

**LA CIMBALI**

# M26

MANUALE DEL TECNICO

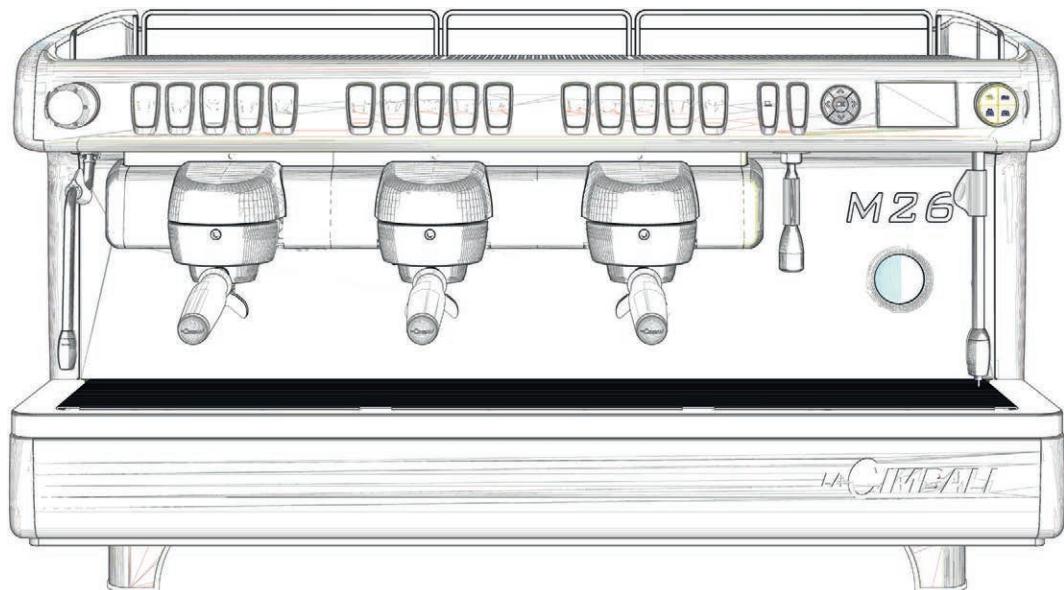
ENGINEER'S MANUAL

MANUEL DU TECHNICIEN

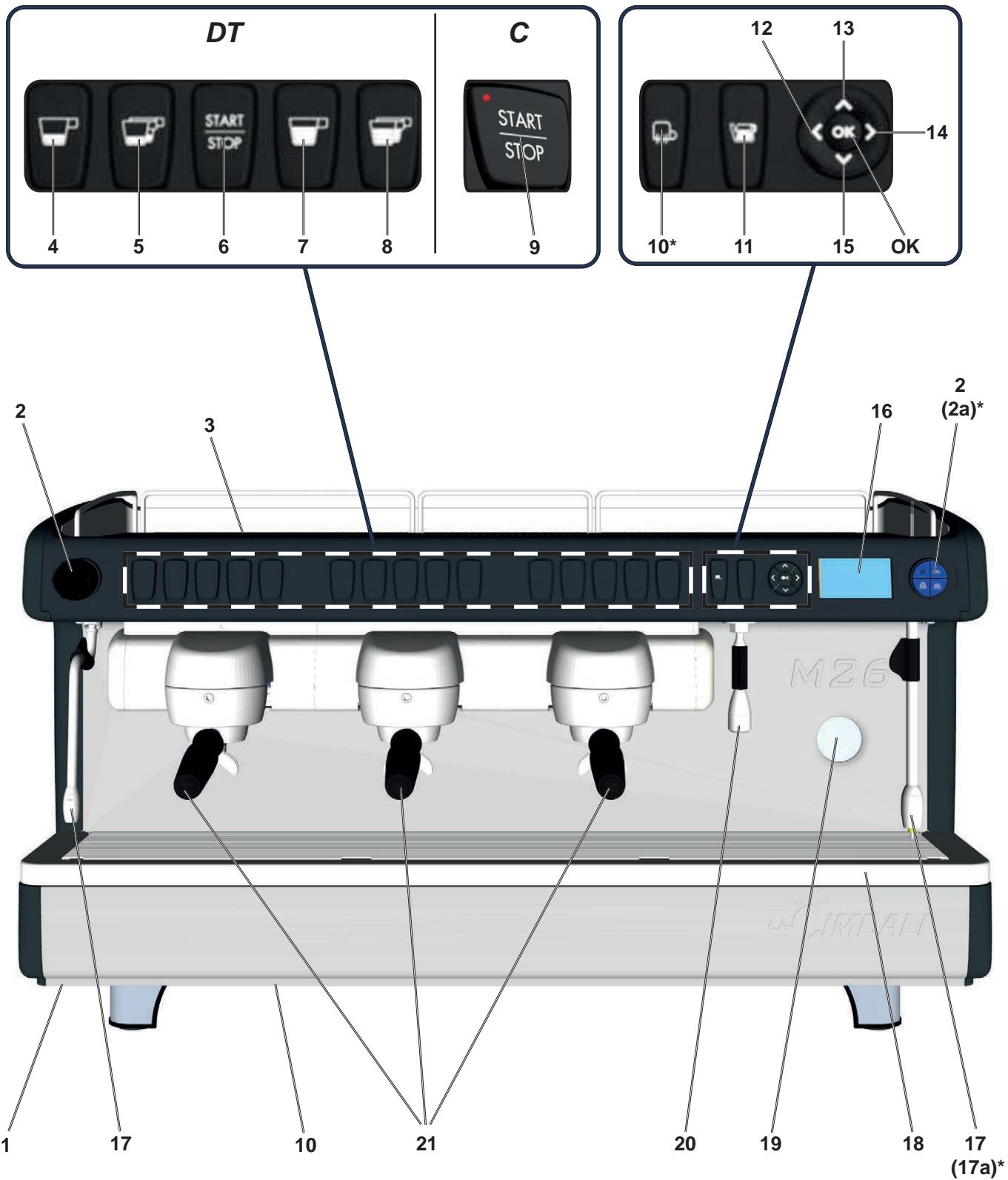
TECHNIKERHANDBUCH

MANUAL DEL TÉCNICO

MANUAL DO TÉCNICO



# M26



**IT LEGENDA**

- 1** Interruttore generale
  - 2** Manopola regolazione vapore
  - 2a** Tasti Turbosteam (\*)
  - 3** Piano scaldatazzze (\*)
  - 4** Pulsante erogazione 1 caffè corto
  - 5** Pulsante erogazione 2 caffè corti
  - 6** Pulsante STOP-CONTINUO / Prog
  - 7** Pulsante erogazione 1 caffè lungo
  - 8** Pulsante erogazione 2 caffè lunghi
  - 9** Interruttore erogazione caffè
  - 10** Pulsante scaldatazzze elettrico (\*)
  - 11** Pulsante acqua calda
  - 12** Tasto "◀" (uscire dalla programmazione / invalidazione dati immessi)
  - 13** Tasto "▲" (modificare parametri / orologio)
  - 14** Tasto "▶" (entrare in programmazione / menu)
  - 15** Tasto "▼" (modificare parametri / orologio)
  - 16** Display grafico (\*)
  - 17** Lancia vapore orientabile
  - 17a** Tubo (lancia) Turbosteam (\*)
  - 18** Bacinella
  - 19** Manometro pompa / Manometro caldaia (\*)
  - 20** Lancia acqua calda
  - 21** Portafiltro
- OK** conferma dati immessi
- I componenti - \* - sono applicati solo in alcune configurazioni di prodotti.

**EN LEGEND**

- 1** Main ON/OFF switch
  - 2** Steam adjustment knob
  - 2a** Turbosteam keys (\*)
  - 3** Cups-warmer (\*)
  - 4** Dispensing push button - 1 short coffee
  - 5** Dispensing push button - 2 short coffees
  - 6** STOP-continuous / Prog - push button
  - 7** Dispensing push button - 1 long coffee
  - 8** Dispensing push button - 2 long coffees
  - 9** Coffee dispensing switch
  - 10** Electrical cup warmer button (\*)
  - 11** Hot water button
  - 12** "◀" key (to quit programming mode / cancel entered data)
  - 13** "▲" key (to modify parameters / clock)
  - 14** "▶" key (to access programming mode / menu)
  - 15** "▼" key (to modify parameters / clock)
  - 16** Graphical display (\*)
  - 17** Swivel steam jet pipe
  - 17a** Turbosteam pipe (\*)
  - 18** Pan
  - 19** Pump pressure gauge / Boiler pressure gauge (\*)
  - 20** Hot water dispensing pipe
  - 21** Filter holder
- OK** confirm entered data

The components - \* - are applied only in some produkt configurations

**FR LÉGENDE**

- 1** Interrupteur général
  - 2** Poignée de réglage de la vapeur
  - 2a** Touches Turbosteam (\*)
  - 3** Chauffe-tasses (\*)
  - 4** Touche débit 1 café court
  - 5** Touche débit 2 café court
  - 6** Touche STOP-CONTINU / Prog
  - 7** Touche débit 1 café long
  - 8** Touche débit 2 café long
  - 9** Interrupteur de débit du café
  - 10** Touche chauffe-tasses électrique (\*)
  - 11** Bouton de l'eau chaude
  - 12** Touches "◀" (sortir de la programmation / données introduites non valables)
  - 13** Bouton "▲" (modifier les paramètres / horloge)
  - 14** Touches "▶" (entrer en programmation / menu)
  - 15** Bouton "▼" (modifier les paramètres / horloge)
  - 16** Ecran graphique (\*)
  - 17** Tuyau (lance) orientable de la vapeur
  - 17a** Tuyau Turbosteam (\*)
  - 18** Cuvette
  - 19** Manomètre de la pompe / Manomètre de la chaudière (\*)
  - 20** Tuyau (lance) d'eau chaude
  - 21** Porte-filtres
- OK** confirmation des données introduites
- Les composants - \* - sont montés seulement dans quelques configurations de produits

**DE LEGENDE**

- 1** Hauptschalter
  - 2** Dampfahahn
  - 2a** Tasten Turbosteam (\*)
  - 3** Tassenerwärmer (\*)
  - 4** Taste Abgabe 1 Espressokaffee
  - 5** Taste Abgabe 2 Espressokaffees
  - 6** Taste STOP-kontinuierliche / Prog
  - 7** Taste Abgabe 1 normaler Kaffee
  - 8** Taste Abgabe 2 normaler Kaffees
  - 9** Bedienung der Kaffeegruppen
  - 10** Elektrischer Tassenwarmer shälter (\*)
  - 11** Heißwasser-Drucktaste
  - 12** Taste „◀“ (Absprung von Programmierung / Löschen der eingegebenen Daten)
  - 13** Taste „▲“ (Parameter / Uhrzeit ändern)
  - 14** Taste „▶“ (Zugriff zu Programmierung / Menü)
  - 15** Taste „▼“ (Parameter / Uhrzeit ändern)
  - 16** Graphisch Display (\*)
  - 17** Dampfrohr (beweglich)
  - 17a** Dampfausgaberohr turbosteam (\*)
  - 18** Wanne
  - 19** Manometer Pumpe / Manometer Kessel (\*)
  - 20** Teewasserrohr (beweglich)
  - 21** Filterhalter
- OK** Bestätigung der eingegebenen Daten
- Bauteile - \* - sind nur bei einigen Produkt-Konfigurationen angebracht

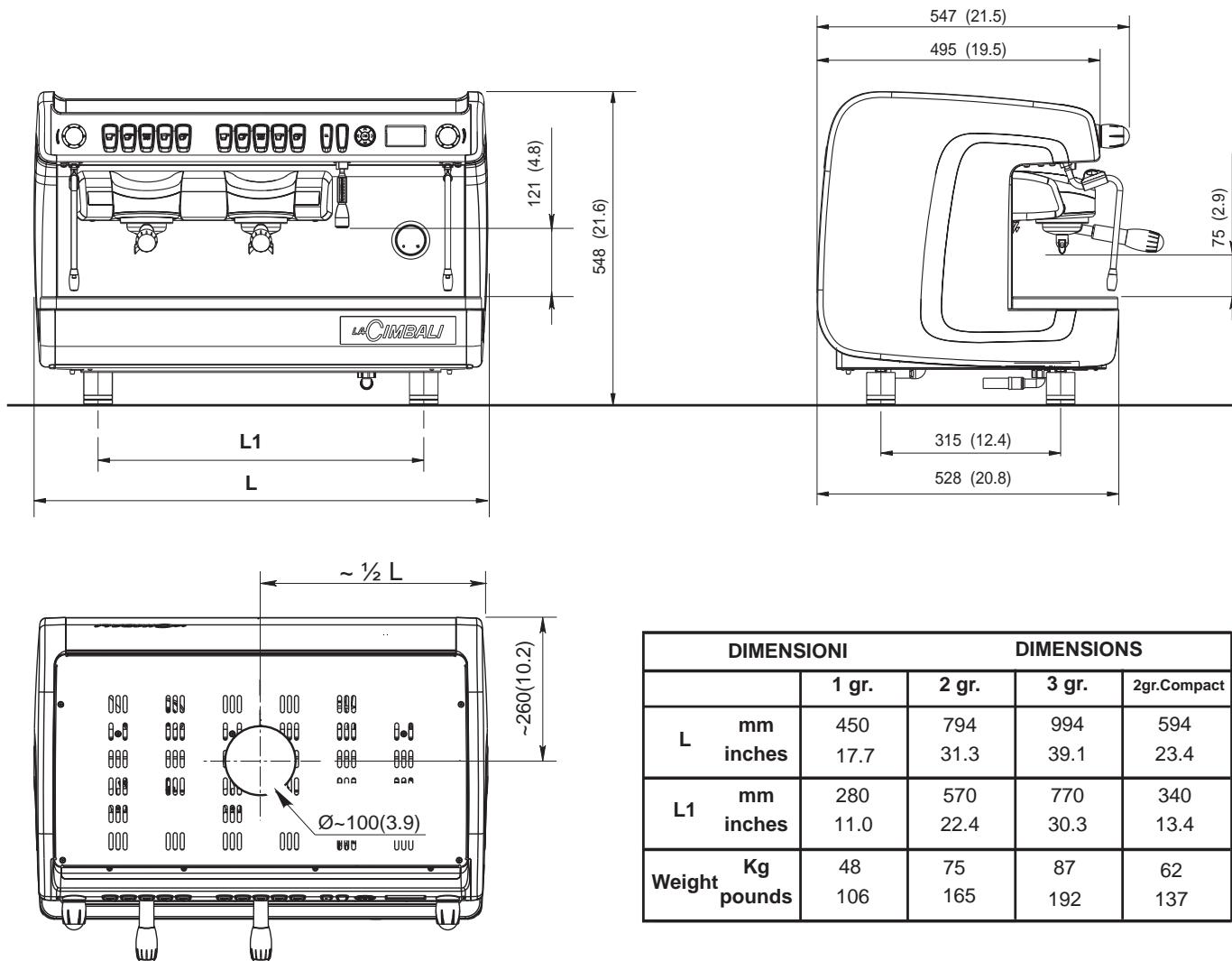
**ES LEYENDA**

- 1** Interruptor general
  - 2** Mando regulación vapor
  - 2a** Teclas turbosteam (\*)
  - 3** Calientatazas (\*)
  - 4** Botón erogación 1 café fuerte
  - 5** Botón erogación 2 cafés fuertes
  - 6** Botón STOP-CONTINUO / Prog
  - 7** Botón erogación 1 café suave
  - 8** Botón erogación 2 cafés suaves
  - 9** Interruptor erogación café
  - 10** Botón calienta-tazas electrico (\*)
  - 11** Botón erogación agua caliente
  - 12** Tecla “◀” (salir de la programación / invalidación datos introducidos)
  - 13** Tecla “▲” (modificar parámetros / reloj)
  - 14** Tecla “▶” (entrar en programación / menú)
  - 15** Tecla “▼” (modificar parámetros / reloj)
  - 16** Display gráfico (\*)
  - 17** Tubo (lanza) vapor orientable
  - 17a** Tubo vapor turbosteam (\*)
  - 18** Bandeja
  - 19** Manómetro bomba / Manómetro caldera (\*)
  - 20** Tubo (lanza) agua caliente
  - 21** Portafiltro
- OK** confirmación datos introducidos
- Los componentes - \* se aplican sólo en algunas configuraciones de productos

**PT LEGENDA**

- 1** Interruptor geral
  - 2** Manípulo regulação do vapor
  - 2a** Teclas turbosteam (\*)
  - 3** Grelha para esquentar chávenas (\*)
  - 4** Botão distribuição 1 café forte
  - 5** Botão distribuição 2 cafés fortes
  - 6** Botão STOP-CONTÍNUO / Prog
  - 7** Botão distribuição 1 café ligeiro
  - 8** Botão distribuição 2 cafés ligeiros
  - 9** Interruptor erogação café
  - 10** Botão esquenta-chávenas electrico (\*)
  - 11** Botão de erogação água quente
  - 12** Tecla “◀” (sair da programação / invalidação dos dados introduzidos)
  - 13** Tecla “▲” (modificar parâmetros / relógio)
  - 14** Tecla “▶” (entrar na programação / menu)
  - 15** Tecla “▼” (modificar parâmetros / regógio)
  - 16** Display gráfico (\*)
  - 17** Tubo vapor orientável
  - 17a** Tubo do vapor turbosteam (\*)
  - 18** Bandeja
  - 19** Manómetro bomba / Manómetro caldeira (\*)
  - 20** Tubo água quente
  - 21** Porta-filtro
- OK** confirmação dos dados introduzidos.
- Os componentes - \* - são aplicados só em algumas configurações de produtos.

	P <sub>max</sub> [ bar ]	T <sub>max</sub> [ °C ]	tipo di macchina Type of machine type de machine Maschinentypen modelo de la máquina tipo de la máquina	1 gruppo 1 group 1 groupe 1 Einheit 1 grupo 1 grupo	2 gruppi 2 groups 2 groupes 2 Einheiten 2 grupos 2 grupos	3 gruppi 3 groups 3 groupes 3 Einheiten 3 grupos 3 grupos	2gr.Compact 2gr.Compact 2gr.Compact 2gr.Compact 2gr.Compact 2gr.Compact 2gr.Compact		
			<b>Fluido - Fluid - Fluide Flüssig - Fluido - Fluido</b>	<b>Capacità - Capacity - Capacité [ L ] Fassungsvermögen - Capacidad - Capacidad</b>					
Caldaia Service boiler Chaudière Heizkessel Caldera Caldeira	2	133	acqua/vapore water/steam eau/vapeur wasser/dampf agua/vapor áqua/vapor	5	10	15	5		
Scambiatore Heat exchanger Échangeur de chaleur Wärmeaustauscher Intercambiador de calor Permutador de calor	12	133	acqua water eau Wasser agua água	0.18 x 1	0.18 x 2	0.18 x 3	0.18 x 2		



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**WARNING:** Installation and disassembly must only be performed by qualified and authorized technicians.  
Switch off the power to the machine before performing these steps.

## Description display symbols

### WATER LEVEL

 This symbol indicates the boiler water level. During the loading phase, the bottom part of the icon blinks. When the optimum level is reached, the symbol looks like this: .

### RESISTANCE

 This symbol (dark inside) indicates that the resistance is activated and functioning. When the boiler pressure reaches the set value, the icon looks like this



(light inside).

When the machine is in operation, the two icons



alternate on the display, indicating the presence of the electric heating.

 This indicates that the heating resistance has been disabled.

**Note: the customer cannot switch on or switch off the electric heating.**



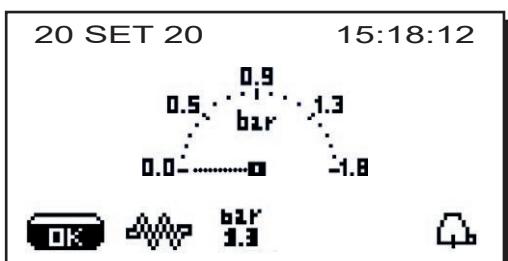
When the on/off function is programmed, the electric heating takes place automatically.

### SERVICE BOILER PRESSURE

This symbol indicates the boiler pressure value.



If the  key is pressed for about 3", the pressure gauge will be displayed analogically. This will be shown on the display:



Press and hold down the  key for about 3 seconds to return to the regular display mode.



This symbol indicates that the machine is pre-heating or the boiler pressure has dropped below 0.5 bar.

For the duration of this phase, the display alternates this symbol with the one indicating the boiler pressure.

The machine has reached the set work pressure and temperature when the icon  disappears from the display.

### CUP-WARMER



These symbols indicate the power currently selected by the cup warmer.  
no symbol = OFF

 = maximum power symbol

### WIFI

WIFI connection symbols:



- network present but not connected;



- connected to the network.

### USB



This symbol appears on the display when a USB pen drive is connected.

### SD



This icon indicates the presence of an SD micro chip in the CPU board of the machine.

### TECHNICAL PROGRAMMING MENU

 This symbol indicates that the technical programming menu can be accessed.

### CONTROL OF THE FLOW (ONLY IF IN USE)

The appearance of this animated icon means that adjustments need to be made to the grinder/dispenser to tighten or loosen the grinding, to return coffee dispensing to the default parameters.

The icons that are shown are:



 means that the grinding needs to be loosened. (flow of coffee is lower than the reference).



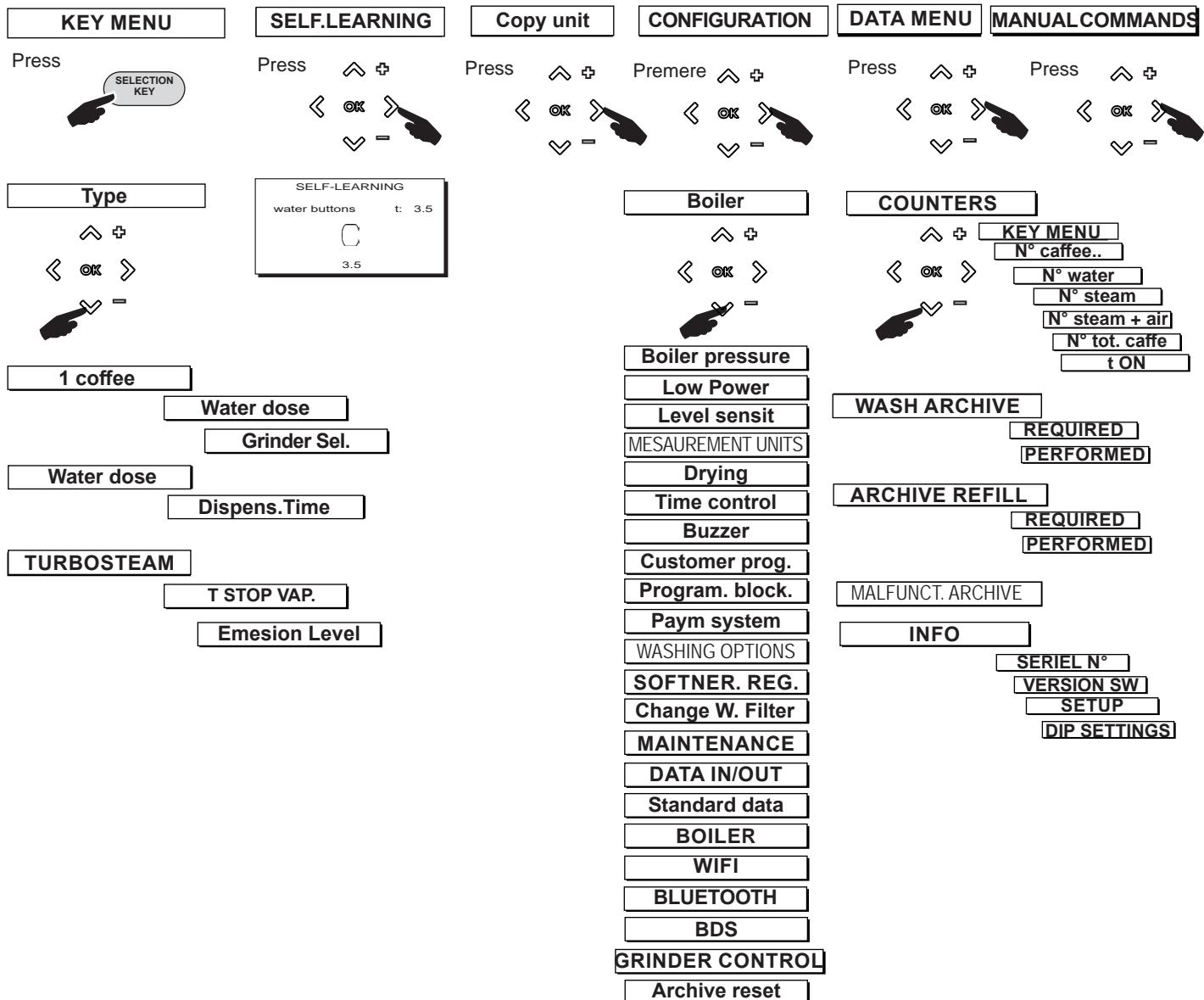
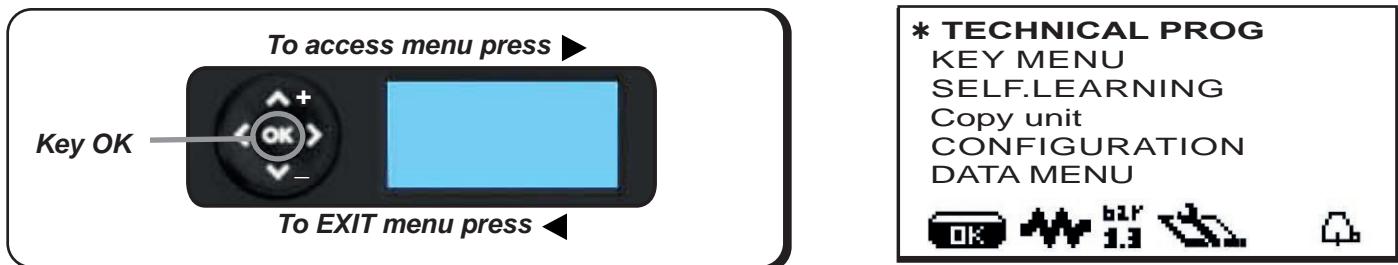
 means that the grinding needs to be tightened. (flow of coffee is greater than the reference).

Note. The number next to the icon (1 or 2) indicates which grinder/dispenser needs adjusting.

The icon appears on the display instead of the level symbol.

# PROGRAMMING - ENGINEER MODE

## 1. Data flow chart - Technician programming



### EXITING THE PROGRAMMING MENUS

Before exiting the menus:

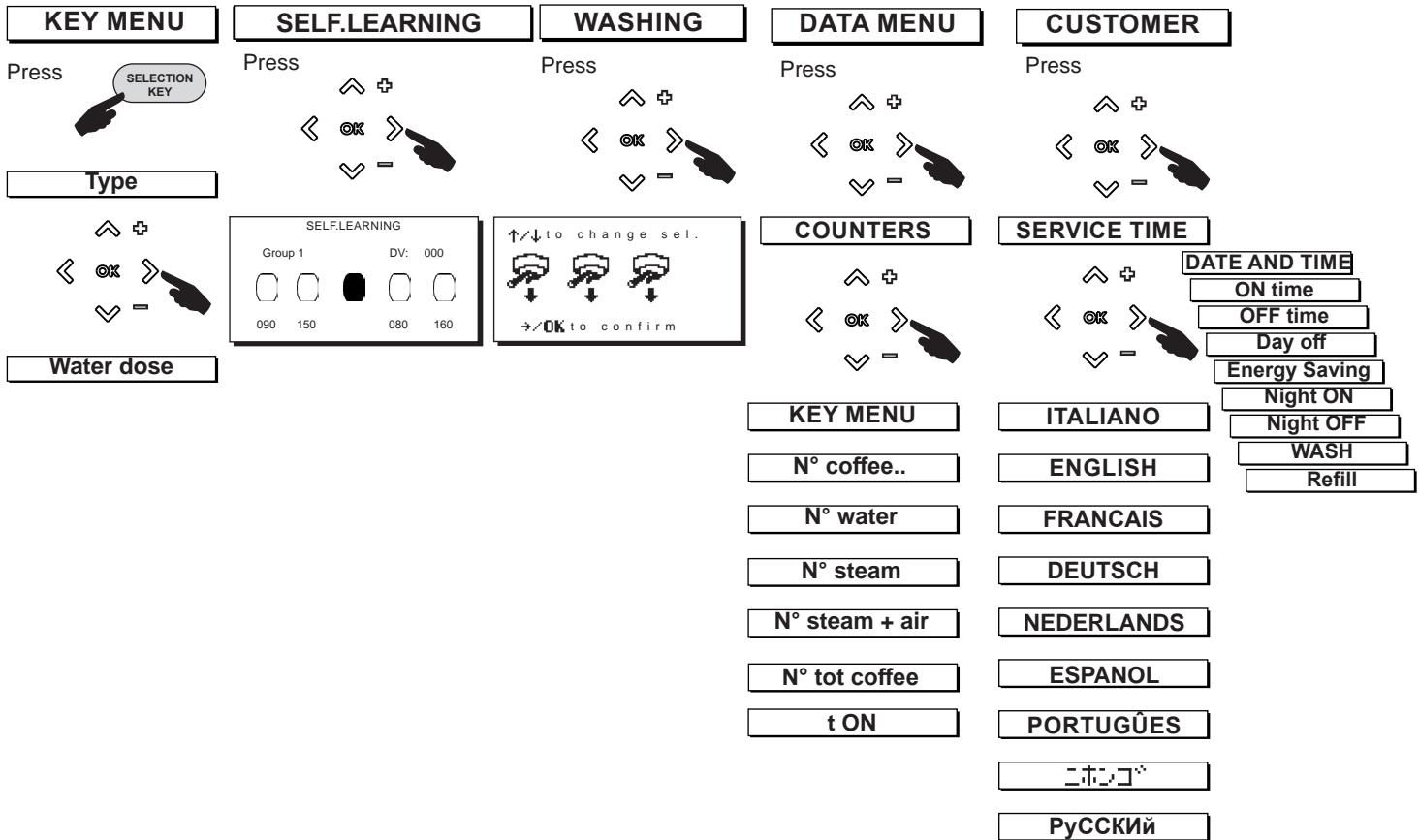
- Press the **OK** key to confirm any changes made to settings;
- Press the **◀** key to leave settings unchanged

# CUSTOMER PROGRAMMING

## 2. Data flow chart



Only if "Customer prog." is YES and "Program. block" is NO

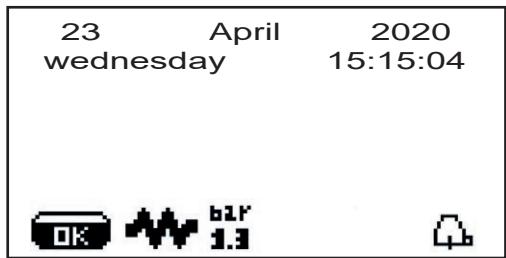


### EXITING THE PROGRAMMING MENUS

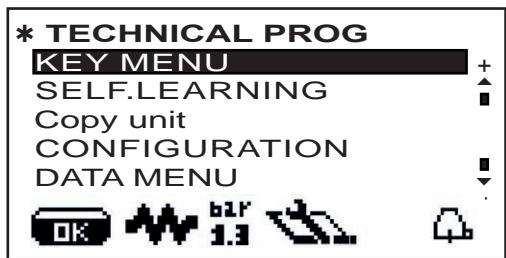
*Before exiting the menus:*

- Press the **OK** key to confirm any changes made to settings;
- Press the **◀** key to leave settings unchanged

### 3. Technical Programming Access



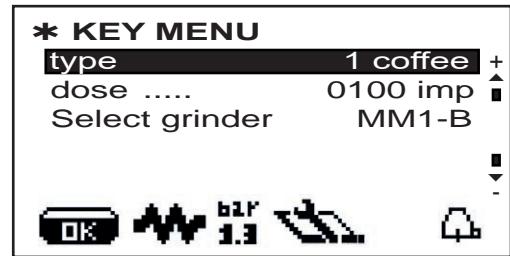
To enter programming, press the **◀** key and then **OK** for 3 seconds. The following message will appear on the display:



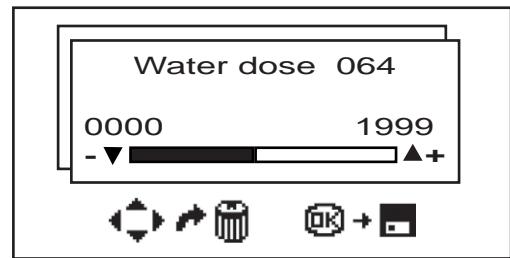
**Display available menus:** using the **▲** and **▼** keys, then press **▶**.

**ACCESSING the menus:** position the cursor on the desired line using the **▲** and **▼** keys, then press **▶** (press a selection key in the case of the "KEY SELECTION" menu)

**Changing menus and sub-menus:** position the cursor on the desired line using the **▲** and **▼** keys and then press **▶**



Change the selection or value, again using the **▲** and **▼** keys  
**Note:** when editing data, the cursor becomes "**→**", or a slider bar appears with the minimum and maximum values that can be set:



**Exiting the programming panels:** there are two options:

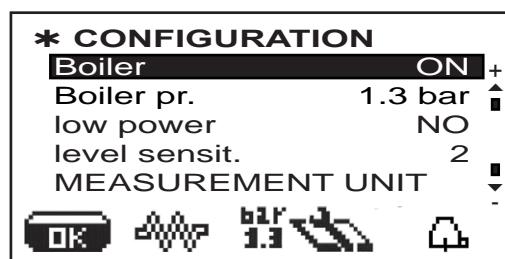
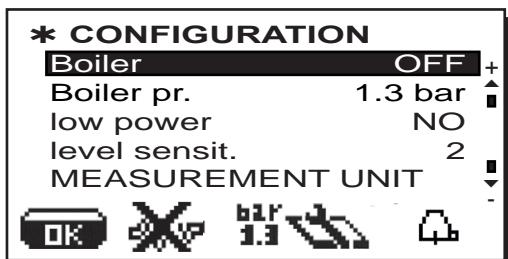
- 1) Confirm the changes by pressing **OK**
- 2) Exit the menu, leaving the data unchanged, by pressing **◀**

### 4. Heating element

The technical staff can activate or deactivate the heating element (if the service boiler heating element is disabled, self-leveler control is inhibited) as follows:

- 1) Access the technical programming panels;
- 2) position the cursor over "**BOILER**" using the **▲** and **▼** keys in the machine's configuration menu and press the **▶** key;

3) adjust the parameter using the **▲** and **▼** keys and confirm the adjustment made by pressing the **OK** key or exit the menu and leave the data unchanged using the **◀** key.

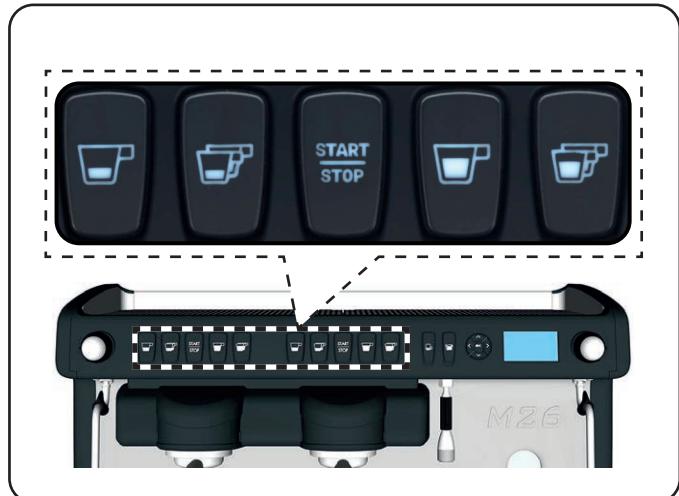
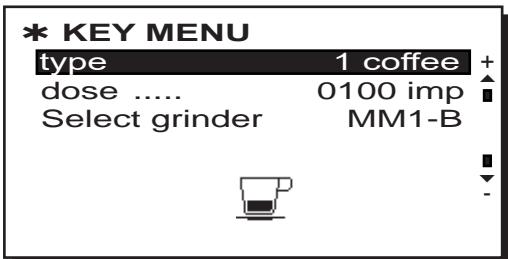


"Boiler" **OFF** = heating element disabled ( main menu icon);

"Boiler" **ON** = heating element enabled ( main menu icon);

## 5. Key menu - Coffee selection

Press one of the coffee dispensing keys (the relative led will remain on, not flashing). The following message will appear on the display:



The coffee selection settings that can be changed are:

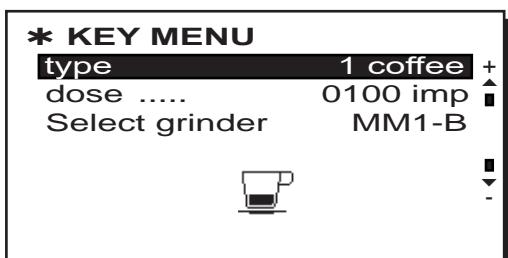
- **type** (key customisation, e.g. 3 espressos for 1 “short, normal, long”, 3 espressos for 2 “short, normal, long”, stop, disabled).
- **water dose** (volumetric dosing device impulses, 0 ÷ 1999 in steps of 1).
- **MM1- MM2** Option to associate with different types of filter holders for one or two grinder/dispensers

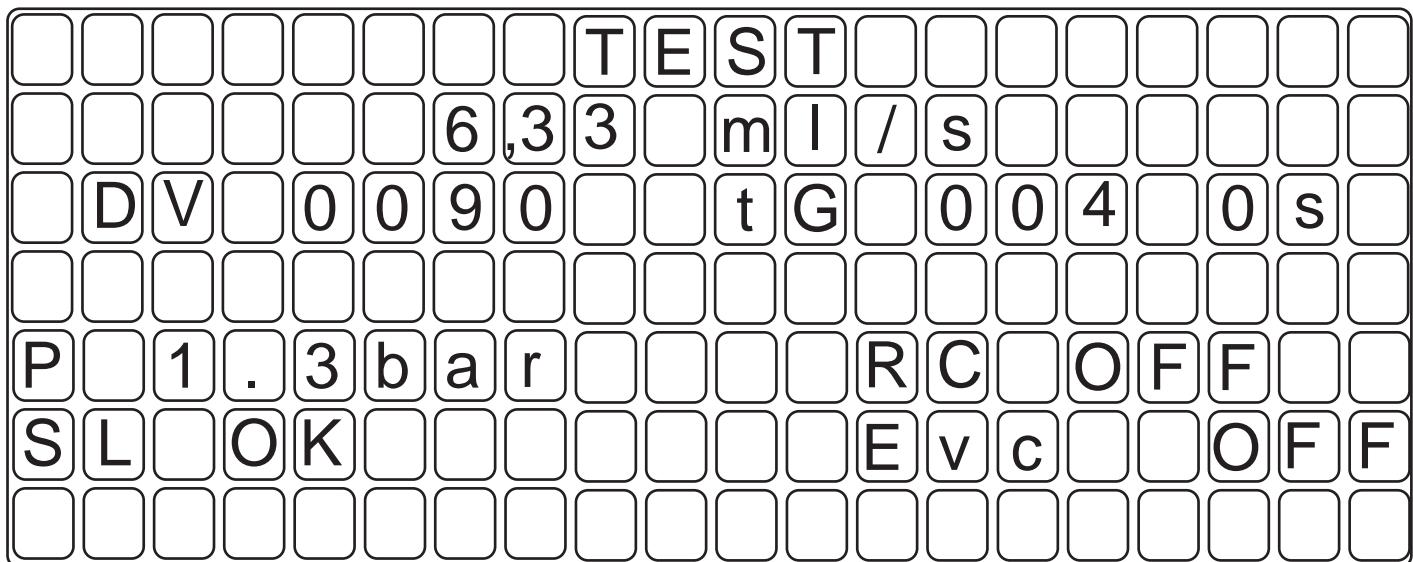
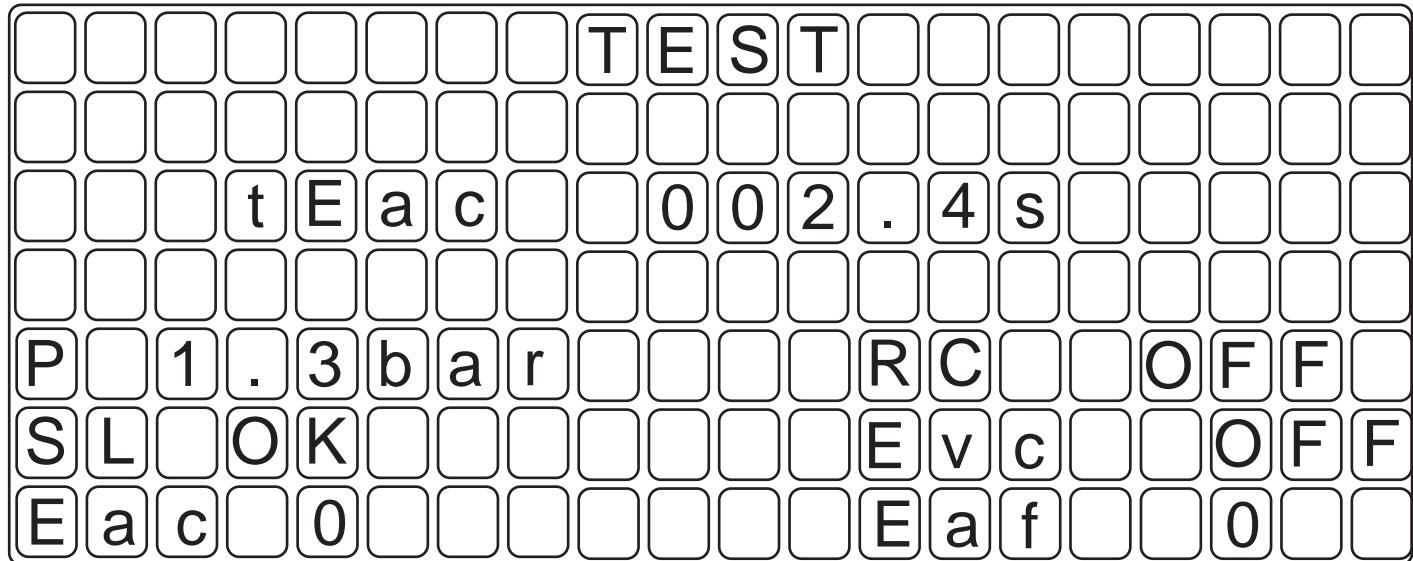
### 5.1 KEY Menu - Test panel

After entering the programming menu, access the key menu by pressing one of the drink-dispensing keys (the associate LED remains lit); the following will be shown on the display:

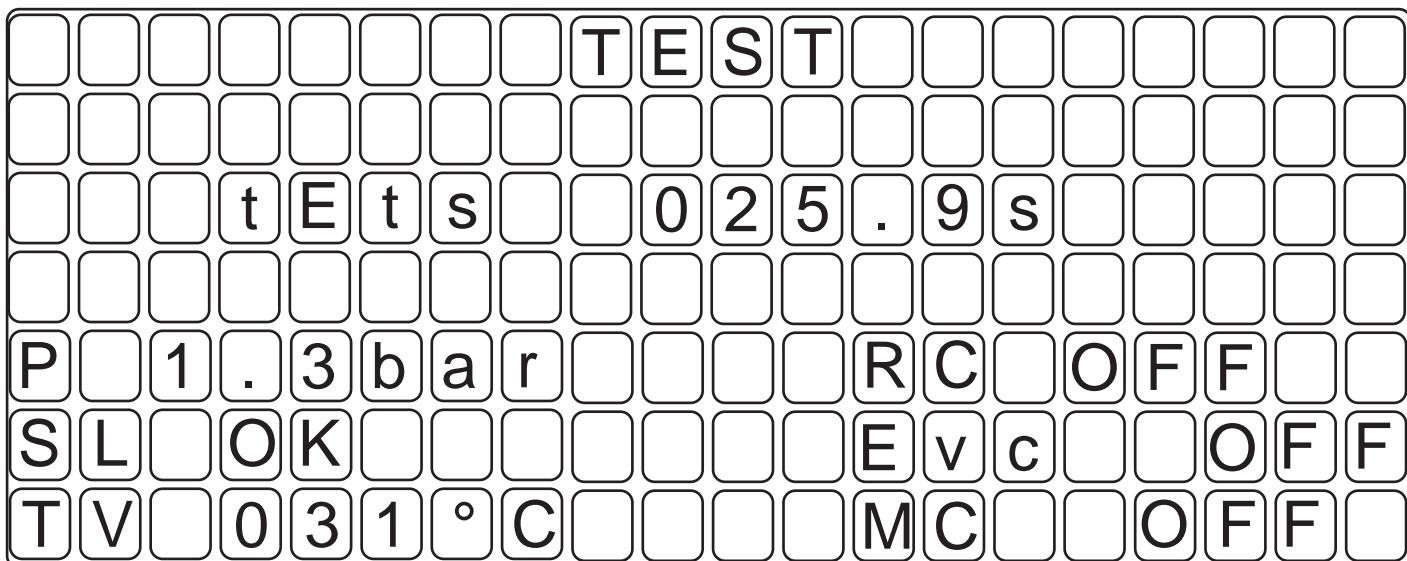
Pushing the **OK** dispensing occurs and the relative settings are displayed on the screen:

- (E.g. Group 2 Key)

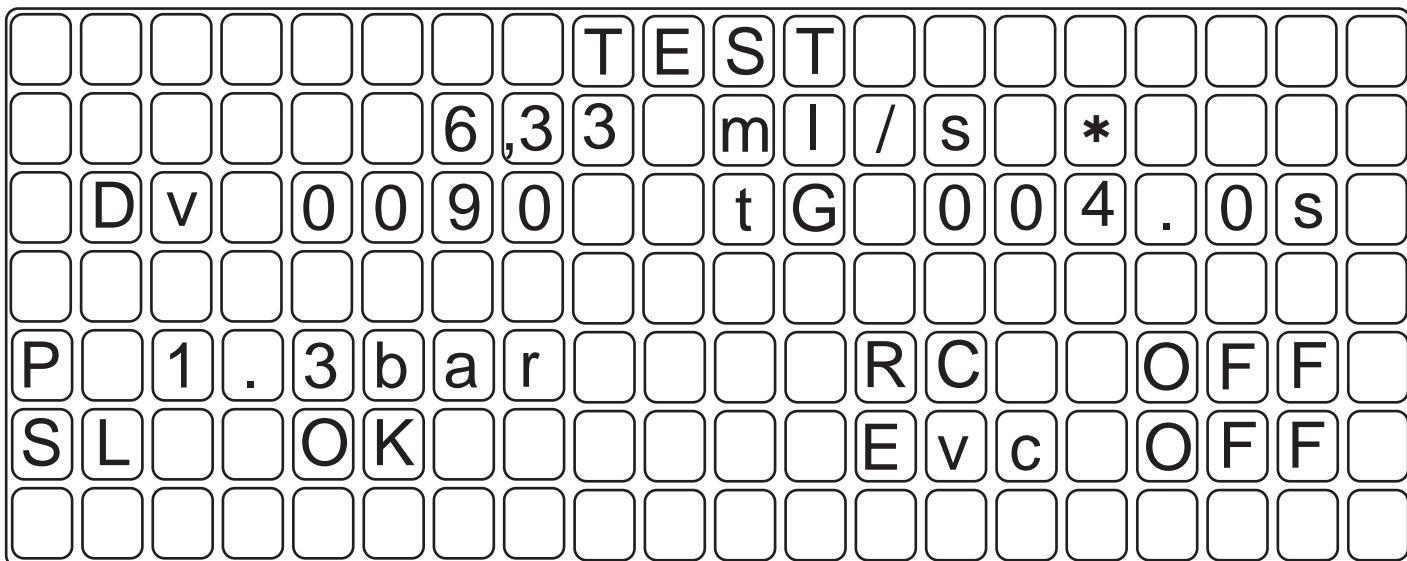


**Key menu - Coffee selection****Key menu - Hot water selection**

## Key menu - Turbosteam selection



## Key menu - Grinding Control Selection



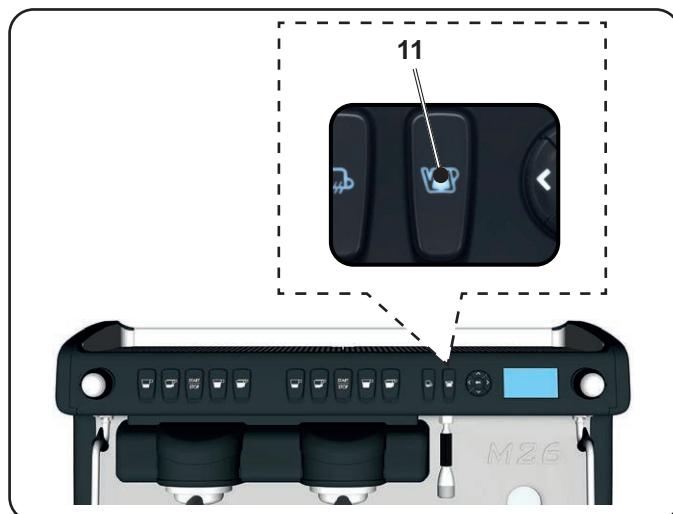
## Legend

- ml/s** Coffee dispensing flow (millilitres/seconds).
- \*** When \* appears, dispensing is taken into consideration by the grinder control function.
- RC** Display services boiler resistance status (ON/OFF).
- Eac** Water solenoid valve.
- Eaf** Cold-water solenoid valve.
- Ets** Turbosteam solenoid valve.
- Evc** Solenoid valve charging boiler.
- P** Boiler Pressure, displayed in "bar" or "psi".
- Dv** Volumetric dosing device impulse count.
- tG** Coffee dispensing time.
- SL** Water level in boiler.
- TV** Steam temperature (Seil System Turbosteam not present, this parameter is not displayed).

## 5.2 Key menu - Hot water selection

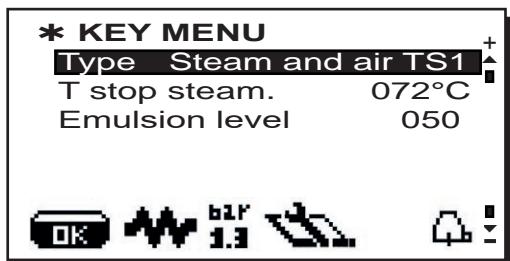
Press key (11) hot water dispensing; the display will show:

The hot water selection settings that can be changed are:  
 - water dispensing time (water dispensing time from 0 to 60 seconds)..



## 5.3 Key Menu - Select Steam and Air (where applicable)

Press the Turbosteam (2a) selector keys (TS). The following will appear on the display:



The following parameters can be modified:

- **T stop steam** ("xxx°C" temperature for hot milk or frothed milk).

Setting options:

**"0" setting:**

- manual steam stop

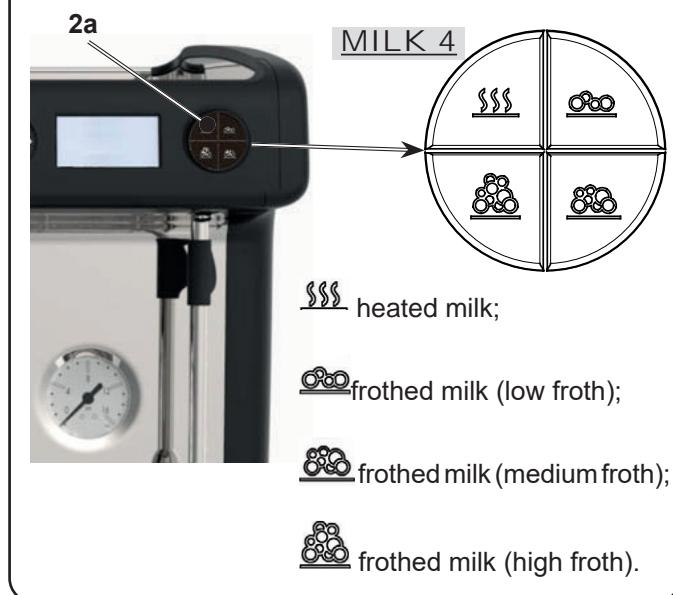
**Any number between "40°C ÷ 85°C" (104°F ÷ 185°F)**

- automatic steam stop

**"OFF" setting:**

- steam stop disabled

- **emulsion level** (a different emulsion level can be chosen for frothed milk: the value can be set between "0 ÷ 100", where 0 indicates no emulsion and 100 indicates continuous emulsion).

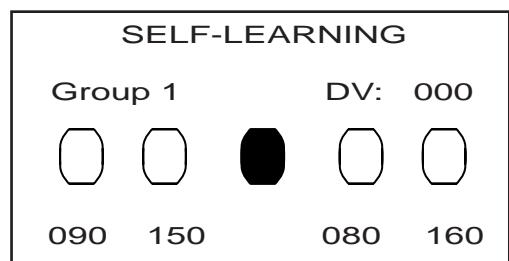


## 6. Programming measures using the “SELF-LEARNING” function

The doses of water for coffee and the hot water doses can also be programmed using the “SELF-LEARNING” function.



Use the **▲** and **▼** keys to position the cursor (black line) on the desired line and then press the **►** key.  
The following message will appear on the display:



### Coffee doses

- Hook the filter holder with the dose of ground coffee to the unit.
- Place the cup or cups underneath the filter holder nozzles and press the button to be programmed. Keep the button pressed until the desired level is reached in the cup or cups.



During this phase, the value of the pulses of the volumetric dispensing device (at the top right of the display (\*)) increases. On releasing the button, the value reached is stored and appears under the key programmed.

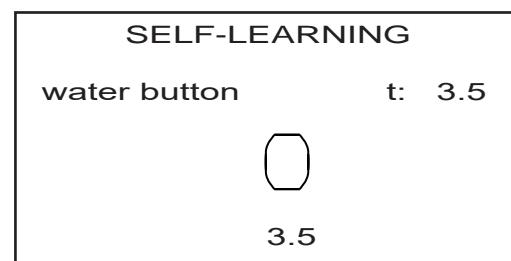
- Continue to program all the coffee buttons, repeating the steps starting with number 1.

### Hot water doses

- Press the button to be programmed. Keep the button pressed until the desired level is reached in the cup.



During this phase, the time in seconds (at the top right of the display (\*)) increases. On releasing the button, the value reached is stored and appears under the key programmed.



- Continue to program all the water buttons, repeating the steps starting with number 1.

(\*) (where present)

At the end, confirm the changes made by pressing the **OK** key or exit the menu, leaving the data unchanged, by pressing the **◀** key.

## Programming measures using the “self-learning” function (main control panel 8dip)

The doses of water for coffee and the hot water doses can also be programmed using the “SELF-LEARNING”function.

Press and hold the START/STOP button for more than 8 seconds, until you hear the buzzer; the selection keys flash simultaneously for the entire duration of programming.



### Coffee doses

- 1 - Connect the filter holder with the dose of ground coffee to the unit.
- 2 - Place the cup or cups underneath the nozzle(s) of the filter holder and press the button to be programmed. Keep the button pressed until the desired level is reached in the cup or cups.



During this phase, the value of the pulses of the volumetric dispensing device increases. When the button is released, the value reached is recorded and appears under the key programmed.

- 3 - Continue to programme all the coffee buttons, repeating the steps from number 1.

### Hot water doses

- 1 - Press the button to be programmed. Keep the button pressed until the desired level is reached in the cup.

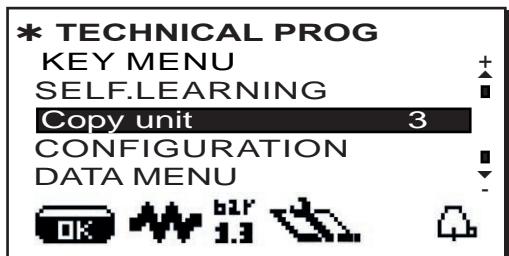


During this phase, the time in seconds increases. On releasing the button, the value reached is stored and appears under the key programmed.

- 2 - Continue to program all the water buttons, repeating the steps starting with number 1.

## 6.1 “Copy unit” function

This feature allows you to copy the selected coffee unit settings for all other machine units.

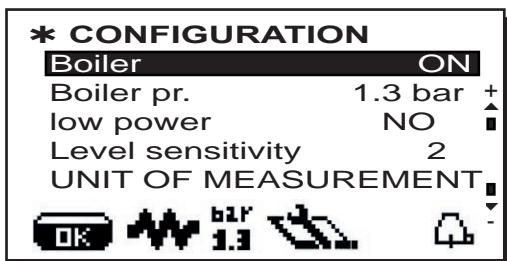


Operate as follows:

- 1) position the cursor over “**Copy unit**” using the ▲ and ▼ keys and press the ► key;
- 2) set the unit to be copied to the other machine units using the ▲ and ▼ keys and confirm by pressing **OK**.

- 3) at the end of the process, all the units will have the same parameters.

## 7. Configuration menu



**Boiler** - The heating element and the self-leveller feature of the boiler are activated or deactivated through the “Boiler” ON/OFF function.

**Boiler Pressure** - indicates the pressure of the boiler; 0.6 to 1.6 bar (9 to 23 psi).

**Low power** - YES/NO

**Level Sensitivity** - indicates the degree of sensitivity of the level probe, which then operates the filling of the boiler with water. For safety reasons, automatic level control of the boiler is disabled when the boiler heating element is turned off.

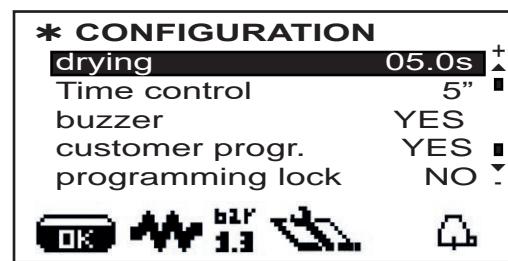
- Note: set a value of 1 if the machine is installed with very conductive water.

Set a value of 3 if the water used is not very conductive (very soft).

**Unit of measurement** - Includes 2 sub-menus:

**temperature** - can be set to: °C, centigrade - Celsius or °F, Fahrenheit.

**pressure** - can be set to bar or psi.



**Drying** - varies drying time from 0 to 5 with steps of 0.1 seconds “if Drying kit is present”.

**Time control** - shows dispensing time on display: YES/NO (from 1 sec to 1 hour).

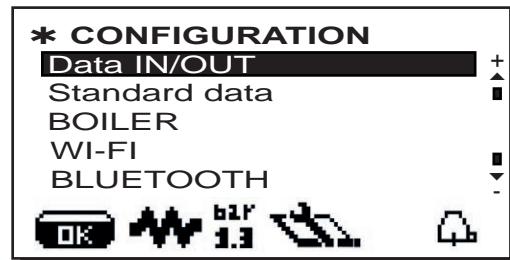
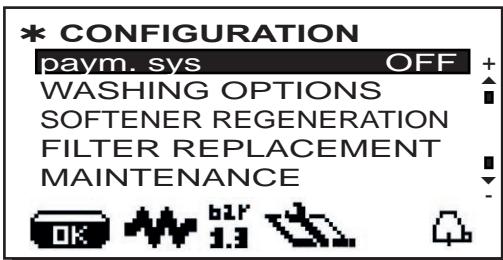
**Buzzer** - enables/disables all acoustic signals when keys are pressed or messages are displayed: YES/NO.

**Customer programming** - Customer programming: YES/NO.

By activating the function (YES), it is possible to provide the user with additional functions: modification of the cup-warmer level, turning the coffee boiler on/off, and activation of energy-saving mode.

**Programming lock** - Programming lock: YES/NO. By activating the function (YES), all the keys on the programming keypad are locked, including the cup-warmer key. Only the key sequence for technical access, the arrow key ▲ to perform softener regeneration and removal of the message is permitted.

## 7. Configuration menu



**Payment systems** - allows a payment system to be configured, when connected.

**Washing options** - see section "Washing options" on the following pages.

**Softener regeneration** - includes the settings for softener regeneration: litres of softener (between 0.1l and 25l), hardness (between 0 and 45°F). The decreasing softener efficiency level is also indicated.

Once softener regeneration has been performed, return to the main view and press and hold **◀** for about 8 seconds to cancel the message.

**Filter replacement** - on reaching the litre level set on the display, a message is displayed which prompts replacement of the filter. For both functions, an efficiency percentage is displayed (Softener/Filter), decreasing from 100% to 0%. Once the filter has been replaced, return to the main view and press and hold **◀** for about 8 seconds to cancel the message.

**Maintenance** - includes 5 settings for maintenance parameters:

**Max cycles** - the number of cycles initially set: 40,000.

**Max days** - the number of days initially set: 185.

**No. cycles** - the number of cycles until the next maintenance activity.

**No. days** - the number of days until the next maintenance activity.

**Reset** - options are:

**NO**, countdown of the cycles and days until the next maintenance activity

**YES**, the number of cycles (40,000) and days (185) remaining are reset

**OFF**, all controls related to scheduled maintenance and the "No. cycles" and "No. days" on the maintenance panel are reset.

Once maintenance has been performed, in order to remove the message a reset must be performed in technician mode.

**Data IN/OUT** - contains the options **IN**: transfer from USB drive to machine and **OUT**: from machine to USB drive.

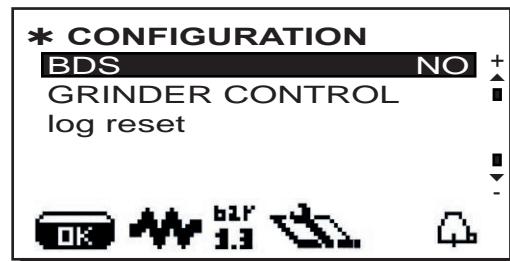
**Tx/Rx** - starts the data transfer

**Standard data** - loads standard data: YES/NO.

**Boiler** - not active.

**Wi-Fi Menu** - see section "Wi-Fi Configuration" on the following pages.

**Bluetooth Menu** - see section "Bluetooth Connection" on the following pages.



**BDS** - see section "BDS Activation" on the following pages.

**Grinder Control-1**

**Grinder Control-2**

The following parameters can be set:

- **Enabled** - MM1 - MM2

- **Adjustment threshold** - see section "Steps for Bluetooth Coffee Machine-Grinder/Dispenser Communication" on the following pages.

**Log reset** - clears faults (Wash log, Faults log and Water change) that occurred and were stored by the machine: YES/NO.

## WASHING OPTIONS

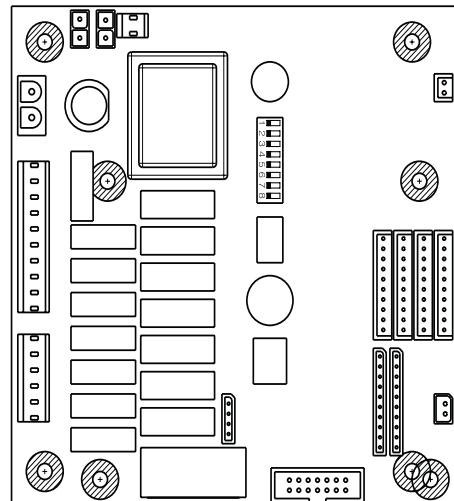
## Main control panel 8dip



The function is available:

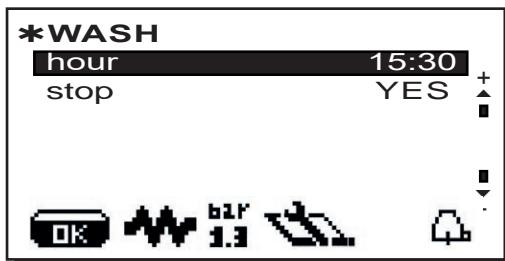
- with software version 046.00.E0 (or later):
- with control panel 535.575.048 (or later):
- if there is a sequence of 5 beeps from the buzzer on the control panel when the machine is switched on.

NOTE: for more information, the function is described in the user manual which also describes the guided wash function.



## Wash Groups

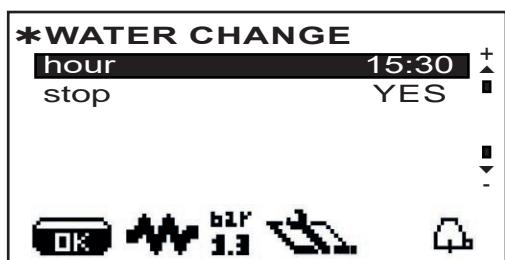
These are the washes where the time can be programmed, each of which contains two modifiable settings, including:



- **time**: the time that washing must take place. The WASHES can be deactivated by setting to OFF.
  - **block**: when the function is set (YES), if washing has not been performed within 60 minutes of the "PERFORM GROUP WASH" message being displayed, the machine is blocked, disabling all coffee-based selections.
- NOTE: missing wash will be stored in the "WASH ARCHIVE" as washes not performed.

## Changing the water in the boiler

Changing the water in the boiler is a daily programmable change:



- **time**: the time that the change must take place. THE WATER CHANGE feature can only be activated by the technician and is always set to OFF. It must first be activated and then under "WASHING OPTIONS" (in time panel) it can be changed, or it can be changed by the technician.

With "**block**" enabled, if the water change is not done within an hour, the machine prevents beverages from being dispensed.

With request scheduled the user can only change the time the request appears.

Follow these steps to set the time:

- Position the cursor on the line Water Change;
- Press the **►** key;
- Change the time, using the **▲** and **▼** keys;
- Press the **OK** key to confirm the setting.

## WiFi configuration

**Wi-Fi Menu** - configure the following Wi-Fi settings as shown below:

- **CONNECT** - to connect to the access point selected.

- **RSSI** - signal intensity:

Values of less than -70 dB indicate poor coverage with probable difficulty in transmitting data.

- **IP** - displays the IP address assigned to the machine by the wireless access point.

- **MAC** - indicates the Mac address of the machine Wi-Fi module. This parameter is read-only and cannot be modified.

- **NETWORK** - enter the name of the access point.

- **SECURITY** - indicate the type of wireless network security:

Open: no protection;

WPA: wpa2-psk protection;

WEP: WEP 128 protection.

- **KEY** - enter the password to access a protected Wi-Fi network (WPA or WEP)

- **URL** - enter listener.gruppocimbali.com.

- **Port** - enter 10000.

- **fTX** - reduces data traffic to the remote server:

> - transmits all data daily upon machine start-up, and faults/washings when they occur;

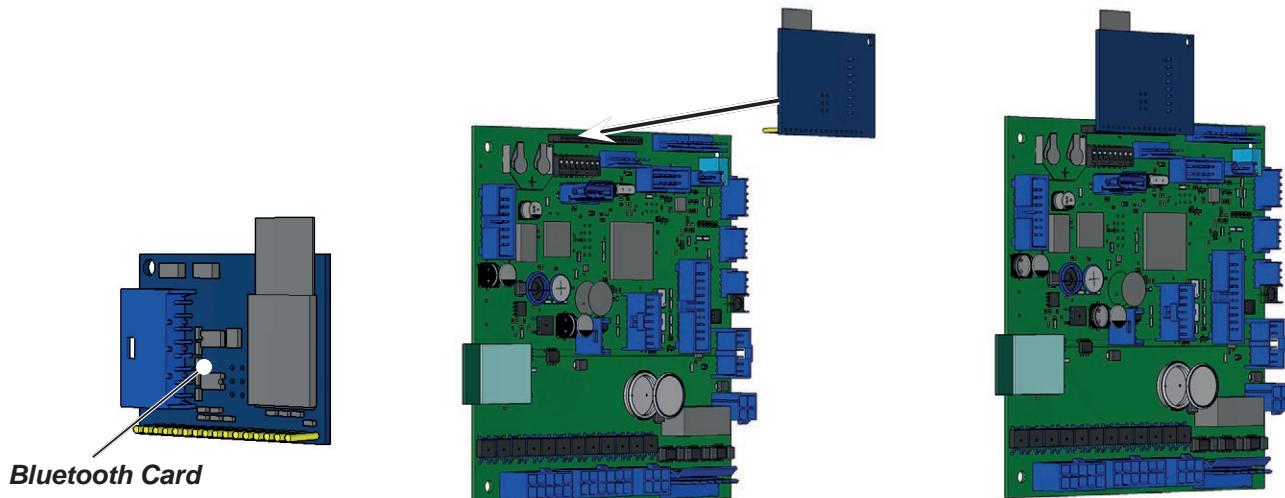
>> - as per level 1 plus hourly counts;

>>> - as per level 2 plus pings every 10 min. (default);

>>>> - as per level 3 with the addition of sending information on coffee dispensing and washing.

- **RESET** - to restore standard settings.

## Bluetooth Connection



**Bluetooth Menu** - The parameters that can be set are:

- **MM1-MM2** - 1 to 2 grinders can be connected.

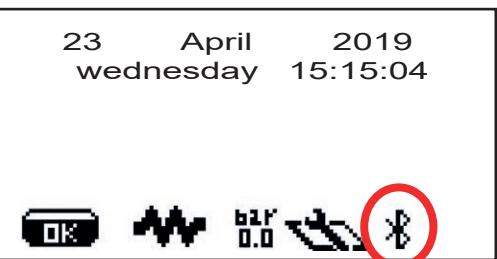
- **Search** - the machine will find all bluetooth devices within 10 m.

- **Reset** - cancels the connection with the associated device.

**Note: during connection with bluetooth grinders/dispensers, the first one connected is set as MM1.**

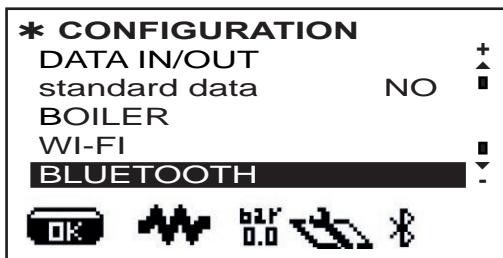
## Procedure for Bluetooth connection with the machine-grinder unit

- 1** Turn the machine on; the initial menu appears on the display. The \* symbol indicates that the machine can be linked to a Bluetooth device.



To enter TECHNICAL programming, press the **◀** key and then **OK** for 3 seconds. The message in Point 2 will appear on the display.

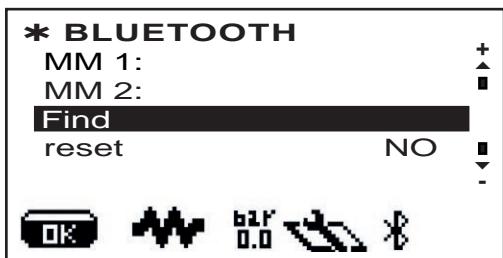
- 3** Position the cursor on the "BLUETOOTH" entry and press the **▶** key:



- 2** With the **▲** and **▼** keys, place the cursor on: "CONFIGURATION" in the machine Technical Prog. menu and press the **▶** key:



- 4** Position the cursor on the "Find" entry and press the **▶** key:

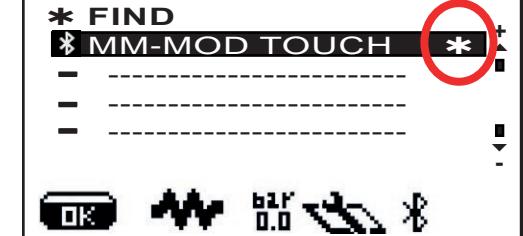


**5**



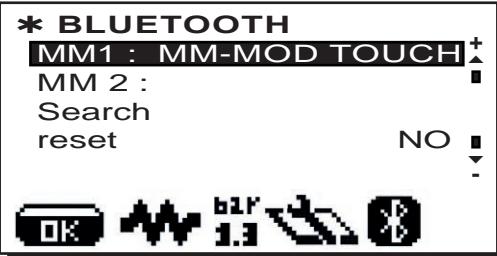
The machine will find all Bluetooth devices within a range of 10 metres.

**6**



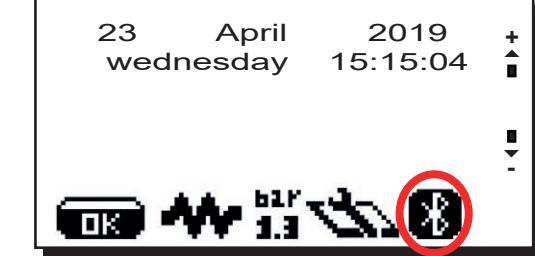
The machine will find all Bluetooth devices within 10 m. After confirmation of the device selected, an asterisk \* will appear next to the grinder/dispenser line indicating that the Bluetooth connection has been made with the machine:

**7**



Exit from programming by pressing the icon **◀**.

**8**

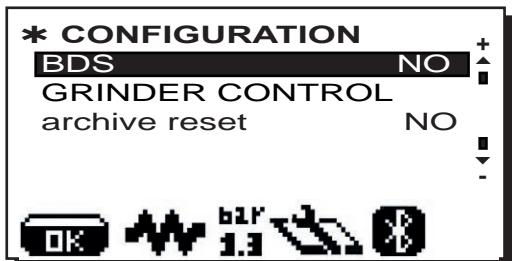


The icon indicates that the machine and grinder/dispenser are communicating.

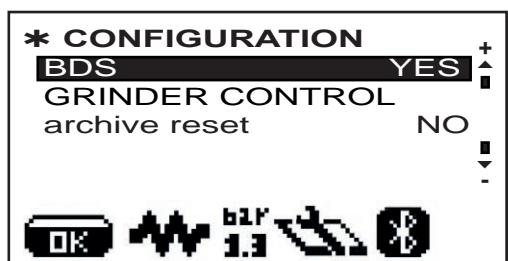
In the event of communication problems, the "COMMUNICATION FAILURE" message will appear on the display followed by the name of the disconnected grinder/dispenser. The message disappears automatically when the Bluetooth connection is restored. A common cause of this failure is the grinder/dispenser being turned off with the machine turned on.

## BDS activation

- 1 Return to the "CONFIGURATION" parameters by pressing the **◀** key; using the **▲** and **▼** keys, move the cursor to "BDS" and press **▶**:



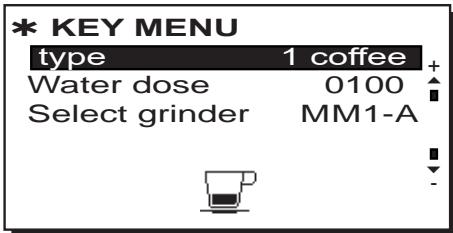
- 2 Use the **▲** and **▼** keys to indicate "YES" and then press the **OK** key to confirm



## Setting recipes and connections with grinder/dispenser

**-NOTE: POSSIBILITY TO CONNECT ALSO WITH GRINDER/DISPENSER 2**

### GRINDER/DISPENSER 1



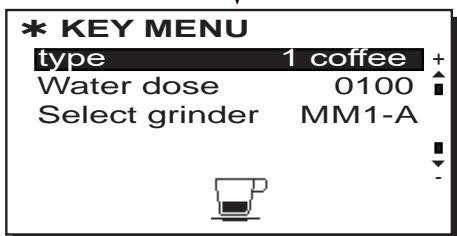
The filter holder-key and machine association logic is the following:  
**1-A or 2-A** = activation of the first actuator  
 (filter-holder with single delivery spout)

**1-B or 2-B** = activation of the second actuator (filter-holder with double delivery spout)

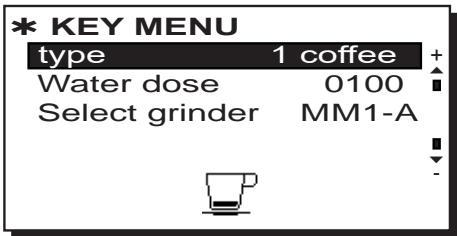
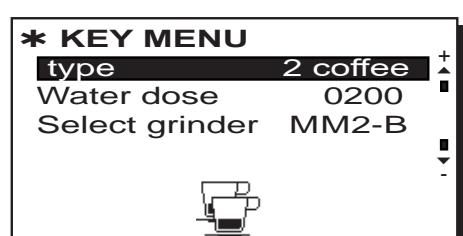
**1-C or 2-C** = activation of the third actuator with filter-holder with dedicated filter

With the number **1** the first grinder/dispenser **MM1** is identified  
 With the number **2** the second grinder/dispenser **MM2** is identified

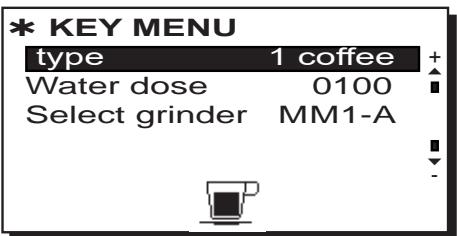
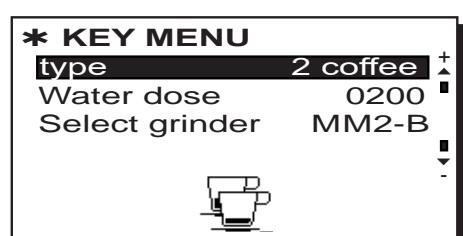
With the letters **A-B and C** the filter-holders are identified



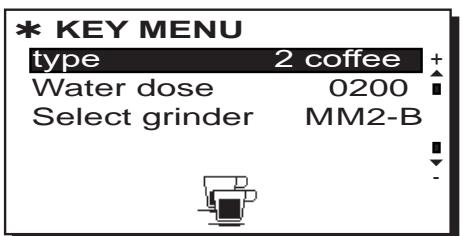
← MEDIUM →



← SHORT →

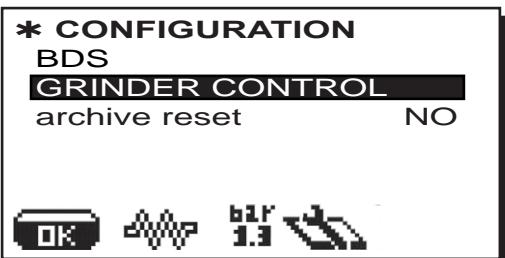


← LONG →



## Grinder control parameters configuration

- 1** Position the cursor on the "GRINDER CONTROL" entry in the machine configuration menu and press the ► key:



### Grinder Control-1

### Grinder Control-2

The parameters that can be set are:

- **Enabled:**

: not in use

: manual grinder control (for grinder/dispensers with no bluetooth connection option).

: automatic grinder control (bluetooth connection with grinder/dispenser).

- 2**
- \* GRINDER CONTROL**

MM1 (highlighted)  
MM2
- Position the cursor on the item "MM1" of the machine and press the ► key.

- 3**
- \* MM1**

Enabled (highlighted)  
reset NO  
reg. threshold 10%  
Q ref. 1B 3.90 ml/s  
Q ref. 1A 3.50 ml/s

: not in use

- 4**
- \* MM1**

Enabled (checkmark)  
reset NO  
reg. threshold 10%  
Q ref. 1B 3.90 ml/s  
Q ref. 1A 3.50 ml/s

: manual grinder control (for grinder/dispensers with no bluetooth connection option).

- 5**
- \* MM1**

Enabled (checkmark)  
reset NO  
reg. threshold 10%  
Q ref. 1B 3.90 ml/s  
Q ref. 1A 3.50 ml/s

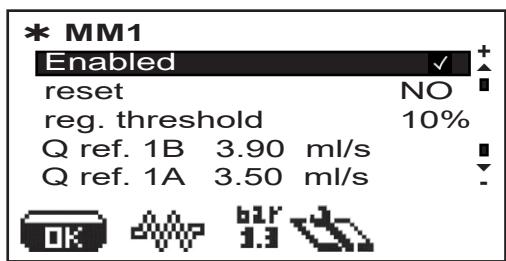
: automatic grinder control (bluetooth connection with grinder/dispenser).

The parameters can be modified manually using the keys ▲▼.

After completing operations confirm the values by pressing the key **OK** or exit and leave the previous data using the key **◀**.

## Grinder control parameters configuration

: manual grinder control (for grinder/dispensers with no bluetooth connection option).



1. disable grinder control, if in use.
2. set and calibrate the machine and grinder/dispenser as desired.
3. dispense into the test square all the types of beverages to be used (double coffee, single coffee and any special blend - third key).
4. write down the satisfactory flow values of the coffees for each of the possible three types of beverage.
5. go to the grinder control panel and perform reset.
6. set the flow values for each of the beverages.
7. enable grinder control.

Note: Set the Q.ref of double coffees first for proper functioning of grinder control.

The appearance of this animated icon means that adjustments need to be made to the grinder/dispenser to tighten or loosen the grinding, to return coffee dispensing to the default parameters.

The icons that are shown are:



 means that the grinding needs to be loosened. (flow of coffee is lower than the reference).



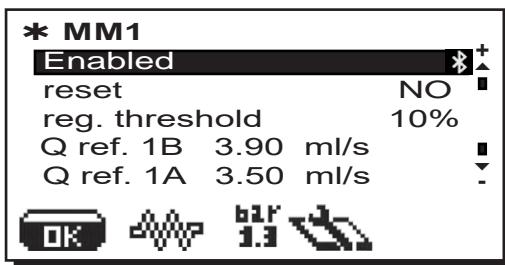
 means that the grinding needs to be tightened. (flow of coffee is greater than the reference).

Note. The number next to the icon (1 or 2) indicates which grinder/dispenser needs adjusting.

The icon appears on the display instead of the level symbol.

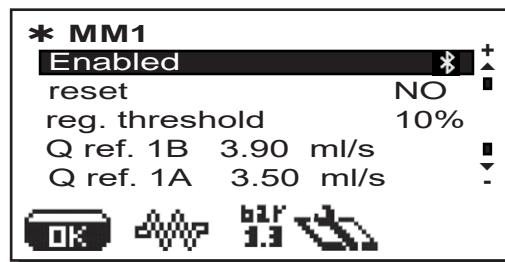
## Grinder control parameters configuration

\* : Method 1: manual setting of Qref.



1. disable grinder control, if in use.
2. connect the machine to the grinder/dispenser via blue-tooth and enable dialogue in the manner already in use.
3. set and calibrate the machine and grinder/dispenser as desired.
4. dispense into the test square all the types of beverages to be used (double coffee, single coffee and any special blend - third magnum key on demand).
5. write down the satisfactory flow values of the coffees for each of the possible three types of beverage.
6. go to the grinder control panel and perform reset.
7. set the flow values for each of the beverages.
8. enable grinder control.

\* : Method 2: setting of Qref in fully self-learning mode.



1. Disable grinder control, if in use.
2. Connect the machine to the grinder/dispenser via blue-tooth and enable dialogue in the manner already in use.
3. Programme and calibrate the machine and grinder/dispenser as desired, dispensing the beverages until a satisfactory cup result is achieved.
4. Go to the grinder control panel and perform reset.
5. Enable grinder control.
6. Exit programming.
7. Dispense double coffees (5 or more) until the message Qref OK appears on the services display (with audible sound).
8. Dispense single coffees (5 or more) until the message Qref OK appears on the services display (with audible signal).
9. Dispense any special blend coffees (5 or more) until the message Qref OK appears on the services display (with audible sound).

10. Enter programming and check that the Qref values set are present.

Repeat the entire procedure for the second grinder/dispenser if present.

The machine is ready to work with the grinder control on. In the event of problems, dispensing can be performed in the test square with the grinder control in use to see if the symbol \* is present beside the flow. Remember that dispensing is deemed valid only if it lasts more than 10 seconds.

Other symbols are used in the test square:

> if the flow is too high compared to the reference, above the upper limit

< if the flow is too low compared to the reference, below the lower limit

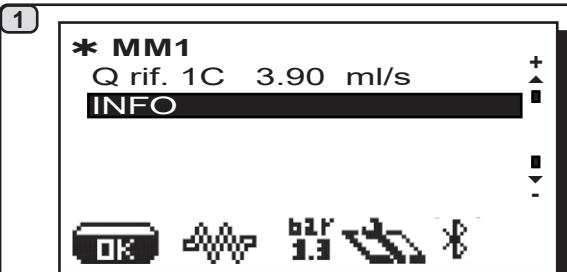
\* flow within the acceptable range

- dispensing too brief (at least 8 s but less than 10 s)

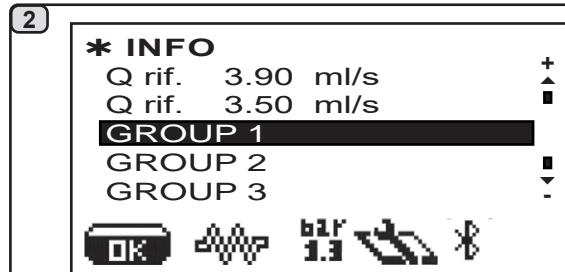
(3) number of remaining coffees to be dispensed and deducted from the count

## Grinder control parameters configuration

**INFO** : grinder control.



Position the cursor on the item “INFO” of the machine and press the ► key.



Pressing the ► key at the line “GROUP 1”, the display will show:

3

\* GROUP 1

	[s]	[ml/s]	N
A	22.2	2.7	12
B	24.4	3.6	65
C	00.0	0.0	00

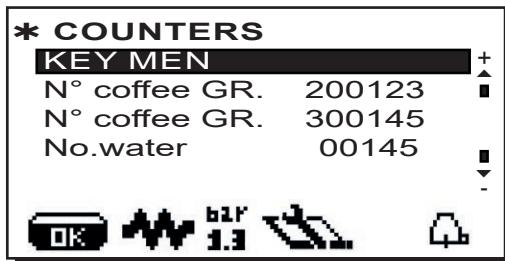
Example of information on the flows of each single dispensing sent to the Plat-One platform via WIFI.  
(A/B) GR 1 single coffee and one double,  
(C) the filter holder is not used for special coffees.

## 8. DATA menu: COUNTERS

To enter the data menu, press the ► key and then press the following is displayed:



When positioning the cursor on the line "COUNTERS" and press the ▲ and ▼ keys, and then press the ► key, the following is displayed:



The settings that are counted are:

- **select key** (single selection counters)
- **coffee** (number of coffee-based beverages);
- **water** - (number of times water dispensed);
- **steam** (number of times steam dispensed with steam key);
- **steam + air** - (number of times steam and air dispensed with the Turbosteam key);
- **tot. coffee** (total number of coffee-based beverages).

(\*) the counter only starts if the activation lasts at least 5 seconds.

The line "No. coffee" appears as many times as the number of groups of the machine.

The counters can be reset by positioning the cursor over the specific item, pressing the ► key and then the ▲ or ▼ keys; press **OK** to confirm the reset.

Note: the settings that cannot be cleared are:

- **tot. coffee**

Pressing the ◀ key again will take you back to the main panel.

## 8.1 DATA menu: Wash Archive



Pressing the ► key at the line "Wash archive", shows the display:



For Wash, the settings that can be displayed are:

- **Requested:** indicates the number of washes that were requested by the machine.
- **Performed:** indicates the number of washes that were performed within the timeout of 60 minutes.



Note: if the requested washes are not performed before the timeout, the list with the last 10 missed washes, numbered and dated, can be viewed under "Performed".

The first line refers to the most recent data. Scroll down the list of any missed washes using the ▲ and ▼ keys and then press the ◀ key to go to another menu.

## 8.2 DATA menu: Refill History

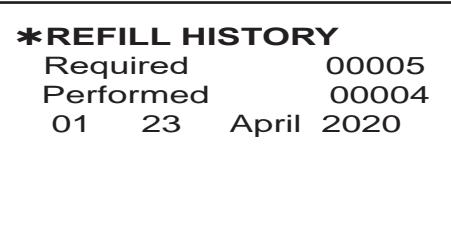


When you press the ► key at the line "Refill History", the display shows:



The Refill parameters that can be displayed are:

- **Required:** indicates the number of Refills that were requested by the machine.
- **Performed:** indicates the number of Refills that were performed within the 60' timeout period.



NOTE: if the requested Refills are not performed before the timeout, the list with the last 10 missed Refills, numbered and dated, can be viewed under "Performed".

The first line refers to the most recent data.

Scroll down the list of any missed Refills using the ▲ and ▼ keys, and then press the ◀ key to go to another menu.

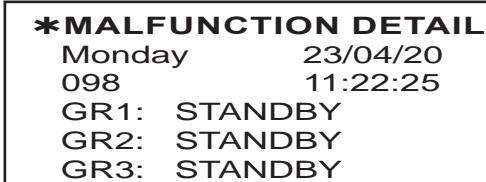
### 8.3 DATA menu: MALFUNCTIONS ARCHIVE



The digits after the “malfunction code” indicate the time elapsed since the last recorded malfunction, in hours and minutes.

Pressing the ► key again takes you to a detailed display that shows:

- day and time when the malfunction occurred
- condition of each group at the time of the malfunction.



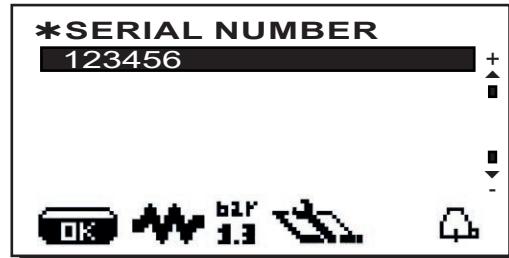
## 8.4 DATA menu: INFO



### Serial number

Positioning the cursor on the line "INFO" and pressing the ▲ and ▼ keys, and then pressing the ► key, the following is displayed:

Pressing the ► key on the line "serial number", the display shows.



### Version

The submenus under "Version" show the memory versions:

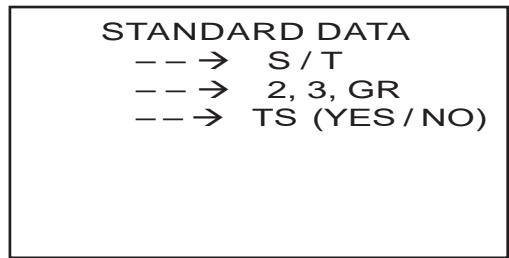
- Master;
- Slave;
- WIFI;
- Computer;
- Vebox.

For some settings, pressing the ► key on the lines, data on the revision and the date of the memory is also displayed in addition to the version.



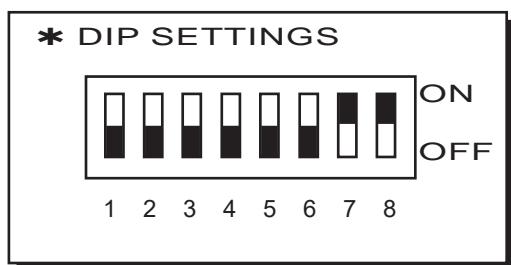
### Setup

The settings entered during the Standard Data entry step are displayed under "Setup":



**Dip settings**

Under the item "DIP settings", the following DIP switch positions are displayed:



Under standard conditions, the DIP switches are set to OFF.

- DIP 1 = OFF
- DIP 2 = OFF
- DIP 3 = OFF - ON technical key simulation
- DIP 4 = OFF - ON access to accounting functions
- DIP 5 = OFF - ON enabling of key sequence for programming entry
- DIP 6 = OFF
- DIP 7 = ON
- DIP 8 = ON

For more details, please see the technical manual in the section "Settings - CPU DIP switches".

## 9. Manual commands menu

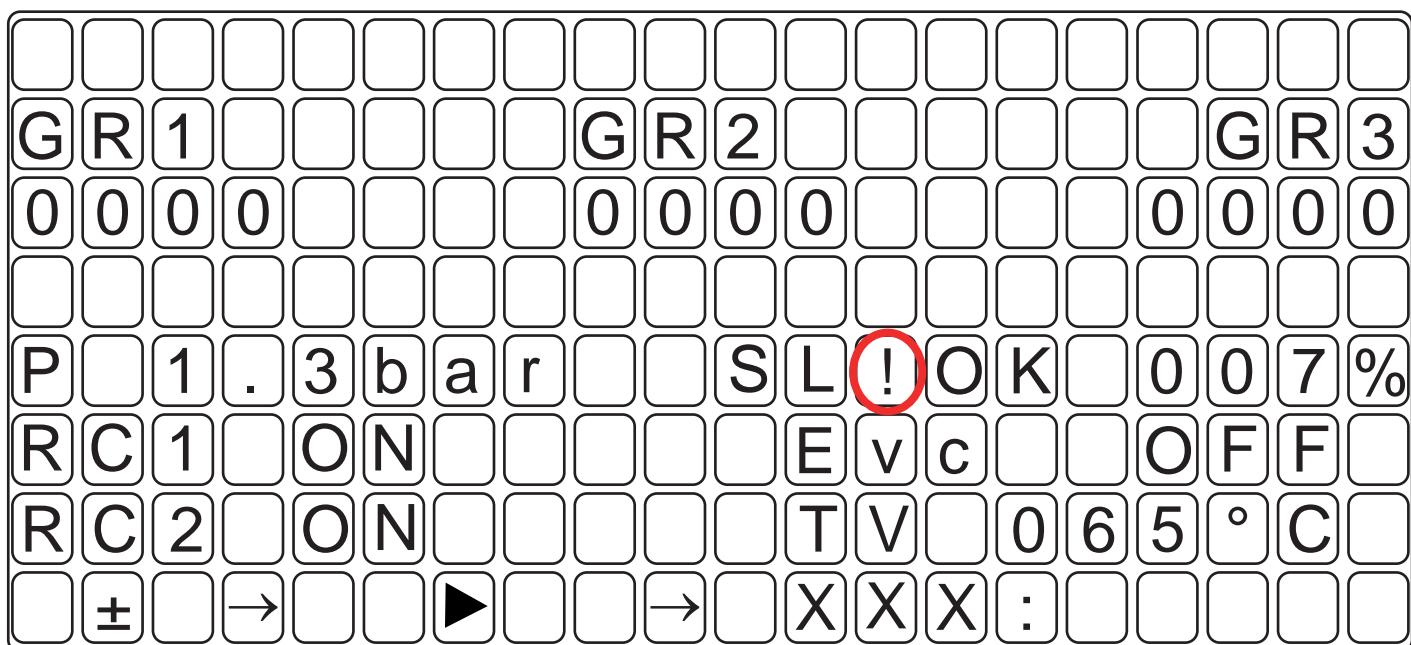
To access the manual control panels, position the cursor on the line "Manual commands" using the ▲ and ▼ keys

**MANUAL COMMANDS** - allows the components to be activated manually using the ▲ and ▼ keys.



When the ► key is pressed again, the box below appears on the display:

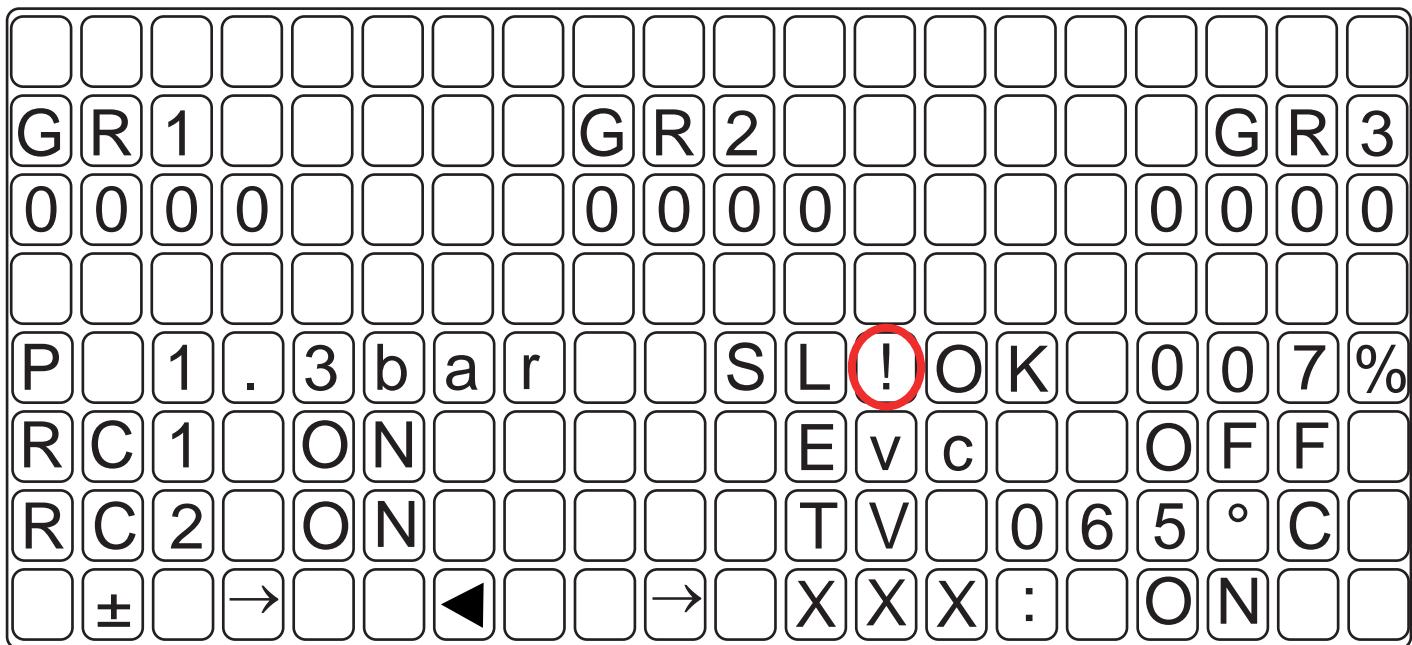
*Panel 1*



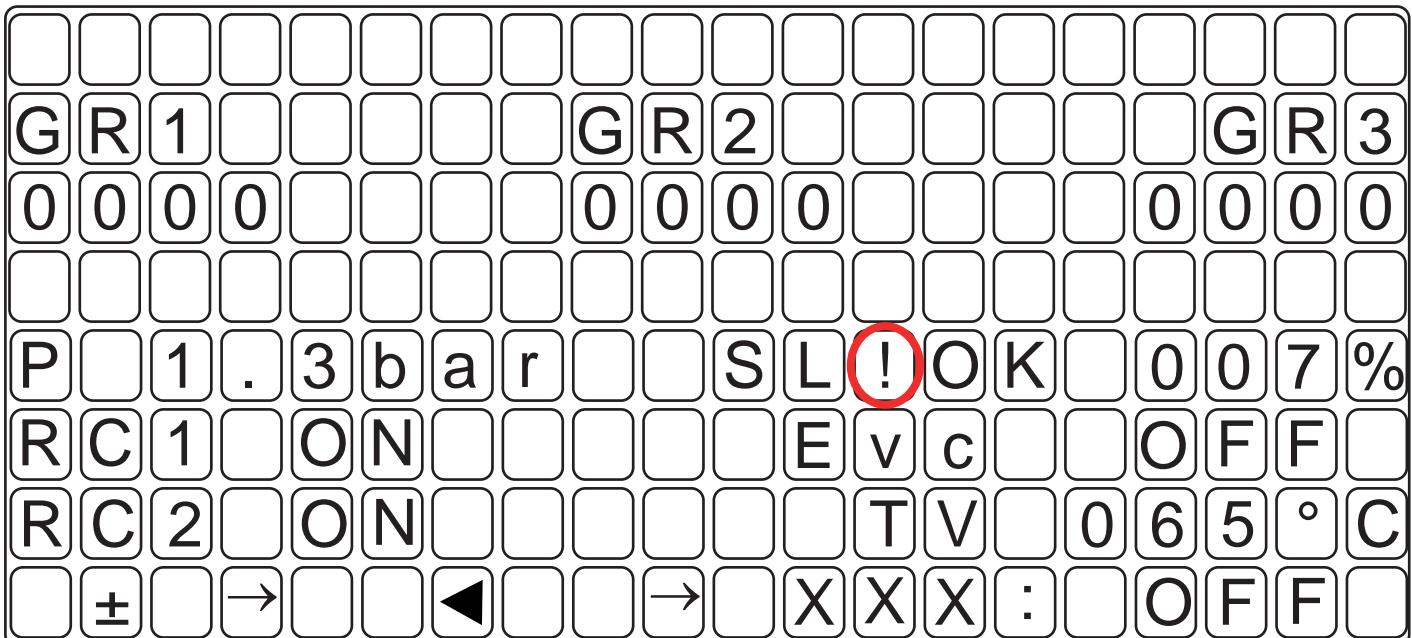
- Pressing ▲ or ▼ displays the various components;
- Pressing ► selects the component to active and takes you to the next panel M2;
- Pressing ◀ exits manual mode.

!

Optional symbol: if visible, this indicates the presence of anomalies on the level probe signal.

*Panel 2*

- Pressing ▲ or ▼ activates the components:  
if they have a direction, use ▲ or ▼ to alternate ("+" Left/ "-" Right).
- Pressing ◀ takes you back to panel M1.

*Panel***Level signal:**

- Nominal operating range: from 7 to 53% (approximately) (E.g. 8% level OK; 50% no water, level probe uncovered)
- Other values -> signal anomaly, check wiring and connections

**Legend**

<b>RC</b>	Boiler resistance
<b>Evc</b>	Boiler load solenoid valve
<b>P</b>	Boiler pressure
<b>SL</b>	Boiler water level
<b>TV</b>	Steam temperature (if the Turbosteam system is not present, this parameter is not displayed)

Below are the symbols used to define the components that can be accessed for movement:

<b>MP</b>	Pump Motor
<b>Eds</b>	Drying solenoid valve
<b>MC</b>	Turbosteam compressor motor*
<b>Ets</b>	Turbosteam solenoid valve*
<b>Evc</b>	Charge-boiler solenoid valve
<b>Eaf</b>	Cold-water solenoid valve
<b>Eac</b>	Water solenoid valve
<b>G1÷G3</b>	Dispense-coffee solenoid valve

*The components - \* - are only applied with certain product configurations.*

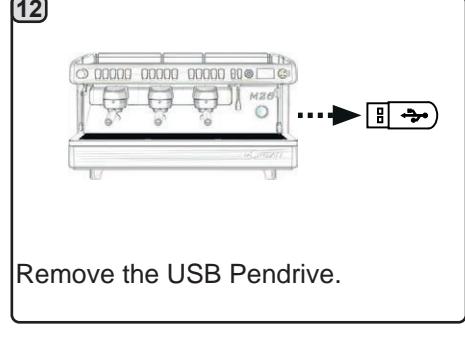
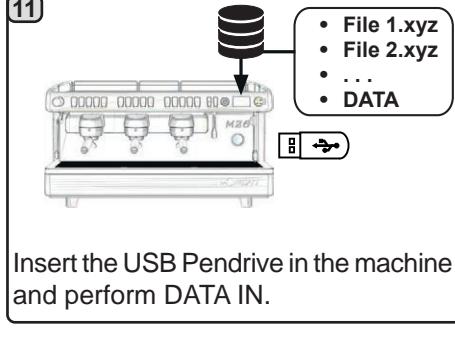
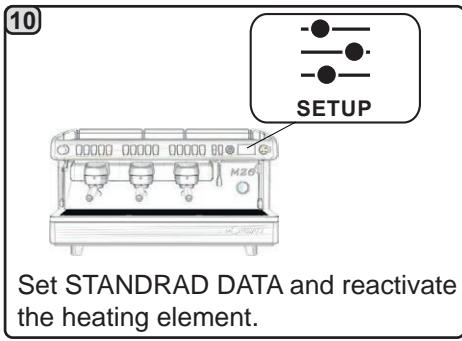
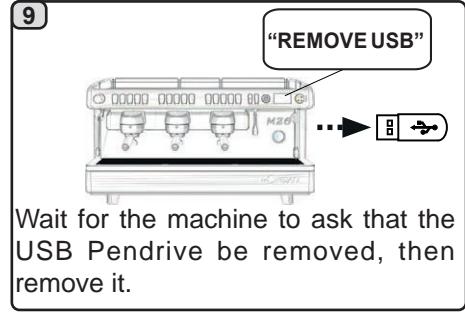
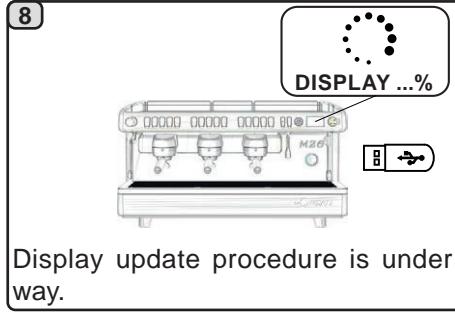
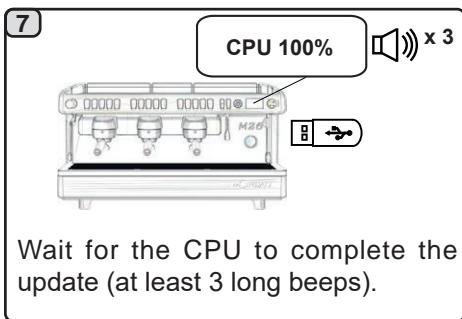
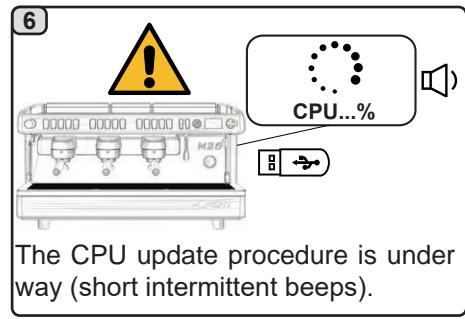
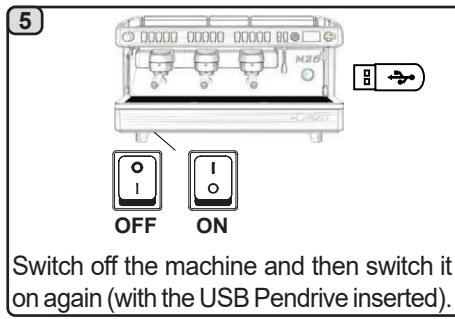
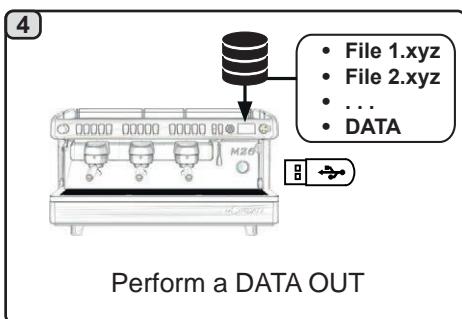
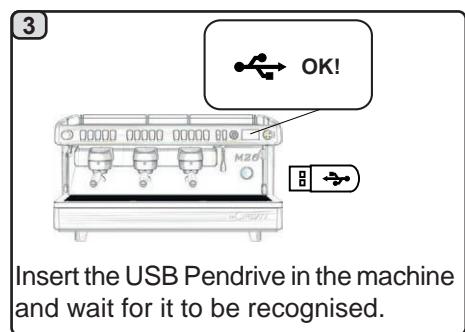
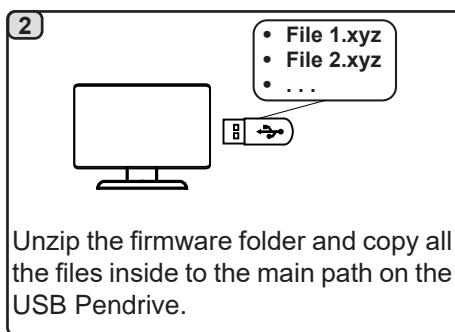
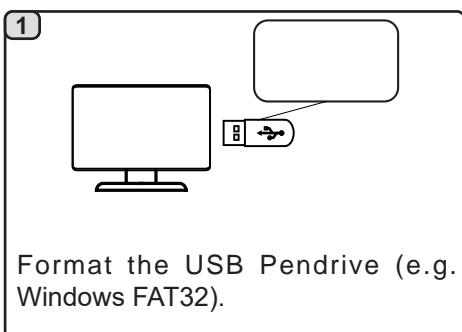
## Update software



## PRELIMINARY INFORMATION

The operation may take several minutes. **Do not turn off the machine or remove the USB Pendrive until the update is complete.**

It is preferable to use a USB Pendrive with an LED that indicates status.



## Bootloader diagnostic messages

CODE	DESCRIPTION	SOLUTION
-1 -5 -6 -7	Attempt to load data in a flash memory address of the CPU board that is invalid or reserved for the BOOT program	<ul style="list-style-type: none"> <li>Reprogram the USB flash drive with the appropriate files and repeat the operations.</li> </ul> <p><i>If the problem persists:</i></p> <ul style="list-style-type: none"> <li>Contact the service centre to get the correct software version.</li> </ul>
-2 -3 -4 5 6	Malfunction of the flash memory of the CPU board	<ul style="list-style-type: none"> <li>Repeat the data transfer to the CPU board.</li> </ul> <p><i>If the problem persists:</i></p> <ul style="list-style-type: none"> <li>Replace the CPU board and contact the service centre.</li> </ul>
1 3	Failed or incorrect data transfer from USB-micro Slave CPU	<ul style="list-style-type: none"> <li>Check that the USB Pen Drive is correctly inserted, including the board USB-port wiring, and repeat.</li> </ul> <p><i>If the problem persists:</i></p> <ul style="list-style-type: none"> <li>Replace the USB Pen Drive and repeat.</li> </ul> <p><i>If the problem persists:</i></p> <ul style="list-style-type: none"> <li>Replace the CPU board and contact the service centre</li> </ul>
2 4	Format or size of data received from USB invalid.	<ul style="list-style-type: none"> <li>Reprogram the USB flash drive with the appropriate files and repeat the operations.</li> </ul> <p><i>If the problem persists:</i></p> <ul style="list-style-type: none"> <li>Contact the service centre to get the correct software version.</li> </ul>

## 10. Diagnostic messages

MALFUN. CODE	DESCRIPTION	POSSIBLE CAUSES	VERIFICATIONS and SOLUTIONS
020	<b>USB power-supply malfunction.</b>	• USB-port current-consumption too high.	<ul style="list-style-type: none"> <li>Check the status of the USB port and its connections in order to identify possible causes of excessive consumption (e.g. short-circuit).</li> <li>Once the cause of the malfunction is fixed the USB port should restore itself automatically and return to normal operation.</li> <li>If the problem persists, replace the CPU board.</li> </ul>
(x)21*	<b>Group boiler pressure sensor x out of range (x = 1, 2, 3, 4)</b> Note: Group 1 is to the far left.	• Sensor failure • Card failure.	<ul style="list-style-type: none"> <li>Check cabling</li> <li>Replace the sensor</li> <li>Replace the card.</li> </ul>
023	<b>AC 24V power supply malfunction.</b>	• The glass fuse on the CPU board is likely broken.	<ul style="list-style-type: none"> <li>Replace the fuse.</li> </ul>
024	<b>Clock malfunction.</b>	<ul style="list-style-type: none"> <li>Contacts oxidised.</li> <li>Dead battery.</li> <li>Clock blocked.</li> </ul>	<ul style="list-style-type: none"> <li>Clean the contacts on the battery.</li> <li>Measure the voltage of the battery (3 V DC) and, if necessary, replace it.</li> </ul> <p>If the battery is OK try, with the machine turned off, to remove it from the board and wait 2-3 minutes. Then reinsert the battery and check that the clock is working properly.</p>
025*	<b>No power: group, EV, milk pump</b>	• Voltage drop in the power supply	<ul style="list-style-type: none"> <li>Check if CPU card has power.</li> <li>Check power supply unit (protection)</li> <li>Check cabling</li> </ul>
029 *	<b>LCD display not connected (applies only to machines with 128 x 64 pixel monochromatic display)</b>	<ul style="list-style-type: none"> <li>Break in cabling.</li> <li>Display fault.</li> </ul>	<ul style="list-style-type: none"> <li>Check cabling.</li> </ul>
030	<b>Slave micro processor malfunction.</b>		<ul style="list-style-type: none"> <li>If the problem persists, replace the Newton board.</li> </ul>
(x)30*	<b>(x = 1, 2, 3, 4 and 5) Display group 1, 2, 3 and 4. 5 service displays if one display restarts the CPU records the error.</b>		<ul style="list-style-type: none"> <li>Event only archived and not displayed on the display during normal machine operation.</li> </ul>
041*	<b>Milk pump motor overcurrent</b>	<ul style="list-style-type: none"> <li>Consequence of applied force</li> <li>Rotor blocked</li> <li>Pump motor faulty</li> </ul>	<ul style="list-style-type: none"> <li>Check wiring.</li> <li>Check whether the circuit or pump is clogged.</li> <li>Replace the pump.</li> </ul>
051	<b>Temperature sensor signal out of range.</b>	<ul style="list-style-type: none"> <li>Sensor failure</li> <li>Card failure.</li> </ul>	<ul style="list-style-type: none"> <li>Check cabling</li> <li>Replace the sensor</li> <li>Replace the card.</li> </ul>
(x)51*	<b>Group boiler temperature sensor x out of range (x = 1, 2, 3, 4)</b> Note: Group 1 is to the far left.	<ul style="list-style-type: none"> <li>Thermocouple disconnected</li> <li>Sensor failure.</li> </ul>	<ul style="list-style-type: none"> <li>Check cabling</li> <li>Replace the sensor.</li> </ul>

MALFUN CODE	DESCRIPTION	POSSIBLE CAUSES	VERIFICATIONS and SOLUTIONS
052	<b>Boiler heating timeout - 45 minutes.</b>	<ul style="list-style-type: none"> <li>The safety thermocouple has been triggered</li> <li>The resistance is interrupted (cabling defect)</li> <li>The Triac card is malfunctioning.</li> </ul>	<ul style="list-style-type: none"> <li>Check if the safety thermostat has been triggered, and reset it if necessary</li> <li>Check if there are interruptions or detached fastons on the cabling</li> <li>Check that the boiler resistance is not interrupted and replace it if necessary</li> <li>Replace the Triac card.</li> </ul>
(x)52*	<b>Group x boiler heating timeout - 20 minutes</b> <b>(x = 1, 2, 3, 4)</b> Note: Group 1 is to the far left.	<ul style="list-style-type: none"> <li>The group x boiler safety thermostat has been triggered</li> <li>The resistance is interrupted (cabling defect).</li> <li>Triac board fault.</li> </ul>	<ul style="list-style-type: none"> <li>Check if the safety thermostat of the group x boiler has been triggered, and reset it if necessary</li> <li>Check if there are interruptions or detached fastons on the cabling</li> <li>Check that the group x boiler resistance is not interrupted and replace it if necessary</li> <li>Replace Triac board.</li> </ul>
(x) 53*	<b>Steam thermocouple out of range.</b>  <b>RI &gt; 053; LE &gt; 153</b>	<ul style="list-style-type: none"> <li>Thermocouple disconnected</li> <li>Wrong configuration during standard data insertion.</li> </ul>	<ul style="list-style-type: none"> <li>Enter in the programming mode and insert the correct standard data..</li> <li>Check connections.</li> <li>Replace the steam temperature probe.</li> </ul>
058	<b>Boiler overpressure alarm.</b>	<ul style="list-style-type: none"> <li>Resistance always powered.</li> <li>Temperature sensor out of range.</li> </ul>	<ul style="list-style-type: none"> <li>Check cabling</li> <li>Replace the sensor.</li> </ul>
059	<b>Boiler: Refill timeout - 15 minutes.</b>	<ul style="list-style-type: none"> <li>No water</li> <li>Refill EV failure</li> <li>Wiring interrupted</li> <li>Card failure.</li> </ul>	<ul style="list-style-type: none"> <li>Check water is supplied from the main line.</li> <li>Replace the refill EV.</li> <li>Check cabling.</li> <li>Replace the card.</li> </ul>
060	<b>Boiler-level signal errors.</b>	<ul style="list-style-type: none"> <li>Electrical fault.</li> <li>Leakage to earth.</li> </ul>	<ul style="list-style-type: none"> <li>Check wiring.</li> <li>Check, by activating the components individually on the manual control panel, that the level signal does not show any anomalies (%).</li> </ul>
062	<b>Coffees dispensed for MM1 with flow under the limit (3 consecutive coffees dispensed).</b>	<ul style="list-style-type: none"> <li>coffee filter blocked</li> <li>coffee type changed</li> <li>qref calibration wrong</li> <li>grind too fine, excessive dose ground.</li> </ul>	<ul style="list-style-type: none"> <li>wash the group</li> <li>clean/replace the coffee filter</li> <li>use a coarser grind</li> <li>calibrate the machine correctly on the basis of the coffee/recipe.</li> </ul>
063	<b>Coffees dispensed referred to MM1 with flow over the limit (3 consecutive coffees dispensed).</b>	<ul style="list-style-type: none"> <li>coffee type changed</li> <li>qref calibration wrong</li> <li>grinding too coarse</li> <li>grinder/dispenser blocked, insufficient dose of ground coffee.</li> </ul>	<ul style="list-style-type: none"> <li>check that there are no external elements in the grinders</li> <li>check that the measure grinder is working (pick-up current and fuses)</li> <li>use a finer grind</li> <li>calibrate the machine correctly on the basis of the coffee/recipe.</li> </ul>
064	<b>Coffees dispensed referred to MM2 with flow under the limit (3 consecutive coffees dispensed).</b>	<ul style="list-style-type: none"> <li>coffee filter blocked</li> <li>coffee type changed</li> <li>qref calibration wrong</li> <li>grind too fine, excessive dose ground.</li> </ul>	<ul style="list-style-type: none"> <li>wash the group</li> <li>clean/replace the coffee filter</li> <li>use a coarser grind</li> <li>calibrate the machine correctly on the basis of the coffee/recipe.</li> </ul>

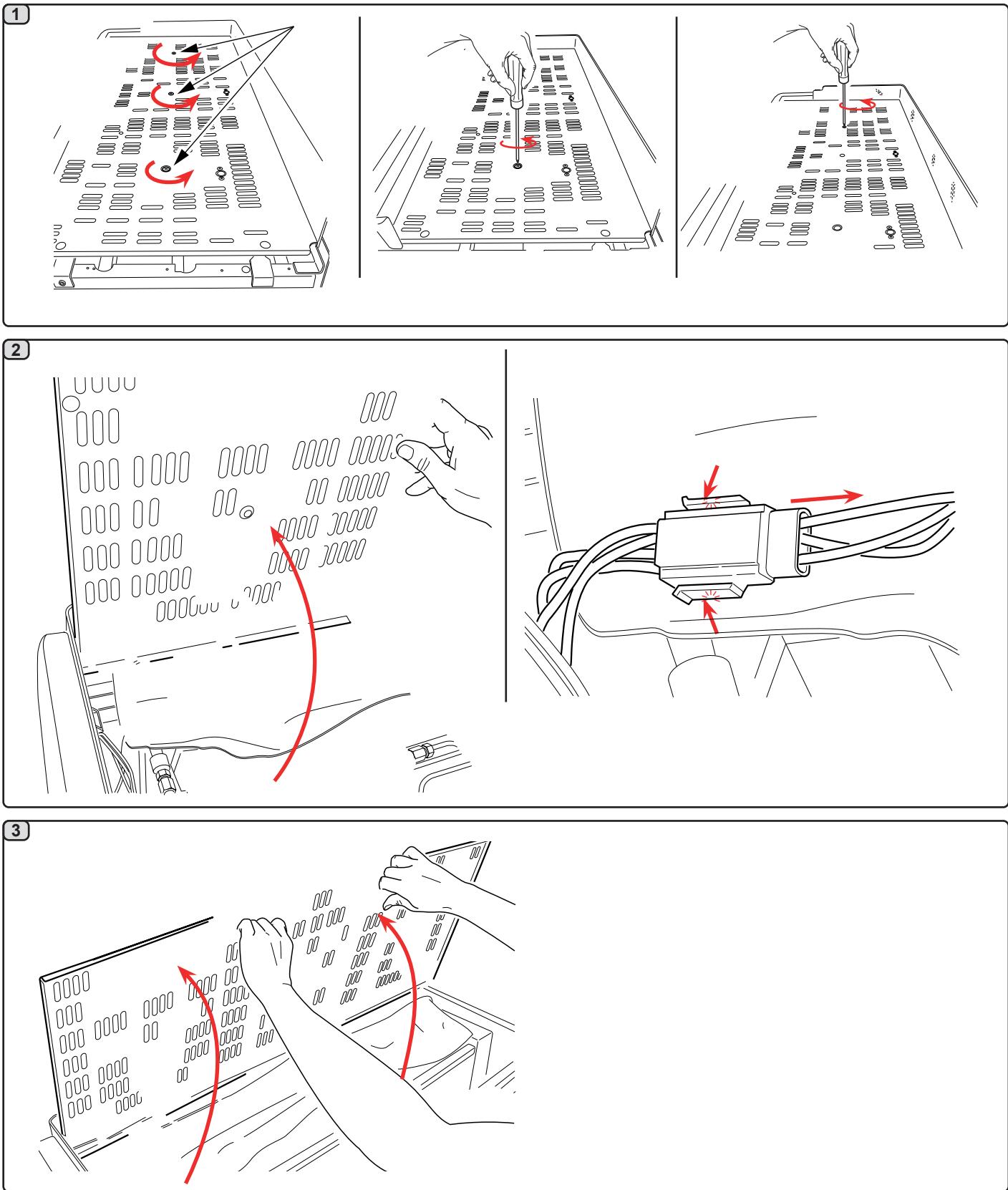
MALFUNCTION CODE	DESCRIPTION	POSSIBLE CAUSES	VERIFICATIONS and SOLUTIONS
065	<b>Coffees dispensed referred to MM2 with flow over the limit (3 consecutive coffees dispensed).</b>	<ul style="list-style-type: none"> <li>• coffee type changed</li> <li>• qref calibration wrong</li> <li>• grinding too coarse</li> <li>• grinder/dispenser blocked, insufficient dose of ground coffee.</li> </ul>	<ul style="list-style-type: none"> <li>• check that there are no external elements in the grinders</li> <li>• check that the measure grinder is working (pickup current and fuses)</li> <li>• use a finer grind</li> <li>• calibrate the machine correctly on the basis of the coffee/recipe.</li> </ul>
(x)66	<b>Error in the group that is dispensing.</b> <b>(x = 1, 2, 3, 4)</b> Note: Group 1 is to the far left.		<ul style="list-style-type: none"> <li>• Check water is supplied from the main line.</li> <li>• Check there are no fitting obstructions or leakage.</li> <li>• Check flowmeter electrical connections.</li> <li>• Replace the broken flowmeter.</li> <li>• Replace the broken board.</li> </ul>
(x)70	<b>Measure-grinder adjustment: Bluetooth set up by the technician. (x = 1, 2)</b> <b>MM1 &gt; 170; MM2 &gt; 270</b>		Event only archived and not displayed on the display during normal machine operation.
082	<b>Temporary communication problem with the keyboards/TFT display.</b>		<ul style="list-style-type: none"> <li>• Check the insulation.</li> <li>• Check the wiring and connections.</li> </ul>
083	<b>Services key communication error.</b>	<ul style="list-style-type: none"> <li>• Incorrect keyboard configuration (if applicable).</li> <li>• Wiring interrupted</li> <li>• Card failure.</li> </ul>	<ul style="list-style-type: none"> <li>• Check that the dip switches are correctly configured on the key board (if applicable).</li> <li>• Check cabling</li> <li>• Replace key board.</li> </ul>
(x)83*	<b>Group x (x = 1, 2, 3, 4) keypad communication error</b> Note: Group 1 is to the far left.	<ul style="list-style-type: none"> <li>• Incorrect keyboard configuration (if applicable).</li> <li>• Wiring interrupted</li> <li>• Card failure.</li> </ul>	<ul style="list-style-type: none"> <li>• Check that the dip switches are correctly configured on the key board (if applicable).</li> <li>• Check cabling</li> <li>• Replace key board.</li> </ul>
(x)85*	<b>Bluetooth communication error (x = 1, 2)</b> <b>MM1 &gt; 185; MM2 &gt; 285</b>	<ul style="list-style-type: none"> <li>• Incorrect association with measure grinder.</li> <li>• Measure grinder turned off.</li> </ul>	<ul style="list-style-type: none"> <li>• Turn on the grinder.</li> <li>• Repeat device association.</li> </ul>
089	<b>NVM RAM data integrity error</b>	<ul style="list-style-type: none"> <li>• Incorrect association with measure grinder.</li> <li>• Measure grinder turned off.</li> </ul>	<p>Turn the machine off and on again. If the error persists, replace the CPU board.</p> <p>Check the condition of the clock battery.</p>
091*	<b>No tank during milk washing cycle</b>	Data integrity error in non-volatile RAM memory of the CPU board.	<ul style="list-style-type: none"> <li>• Check the correct operation of the tank presence sensor on the manual control panel.</li> <li>• Check the wiring.</li> </ul>
092	<b>Request water softener resin regeneration.</b>	<ul style="list-style-type: none"> <li>• Removal of tank during the wash.</li> <li>• Tank presence sensor faulty.</li> </ul>	<ul style="list-style-type: none"> <li>• Softener maintenance.</li> </ul>
093	<b>Request replacement water filter.</b>		<ul style="list-style-type: none"> <li>• Replace the water-softner filter.</li> </ul>
096	<b>Maintenance needed.</b>		<ul style="list-style-type: none"> <li>• The machine has displayed the message to warn the user that maintenance must be performed. Carry out maintenance operations.</li> </ul>

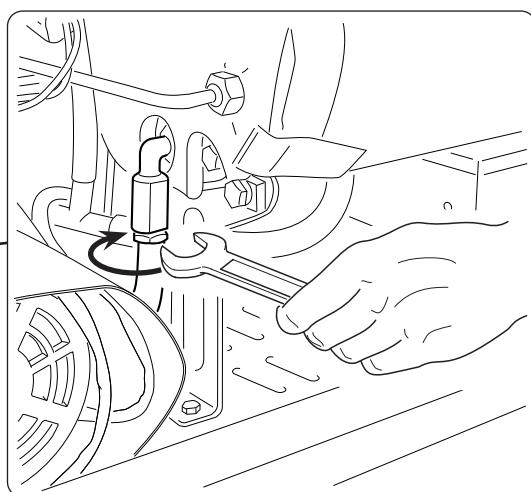
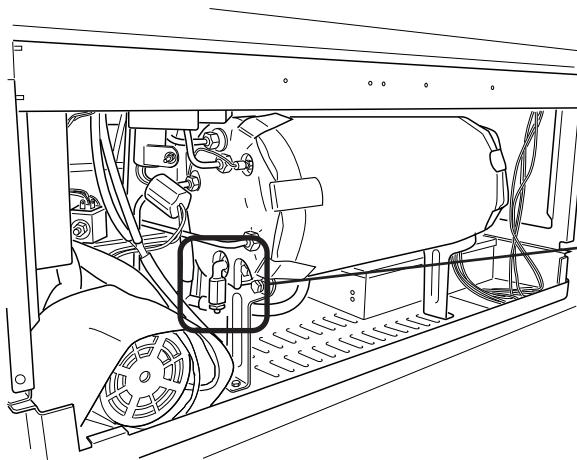
MALFUN CODE	DESCRIPTION	POSSIBLE CAUSES	VERIFICATIONS and SOLUTIONS
097*	<b>Reset standard password.</b>	• Action desired by the user by entering the special code (applicable only for machines with TFT display).	
098	<b>Historical malfunctions and wash 1 reset.</b>	• Initialisation malfunction history (and washing history for machines without TFT display)	• Event only archived and not displayed on the display during normal machine operation.
099	<b>Default data input.</b>		
105	<b>SD card malfunction.</b>	• SD card corrupted or malfunction.	• Replace SD card.
282	<b>Keypad reset operation carried out by CPU board due to repeated communication problems.</b>		• Check the insulation. • Check the wiring and connections.
583	<b>TS/AS keyboard board communication error. RGB light module failure only for Emblem R.</b>	• Break in wiring. • Keyboard board failure. • Light board failure.	• Check wiring. • Replace keyboard board. • Replace light board.
683	<b>Turbosteam module communication malfunction.</b>	• Break in wiring. • Board failure.	• Check wiring. • Replace turbosteam board.

Faults - \* - appear only in some product configurations.

**DISASSEMBLY AND SETTING**

**ALL OPERATIONS MUST BE PERFORMED WITH THE MACHINE OFF AND COLD.  
TO ALWAYS USE THE NECESSARY SAFETY EQUIPMENT (SHOES/GLOVES).**

**11. Cup Warmer**

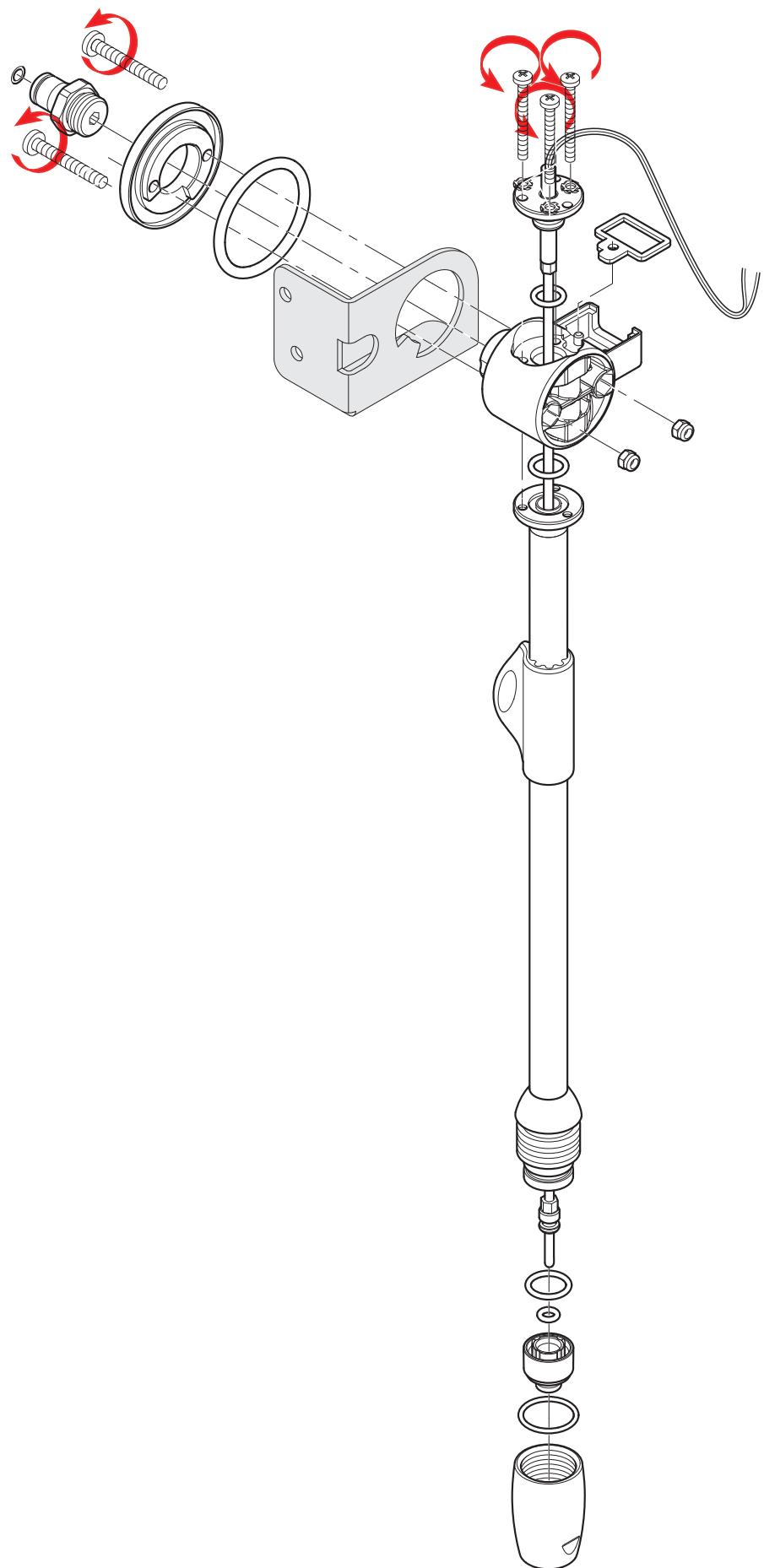
**12. Draining the boiler water**

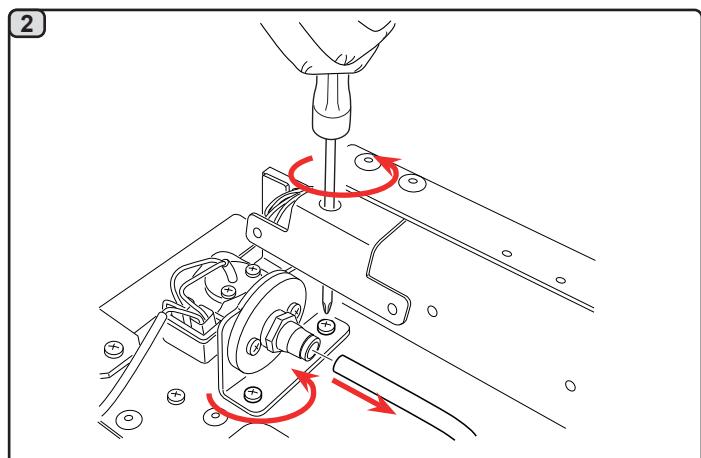
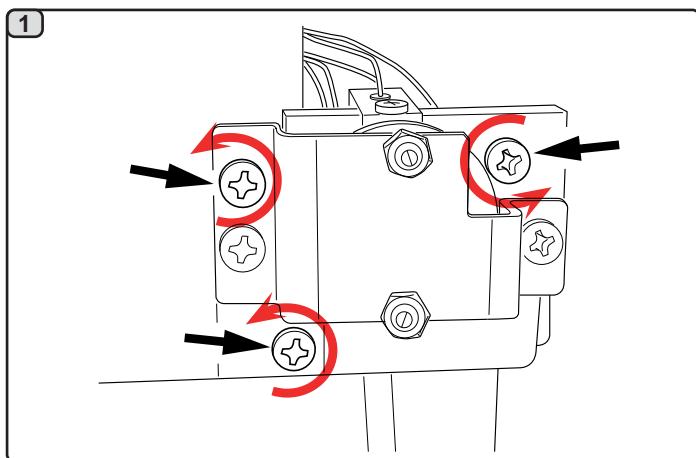
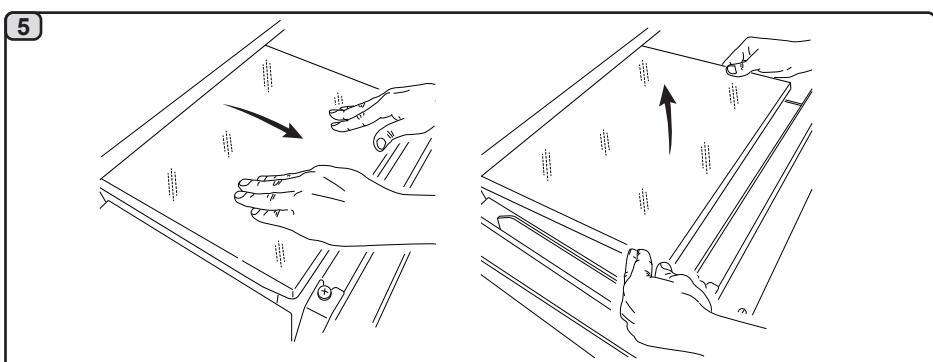
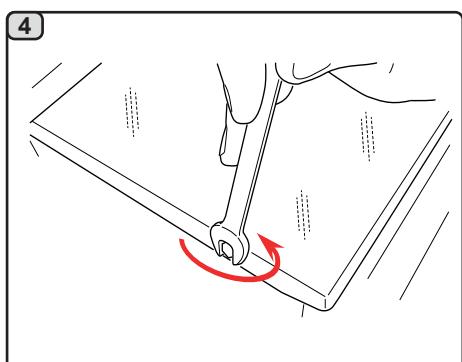
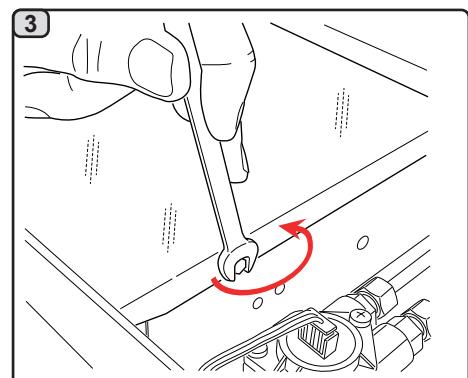
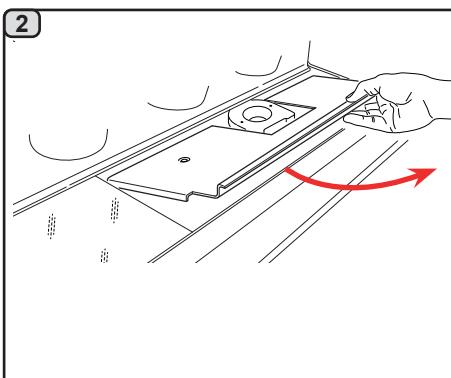
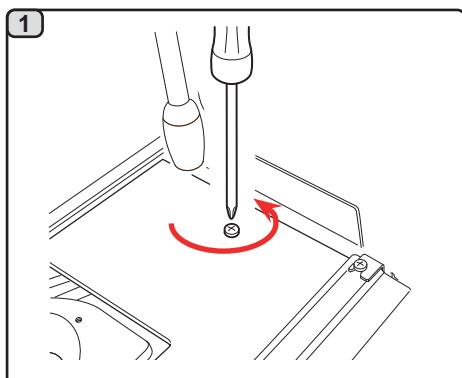
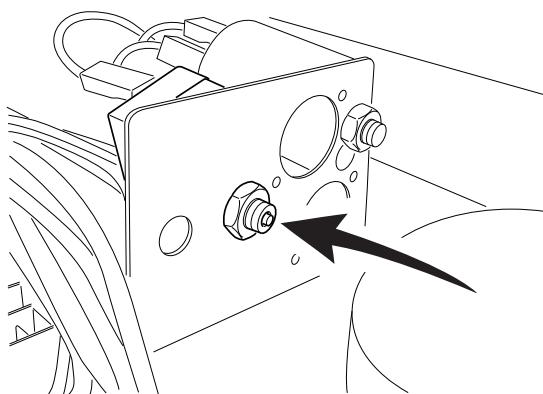
Slip a tube on the drain fitting and turn the nut in the direction indicated in the future.

### 13. Removing the boiler heating element

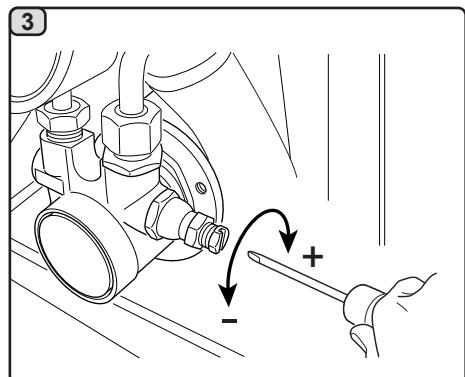
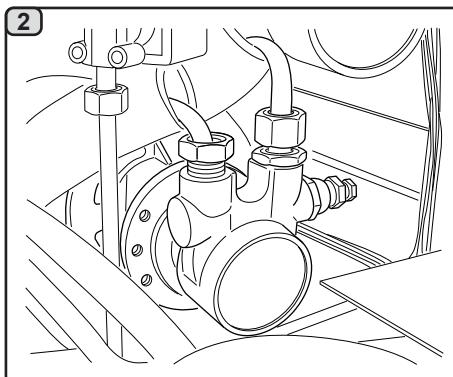
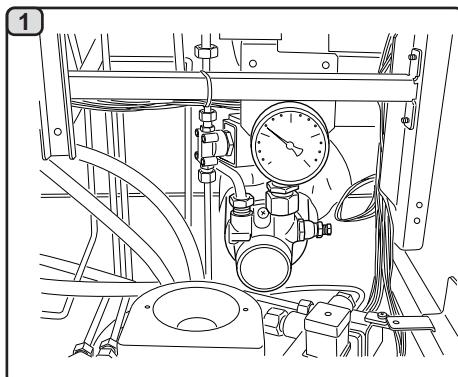
Remove the resistance only after emptying the boiler.



**14. Turbosteam control and lance**

**14. Turbosteam control and lance****15. Junction Box****16. Safety thermostat**

## 17. Volumetric pump



## 18. CPU dip-switch

### CPU DIP-SWITCH

#### CAUTION!

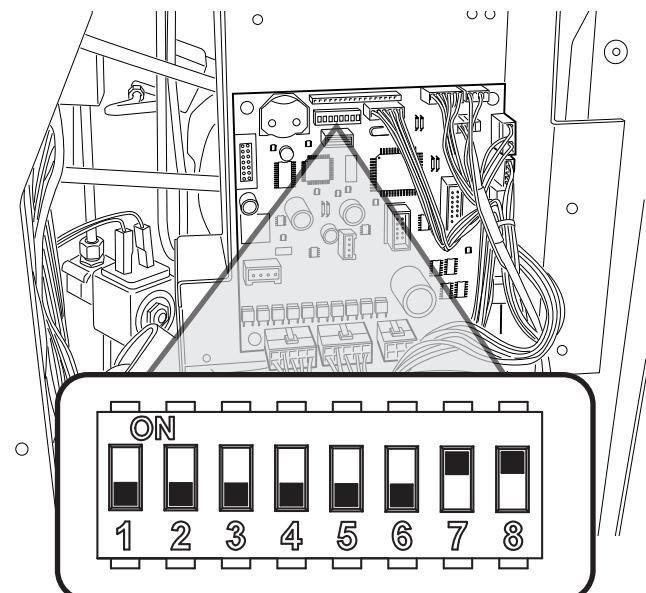
**When changing the position of the Dip-Switch, the machine MUST BE SWITCHED OFF.**

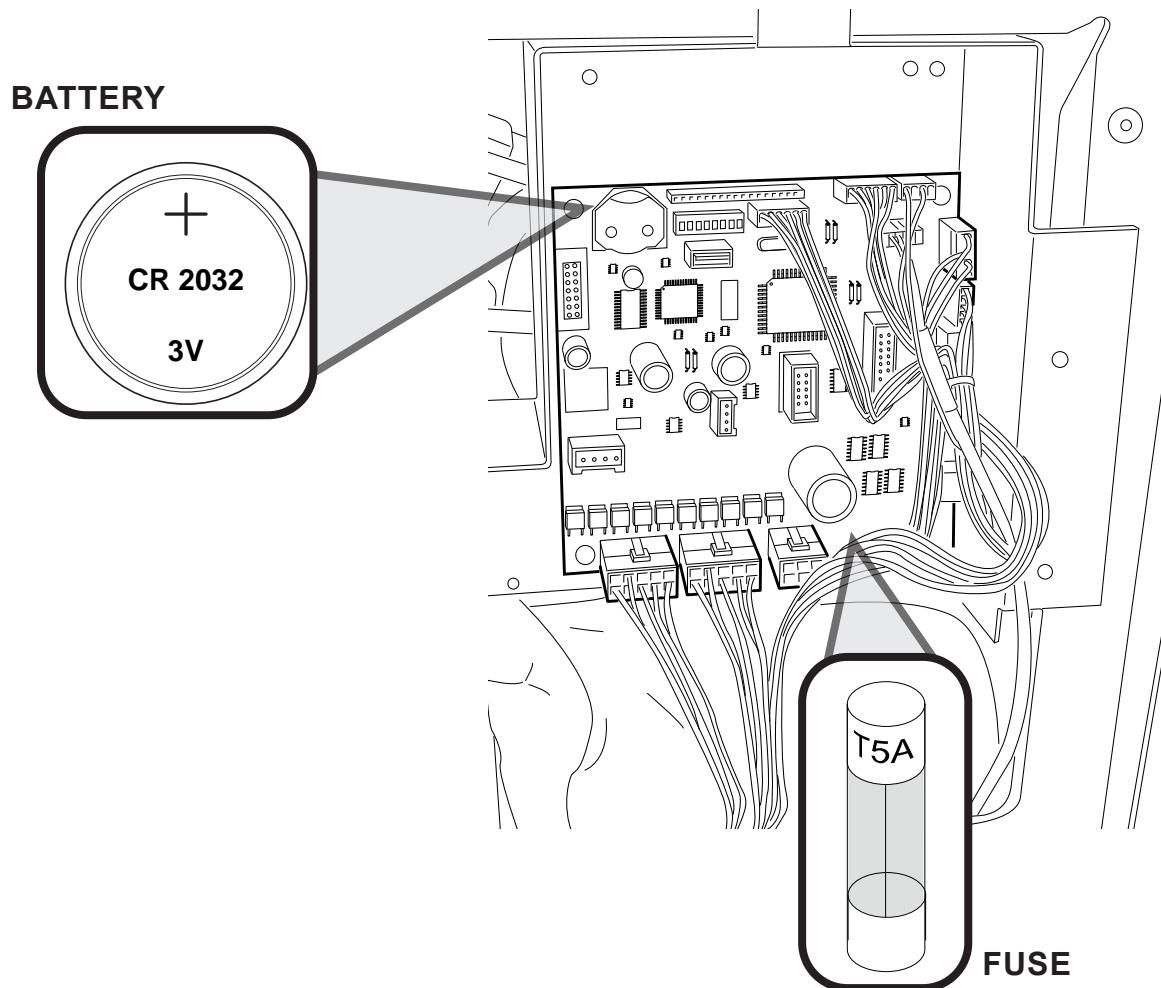
Under standard conditions, the dip-switches are positioned on OFF.

The dip-switches have the following functions:

- DIP 1 = OFF
- DIP 2 = OFF
- DIP 3 = OFF - ON calibration of the touch displays
- DIP 4 = OFF
- DIP 5 = OFF
- DIP 6 = OFF
- DIP 7 = ON
- DIP 8 = ON

(\*) Upon completion of the standard data input operations, position DIP 1 to OFF again.



**Battery - Fuse**

## Regolazioni - Setting - Réglages - Einstellungen - Regulaciones - Regulações

**Chiudere il rubinetto di alimentazione idrica.**

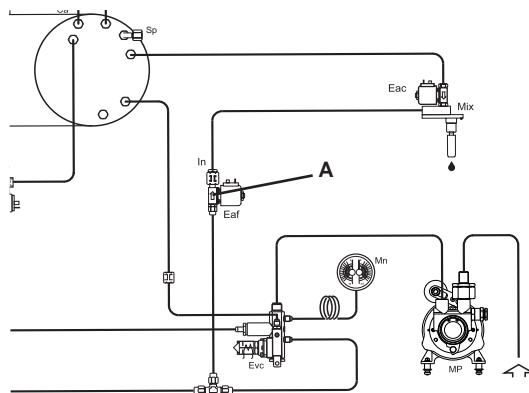
**Close the water tap.**

**Fermer le robinet d'alimentation hydrique.**

**Sperren sie den hahn zur wasserversorgung ab.**

**Cerrar el grifo de alimentación hídrica.**

**Fechar a torneira de alimentação hídrica.**



### IT REGOLAZIONE DELLA TEMPERATURA DELL'ACQUA CALDA \*(DOVE PRESENTE)

Per variare la temperatura, dell'acqua sostituire l'ugello (A) da 0,6 montato, con quello da 0,8 in dotazione.

### EN ADJUSTMENT OF HOT WATER TEMPERATURE \*(WHEN PRESENT)

Per variare la temperatura, dell'acqua sostituire l'ugello (A) da 0,6 montato, con quello da 0,8 in dotazione.

### FR REGLAGE DE LA TEMPERATURE DE L'EAU CHAUDE \*(LE CAS ÉCHÉANT)

Per variare la temperatura, dell'acqua sostituire l'ugello (A) da 0,6 montato, con quello da 0,8 in dotazione.

### DE REGELUNG DER HEISSWASSERTEMPEARTUR \*(SOVERN VORHANDEN)

Per variare la temperatura, dell'acqua sostituire l'ugello (A) da 0,6 montato, con quello da 0,8 in dotazione.

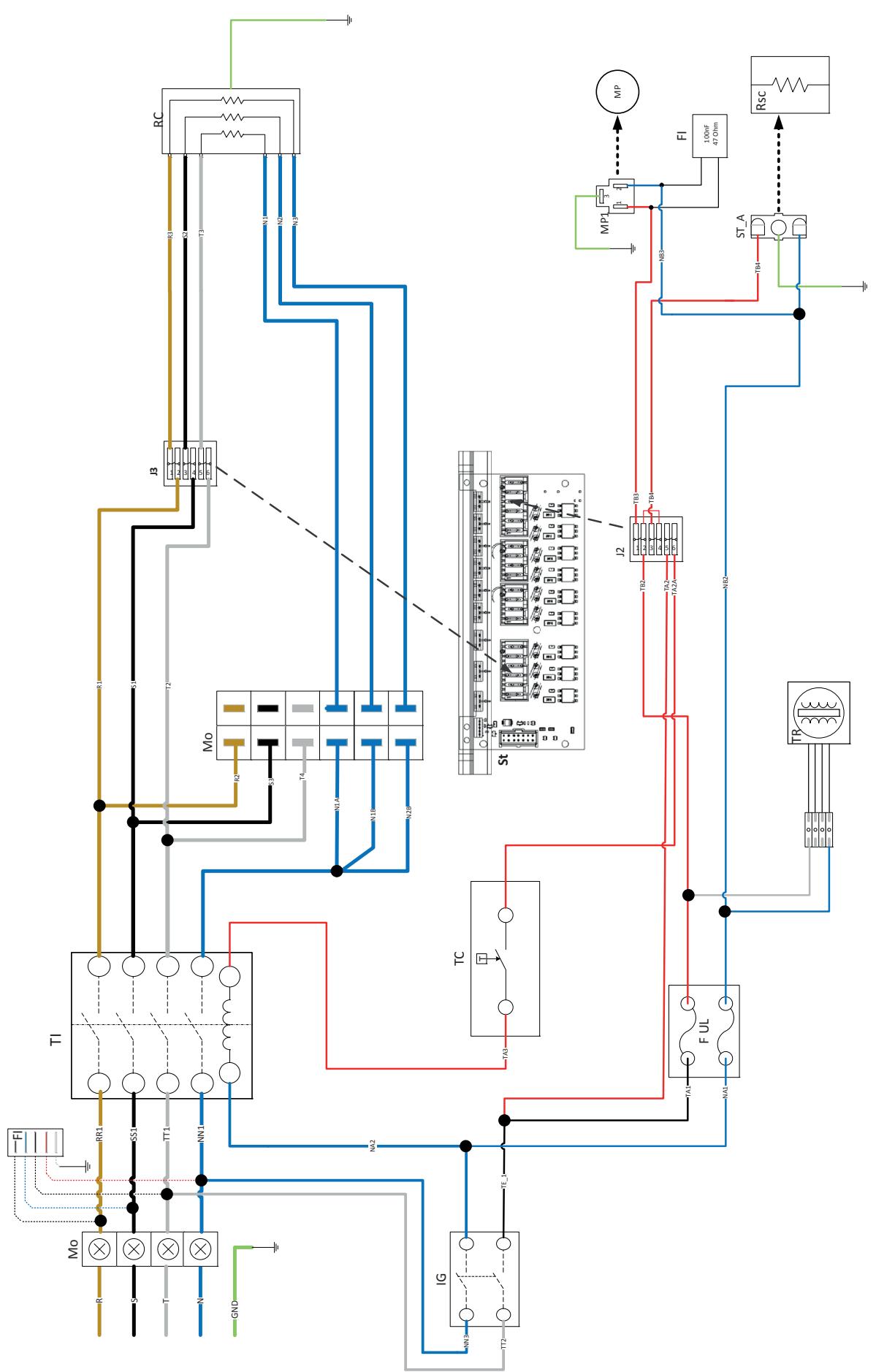
### ES REGULACIÓN DE LA TEMPERATURA DEL AGUA CALIENTE \*(SI ESTÁ PRESENTE)

Per variare la temperatura, dell'acqua sostituire l'ugello (A) da 0,6 montato, con quello da 0,8 in dotazione.

### PT REGULAÇÃO DA TEMPERATURA DA ÁGUA QUENTE \*(SE PRESENTE)

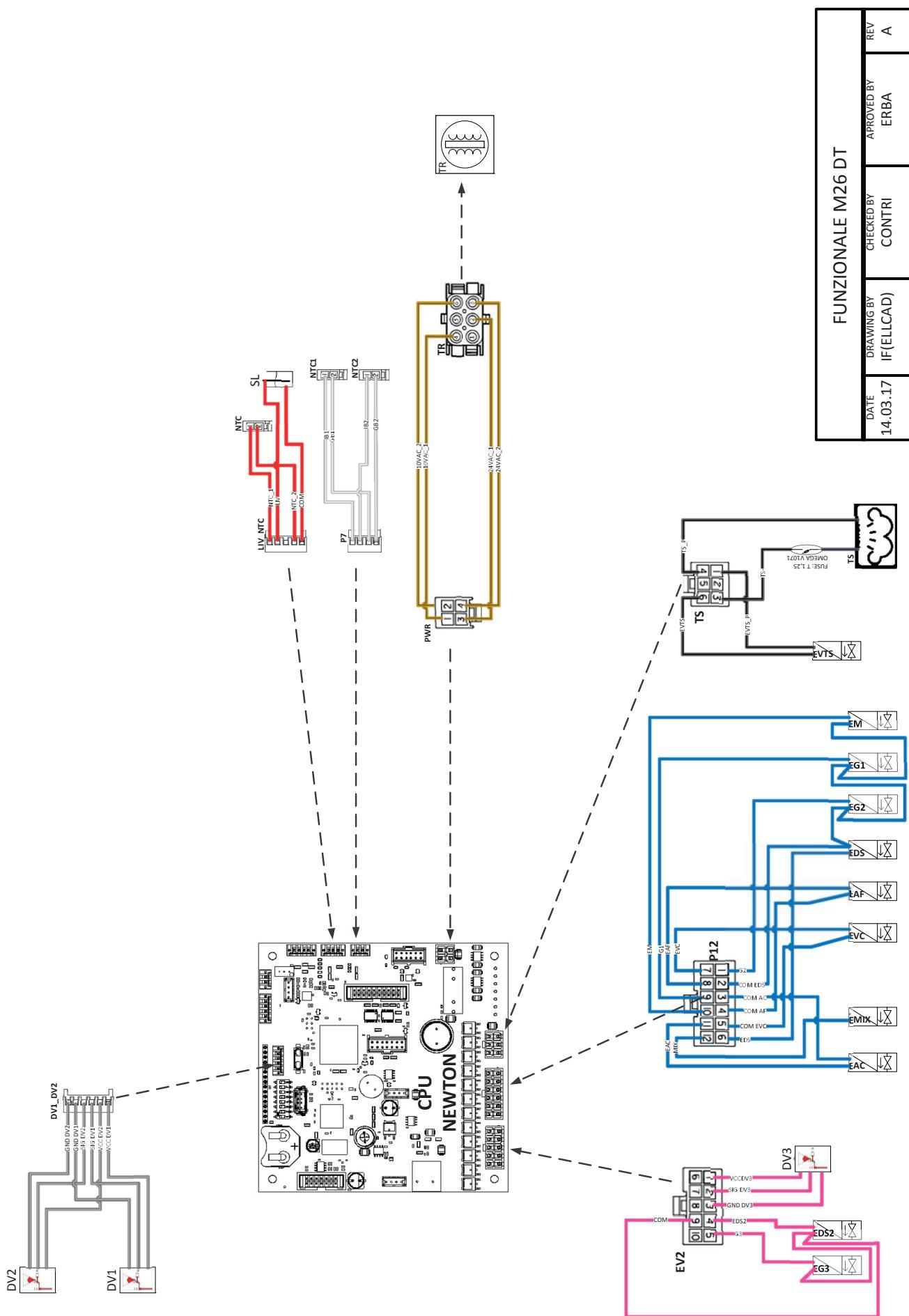
Per variare la temperatura, dell'acqua sostituire l'ugello (A) da 0,6 montato, con quello da 0,8 in dotazione.

**Schema elettrico - Wiring diagram - Schéma électrique -  
Elektrischer Schaltplan - Esquema electrico - Esquema eléctrico**

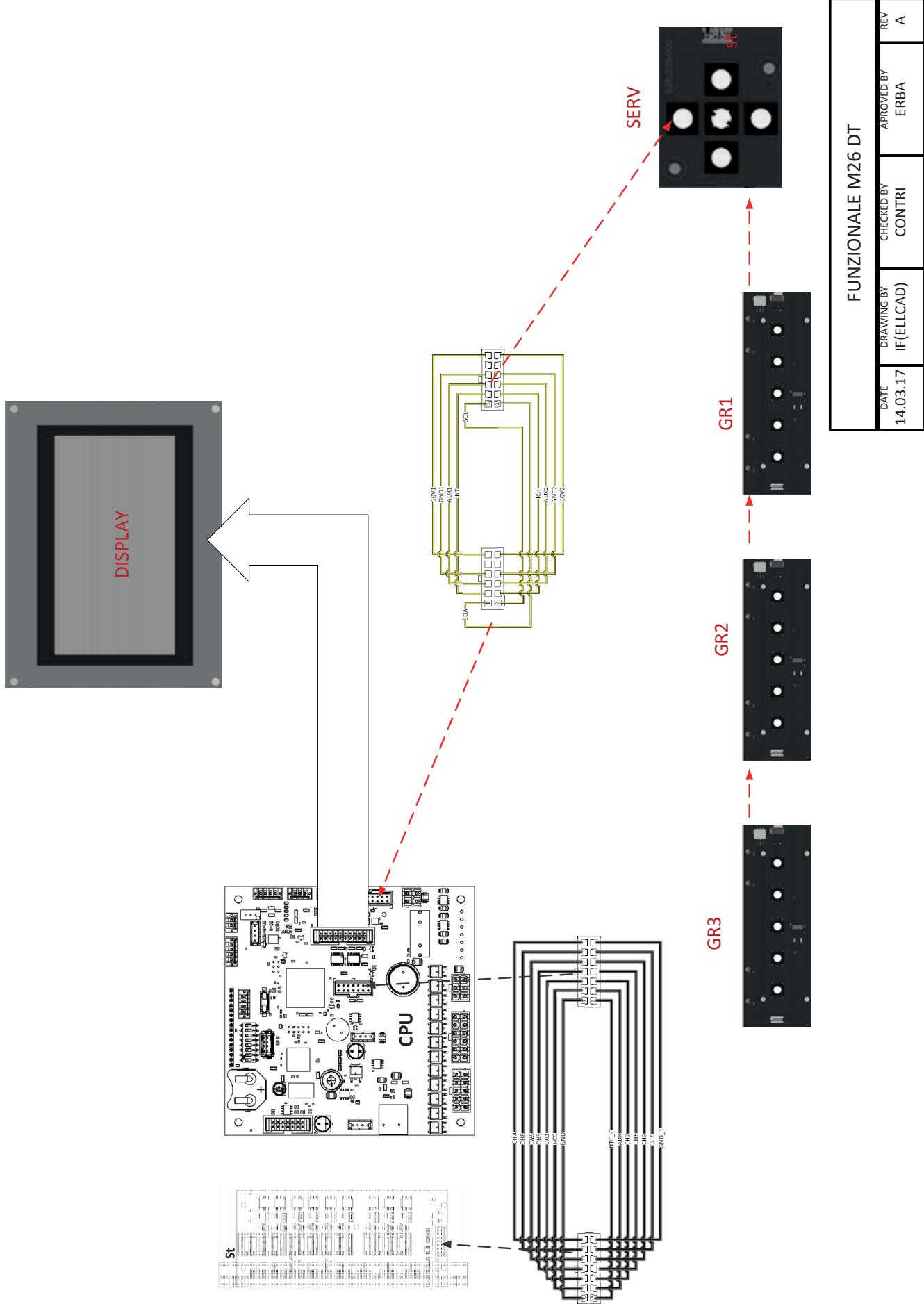


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DATE 14.03.17	DRAWING BY IF(ELLCAD)		
CHECKED BY CONTRI			

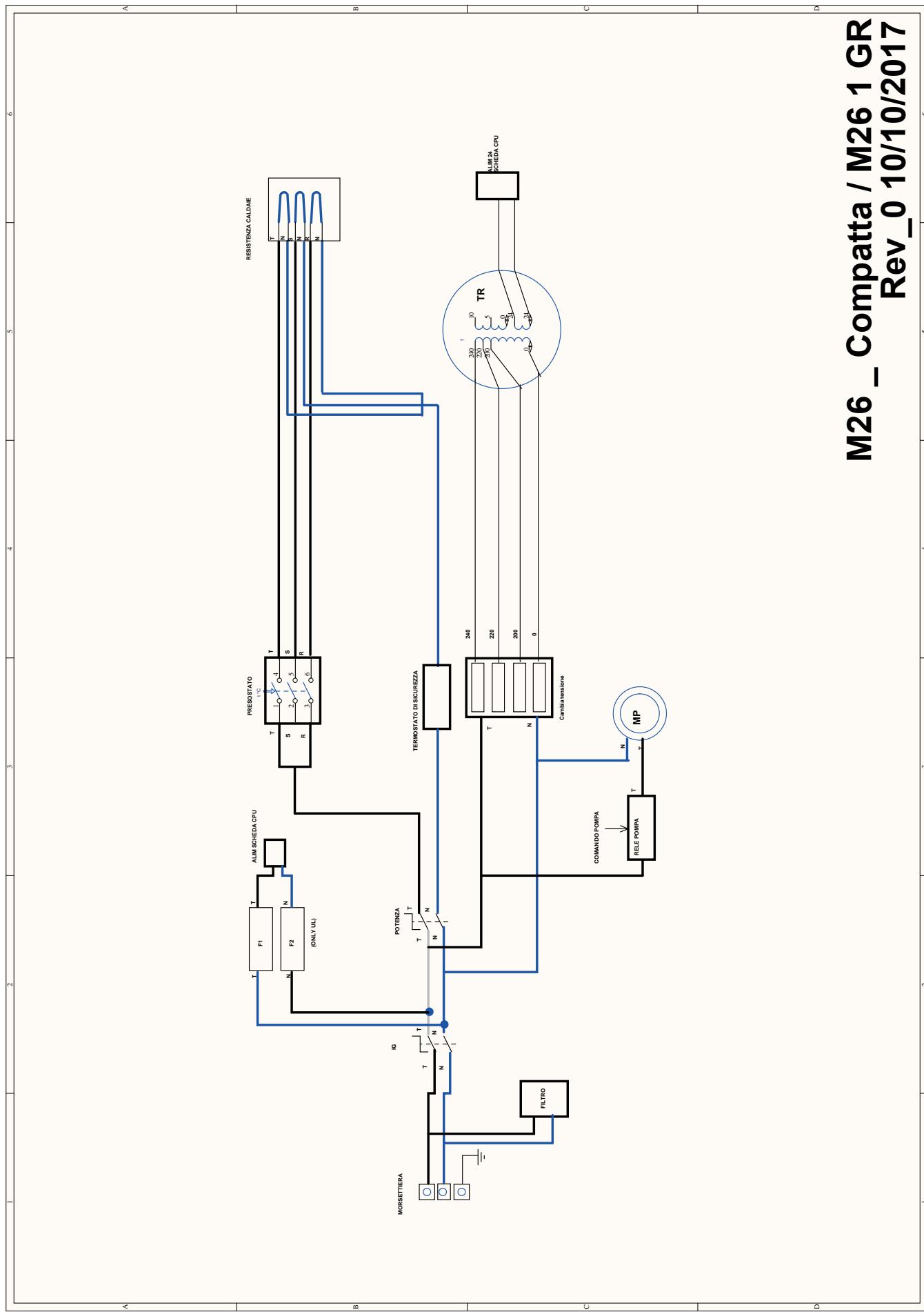
**Schema elettrico - Wiring diagram - Schéma électrique -  
Elektrischer Schaltplan - Esquema electrico - Esquema eléctrico**



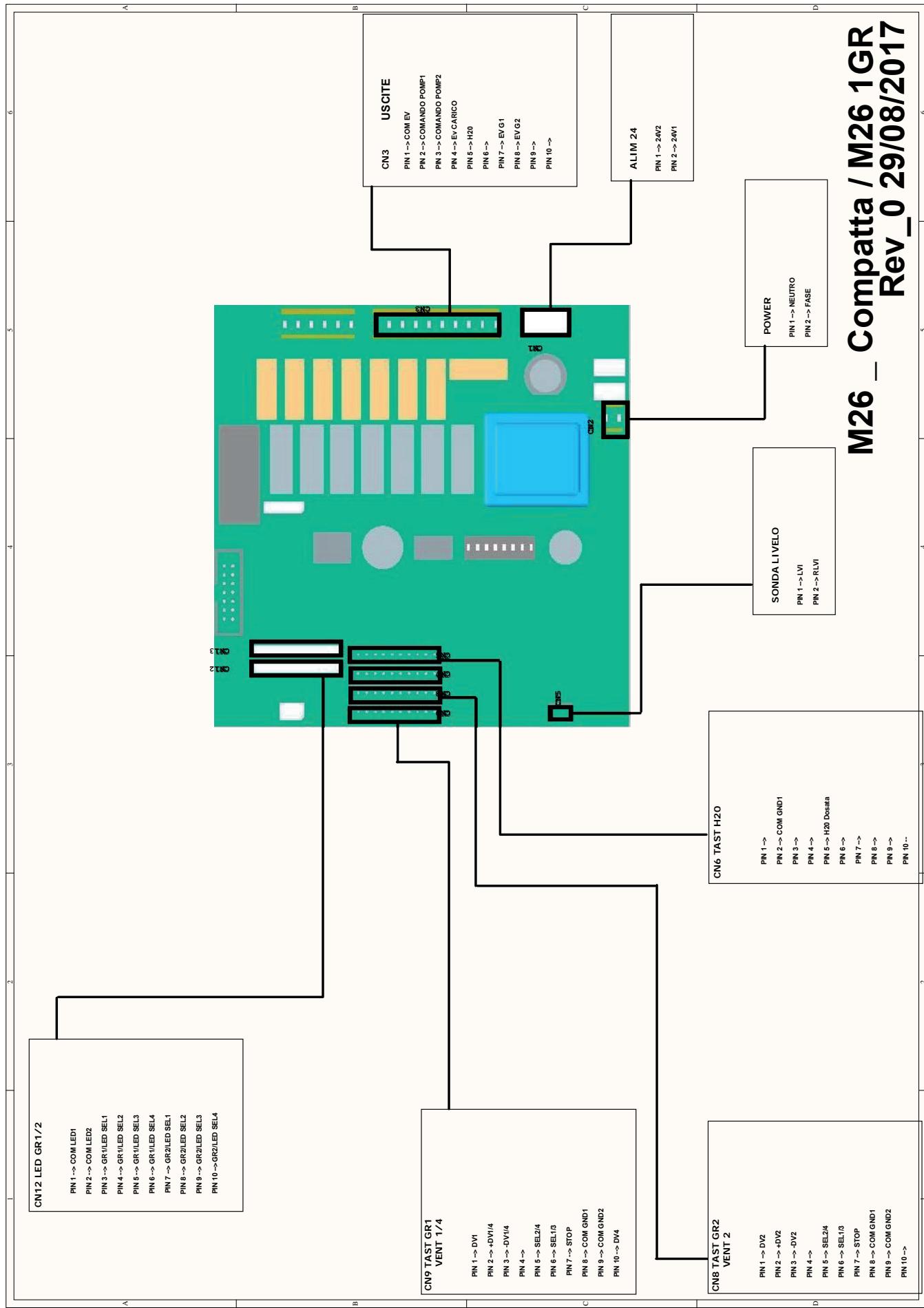
**Schema elettrico - Wiring diagram - Schéma électrique -  
Elektrischer Schaltplan - Esquema electrico - Esquema eléctrico**



**Schema elettrico - Wiring diagram - Schéma électrique -  
Elektrischer Schaltplan - Esquema electrico - Esquema eléctrico**

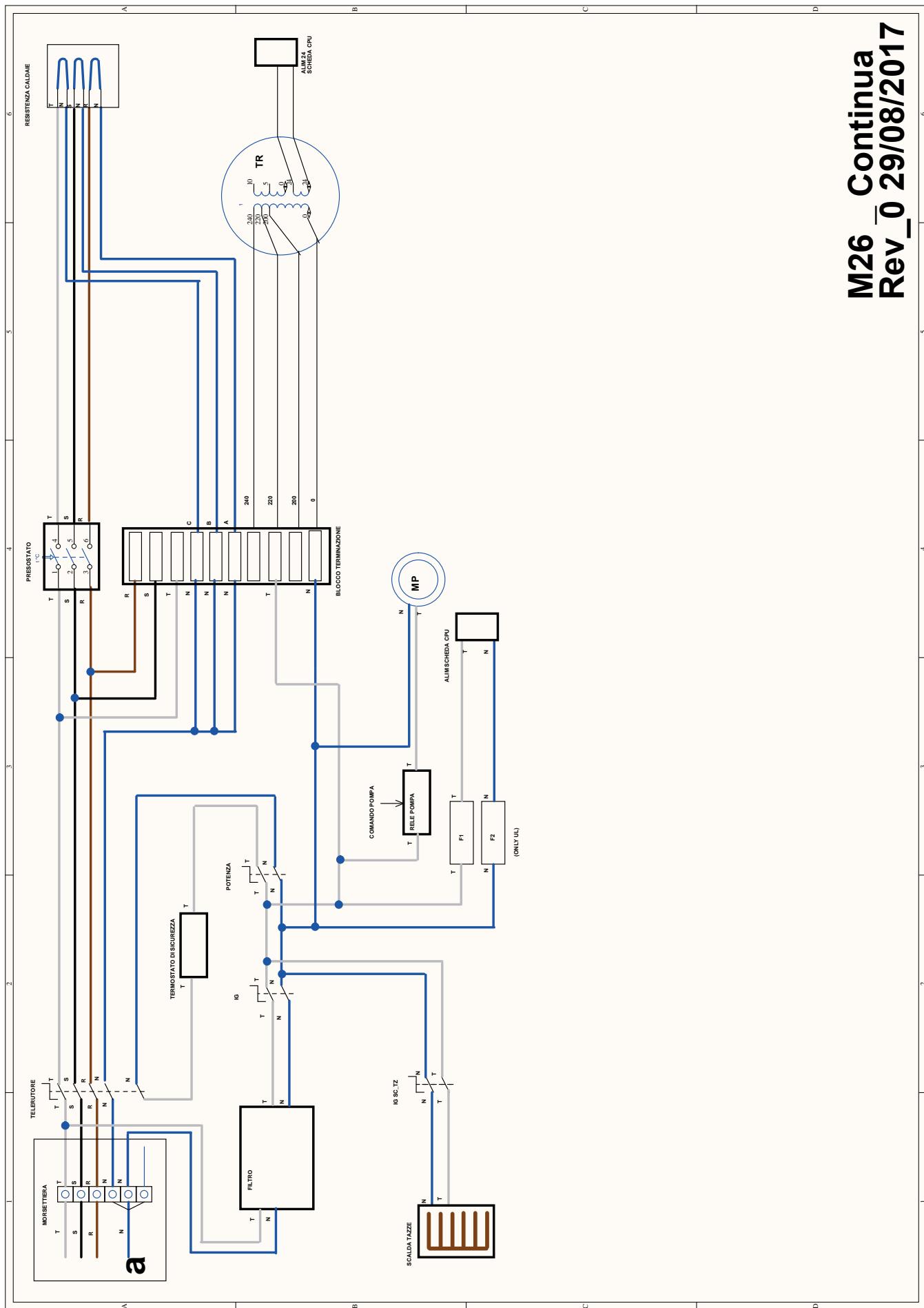


**Schema elettrico - Wiring diagram - Schéma électrique -  
Elektrischer Schaltplan - Esquema electrico - Esquema eléctrico**

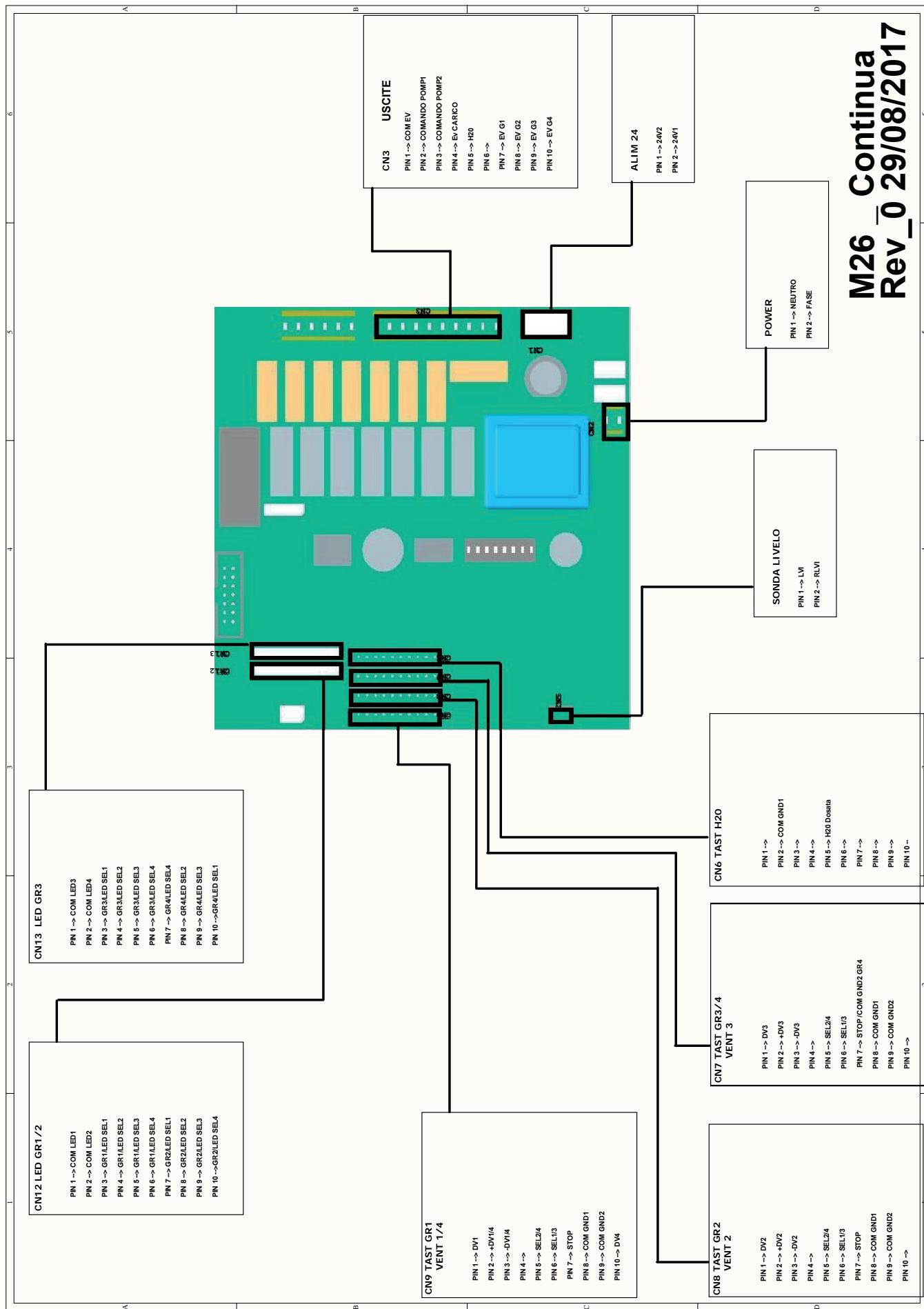


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Rev\_0 29/08/2017**

**Schema elettrico - Wiring diagram - Schéma électrique -  
Elektrischer Schaltplan - Esquema electrico - Esquema eléctrico**

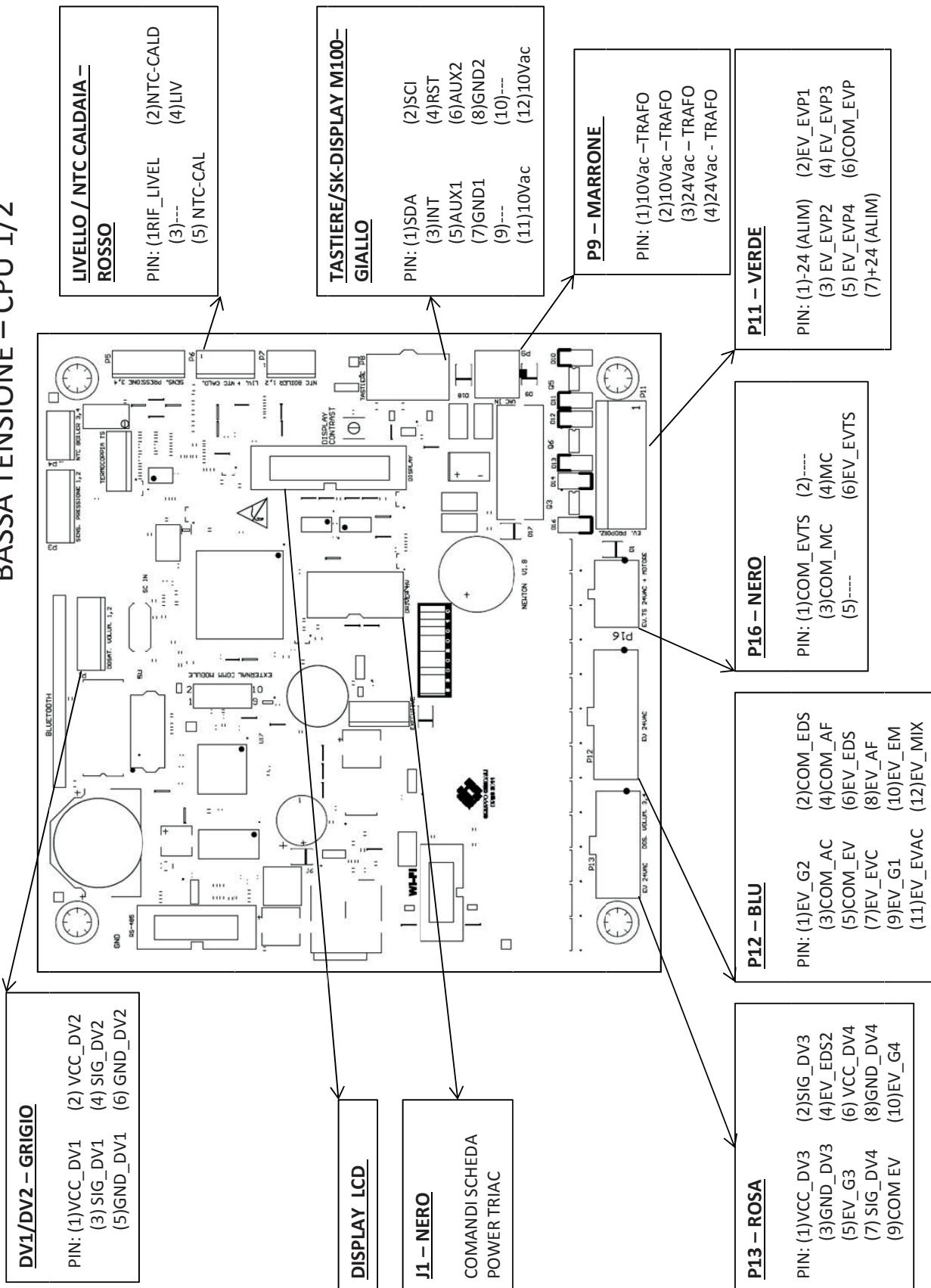


**Schema elettrico - Wiring diagram - Schéma électrique -  
Elektrischer Schaltplan - Esquema electrico - Esquema eléctrico**



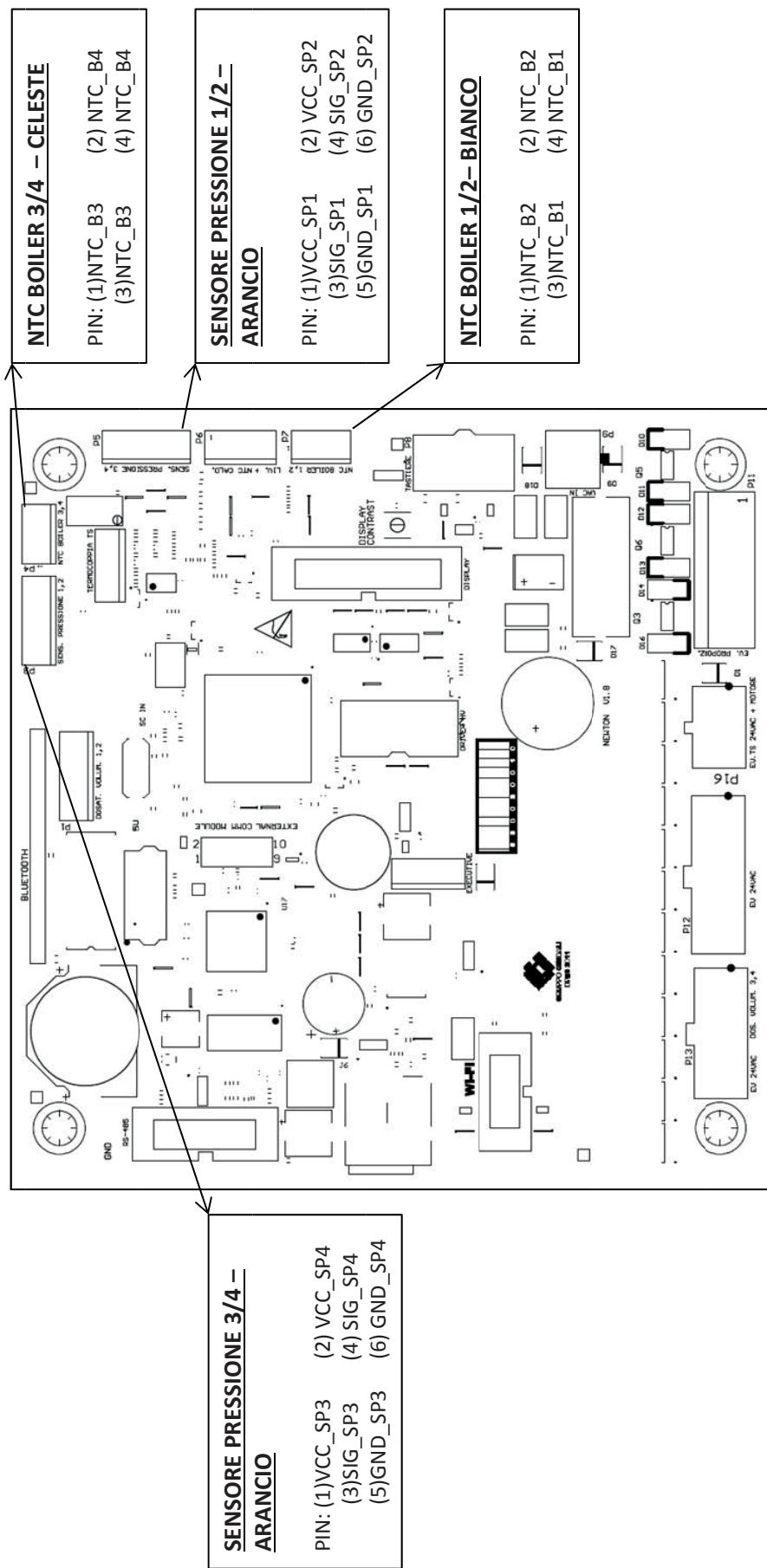
**Schema elettrico - Wiring diagram - Schéma électrique -  
Elektrischer Schaltplan - Esquema electrico - Esquema eléctrico**

**BASSA TENSIONE – CPU 1/2**

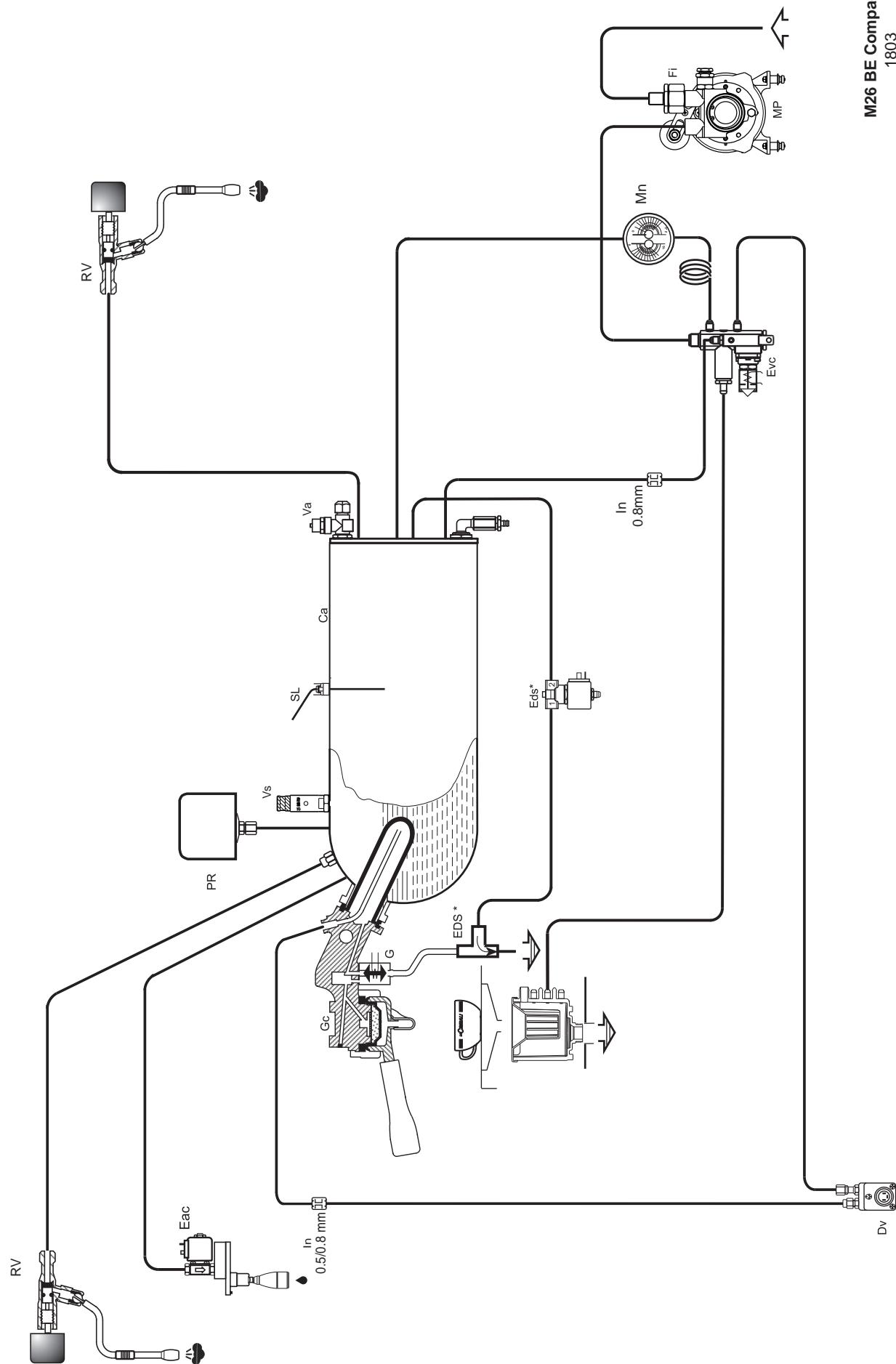


**Schema elettrico - Wiring diagram - Schéma électrique -  
Elektrischer Schaltplan - Esquema electrico - Esquema eléctrico**

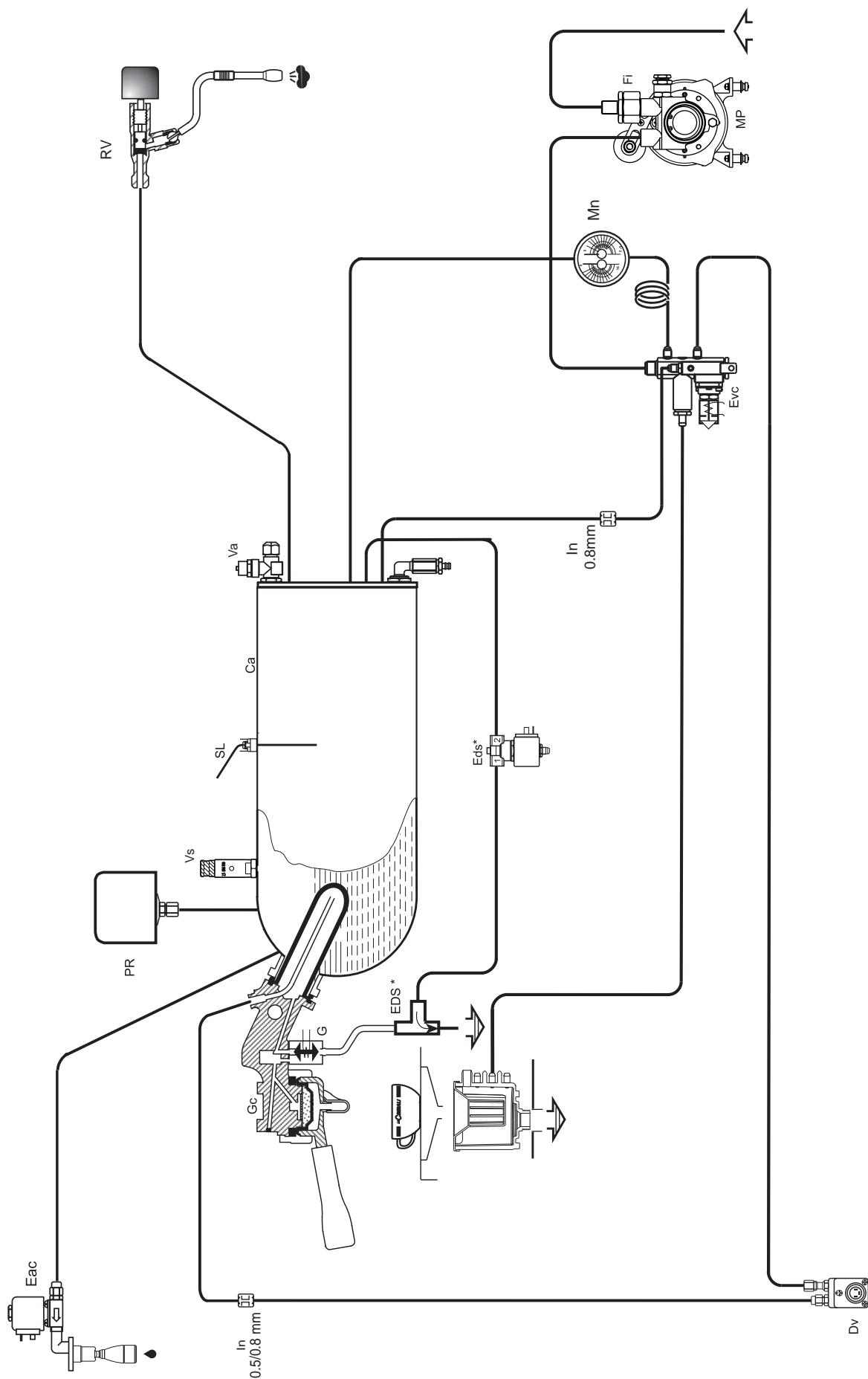
**BASSA TENSIONE – CPU 2/2**



**Circuito idraulico - Hydraulic circuit - Circuit hydraulique  
Hydraulikplan - Circuito hidraulico - Circuito hidráulico**

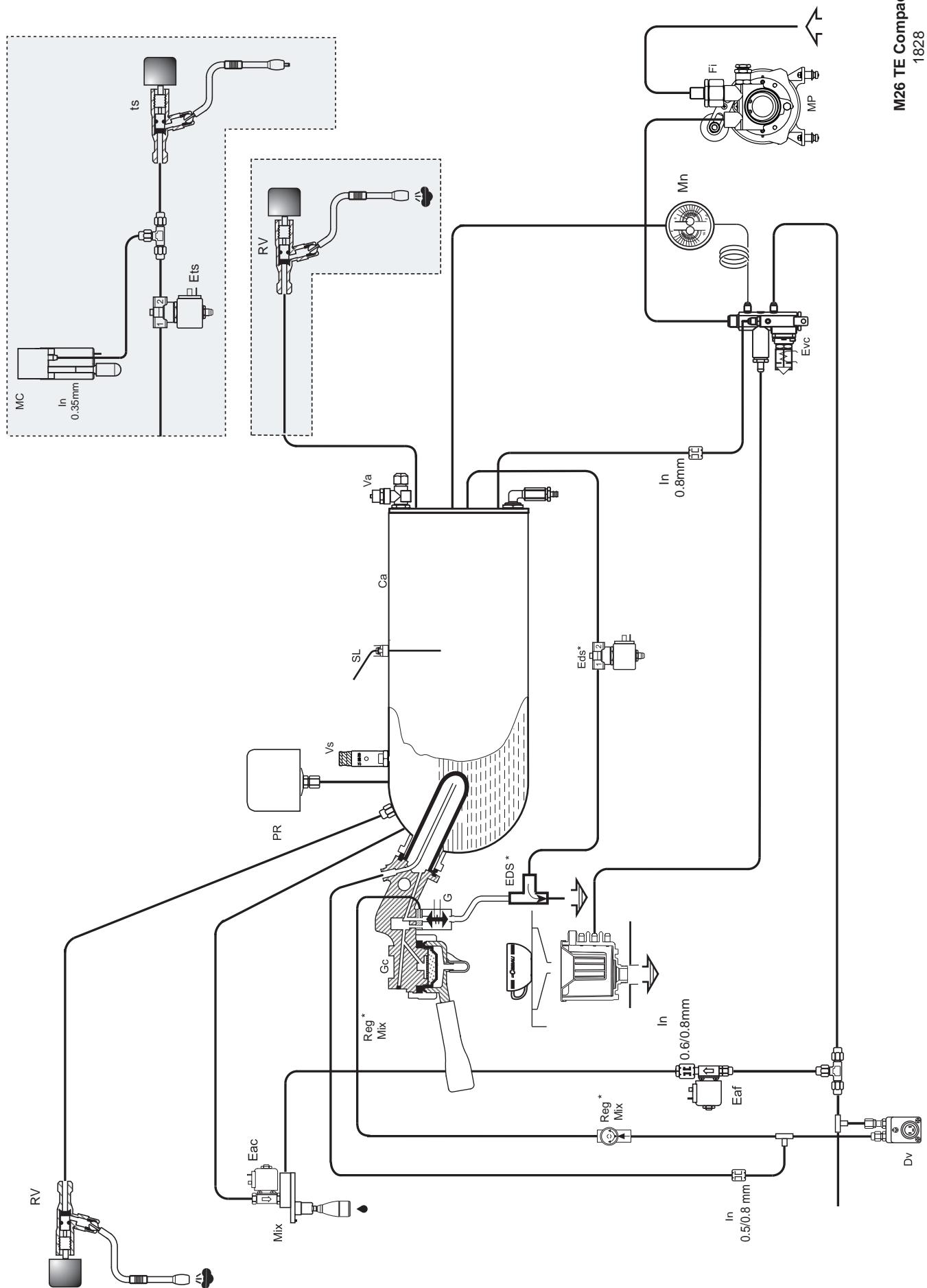


**Circuito idraulico - Hydraulic circuit - Circuit hydraulique  
Hydraulikplan - Circuito hidraulico - Circuito hidráulico**

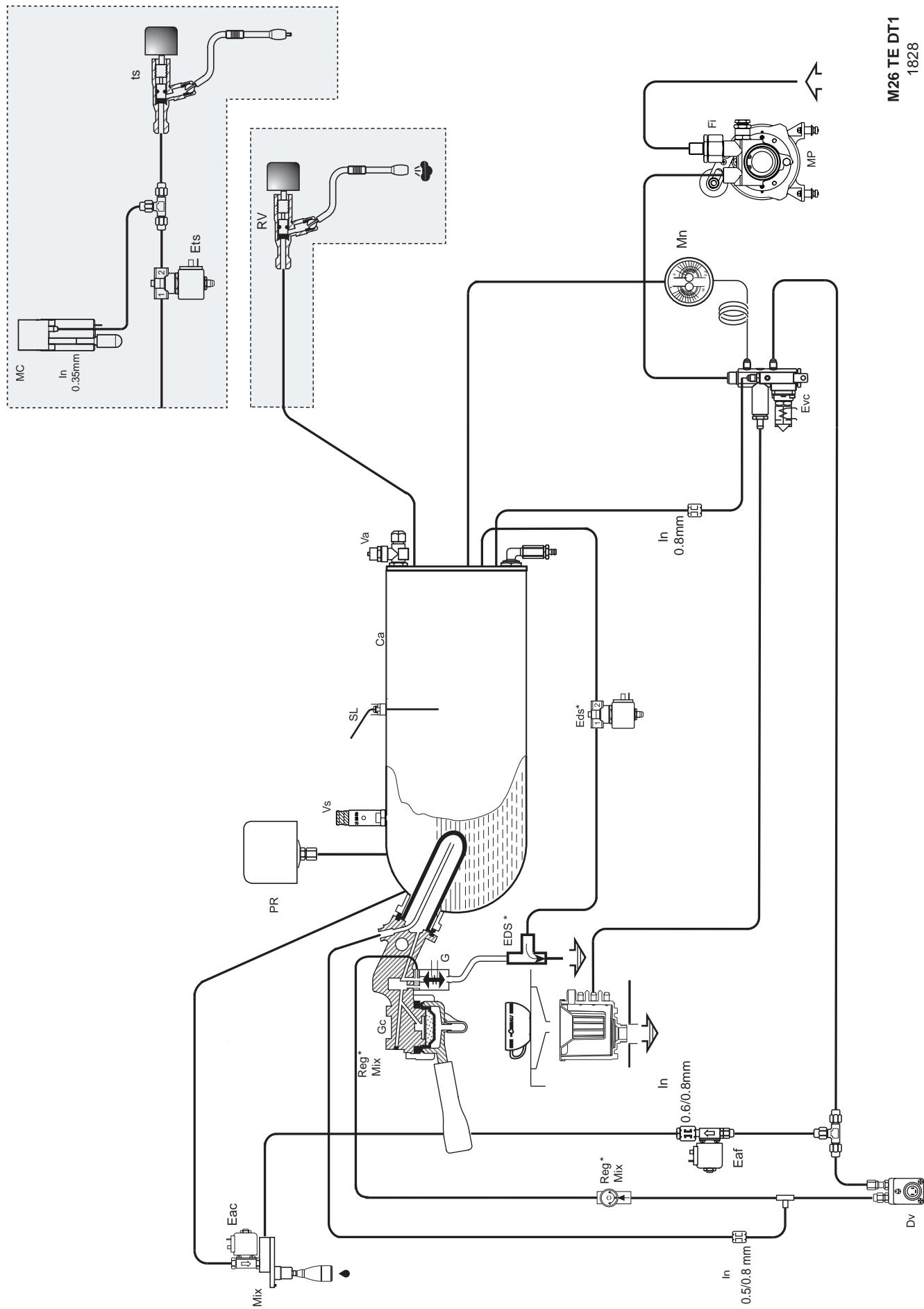


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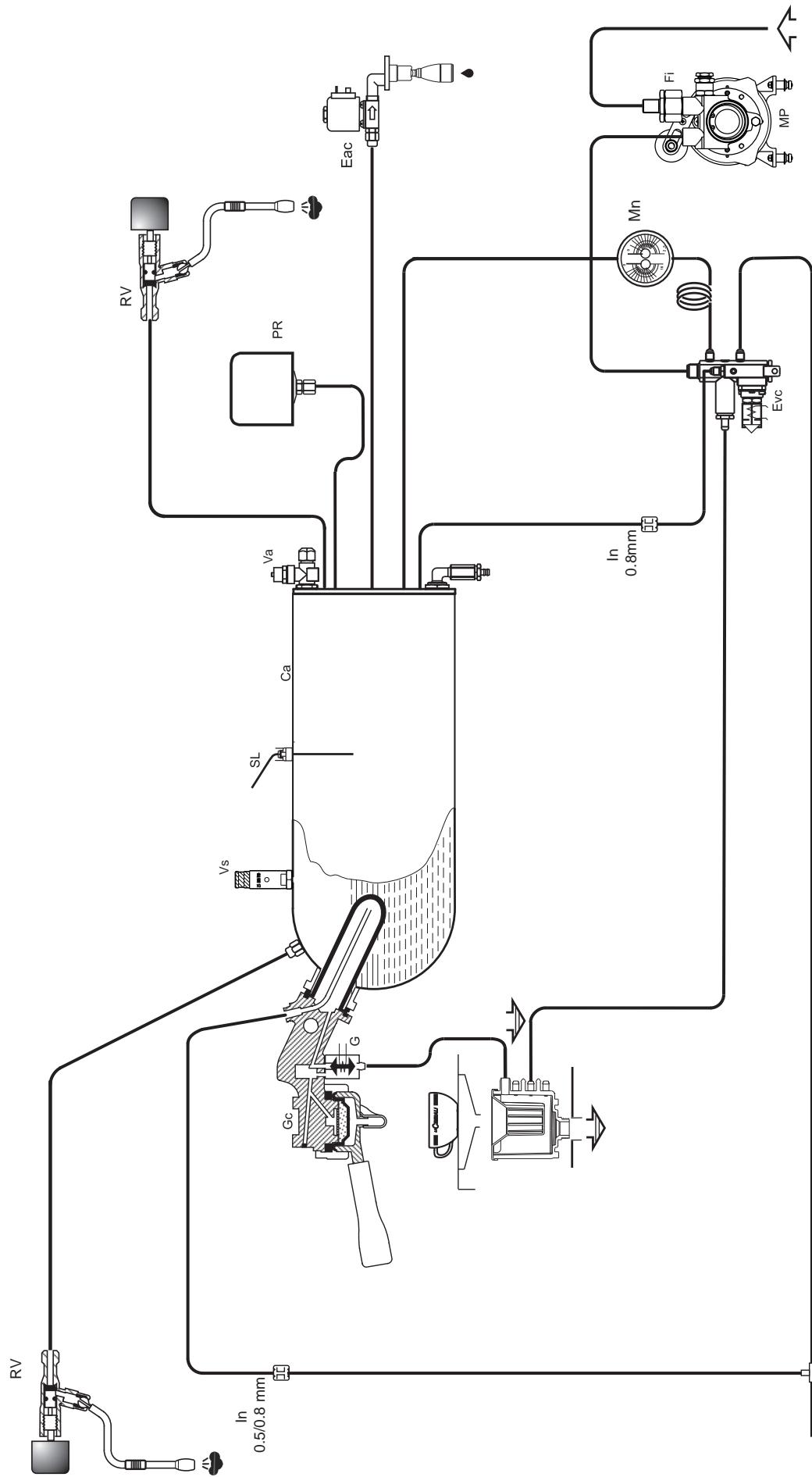
**Circuito idraulico - Hydraulic circuit - Circuit hydraulique  
Hydraulikplan - Circuito hidraulico - Circuito hidráulico**



**Circuito idraulico - Hydraulic circuit - Circuit hydraulique  
Hydraulikplan - Circuito hidraulico - Circuito hidráulico**

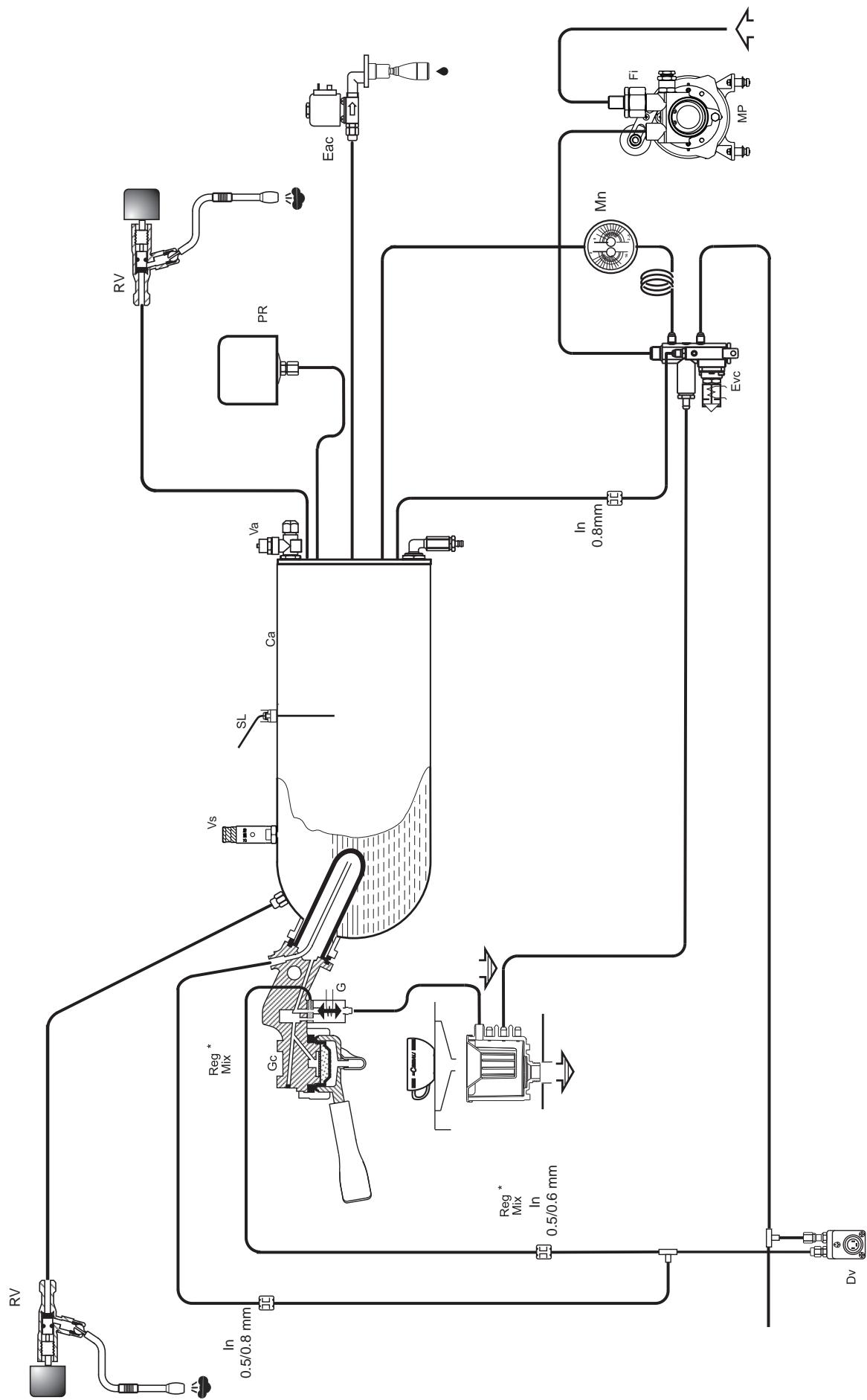


**Circuito idraulico - Hydraulic circuit - Circuit hydraulique  
Hydraulikplan - Circuito hidraulico - Circuito hidráulico**

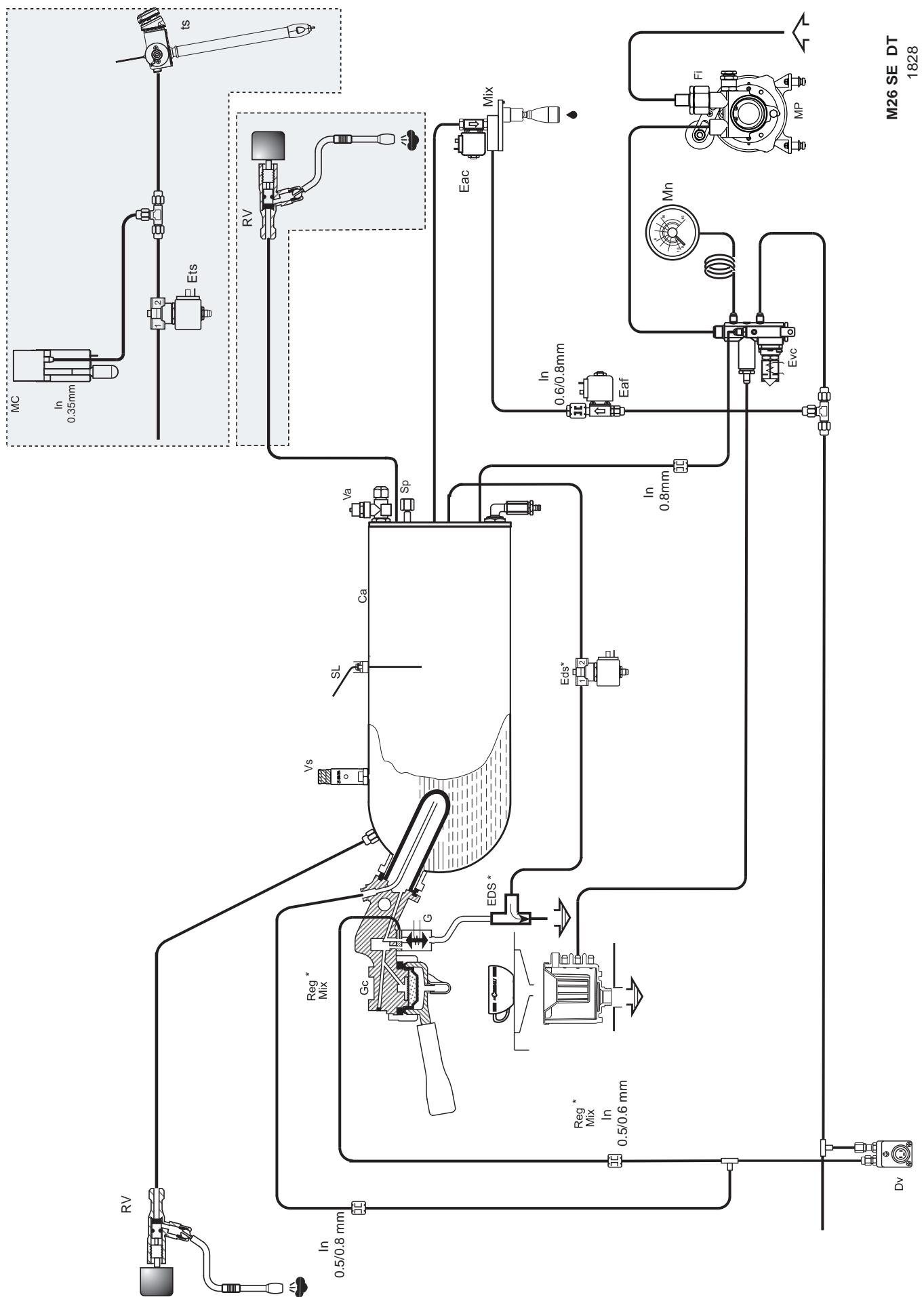


M26 BE C  
1808

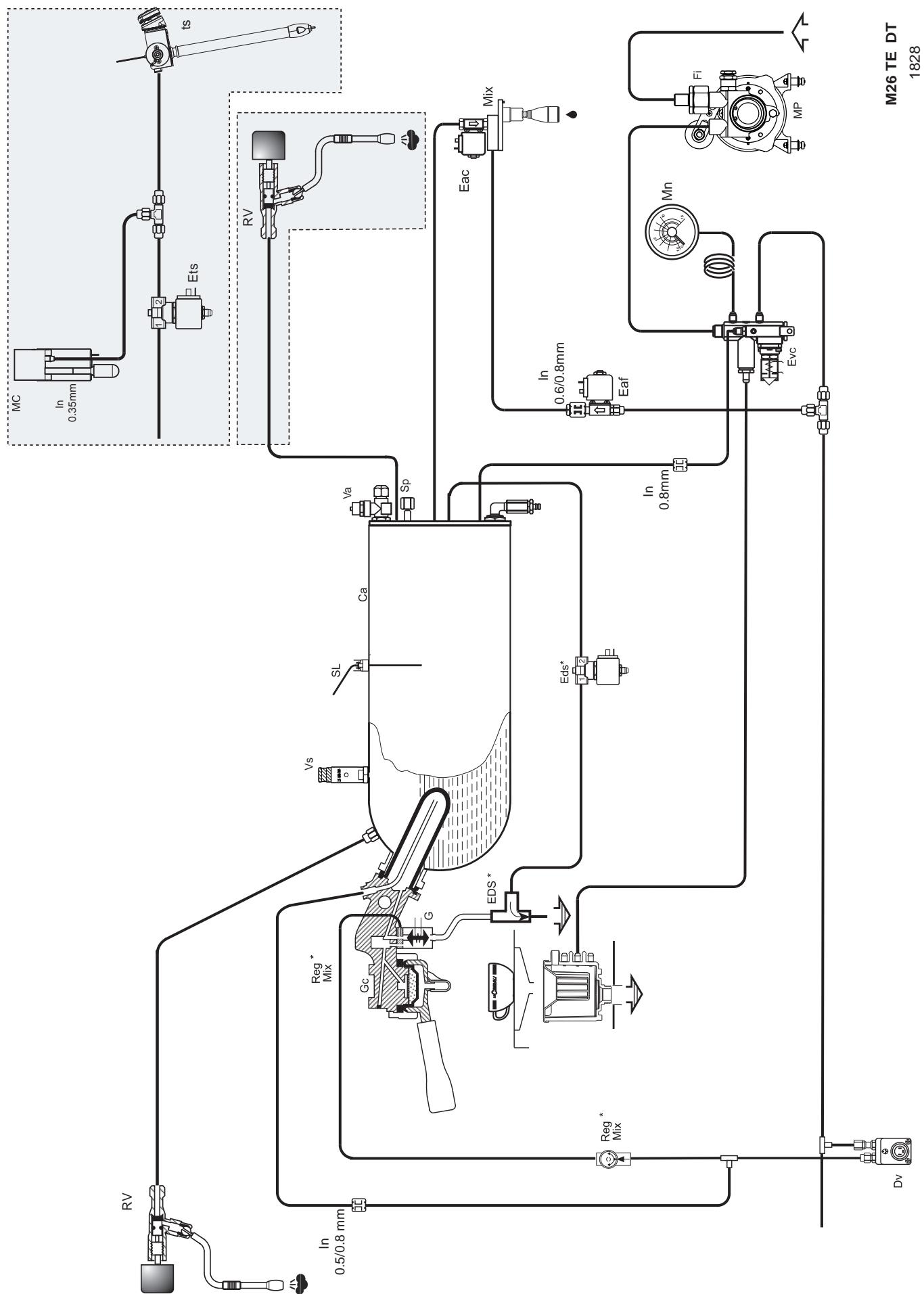
**Circuito idraulico - Hydraulic circuit - Circuit hydraulique  
Hydraulikplan - Circuito hidraulico - Circuito hidráulico**



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Hydraulikplan - Circuito hidraulico - Circuito hidráulico**



**Circuito idraulico - Hydraulic circuit - Circuit hydraulique  
Hydraulikplan - Circuito hidraulico - Circuito hidráulico**



**Legenda schema idraulico - Hydraulic diagram legend - Legende du schema hydraulique  
- Legende zu wasserkreis - Leyenda esquema hidraulico - Legenda esquema hidráulico**

**IT LEGENDA**

**Ca** = Caldaia  
**DV** = Dosatore volumetrico  
**Eac** = Elettrovalvola acqua calda  
**Eaf** = Elettrovalvola acqua fredda  
**Ets** = Elettrovalvola turbosteam  
**Evc** = Elettrovalvola carico caldaia  
**Eds** = Elettrovalvola EDS  
**Fi** = Filtro pompa  
**G** = Elettrovalvola caffè  
**Gc** = Gruppo caffè  
**In** = Iniettore  
**MC** = Motore compressore  
**Mix** = Miscelatore acqua  
**Mn** = Manometro  
**MP** = Pompa volumetrica/Motore pompa  
**Reg mix** = Regolatore miscelazione acqua  
**PR** = Pressostato  
**RV** = Rubinetto vapore  
**SL** = Sonda livello caldaia  
**Sp** = Sensore di pressione  
**ts** = Selettore turbosteam  
**Va** = Valvola antirisucchio  
**Vs** = Valvola di sicurezza caldaia

**EN LEGEND**

**Ca** = Boiler  
**DV** = Volumetric meter (flowmeter)  
**Eac** = Hot water solenoid valve  
**Eaf** = Cold water solenoid valve  
**Ets** = Turbosteam solenoid valve  
**Evc** = Service boiler water inlet solenoidvalve  
**Eds** = EDS solenoid valve  
**Fi** = Pump filter  
**G** = Coffee solenoid valve  
**Gc** = Coffee preparation group  
**In** = Injector  
**MC** = Compressore motor  
**Mix** = Water mixer  
**Mn** = Pressure gauge  
**MP** = Volumetric pump/ Motor pump  
**PR** = Pressure sensor  
**Reg mix** = Water-mixing regulator  
**RV** = Steam tap  
**SL** = Boiler level probe  
**Sp** = Pressure sensor  
**ts** = Turbosteam selector  
**Va** = Anti-suction valve  
**Vs** = Boiler safety valve

**FR LÉGENDE**

**Ca** = Chaudière  
**DV** = Doseur volumétrique  
**Eac** = Electrovanne eau chaude  
**Eaf** = Electrovanne eau froide  
**Ets** = Electrovanne turbosteam  
**Evc** = Electrovanne de remplissage chaudière  
**Eds** = Electrovanne EDS  
**Fi** = Filtre pompe  
**G** = Electrovanne du café  
**Gc** = Groupe café  
**In** = Injecteur  
**MC** = Moteur comprimeur  
**Mix** = Mélangeur eau  
**Mn** = Manomètre  
**MP** = Pompe volumétrique/ Moteur pompe  
**PR** = Pressostat  
**Reg mix** = Régulateur mélange eau  
**RV** = Robinet vapeur  
**SL** = Sonde de niveau de la chaudière  
**Sp** = DéTECTeur de pression  
**ts** = Sélecteur turbosteam  
**Va** = Clapet fausse pression  
**Vs** = Souape de sécurité chaudière

**DE LEGENDE**

**Ca** = Kessel  
**DV** = Mengenzähler  
**Eac** = Heißwasser-Magnetventil  
**Eaf** = Magnetventil Kaltwasser  
**Ets** = Magnetventil turbosteam  
**Evc** = Wasserzugabe-Magnetventil  
**Eds** = EDS-Magnetventil  
**Fi** = Filter Pumpe  
**G** = Kaffee-Magnetventil  
**Gc** = Kaffeegruppe  
**In** = Düse  
**MC** = Motor Kompressor  
**Mix** = Wassermischer  
**Mn** = Manometer  
**MP** = Volumetrische Pumpe/ Pumpenmotor  
**PR** = Druckschalter  
**Reg mix** = Wassermischregler  
**RV** = Dampfhahn  
**SL** = Sonde-Kesselwasserniveau  
**Sp** = Druckfühler  
**ts** = Wahlschalter Turbosteam  
**Va** = Rücksaugschutzventil  
**Vs** = Heizkessel-Sicherheitsventil

**ES LEYENDA**

**Ca** = Caldeira  
**DV** = Dosificador volumétrico  
**Eac** = Electroválvula agua caliente  
**Eaf** = Electroválvula agua fría  
**Ets** = Electroválvula turbosteam  
**Evc** = Electroválvula carga caldera  
**Eds** = Electroválvula EDS  
**Fi** = Filtro bomba  
**G** = Electroválvula café  
**Gc** = Grupo café  
**In** = Inyector  
**MC** = Motor compressor  
**Mix** = Economizador  
**Mn** = Manómetro  
**MP** = Bomba volumétrica/ Motor bomba  
**PR** = Presóstato  
**Reg mix** = Regulador mezcla del agua  
**RV** = Grifo vapor  
**SL** = Sonda nivel  
**Sp** = Válvula antisucción  
**ts** = Selector turbosteam  
**Va** = Válvula antisucción  
**Vs** = Valvula de seguridad caldera

**PT LEGENDA**

**Ca** = Caldeira  
**DV** = Doseador volumétrico  
**Eac** = Electroválvula água quente  
**Eaf** = Electroválvula água fria  
**Ets** = Electroválvula turbosteam  
**Evc** = Electroválvula carregamento caldeira  
**Eds** = Elèctroválvula EDS  
**Fi** = Filtro bomba  
**G** = Elètroválvula café  
**Gc** = Grupo café  
**In** = Injetor  
**MC** = Motor compressor  
**Mix** = Misturador  
**Mn** = Manômetro  
**MP** = Bomba volumétrica/ Motor da bomba  
**PR** = Pressóstato  
**Reg mix** = Regulador da mistura da água  
**RV** = Torneira do vapor  
**SL** = Sonda nível  
**Sp** = Válvula andisucção  
**ts** = Selector turbosteam  
**Va** = Válvula andisucção  
**Vs** = Válvula segurança de mola

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