

Maintenance and Operating Manual

BL



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 **ROTONDI**[®]
group

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MODEL: _____

SERIAL NUMBER: _____

YEAR OF CONSTRUCTION: _____

MARKING: CE



ROTONDI GROUP S.R.L. supplies the following documentation:

- **Maintenance and Operating Manual**
- **Machine diagrams**
- **Declaration of CE compliance**

Main warnings



- IN THE PARAGRAPHS RELEVANT TO THE TECHNICAL DESCRIPTION, THE LOCATION OF THE ACCESSORIES AND THE VARIOUS MACHINE PARTS IS ALWAYS GIVEN WITH REFERENCE TO THE OPERATOR'S POSITION.
- ALL THE MAINTENANCE AND ADJUSTMENT ACTIVITIES DESCRIBED IN THIS HANDBOOK MUST BE CARRIED OUT ONLY AFTER STOPPING THE MACHINE (MAIN SWITCH TURNED TO OFF) AND DISCONNECTING THE POWER CABLE IF NOT CLEARLY INDICATED THAT THE OPERATION MUST BE CARRIED OUT WHEN THE MACHINE IS ON.
- ALL THE ADJUSTMENT AND REPLACEMENT ACTIVITIES THAT ARE NOT DESCRIBED IN THIS HANDBOOK MUST BE CARRIED OUT BY QUALIFIED AND SKILLED OPERATORS TO AVOID ANY ACCIDENT OR DAMAGE TO THE MACHINE AND TO THE OPERATOR.

CAREFULLY READ THIS OPERATING HANDBOOK BEFORE USE.

IT PROVIDES IMPORTANT INFORMATION ABOUT SAFE INSTALLATION, USE AND MAINTENANCE OF THE MACHINE.

- DISREGARDING SAFETY INSTRUCTIONS MAY ENTAIL BOTH SERIOUS INJURIES TO THE OPERATOR AND DAMAGES TO THE MACHINE.
- CAREFULLY KEEP THIS HANDBOOK FOR CONSULTATION PURPOSES UP TO THE MACHINE FINAL DISMANTLING.
- **USE AND MAINTENANCE PROCEDURES MUST BE CORRECTLY CARRIED OUT; OTHERWISE, THE BUILDER CANNOT BE HELD RESPONSIBLE FOR DAMAGES TO PEOPLE, ANIMALS OR THINGS DERIVING FROM THE NON-OBSERVANCE OF THE FOLLOWING INSTRUCTIONS.**
- CHECK THAT BOTH THE MACHINE AND ITS COMPONENTS ARE UNDAMAGED WHEN UNPACKING. CONTACT YOUR DEALER IN CASE OF DOUBTS.
- THE INSTALLATION MUST BE CARRIED OUT BY SKILLED OPERATORS, ACCORDING TO THE BUILDER'S INSTRUCTIONS. MAKE SURE THAT THE RATING CORRESPONDS TO THE FACTORY POWER LINE BEFORE ENERGISING THE MACHINE. THE MACHINE IS ELECTRICALLY-SAFE ONLY WHEN PROPERLY GROUNDED. IN CASE OF DOUBTS, CONTACT SKILLED OPERATORS FOR A THOROUGH INSPECTION.
- DISCONNECT THE MACHINE FROM THE POWER LINE BEFORE ANY CLEANING OR MAINTENANCE ACTIVITY.
- NEVER LEAVE THE MACHINE CONNECTED TO THE POWER LINE IF THIS IS NOT NECESSARY. TURN OFF THE MAIN SWITCH WHEN THE MACHINE IS NOT BEING USED.
- IN CASE OF TROUBLE AND/OR BAD FUNCTIONING DISCONNECT THE MACHINE FROM THE POWER LINE, CLOSE THE WATER, STEAM AND COMPRESSED AIR COCK WITHOUT TAMPERING WITH THE CONTROLS AND THE EQUIPMENT. CONTACT ONLY A QUALIFIED AFTER-SALES TECHNICAL SERVICE AUTHORISED BY THE BUILDER.
- DRAIN AND LOAD PIPES, SAFETY SHEATHS AND SOLENOID VALVES MUST NOT BE CUT AND TAMPERED WITH. DISCONNECT THE MACHINE FROM THE POWER LINE IN CASE OF DAMAGE.
- ANY USE OF THE MACHINE OTHER THAN THE ONE IT HAS BEEN BUILT FOR REPRESENTS AN ANOMALOUS CONDITION, CAN CAUSE SERIOUS DAMAGES TO THE OPERATING MEANS AND ENTAIL A SERIOUS RISK FOR THE OPERATOR USING IT.
- NEVER REMOVE OR HIDE THE WARNING LABELS AFFIXED IN THE MACHINE FRONT AND SIDE PARTS.

IN ADDITION:

A FEW FUNDAMENTAL RULES COMMON TO ALL ELECTRIC POWERED MACHINES MUST ALSO BE OBSERVED.

IN PARTICULAR:

- NEVER TOUCH OR START THE MACHINE WITH WET HANDS OR BARE FEET.
- REMOVE THE CASINGS AND THE DOORS OF THE ELECTRIC BOARDS ONLY ONCE THE MACHINE HAS BEEN STOPPED AND DE-ENERGISED;
- NEVER PULL THE POWER CABLE TO DISCONNECT THE PLUG FROM THE SOCKET.

FOR FIRE-PREVENTION PURPOSES:

- KEEP ALL INFLAMMABLE OR COMBUSTIBLE PRODUCTS AWAY FROM THE EQUIPMENT AREA.
- CAREFULLY READ THE INSTRUCTIONS ON THE LABELS OF THE SUITS.

OF COURSE, THE ABOVE-MENTIONED INSTRUCTIONS ARE NOT SUFFICIENT TO PREVENT ALL SORTS OF ACCIDENTS; THEREFORE, THE USER WILL HAVE TO BE CAUTIOUS.

THE MACHINE MUST NOT BE MODIFIED OR CHANGED IN ANY WAY WITHOUT THE BUILDER'S WRITTEN AUTHORISATION.

- **THE MANUFACTURER'S RESPONSIBILITY CEASES IN THE EVENT OF INTERVENTIONS RESULTING IN MODIFICATIONS, MISHANDLING OR ANY OPERATIONS WHICH PROVE DETRIMENTAL TO THE MACHINE'S SAFETY AND STABILITY, PRACTICED AFTER FINAL TESTING AND THE ISSUING OF THE CE DECLARATION OF CONFORMITY.**

Main warnings

IMPORTANT SAFETY INSTRUCTIONS

When using your appliance, basic precautions should always be followed, including the following:

1. Read all instructions
2. To reduce the risk of contact with hot water emitting from steam vents, check appliance before each use by holding it away from body and operating steam button
Exception. This instruction may be omitted for an appliance that will not produce water droplets as determined by the test specified in 32.1.4
3. Use appliance only for its intended use
4. To reduce the risk of electric shock, do not immerse the appliance in water or other liquids
5. Never yank cord to disconnect from outlet; instead grasp plug and pull to disconnect
6. Do not allow cord to touch hot surfaces. Let appliance cool completely before putting away. Loop cord loosely around appliance when storing
7. Always disconnect appliance from electrical outlet when filling with water or emptying and when not in use
8. Do not operate appliance with a damaged cord, or if the appliance has been dropped or damaged. To reduce the risk of electric shock do not disassemble or attempt to repair the appliance, take it to a qualified service person for examination and repair incorrect reassembly or repair could cause a risk of fire, electric shock or injury to persons when the appliance is used
9. Close supervision is necessary for any appliance being used by or near children. Do not leave appliance unattended while connected
10. Burns could occur from touching hot metal parts, hot water or steam. Use care when you turn a steam appliance upside down - there may be hot water in the reservoir

SAVE THESE INSTRUCTIONS

45.4 As applicable, the following instructions or the equivalent shall be included in addition to the instructions n.45.3

a) For appliances rated more than 7 amperes

11. To reduce the likelihood of circuit overload, do not operate another high wattage appliance on the same circuit
12. If an extension cord is absolutely necessary a (ampere rating of the appliance) ampere rated cord should be used. Cords rated for less ampereage may overhead. Care should be taken to arrange the cord so that the cord cannot be pulled or tripped over

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General information about the operating handbook

1.4 Manual use and safekeeping

This manual has been written for the machine user, and for all the personnel in charge of transport and handling, installation, use, supervision, maintenance and demolition.

This manual provides all instructions on machine use according to the project and technical features, for handling, adequate and safe installation, assembly setting, tuning and use. It also provides all instructions for maintenance operations, how to order spare parts, and provides warning advice on possible additional danger risks.

In particular, the manual must be readily available for the following information:

- working conditions for machine use;
- the operator's work control position;
- as well as instructions concerning:
 - setting up;
 - use;
 - transport;
 - installation;
 - assembly and disassembly;
 - setting and tuning interventions;
 - repairs and maintenance;
 - possible training instructions.

Respecting current legislation

As well as the rules included in this manual, all current specific safety standards against danger in the work area must be correctly observed.

Safekeeping of the manual.

This manual is considered as being part of the machine and must be kept safely and in good condition for the whole period the machine is used.

It must be kept in a safe dry place out of sunlight, readily available and accessible for reference near the machine at all times.

Information for the user.

1. This manual describes the current technical level of the machine and cannot be considered incomplete if the machine is upgraded as a result of new know-how.
2. The manufacturer reserves the right to update the machine and this manual without the necessity to update previous models and manuals.
3. The materials used on this machine can be modified at any time as a result of technical evolution without prior notice.
4. In the case where the machine supplied to the customer is not equipped with electrical controls and protection (electrical control panel on the machine), the manufacturer assumes no responsibility concerning safety protection from electrical parts which are not in compliance with instructions provided and recommended in this manual. In all cases the current safety standards concerning electrical parts for accessory machine equipment are the sole responsibility of the customer who must provide for their correct standard and suitability for the use in question.

General information about the operating handbook

5. The manufacturer will not be held responsible for any damage or injury as a result of:
- incorrect use.
 - incorrect machine use
 - use by untrained personnel
 - inappropriate use not included in these instructions
 - use contrary to current legislation and safety standards
 - use with faulty main line supply
 - use in the case of serious lack of maintenance
 - use after unauthorised changes or interventions (changes without written authorisation from manufacturer)
 - use with non original spare parts or parts not specifically recommended for the machine
 - use after disregarding either totally or partially specific instructions provided in this manual.
6. The general sales guarantee is not valid in the following cases:
- bad maintenance;
 - problems as a result of incorrect use;
 - use by inexperienced personnel;
 - excessive use over machine performance limits;
 - excessive mechanical, electrical or pneumatic strain;
 - use when the machine is not in good performing condition (point 5).

1.5 Request for additional copies of the manual

Eventual requests for other copies of this document must be ordered from the **ROTONDI GROUP S.r.l.** as well as:

- any instructions concerning tools which can be mounted on the machine;
- essential safety requisites in compliance with machine standards and enclosures.



WARNING!

The Manufacturer reserves the right to modify the machine, for any reason of a technical or commercial nature, without the obligation of prior warning to its customers.

The Manufacturer shall not be held responsible for any inconveniences, damages and breakage, injuries resulting from:

- total or partial knowledge of the machine and its operation;
- incomplete application of norms on usage and safety established in the present catalogue;
- erroneous manoeuvres;
- lack of maintenance;
- maintenance interventions carried out by non qualified personnel;
- natural disasters.



IMPORTANT!

The operator, or whoever is responsible for the machine's use and maintenance, is severely cautioned against bring about any modifications or variations to the machine and the present maintenance and operating manual without the manufacturer's prior consent.

NOTE!

ROTONDI GROUP S.r.l warns its customers that any reference to objects or products of a specific brand are not binding, and that discrepancies may exist with what is effectively adopted on the machine. The graphic documentation employed is therefore utilized purely for indicative purposes.

Machine description

Machine model BL is a multi-form pneumatic ironing press with steam pressing surfaces. The press features a safety bar, insulated surfaces and a device for drawing the pressing surfaces together. The descent of the upper surface (level) is pneumatically controlled by means of a pedal or lever, and the descent can be fast or light with variable pressure. The model BL press, inserted into integrated ironing systems, yields better quality results while processing a larger quantity of items. The ironing press is controlled by just one operator, positioned in front of the machine at the right distance to command the machine using the pedal unit.

Picture chapter 2



Machine description

2.1 Additional risks

In order to work in the maximum safety conditions and to avoid any dangerous situation and accident, the operator must follow the operating instructions and regulations listed below.

Additional risks relevant to Chapter 5 “Machine handling and transport”.



- Machine transport and handling operations must be carried out with personnel wearing proper safety footwear.



- Machine transport and handling operations must be carried out with personnel wearing proper safety gloves.



- Machine transport and handling operations must be carried out with personnel wearing proper safety helmets.

- Lift the machine only by means of a crane or a forklift truck.

- Only skilled operators can lift the machine.

- Make sure that the machine weight is well balanced on the forklift truck or transpallet to avoid any sort of dangerous oscillations.

- If a crane is used to lift the case, no foreign operator must stay or pass in the handling area while the operators responsible for the machine transport will have to keep at a suitable distance not to be intercepted by the machine.

- Never make sudden manoeuvres while lifting and handling the machine so that it cannot intercept any people or object present in the handling area.

Additional risks relevant to Chapter 9 “MACHINE USE”.

- If the machine must be disarmed immediately for any reason whatsoever, **turn the main switch to the OFF position.**

- During the machine functioning, it is strictly forbidden to remove the safety devices assembled by the builder on the machine in order to protect the operator while performing his tasks.

- Only skilled and qualified operators can use the machine.

- Never leave the machine unattended.

Machine description

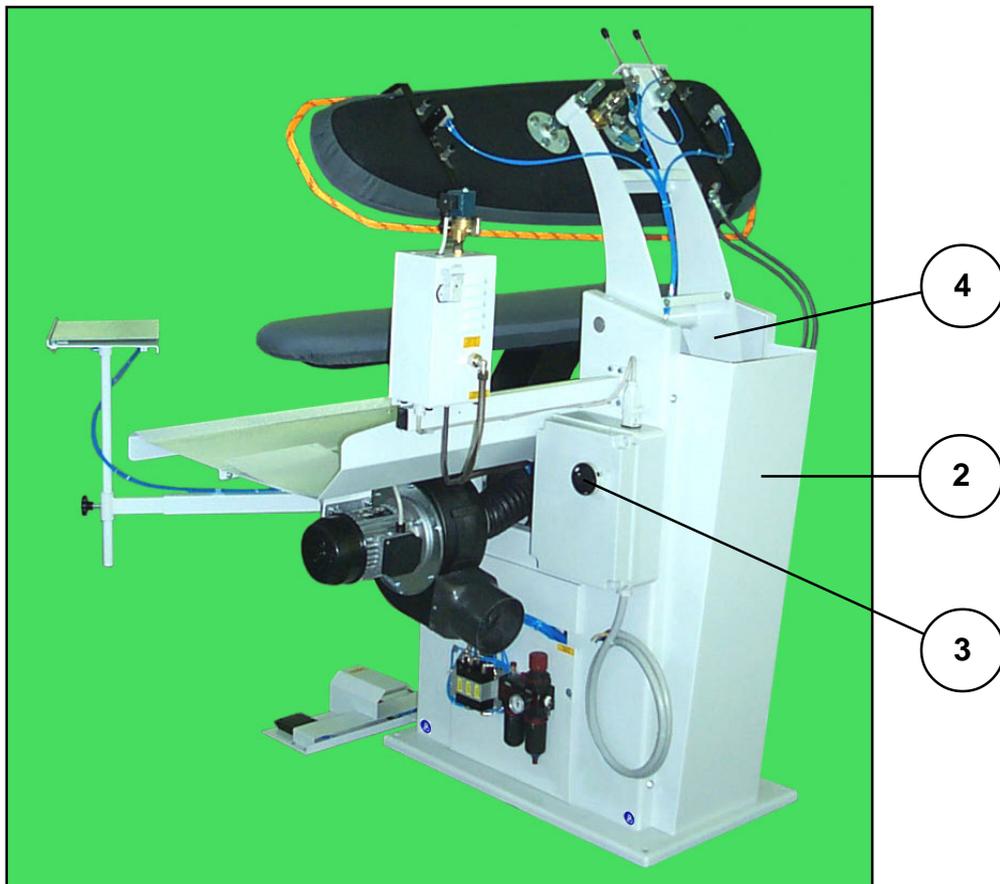
2.2 Safety devices

The following safety devices have been assembled on the machine, in order to protect the operator from any possible accident caused by the contact with moving mechanical parts, machine hot parts and components or electric wires:

REFERENCE:**DESCRIPTION:**

- | | |
|---|--|
| 1 | N° 1 fixed safety panel at the lower front end, covering the machine's moving parts. |
| 2 | N° 1 fixed safety panel at the rear of the machine. |
| 3 | N° 1 safety protection device interlocked by the main switch, covering the electrical panel. |
| 4 | N° 1 safety sheet panel at the rear of the machine. |
| 5 | N° 1 fixed safety panel at the front, covering the boiler (*). |
| 6 | N° 1 fixed safety panel at the rear, covering the boiler (*). |

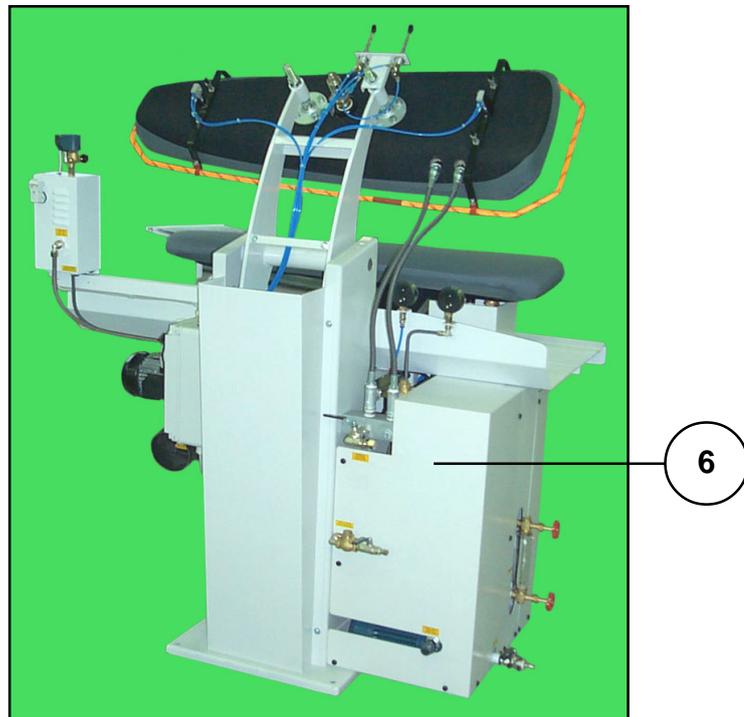
Picture A chapter 2.2



(*) Machine equipped with a boiler.

Machine description

Picture B chapter 2.2



⚠ Warning ⚠

- The builder has provided the machine with safety devices to protect the operator while performing his tasks. During the machine functioning, the safety devices must never be removed for any reason at all. The operators, although skilled, must comply with the instructions and the warnings contained in this handbook.

Machine description

2.3 Warning about the additional risks

The following warning plates are applied to the machine:



- a warning label obligating the operator to consult the operating manual before using the machine;



- a warning label relative to the risk of electrocution;



- a warning label prohibiting personnel from touching equipment under voltage;



- a warning label prohibiting personnel from using water to put out fires on electrical equipment;



- a warning label relative to the danger posed by moving parts;



- a warning label relative to the danger of heat – steam emissions;



- a warning label relative to the danger of the tank under pressure;

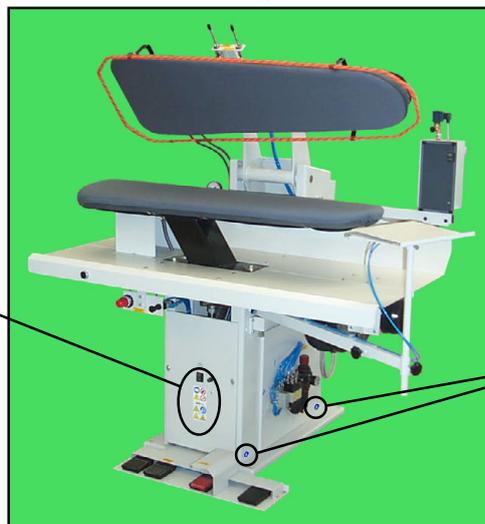


- a warning label obligating the operator to check the efficiency of the safety protection measures before starting up the machine;



- two warning labels relative to the fork lift truck's impaling points.

Picture chapter 2.3



⚠ Warning ⚠

- The warning labels relating to residual risks must not be removed or damaged for any reason.

Technical features of the machine

TECHNICAL SPECIFICATIONS FOR IRONING PRESS				
PARAMETER		DESCRIPTION		
		BL	BL A (Vacuum)	BL C (Boiler)
Voltage	-	400 V/3 - 50 Hz		
Boiler capacity	Lt.	-	18	
Power - pump	Kw	-	0,6	
Power - vacuum	Kw	-	0,55	
Power resistance - boiler	Kw	-	12	
Compressed air pressure	Bar	6		
Steam pressure	Bar	4,5		
Noise emission in vacuum phase	dB	-	71,5	-
Noise emission in steam phase	dB	71		
Net weight	Kg	350	370	440
Gross weight	Kg	405	425	495
Overall dimensions	mm	L1450 x P1100 x H1680		
Packaging sizes	mm	L1500 x P1150 x H1370		

Technical features of the machine

3.1 Machine EC plate

A metal plate indicating the name and address of **ROTONDI GROUP s.r.l** company, the machine model, serial number and the EC mark is applied to the machine.

Picture chapter 3.1



Allowed and forbidden use

Machine model BL is a multi-form pneumatic ironing press with steam pressing surfaces. Any use of the machine other than the one for which it has been built represents an anomalous condition that can damage the working means and injure the operator.

4.1 Counter-indications and dangers deriving from a forbidden use

- The machine has not been built to work in a place with deflagration risks. **It is therefore absolutely forbidden to use the machine in an atmosphere with explosion risks.**
- For any forbidden use of the machine, **the User must contact the Builder about any possible counter- indications or dangers deriving from the machine misuse.**
- For any modification to be made to the machine once it has left its building site, **the User must contact the Builder about any risks the modifications could entail and about their compliance with the Legislation in force.**
- **Any modification brought to the machine by the buyer or user will immediately void the certification of conformity.**

Handling and transport of the machine

 **Warnings** 

- Machine transport and handling operations must be carried out with personnel wearing proper safety footwear.



- Machine transport and handling operations must be carried out with personnel wearing proper safety gloves.



- Machine transport and handling operations must be carried out with personnel wearing proper safety helmets.

When delivered, the machine is usually packed in cartons on pallets.

After unpacking it, check that the machine is undamaged and that it corresponds to the one you had ordered.

Make sure that no loosen parts have been left in the packing and inspect the machine for possible damages suffered during the shipment. In case damages are found, immediately contact both the forwarding agent and the Builder.

Do not leave the packing components (cardboard, wood, staples, plastic bags, polyethylene sheets, etc..) in the environment. They must be collected and delivered to the competent organs.

Lifting and handling operations on the machine while in its packing can be carried out using a fork lift truck or crane.

The machine can be lifted and handled by means of a crane or forklift truck. The machine must be moved inside the industrial area by means of a forklift truck.

This entails the presence of two skilled operators, one of them checking that the way is free from any obstacles.

Picture A chapter 5



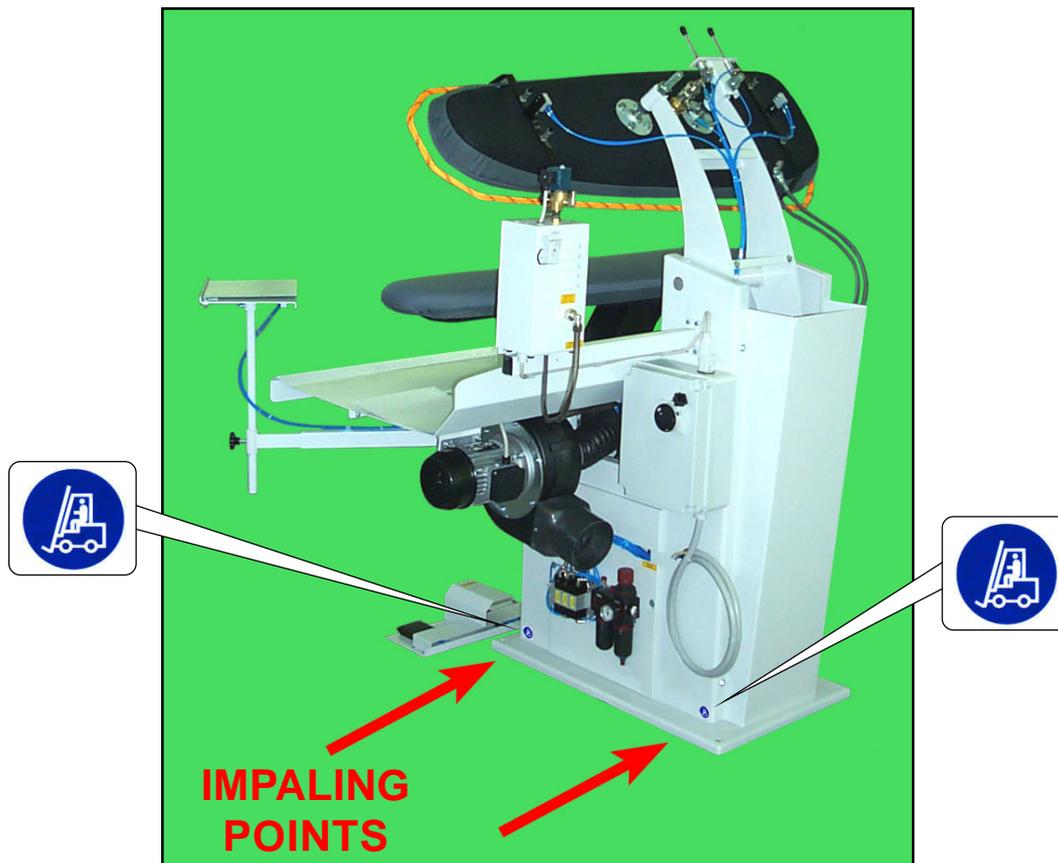
Transport by means
of a forklift truck



Lifting by means
of a crane

Handling and transport of the machine

Picture B chapter 5



⚠ Warnings ⚠

- Use only a crane to lift the machine, since it is not perfectly balanced.
- Lift the machine only by means of steel cables or bands duly dimensioned according to the machine weight.
- Lift the machine by means of safety hooks.
- **No foreign operator must stay or pass in the handling area while the operators responsible for the machine transport will have to keep at a suitable distance to avoid being intercepted by the machine.**
- Never make sudden manoeuvres while lifting and handling the machine so that it cannot intercept any people or object present in the handling area.
- An operator staying outside the handling area will have to follow all the handling activities and signal any possible obstacle the crane operator cannot see.
- The Manufacturer recommends, especially for transport by sea, protecting the machine's various parts with antirust lubricants, and inserting packets of hygroscopic salts in the packing, so as to protect the machine from humidity.
- Once positioned on the truck (or any transport mean) the machine must be braced by ropes, steel cables or wooden wedged duly dimensioned according to the machine weight.

Machine installation

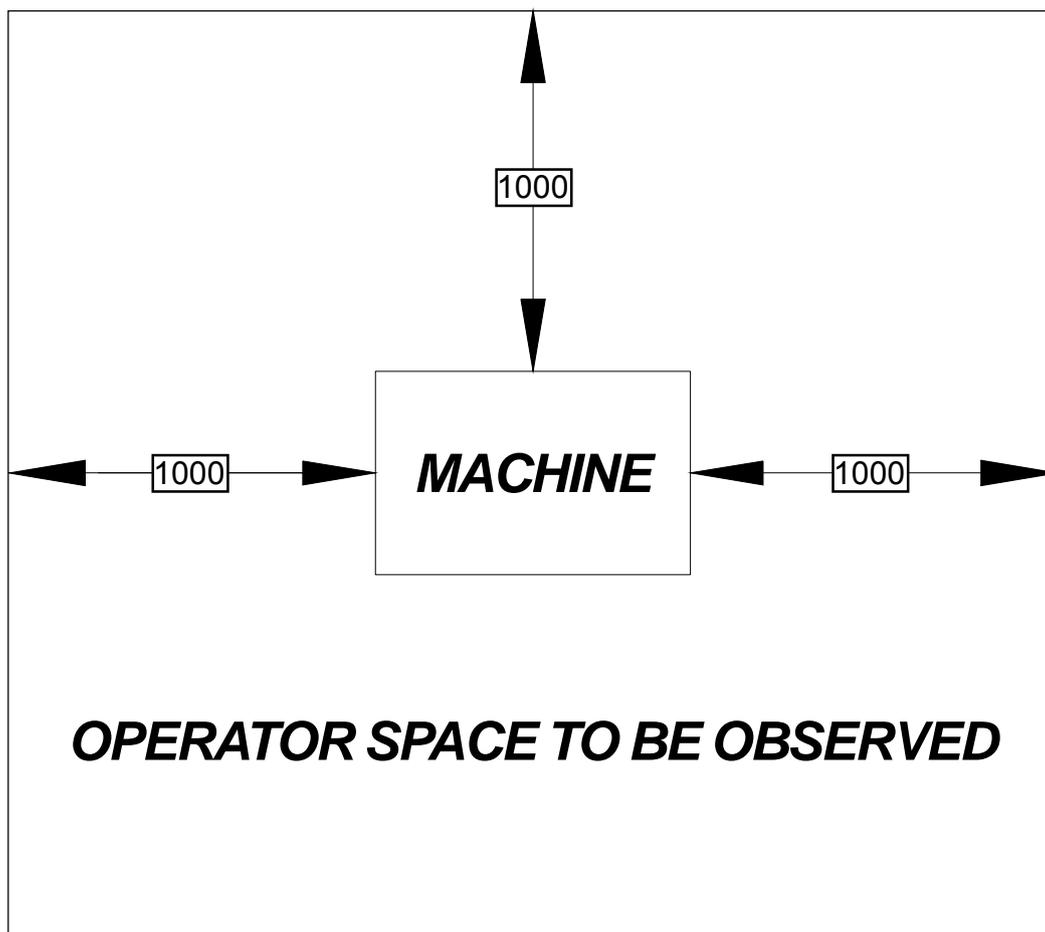
⚠ Warnings ⚠

- *The machine must be installed in a place where the best hygrothermometrical conditions are observed for the safety of the operator in order to reduce the possibility of fatigue to the minimum and to allow the operator to work in the maximum safety conditions.*
- *The machine installation area will have to be well ventilated and free from explosive gases.*
- *The temperature of the machine installation area will have to range between 10 and 35°C.*

6.1 Free spaces to be observed

For a safe and correct use and an easy maintenance of the machine, it is advisable to install it in such a position that observes the minimum distances, expressed in millimetres, from the walls or big obstacles shown in the picture below.

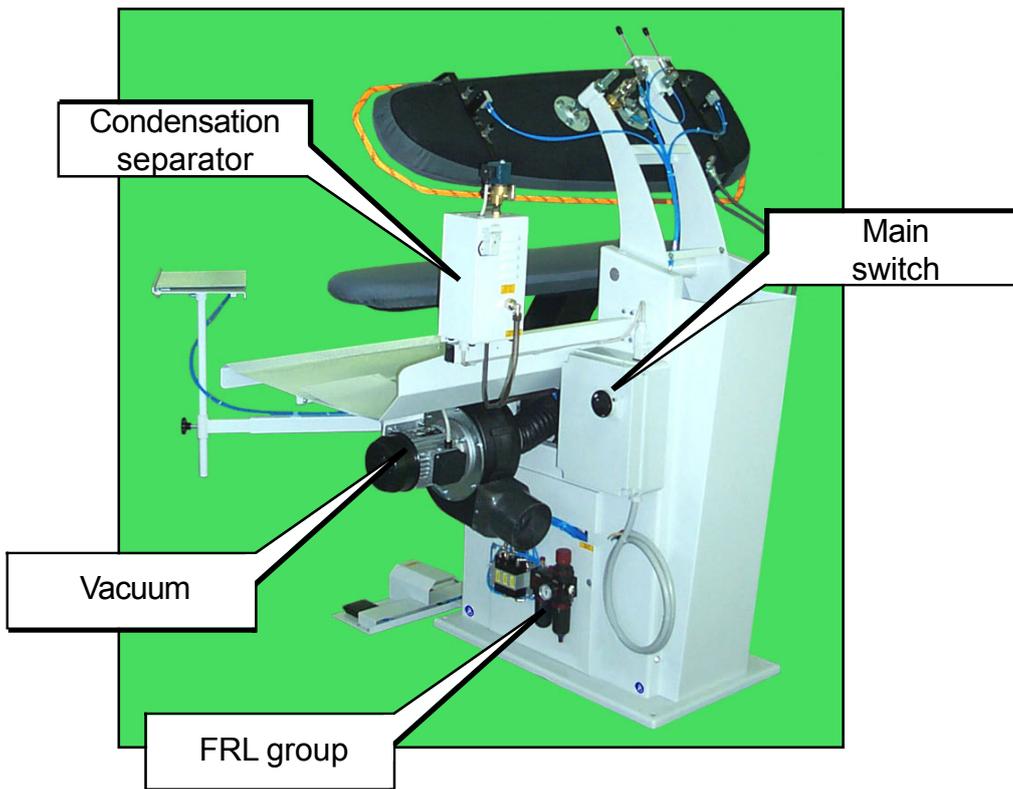
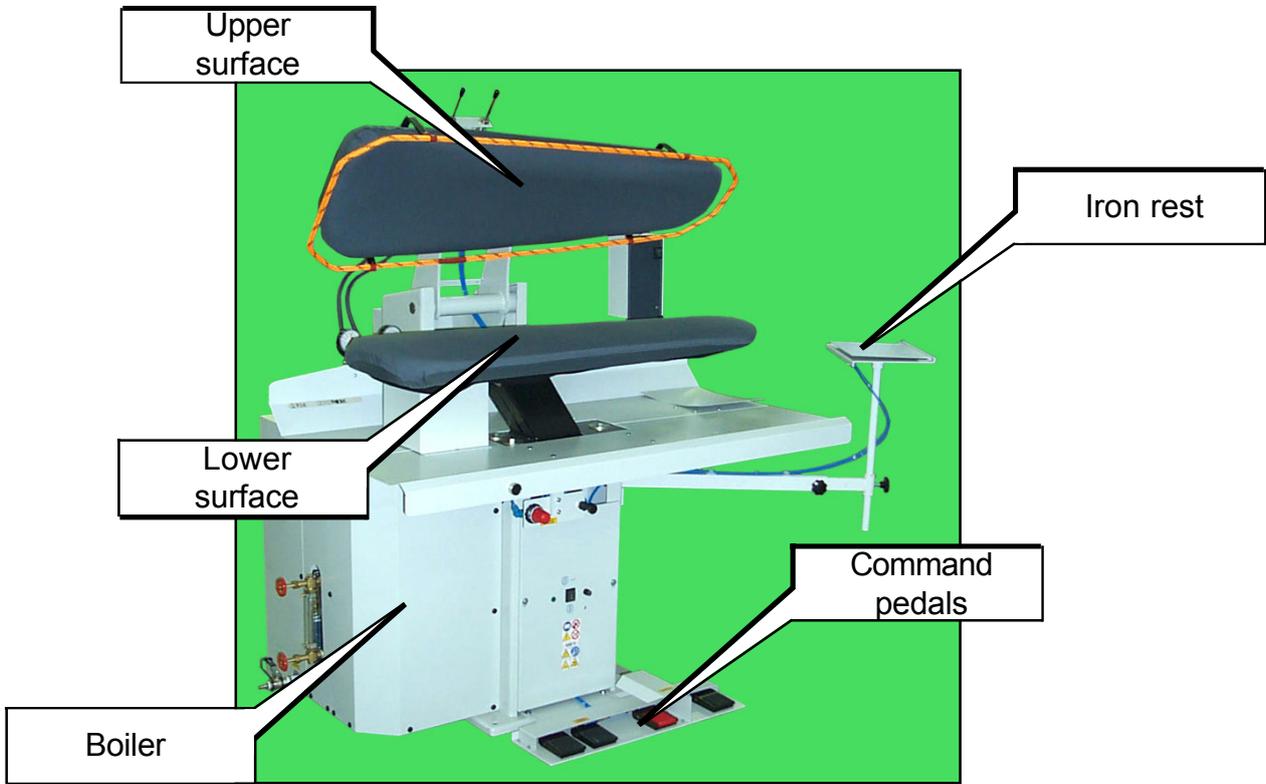
Picture chapter 6.1



Machine installation

6.2 View with the machine main references

Picture chapter 6.2



Machine installation

6.3 Machine base structure

The machine's base structure, expressed in millimeters, is indicated in the figure. For proper operation, the machine must be anchored to the factory flooring.

Picture chapter 6.3

Machine
with boiler



Machine
without boiler



Assembly and preparation of the machine

7.1 Preparation of the machine for its use

Upon receipt of the machine in the user's factory, follow the instructions described below for its correct positioning:

- Unpack the machine and remove its protection wrapping.
- Lift the machine according to the instructions and warnings described in Chapter 5 "Handling and transport of the machine".
- Install the machine in the desired place.

7.2 Assembly of the machine accessories

The machine is completely assembled in the User's factory.

7.3 Preventive checks and controls

Upon receipt of the machine, it is advisable to:

- Check if all the parts composing the machine have been delivered to the User's factory,
- carry out a series of preventive checks and controls as described below.

7.3.1 Check of the damages caused to the machine during its transportation

In order to exactly evaluate the possible damages caused to the machine during its transportation, it is advisable to check the integrity of the following machine parts. In particular:

- check that the electrical controls on board the machine have not suffered any damage;
- check that the main switch is undamaged.

Carefully check if the protective wrapping is visibly torn.

7.4 Cleaning and lubrication of the machine

Carefully clean the machine upon its arrival at the User's factory and remove the dust, the foreign and dirtying substances that may have deposited on the machine during its transportation. Grease all the mechanical parts exposed to dust, especially in case of sea transport.



Warning



- *Once the machine reaches the User's factory, it must be cleaned wearing special protective gloves.*

Assembly and preparation of the machine

7.5 Connection to the external power sources

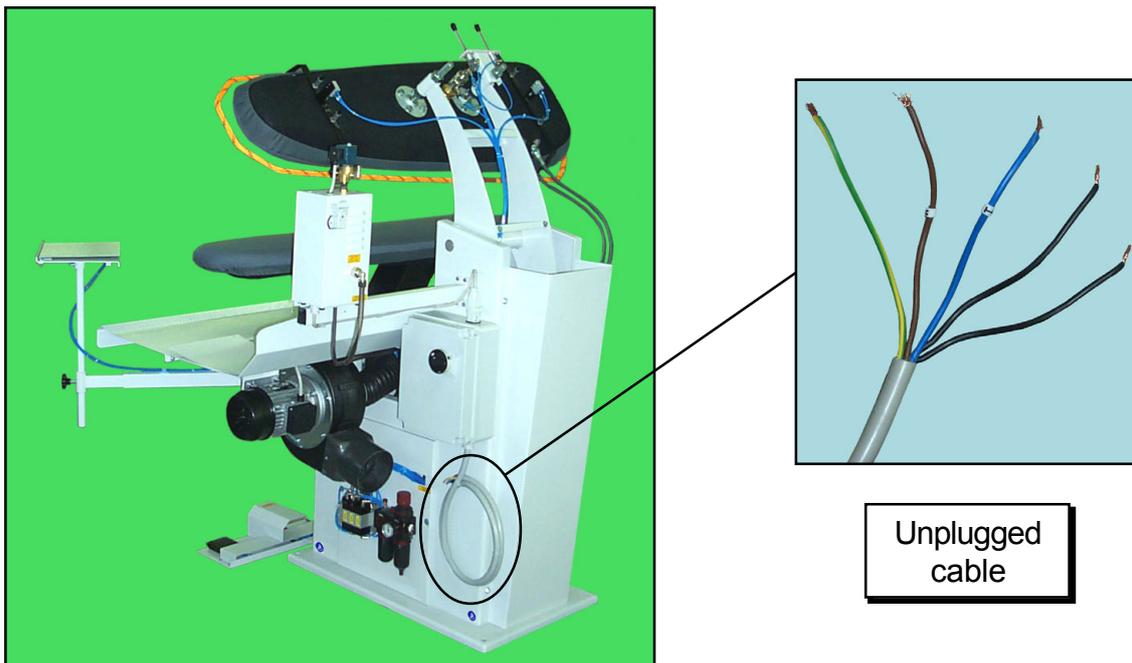
⚠ Warning ⚠

- Only skilled operators can carry out the machine connection to the external power sources.

7.5.1 Power connection

The power cable supplied with the machine is not plugged by the Builder. It must be connected to the main supply line after checking that the voltage and the power supply frequency of the motors and electric components correspond to the voltage and power supply frequency available in the User's factory. The machine has been built to work at a voltage of 400V.

Picture chapter 7.5.1

**⚠ Warnings ⚠**

- Check that the User power supply voltage corresponds to the one indicated on the machine rating. On the contrary, contact the Builder.
- In compliance with the regulations in force, the User will have to provide the machine with safety devices, to avoid short-circuits, and overloads, in order to protect the machine power supply line.
- Only qualified engineers can connect the machine to the power sources according to the regulations in force.

Assembly and preparation of the machine

7.5.2 Compressed air connection

To carry out the compressed air connection, it is necessary to connect the user plant's pneumatic power source to the coupling situated on the filter-reducer-lubricator group, which in turn is situated at the right side of the machine.

Picture chapter 7.5.2



Integrated plate

Compressed air connection

Filter-reducer-lubricator group

⚠ Warnings ⚠

- The supply pressure must be 6 bar.
- During installation, avoid any eventual impurities, such as chips, calcium scales, etc. or other materials getting into the compressed air line, which could cause malfunctions and damage.

Assembly and preparation of the machine

7.5.3 Water connection

For the water connection, (if the machine is equipped with a boiler unit) it is necessary to connect the machine to the user plant's water line using a tube that is adequate for the installation pressure, with a minimum internal diameter equal to **12 mm**, blocking it rigidly in place with an appropriate tube fastening clamp and inserting a stop valve and filter.

Before the connection, allow a quantity of water to discharge in order to eliminate any eventual impurities present in the tubes, such as shards, slivers, calcium deposits, etc.

Picture chap. 7.5.3

Water
connection

Assembly and preparation of the machine

7.5.4 Steam connection

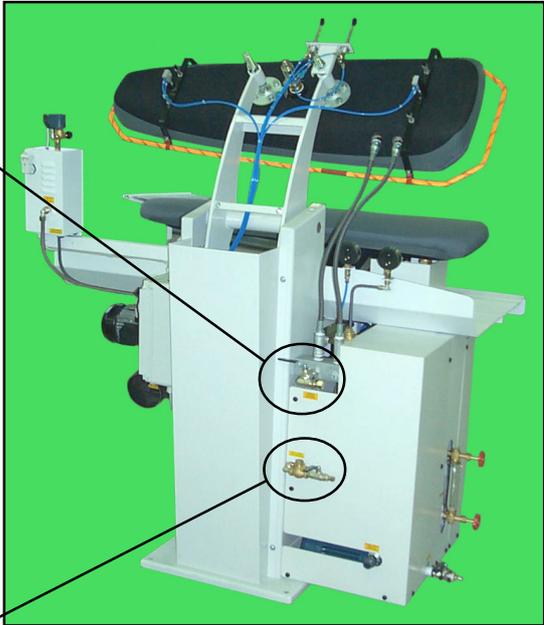
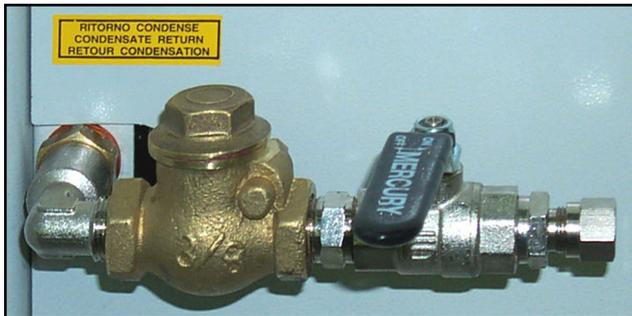
Connect the two ½ " inlet and outlet pipes coming from the generator to the couplings on the rear side of the machine. The steam working pressure must be 4.5 bar.

Picture chapter 7.5.4

Steam
output



Condensate
return



⚠ Warning ⚠

- The steam working pressure must be 4.5 bar.

Assembly and preparation of the machine

7.5.5 Air discharge

MACHINE EQUIPPED WITH VACUUM UNIT

To discharge the air, it is necessary to connect a \varnothing 120mm joint (see figure chap. 7.5.5).
If the discharge should prove to be irritating and troublesome, it can be routed outside the factory plant by means of a rigid or flexible plastic tube measuring \varnothing 120mm.

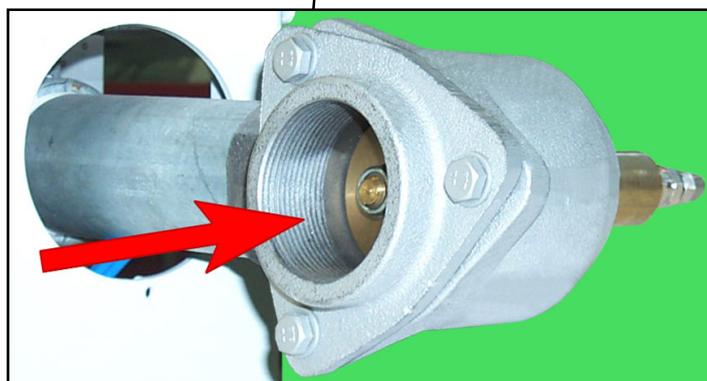
MACHINE WITHOUT VACUUM UNIT (TO BE CONNECTED TO A CENTRAL VACUUM SYSTEM)

Connect to the 2" valve (see figure chap. 7.5.5).

Picture chap. 7.5.5



Vacuum unit

Air discharge (machine
with vacuum unit)Air discharge (machine
without vacuum unit)

Assembly and preparation of the machine

7.6 Checks and adjustments

⚠ Warnings ⚠

- For any adjustment, timing or replacement intervention not described in this handbook, contact the Builder or the Dealer qualified personnel.
- It is possible to make various adjustments to adapt the machine to the various production needs.

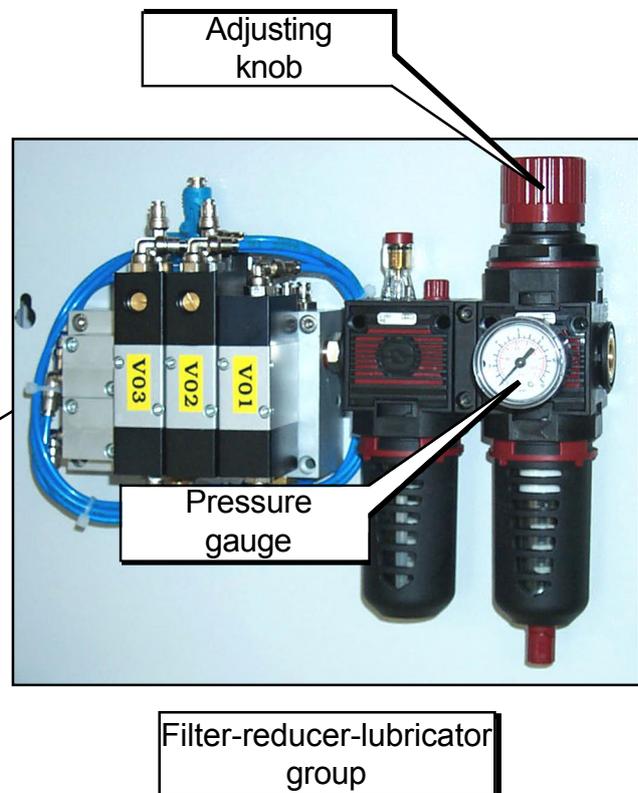
7.6.1 Air pressure adjustment

The air pressure setting is carried out through the filter-reducer-lubricator group, situated at the right side of the machine. Proceed as follows:

- Pull the adjusting knob upwards
- Enter the pressure value
- Pull down the adjusting knob.

Enter the value indicated on the pressure gauge on 6 bar.

Picture chapter 7.6.1



⚠ Warning ⚠

- The supply pressure must be 6 bar.

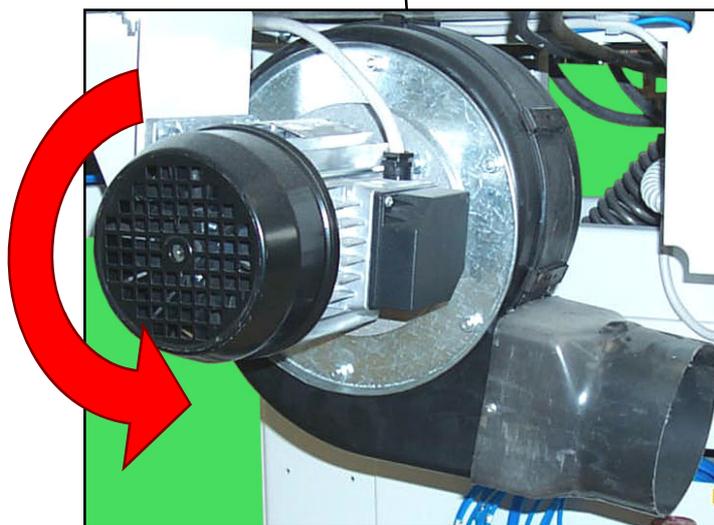
Assembly and preparation of the machine

7.6.2 Checking the direction of rotation of the vacuum unit

When starting up the machine for the first time, check the direction of rotation of the vacuum unit, as shown in the figure below.

If the direction of rotation do not correspond to the direction indicated by the arrow, consult the manufacturer.

Picture chapter 7.6.2



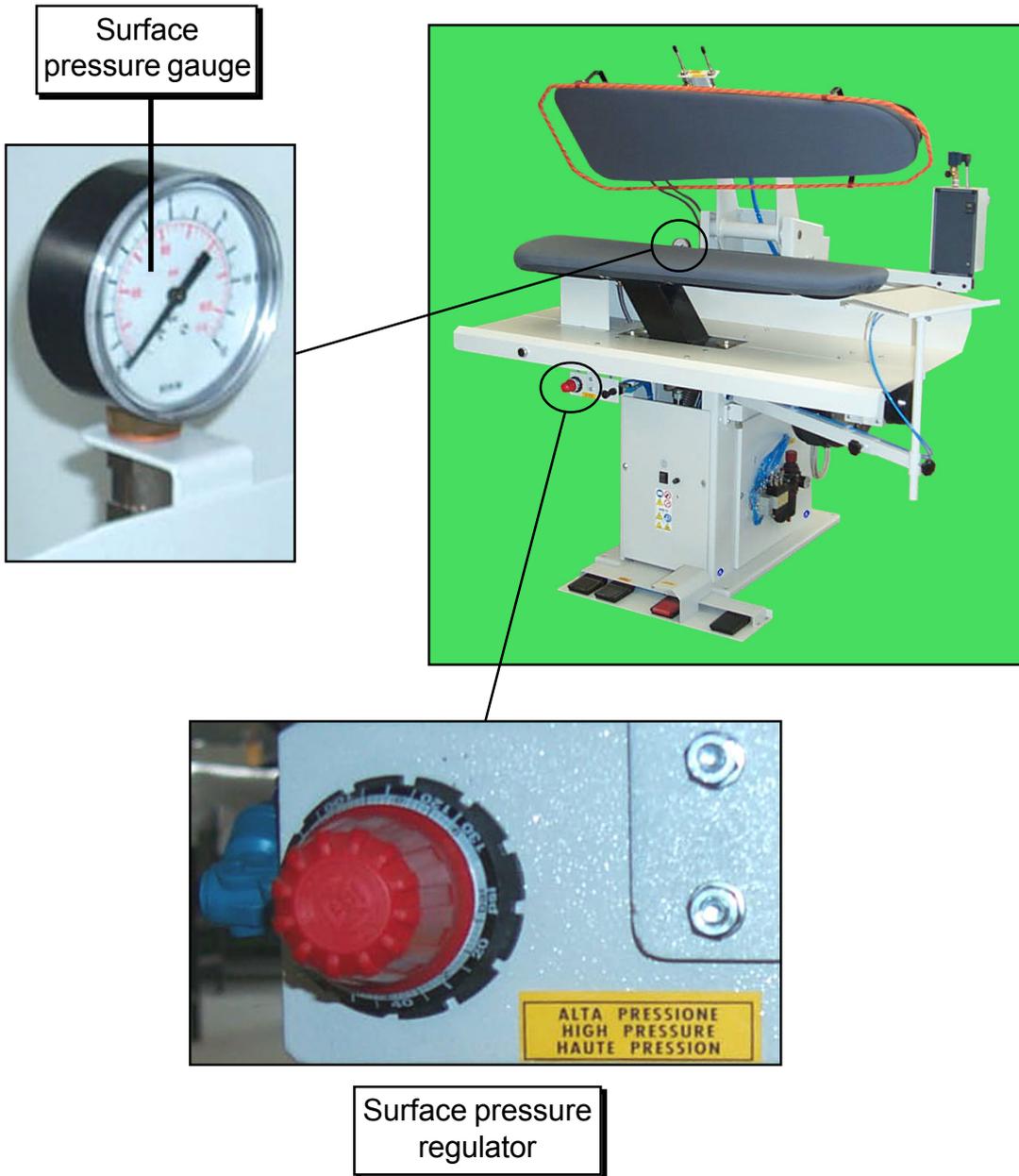
Direction of
rotation

Assembly and preparation of the machine

7.6.3 Setting the pressure of the pressing surfaces

It is possible to regulate the pressure of the surfaces, using the regulator shown in the figure in chap. 7.5.3. The pressure is indicated in the gauge at the front left of the machine (see figure below).

Picture chapter 7.6.3



Machine start

8.1 Operator work and control station

The machine's work and control station is situated next to the control pedals, and is to be occupied by just one operator.

Picture chapter 8.1



⚠ Warning ⚠

- To work, the machine requires only one operator. During its functioning no one except for the operator responsible for the machine use can stay near the machine or use it.

Machine start

8.2 Main switch

The main switch, a 2-position selector located at the right side of the machine, powers on the machine when turned to the ON position.

Vice versa, if turned to OFF, the machine is de-energised.

Picture chapter 8.2

**Main
switch**

Machine start

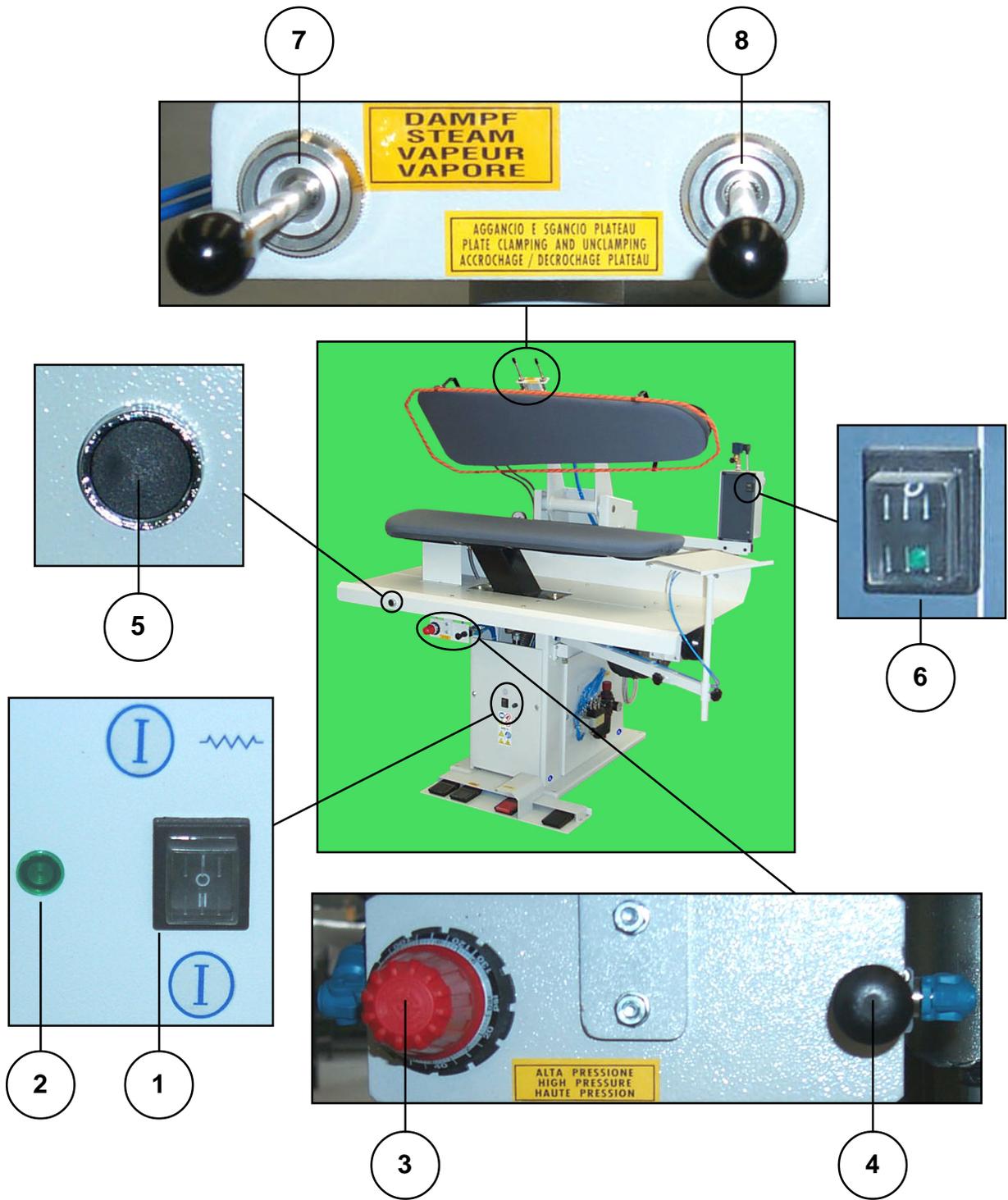
8.3 Commands on board the machine

The following is a description of the various commands present on board the machine:

REFERENCE	DESCRIPTION
1	START switch: if pressed to position 1, the machine enters operating mode with the boiler enabled. If pressed to position 2, the machine enters operating mode excluding the boiler.
2	Green LINE pilot light: lights up when the machine's electrical system is powered on.
3	SURFACE PRESSURE regulator: allows the operator to set the pressure of the pressing surfaces. For its operation, refer to chapter 7.6.3 "Setting the pressure of the pressing surfaces".
4	SURFACE SETTING valve: this command has two functions: <ul style="list-style-type: none">- if pulled towards the operator, allows only one cylinder to operate, obtaining the setting and drawing together of the pressing surfaces to approx. 1 cm. This operation allows fabrics to be grazed lightly without actually being pressed;- if pressed, allows both cylinders to operate, so that the pressing surfaces adhere to one another with pressure.
5	SAFETY FRAME RESET black button: press for an emergency reset.
6	IRON "ON" SWITCH : press to enable the iron (if present).
7	MANUAL STEAM UPPER SURFACE lever: allows for a jet of steam from the upper pressing surface.
8	LOCK / UNLOCK UPPER SURFACE lever: once the upper surface has been lowered, use this lever to lock the pressing surface onto the item being ironed. Activate the lever again to open the upper surface once more.

Machine start

Picture chapter 8.3



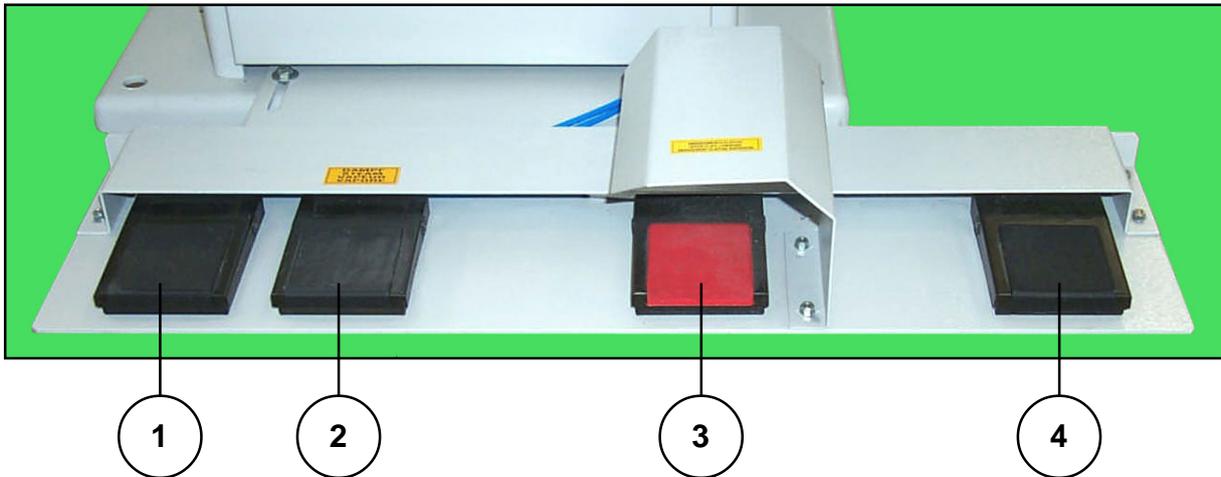
Machine start

8.4 Command pedals

The following is a description of the various command pedals located at the lower front section of the machine:

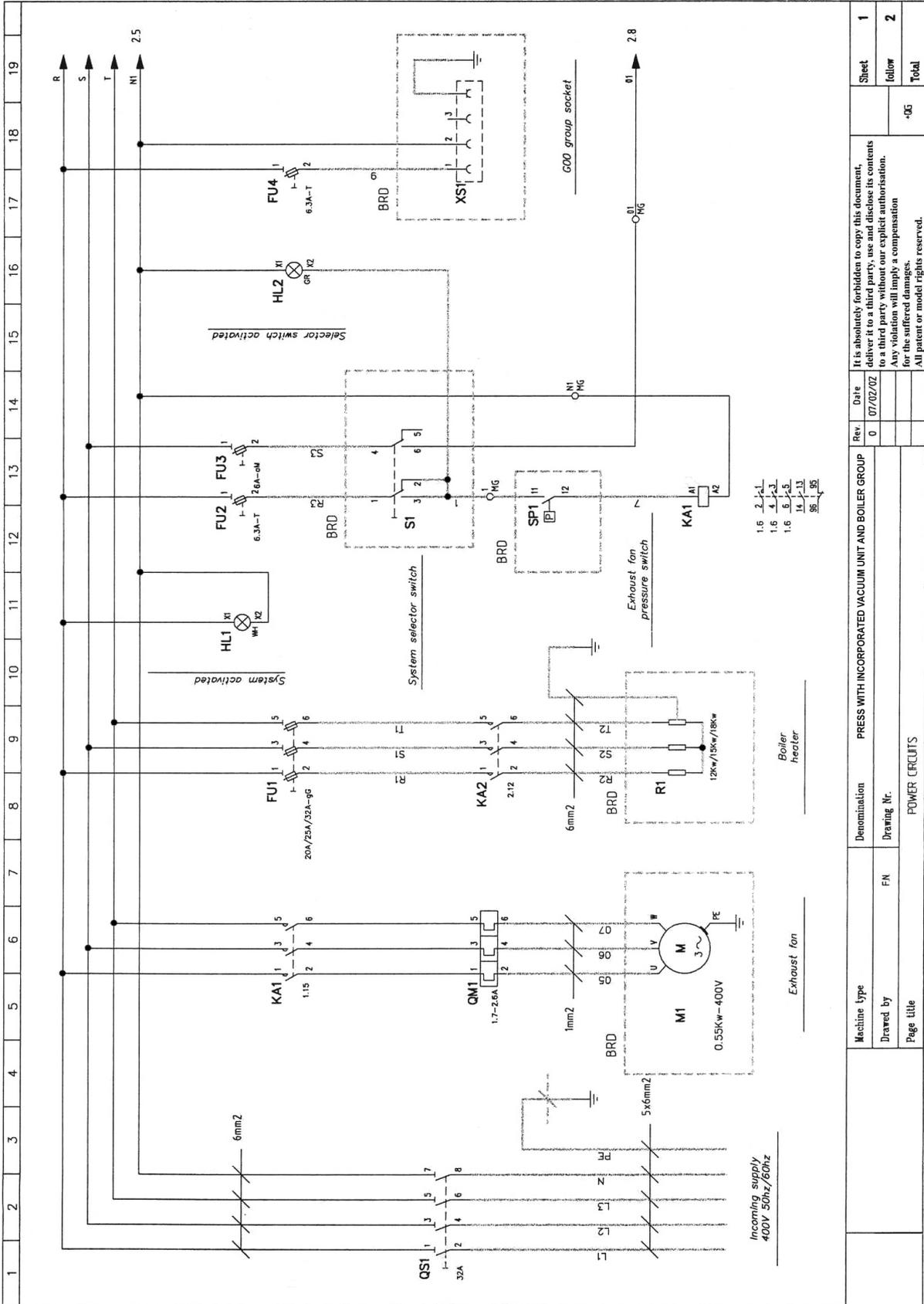
REFERENCE	DESCRIPTION
1	VACUUM pedal: keep this pedal pressed down to allow the item of clothing to be sucked down onto the lower pressing surface.
2	LOWER SURFACE STEAM pedal: keep this pedal pressed down to obtain a jet of steam on the lower surface.
3	UPPER SURFACE DESCENT pedal: keep this pedal pressed to lower the upper surface.
4	VACUUM pedal: keep this pedal pressed down to allow the item of clothing to be sucked down onto the lower pressing surface.

Picture chapter 8.4



Machine start

8.5 Electric system schemes



Sheet	1
follow	2
Total	405

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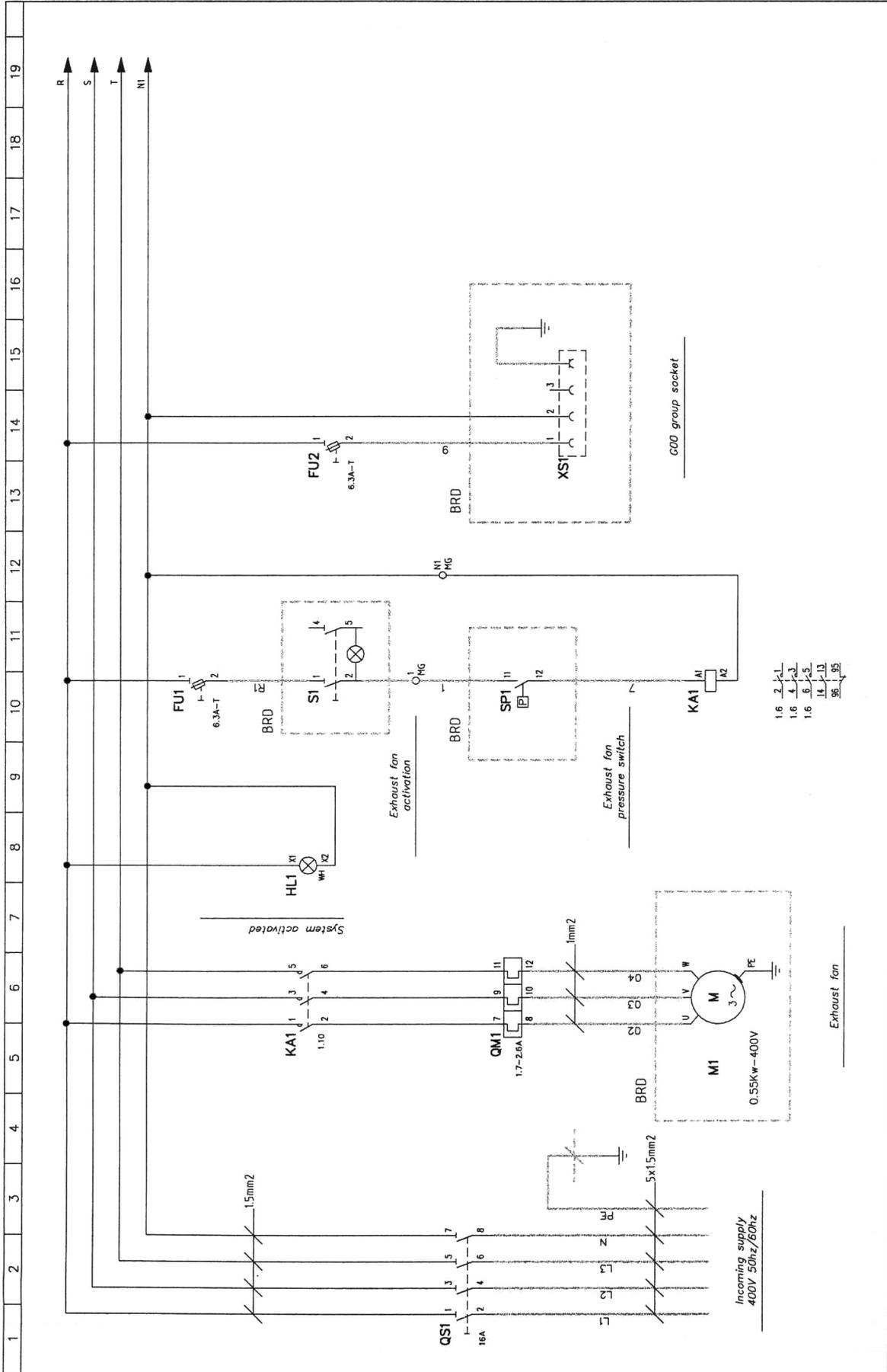
Rev.	0	Date	07/02/02
Denomination	PRESS WITH INCORPORATED VACUUM UNIT AND BOILER GROUP		
Machine type	FN		
Drawn by	FN		
Page title	POWER CIRCUITS		

Machine start

>>> LEGEND OF ELECTRICAL DIAGRAM - MACHINE WITH BOILER <<<

ITEM	DESCRIPTION	QTY.	CODE
SHEET 1			
QS1	Main switch 32A - 5P	1	3009077
KA1	Motor control relay 220V - 25A	1	3013035
KA2	Resistances control relay 220V - 40A	1	3013044
QM1	Thermal relay 1.7-2.6A	1	3013049
FU2	Fuse 6A - aM 10x38	1	3008036
FU3	Fuse 6.3A - T 5x20	1	3008040
FU4	Fuse 6.3A - T 5x20	1	
SP1	Vacuum unit pressure switch	1	3011011
HL1	Power line pilot	1	3009043
HL2	Selector activated pilot	1	3009056
S1	Selector	1	3009002
XS1	G00 group socket	1	3007029 3007003
M1	Vacuum unit 50Hz - 400V - 0.55KW	1	3019016
R1	Resistances group	-	-
FU1	Fuses	3	-
SHEET 2			
S2	Level switch	1	3010002
SP2	Boiler pressure switch	1	3011003
ST1	Heaters group thermostat	1	3012015
YV1	E.V. water	1	3003035
M2	Water pump 50Hz - 0.6KW	1	3019039

Machine start



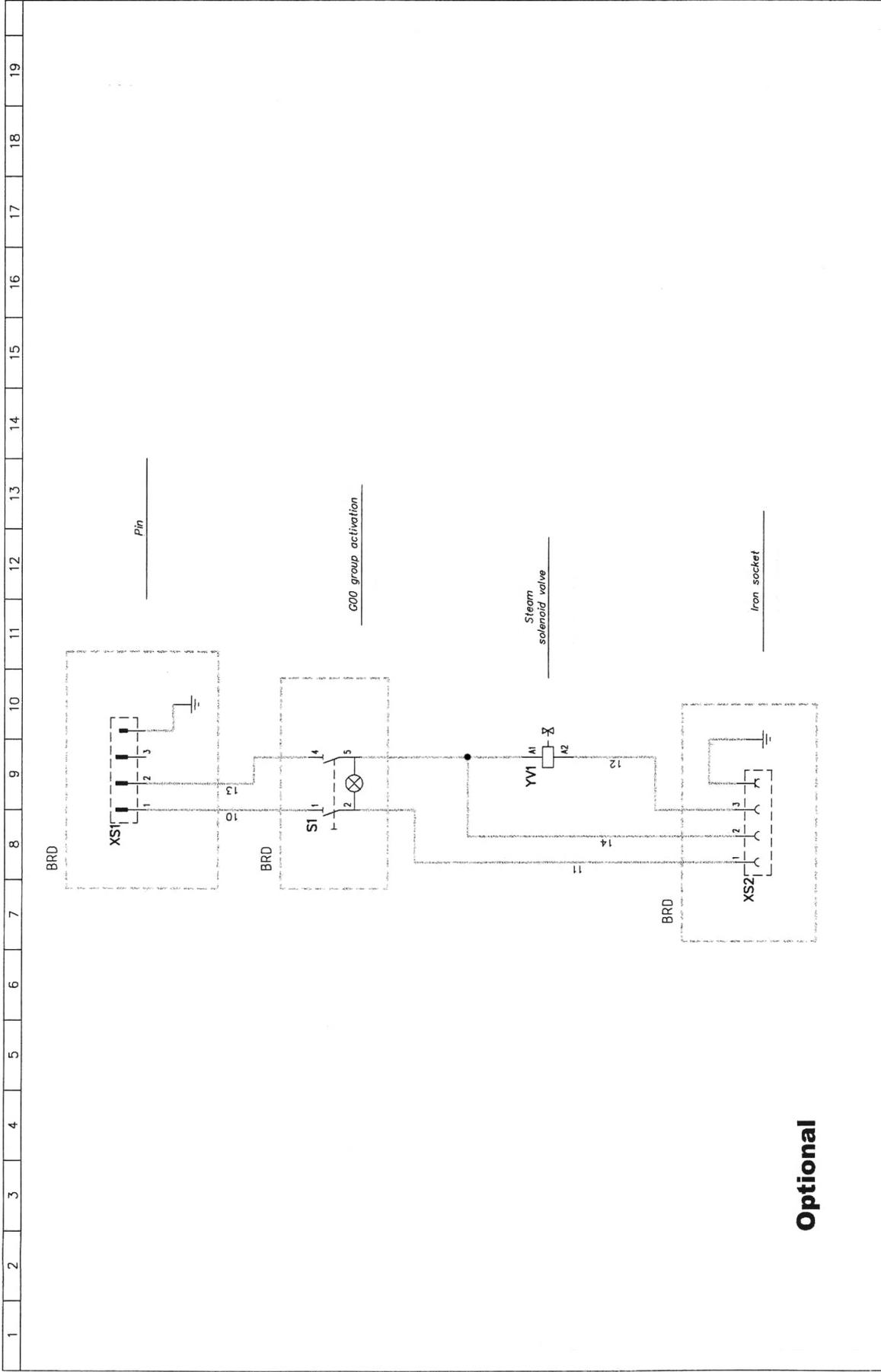
Rev.	Date	It is absolutely forbidden to copy this document, deliver it to a third party, use and disclose its contents to a third party without our explicit authorisation. Any violation will imply a compensation for the suffered damages. All patent or model rights reserved.	
0	06/02/02	Sheet	1
		follow	
		Total	05
Denomination	PRESS WITH INCORPORATED VACUUM UNIT		
Machine type	FN	Page title	POWER CIRCUITS
Drawn by			

Machine start

>>> LEGEND OF ELECTRICAL DIAGRAM - MACHINE WITHOUT BOILER <<<

ITEM	DESCRIPTION	QTY.	CODE
QS1	Main switch 16A - 5P	1	3009081
KA1	Vacuum control relay 220V - 25A	1	3013035
QM1	Thermal relay 1.7-2.6A	1	3013049
FU1	Fuse 6.3A - T 5x20	1	3008040
FU2	Fuse 6.3A - T 5x20	1	
SP1	Vacuum unit pressure switch	1	3011011
M1	Vacuum unit 50Hz - 400V - 0.55KW	1	3019016
S1	Switch	1	3009020
HL1	Power line pilot	1	3009043 3009056
XS1	G00 group socket	1	3007029 3007003

Machine start



Optional

	Machine type	Denomination	PRESS WITH INCORPORATED VACUUM UNIT	Rev	Date	It is absolutely forbidden to copy this document, deliver it to a third party, use and disclose its contents to a third party without our explicit authorisation. Any violation will imply a compensation for the suffered damages. All patent or model rights reserved.	Sheet
	Drawn by	Drawing Nr.		0	07/02/02		follow
	Page title	G00 GROUP					Total
	FN					-06	

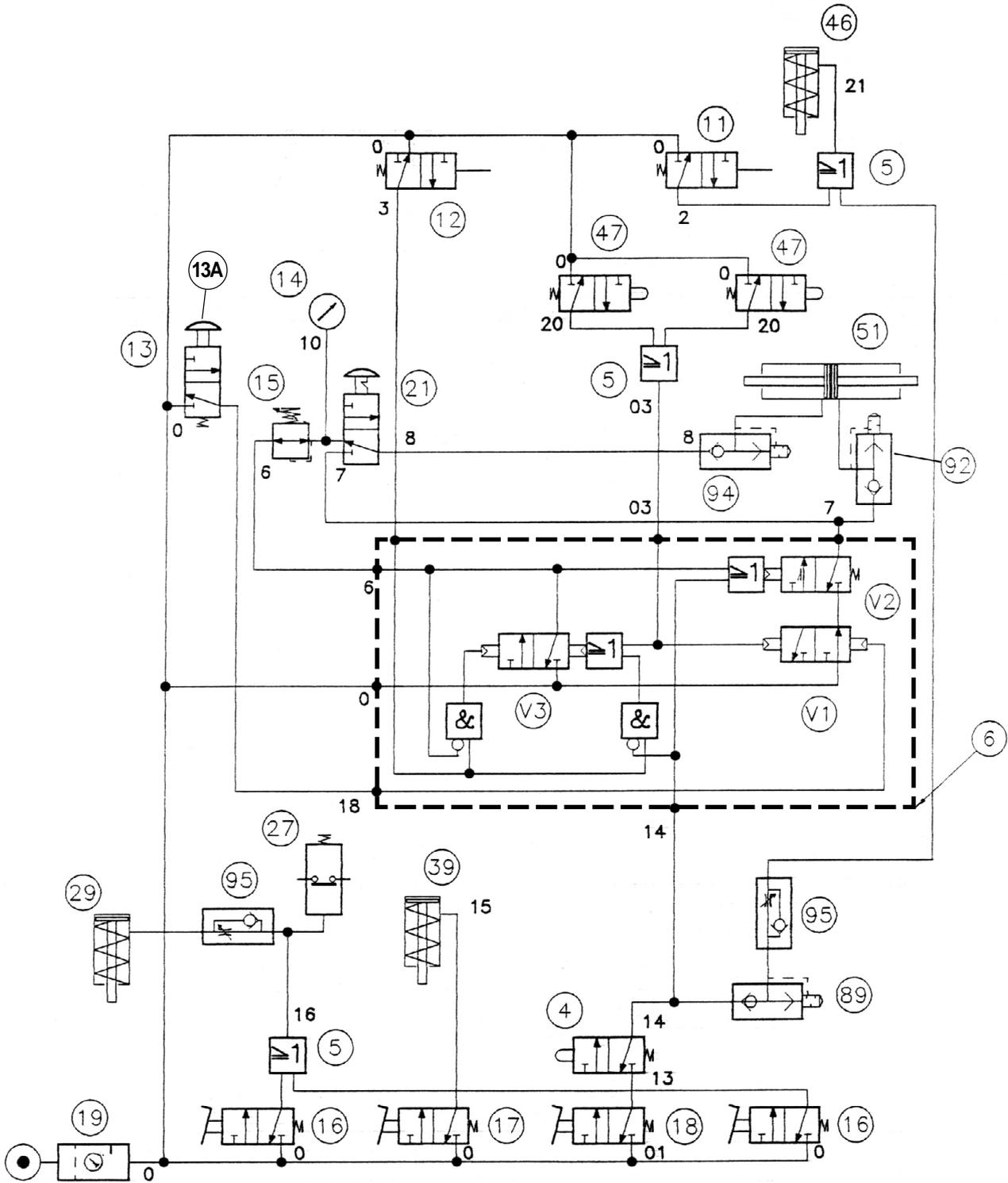
Machine start

>>> LEGEND OF ELECTRICAL DIAGRAM - OPTIONAL <<<

ITEM	DESCRIPTION	QTY.	CODE
XS1	Pin	1	3007007
S1	Switch	1	3009020
YV1	E.V. steam	1	3003025
XS2	Iron socket	1	3007029 3007003

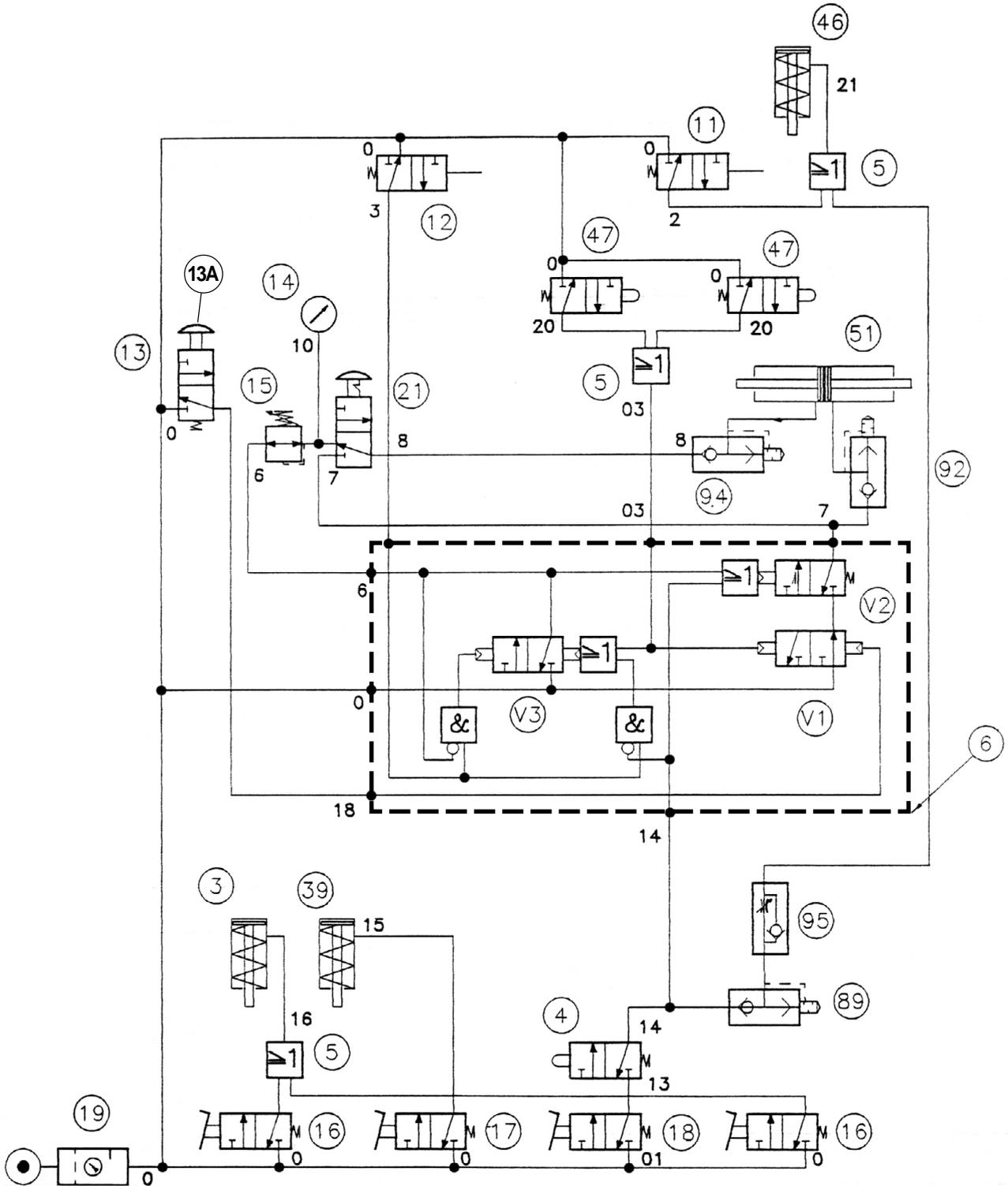
8.6 Pneumatic system schemes

>>> 4 PEDALS - INDEPENDENT VACUUM <<<



Machine start

>>> 4 PEDALS - CENTRALIZED VACUUM <<<



Machine start

POS.	DESCRIPTION	QTY.	CODE
3	2" PNEUMATIC VACUUM VALVE	1	3016017
4	2-WAY PIN PNEUMATIC MICRO	1	3024080
5	OR VALVE	2	3024103
6	CONTROL UNIT	1	3024002
11	LEVER+VALVE UPPER LEVEL STEAM	1	3024234
12	LEVER+VALVE BLOCKING/UNBLOCKING UPPER LEVEL	1	
13	SAFETY CASING COMMAND VALVE	1	3024100
13A	SAFETY CASING RESET BUTTON	1	3024102
14	LEVEL PRESSURE GAUGE	1	3025012
15	LEVEL PRESSURE REGULATOR	1	3024059
16	VACUUM PEDAL	2	3024053
17	PEDAL LOWER LEVEL STEAM	1	
18	PEDAL OR LEVER PLATEAU DESCENT	1	
19	FILTER REDUCER AIR INTAKE	1	3024052
21	LEVEL CLOSING VALVE	1	3024061
27	PRESSURE SWITCH	1	3011011
29	CYLINDER PN 25-40 LONG SHAFT	1	3024118
39	STEAM VALVE P33 LOWER LEVEL	1	1112993
46	STEAM VALVE H37 UPPER LEVEL	1	1112983
47	HAND SAFETY VALVE	2	3024093
51	CYLINDER D.100 C.190/30	1	3024036
89	RAPID DISCHARGE 1/8	1	3024048
92	RAPID DISCHARGE 1/2	1	3024050
94	RAPID DISCHARGE 1/4	1	3024049
95	UNIDIRECTIONAL REGULATOR 1/8	1	3024054

Machine use

 **Warnings** 

- In order to suddenly stop the machine, **turn the main switch to OFF.**
- During the machine functioning, it is strictly forbidden to remove the safety devices assembled by the builder in order to protect the operator while performing his tasks.
- **Only skilled and qualified operators must use the machine.**
- *Never leave the machine unattended.*

9.1 Description of start-up sequence

After having made certain that all the necessary connections have been properly taken care of, and having carried out all the preliminary control checks described in the preceding chapters, start up the machine proceeding as follows:

- 1) Turn the main switch to the ON position.
- 2) Activate the IRON "ON" switch (Ref. 6, chapter 8.3); the iron is now operational (* 1).
- 3) Activate the START switch (Ref. 1, chapter 8.3); the machine is now operational.
The pump will firstly fill the boiler with water, and immediately after, when the minimum water level has been reached, the resistances will be enabled. After approximately 20/30 minutes, the boiler will have reached its maximum pressure level (4.5 bar; this value is displayed on the gauge at the front RIGHT) (* 2).

When the operations described above have been concluded, the machine is ready for operation.

(* 1) Valid sequence if the machine is equipped with an iron.

(* 2) Valid sequence if the machine is equipped with a boiler.

9.2 Description of work sequence

- 1) Once the item of clothing to be ironed has been positioned, hold it in place by keeping the VACUUM pedal pressed down (Ref. 1, chapter 8.4).
- 2) Press the UPPER SURFACE DESCENT pedal down (Ref. 3, chapter 8.4) to lower the upper surface plate onto the item of clothing to be ironed (it is possible to regulate the descent pressure of the upper surface, see chap. 7.6.3, as well as the setting of the two surfaces, see chap. 8.3).
- 3) After the upper surface has descended, use the right upper lever LOCK / UNLOCK UPPER SURFACE (Ref. 8, chapter 8.3) to lock the surface onto the item of clothing.
- 4) Use the left upper lever MANUAL STEAM UPPER SURFACE (Ref. 7, chapter 8.3) to emit a jet of steam from the upper surface plate, or use the lower pedal LOWER SURFACE STEAM (Ref. 2, chapter 8.4) to emit a jet of steam from the lower surface plate.
- 5) At the end of the steam cycle, use the upper right LOCK / UNLOCK UPPER SURFACE to unlock and lift the upper surface plate.

9.3 Machine stop

At the end of the work shift, stop the machine in the following way:

- 1) Turn the main switch to OFF.
- 2) Disconnect the machine.

Maintenance and servicing

 **Warnings** 

- *A good maintenance is a determining factor for a longer life of the machine in the best functioning and performance conditions in order to assure the safety conditions provided by the builder.*
- *Before any maintenance or replacement activity, remember to:*
 - **stop the machine (MAIN SWITCH turned to OFF)**
 - **unplug it.**
- *Only skilled operators, familiar with the technology used on the machine can carry out all the maintenance, replacement or servicing activities described in this handbook.*

10.1 Precautions for the machine maintenance

Before any maintenance activity, it is necessary to:

- De-energise the machine and disconnect it.
- Apply a panel warning that the machine maintenance is underway.

10.2 Maintenance interventions

A good maintenance is a determining factor for a longer life of the machine in the best functioning and performance conditions in order to assure the safety conditions provided by the Builder.

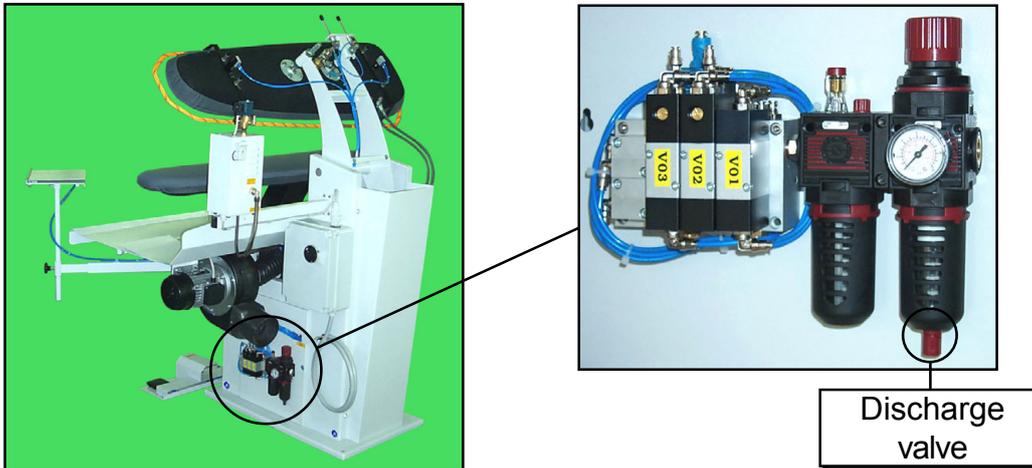
ROUTINE MAINTENANCE TABLE		
OPERATION	MACHINE PART	PERIODICITY
Condensate drainage	-	Every day
Boiler discharge	-	Every 2 days
Visual control	Machinery	Every week
	Electric parts	
Cleaning	Internal	Daily
	General	Weekly
	Boiler (removal of limescale deposits from resistances)	Yearly
Lubrication	Moving parts	Daily
Control	Conductor seal steam and water	Monthly
Replacement	Sheet cover, spring device and foam rubber on work surface	Every 300 work hours

Maintenance and servicing

10.2.1 Condensation discharge

On a daily basis, discharge the condensation through the valve situated on the filter-reducer-lubricator group.

Picture chapter 10.2.1



10.2.2 Discharging the boiler

This operation allows for the discharging, using water, of the large part of the limestone sediments accumulated at the bottom of the boiler. It is preferable to carry out this operation at the end of the work shift, proceeding as follows:

- Switch off the boiler (**BOILER 0-1 switch at position 0**).
- Use the steam until the gauge indicates a pressure of about 0,1 bar.
- Position a container for collecting the water underneath the discharge tap.
- Discharge the water contained in the boiler from the rear side of the machine.
- Once the boiler has been emptied, power it on again (**BOILER 0-1 switch at position 1**) and wait for the pump to fill up the boiler.

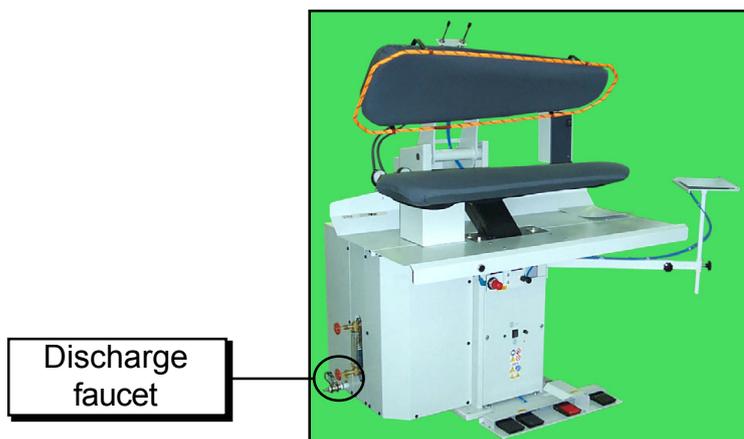
WARNING!

- **SLOWLY OPEN THE DISCHARGE FAUCET, SINCE THE WATER CONTAINED IN THE BOILER IS AT 100° C.**

IMPORTANT!

- **CONNECT THE DISCHARGE TO THE CENTRAL DISCHARGE INSTALLATION, OR EMPTY OUT INTO A COLLECTION TANK USING A RUBBER TUBING**

Picture chapter 10.2.2



Maintenance and servicing

10.2.3 Machine visual inspection

In order to assure a correct functioning and prevent troubles, periodical visual inspections of the machine and its moving parts are recommended.

Such inspections must be carried out after de-energising the machine.

Particularly make sure that there are no anomalous contacts between the elements and that the fasteners are not loosened.

10.2.4 Machine general cleaning

Once a week, remove all the dust from the machine using compressed air.
Clean the machine body externally using suitable detergents.



- Always wear protective gloves when cleaning the machine.

10.3 Machine shutdown

In case of prolonged shutdown:

- Carefully clean the machine;
- Replace the damaged parts.

10.3.1 Machine restart after a prolonged shutdown

Before restarting the machine after a prolonged shutdown:

- Let the machine idle for a while and make sure it runs correctly.

10.4 Interventions to be carried out by the builder operators

Please find below a list of the maintenance operations to be performed with a precise technical skill and therefore by the builder qualified operators.

The user must never carry out:

- any intervention on the machine's electric installation;
- any intervention on the machine mechanical parts;
- replace electrical and pneumatic components.



- For any adjustment, timing or replacement interventions that are not described in this handbook and that turn out to be necessary, please contact the technical staff of the machine reseller or builder.

Maintenance and servicing

10.5 Troubleshooting

Please find below a list of all the possible troubles that may occur on the machine:

	PROBLEMS	CAUSES	SOLUTIONS
1	THE PUMP DOES NOT OPERATE		
	<p>1.1 Does not load water</p> <p>1.2 Does not operate</p>	<ul style="list-style-type: none"> - Water solenoid valve - No water - Pump <ul style="list-style-type: none"> - Water solenoid valve - No water - Pump - Boiler level 	<ul style="list-style-type: none"> - Verify or replace - Open stop valve on installation - Verify or replace <ul style="list-style-type: none"> - Verify or replace - Open stop valve on installation - Verify or replace - Verify or replace
2	EXCESSIVE WATER LEVEL IN BOILER (Without the intervention of the feed pump)	Faulty operation of the feed solenoid valve, due to non sealtightness of sealing component.	After having closed the main faucet, proceed with disassembly and cleaning of water entry valve.
3	EXCESSIVE WATER LEVEL IN BOILER (With continuous operation of the feed pump)	Puncture in float ball, or blocking, due to limescale, of the movement of the level control rod.	Replace the float ball or remove any limescale deposited on the rod.
4	CONTINUOUS DECREASE OF STEAM PRESSURE IN THE BOILER	<ul style="list-style-type: none"> - Resistances interrupted by melting of resistor or malfunctions in the electrical feed components. - No water to water line or source faucet closed. - Water entry filter congested. - Feed pump not operational 	<ul style="list-style-type: none"> - Verify or replace - Verify - Verify or replace - See point 1
5	THE IRON DOES NOT EMIT STEAM	<ul style="list-style-type: none"> - Microswitch situated on handgrip - Solenoid valve situated at the start of the iron feed rubber tube 	<ul style="list-style-type: none"> - Verify or replace - Verify or replace
6	THE IRON LEAKS WATER:		
	<p>6.1 If the iron is cold</p> <p>6.2 If the iron is hot</p>	<ul style="list-style-type: none"> - Resistance not powered or worn out - Malfunction in thermostat <p>The boiler, because of the damaged level control, does not maintain optimum level, or is completely full of water.</p>	<ul style="list-style-type: none"> - Verify or replace - Verify or replace <ul style="list-style-type: none"> - See points 2 and 3
7	A NOTABLE QUANTITY OF FOAM COMES OUT OF THE BOILER	The water contains large quantities of foam agents (e.g. softened water is more foamy than hard water).	Verify

Machine dismantling

In compliance with EC laws, or with the regulations in force in the User's Country, the User must arrange for the demolition, disposal and elimination of the different materials composing the machine. In case the machine - or any of its component- must be scrapped, it is necessary to adopt all the safety measures in order to avoid any risks deriving from the dismantling of industrial machinery.

A particular care must be taken during the following phases:

- Disassembling of the machine from the working area
- Transport and handling of the machine
- Dismantling of the machine
- Separation of the different materials composing the machine.

To demolish and dismantle the machine, it is necessary to observe some important rules for the safeguard of one's health and of environment where we live.



Eliminate any residue of oil and grease from the machine; the lubricating substances must not be dispersed in the environment, but regenerated or treated by a Company specialised in the dismantling or such products.

In case the materials used for the productive process or the lubricants and the condensation waters are not eliminated according to the Laws and Regulations in force, there can be other additional risks such as:



1) Environmental pollution



2) Intoxication of the people in charge of the dismantling operations.

Refer to the National or Regional Laws relevant to the elimination of industrial solid wastes and toxic and noxious wastes, when carrying out the separating, recycling or dismantling operations of the materials:

Sheaths, flexible pipes and plastic or non metallic components, must be disassembled and dismantled separately;

Pneumatic and electric components such as valves, solenoid valves, pressure regulators, switches, transformers, etc., must be disassembled to be used again, in case they are still in good conditions or, if possible, overhauled and recycled.

The housing and in any case all the metallic parts of the machine must be disassembled and grouped according to each type of material. The various parts, thus obtained, can be demolished and melted, in order to recycle the material composing the original machine.



Noxious-toxic products must be eliminated in compliance with the National or Regional Laws in force, through special draining channels belonging to the Consortium specialised in the elimination of used oils.

Machine resonant level

DETERMINATION OF ACOUSTIC LEVEL IN dB (A)

Ironing press: BL

Work cycles	Time constant	Leq. (A)
Vacuum	Slow	71.5
Steam	Slow	71

Notes: the maximum noise level is reached during the use of the air-steam gun (with a press equipped with this accessory) at the moment of steam output onto the item of clothing. Given the brevity of the operation, this value is considered acceptable. The ironing machine tested individually does not present counterindications to continuous usage during the entire work day, and satisfies the requirements outlined in Art. 46 of Legal Decree no. 277.

Main warnings

- 1) - *In the paragraphs relevant to the technical description, the location of the accessories and of the various machine parts is always given with reference to the operator's position.*
- 2) - *All the maintenance and adjustment activities described in this handbook must be carried out only after stopping the machine (main switch turned to OFF) and disconnecting the power cord if not clearly indicated that the operation must be carried out when the machine is on.*
- 3) - *All the adjustment and replacement activities that are not described in this handbook must be carried out by qualified and skilled operators to avoid any accident or damage to the machine and to the operator.*
- 4) - *The builder has provided the machine with the safety devices in order to protect the operator while performing his tasks. During the machine functioning, the safety devices must not be removed for any reason at all.
The operators, although skilled, must comply with the instructions and the warnings contained in this handbook.*
- 5) - *Since the machine is not perfectly balanced, use only a crane to lift it.*
- 6) - *Lift the machine only by means of steel cables or bands duly dimensioned according to the machine weight.*
- 7) - *Lift the machine by means of safety hooks.*
- 8) - *No foreign operator must stay or pass in the handling area while the operators responsible for the machine transport will have to keep at a suitable distance to avoid being intercepted by the machine.*
- 9) - *Never make sudden manoeuvres while lifting and handling the machine so that it cannot intercept any people or object present in the handling area.*
- 10) - *An operator staying outside the handling area will have to follow all the handling activities and signal any possible obstacle the crane operator cannot see.*
- 11) - *In case of sea transport, it is advisable to protect the various machine parts by covering them with antirust lubricating agents and to add some bags containing hygroscopic salts to the packaging.*
- 12) - *Once positioned on the truck (or any transport mean) the machine must be braced by ropes, steel cables or wooden wedged duly dimensioned according to the machine weight.*
- 13) - *The machine must be installed in a place where the best hygrometrical conditions are observed for the safety of the operator in order to reduce the possibility of fatigue to the minimum and to allow the operator to work in the maximum safety conditions.*
- 14) - *The machine installation area will have to be well-ventilated and free from explosive gases.*
- 15) - *The temperature of the machine installation area will have to range between 10°C and 35°C.*
- 16) - *Upon receipt in the user's factory, the machine must be cleaned wearing special protective gloves.*

Main warnings

- 17) - *Only skilled operators can connect the machine to the external power sources.*
- 18) - *Check that the User's power supply voltage corresponds to the one indicated on the machine rating. On the contrary, contact the Builder.*
- 19) - *In compliance with the regulations in force, the User will have to provide the machine with safety devices, to avoid short-circuits, and overloads, in order to protect the machine power supply line.*
- 20) - *Only qualified engineers can connect the machine to the power sources, in compliance with the regulations in force.*
- 21) - *For any adjustment, timing or replacement interventions that are not described in this handbook, please contact the Dealer or Builder personnel.*
- 22) - *It is possible to make various adjustments to adapt the machine to the various production needs.*
- 23) - *To work, the machine requires only one operator. During its functioning no one except for the operator responsible for the machine use can stay near the machine or use it.*
- 24) - *In order to suddenly stop the machine at any time, turn the main switch to OFF.*
- 25) - *During the machine functioning, it is strictly forbidden to remove the safety devices assembled by the builder on the machine in order to protect the operator while performing his tasks.*
- 26) - *Only skilled and qualified operators must use the machine.*
- 27) - *Never leave the machine unattended.*
- 28) - *A good maintenance is a determining factor for a longer life of the machine in the best functioning and performing conditions in order to assure the safety conditions provided by the builder.*
- 29) - *Before any maintenance or replacement activity, remember to:*
 - *stop the machine (MAIN SWITCH turned to OFF)*
 - *disconnect the power cord.*
- 30) - *Skilled operators, familiar with the technology applied to the machine must carry out any type of maintenance, replacement or servicing described in this handbook.*

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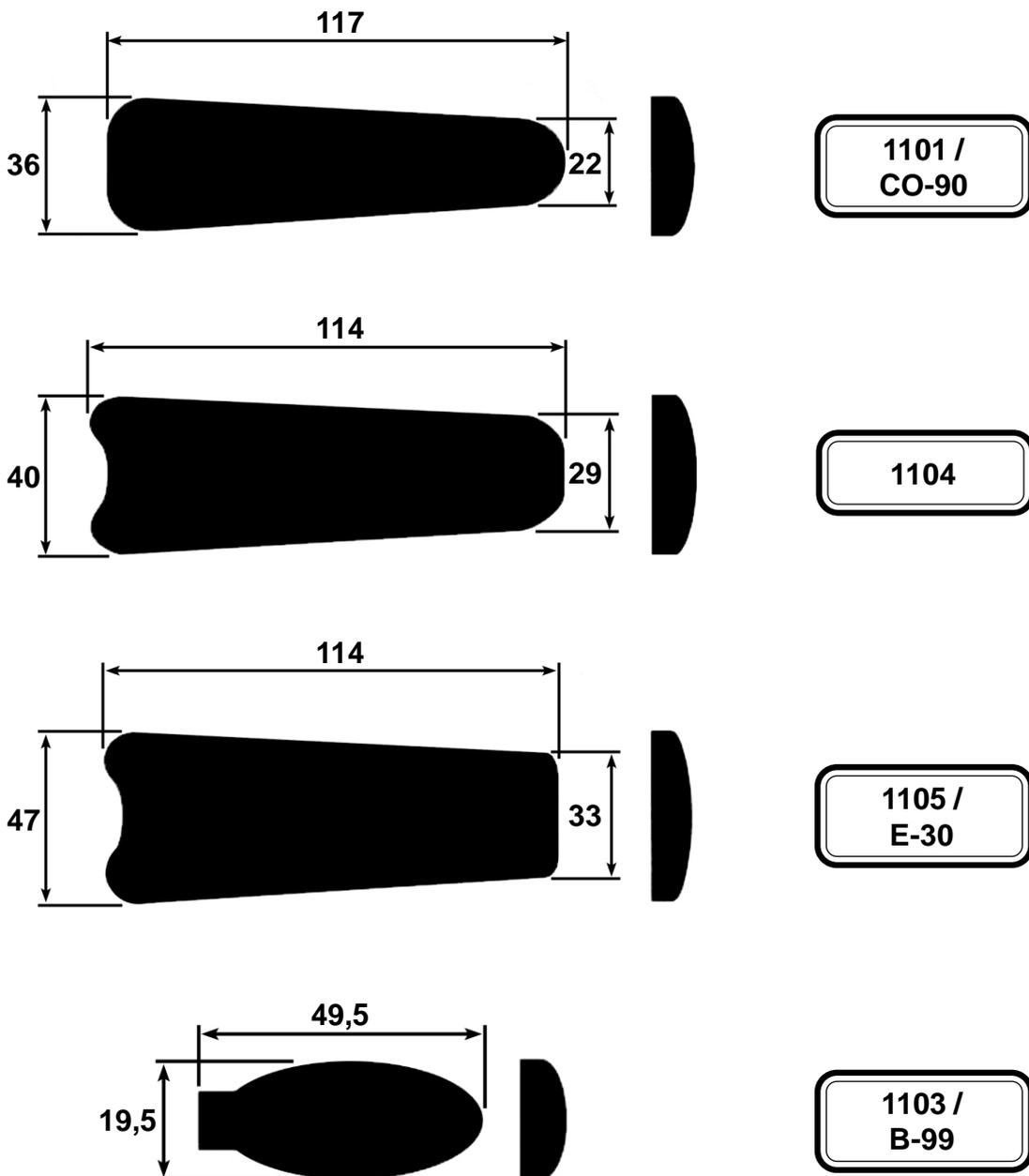
Machine spare parts

The builder guarantees the safety and reliability features of the machine only if original spare parts are used. The builder accepts no responsibility for the damages that may derive from the use of non-original spare parts.

A code number indicated in the legends referring to the electric and pneumatic diagrams or indicated in the tables under the pictures included in the section "Machine spare parts" corresponds to each spare part.

When ordering the machine spare parts, always remember to specify:

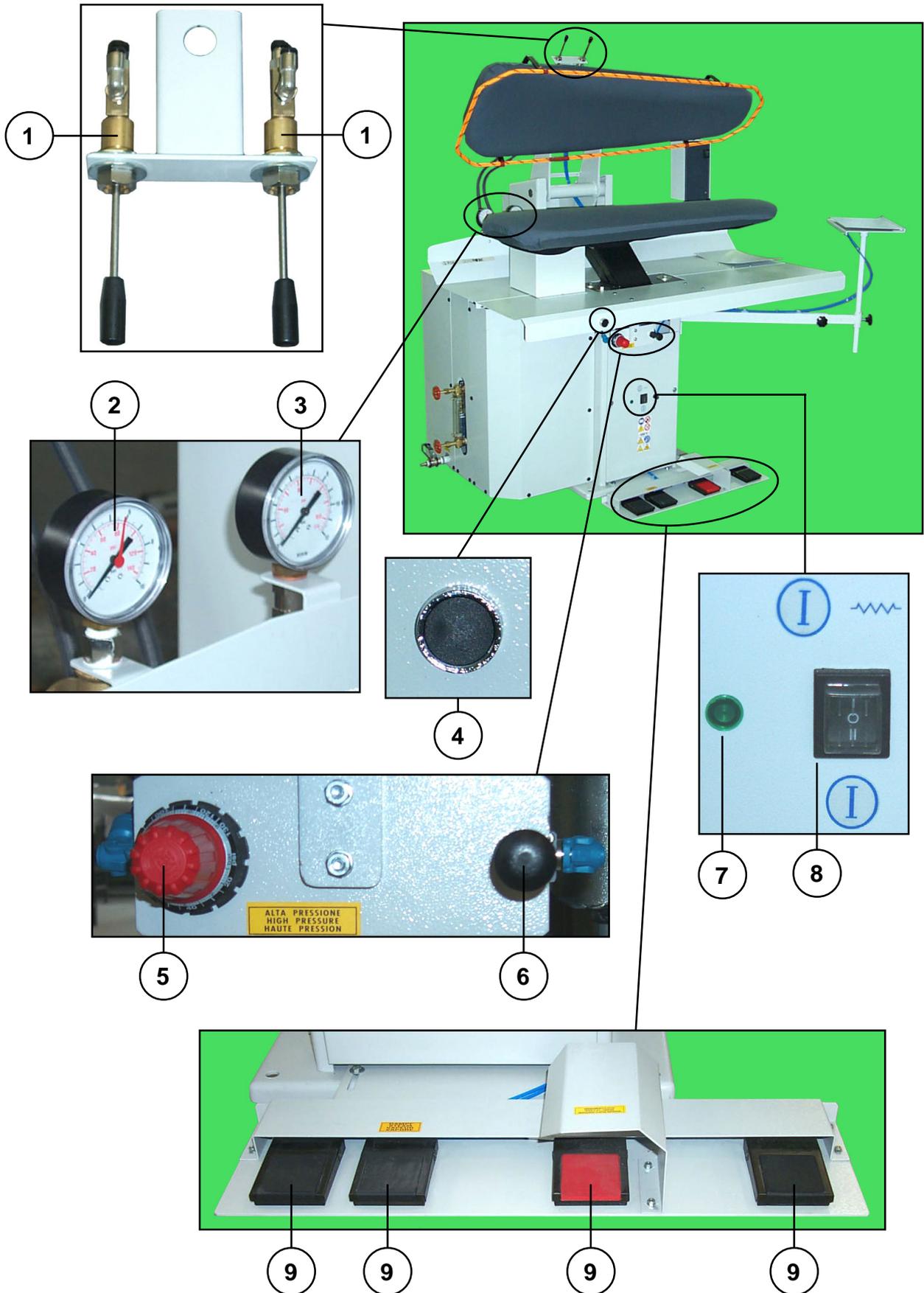
- the machine number
- the code number of the spare part
- the machine model.
- the voltage and frequency



Machine spare parts

POS.	DESCRIPTION	CODE
1101/ CO-90	LINING KIT FOR LOWER SURFACE	1112780
	PRONTOTOP UPPER SURFACE	1112790
1104	LINING KIT FOR LOWER SURFACE	1112800
	PRONTOTOP UPPER SURFACE	1112810
1105 / E-30	LINING KIT FOR LOWER SURFACE	1113550
	PRONTOTOP UPPER SURFACE	1113560
1103 / B-99	PRONTOTOP LOWER SURFACE	1112420
	PRONTOTOP UPPER SURFACE	1112410

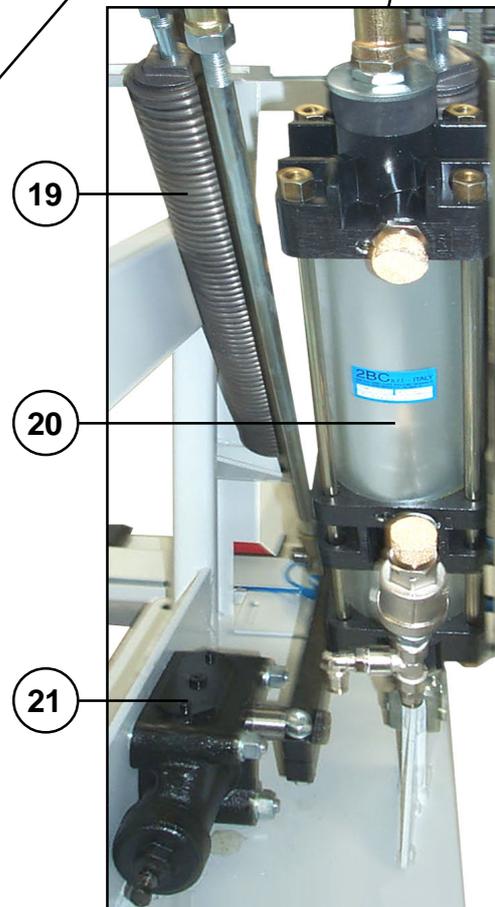
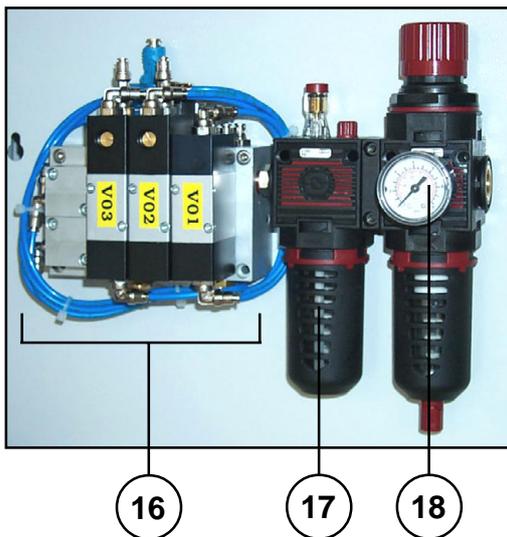
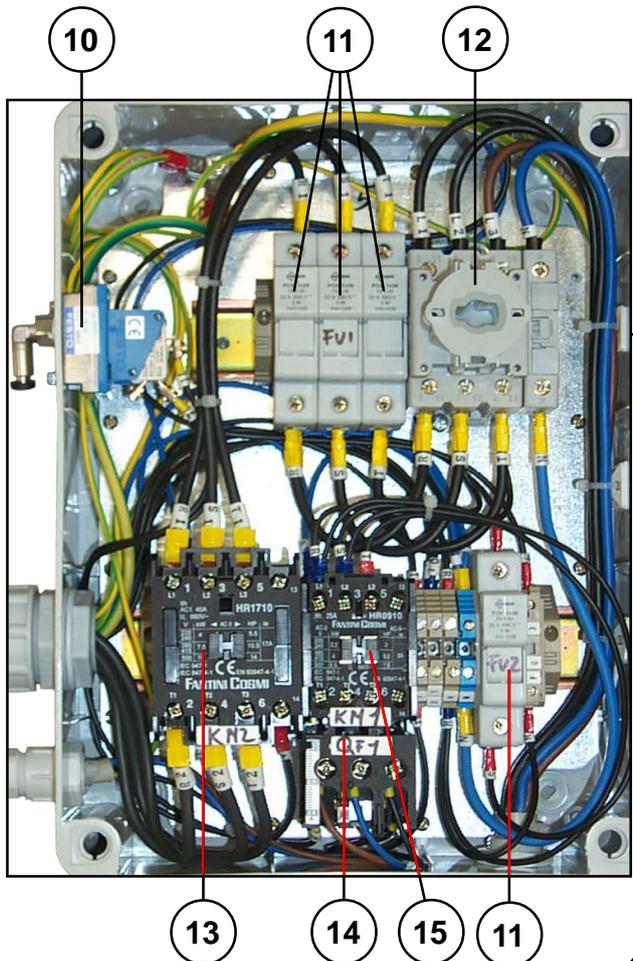
Machine spare parts



Machine spare parts

POS.	DESCRIPTION	QTY.	CODE
1	LEVER VALVE	2	3024234
2	STEAM GAUGE	1	3025012
3	AIR GAUGE	1	3025026
4	BLACK BUTTON	1	3024102
5	PRESSURE REGULATOR	1	3024059
6	SURFACE SETTING VALVE	1	3024061
7	ELECTRICAL LINE PILOT	1	3009045
8	BIPOLAR SWITCH	1	3009020
9	3-WAY PNEUMATIC PEDAL	4	3024053

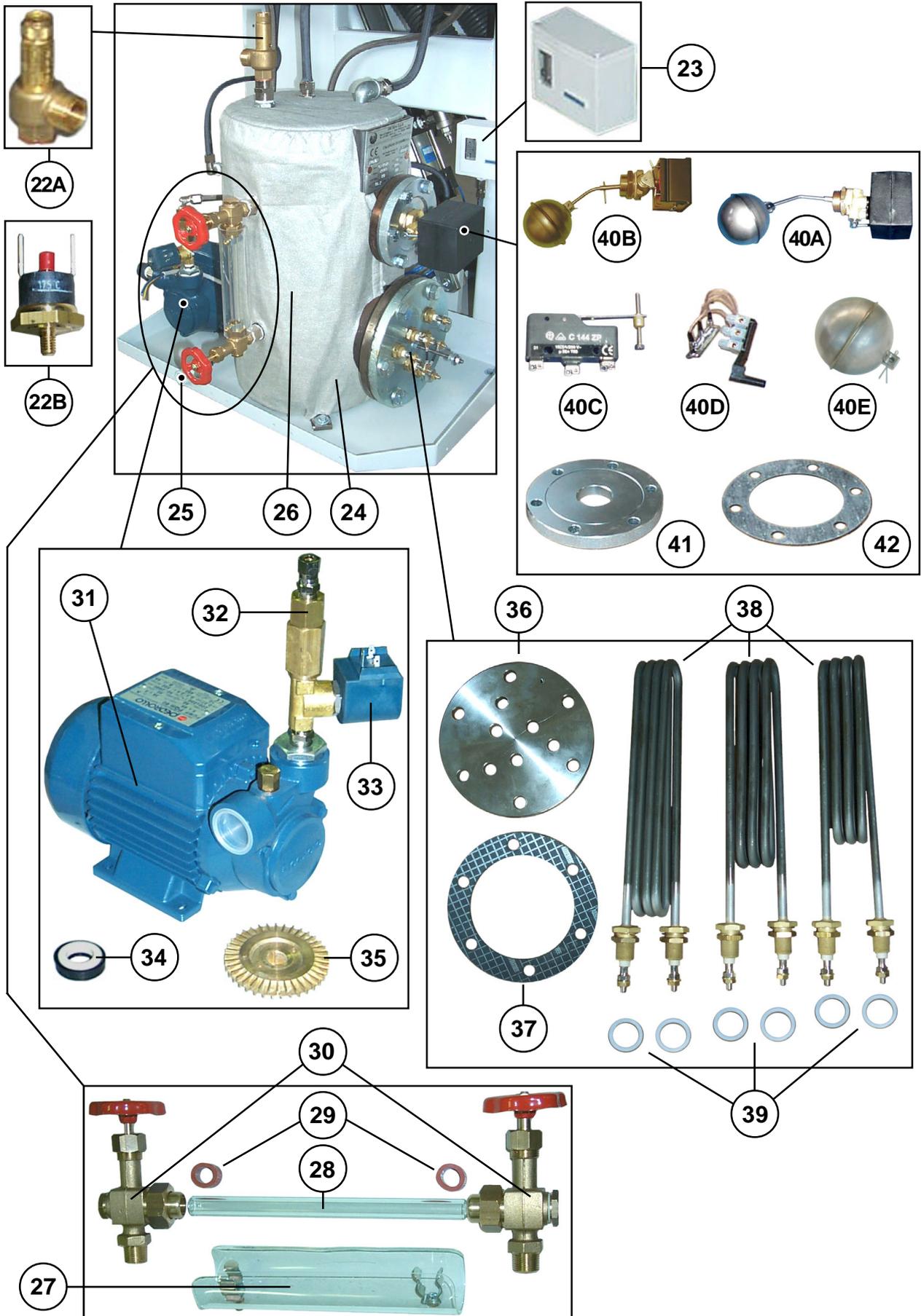
Machine spare parts



Machine spare parts

POS.	DESCRIPTION	QTY.	CODE
10	PRESSURE SWITCH	1	3011011
11	FUSE CARRIER	4	3008021
12	MAIN SWITCH	1	3009077
13	REMOTE CONTROL 40A - 230V	1	3013044
14	THERMAL RELAY 1.7-2.6A	1	3013049
15	REMOTE CONTROL 25A - 230V	1	3013035
16	INTEGRATED PLATE	1	3024002
17	FILTER-REDUCER-LUBRICATOR	1	3024052
18	GAUGE	1	3025003
19	SPRING	2	1111780
20	CYLINDER Ø 100 STROKE 30 x 190	1	3024036
	CYLINDER Ø 125 STROKE 30 x 190	1	13024009
21	SHOCK ABSORBER	1	3061001

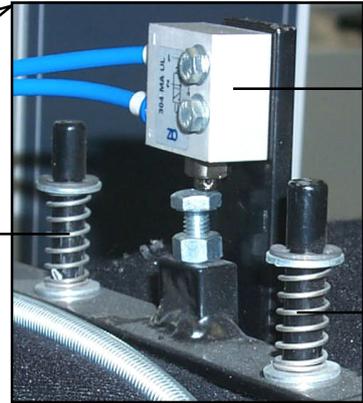
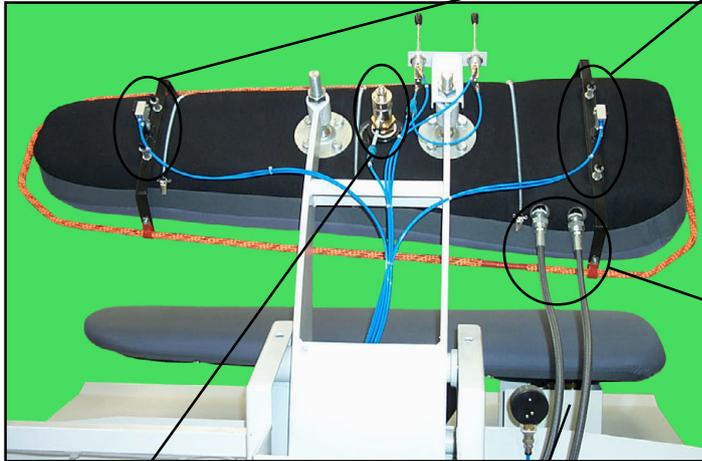
Machine spare parts



Machine spare parts

POS.	DESCRIPTION	QTY.	CODE
22A	SAFETY VALVE 3/8"	1	3018002
22B	SAFETY THERMOSTAT	1	3012007
23	PRESSURE SWITCH 4,5 BAR	1	3011003
24	BOILER INSULATION	1	1048340
25	BALL VALVE	1	3016006
26	BOILER LT. 24	1	1082472
27	GLASS PROTECTION FOR LEVEL	1	1050383
28	GLASS FOR LEVEL	1	1051730
29	SEAL FOR LEVEL GLASS	2	3044026
30	LEVEL HOLDER	1	3016010
31	PUMP PQM 81 BS	1	3019001
32	WATER RETAINING VALVE 1/4"	1	3020008
33	SOLENOID VALVE	1	3003035
34	MECHANICAL SEAL FOR PUMP	1	3019002
35	PUMP IMPELLER	1	3019003
36	FLANGE - MONOGROUP RESISTANCES	1	1051900
37	RESISTANCE GASKET	1	1051890
38	RESISTANCE 3000 W - 230 V	3	3017064
	RESISTANCE 4000 W - 230 V	3	3017016
	RESISTANCE 5000 W - 230 V	3	3017051
	RESISTANCE 6000 W - 230 V	3	3017007
39	TEFLON GASKET	6	3044001
40A	COMPLETE CONTROL LEVEL WITH MERCURY BULB	1	3010002
40B	COMPLETE CONTROL LEVEL WITH MICROSWITCH	1	3010001
40C	CONTROL MICROSWITCH	1	3010003
40D	MERCURY BULB	1	3010008
40E	STAINLESS STEEL SPHERE FLOATER	1	3010005
41	LEVEL FLANGE	1	1054740
42	GASKET	1	1040240

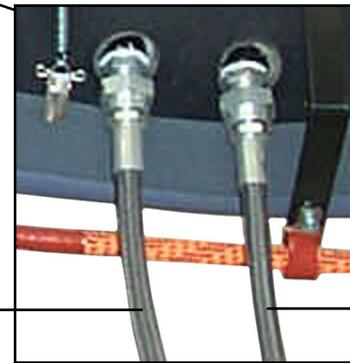
Machine spare parts



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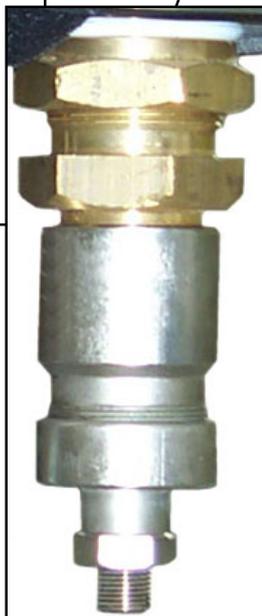


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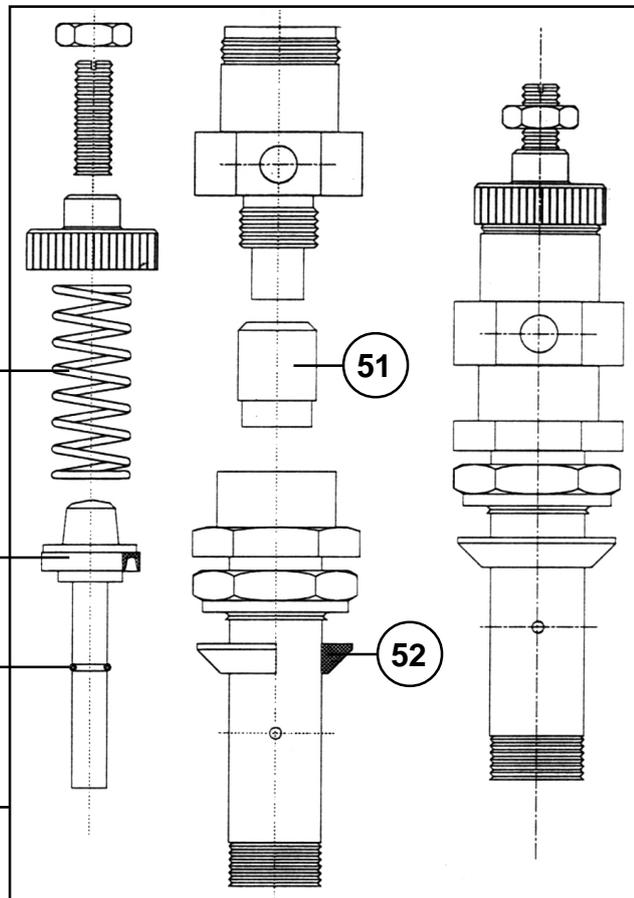
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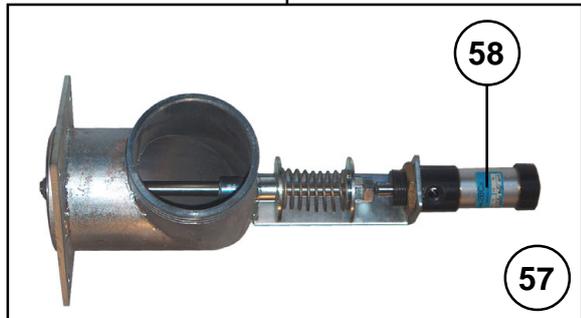
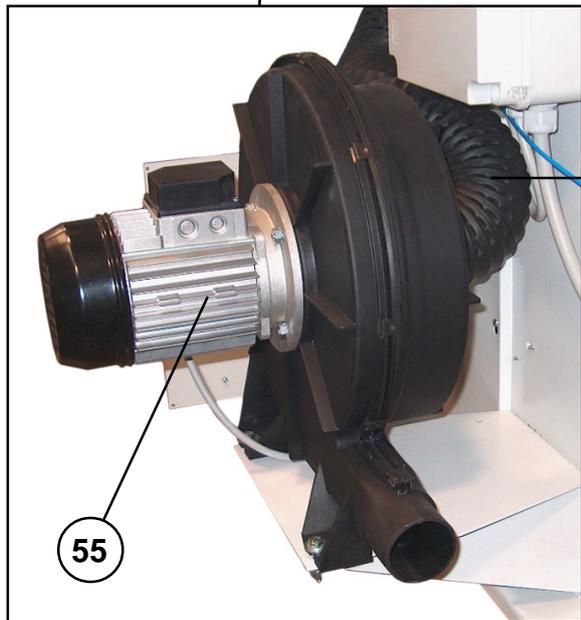
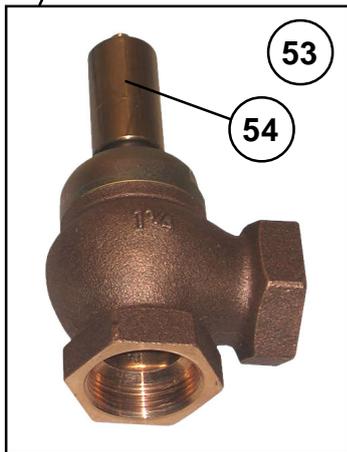
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Machine spare parts

POS.	DESCRIPTION	QTY.	CODE
43	HAND SAFETY STAINLESS STEEL SPRING	4	1111830
44	HAND SAFETY VALVE	2	3024030
45	PTFE TUBE	2	3035047
46	STEAM VALVE - UPPER SURFACE H37	1	1112983
47	STEAM VALVE - LOWER SURFACE	1	1112993
48	STAINLESS STEEL SPRING	1	1112400
49	SILICONE GASKET	1	3016021
50	GASKET OR 5	1	3024072
51	DISK HOLDER	1	3016020
52	TEFLON GASKET - UPPER VALVE	1	3024076
	TEFLON GASKET - LOWER VALVE	1	3024075

Machine spare parts

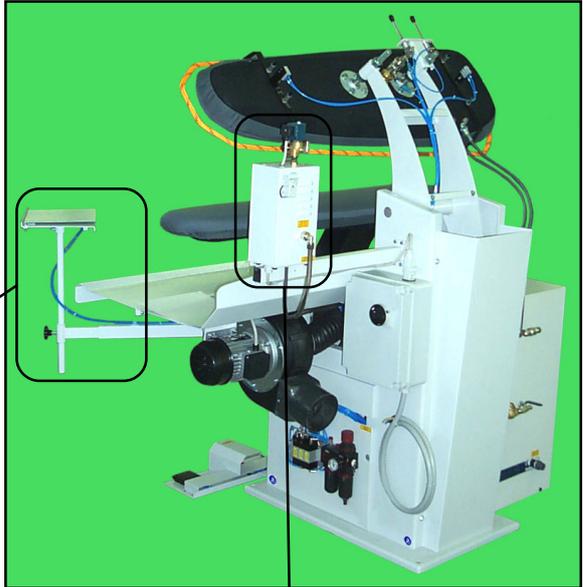
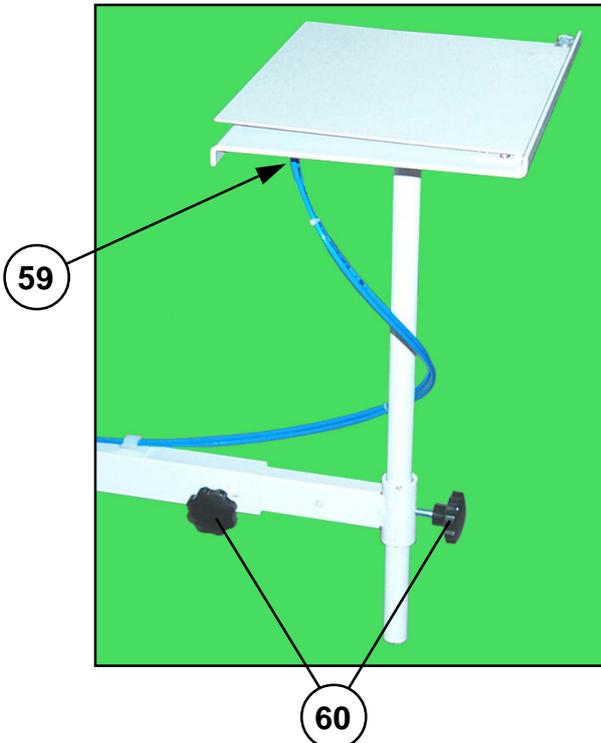


Machine spare parts

POS.	DESCRIPTION	QTY.	CODE
53	VACUUM VALVE 2"	1	3016017
	VACUUM VALVE 1/4"	1	3016013
54	CYLINDER GASKET	1	3016022
55	VACUUM UNIT	1	3019016
56	VACUUM TUBE	1	3035036
57	VACUUM VALVE BODY 3"	1	1113652
58	CYLINDER Ø 20 c.25	1	3024047

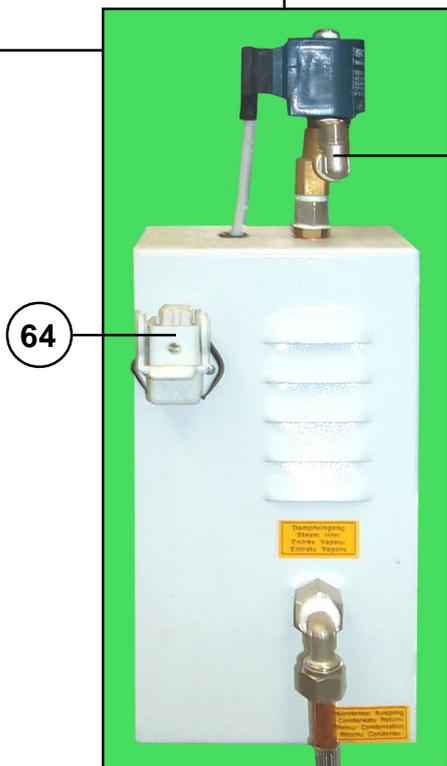
Machine spare parts

IRON
REST



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CONDENSATION
SEPARATOR

Machine spare parts

POS.	DESCRIPTION	QTY.	CODE
59	3-WAY PNEUMATIC PIN MICRO	1	3024080
60	MALE HANDWHEEL	2	3032001
61	SOLENOID VALVE 230V - 50/60HZ	1	3003025
62	PVG CABLE CONNECTOR	1	3007017
63	BIPOLAR LIGHTED SWITCH	1	3009020
64	SOCKET FOR IRON	1	3007012
65	CORNER RUBBER HOLDER	1	3026156