

# Instructions and maintenance SATURNO MAX L. 24 SATURNO MAX/S L. 51

#### **BATTISTELLA B.G. S.r.l.**

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## INSTRUCTIONS AND MAINTENANCE SATURNO MAX L 24 – SATURNO MAX/S L 51

Read these directions carefully before operating.

Don't use the machine differently from the following description.

#### 1. SPECIFICATIONS

MODEL: SATURNO MAX L 24 SATURNO MAX/S L 51

POWER SUPPLY: 400 V + NEUTRAL - 50Hz 400 V + NEUTRAL - 50Hz TOTAL INSTALLED POWER: 18,5 or 24,5 kW 36,5 or 48,5 kW

BOILER POWER: 18 or 24 kW 36 or 48 kW PUMP POWER: 0,7 Hp 0,7 Hp

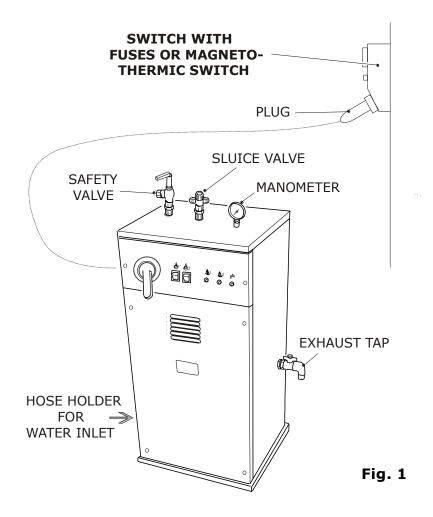
BOILER CAPACITY: 24 L. 51 L.

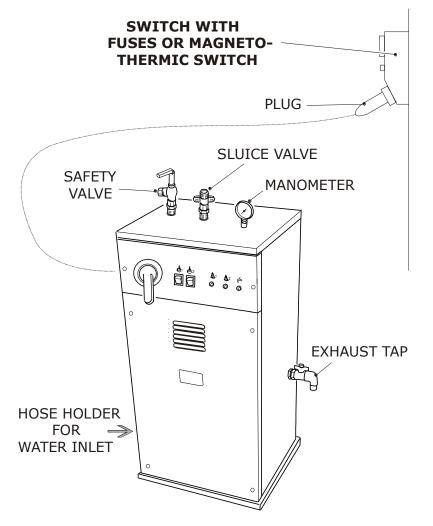
IRONING ENDURANCE: CONTINUOUS CONTINUOUS

OPERATING STEAM PRESSURE: 6 BAR
WEIGHT: 90 kg. 110 kg.

OVERALL DIMENSIONS: 70x60x105 h. cm 70x60x105 h. cm

**MADE IN ITALY** 



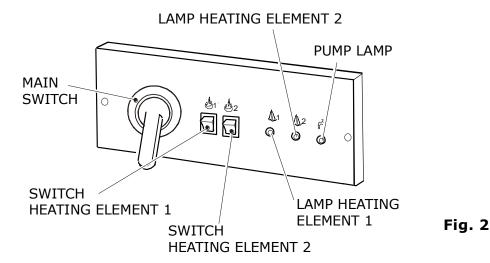


#### 2. IMPORTANT

Before installing SATURNO MAX, it is necessary to set up the following facilities:

1. a water connection (tap with hose holder); a rubber tube which must have a pressure capacity of at least 10 ATM will connect the SATURNO MAX to the mains by means of a hose holder for WATER **INLET** (diameter of water inlet 8/13 mm), which must be fixed tightly with 2 hose clamps. (N.B.: before inserting the rubber tube into SATURNO MAX hose holder, exhaust a few litres of water in order to clean the conduit);

2. an electrical outlet protected and suitable to SATURNO MAX power.



3. OPENING OF PACKAGE

- 1. Open the box containing SATURNO MAX from the upper side marked as ALTO  $\hat{\mathbf{1}}$ , take instructions manual and read carefully.
- 2. It is recommended to lay the machine flat and in such a position so as to allow a smooth operation and a perfect maintenance.

#### 4. CONNECTION AND STARTING

- Connect the rubber tube to WATER INLET hose holder that is placed on SATURNO MAX (fig. 1-3), turn the water tap and connect the boiler discharge pipe. N.B.: use only normal tap water coming from water supply for domestic use. Never add additives to water.
  - <u>IN CASE OF CONNECTION WITH WATER TANK:</u> Connect the SATURNO MAX to a tank for condensate recovery (fig. 5). **N.B.:** the temperature of water in the tank must never go over 40° C; if it happens, the tank must be equipped with an automatic temperature control device for water discharge and cold water input;
- 2. connect the power supply cable to a protected outlet with earth protector switch, with observance of the law in force and a voltage suitable to SATURNO MAX;
- 3. connect the pipes of the plant to the machine and make sure that they are well covered in order to avoid possible burns;
- 4. turn on the main switch and the switches for heating element 1 and 2 (fig. 2), turn the sluice valve which takes steam to the plant (fig. 1). Wait for lamps 1 and 2 to switch off; now, the manometer should mark a pressure of 4,5 BAR.

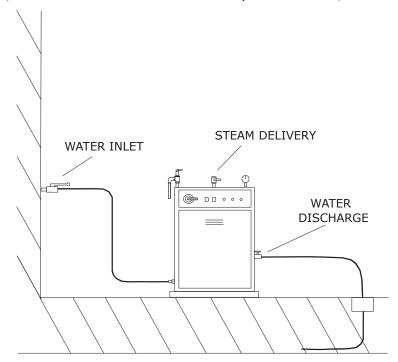


Fig. 3

#### 5. POSSIBLE PROBLEMS AFTER INSTALLATION

The pump lamp is on and the pump is working, but the machine gets no water:

- Make sure the water tap is open.
- Make sure the aqueduct is supplying water. For the machines connected to a water tank, check if there is water in the tank (fig. 5).

Make sure the water filter is not obstructed because of dirt waste (fig. 4A).

The lamps of heating element 1 and 2 are always on, but the boiler does not reach steam operating pressure:

- Make sure the main switch for power supply is on. If the problem persists:
- disconnect the plug and make sure the voltage is on and the power supply cable is connected to the steam generator correctly;
- check the internal fuses.

#### **6. LITTLE MAINTENANCES**

Empty the boiler periodically – with the machine switched off and a pressure of 0,5 BAR. For carrying out this operation, turn the exhaust tap slowly: we advise you to wear gauntlets against possible burns.

#### 7. ORDINARY MAINTENANCE

Let a specialized technician have a general check at least twice per year. SATURNO MAX was projected to work maximum 8 hrs. per day, 5 days a week. In these conditions, the machine is expected to function for 7 years.

#### It is recommended:

- 1. to check the efficiency of the security devices (manometer, pressure switches, level regulator);
- 2. to test the functioning of the security valves every 1000 hrs. of operation or maximum 6 months (fig. 4B);
- 3. to dismantle the copper tubes of the manometer and of the pressure switch and clean them from deposits and scales;
- 4. to clean the boiler and the elements of the resistances from limestone deposits, check that the rubber tubes of the pump and of the boiler are not obstructed;
- 5. to dismantle the level regulator and clean it from limestone scales, test the capacity of the joints, clean the filter and the valve of water inlet.

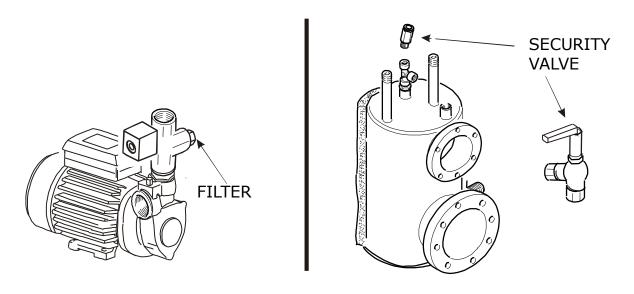


Fig. 4A Fig. 4B

#### 8. POSSIBLE FAILURES

The manometer marks pressure in the boiler even if the machine is off and cold:

- Check the level control and the water inlet valve.

The pump lamp is on and the pump is activated, but the boiler does not get water:

 Make sure the tube for water inlet in the boiler is not obstructed by limestone, check the water inlet filter (fig. 4A); if the generator takes water from the tank for condensate recovery, make sure the water is not too hot (it should never go over 40° C).

The pump keeps on turning, its lamp is on and the cold boiler increases its pressure:

- Check the level control (its sphere might be perforated).

The resistance lamp is on, but the pressure does not increase or it takes much time to do so:

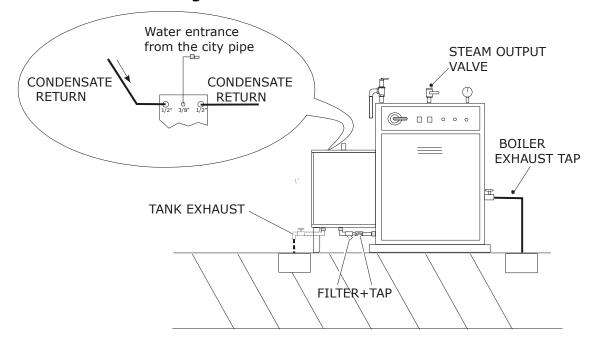
Check the resistances and their remote control switches.

Some steam gets out of the security valve and the boiler overcomes the definite pressure:

Check the pressure switches.

**ATTENTION:** before any intervention on the machine, remember to disconnect the plug. Before working on the steam system, turn off the boiler and reset the pressure.

OPTIONAL - Condense water recovering tank assembled to the steam generator



#### 9. COMPULSORY

- 1. Connect SATURNO MAX to a suitable protected outlet;
- 2. after operation is over, switch the SATURNO MAX off and close the water; remember to open it before switching on the machine again;
- 3. always keep children away from SATURNO MAX, both when it is on and off;

4. make sure that during cold season tubes connecting SATURNO MAX to water supply do not freeze.

#### 10. ELECTRICAL RISKS

The following situations are considered dangerous for the operator:

- 1. the earth protector switch is activated when turning on the switches,
- 2. using SATURNO MAX during thunderstorms,
- 3. loss of water or steam from the inner parts of SATURNO MAX.

#### 11. MECHANICAL RISKS

The following situations are considered dangerous for the operator:

- 1. using SATURNO MAX out of its functions,
- 2. using SATURNO MAX without turning the water tap or when the aqueduct cannot supply water,
- 3. using SATURNO MAX while the pump is activated but no water enters the boiler because of limestone obstruction,
- 4. using SATURNO MAX when the boiler pressure is too high and internal security valve is activated. Pressure can be visibly controlled thanks to manometer.

#### 12. THERMAL RISKS

The following situations are considered dangerous for the operator:

- 1. touching the external security valve when the machine is on,
- 2. emptying the boiler when under pressure,
- 3. loss of steam from the security valve,
- 4. tubes connected to the sluice valve not protected.

#### 13. PACKING, STORAGE AND TRANSPORT

SATURNO MAX can be packed with cellophane, on pallet or in cardboard box (never turn it upside down). It is not a stiff package, therefore it is not shock-resistant. We advise you to handle the box with the maximum care. Do not use it as a stool or support. SATURNO MAX cannot be piled one on top of another (HANDLE WITH CARE).

#### **14. WARRANTY**

Warranty does not apply to damage resulting from:

- Tampering with the machine or repairs carried out by non-authorized personnel;
- Total or partial inobservance of the instructions contained in this manual;
- Improper maintenance or wrong assembly/connection;
- Use of non original spare parts;
- Use of the machine for purposes other than those written in this manual.

#### 15. DISPOSAL



According to the directive 2012/19/UE on waste of electrical and electronic equipment, do not treat this product as urban waste.

This appliance is marked according to the directive 2011/65/UE on restriction of use of specific dangerous substances in electrical and electronic equipment.

This symbol on the product or on its packaging indicates that this product shall not be treated as urban waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and

electronic equipment.

Ensuring this product is disposed of correctly will help prevent potential negative consequences for the environment and human health which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources.

The abusive disposal of the product by the user may lead administrative sanctions.

### Every product manufactured by BATTISTELLA Co. is subject to the following limitations:

- ❖ BATTISTELLA Co. guarantees that this machine, correctly installed and used, works accordingly to this manual of instructions. Each implicit guarantee is limited by law as from purchase date.
- ❖ Declination of responsibility for consequential damages: BATTISTELLA Co. will never take the responsibility for any damage (included, without any limitation, consequential damages due to loss or no profit, cutback or any other economical loss) deriving from the use of a BATTISTELLA machine, even in case the Company had been previously informed of such kind of possibility.

Should you need **further information** about this manual, please contact **BATTISTELLA Co.** or the person who sold you the machine.