


# VAPOR BOX GHIDINI

*User's and  
Maintenance  
Manual*



**ENGLISH**



<i>Manufacturer</i>	GHIDINI BENVENUTO s.r.l.
<i>Product</i>	Finishing cabin – Vapor Box
<i>Year</i>	2008
<i>Certification</i>	

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## 1 INTRODUCTION

The present user's and maintenance manual refers to the finishing cabin "Vapor Box".

It is possible to receive the latest release from our Technical Commercial Department or by visiting our website [www.ghidini-gb.it](http://www.ghidini-gb.it). The present user's and maintenance manual contains important information for the operator's health safeguard and safety.

This manual has to be read and kept carefully, in order to be always at the operator's disposal in case of need.

Ghidini s.r.l. cannot be held liable for any damage to things or injury to persons caused by improper use of the machine in contrast with these instructions.

Any possible modifications effected on the components of the machine or its different use without prior written authorization by Ghidini s.r.l., relieve the latter of injury to persons and / or damages to things, voiding any warranty bindings, as well.

## 2 GENERAL DESCRIPTION

The finishing cabin is available in two versions:

- Vapor Box/**A** with built-in boiler and automatic feeding.

- Vapor Box/**V** without built-in boiler, to be connected to an external steam supply.

The finishing cabin Vapor Box is designed for the ironing of all kinds of jackets, coats, blousons, trench-coats, skirts, dresses, jumpers, blouses, trousers, curtains, and blankets.

The machine features a built-in fan, a resistor to heat the blowing air, and an electronic board for the programming of 19 different ironing cycles.

Optionally, it is possible to install a pneumatic valve for the steam recycling inside the cabin.

## 3 MACHINE IDENTIFICATION

A plate placed on one side of the machine indicates type, serial number, year of construction and the supply voltage of the machine.

## 4 TECHNICAL FEATURES

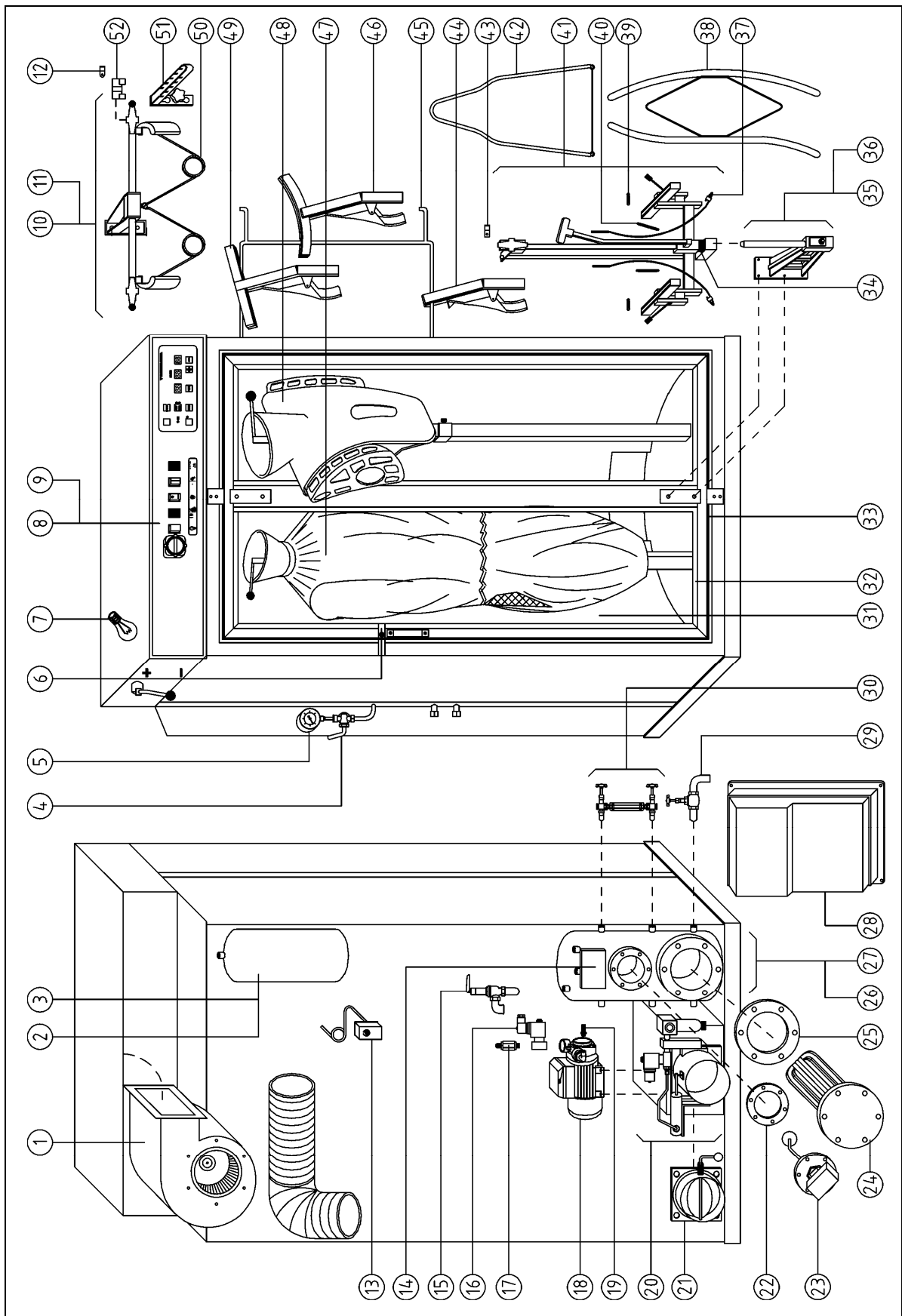
<i>Vapor Box</i>	<i>A</i>	<i>V</i>
Power supply	230-400V – 3ph / 50 Hz	
Fan motor ( <i>Hp</i> )	1	
Steam pressure ( <i>bar</i> )	4,5	
Steam consumption ( <i>Kg/h</i> )	15	
Compressed air working pressure ( <i>bar</i> )	5	
Compressed air consumption ( <i>Nl/min</i> )	0,1	
Sound intensity level ( <i>dB</i> )	65	
Working temperature ( <i>°C</i> )	+5 ÷ +80	
Working humidity (%)	90 max.	
Storing temperature ( <i>°C</i> )	-20 ÷ +50	
Boiler capacity ( <i>l</i> )	24,9	===
Minimum water level ( <i>l</i> )	9,9	===
Boiler resistor ( <i>Kw</i> )	7 ÷ 18	===
Pump motor ( <i>Hp</i> )	0,75	===
Water consumption ( <i>l/h</i> )	14 ÷ 20	===
Net dimensions ( <i>mm</i> )	1150 x 960 x 1850	1080 x 900 x 1850
Net weight ( <i>Kg</i> )	225	179
Gross dimensions with packaging ( <i>mm</i> )	1200 x 1080 x 2030	1200 x 1080 x 2030
Gross weight ( <i>Kg</i> )	300	254

**WARNING:** The machine must not be supplied with different voltages than those indicated on the table.

## 5 MACHINE COMPONENTS

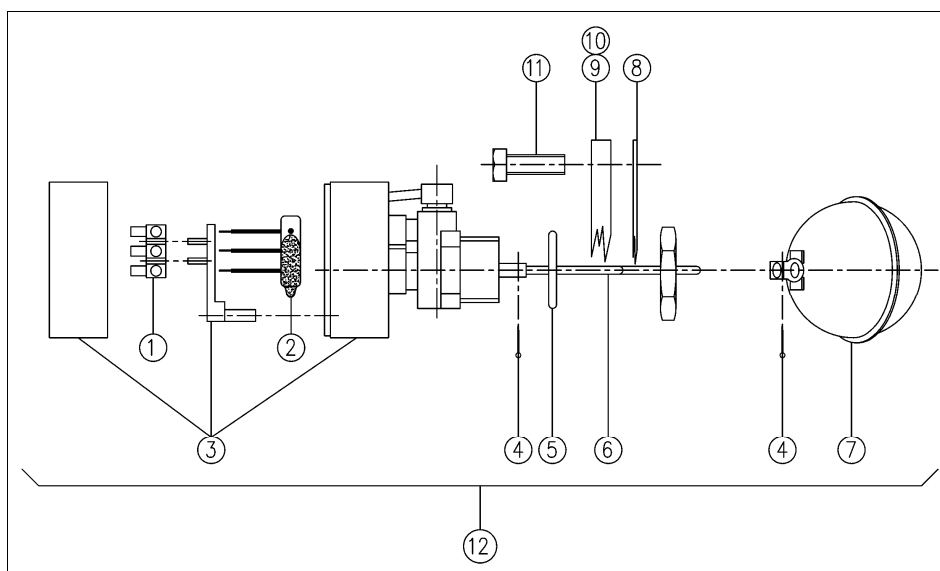
The machine features the following main components:

### Vapor Box



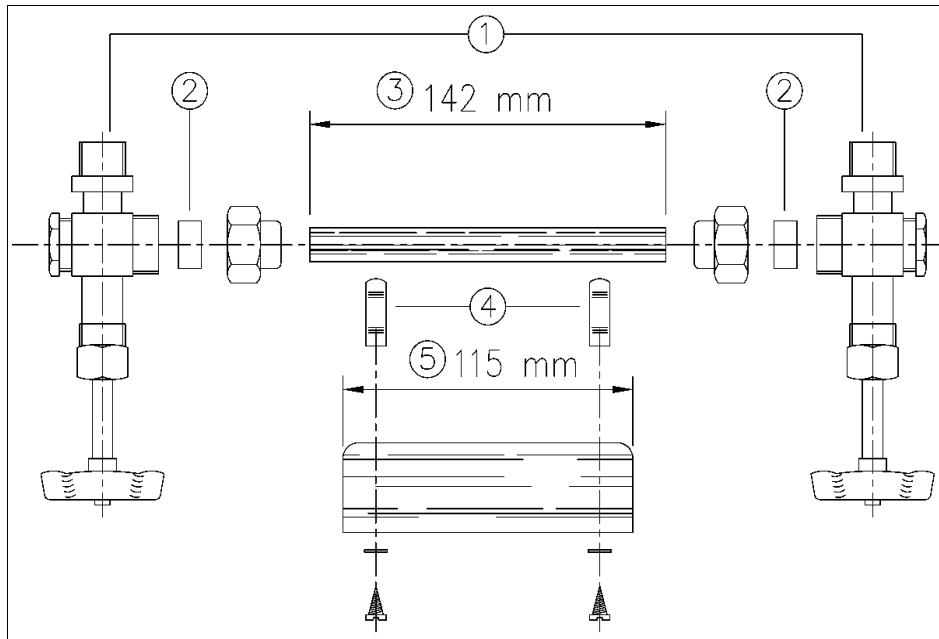
Pos.	ARTICLE	DESCRIPTION	Pos.	ARTICLE	DESCRIPTION
1	42C009	Fan motor	27	200097	TUV-boiler
2	25L000	Low-boy A	28	172219	Shield
3	25L024	Low-boy V	29	37B001	Gate valve for boiler exhaust
4	37E001	Pressure gauge cock G1/4"	30	E-03	Visual level indicator
5	35A002	Pressure gauge	31	25L026	Door glass
6	25L001	Door unlocking switch	32	25L002	T-shaped gasket
7	43C008	Lamp	33	25L027	U-shaped gasket
8		Control panel A	34	25L003	Buffer for trouser leg stretcher
9		Control panel V	35	Z22E07	Support for dummy trestle
10	Z22E08	Waistband ironing topper	36	Z22E02	Support for trouser leg stretcher
11	Z22E22	Pneumatic waistband ironing topper	37	25L011	Nylon string
12	25L005	Releasing spring for waistband stretcher	38	Z20M01	Sleeve-stretcher
13	45G001	Pressure switch	39	25L007	Short spring for trouser stretching carriage
14		PED-plate	40	25L033	Long spring for trouser stretching carriage
15	38S004	Safety valve	41	Z22E03	Sliding trouser stretching carriage
16	39B022	Water solenoid valve	42	Z22E01	Silicone sleeve stretchers
17	38W001	Check valve	43	25L004	Carriage releasing spring
18	42B006	Pump	44	Z20L01	Stainless steel pliers
19	36E006	Hose holder	45	Z22E25	Frame
20	Z22E00	Pneumatic air valve unit	46	Z22L02	Curved pliers for jackets and coats
21	38K001	Mechanical air valve	47	Z22E09	Dummy cloth
22	E-02	Level regulator flange	48	Z22E06	Dummy trestle
23		Automatic level control	49	Z22L01	Straight pliers for trousers
24	E-04	Boiler resistor	50	25L006	Round spring for waistband-stretcher
25		Resistor flange	51	Z22E12	Multiple connection for princess dresses
26	200076	PED-boiler	52	25L015	Slider for waistband-stretcher

### (E-02) AUTOMATIC LEVEL CONTROL



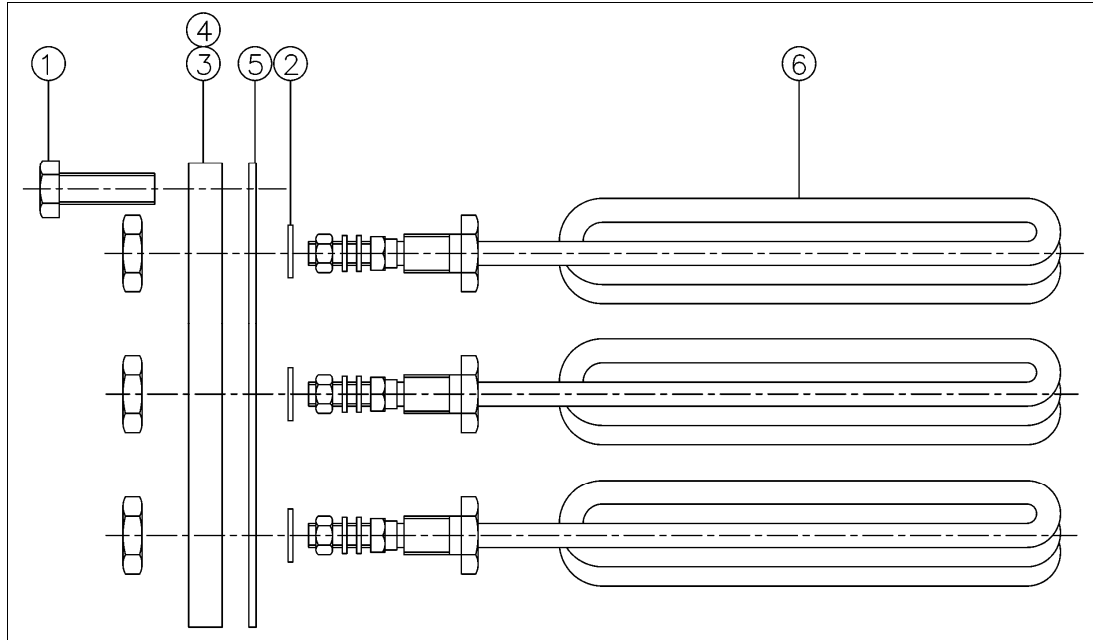
Pos.	ARTICLE	DESCRIPTION	Pos.	ARTICLE	DESCRIPTION
1	43J001	Clamp	7	49G001	Float
2	49D013	Micro-switch	8	244236	Flange gasket
3	49G005	Complete casing	9	183270	Flange Ø135
4	51P007	Split pin Ø2 x 20	10	183273	Flange Ø135 with ISPEL-certification
5	24E003	Level gasket	11	50A016	Screw M10 x 30 ASTM-A193-B7
6	184318	Supporting rod for float	12	49A002	Compl. automatic level control

**(E-03) VISUAL LEVEL INDICATOR**



Pos.	ARTICLE	DESCRIPTION	Pos.	ARTICLE	DESCRIPTION
1	37C001	Two cocks	4	53A001	Clips for glass protection
2	244243	Gaskets	5	234218	Glass protection L.115
3	52G001	Glass L.142			

**(E-04) RESISTOR FLANGE Ø200**



Pos.	ARTICLE	DESCRIPTION	Pos.	ARTICLE	DESCRIPTION
1	50A015	Screw M14 x 30 ASTM-A193-B7	6	213159	Resistor V230 Kw2.7
2	24E002	Washer		215102	Resistor V115 Kw3.3
3	183271	Flange Ø200 with ISPEL-certification		213149	Resistor V230 Kw3.3
4	183268	Flange Ø200		213150	Resistor V400 Kw3.3
5	244348	Gasket		213151	Resistor V230 Kw4
6	213145	Resistor V230 Kw1.3		213152	Resistor V400 Kw4
	212159	Resistor V230 Kw2		213153	Resistor V230 Kw5
	213147	Resistor V230 Kw2.3		213154	Resistor V400 Kw5
	213148	Resistor V400 Kw2.3		213155	Resistor V230 Kw6

## 6 MACHINE UNPACKING AND INSTALLATION

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**WARNING:** The unit must be installed, opened and repaired by fully qualified technicians only.

### 6.1 UNPACKING

Find the most suitable place where to put the machine, and then remove the packaging. Make sure that the machine has not been damaged during the transport and the storage.

The packaging material does not require any special precautions for its disposal, for it is not dangerous or polluting at all. Please refer to the local regulations for its disposal.

### 6.2 MACHINE INSTALLATION

The machine has not to be anchored to the floor. For a correct use and operation, as well as for an easy maintenance, leave enough free space around the machine.

Do not place the machine in dangerous and/or explosive/inflammable places.

### 6.3 ELECTRICAL WIRING

The electrical wiring must be carried out as indicated on the drawing. Check that the supply voltage and the frequency correspond to those indicated on the rating plate.

The dimensions of the supply cable must suit the machine absorption and comply with the current regulations.

It is advisable to install a switch with fuses or a circuit breaker on the line. Put the cable into the cable holder, and then tighten. Connect the cable to the feeder line terminals on the control panel, as shown on the drawing of the present manual.

Check the rotation direction of the motors; if not correct, invert two of the three input phases with each other.

### 6.4 COMPRESSED AIR CONNECTION

The connection to the central compressed air supply must be carried out by means of a G 1/4" Gas threading. Use a pipe having an internal Ø of at least 6 mm with a network pressure of maximum 10 bar (otherwise mount a pressure reducer). Install an on-off valve allowing the disconnection from the supply.

The machine features a pressure reducer (make sure that the setting is of 3-4 bar), a filter, and a condensation separator (low-boy) with an exhaust valve placed underneath the bucket. The valve discharges the condensation automatically in case of lack of pressure, please be reminded therefore to shut off the air supply at the end of your work.

In case of high work pace, check periodically the condensation level in the filter bucket. If necessary, carry out the discharge manually, by opening the valve placed underneath the same.

### 6.5 WATER CONNECTION AND BOILER DISCHARGE (only for machines with built-in boiler)

Connect the water pipes to the hose fitting Ø12 of the machine. Install an on-off valve with a filter on the water inlet, which has to be closed each evening, in order to avoid any water sucks into the boiler. Connect the gate valve of the boiler exhaust (featuring a 3/8" Gas-threading) to the drainage system.

### 6.6 STEAM SUPPLY CONNECTION (only for machines without boiler)

- In case of a connection to a small steam generator, please proceed as follows:

Connect the steam intake of the machine to the corresponding G 1/2" threaded hole of the steam generator. The steam network pressure must be of max. 4.5 bar.

It is advisable to use a pipe with an internal diameter of at least 10 mm. Install an on-off valve on the pipe, in order to exclude the machine from the steam generator. Connect the condensation return to the machine through the corresponding hole of Ø 1/2", by using also in this case a pipe with an internal diameter of at least 10 mm. Install on the piping a check valve and an on-off valve in order to exclude the machine from the installation, if necessary. Connect the machine eventually to the steam generator.

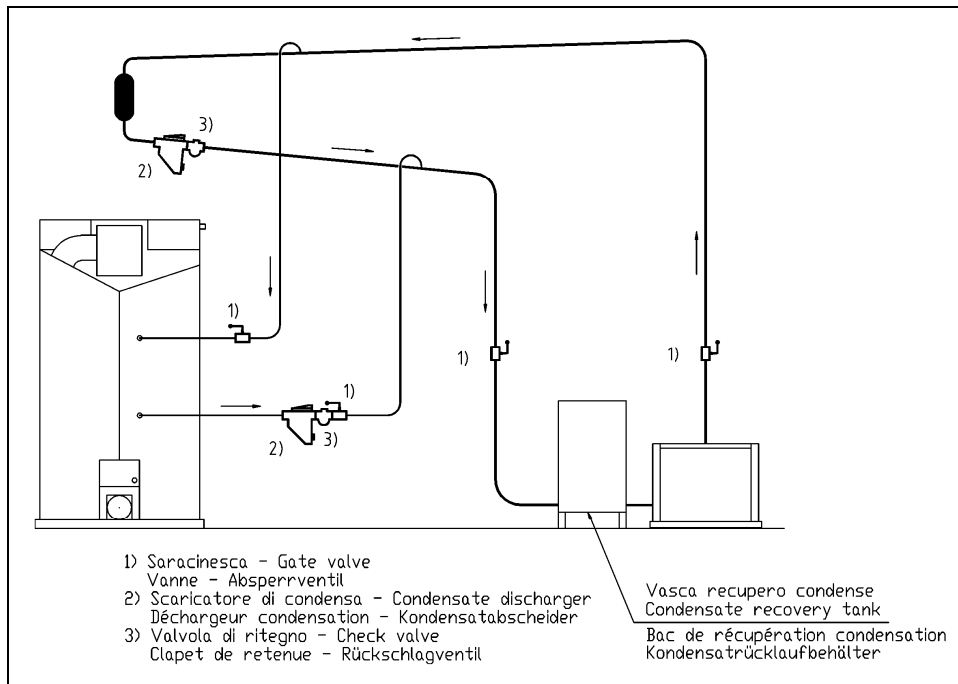
- In case of a connection to a central steam unit, please proceed as follows:

Connect a G 1/2" gas threaded pipe to the top part of the central unit's steam outlet, and place an on-off valve next to the machine. Afterwards, connect this pipe to the Ø 1/2" Gas steam intake of the machine, making sure to use one with an internal diameter of at least 10 mm.

For the condensation return, provide a pipe with exactly the same features of the steam pipe, and install an on-off valve followed by a check valve. For the connection to the check valve use a pipe with an internal diameter of at least 10 mm. The steam network pressure must be of max. 4.5 bar

Do not bend the pipes at right angles, but at least with a 50 mm radius. Make sure that the pipes have an even incline, especially the one for the condensation return.

Do not create traps, or install fittings or gate valves with a smaller diameter than the pipe, itself. The piping must not exceed 2.5 meters. The hole of the condensation return has to be at least 150 mm higher than the water level inside the boiler.



**WARNING:** After having carried out all the connections, make sure that the cables are protected against any possible hits and are suitably fixed and isolated.

## 7 INSTRUCTIONS FOR USE

### 7.1 PUTTING INTO OPERATION

- The whole unit can be used, opened and repaired by qualified technicians only.
- It is forbidden to use the machine if flooded by liquids or in particularly aggressive or explosive/inflammable places.
- Do not ignore the dangers for the operator's health and follow the hygienic and safety regulations.
- Make sure to use suitable pipes for the corresponding working pressures.
- Check that the electrical wiring is carried out correctly according to the current regulations, and that the fuse blocks are closed and complete of fuses.
- Verify if the control and safety devices of the boiler (pressure gauge, pressure switch, and safety valve) are intact.
- Make sure that the gate valve of the boiler exhaust is correctly closed.

### 7.2 PRELIMINARY STEPS TO CARRY OUT BEFORE EACH STARTING

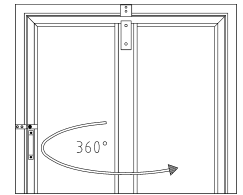
- Check if the machine is intact.
- *Machines with boiler:*
  - Open the on-off valve of the water feeding.
  - Turn on the main switch of the machine.
  - Turn on the boiler switch.
  - The warning light of the water supply switches on automatically (the water starts running into the boiler).
  - Once the water has reached the required level (see also visual level indicator), the relevant warning light switches off automatically, whereas the boiler resistor and the relevant warning light turn on.
  - After a few minutes the boiler reaches the working pressure of 4.5 bar (check the pressure on the pressure gauge), the relevant warning light switches off automatically.
  - The generator is now ready to supply steam.
- *Machines without boiler:*
  - Check if the machine is connected to the central steam supply.
  - Open the gate valve of both steam supply and condensation return.
  - Turn on the main switch of the machine.
- Wait a few minutes until the machine has reached the required working temperature, and pressure.
- Turn on the hot air switch for at least 10/15 minutes in order to heat up the cabin on the inside.
- Carry out some idle ironing cycles by pressing the start button, and turn the door anticlockwise in order to heat up the ironing devices and the door panels.

- Lubricate the moving parts of the devices, the shoulders and waistband of the dummy, the exterior gasket and the rotation pins of the glass parts by means of the spray can the machine is supplied with, containing "liquid silicone".
- If the machine is new or left unused for a long time it is advisable to carry out some ironing cycles without garments.

**Warning:** Never start the ironing cycle when the machine is still cold. Even in case of short intervals it is advisable to switch on the hot air for a few seconds in order to heat up the cabin before continuing to work.

### 7.3 OPERATION

The Vapor Box features in the front a special glass door called "Securit Saint Gobain" hinged on two central pins and swiveling at 360°. The glass door has to swivel always in the same direction: the external handles on the door's left side have always to be PULLED and never be pushed. Hence, seen from the outside, the door's rotation is from left to right.



### 7.4 DEVICES

The Vapor Box features sleeve stretchers and a series of pliers, which are used in different ways and completing the shoulder and waistband devices.

- *SHOULDER device*

It has to be fit onto the lower pin of the support, by centering the reference pegs in the relevant grooves of the column. The shoulder device is used for jackets, coats, blousons and trench coats. It consists of a dummy trestle with a cloth of a particular shape suitable for any size. The cloth of the shoulder device can be extended up to the base of the same: during the steaming and the air blowing it inflates, taking a perfect trunk-conical shape. In this way the garment hems are kept firm, making an additional finishing unnecessary. The shoulder device can be shifted towards the operator, by rotating it from the right to the left, thus making the application of the pliers on the back side, as well as the control of the garment before and after the ironing cycle easier.

- *TROUSER device*

It consists of two parts: an upper one (waistband stretcher) which has to be connected to the specially designed fixed pins situated on top of the door and to be fixed by means of the hand wheel. The lower one consists of a trolley with pliers for fixing the two trouser legs. The waistband device is used for the ironing of trousers.

- *MULTIPLE device*

It is installed like the upper part of the waistband-stretcher. The multiple device is used for the ironing of garments not requiring a particular tension: dresses, blouses, jerseys, jumpers, as well as curtains and blankets. It is possible to place several garments on the multiple device during the same ironing cycle (up to 5), by using wire, wooden or plastic hangers, according to the delicacy of the garments, type of fabric, etc.

### 7.5 GARMENT PLACING

- *Jackets – Coats – Raincoats*

Turn the device outwards, then put the garment on the same, button it up and adjust the shoulder width by turning the hand wheel. Apply the two sleeve stretchers, grip with the pliers the front hems and rotate the garment towards the door, then grip the back part with the second pliers (or with two vertical pliers in case of jackets with vents). Please be reminded that if the device is not turned towards the door it is not possible to introduce it into the cabin as it would hit against the external edge.

- *Skirts*

These can be placed on the same device as the one for trousers, by applying the pliers on the lower hem. For silk or jersey skirts the use of pliers can be unnecessary or unadvisable: these skirts can also be ironed by putting them on a normal wire hanger and by using the multiple device.

- *Dresses (princesses)*

For this kind of garment it is possible to use either the shoulder or the multiple device. The first is suitable for smooth or heavy fabrics. For light and delicate garments it is advisable to use the multiple device. In this case the dress is placed on a wire hanger which has to be hanged on the device. If the wire hanger should leave marks on the shoulder, you can use common wooden and rounded hangers of the same size of the garment's shoulders width.

- *Jerseys – Blouses – Jumpers*

These are placed on metal hangers and then on the multiple device. In some cases the ironing result is complete, in others only partial. However, in view of the fact that the ironing operation is simple and quick, it is worthwhile to use it for any garment, paying attention to use wire or wooden hangers according to the garment's delicacy, in order to avoid any possible marks on the shoulders.

- *Curtains – Blankets*

The steam eliminates the creases, giving the same ironing result to curtains and blankets as obtained with an ironing table. Considering the easy and quick operation it is worthwhile to carry it out: you will only have to



touch up the hems. Fold the curtains, and put them onto the hanger of the multiple device before starting the ironing cycle.

- *Trousers*

The trousers have to be buttoned up first, whereas the two pads of the waistband stretcher have to be fastened in the centre (Pic.1)

- *QUICK method*

- o Keep the trouser waistband with both hands well opened while putting it onto the pads.
- o With your lifted thumbs press simultaneously the shutter release buttons for the pads, thus extending the two springs. The trouser waistband will remain in this way on the waistband stretching device, while the two springs will keep the trousers stretched in the centre: modify if necessary by hand their position, as the trousers have to be in the centre of the door. (Pic. 2).
- o Seize the front trolley lever and pull it upwards up to the catch (the lever has to be kept towards the outside – Pic.3).
- o Rest one trousers hem on the fixed part of the pliers and snap shut the mobile part; repeat the same operation for the second trousers leg (Pic. 3).
- o After having clamped inside the two pliers the trousers hems, push the lever forward: the catch will be released, thus letting the trolley slide downwards until the trouser legs are completely extended by means of the trolley's weight.

**Attention:** It is advisable to accompany the trolley during its downward movement by keeping the front lever grip seized until the trousers have reached their maximum extension and the trolley has stopped (Pic. 4).

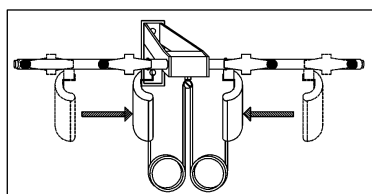
- *ALTERNATE method*

- o Keep the waistband of the trousers with both hands open, and fit the right-hand side onto the right-hand pad, by keeping the left side stretched.
- o Press the release button releasing the right-hand pad, thus extending the right-hand spring entirely; the left trouser side will in this way get closer to the left-hand spring. With the free right hand press the release button for the left-hand pad, thus pushing against the left side. The waistband of the trousers will remain on the waistband stretching device, while the two springs will keep the trousers in the middle. Modify if necessary by hand the position, in order that the trousers are in the centre of the door.
- o Seize the front lever of the carriage, and pull it upwards up to the catch (the lever has to be kept towards the outside).
- o Rest one trousers hem on the fixed part of the pliers and snap shut the mobile part; repeat the same operation for the second trousers leg.
- o After having clamped inside the two pliers the trousers hems, push the lever forward: the catch will be released, thus letting the trolley slide downwards until the trouser legs are completely extended by means of the trolley's weight.

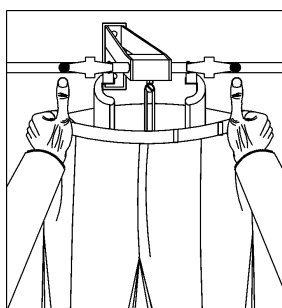
**N.B.: Attention:** It is advisable to accompany the trolley during its downward movement by keeping the front lever grip seized until the trousers have reached their maximum extension and the trolley has stopped.

- *REMOVING THE TROUSERS*

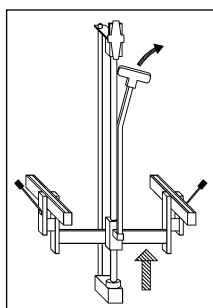
- o Rotate the handgrip of the front lever clockwise: the two mobile parts of the leg-stretching pliers will open simultaneously. The carriage will go down up to the limit switch (Pic. 5).
- o Put both open hands onto the two waistband pads and push them towards the centre up to the fastening snap: at this point the ironed trousers can be taken off.



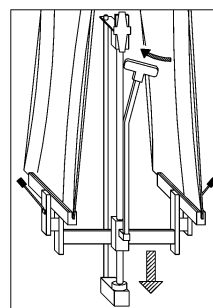
Pic. 1



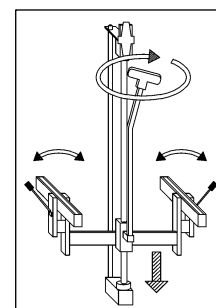
Pic. 2



Pic. 3



Pic. 4



Pic. 5

## 7.6 CYCLE PROGRAMMING

Upon switching on, the program version will appear, by flashing on the left-hand display for about 4 seconds  
The front panel features 8 push buttons:

**Manual steam:**

- If pressed, you activate the steam control.

**Manual blowing:**

- If pressed, the machines changes over to the blowing control (FLIP/FLOP). The function is displayed by the relevant LED.

**Start:**

- This button starts the working cycle.

**Stop:**

- If pressed, you interrupt the working cycle.

**Manual / Automatic:**

- If pressed, you interchange the two functions, displayed by the relevant LEDs.
- The manual function activates the working cycle only by pressing the START button on the front panel.
- The automatic working cycle can be activated by a remote control or by an automatic starting device.

**Programming:**

- If pressed briefly, the display shows the current program number for about 1 second. During its display, it is possible to modify it by the relevant +/- buttons.
- If pressed for more than 3 seconds, it allows to change the operational settings.
- Upon each pressing, the program function moves one step forward, until the end of the programming is reached.
- The programming steps are as follows:
  - Program number (1 ÷ 19)
  - Steaming time expressed in seconds (0 ÷ 99)
  - Steaming and blowing time expressed in seconds (0 ÷ 99)
  - Blowing time expressed in seconds (0 ÷ 99)



Upon programming, this plus-button allows to modify the displayed, flashing number (seconds) by increasing it.

- Outside the programming phase, it can display the count of the effected operations for about 1 second (stroke-counter).
- If you press this button for more than 3 seconds while the stroke-counter is displayed, the same will be reset.



Upon programming, this minus button allows to modify the displayed, flashing number (seconds) by decreasing it.

- If you press this button for more than 3 seconds while the stroke-counter is displayed, the same will be reset.

The working cycle features 3 different times in sequence:

- Steaming time
- Steaming and blowing time together (or of pause, if you press the relevant button)
- Blowing time

The flashing LED “ON” signals that the working cycle has started, activating at the same time the relevant output, whereas the displays show the decreasing time of the different steps.

In case you select the PAUSE option, the central display unit will be flashing during the working cycle.

At the end of the working cycle, the machine up-dates the cycle count, resets the timers of the different cycle steps, and is ready for a new cycle **START**.

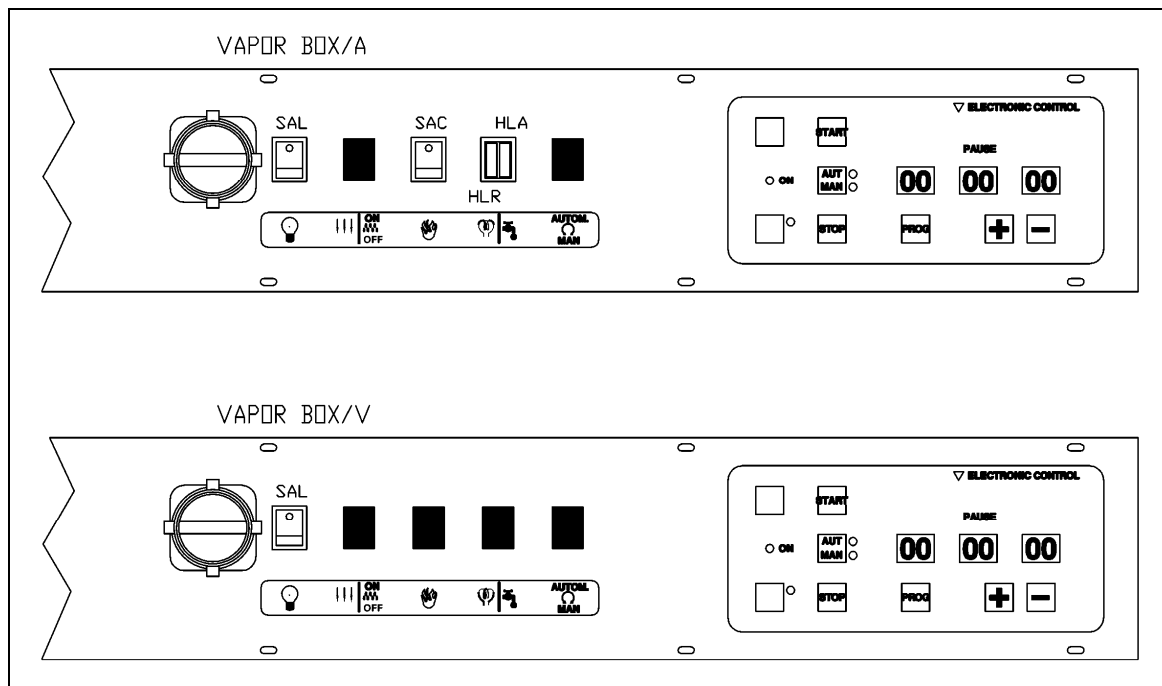
## 7.7 TURNING THE MACHINE OFF

Some minutes before the end of your working day, switch off the boiler (version “A”) or close the gate valve of the steam inlet (version “V”), using the remaining steam for the last ironing operations. Afterwards, turn off every switch of the machine, as well as the main supply switch, close the cock both of the water main and of the compressed air main if supplied with.

At the end of each use it is necessary to keep the machine turned on for several minutes while the hot air switch is turned on, in order to remove any trace of humidity from the inside.

## 7.8 CONTROL PANEL

<b>SAL</b>	Light switch	<b>HLR</b>	Warning light boiler resistor
<b>SAC</b>	Boiler switch	<b>HLA</b>	Warning light water feeding



## 8 TROUBLESHOOTING AND SOLVING

The following diagnostic table indicates the main irregularities which can occur, their probable causes and possible solutions

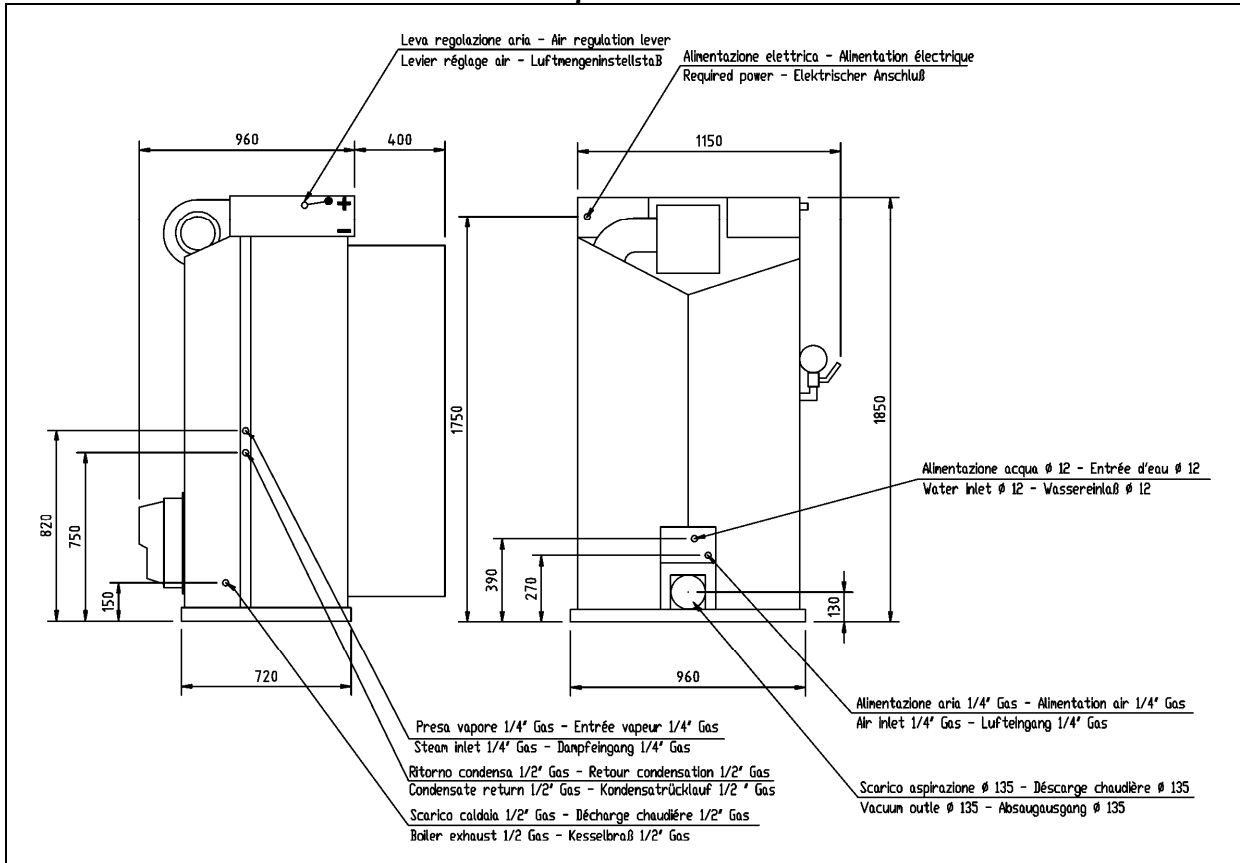
In case of doubts and/or of problems which can't be solved, do not attempt to disassemble parts of the machine for the troubleshooting, but contact our Technical Department or the Ghidini-reseller, instead.

DIAGNOSTIC TABLE		
PROBLEMS	POSSIBLE CAUSES	SOLUTIONS
<b>The machine doesn't turn on</b>	Main switch turned off	<i>Make sure that the main switch is turned on and check the fuses</i>
	Switch turned off	<i>Turn on the switch</i>
<i>Machines without boiler</i> <b>No steaming</b>	Steam intake cock closed	<i>Open the cock of the steam intake</i>
<i>Machines with boiler</i> <b>The water warning light is turned on and the water pump keeps on running without stopping</b>	No water is streaming into the boiler	<i>Check if the water cock is open</i>
		<i>Check the presence of pressure inside the water mains.</i>
		<i>Check if the water filter is obstructed.</i>
<i>Machines with boiler</i> <b>The resistor warning light is always switched on and the boiler doesn't reach the working pressure</b>	Leak on the boiler exhaust.	<i>Check if the gate valve of the boiler exhaust is well closed.</i>
	Burnt out resistor or covered with scale.	<i>Check the resistor condition.</i>

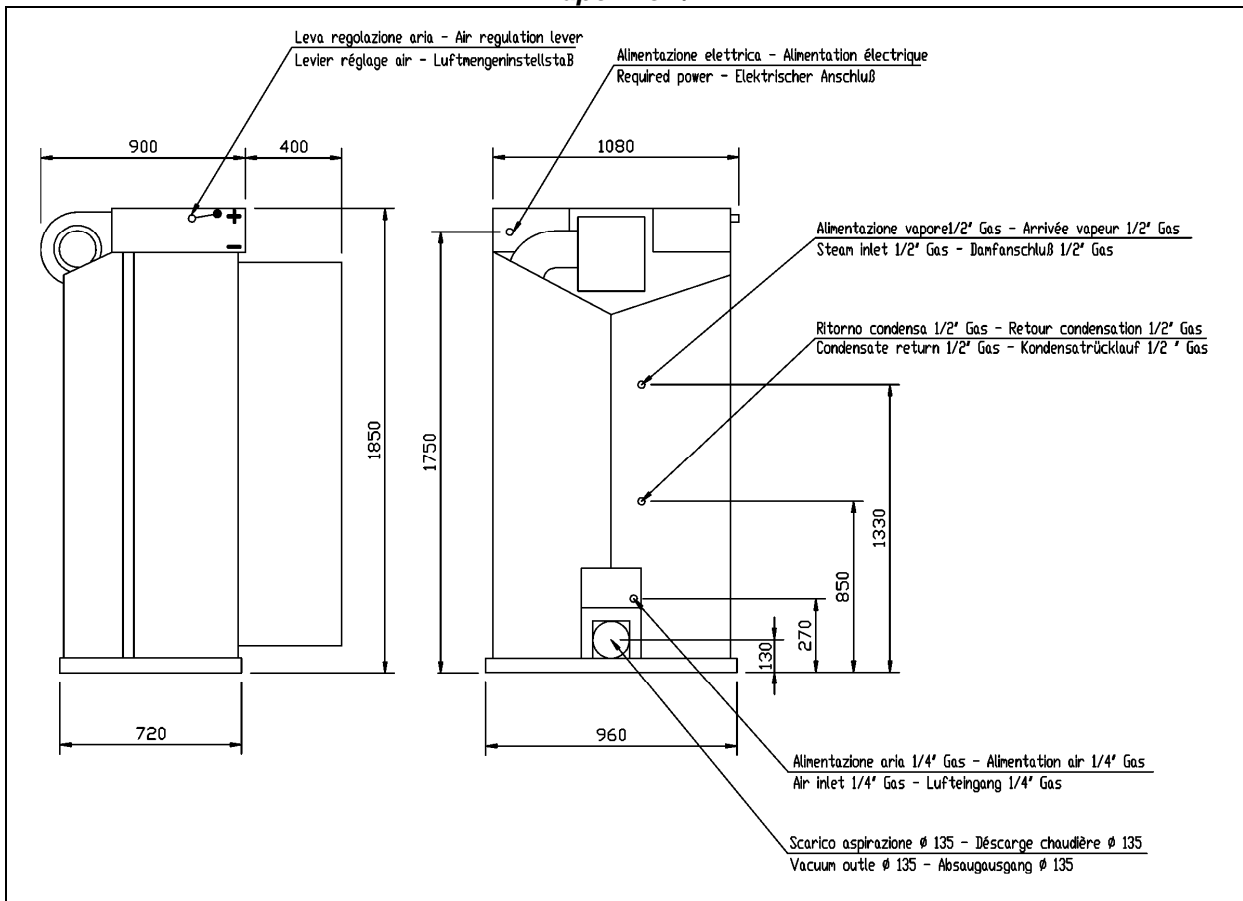
**WARNING:** if the safety valve is released, switch off the boiler immediately and contact a qualified technician. Do not block the exhaust and do not underestimate the problem, as there could be risk of explosion.

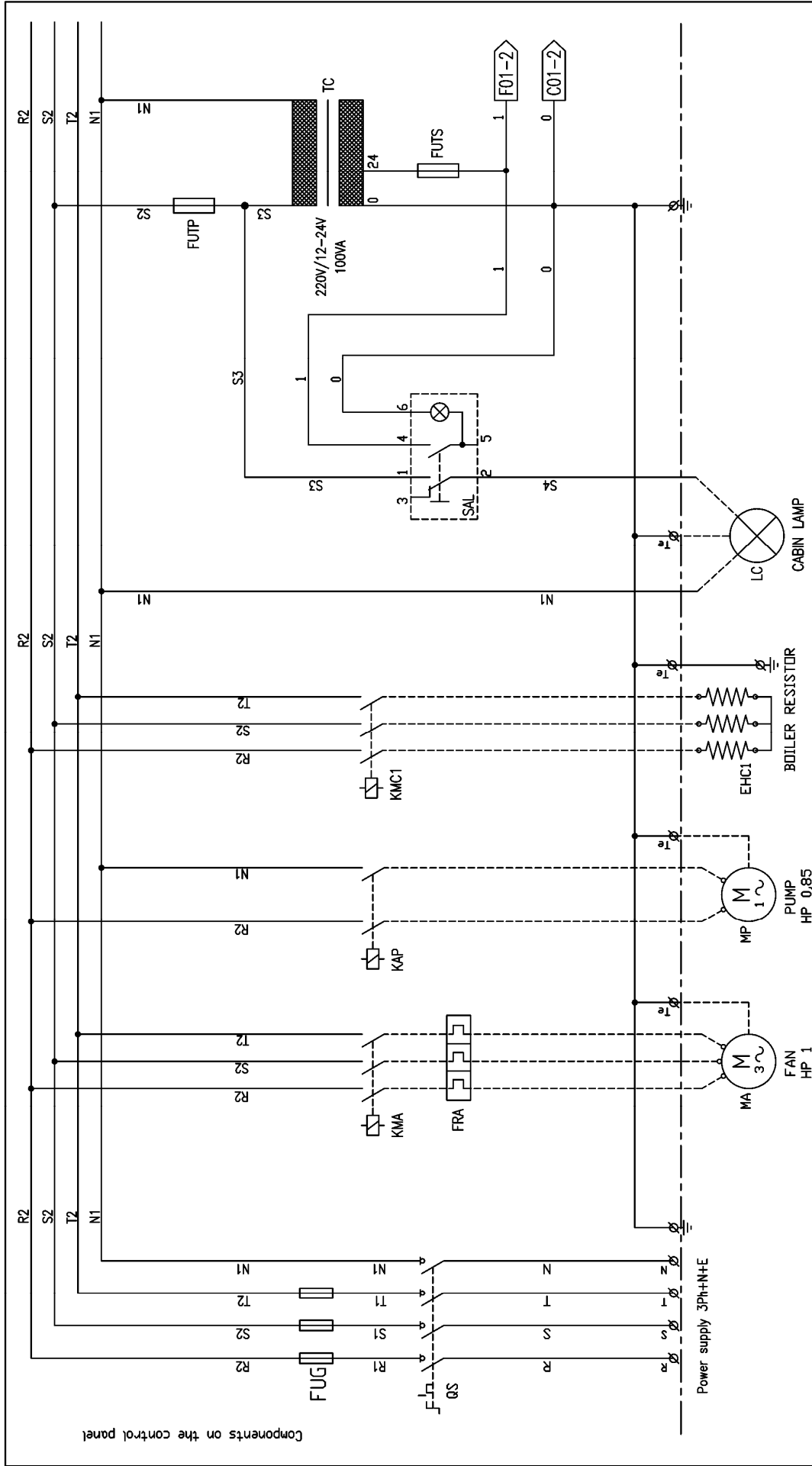
## 9 OVERALL DIMENSIONS AND DRAWINGS

### Vapor Box/A



### Vapor Box /V



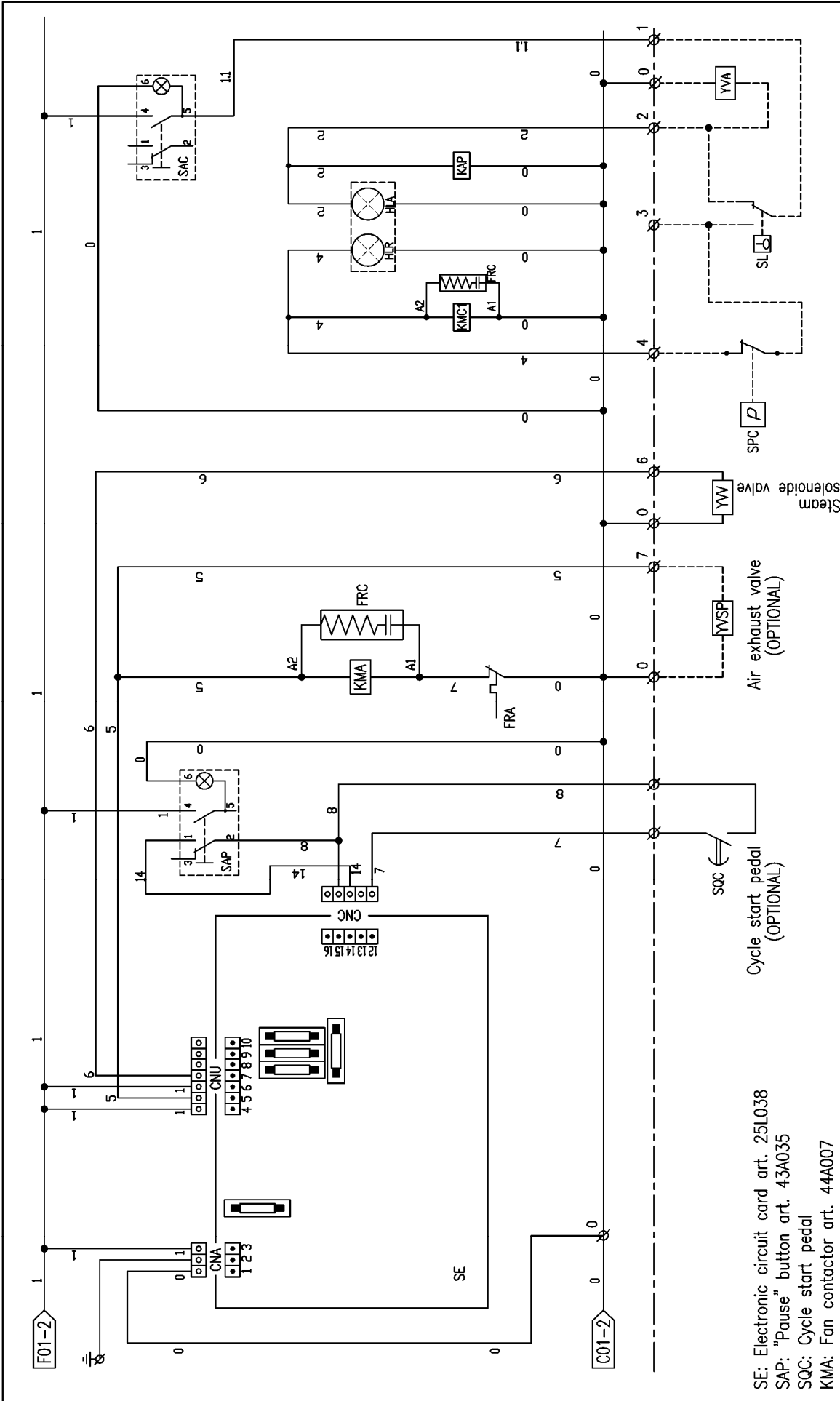


- QS: Disconnecting switch
- FUG: Fuse 40 GL
- KMA: Fan contactor
- FRA: Temperature relay
- MA: Fan motor
- KAP: Pump contactor
- MP: Pump motor
- KMC1: Resistor contactor

- EHC1: Boiler resistor
- SAL: Switch for cabin light cod.43A035
- LC: Cabin lamp
- TC: Transformer
- FUTP: Fuse 2A
- FUTS: Fuse 6A

Denominazione Description		VAPOR BOX / A (electronic) Power supply 3Ph+N+E	
Titolo Descriz.		SCHEMA ELETTRICO ELECTRICAL WIRING	
Dis. NG Dwg.		SE010510	
Foglio Segue		1/2 2/2	
Data		07/03/07	
Dis. A.G.			
Cod. 30B086			
Modificato scheda el.		14/09/07	
Data		14/09/07	
Firma			
Appr.			
QUESTO DISEGNO VIENE CONSEGNATO ALL'ESPRESSIONE CONDIZIONE CHE NON VENGA SENZA NS/ CONSENSO NE RIPRODOTTO NE CEDUTO AD ALTRE DITTE			

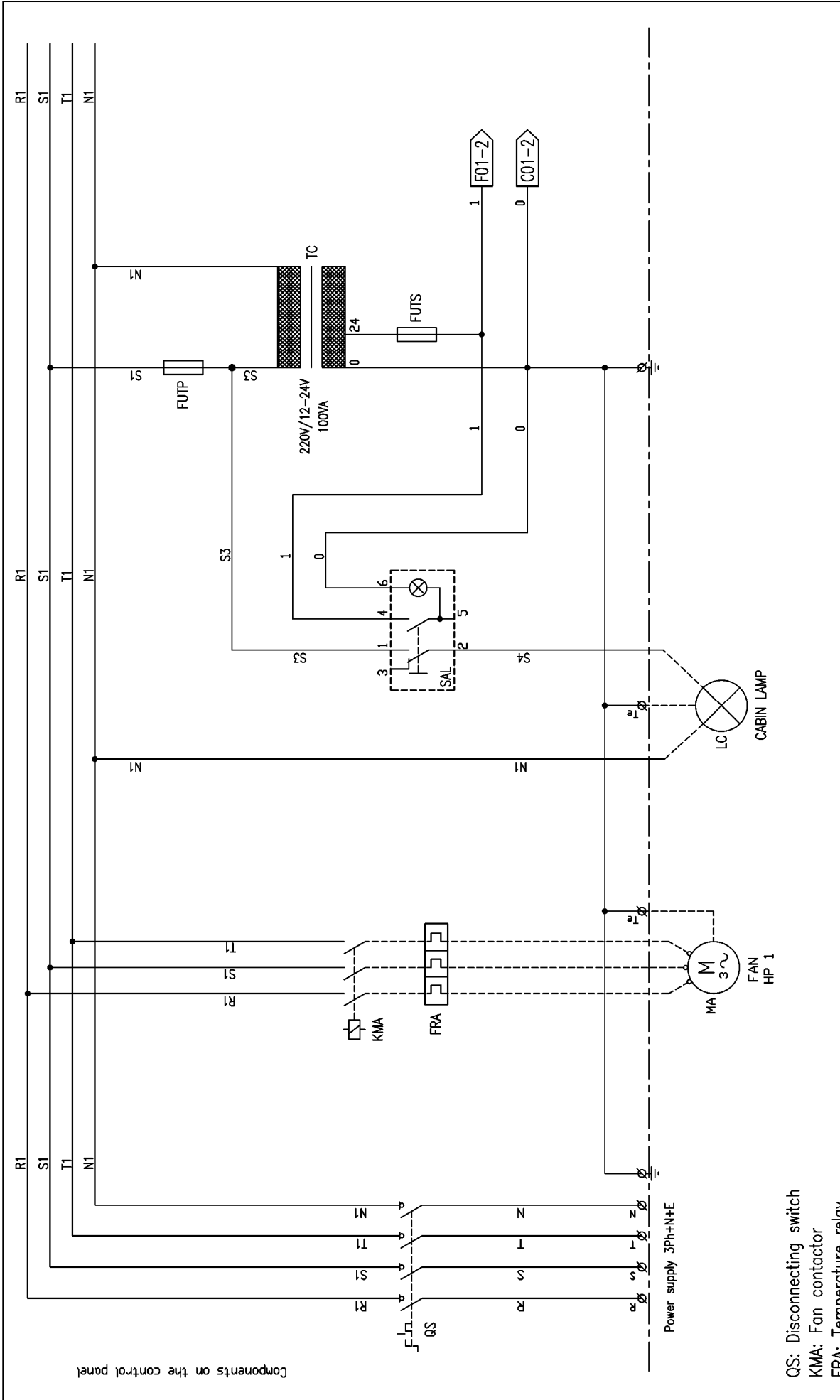




Denominazione Description		VAPOR BOX / A (electronic) Power supply 3Ph+NE	
3	Data	07/03/07	
2	A.G.		
1	Modificato scheda el. / Changes Board	14/09/07	A.G. / Signa
	Cod.	30B086	Appr.
TITOLO Descriz.		SCHEMA ELETTRICO ELECTRICAL WIRING	
Dis. NG		S. Ciuiliano Milanese	
Dwg.		S. Ciuiliano Milanese	
Foglio		SE010510	
Segue		2/2	

SE: Electronic circuit card art. 25L038  
 SAP: "Pause" button art. 43A035  
 SOC: Cycle start pedal  
 KMA: Fan contactor art. 44A007  
 FRC: RC filter art. 234029  
 FRA: Fan temperature relay art. 44C010  
 YVSP: Pneumatic air exhaust solenoid valve  
 YV: Steam solenoid valve  
 SAC: Boiler switch art. 43A035  
 HLR: Resistor warning light art. 43A023

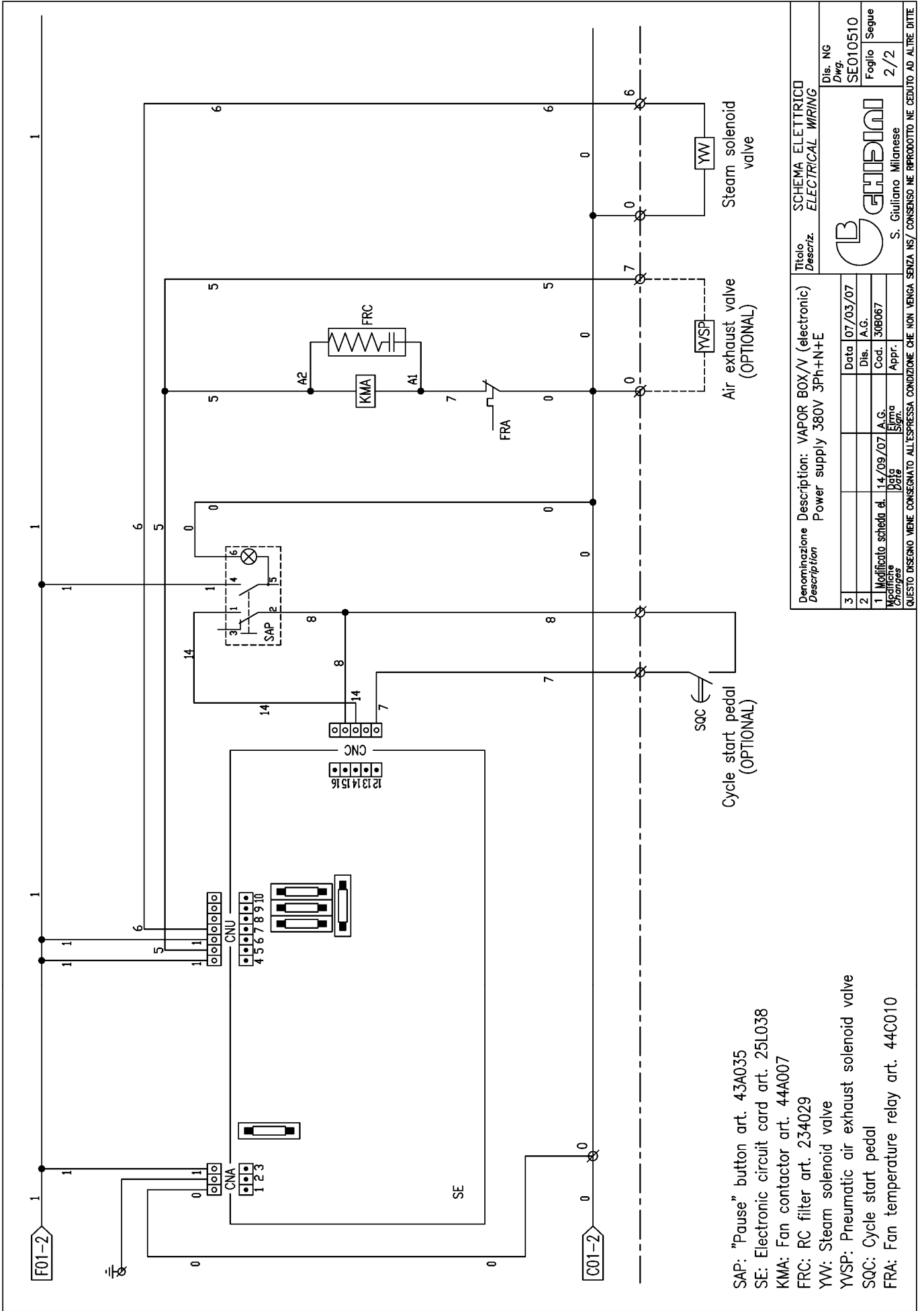
HLA: Water warning light art. 43A023  
 KMC1: Resistor contactor  
 KAP: Pump relay  
 YVA: Water solenoid valve  
 SL: Level probe  
 SPC: Boiler pressure switch



Components on the control panel

- QS: Disconnecting switch
- KMA: Fan contactor
- FRA: Temperature relay
- SAL: Switch for cabin light art. 43A035
- LC: Cabin lamp
- TC: Transformer
- FUTP: Fuse 2A
- FUTS: Fuse 6A

Denominazione Description		VAPOR BOX/V (electronic) Power supply 380V 3Ph+N+E	
TITOLO Descriz.		SCHEMA ELETTRICO ELECTRICAL WIRING	
Dis. NG		SE010510	
Foglio		1/2	
Segue		2/2	
 S. Giuliano Milanese			
3	Data	07/03/07	
2	Dis. A.G.		
1. Modificato scheda el.		14/09/07	A.G.
Modificatore	Data		
Appr.	Appr.		
QUESTO DISEGNO VIENE CONSEGNATO ALL'ESPRIMA CONDIZIONE CHE NON VENGA SENZA NS/ CONSENSO NE RIPRODOTTO NE CEDUTO AD ALTRE DITTE			



- SAP: "Pause" button art. 43A035
- SE: Electronic circuit card art. 25L038
- KMA: Fan contactor art. 44A007
- FRC: RC filter art. 234029
- YV: Steam solenoid valve
- YVSP: Pneumatic air exhaust solenoid valve
- SQC: Cycle start pedal
- FRA: Fan temperature relay art. 44C010

Denominazione Description		VAPOR BOX/V (electronic) Power supply 380V 3Ph+N+E	
3	Data	07/03/07	
2	Dis. A.G.		
1	Modificato scheda el. A.G.	14/09/07	
Specifiche Changes		El. A.G.	Cod. 30B067
		Appr.	
Titolo Descriz.		SCHEMA ELETTRICO ELECTRICAL WIRING	
Dis. NG		S. Giuliano Milanese	
Dwg.		SE010510	
Foglio		2/2	
Segue			





## 10 PRECAUTIONS

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Read carefully the instructions and the risks related to the use of an ironing cabin. The operator has to know its working functions and must clearly understand its dangers with the help of the manual.

### **Power supply**

Prior to carrying out any inspection or service on the machine, it is necessary to disconnect it from the main electrical supply. Make sure, that nobody can reconnect it during the technical service.

Every installed electrical and electronic equipment or basic structure must be earthed.

### **Inflammability**

Adopt all the necessary precautions to avoid any direct contact of the machine with hot materials or flames. Put fire extinguishers near the machine for an immediate intervention in event of fire.

### **Pressure / Steam**

Prior to any intervention, switch off the boiler first, wait until all the pipes are cooled down and check that there are no residual pressures inside the boiler or in any branch of the hydraulic circuit, as they could cause steam or product spurts, in case of disassembly of fittings or other components.

### **Noise**

The machine's noise level is not very high, as it remains under 70dB (A).

## 11 HAZARDOUS USE

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The conformity check according to the essential safety rules and to the provisions of the machine directive has already been carried out by filling out the specially provided checking lists, included in the technical file.

The checking lists are of two kinds:

- List of dangers (drawn from EN 1050 referring to EN 292)
- Application of the main safety features (Machine Directive– appendix. 1, part 1)

**The dangers described in the following have not been completely removed, but they have been deemed to be acceptable:**

- During the maintenance operation there could be some steam jets at low pressure, (maintenance operation must therefore be carried out by using suitable protection devices)
- The user must provide for a protection against direct and indirect contacts.

## 12 MAINTENANCE PROCEDURES

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In case of irregularities or malfunctioning, please contact the service technician for the relevant checks.

**Periodically, it is necessary to carry out the following operations:**

OPERATION	WORKING HOURS
Boiler discharge (*)	40
Cleaning of the water filter	1500
Cleaning of the boiler, and of the resistors	2500
Cleaning of the condensation return filter	500

(\*): Discharge the boiler once it has reached 1 bar of pressure, in order to remove any limescale or dirt deposits. When the machine is switched off, open slowly the gate valve of the boiler exhaust. We recommend to carry out this operation before you start working and not in the evening at the end of work, as the fresh water streaming into the boiler is rich in oxygen, increasing during the night the corrosion process inside the drum.

This machine does not require any special equipment for check and/or maintenance operations. It is however advisable to use suitable tools and personal protections in compliance with the Italian law by decree 626/94, which have to be in good conditions (Presidential Decree 547/55), in order to avoid any damages to persons or machine components.

**Make sure that the power supply is disconnected prior to any maintenance service and that the whole equipment has cooled down.**

## 13 DISPOSAL

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During the maintenance on the machine, or in case of its scrapping, please dispose carefully and correctly of any polluting components, according to the local regulations. In case of scrapping, the identification rating plate and any other document have to be destroyed.

## 14 HOW TO ORDER SPARE PARTS

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Upon the spare parts request, please quote always:

Machine type, serial number, quantity of the requested spare parts, article number (these data can be read on the rating plate or supplied by the technical information of the machine and by the user's and maintenance manual).

For electrical components with a different voltage and frequency than V 220-380/50Hz (data available on the rating plate of the faulty component), specify the right voltage and frequency after having mentioned the article number.

The technical data, the descriptions, and pictures included in this manual are not binding.

The manufacturer reserves the right to make any necessary modification without prior notice or having to up-date the present manual.

## 15 HANDLING AND TRANSPORT

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Before its shipment, the machine is carefully packed in a wooden crate. During the shipment and storing of the machine, pay particular attention to the upside indication on the packaging. Upon receipt, please check that the packing is intact and store the machine in a dry place.

## 16 WARRANTY

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All Ghidini products are guaranteed for a maximum period of 12 months from delivery date as far as material and construction defects are concerned.

### **The warranty is extended as follows:**

In case of malfunction of the equipment, please contact your Ghidini reseller, specifying the noticed defect, type, serial number and furthermore the operating conditions of the machine. After having received the equipment or component and after an accurate analysis, Ghidini reserve the right, whether to repair or to replace the product. If the machine is still under guarantee, the Ghidini reseller will carry out the service or replacement at Ghidini's charge. In case the returned goods are not defective, Ghidini reserve the right to charge the customer with the met expenses (shipment, etc.). The present warranty will be declared void, if the machine has been damaged due to improper use, negligence, normal wear, chemical corrosion, installation not according to the provided instructions and to the manufacturer's warnings.

Any modification, tampering and alteration on the machine or its components, carried out without prior written authorization by Ghidini, relieve the latter of any responsibility and annuls any warranty obligation. The components subject to normal wear and the perishable ones are not under warranty, as well as everything which has not been previously explicitly indicated, or damages or expenses arising from defects of the same product.

The validity conditions of the guarantee provided by Ghidini are considered implicitly accepted upon purchase of the machine. Any possible changes to or derogations from the present guarantee are only valid prior written authorization by Ghidini.

## 17 CONFORMITY DECLARATION

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**Manufacturer:**

GHIDINI  
Company

Via Tolstoj, 24 – 20098 S. Giuliano Milanese (MI)  
Address

+39 -02 -98.24.06.00  
Phone number

**Declares that**

**The machine:**

Ironing cabin – Vapor Box

- \* has been designed in compliance with the DIRECTIVES OF THE EUROPEAN COMMUNITY COUNCIL referring to machines (98/37/EC) and to low voltage (LV 73/23/EEC).
- \* has been designed, as far as enforceable, in compliance with the following harmonized regulations and technical specifications:  
EN 292-1/2, EN 1050, EN 982, EN 11200, EN 60947, EN 894-1/2.

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Managing director

Roland Fleischmann

Product manager

Name

GHIDINI S.R.L.

Company



December 2008

Signature

Date



Web site: <http://www.ghidini-gb.it> - E-mail: [sales@ghidini-gb.it](mailto:sales@ghidini-gb.it)