

Manufacturer	GHIDINI BENVENUTO s.r.l.
Product	Ironing Board – EOLO M
Year	2011
Certification	CE

This manual is written in compliance with Directive CE 98/37, Attachment I, paragraph 1.7.4

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1 INTRODUCTION

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This user's and maintenance manual refers to the "EOLO M" and "EOLO M + boiler" ironing board. It is possible to request the latest release to our Technical Commercial Department or by visiting our website <u>www.ghidini-gb.it</u>.

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 EOLO M ironing board is fitted with a spacious quadrangular working plane, available in two sizes: 130x80 cm or 160x80 cm, and two optional arms, fitted with a sleeve ironing board, both padded, electrically heated and fitted for suction, a control panel to adjust plane temperature and a pedal to activate the ironing planes suction device. Available upon request with a built-in automatic and electric boiler and an iron.

Upon request, it is possible to fit the following components: complete steam iron group (for the version without boiler), a steam-air gun, a steam gun, a heated pelvis ironing board, a stainless steel stain removal board, an iron resting structure and a plane lighting plant.

In order to work, the version without boiler uses external steam and power supply sources, whereas the version with boiler uses external water and power supply sources.

3 MACHINE IDENTIFICATION

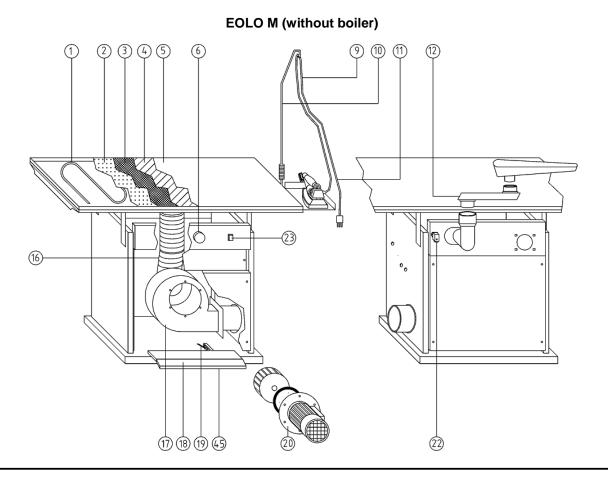
A plate which reports the model, serial number, year of manufacture, voltage and supply pressures is fitted on the side of the machine.

4 TECHNICAL FEATURES

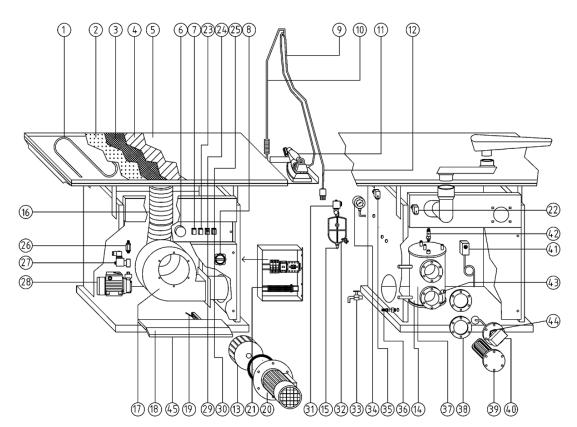
EOLO M	without boiler	with boiler					
Power supply		230V – 1ph / 50 Hz					
Device construction		Iron	Arm	Board	Boiler		
Power consumption		0.83 Kw	0.14 Kw	1 Kw	3,3 - 3,9 - 4,8 Kw		
Suction motor		0.6 Hp					
Pump motor				·	0.5 Hp		
Steam pressure					2.6 bar		
Steam consumption		5 Kg/h					
Noise pressure level		< 70 dB(A)					
Working temperature		+ 5 ÷ + 80 °C					
Working humidity		90 % max.					
Storage temperature			- 2	0 ÷ + 50 °C			
Net overall dimensions	Plan 1300 x 800	1300 x 800 x 920 mm					
Net overall dimensions	Plan 1600 x 800	1600 x 800 x 920 mm					
Not weight	Plan 1300 x 800		106 Kg	125 Kg			
Net weight	Plan 1600 x 800	111 Kg 131 Kg					
Overall dimensions	Plan 1300 x 800	1340 x 960 x 1090 mm					
(with package)	Plan 1600 x 800	1870 x 960 x 1190 mm					
Overall weight	Plan 1300 x 800		166 Kg		185 Kg		
(with package)	Plan 1600 x 800		176 Kg		196 Kg		

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

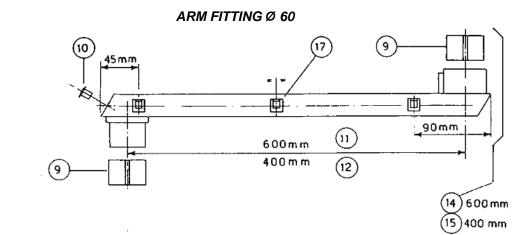
The main parts of the machine are:

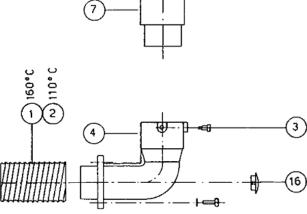


EOLO M (with boiler)



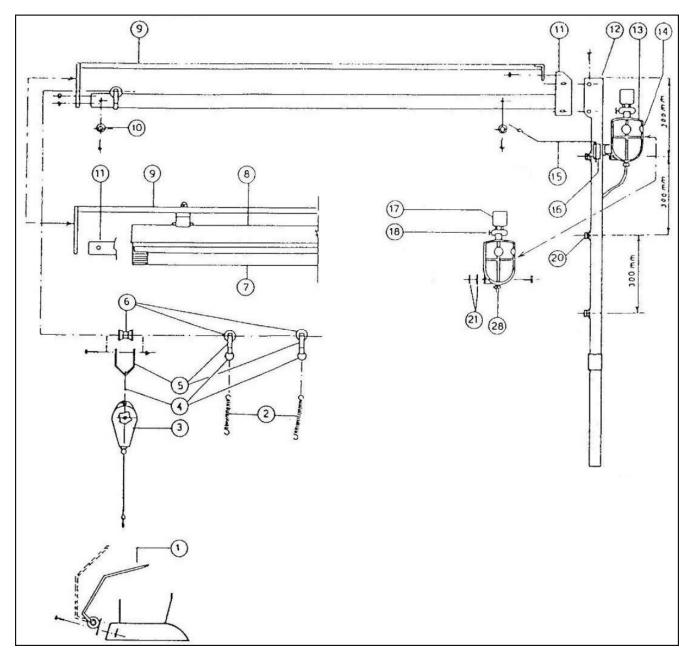
Pos.	Code	DESCRIPTION	Pos.	Code	DESCRIPTION
1	213003	Resistance for 1300x800	23	43A020	Sleeve ironing board switch
I	213001	Resistance for 1600x800	24	43A014	Iron switch
2	161009	Perforated plate 130x80	25	43A016	Boiler resistance warning light
3	161019	Perforated plate 160x80	26	37W001	Water shutoff valve
4	Z27P06	Padding 130x80	27	39B036	Water solenoid valve
5	Z27P06	Padding 160x80	28	42B030	Water pump (optional)
6	45A010	Board temperature thermostat	29	43A014	Boiler switch
7	43A046	Voltage warning light	30	43A016	Water feeding warning light
8	43A043	Breaker switch handle	31	39B012	Iron steam solenoid valve
9	0ZA001	Iron steam pipe	32	202031	Condensate separator
10	364253	Cable holding antenna	33	37A010	Draining faucet
11	Z01L10	Mod. U iron	34	35A004	Pressure gauge
12	Z23C00	Iron power cable	35	43G004	Iron plug
13	42H003	Suction fan	36	36E006	Water inlet O-ring holder
14	46M016	Boiler cover	37	201022	Boiler
15	38W063	Check valve	38	244236	Resistance and control O-ring
16	06D032	Suction pipe	39		Boiler resistance
17	42H007	Suction feeder screw	40	49A002	Water level control
18	175103	Suction pedal	41	45G012	Pressure switch
19	43D002	Suction pedal micro	42	38S001	Safety valve
20	42A002	Suction motor	43	45B004	Boiler safety thermostat
21	162118	Electric board	44	183270	Level control flange
22	43G006	Arm plug	45	534257	Pedal return spring





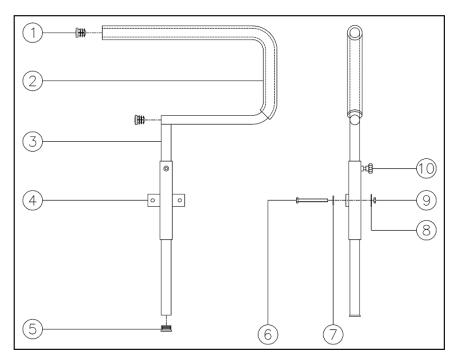
Pos.	Code	DESCRIPTION	Pos.	Code	DESCRIPTION
1	06D014	Ø 63 160°C pipe	11	Z14H01B	Articulation L600
2	06D016	Ø 62 110°C pipe	12	Z14H02B	Articulation L400
3	184472	Screw	14	Z14H01	Complete articulation L600
4	341014	Arm support elbow	15	Z14H02	Complete articulation L400
7	342110	Valve body	16	22K011	Stopper
9	604419	Teflon® bearing	17	46R010	Wire clamp
10	22K016	Stopper			

IRON HOLDER COLUMN AND LIGHTING



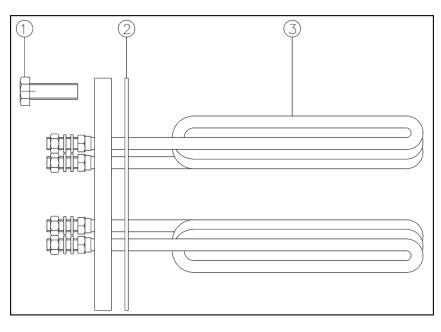
Pos.	Code	DESCRIPTION	Pos.	Code	DESCRIPTION
1	Z08M00	Iron mod. U holder fitting	15	174520	Accessory holder
2	534264	Spring	16	174521	Accessory holder bracket
3	43A001	Balancer	17	39H011	Steam solenoid valve coil for iron
4	51X010	Ring	18	39B005	Iron steam solenoid valve
5	174022	Hanger	19	175108	Condensate separator support bracket
6	56B002	Complete knob	20	46R005	Wire clamp
7	43C009	36W - 230V lamp	21	244244	30x7x3 O-Ring
8	43C007	Complete lamp	22	43K005	Switch box
9	174084	front lamp support	23	43A003	Switch
10	22A002	Buffer stem	24	43H001	Plug
11	173304	L150 sliding rail	25	174017	L35 spacer
111	173025	L178 sliding rail	26	174016	L43 spacer
12	173028	Upper column	27	173011	Lower column
13	202052	Condensate separator	28	38W063	Check valve
14	22K019	Rubber cover			

SHORT LEG SEPARATOR



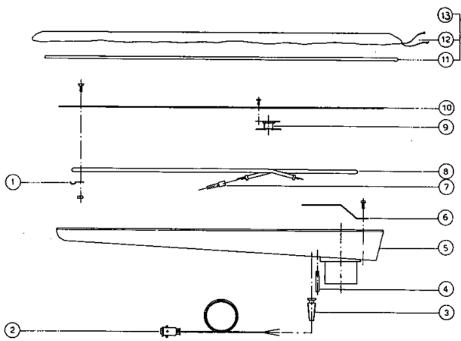
Pos.	Code	DESCRIPTION	Pos.	Code	DESCRIPTION
1	22K021	Stopper	6	50A029	M6x60 screw
2	07A007	Insulating rubber pipe	7	50J009	6x18 washer
3	173035	Leg separator	8	50J008	8x24 washer
4	173027	Leg separator support	9	51A003	M6 nut
5	22K025	20 x 20 stopper	10	52A004	Wheel

Ø 130 RESISTANCE FLANGE



Pos.	Code	DESCRIPTION	Pos.	Code	DESCRIPTION
1	50A016	M10x25 screw		212061	3.9 kW ± 5% boiler resistance
2	244236	O-ring	2	212060	3.3 kW ± 5% boiler resistance
			3	212063	4.8 kW ± 5% boiler resistance
				212062	6 kW ± 5% resistance boiler

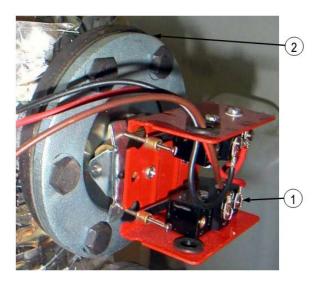
EXPLODED VIEW OF Ø 60 SLEEVE BOARD CODE : Z14A01



Pos.	Code	DESCRIPTION	Pos.	Code	DESCRIPTION
1	174357	Easel	8	213113	V230W90 resistance
2	43H007	Plug	9	45B001	80°C thermostat
3	224216	Cable sleeve	10	173323	Plate
4	184158	Pivot	11		
5	340019	Sleeve ironing board	12	Z27ZP14	Full padding with canvas
6	173343	Deflector	13		
7	224298	Terminal cap			

AUTOMATIC LEVEL CHECK

code 49A002

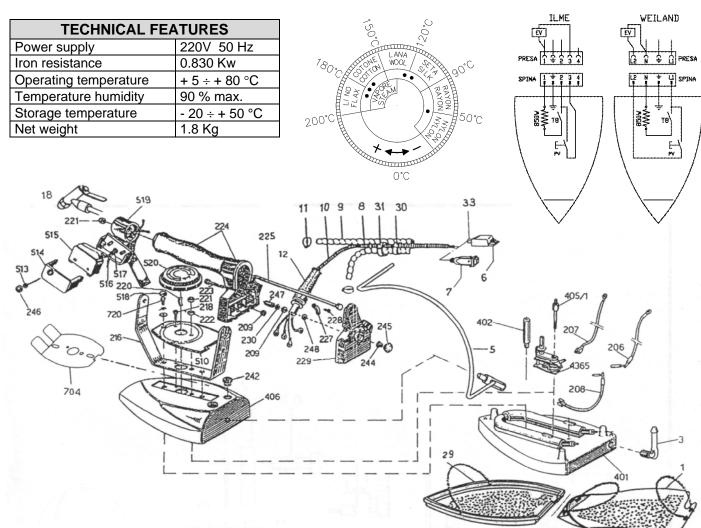


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Pos.	Code	DESCRIPTION	Pos.	Code	DESCRIPTION
1	43D014	Micro	1	43D013	Micro
2	244236	O-Ring flange	2	244236	O-Ring flange
3	49G001	Float	3	49G001	Float

code 49A001

MOD "U" IRON



Pos.	POS.	DESCRIPTION	Pos.	POS.	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	Grommet	7	43H009	llme 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

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

6.1 UNPACKING

After choosing a 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 section of the electric wire must suit machine absorption and be 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.

Check the motor rotation direction and, if it is wrong, invert two out of the three input phases.

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.

6.5 STEAM FEEDING CONNECTION (Machine without built-in boiler only)

• When connecting the machine to a centralized plant, proceed as follows:

Derive from the top of the centralized plant steam outlet a G 1/4" pipe and fit a gate valve close to the machine. Connect a pipe with a 10 mm minimum internal Ø at the steam input of the machine (present threading G 1/4"). For the condensate raturn, make a pipework identical to that of the steam and fit a gate valve close to the machine.

For the condensate return, make a pipework identical to that of the steam and fit a gate valve close to the machine followed by a check valve. Connect a 10 mm minimum internal \emptyset to the check valve.

The maximum steam line pressure must be 4.5 bar.

• When connecting the machine to a small steam generator, proceed as follows:

The machine feeding inlet connection to the steam plant is G 1/4". The steam line pressure must not exceed 4.5 bar.

We advise to use an 8 mm minimum internal \emptyset pipe. Fit a gate valve on the pipe to isolate the machine from the plant. Connect the condensate return to the machine (present threading G 1/4") using, in this case as well, an 8 mm minimum internal \emptyset pipe. Fit on the piping a check valve followed by a gate valve to make it possible to isolate the machine from the plant, then connect to the small steam generator.

6.6 Air and steam draining connection

We advise to send the air sucked in by the ironing board to the outside of the premises by connecting a pipe to the suction device output. This pipe must have a length and diameter which will not alter the machine operation.

Do not create a siphon effect, do not fit couplings or valves whose diameter is less than the pipe's, do not make pipings whose length exceeds 2.5 meters. The steam return hole of the machine must be at least 150 mm higher than the water level in the boiler.

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

7 OPERATION INSTRUCTIONS

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 USE

Machine with boiler:

- Open the supply gate valve.
- Activate the general switch of the machine.
- Activate the boiler switch.
- The water feeding 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 working pressure (check pressure on pressure gauge) and the relevant warning light automatically turns off.
- The generator is ready to supply steam.
- Adjust the working plane temperature using the thermostat handle.
- Wait for the boards and iron to reach the set temperature.
- Press the pedal to activate air suction on the board.
- Upon completing the work, turn the ironing board off using the relevant buttons.

Machine without boiler:

- Open the steam supply gate valve and condensate check valve.
- Activate the general switch of the machine.
- Adjust the working plane temperature using the thermostat handle.
- Wait for the boards and iron to reach the set temperature.
- Press the pedal to activate air suction on the board.
- Upon completing the work, turn the ironing board off using the relevant buttons.

7.3 USING THE ARM

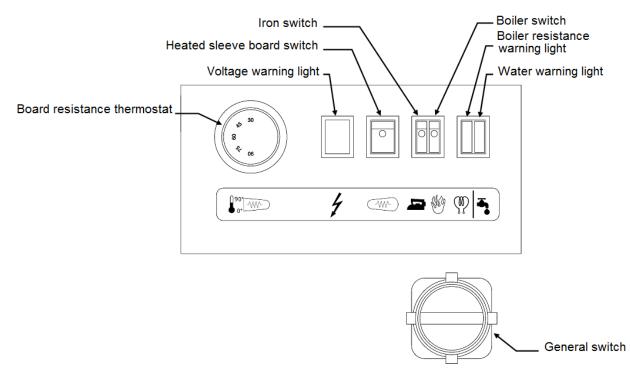
• Grab the sleeve board and pull it over the board in working position. Use the pedal to activate suction.

7.4 USING THE MOD. "U" IRON

- Turn on the iron switch on the machine.
- 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[®] pad to avoid burning the garment.

7.5 USING THE AIR-STEAM GUN FOR STAIN REMOVAL

- 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		
PROBLEMS	PROBABLE CAUSES	SOLUTIONS	
No suction on the working planes	Pedal miniruptor broken down.	Replace the miniruptor.	
No heating on the working planes	Thermostat broken down.	Replace the thermostat.	
The machine fails to turn on	General switch deactivated	Check if general switch is on and fuse condition	
	Switch turned off	Turn switch on	
No steam comes out Iron or boiler activation switches off		Turn switch on	
The water warning light is on but	No water flows into the	Check if water faucet is open.	
the pump keeps loading without	boiler	Check of water network is pressurized.	
stopping.	Dollel	Check is water filter is not clogged.	
The resistance warning light remains and the boiler fails to reach	Boiler draining leak.	Check if the boiler draining valve is tightly closed.	
the working pressure.	Resistance burnt of covered with calcium deposit	Check resistance condition.	

<u>WARNING</u>: 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 no underestimate the problem. Explosion hazard. If the boiler safety thermostat is activated, check the float level control.

9 PRECAUTIONS FOR USE

Read with attention the warnings and hazards associated to the use of an ironing board. The operator must know how to operate the machine 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 lay it on its support. The machine's working surfaces and metal plate remain hot for several 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

Checks are to be carried out on the compliance with the essential safety requisites and with the provisions prescribed in the machines directive by filling out pre-drafted check lists enclosed in the *technical file*. Two types of such lists are used:

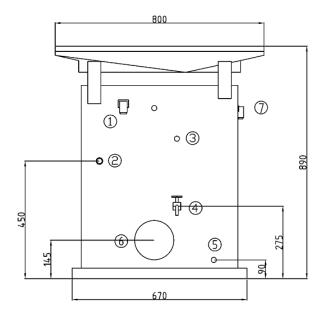
- list of hazards (taken from EN 1050 in reference to EN 292)
- implementation of essential safety requisites (Dir. Machines att. 1, part 1)

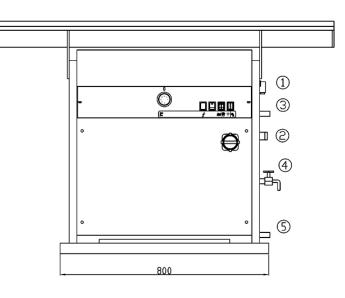
We hereunder list those hazards not completely eliminated, yet deemed acceptable:

- 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.

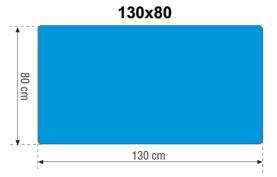
11 DIMENSIONS AND DRAWINGS

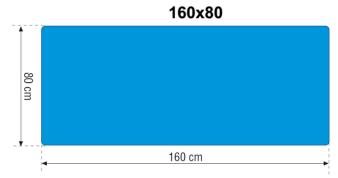
- 1 Iron plug
- 2 Power supply input
- 3 3/8" condensate return
- 3 = 3/8 condensate retu
- 4 3/8" boiler drainage
- 5 Ø 12 O-ring holder water feeding input
- 6 Ø 121 Fan air exhaust
- 7 Sleeve board plug

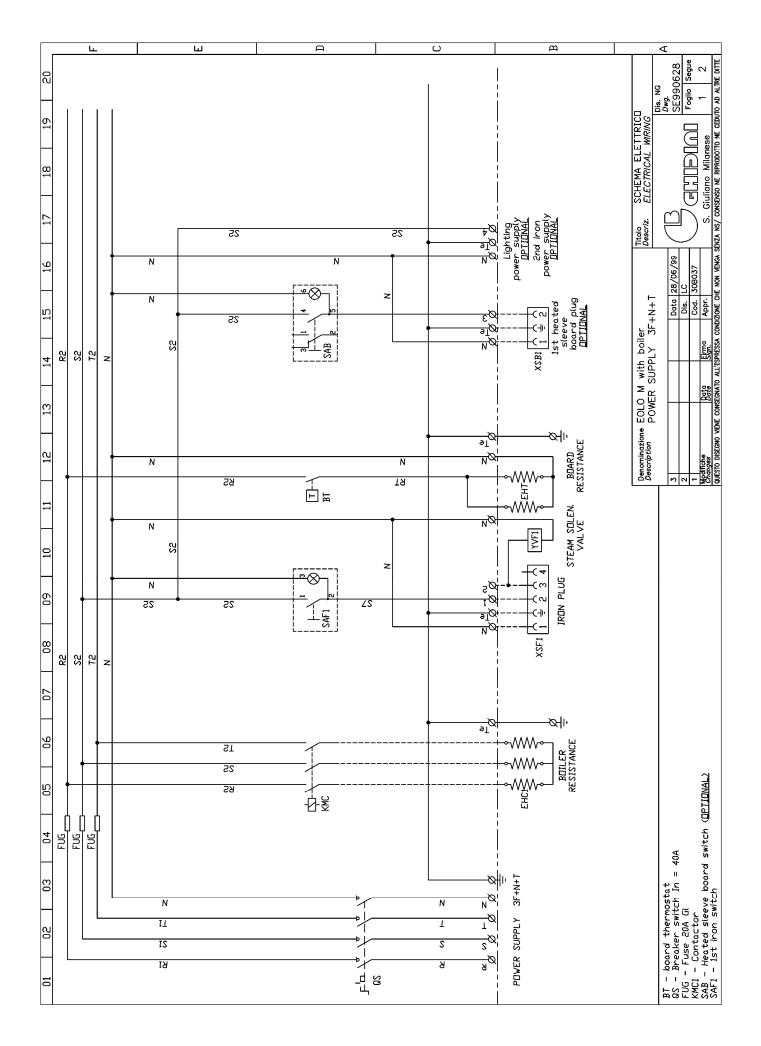


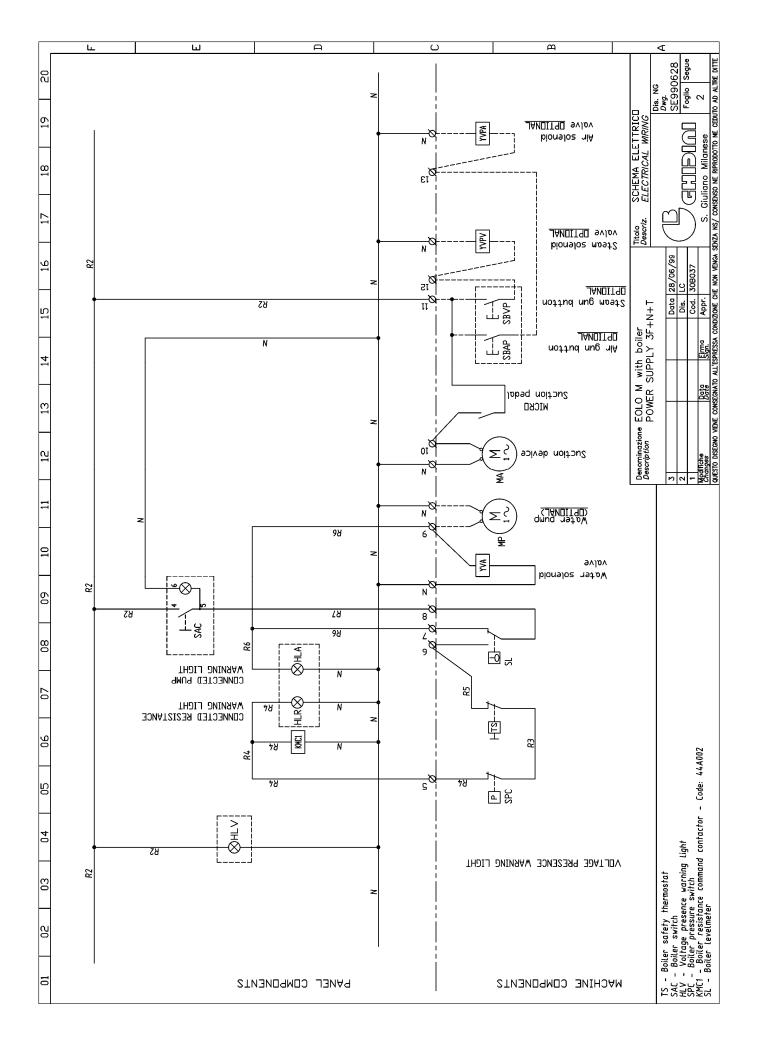


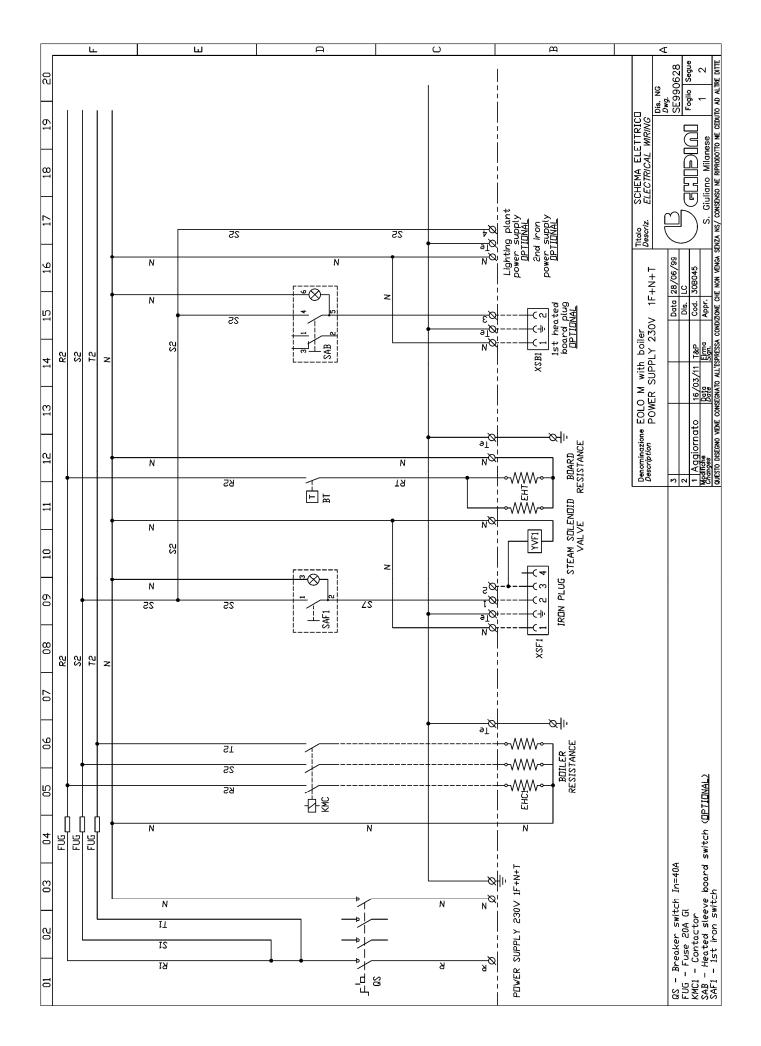
BOARD VERSIONS

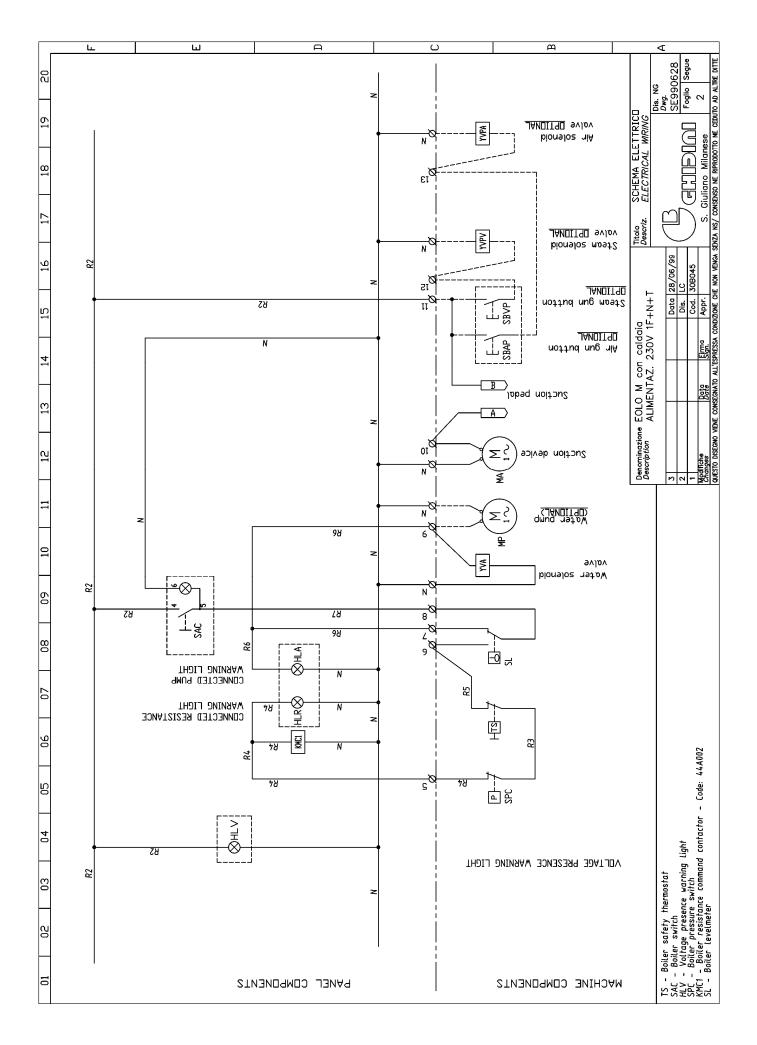


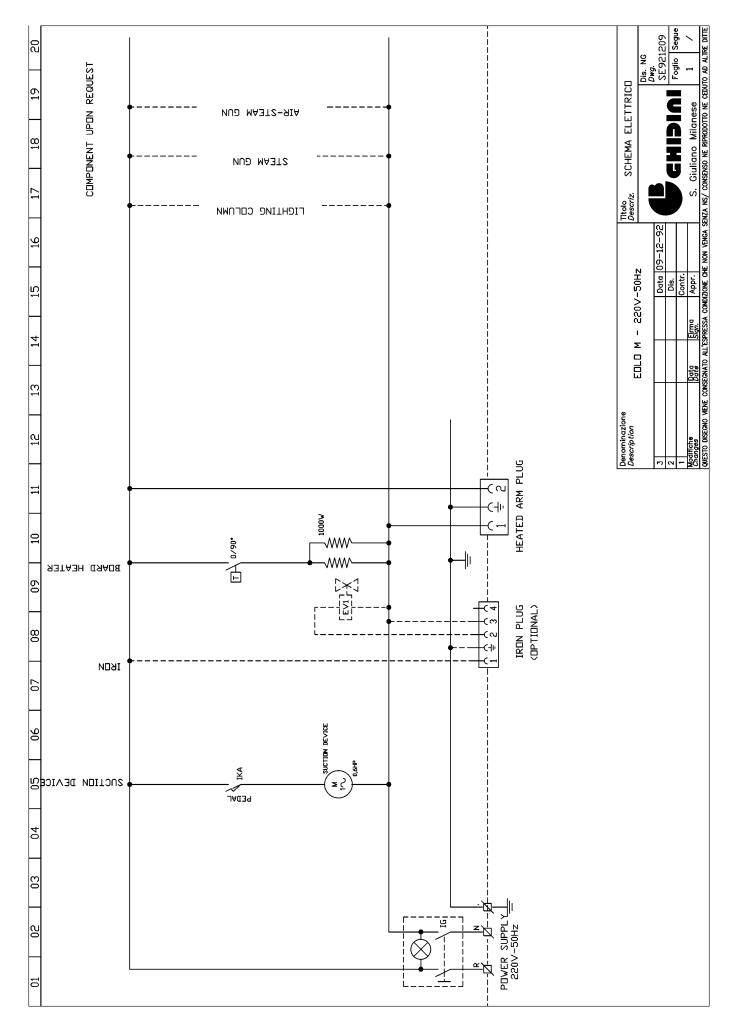


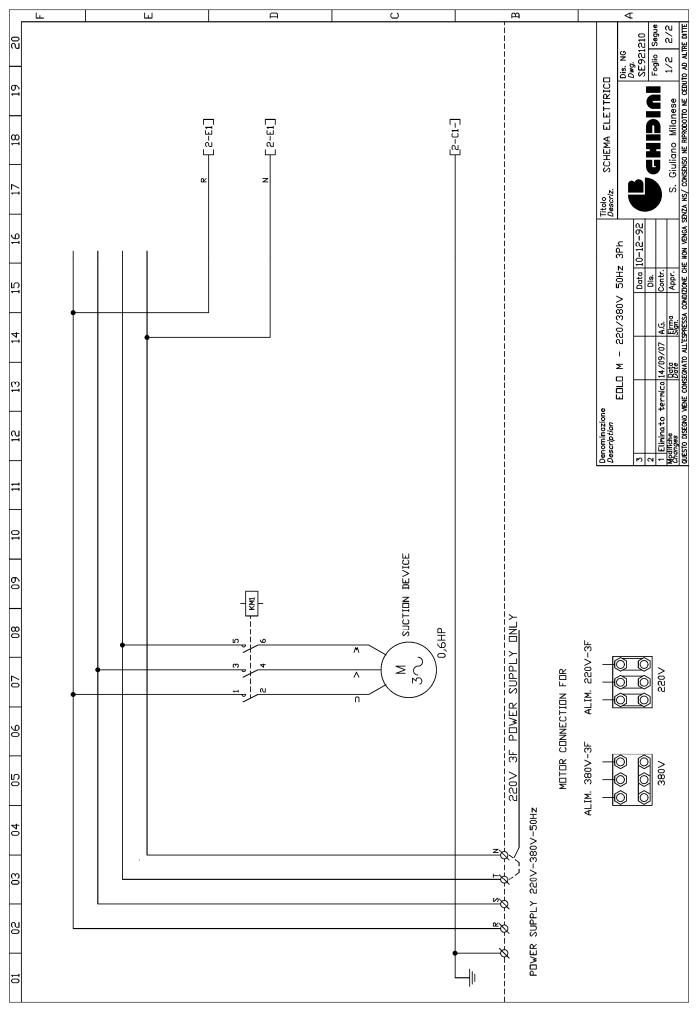


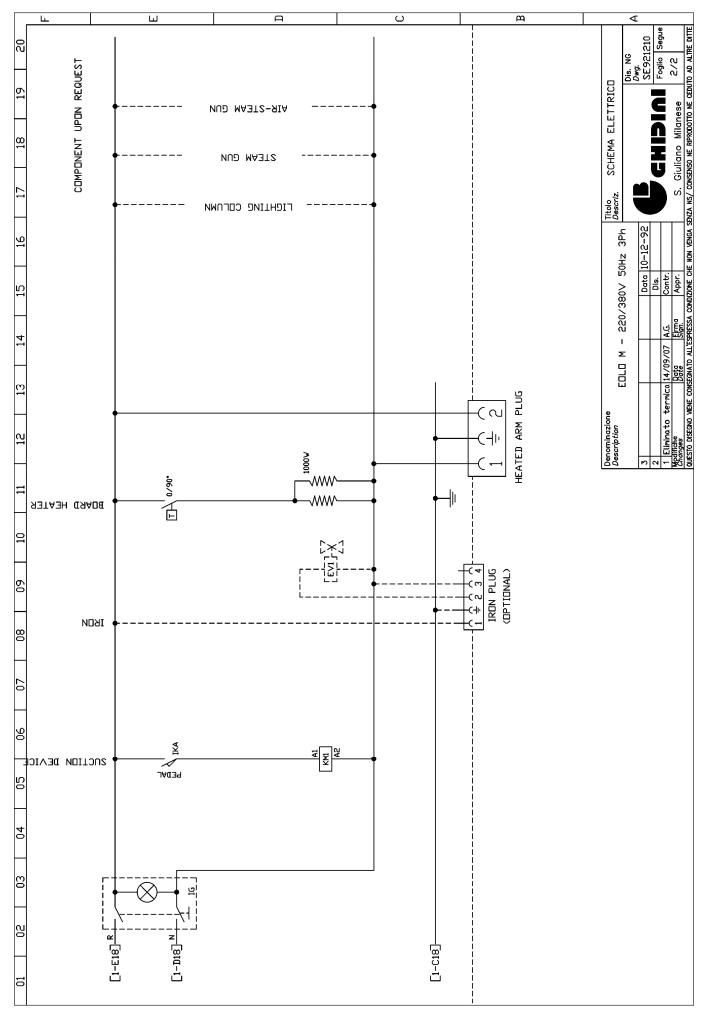












12 MAINTENANCE PROCEDURES

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

Perform periodical checks on:

OPERATION	WORK HOURS
Discharge boiler (*)	40
Clean water filter	1,500
Clean boiler and resistance elements	2,500

(*) 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 this operation out 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.

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), report the exact voltage and frequency after the code.

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

The factory reserves the right to make all the changes that will be deemed suitable at any time, 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 keep 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

Manufacturer:	<u>GHIDINI</u> Company <u>Via Tolstoj, 24 – 20098 S. Giuliano Milanese (MI)</u>
	Address +39 -02 -98.24.06.00 Telephone

We hereby certify that:

The machine:

Ironing board - EOLO M et EOLO M with boiler

- * 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	Roland Fleischmann
Product Manager	Name
GHIDINI S.R.L.	

Company

Tendleur

Signature

September 2011

Date



Web site: http://www.ghidini-gb.it - E-mail: sales@ghidini-gb.it