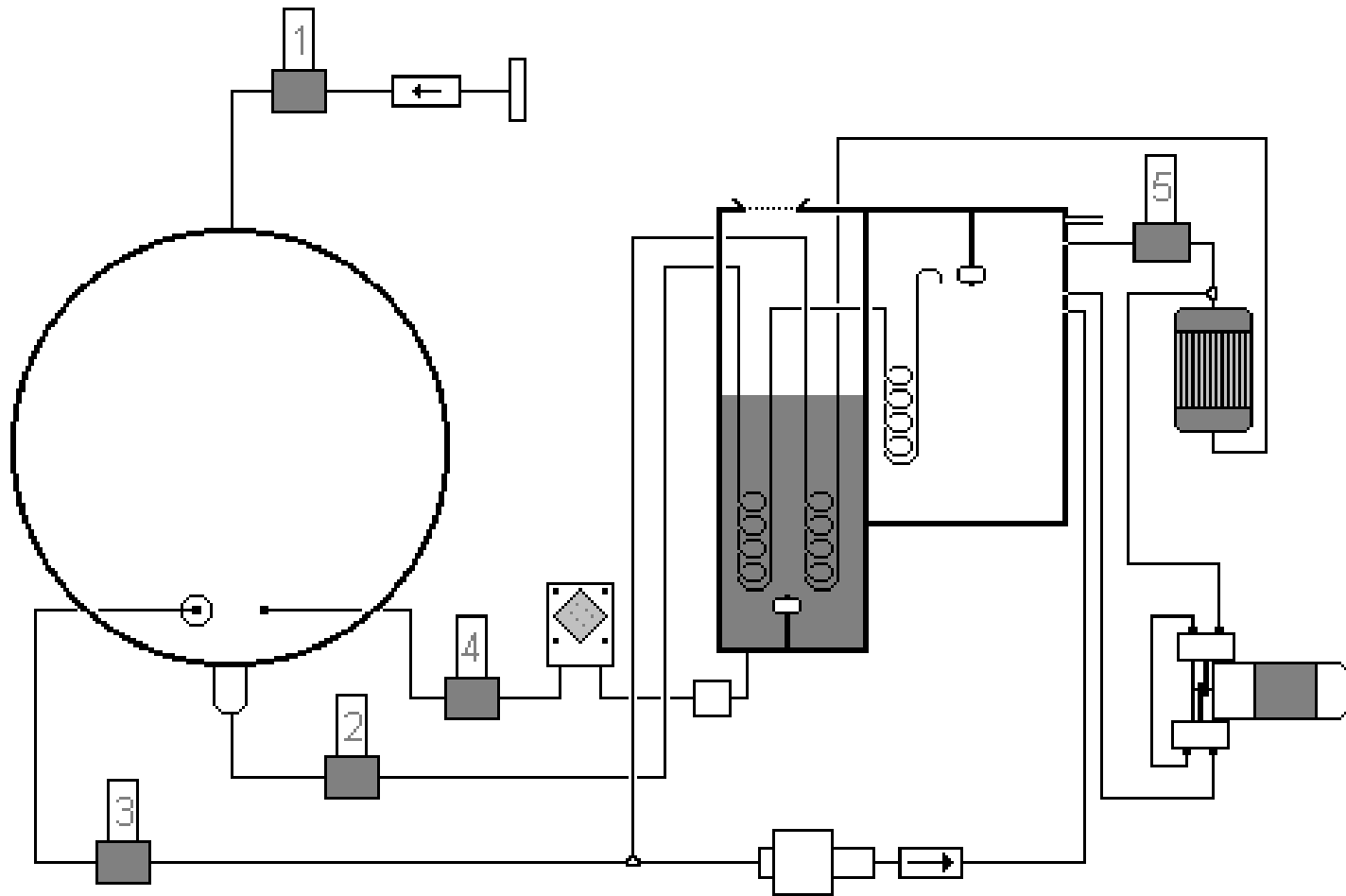
**DOMINA PLUS B remains in this condition until the surface temperature reaches 100°C (up and down)**



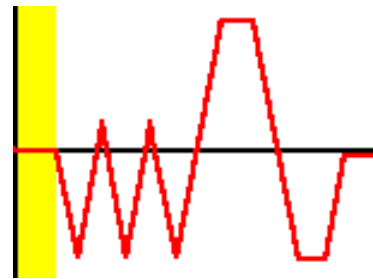


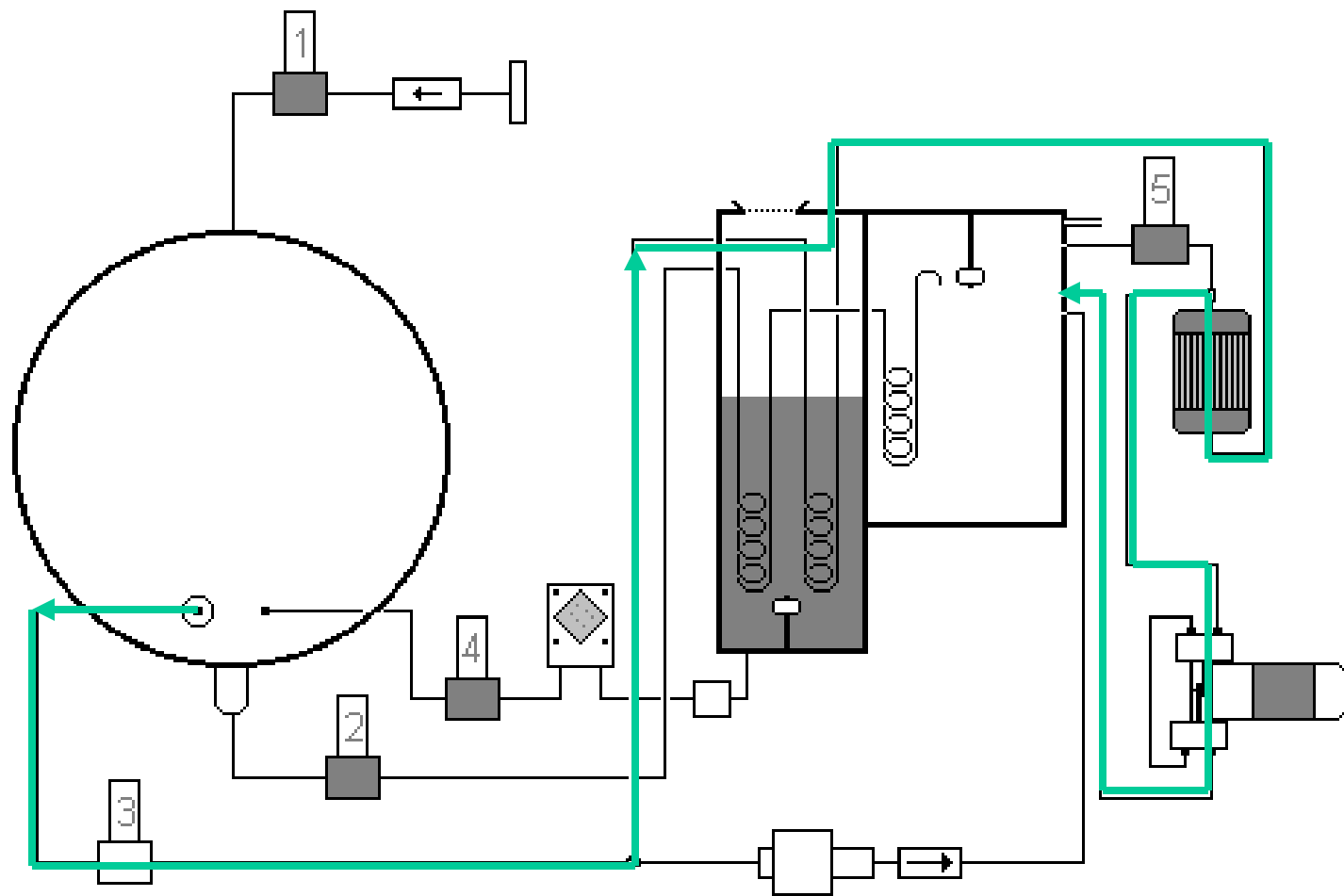
**When the vacuum pump turns on, it runs without load because EV5 is open**



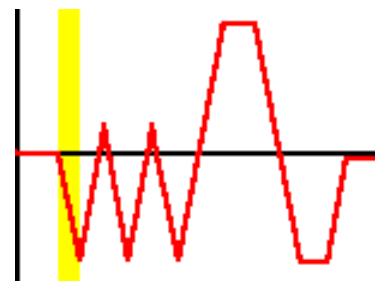


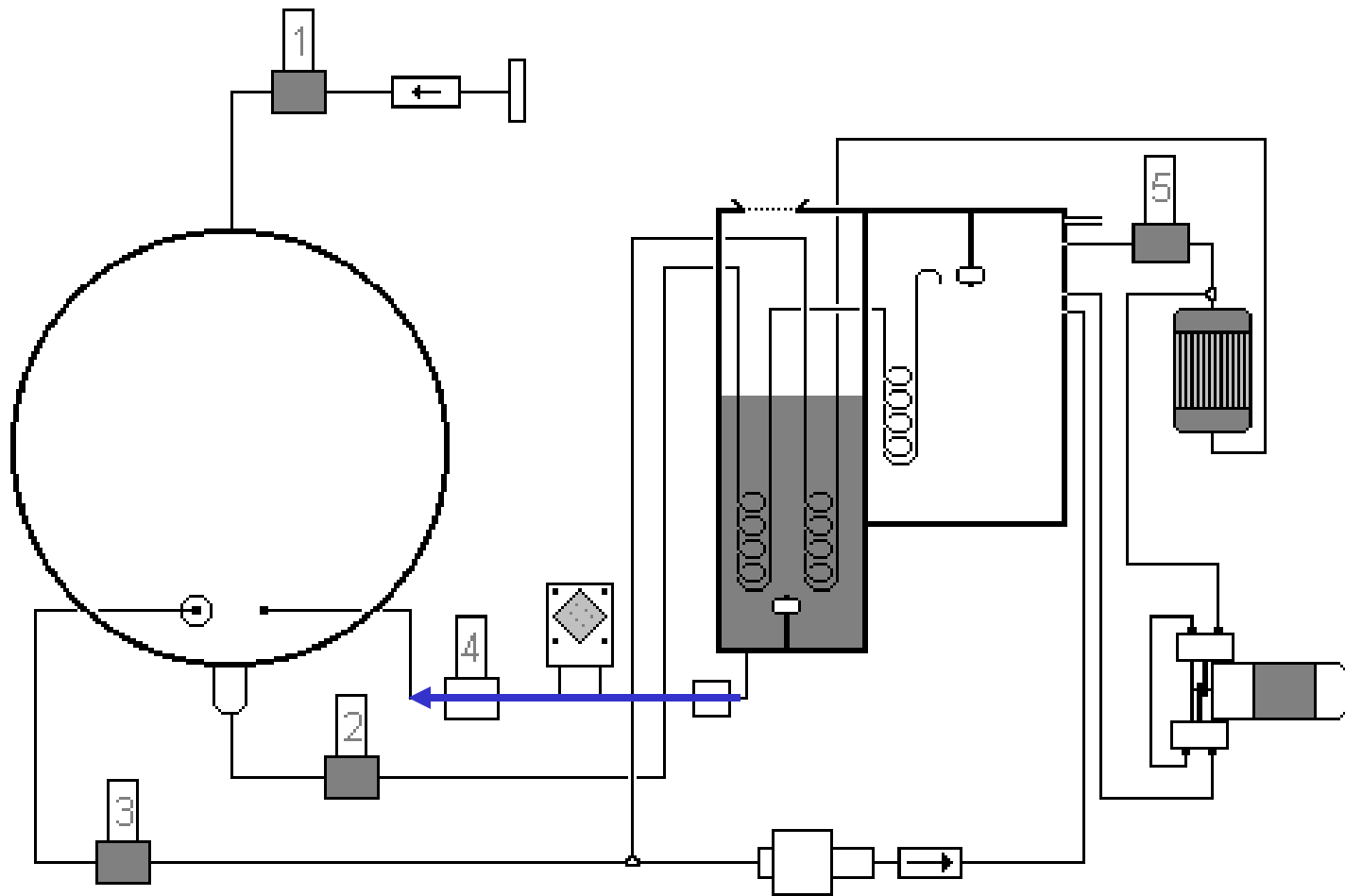
After a couple of seconds, EV5 turns on (it closes)



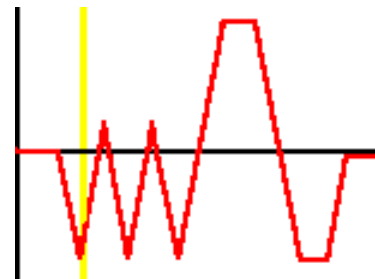


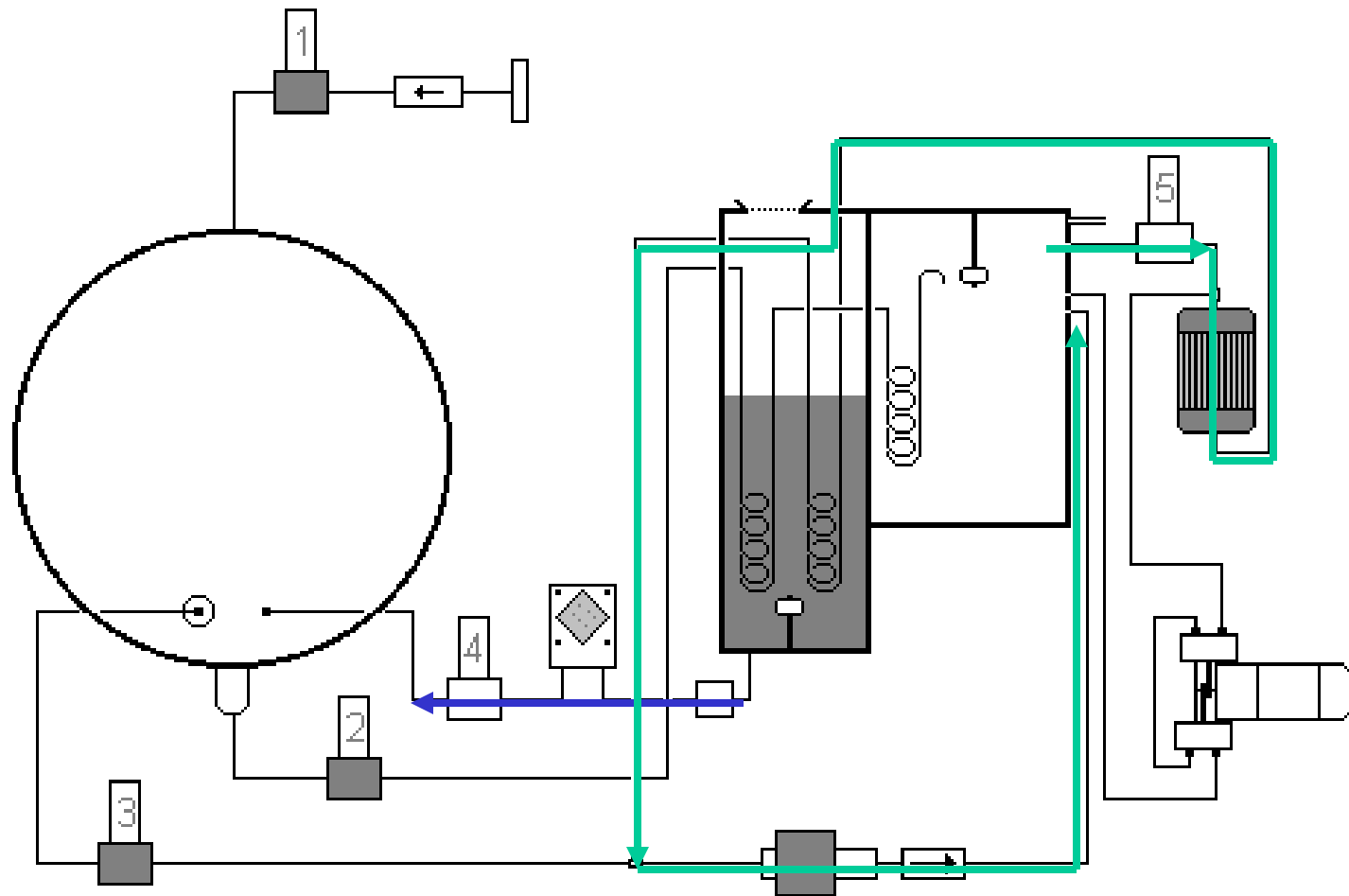
**After a couple of seconds, EV3 turns on (it opens) and the air is pumped out**



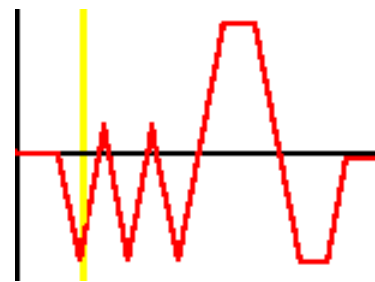


**When the pressure reaches  $-0.8$  bar, (for altitude from 0 to 100 m), EV3 closes and EV4 opens**



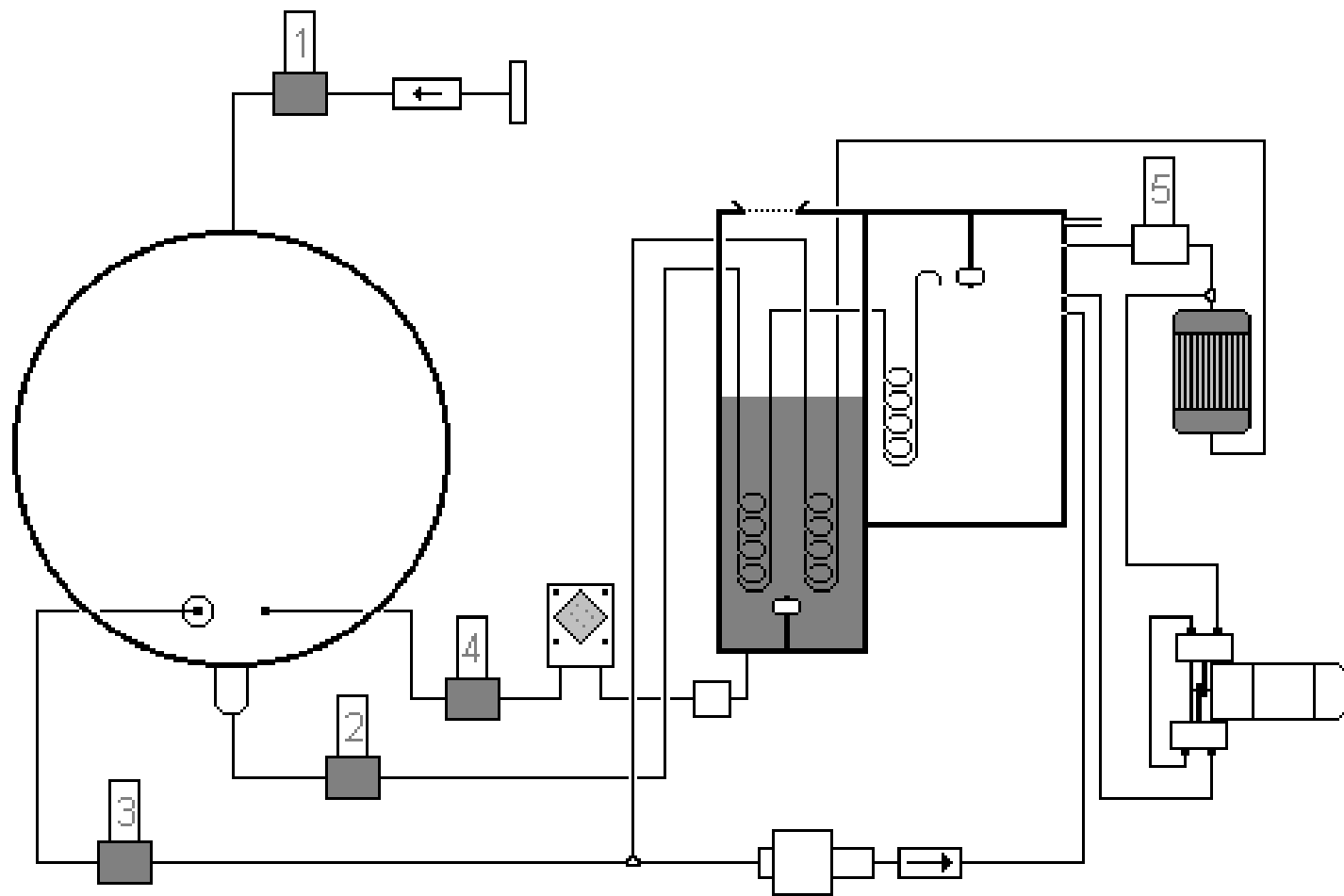


**EV5 open and the drain pump turns on for 20 seconds**

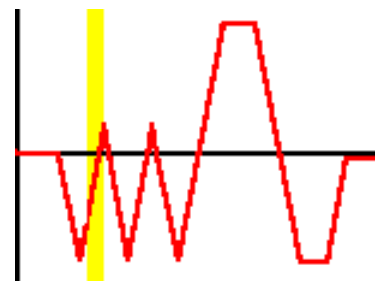


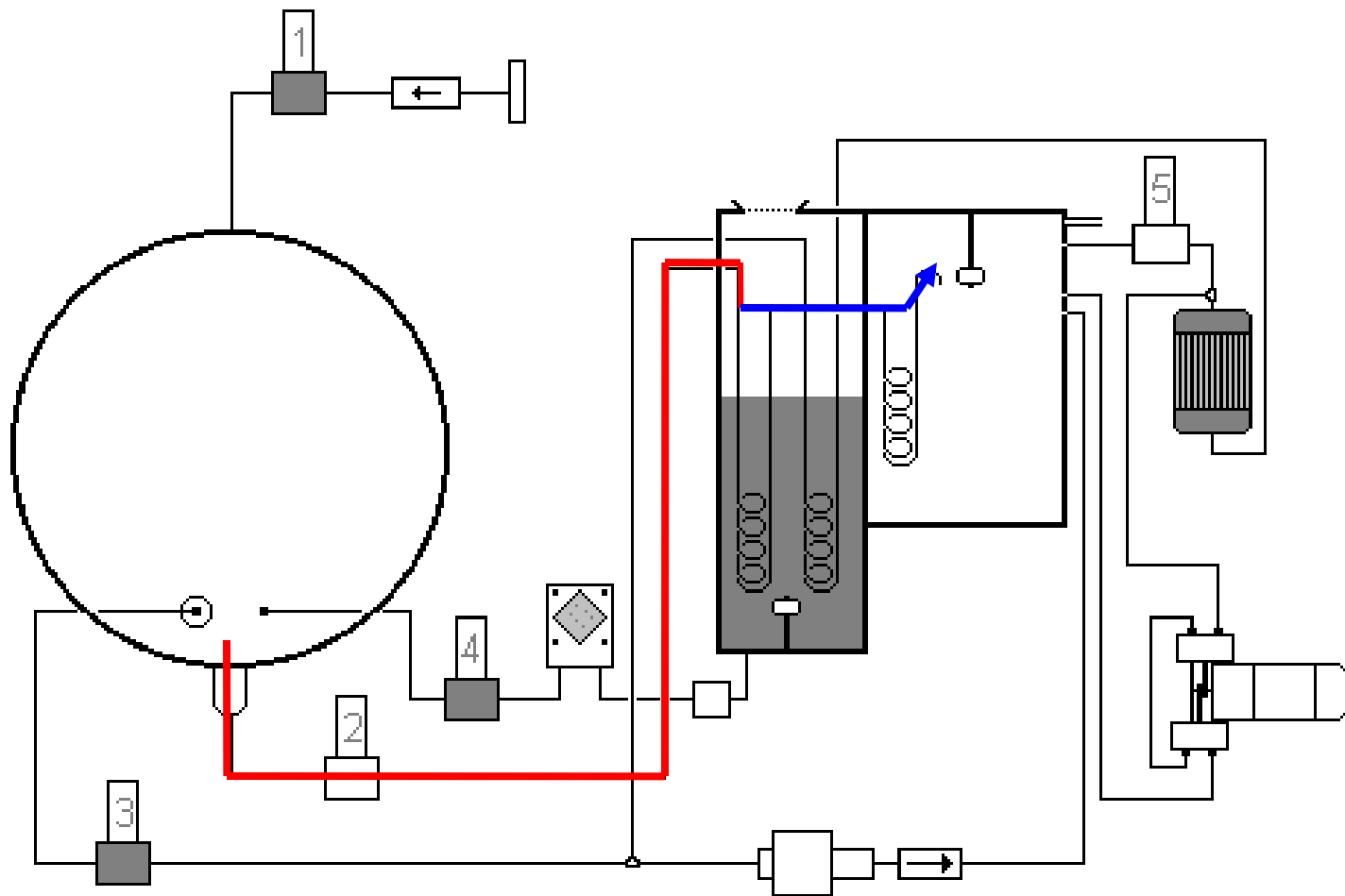




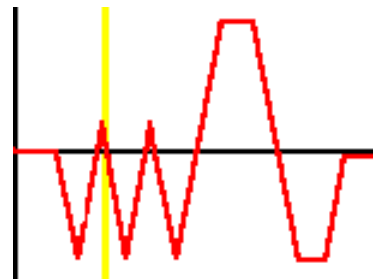


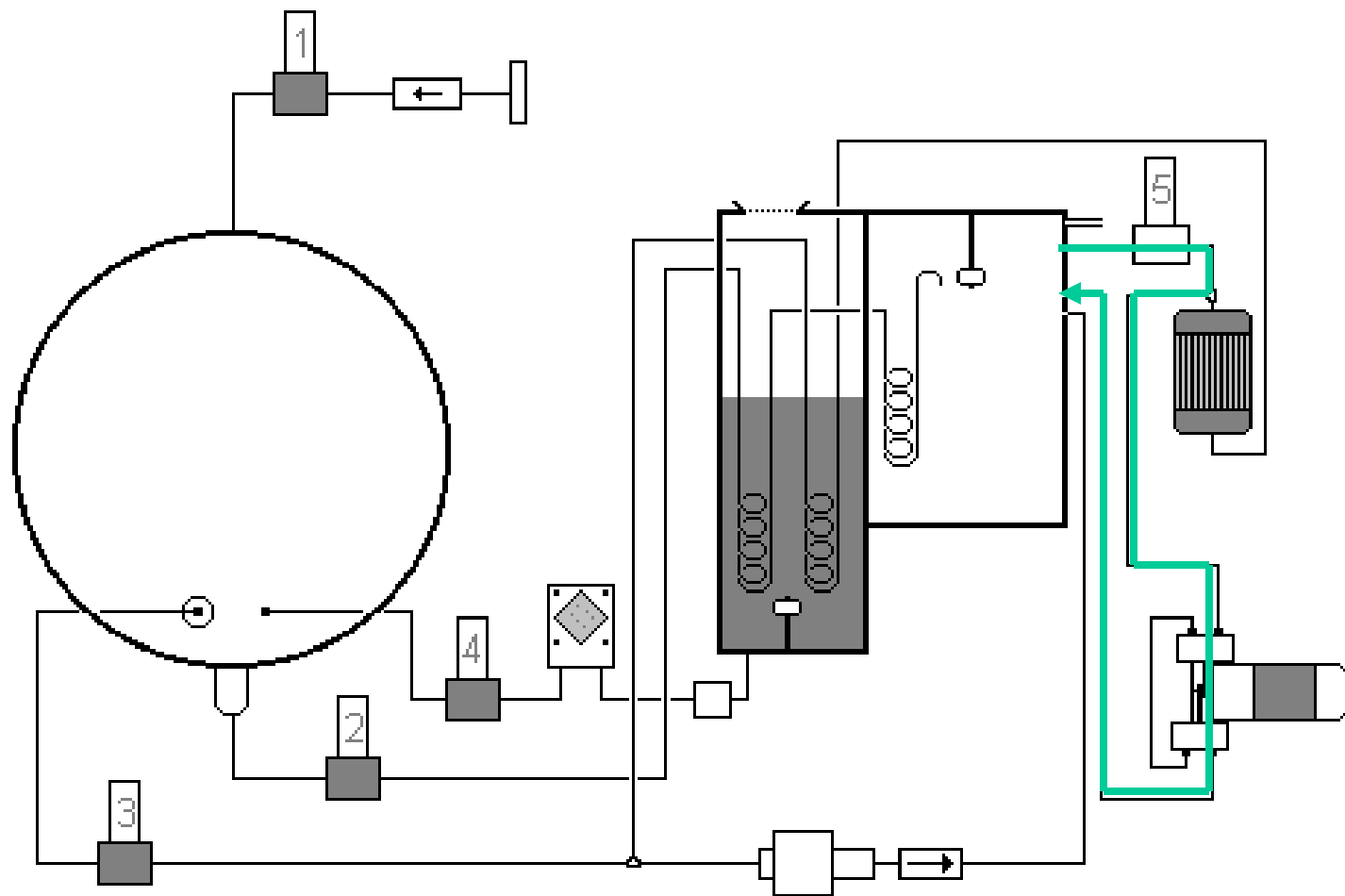
heating



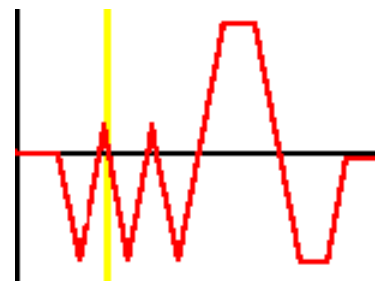


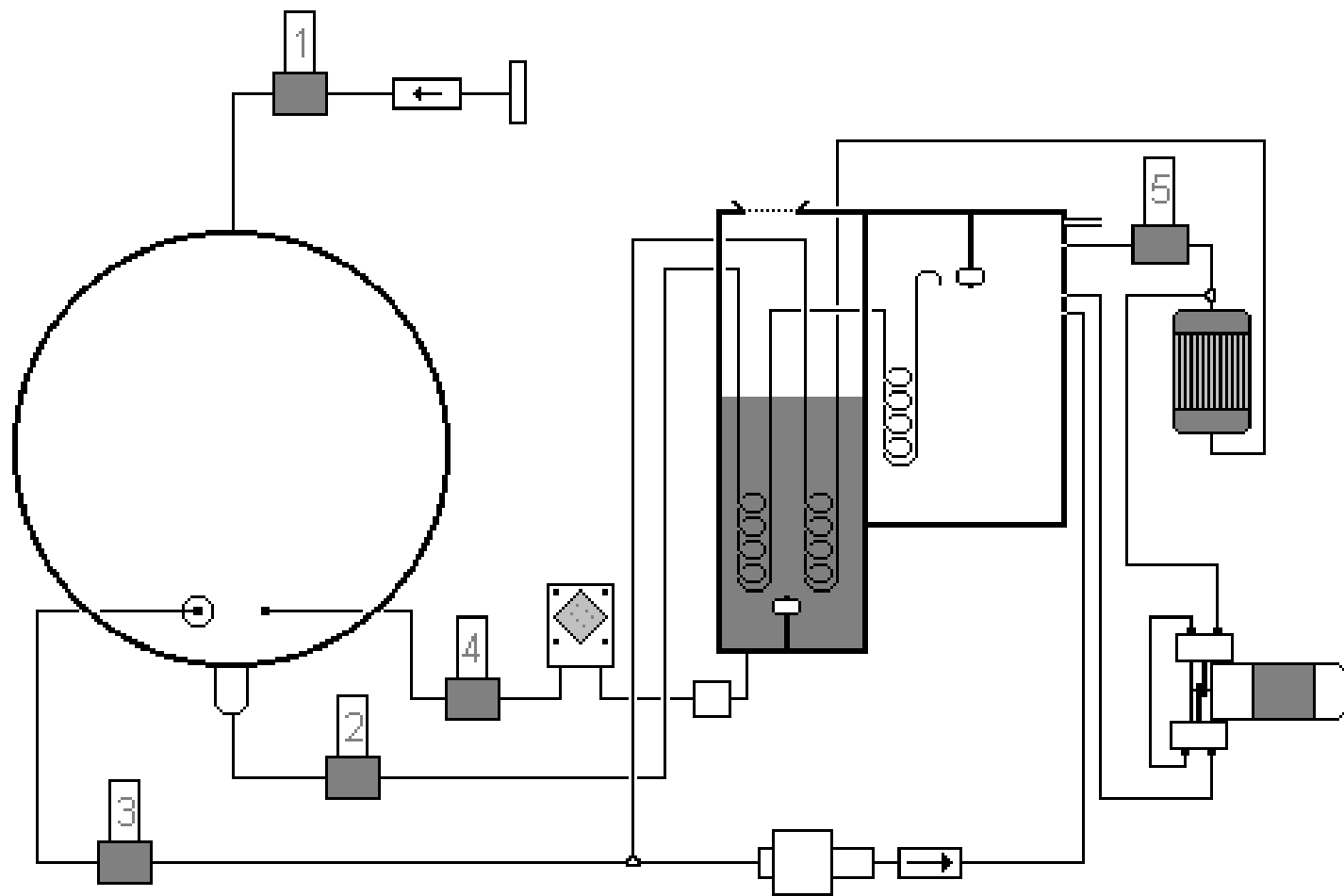
**When the pressure reaches 0.16 bar, EV2 turns off**



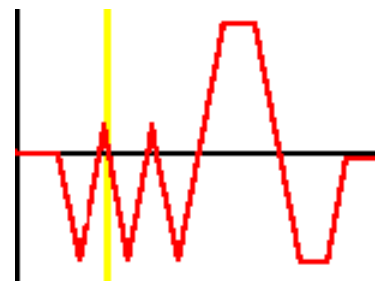


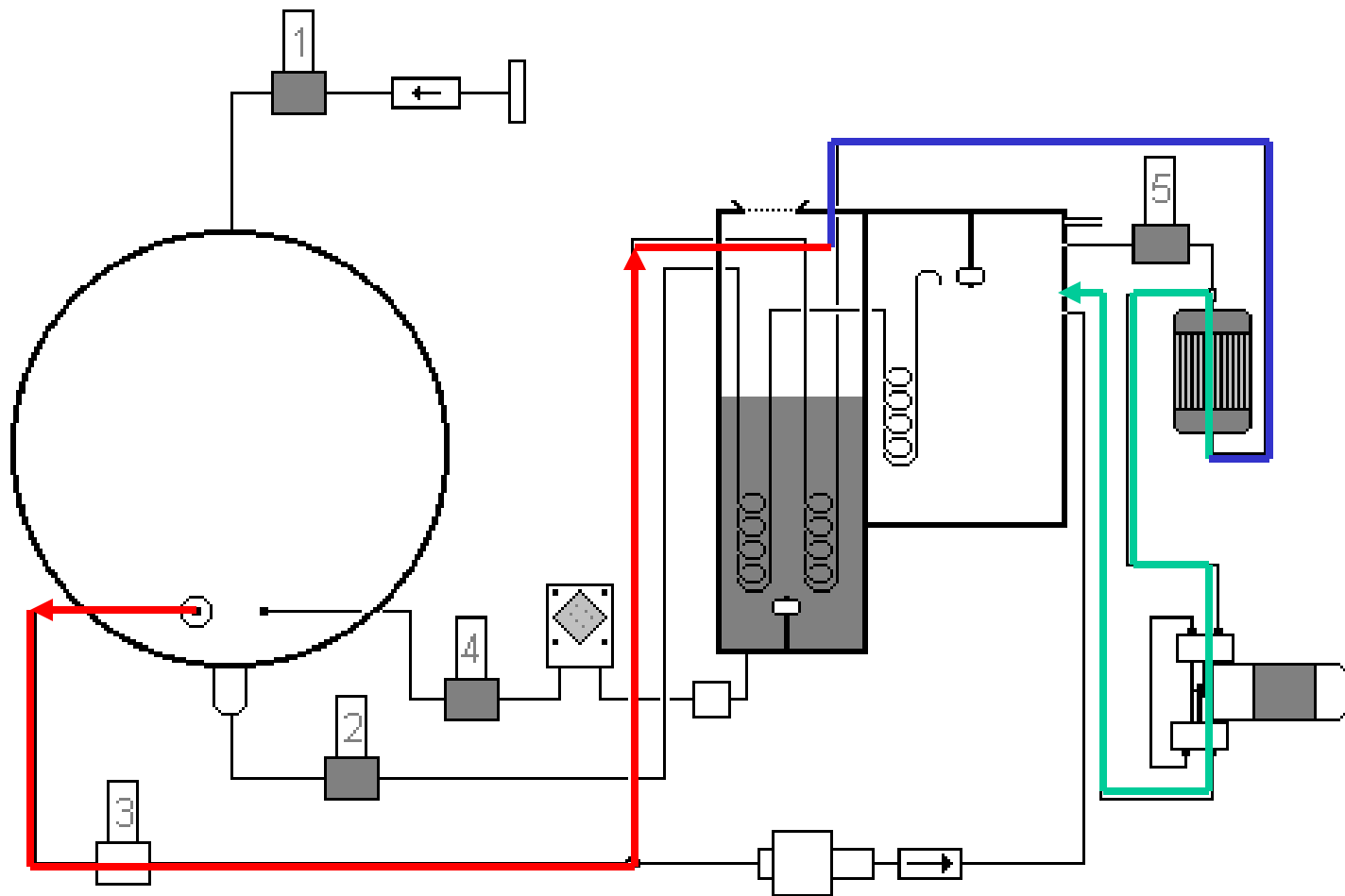
**At 0.05 bar, EV2 closes and the vacuum pump turns on**



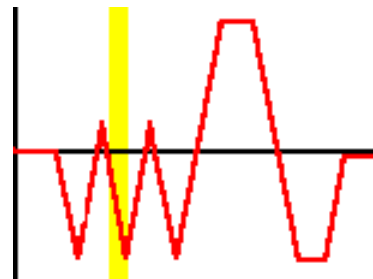


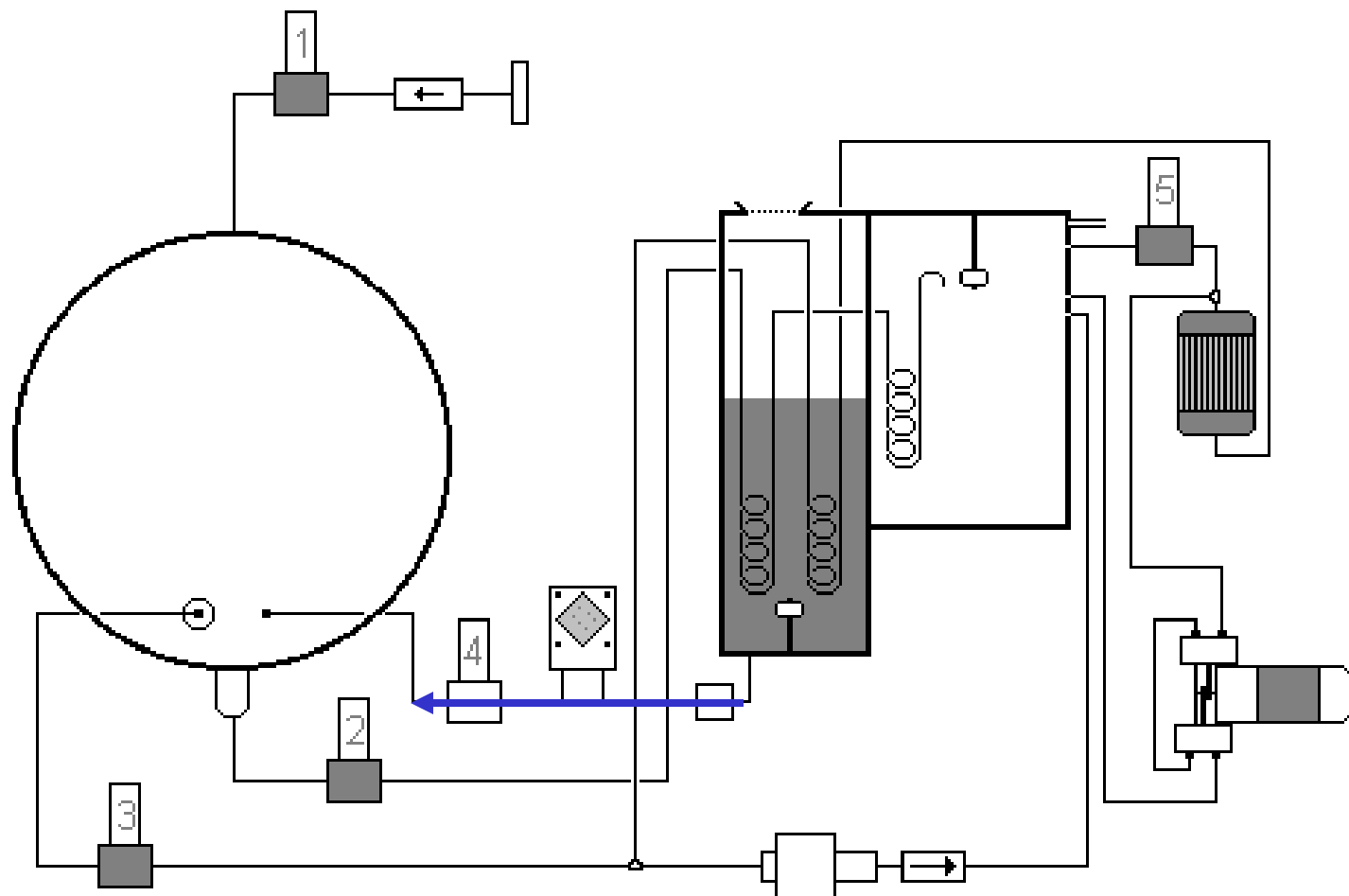
..after 2 seconds EV5 closes..



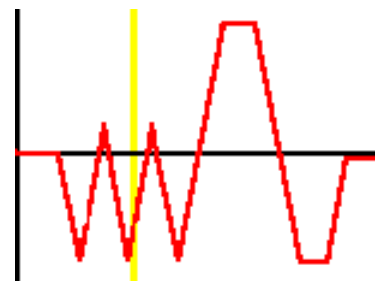


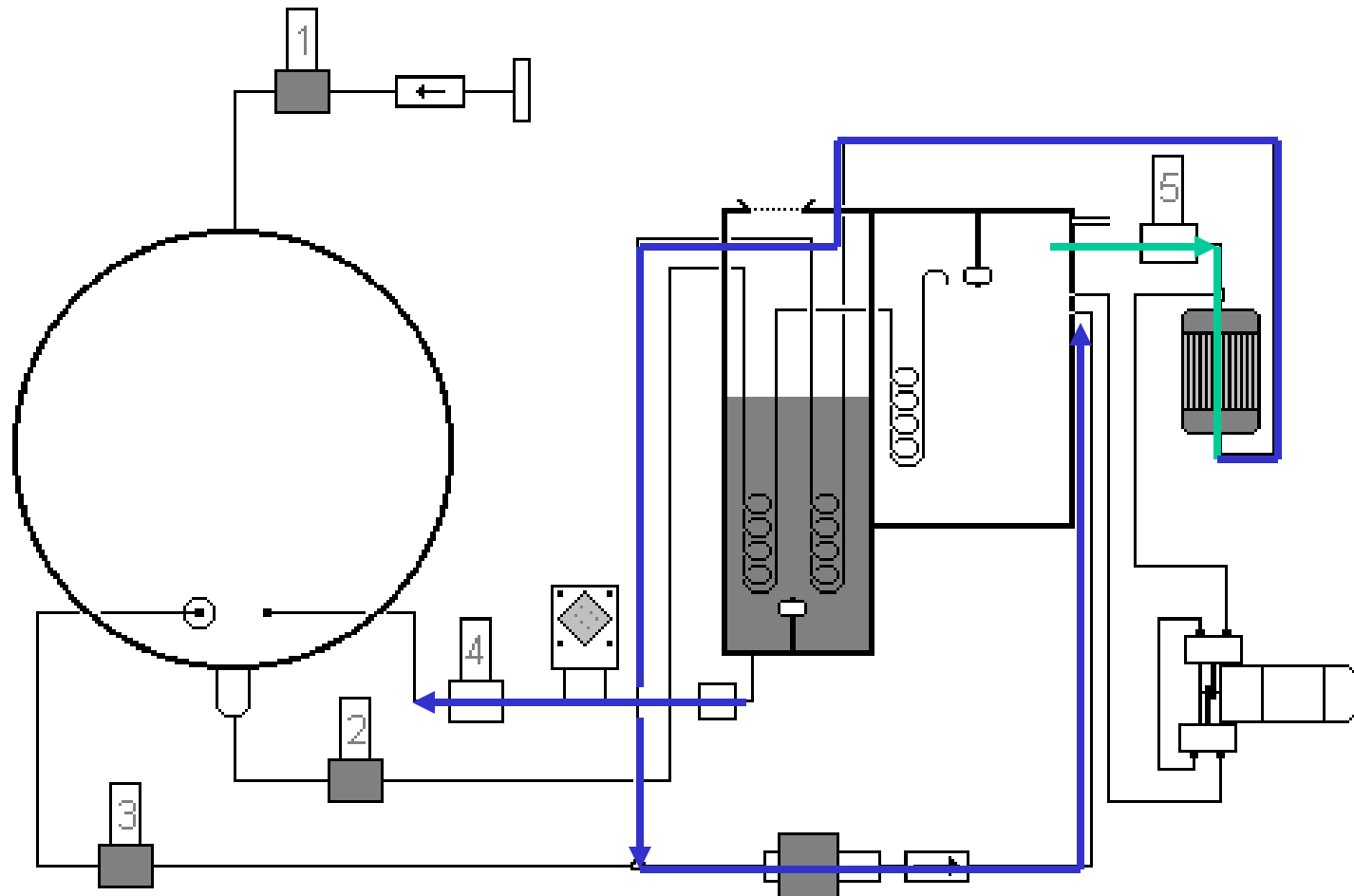
**..and after 2 seconds EV3 opens: the steam is condensed in the radiator and the pump works dry**



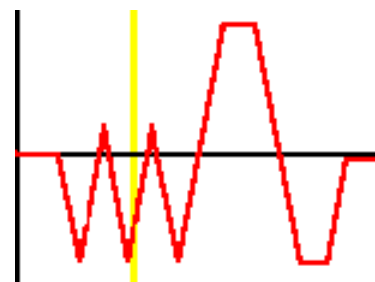


**Second water filling**



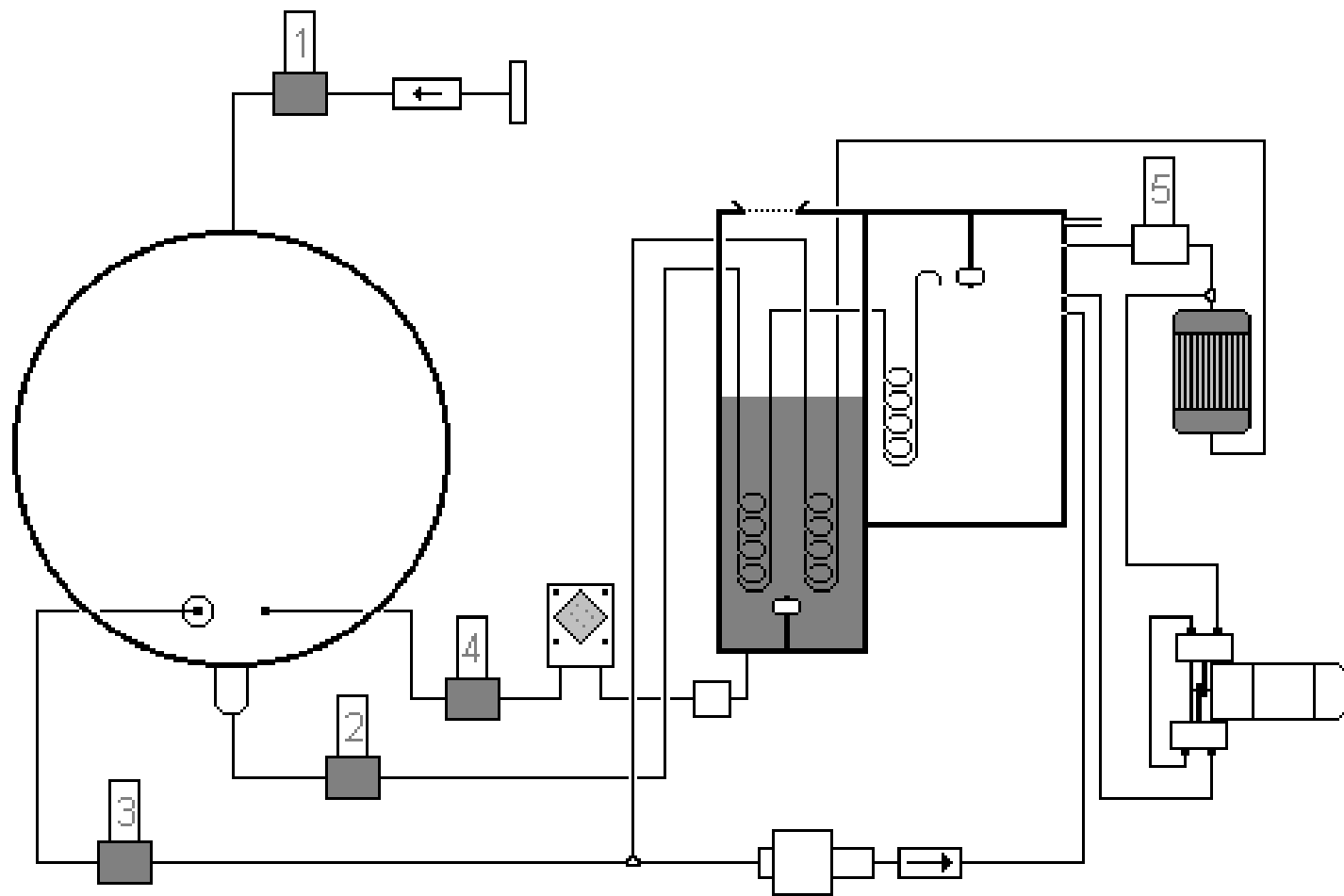


**EV5 opens and the radiator is drained by the pump**

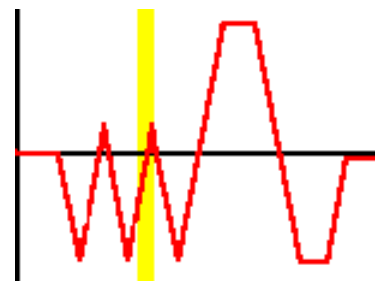


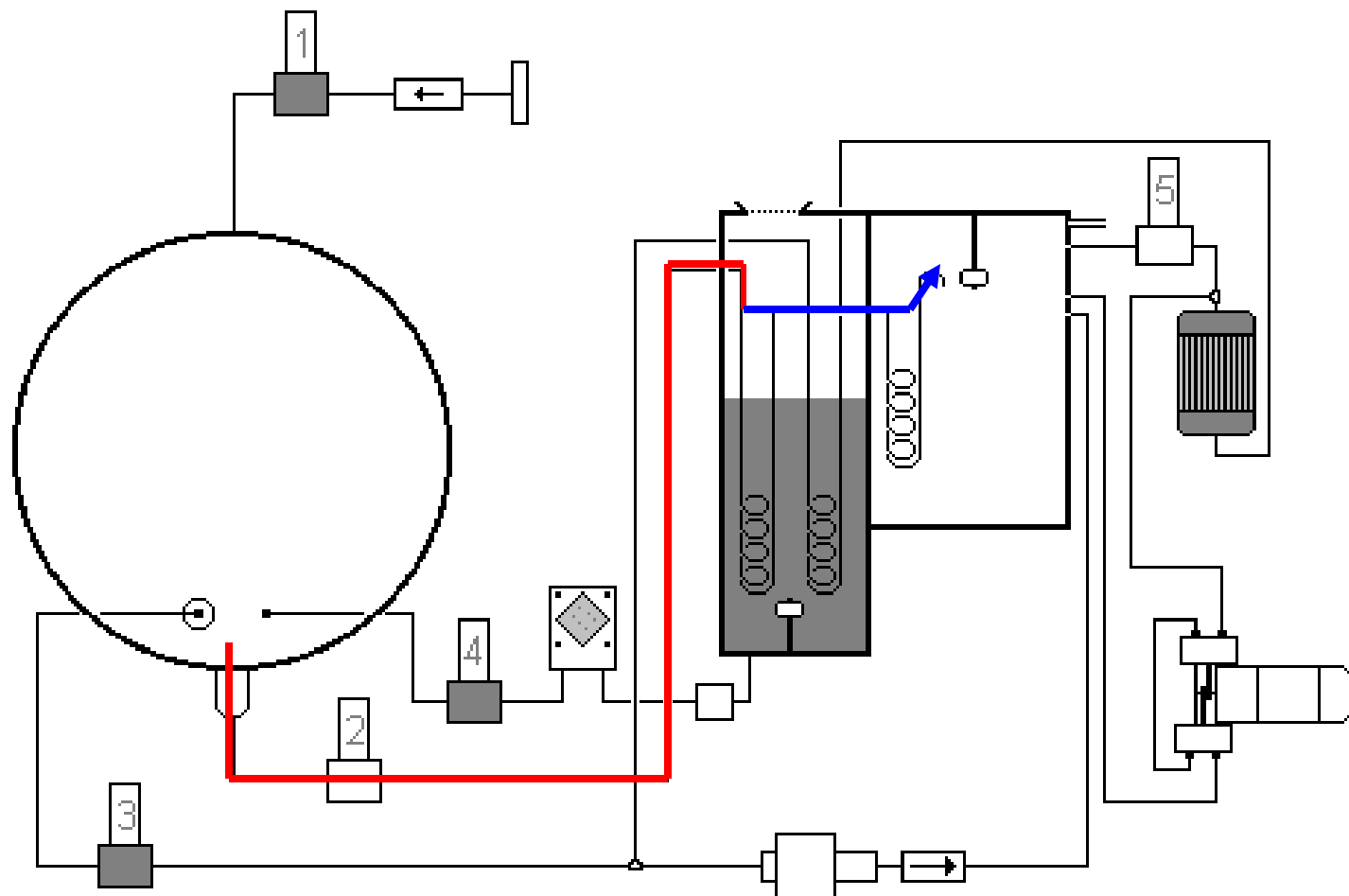




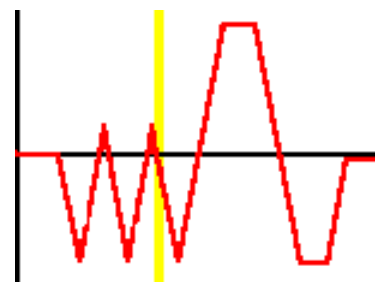


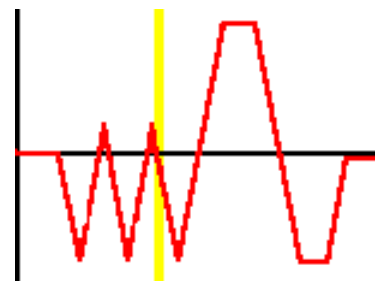
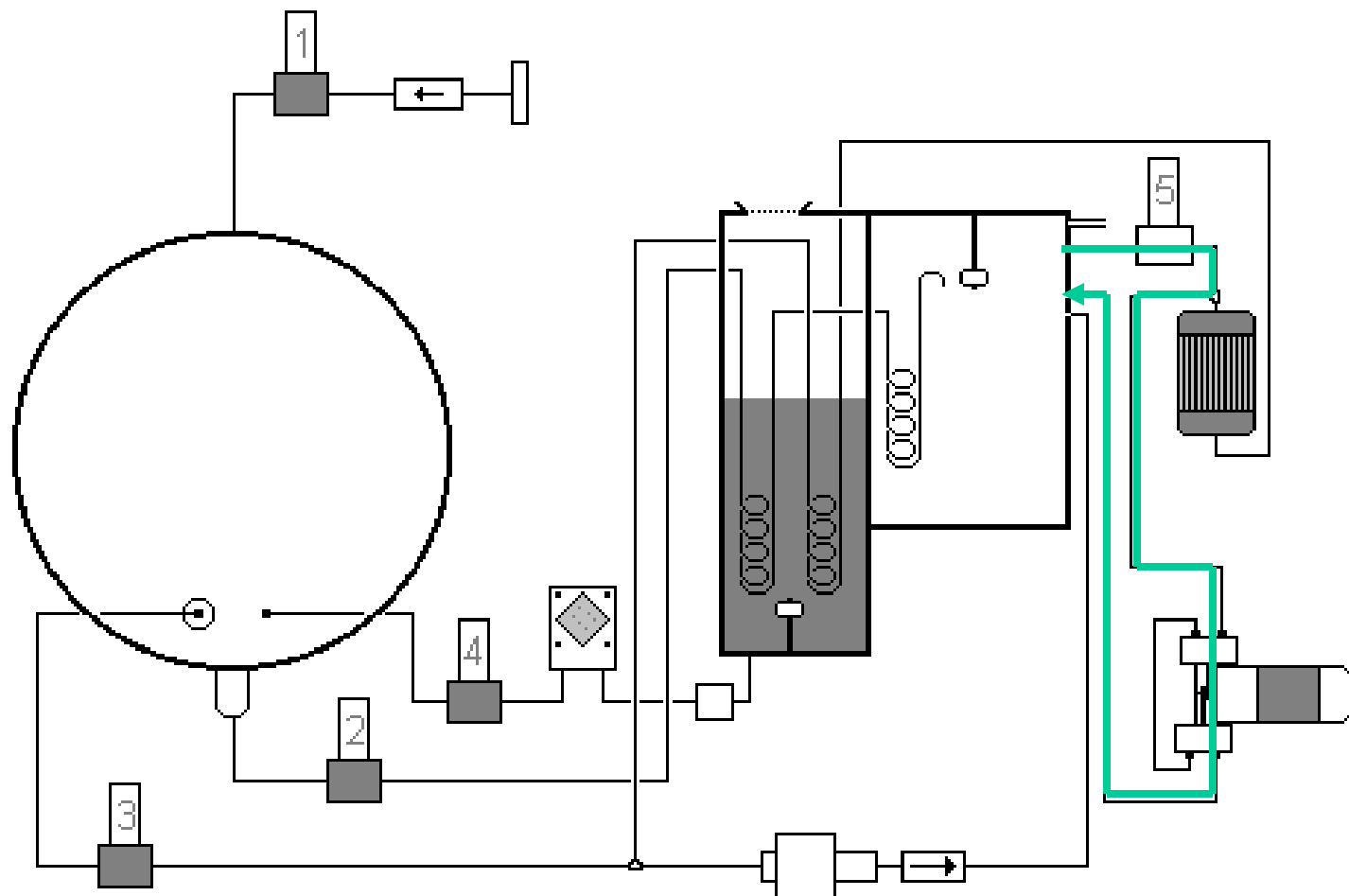
heating

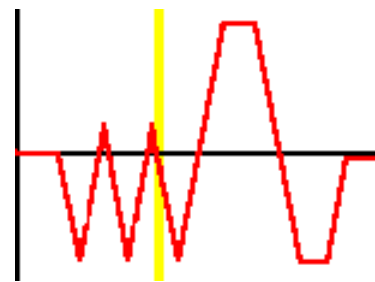
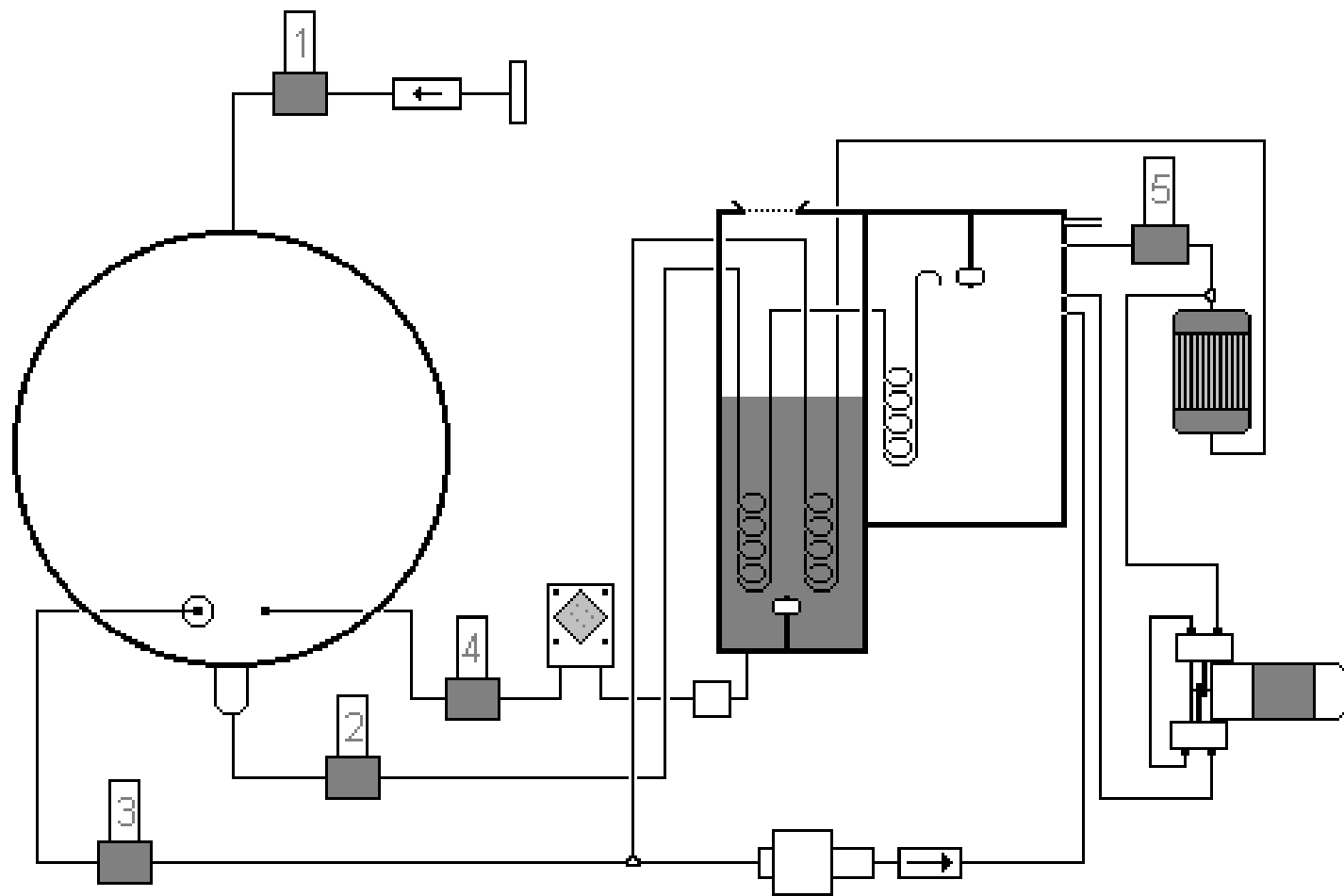


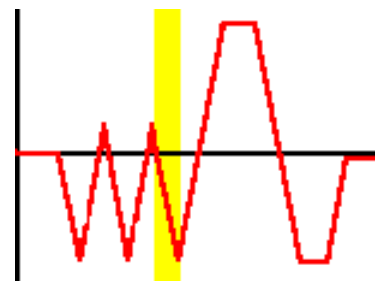
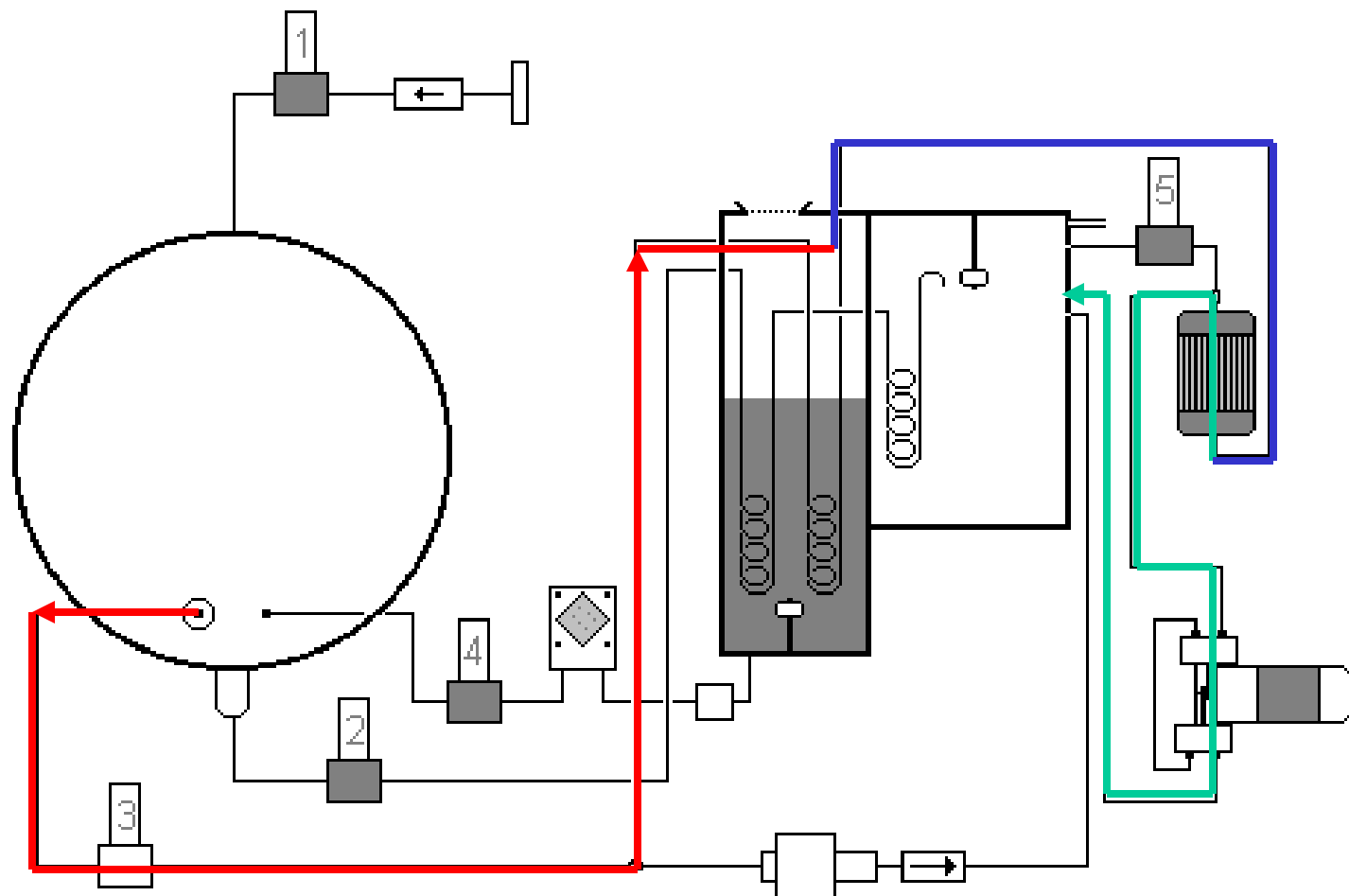


Second drain





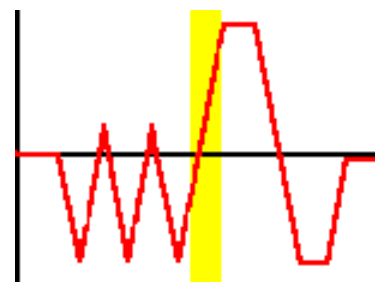
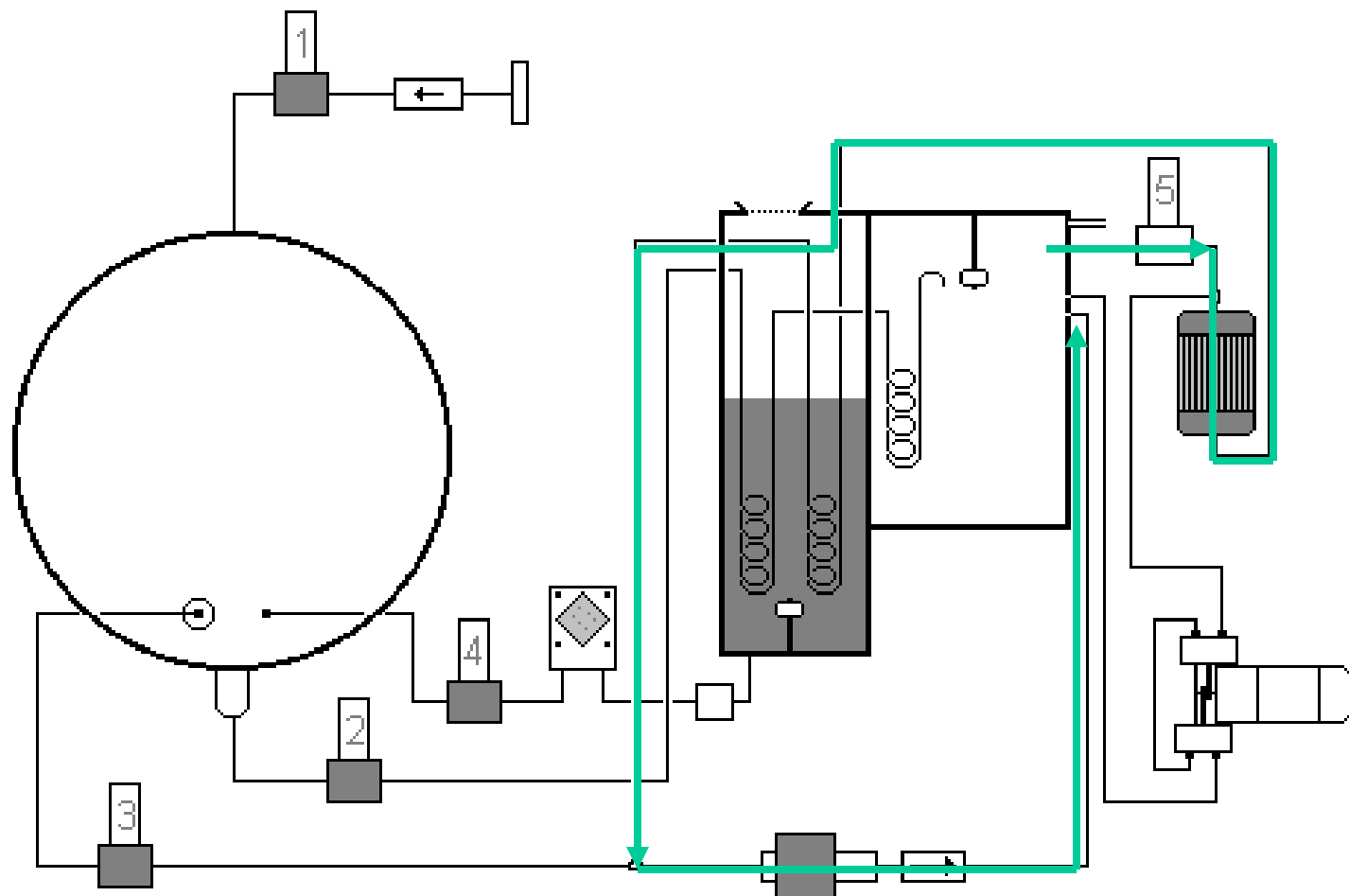


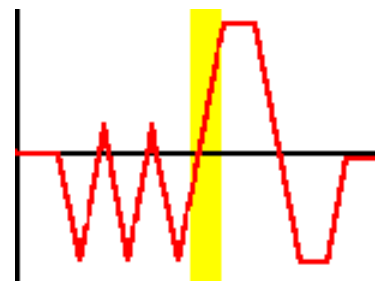
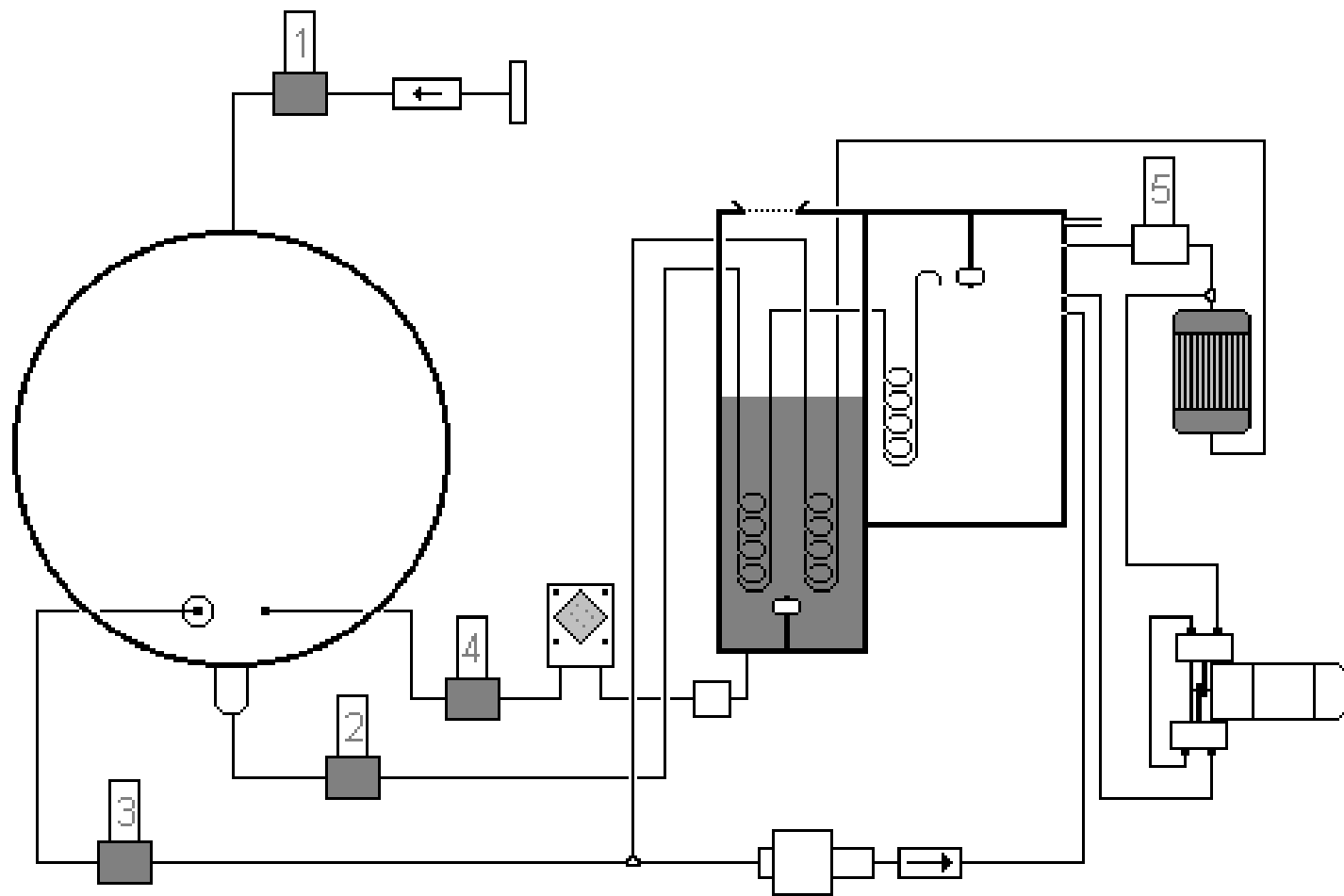


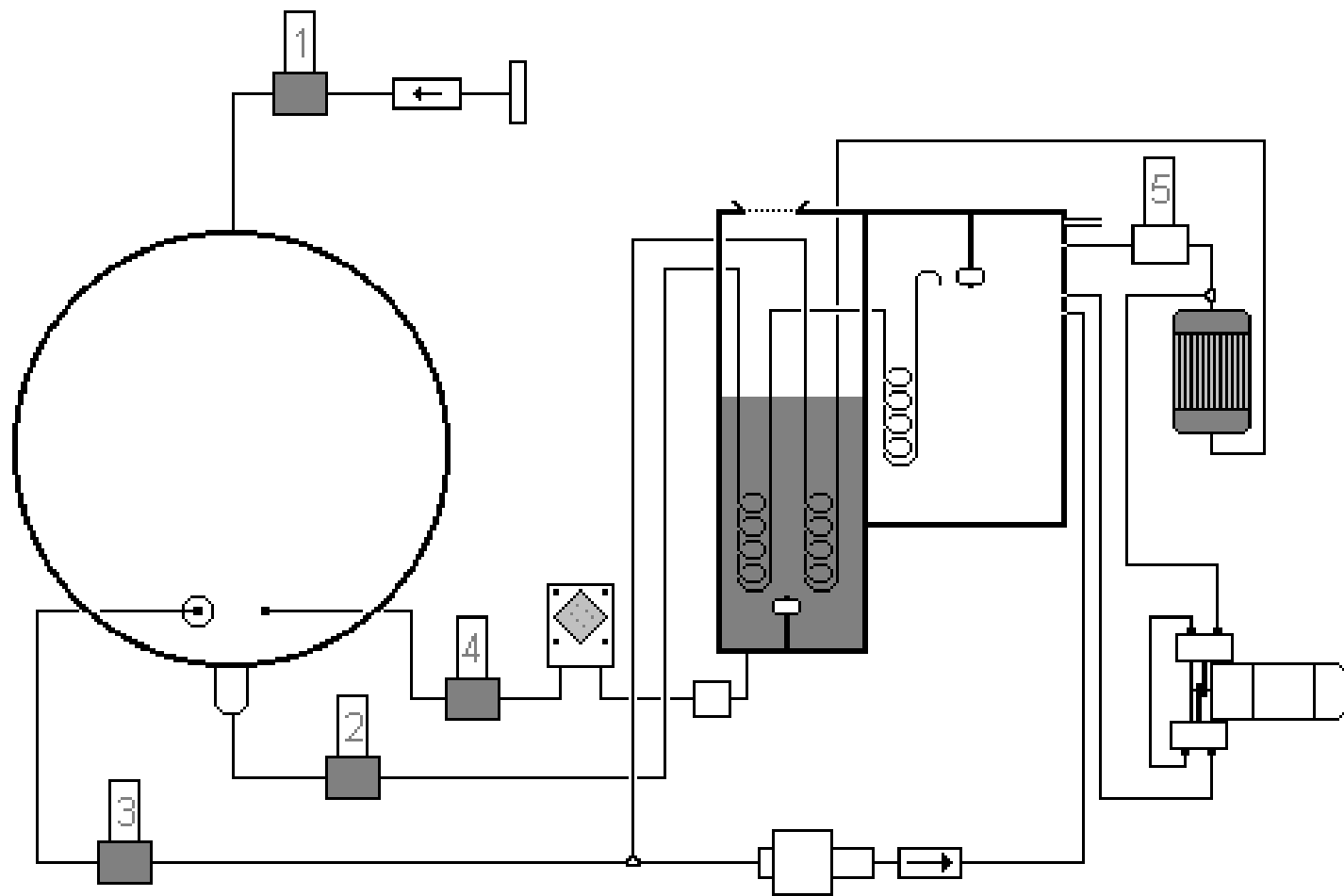




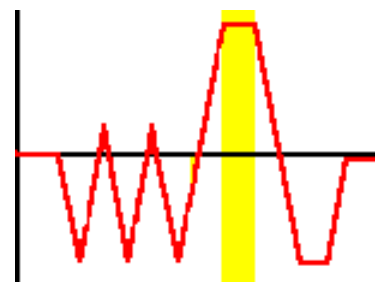


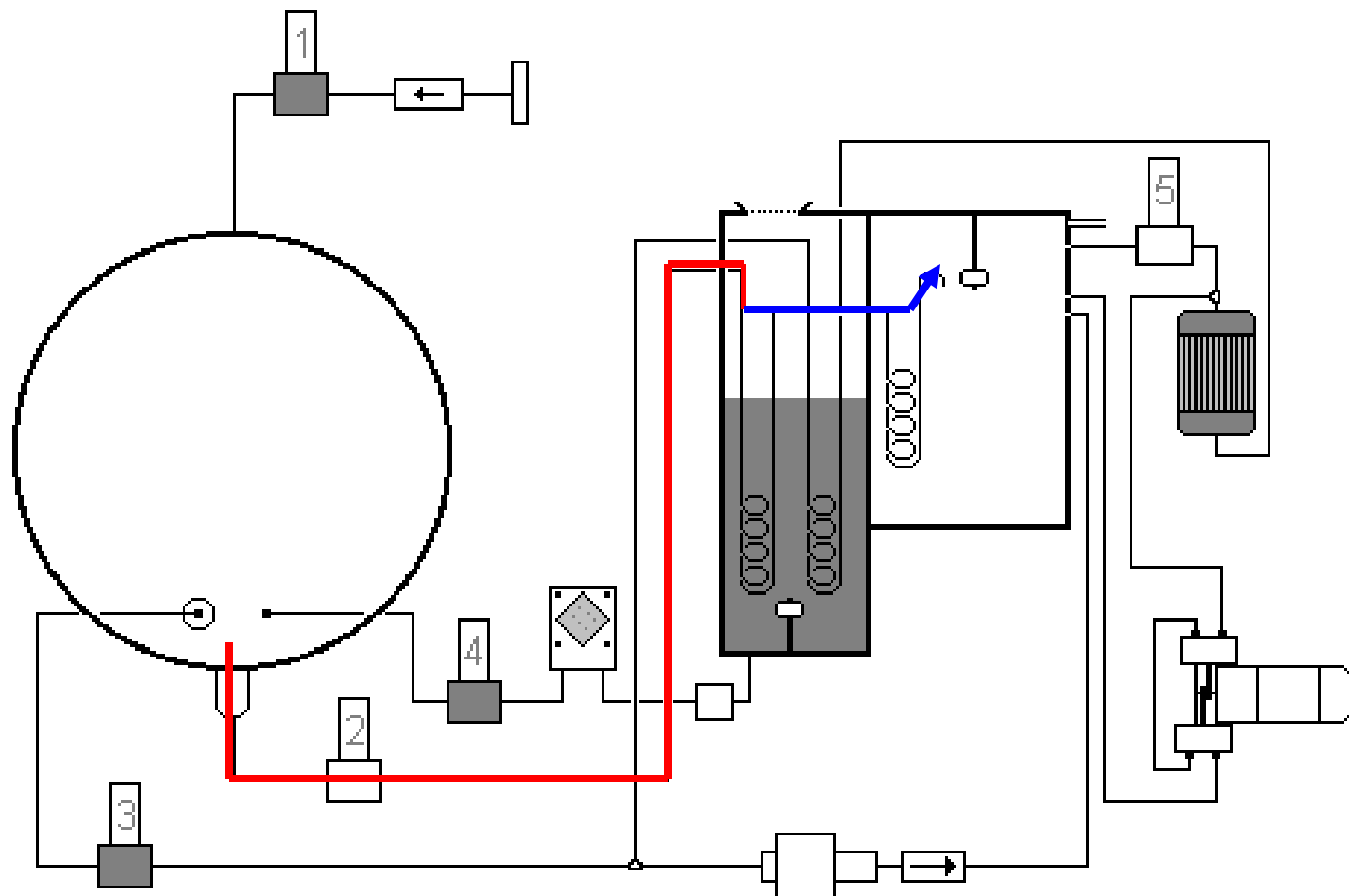




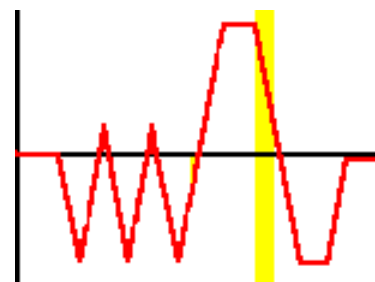


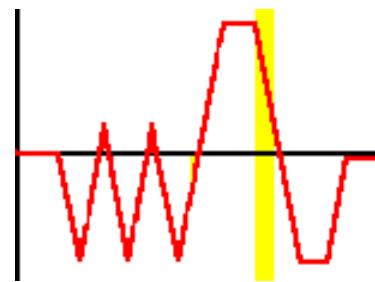
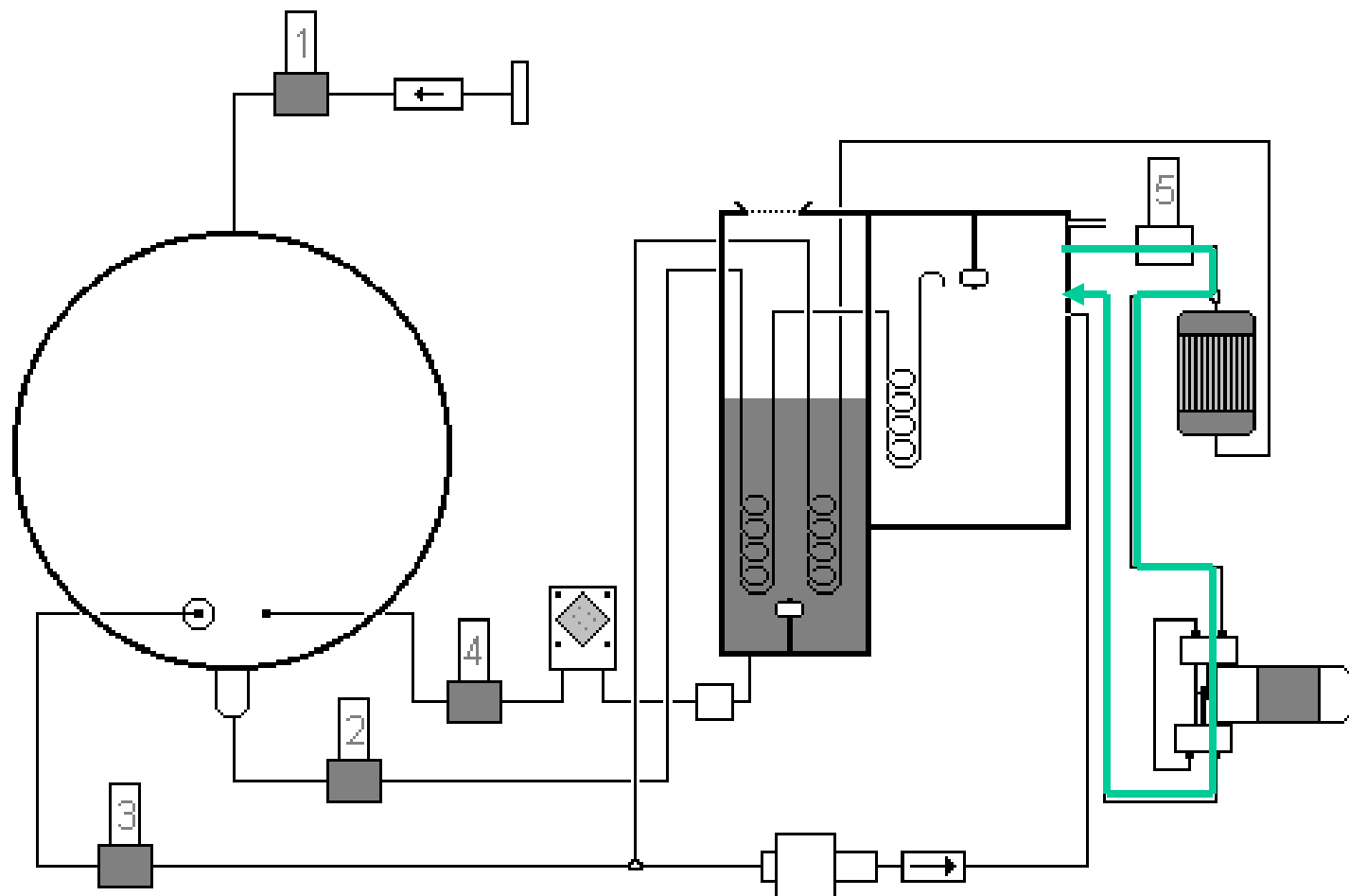
**Sterilization**

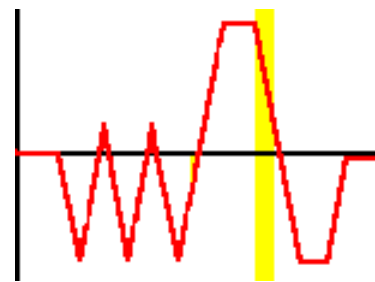
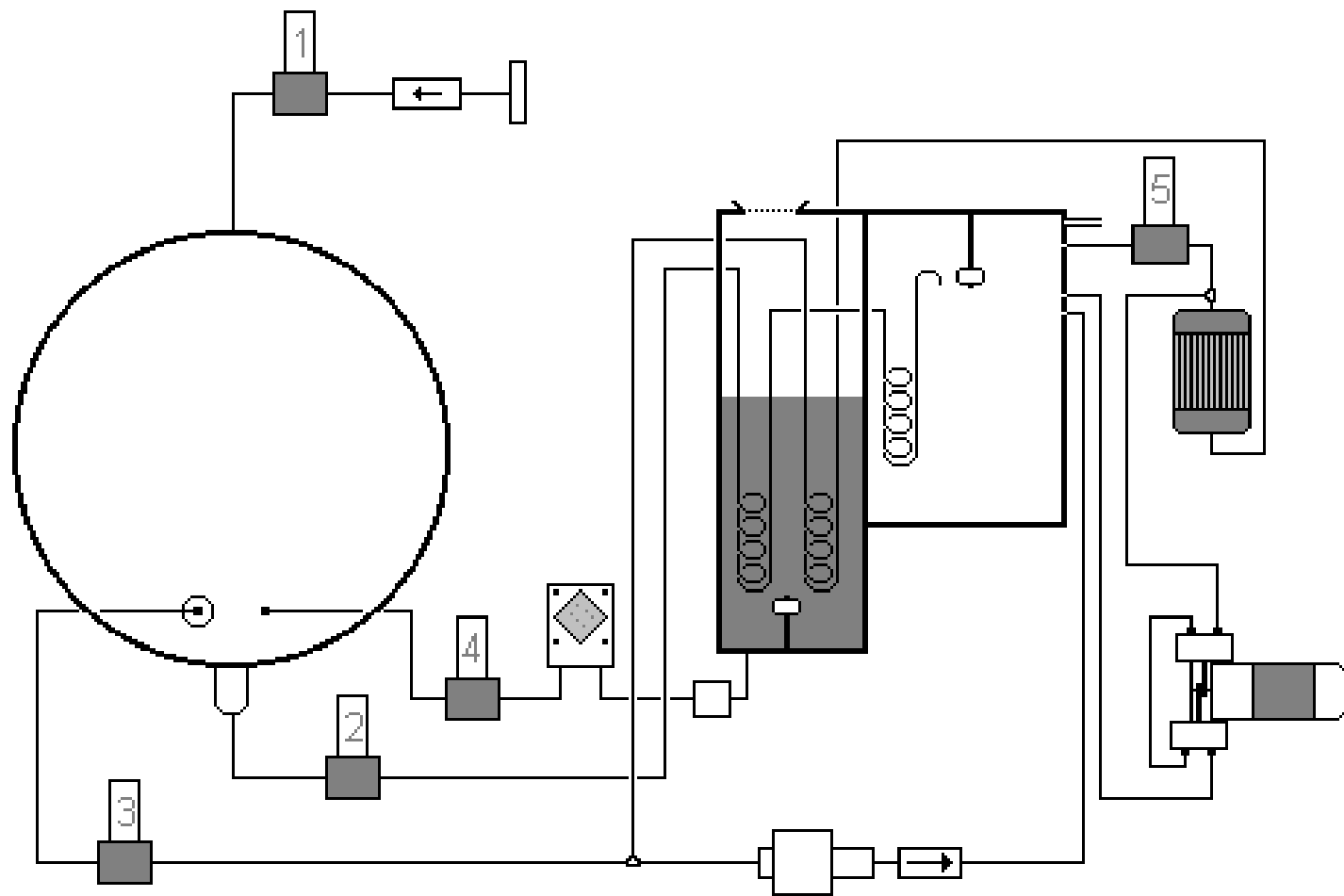


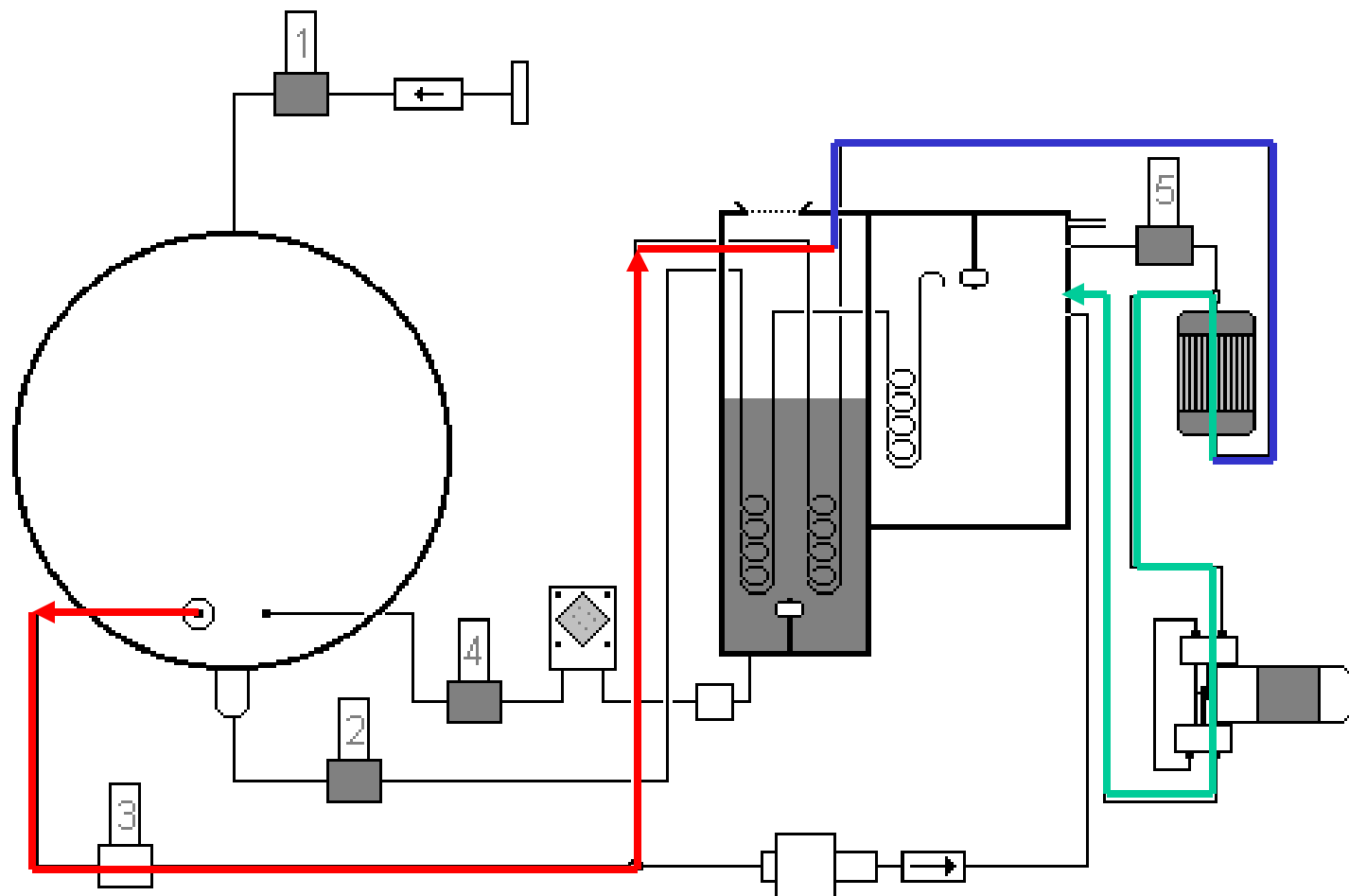


**Drain**

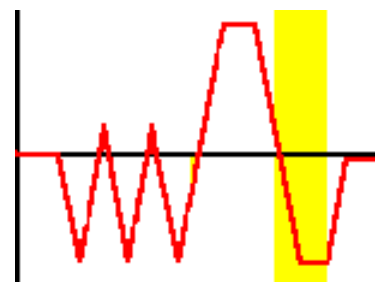


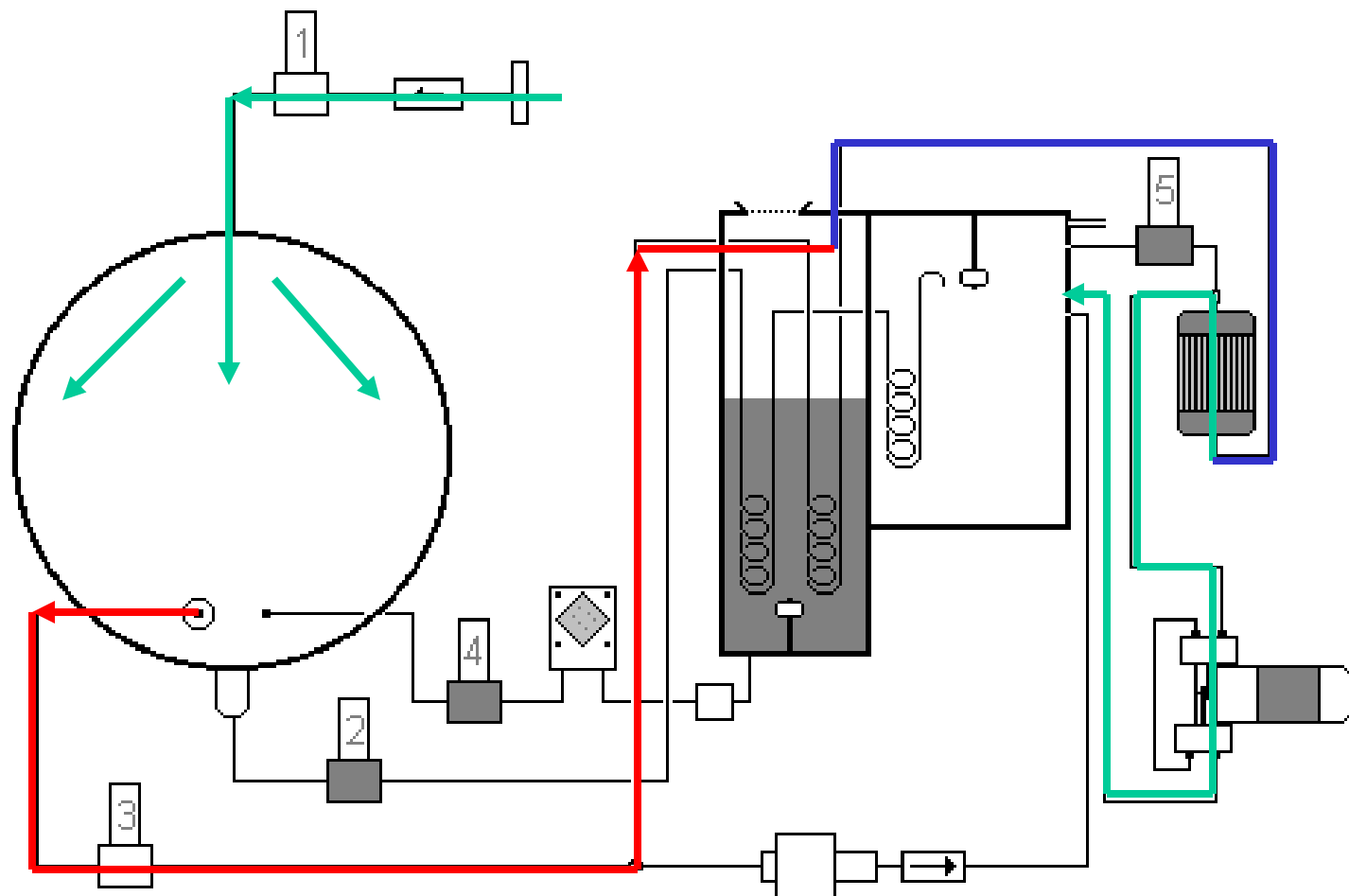




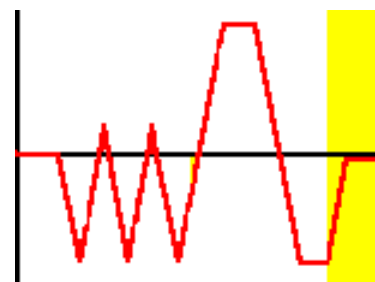


drying

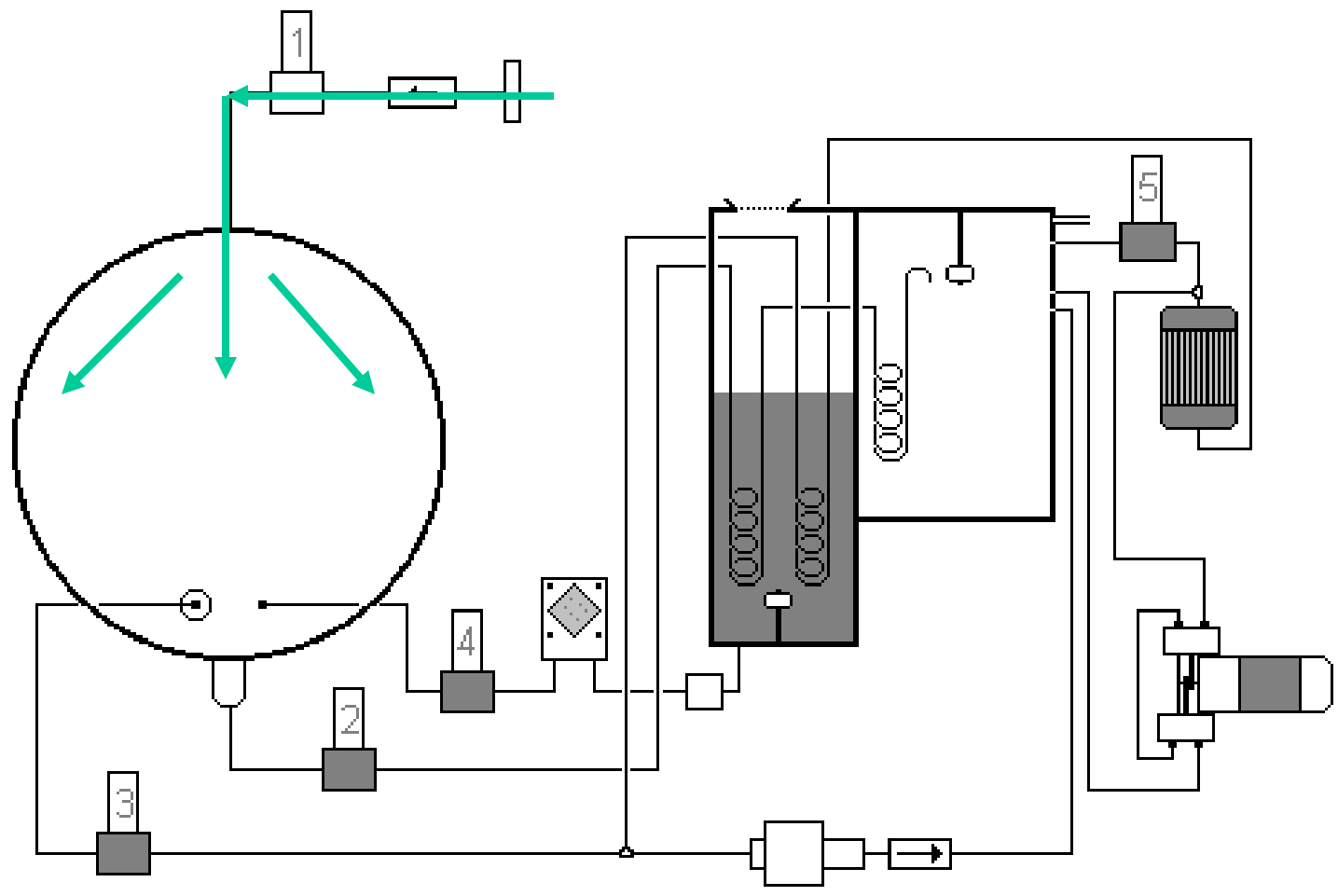


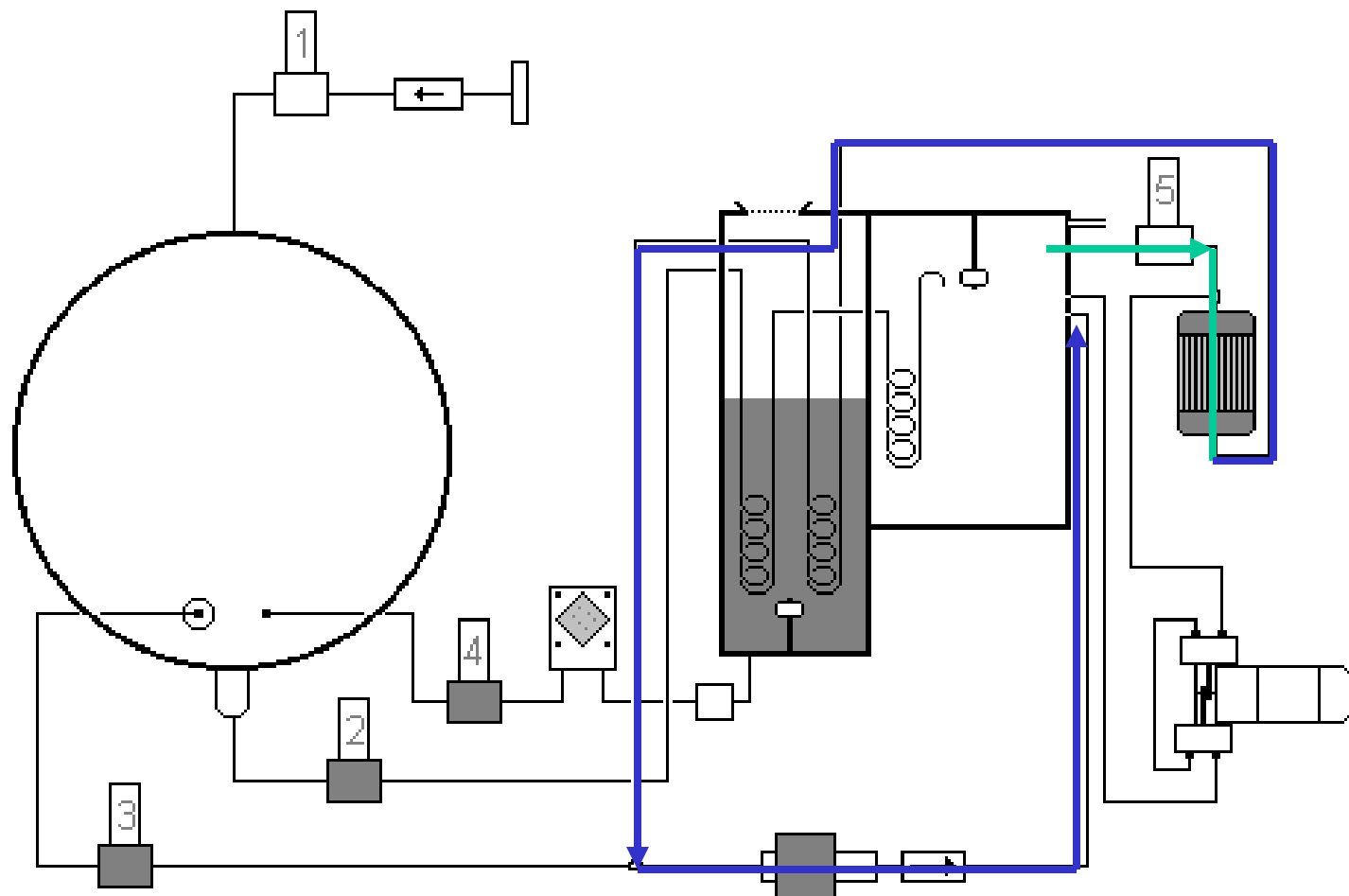


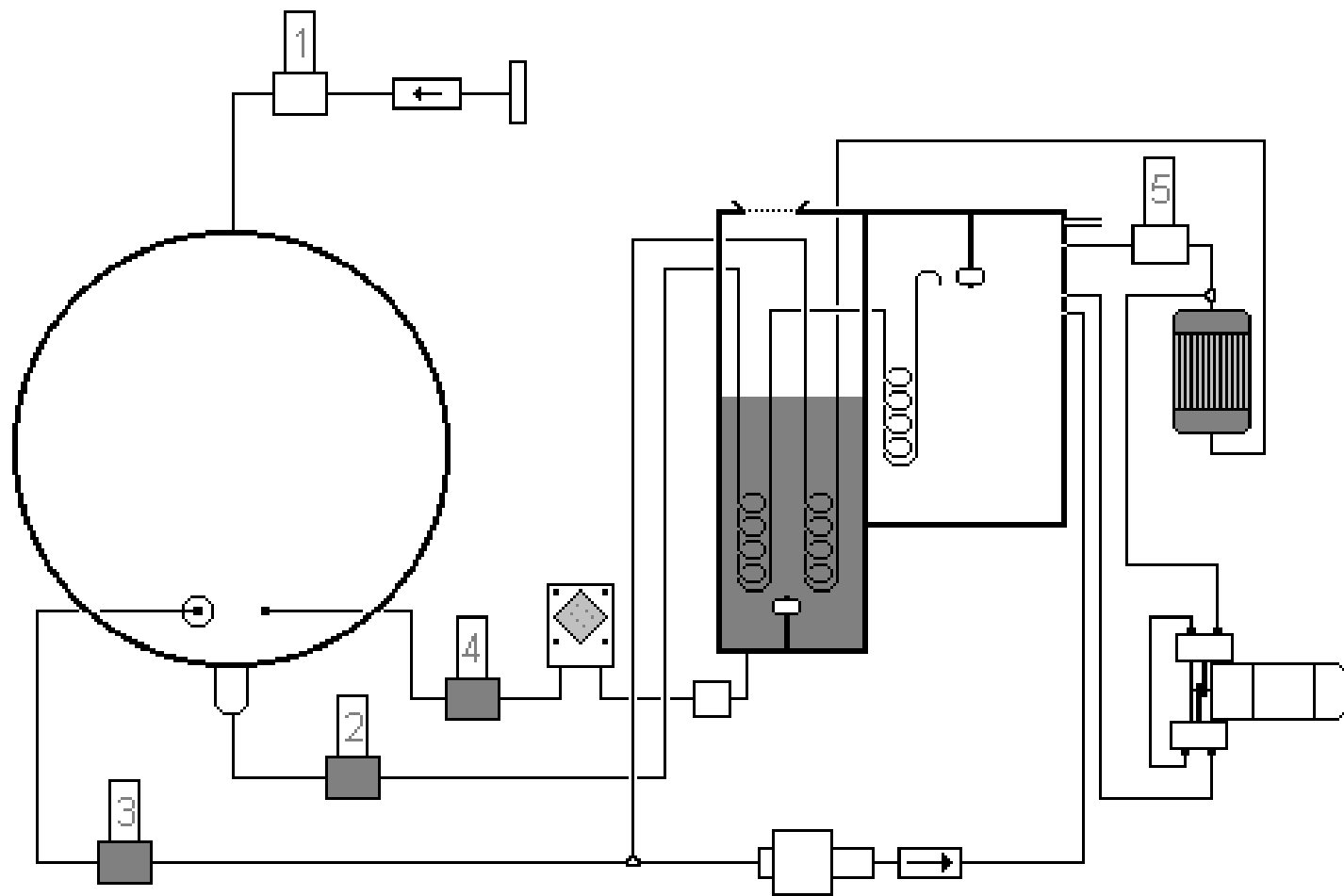
ventilation

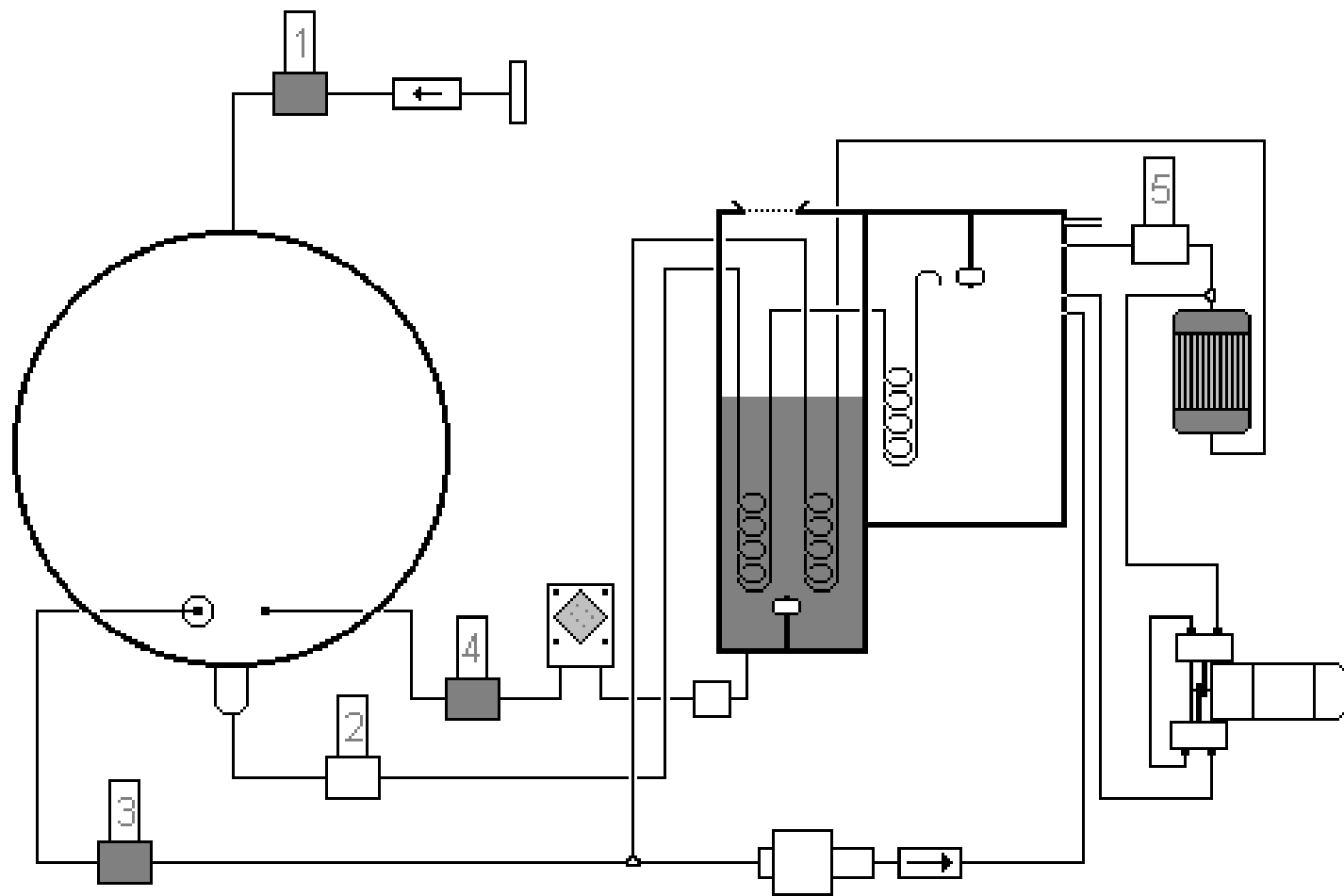
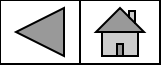








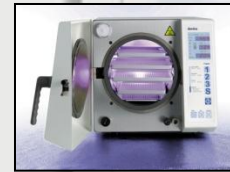




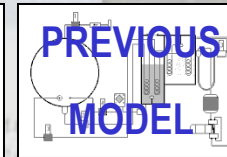
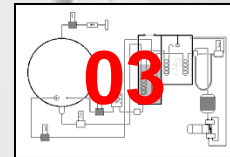
end

# Domina PLUS B

**INSTALLATION**



**WORKING DIAGRAMS**



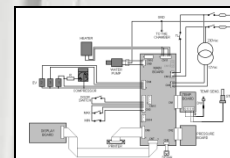
**INTERNAL VIEWS**

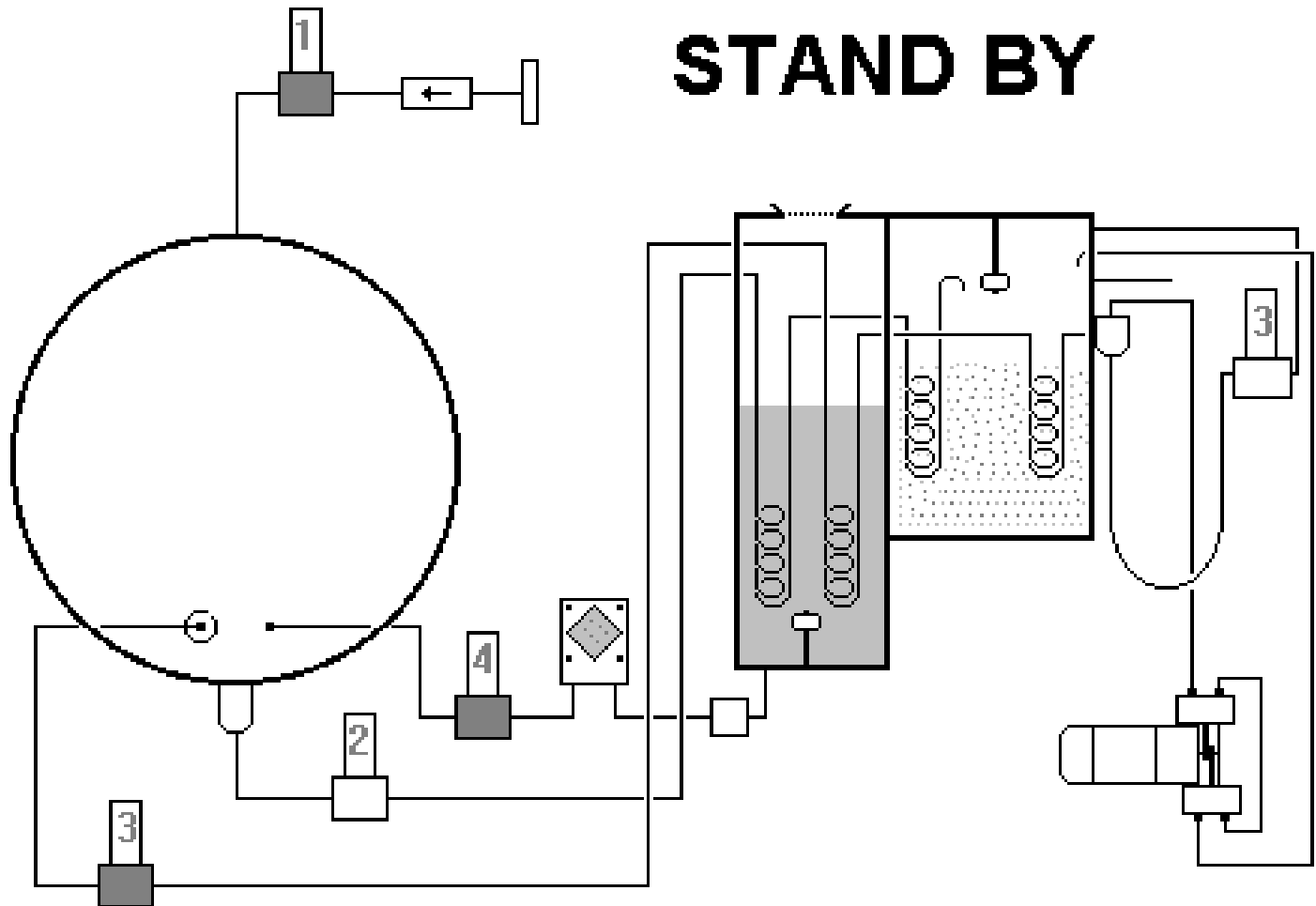
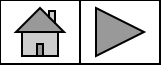


**TROUBLESHOOTING**



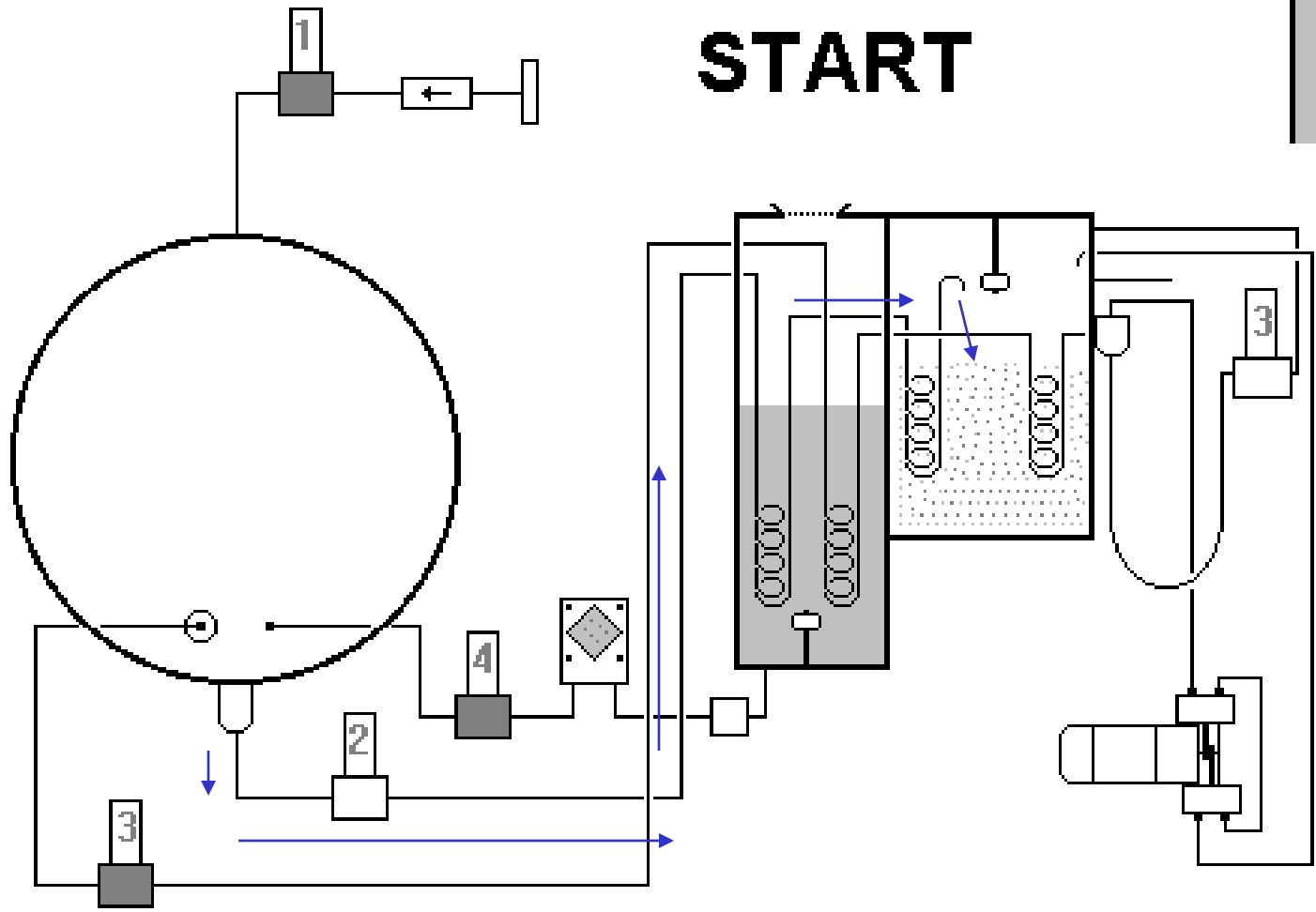
**WIRING DIAGRAMS**



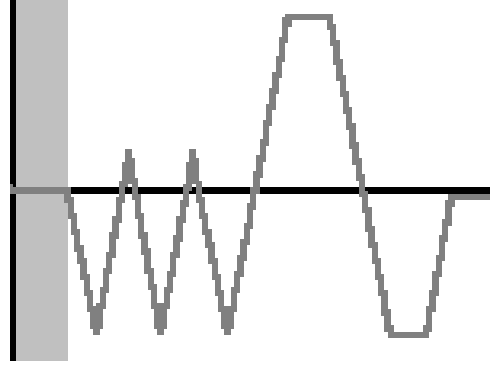


# STAND BY

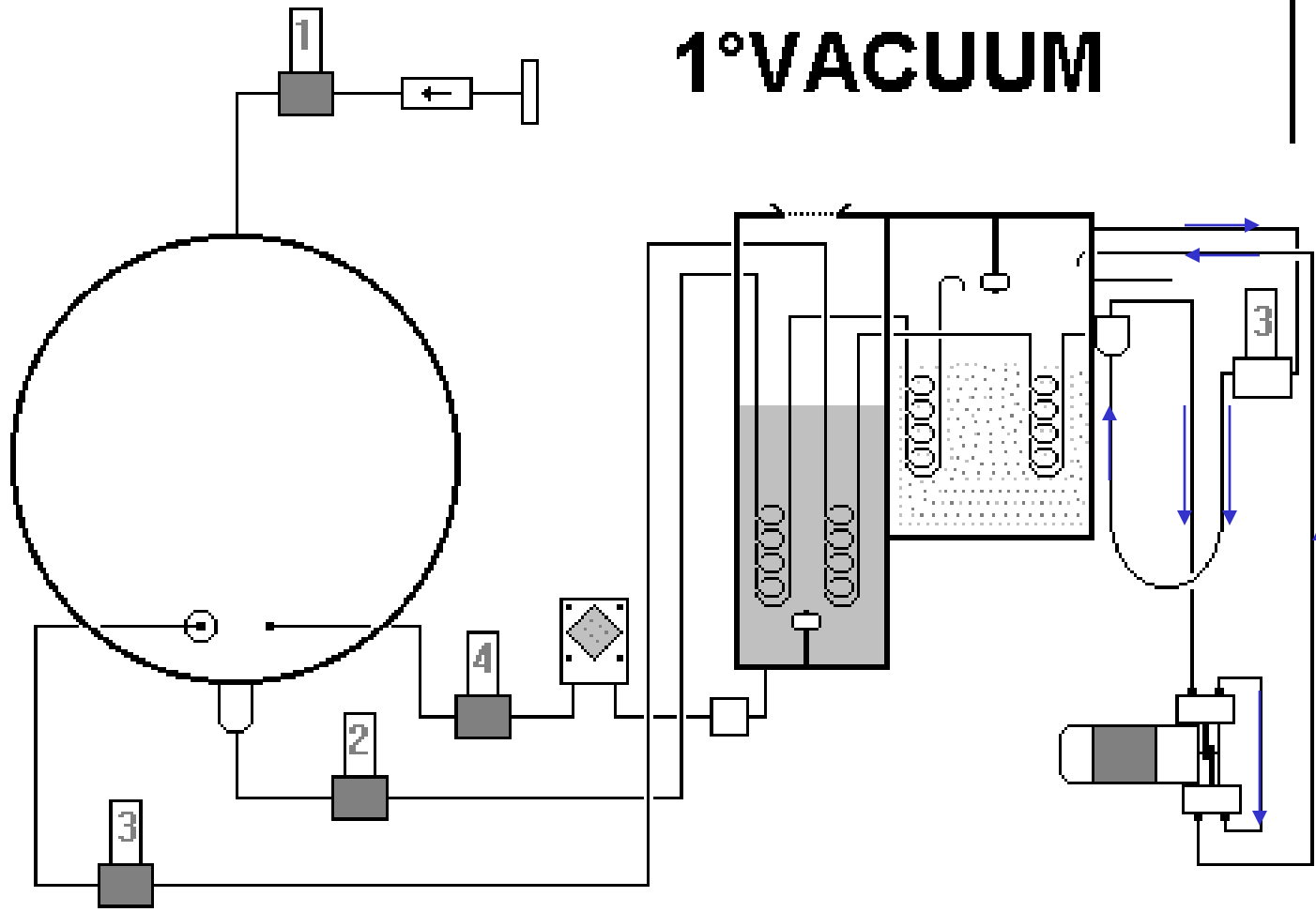
In the gray handle model, the valves 3 are wired together, in the 2001 model the N.O. becomes EV5



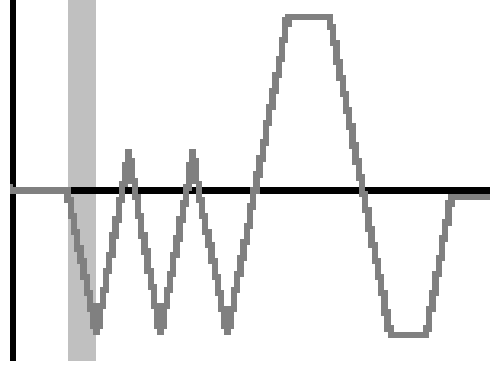
**START**



**THIS PHASE IS  
MINIMUM 10 SEC.  
LONG OR UNTIL  
THE SURFACE  
TEMPERATURE  
REACHES 100°C  
BUT THE VALVES  
ARE OFF,  
THE AIR  
EXPANDES**

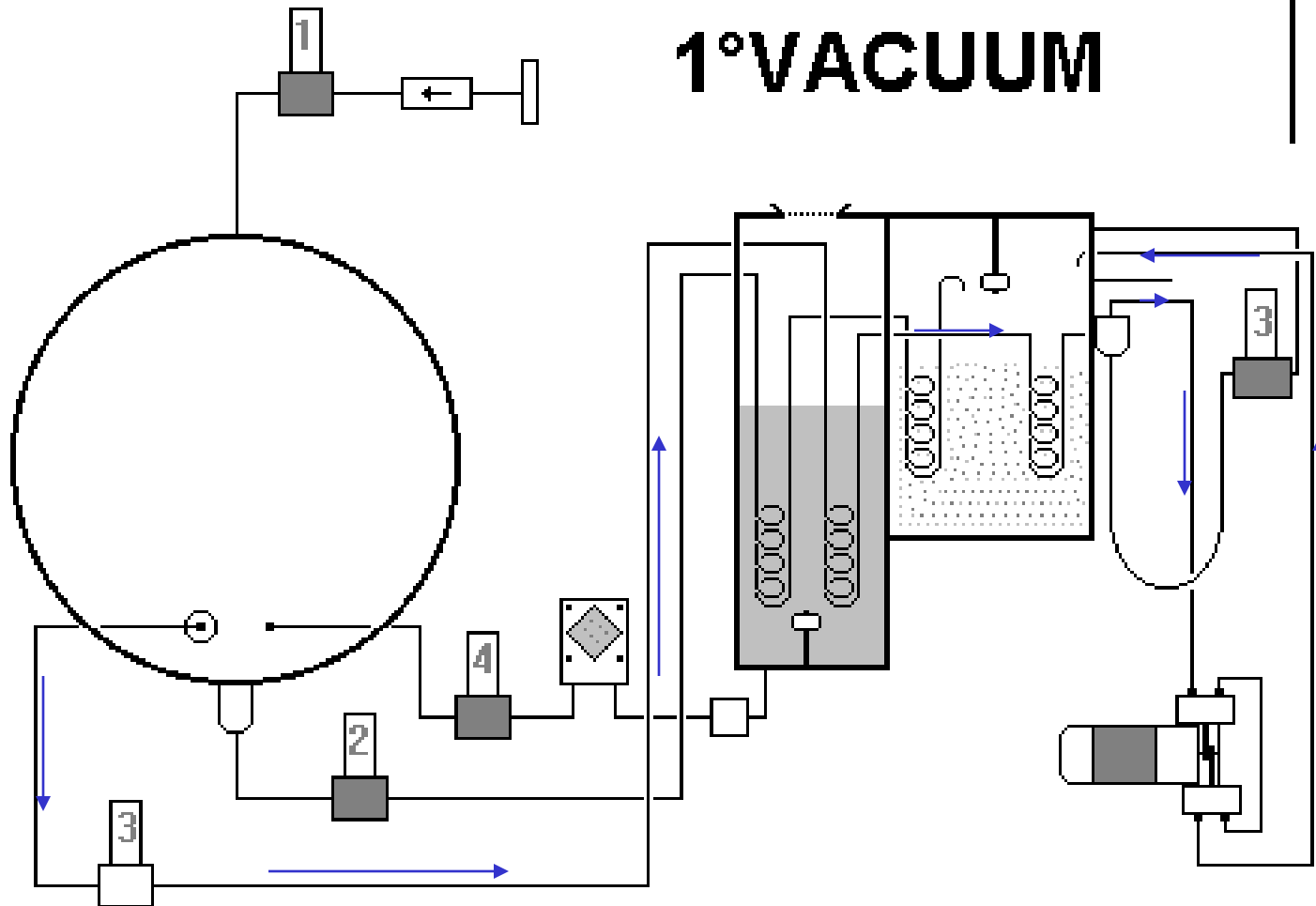


**1° VACUUM**

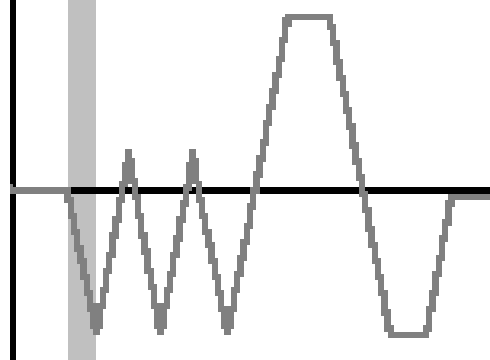


EV 3/2 is open, so, when the pump turns on, it is free of load.  
Look at the arrows for the flow.

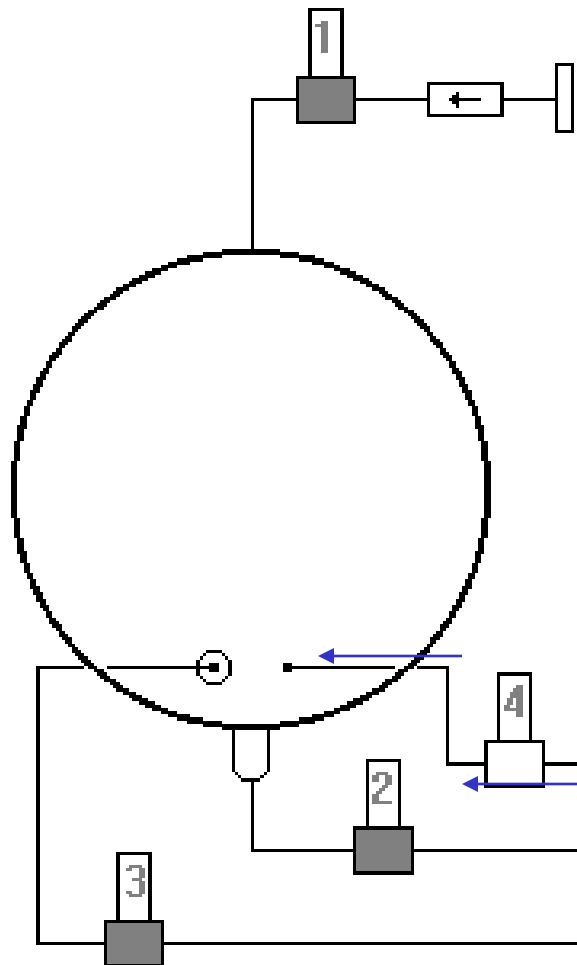




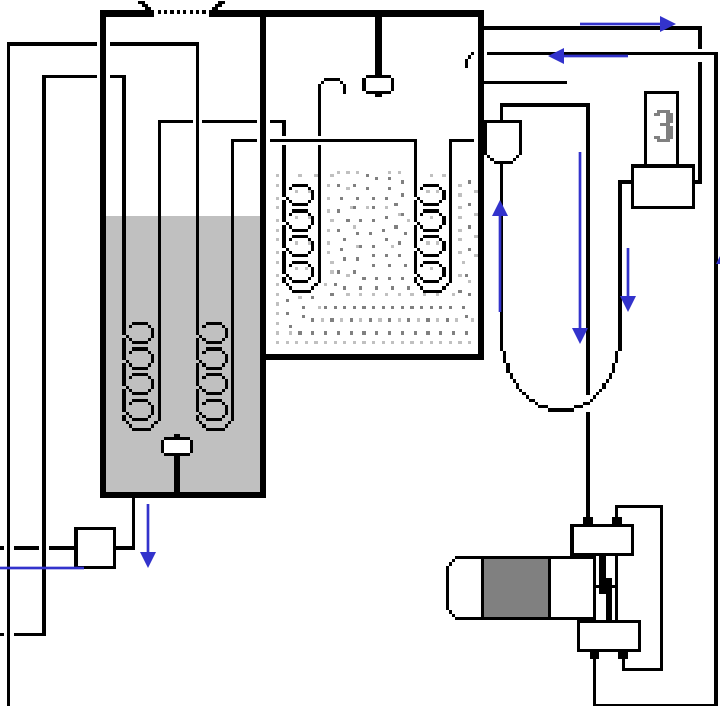
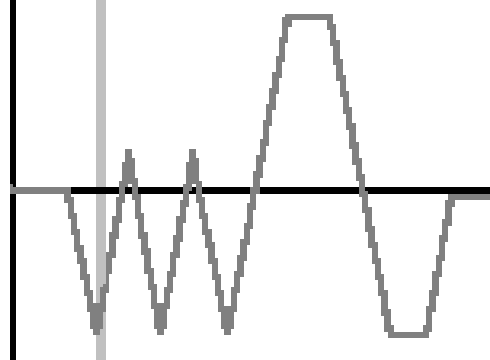
# 1° VACUUM



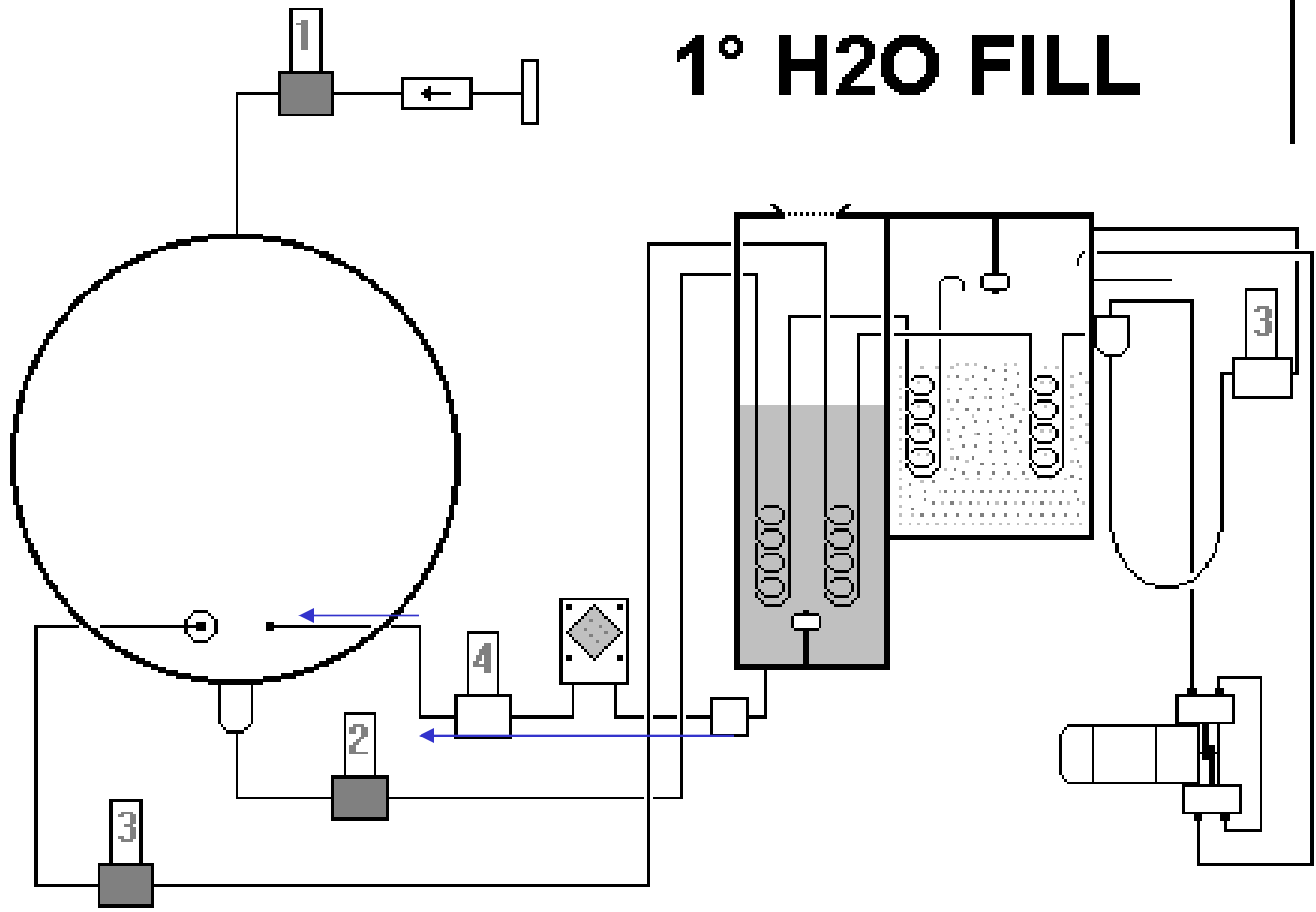
After 2 seconds the valves NR 3 turn on. Now the chamber is connected to the pump.  
The pressure must be -0.8 bar before to skip to the next phase



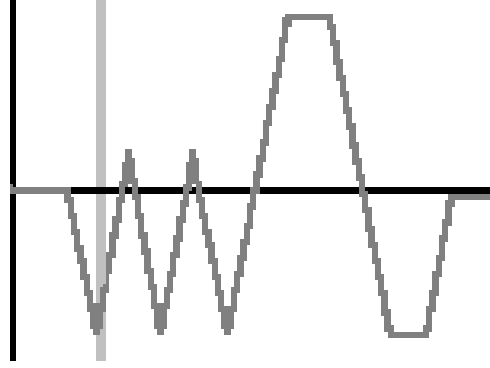
# 1° H2O FILL



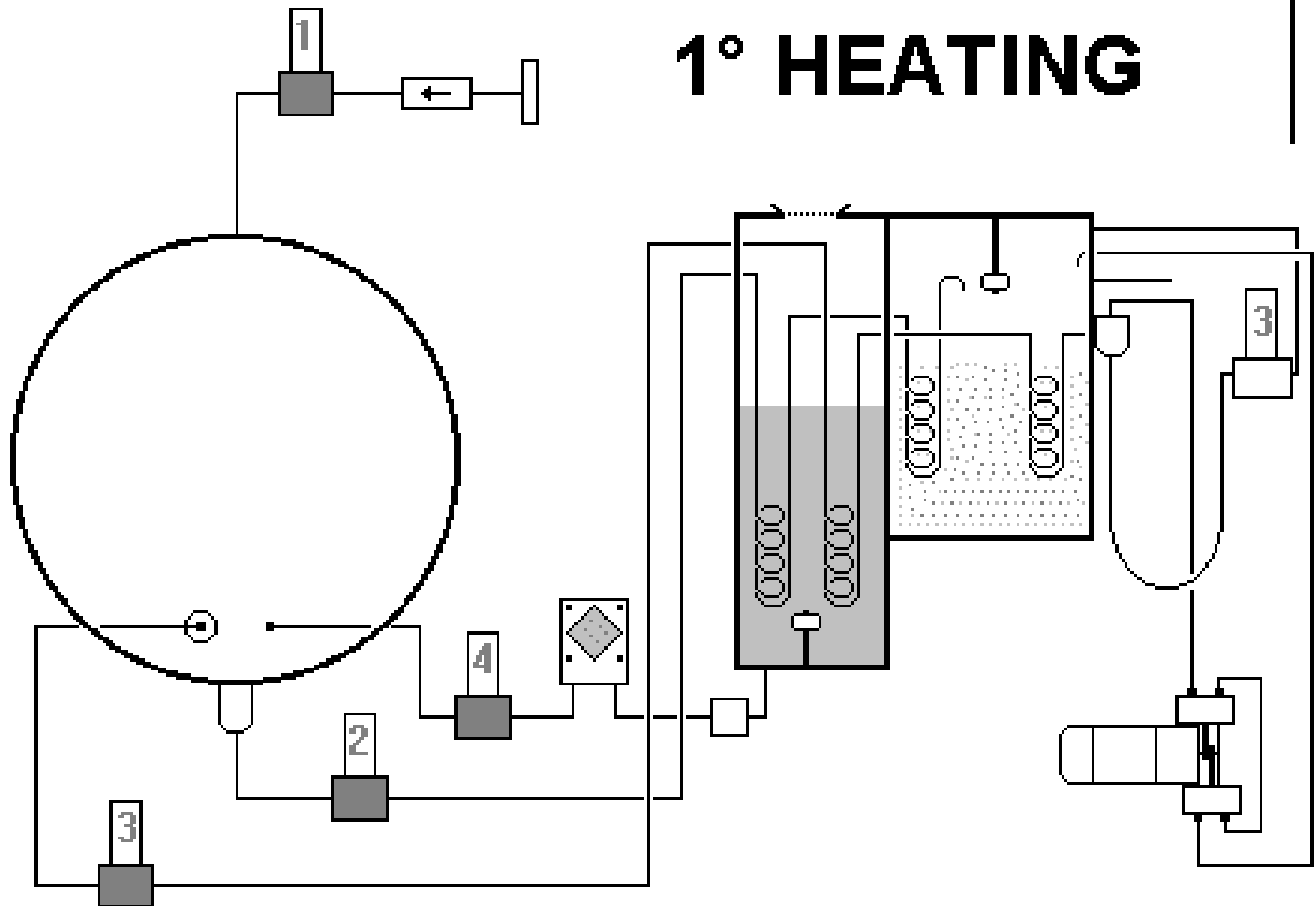
The water goes in the chamber trough the filter and the water counter.



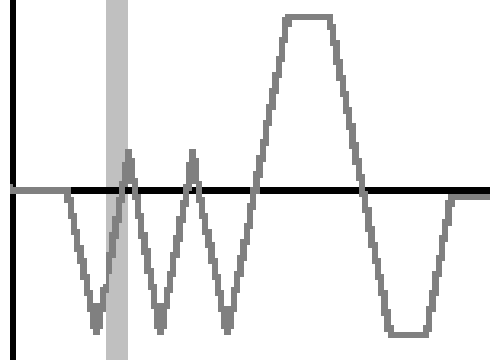
# 1° H2O FILL



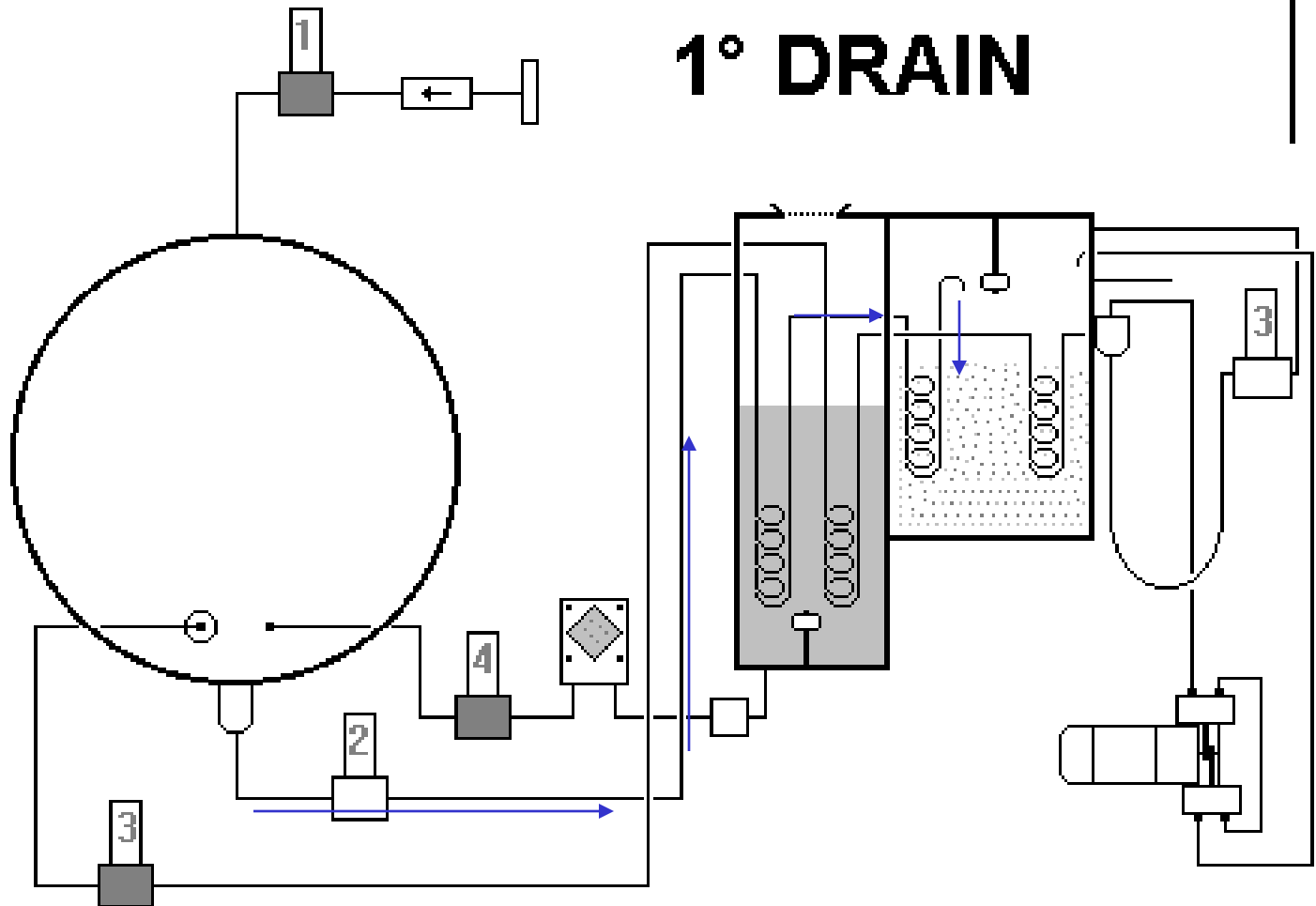
After 10 seconds, the pump turns off, when the quantity of measured water will be 180 cc EV 4 closes.



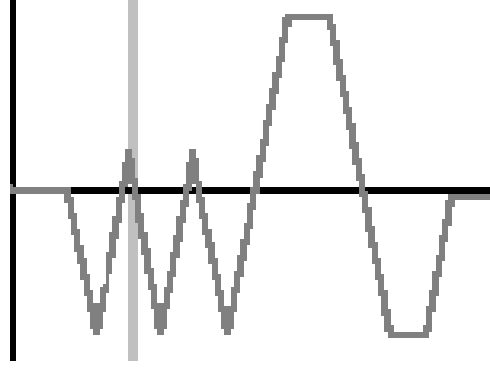
# 1° HEATING



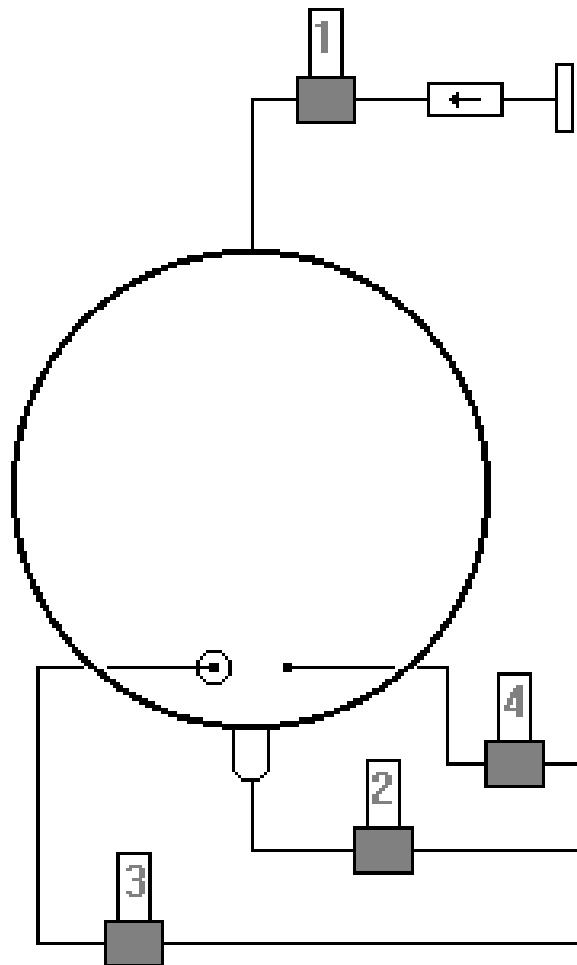
The chamber is sealed and heated until the pressure reaches 0.18 bar.



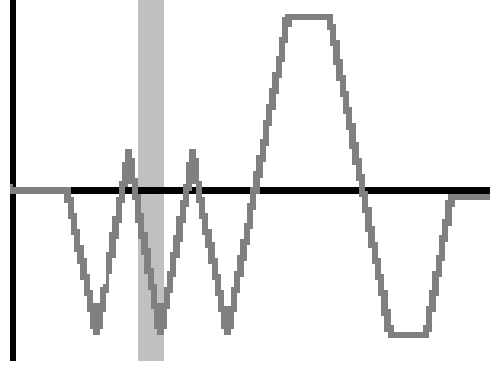
# 1° DRAIN



Until the pressure reaches 0.05 bar.



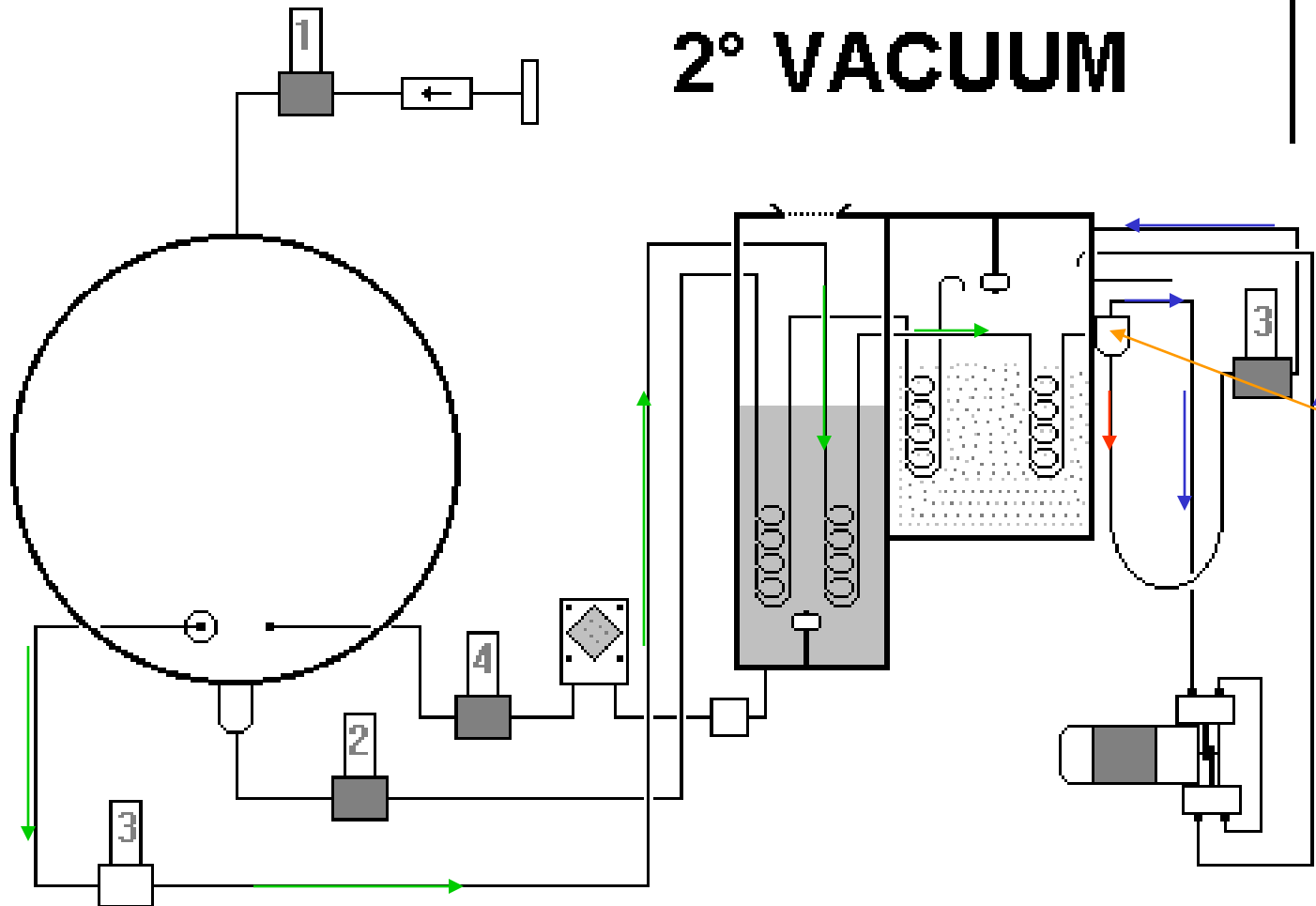
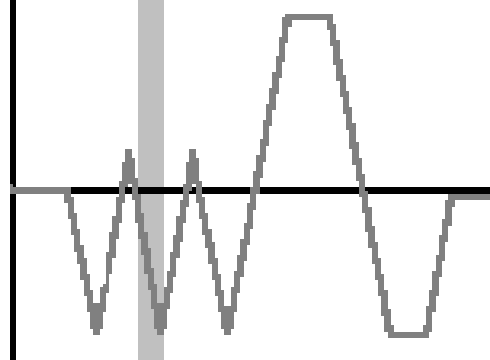
# 2° VACUUM



Then, EV 2 closes and the pump turns on and after 2 seconds....



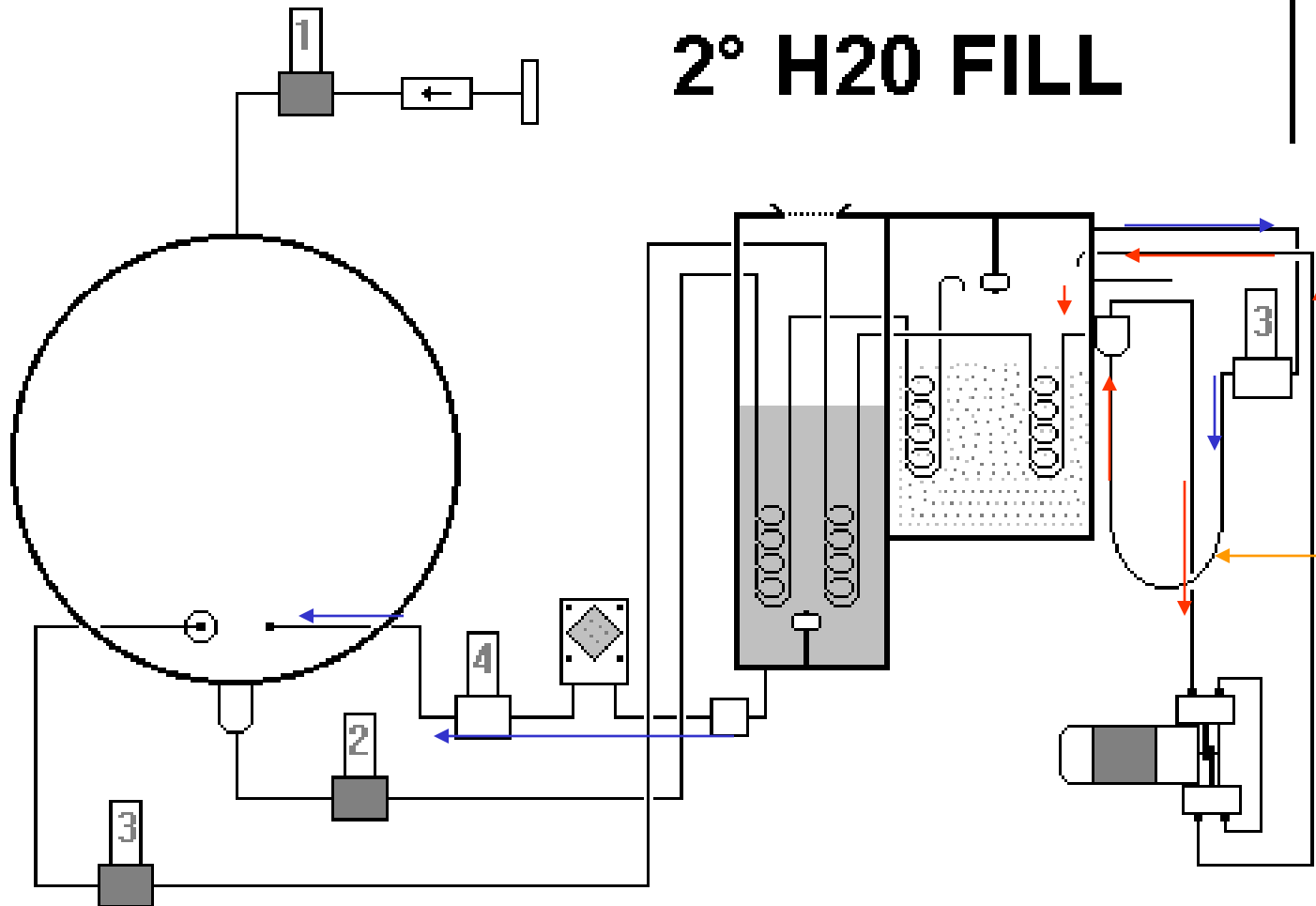
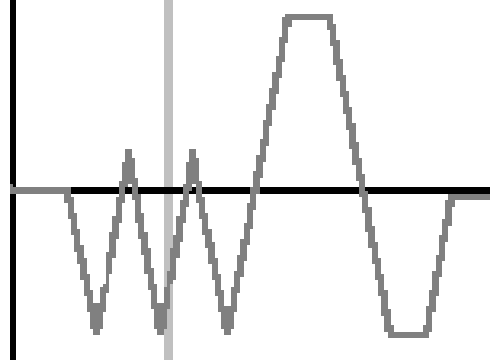
# 2° VACUUM



Both EV 3 turn on,  
air and **steam**  
come from the  
chamber trough  
the condensers.  
In this **part**, the  
**water** fall down for  
the gravity and  
the air goes to the  
pump until the  
pressure reaches  
-0.8 bar

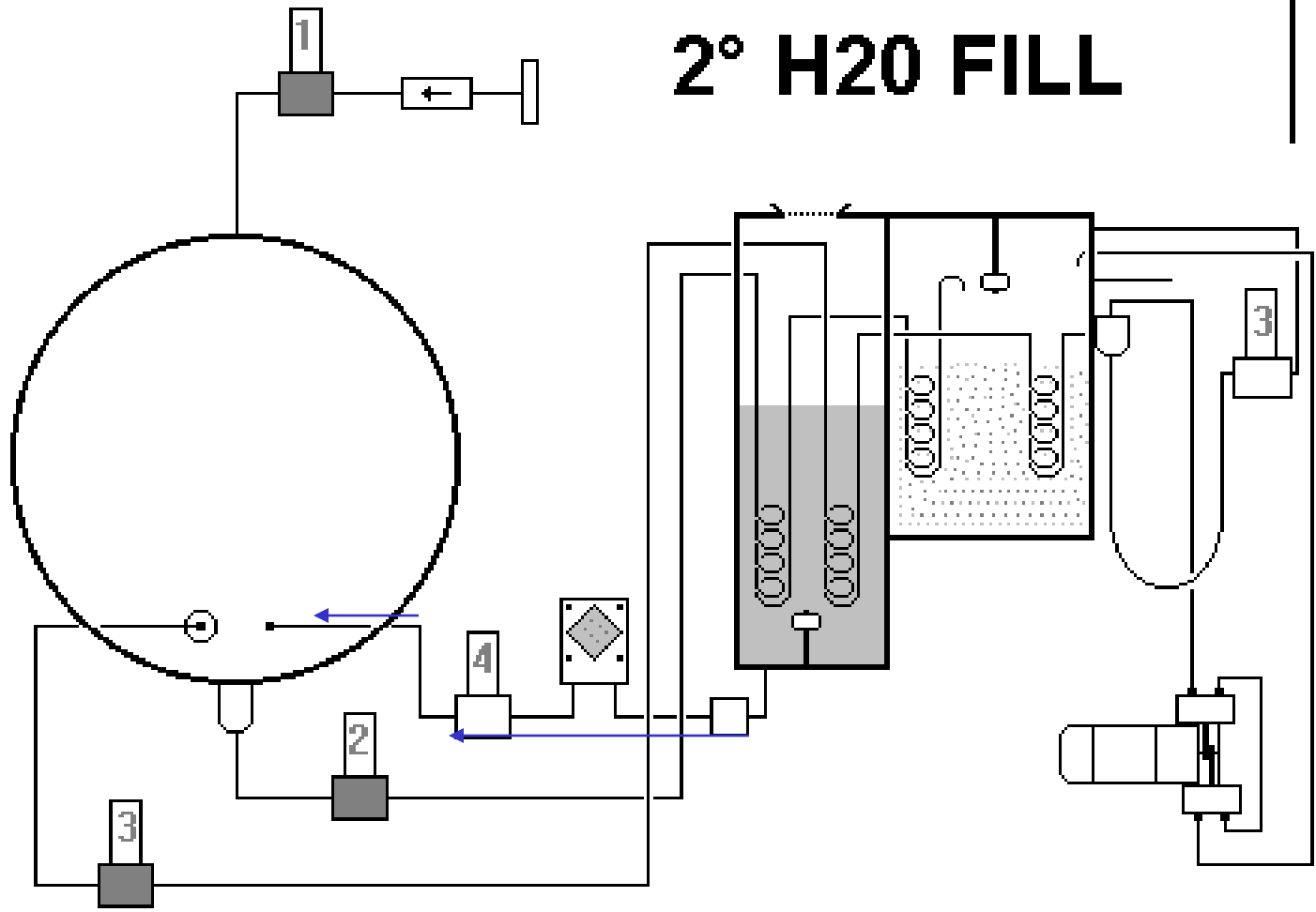


# 2° H2O FILL

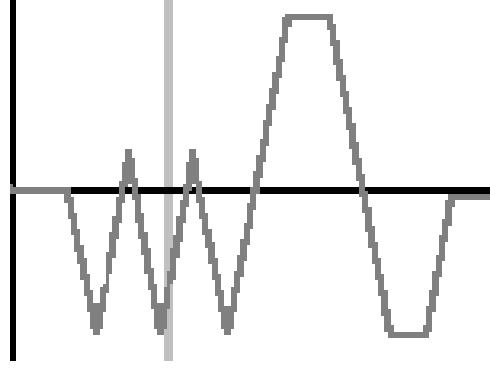


Now the water is filled again in the chamber, EV 3 turn off, and the water present here is pumped to the waste water tank.

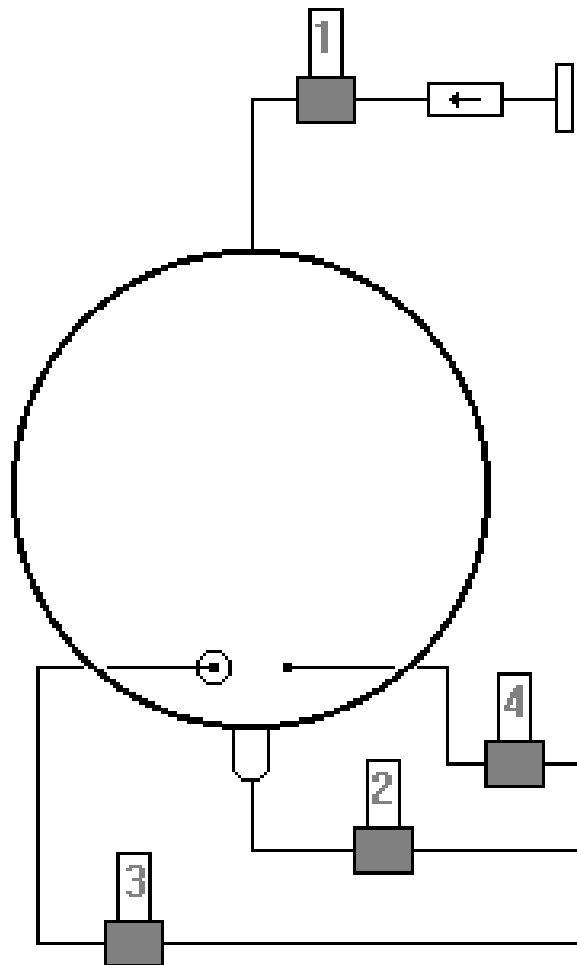




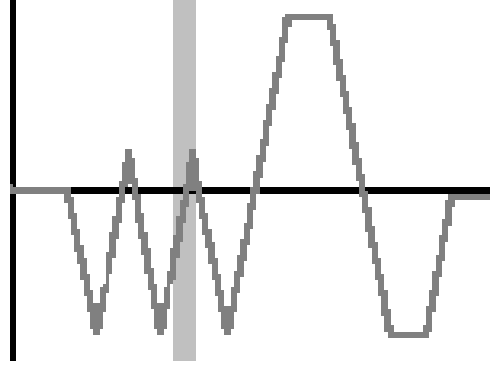
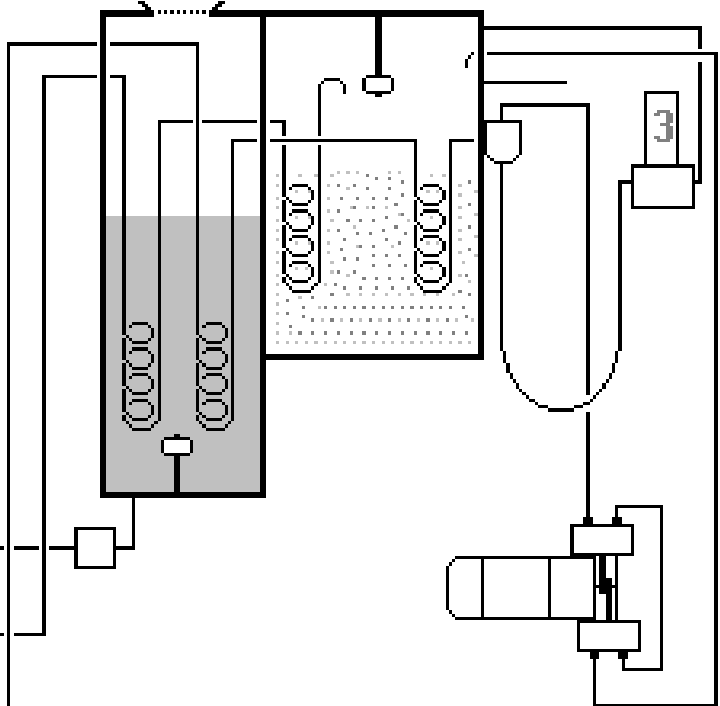
# 2° H2O FILL



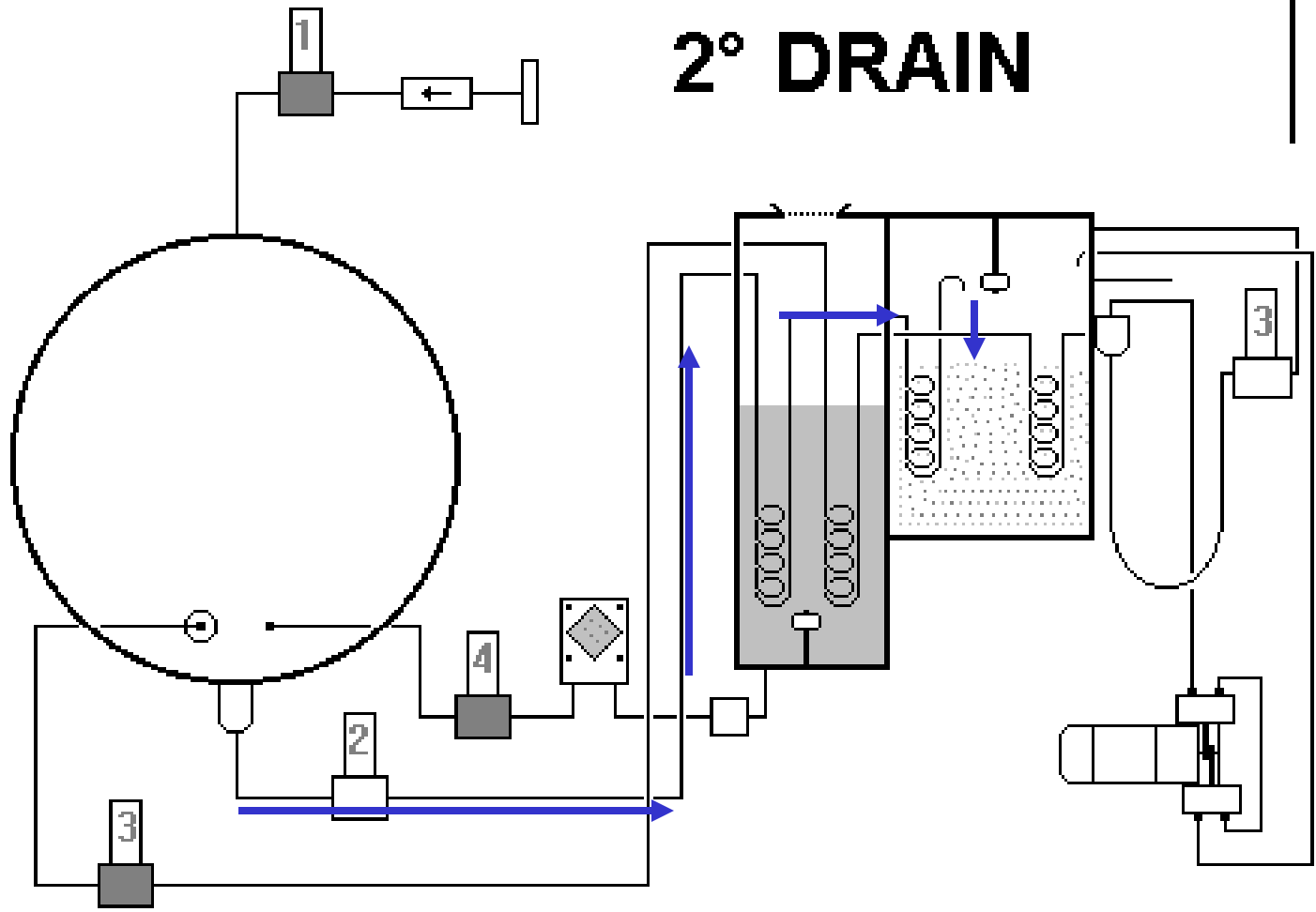
The pump turns off after 10 seconds, EV 4 turns off when the filled water is 128 cc



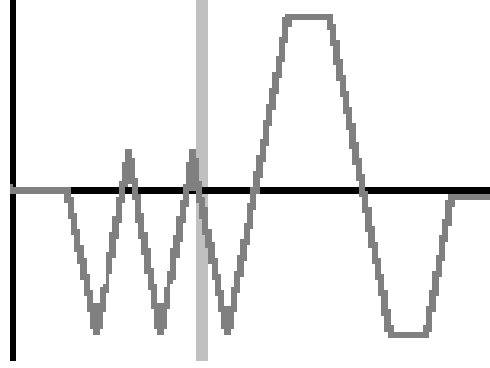
# 2° HEATING



Now the sequence is the same.

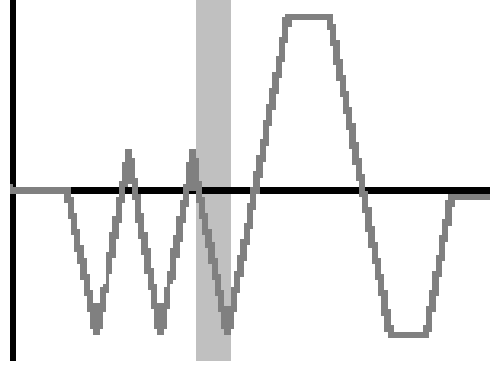
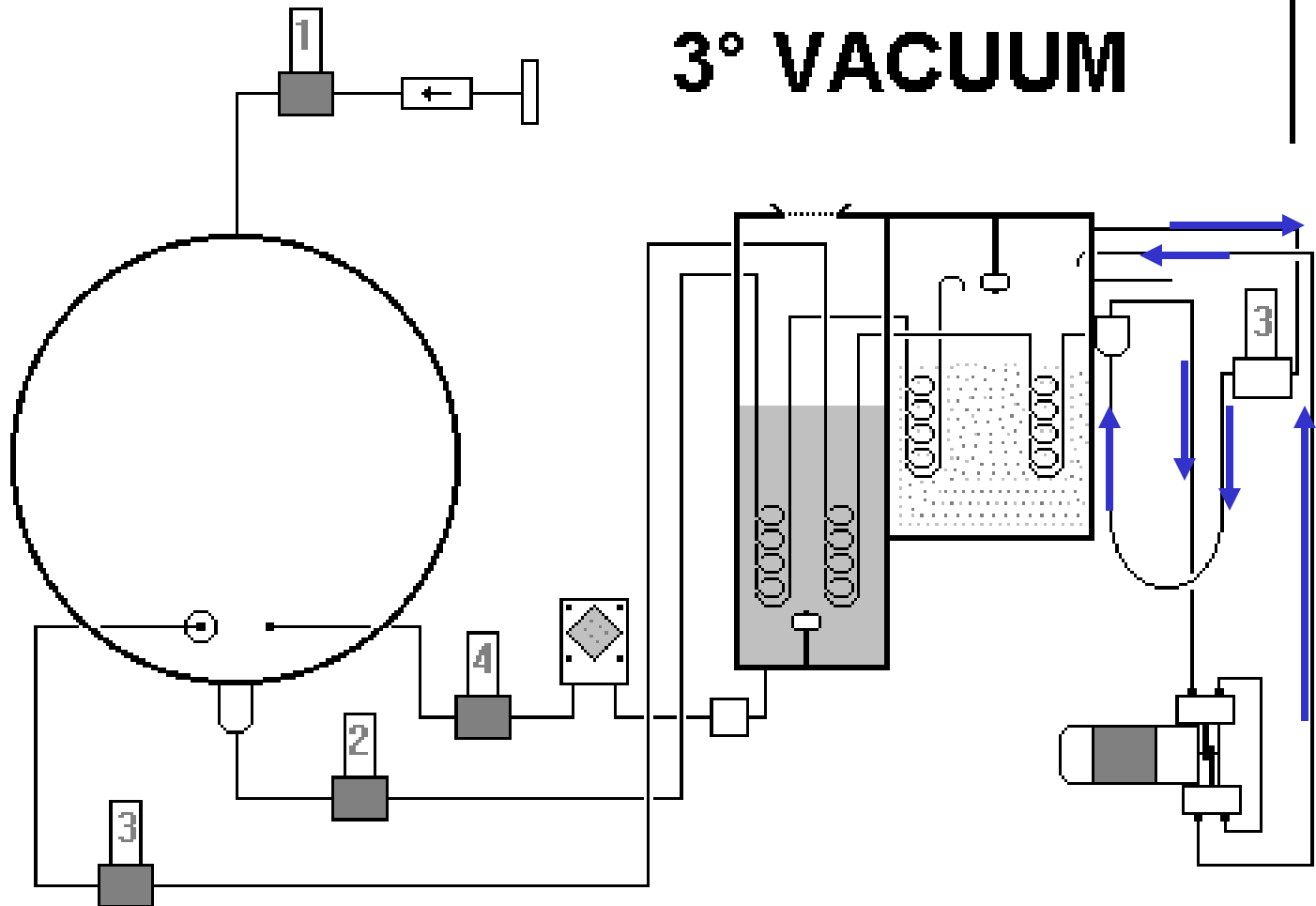


# 2° DRAIN



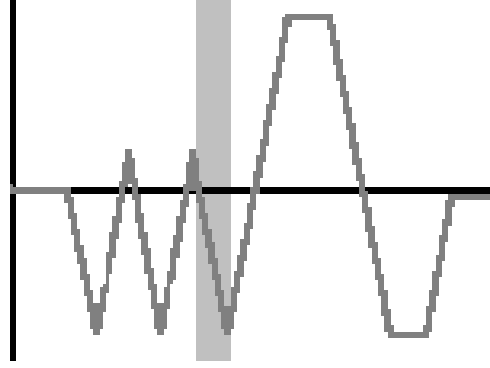
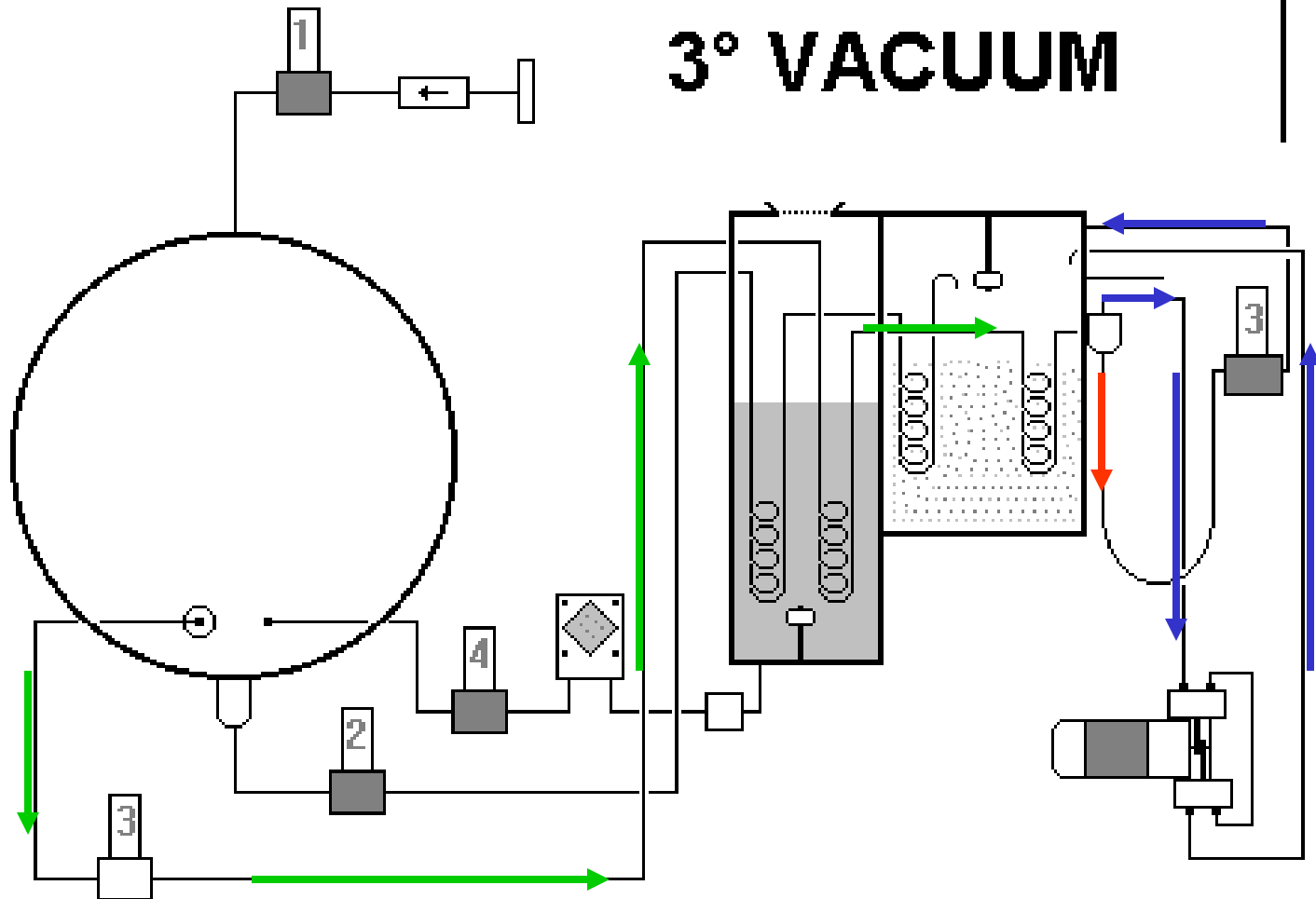


# 3° VACUUM



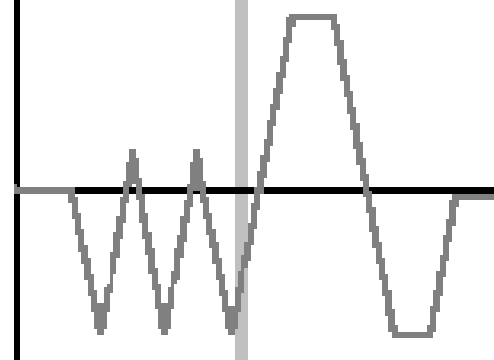
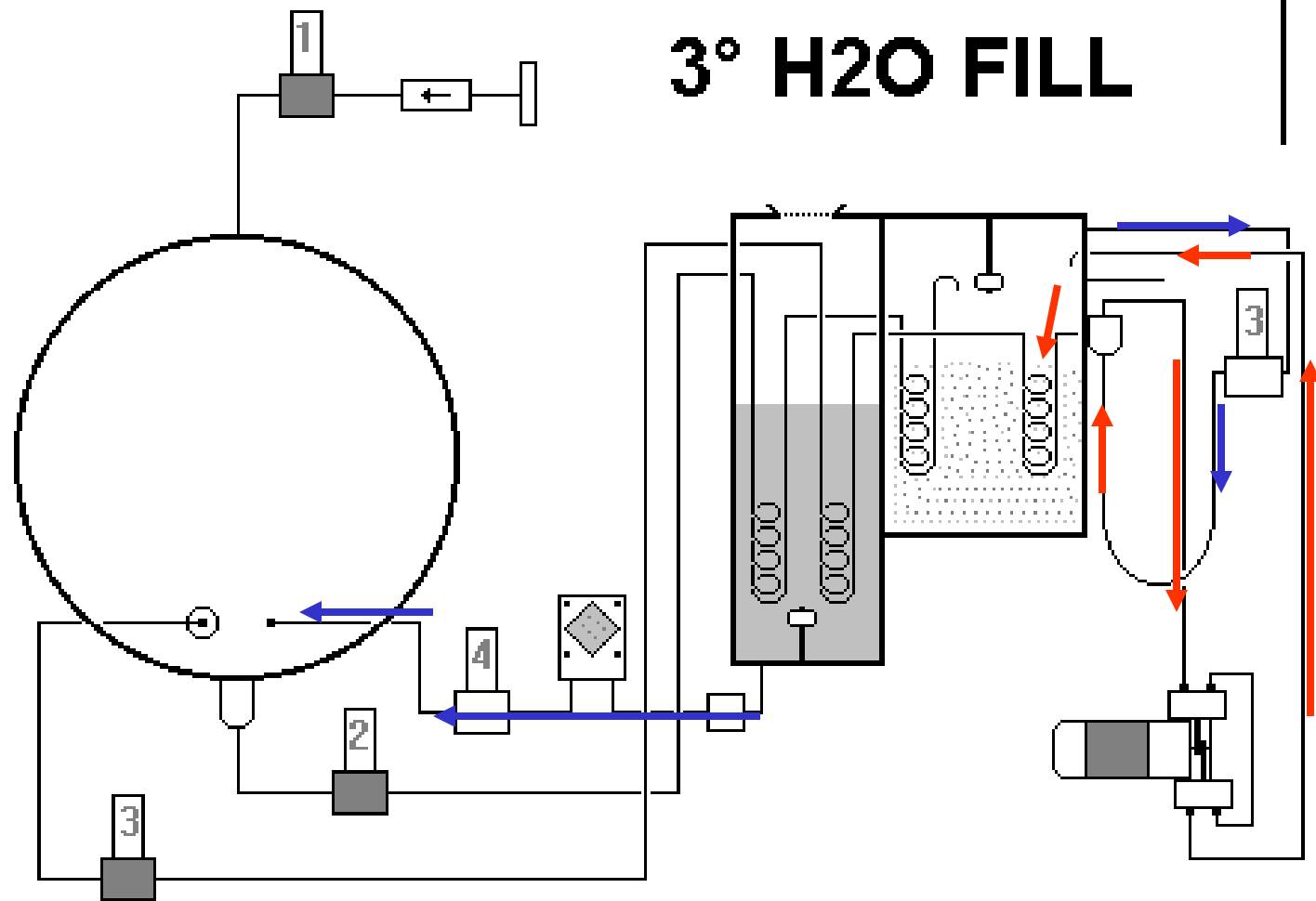


# 3° VACUUM



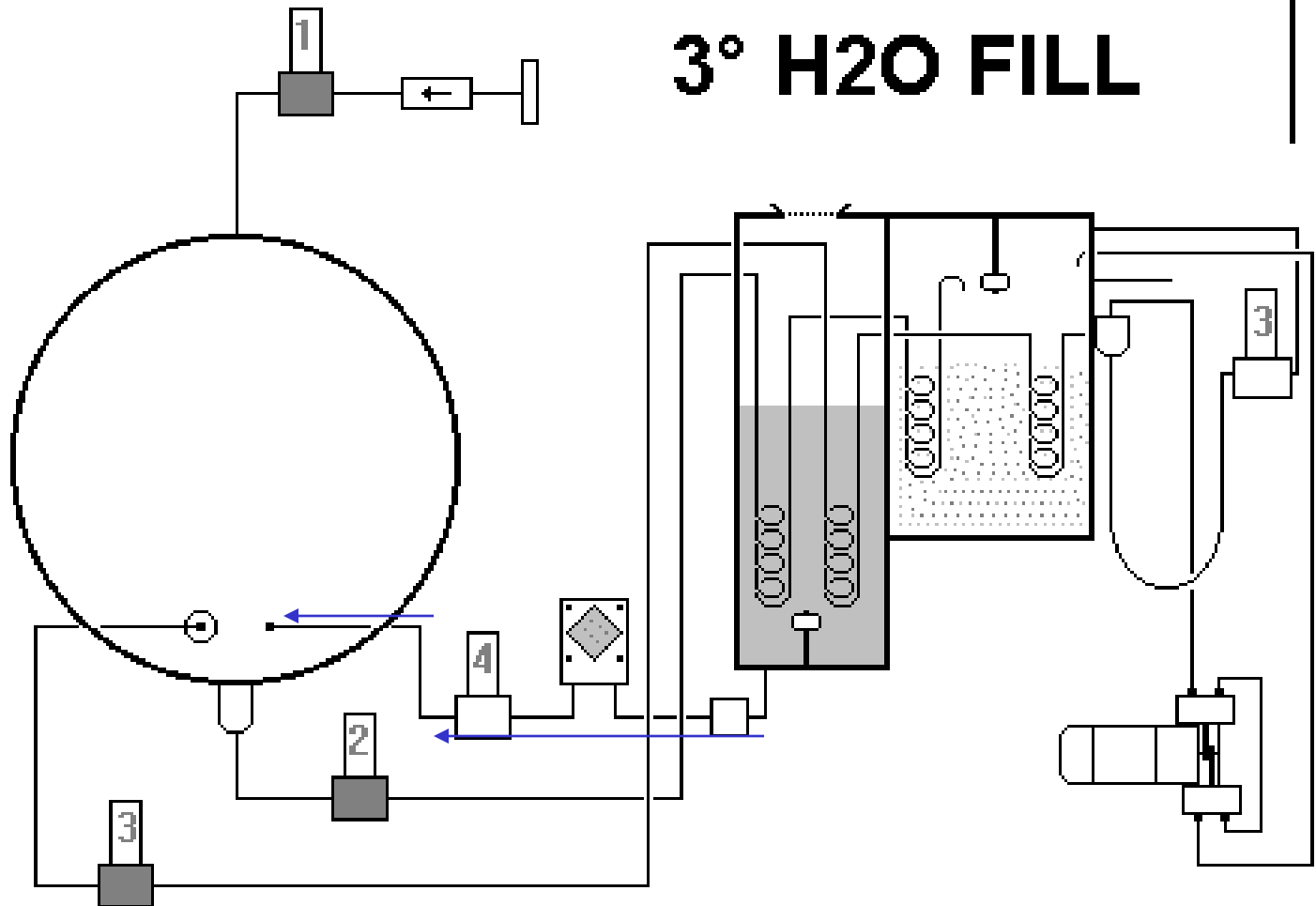
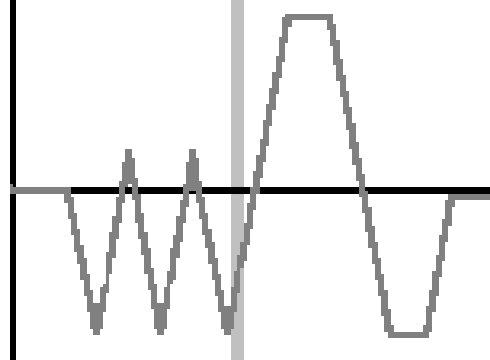


# 3° H2O FILL

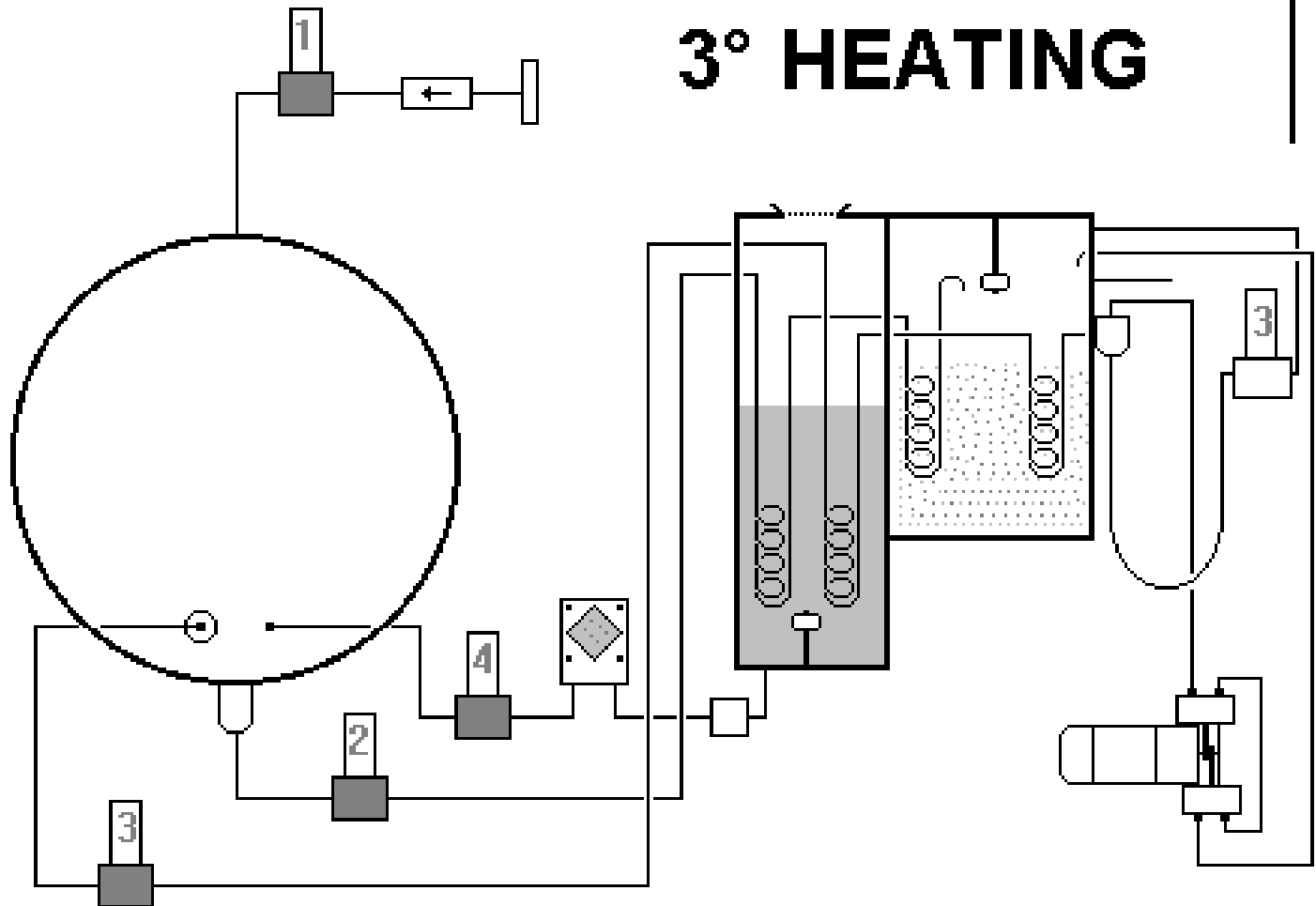




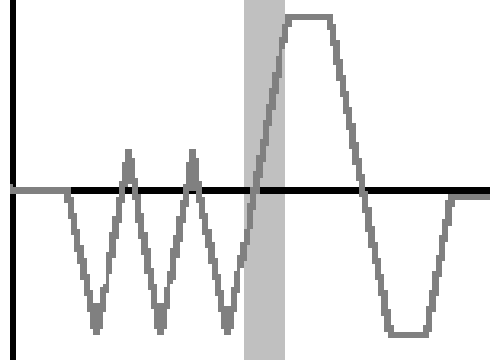
# 3° H2O FILL



The last filling is 250 cc of water

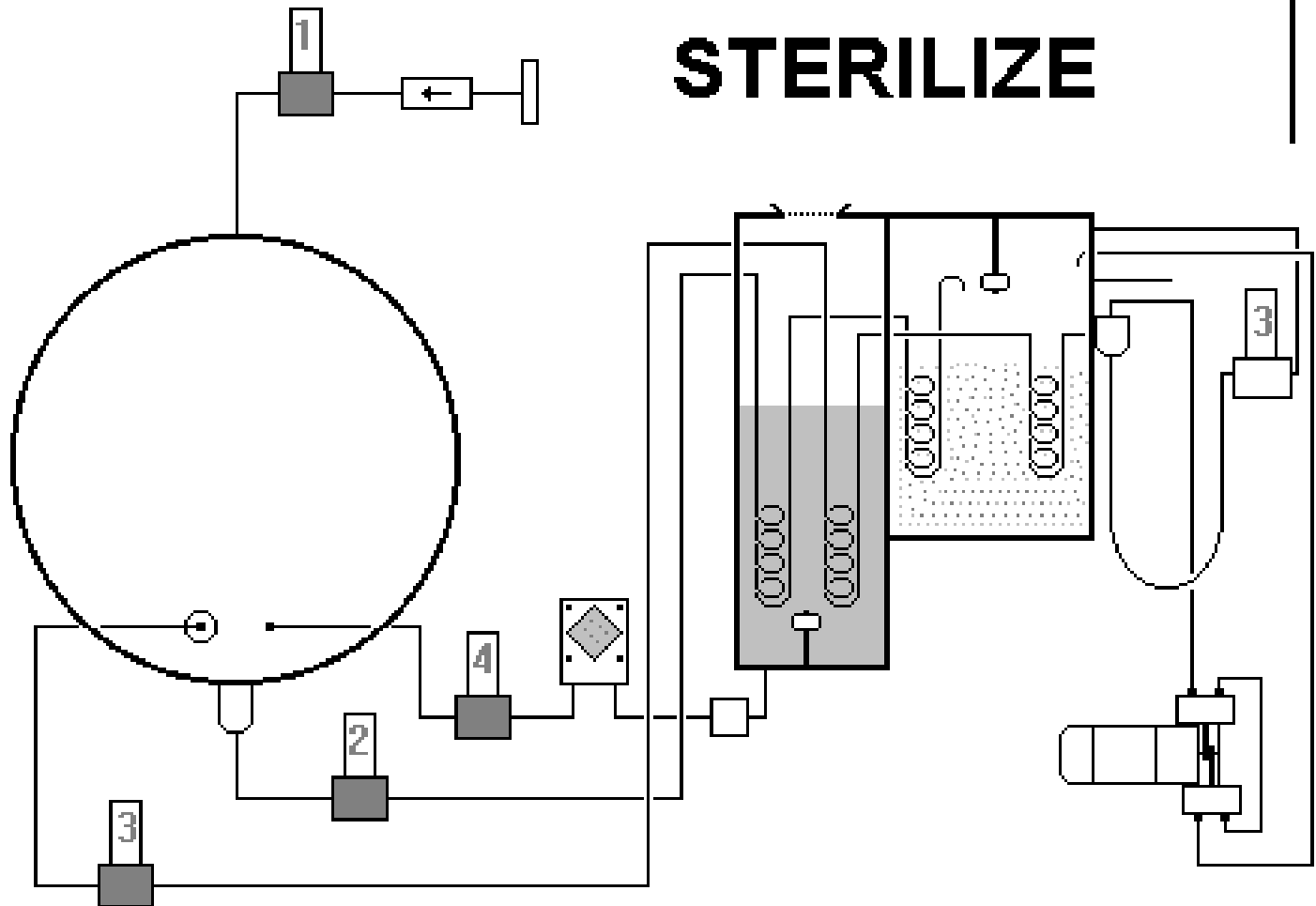


# 3° HEATING

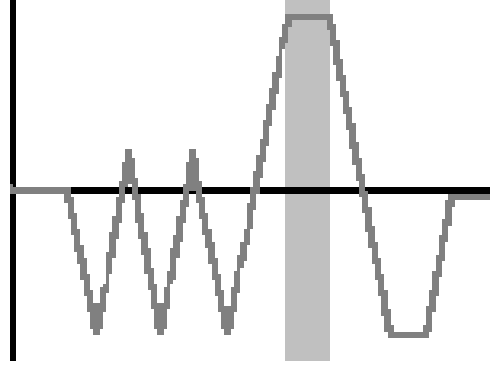


In the last heating phase, at 0.3 bar, the temp/press ratio is controlled, if it is wrong, the cycle is aborted with an AL8 alarm.

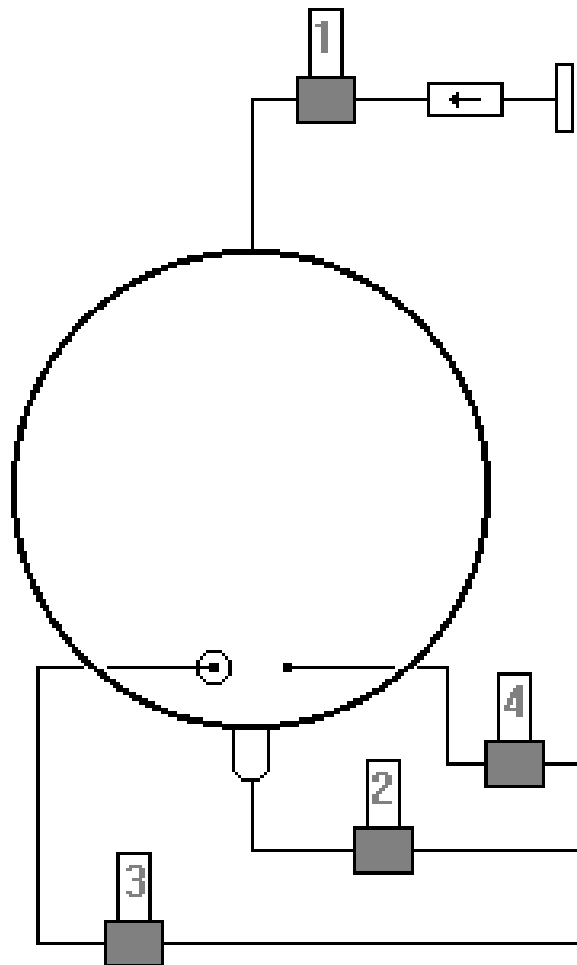




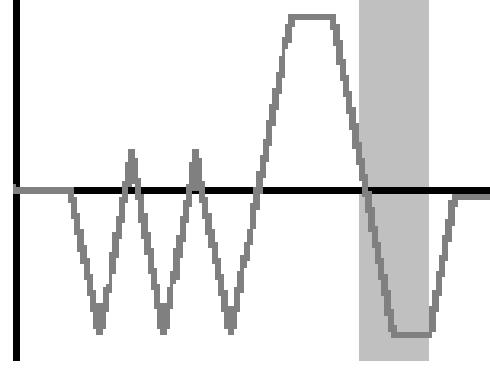
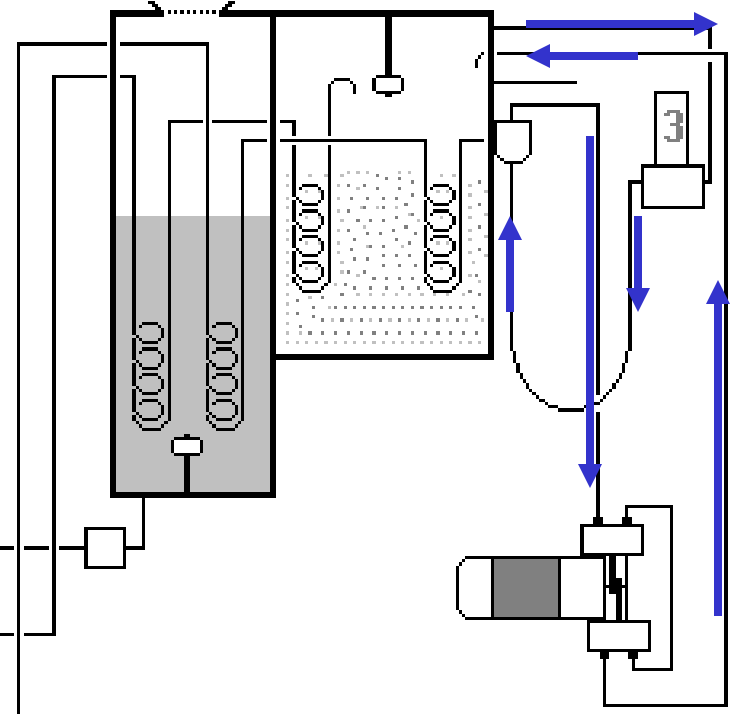
**STERILIZE**

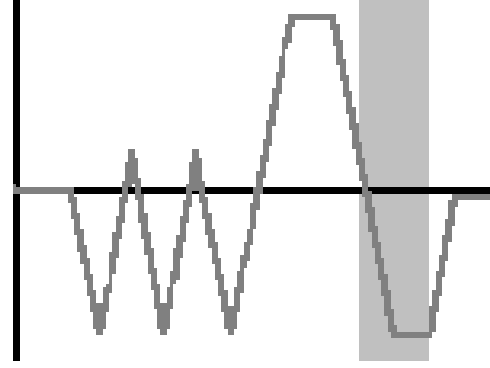
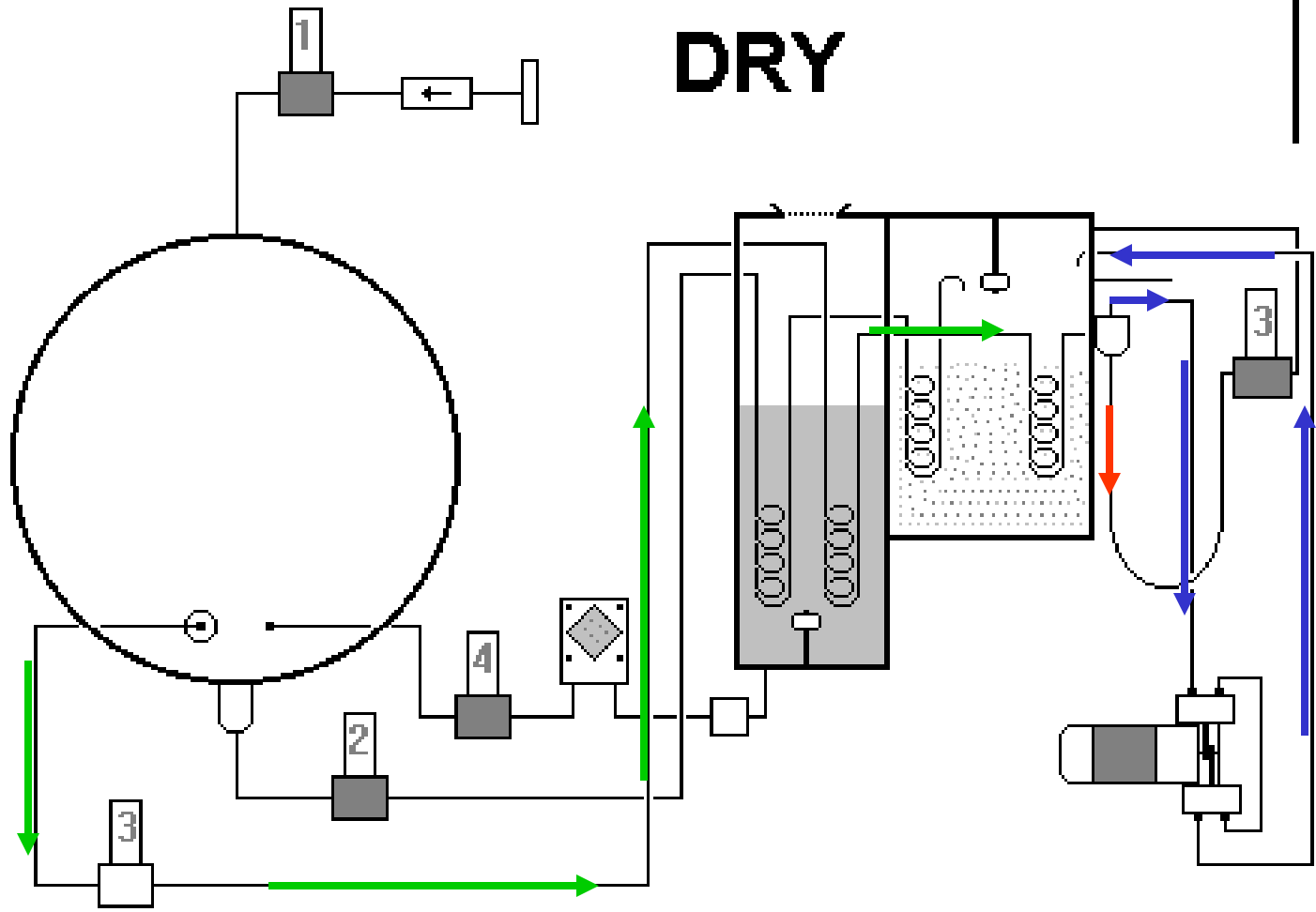






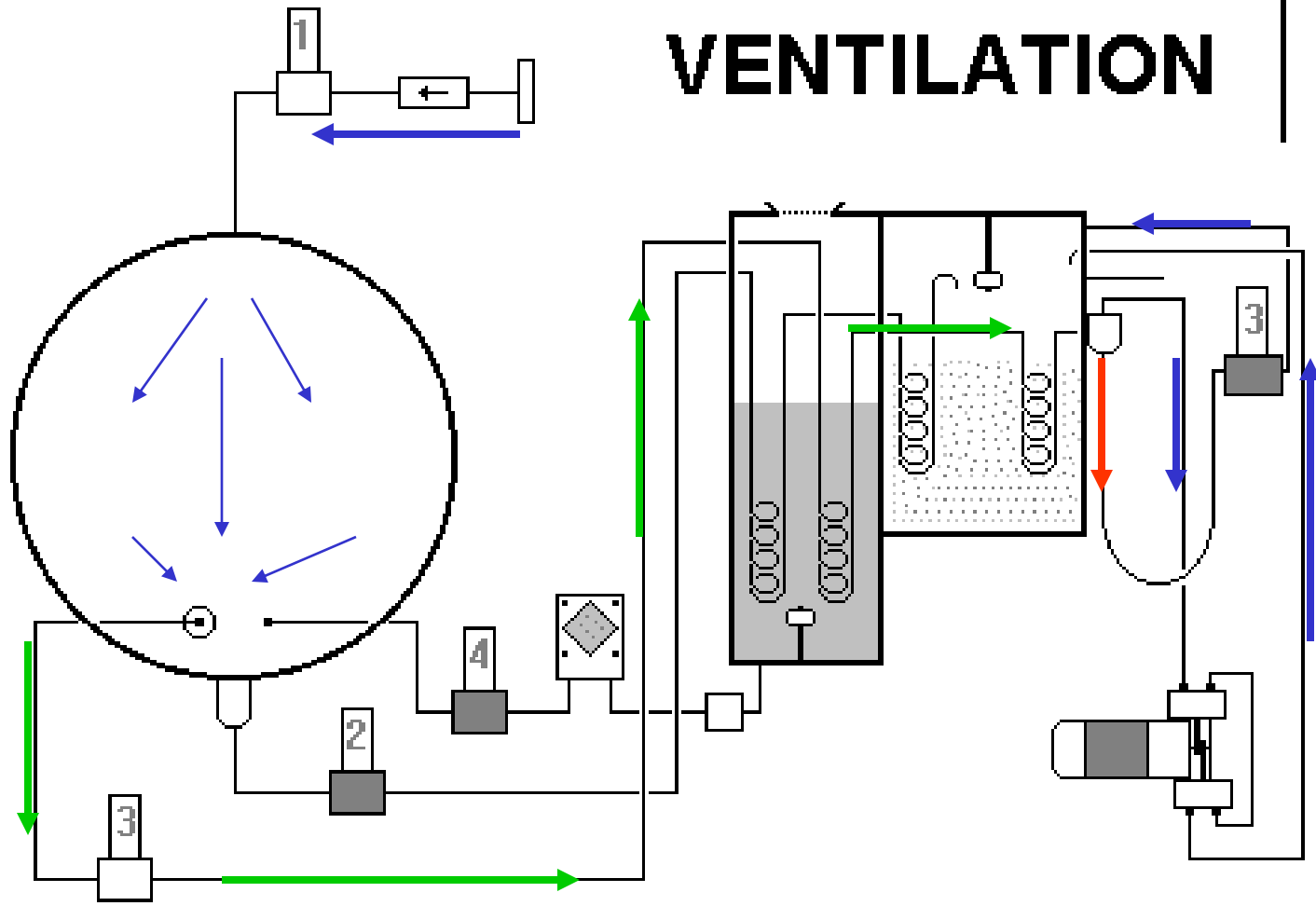
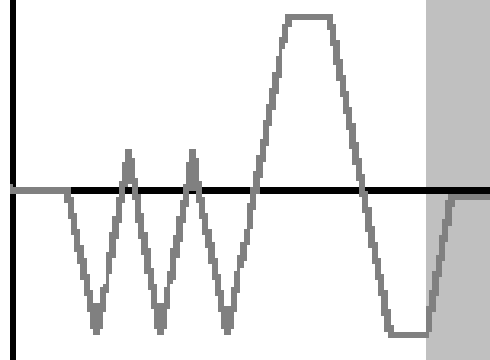
**DRY**



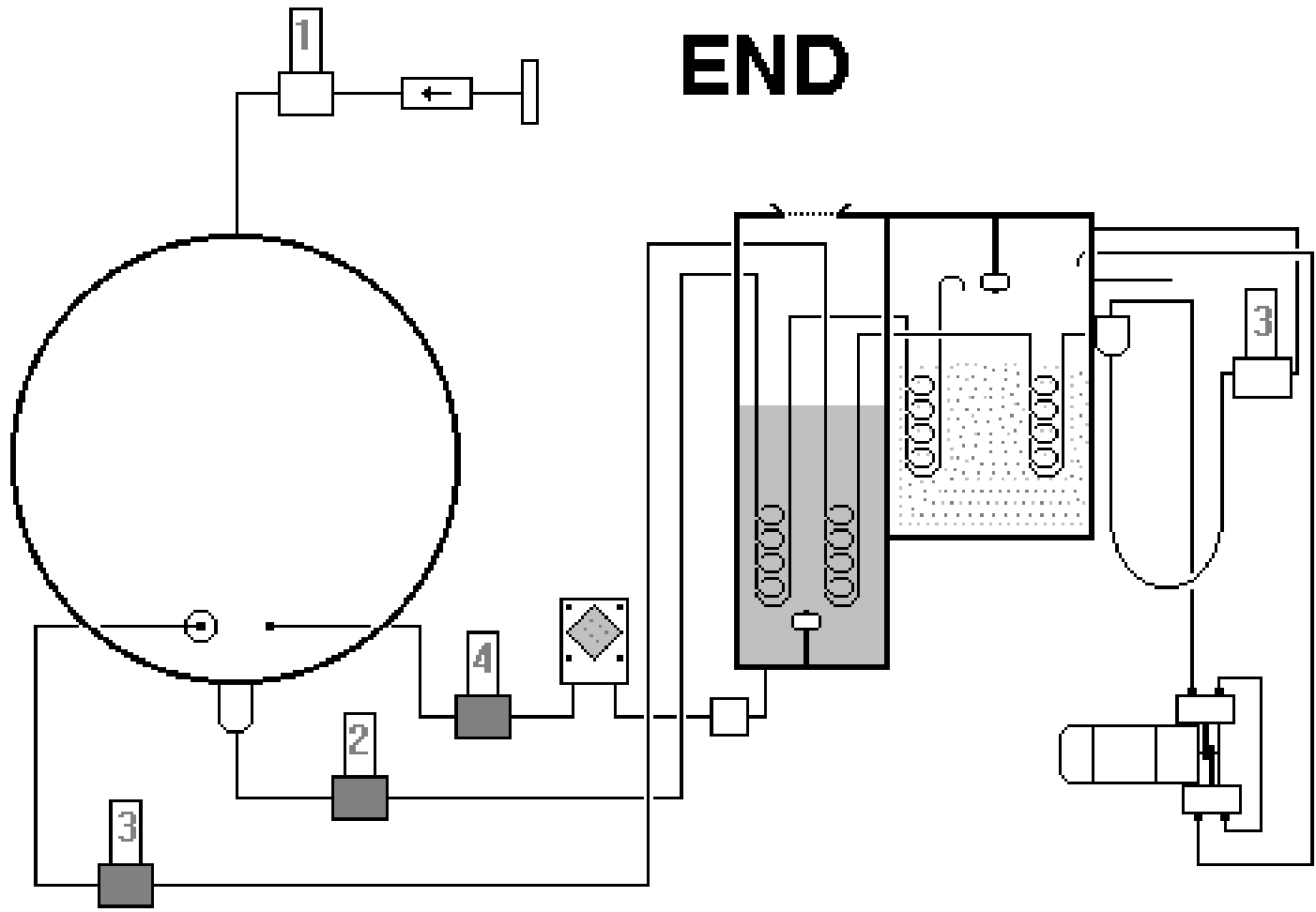
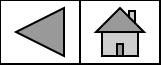




# VENTILATION



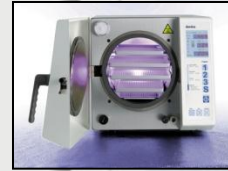




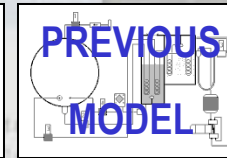
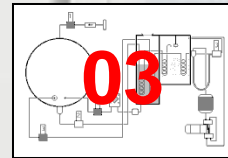
**END**

# Domina PLUS B

**INSTALLATION**



**WORKING DIAGRAMS**



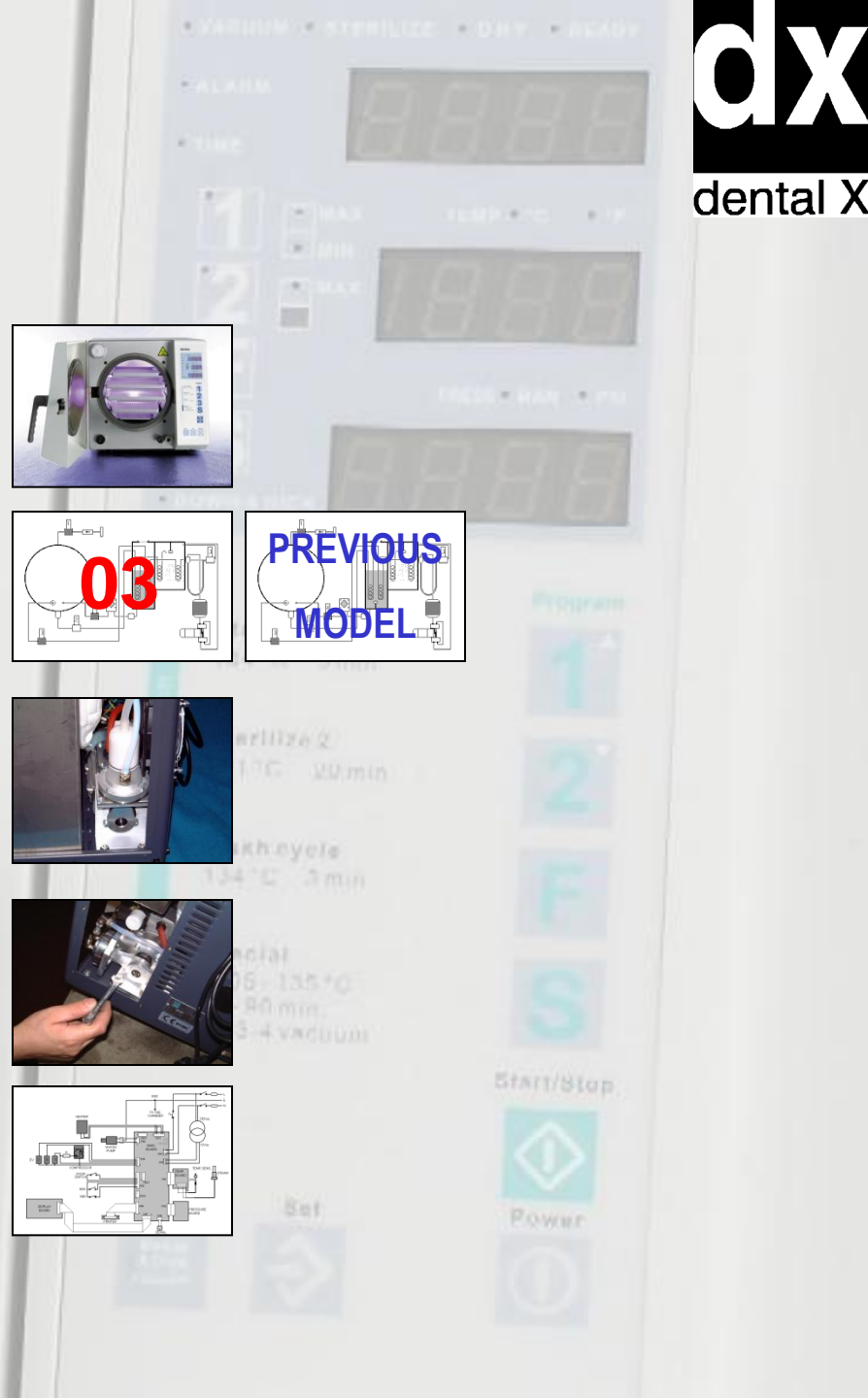
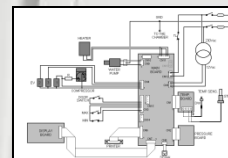
**INTERNAL VIEWS**



**TROUBLESHOOTING**



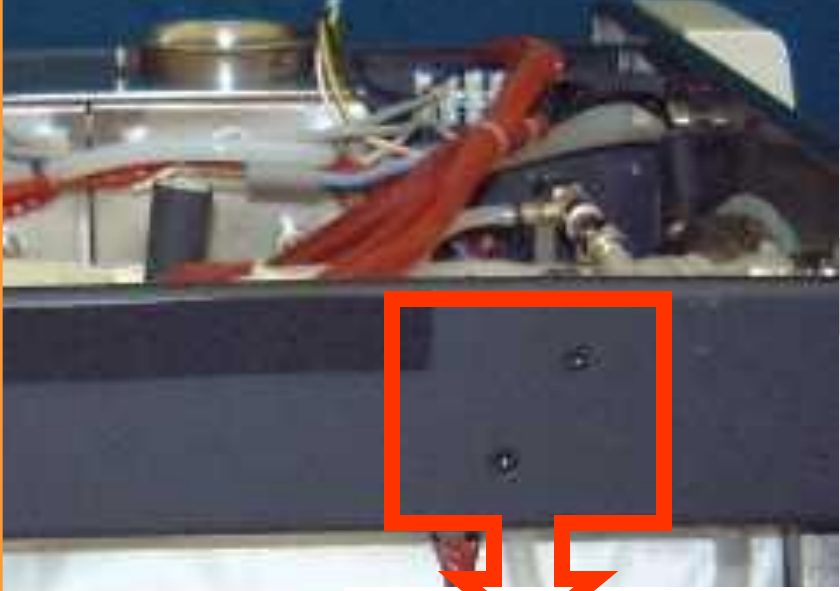
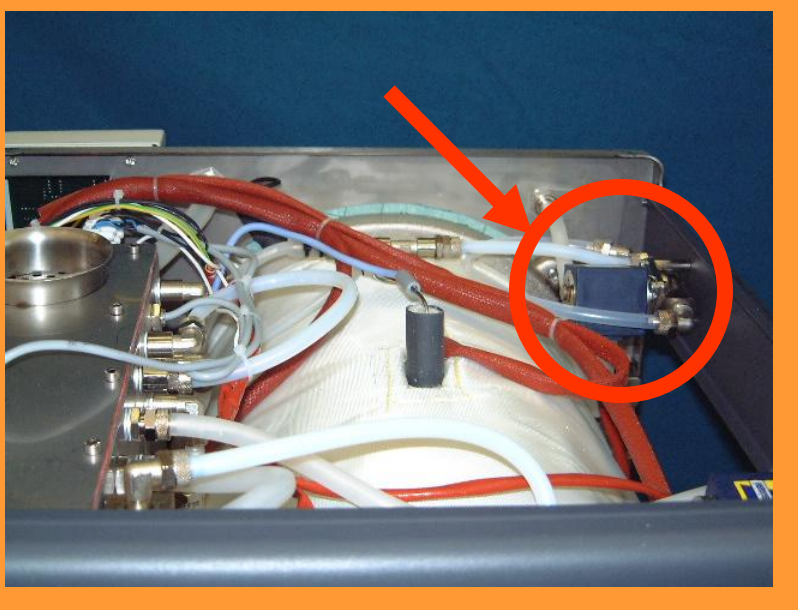
**WIRING DIAGRAMS**



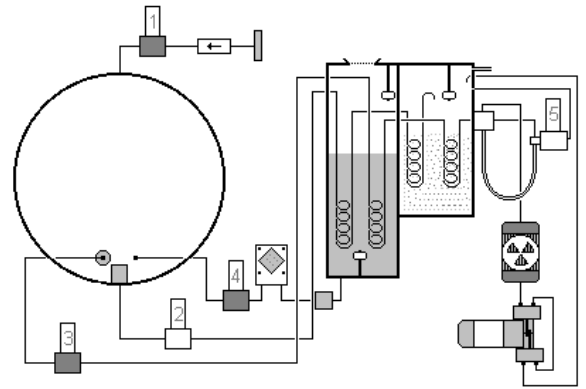
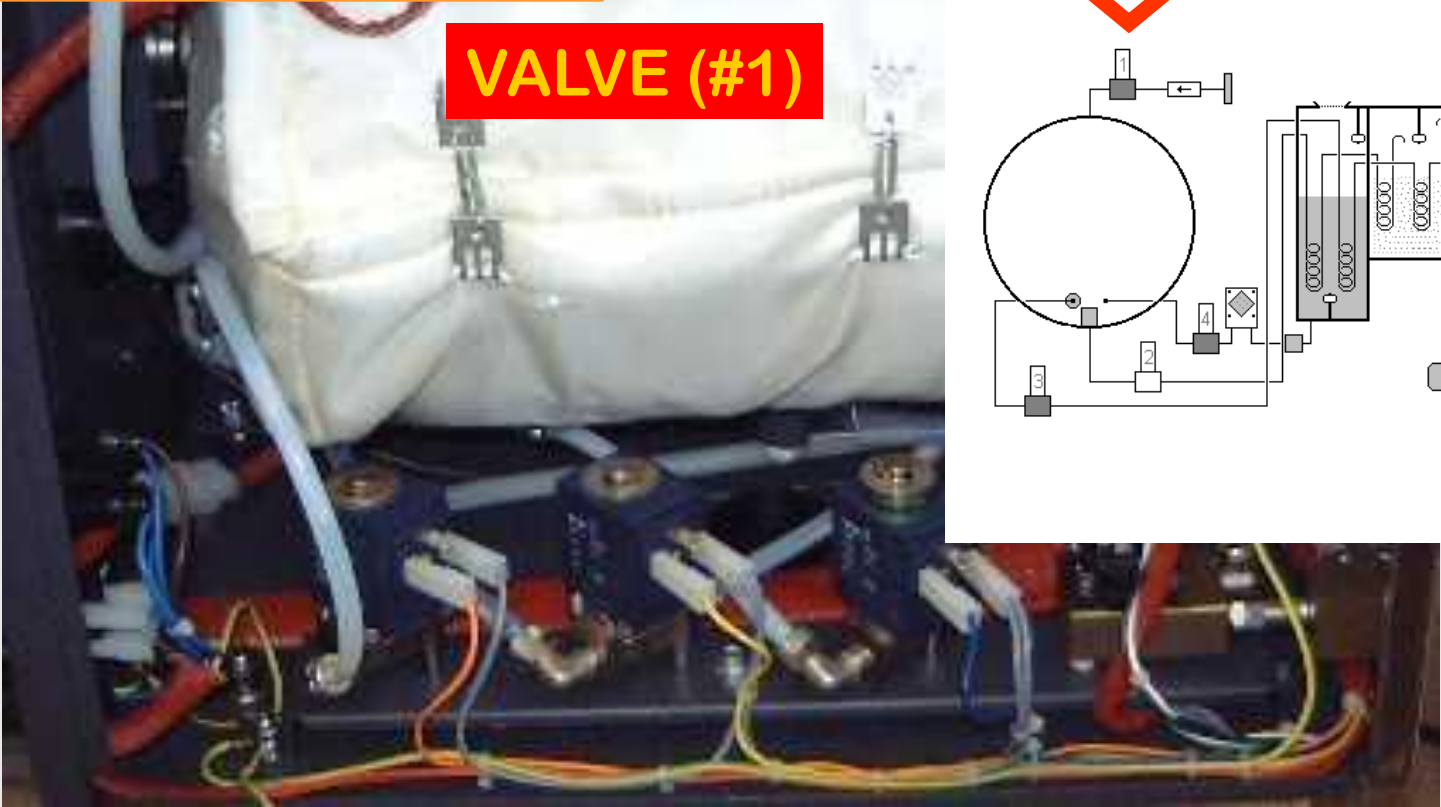


left

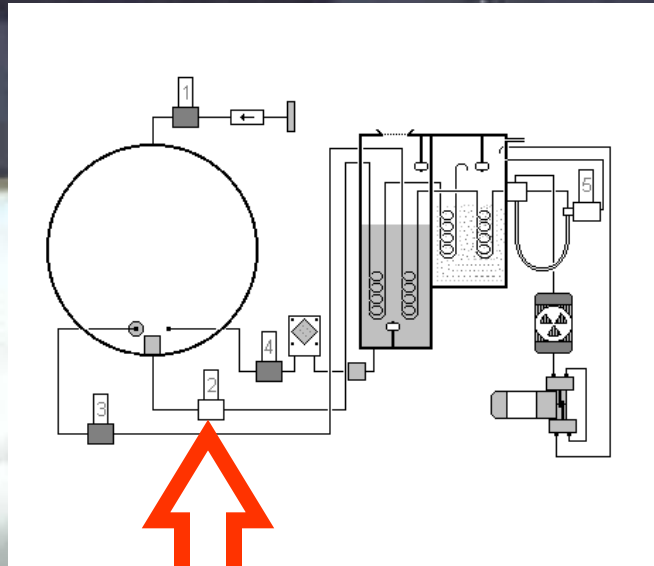
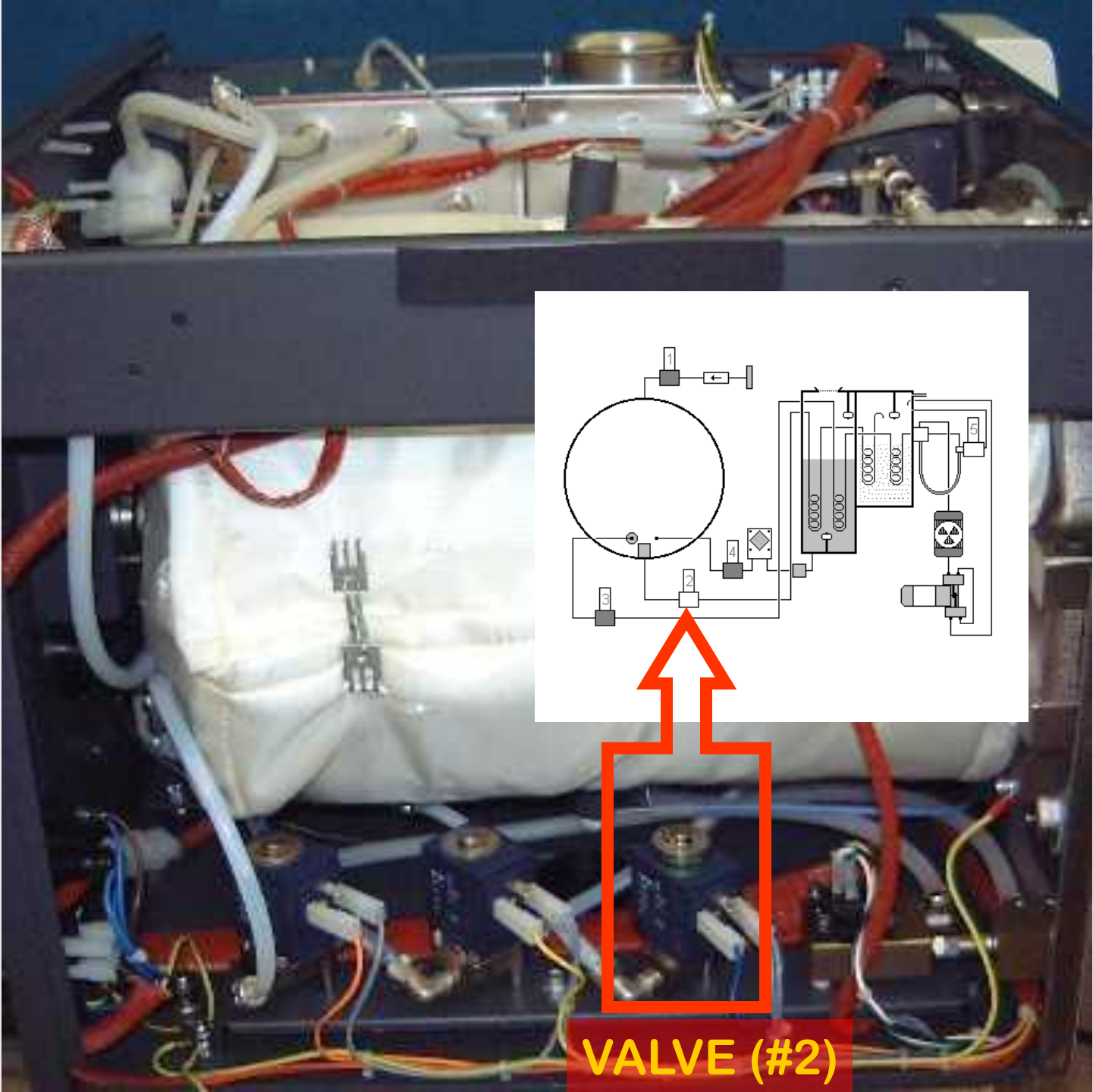




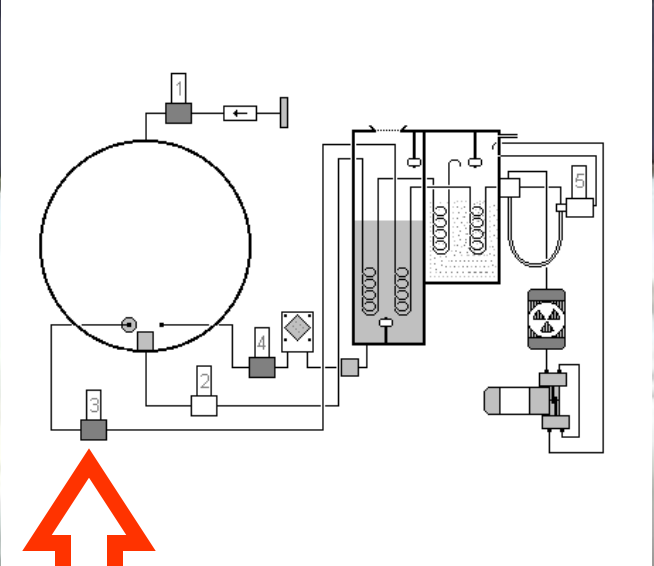
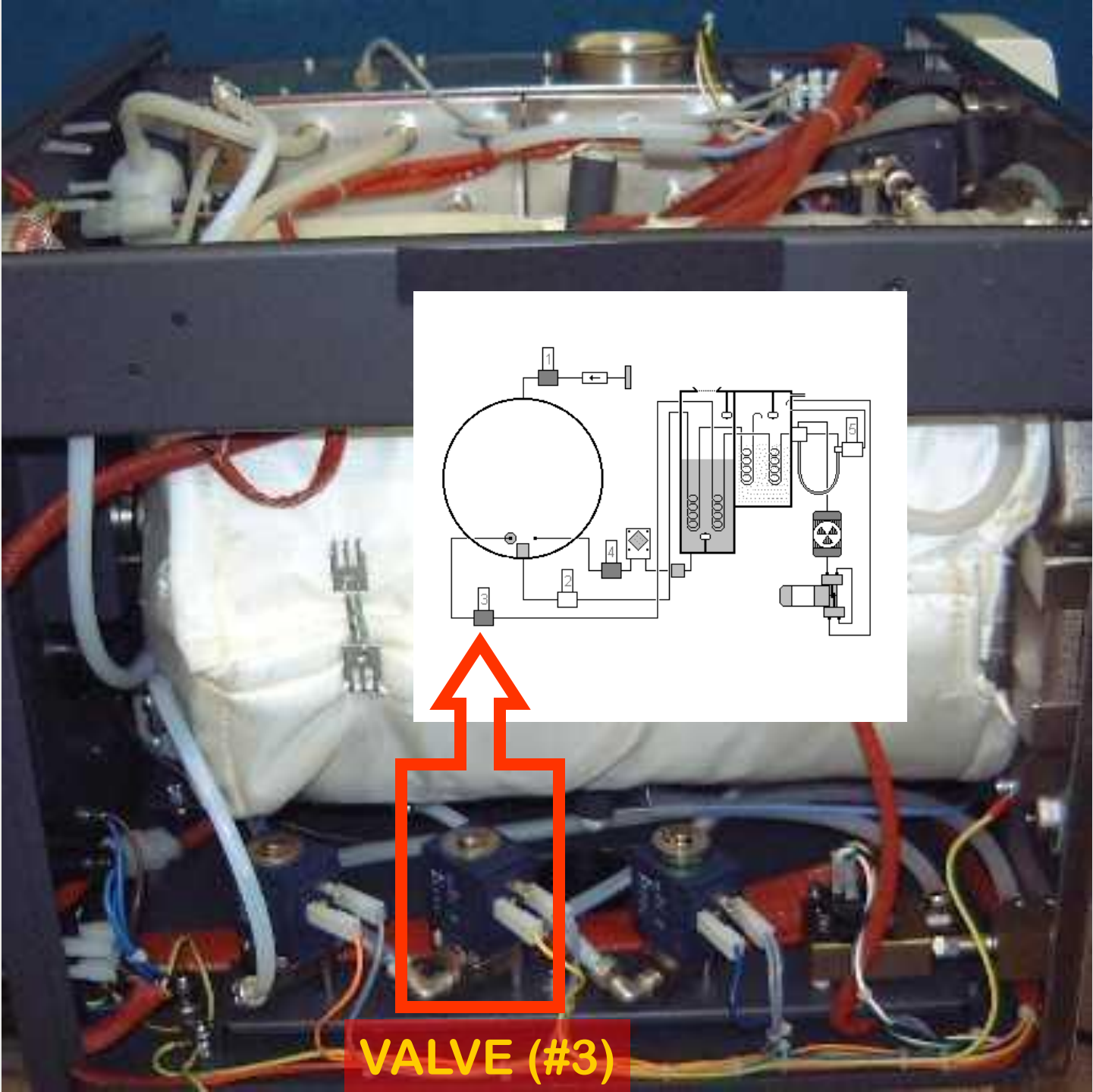
**VALVE (#1)**



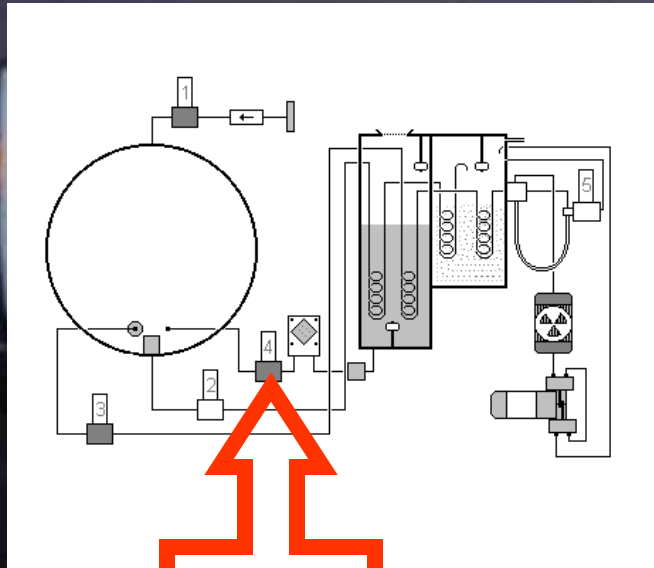
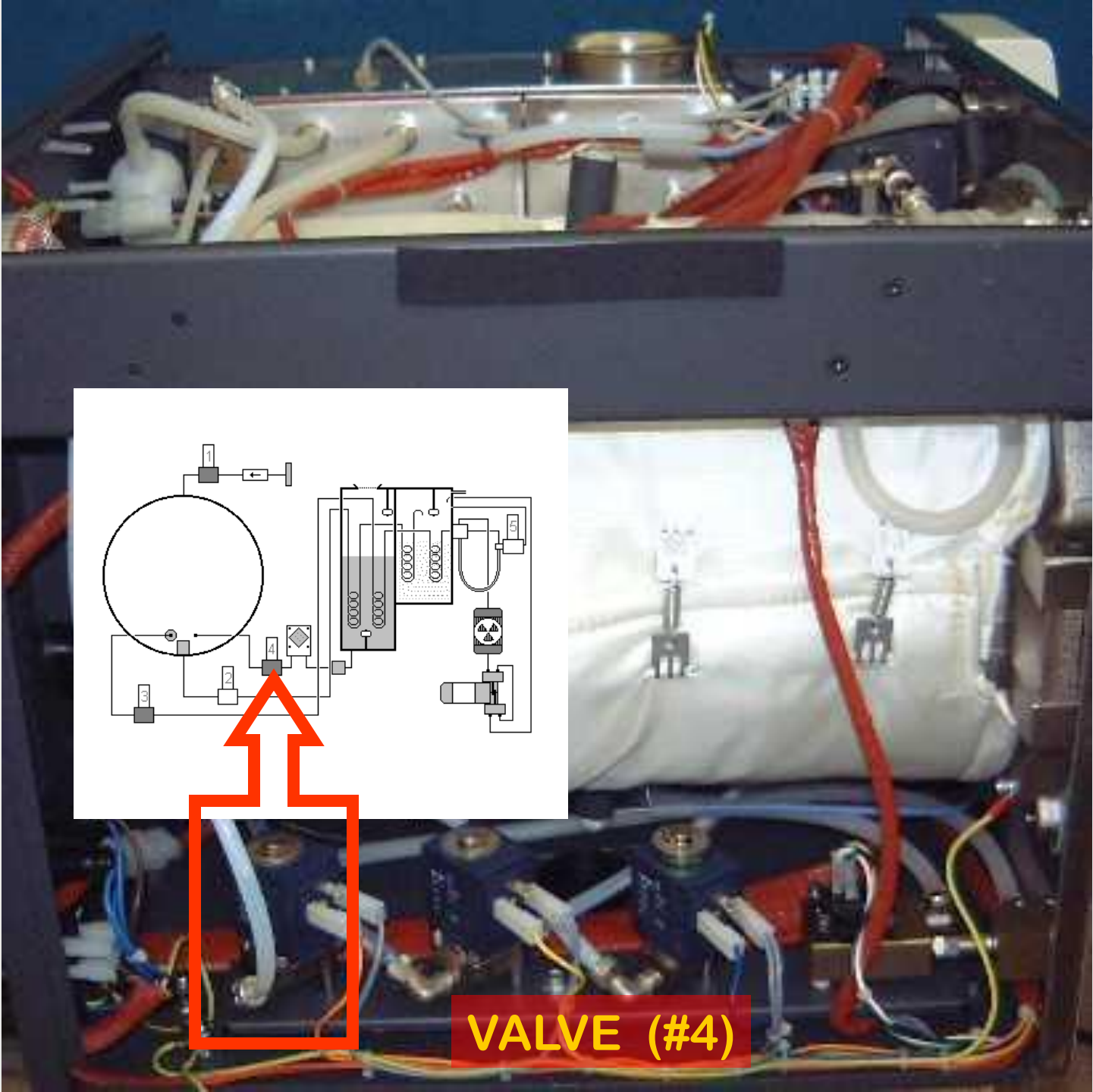




**VALVE (#2)**



**VALVE (#3)**

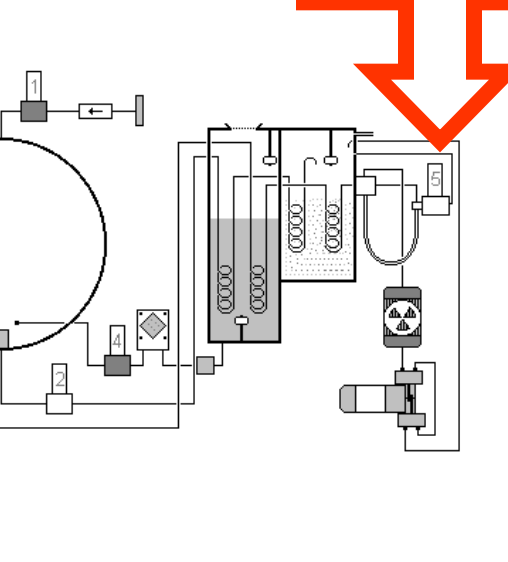


**VALVE (#4)**





**VALVE (#5)**



**RIGHT**



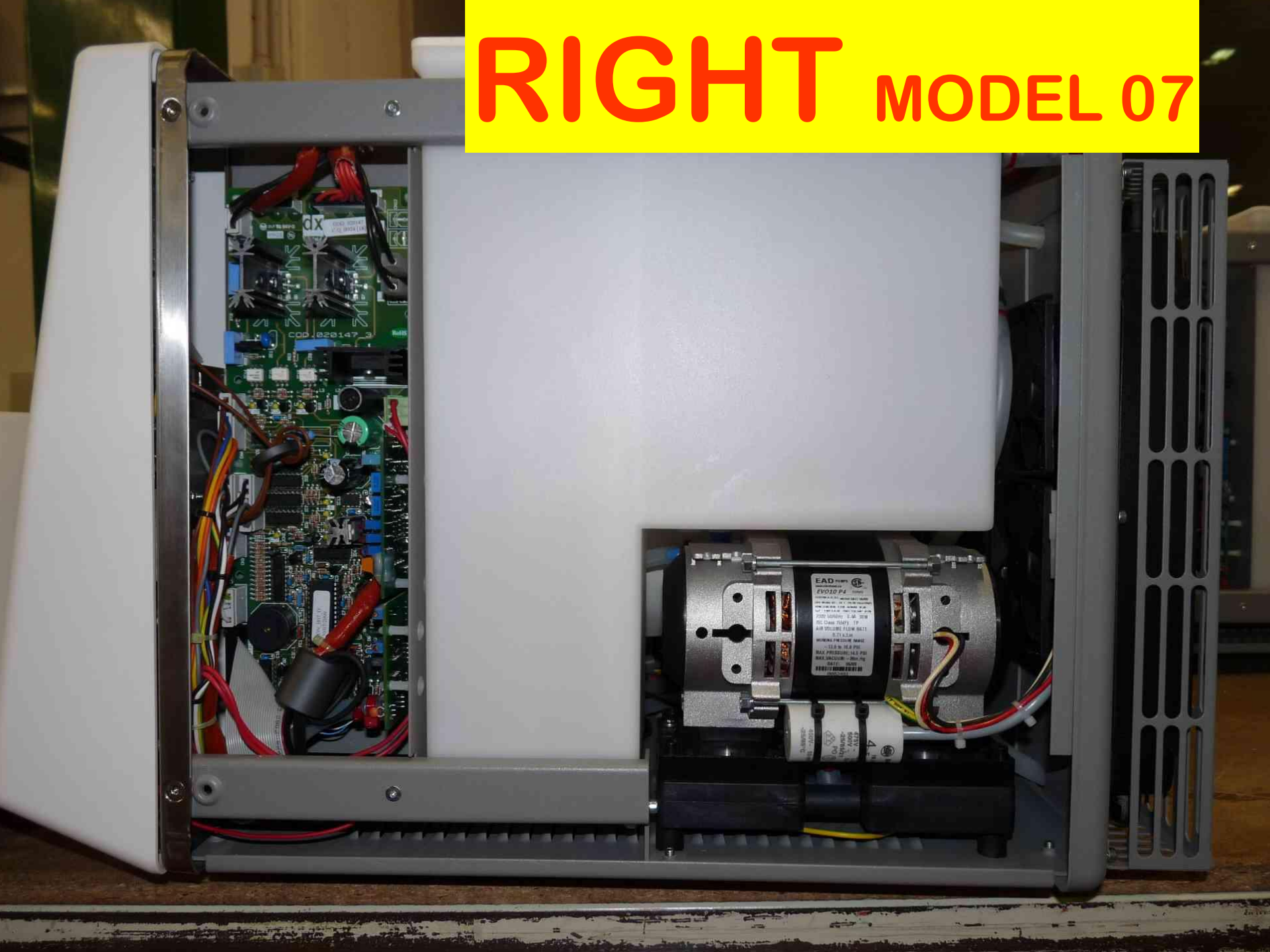


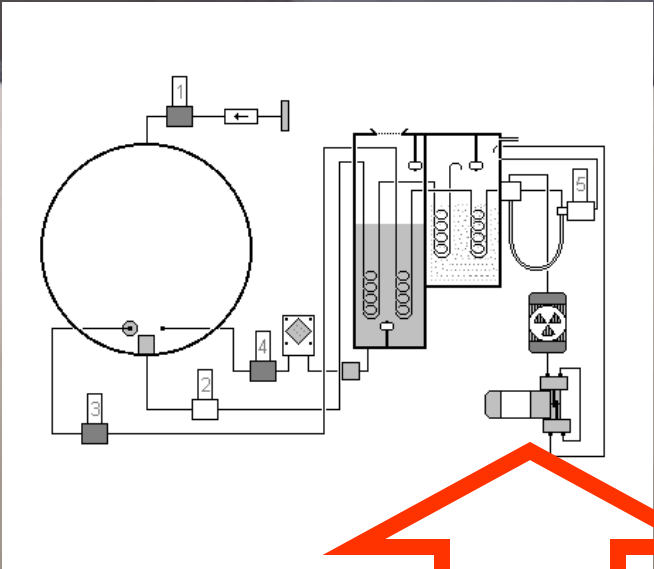
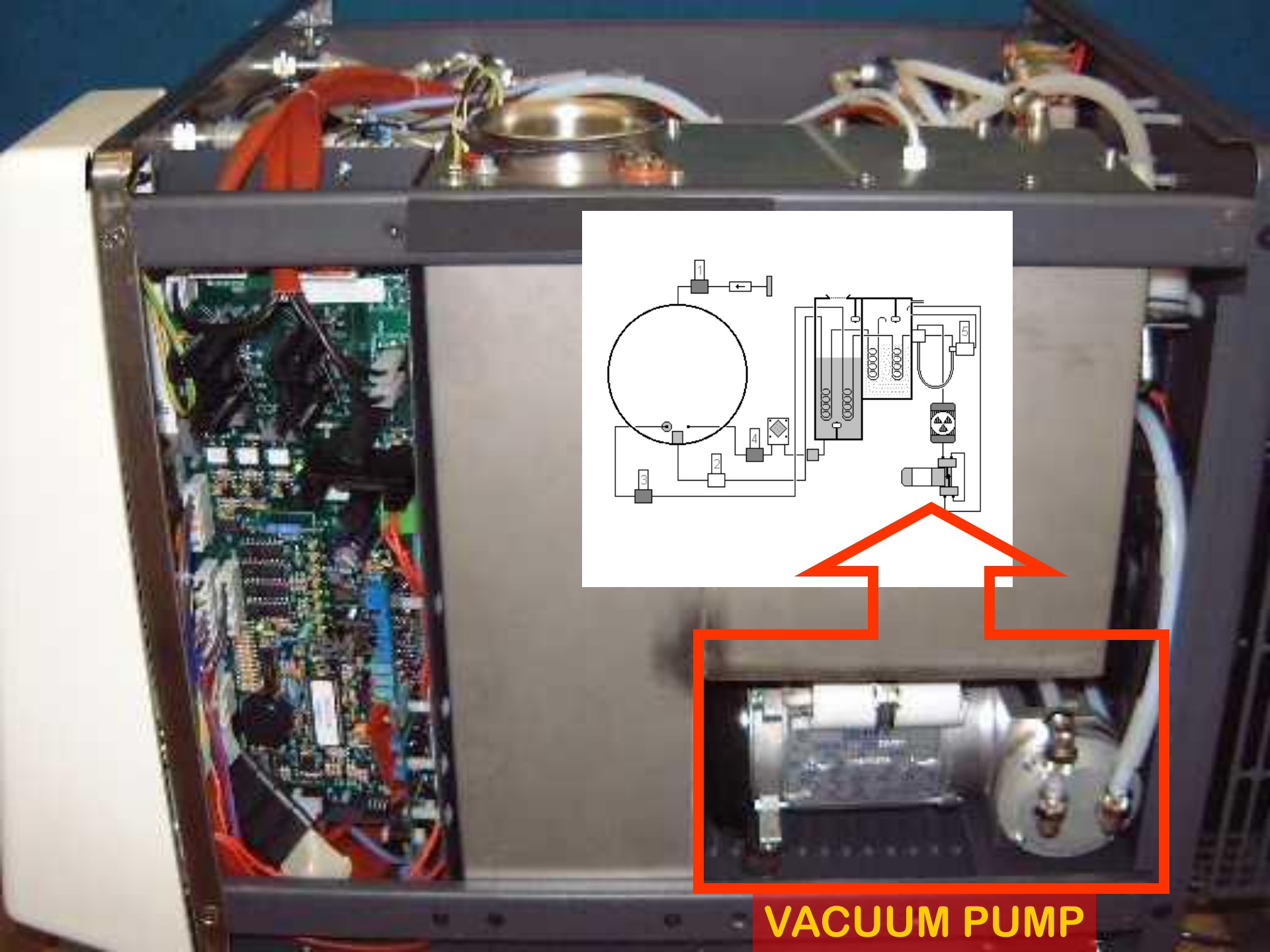
# RIGHT MODEL 03





# RIGHT MODEL 07



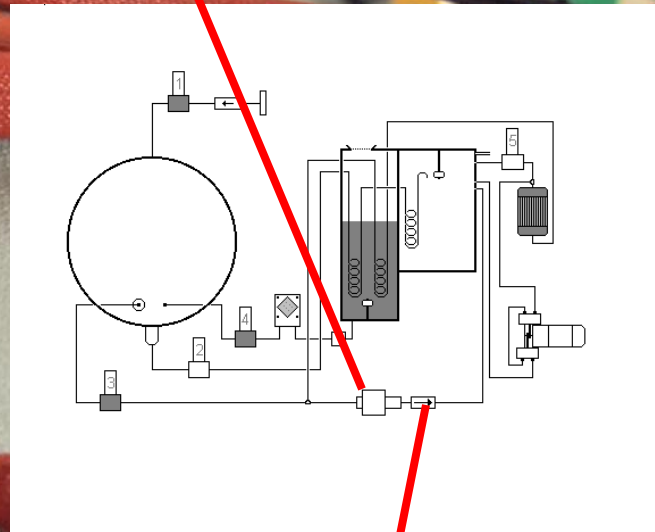


**VACUUM PUMP**



2003  
MODEL  
ONLY

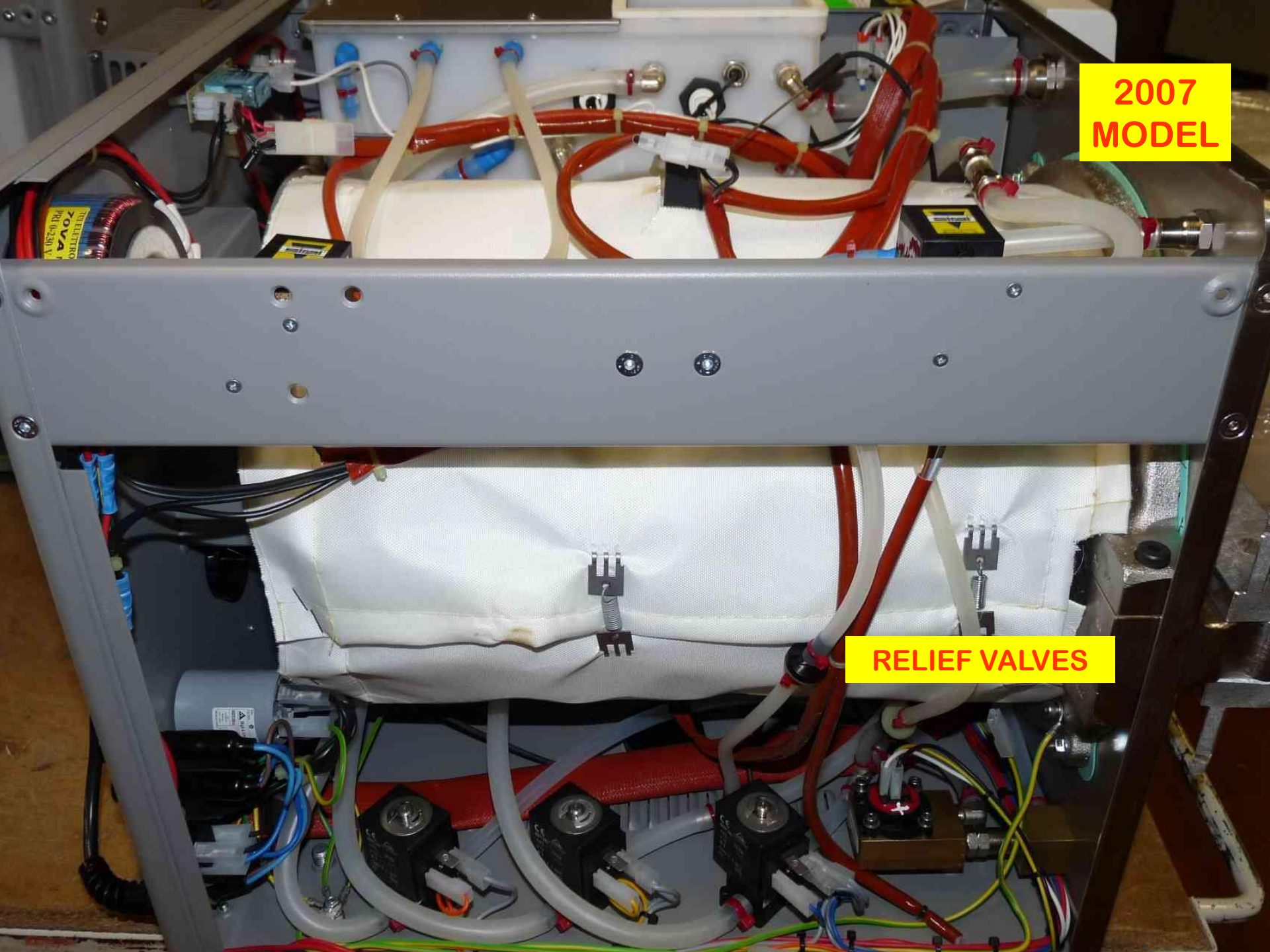
DRAIN  
PUMP



RELIEF  
VALVE

**2007  
MODEL**

**RELIEF VALVES**





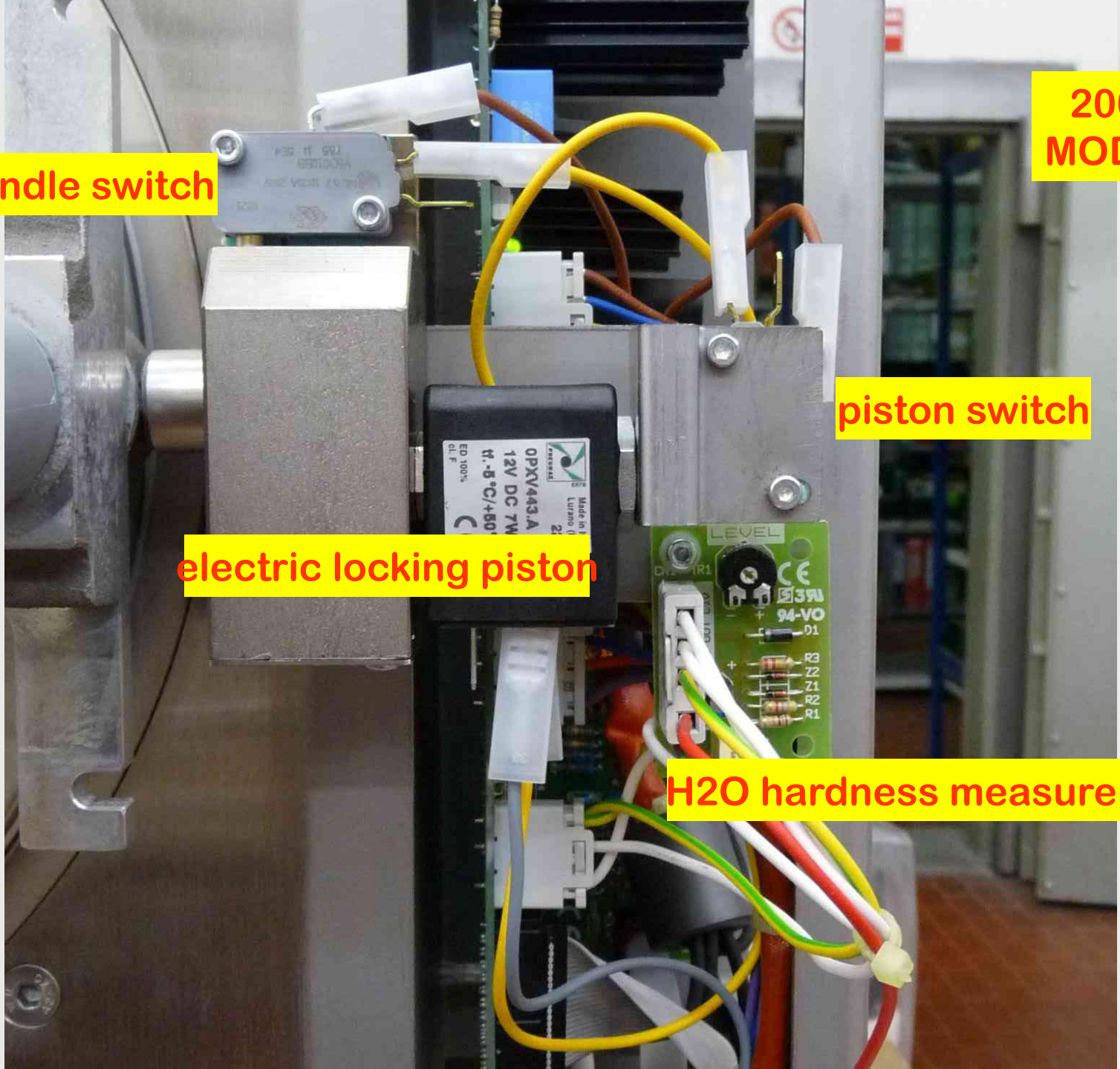
2007  
MODEL

handle switch

piston switch

electric locking piston

H2O hardness measure PCB

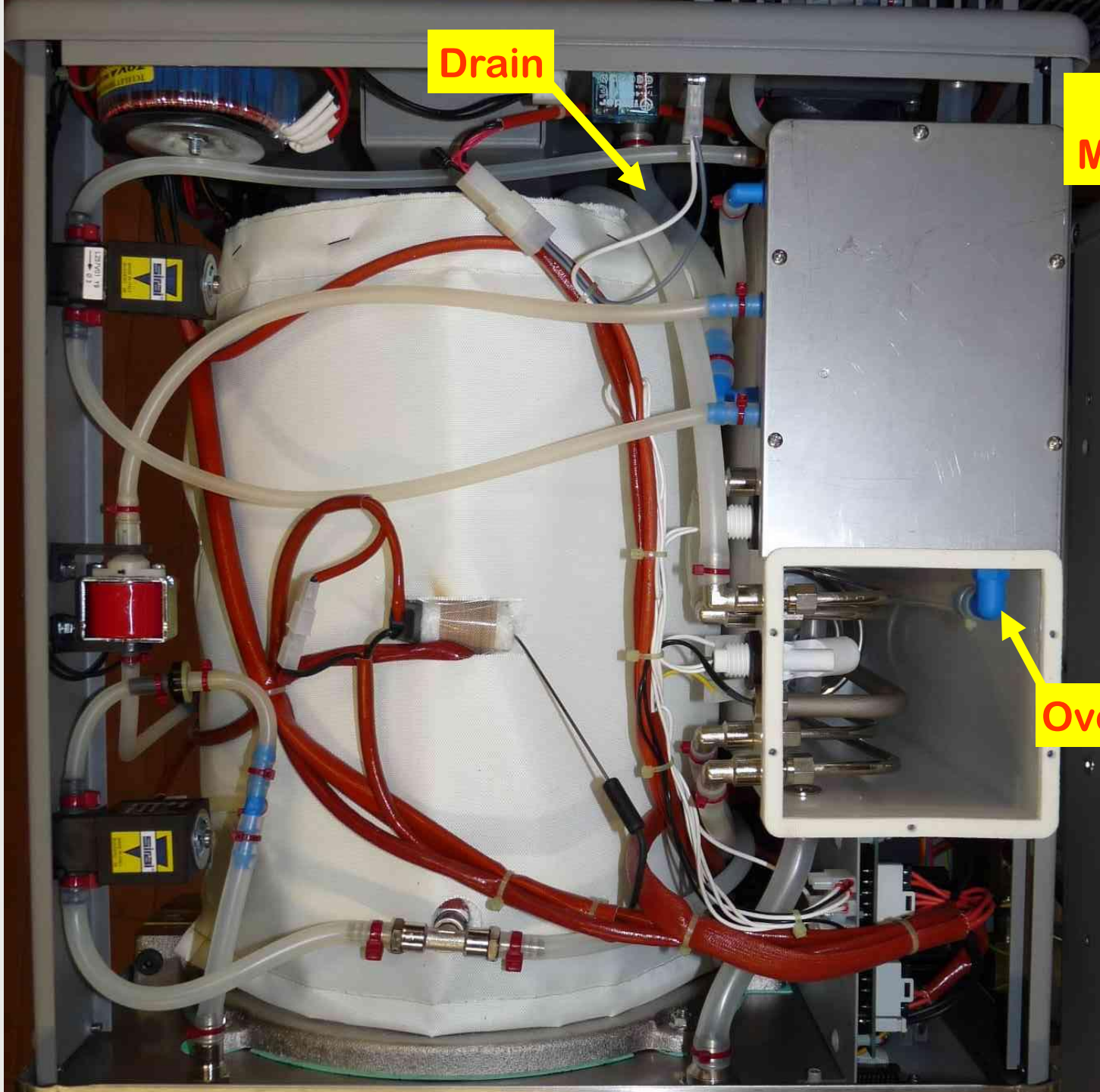


**Drain**



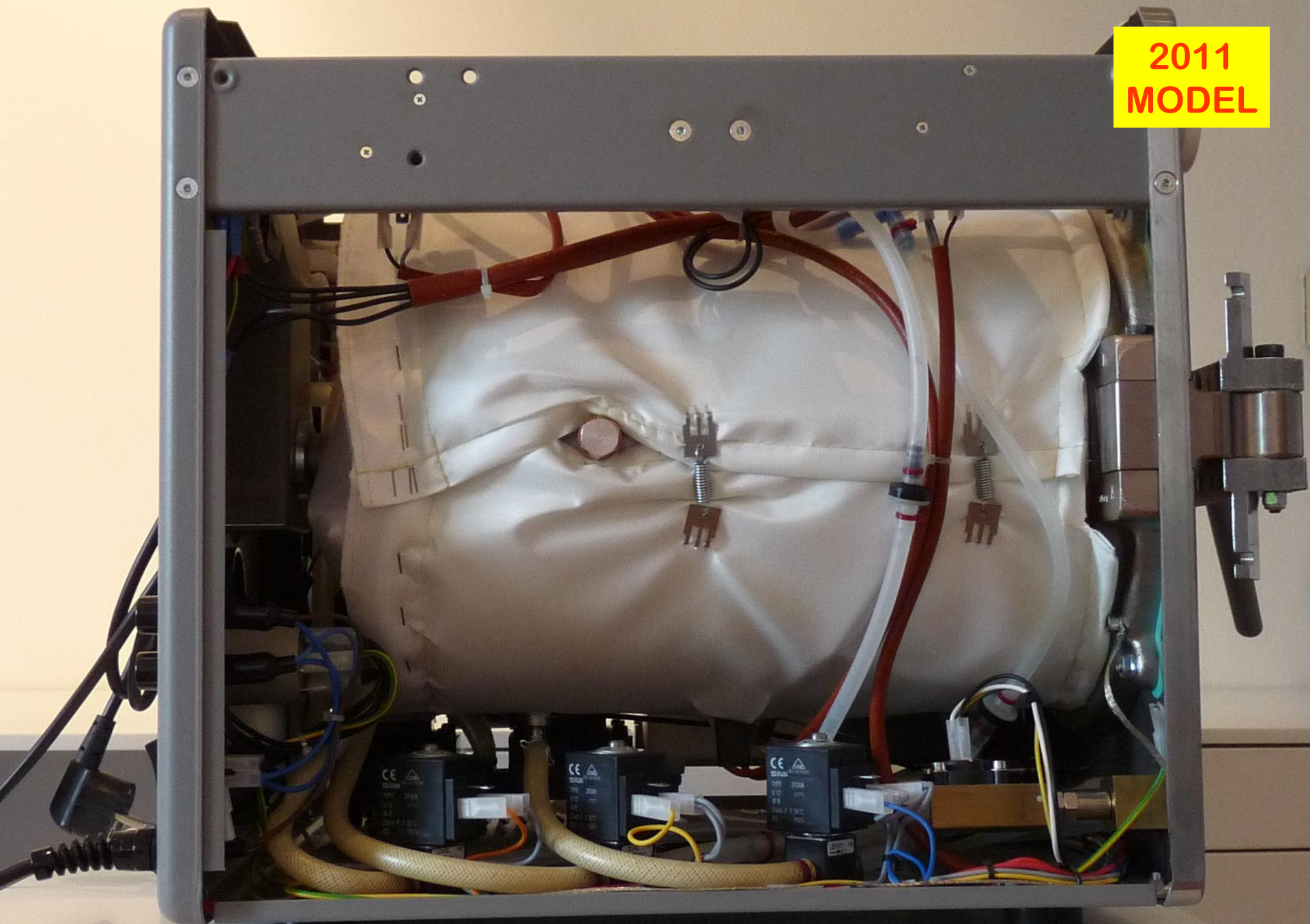
**2007  
MODEL**

**Overflow**





2011  
MODEL



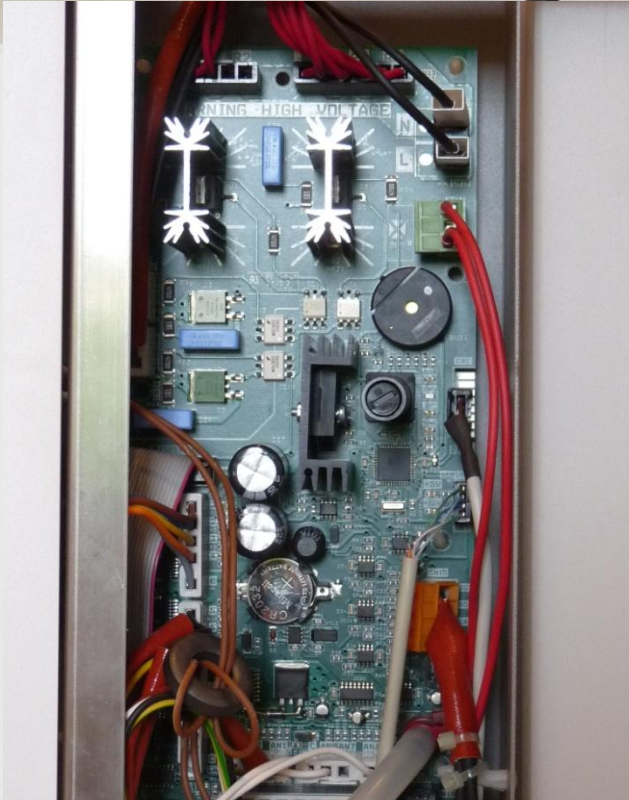




**New printer port:  
now it is serial RS232**



**2011  
MODEL**



**New main board:  
new wiring for new functions,  
it cannot be exchanged with  
the previous versions**



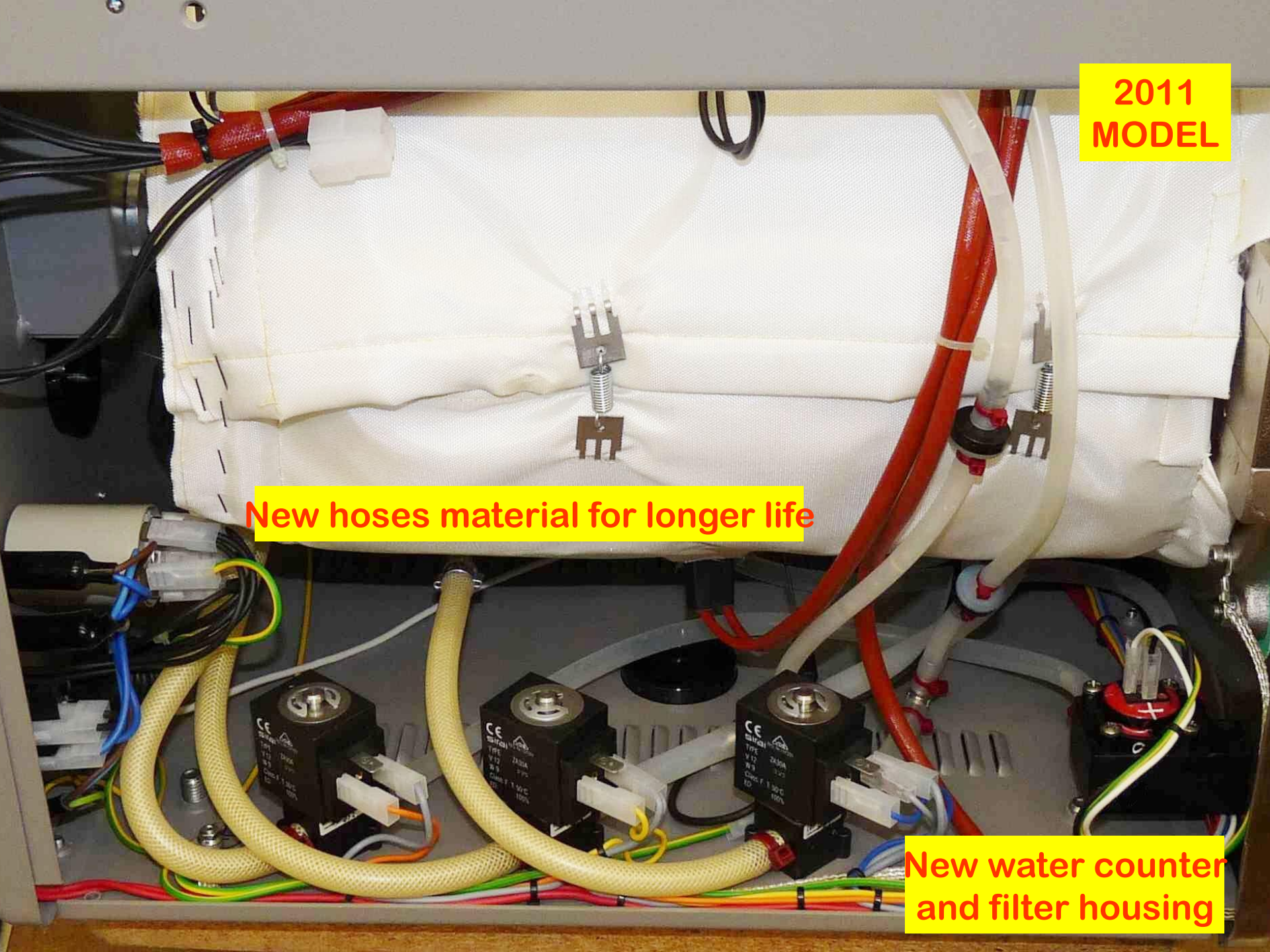
**New gasket door:  
the gasket seat is changed,  
the new one cannot be used  
on the previous units**



**2011  
MODEL**

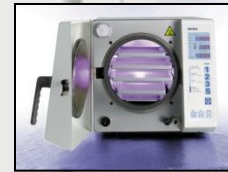
**New hoses material for longer life**

**New water counter  
and filter housing**

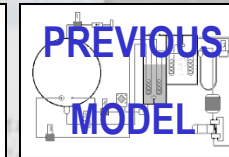
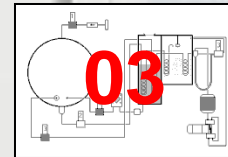


# Domina PLUS B

**INSTALLATION**



**WORKING DIAGRAMS**



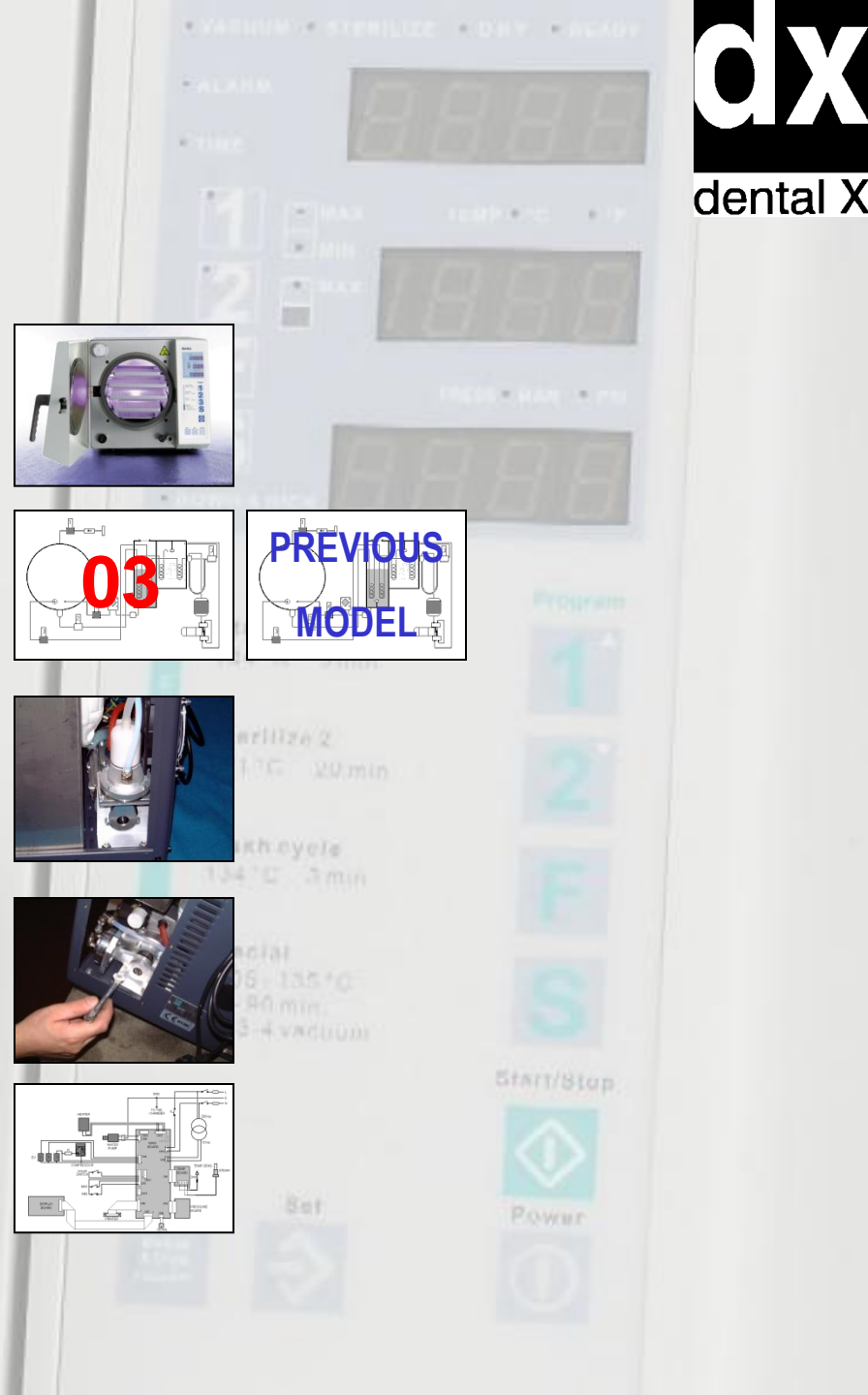
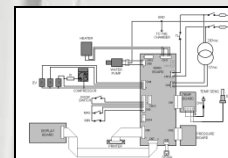
**INTERNAL VIEWS**



**TROUBLESHOOTING**



**WIRING DIAGRAMS**



# ALARMS

There are three levels of signals.

Some messages are displayed using alphanumeric codes.

For example this message means that the recovery water reservoir is full.



H2O FULL

The second level of indications warn that something doesn't work perfectly but the sterility of the load is warranted.

The operator manual report a list of procedure that may solve the problem directly by the final user.

These messages disappears opening the door.



E05 need E05

The message FAIL followed by an indication AL with a number means that the cycle is interrupted and failed, the load was not sterilised. All the active components are turned off.

Opening the door, the message is not cancelled.



FAIL AL 7

## ALARMS AL

AL1 AL2 AL3 AL4

AL5

AL6

AL7

AL8

AL9

AL10 AL11

AL12

AL13 AL14 AL15

AL16

AL18 AL31

## ALARMS CD

CD1

CD2 CD3

CD4

CD5

CD6

CD7

## MESSAGGES

NEED CLEANING

NEED SERVICE

ADD H2O FULL H2O

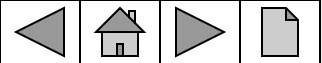
H2O GOOD H2O HARD

OPEN DOOR

DRY FAIL

NEED INST



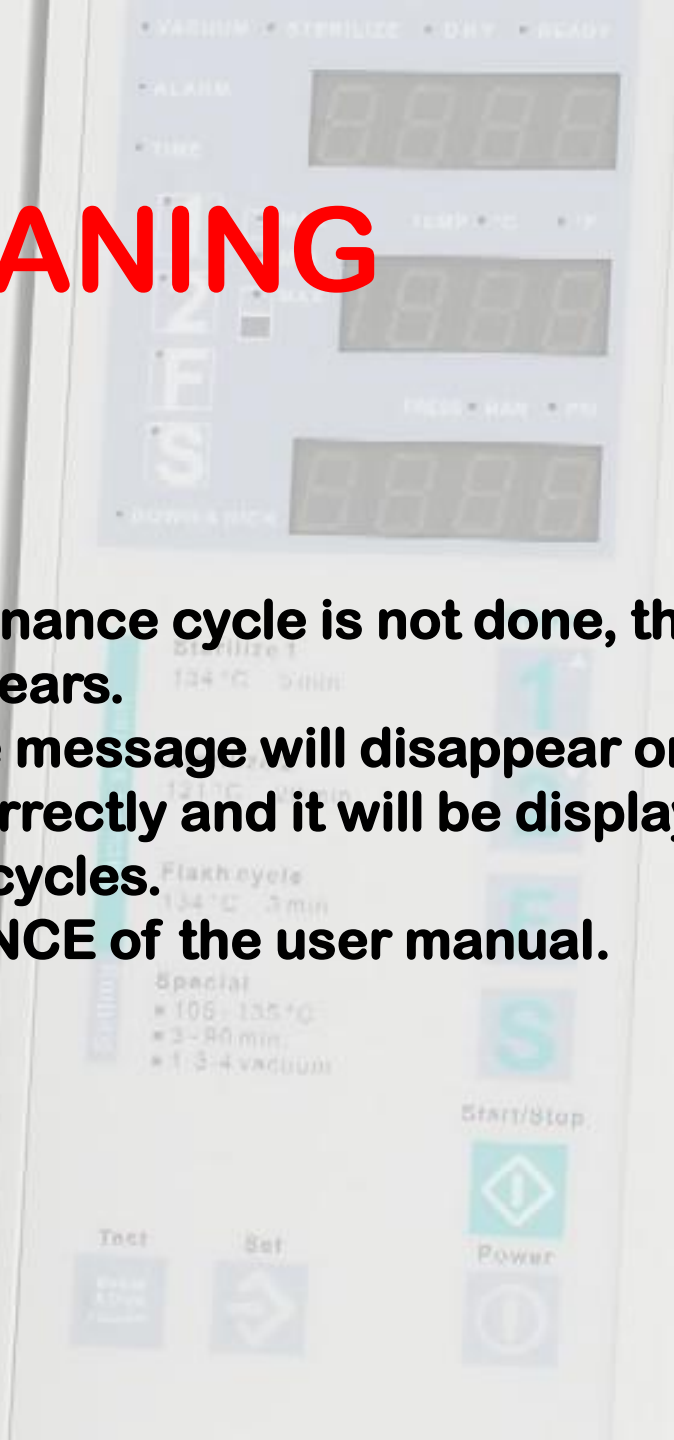


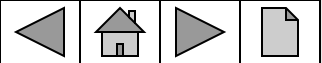
# NEED CLEANING

**After the first 60 cycles, if the maintenance cycle is not done, this message appears.**

**The autoclave works properly, but the message will disappear only when the maintenance will be done correctly and it will be displayed again after 60 cycles.**

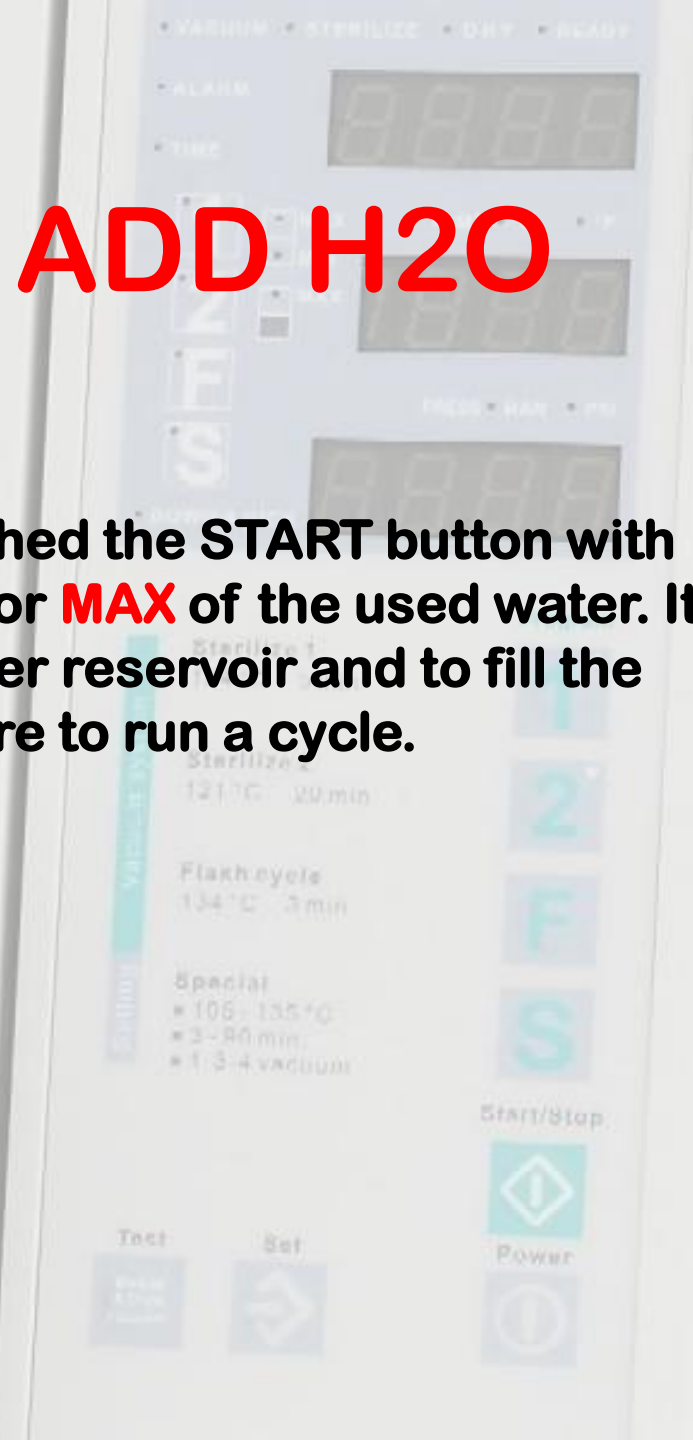
**Read the paragraph MAINTENANCE of the user manual.**

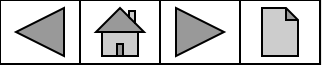




# H2O FULL      ADD H2O

These messages means the was pushed the START button with the indication **MIN** of the clean water or **MAX** of the used water. It is necessary to empty the used water reservoir and to fill the clean water reservoir before to run a cycle.

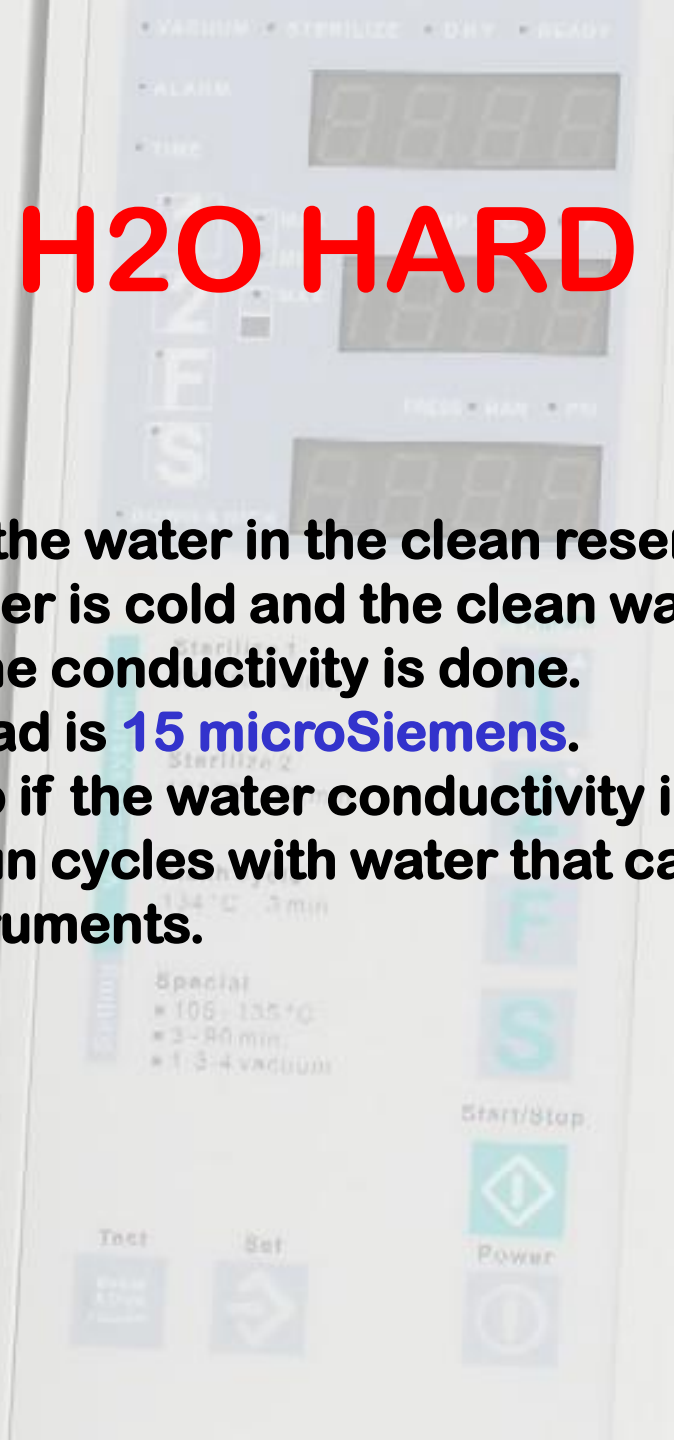


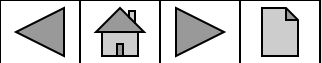


# H2O GOOD

# H2O HARD

**These messages indicate the quality of the water in the clean reservoir. Turning on the autoclave, if the chamber is cold and the clean water reservoir is full, a measure of the conductivity is done. The switch level from good to bad is **15 microSiemens**. The autoclave permits to run cycles also if the water conductivity is too high, it is an operator's decision to run cycles with water that can damage the instruments.**



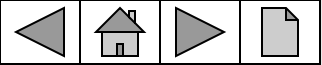


# OPEN DOOR

**It means that the START button was pushed with the door not properly closed.**

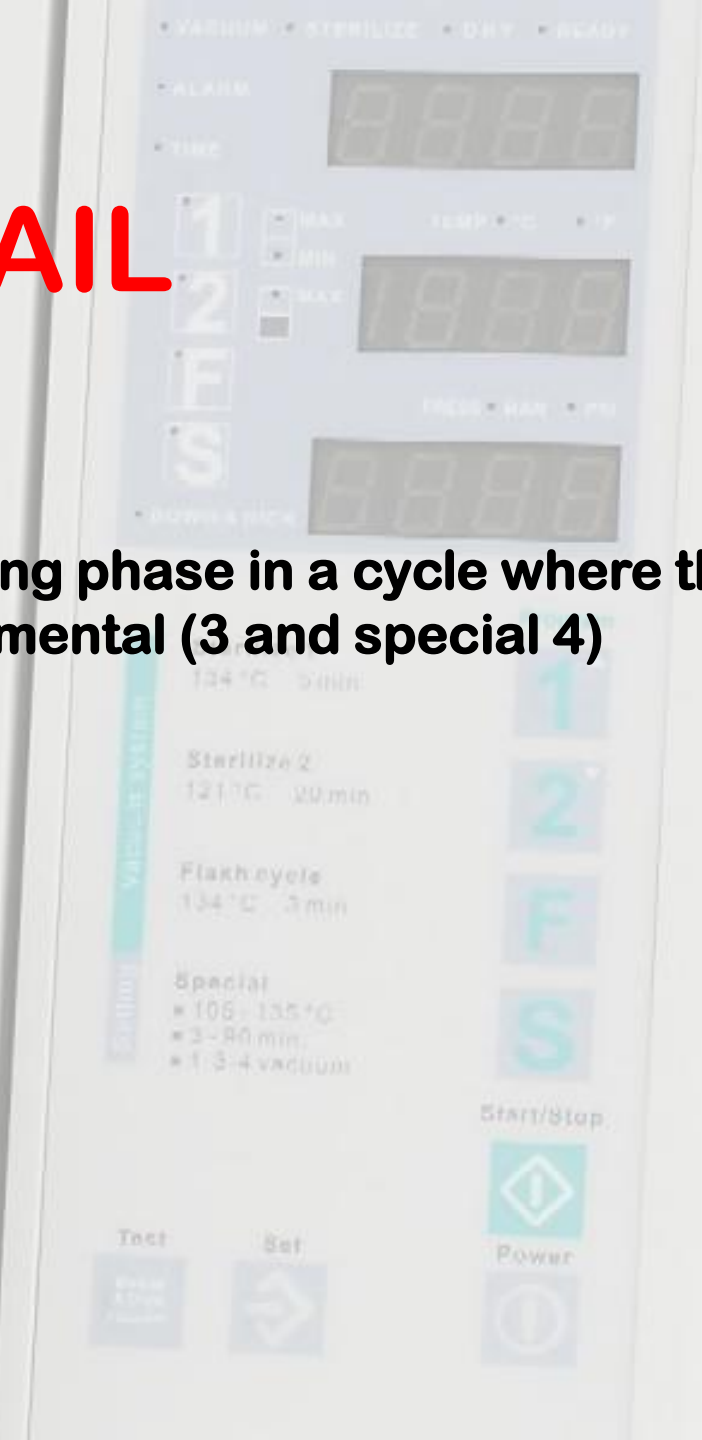


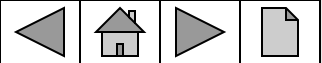




# DRY FAIL

**The door was opened during the drying phase in a cycle where the drying is not considered fundamental (3 and special 4)**





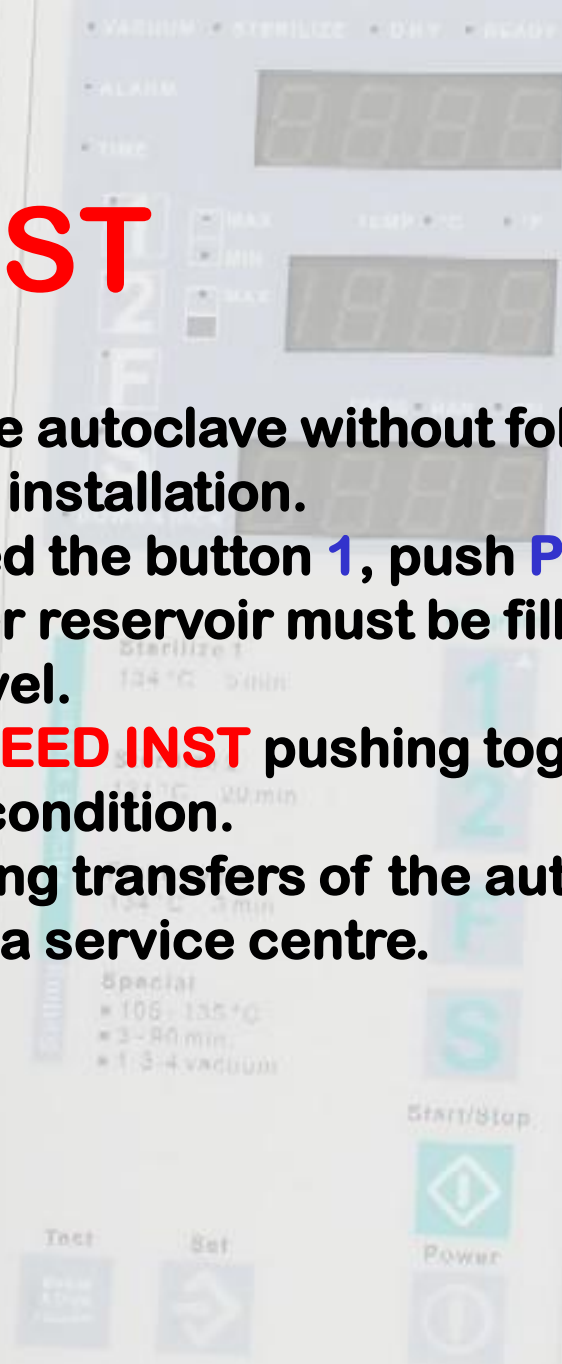
# NEED INST

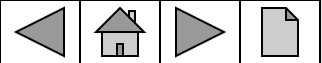
This message appears trying to turn on the autoclave without following the correct procedure of installation.

The sequence must be: maintaining pushed the button **1**, push **POWER**. The door must be close and the clean water reservoir must be filled over the minimum level.

It is possible to force again the message **NEED INST** pushing together **4** and **POWER** from off condition.

This function was designed for the following transfers of the autoclave for service or maintenance in a service centre.





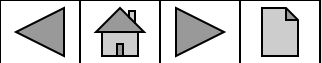
# NEED SERVICE

**After one year from the installation date (or before is 2000 cycles are done), this message indicate that it is time for a special maintenance and for a check of the calibration.**

**It is enough push a button to cancel this message and use the autoclave, but it will appears again at the next turning on.**

**To cancel completely this message (for one year) it is necessary to press together the first three program buttons from the off condition. This function was inserted for follow the request of periodical validation of the sterilisation process.**

**A common trouble that comes out in the first weeks of use is caused by the user that changes involuntarily the setup of the clock increasing the YEAR adjustment, in this case the unit “thinks” that is time for service: it is enough to adjust correctly the clock to eliminate the message**

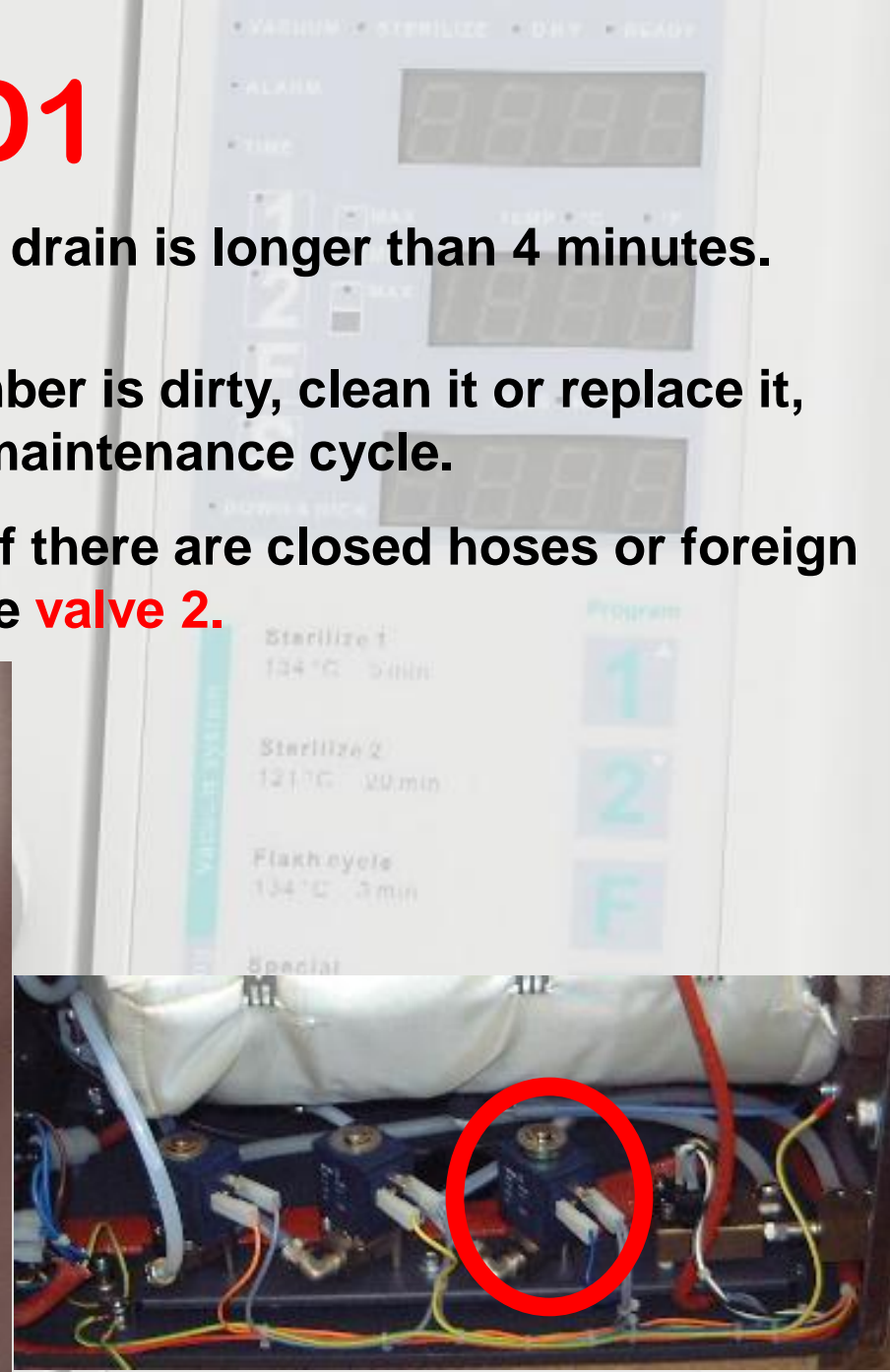
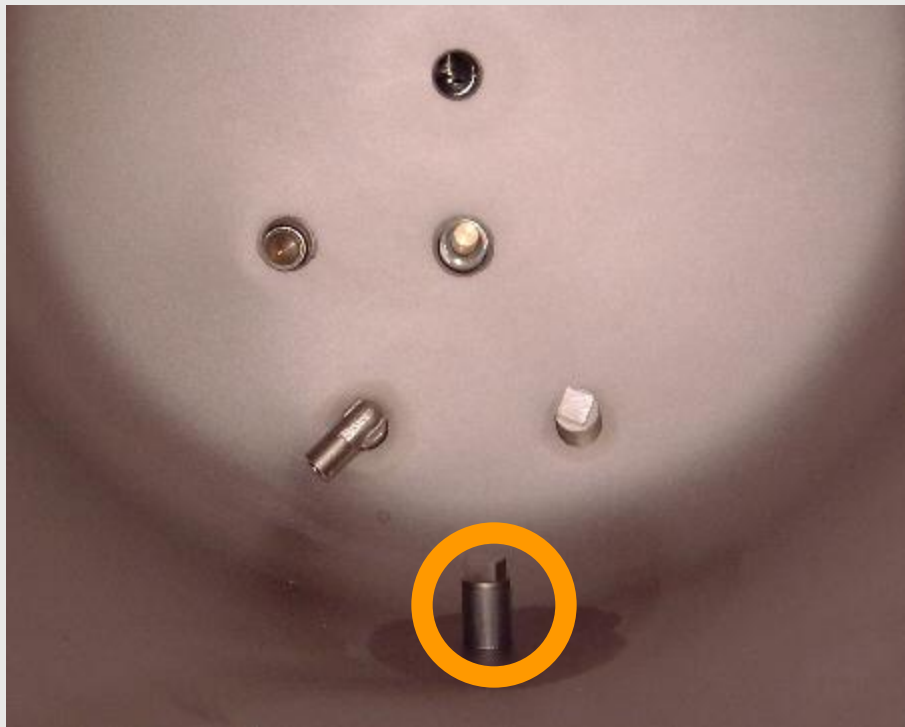


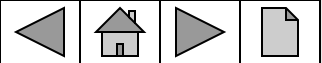
# CD1

This alarm appears if the time of drain is longer than 4 minutes.

Cause: the **drain filter** in the chamber is dirty, clean it or replace it, eventually run the maintenance cycle.

If the problem is not solved, verify if there are closed hoses or foreign body in the **valve 2**.





# CD 2 and CD3

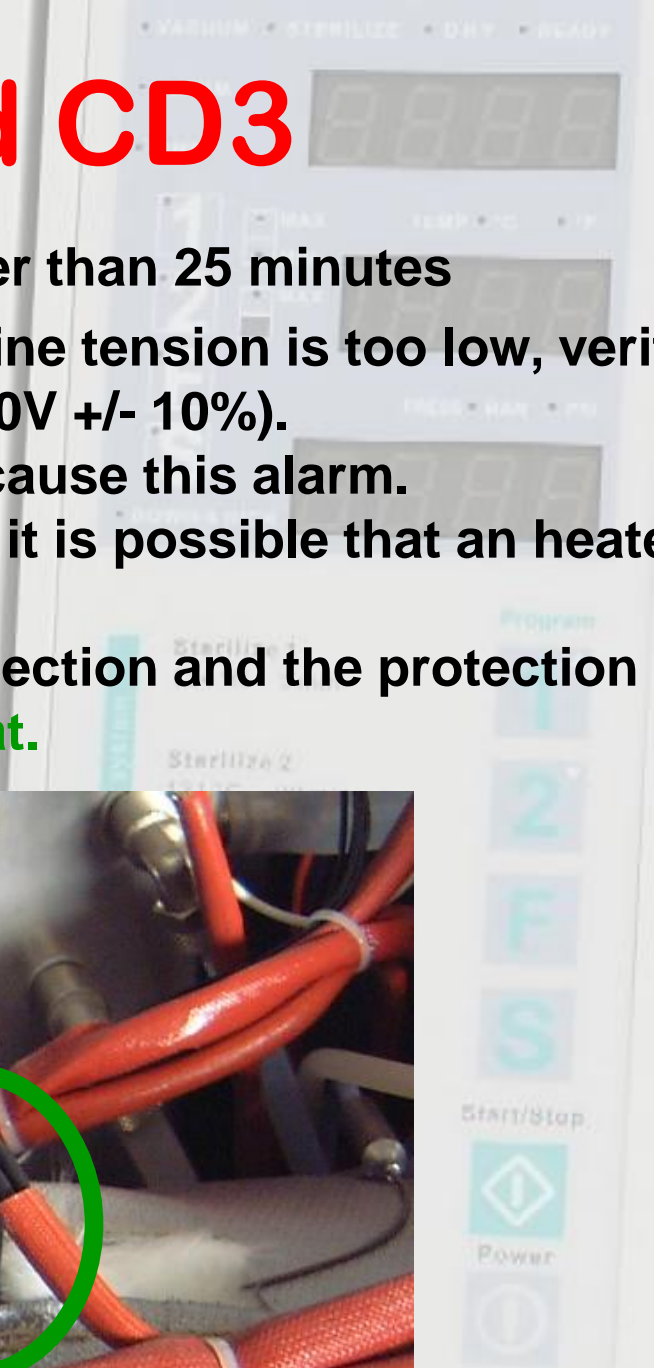
The heating time was longer than 25 minutes

**Cause:** the most probable is that the line tension is too low, verify if it is in the limits (230V +/- 10%).

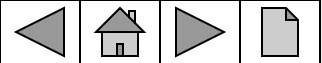
An excessive load may cause this alarm.

It is never happened, but theoretically it is possible that an heater is broken.

Check the wiring, the heater connection and the protection **thermostat.**

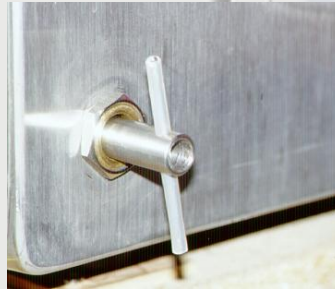




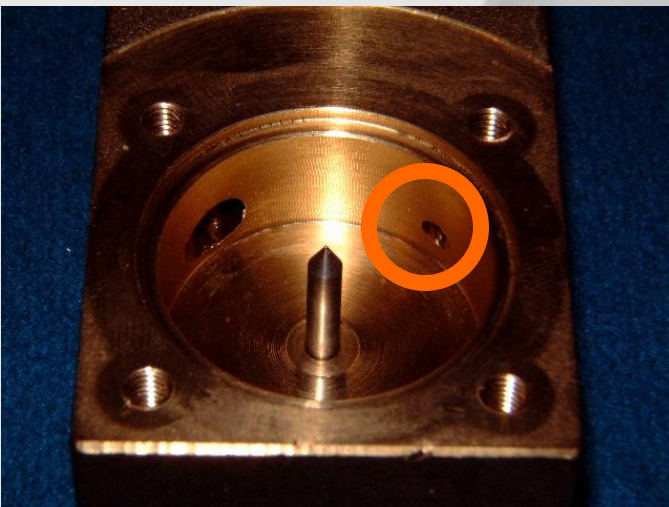


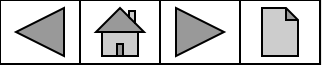
# CD4

The water filling phase has reached the time limit of 50 seconds.  
Cause: the water **filter** is obstructed, clean or replace it.



If this operation is not enough to solve the problem, it is possible that is obstructed also the **calibrated hole** in the **water counter**: it is required to dismount the counter and clean it.

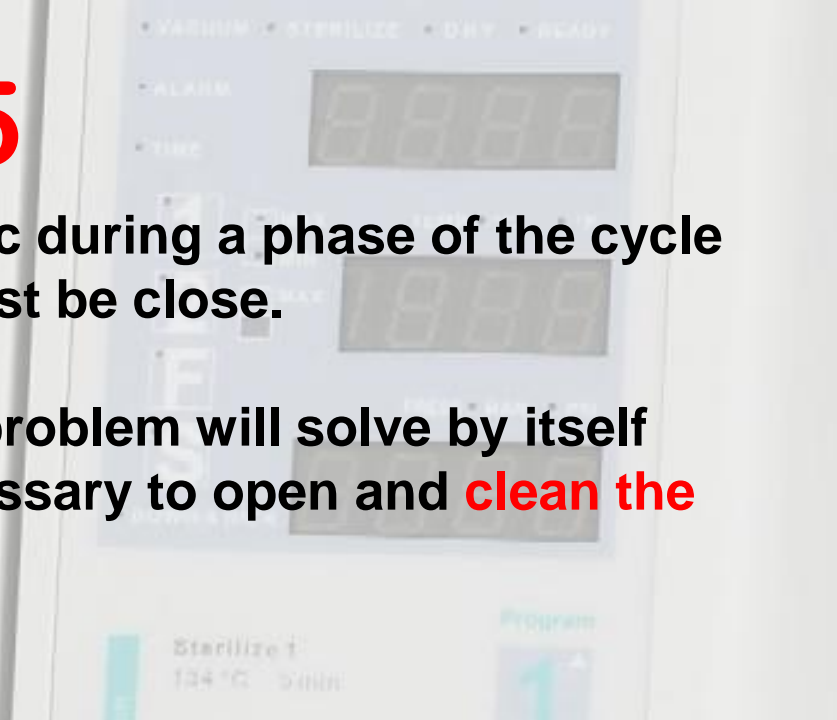


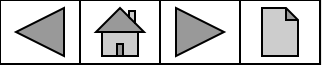


# CD 5

There was a water flow bigger than 5 cc during a phase of the cycle where the valve 4 must be close.

Cause: **valve 4** is dirty, usually the problem will solve by itself running some cycles, if not, it is necessary to open and **clean the valve**.

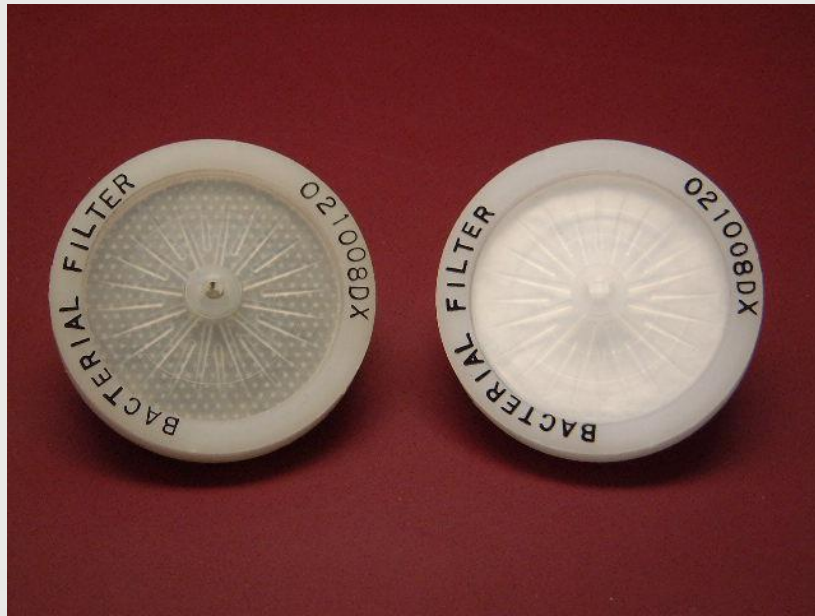




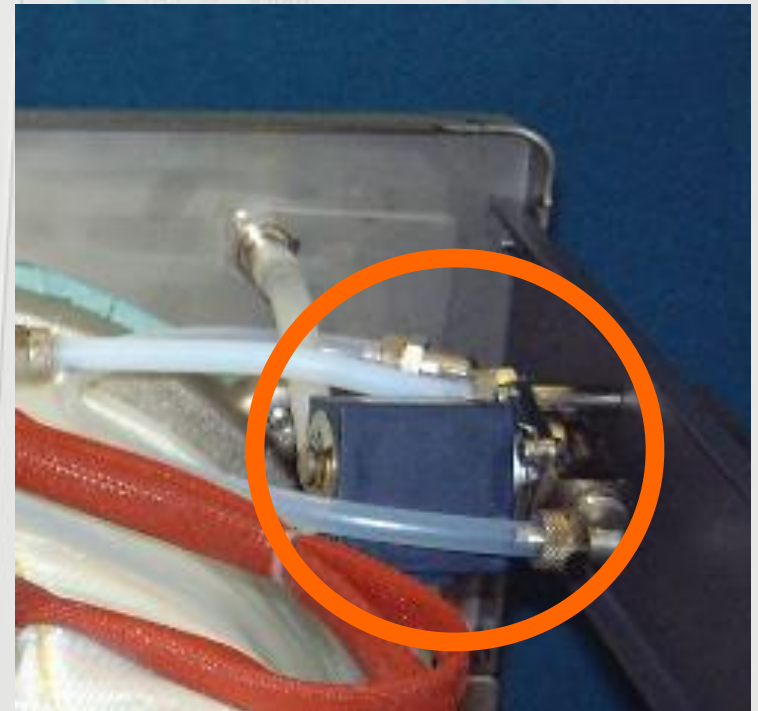
# CD 6

At the end of the ventilation phase, the residual pressure in the chamber is lower than -0.3 bar.

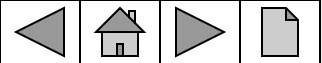
Cause: the bacterial filter is dirty, replace it.



If the replacement of the filter doesn't solve the problem, check **valve 1**







# CD 7

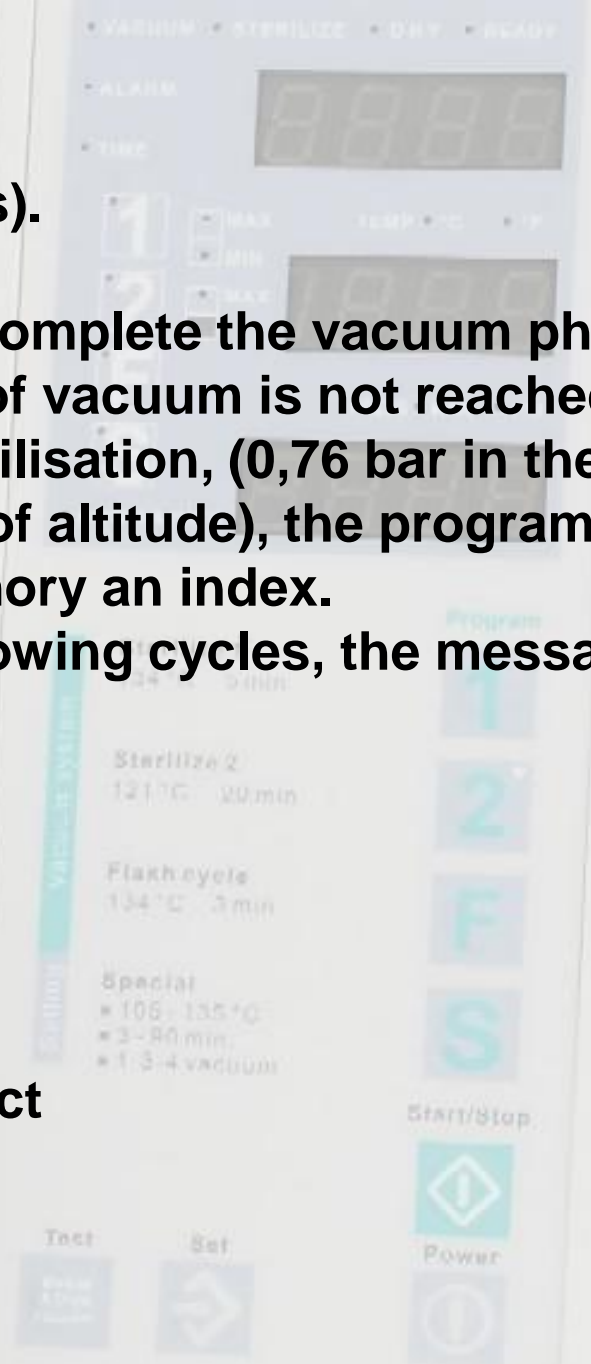
The limit vacuum time is reached (8 minutes).

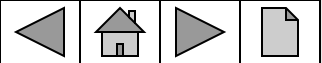
In optimal conditions, the required time to complete the vacuum phase is around 2-3 minutes; if the required level of vacuum is not reached in 8 minutes but it is enough to insure the sterilisation, (0,76 bar in the first phase, 0,7 for the following at 0-100m of altitude), the program goes to the next phase inserting in the memory an index.

If this condition is repeated in the three following cycles, the message CD7 is displayed.

The causes may be:

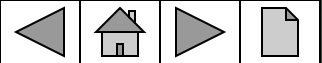
- the chamber filter is dirty
- the gasket door is dirty or damaged
- the vacuum pump is dirty or consumed
- the altitude is not inserted correctly
- the inclination of the autoclave is not correct
- there is a leakage in the circuit
- the radiator is full of dust or has a leakage
- the cooling fan(s) is (are) not working





To verify the efficiency of the vacuum pump it is enough to connect a vacuum-meter directly at the pump head. Push sequentially SET then POWER, on the display appears the message TEST OUT, pushing 3 the pump turns on: after few seconds, the instrument must show a value lower than  $-0,84$  bar.



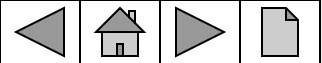


**If the measured value is higher, probably the valves are dirty: it is required to open the pump head and clean the valves and the valve's housing.**

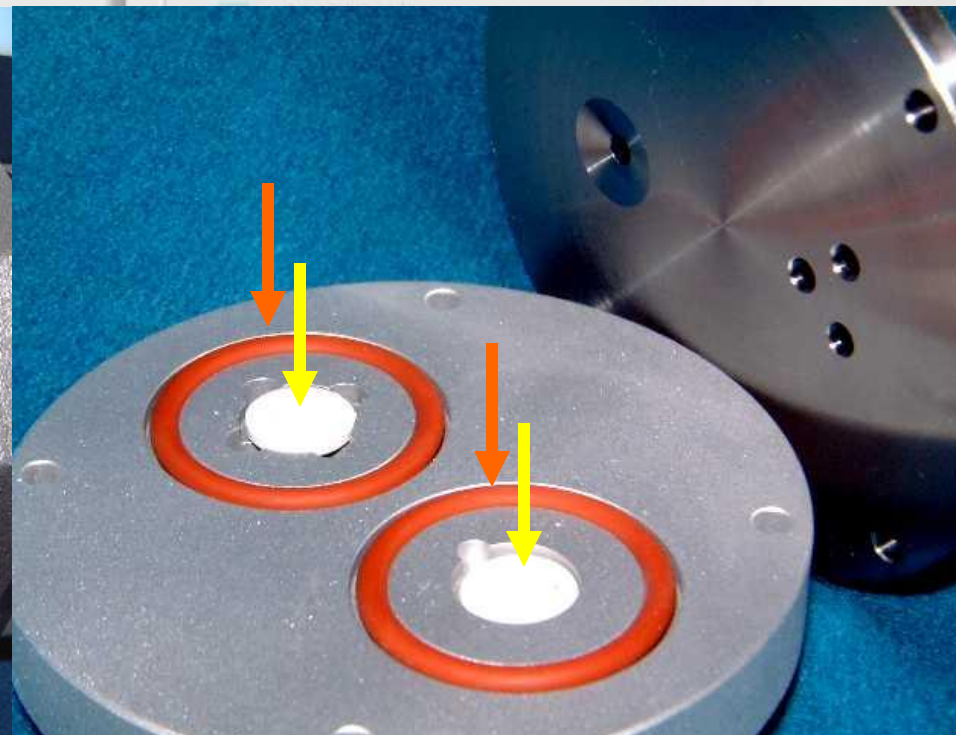
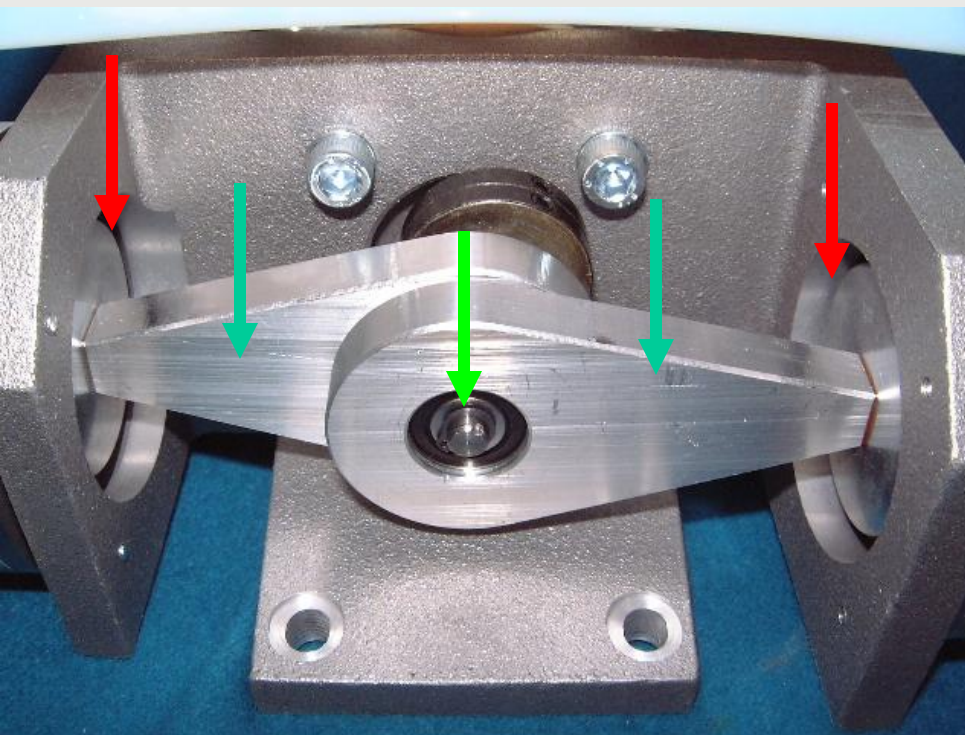


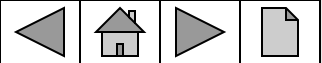
**Take care to the valves position!**





If you find the diaphragm broken it is available a repair kit composed by: **o-rings**, **valves**, **diaphragm**, **bearing balls** and **rod** assembled. For the pumps produced before July 2001 it is suggested the replacement with a serviced pump available for a special price.

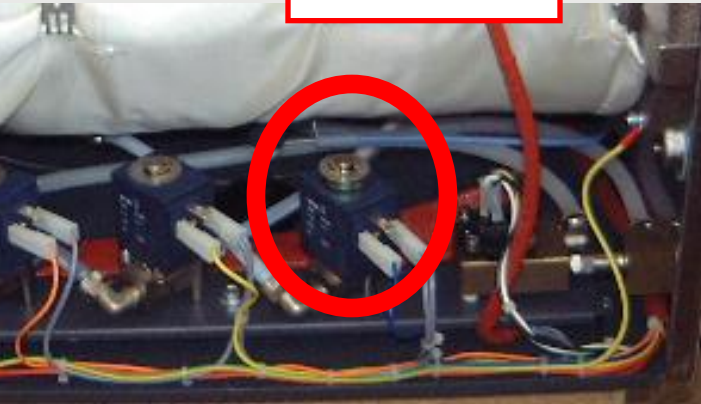




To find a vacuum leakage is harder than to find a pressure leakage! Using the program VACUUM you have 15 minutes to find the hole; the measure of the pressure on the display is really useful.

The most exposed parts to a vacuum leak are:

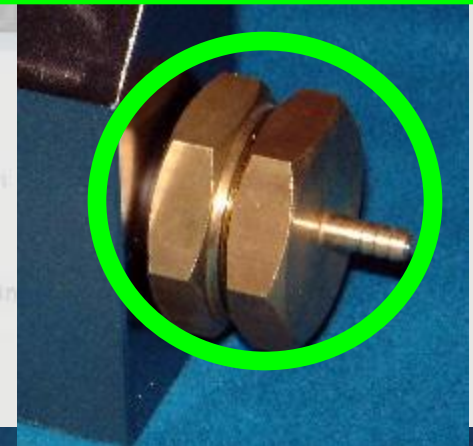
valve 2



Gasket door

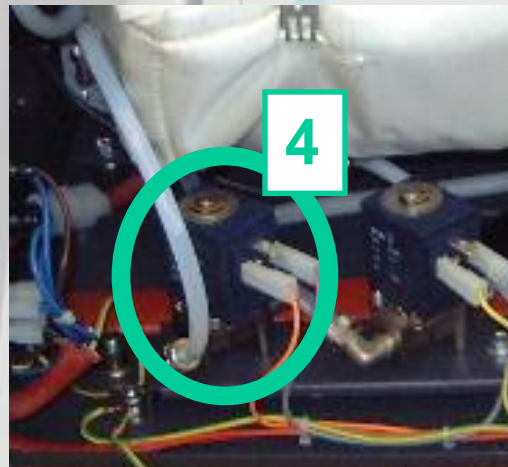


Door's safety piston

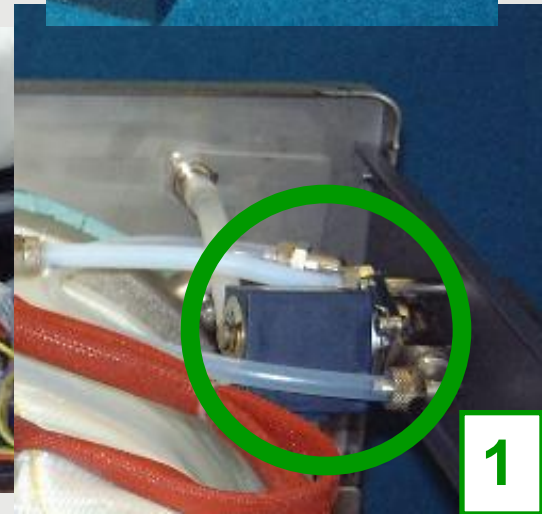


If the autoclave is hot, the VACUUM TEST doesn't start. It is possible to run a similar test disconnecting a wire from valve 1 and from valve 4, start a cycle and stop it when the vacuum pump stops the first time, pushing only one time the button START/STOP

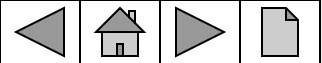
4



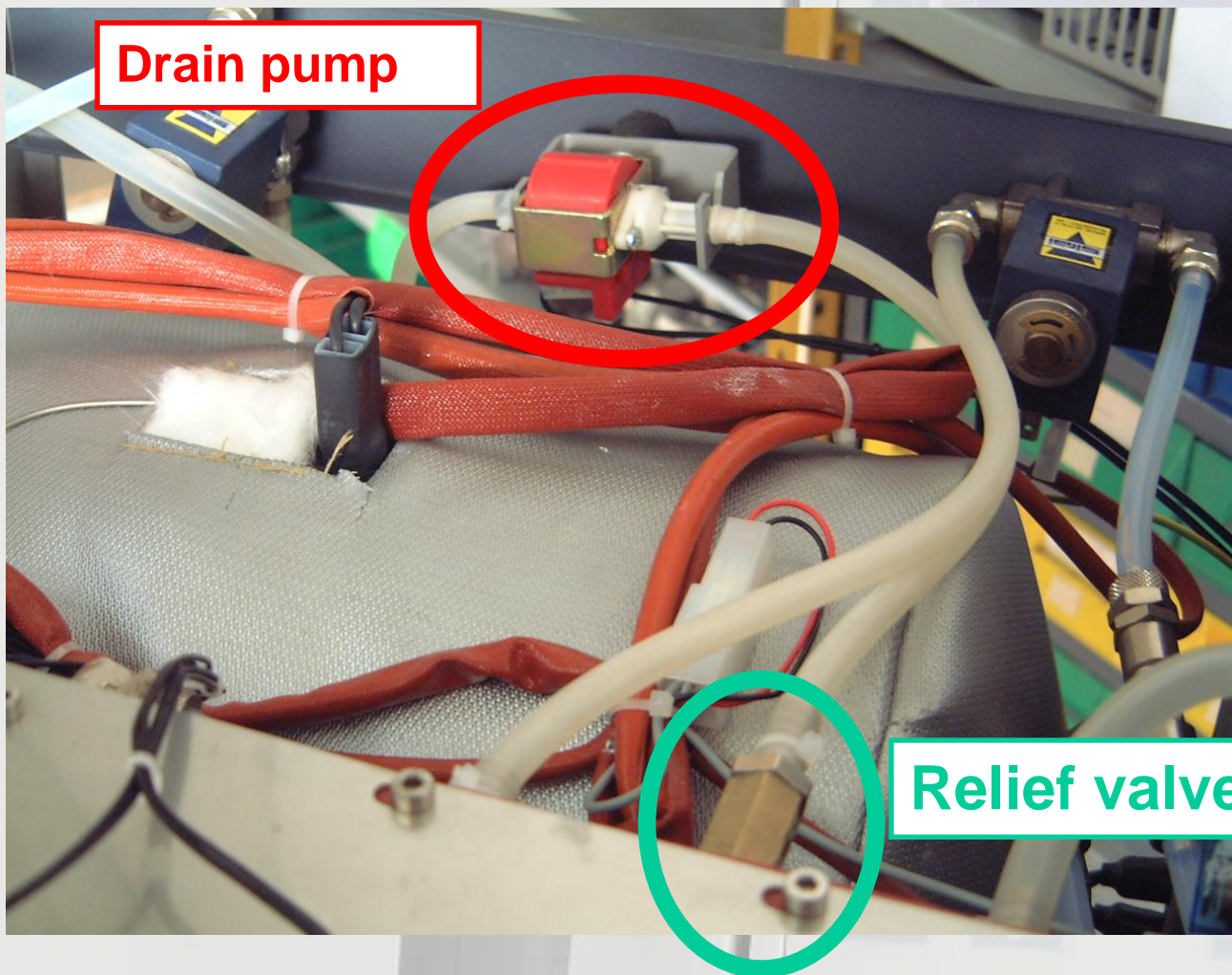
1

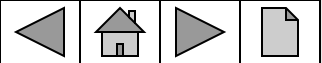






In the 2003 model, verify also the **Drain pump** and the **Relief valve**

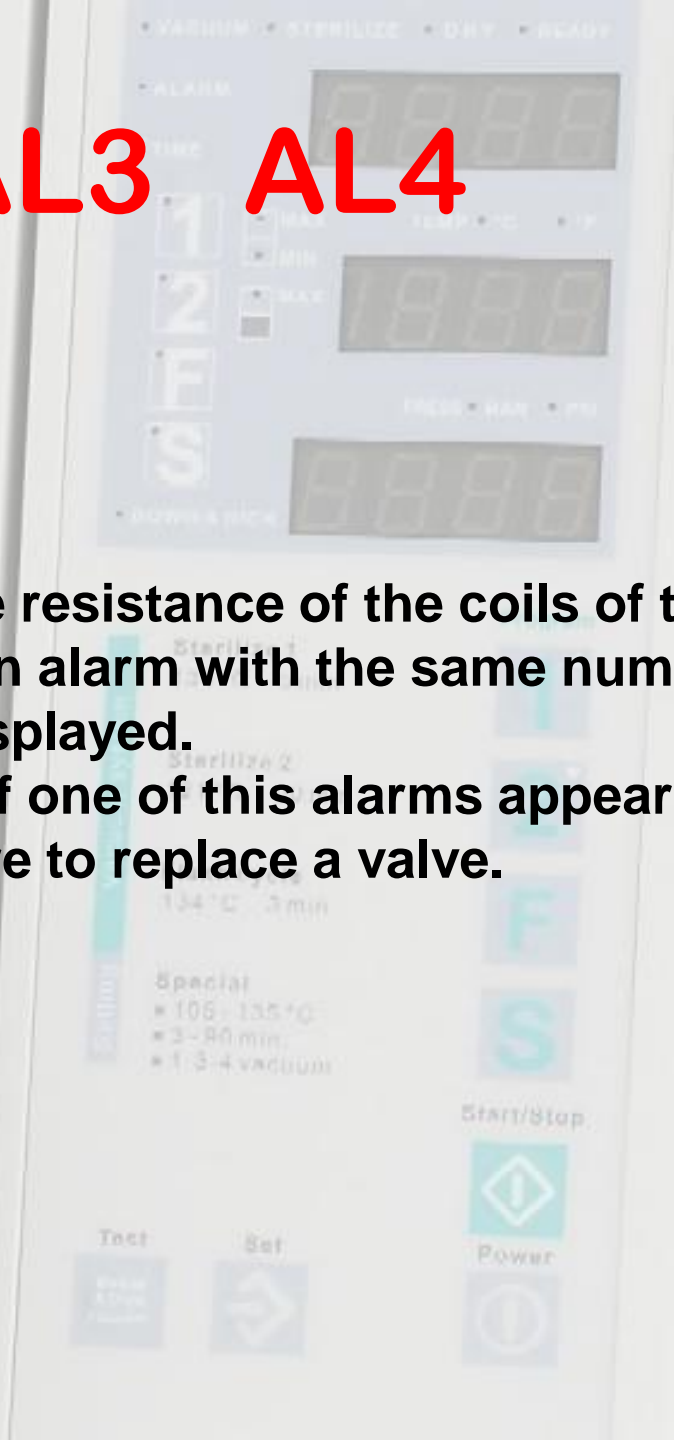


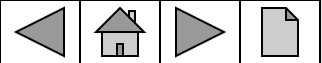


# AL1 AL2 AL3 AL4

**During the auto diagnosis, it tested the resistance of the coils of the valves: if it is open or in short circuit, an alarm with the same number of the valve is displayed.**

**We never found interrupted coils so, if one of this alarms appears, please check the wiring before to replace a valve.**





# AL 5

In the heating phases, every 10 minutes, it is verified if the pressure increasing is higher than 0.16 bar.

If not, this alarm is displayed.

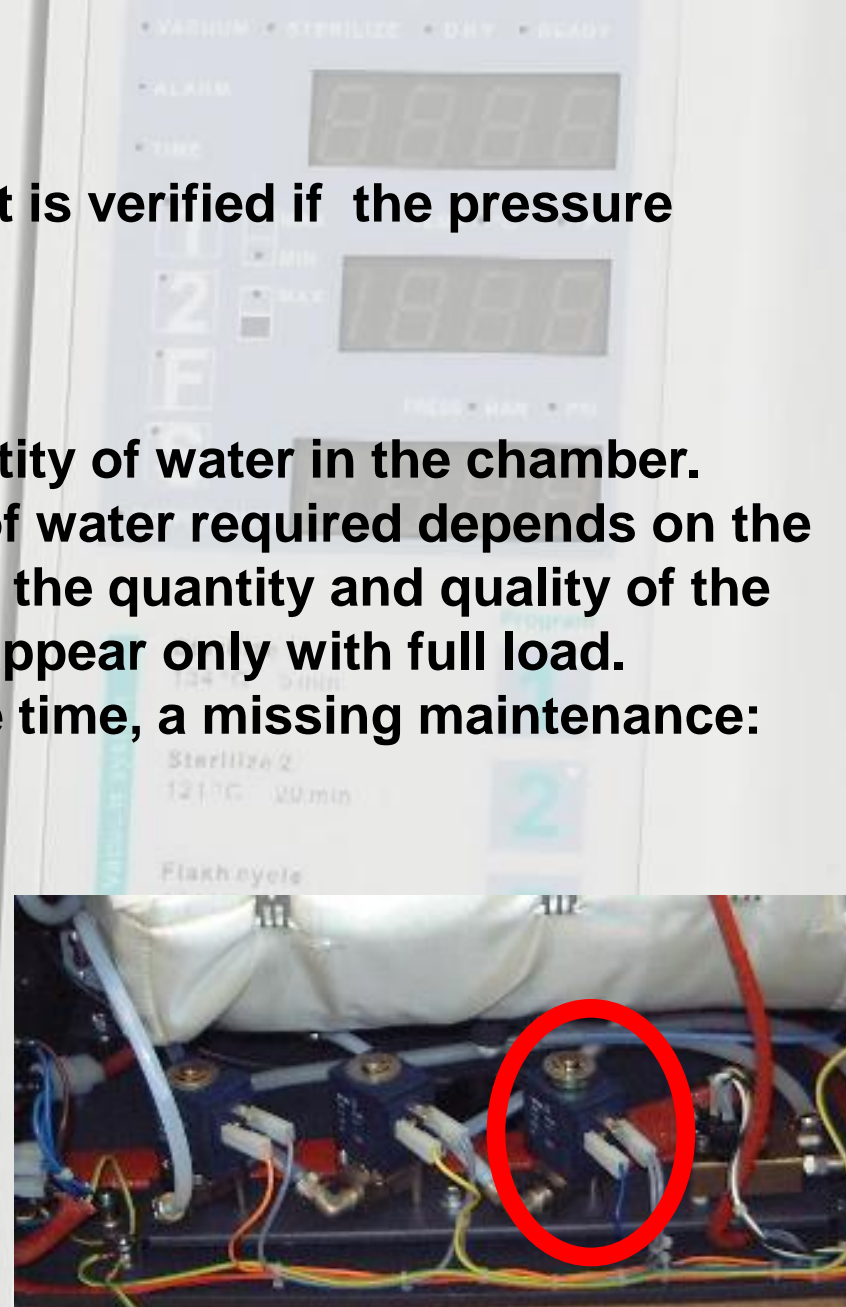
The cause is usually an insufficient quantity of water in the chamber. We want to remind you that the quantity of water required depends on the temperature that we want to reach and on the quantity and quality of the load: so may happens that some alarms appear only with full load.

The origin of this alarm is, the most of the time, a missing maintenance: the frontal water filter is dirty.

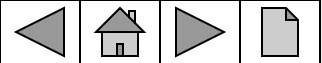
Read CD4 instructions.

If the filter is clean, may be that the alarm is caused by a pressure leak and the water is lost before to reach the working pressure.

The most exposed component to this risk is the **valve 2**







# AL 6

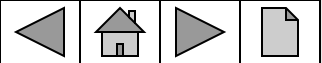
The vacuum level is not enough.

The switch level depend on the altitude setting and on the phase.

Altitude Mt	first vacuum bar	following vacuum bar
0-100	-0,76	-0,7
200-300	-0,74	-0,68
400-500	-0,72	-0,66
600-700	-0,7	-0,64
800-900	-0,68	-0,62
1000-1100	-0,66	-0,6
1200-1300	-0,64	-0,58
1400-1500	-0,62	-0,56
1600-1700	-0,6	-0,54
1800-1900	-0,58	-0,52
2000-2100	-0,56	-0,5
2200-2300	-0,54	-0,48
2400-2500	-0,52	-0,46

the causes and the solutions are described in the CD7 paragraph.





# AL 7

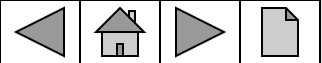
The door has been opened during the cycle.

There is a pneumatic protection that lock the door so it is not possible to do it if in the chamber there is a dangerous pressure.

Verify the **door switch** function.

To look at the switch it is enough to dismount the control panel. In the Y07 model, it indicates that the locking mechanism is not activated or the handle is not in the correct position





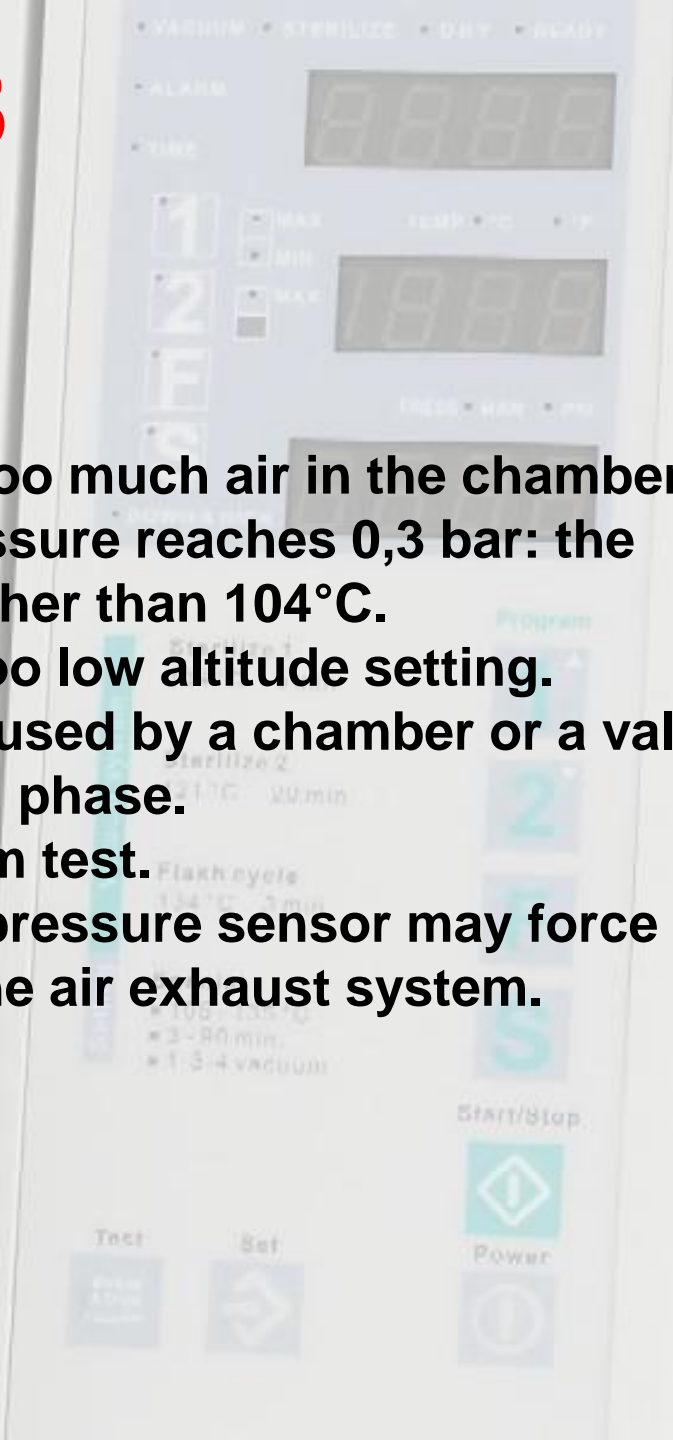
# AL 8

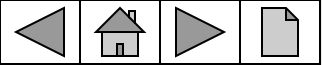
**After three vacuum phases there is too much air in the chamber.  
This control is done when the pressure reaches 0,3 bar: the  
temperature must be higher than 104°C.**

**The most frequent cause is a too low altitude setting.  
An excessive amount of air may be caused by a chamber or a valve  
during a vacuum phase.**

**Run the vacuum test.**

**A wrong adjustment of temperature or pressure sensor may force this  
alarm or a wrong function of the air exhaust system.**

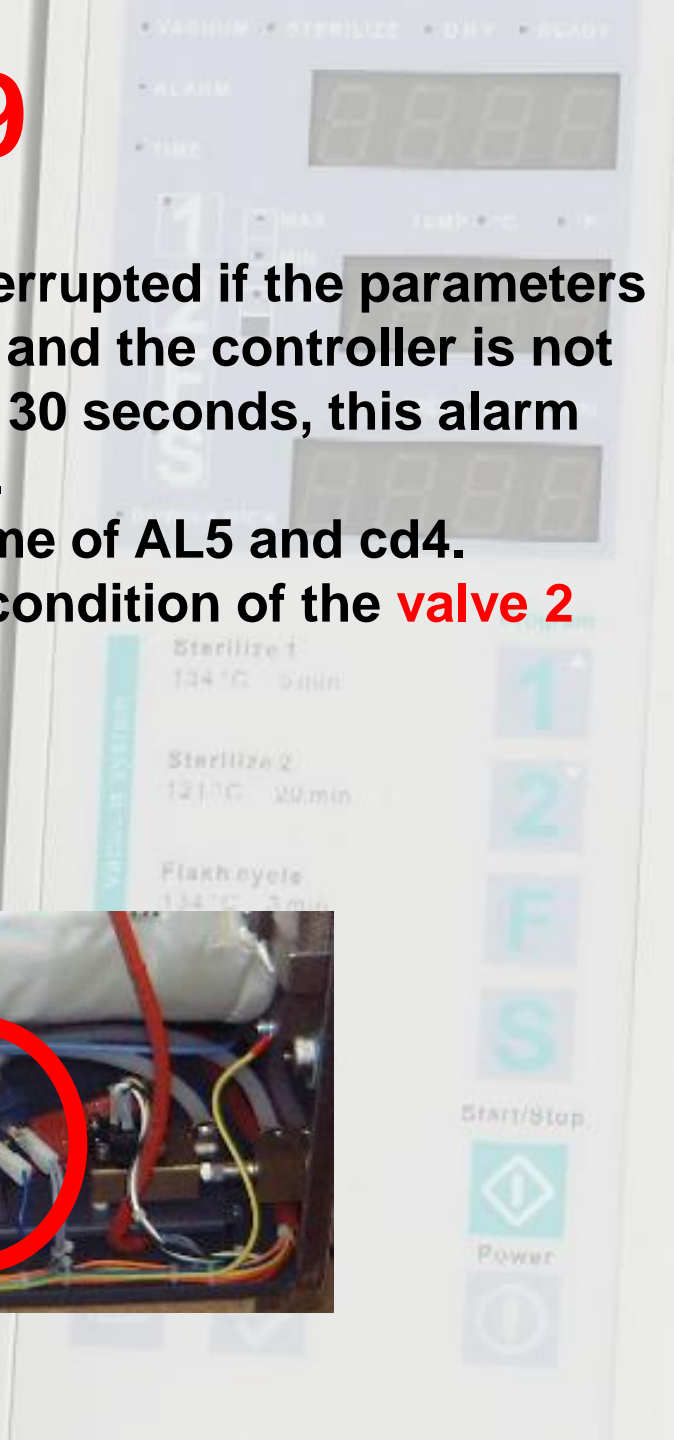




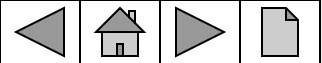
# AL 9

The sterilisation countdown is interrupted if the parameters go out of the limits, if it happens and the controller is not able to correct it in less than 30 seconds, this alarm appears.

The causes may be the same of AL5 and cd4.  
Verify the water filling and the condition of the **valve 2**





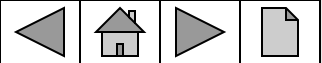


# AL 10

During the sterilisation phase, the pressure value is increased more than 0.14 bar respect to the reference.

The heaters must be turned of by the main board: verify , when the **R.DWN** Led is off, the tension on the lower heater (it must be zero) and when the **R.UP** Led is off, the tension on the lower heaters must be zero





# AL 11

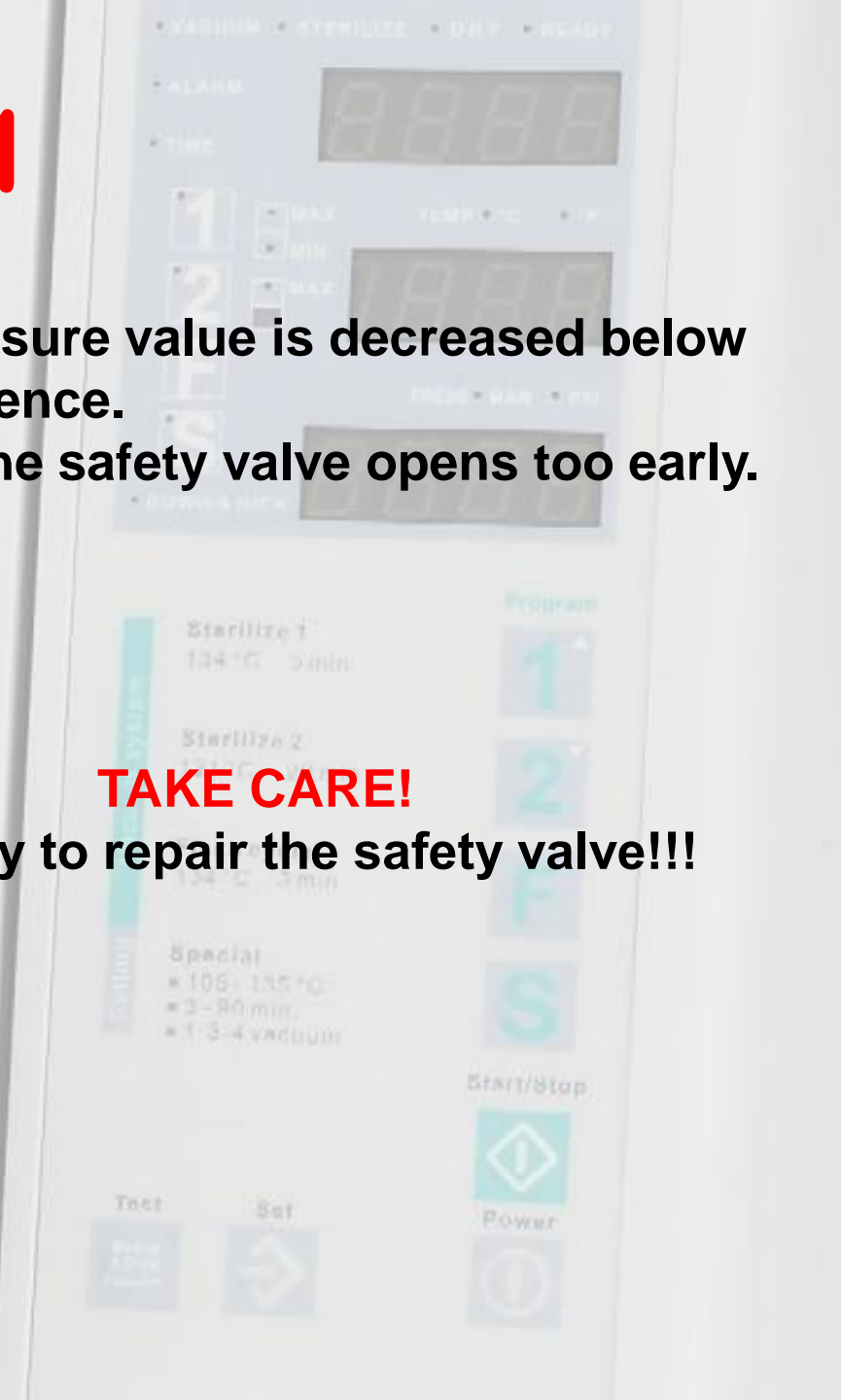
In the sterilisation phase, the pressure value is decreased below the reference.

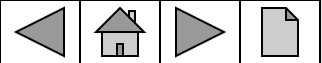
Probably, an hose has broken or the safety valve opens too early.



**TAKE CARE!**

**Don't try to repair the safety valve!!!**





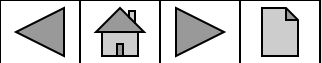
# AI 12

The difference of the steam temperature from the reference is more than  $\pm 3^{\circ}\text{C}$  in the sterilisation phase.

Look at AL10.

Verify the steam temperature sensor **connection** on the board.





# AL 13

Steam sensor

# AL 14

Upper sensor

# AL 15

Lower sensor

The admitted range of reading of the temperature sensors is 4-168°C, if the reading exits from this range, the microprocessor turns off all the outputs and display this alarm.

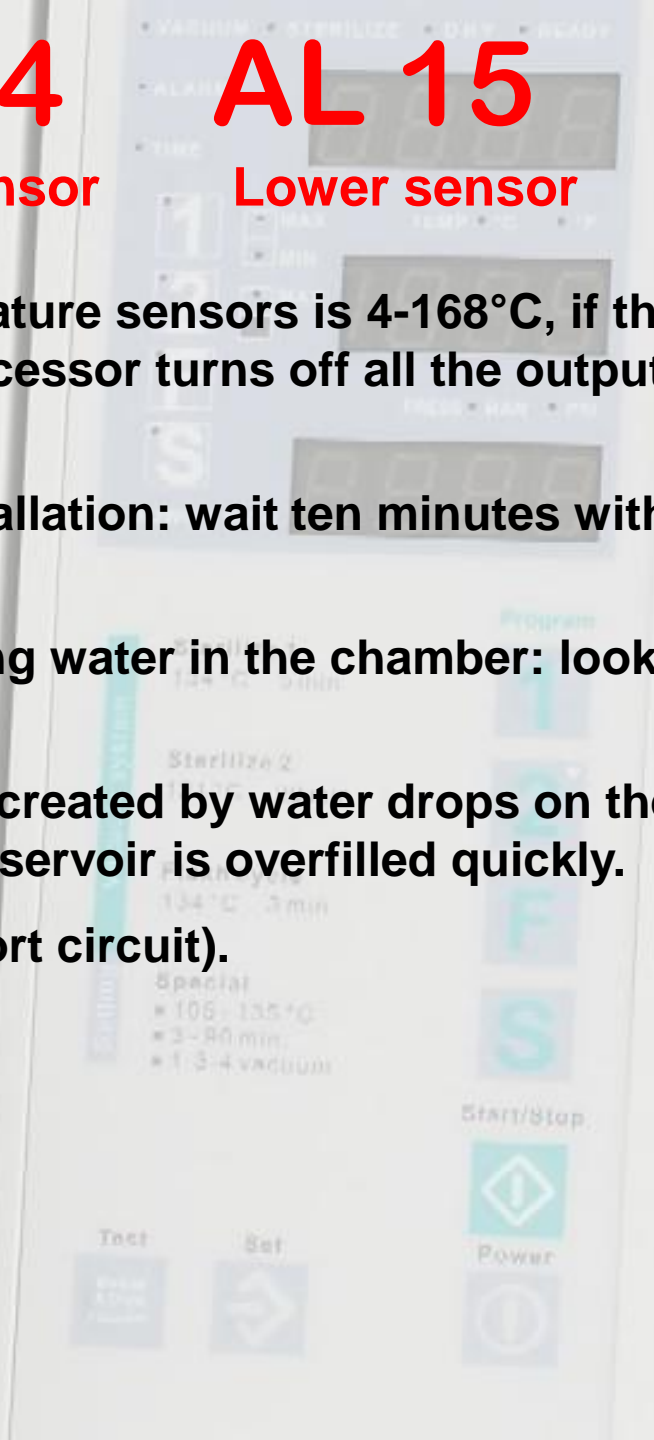
It may appear in winter time during the installation: wait ten minutes with the door open before to turn it on.

AL15 and AL14 may occur in case of missing water in the chamber: look at CD4 paragraph.

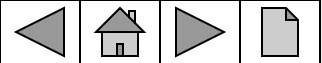
We found some cases where the alarm was created by water drops on the temperature board: it may happens if the reservoir is overfilled quickly.

Verify the thermocouple integrity (it is a short circuit).

**ATTENTION!** The steam sensor's replacement requires the verify of the calibration!

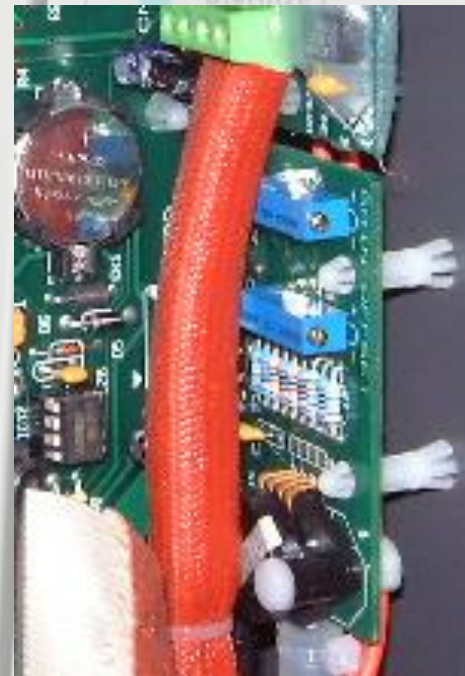






# AL 16

The pressure reading was higher than 2,4bar.  
May be that the heater are out of, check the paragraph AL10.  
Verify if the pressure board is correctly inserted on the main board;  
eventually replace it with a new calibrated board.  
Don't try to adjust it if you don't have a high grade pressure reference.



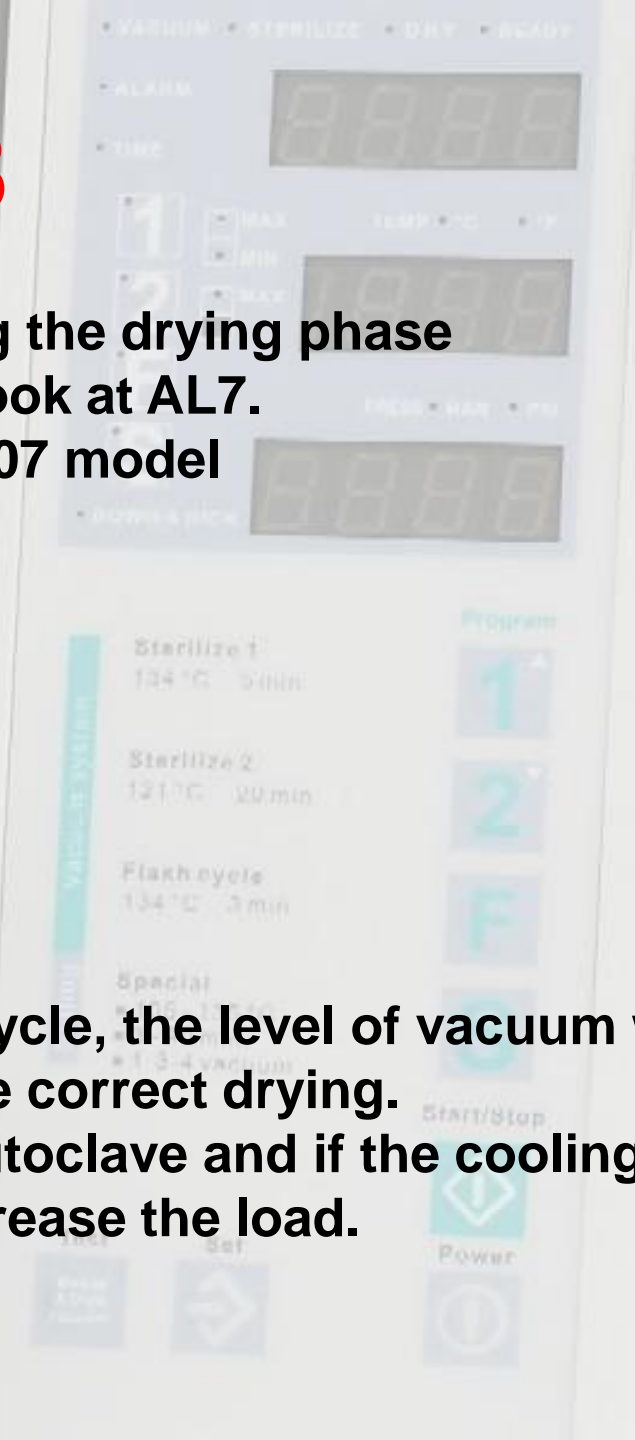


# AL 18

**The door was opened during the drying phase  
in a class B cycle. Look at AL7.  
Eliminated in the Y07 model**

# AL 31

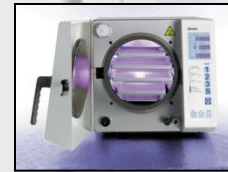
**During the drying phase of a class B cycle, the level of vacuum was  
not enough to warrant the correct drying.  
Verify the correct inclination of the autoclave and if the cooling is  
enough; eventually decrease the load.**



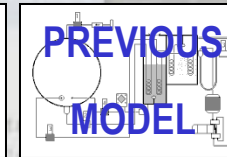
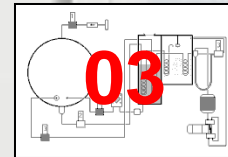
# Domina PLUS B

**dx**  
dental X

**INSTALLATION**



**WORKING DIAGRAMS**



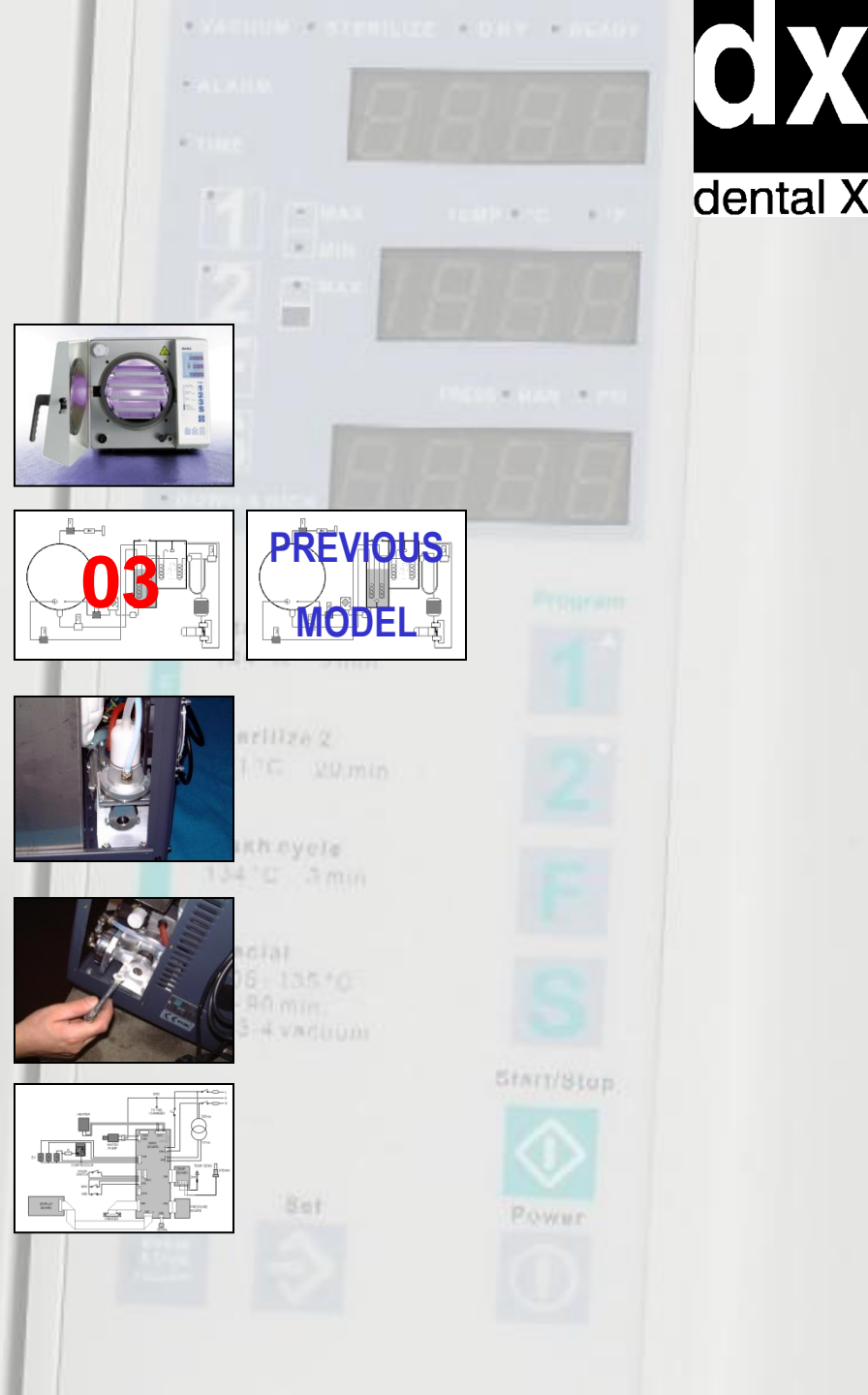
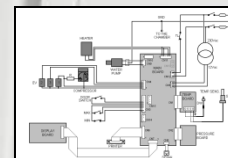
**INTERNAL VIEWS**



**TROUBLESHOOTING**

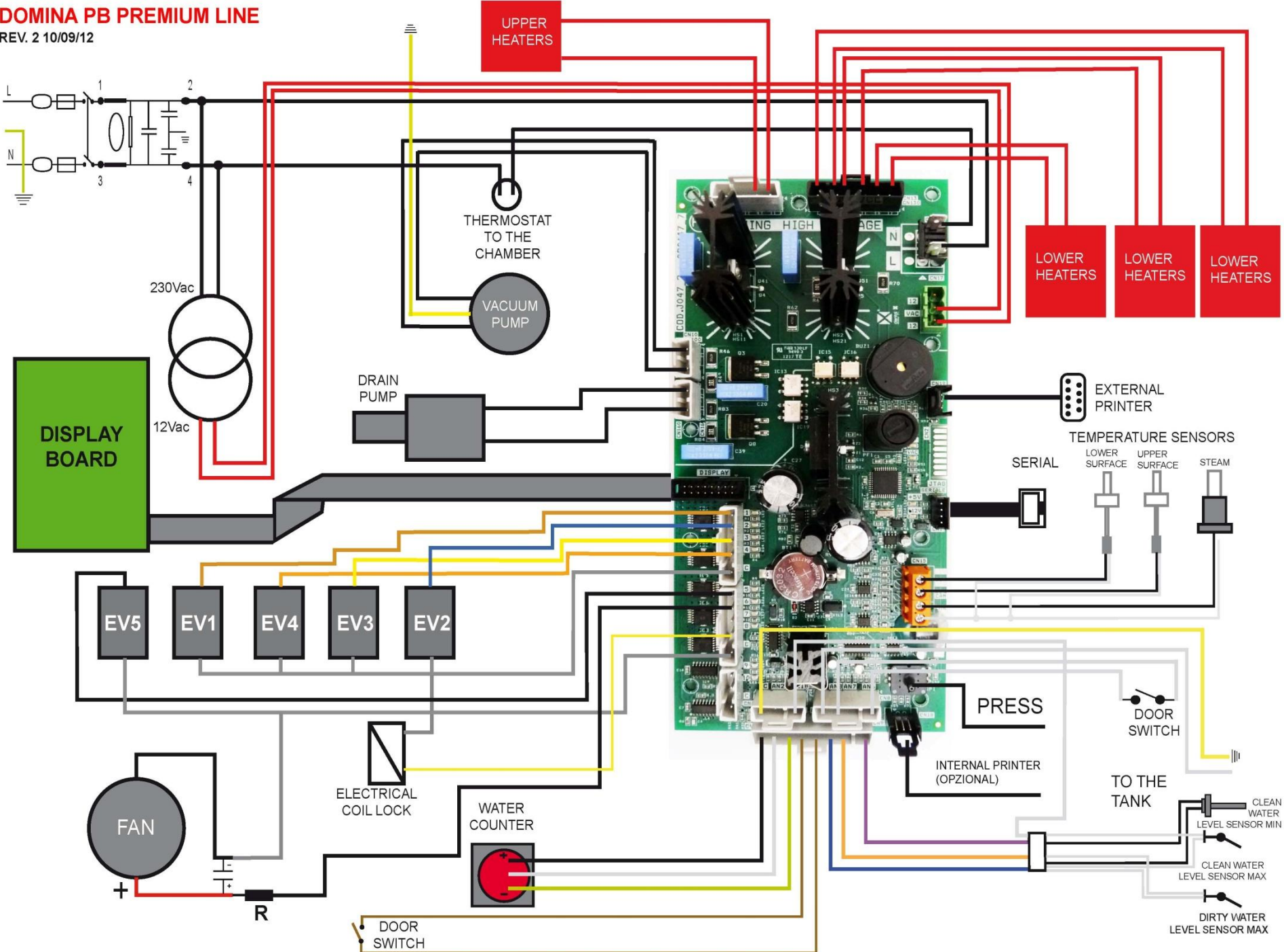


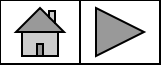
**WIRING DIAGRAMS**



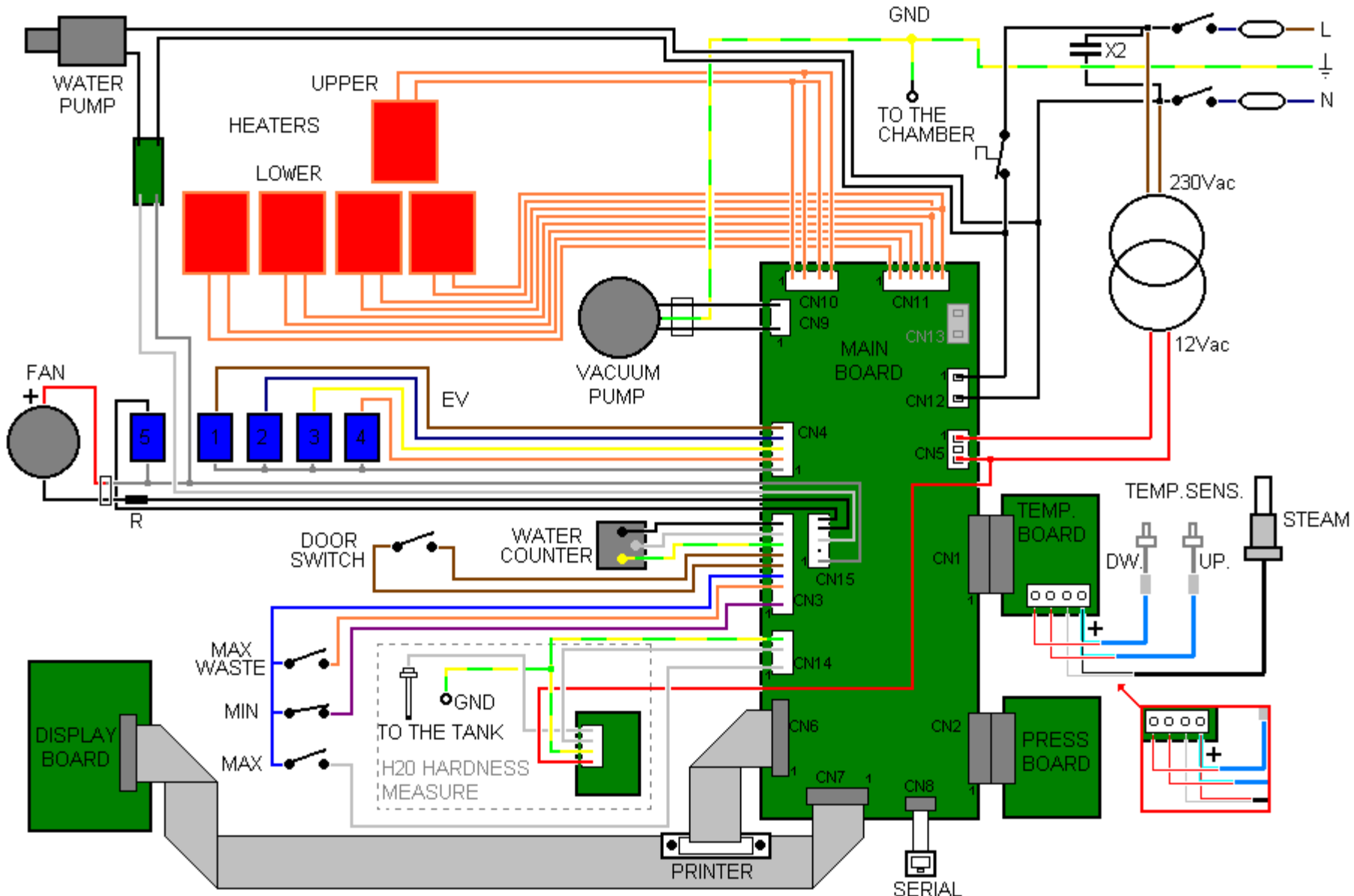
# DOMINA PB PREMIUM LINE

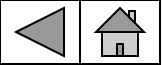
REV. 2 10/09/12



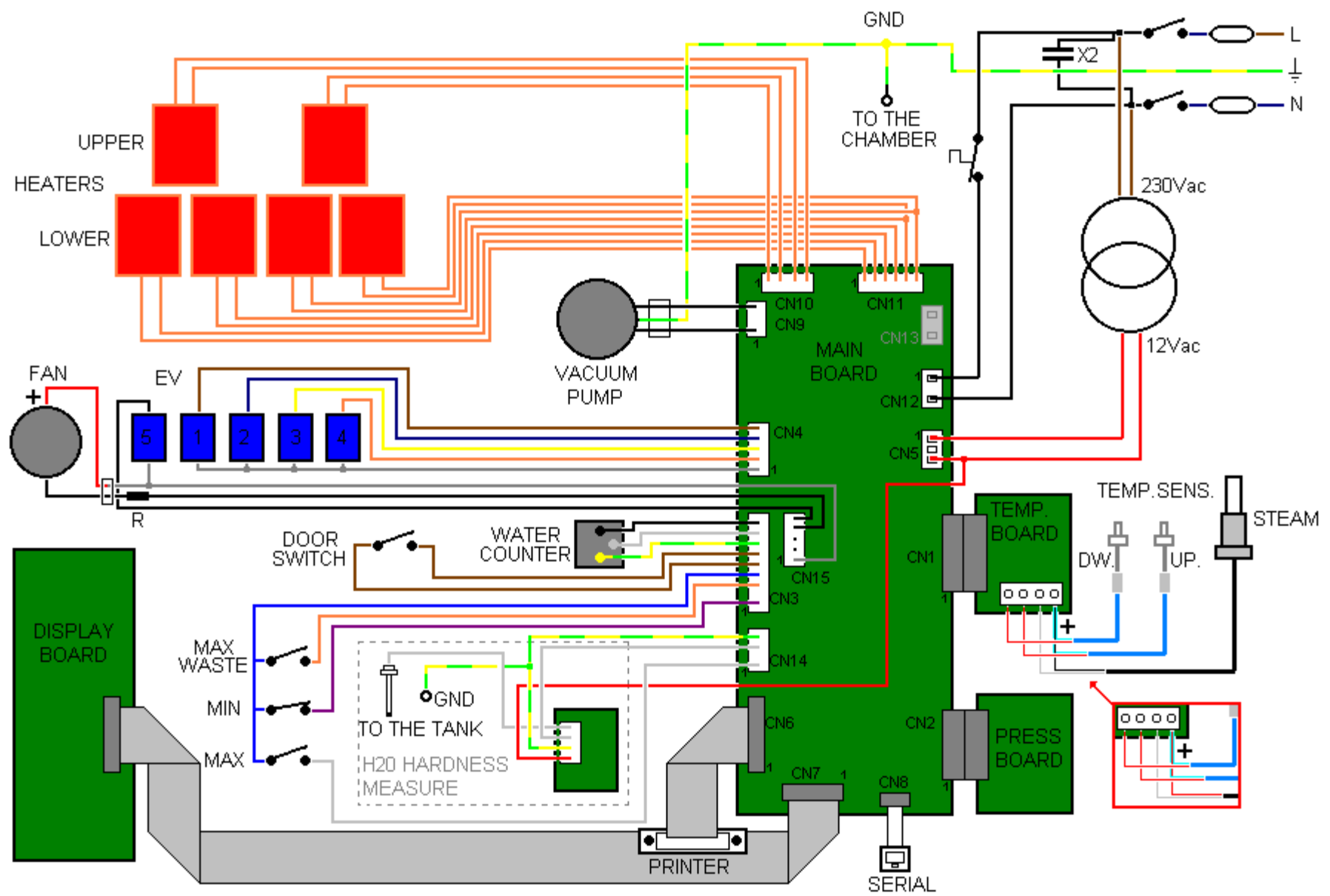


# Domina PLUS B 03



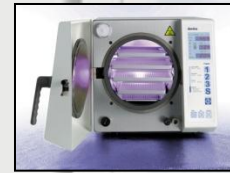


# Domina PLUS B 01

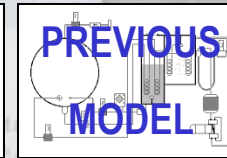
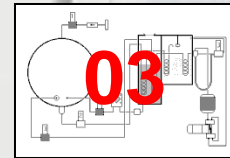


# Domina PLUS B

**INSTALLATION**



**WORKING DIAGRAMS**



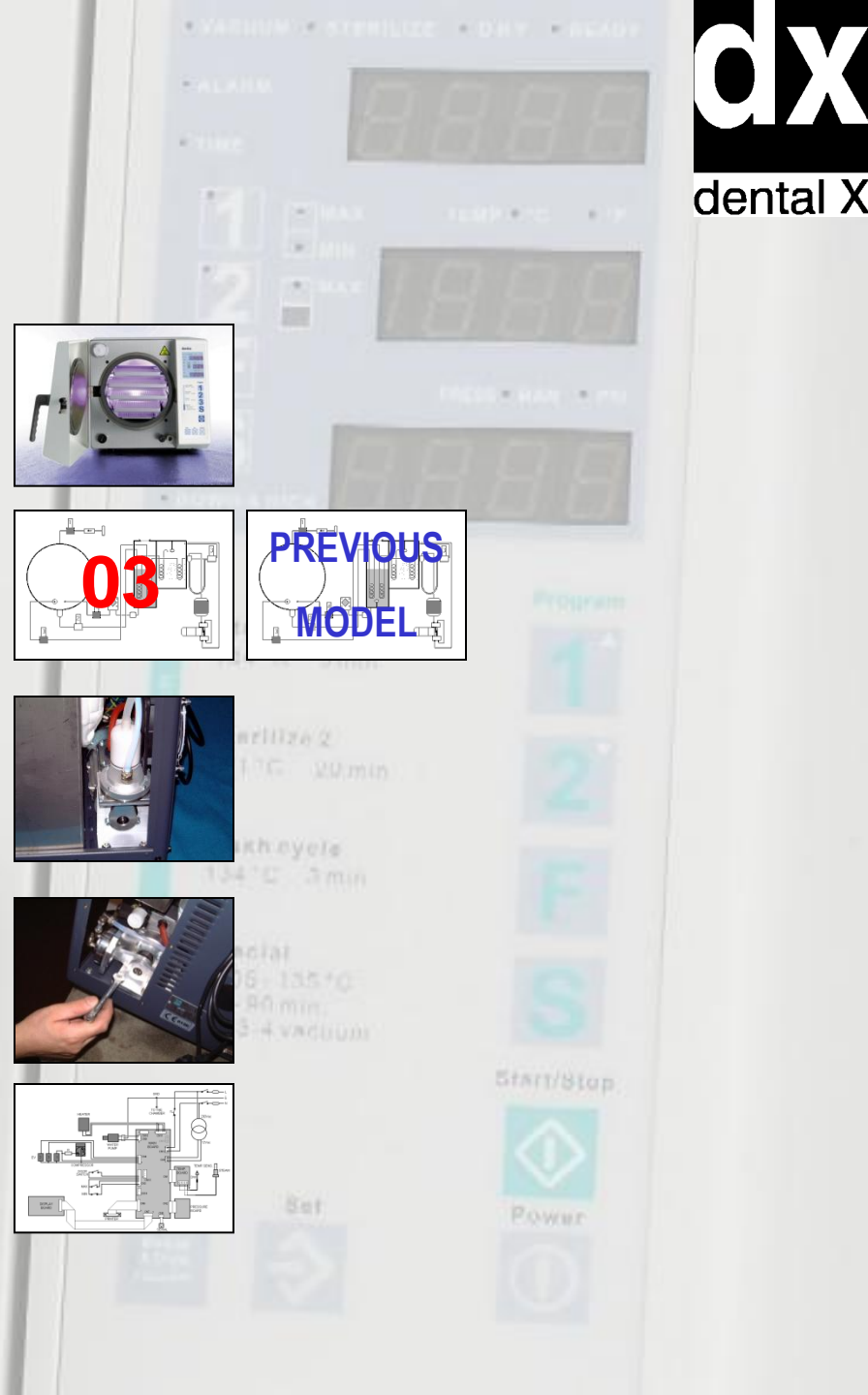
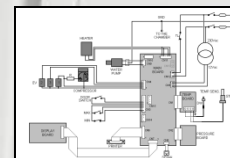
**INTERNAL VIEWS**



**TROUBLESHOOTING**



**WIRING DIAGRAMS**





# INSTALLATION (2003 mod.)

## 1.1 BASIC REQUIREMENTS

1. Make sure that the features of the electric plant is according with the requirements indicated on the rear plate, the power supply socket should provide at least 10 A and adequate earth connection..

*The manufacturer disclaims any responsibility for damage caused by inadequate or not earth-connected electrical plant.*

2. The sterilizer should be slightly tilted to facilitate water outflow during the steam draining phase. If necessary adjust through the proper feet.
3. To warrant the correct working of the sterilizer it is imperative that the rear and lower panels are not clogged.
4. Do not install the unit in extremely moist environments or arranged close to inflammable gas sources.
5. The distance from the rear wall should be at least 4 cm.

The sterilizer may be installed recessed, as long as adequate free space around the unit (> 10cm) is guaranteed.

## 1.2 PRELIMINARY STEPS

THESE ADJUSTMENTS SHOULD BE CARRIED OUT ONLY BY QUALIFIED SERVICE TECHNICIANS. INCORRECT SETTINGS MIGHT EFFECT THE QUALITY OF STERILIZATION.

1. Check that the electric plant meets the unit requirements, plug the power supply cable into an AC socket.
2. The sterilizer is delivered without water into the tank; before proceeding it is necessary to fill the tank with demineralized water.

Poor-quality water may lead to the formation of calcareous deposits on the instruments, on the chamber inside walls and on the trays. Read the label carefully before pouring the fluid. Tap water must not be used under any circumstances, not even if conditioned through filters or softeners.

*Demineralized water bottles for batteries, supplemented with sulfuric acid, are available on the market. If used for the sterilizer may cause irreversible damage.*

Fill completely the main tank.

3. Switch-on the sterilizer by the rear power supply switch. This should preferably be kept in "on" position, as in stand-by mode the power consumption is very negligible.
4. Take basket and trays out the chamber and close the door.
5. Hold down the key **⓪** and push the key **POWER**; the display will show <SET ALT 100 MT> (100 is the factory-set altitude value).

Modify the value according to the current installation altitude (see next page) by operating on the keys **⓪** and **Ⓛ**.

Then press the key **SET** to store the set value and to start the automatic procedure for the first water filling of the idraulic circuit and the chamber itself.



# ALTITUDE COMPENSATION

To ensure the correct operation of the sterilizer's pressure transducer the equipment must know the environment data in order to allow the necessary pressure compensation.

The correct altitude value (above sea level) must be set at the first installation and in case the sterilizer is moved at altitude differing from the set value.

The factory-set value is 100 meters. If the actual altitude is between 0 and 200 meters no adjustment is needed. Differences of  $\pm 100$  meters do not affect the correct sterilizer operation.

To ensure the right sterilization verify that the altitude value set during the installation does not differ from over 200 meters from the current one. An incorrect altitude setting may result in a prolonged vacuum cycle and/or false or premature AL8 and AL5 error messages.

## SECRET ADJUSTMENTS

From 2001 it is possible to adjust some functions using a secret code. To insert the code use the clock set-up:

**ALTITUDE ADJUSTMENT:** set the clock to may 5th, year 55, 5 am; on the display will appear the altitude: adjust it with the program buttons 1 and 2.

**STEAM TEMPERATURE ADJUSTMENT:** may 5th, year 77, 5 am. It is possible to adjust the value to +/-4°C with a 1/4 of °C.

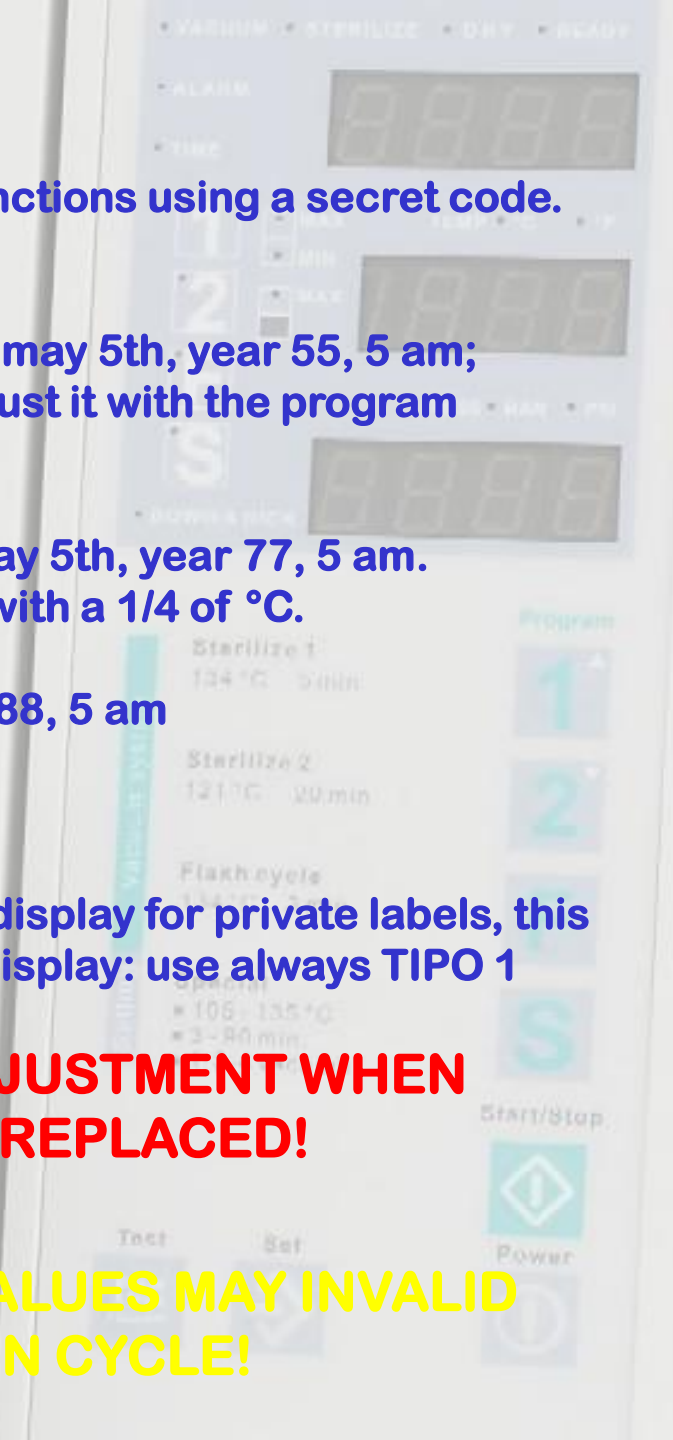
**PRESSURE ADJUSTMENT:** may 5th, year 88, 5 am +/- 0,04 bar with 0,0025 bar steps.

**MODEL:** may 5th, year 66, 5 am.

This autoclave is produced with different display for private labels, this adjustment is inserted to set the correct display: use always TIPO 1

**CHECK ALWAYS THESE ADJUSTMENT WHEN THE MAIN BOARD IS REPLACED!**

**WRONG SETUP OF THESE VALUES MAY INVALID THE STERILIZATION CYCLE!**



# ADDITIONAL FUNCTIONS IN THE 2003 MODEL

## - WATER LOAD

It is possible to fill the water line without repeating the installation procedure: in OFF press the second program button together with POWER.

## - EEPROM MEMORY PRINTOUT

In OFF, push together the button of the third program and POWER; two columns are printed: the first is the address and the second is the value

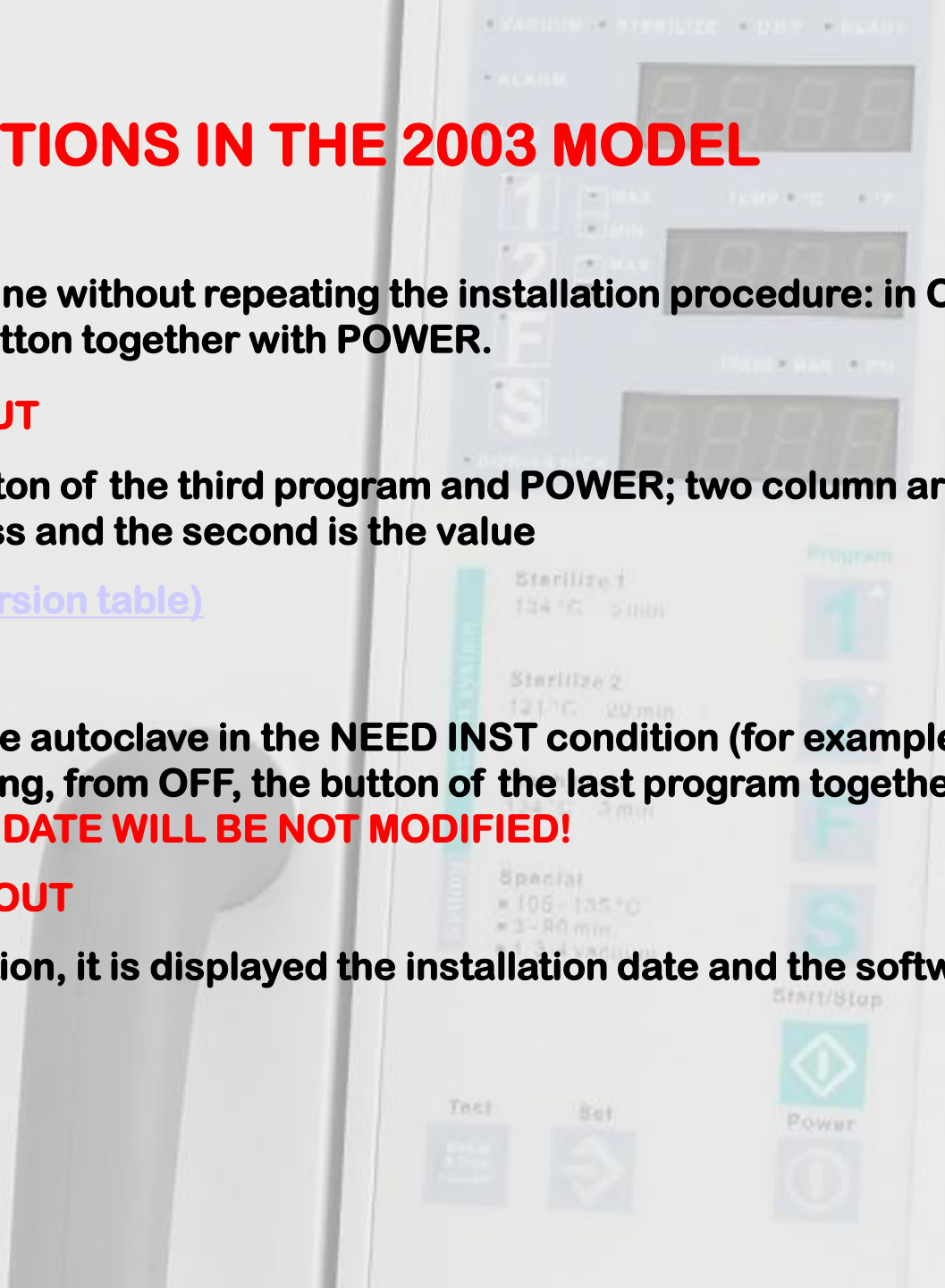
[\(click HERE to see the conversion table\)](#)

## - NEED INST RESET

It is possible to force again the autoclave in the NEED INST condition (for example for a shipment after service) pushing, from OFF, the button of the last program together with POWER. **THE INSTALLATION DATE WILL BE NOT MODIFIED!**

## - INSTALLATION DATE READOUT

Pushing SET from OFF condition, it is displayed the installation date and the software version.



## 2003 MODEL'S ADDITIONAL FEATURES

### - DATALOGGER CONNECTION

selecting language 6 it is possible to record the sterilisation history on a computer

### - HIGHER TEMPERATURE READING RESOLUTION

now it is 0,5°C but from 2001 model the microprocessor manage with 0,125°C steps (before was 0,25°C)

### - AUTOMATIC MAINTENANCE CYCLE

easier and more efficient

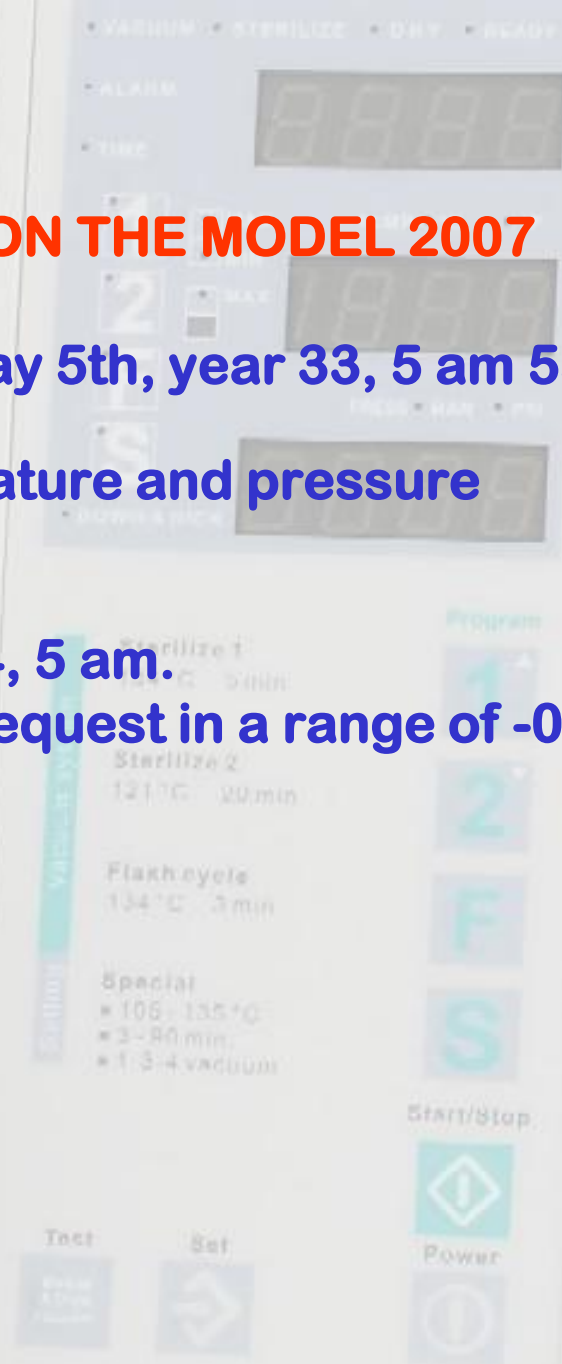
### - MAINTENANCE COUNTER

no doubt about the customer efficiency





- **SECRET ADJUSTMENTS ADDED ON THE MODEL 2007**
- **CALIBRATION:** set the clock to may 5th, year 33, 5 am 55 min
- it adjusts the reference of temperature and pressure together in a range of +/- 1°C
- **VACUUM LEVEL:** may 5th, year 44, 5 am.
- changes the level of the vacuum request in a range of -0 to -0,06 bar



## 2007 MODEL'S ADDITIONAL FEATURES

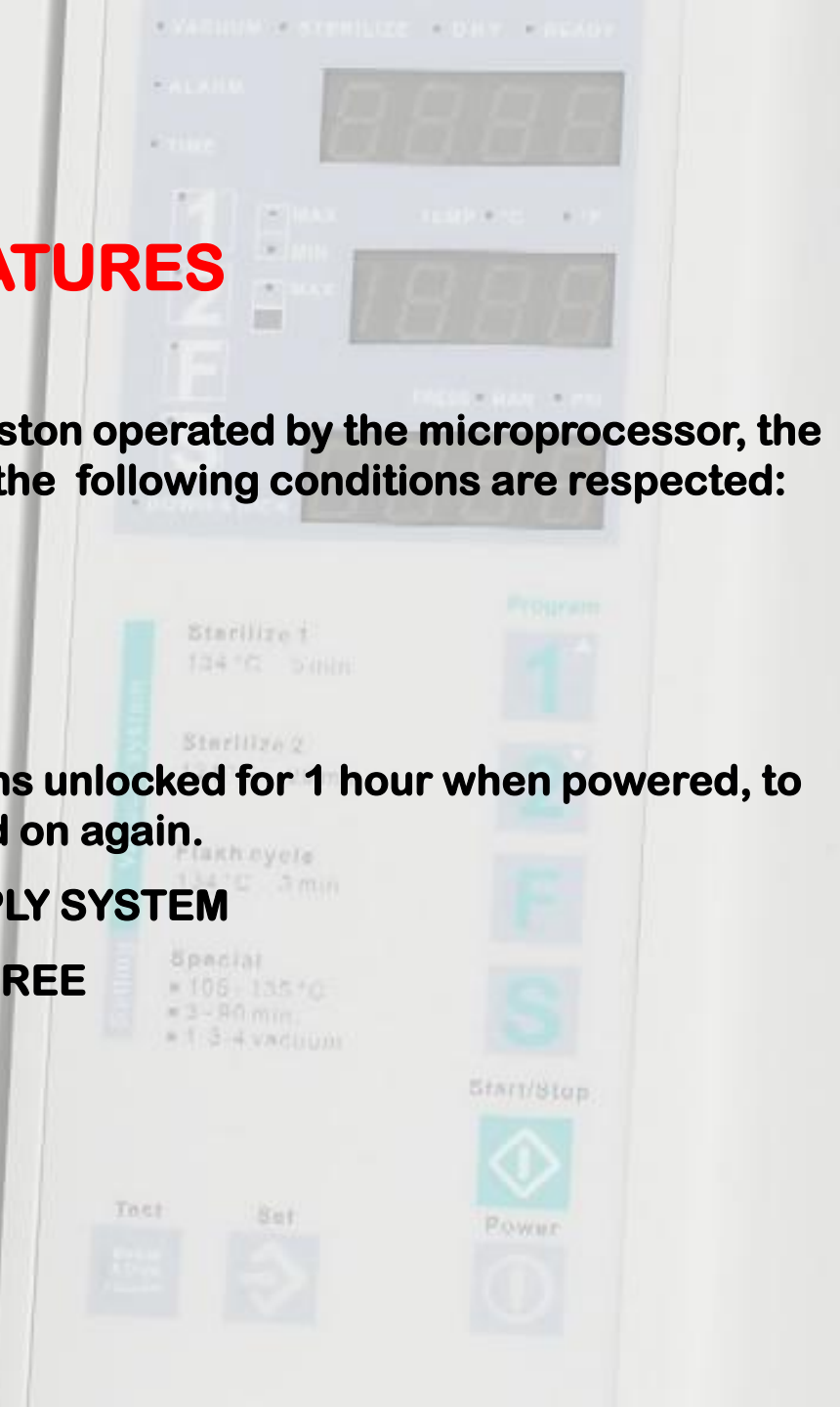
### - ELECTRIC DOOR LOCKING SYSTEM

The pneumatic system has been replaced by a piston operated by the microprocessor, the door is normally locked and it is unlocked only if the following conditions are respected:

- . pressure in a range of +/- 0,05 bar
- . preheating phase
- . no alarms

When the unit is not yet installed, the door remains unlocked for 1 hour when powered, to open it again later it is enough to switch it off and on again.

- CONNECTIONS FOR THE PURITY WATER SUPPLY SYSTEM
- NEW QUIETER VACUUM PUMP MAINTENANCE FREE
- IMPROVED COOLING SYSTEM



# 2011 MODEL'S ADDITIONAL FEATURES

**-New main electronic board:**

**eliminated potentiometers, adjustments done by software**

**additional inputs and outputs for better management of the door's locking system**

**printer's serial port**

**faster USB-LOG that can be used together with paper printer**

**new service menu, to enter in the setup, instead of the clock adjustment, push together the buttons of the last two cycles; the password is 55**

**- water dose adjustable**

**- drying improved and drying time adjustable**

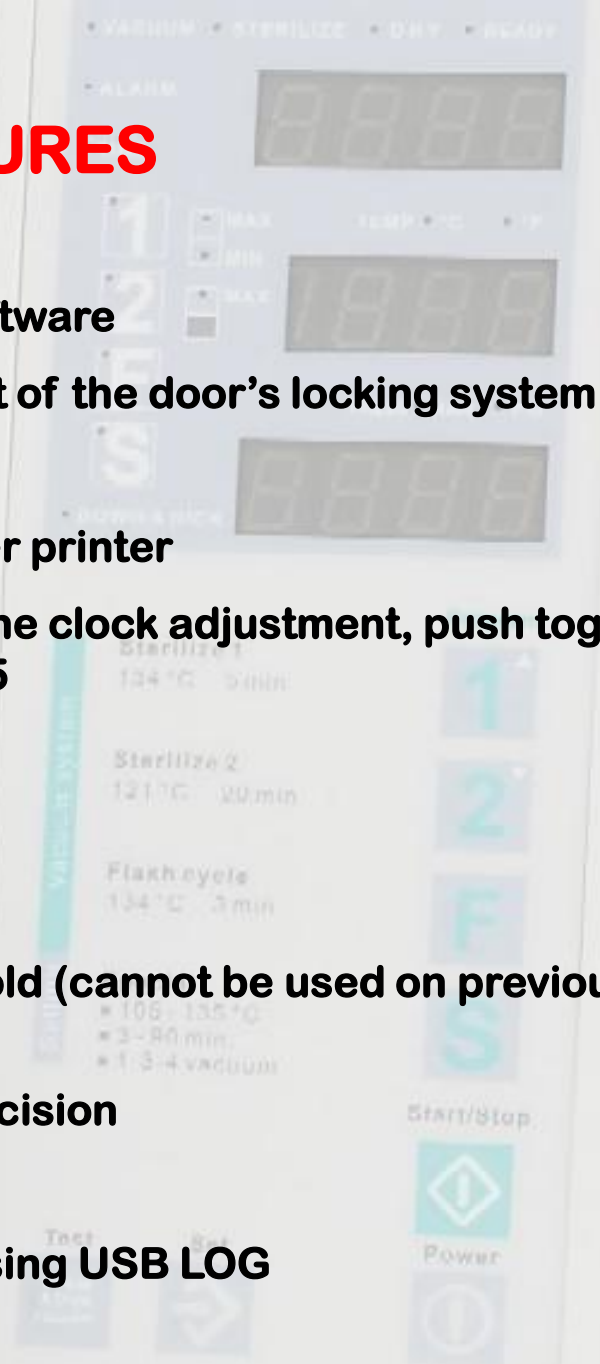
**- new service software will follow soon**

**- new gasket door, longer life, better sealing when cold (cannot be used on previous models)**

**- new water counter with integrated filter, higher precision**

**- new material for hoses, longer life**

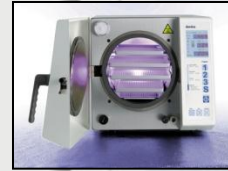
**- firmware may be upgraded from the service port using USB LOG**



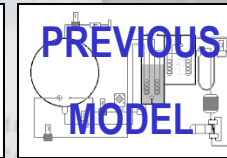
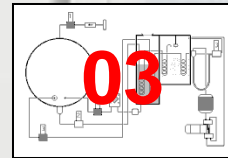


# Domina PLUS B

**INSTALLATION**



**WORKING DIAGRAMS**



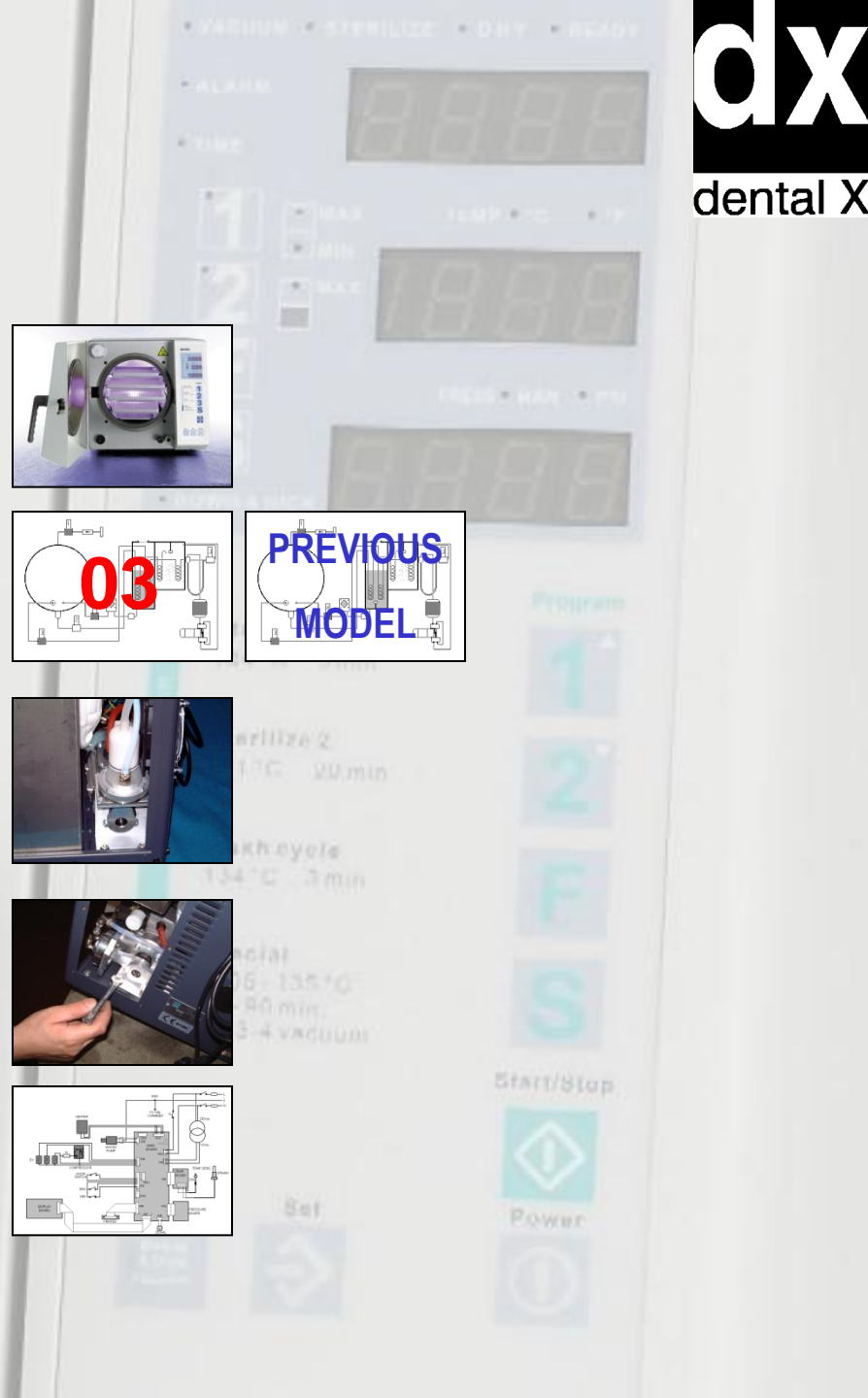
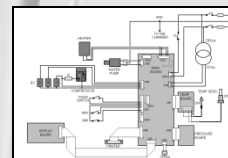
**INTERNAL VIEWS**



**TROUBLESHOOTING**



**WIRING DIAGRAMS**



# EEPROM MAP

adr.	description
0	cycle counter lsb
1	cycle counter
2	cycle counter msb
3	abort counter lsb
4	abort counter
5	abort counter msb
6	3th alarm
7	2nd alarm
8	1st alarm
9	temperature sp5
a	time sp5
b	program selection
c	temperature unit, language
d	pressure unit,sp selection
e	BLACK OUT memory
f	CD alarms memory
14	dry time
15	vent time
16	altitude (*100)
17	temperature offset (0=10 HEX or 16 DEC)
18	pressure offset (0=10 HEX or 16 DEC)
19	tipo (model selection) L on Loff
1a	need cleaning counter
1b	cleaning counter
30	installation day
31	installation month
32	installation year
33	pressure peak
34	steam temperature peak
35	upper temperature peak
36	lower temperature peak
37	peak cycle lsb
38	peak cycle
39	peak cycle msb
3a	peak cycle temperature set
3b	peak cycle vacuum phases
40	last service day
41	last service month
42	last service year
43	need service counter msb
44	need service counter lsb
53	serial number lsb
54	serial number
55	serial number msb
56	production day
57	production month
58	production year
60	comment
61	comment
62	comment
63	comment
64	comment
65	comment
66	comment
67	comment
68	comment
69	comment
6A	comment
6B	comment
70	comment
71	comment
72	comment
73	comment
74	comment
75	comment
76	comment

# HEXADECIMAL-DECIMAL CONVERSION

0 0	0	4 0	64	8 0	128	c 0	192
0 1	1	4 1	65	8 1	129	c 1	193
0 2	2	4 2	66	8 2	130	c 2	194
0 3	3	4 3	67	8 3	131	c 3	195
0 4	4	4 4	68	8 4	132	c 4	196
0 5	5	4 5	69	8 5	133	c 5	197
0 6	6	4 6	70	8 6	134	c 6	198
0 7	7	4 7	71	8 7	135	c 7	199
0 8	8	4 8	72	8 8	136	c 8	200
0 9	9	4 9	73	8 9	137	c 9	201
0 a	10	4 a	74	8 a	138	c a	202
0 b	11	4 b	75	8 b	139	c b	203
0 c	12	4 c	76	8 c	140	c c	204
0 d	13	4 d	77	8 d	141	c d	205
0 e	14	4 e	78	8 e	142	c e	206
0 f	15	4 f	79	8 f	143	c f	207
1 0	16	5 0	80	9 0	144	d 0	208
1 1	17	5 1	81	9 1	145	d 1	209
1 2	18	5 2	82	9 2	146	d 2	210
1 3	19	5 3	83	9 3	147	d 3	211
1 4	20	5 4	84	9 4	148	d 4	212
1 5	21	5 5	85	9 5	149	d 5	213
1 6	22	5 6	86	9 6	150	d 6	214
1 7	23	5 7	87	9 7	151	d 7	215
1 8	24	5 8	88	9 8	152	d 8	216
1 9	25	5 9	89	9 9	153	d 9	217
1 a	26	5 a	90	9 a	154	d a	218
1 b	27	5 b	91	9 b	155	d b	219
1 c	28	5 c	92	9 c	156	d c	220
1 d	29	5 d	93	9 d	157	d d	221
1 e	30	5 e	94	9 e	158	d e	222
1 f	31	5 f	95	9 f	159	d f	223
2 0	32	6 0	96	a 0	160	e 0	224
2 1	33	6 1	97	a 1	161	e 1	225
2 2	34	6 2	98	a 2	162	e 2	226
2 3	35	6 3	99	a 3	163	e 3	227
2 4	36	6 4	100	a 4	164	e 4	228
2 5	37	6 5	101	a 5	165	e 5	229
2 6	38	6 6	102	a 6	166	e 6	230
2 7	39	6 7	103	a 7	167	e 7	231
2 8	40	6 8	104	a 8	168	e 8	232
2 9	41	6 9	105	a 9	169	e 9	233
2 a	42	6 a	106	a a	170	e a	234
2 b	43	6 b	107	a b	171	e b	235
2 c	44	6 c	108	a c	172	e c	236
2 d	45	6 d	109	a d	173	e d	237
2 e	46	6 e	110	a e	174	e e	238
2 f	47	6 f	111	a f	175	e f	239
3 0	48	7 0	112	b 0	176	f 0	240
3 1	49	7 1	113	b 1	177	f 1	241
3 2	50	7 2	114	b 2	178	f 2	242
3 3	51	7 3	115	b 3	179	f 3	243
3 4	52	7 4	116	b 4	180	f 4	244
3 5	53	7 5	117	b 5	181	f 5	245
3 6	54	7 6	118	b 6	182	f 6	246
3 7	55	7 7	119	b 7	183	f 7	247
3 8	56	7 8	120	b 8	184	f 8	248
3 9	57	7 9	121	b 9	185	f 9	249
3 a	58	7 a	122	b a	186	f a	250
3 b	59	7 b	123	b b	187	f b	251
3 c	60	7 c	124	b c	188	f c	252
3 d	61	7 d	125	b d	189	f d	253
3 e	62	7 e	126	b e	190	f e	254
3 f	63	7 f	127	b f	191	f f	255



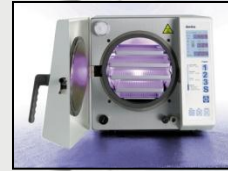
# EEPROM MAP EXAMPLE

ADDRESS	VALUE	HEX-DEC CONV.	DESCRIPTION	RESULT
0 0	19	25		
0 1	02	2	CYCLE COUNTER	225
0 2	00	0		
0 3	11	17		
0 4	01	1	ABORT COUNTER	117
0 5	00	0		
0 6	07	7		
0 7	07	7	LAST ALARMS	7 7 7
0 8	07	7		
0 9	79	121	S CYCLE TEMPERATURE	121°C
0 a	3C	60	S CYCLE TIME	60 min
0 b	A0	160	PROGRAM SELECTION	NOT USEFUL
0 c	10	16	SETS	NOT USEFUL
0 d	30	48		
0 e	01	1	BLACK OUT ALARM	DONE
0 f	04	4	LAST CD ALARM	CD4
1 0	FF	255		
1 1	FF	255		
1 2	FF	255	NOT USED	NOT USEFUL
1 3	FF	255		
1 4	6	6	DRY TIME (only in some models)	6 min
1 5	4	4	VENT TIME (only in some models)	4 min
1 6	01	1	ALTITUDE IN METERS X100	100 m
1 7	10	16	TEMPERATURE OFFSET	0 NOTE: 0 IS -4°C, 32 IS +4°C
1 8	10	16	PRESSURE OFFSET	0 NOTE: 0 IS -0,04 BAR, 32 IS +0,04 BAR
1 9	04	4	MODEL AND L on SETUP (only in some models)	SIRONA L ON
1 a	31	49	NEED CLEANING COUNTER	THE MESSAGE WILL APPEAR AFTER 49 CYCLES
1 b	02	2	CLEANING CYCLE COUNTER	2
1 c	FF	255		
1 d	FF	255		
1 e	FF	255		
1 f	FF	255		
2 0	FF	255		
2 1	FF	255		
2 2	FF	255		
2 3	FF	255		
2 4	FF	255		
2 5	FF	255		
2 6	FF	255	NOT USED	NOT USEFUL
2 7	FF	255		
2 8	FF	255		
2 9	FF	255		
2 a	FF	255		
2 b	FF	255		
2 c	FF	255		
2 d	FF	255		
2 e	FF	255		
2 f	FF	255		
3 0	27	*	INSTALLATION DAY	
3 1	11	*	INSTALLATION MONTH	27 NOVEMBER 2002
3 2	02	*	INSTALLATION YEAR	*NOTE: EX-DEC CONVERSION NOT REQUIRED
3 3	9A	154	PRESSURE PEAK (absolute press/2 in Kpa)	2,08 bar (((154X2)/100)-1)
3 4	87	135	STEAM TEMPERATURE PEAK	135°C
3 5	89	137	UPPER TEMPERATURE PEAK	137°C
3 6	88	136	LOWER TEMPERATURE PEAK	136°C
3 7	0E	14	NUMBER OF THE CYCLE WHEN	
3 8	02	2	THE PEAK HAS HAPPENED	214
3 9	00	0		
3 a	86	134	TEMPERATURE SET OF THE PEAK CYCLE	134°C

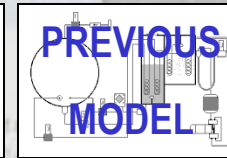
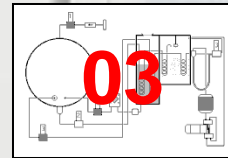
ADDRESS	VALUE	HEX-DEC CONV.	DESCRIPTION	RESULT
4 0	12	*	LAST SERVICE DAY	
4 1	12	*	LAST SERVICE MONTH	12 DECEMBER 2002
4 2	02	*	LAST SERVICE YEAR	*NOTE: EX-DEC CONVERSION NOT REQUIRED
4 3	09	9	NEED SERVICE CYCLES COUNTER	309
4 4	03	3		
4 5	FF	255		
4 6	FF	255		
4 7	FF	255		
4 8	FF	255		
4 9	FF	255		
4 a	FF	255		
4 b	FF	255	NOT USED	NOT USEFUL
4 c	FF	255		
4 d	FF	255		
4 e	FF	255		
4 f	FF	255		
5 0	FF	255		
5 1	FF	255		
5 2	FF	255		
5 3	04	4		
5 4	0B	11	SERIAL NUMBER	1104
5 5	00	0		
5 6	0F	15		
5 7	09	9	DATE OF PRODUCTION	15 SEPTEMBER 2001
5 8	01	1		
5 9	FF	255		
5 a	FF	255		
5 b	FF	255	NOT USED	NOT USEFUL
5 c	FF	255		
5 d	FF	255		
5 e	FF	255		
5 f	FF	255		
6 0				
6 1				
6 2				
6 3				
6 4				
6 5				
6 6				
6 7				
6 8				
6 9				
6 a				
6 b			THESE FIELDS REQUIRE A SCII CODE TRANSLATION	
6 c				
6 d			COMMENT OF PRODUCTION	USE THE SERVICE SOFTWARE TO READ IT
6 e				
6 f				
7 0				
7 1				
7 2				
7 3				
7 4				
7 5				
7 6				
7 7				
7 8				
7 9				
7 a				
7 b				
7 c	FF	255		
7 d	FF	255	NOT USED	NOT USEFUL

# Domina PLUS B

**INSTALLATION**



**WORKING DIAGRAMS**



**INTERNAL VIEWS**



**TROUBLESHOOTING**



**WIRING DIAGRAMS**

