Pasteurizator
FJ - 50 ECO
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1. GENERAL SAFETY RECOMMENDATIONS

- Before any installation read this manual very carefully.
- Connect the device to proper electrical socket.
- Before turning on the device always check that WATER IS FILLED INTO DOUBLE LAYER, otherwise damage of the device will occur.
- The device has to be switched on by main switch.
- Don’t repair the device by yourself, in case of malfunction rather call authorized service provided by your distributor.
- In case of serious malfunctions switch off the main switch and unplug the device from electrical socket and compressed air socket, then call authorized service.
- You are allowed to use only the procedures that are described in this manual. Use of any other procedures or adjustments could result in destruction of the device or injury. Injuries connected with such procedures can not be subject of any product liability claims.
- Disconnect device from electrical socket before cleaning!
- Take care that milk, water or humidity will not come into the device, especially take care when cleaning the device.
- CAUTION: AT NORMAL OPERATION HEATER PARTS COULD WARM UP. RISK OF BURNING IS POSSIBLE, AVOID CONTACT WITH HOT SURFACES.
- CAUTION: HOT - RISK OF INJURY.

We are glad that you decide to buy our pasteurizator and we promise that it will serve you for a long time if you will use and clean it according to descriptions stated in this User’s manual.

NEVER START PASTEURIZATION BEFORE FILLING WATER INTO THE DOUBLE LAYER OF PASTEURIZER, OTHERWISE HEATING ELEMENTS WILL BE DESTROYED AND INJURIES MAY ACCUR.
2. TECHNICAL SPECIFICATIONS FJ - 50 ECO

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>FJ - 50 ECO 230 V</th>
<th>FJ - 50 ECO 208 V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating voltage</td>
<td>[V/Hz ]</td>
<td>1 x 230 / 50</td>
</tr>
<tr>
<td>Type of heating</td>
<td>[W]</td>
<td>electrical</td>
</tr>
<tr>
<td>Heater power</td>
<td>[W]</td>
<td>3000</td>
</tr>
<tr>
<td>Current</td>
<td>[A]</td>
<td>14</td>
</tr>
<tr>
<td>Max. capacity</td>
<td>[litres]</td>
<td>45</td>
</tr>
<tr>
<td>Volume of heating water</td>
<td>[litres]</td>
<td>15</td>
</tr>
<tr>
<td>Dimension of Milk outflow</td>
<td>DN</td>
<td>50</td>
</tr>
<tr>
<td>Dimension of cold water inlet</td>
<td>[mm]</td>
<td>10</td>
</tr>
<tr>
<td>Dimension of water outlet and breather</td>
<td>[mm]</td>
<td>25</td>
</tr>
<tr>
<td>Maximum temperature</td>
<td>[°C]</td>
<td>94</td>
</tr>
<tr>
<td>Dimensions in cm</td>
<td>(h x w x d)</td>
<td>52x61x68</td>
</tr>
<tr>
<td>Net weight</td>
<td>[kg]</td>
<td>24</td>
</tr>
<tr>
<td>Protection type of electrical box</td>
<td></td>
<td>IP 56</td>
</tr>
</tbody>
</table>

FJ - 50 ECO is an open-type pasteurizator, designed for thermal processing of milk into dairy products (pasteurized milk, crème, cheese, yogurt, …). Open type means that heating water in double layer is vented to air and has no overpressure. Tap water or cooling tank water is used for cooling and it freely flows through double layer when cooling is applied.

3. UNPACKING AND SET UP

Unpack the device carefully and check that nothing is left in the cardboard box. Place it on the plain and stable surface in clean, dry and dust-free place. Before use check that all parts are assembled according to scheme.

Use Inlet hose to fill water into the double layer of pasteurizator. Connect outlet hose to suitable drain or floor siphon. **Fill the water into double layer of pasteurizator through inlet hose, until it pours out of outlet hose.**

**Room temperature where pasteurizator is placed must never fall under 3°C, also it is not recommended that room temperature exceeds 30 °C.**

**Electrical connection**

Before connection of pasteurizer on electrical network, make sure that data on name label matches with voltage of power supply. NOTE: Version of FJ - 50 ECO – 208 V is supplied without electrical socket! Only trained personnel may connect proper locally approved two phase socket to supplied device (see electrical scheme).
Water connection

Before each start of device, make sure that double layer of pasteurizer is filled with water! You can use water from network, tank or cooling system. For connection use prepared tube. Water must be poured in slowly, not more than 3 litres/minute. When water starts to pour out of outlet connection, stop the filling – pasteurizer is properly filled with water. Outlet connection must be connected with flexible tube to nearest siphon, length of outlet tube must not exceed 3 m!

4. ACCESSORIES

Sealing machine package contains the following accessories:

- Inlet hose
- Outlet hose
- User’s Manual

Please note!
Main cord must be connected to safety outlet with grounded terminal!

5. DEVICE ASSEMBLY AND SPARE PARTS

All important parts of device are named and described below:

1. Cover for milk pot
2. Double layer milk pot
3. Valve for milk outlet
4. Elbow - milk outlet
5. Electric closet
6. Power cord and socket (208V edition comes without a socket)
7. Inlet hose
8. Outlet hose
9. ON/OFF switch
10. Control unit
11. Temperature sensor (thermo couple)
12. Electro heater
13. Thermostat
Device spare parts list:

<table>
<thead>
<tr>
<th>Pos.</th>
<th>Art. No.</th>
<th>Part name</th>
<th>Part name</th>
<th>Kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>450.1.110</td>
<td>Cover for milk pot</td>
<td></td>
<td>1,1</td>
</tr>
<tr>
<td>3</td>
<td>450.1.050</td>
<td>Milk outlet valve</td>
<td></td>
<td>2,7</td>
</tr>
<tr>
<td>7</td>
<td>450.1.110</td>
<td>Inlet hose kpl.</td>
<td></td>
<td>0,1</td>
</tr>
<tr>
<td>8</td>
<td>450.1.111</td>
<td>Outlet hose kpl.</td>
<td></td>
<td>0,2</td>
</tr>
<tr>
<td>10</td>
<td>252941</td>
<td>Electric board 230 V</td>
<td></td>
<td>0,15</td>
</tr>
<tr>
<td>10</td>
<td>252931</td>
<td>Electric board 208 V</td>
<td></td>
<td>0,15</td>
</tr>
<tr>
<td>11</td>
<td>25292x</td>
<td>Thermocouple sensor</td>
<td></td>
<td>0,05</td>
</tr>
<tr>
<td>12</td>
<td>450.1.060</td>
<td>Electric heater</td>
<td></td>
<td>0,7</td>
</tr>
<tr>
<td>13</td>
<td>450.1.062</td>
<td>Thermostat</td>
<td></td>
<td>0,08</td>
</tr>
</tbody>
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6. SETUP

Control panel of controller unit has four buttons (see picture below).
- With red button you enter settings.
- Buttons up and down are used for browsing through the settings and changing parameter values.
- **Pressing blue button starts or stops the heating process.**

When device is energized you can read sign “---”.

![Control panel of controller unit](image)

**Before starting the heating process make sure there is secondary water in the pasteurizator and that settings are properly adjusted.**

**Temperature setting**

Temperature parameter represents the temperature of secondary water (heating water). When red button “Setting” is pressed once, you enter the setup menu. Setpoint temperature of the heater can be adjusted by pressing buttons up or down. Values from 20°C to 99°C can be set. Adjusted value starts to blink on the screen. To apply the value press red button once again. After that you enter holding time setting. If you press red button once again you exit settings and sign “---“ appears.

![Temperature setting](image)

**Temperature parameter represents the temperature of secondary water (heating water).**
**Temperature of milk is lower and must be measured separately!**
**Milk temperature depends on milk volume to be pasteurized, temperature of heating water and environment temperature.**
Holding time setting

When red button “Setting” is pressed two times, you enter the setup menu of holding time. Holding time is expressed in minutes. Here you set the holding time by pressing buttons up or down, values from 0 to 999 can be set. Adjusted value starts to blink on the screen. To apply the value press red button once. After applying holding time you exit settings, sign “---” appears.

7. HEATING PROCEDURE

Before heating procedure device must be properly connected. (see chapter 1, 3 and 6).

- Place the device on the firm, plain and stable surface. It is recommended that the source of cooling water or the tank and the drain is not more than 2 m away from the pasteurizator.
- Connect water supply to inlet hose and pour secondary water to fill double layer pot.
- Connect drain hose to pasteurizator and into the drain.
- Pour desired amount of milk into the pot.
- Connect power supply to electric closet.
- Turn on the machine – Turn the main switch on (located on the side of the electric closet).
- Heating can begin when device is properly setup (see chapter 6).
- Press blue button to start the heating process. The red light is on. The display shows the present temperature and begins to heat till set temperature is reached.
- After set temperature is reached heating transforms to holding, control unit beeps and the yellow light is on. On display you can see the setting time which starts to countdown. When it comes to 0 the voice signal beeps 10 times. Pasteurizer turns off automatically and goes on standby.
- When process is done, control unit beeps 10 times, pasteurizer turns off and your milk is pasteurized.
8. COOLING PROCEDURE

Slowly open the valve on your water network or cooling tank, that you connected inlet hose to. Cool water will slowly come into the pasteurizator and through outlet hose to the drain or back to cooling tank (differs from your connection). Cooling speed depends on cooling water temperature and flow. When desired temperature is reached, close the water valve and switch device off.

9. MAINTENANCE AND TROUBLESHOOTING

If error code Er2 or Er3 is written on display and pasteurizer does not work, disconnect the pasteurizator from mains and call the authorised service - do not repair it yourself!

In case that in secondary coat is not enough water or that temperature of secondary water rises over 100 °C the security switch switches off all functions on the device. (overheating protection). In this case you have to reread the manual and use the product properly. The mistake must be removed – usually this happens when there is not enough secondary water in the pasteurizer. When this happens, thermostat must be manually deactivated before further use. Make sure you disconnect the device from power supply before deactivating the thermostat.

10. CLEANING

- Before cleaning make sure that the pasteurizer is switched off and disconnected from main power supply.
- Before cleaning make sure that the pasteurizer is cooled down.
- The milk pot and the cover should be cleaned with hot water adding fat soluble detergents. Afterwards these parts should be rinsed with pure water.
- The pasteurizer shall be cleaned only with wet cloth and afterwards dried with dry cloth.
- Do not use abrasive materials to avoid scratches.
- After use always clean the pot. Do not use aggressive detergent.
- If milk or cream rests get dry do not remove them with sharp objects or sharp duster.

Ensure that no water comes into contact with electronics and electronic parts.

Please note!
Before cleaning you must always disconnect device from electricity.
11. SPARE PARTS ORDERING PROCEDURE

Fast and reliable shipment of spare parts is possible only if their description is clear enough. At the time of ordering please state clearly:

- Type of pasteurizator.
- Serial number printed on label plate at the rear side of device.
- Spare part name and number

12. WARRANTY

- In case of troubles consult with your salesman or call authorized service.
- Equipment is warranted to be free from defects in material and workmanship for a period of 12 months against faulty components and assembly. Our obligation under this warranty is limited to the repair or replacement of the instrument or part thereof, which shall within 12 months after date of shipment prove to be defective after our examination.
- Defects or damages of the device, which are result or improper assembly, use, connection or maintenance are not covered by this warranty.
- The warranty also doesn´t cover:
  - Device malfunction due to water or milk inflow,
  - Mains cord,
  - Repairs done by yourself or by other not authorized people,
  - Transport costs.
- Other rights, that are not mentioned in upper obligations of the manufacturer, especially responsibility for personal injury, are excluded.
- The given technical specifications are valid only when all conditions in this user`s manuals are fulfilled.

Dear Customer!

We are sure, you will find that our pasteurizer is a helpful tool and we believe that it will serve you for a long time without any problems. We hope you will recommend it also to your friends!

Thank you for buying it!