




|                      |  |
|----------------------|--|
| <i>Manufacturer</i>  | GHIDINI BENVENUTO s.r.l.   |
| <i>Product</i>       | Ironing board – <b>BORA A/V</b>  |
| <i>Year</i>          | 2013   |
| <i>Certification</i> |  |

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## 1 INTRODUCTION

This user's and maintenance manual refers to the "BORA A / V" ironing board.

It is possible to request the latest release to our Technical Commercial Department or by visiting our website [www.ghidini-gb.it](http://www.ghidini-gb.it).

This user's and maintenance manual contains important information for the protection of the health and safety of the personnel which is to use this device. Read this manual with attention and keep it carefully to make it available to operators who want to consult it.

Ghidini s.r.l. reject any liability for damages to persons or property in case of failure to comply with the dispositions of this manual. Any modification to system components or any other use of the device or its components than those foreseen without previous written authorization from Ghidini s.r.l. will relieve the latter from any liability for damages to persons and/or property, and will void any right to the warranty.

## 2 GENERAL DESCRIPTION

The BORA ironing board is available in two versions: BORA / A (with an automatic feeding built-in boiler) and BORA / V, without a boiler. In the A version, the board is fully autonomous and requires no supporting equipment to work. This station uses external sources of electric power and potable water to work. In the V version, it uses external sources of electric power and water steam.

The machine is fitted with a large universal working surface and an optional arm with a sleeve board, both padded, electrically heated and fitted for suction, a garment resting net, a control panel to adjust surface temperature and to activate the various working stations, a professional iron, automatic pressure control. It is also possible to fit as optional a stain removing board, a steam/air-steam gun and a pump for the automatic return of water in the boiler (BORA / A only,) an iron resting structure, with or without lighting, a rotating iron holder, a water spray device.

## 3 MACHINE IDENTIFICATION

A plate which reports the model, serial number, year of manufacture, voltage and supply pressures is fitted on the side of the machine.

## 4 TECHNICAL CHARACTERISTICS

|                                  | BORA / V                   |         |       | BORA / A                                |         |        |       |
|----------------------------------|----------------------------|---------|-------|---|---------|--------|-------|
| Power supply                     | 230V - 1ph 50 Hz           |         |       | 230V - 1ph 50 Hz – 230-400V - 3ph 50 Hz |         |        |       |
| Power consumption                | Iron                       | Arm     | Board | Boiler                                  | Iron    | Arm    | Board |
|                                  | 0.83Kw                     | 0.14-Kw | 1-Kw  | 3.3-3.9-4.8-Kw                          | 0.83-Kw | 0.14Kw | 1-Kw  |
| Suction motor                    | 0.6 Hp                     |         |       | 0.6 Hp                                  |         |        |       |
| Pump motor                       | Unavailable                |         |       | 0.5 Hp                                  |         |        |       |
| Steam pressure                   | Unavailable                |         |       | 2.8 bar                                 |         |        |       |
| Steam consumption                | Unavailable                |         |       | 5 ÷ 10 Kg/h                             |         |        |       |
| Noise pressure level             | < 70 dB(A)                 |         |       | < 70 dB(A)                              |         |        |       |
| Operating / Storage temperature  | +5 ÷ +50 °C / -20 ÷ +50 °C |         |       | +5 ÷ +50 °C / -20 ÷ +50 °C              |         |        |       |
| Operating humidity               | 90 % max.                  |         |       | 90 % max.                               |         |        |       |
| Bora standard net dimensions     | 1500 x 600 x 1800 mm       |         |       | 1500 x 600 x 1800 mm                    |         |        |       |
| Bora maxi net dimensions         | 1600 x 650 x 1800 mm       |         |       | 1600 x 650 x 1800 mm                    |         |        |       |
| Net weight                       | Stand. 78 Kg - Maxi 83 Kg  |         |       | Stand. 100 Kg - Maxi 105 Kg             |         |        |       |
| O/a dimensions w/ packing stand. | 1520 x 580 x 1120 mm       |         |       | 1520 x 580 x 1120 mm                    |         |        |       |
| O/a dimensions w/ packing maxi   | 1750 x 700 x 1120 mm       |         |       | 1750 x 700 x 1120 mm                    |         |        |       |
| Overall weight with packing      | Stand. 94 Kg - Maxi 105 Kg |         |       | Stand. 116 Kg - Maxi 127 Kg             |         |        |       |

**WARNING:** do not power the machine with voltages other than the ones reported in the table.

## 5 MACHINE COMPONENTS

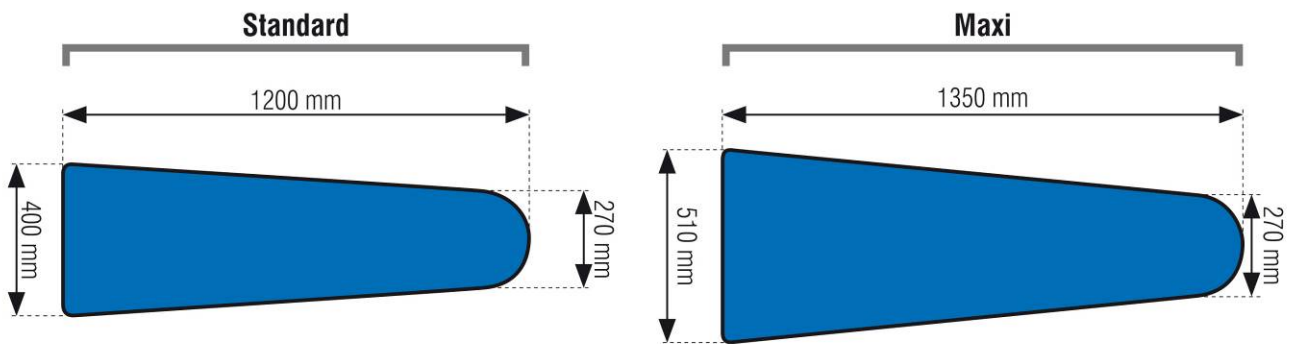
The main parts of the machine are:



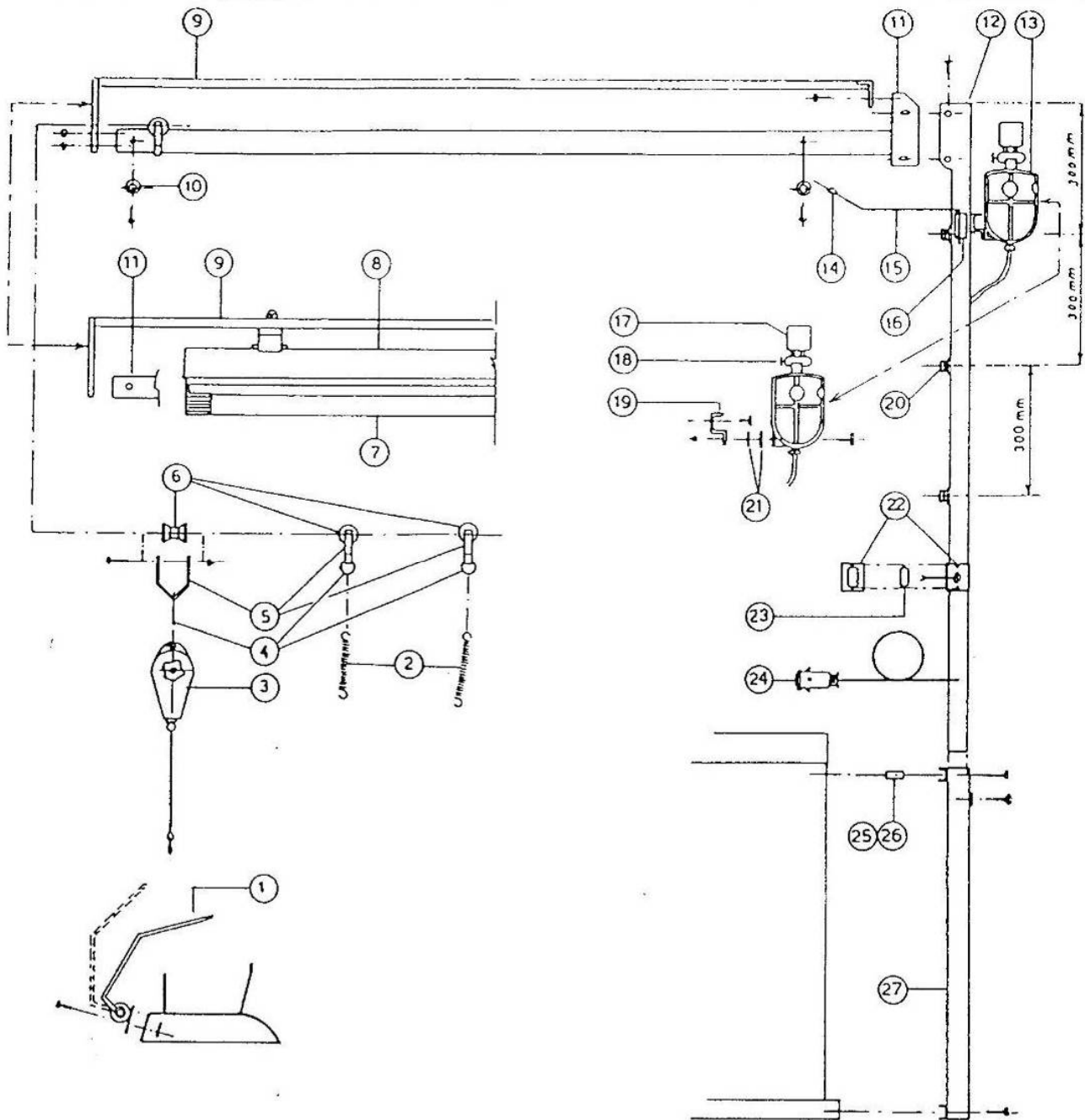


| Pos. | CODE          | DESCRIPTION                         | Pos. | CODE   | DESCRIPTION                     |
|------|---------------|-------------------------------------|------|--------|---------------------------------|
| 1    | Z14A01        | Sleeve board                        | 23   | 42H002 | Suction fan                     |
| 2    | Z27P14        | Arm padding                         | 24   | 42A002 | Suction motor                   |
| 3    | 274203        | Garment resting net                 | 25   | 41G021 | Suction motor condensator       |
| 4    | 173304        | BORA suction pedal                  | 26   | 44A012 | Resistance remote switch        |
| 5    | 534247        | Pedal return spring                 | 27   | 43F017 | Fuse box                        |
| 6    | 36E006        | Water inlet coupling                |      | 43F020 | 20A fuse                        |
| 7    | 175005        | Garment resting frame               | 28   | 43A038 | Circuit breaker switch          |
| 8    | 52A010        | Height adjustment handle            | 29   | 38S001 | Safety valve                    |
| 9    | Z07A00        | Steam gun                           | 30   | 38W001 | Water check valve               |
|      | Z07C01        | Air/Steam gun                       | 31   | 39B036 | Water solenoid valve            |
| 10   | 45A010        | Board Thermostat                    | 32   | 42B030 | 50Hz water pump (optional)      |
| 11   | 43A011        | Iron switch + voltage warning light |      | 42B031 | 60Hz water pump (optional)      |
| 12   | 43A020        | Boiler switch                       | 33   | 37A010 | Water discharge tap             |
| 13   | 43A016        | Water and resistance warning lights | 34   | 212060 | Resistance 3.3 Kw               |
| 14   | 35A015        | Steam pressure gauge                |      | 212061 | Resistance 3.9 Kw               |
| 15   | 25A001        | Silicone pad                        |      | 212063 | Resistance 4.8 Kw               |
| 16   | Z18D00        | Iron model K                        | 35   | 49A002 | Level regulator                 |
|      | Z01L15        | Iron model U                        | 36   | 244236 | Level regulator O-Ring          |
| 17   | 163409        | Wire holding antenna                | 37   | 183270 | Level regulator flange          |
|      | 264253        | Wire holding antenna support        | 38   | 201003 | Circuit breaker                 |
| 18   | 52C003        | Board displacement handle           | 39   | Z27D00 | Bora boiler                     |
| 19   | 184466        | STD board stem                      | 40   | 39B012 | Rotating Iron holder (optional) |
|      | 184465        | MAXI board stem                     | 41   | 43G004 | Steam solenoid valve            |
| 20   | Z27P31        | STD padding                         |      | 43I000 | Iron socket                     |
|      | 274123+274228 | MAXI padding                        | 42   | 43G005 | Iron plug                       |
| 21   | 45G012        | Pressure switch                     | 42   | 43I000 | Arm socket                      |
| 22   | 340017        | Suction spiral                      |      | 43     | 534484                          |

**Tipologies of available working surfaces**

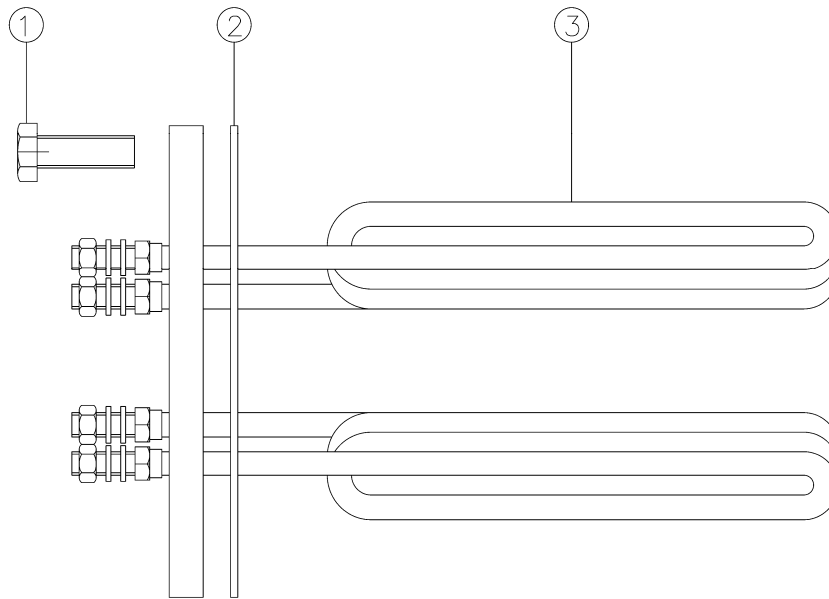


## IRON HOLDER COLUMN AND LIGHTING



| Pos. | CODE   | DESCRIPTION                | Pos. | CODE   | DESCRIPTION                          |
|------|--------|----------------------------|------|--------|--------------------------------------|
| 1    | 174009 | Iron mod. U holder fitting | 14   | 275010 | Condensate separator isolator        |
| 2    | 534264 | Spring                     | 15   | 174520 | Accessory holder                     |
| 3    | 54A001 | Balancer                   | 16   | 174521 | Accessory holder bracket             |
| 4    | 51X010 | Ring                       | 17   | 39H043 | Steam solenoid valve coil for iron   |
| 5    | 174022 | Hanger                     | 18   | 39B012 | Iron steam solenoid valve            |
| 6    | 56B002 | Complete knob              | 19   | 175108 | Condensate separator support bracket |
| 7    | 43C009 | 36W - 230V lamp            | 20   | 46R005 | O cable clamp                        |
| 8    | 43C007 | Complete lamp              | 21   | 244244 | 30x7x3 O-Ring                        |
| 9    | 174084 | L=150 front lamp support   | 22   | 43K005 | Switch box                           |
|      | 174085 | L=178 front lamp support   | 23   | 43A003 | Switch                               |
| 10   | 22A002 | Buffer stem                | 24   | 43H001 | Plug                                 |
| 11   | 173304 | L150 sliding rail          | 25   | 174017 | L35 spacer                           |
|      | 173025 | L178 sliding rail          | 26   | 174016 | L43 spacer                           |
| 12   | 173028 | Upper column               | 27   | 173041 | Bora iron holder lower column        |
| 13   | 202031 | Condensate separator       | 28   | 275005 | Condensate separator insulator       |

**RESISTANCES Ø130**

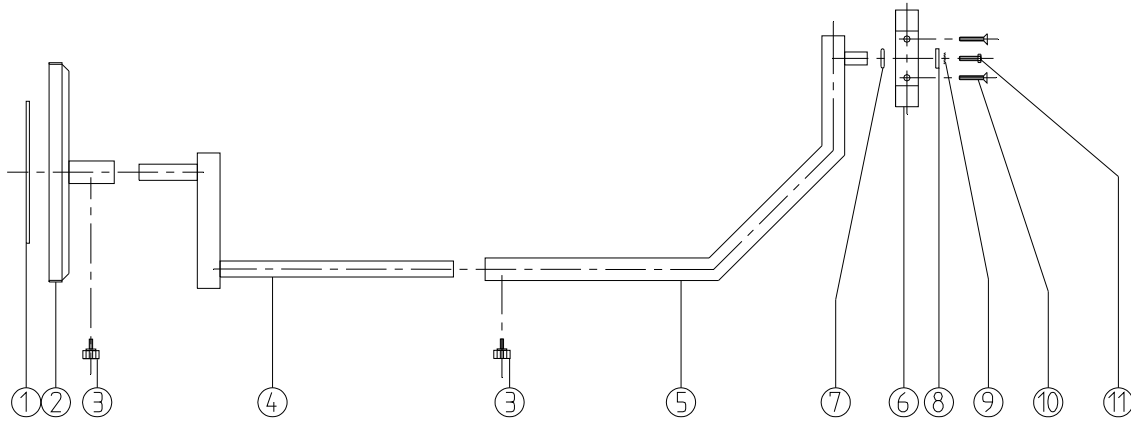


| Pos. | CODE   | DESCRIPTION  | Pos. | CODE   | DESCRIPTION              |
|------|--------|--------------|------|--------|--------------------------|
| 1    | 50A016 | Screw M10x25 | 3    | 212061 | Boiler resistance 3,9 kW |
| 2    | 244236 | O-Ring       |      | 212060 | Boiler resistance 3,3 kW |
|      |        |              |      | 212063 | Boiler resistance 4,8 kW |



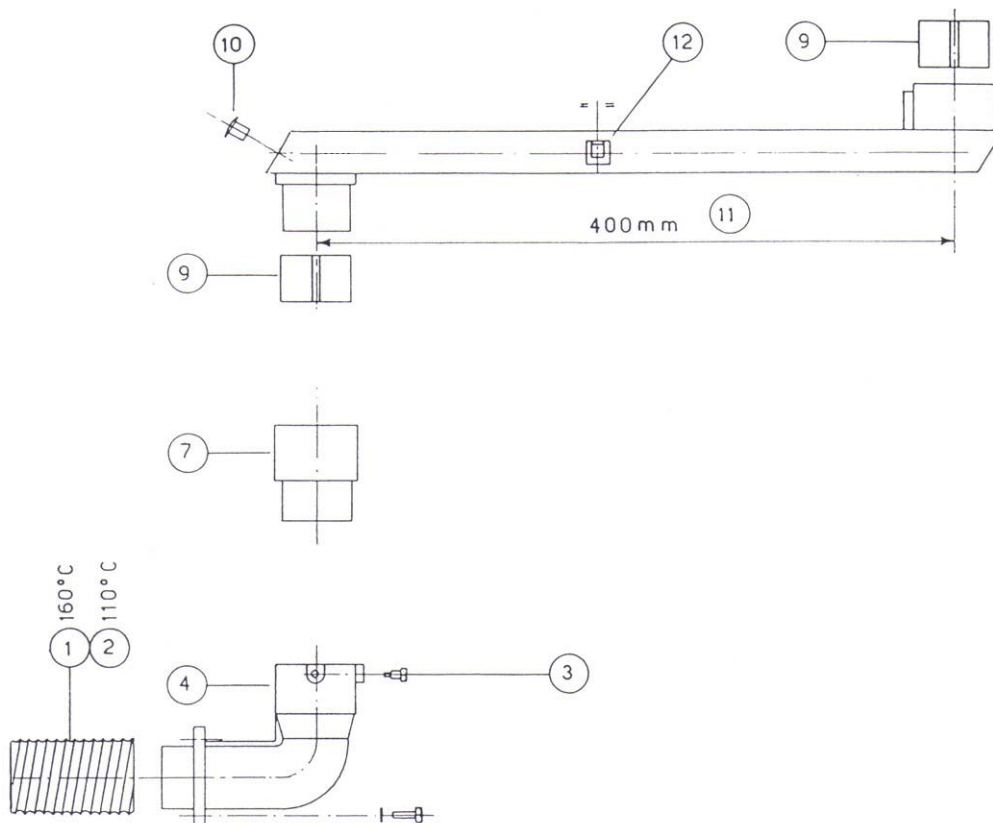
| Pos. | CODE   | DESCRIPTION        | Pos. | CODE   | DESCRIPTION                   |
|------|--------|--------------------|------|--------|-------------------------------|
| 1    | Z07P12 | Microswitch        | 4    | 07A002 | Silicone steam supply pipe    |
| 2    | Z07P13 | White button cover | 5    | 46B011 | Electric wire                 |
| 3    | 43A040 | Red button cover   | 6    | 184537 | Insert with fixed flat nozzle |

**ROTATING IRON HOLDER CODE: Z27D00**



| Pos. | CODE   | DESCRIPTION         | Pos. | CODE   | DESCRIPTION      |
|------|--------|---------------------|------|--------|------------------|
| 1    | 25A001 | Silicone pad        | 7    | 24A012 | O-Ring           |
| 2    | 162156 | Iron holder         | 8    | 51J005 | washer 8x24      |
| 3    | 52A004 | Knob                | 9    | 51L003 | Dented washer A6 |
| 4    | 172157 | Iron holder support | 10   | 50F001 | Screw TS M8x45   |
| 5    | 173435 | Articulation        | 11   | 50A007 | Screw TE M6x20   |
| 6    | 174495 | Pin seat            |      |        |                  |

**ARM FITTING Ø60**



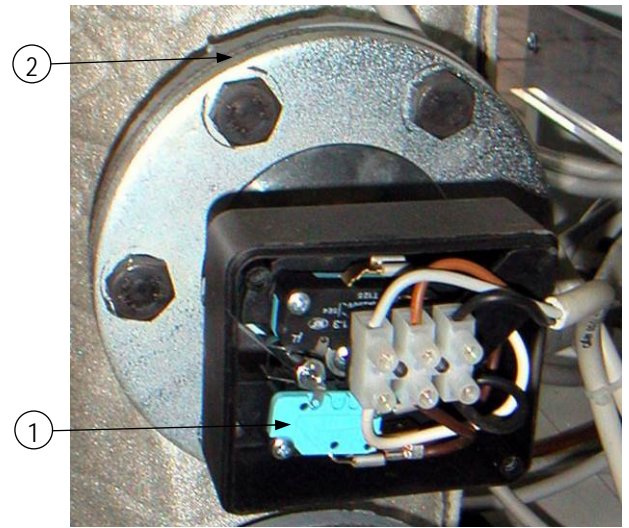
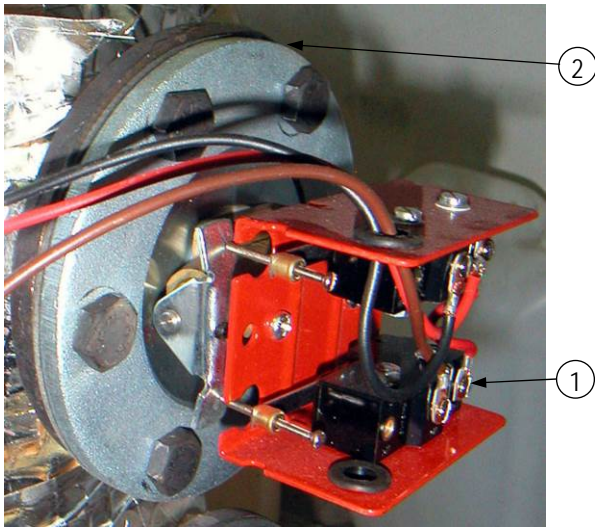
| Pos. | CODE   | DESCRIPTION       | Pos. | CODE    | DESCRIPTION       |
|------|--------|-------------------|------|---------|-------------------|
| 1    | //     | //                | 9    | 604419  | Bearing           |
| 2    | 06D016 | Pipe Ø62 110°C    | 10   | 22K016  | Stopper           |
| 3    | 184472 | Screw             | 11   | Z14H02B | Articulation L400 |
| 4    | 341014 | Arm support elbow | 12   | 46R010  | Cable clamp       |
| 7    | 342110 | Valve body        |      |         |                   |



## AUTOMATIC LEVEL CHECK

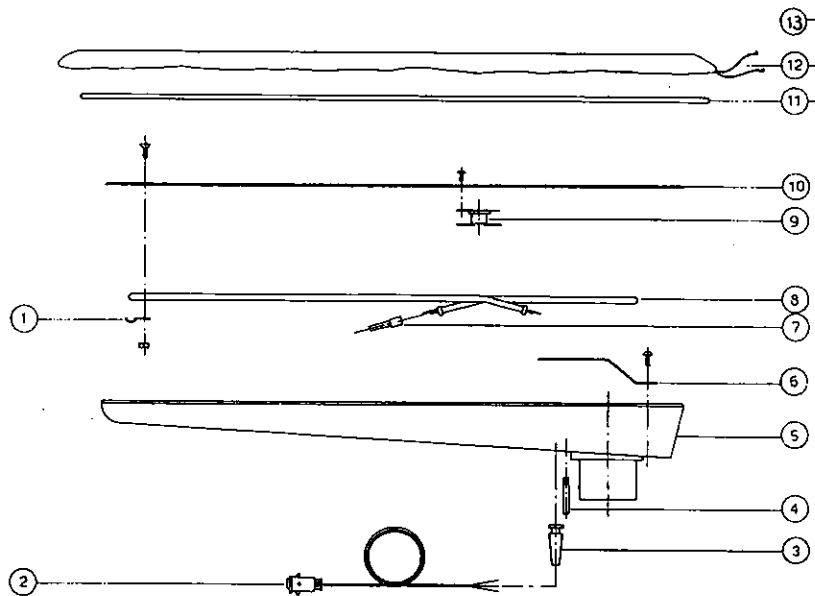
**code 49A002-C**

**code 49A002-B**



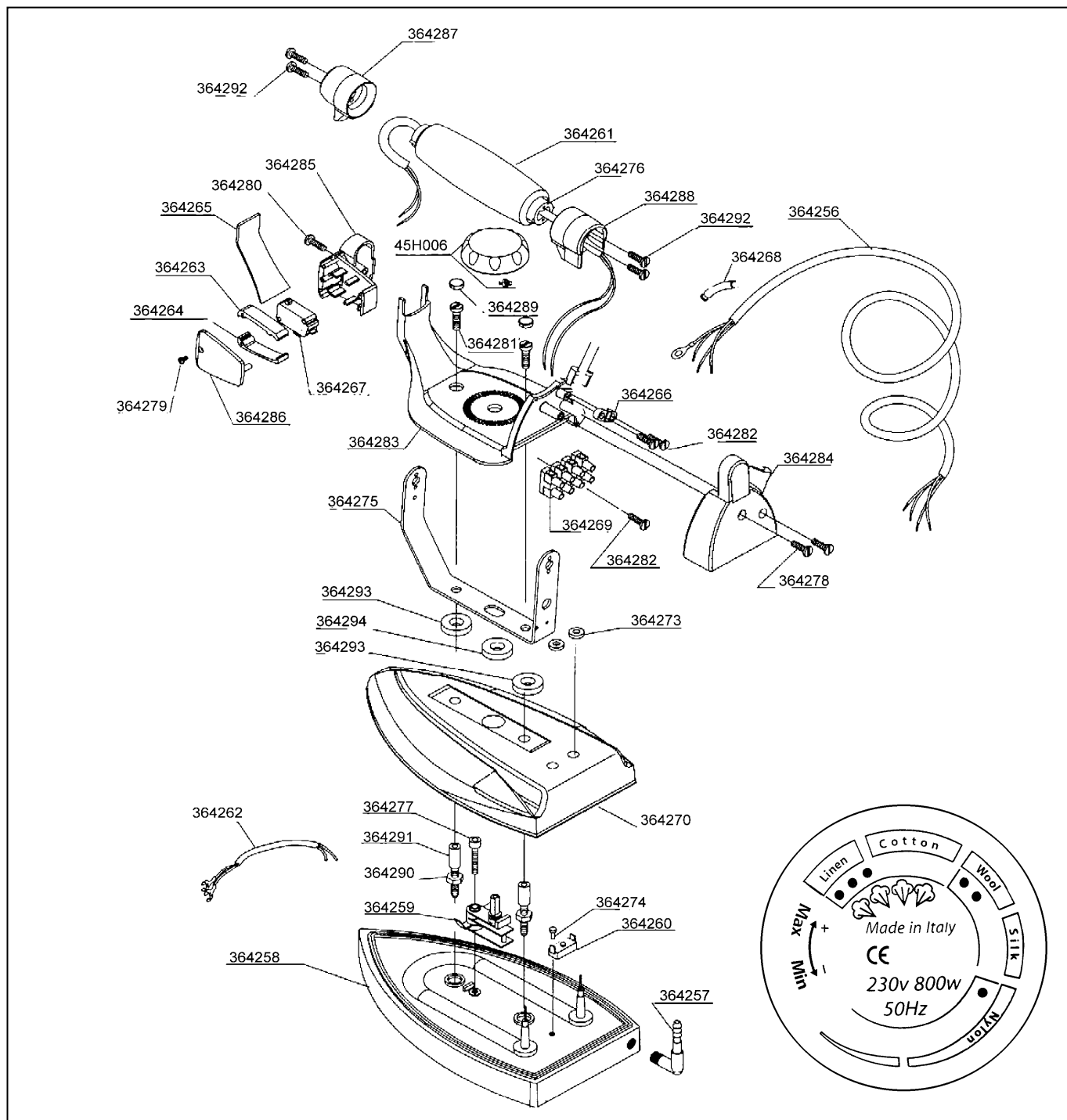
| Pos. | CODE   | DESCRIPTION   | Pos. | CODE   | DESCRIPTION   |
|------|--------|---------------|------|--------|---------------|
| 1    | 43D014 | Micro         | 1    | 43D013 | Micro         |
| 2    | 244236 | O-Ring flange | 2    | 244236 | O-Ring flange |
| 3    | 49G001 | Float         | 3    | 49G001 | Float         |

### EXPLODED VIEW OF SLEEVE BOARD Ø60 code: Z14A01



| Pos. | CODE   | DESCRIPTION    | Pos. | CODE   | DESCRIPTION                  |
|------|--------|----------------|------|--------|------------------------------|
| 1    | 174357 | Easel          | 8    | 213113 | Resistance V230W90           |
| 2    | 43H007 | Plug           | 9    | 45B001 | Thermostat 80°C              |
| 3    | 224216 | Grommet        | 10   | 173323 | Plate                        |
| 4    | 184158 | Pin            | 11   | Z27P14 | Padding complete with canvas |
| 5    | 340019 | Board          | 12   |        |                              |
| 6    | 173343 | Deflector      | 13   |        |                              |
| 7    | 224298 | Terminal cover |      |        |                              |

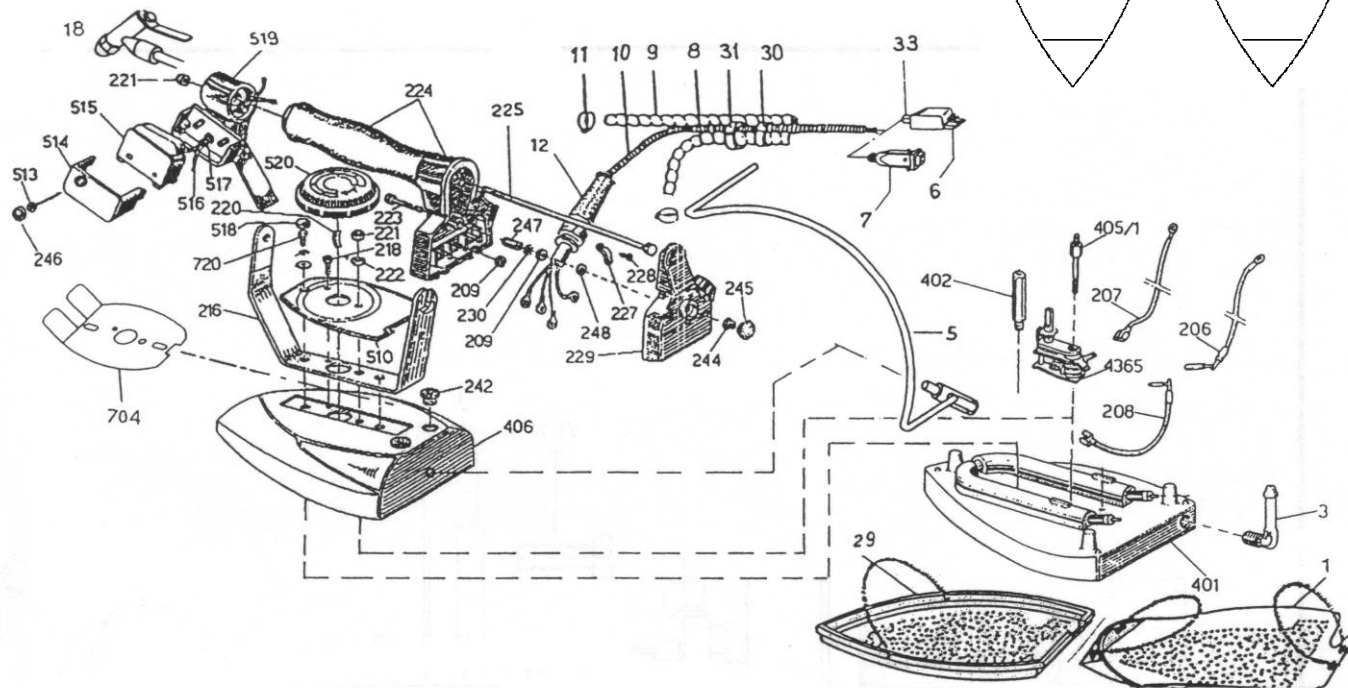
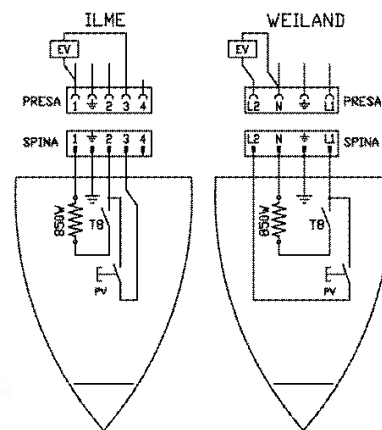
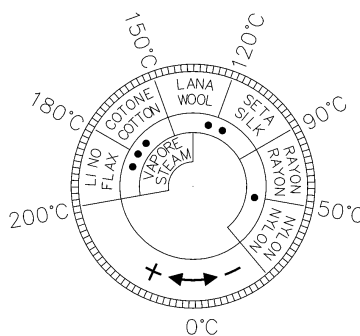
Iron mod. K code Z18D00



| COD E  | DESCRIPTION                           | CODE   | DESCRIPTION                      | CODE   | DESCRIPTION                    |
|--------|---------------------------------------|--------|----------------------------------|--------|--------------------------------|
| 364273 | Grommet for resistance axis           | 364278 | Handle back self-threading screw | 364287 | Iron front handle fitting      |
| 364256 | Iron electric wire                    | 364279 | Iron micro closing screw         | 364288 | Iron back handle fitting       |
| 364274 | Bulbe for pressure switch screw       | 364280 | Micro holder 3,5 x 19 AU screw   | 364289 | Iron screw cover caps          |
| 364257 | Nickel-plated brass hose holder elbow | 364281 | Handle fitting M5 x 10 ZNB screw | 364290 | Spacing brass washer           |
| 364258 | Finished iron plate                   | 364282 | Terminal box blocking screw      | 364291 | Male-female brass spacer       |
| 364259 | Adjustable thermostat                 | 364283 | Iron handle cover                | 364267 | Complete micro for iron        |
| 364260 | Manual reset thermostat               | 364284 | Iron handle back                 | 364292 | Iron handle blocking screw     |
| 364261 | Cork handle                           | 364285 | Iron button holder               | 45H006 | Black bakelite knob            |
| 364275 | Hanger for iron                       | 364286 | Iron button holder cover         | 364293 | Under-handle washer for screws |
| 364270 | Cap for iron                          | 364263 | Iron upper button                | 364294 | Under-handle washer for knob   |
| 364262 | Iron wiring                           | 364264 | Iron lower button                | 364268 | Electric wire grommet          |
| 364276 | Insert for iron handle                | 364265 | Iron hanger cover plate          | 364269 | 4-pole terminal box            |
| 364277 | Thermostat fitting M4 x 22 screw      | 364266 | Iron cable clamp                 |        |                                |

**EXPLODED VIEW IRON "U" code: Z01L15**

| TECHNICAL CHARACTERISTICS |                |
|---------------------------|----------------|
| Power supply              | 220V 50 Hz     |
| Iron resistance           | 0.830 Kw       |
| Operating temperature     | + 5 ÷ + 80 °C  |
| Temperature humidity      | 90 % max.      |
| Storage temperature       | - 20 ÷ + 50 °C |
| Net weight                | 1.8 Kg         |



| Pos.  | CODE   | DESCRIPTION                          | Pos. | CODE   | DESCRIPTION                                 |
|-------|--------|--------------------------------------|------|--------|---|
| 4365  | 45A005 | Thermostat with thermal fuse         | 224  | 222056 | Handle                                      |
| 720   | 184453 | Carter fitting screw                 | 223  | 184457 | Handle blocking screw                       |
| 704   | 253297 | Hand guard                           | 222  | 514057 | Carter fitting nut                          |
| 520   | 224217 | Knob                                 | 221  | 514056 | Handle tie rod nut                          |
| 519   | 173236 | Micro holder                         | 220  | 534288 | Knob spring                                 |
| 518   | 22K038 | Carter screw cap                     | 218  | 184455 | Carter fitting screw                        |
| 517   | 224217 | Sheath                               | 216  | 172057 | Handle support                              |
| 516   | 304284 | Micro wires                          | 209  | 514055 | Terminal box nut                            |
| 515   | 43D009 | Micro complete with wires and sheath | 208  | 304282 | Thermostat resistance electric connection   |
| 514   | 43K007 | Micro-switch box                     | 207  | 304281 | Thermostat terminal box electric connection |
| 513   | 184451 | Micro screw                          | 206  | 304280 | Resistance terminal box electric connection |
| 510   | 264350 | Identification plate                 | 33   | 224255 | Plug grommet                                |
| 406   | 253255 | Carter                               | 31   | 224260 | Cable fastener terminal                     |
| 405/1 | 174020 | Thermostat column                    | 30   | 224215 | Spring                                      |
| 402   | 174019 | Column carter                        | 29   | Z23E01 | Reinforced Teflon pad                       |
| 401   | 253254 | Plate with resistance                | 18   | 25A002 | Spray device                                |
| 248   | 184449 | Insulating washers                   | 12   | 224210 | Grommet                                     |
| 247   | 174018 | Mass spacer                          | 11   | 51X005 | Cable tie                                   |
| 246   | 22K037 | Micro stopper                        | 10   | Z23C00 | Electric wire                               |
| 245   | 22K036 | Stopper cap                          | 9    | 07A002 | Silicone pipe                               |
| 244   | 514058 | Back cover nut                       | 8    | 07A001 | Rubber pipe                                 |
| 242   | 224245 | Gommet                               | 7    | 43H009 | Ilme plug                                   |
| 230   | 184448 | Dented washer                        | 6    | 43H002 | Wieland plug                                |
| 229   | 222133 | Back cover                           | 5    | 174009 | Articulated iron holder                     |
| 228   | 184450 | Easel screw                          | 3    | 364297 | Hose holder                                 |
| 227   | 174353 | Blocking easel                       | 1    | Z23E00 | Teflon pad                                  |
| 225   | 183255 | Handle tie rod                       |      |        |   |

## 6 MACHINE PACKING AND INSTALLATION

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**WARNING:** This device can be installed, opened and repaired by specialized personnel only.

### 6.1 UNPACKING

After choosing the suitable site to install the machine, open the packing and remove the device. Check that it has suffered no damage during transportation and storage. The packing material can be disposed of normally, no special precaution is required since it is neither dangerous nor a pollutant. Comply with local disposal regulations.

### 6.2 MACHINE INSTALLATION

The machine needs no anchoring to the floor, except onboard moving means

Provide for adequate installation room, leaving enough surrounding space to allow correct operation and assistance.

Do not install the machine in aggressive and/or deflagrating/flammable environments.

### 6.3 ELECTRIC CONNECTIONS

Connect the machine to the electric line as indicated in the drawing, checking that the voltage and frequency match the data on the plate.

The power wire section must be suitable for the machine's absorption and of a type compliant with the regulations in force.

We advise to fit on the line a circuit breaker with fuses or a magneto-thermal circuit breaker. Insert the wire in the hole fitted with a wire gland, then tighten. Connect the wire to the line incoming terminals in the electric panel as indicated in the drawing of this manual.

**N.B.:** When all connections are completed, make sure the wires are protected from possible shocks and suitably fitted and insulated.

### 6.4 WATER AND BOILER DISCHARGE CONNECTION

**Machine with built-in boiler only.** Connect the water pipework to the machine's Ø 12 hose holder. Fit a shutoff valve and a filter on the water supply, which must be closed every night to prevent water backwash in the boiler. Connect the gate valve of the boiler discharge (G 3/8" threading) to the sewers.

**Machine without built-in boiler only (steam connection to small generator.)** Connect the water supply to the machine in the relevant G 1/4" threaded hole. We advise the use of a pipe with a minimum internal 6 mm diameter. Fit a gate valve on the pipework to isolate the machine from the plant. Maximum steam pressure should not exceed 5 bar. Connect the condensate return to the machine in the relevant Ø 1/4" hole. In this case as well, use a pipe with a minimum internal 6 mm diameter. Fit a gate valve on the pipework to isolate the machine from the plant. We recommend not to bend pipes at a square angle but to give them a 50-mm minimum radius curve. The pipework should have a constant slope, especially the condensate return one. Do not create siphons, do not fit couplings or gate valves whose diameter is lower than the pipework, do not create pipework longer than 2.5 m. The condensate return hole on the machine must be at least 150 mm higher than the water level in the boiler.

**Machine without built-in boiler only (steam connection to centralized plant).** Derive from the upper part of the steam supply duct of the centralized plant a 3/8" Gas pipe and, close to the machine, fit a gate valve. Connect then to the steam inlet of the machine a Ø3/8" Gas pipe, using a pipe with a minimum internal 10-mm diameter. For the condensate return, make a pipework identical to the steam one and, close to the machine, fit a gate valve. On the condensate return coupling of the machine, Ø3/8" Gas, fit a filter-equipped condensate discharge followed by a check valve. Connect to the gate valve a pipe with a minimum 10-mm diameter. Maximum steam pressure should not exceed 5 bar.

## 7 OPERATION INSTRUCTIONS

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### 7.1 STARTING UP

- The unit can be used, opened and repaired by specialized personnel only.
- DO NOT use the machine if it is immersed in fluids or in a particularly aggressive or deflagrating/flammable environment.
- Do not overlook hazards to health and comply with health and safety regulations.
- Check that the electric connection is correctly made and compliant with the regulations in force, and that all fuse boxes are closed and complete with their fuses.
- Check the machine's integrity.

## 7.2 IRONING BOARD HEIGHT ADJUSTMENT

- Make sure the machine is turned off and that the ironing board is completely free of any object.
- Turn counterclockwise the two handles fitted on the side of the machine.
- Hold the wide part of the ironing board with both hands and raise or lower it as needed.
- Upon reaching the desired height, tighten the handles by turning them clockwise.

## 7.3 ACTIONS TO PERFORM BEFORE ANY STARTING UP

- Check that the boiler's control and safety devices (pressure gauge, pressure switch and safety valve) are intact and that the automatic level indicator, the pump (if fitted) and the water solenoid valve are not blocked.
- Check that the boiler discharge valve is tightly closed.
- Set all the switches and board thermostat in OFF position.

## 7.4 USE

- (Machine with boiler) Open the supply shutoff valve.
- (Machine without boiler) Open the steam and condensate return valves.
- Activate the general switch of the machine.
- Press the built-in boiler switch (water starts to enter the boiler), press the switch of the iron to which the heated board resistance is connected, the working board resistance, the lighting and the suction device.
- Adjust the board's and the iron's thermostats to the desired temperature.
- The water supply warning light turns on automatically (water starts entering the boiler).
- When water reaches the set level, the relevant warning light automatically turns off and the boiler's resistance turns on, as well as the boiler resistance warning light.
- After a few minutes, the boiler reaches its 2.8-bar operating pressure (check pressure on pressure gauge) and the relevant warning light automatically turns off.
- The generator is ready to supply steam.
- Wait for the boards and iron to reach the set temperature.
- The machine is ready for use.
- Press the right pedal to activate air suction on the board.
- Upon completing the work, turn the board off using the relevant buttons.

## 7.5 USING THE ARM

- In working position, with the point of the board turned to the left, make sure the board-arm switching device is in "open arm" position (the knob on the right must be pulled and away from the board.) Grab the sleeve board and pull it over the board in working position.

## 7.6 USING THE SUCTION BOARD

- Lay the garment on the board and press the suction pedal. The garment will stick to the surface under the force of the sucked air. Proceed with the ironing.

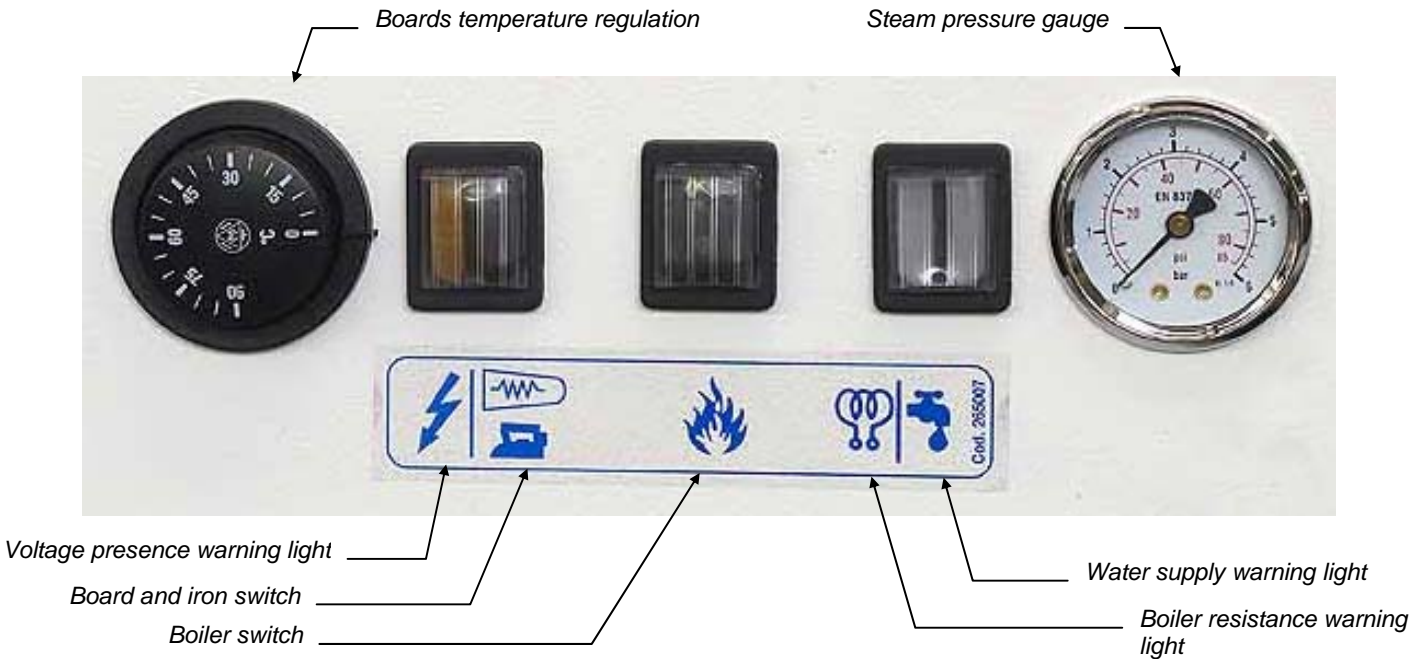
## 7.7 USING THE IRON

- Turn on the iron switch on the machine.
- Use the knob to adjust the iron temperature as needed for ironing.
- Wait for a few minutes before starting to work, to let the plate reach the set temperature.
- If it is necessary to keep the iron plate temperature very high, we advise to fit a Teflon<sup>®</sup> pad to avoid burning the garment.
- Press the switch on the side of the handle to let the steam out.
- Do not use steam when the iron's thermostat is below 110°C to prevent unpleasant and noxious leaks of condensate.
- When pipework exceed 2.5 m, keep the thermostat temperature rather high and do not perform the first spraying on the garment to be ironed, since the steam, going through the cold pipe, condensates and, if the plate temperature cannot spray it, water comes out.
- The steam quantity can be adjusted by means of the knob on the solenoid valve, turning it clockwise to reduce it and counterclockwise to increase it.

**N.B.:** Connect the iron's plug only to the relevant sockets on the machine, and never leave the iron turned on.

7.8 USING THE "AIR-STEAM GUN" FOR STAIN REMOVAL

- Make sure suction has been switched to the arm.
- Bring the stain removal board in working position.
- Lay the garment to be treated on the stain removal board and place the stain over the suction area.
- Press the steam button, pointing the nozzle towards a container to let condensate exit until steam comes out.
- Approach the gun to about one centimeter of the area to be treated and simultaneously press the suction pedal and the steam button on the gun.
- Once the stain is dissolved, dry the treated area by pressing simultaneously the suction pedal and the air button on the gun.



8 PROBLEMS AND SOLUTIONS

We hereunder report a diagnostic table which indicates the main problems, their probable causes and possible solutions. When in doubt and/or in case of unsolvable problems, do not try and look for the malfunction by dismantling parts of the machine, but contact the Ghidini Technical Department or a dealer.

| DIAGNOSTIC TABLE (all machines)                 |  |  |
|---|--|--|
| PROBLEMS  | PROBABLE CAUSES  | SOLUTIONS  |
| <b>The machine fails to turn on</b>             | General switch deactivated                               | <i>Check if the general switch is on and the fuses condition</i>                                     |
|   | Switch turned off  | <i>Turn switch on</i>  |
| <b>No steam comes out</b>                       | Iron or boiler activation switches off                   | <i>Turn switch on</i>  |
| <b>No suction on the boards</b>                 | Suction motor not working                                | <i>Check if the microswitch fitted on the suction pedal is working, and replace it if needed.</i>    |
|   |  | <i>On single-phased motors, check condensator and replace it if needed</i>                           |
|   |  | <i>Check the pedal stroke and make sure the microswitch is pressed.</i>                              |
|   |  | <i>Check the motor and, if burnt, replace it</i>   |
|   | Pedal micro malfunction                                  | <i>Replace micro-switch</i>  |
| <b>The iron does not work</b>                   | Electric connections and power supply                    | <i>Check if the iron switch on the machine control panel is ON</i>                                   |
|   |  | <i>Check if the iron's plug is correctly fitted in the right socket</i>                              |
| <b>Little steam from iron</b>                   | Steam flow adjustments                                   | <i>Check if the steam flow regulation knob on the solenoid valve is not closed. Adjust as needed</i> |
| <b>The heated sleeve board fails to warm up</b> | Electric connections and regulations <b>"Warning: do</b> | <i>The board is connected to the iron's switch. Check if it is ON.</i>                               |

|                                   |   |  |
|-----------------------------------|---|--|
|                                   | <b>not exclude thermostat. Resistance must always be ON. <u>Fire hazard</u></b> | <i>Check if the board's plug is correctly set in the correct socket and check connection efficiency; "the continuous displacements of the board might damage them"</i><br><i>Check resistance continuity and, if burnt, replace it</i><br><i>Check thermostat efficiency</i> |
| <b>The board does not heat up</b> | Electric connections and regulations  | <i>Board connected to the iron's switch. Check if it is ON</i><br><i>Check if thermostat is working or is not on zero position. Replace it or set it to the desired temperature</i><br><i>Check resistance continuity, if burnt, replace it</i>                              |

| <b>DIAGNOSTIC TABLE (Machines with boiler)</b>                                       |  |   |
|--|--|---|
| PROBLEMS   | PROBABLE CAUSES                                | SOLUTIONS   |
| <b>Water warning light ON, pump keeps loading without stopping</b>                   | Water fails to enter the boiler                | <i>Check if the water tap is open</i>   |
|  |  | <i>Check water solenoid valve opening</i>   |
|  |  | <i>Check if there is pressure in the water circuit</i>  |
|  |  | <i>Check if the water filter is not clogged</i>   |
| <b>Water warning light OFF, too much water in boiler</b>                             | Water supply solenoid valve dirty or defective | <i>Check or replace water supply solenoid valve</i>   |
| <b>Resistance warning light remains ON, boiler fails to reach operating pressure</b> | Leak at boiler discharge                       | <i>Check if the boiler's gate valve is tightly closed</i>   |
|  | Resistance burnt or covered with calcium       | <i>Check resistance condition</i>   |
| <b>Pump fails to work</b>  | Regulations or power problems                  | <i>Check level bubble regulation</i><br><i>Check if thermal or condensator (single-phased motor), replace malfunctioning components</i> |
|  | Pump blocked                                   | <i>Unblock or replace pump</i>  |
| <b>Steam is streaming from boiler safety valve</b>                                   | Pressure switch or safety valve                | <i>Replace pressure switch</i>  |
|  |  | <i>Clean or replace safety valve</i>  |

| <b>DIAGNOSTIC TABLE (Machines without boiler)</b>               |                 |  |
|---|-----------------|--|
| PROBLEMS  | PROBABLE CAUSES | SOLUTIONS  |
| <b>Steam very humid even after various ironing cycles</b>       | Plant problems  | <i>Check if discharge fitted in exact position and not blocked</i>                     |
|   |                 | <i>Check if check valve has been fitted in the right direction</i>                     |
|   |                 | <i>Check if there is no siphon on condensate return pipework</i>                       |
| <b>Insufficient steam</b>                                       | Plant problems  | <i>Check if generator produces steam at a 2-3 bar pressure</i>                         |
|   |                 | <i>Section of pipes used for plant too small</i>                                       |
|   |                 | <i>Check if there are clogging on plant (crushed pipes or half-closed gate valves)</i> |
| <b>Very humid steam mixed to condensate streaming from iron</b> | Plant problem   | <i>Check if filter on condensate discharge is clean</i>                                |
|   |                 | <i>Condensate discharge does not work regularly</i>                                    |
|   |                 | <i>Check valve fitted after discharge remains open</i>                                 |
|   |                 | <i>Check valve on condensate return does not work regularly</i>                        |
|   |                 | <i>Steam generator does not work regularly</i>   |

**WARNING:** if the safety valve is activated, immediately turn the boiler off and call a qualified technician. Do not stop the discharge and, in any case, do not underestimate the problem. Explosion hazard.

## 9 PRECAUTIONS FOR USE

Read with attention the warnings and hazards associated to the use of an ironing board. The operator must know the machine's operation and clearly understand such hazards by using the manual.

If the machine is equipped with an iron, do not leave it on for long and always put it on its support. The machine's working surfaces and metal plate remain hot for some minutes after it has been turned off. Beware of the burning hazard and do not put objects on them until they have completely cooled down.

### Electric power

Before any intervention on the machine, disconnect it from its power supply and take steps to make sure that no one can reconnect it during said intervention. All installed, electric and electronic equipment, and basement structures must be earthed.

### Flammability

It is advised to use every mean available to prevent any contact between the machine and very hot parts or free flames. Make sure extinguishers are always available by the machine for a quick intervention in case of fire.

### Pressure/Steam

Before any intervention, turn the boiler off, wait for the pipes to cool down and make sure no pressure is left in the boiler and in any part of the hydraulic circuit, which might cause spurts of steam when dismantling connections or components.

### Noise

No excessive noise is released by the machine, which remains under 70 dB(A).

## 10 WARNINGS

Compliance checks to the essential safety requisites and to the provisions prescribed in the machines directive are to be carried out by filling out pre-drafted check lists enclosed in the *technical file*.

Two types of such lists are used:

- list of hazards (taken from EN 1050 in reference to EN 292)
- implementation of essential safety requisites (Dir. Machines - att. 1, part 1)

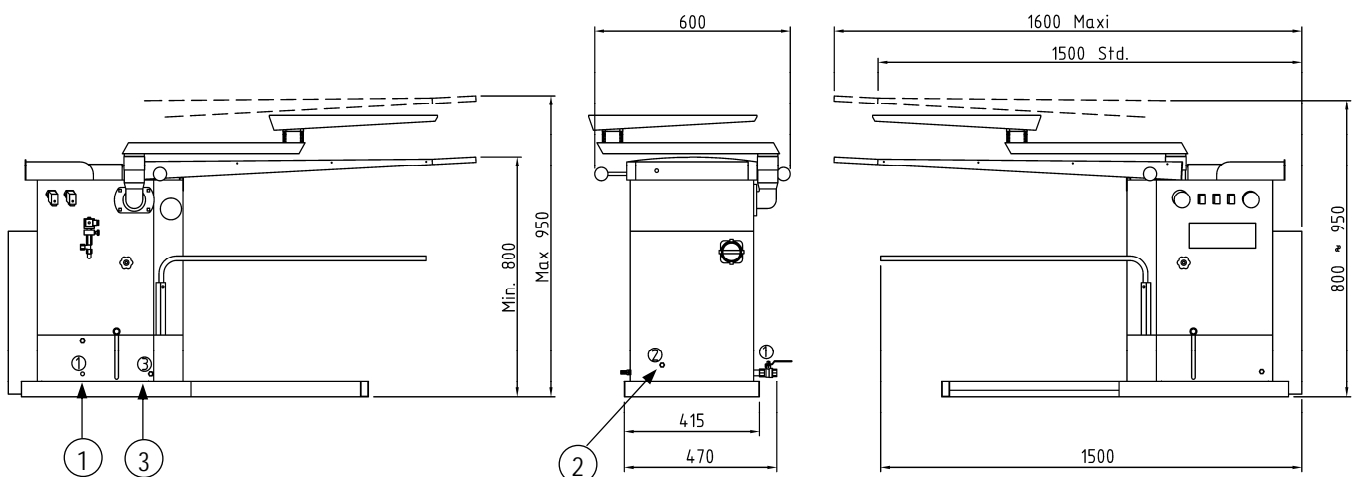
**We hereunder list those hazards not completely eliminated, yet deemed acceptable:**

- during maintenance, low pressure spurts of steam are possible (in any case, suitable PPEs should be worn during such operation).
- Protection against direct and indirect contacts with steam should be provided for by the user.

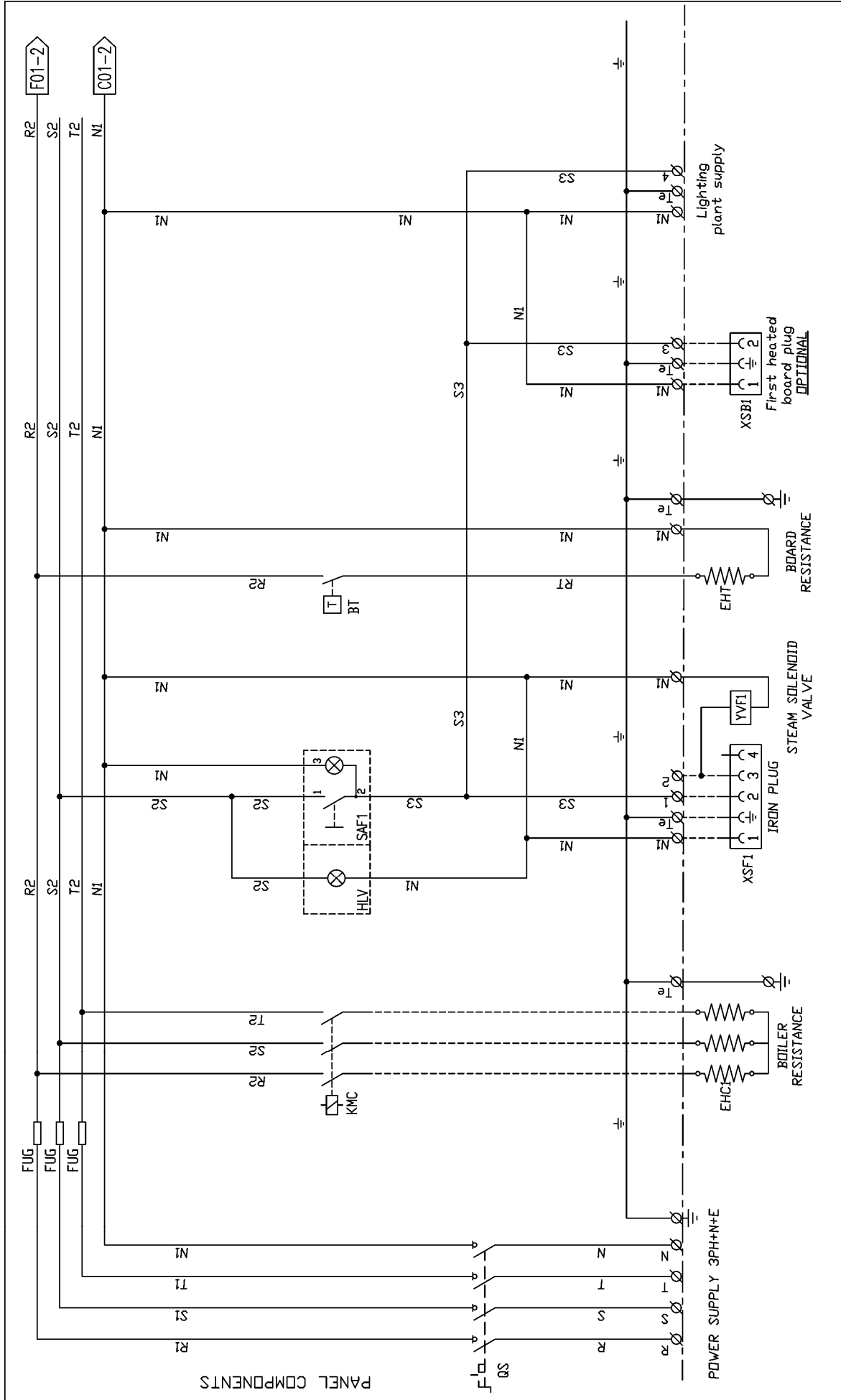
## 11 DIMENSIONS AND DRAWINGS

1 – Boiler discharge (3/8" F gas)  
2 – Water supply (pipe sleeve 12)

3 – Power supply







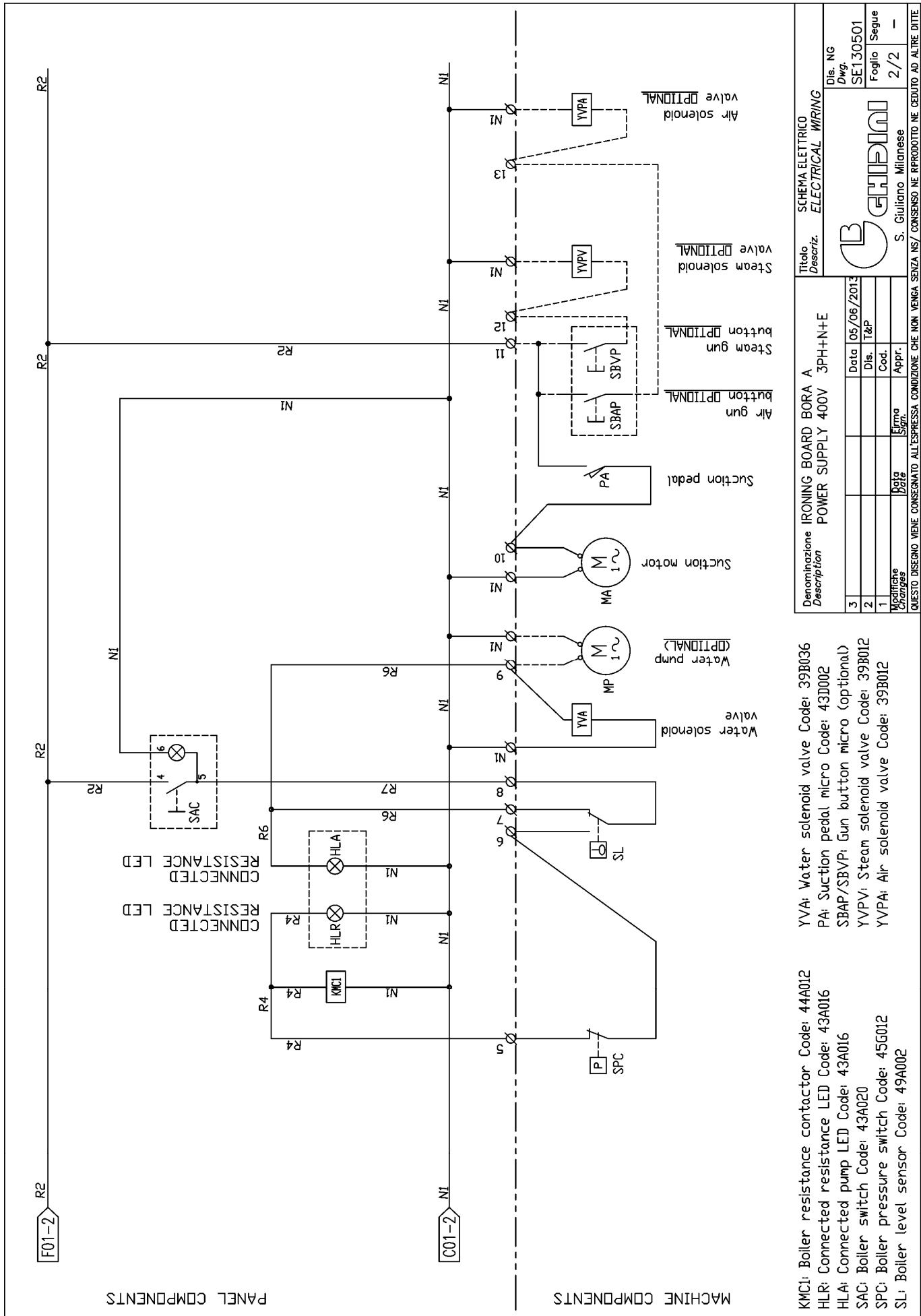
|                              |  |                      |  |
|------------------------------|--|----------------------|--|
| Denominazione<br>Description |  | IRONING BOARD BORA A |  |
| 3PH+N+E                      |  | POWER SUPPLY 400V    |  |
| Data                         |  | 05/06/2013           |  |
| Dis. T&P                     |  | T&P                  |  |
| Cod.                         |  |                      |  |
| Appr.                        |  |                      |  |
| Firma                        |  |                      |  |
| Data                         |  |                      |  |
| Dis. NG                      |  | SE130501             |  |
| Foglio                       |  | 1/2                  |  |
| Segue                        |  | 2/2                  |  |

Titolo Descriz. SCHEMA ELETTRICO ELECTRICAL WIRING  
 Dis. NG SE130501  
 Foglio 1/2  
 Segue 2/2  
**GHIPINI**  
 S. Giuliano Milanese

Denominazione  
 Description  
 3PH+N+E  
 POWER SUPPLY 400V  
 Data 05/06/2013  
 Dis. T&P  
 Cod.  
 Appr.  
 Firma  
 Data  
 Dis. NG  
 SE130501  
 Foglio 1/2  
 Segue 2/2

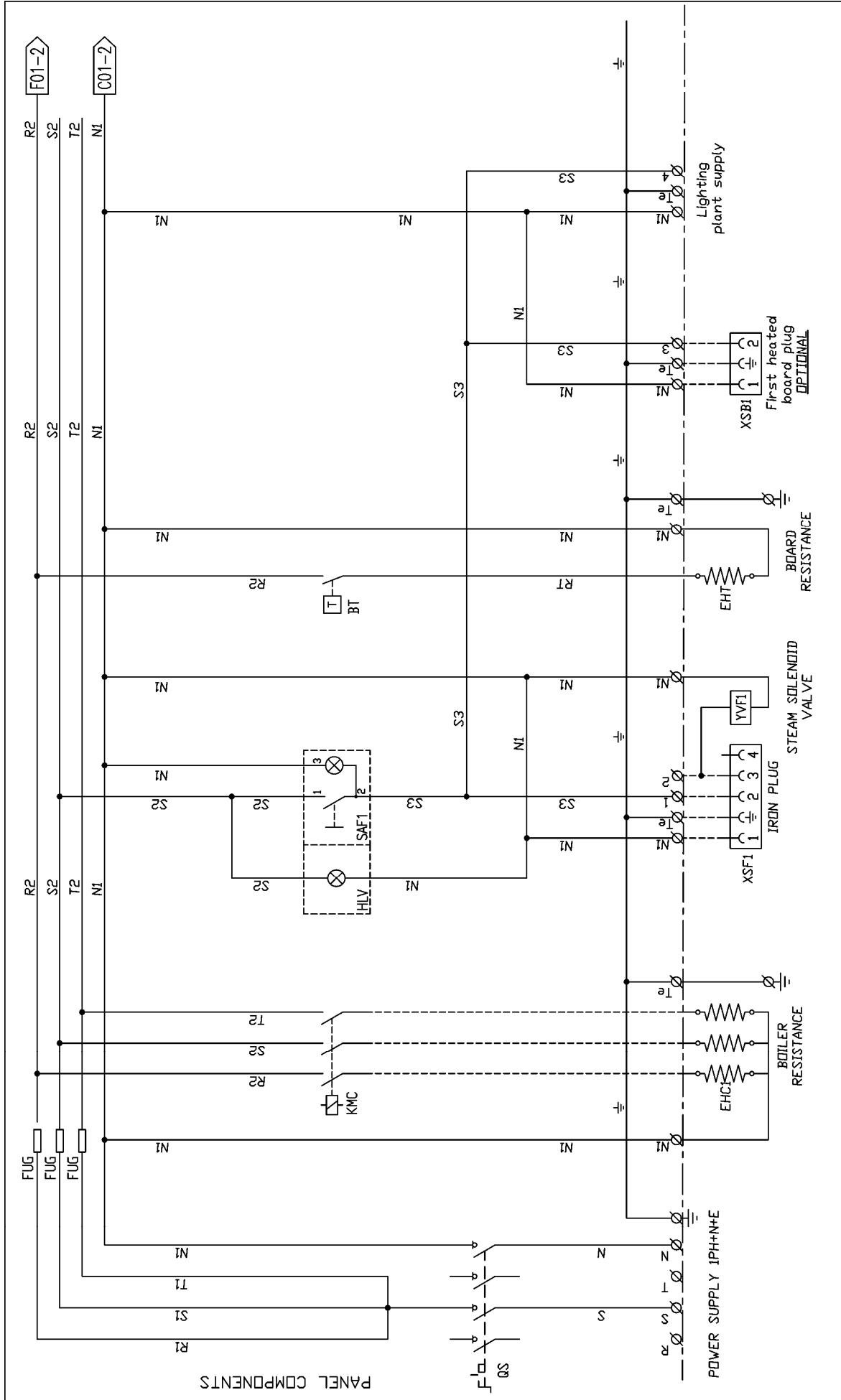
QS: 40A circuit breaking switch Code: 43A038  
 FUG: 20A GL fuse Code: 43F020  
 FUG: Fuse box Code: 43F017  
 KMC: Contactor Code: 44A012  
 HLV: Voltage LED Code: 43A011  
 SAF1: Iron switch Code: 43A011  
 BT: Board thermostat Code: 45A010  
 EHT: Board resistance Code: 213005  
 XSB1: First heated board plug (optional)  
 XSF1: Iron plug Code: 431000 + 43G004  
 YVF1: Steam solenoid valve Code: 39B012

QUESTO DISEGNO VIENE CONSEGNATO ALL'ESPRESSA CONDIZIONE CHE NON VENGA SENZA NS/ CONSENSO NE RIPRODOTTO NE CEDUTO AD ALTRE DITTE



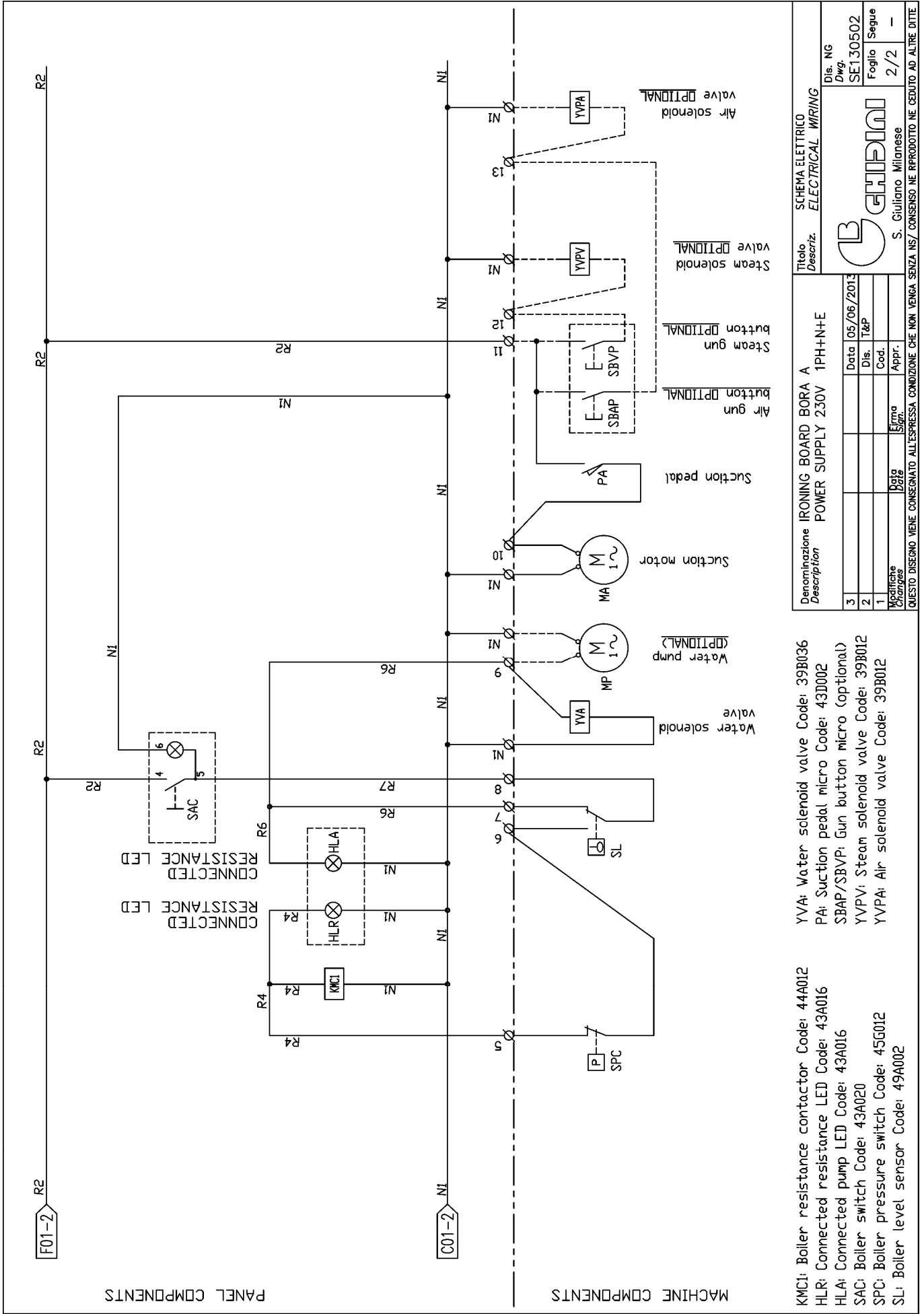
|   |               |                      |  |
|---|---------------|----------------------|--|
| Denominazione<br>Description                                    |               | IRONING BOARD BORA A |  |
| POWER SUPPLY 400V   |               | 3PH+N-E              |  |
| 3   | Data          | 05/06/2013           |  |
| 2   | Dis.          | T&P                  |  |
| 1   | Cod.          |                      |  |
| 1   | Appr.         |                      |  |
| 1   | Y. Caricatore | 1                    |  |
|   | Y. Data       |                      |  |
|   | Y. Segn.      |                      |  |
| Titolo<br>Descriz. SCHEMA ELETTRICO<br>ELECTRICAL WIRING        |               |                      |  |
| Dis. NG   |               | SE130501             |  |
| Dwg.  |               | Foglio               |  |
| 2/2   |               | Segue                |  |
| S. Giuliano Milanese<br><b>GIUPPINI</b><br>S. Giuliano Milanese |               |                      |  |

KMCI: Boiler resistance contactor Code: 44A012  
 HLR: Connected resistance LED Code: 43A016  
 HLA: Connected pump LED Code: 43A016  
 SAC: Boiler switch Code: 43A020  
 SPC: Boiler pressure switch Code: 45G012  
 SL: Boiler level sensor Code: 49A002  
 YVA: Water solenoid valve Code: 39B036  
 PA: Suction pedal micro Code: 43D002  
 SBAP/SBVP: Gun button micro (optional)  
 YVPV: Steam solenoid valve Code: 39B012  
 YVPA: Air solenoid valve Code: 39B012



|                              |  |   |  |
|------------------------------|--|---|--|
| Denominazione<br>Description |  | IRONING BOARD BORA A<br>POWER SUPPLY 230V 1PH+N+E |  |
| Titolo<br>Descriz.           |  | SCHEMA ELETTRICO<br>ELECTRICAL WIRING             |  |
| Dis. NG                      |  | SE130502  |  |
| Dwg.                         |  | Foglio  |  |
| 1/2                          |  | 2/2   |  |
| Seque                        |  | S. Giuliano Milanese                              |  |
| Magnetic Changes             |  | Data  |  |
| Date                         |  | 05/06/2013  |  |
| Appr.                        |  | T&P   |  |
| Cod.                         |  |   |  |
| Firma                        |  |   |  |

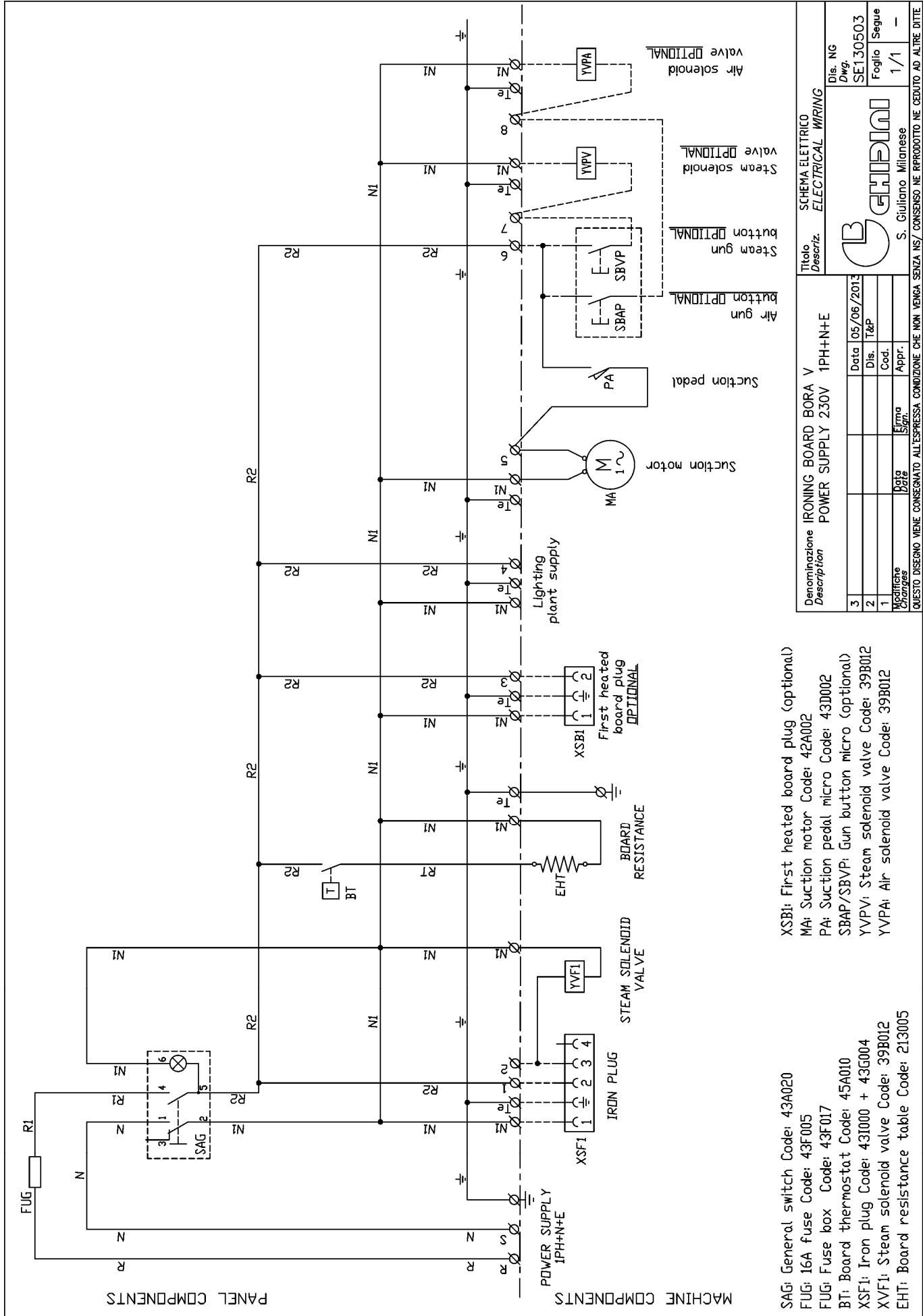
QS: 40A circuit breaking switch Code: 43A038  
 FUG: 20A GL fuse Code: 43F020  
 FUG: Fuse box Code: 43F017  
 KMC: Contactor Code: 44A012  
 HLV: Voltage LED Code: 43A011  
 SAF1: Iron switch Code: 43A011  
 BT: Board thermostat Code: 45A010  
 EHT: Board resistance Code: 213005  
 XSB1: First heated board plug (optional)  
 XSF1: Iron plug Code: 431000 + 43G004  
 YVF1: Steam solenoid valve Code: 39B012



| Denominazione             |      | Data       |       |
|---------------------------|------|------------|-------|
| IRONING BOARD BORA A      |      | 05/06/2013 |       |
| Description               |      | Dis.       | T&P   |
| POWER SUPPLY 230V 1PH+N-E |      | Cod.       | Appr. |
| 3                         |      |            |       |
| 2                         |      |            |       |
| 1                         |      |            |       |
| Modifiche                 | Data | Firma      |       |
| Critiques                 | Date | Sign.      |       |

| Titolo            |  | Dis. NG  |  |
|-------------------|--|----------|--|
| SCHEMA ELETTRICO  |  | SE130502 |  |
| Description       |  | Foglio   |  |
| ELECTRICAL WIRING |  | Segue    |  |
|                   |  | 2/2      |  |
|                   |  | -        |  |





|                              |  |                                       |  |
|------------------------------|--|---------------------------------------|--|
| Denominazione<br>Description |  | IRONING BOARD BORA V                  |  |
| Description                  |  | POWER SUPPLY 230V 1PH+N+E             |  |
| Titolo<br>Descriz.           |  | SCHEMA ELETTRICO<br>ELECTRICAL WIRING |  |
| Data                         |  | 05/06/2013                            |  |
| Dis.                         |  | T&P                                   |  |
| Cod.                         |  |                                       |  |
| Appr.                        |  |                                       |  |
| Modifiche<br>Changes         |  | Data<br>Date                          |  |
| Firma<br>Sign.               |  | Appr.                                 |  |
| Dis. NG                      |  | SE130503                              |  |
| Foglio                       |  | Segue                                 |  |
| 1/1                          |  | -                                     |  |



- SAG: General switch Code: 43A020
- FUG: 16A fuse Code: 43F005
- FUG: Fuse box Code: 43F017
- BT: Board thermostat Code: 45A010
- XSFI: Iron plug Code: 43I000 + 43G004
- XVFI: Steam solenoid valve Code: 39B012
- EHT: Board resistance table Code: 213005
- XSBI: First heated board plug (optional)
- MA: Suction motor Code: 42A002
- PA: Suction pedal micro Code: 43D002
- SBAP/SBVP: Gun button micro (optional)
- YVPV: Steam solenoid valve Code: 39B012
- YVPA: Air solenoid valve Code: 39B012

## 12 MAINTENANCE PROCEDURES

In case of abnormalities or malfunctions, please contact the Technical Assistance for the relevant checks.

**Perform periodical checks as to:**

| OPERATION                                      | WORK HOURS |
|--|------------|
| Discharge boiler (*)                           | 40         |
| Clean water filter                             | 1.500      |
| Clean boiler, resistance elements, check level | 2.500      |
| Check safety valve, connections and couplings  | 1.500      |

(\*) Discharge the boiler when pressure is 1 bar to eliminate calcium deposits and impurities. When the machine is turned off, progressively open the boiler discharge valve. It is recommended to carry out this operation before starting work, not in the evening after work, since the new water sent into the boiler is rich in oxygen which, during the night, increases the corrosion process in the body.

If the stain removal gun performances decrease, clean the filter net by dismantling the liquid inlet coupling, the nozzle and the cap. If, after these small maintenance operations the problem remains call a qualified technician.

Checking and/or maintenance activities on the machine require no special tooling. However, it is recommended to use tools and personal protections suitable for use in compliance with D. Lgs. 626/94 and in good conditions (DPR 547/55) to prevent damages to persons or parts of the machines.

**Make sure electric and hydraulic power supplies are disconnected before performing any maintenance intervention.**

## 13 DISPOSAL

During machine maintenance or when dismantling it, do not leave contaminating parts around. Refer to local regulations for their correct disposal. When dismantling the machine, destroy the identification plate and any other document.

## 14 ORDERING INFORMATION FOR SPARE PARTS

When requesting spare parts, always indicate:

machine model, serial number, number of parts needed, code number of the part (these can be found on the plate, in the machine's technical data and in the operator's and maintenance manual).

For electrical components whose voltage and frequency differ from V 220-380/50Hz (check these data on the plate of the malfunctioning component), follow the code with the exact voltage and frequency.

The data, description and illustrations contained in this manual are in no way binding.

The factory reserves the right to make at any time all the changes that will be deemed suitable, with no obligation to update this manual.

## 15 HANDLING AND TRANSPORTATION

Before shipping the machine is accurately packed inside a cardboard crate. During transportation and storage, pay attention to the directions reported on the package. Upon receiving the machine, check whether the package is damaged or not and store the machine in a dry place.

## 16 WARRANTY

A 12-month maximum warranty is attached to all Ghidini products from the delivery date to cover manufacturing and material defects.

**This warranty is applied as hereunder indicated:**

In case of device malfunction, contact the Ghidini dealer and accurately describe the defect, indicating model, serial number, product code as well as the conditions of use of the product in question.

Upon receiving the device, and based upon accurate analyses, Ghidini reserve the right to decide whether to repair or to replace the product. If the warranty is still valid, the Ghidini dealer will repair or replace it at our expenses.

If the returned product is not defective, Ghidini will be entitled to decide whether or not to charge the sustained costs (transportation, etc.) to the customer.

This warranty will become null and void in case the damages or lesions reported on the products are the result of improper use, negligence, normal wear, chemical corrosion, installation non-compliant with the expressly indicated instructions and failure to use it as per the manufacturer's recommendations. Any modification, tampering and alteration of the equipment or parts thereof without previous written authorization from Ghidini will relieve them from any liability and warranty obligation.

The parts subject to normal wear and the perishable ones are not covered under this warranty.

Anything not expressly indicated herein, as well as damages, lesions or costs due to defects of the product are excluded from the warranty.

The validity conditions of the Ghidini warranty are implicitly deemed accepted at the time of purchase of the product. Any modification or derogation to this warranty will become valid solely upon previous written authorization from Ghidini.

## 17 DECLARATION OF COMPLIANCE

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**Manufacturer:**

GHIDINI  
Company

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

+39 -02 -98.24.06.00  
Telephone

**We hereby certify that:**

**The machine:**

Ironing board - **BORA A / V**

- \* has been manufactured in compliance with the Directives of the EUROPEAN COMMUNITY COUNCIL on machines (98/37/CE) and on low voltage (BT 73/23/CEE).
  - \* has been manufactured, as far as possible, in compliance with the following standards and harmonized technical specifications: EN 292-1/2, EN 1050, EN 982, EN 11200, EN 60947, EN 894-1/2.
- 

Managing Director  
Product Manager

Roland Fleischmann  
Name

GHIDINI S.R.L.  
Company



Signature

May 2013  
Date



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