

# INSTRUCTION MANUAL TDRY DTG



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S.E.F.A<sup>®</sup>
z.i pastabrac
11260 esperaza
FRANCE

Tel:33 (0)4.68.74.05.89 - Fax:33. (0)4.68.74.24.08

**E-Mail**: contact@sefa.fr



## **WARRANTY CONDITIONS**

The warranty period begins from the day the equipment is commissioning at the user's premises, as evidenced by the return of the guarantee form and the delivery note, for a period of two years for a current use of 8 hours a day, ie 3000 hours.

The warranty is strictly limited to our materials, against defects in material and workmanship. It is up to the buyer to prove the said defects.

Our liability is limited to the obligation to rectify or replace parts, free of charge, recognized defective by us, without being able to claim any compensation for any reason whatsoever.

Replaced parts under warranty:

Remain our property,

Deposit billed

A cancellation credit is triggered upon the return of defective parts.

The return will have to occur ONE MONTH MAXIMUM after the intervention.

#### **THE WARRANTY DOES NOT COVER:**

Consumable supplies such as:

- Fuses, LED, gasket, hoses, nozzles, filters ...
- The supplies not being our pure manufacture, are under the guarantee of their manufacturer.

#### **WARRANTY DOES NOT APPLY:**

Replacements or repairs that would result from normal wear and tear of the equipment and machinery, damage or accidents due to negligence, lack of supervision or maintenance, defective use or modifications without our written consent.

In the event of a defect originating from the material supplied by the purchaser, nor of a design imposed by this one.

To repairs that would result from damage or accidents occurring during transport.

To the maintenance operations and adjustments inherent to the use of the machine, and indicated in the maintenance manual, such as:

- intermediary settings
- tightening of piping, etc. ...



For pneumatic machines, all traces of detergent oil in the pneumatic circuit inhibit the guarantee conditions mentioned above.

For technical information or ordering spare parts, give the machine reference and its serial number.



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## **CARACTERISTIQUES**

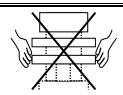
Weight in working order	350 kg		
Height	830 mm		
Depth	1350 mm		
Width	1750 mm		
Dimensions of the plate	410 x 540 mm		
Power supply	220/240 V Single phase + Ground 50/60 Hz		
Power	3700 W		
Amperage	16A		
Electronic temperature controller			
Accurate to	+/- 1%		
Adjustable from	0 à 160 °C		
Electronic timer			
Accurate to	+/- 1%		
Adjustable from	0s à 99min		
Noise	Inférieur à 70 dB (A)		

## **MACHINE SETUP**

#### USE BY QUALIFIED PERSONNEL



#### DO NOT HANDLE THE MACHINE FROM DRAWERS!



Unload the machine from its original craft, it's fixed to the pallet. Push on the castors'brakes to activate it.

Do not place the machine too close from an other (or a wall) to ease air circulation.

EleConnect the electrical box on the right of the cabinet with the plug provided (230 Volt + Earth / 50 or 60 Hertz, 16A).

Adjust the height of the feet for ergonomic use.



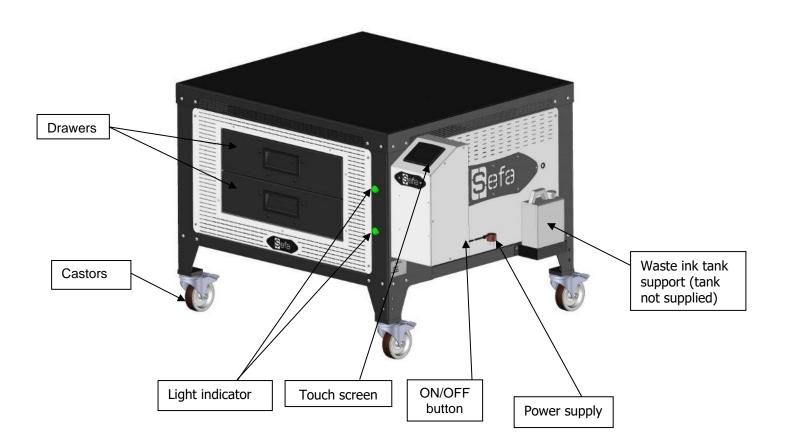




## **GENERALITIES**

This drying cabinet has been designed to perform intensive production while respecting the article L 233-5 of the Labor Code, to ensure the safety of the user.

This cabinet has been designed for an operator working in front of the machine or on the side of the drawers.



## **USE**

It is recommended to read the "instructions for use" carefully before starting any drying operation. The cabinet must be used by an authorized person who has been informed of the risks that may be caused by misuse of the equipment.

The adjustments (electrical and mechanical) made by our technicians in the workshop as well as the safety measures implemented on the machine must not be modified in any case. Otherwise, the company SEFA will release all responsibilities on possible problems related to the said machine.



#### 1. SECURITY

#### THIS DEVICE IS DESIGNED TO BE USED BY ONE USER

#### **USE BY QUALIFIED PERSONNEL**

#### a) International symbols



OFF

ON



**HOT SURFACE** 



DANGER, WARNING



**RISK OF ELECTROCUTION** 



#### <u>b) Important points</u>

Obtain personal protective equipment E.P.I. (gloves and glasses for example) Do not touch the hot parts of the device during use.

Do not put hands between the trays once the device is turned on.

When handling, ensure that the operator does not risk anything in terms of burns, electrocution or other.

Perform a daily inspection of the machine before starting production.

In the area around the machine, make sure there is no one before starting.

If the machine does not work properly, switch off the power supply immediately and look for the cause (see chapter "Maintenance" in the manual).



#### c) Safety features on the machine

Protections and safety devices must not be modified.

They must be reassembled in case of possible removal for maintenance.

They must be kept in place and in good condition during normal operation.

The DUPTDRY DTG is equipped with safety systems that protect the operator from pinching.

The main security features are:

#### d) Protection

The enclosure of the cabinet protects the user from electrical devices. Only qualified personnel can use the machine.

#### e) Manual

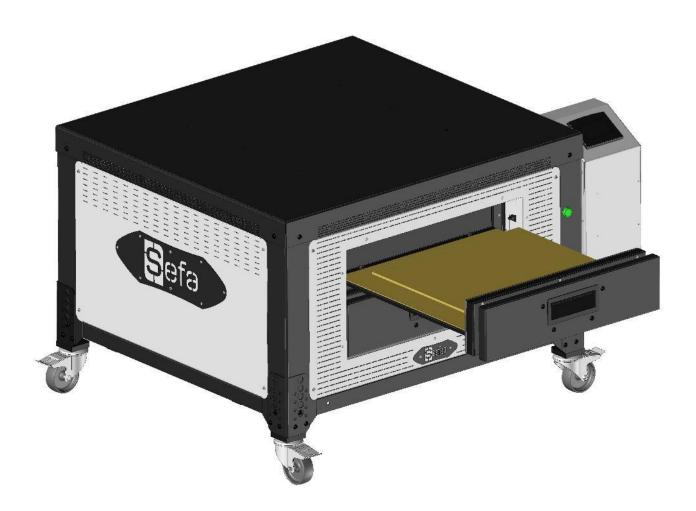
It is provided with the delivery of the machine, technical documentation of the components used. Please read it before handling the SEFA machine.



### 2. START UP

The operator must switch on the machine by flipping the main switch on the back of the machine's electrical box.

This machine must be used by qualified personnel. When powering up, the temperature control, PLC and power supplies are energized.





#### 3. CONTROL PANEL

#### Home screen:



- (1) Date
- (2) Time
- (3) Parameters
- (4) Upper drawer timer
- (5) Total counter
- (6) Upper drawer temperature
- (7) Lower drawer timer
- (8) Static relay indicator
- (9) Daily counter (resetable). Long press to reset (3 to 4 seconds)
- (10) Activation banner (ON/OFF)

The green lights turn on to indicate that the cycle is in progress. They are off when the drawers are turned off. They flash at the end of the cycle.

Zones (3) (4) (5) (6) and (7) provide access to the parameters of use (description below)

If the screen is not touched for a minute, this page is automatically displayed.



#### 4. SETTINGS

#### a) Temperature

Touch the area of the touch screen where the temperature is indicated.

Then enter the value of the temperature using the keypad.

Press the enter key at the bottom right to return to the work screen.



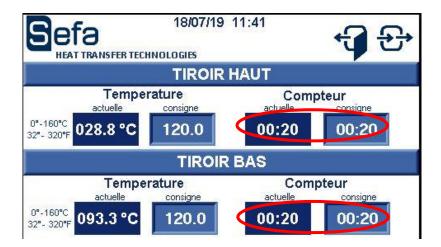


#### b) Time

Touch the area of the touch screen where one of the two timers is indicated (each drawer has a different setting: up or down)

Enter the value of the timers using the numeric keypad.

Press the enter key at the bottom right to return to the work screen.





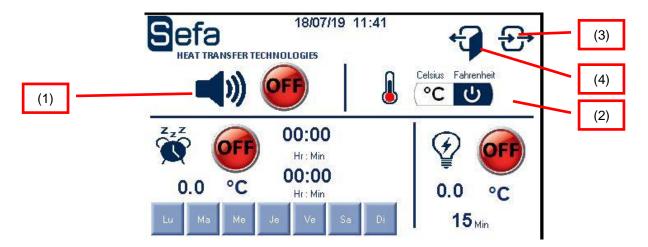
#### 5. DESCRIPTION OF THE OPERATING CYCLE

- (1) Enter the desired temperature value and the heating time on one or both drawers.
- (2) Place the item in the drawer where you have entered the values of your choice.
- (3) Close the drawer. If the area corresponding to the drawer is gray, press the corresponding banner to activate it. The corresponding green LED lights up, the timer counts down the programmed time.
- (4) At the end of the countdown of the timer, the buzzer sounds for 4 seconds and the corresponding indicator flashes. If the drawer is not open after 30 seconds, the buzzer sounds once and every second. If the drawer is still not open after 10 minutes, the compartment will no longer be heated to prevent damage to the machine. However, the media and the printing may be damaged.
- (5) Remove the item from the drawer and prepare the following
- (6) Repeat the operation at the third point
- (7) To deactivate the drawer, press the corresponding band before closing it. The relevant drawer area becomes gray on the display and the green light is off.

The drawers are independent. They can operate independently of each other and simultaneously.

#### 6. **PARAMETERS**

#### a) Ergonomic settings



- (1) Buzzer ON / OFF = Disables or activates buzzer (touch screen, end of cycle, warnings). The buzzer remains active in case of alarm
- (2) Change degrees Celsius / Fahrenheit
- (3) Back to the work screen
- (4) Go to the next screen

#### b) Energy Mode

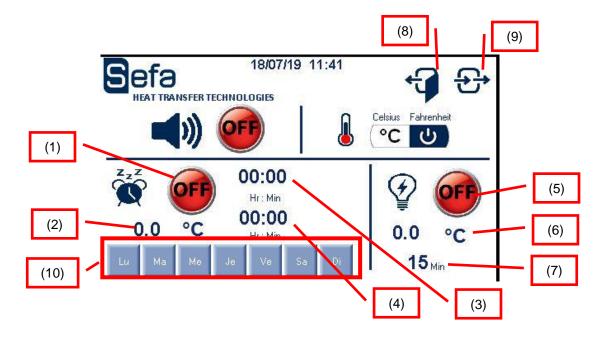
The energy mode only affects the temperature. If the setpoint does not exceed the ambient temperature, then the fans will be shut off.

Sleep mode is used to put the machine into hibernation for the time set by both parameters and the required temperature. The controller displays this page to indicate the current mode.

This mode allows an early start of the heating, for example before taking post. For this, it is necessary to leave the machine under tension.

ECO mode will lower the temperature after an off cycle time. At this time, the backlight of the controller's display dims and the screen becomes gray. When the operator touches the left ON / OFF button, the eco mode is disabled. Regarding the temperature, in eco mode, it is impossible to ask for a temperature lower than the desired instruction in the cycle. In standby mode, it is impossible to ask for a temperature higher than the temperature of the eco mode.





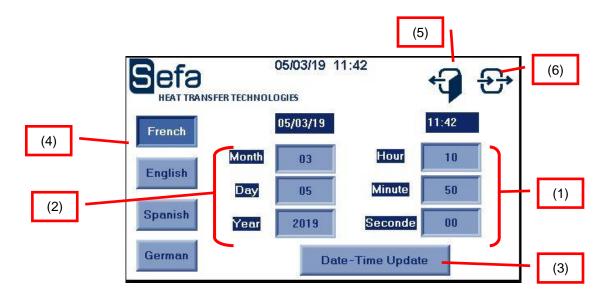
- (1) ON / OFF standby mode
- (2) Setting the sleep mode temperature
- (3) Start time of sleep mode
- (4) End time of sleep mode (warming up)
- (5) ECO ON / OFF mode
- (6) Setting the ECO mode temperature
- (7) ECO mode: period after which the machine goes to standby when there has been no drying cycle activated
- (8) Back to the work screen
- (9) Go to the next screen
- (10) Activation of the mode by the day. If the day is off, the heater is not activated and the machine remains idle for the whole day (24 hours).

#### e) Date/Time - Language

Setting the date and time.

- (1) Set the date
- (2) Set the time (AM / PM display in English only)
- (3) Update: updates the values
- (4) Setting the language
- (5) Back to the work screen
- (6) Go to the next screen





Procedure to set the date:

- (1) Set the date
- (2) Set the time
- (3) Choose language
- (4) Update support
- (5) Check date / time

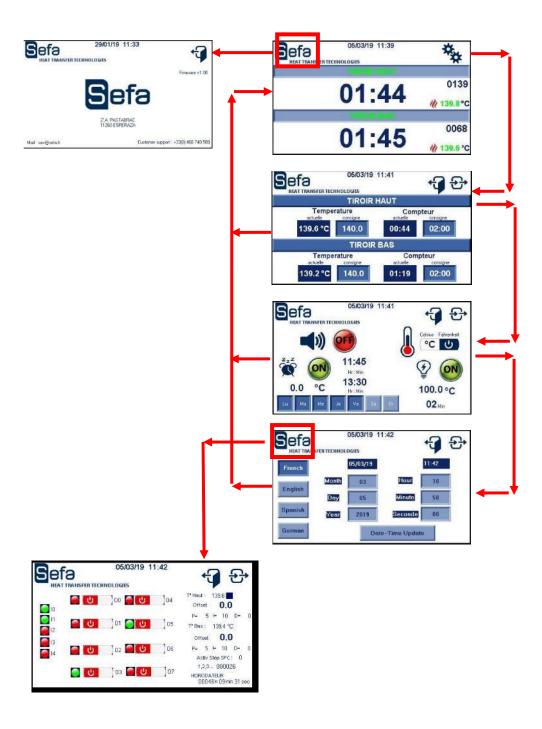
#### f) Information

Software Name Manufacturer-Version





#### g) Screens



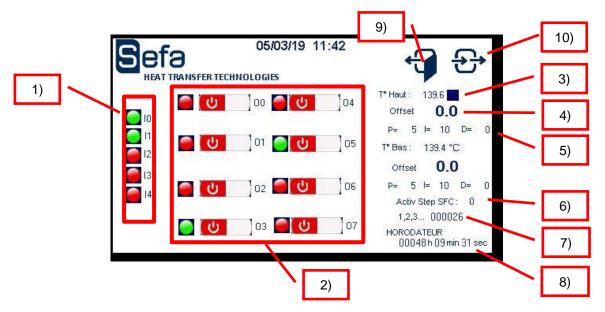


#### 7. DIAGNOSYS

To know the status of the inputs / outputs of the PLC. Accessible by qualified personnel. Contact your SEFA dealer.

No action possible. This screen is used for troubleshooting and evaluating sensor and actuator states. The S.A.V can ask the operator to display it during a telephone intervention for example.

- 1) Entry States
- 2) States and Exit Controls
- 3) Temperature in ° C or ° F
- 4) Temperature Offset
- 5) PID control type (based on PID values)
- 6) SFC active stage: number of the active step during the cycle (0 to 10)
- 7) Totalizer counter End of cycle (no reset)
- 8) Time stamp: machine time counter under tension
- 9) Back to Languages Date Time screen
- 10) Go to next screen





#### a) Default in progress

this screen displays:



Push on the green button



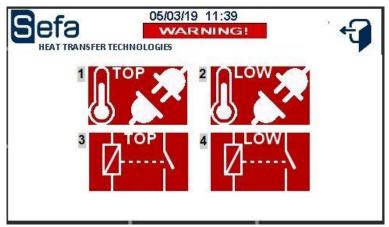
If the fault persists, we can know which one is still present in the list of activated alarms. (Support on WARNING flashing).

(1) Access to the Default page





#### b) Warning status activated



If the problem that caused the fault (faulty sensor, lack of air, temperature problem) is solved, the default system automatically turns off.

Otherwise, shut down and restart the machine.

#### Alarm list:





- (1) Temperature sensor disconnected: loss of signal from the sensor Drawer Top
- (2) Temperature sensor disconnected: loss of signal from the lower drawer
- (3) Default control temperature Top drawer: indicates the abnormal difference between the activation of the analog output and the delta of the corresponding temperature. (Cable, resistance or static relay problem)
- (4) Default control temperature Bottom Drawer: indicates the abnormal difference between the activation of the analog output and the delta of the corresponding temperature. (Cable, resistance or static relay problem)



#### c) Events

If an abnormal event occurs, the machine "warns" the operator. However, the use of the machine is not blocked. This is information that shows a degraded mode of operation.



#### Events List:



Check the anti-fouling filters. Displayed at each startup or every 24 hours if the machine is not turned off (hibernation)



The top compartment did not reach the desired temperature. If the cycle is active, it returns every 30 seconds until the temperature has been reached.



The bottom compartment did not reach the desired temperature. If the cycle is active, it returns every 30 seconds until the temperature has been reached.



Prevents changing the temperature unit (Celsius / Fahrenheit)



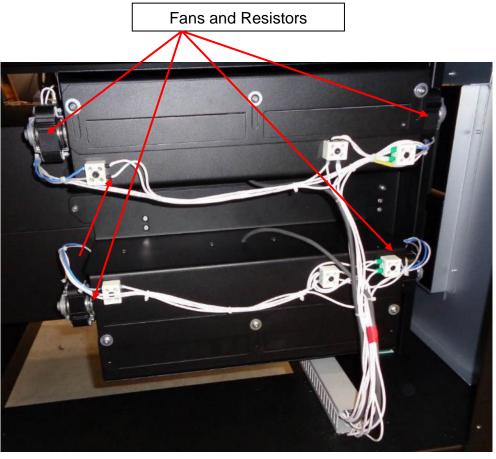
The system requires preventive maintenance. Notify your SEFA dealer

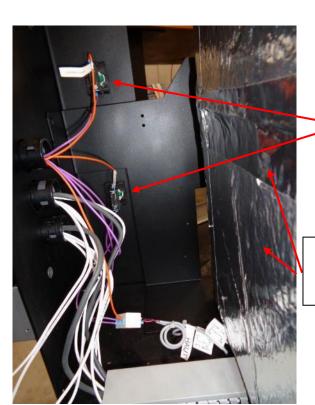


The backup battery of the controller (PLC PLC) reaches the end of its life (lifetime 7 years at 20  $^{\circ}$  C). Notify your SEFA dealer.



## **IMPLANTATION OF EQUIPMENT**





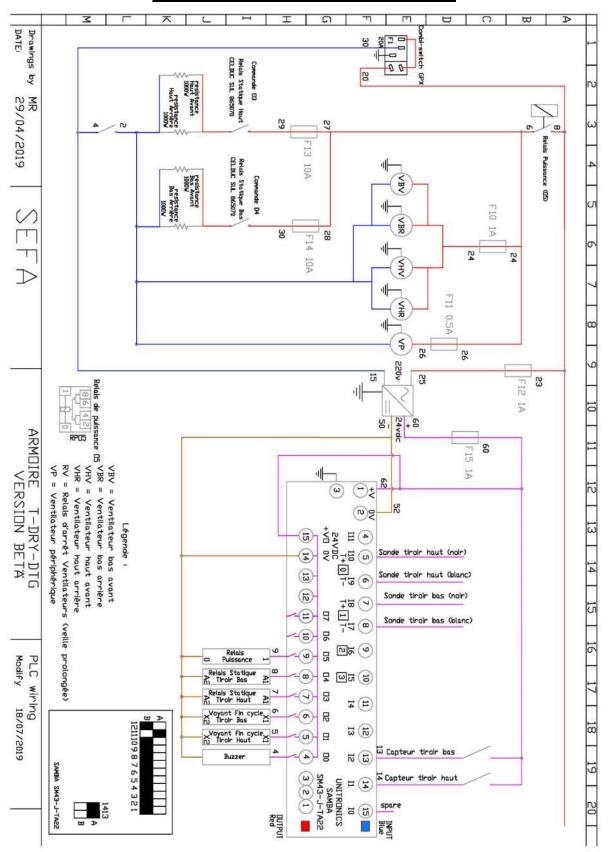
Light

Sensor (under isolation)





## **ELECTRICAL DIAGRAM**





## <u>MAINTENANCE</u>

#### **USE BY QUALIFIED PERSONNEL**

## ALL MAINTENANCE OPERATIONS MUST BE STOPPED AND MACHINE SATISFIED (ELECTRICAL AND PNEUMATIC ENERGIES DISCONNECTED)

It is recommended to have at hand the following tools: Phillips and flat screwdrivers A set of flat and pipe keys Allen key set A multimeter

#### 1. REPLACEMENT OF WASTE PARTS

#### a) Silicone foam mat

Check that the tray is cold

Make sure the surface of the tray is clean.

Optionally use a mild solvent such as isopropyl alcohol with adequate personal protection.

Use an RTV-1 glue tube to glue the foam to the aluminum plate (NB: read the instructions on the tube package).

The foam and the plate must be clean and dry before starting the bonding.

Spread a thin layer of glue evenly on the tray and immediately apply the foam ensuring that there is no air bubble (Example: a spatula serrated tiler).

Let stand overnight at room temperature without heating.

#### b) Other parts

Contact your dealer to evaluate their change or repair.

#### 2. MAINTENANCE

SEFA TDRY DTG is virtually maintenance-free. To ensure proper operation, follow the precautions listed below:

Do not heat objects that could damage or cut the silicone mat.

Periodically and when the drawer is cold, clean the machine with a clean cloth and isopropyl alcohol (NB: this product is flammable, use it carefully and keep it away from heat sources). provided with adequate personal protections.

When the drawer is hot and not used, keep it in the close position.

DAILY:

Clean the foam (cold) with a dry cloth or impregnated with degreaser.

Check the air inlet filter, purge it if there is too much condensate.

MONTHLY:

Check the lubrication of the joints.

According to the use:

Change the foam every 6 months.



## PARTS SUBJECT TO WEAR

#### When ordering: specify the description, the reference and the quantity.

<u>Reference</u> <u>Description</u>		<u>Quantity</u>
	ELECTRICAL PARTS	
VEN-453	Heating fan	4
RES-180	Rssistance	4
ROU-RA2	Pebble	8
VEN-CO1	Peripheral fan	1
FUS-RA2	Fuse 1A	2
FUS-145	Fuse 2A	2
FUS-150	Fuse 10A	2
CAP-IND	Induction sensor	2
AIM-IND	Magnet for sensor	2
15C13D	Joint before drawer	2
ALI-PL1	Power supply	]
REL-GEFRAN	Static relay	2
REL-OM8	Power relay	1



## **QUICK RESPONSE TIPS**



All maintenance repairs must be done at standstill and machine recorded (electrical and pneumatic energy stopped).

The heating element can cause burns. The operator must ensure that the temperature of the plate is below 25  $^{\circ}$  C on the display, before any manipulation.

<u>SYMPTOMS</u>	<u>POSSIBLE TROUBLES</u>	<u>TROUBLESHOOTING</u>	
	The plug is not connected	Check your network and if the machine is connected to it.	
Machine does not turn on	The switch is not connected	Set the main ON / OFF switch to 1.	
	The display is faulty	Check that the cables are not damaged (possible short circuit)	
	Resistance is defective	Check the connections and condition of the electrical wires. To disassemble the heating plate, contact	
Machine does not heat up		your dealer.	
	Problem due to the automaton  Temperature value too low	See the messages on the screen and contact your dealer. To change this value, see Chapter 5	
Machine over-heat	Problem due to the sensor or temperature regulation	Check message box on the touch screen and contact your dealer.	
Timer does	The sensor placed on a drawer is not activated or defective	Check its position. Check its connections. Change it if necessary. Check the magnets on the drawer.	
not work	PLC problem	See the messages displayed on the screen and refer to the manual or contact your dealer.	



## **SERVICE BOOK**

THE CONTROL AND MAINTENANCE OPERATIONS INDICATED IN THIS TABLE MUST BE PERFORMED REGULARLY TO VERIFY THE OPERATING AND RELIABILITY OF THE PRESS.

Date	Working hours	State of the pad	Resistance control	Exchanged parts	Details

To make it easier to fill the table, it may be useful to use the following code: C: Control N: Cleaning R: Replacement