

DieTronic

lubrication technology

INSTALLATION INSTRUCTIONS LCP SERIES

Dietronic Srl – lubricating technology

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1. GENERAL INFORMATION

1.1. *Warnings*

The parts of the manual in bold refer to warning signs, indicate those procedures whose failure or partial observance could cause injury to the operator.

This instruction book is strictly reserved for Customers in possession of the machine. The information contained herein may be subject to change without notice.

The documents delivered with the machine, including the following manual, are the property of Dietronic Srl, which reserves all rights. For no reason may this booklet or part of it, or the attachments provided be reproduced in any form or medium without the authorization of Dietronic Srl.

1.2. *Identification Of The Manufacturer*

Dietronic s.r.l.
Via Madre Teresa di Calcutta, 9/13
26866 Sant'Angelo Lodigiano (LO) - Italy

1.3. *Machine Identification*

MACHINE TYPE	<i>LCP</i>
MODEL	<i>LCPXEJ 1400</i>
SERIES	<i>20241071</i>

1.4. *Request For Intervention And Assistance*

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1.5. *Guarantee*

The machinery supplied is guaranteed for 12 months from the date of installation (30 days from shipment). This warranty, concerning defects and defects deriving from materials, construction or workmanship, is conditional on their notification within 8 days of their discovery, excluding from the warranty those defects and defects that depend on failure to comply with the service and maintenance instructions provided by the seller, from bad or inadequate use, from excessive exploitation of the machinery, tampering, modification or repair made by the buyer and the use of lubricants, detergents or other unsuitable products. The warranty is substantiated and exhausted in the free spare part, ex processing plant. The costs of labor (disassembly, reassembly or other), shipping and transport are borne by the buyer as well as the relative risks, with him waives the request for any compensation for damage to persons or things that may arise as a result of the aforementioned defects or defects. The buyer will only enjoy the guarantees of the seller's subcontractors for damage to electrical equipment, electric motors, ball bearings, pressure gauges, gaskets, chains and any other piece not performed directly by the seller, and will always waive any compensation for damages that may occur even during the warranty period. Components replaced under warranty will not extend for any reason the

expiration of the initial warranty period, which starts, as indicated above, from the date of shipment of the complete equipment.

1.6. Safety Requirements

The terms used in this manual to locate the various components of the machine such as, for example, right, left, top, bottom, etc., always refer to the correct position of an operator during the normal course of work (in front of the machine).

Before commissioning the machine, the operator must have read this publication carefully and have acquired a thorough knowledge of the technical specifications and machine controls.

It is advisable for the operator to undergo a period of training in the use of the machine.

Before installing the machine, check that the area used is compatible with the overall dimensions of the machine.

Do not allow unauthorized and qualified personnel to operate, adjust, operate or repair the machine. Also, refer to this manual for the necessary operations.

Before cleaning and/or maintaining the machine and before removing any protection, make sure that the main switch is in the OFF position, so as to remove the power supply to the machine during operator intervention.

The power supply system must be equipped with an automatic release system upstream of the main circuit breaker of the machine and with a suitable earthing system that meets all the requirements of industry standards for accident prevention.

If you need to work on or near the main switch, remove voltage from the line to which the main switch is connected.

The moving parts of the machine do not stop immediately after switching it off. It is recommended, before intervening on the machine, to make sure that all moving parts have stopped.

All checks and maintenance operations that require the removal of safety protections are carried out under the full responsibility of the user. It is therefore recommended to have these operations performed only by specialized and authorized technical personnel.

Check that all safety devices (barriers, protections, casings, microswitches, etc.) have not been tampered with and that they are fully functional before operating; otherwise provide for their accommodation. Do not remove safety devices.

Do not tamper with the electrical, pneumatic or any other mechanism for any reason.

Do not attempt to climb on or climb over the machine in operation.

Do not wear rings, wristwatches, jewelry, torn or dangling clothing such as ties, scarves, unbuttoned jackets or any garment that may become entangled in moving parts. Instead, wear clothing approved for safety purposes such as, for example, helmets, non-slip shoes, gloves, anti-noise headphones, safety glasses when necessary.

Do not wear clothing with wide sleeves during work and especially during cleaning operations.

In the case of repairs make sure that there are:

moving organs that can come into operation.

unstable parts by their nature positioned on the machine or in its vicinity.

in any case, provide for their locking with appropriate tools.

Do not use your hands instead of proper tools to operate the machine.

Do not use your hands or other objects to stop moving parts.

Pay close attention to the plates on the machine every time you are preparing to operate on the same or nearby.

The user is obliged to keep all the plates legible, changing, if necessary, the position in order to guarantee complete visibility to the operator.

The user is also obliged to replace all plates that for any reason have deteriorated or that are not clearly visible, requesting new ones from the spare parts service of DIETRONIC SRL.

Unless expressly specified in this manual, avoid repairing or adjusting the machinery or part of it when it, or part of it, is in operation, in order to avoid being hooked by moving parts.

In the event of machine malfunctions or damage to components, contact the maintenance manager, without proceeding with further repairs.

It is absolutely forbidden for anyone to use the machine for uses other than those foreseen and documented. The use of the machine must always take place in the ways, times and places provided for by the rules of good technique, of laws in force in each nation even if in the specific country there were no specific rules to regulate the sector.

DIETRONIC declines all responsibility for any accident or damage to persons or property arising from failure to comply with both the safety requirements and the rules herein.

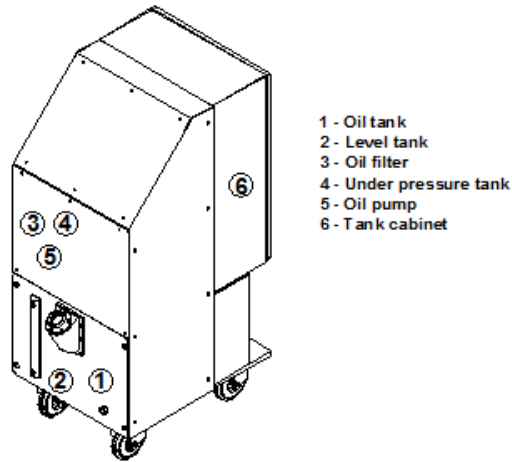
These requirements, together with the rules relating to the installation of the machine and electrical connections constitute, moreover, an integral part of the Industrial Accident Prevention Regulations of each individual country. These safety regulations supplement and do not replace local safety regulations.

NEVER make hasty or makeshift repairs that could compromise the proper functioning of the machine.

IN CASE OF DOUBT, ALWAYS REQUEST THE INTERVENTION OF SPECIALIZED PERSONNEL. ANY TAMPERING BY THE USER RELIEVES THE MANUFACTURER OF ANY RESPONSIBILITY AND MAKES THE USER SOLELY RESPONSIBLE TOWARDS THE COMPETENT BODIES FOR THE PREVENTION OF ACCIDENTS.

2. MACHINE DESCRIPTION

2.1. Tank



The supplied tank is equipped with an electrical cabinet containing all the equipment for the operation of the system. All electrical connections between the different units (oiler, suction system) are made through connectors.

Voltages present in the panel

Power supply	380/400 VAC
Frequency	50/60 Hz
Auxiliary voltage	24 VDC
Power consumption	1KW
Power consumption with vacuum cleaner	1,5KW

In addition, the control unit is equipped with pneumatic equipment for managing the operation of the system.

Pneumatic feeding.	6 bars
Air consumption	1000 NI/min at 6 bar
Air pipe required min.	18 mm internal diameter

The oil tank is made of stainless steel and has a maximum capacity of 40L.

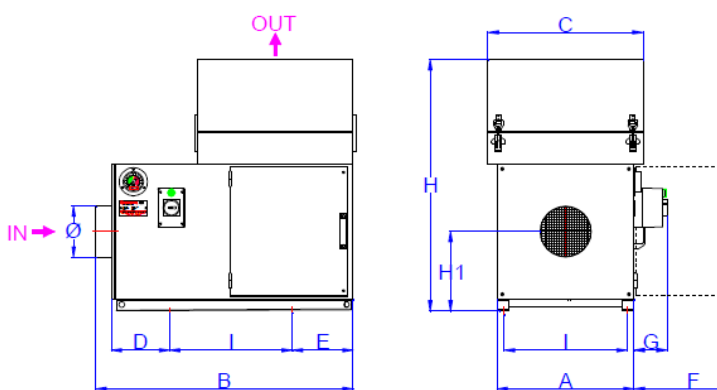
2.2. Spraybox

The box of spraying is composed of 2 bars for 2 sides of the sheet on which they are housed, to 100 mm pitch, automatic spraying valves DTJ4.

2.3. Suction System (optional)

Suction system of ARNO K series are indicated for suction and purification of mists and dusts produced during damp and dry processing. Due to the way are manufactured, they are good for purifying particles of different granulometry, simply using interchangeable filters having a different filtering efficiency.

The equipment contains drainage for the recovery of the condensed liquid.



Picture 1

TECHNICAL DATA

<i>Model</i>	<i>Suction inlet Ø mm</i>	<i>Max airflow rate MC/H</i>	<i>Power HP/KW</i>	<i>Voltage- Frequency V - HZ</i>	<i>Noise level dBA</i>	<i>Weight Kg.</i>
ARNO K1	150	1700	1/0,75	230/400-50	68	70
ARNO K1C		1500			67	
ARNO K2	150/200	2700/3300	2/1,5		72	97
ARNO K2C	150	2600			70	
ARNO K3	200	4000	3/2,2		72	110
ARNO K3C		3100			72	

Model	Overall dimensions (mm)									Fixing wheelbase I (mm)
	A	B	C	D	E	F	G	H	H1	
ARNO K1/K1C	430	880	400	200	230	420	130	880	260	360 – Ø9

ARNO K2/K2C	530	1000	500	205	230	460	130	1000	310	360 – Ø9
ARNO K3/K3C	530	1000	600	205	230	460	130	1000	310	360 – Ø9

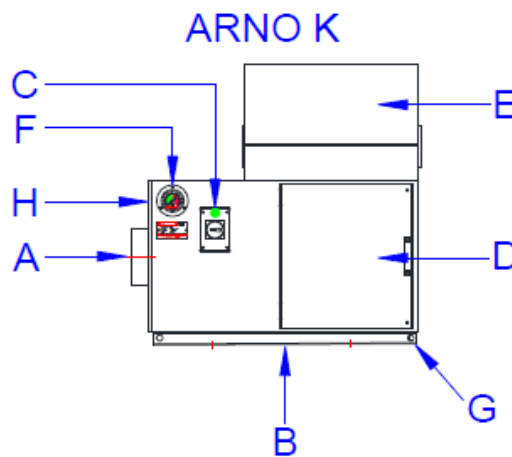
FORESEEN USES

Suction and cleaning of powders and smokes generated in dry and damp processing.

USE OF THE MACHINE

On the machine it's possible to see the following elements:

- Suction pipe;
- Supporting and fixing feet - hole Ø 9 mm;
- Automatic circuit breaker;
- Doors for **A** and **B** filters extraction;
- Removable cover for **C** and **D** filters extraction;
- Gauge to monitor filter conditions;
- Drainage for the recovery of recondensed liquid;
- Doors for **E** and **F** filters extraction;
- Removable cover for filter **X** extraction (only for ARNO KC).

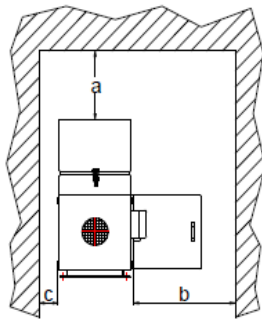


Picture 3

INSTALLATION

POSITIONING AND MOUNTING

- The installation of the suction system must be carried out by specialized staff.**
- Try to find an adequate position where to install the suction system (near to the machine tool).
- Check that in the chosen position is enough space in order to allow the use/maintenance of the suction system under the security conditions. It is recommended to observe the distance as mentioned below:



Picture 4

A	ARNO K1	400 mm
	ARNO K2/K3	500 mm
B	ARNO K1	600 mm
	ARNO K2/K3	700 mm
C	ARNO K1/K2/K3	200

- Prepare the different material and accessories necessary for the setup of the machine (suction pipe, hose clamps, powder collector, etc.).
- Make 4 holes in the chosen position (9 mm loops or threaded 8M) at the center distance, as fixing holes for the suction system feet and fixing the vibration damping and the security cables
- Make a hole on the machine (if faired) cover with a diameter suitable for the application of the powder collector.
- Otherwise if machine is not faired, there should be prepared a suction cap very near to the pollution source.
- Lift the suction system docking it to the special hooks placing it in the specific area and fixing it with the nuts included in the equipment and screw it strongly.
- Insert the suction pipe on pipe union of the suction system fixing it with a hose clamp.
- Connect the other end of tube to the powder collector or to the suction cap which have been previously prepared.

START AND STOP

TO START THE MACHINE:

- 1) Set the general switch on “ON”.
- 2) Press the Starting button “I” of the motor protecting switch.

TO STOP THE MACHINE:

- 1) Press the button “O” of the motor protecting switch.

TO DISCONNECT COMPLETELY THE MACHINE:

- 1) Stop the machine.
- 2) Set the general switch on “OFF”.

- We recommend in order to guarantee a longer life to avoid starting and stopping the machine constantly.
- We recommend avoiding the overheating of the machine without filters.

SECURITY DEVICES

The following safety devices have been installed on the machine:

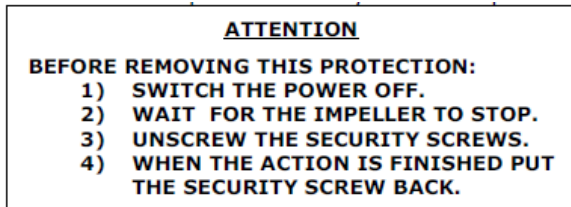
- Automatic circuit breaker with IP55 protection degree.
- Protecting net on the suction mouth of the electrical ventilator.
- Security screws on cover and door.

WARNING!

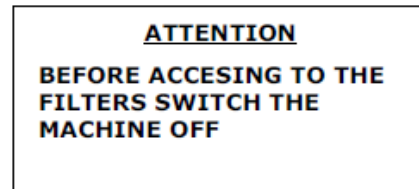
Check regularly the working condition of the security devices.

DISPOSITION OF DANGER AND WARNING PLATES

On the machine there are some danger and warning plates to complete the indications contained in this manual. In case the plate wears out you should replace them with new ones.



Picture 5



Picture 6

CONNECTION TO THE ENERGY SOURCE AND RELATIVE CHECKS

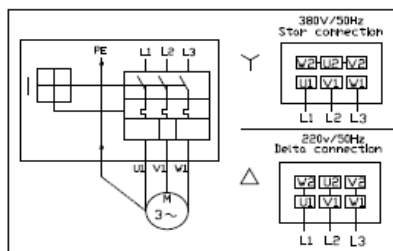
- Verify that the connection voltage indicated on the plate is the same as the network one.
- If fuses are plugged in, please use delayed fuses.
- Detection of the data from the engine plate, written in the Declaration of Conformity EU, for a correct choice of the material for the connection (cable section etc.).
- Connect the feeder to the special plug placed on the machine.
- Give voltage to the equipment and pay attention to the security regulations.
- Check that the calibration of the motor protector switch agrees to the current's value which you can detect on the electrical engine plate and written in the Declaration of Conformity EU.
- ***ATTENTION: IMPORTANT Check the correct direction of rotation of the impeller.***
Please look up on the suction hole in order to check the correct direction of rotation: the impeller must turn in clockwise direction.



Picture 7

The Dietronic s.r.l. declines all responsibility caused by an electrical connection which is not in conformity with the regulations for accident prevention.

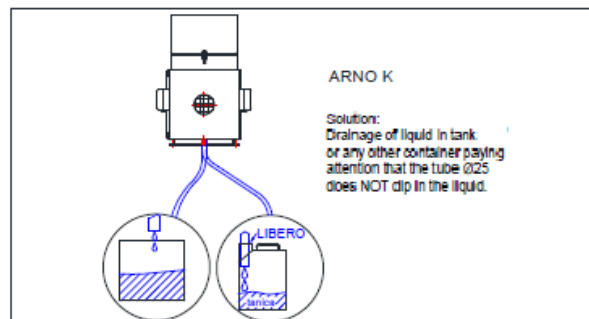
ELECTRICAL LAYOUTS



Picture 8

DRAINAGE FOR THE RECOVERY OF RE-CONDENSED COOLANT LIQUID

Tips for good drainage of the suction system.



Picture 10

Air Quality Specification

Class	Solid particles, max. quantity of particles per m ³			PDP °C	Oil content (liquid, aerosol, oil) mg/m ³
	0.1 µm < d ≤ 0.5 µm	0.5 µm < d ≤ 1.0 µm	1.0 µm < d ≤ 5.0 µm		
1	≤20,000	≤400	≤10	≤-70	≤0.01

3. INSTALLATION

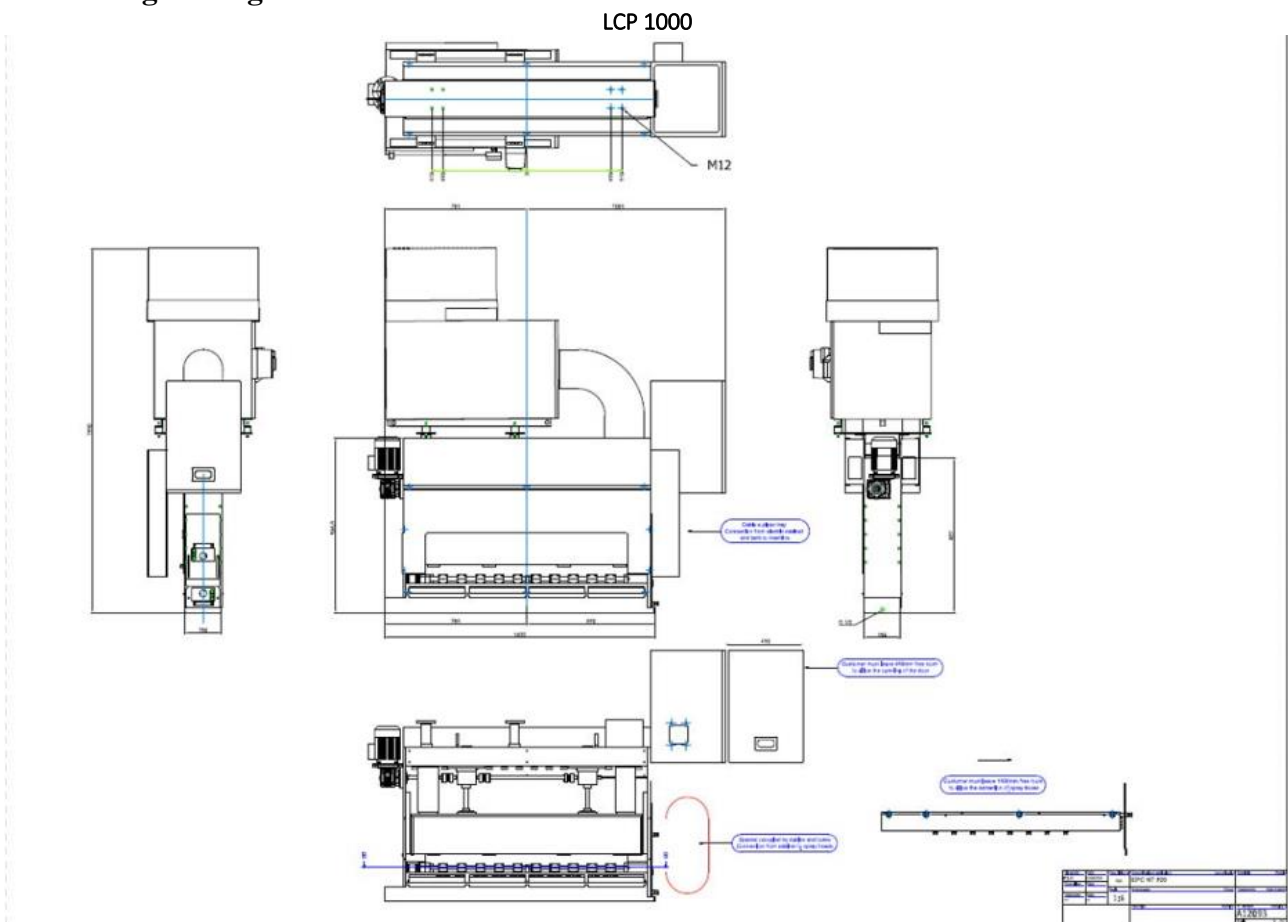
For proper operation, it is imperative that the equipment is placed correctly, placing it in the chosen position, on a suitable, flat, and leveled surface.

WARNING: It is very dangerous not to fix, or fix approximately machines

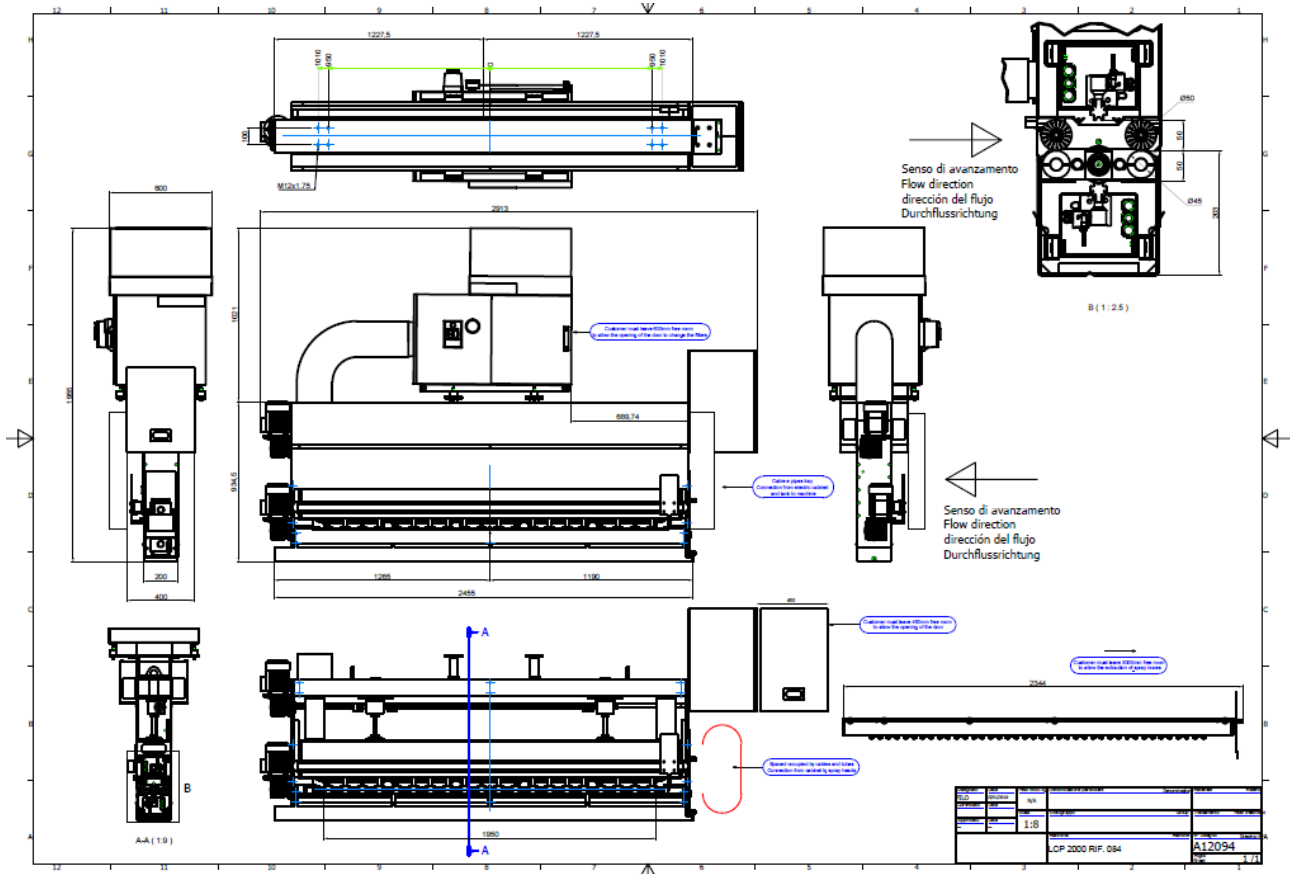
3.1. *Mechanical and Pneumatic Connections:*

For mechanical installation of the spray box use fixing holes:

Positioning: Fixing holes

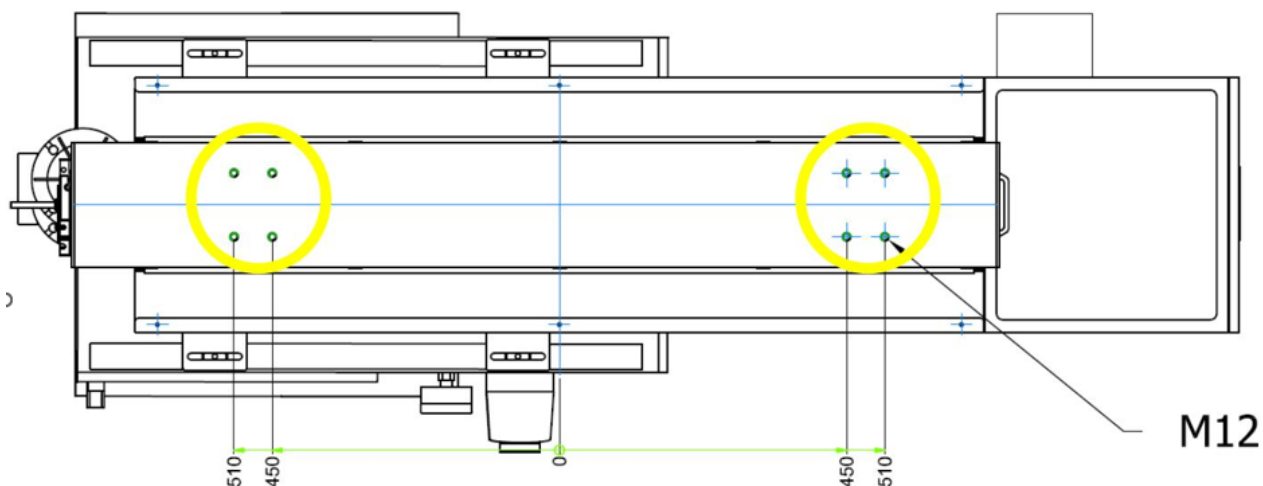


LCP 2000

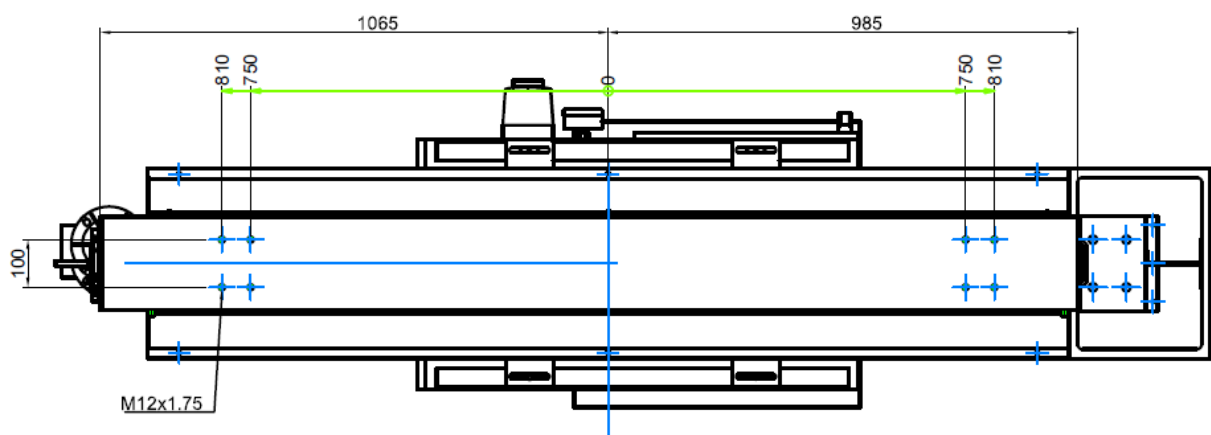


Use the dimensions size of the machine to understand its positioning, checking the dimensional drawings for more details.
Check the correct pass line.

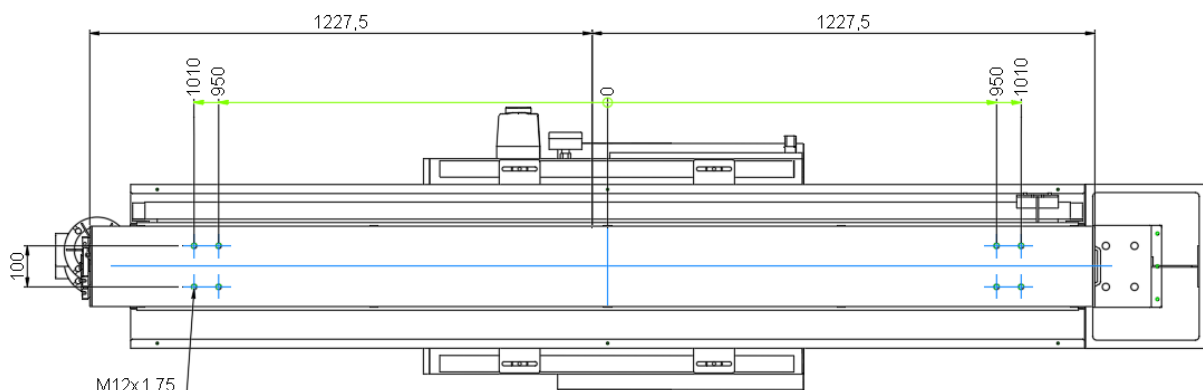
LCP 1000



LCP 1600



LCP 2000



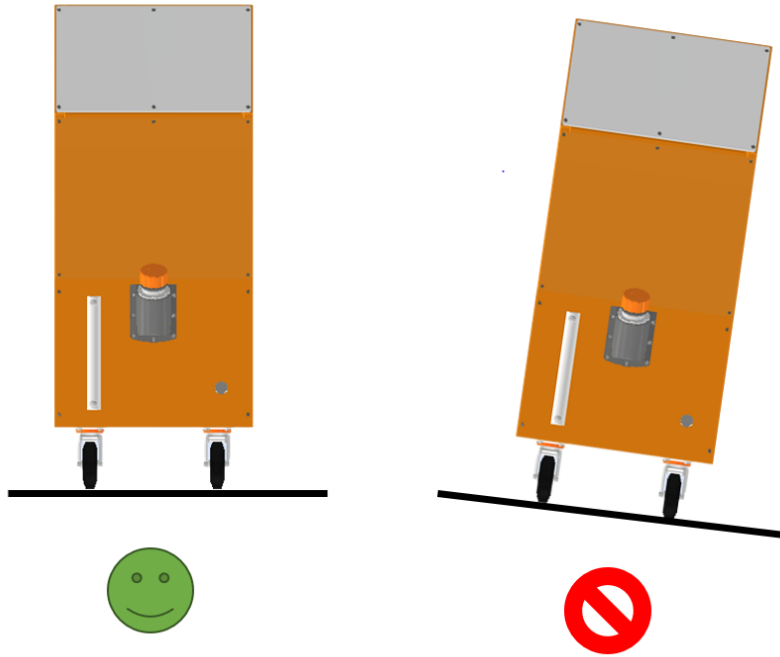
The machine must be secured at its base using the 8 holes at its basement.
Check the dimensional drawings for more details.

Having the ability to extract the spray heads sideways, choose the desired side where you want to carry out this operation for the calibration of the DTJ4 spraying valves or for maintenance. (Mounting allowed with extraction on both sides)

Check that in the chosen position there are adequate free spaces, in order to allow use and maintenance in safe conditions.

3.1.1. Tank Position:

Finding a stable position for the tank.



3.1.2. Connect Tank to Lubricator:

Connect the oil tube from the machine to the tank. Use the labels on the tubes.



3.1.3. Cable connection:



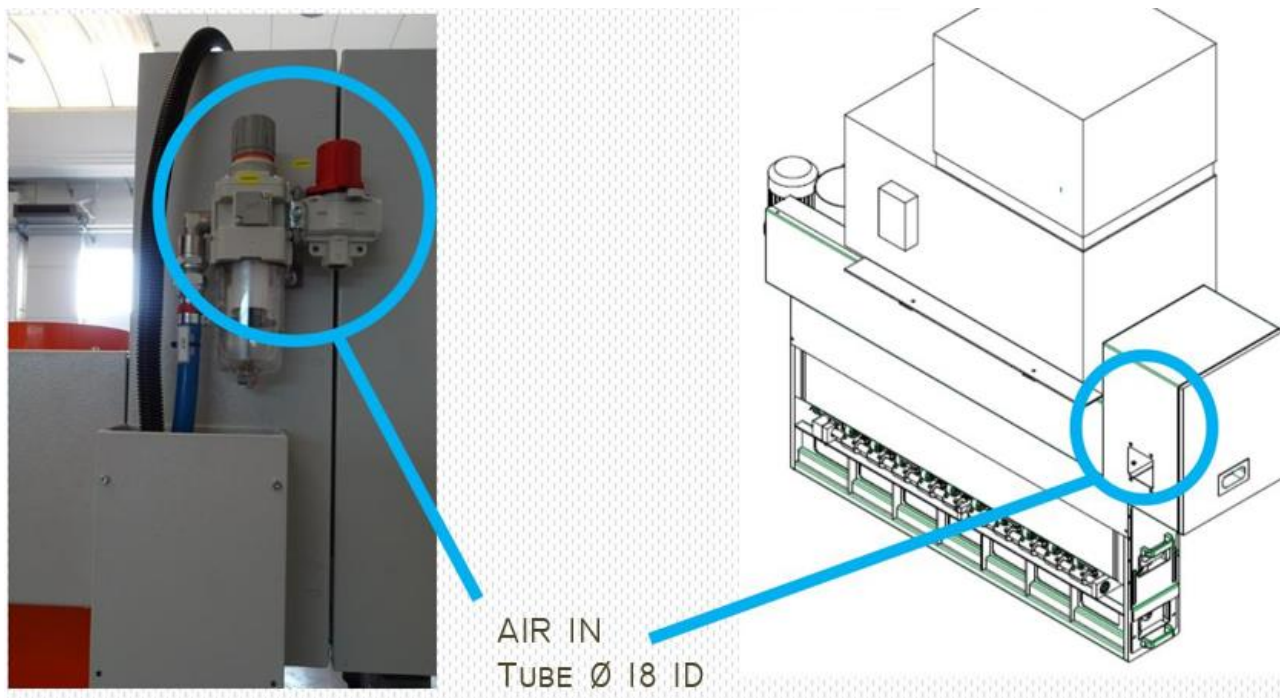
Fasten the electrical connection between the lubrication machine and the electrical cabinet and between tank and electrical cabinet, according to the labelling on the electrical cables.

3.1.4. Compressed Air connection:

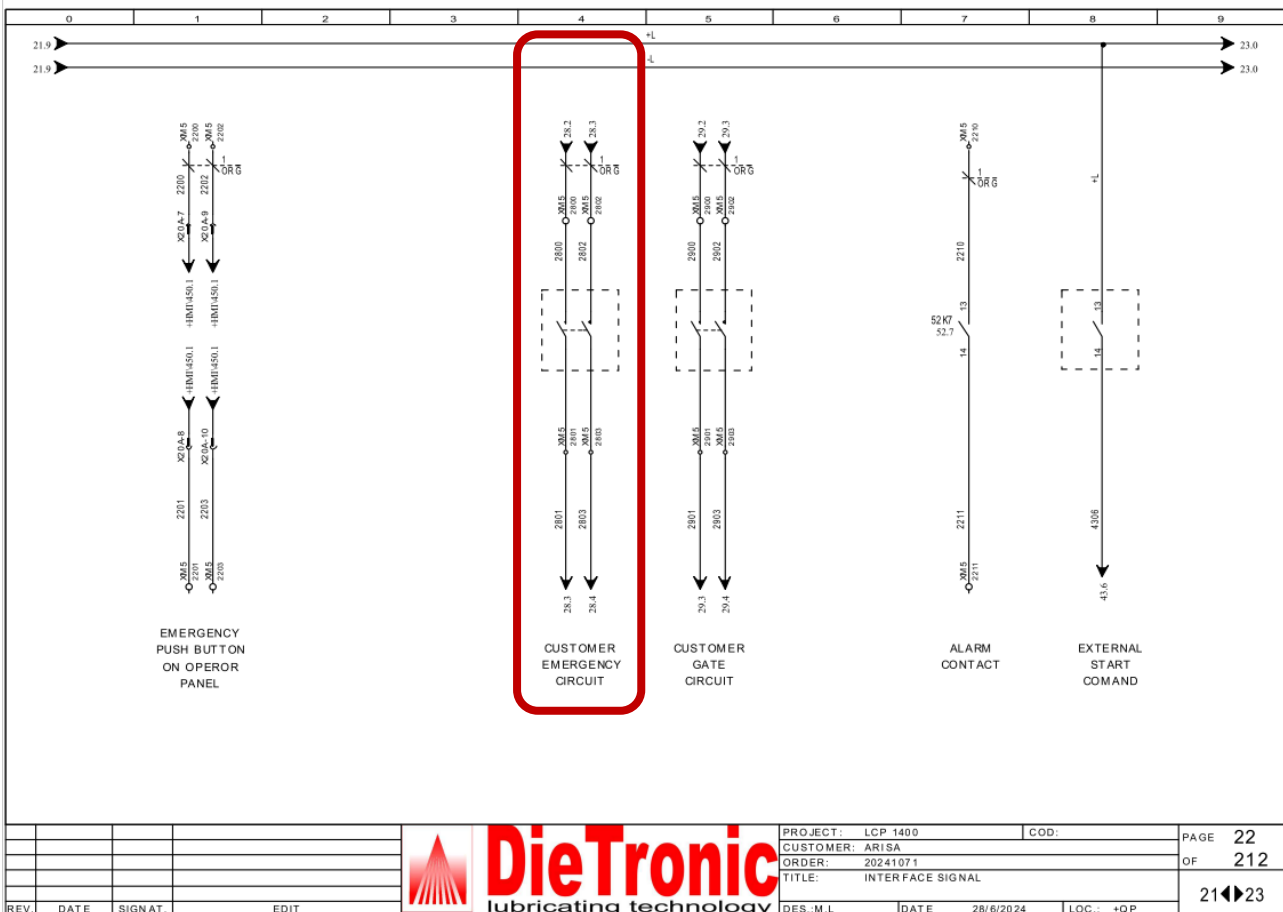
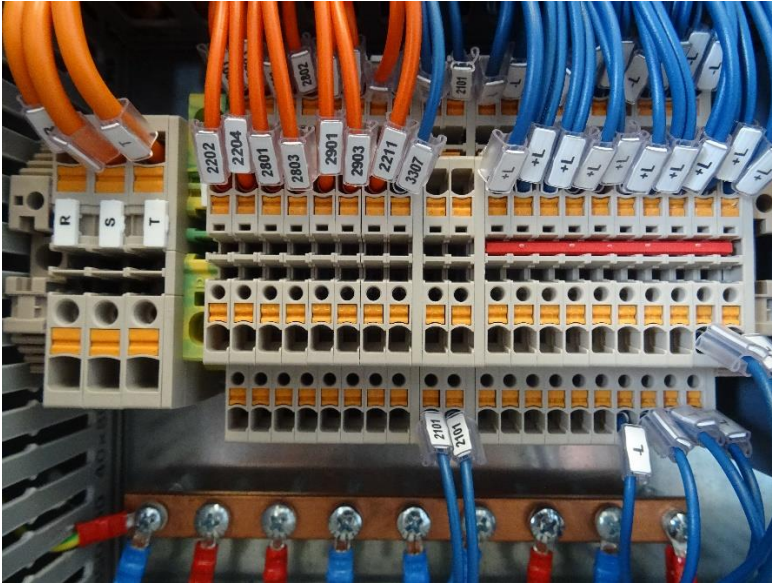
The pneumatic connection must be carried out by specialized personnel.

Through the main connection of the compressed air inlet bring a pipe suitable to depend on the pneumatic characteristics listed above in this manual. (min. inner diameter 18 mm)





Connect the emergency circuit and the emergency gates circuit to enable the machine to receive the signal that all the gates are closed and that the line is working.



3.3. *Acceptable environmental values for proper functioning*

The machine is designed to operate at an ambient temperature between 5 and 35°C above zero, with an ambient humidity between 30% and 95% non-condensing.

4. COMMISSIONING

4.1. *Fill the tank with oil:*

Once the machine is inserted in the line and all the previous steps are carried out, you can proceed with the **filling of the tank**. The best option is to fill the tank directly from the oil's barrel. Fill the tank with new, never used, oil.

Maximum tank capacity: 40 liters

Once the tank is filled close firmly the cap of the tank.

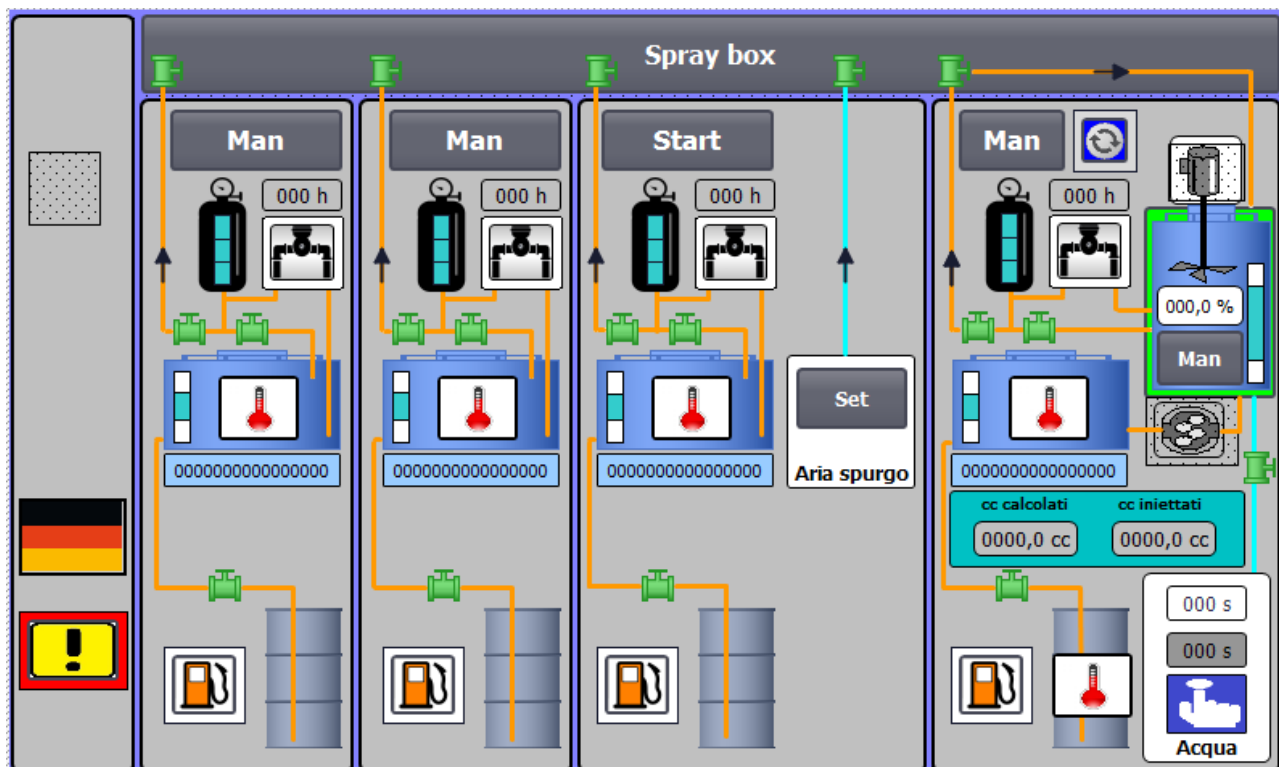
CAUTION: Never fill the tank with used oil to avoid contamination and clogging of the machine

4.2. *System filling:*

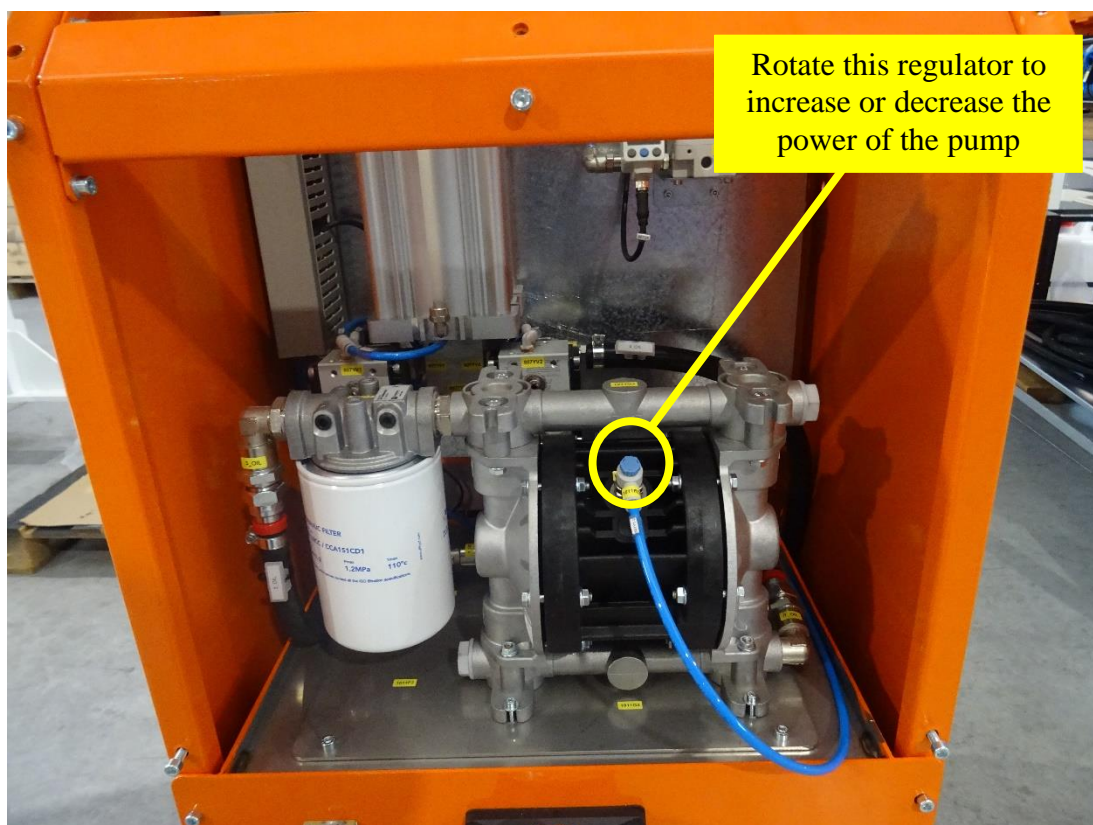
On the main screen, press the OIL button to access the oil selection screen.



Choose the oil you want to use, select the MAN button and keep it pushed until you see a message. The machine will set the oil and start the pump.

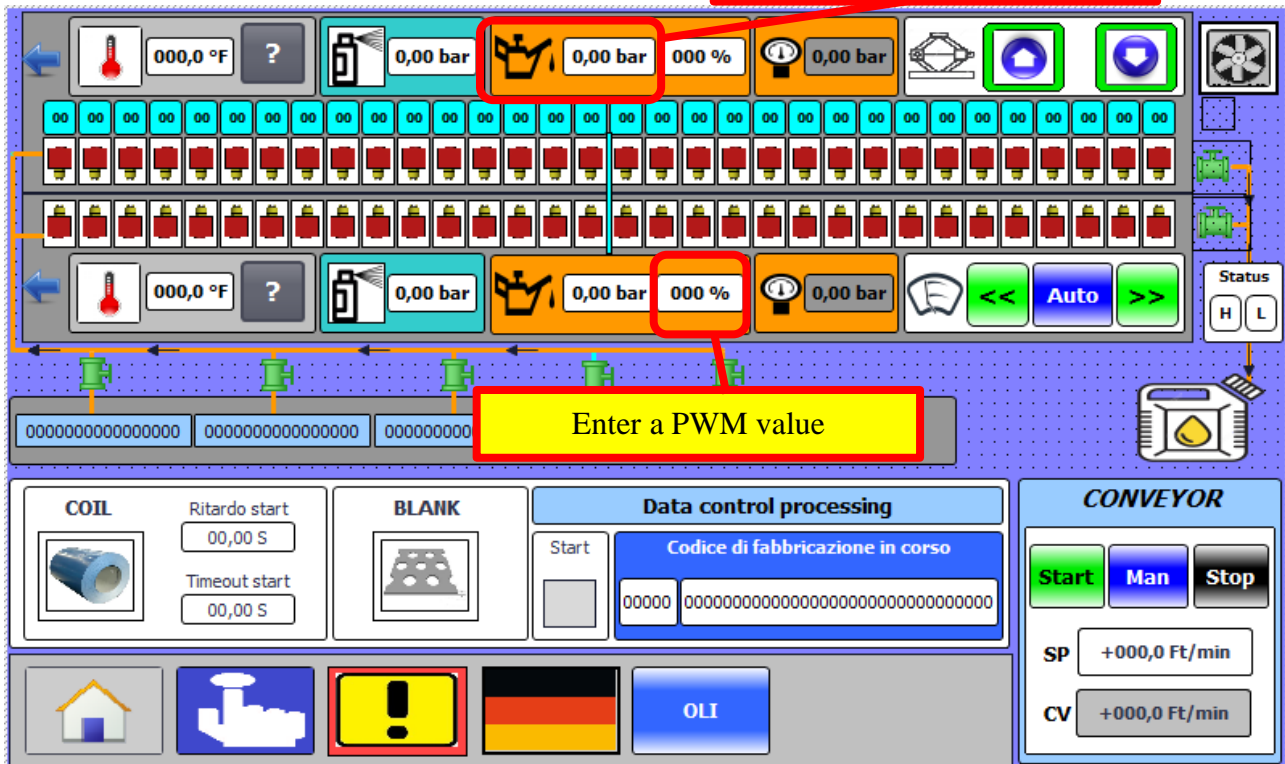


Adjust the air pump located inside the tank unit until the accumulator loading is smooth.



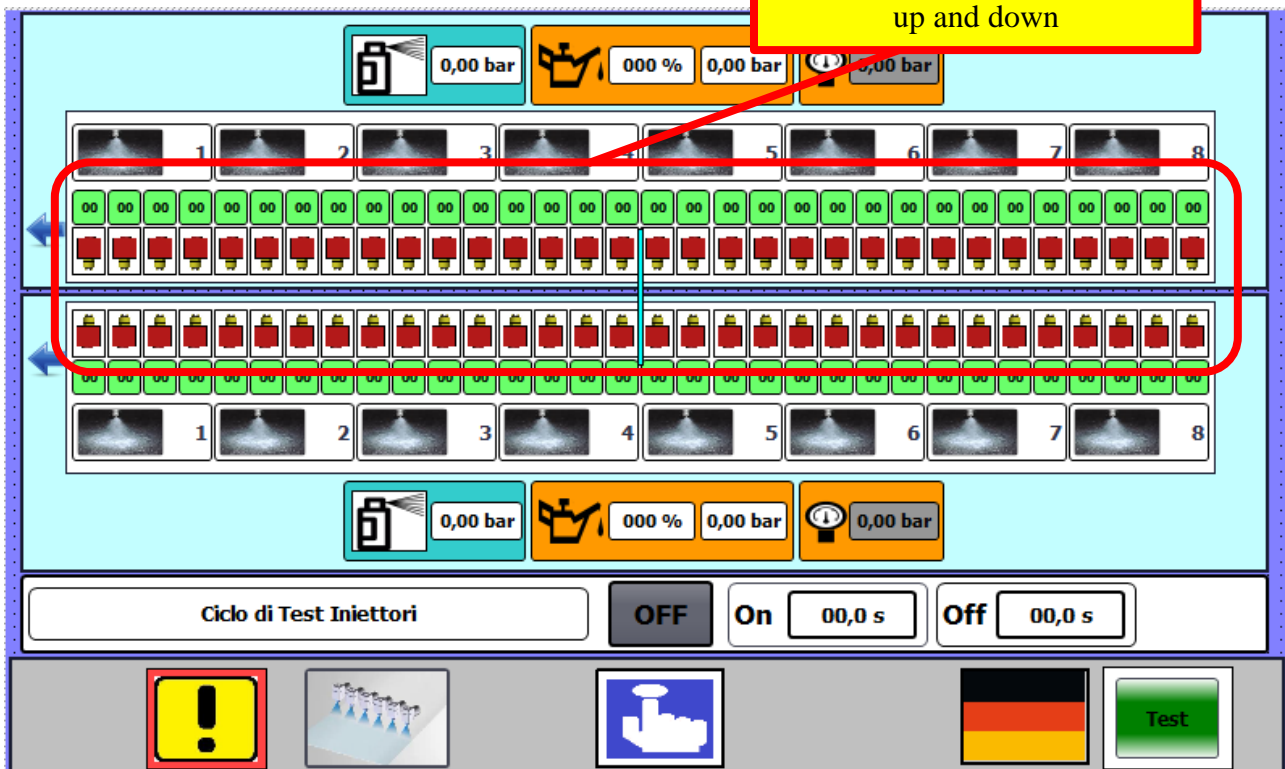
Go to the AUTO page to set the oil pressure.

Enter the desired pressure
(min 0.00 Bar – max 3.00 Bar)



Go to the MANUAL page and select all the nozzles up and all the nozzles down and see if they are dispensing oil.

Select all the nozzles
up and down



Exit the MANUAL page

5. OPERATOR PANEL FUNCTIONS (HMI)

5.1. Home page



push the button to exit of the application

push the button to enter in the alarm page

push the button to enter in the page for manual settings.

push the button to enter in the page "save the recipe"

Touch this to go to the "oil page"

Touch this to change language

push the button to enter in the page to set the work parameters

5.2. Setup parameter for automatic mode

The screenshot shows the DieTronic LCP control interface. It features a top section with various status indicators and control buttons, a middle section with a large array of small icons representing different manifolds, and a bottom section with several functional blocks including COIL, BLANK, Data control processing, and CONVEYOR. Red callout boxes with arrows point to specific elements, providing instructions on how to use them.

Callouts:

- Touch the button to switch on the heater
- Write to set the temperature desired
- Write here a pressure for the pulverization air (min 0,00 bar – max 3,00 bar)
- Write here the oil pressure (min 0,00 bar – max 3,00 bar)
- Write here the PWM percentage
- Here you can raising or lowering the upper spraybox
- Here you can switch on the suction (with the start signal it will starts in automatic)
- In this window you can manage the conveyor. Set a speed in this window
- SP +000,0 Ft/min
- and, when you push the start button in manual mode you can see the actual speed in this window
- CV +000,0 Ft/min
- Touch this to change language
- Touch this to go to the “oil page”
- push the button to enter in the alarm page
- push the button to enter in the page for manual settings.
- push the button to exit of the application
- Touch the button to switch on the heater
- Touch here to check the temperature of each manifold

Set the delay start in this window to delay the start of the lubrication

Set the timeout start in this window to stop the lubrication after the seconds you choose.

Push this button to select the coil mode.

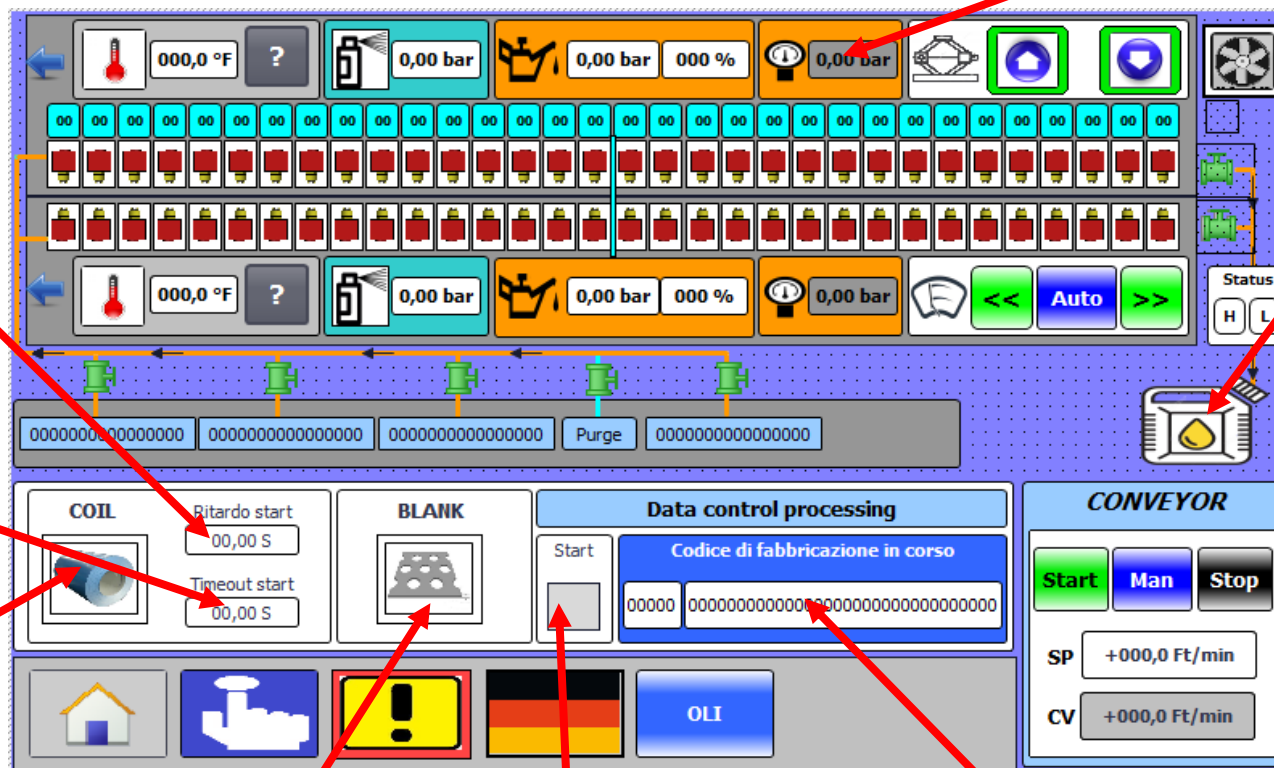
Push this button to select the blank mode.

Here you can see the start coming to the machine. When the star is on the grey square becomes green

Here you can see the actual pressure of the oil

this is the waste tank. When the waste tank is ok the little square on the indicator will be green, when the waste tank is full the little square on the indicator becomes red and you have an alarm

In this window you can view the actual order working.



5.3. Manual command page

The interface displays the following elements:

- Top Section:** Three input fields for '0,00 bar', '000 %', and '0,00 bar'.
- Valve Selection:** Two rows of 8 nozzles. Each nozzle has a green button (00) and a red button (00).
- Bottom Section:** A 'Ciclo di Test Iniettori' section with 'OFF' and 'On' buttons, and two '00,0 s' fields. Below this are icons for an alarm, a manifold, a hand, a language flag, and a 'Test' button.

Write here a pressure for the pulverization air (min 0,00 bar – max 3,00 bar)

Write here the PWM percentage

Write here the oil pressure (min 0,00 bar – max 3,00 bar)

Here you can see the actual pressure of the oil

select one on more valves to preselect the nozzle you want to use. Keep pushed the first of each row to select all the nozzles

Write the two times and switch ON with at least one nozzle selected to test them intermittence

Touch this to enable the pulverization air for the manifold (pressure must be more than 0.00 bar)

push the button to enter in the alarm page






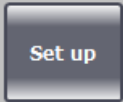

Touch this to go to the automation page




Touch this to enable the oil erogation for the nozzles selected



Touch this to change language

Touch this to enable the test of each nozzle (electrical test)

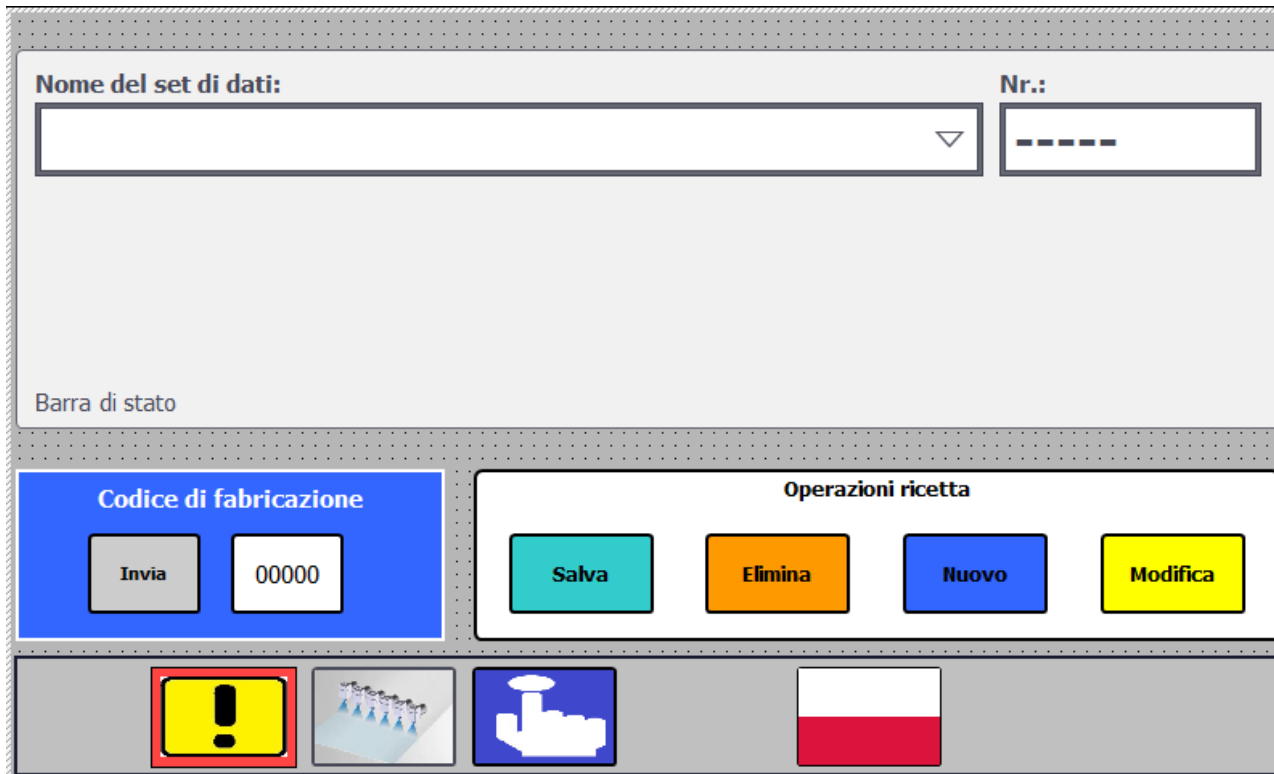
5.4. Save configuration machine

Configurazione:		Nr.:
<input type="text"/>		<input type="text" value="----"/>
Nome configurazione:		Nr.:
<input type="text"/>		<input type="text" value="----"/>
<div>      </div>		
Barra di stato		
<div>    </div>		

-  button to save the configuration file
-  button to save as... the configuration file
-  button for deleting configuration files

-  button to load the saved data in the PLC
-  button to load the saved data from the PLC

5.5. Save recipes



The function of the buttons is same of the buttons of the previous page

5.6. Alarm page

<div>Uscita</div> <div>Storico</div> <div></div> <div>Reset</div>	N°.	Data	Testo

In this page is possible see the lists of status of the machine and any alarms or faults.

The states shown can be reset via the dedicated button (Reset).

You can also access to the History page by the apposite button.

POSSIBLE WINGS	CLASSIFICATION	POSSIBLE SOLUTIONS
ALARM 1.6 : PLC hardware alarm	ALARM	PLC in error, check that everything is connected correctly
ALARM 5.3 :Mixer pump overload	ALARM	Check connection of the mixer motor, if connected
ALARM 5.4 :CB Conveyor motor	ALARM	Ensure that there are no obstacles to the movement of the conveyor.
ALARM 5.5 :Tank air alarm	ALARM	Check the presence of air on the main tank regulator. Must be 6.00 Bar
ALARM 5.6 :Drive conveyor alarm	ALARM	Check that the Drive is not in STOP or FAULT in the main cabinet

ALARM 5.7 :Conveyor encoder alarm	ALARM	Check if the encoder conveyor is moving
ALARM 5.8 :CB cabinet cooler	ALARM	Check that there are no obstacles in the rotation of the cooling fan and that it is connected correctly
ALARM 5.9 :CB 12Vdc power supply spraybox up	ALARM	Check that the connectors are correctly connected. Check that the 12VDC power supply is working properly
ALARM 1.0 :Min level buffer tank "X" reached	ALARM	Check whether the automatic mode for the oil concerned is active. Check whether the pump charges the accumulator sufficiently, if not, increase the flow rate with the regulator on it
ALARM 1.10 :Missing compressed air in spray box	ALARM	Check the pressure detected by the electronic pressure switch on the lubrication unit. If less than 3 bar, check the flow rate of the compressed air network.
ALARM 1.12 : Timeout load mixer water	ALARM	Increase the flow rate of the water tap in the mixer or the valve opening time.
ALARM 1.13 :Profinet communication timeout	ALARM	Check communication with the line
ALARM 1.7 :Different code order	ALARM	Check the existence of the required order and if it does not exist create it.
ALARM 1.8 :Gates opened	ALARM	Close the gates and reset the alarm

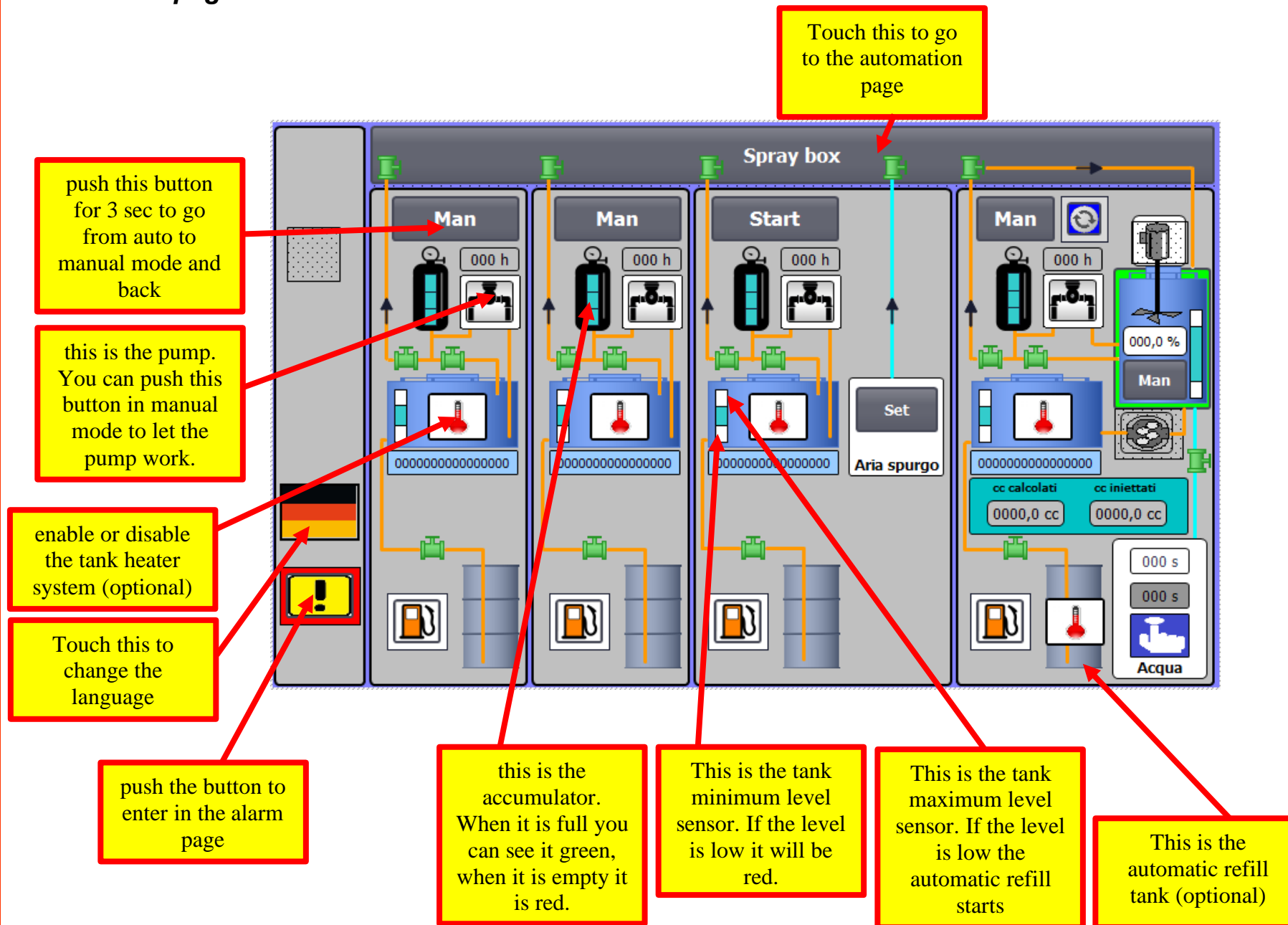
ALARM 1.9 :Emergency on	ALARM	Reset the alarm from the line or by resetting the buttons on the machine
ALARM 2.1 :Overload suction motor	ALARM	Check that there are no obstacles to fan movement. Check the presence of the power supply phases
ALARM 2.10 :Spray box door open	ALARM	Make sure no one is working on the spraybox then reset
ALARM 2.11 : Mixer gear pump encoder alarm	ALARM	Check that the encoder is functioning correctly
ALARM 2.2 : Overload heater spraybox up	ALARM	Check power supply 48VDC
ALARM 2.3 : Overload heater spraybox down	ALARM	Check power supply 48VDC
ALARM 2.4 :Overload Tank heater	ALARM	
ALARM 5.11 : CB 12Vdc power supply spraybox down	ALARM	Check that the connectors are correctly connected. Check that the 12VDC power supply is working properly
ALARM 5.14 :CB LIFT motor	ALARM	Ensure that there are no obstacles to the movement of the lift spraybox system
WARNING 1.0 :Min level tank "X"	WARNING	Refill the tank
WARNING 1.1 :Nozzle wash suggested	WARNING	Start a wash cycle as soon as possible
WARNING 1.10 :Change filter tank "X"	WARNING	Change filter on the pump, put 0 on the counter of hours and reset the warning
WARNING 1.11 :Waste tank full or disabled	WARNING	Empty the Waste tank or switch it on
WARNING 1.12 :Suction filter clogged	WARNING	Change filters on suction

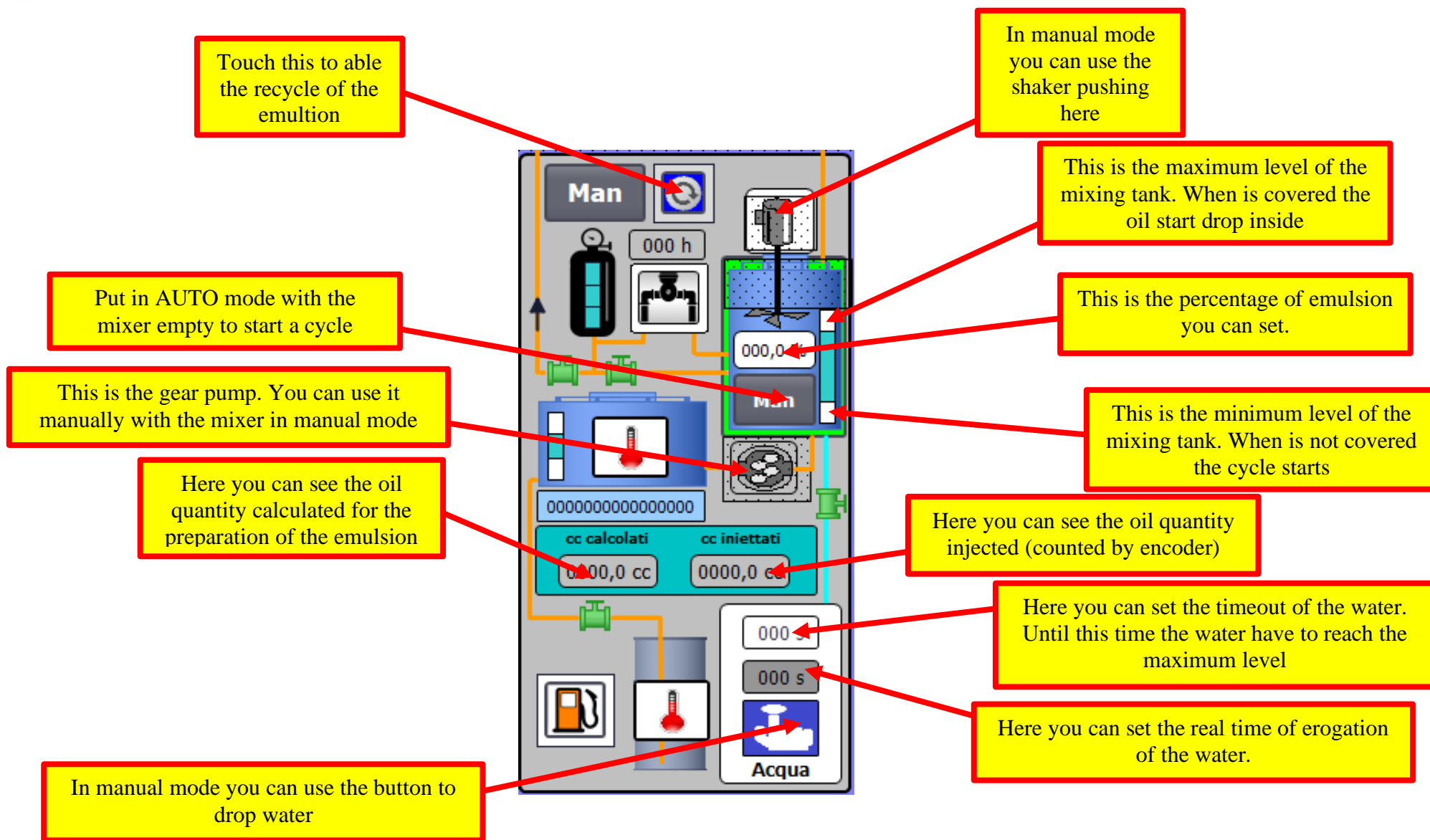
WARNING 10.0 :Fault HFC on Manifold “X” Up	WARNING	Check which valve does not work and replace it
WARNING 2.11 :Max level accumulator “X” reached	WARNING	Adjust pump flow rate
WARNING 2.15 : External command less than 'Delay start' time	WARNING	Decrease the “Delay Start”
WARNING 2.7 : External control time beyond the value of "Timeout start"	WARNING	Increase the “Timeout Start”
WARNING 3.0 :Manifold “X” up heater resistor alarm	WARNING	Check the indicated manifold resistor and replace it if faulty
WARNING 4.0 :Manifold “X” down temperature probe alarm	WARNING	Check the indicated manifold temperature probe and replace it if not functioning
WARNING 5.1 :Manifold “X” up transistor command heater alarm	WARNING	Check that the heating ignition command reaches the board correctly and if it is not transferred, replace the board

Here you can see the Alarm History

	N°.	Data	Stato	Testo
Uscita				
Storico				
Reset				

5.7. Oil page





5.8. Setup Pressure

Regolazione tempi e pressioni lavaggio

0000000000000000	0000000000000000	0000000000000000	0000000000000000	
Svuotamento manifold <div style="border: 1px solid black; padding: 2px; text-align: center;">0,00 bar</div>	Svuotamento manifold <div style="border: 1px solid black; padding: 2px; text-align: center;">0,00 bar</div>	Lavaggio manifold <div style="border: 1px solid black; padding: 2px; text-align: center;">0,00 bar 000 s 000 s</div>	Svuotamento manifold <div style="border: 1px solid black; padding: 2px; text-align: center;">0,00 bar</div>	
Svuotamento ugelli <div style="border: 1px solid black; padding: 2px; text-align: center;">0,00 bar 00 c 00 c</div>	Svuotamento ugelli <div style="border: 1px solid black; padding: 2px; text-align: center;">0,00 bar 00 c 00 c</div>	Lavaggio ugelli <div style="border: 1px solid black; padding: 2px; text-align: center;">0,00 bar 000 s 000 s</div>	Svuotamento ugelli <div style="border: 1px solid black; padding: 2px; text-align: center;">0,00 bar 00 c 00 c</div>	
Ricarica <div style="border: 1px solid black; padding: 2px; text-align: center;">0,00 bar</div>	Ricarica <div style="border: 1px solid black; padding: 2px; text-align: center;">0,00 bar</div>	Asciugatura manifold <div style="border: 1px solid black; padding: 2px; text-align: center;">0,00 bar</div>	Ricarica <div style="border: 1px solid black; padding: 2px; text-align: center;">0,00 bar</div>	
		Asciugatura ugelli <div style="border: 1px solid black; padding: 2px; text-align: center;">0,00 bar 00 c 00 c</div>	Riciclo <div style="border: 1px solid black; padding: 2px; text-align: center;">0,00 bar</div>	<div style="background-color: #007bff; color: white; padding: 5px; margin-bottom: 5px;">Salva</div> <div style="background-color: #6c757d; color: white; padding: 5px;">Chiama</div>
			Svuotamento <div style="border: 1px solid black; padding: 2px; text-align: center;">0,00 bar</div>	

!



OLI



In this page you can choose the pressures and the times of the emptying and washing procedure. You can also save and call them.

7. PREVENTIVE MAINTENANCE

Make sure the oil you pour into the tank is always brand new and not contaminated with any kind of dust or particles.

Is always better pour the oil directly from the drum with the help of a manual pump. In this way you are always sure the oil will not be contaminated because all the oil suppliers guarantee always high filtration grade.

Instead of pouring the oil from the drum into a smaller tank that will surely be contaminated by dust, metal particles and all the other kind of dirt.

Las but not least using a smaller tank can increase the probability of mixing different type of oil which can cause a lot of clogging issue creating oil coagulation.

CAUTION: DO NEVER CHANGE THE OIL TYPE WITHOUT CLEANING THE CIRCUIT AND THE NOZZLES




8. REGULAR MAINTENANCE

For any doubts, question, or issue with the machine please send an [email](#) and submit and all the possible information (Serial Number, problem you have and maybe photo or video) to help us solve you the problem.

You can also write an e-mail to: service@dietronic.eu

We will give you feedback within 24 hours.

8.1. Tools needed:

Position	Description	Size	Picture
1	Allen Key	5mm	
2	Wrench key	21mm	
3	Tube key	8mm	

8.2. Oil Filter Replacement

Before remove the filter put 0 on the pressure on the HMI panel. After that open the carter of the tank where the filter is located.



Unscrew the filter and replace it (remember to wet the gasket with some oil). Put some pressure on the HMI panel to see if there are leakages.

After the replacement of the filter, if you have displayed the alarm, remove it.



Touch the hour counter above the pump button

Insert the number 0 and push enter.

8.3. Valve Replacement

8.4. Suction filter maintenance

To carry out the maintenance:

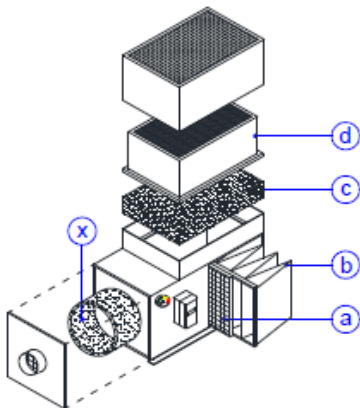
- STOP THE MACHINE.
- Press the stop button “O” of the motor protection switch.
- Set the general network switch on the position “OFF”.
- Be sure that the moving parts (impeller) are completely stopped.
- Use all individual protecting devices prescribed by the regulations being in force for the work security.

Maintenance operations must be carried out only by specialized staff with knowledge about the maintenance procedures and about the precautions to be adopted.

The filtering set is shown on the plate, which is fixed on the door for filters extraction and on the enclosed documentations.

The filtering set is composed by four numbers, which correspond to the letters “a-b-c-d” of the following picture 11 and table 2.

Suction system K are equipped also with a centrifugal filter “x” (not indicated on filtering set).



Picture 11

	ARNO 1		ARNO 2		ARNO 3			
set	code	item	code	item	code	item	description	
CENTRIFUGAL FILTER ONLY FOR ARNO KC								
x	-	00069	FC1	00070	FC23		Centrifugal filter	
FILTER FOR ARNO K								
a	1	00044	FMP1	00045	FMP23		Metallic filter	
b	2	00046	FTU1	00047	FTU23		Synthetic pocket filter	
	3	01308	FTR1	01309	FTR23		Pocket filter in fiber glass	
	4	00621	FTG1	00605	FTG23		Pocket filter in fiber glass	
c	4	01904	FPN K1	01905	FTN K2	01906	FTN K3	Black panel filter
d	8	00052	FAE1 E10	00057	FAE2 E10	00064	FAE3 E10	High efficiency filter E10 EN1822
	9	00053	FAE1 E11	00058	FAE2 E11	00065	FAE3 E11	High efficiency filter E11 EN1822
	A	00054	FAE1 E12	00061	FAE2 E12	00066	FAE3 E12	High efficiency filter E12 EN1822
	H	02038	FAE1 H13	02039	FAE2 H13	02040	FAE3 H13	Absolute Hepa filter H13 EN1822
	2	-	-	01324	FF2 E10	01328	FF3 E10	High efficiency filter E10 EN1822
	1	-	-	01325	FF2 E11	01332	FF3 E11	High efficiency filter E11 EN1822
	X	-	-	01325	FF2 H13	01348	FF3 H13	Absolute Hepa filter H13 EN1822
GASKETS KIT								
-	-	KGRK1	-	KGRK23	-	KGRK23	Gaskets kit	

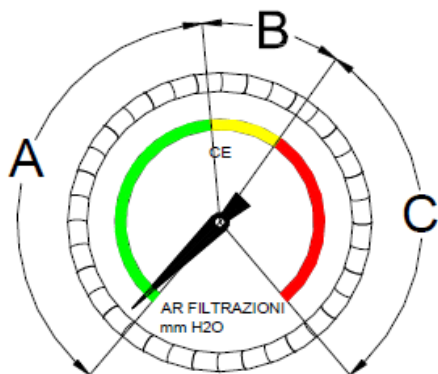
PROGRAM OF MAINTENANCE

Quantity	Legend filter position	Description	Program of maintenance	
			Intervention	Average time
1	X	Centrifugal filter	Replacement	12 months
1	a	Metallic filter	Washing	12 months
1	b	Pocket filter	Replacement	12 months
1	c	Black panel filter	Washing	12 months
			Replacement	24/36 months
1	d	Final filter	Replacement	24/36 months
		High efficiency filter HEPA	Replacement	24/36 months

Table 3

This maintenance program highlights indicative average times, the result of statistics developed based on more than a thousand plants that DIETRONIC maintains annually with its customers. The average times for the replacement of filters can vary in defect or in excess, depending on the processed material, on the difficulty of the working process and on the use of high-pressure pumps.

GAUGE TO MONITOR FILTER CONDITIONS



Picture 12

How to read the clogging gauge of the filters a, b, c, d:

Sector A (Green):

Optimum efficiency of suction system.

Sector B (Yellow):

Caution sector.

Proceed to replacement of filters b and/or c and/or d.

Sector C (Red):

Insufficient efficiency of suction system.

Proceed to replacement of filters b + c and/or d, Washing or replacement of filter a and/or c and at the control and possible cleaning of the suction inlet.

NOTE:

- If the pressure gauge hand is outside Band A, replace the clogged filter (s) by extracting each filter individually and checking the behavior of the pressure gauge hand from time to time

9. TROUBLESHOOTING

Fault	Cause	Action required
Poor lubrication quality	Nozzle dirt	Disassemble and clean the nozzle
	incorrect assembly	Check whether the nozzle is screwed in too much or too little
	incorrect assembly	Check whether the atomising air cap is screwed on too much or too little
	Air in the oil circuit	activate all nozzles in manual mode for 20 sec.
	heating system On or Off depending on oil viscosity	Below 50cst OFF - above ON
	Incorrect pulverization air	Finding the right pulverization pressure according to production
	Making a Test Nozzle	Solve the problem according to the test result (e.g. injector replacement)
Drops on the sheet	Clogged suction filters	Changing filters
	Worn Wiper	checking and replacing the wiper
	Wiper does not move correctly	check the solenoid valve and reed sensors
Oil out of stock	Checking the barrel in the PIT	The alarm is displayed if the barrel runs out, but check again
	Air pump not working	Check the air regulator on the pump
	Broken air pump diaphragm	Replacing the pump diaphragm
	Automatic mode not selected	select automatic mode to allow the oil to be loaded into the accumulator
Temperature alarm	Check the temperature sensor inside the collector concerned	if faulty, replace it
	Check the heating resistor inside the collector concerned	if faulty, replace it
Injector feed alarm	Check the injector power supply	if faulty, replace it

10. PERIODICAL CLEANING

Remember to keep clean all the parts of the machine!

Frequently clean the gutters of the oil aspirators and generally every part of the machine in order to always have optimal results.

WARNING!

Use specific products (5002403: DI Wash 20l - 5002404: DI Wash 200l)

DON'T USE WATER!!!



11. ANNEX