FRANCE
CONSEIL ÉLEVAGE

User Manual

ORI-COLLECTOR

with LELY Robot
A3, A3 Next and A4
Using 90 vials

Version 1.09

Nov 2013

Historial Version

Date	Version	Motif
1/10/2012	1.0	Initial Release
11/02/2013	1.07	Version with maintenance
19/09/2013	1.08	Version with new maintenance
20/11/2013	1.09	Version last renumbering

Contents

1. INTRODUCTION

1.1. Information about this user manual

The manufacturer reserves the right to modify the manufacturing of the Ori-Collector in the case of improvement.
All reproductions, translations or copies require the manufacturer's consent.
This manual shall always be within reach of the Ori-Collector's user.

1.2. Manufacturer's address

Sayca sl
c/Rumania, 5 nave d-15 –Polígono Industrial Inbisa Alcalá I
28802 - Alcalá de Henares – MADRID (Spain)
Tel.: (0034) 645811182

1.3. Sales and After-sales Service

Sales and After-sales service is provided by:

Comatel
Maison du lait
42 rue de Chateaudun
75009 Paris

2. SAFETY

2.1. The User's Responsibility

The design and realization of the Ori-Collector took into account the risk of danger in accordance with the appropriate standards, we guarantee complete security. This security can only be achieved by the user in accordance with the safety instructions.
It is the responsibility of the user to ensure that the following measures are implemented:

- All persons who use the Ori-Collector must have read the manual.
- Users of the Ori-Collector shall always have access to the manual.
- Safety instructions shall always be adhered to.
- The product can only be used within the environment described.
- Safety devices should be checked regularly.
- Maintenance shall only be carried out by qualified personnel.
- Safety symbols, labels and stickers on the Ori-Collector should be replaced if lost or illegible.
- Untrained personnel cannot use the Ori-Collector. Prior training should always be provided.

2.2. Safety symbol

Any use of the Ori-Collector must be performed under maximum safety conditions.
The warning sign alerts the user of potential hazards s/he may encounter.

2.3. Safety instructions

- Prior to any utilization or maintenance operation, please refer to the user manual for the Ori-Collector.
- Ensure compliance with safety measures when using the Ori-Collector.
- Do not open or disassemble the Ori-Collector during use.
- Safety devices must remain in place.

3. DESCRIPTION OF THE ORI-COLLECTOR

3.1. Functions of the Ori-Collector

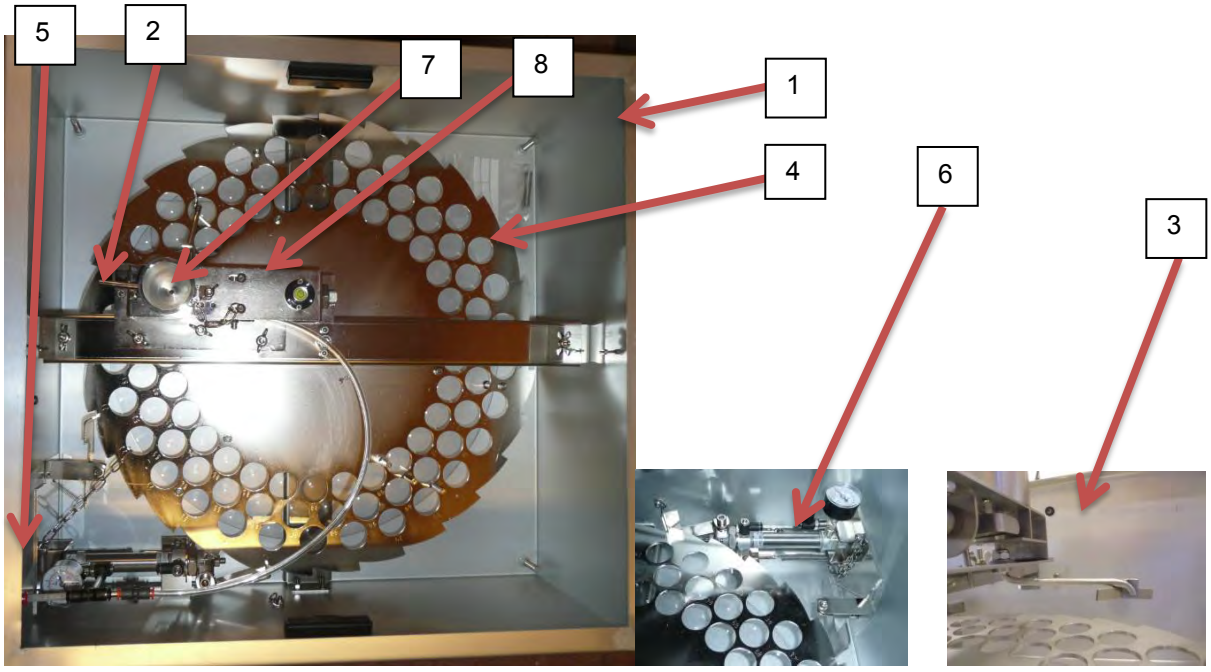
The Ori-Collector allows you to retrieve a sample of milk for each cow that is milked by means of a milking robot (A3 type and above).

The System provides 3 functions:

1. the transport of milk from the point of collection of the milking robot;
2. filling a calibrated milk sample;
3. the movement of the turntable that contains 90 samples.

3.2. Description of components

Figure 1: Main parts of the Ori-Collector



1	Protecting case	5	Compressed Air Hose
2	Milk intake point	6	Cylinder for rotating the Crown
3	Filling nozzle	7	Buffer vessel for the milk
4	Drive Crown and 90 bottles support	8	Filling activating cylinder.

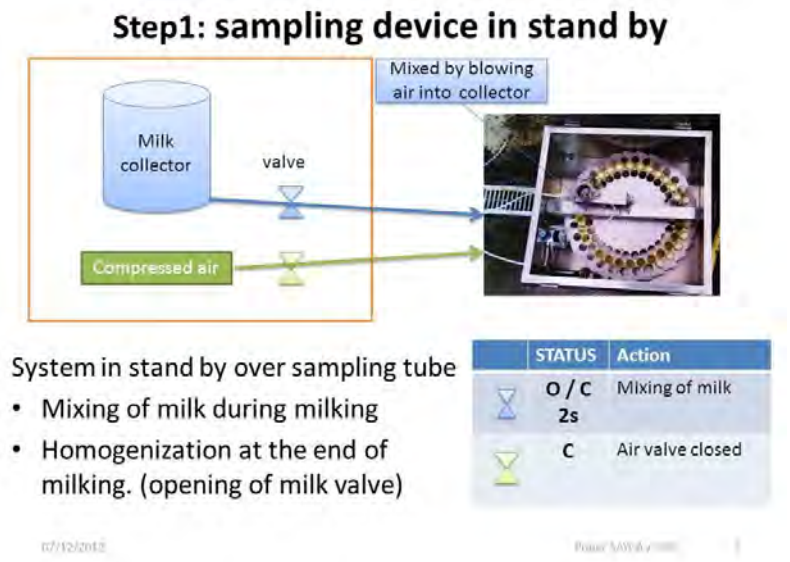
The Ori-Collector sampler is a rotating system in which the set of samples is in motion, in order to maintain the filling system fixed.
Its main parts are presented in Figure 1.
The system (1) is easily transportable, and must be supplied with compressed air (5). It consists of a double crown (4), the upper part in stainless steel, the bottles, and the lower part in PVC which serves as a support.
The upper part is crenellated, allowing it to move by means of a pneumatic cylinder (6). Milk (2) taken from the milking robot is sent to a calibrated buffer tank (7), the cylinder (8) is activated to carry out the filling of the bottle via the filling nozzle (3).

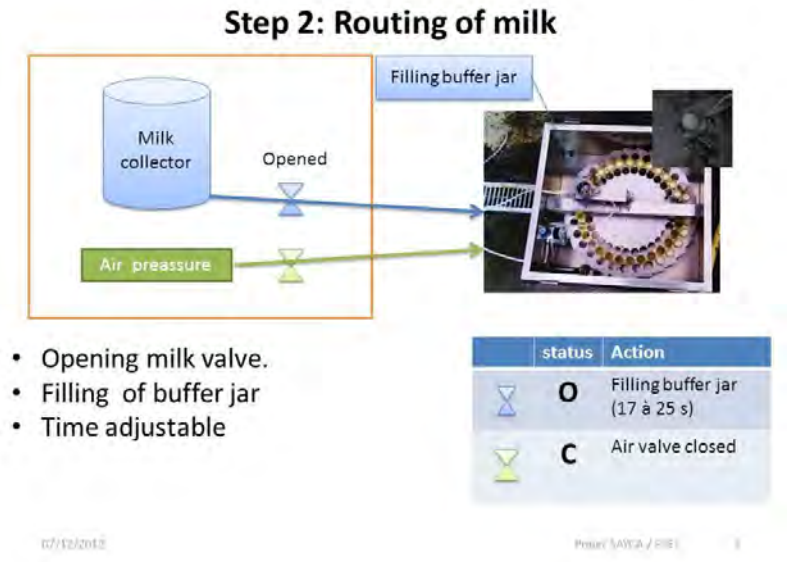
3.3. Functioning

The system works in 5 stages:

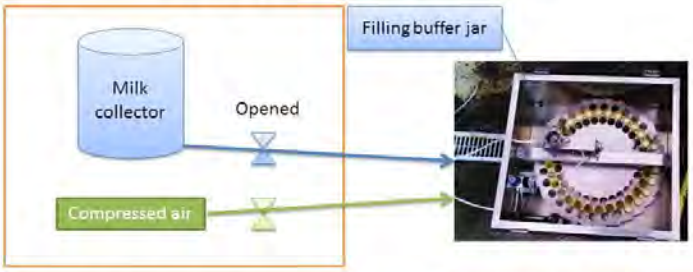
1 Waiting for the sample
2 Transport of milk
3 Sample calibration
4 Filling the bottles
5 Moving the samples

The system uses the robot controls by compressed air, and transports the milk by gravity into the sampler.





step 3: Calibration of sample

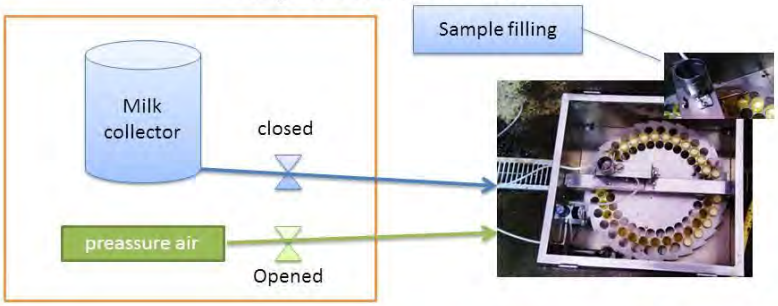


- Opening milk pipe valve
- Suction of milk surpluss in the buffer jar with vacuum from the milking system, through the same milk pipe valve.

	status	Action
	O	Suction of extra milk by vacuum
	C	Preassured air valve closed

07/12/2012 Projet SAYCA / FCEL 4

step 4 : filling of sample

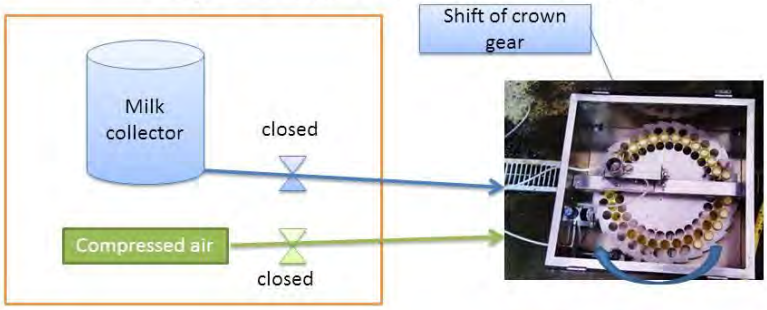


- Activation preassured air (Min 20s)
  - Opening valve for filling of sample
  - Activation cilinder for displacenet of crown gear.

	status	Action
	C	Closed vanne
	O	Preassured air valve opened

07/12/2012 Projet SAYCA / FCEL 5

step 5 : Displacement of crown gear



- Closing preassured air valve:
  - Clossing valve for filling the sample.
  - Shift of crown gear, with all the sample tubes.
  - Syatem ready for a new sample.

	status	Action
	C	Milk valve closed
	C	Preassured air valve closed.

07/12/2012 Projet SAYCA / FCEL 6

3.4. Specifications

Capacity	90 bottles, 30 /40 ml
Feed	Compressed air (Max : 6 Bar, Min : 4 Bar)
Dimensions	600x570x250 mm
Weight	15kg

3.5. Plate

The plate is attached on the side of the handle.

For any requests, please quote the serial number of the device.

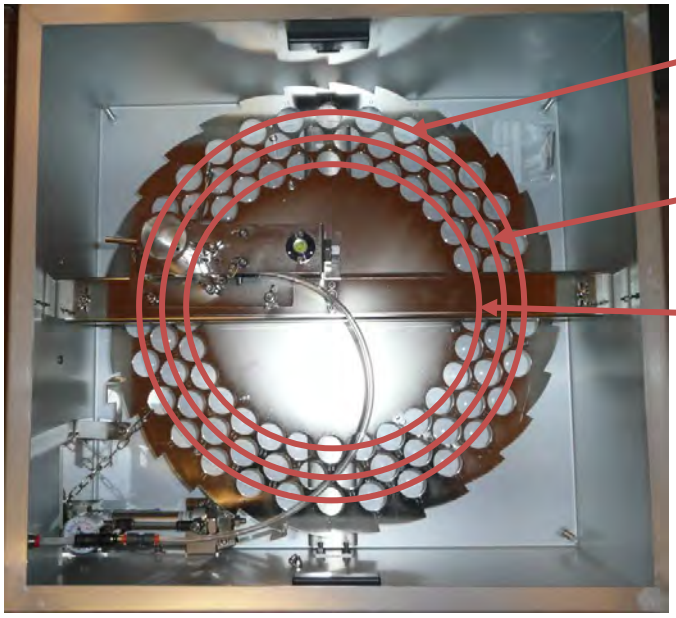
4. INSTRUCTIONS OF USE OF THE ORI-COLLECTOR

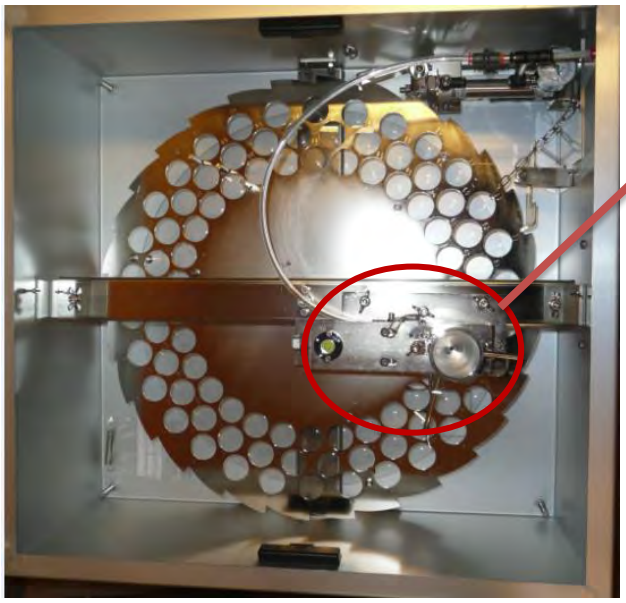
4.1. Assembly of the Ori-Collector

4.1.1. Preparation of the samples

The system is circular:

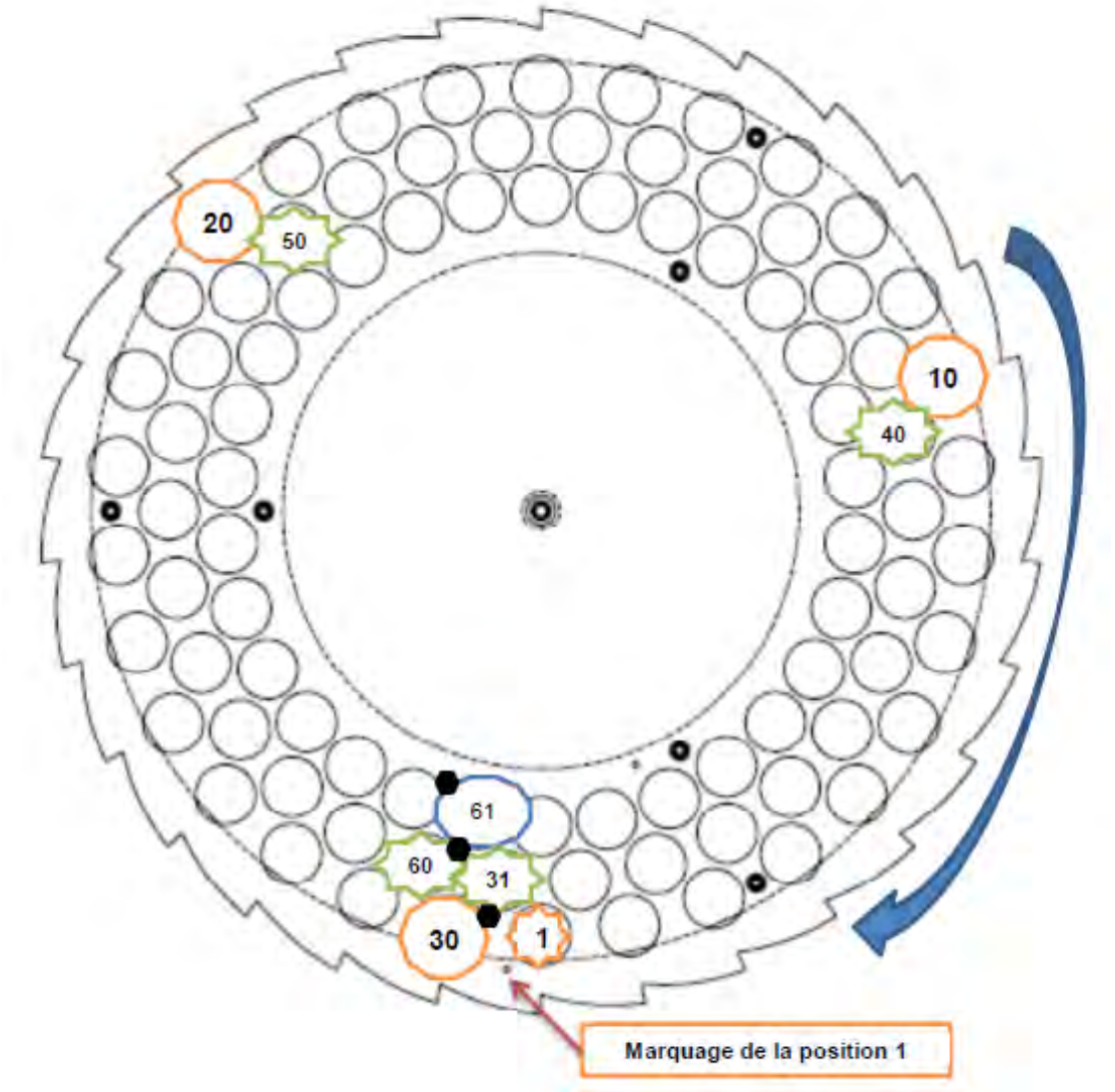
Outer ring	de 1 à 30
Middle ring	de 31 à 60
Inner ring	de 61 à 90



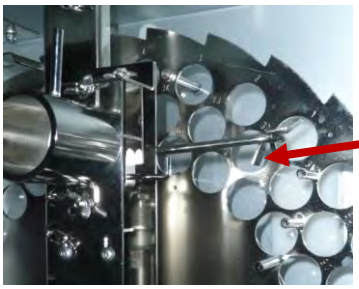


Load the bottles before connecting the robot

Diagram showing the loading of the bottles



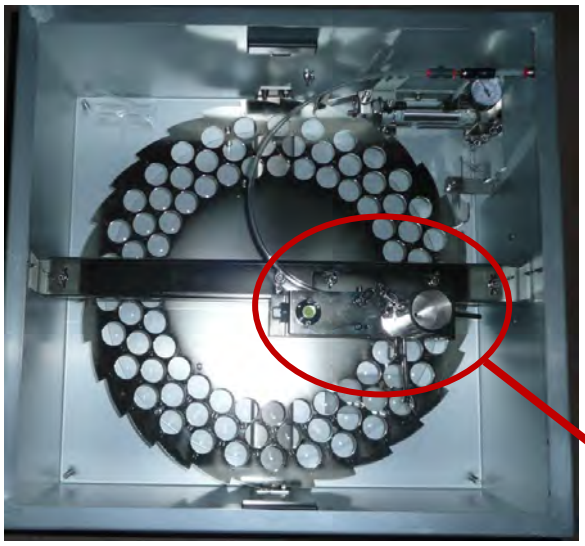
The crown is engraved with the corresponding sample numbers. It is important to number the bottles before filling the crown.



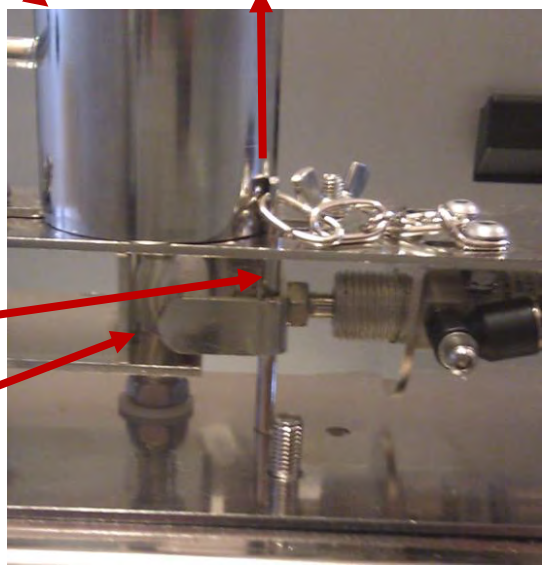
Important: Place the filling hose on sample 1

4.1.2. Unlocking the filling system

The system has a locking system for the filling of the bottles



Pull the pin upwards to activate the cylinder for the filling of the bottles



In order to avoid soliciting the **silicone hose** during the stages of transport and storage, a pin has been designed to bedraggle the system.

Pin

Silicone hose

Once the pin is removed, place it in the hole provided for this purpose

Pin in the Ori-Collector operating position

Please insert this pin in the hole when disassembling the Ori-Collector

4.1.3. Positioning in place of the Ori-Collector

It is recommended that the Ori-Collector is positioned next to the Robot, as close as possible.

After handling the Ori-Collector, please make sure that the protecting cover is put in place.

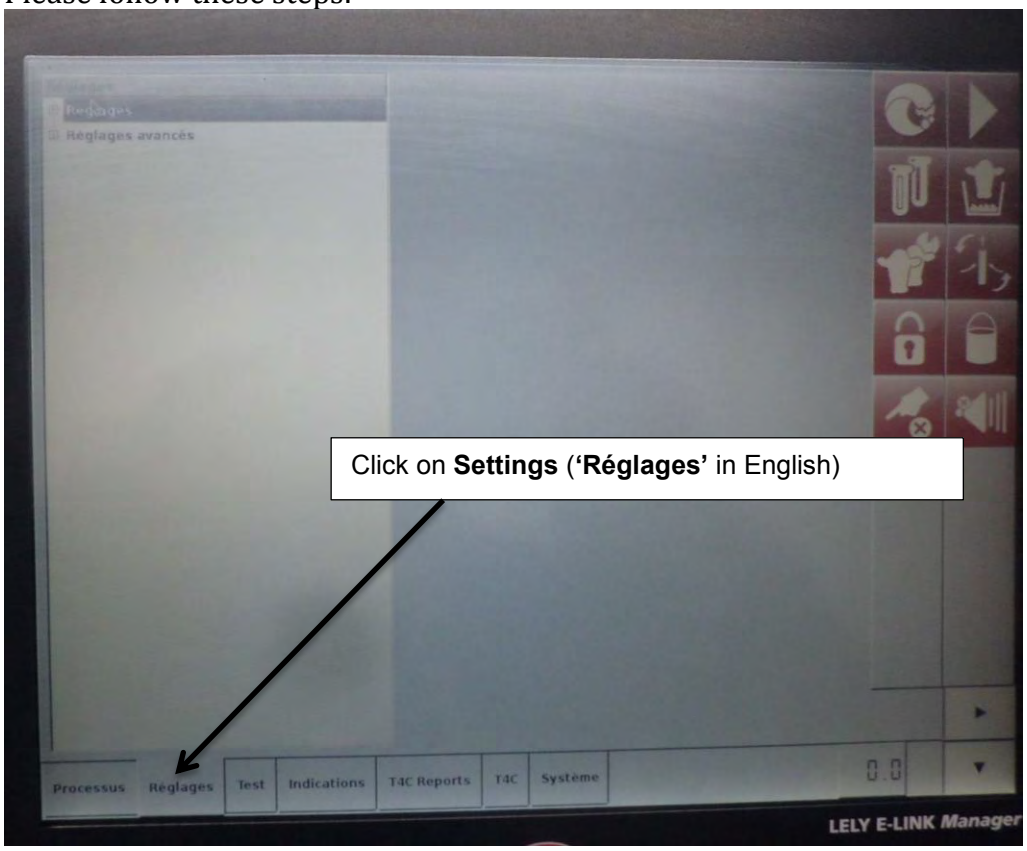
4.1.4. Levelling

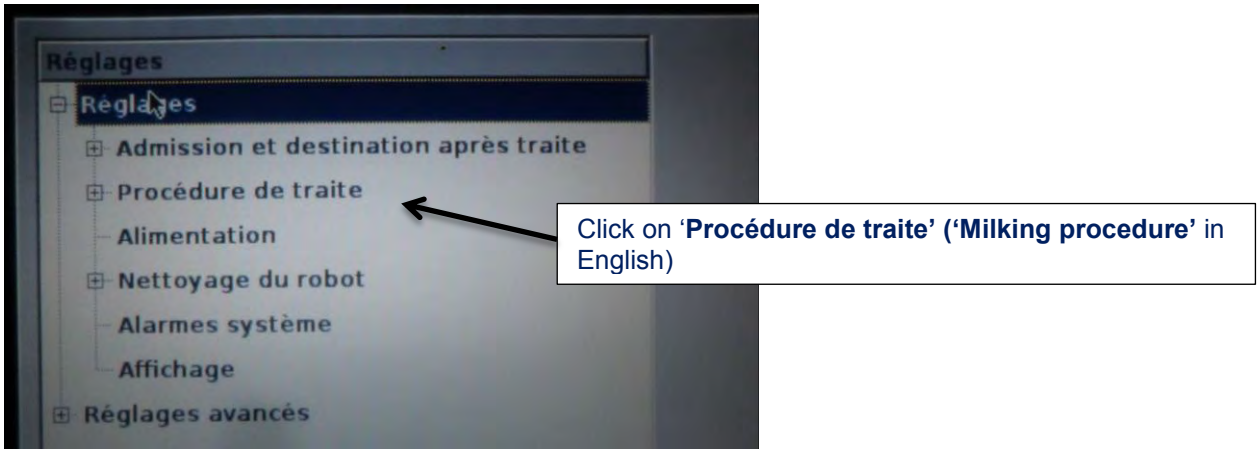
Levelling is achieved by means of **adjustable feet** which are controlled through the **level indicator**

4.2. Configuration of the Ori-Collector on the robot

The sampling parameters are changed on the X-Link robot console.

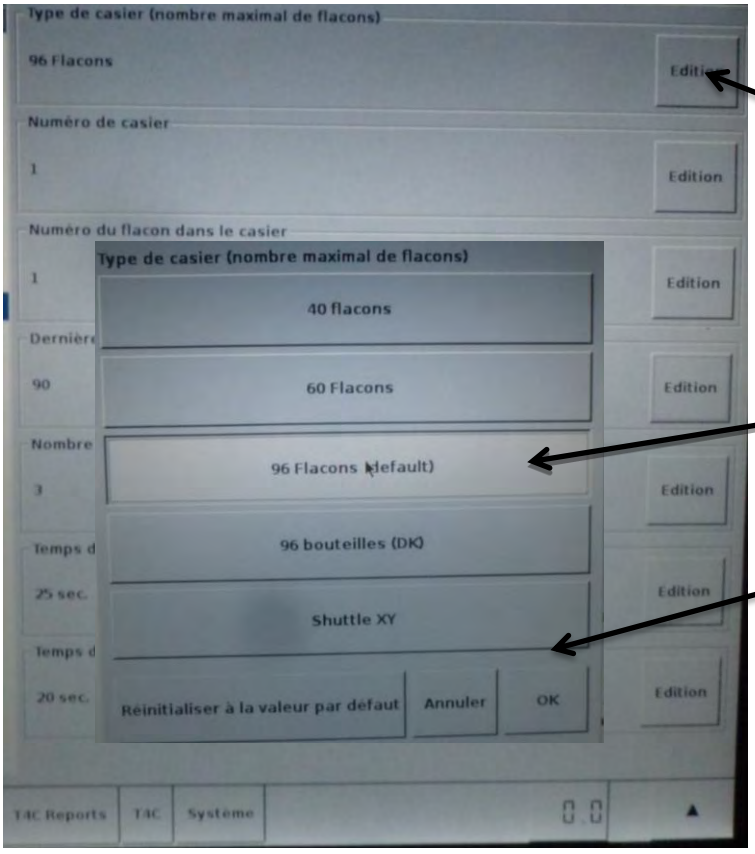
Please follow these steps:





Click on '**échantillonnage de lait**' (**'Milk sampling'** in English)

The following screen appears

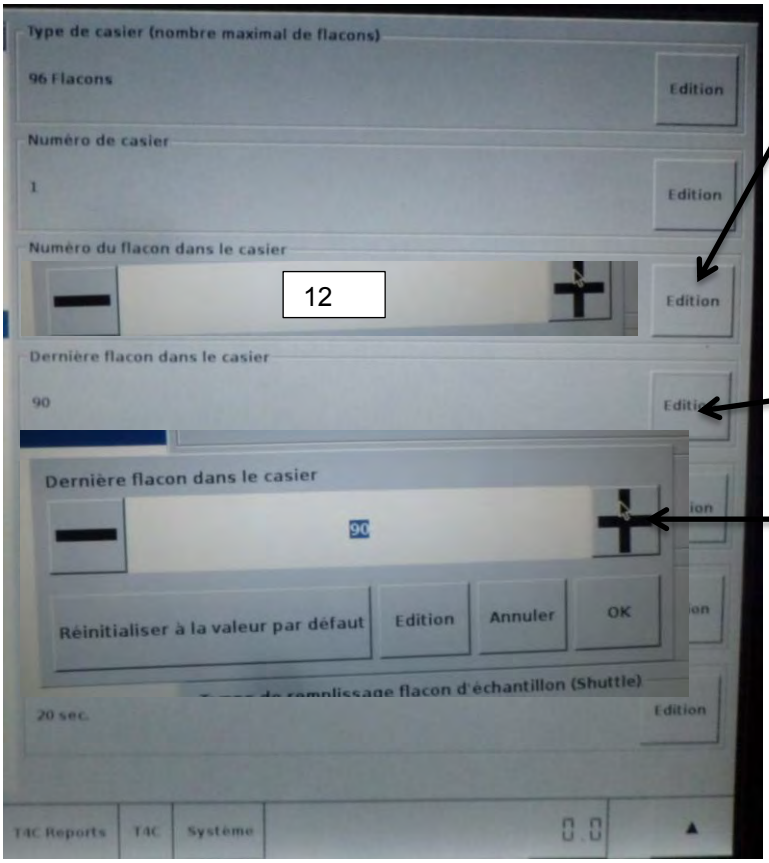


1 Click on '**Edition**' ('**Edit**' in English) to define the number of samples on the sampler.

2 Select '**96 Flacons**' **(default) ('96 Bottles (default)'** in English).

Define the sampling number

3 Click **OK**



1 Click on '**Edition' ('Edit'** in English) to define the **first vial in the locker**

2 Insert the value of **12** by clicking on **+**

3 Click **OK**

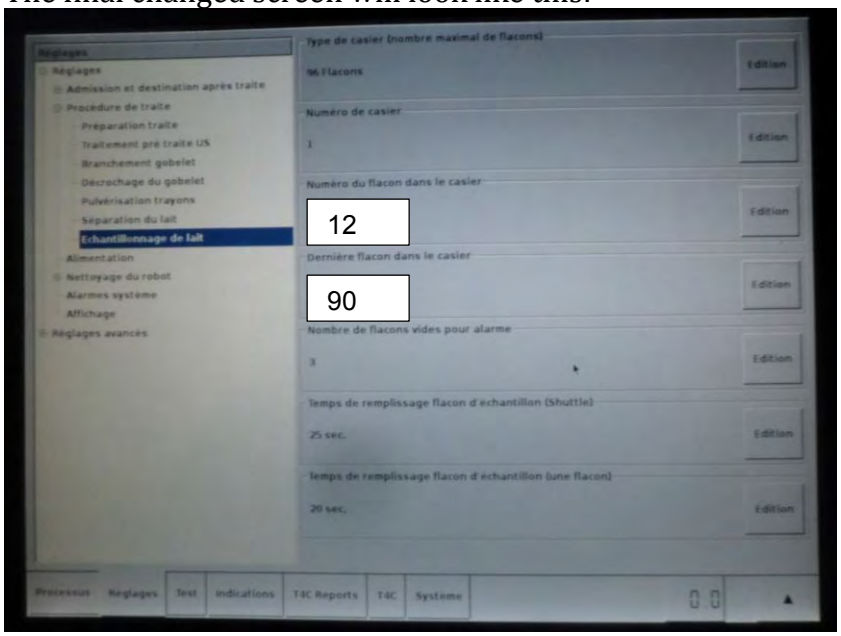
1 Click on '**Edition' ('Edit'** in English) to define **Last bottle in the locker and the first**

3 Insert the value of **90** by clicking on **+**

3 Click **OK**

The real number of bottles will be 90 Maximum with these settings (settings specificity of 96 bottles)

The final changed screen will look like this:



Once the settings have been defined, it is essential to completely turn off the robot in order to apply the new parameters to the system.
It is necessary to check the settings prior to every new use.

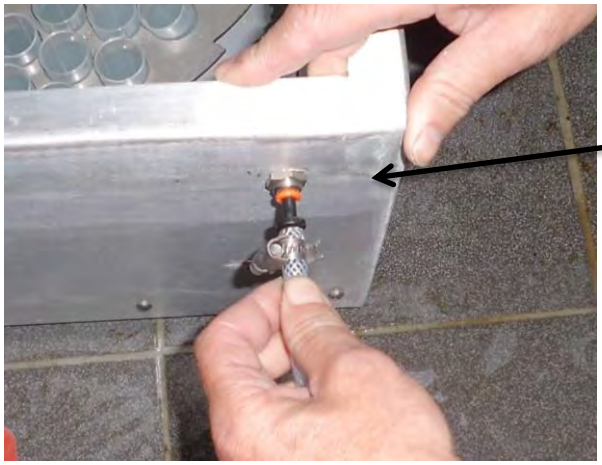
4.3. Connection of the Ori-Collector

4.3.1. Pneumatic connection

Please connect the compressed air feeding hose to the Ori-Collector

Pneumatic connection

Connect it to the Ori-Collector and to the robot



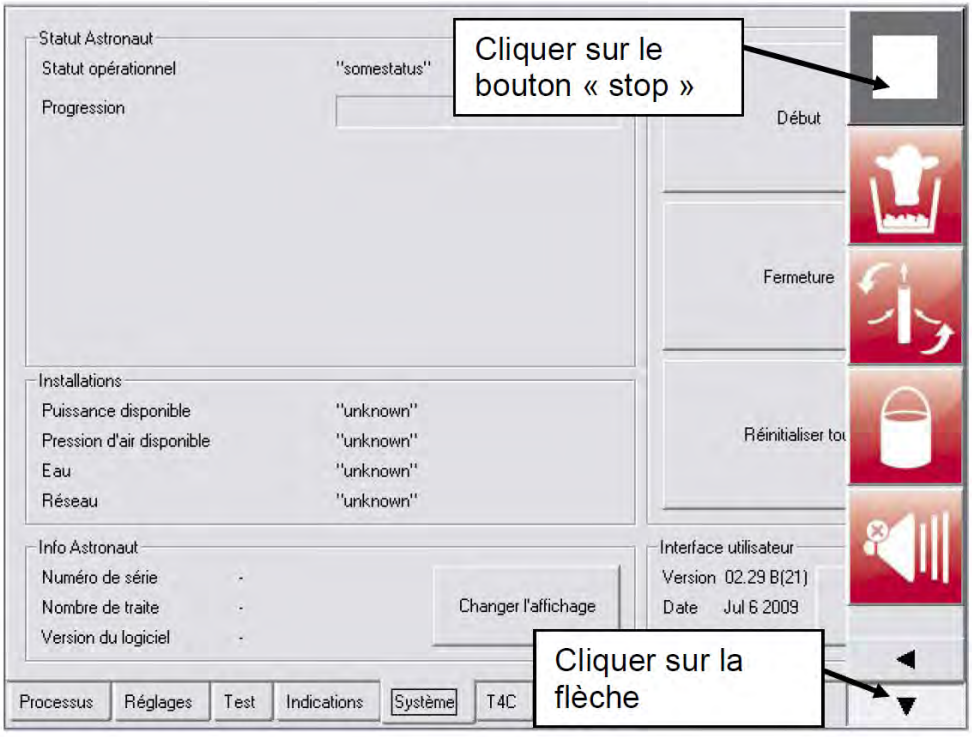
Connection on the Ori-Collector

Connection on the Robot

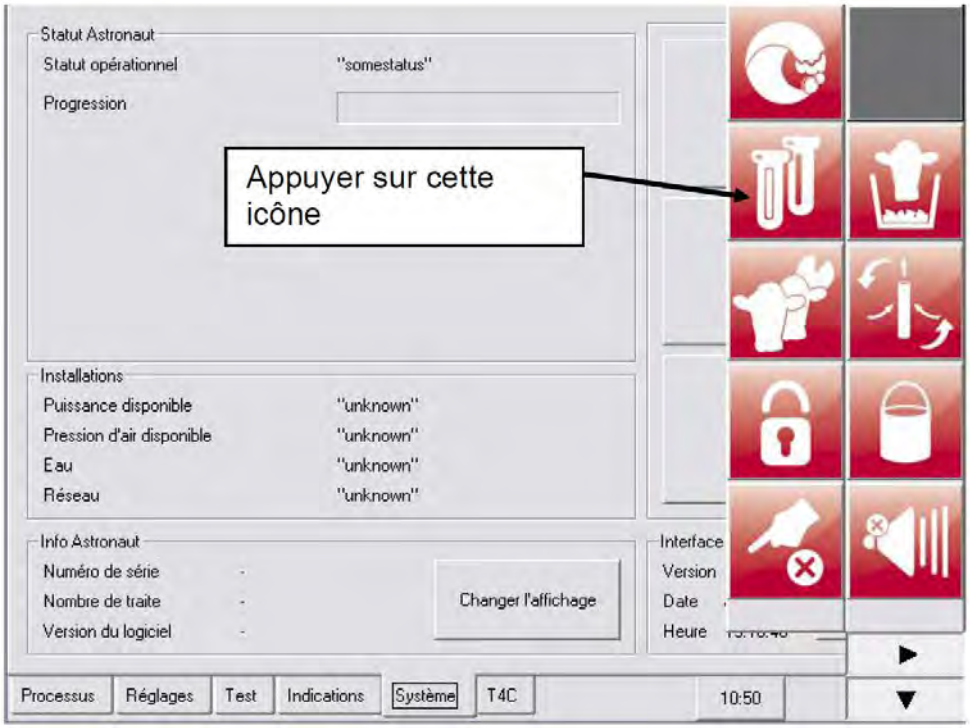
4.3.2. Milk hose connection

To accomplish this operation, please activate the opening of the milk grip of the robot on the robot screen.

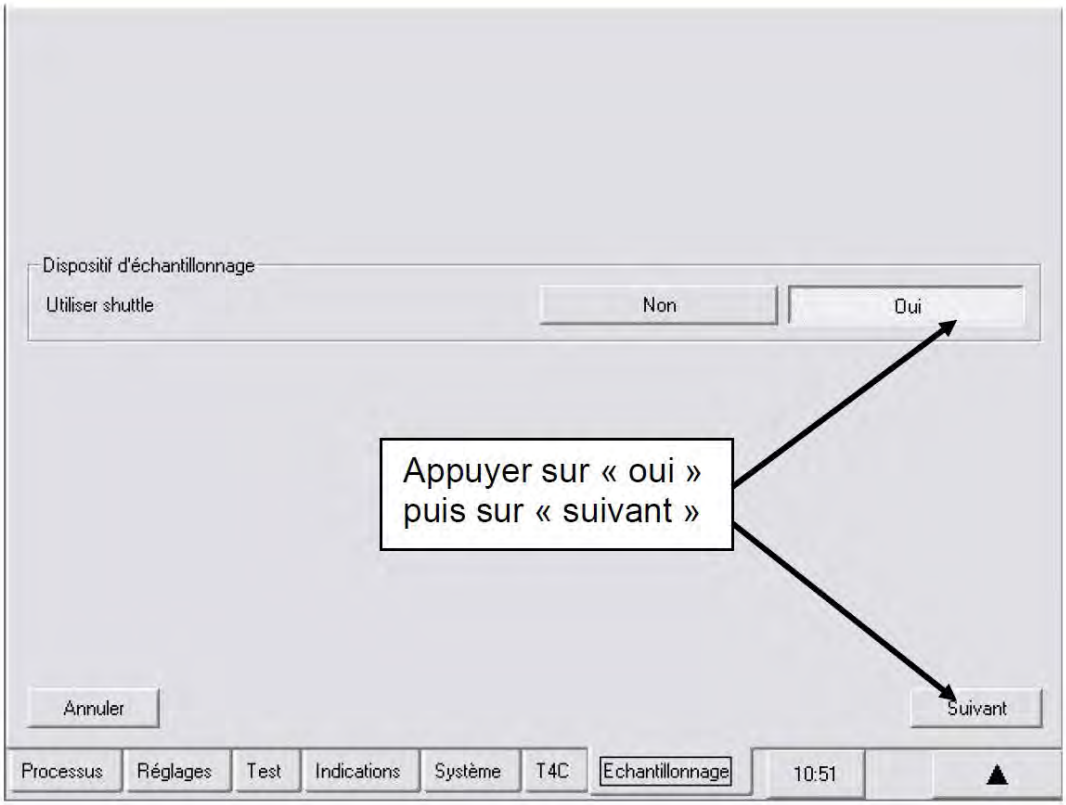
4.3.2.1 Pausing the milk connection by clicking Stop



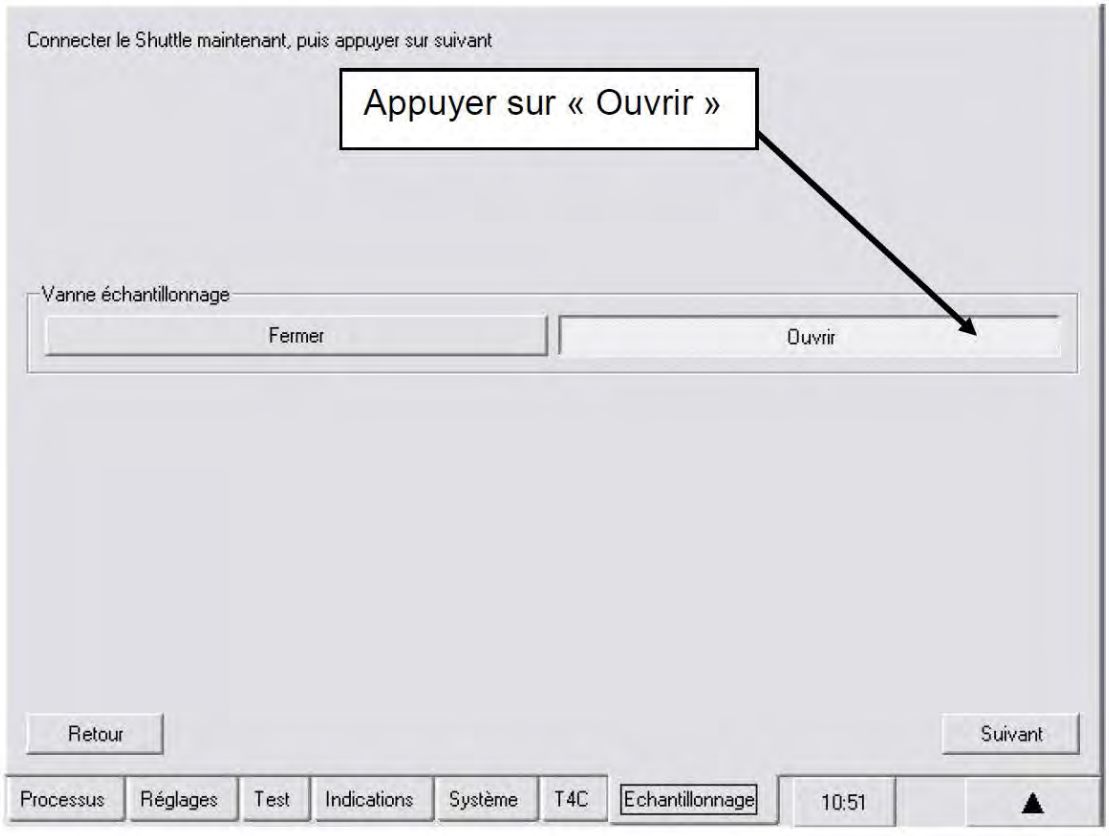
4.3.2.2 Waiting for the milking to finish



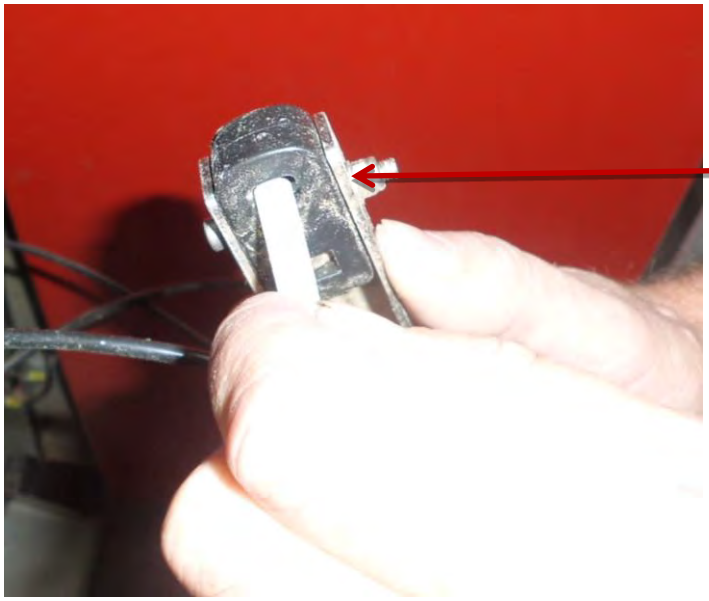
4.3.2.3 Activating sampling



4.3.2.4 Opening the sampling valve

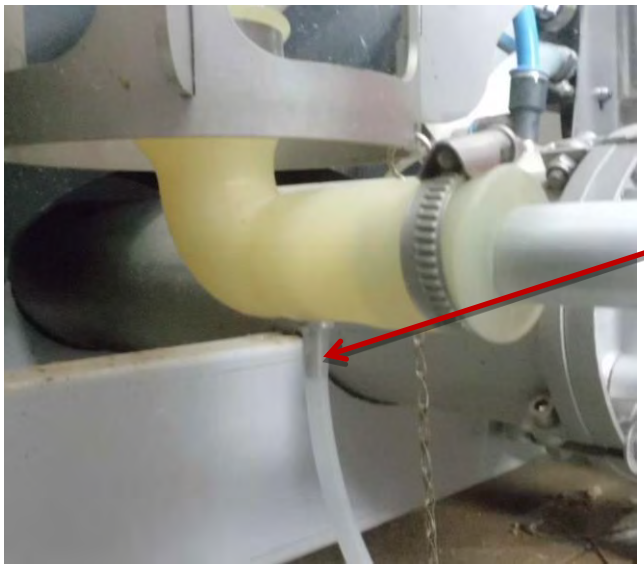


4.3.2.5 Connecting the Ori-Collector



Place the milk hose into the valve.

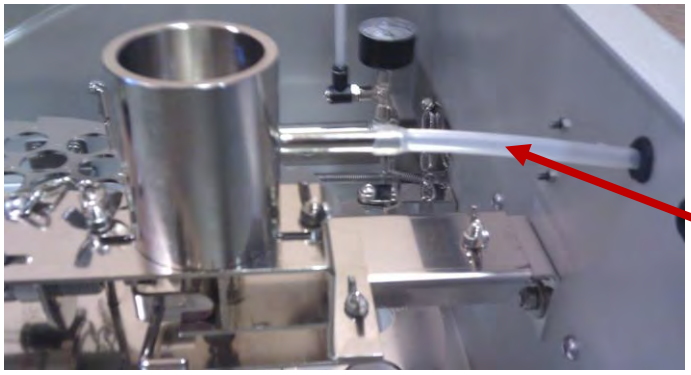
4.3.2.6 Connecting the outlet bend of the terminal unit



Connect the steel end piece to the outlet bend and to the milk hose

4.3.2.7 Connecting the Ori-Collector

Place the milk hose in the hole that is protected by a rubber ring



Connect the milk hose to the dosage system

Final installation with the Ori-Collector

Long milk hose:

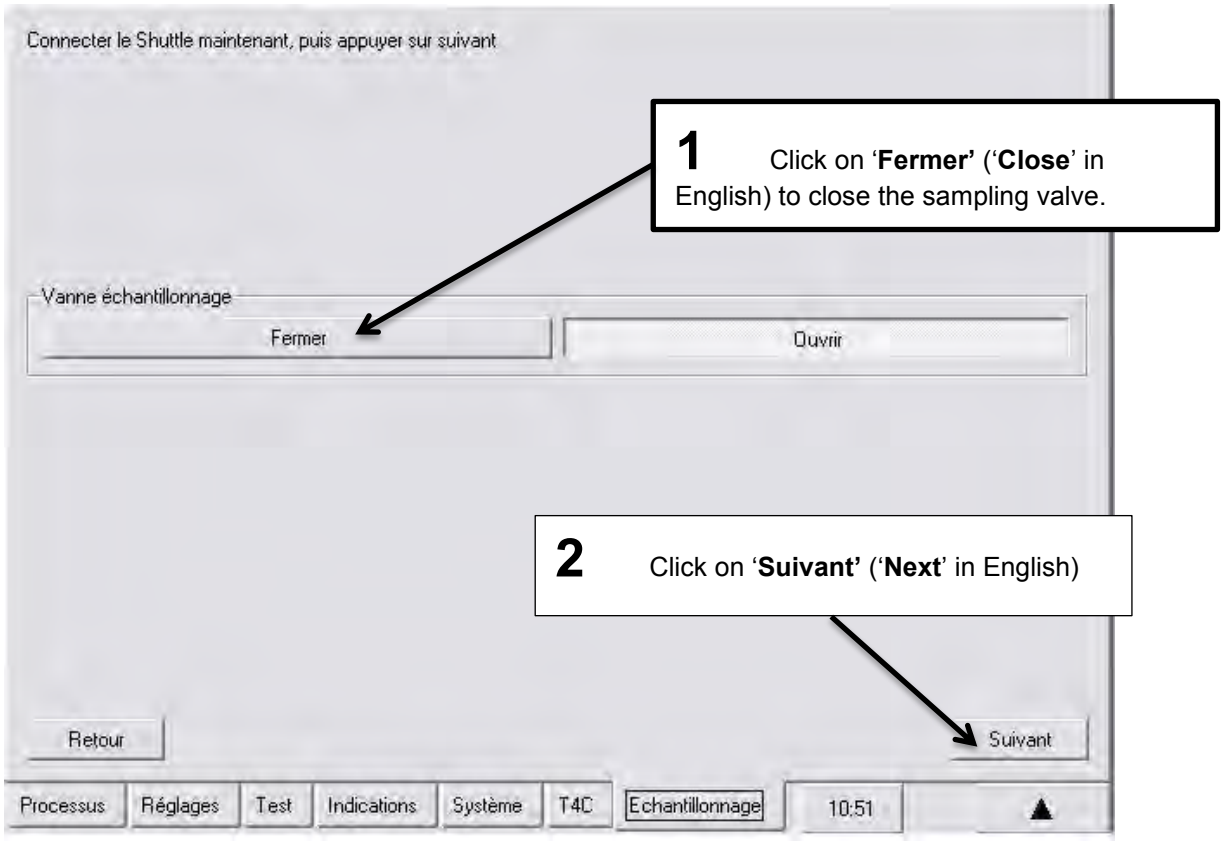
Recommended measurements: 1.5 to 2 metres **maximum**.

After handling the Ori-Collector, please make sure that the protecting cover is put in place.

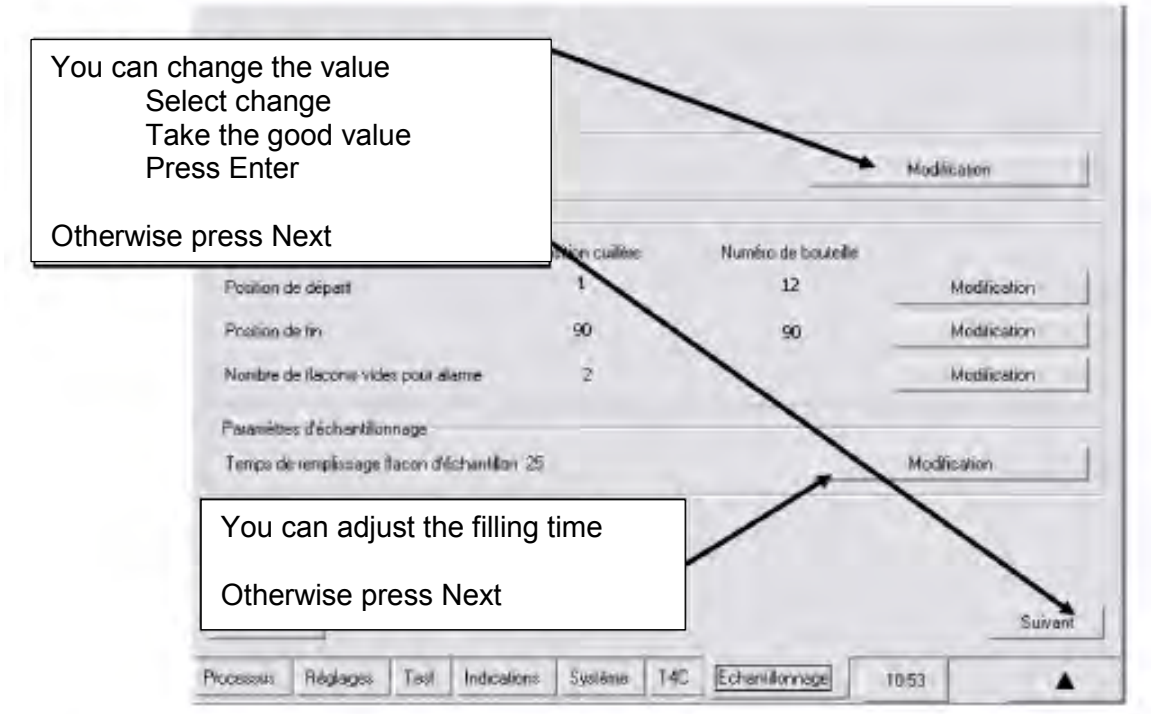
4.4. Programming the sampling

4.4.1. Programming with the X-Link Robot console

Return to the X-Link Robot console



The following screen appears:



To make the numbering of the baskets easier, we propose the following method:

1 Robot	
Robot	Panier
1	1
	2
	3

Laboratoire
Ordre Panier
1
2
3

2 Robot	
Robot	Panier
1	1
	3
	5
2	2
	4
	6

Laboratoire
Ordre Panier
1
2
3
4
5
6

3 Robot	
Robot	Panier
1	1
	4
	7
2	2
	5
	8
3	3
	6
	9

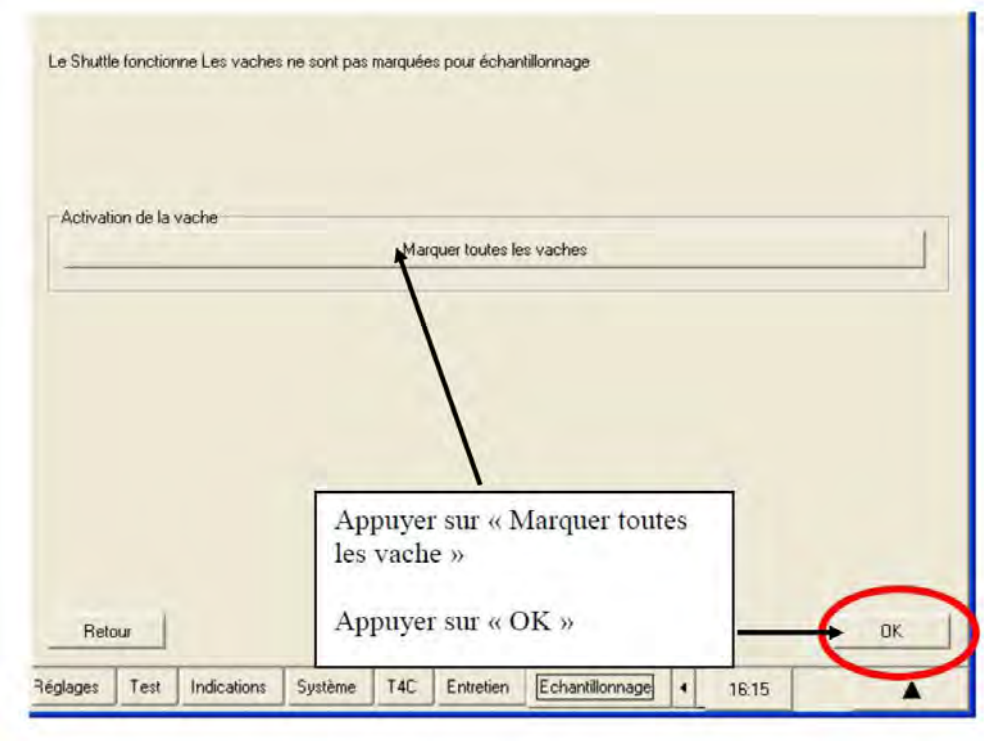
Laboratoire
Ordre Panier
1
2
3
4
5
6
7
8
9

4 Robot	
Robot	Panier
1	1
	5
	9
2	2
	6
	10
3	3
	7
	11
4	4
	8
	12

Laboratoire
Ordre Panier
1
2
3
4
5
6
7
8
9
10
11
12

Please indicate the robot number on the sampler by means of a paper placed on the plastic cover.
Please note the numbering is very important.

The following screen appears:

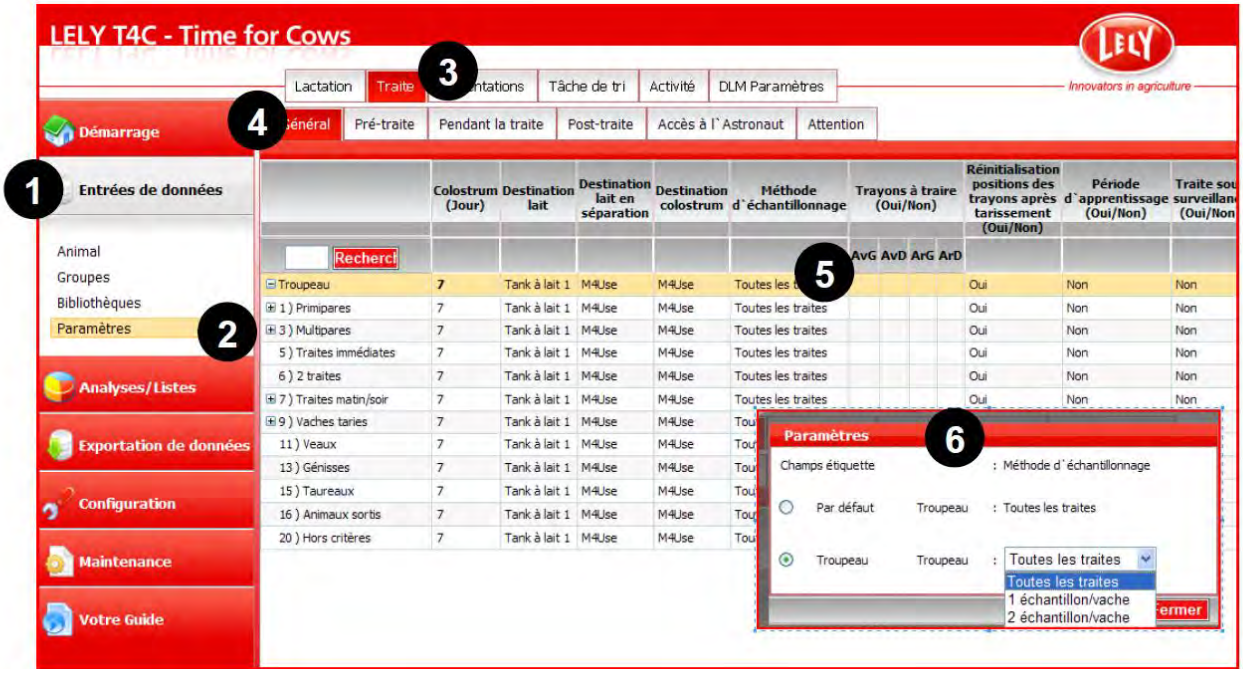


4.4.2. Activation of sampling with T4C

On the farming PC, open the application T4C 3.0.
Click on the tabs following this order:
- Data entry (1)
- Settings (2)

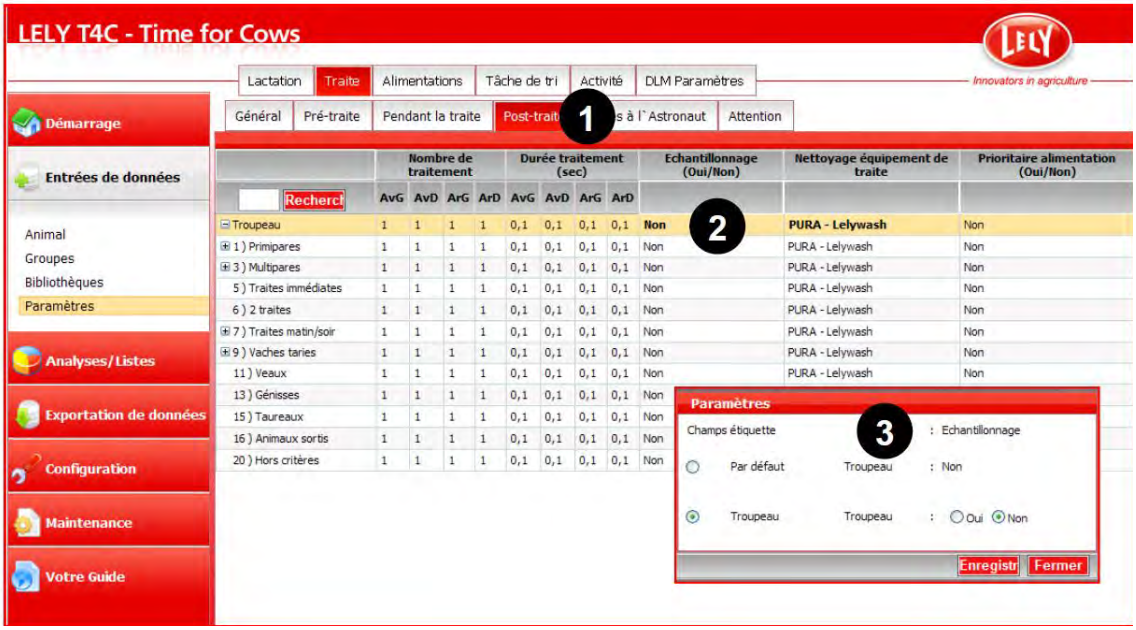
- Milking (3)
- General (4)

Click on the line « herd » within the column « Sampling method » (5) and select the sampling settings (6)



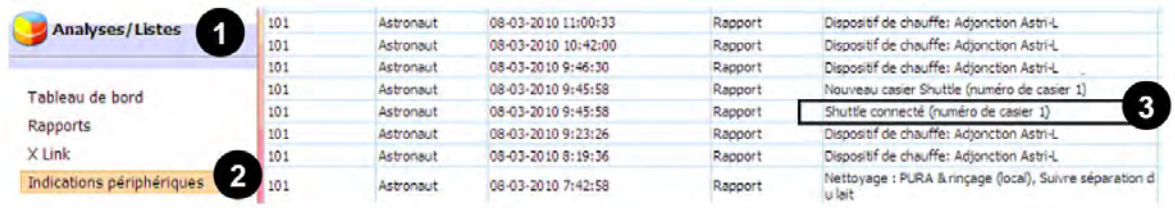
The Ori-Collector must be in place and the activation must be performed on the X-link before moving to the next stage!

In order to activate the sampling on T4C 3.0:
- Click on « Post –milking » (1)
- Next, click on the column « Sampling (yes/no) » of the line « Herd » (2)
- Select the settings and register (3)



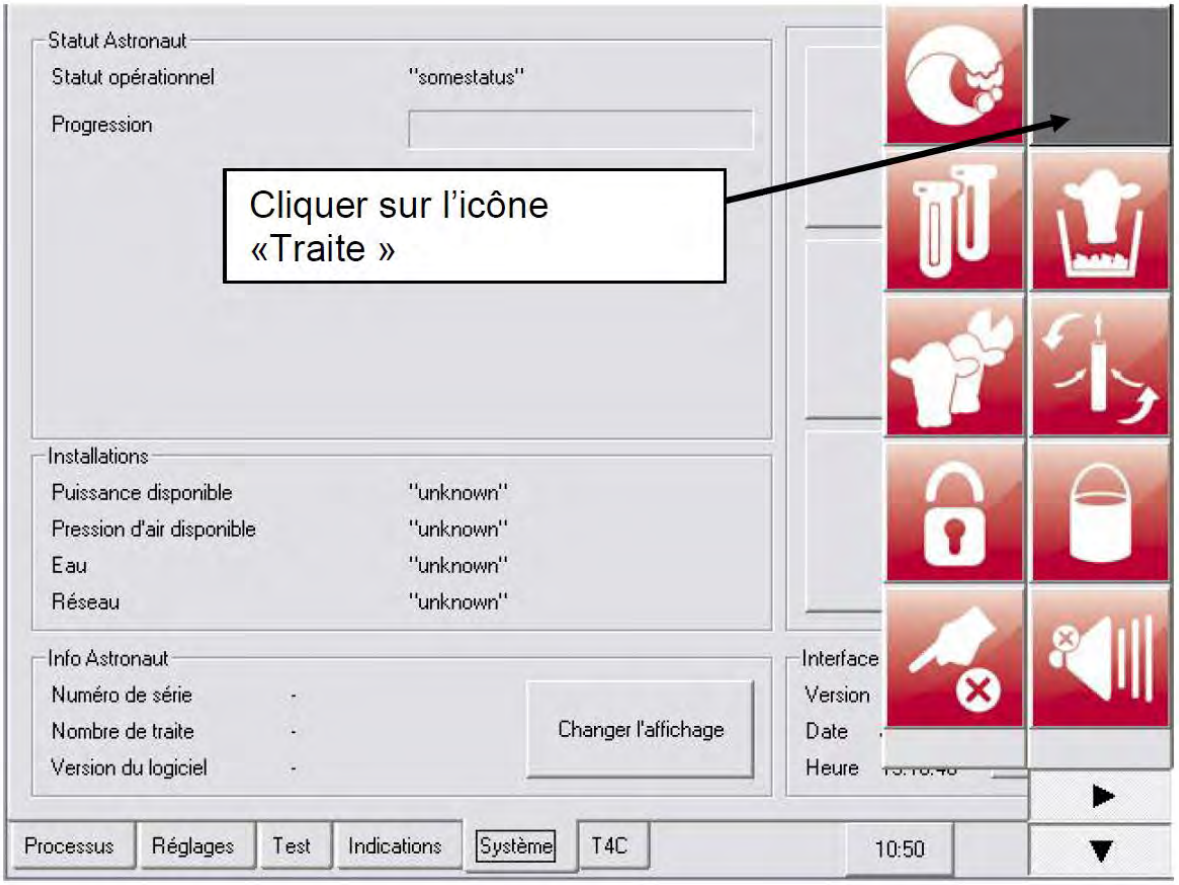
If the sampling process is correct, the message « Shuttle connected » will appear in the peripheral indications of T4C 3.0. To confirm this, go to:
- Analysis/Lists (1)
- Peripheral indications (2)
- Check that the indication is present (3)

-



4.5. Recovery of the milking

On the touch screen at the stall, allow again the access of cows to the robot



Check that the control works correctly (it is recommended to wait for the passage of a few cows). To do this, check the presence of milk in the first sample. Note the time of passage of the first cow (the time shown on the robot) and the identity of this cow.

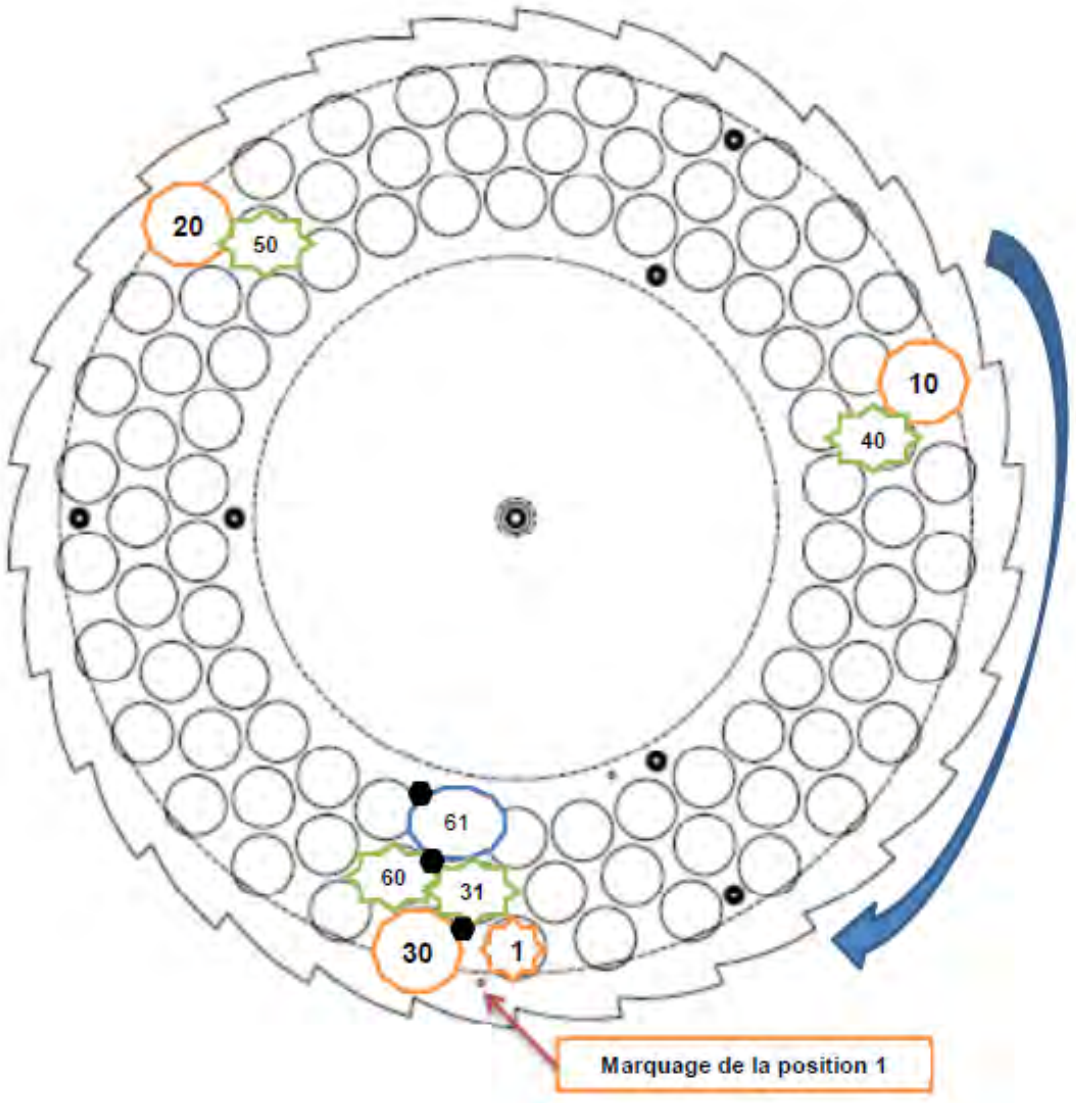
4.6. Reloading the Ori-Collector

Reload the Ori-Collector according to the usage of the robot (as a reference, 7h for a usage of 8 cows per hour).

Once the first 80 samples have been taken (at an average passage rate of 6 to 8 cows per hour):

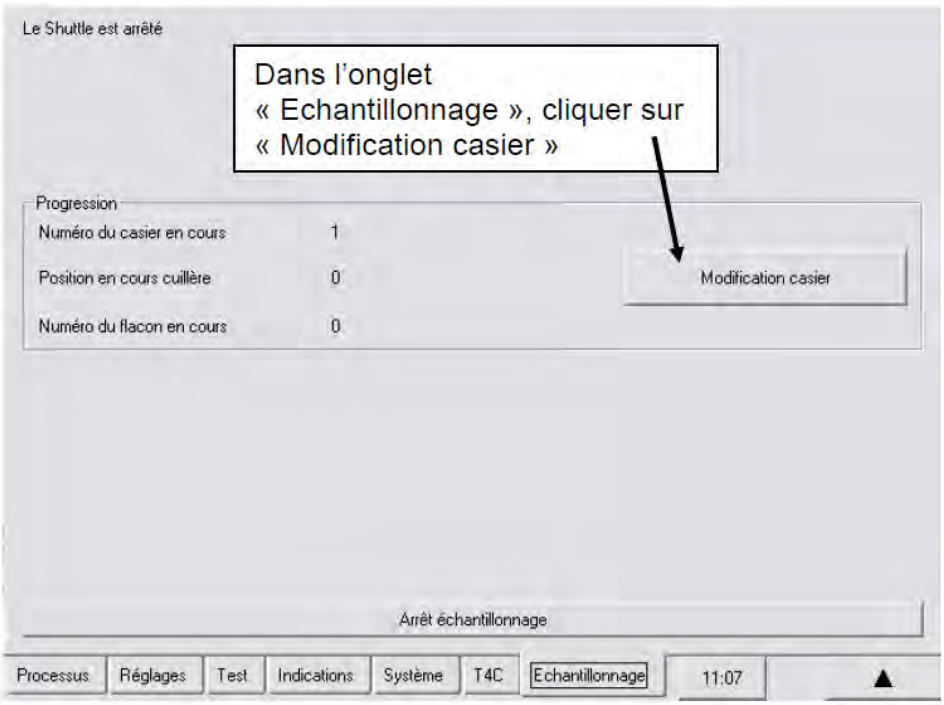
- Stop the operation of the robot by blocking the access doors for the cows on the X-link, as explained in section 3.2.1
- Wait until the milk reception unit (jar) is empty and the cow is released.
- Remove all the bottles from the Ori-Collector, loading them in the CL basket.

Caution, please follow the order of the bottles from position 1.
Please remove all the bottles from the outer ring first, then remove those from the middle ring, and then finish with the inner ring.
See the diagram below for the sequence of bottle collection.

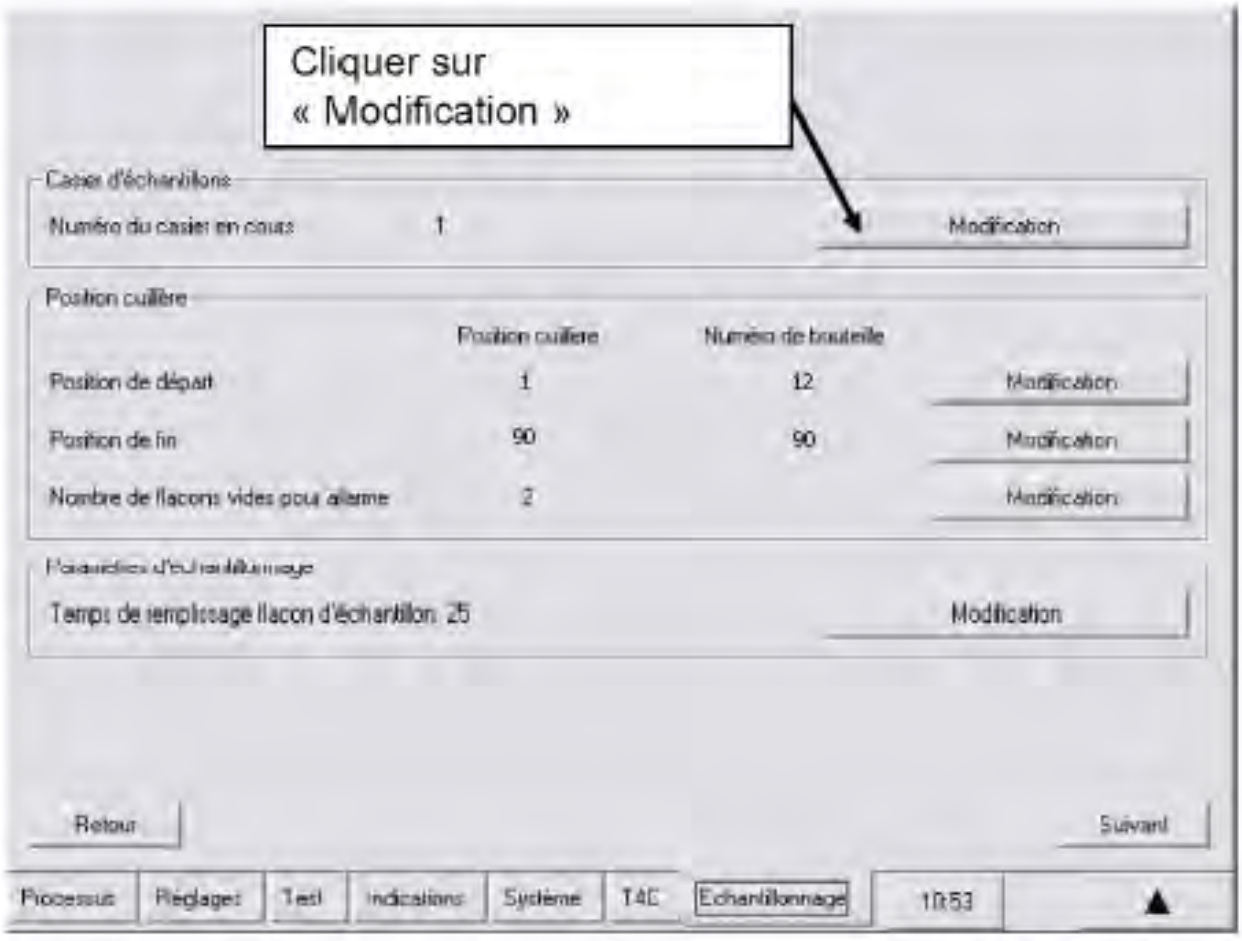


1 Note the time and sample number corresponding to the last milked cow of locker 1.
2 Note the time and number of the first cow of locker 2.

Next, perform the following operations:



The following screen appears



After handling the Ori-Collector, please make sure that the protecting cover is put in place.

Reminder about recommended numbering:

1 Robot	
Robot	Panier
1	1
	2
	3

Laboratoire
Ordre Panier
1
2
3

2 Robot	
Robot	Panier
1	1
	3
	5
2	2
	4
	6

Laboratoire
Ordre Panier
1
2
3
4
5
6

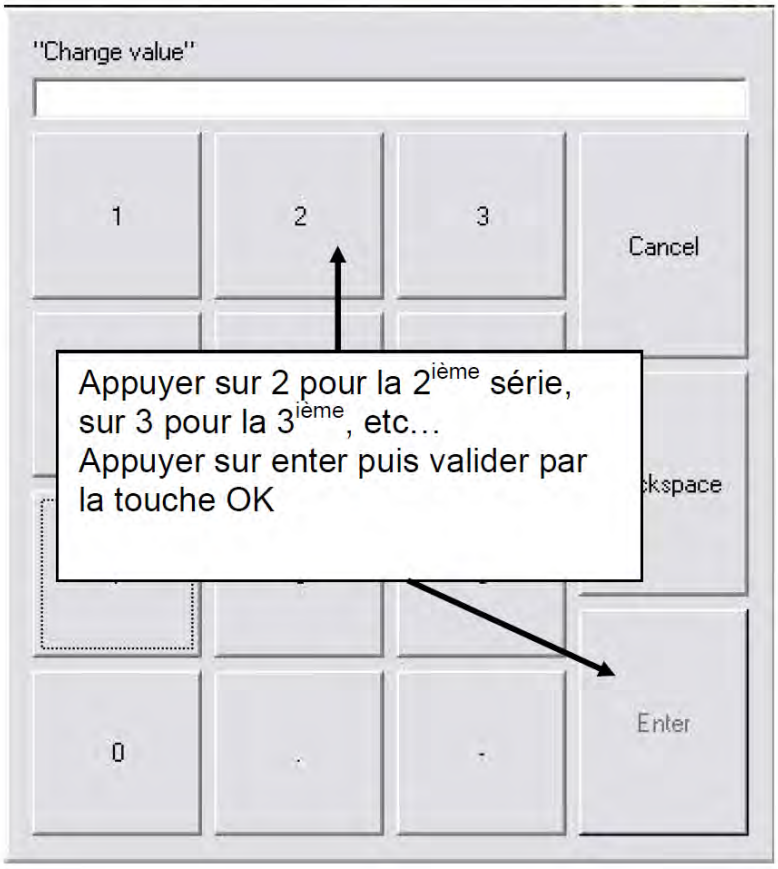
3 Robot	
Robot	Panier
1	1
	4
	7
2	2
	5
	8
3	3
	6
	9

Laboratoire
Ordre Panier
1
2
3
4
5
6
7
8
9

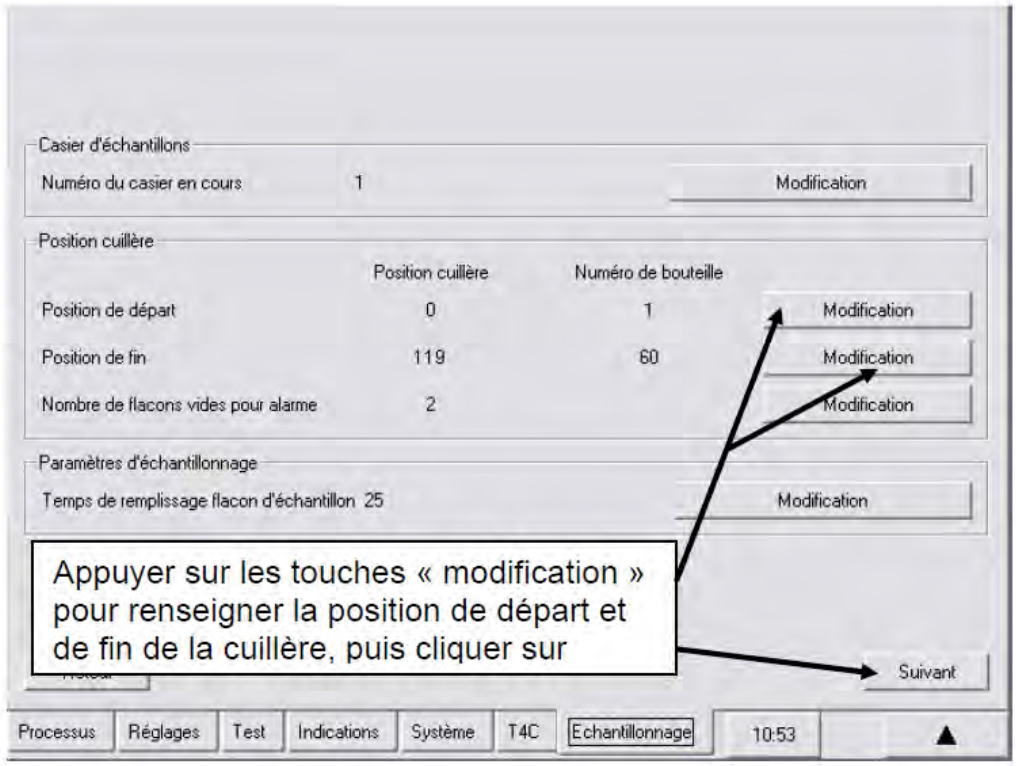
4 Robot	
Robot	Panier
1	1
	5
	9
2	2
	6
	10
3	3
	7
	11
4	4
	8
	12

Laboratoire
Ordre Panier
1
2
3
4
5
6
7
8
9
10
11
12

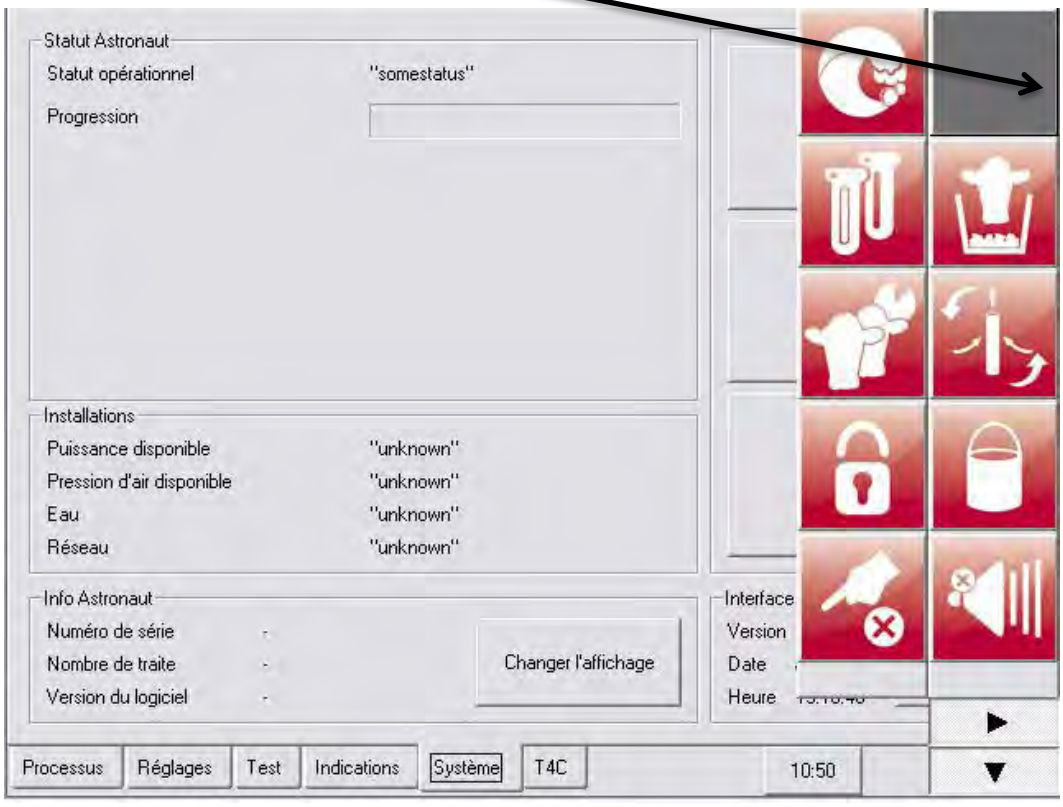
The following screen appears:



To provide the start and end positions of the spoon, follow these operations:



Next, proceed with the following operations:
- return the sampling cone to the position 1 on the rack
- press the « milking » button to unblock the door and allow cows' access again.

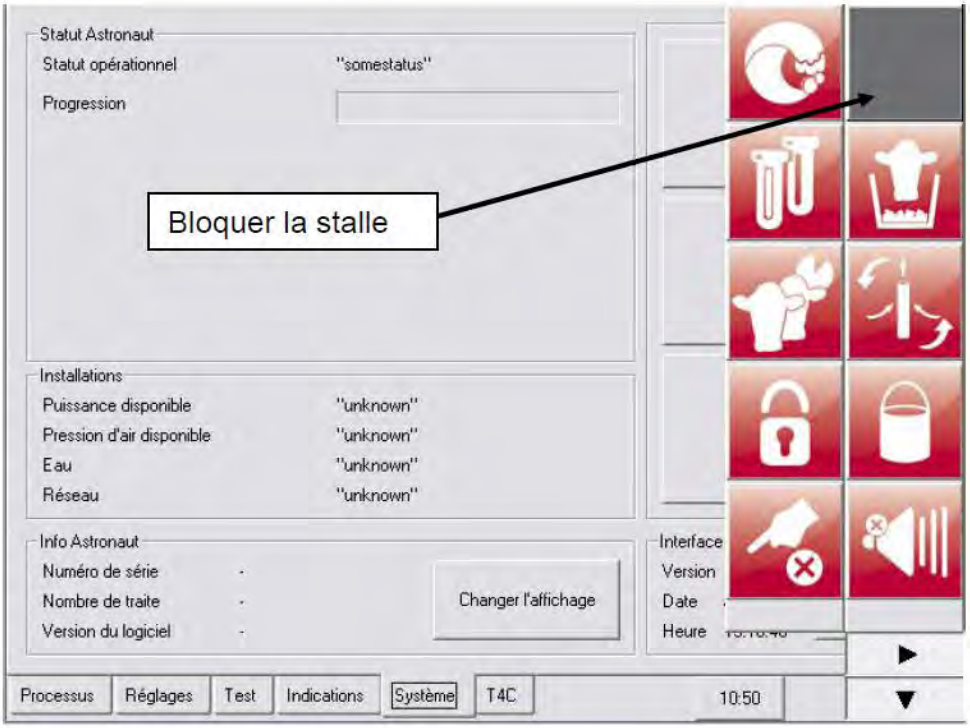


For the basket that has been loaded:
- Put the caps back on the bottles and mix the milk with the preservative.

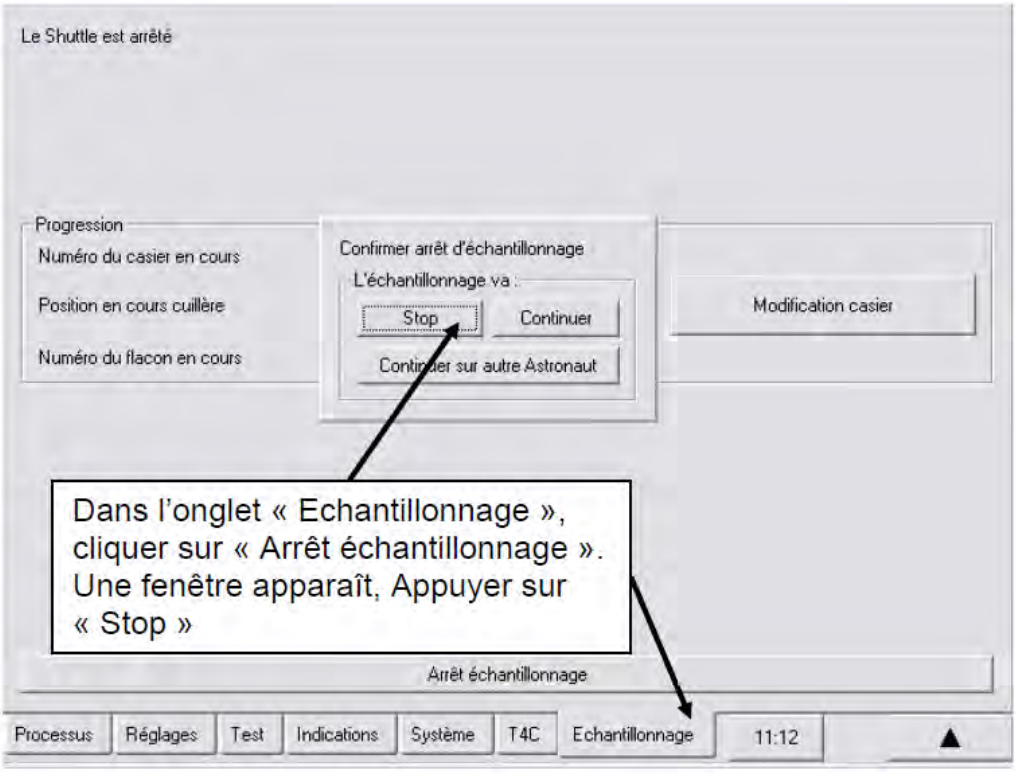
- Check that the number of samplings matches the number of cows milked.
Only the empty bottles remaining after the last sample taken are discarded. The rest (both empty and full ones) are sent to the laboratory.

4.7. Stopping the sampling

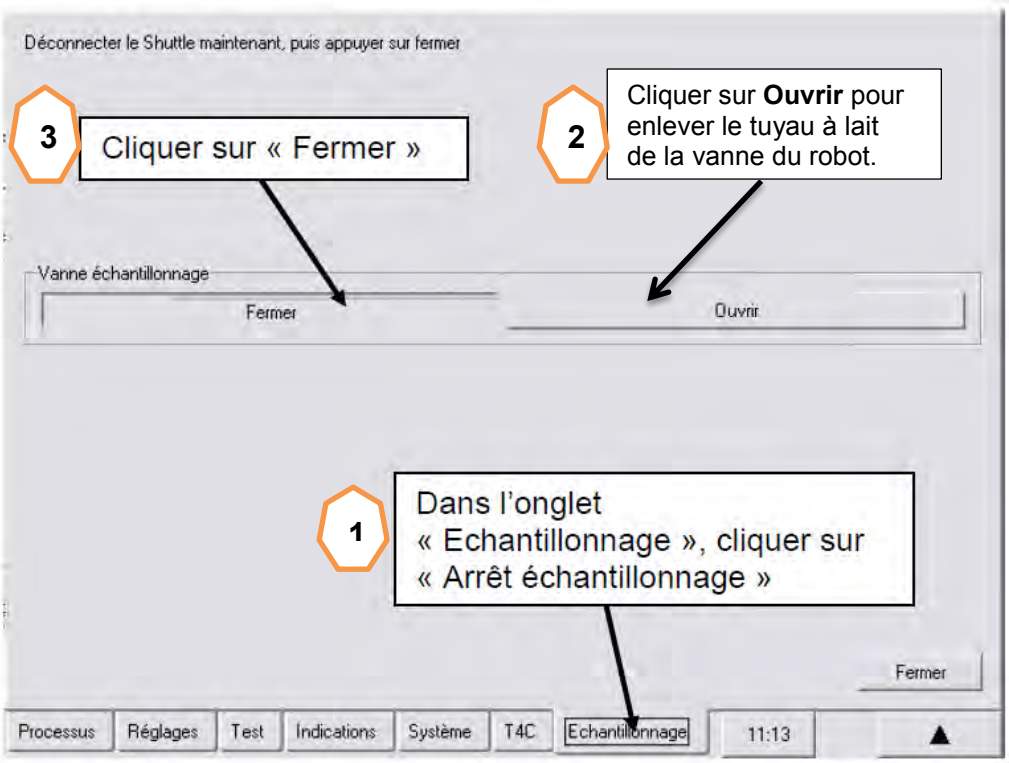
To stop the sampling process, please follow these operations:



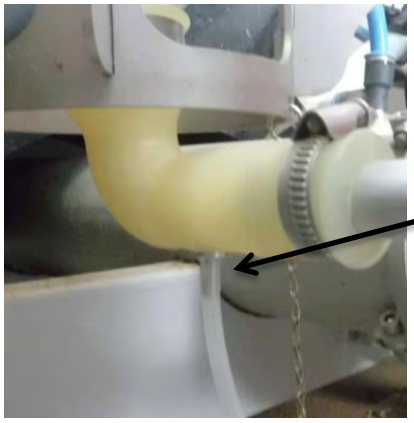
The following screen appears:



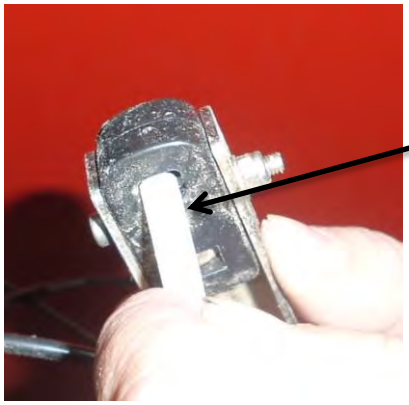
Next, disconnect all the different hoses.



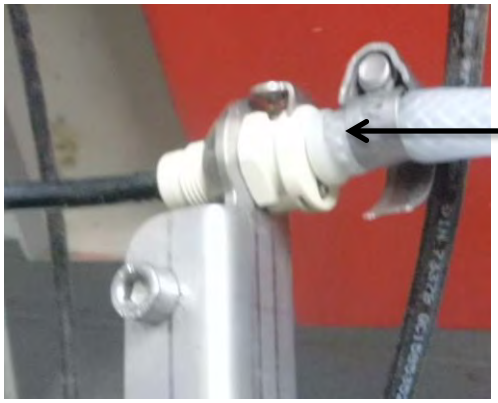
Before pressing 'Close', both the milk hose and the compressed air hose may be disconnected from the robot.



Disconnect the stainless steel nozzle and reconnect the plastic obturator.

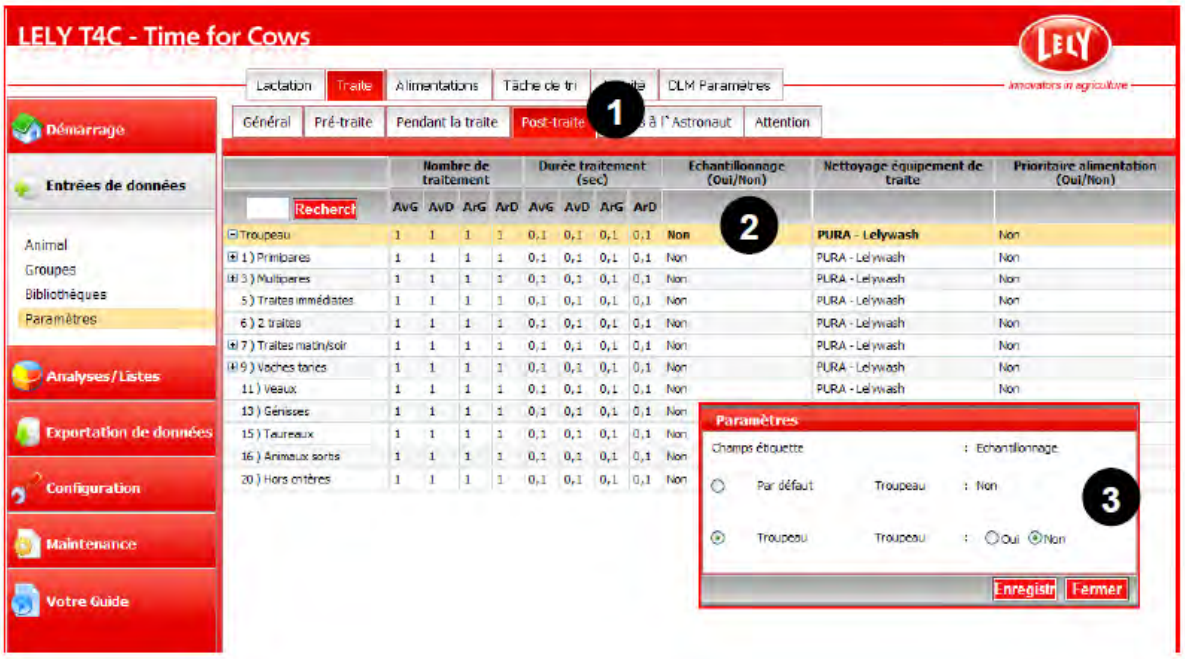


Remove the milk hose from the robot valve.



Remove the compressed air hose from the robot

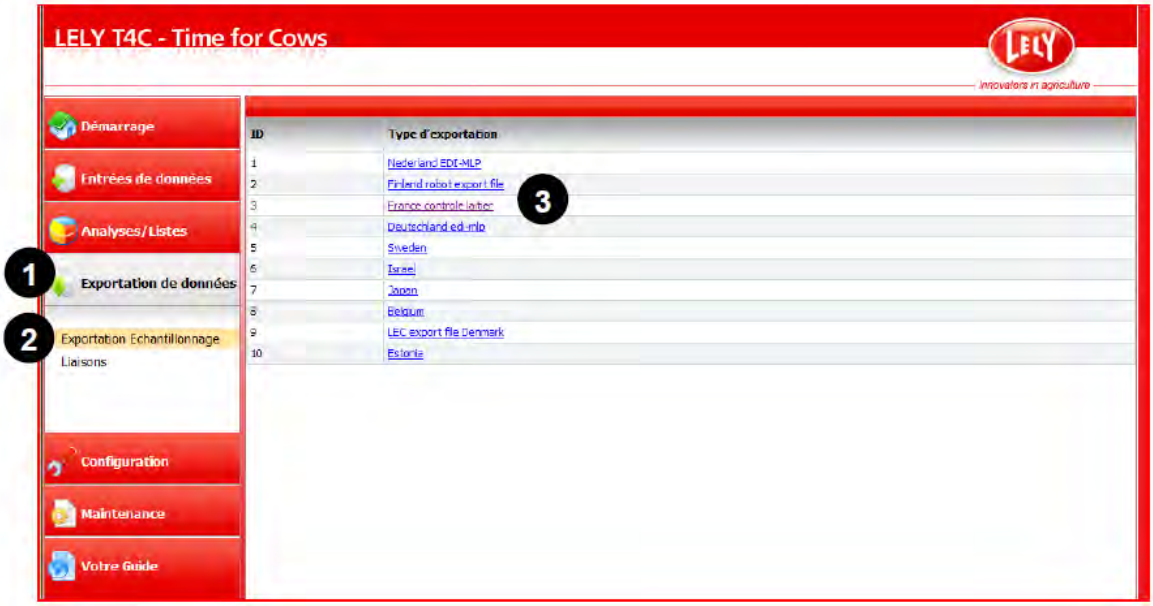
To deactivate the sampling on the T4C 3.0:
- Click on « Post –milking » (1)
- Next, click on the column « Sampling (yes/no) » of the line « Herd » (2)
- In the settings, click on the cell « no » below the sampling column and then save (3)



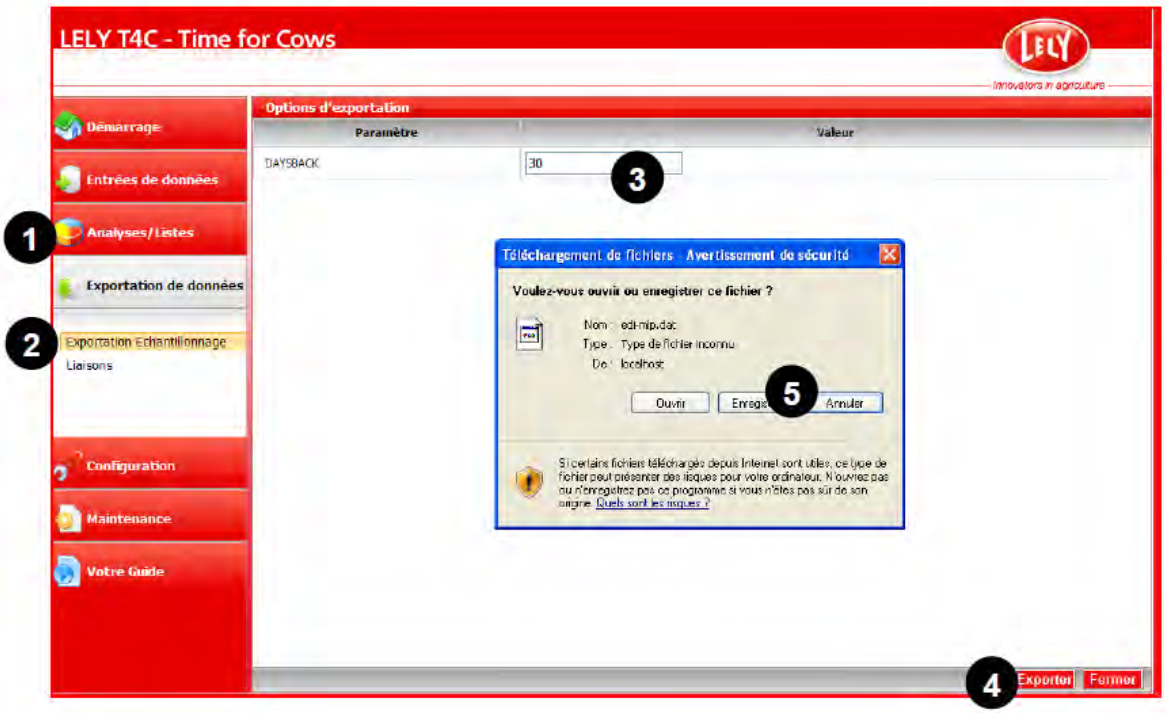
Allow cows' access to the robot again and ensure that milking continues normally.

4.8. Exporting robot data

Follow stages in the order below:
- Click on « Export data » (1)
- Next, click on « export sampling » (2)
- and « France dairy inspection » (3)



Next, go to:
- « Analysis/lists » (1)
- « Export sampling» (2)
- Indicate the number of milking days you want to retrieve (3)
- « Export » (4)
- Save (5)



Finally:
- Select the location where you want to save the document
- In type, select « Text Document »
- Insert a name with the format XXX.dat or XXX.txt

Verification of compliance of the data file « edi-mlp »

After the first data retrieval, the dairy inspector must make sure the information contained in the file (number of livestock) is complete and in the correct format, see CPL MO 307 format type 2.

If necessary, s/he may request the installation technician to make the necessary changes.

Description of a file of type 2:

Ce format ne comporte qu'un seul type d'enregistrement qui regroupe les données relatives à l'exploitation, au prélèvement d'échantillon et à la production de lait.
➔ lignes de type **VN880022.**

La ligne de définition commence avec : **DN880022.**
Elle contient :
DN880022008000041500090008015000900070060008000291000090005408000900078060009000420310090002515000800701010009000240600

Les enregistrements élémentaires ont la structure suivante :

Positions	Nom donnée	Format	Long.	Présence	Commentaires
1-2	type de ligne = **VN**	A	2	O	
3-8	entité = **880022**	N	6	O	
9-23	Numéro de cheptel	N	15	F	cadré à droite ne contient pas FR à gauche du numéro
24-38	Numéro d'identification animal	N	15	F	cadré à droite; Il peut y avoir des zéros à gauche
39-44	Numéro animal (de travail)	N	6	O	cadré à droite ; Il ne peut pas y avoir des zéros à gauche
45-54	Nom animal	AN	10	F	
55-62	Date de la traite	N	8	O	aaaammjj
63-68	Heure de la traite	N	6	O	hhmmss
69-71	Poids de lait individuel	N	3,1	F	cadré à droite
72-86	Numéro de tube de l'échantillon	N	15	F	Les 4 caractères signifiants sont cadrés à droite
87	Indicateur de traite valide (Gemolken)	N	1	O	0 = oui ; 1 = non
88-93	Numéro de panier	N	6	F	???

Présence : K = Key (Identifiant).....
O = Obligatoire
F = Facultatif

4.9. Data Processing with the data collected

After using the Ori-Collector, it is necessary to use the parameters of 96 bottles, these settings interfere with the numbering on the EDI-mlp file.
The numbering is not reliable after sampling 12.
It is necessary to number the samplings in the following manner:

From 12 to 1, in 12 to 1(12= 1, 11= 2, 10=3, 9=4.....)
From 36 to 25, in 25 to 36 (36= 25, 35= 26, 34=25, 33=27.....)
From 60 to 49, in 49 to 60 (60=49, 59=50, 58=51, 57=52....)
From 84 to 73, in 73 to 84 (84= 73, 83=74, 82=75, 81= 76...)
Refer to the following file to better understand how this works.

The Original Robot software, from version 9.85 onwards, allows for the numbering of the bottles. For this purpose, the name extension must be changed to **.ori**.

Example of renumbering table:

Numbering Xlink	Renumbering for Treatment	Numbering Xlink	Renumbering for Treatment	Numbering Xlink	Renumbering for Treatment	Numbering Xlink	Renumbering for Treatment
12	1	36	25	60	49	84	73
11	2	35	26	59	50	83	74
10	3	34	27	58	51	82	75
9	4	33	28	57	52	81	76
8	5	32	29	56	53	80	77
7	6	31	30	55	54	79	78
6	7	30	31	54	55	78	79
5	8	29	32	53	56	77	80
4	9	28	33	52	57	76	81
3	10	27	34	51	58	75	82
2	11	26	35	50	59	74	83
1	12	25	36	49	60	73	84
13	13	37	37	61	61	85	85
14	14	38	38	62	62	86	86
15	15	39	39	63	63	87	87
16	16	40	40	64	64	88	88
17	17	41	41	65	65	89	89
18	18	42	42	66	66	90	90
19	19	43	43	67	67		
20	20	44	44	68	68		
21	21	45	45	69	69		
22	22	46	46	70	70		
23	23	47	47	71	71		
24	24	48	48	72	72		

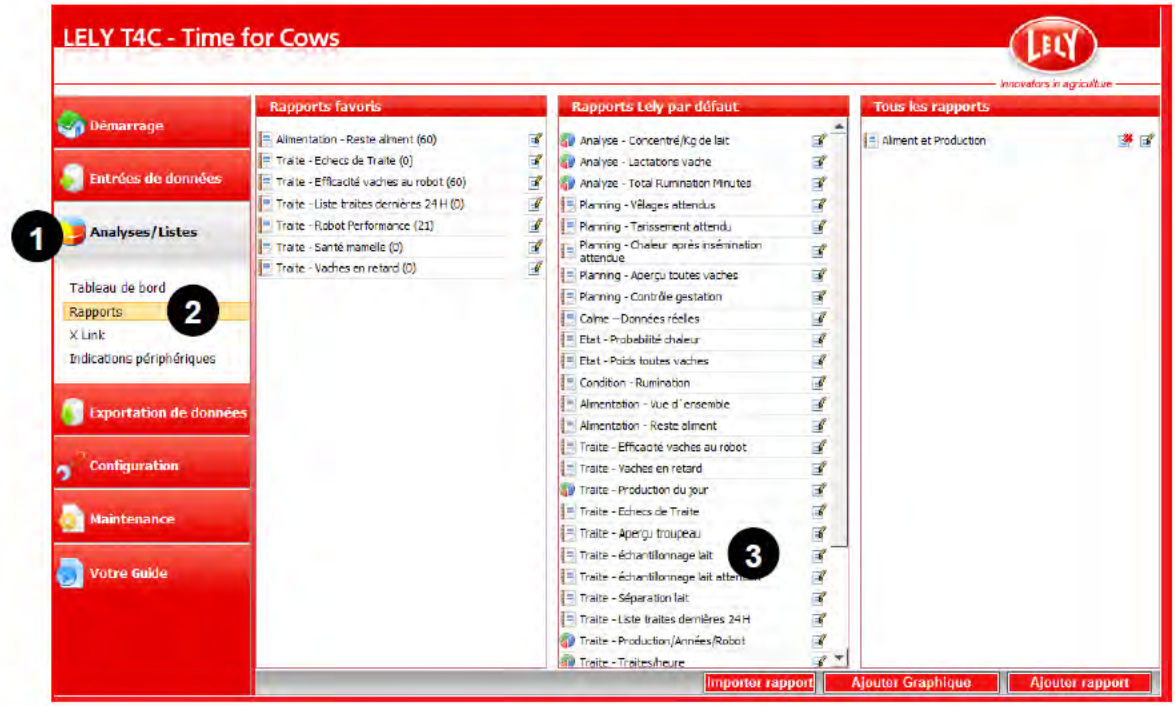
In Example: edi-mlp.dat
In this example, you can see the right date /hour chronology for this control.
You need a tools to renumber every Vial number or use a table to put the right number of the vial.

	Cow Number	Name	Date	Hour	Milk Production	Vial Number	Milking Status	N° Rack	Vial Renumbering
VN880022	41	Balzane	20121025	152551	81	12	0	2	1
VN880022	31	Belle	20121025	153143	109	11	0	2	2
VN880022	3	Treille	20121025	153751	127	10	0	2	3
VN880022	71	Dinette	20121025	154623	105	9	0	2	4
VN880022	15	Venelle	20121025	155245	94	8	0	2	5
VN880022	4	Tarentelle	20121025	155842	98	7	0	2	6
VN880022	43	Coccinelle	20121025	160408	94	6	0	2	7
VN880022	53	Emplette	20121025	161536	78	5	0	2	8
VN880022	37	Brève	20121025	163148	86	4	0	2	9
VN880022	91	Egine	20121025	164214	83	3	0	2	10
VN880022	38	Egérie	20121025	170601	112	2	0	2	11
VN880022	5	Ultime	20121025	171623	72	1	0	2	12
VN880022	73	Décence	20121025	172403	73	13	0	2	
VN880022	35	Blague	20121025	173023	130	14	0	2	
VN880022	26	Brume	20121025	173537	59	15	0	2	
VN880022	80	Dépêche	20121025	174910	82	16	0	2	
VN880022	89	EPEE	20121025	175829	94	17	0	2	
VN880022	46	Capucine	20121025	180659	67	18	0	2	
VN880022	57	Déesse	20121025	181145	117	19	0	2	
VN880022	66	Digue	20121025	181823	50	20	0	2	
VN880022	79	Devote	20121025	182311	81	21	0	2	
VN880022	33	Brique	20121025	182735	66	22	0	2	
VN880022	13	Vacance	20121025	183333	102	23	0	2	
VN880022	20	Azalée	20121025	184050	123	24	0	2	
VN880022	19	Amande	20121025	184701	79	36	0	2	25
VN880022	72	Devinette	20121025	190135	73	35	0	2	26
VN880022	59	Datcha	20121025	190930	144	34	0	2	27
VN880022	36	Epice	20121025	192246	79	33	0	2	28
VN880022	83	Endive	20121025	192854	71	32	0	2	29
VN880022	87	Elegie	20121025	194755	105	31	0	2	30
VN880022	88	Ebonite	20121025	205522	103	30	0	2	31
VN880022	76	Diane	20121025	211406	90	29	0	2	32
VN880022	82	Elite	20121025	215718	97	28	0	2	33
VN880022	92	Epitaphe	20121025	230750	93	27	0	2	34
VN880022	43	Coccinelle	20121025	232852	101	26	0	2	35
VN880022	53	Emplette	20121025	235359	77	25	0	2	36

	Cow Number	Name	Date	Hour	Milk Production	Vial Number	Milking Status	N° Rack		Vial Renumbering
VN880022	69	Digitale	20121026	402	71	37	0	2		
VN880022	37	Brève	20121026	5228	90	38	0	2		
VN880022	50	Canaille	20121026	10309	106	39	0	2		
VN880022	60	Dalhia	20121026	10851	84	40	0	2		
VN880022	36	Epice	20121026	12121	78	41	0	2		
VN880022	57	Déesse	20121026	13427	119	42	0	2		
VN880022	56	Cactée	20121026	14025	97	43	0	2		
VN880022	89	EPEE	20121026	20147	98	44	0	2		
VN880022	59	Datcha	20121026	20852	138	45	0	2		
VN880022	79	Devote	20121026	21702	91	46	0	2		
VN880022	87	Elegie	20121026	40102	109	47	0	2		
VN880022	28	Brise	20121026	42037	94	48	0	2		
VN880022	86	Enclume	20121026	51012	144	60	0	2		49
VN880022	35	Blague	20121026	55035	184	59	0	2		50
VN880022	88	Ebonite	20121026	62011	131	58	0	2		51
VN880022	5	Ultime	20121026	65555	104	57	0	2		52
VN880022	3	Treille	20121026	70547	99	56	0	2		53
VN880022	71	Dinette	20121026	71602	153	55	0	2		54
VN880022	4	Tarentelle	20121026	72330	172	54	0	2		55
VN880022	38	Egérie	20121026	81914	185	53	0	2		56
VN880022	2	Alizée	20121026	83135	94	52	0	2		57
VN880022	15	Venelle	20121026	102502	118	51	0	2		58
VN880022	56	Cactée	20121026	103043	118	50	0	2		59
VN880022	67	Daphnée	20121026	103708	93	49	0	2		60
VN880022	60	Dalhia	20121026	104254	137	61	0	2		
VN880022	11	encre	20121026	105156	95	62	0	2		
VN880022	59	Datcha	20121026	110019	157	63	0	2		
VN880022	79	Devote	20121026	110652	97	64	0	2		
VN880022	40	Biscotte	20121026	111554	188	65	0	2		
VN880022	20	Azalée	20121026	112643	230	66	0	2		
VN880022	12	Venue	20121026	113253	161	67	0	2		
VN880022	7	Vague	20121026	114331	225	68	0	2		
VN880022	55	Caféine	20121026	115152	129	69	0	2		
VN880022	89	EPEE	20121026	120345	119	70	0	2		
VN880022	45	Caille	20121026	120817	89	71	0	2		
VN880022	87	Elegie	20121026	121418	113	72	0	2		
VN880022	13	Vacance	20121026	122038	107	84	0	2		73
VN880022	78	Dolcevita	20121026	122551	95	83	0	2		74
VN880022	1	Ellebore	20121026	124137	115	82	0	2		75
VN880022	47	Coquette	20121026	132831	116	81	0	2		76
VN880022	52	Candi	20121026	133905	100	80	0	2		77
VN880022	92	Epitaphe	20121026	142505	110	79	0	2		78
VN880022	64	Docile	20121026	143432	122	78	0	2		79
VN880022	54	Clématite	20121026	144927	52	77	0	2		80
VN880022	18	Amazone	20121026	145755	53	76	0	2		81
VN880022	81	Electre	20121026	150446	77	75	0	2		82
VN880022	40	Biscotte	20121026	151922	140	74	0	2		83
VN880022	65	Dune	20121026	152614	138	73	0	2		84
VN880022	91	Egine	20121026	154214	83	85	0	2		
VN880022	71	Dinette	20121026	154623	105	86	0	2		
VN880022	15	Venelle	20121026	155245	94	87	0	2		
VN880022	4	Tarentelle	20121026	155842	98	88	0	2		
VN880022	43	Coccinelle	20121026	160408	94	89	0	2		
VN880022	53	Emplette	20121026	161536	78	90	0	2		

4.10. Editing the list of samplings

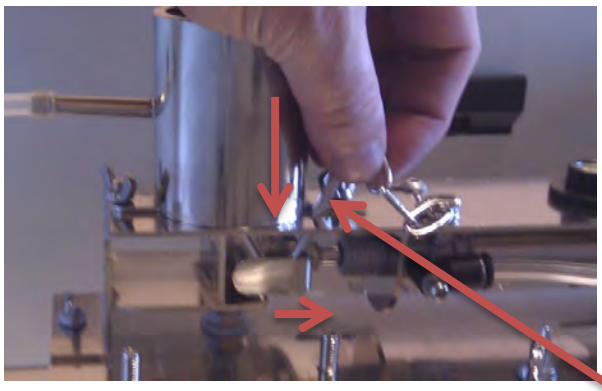
To perform this operation, go to:
- « Analysis/Lists » (1)
- « Reports » (2)
- Select « Milking - -Milk sampling » (3)



5. CLEANING AND MAINTENANCE

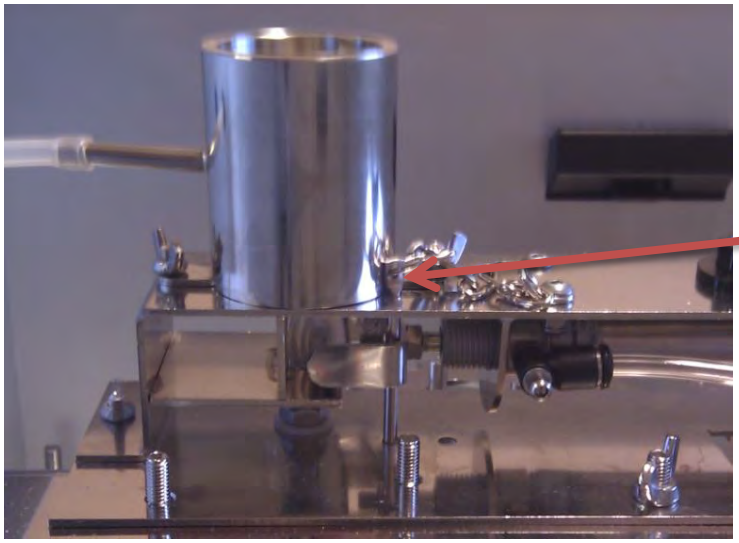
5.1. Washing after inspection

Before the cleaning process is started, please put the pin of the bottle filling system back in place.



Put your finger underneath to pull the drawer.

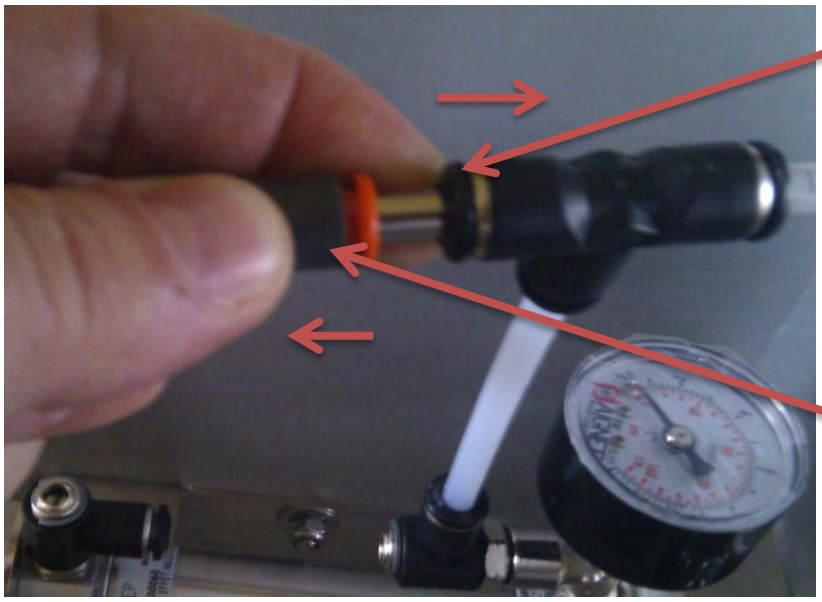
Insert the pin in the hole provided for this purpose.



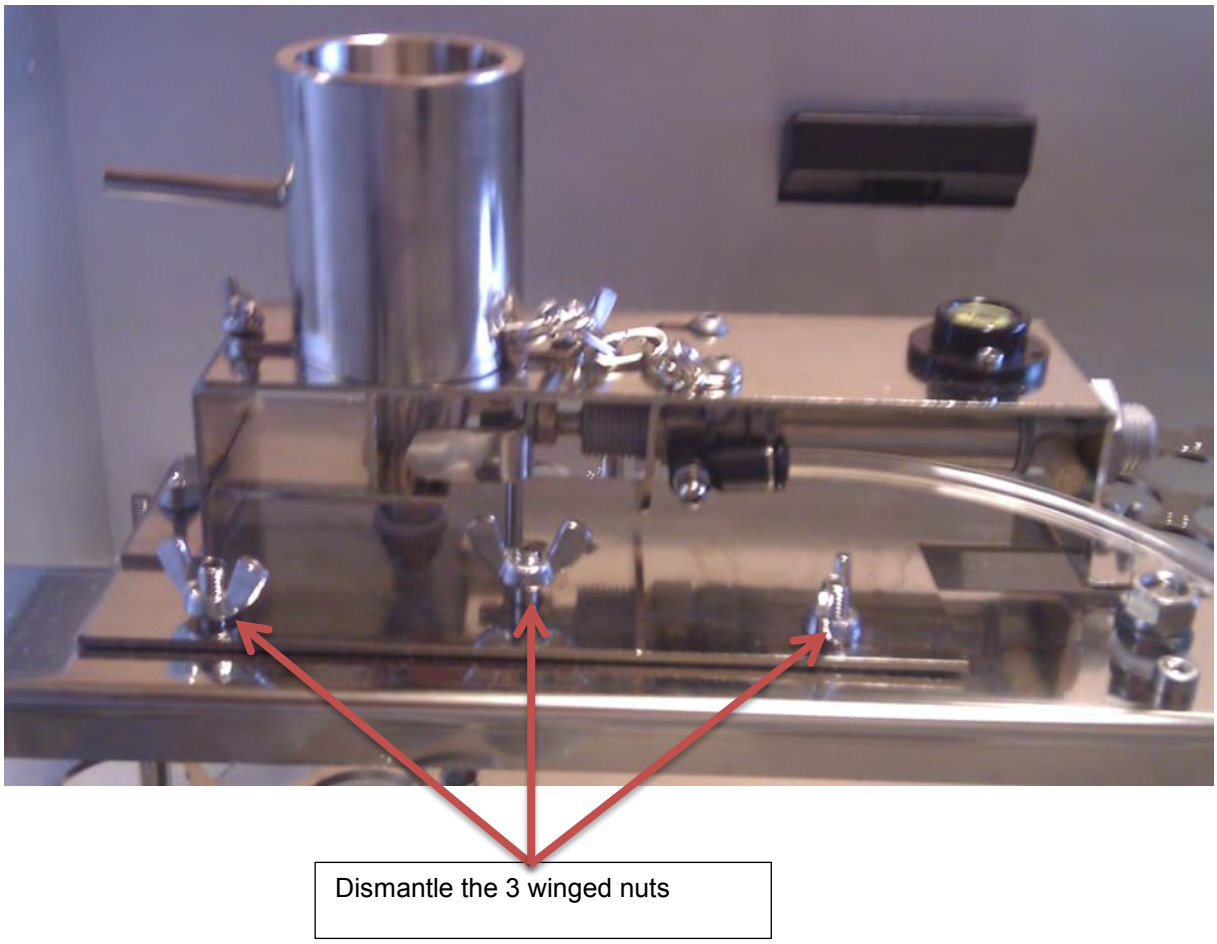
Pin in Off or transport position

Once the pin has been inserted in Transport/Off mode, the filling system may be disassembled to proceed with its cleaning.

Removal of the Compressed Air Hose



Disassemble the filling system



The box of the Ori-Collector can be cleaned with water by avoiding:

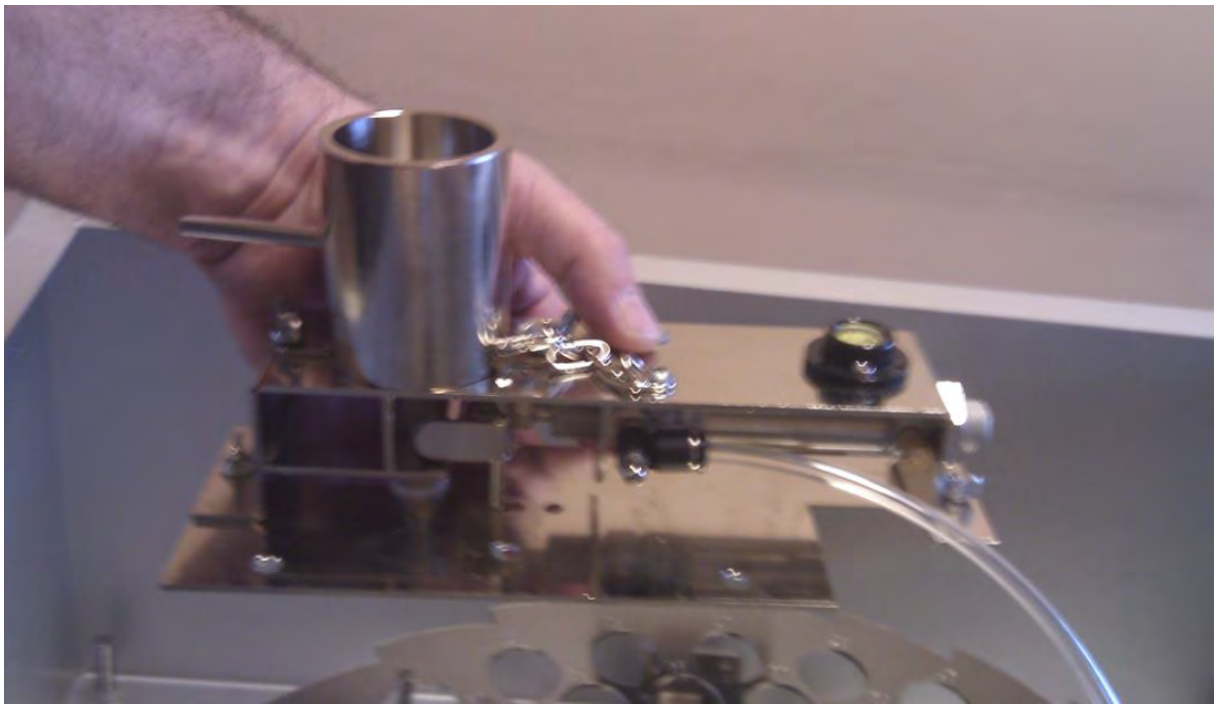
- filling it with water completely
- spraying the drive cylinder (shorter life)
- using a suppressor for cleaning (a simple damp cloth will suffice)

It is necessary to drain the remaining water through the evacuation holes provided for this purpose.

It is not necessary to spray the drive cylinder.

5.2. Cleaning of the filling system and Hose

The support can be removed in order to be cleaned directly over a sink.



Use the syringe to inject hot water with a little acid in the silicone hoses and in the stainless steel tank.
Caution: Because a chemical product is being used, it is imperative that personal protective equipment is worn.

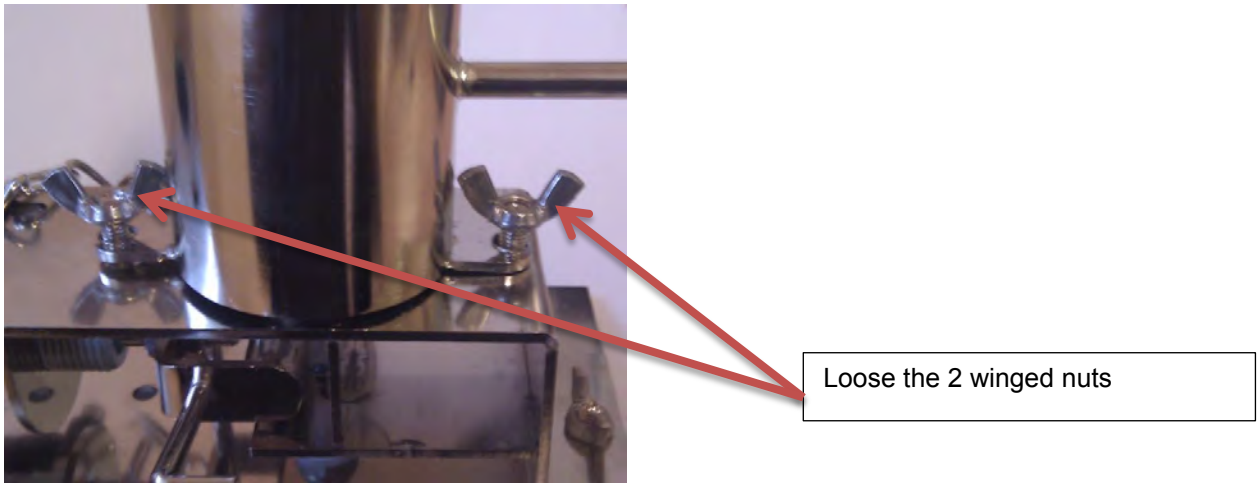
5.3. Cleaning the Box and Crown

The crown may be washed with water.
Do not use pressure, THIS COULD DAMANGE THE CYLINDERS

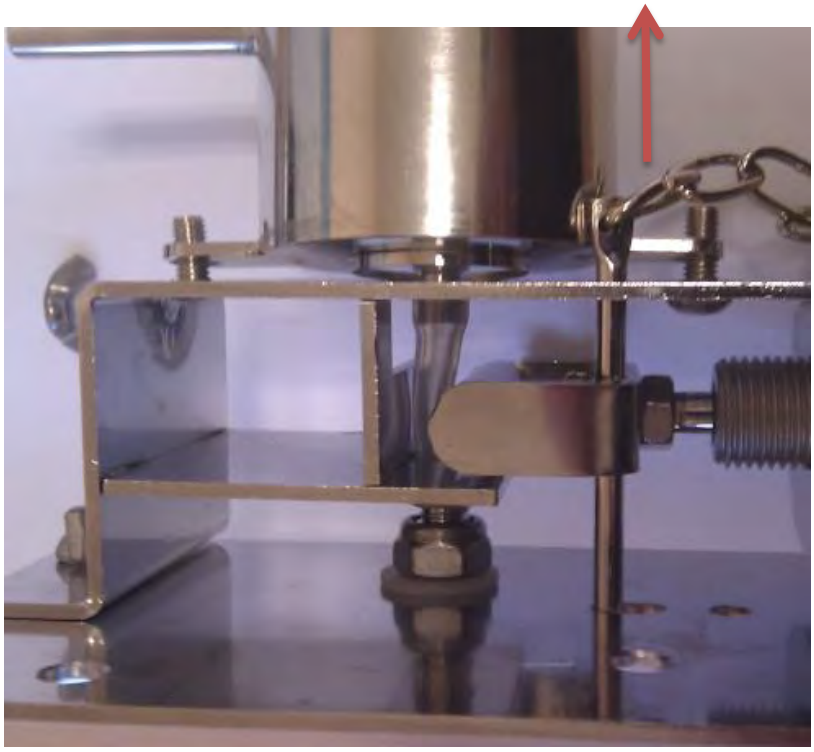
5.4. Removing the silicone Hose from the filling system

In order to replace the silicone hoses, please follow these steps:

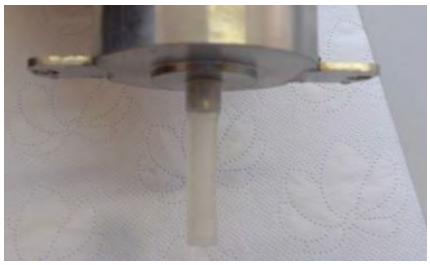
Dismantle the stainless steel tank



Gently pull the stainless steel tank up to disconnect it from the rest of the device.

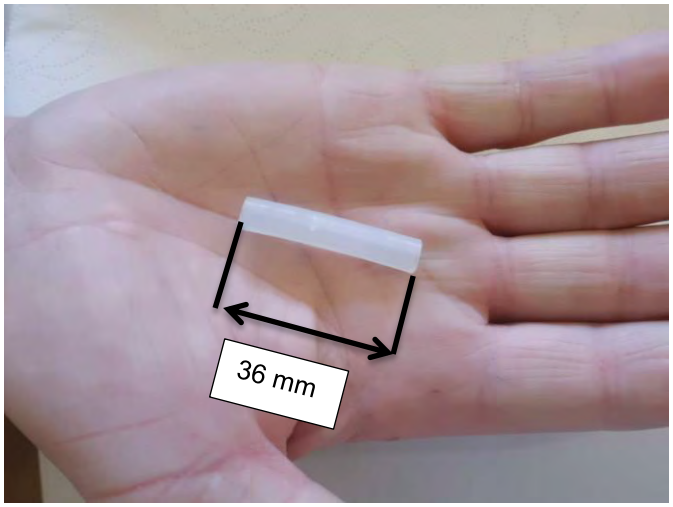


Once the tank has been extracted, the silicone hose may be changed if it is damaged.



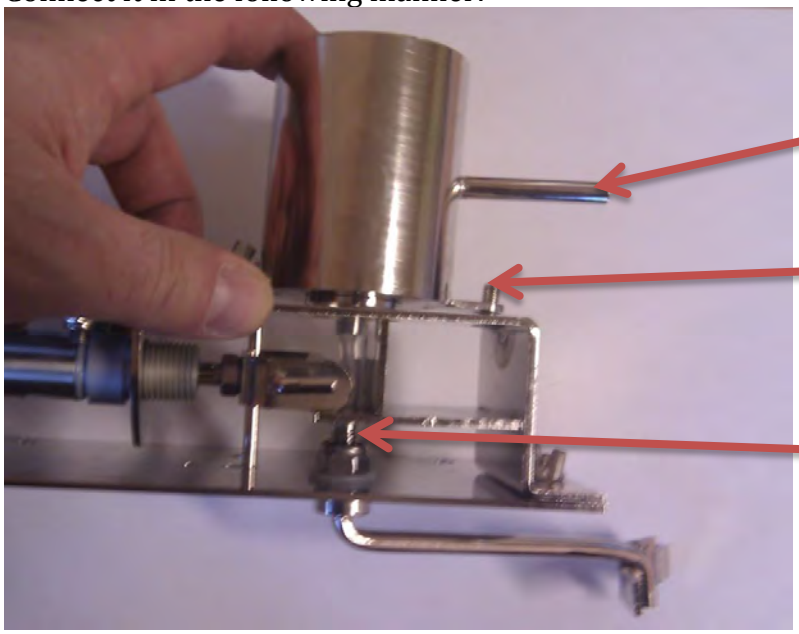
Please remove the silicone hose and replace it on the tank filler (without silicone grease)

Size of the silicone Hose: (4/6, 4 mm inside, and 6 mm outside)

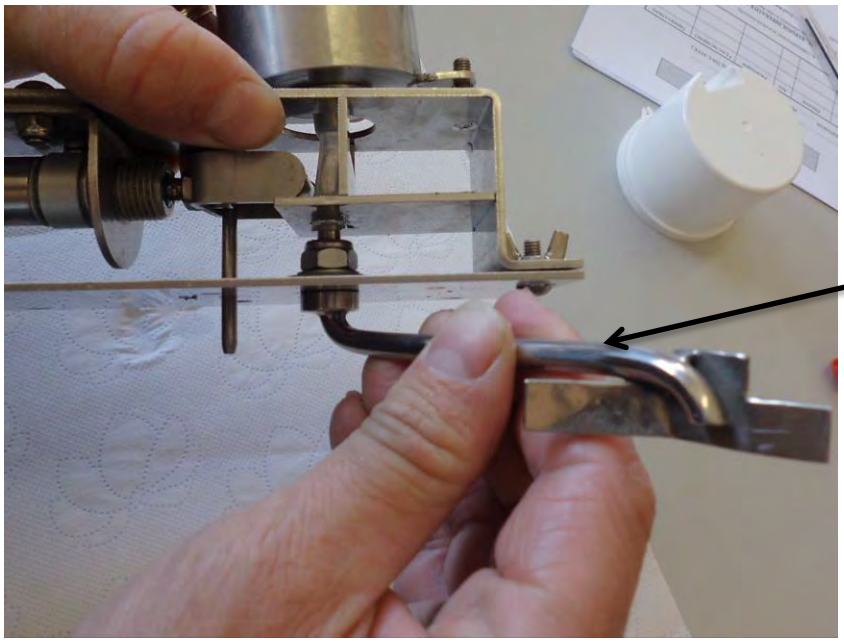


Before connecting the tank with the silicone hose, it is **imperative** to lubricate it with food grease.

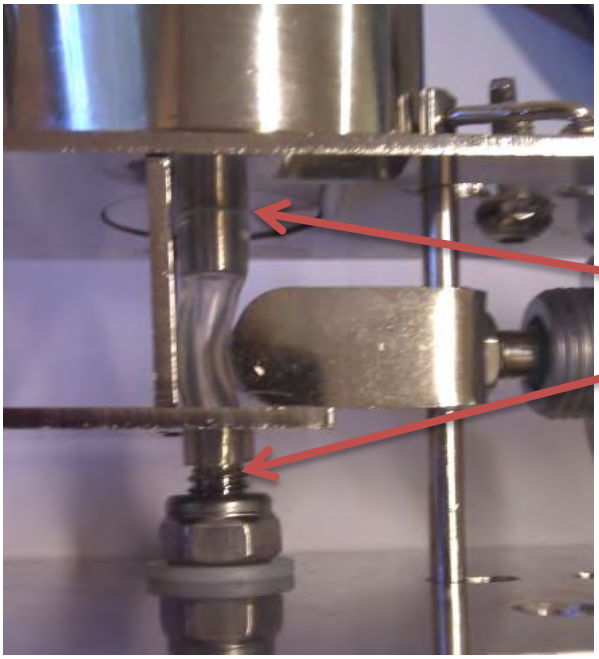
Connect it in the following manner:



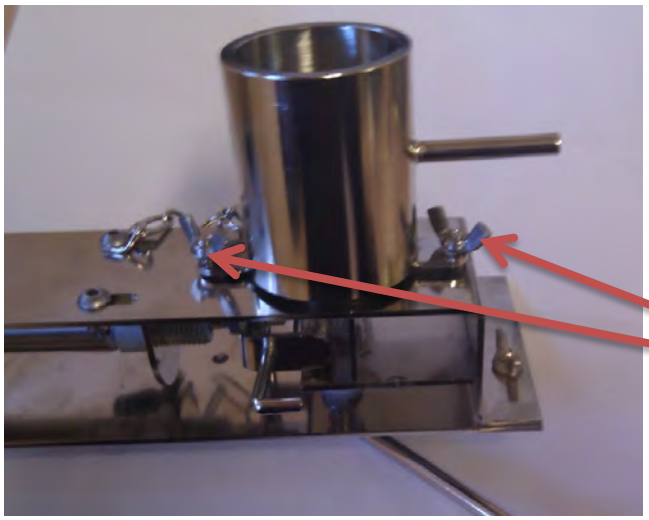
To enable the introduction of the silicone tube into the stainless steel nozzle, it is necessary to turn the stainless steel filling hose.



Checking the silicone hose connection is correct

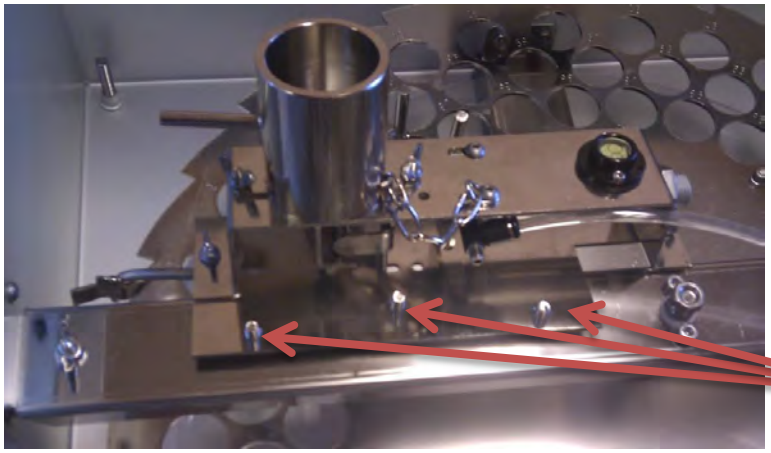


Make sure that the hose is tightly placed on both sides



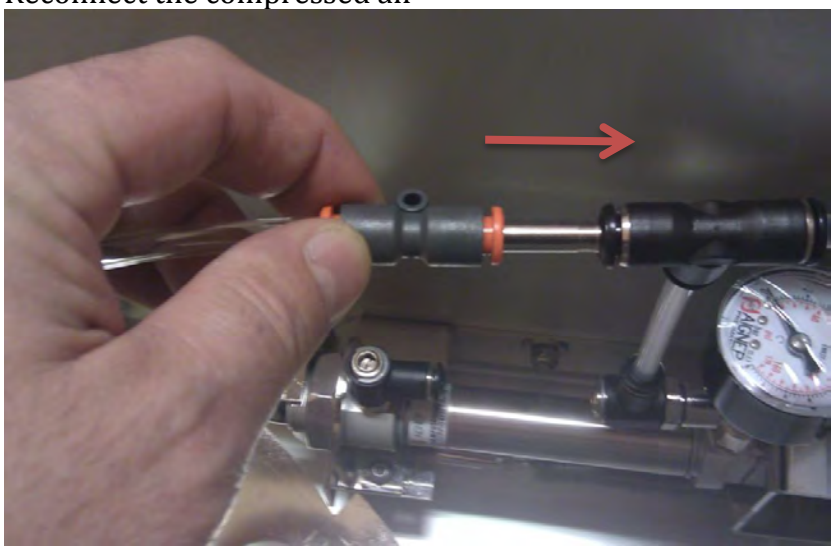
Put the winged thumbscrews back in place

Put the device back on its mounting rail.



Put the winged thumbscrews back in place

Reconnect the compressed air

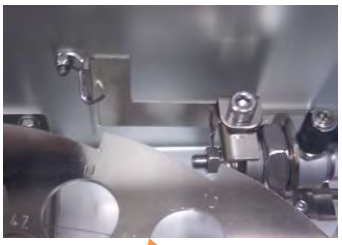


5.5. Removing the steel plate

Before proceeding to dismantle de crown, please make sure that the system is not connected to the compressed air.

To facilitate the disassembly, the drive system of the stainless steel crown may be bedraggled.
For this purpose, use the stainless steel chainlets to retain the drive crown plate (Fig 1) and also the non-return crown system (Fig 2)

Fig 1



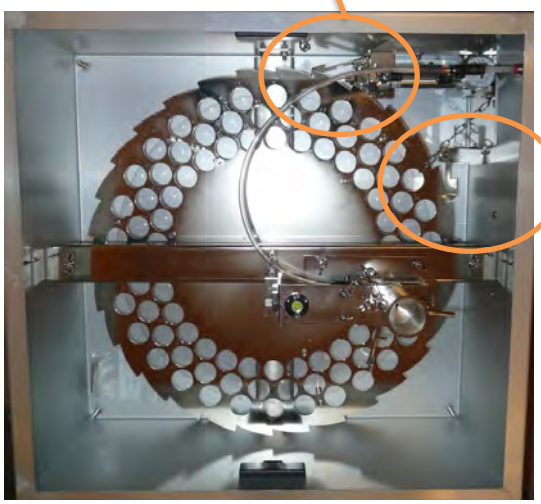
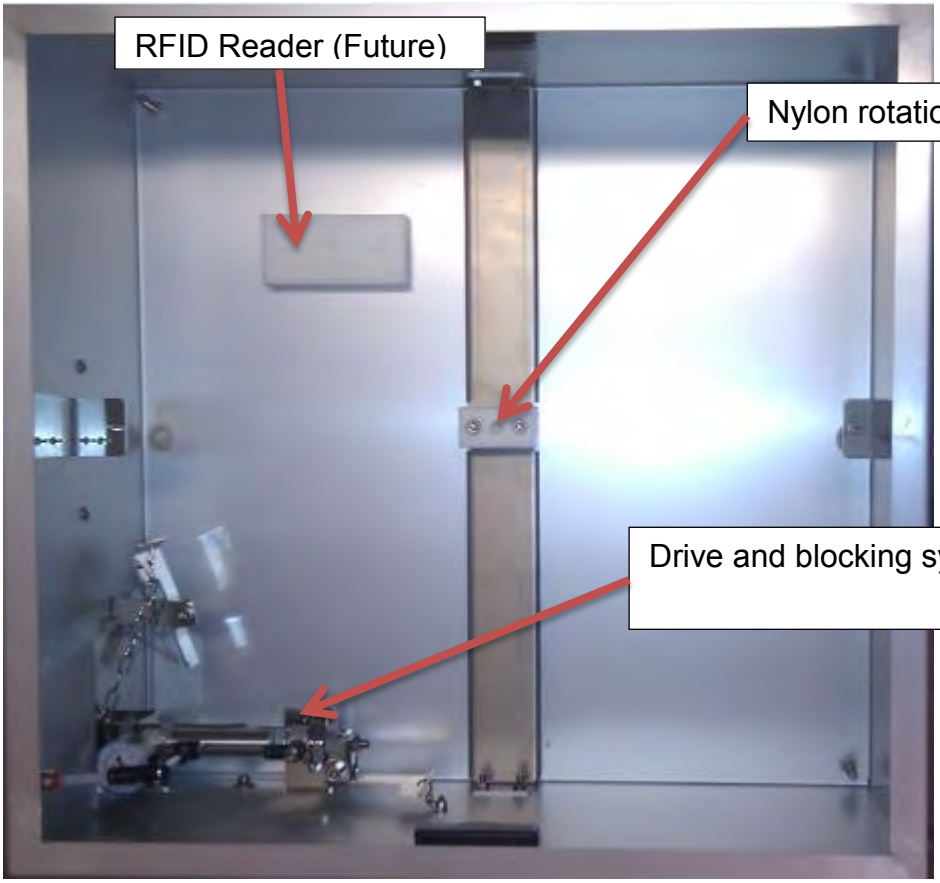
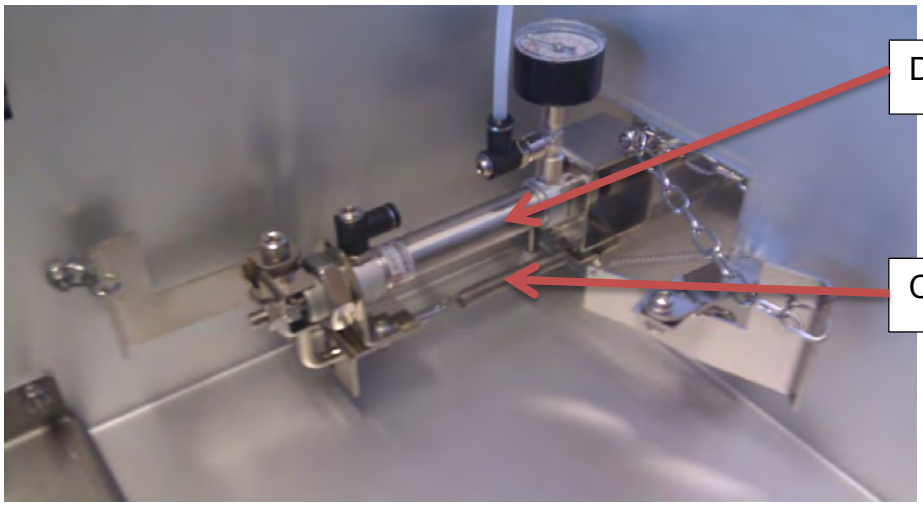


Fig 2

To remove the crown, it is necessary to tilt it to one side.

Care is required when handling the crown, since there is a risk of injury and also damage of the system in case of heavy impact.





Now the reassembly of the crown may be carried out, with caution not to forget to reactivate the drive system removing the stainless steel chains, the spring and the anti-return system.

5.6. Care and Maintenance

The system should be checked every 6 months to ensure good performance.

Regular Maintenance:

Monthly: Check the silicone hose of the filling system, and replace if necessary (it is recommended to change it every 2 months as a preventive measure and after using the device).

Yearly: Replace:

- The recoil spring of the drive cylinder
- The recoil spring of the Anti-return system.

The system does not need any lubrication (it works on dry cylinders)

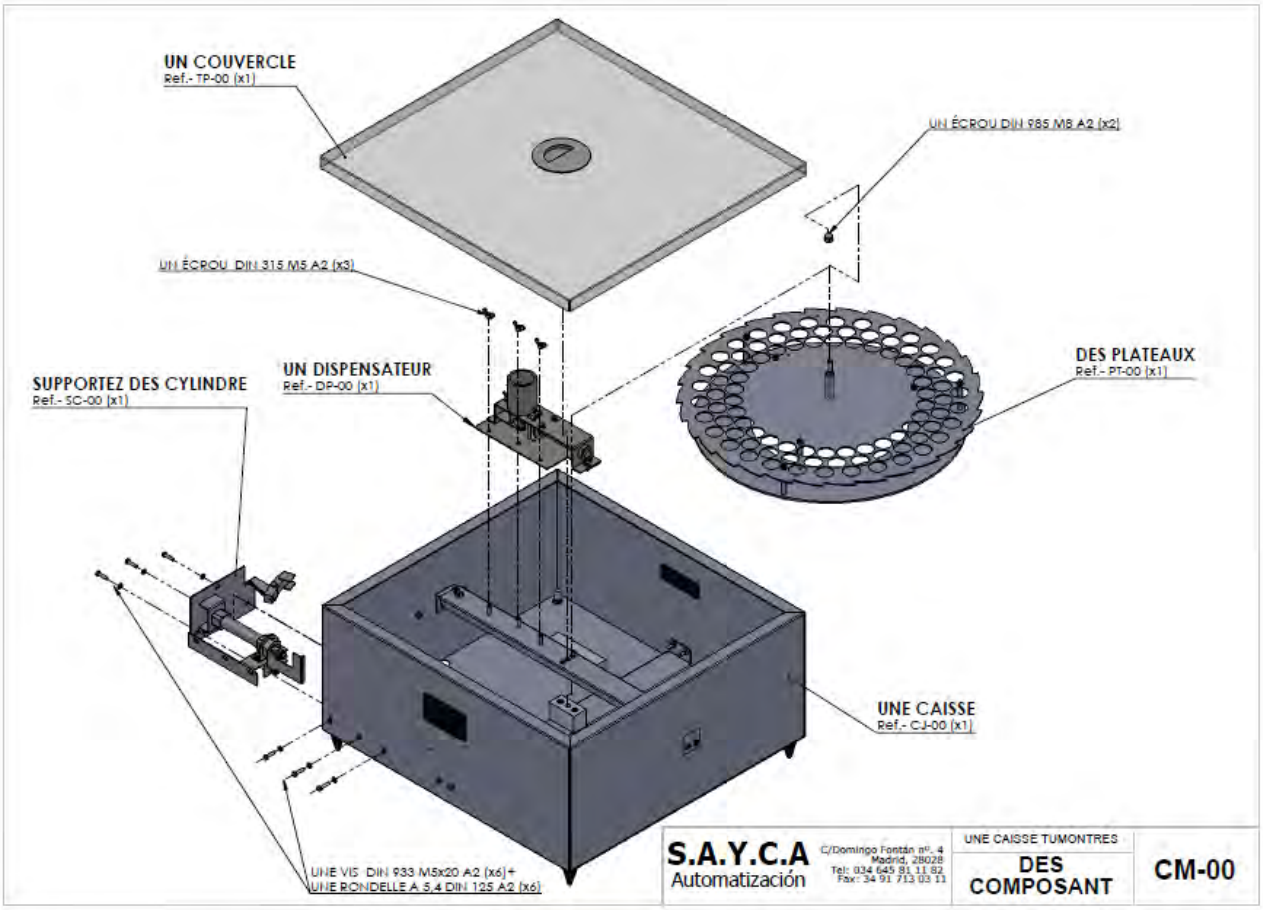
The cylinders must be inspected, it is necessary to change them if their performance is altered.

5.7. Malfunction of the Ori-Collector

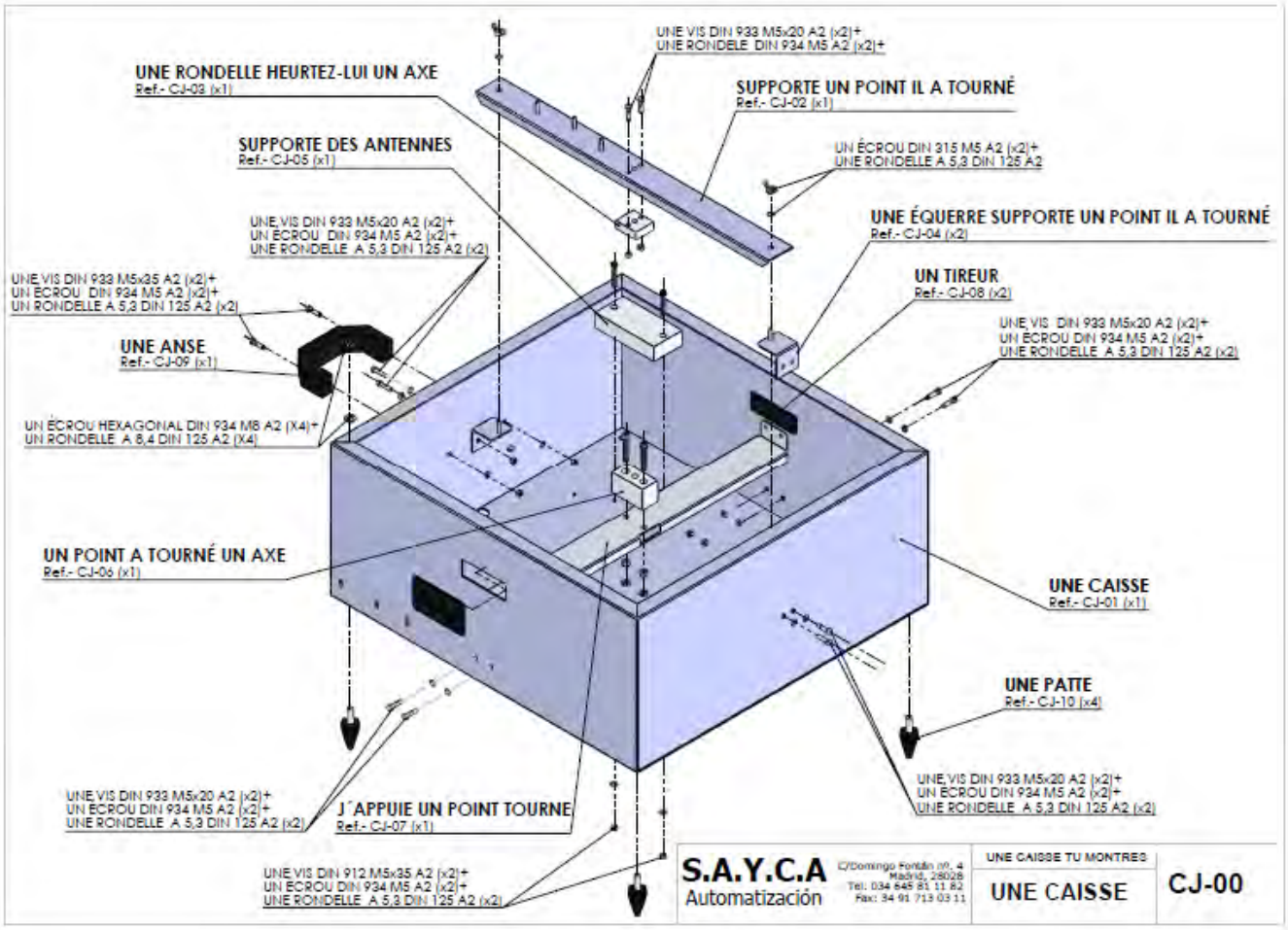
Operational hazards that may occur when using the Ori-Collector

Problems encountered	**Causes**
The system does not sample cows	Check if the sampling sequence has been activated on the robot
	Check the compressed air connection
	Check the milking hose on the side of the robot
The system does not work, but the bottle is filled	Check the release system of the drive cylinder
	Check the anti-return release system
The system moves 2 notches	Check the robot settings (96 Bottles)
The bottles are not filled enough	Check the filling times on the robot console

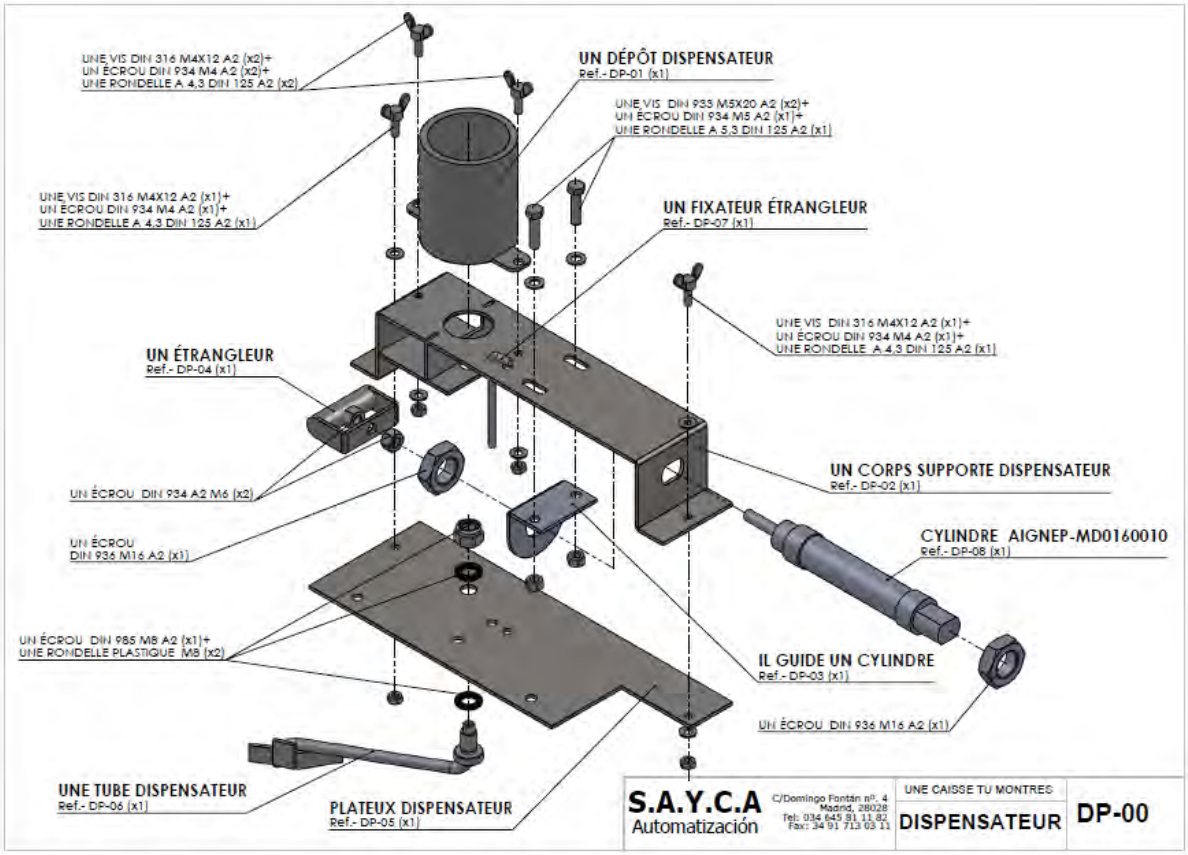
6. LIST OF PARTS



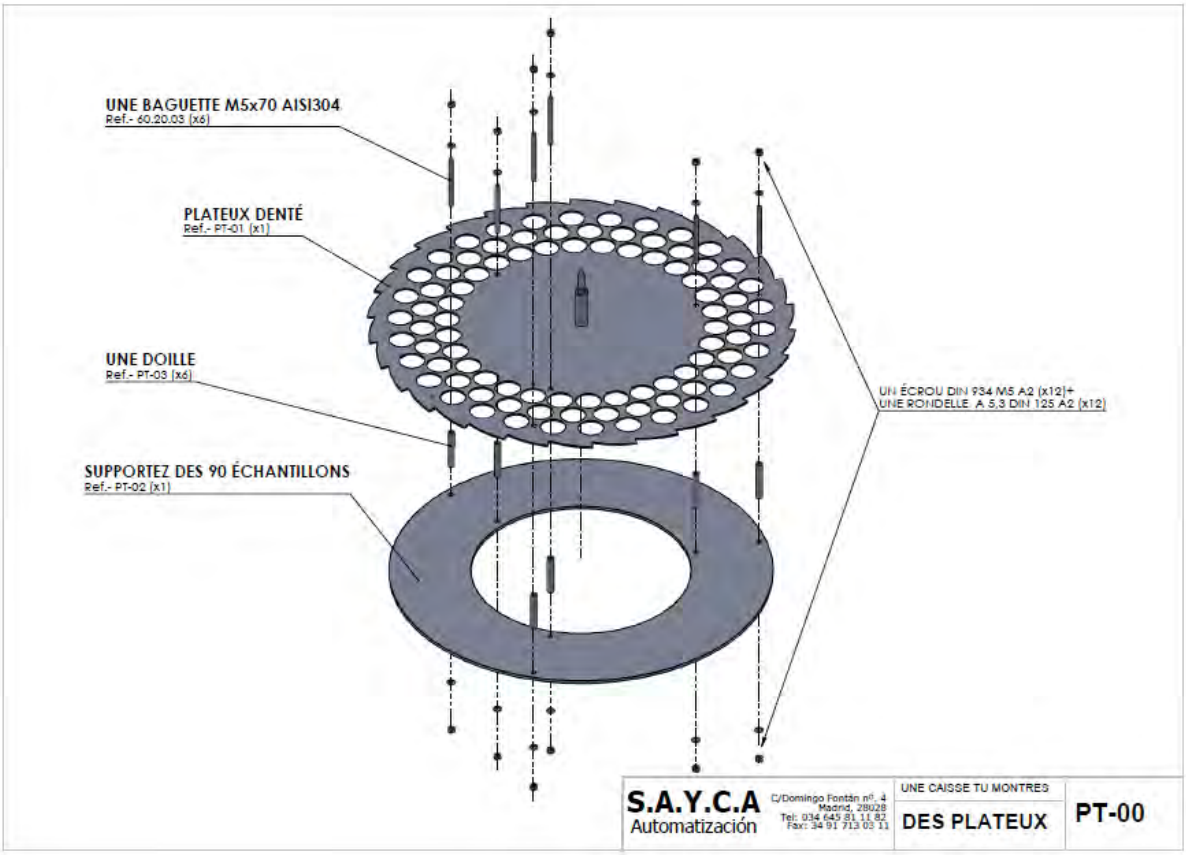
Reference	French	English
Ref.- SC-00 (x1)	support verin	Cylinder support
Ref.- DP-00 (x1)	Système doseur	Filling system
Ref.- TP-00 (x1)	Couvercle	Protecting cover
Ref.- PT-00 (x1)	Plateau Inox	Stainless steel tray
Ref.- CJ-00 (x1)	Caisse Aluminium	Aluminium case
	Ecrou inox M5 A2	M5 A2 stainless steel nut
	Ecrou inox M8 A2	M8 A2 stainless steel nut
	Vis inox M5x20	M5 stainless steel screw x20
	Rondelle inox M5	M5 stainless steel washer



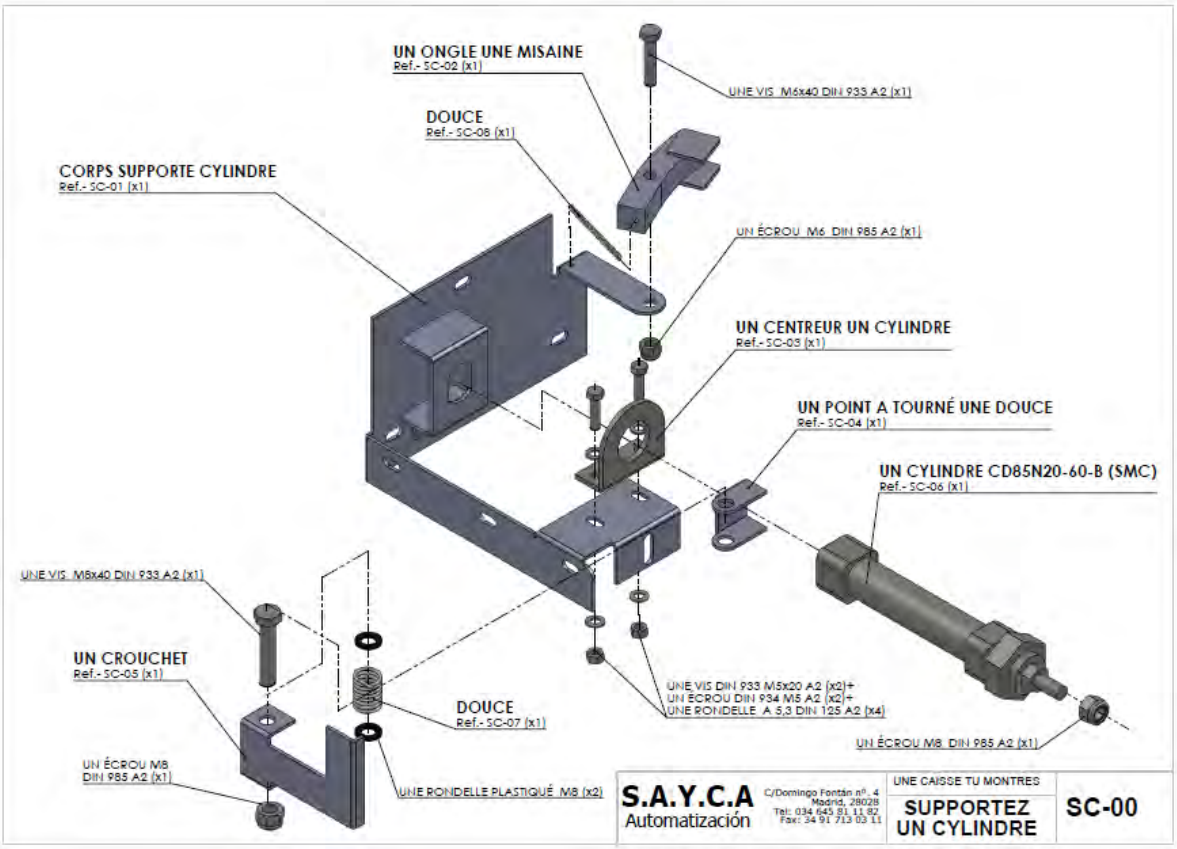
Reference	French	English
Ref.- CJ-01 (x1)	Caisse aluminium	Aluminium case
Ref.- CJ-03 (x1)	Entretoise Supérieure Nylon	Nylon Upper Brace
Ref.- CJ-05 (x1)	Support Antenne RFID	RFID antenna support
Ref.- CJ-09 (x1)	Poignet de transport	Carrying handle
Ref.- CJ-06 (x1)	Entretoise Inferieur Nylon	Nylon Lower Brace
Ref.- CJ-07 (x1)	Support inferieur de couronne	Crown lower support
Ref.- CJ-02 (x1)	Support supérieur de Couronne	Crown upper support
Ref.- CJ-04 (x2)	Equerre pour support supérieur	Upper support bracket
Ref.- CJ-08 (x2)	Poignet	Handle
Ref.- CJ-10 (x4)	Pied réglable	Adjustable foot



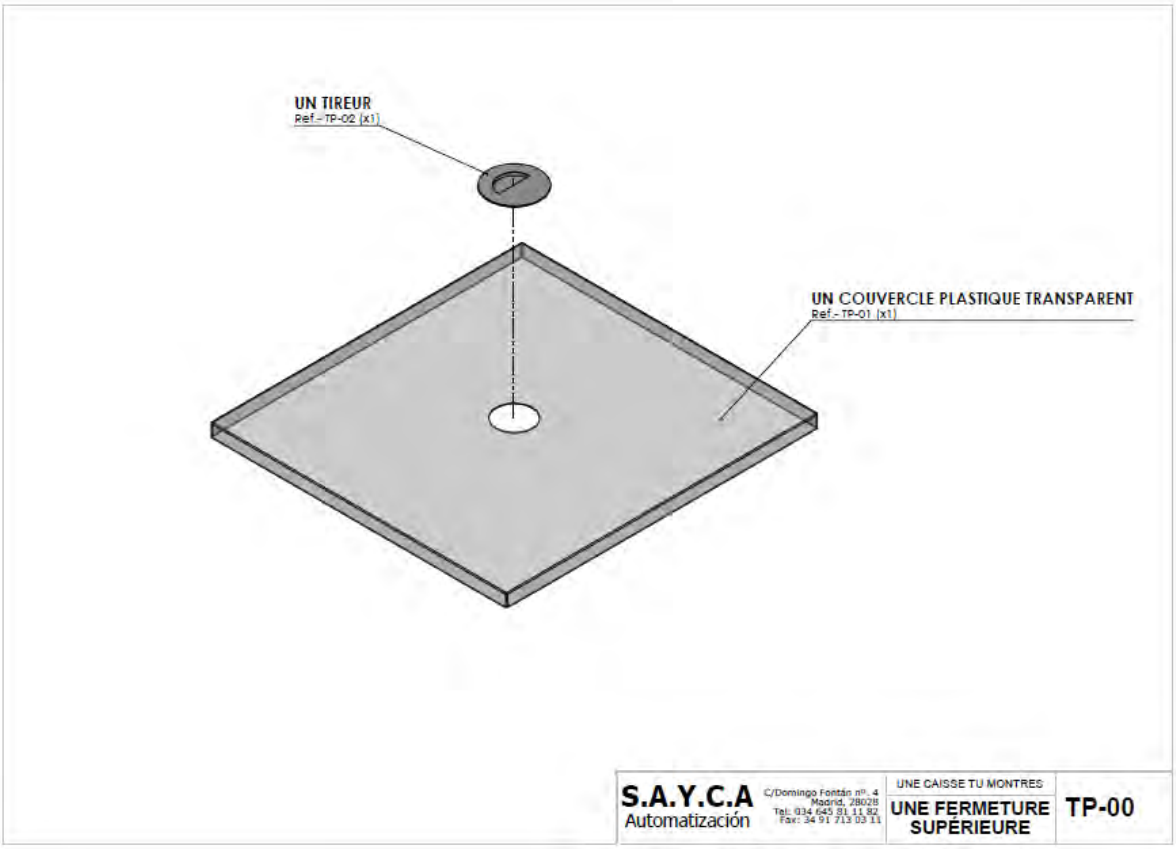
Reference	French	English
Ref.- DP-04 (x1)	Embout de vérin	Cylinder tip
Ref.- DP-06 (x1)	Tuyau inox de remplissage	Stainless steel filling hose
Ref.- DP-05 (x1)	Plaque inferieur	Lower plate
Ref.- DP-01 (x1)	Réservoir Inox	Stainless steel tank
Ref.- DP-07 (x1)	Goupille inox	Stainless steel pin
Ref.- DP-02 (x1)	Plaque supérieure du système doseur	Filling system upper plate
Ref.- DP-08 (x1)	Vérin de vidange lait	Milk emptying cylinder
Ref.- DP-03 (x1)	Chape avant de vérin	Clevis in front of the cylinder



Reference	French	English
Ref.- PT-01 (x1)	Couronne Inox pour 90 flacons	Stainless steel crown for 90 bottles
Ref.- PT-02 (x1)	Support Plexiglas	Plexiglas support
Ref.- PT-03 (x6)	Entretoise inox	Stainless steel brace



Reference	French	English
Ref.- SC-01 (x1)	Support pour vérin d'entrainement	Drive cylinder support
Ref.- SC-02 (x1)	Plaque antiretour	Anti-return plate
Ref.- SC-03 (x1)	Chape avant de vérin	Cylinder front clevis
Ref.- SC-04 (x1)	Plaque de Blocage ressort	Spring blocking plate
Ref.- SC-05 (x1)	Embout de vérin	Cylinder tip
Ref.- SC-06 (x1)	Vérin d'entrainement	Drive cylinder
Ref.- SC-07 (x1)	Ressort de chape avant	Front clevis spring
Ref.- SC-08 (x1)	Ressort pour antiretour	Anti-return spring



Reference	French	English
Ref.- TP-01 (x1)	Couvercle Plexiglas	Plexiglas Protective cover
Ref.- TP-02 (x1)	Poignet Inox	Stainless steel handle

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