Electric Butter Churn, 7 Liters 220+/_ 20V

The delicious taste of fresh homemade butter is available in only 15-30 minutes.

Just plug it in and the motor does all the work!

This butter churn is intended for preparing butter from cream.

Excellent for a household or a small farm use!

This highly effective, easy-to-use Butter Churn provides a cost effective solution to many dairy farms.

The bucket size: 7 Litters/ 2.1 Gallons

Raw product filling capacity: Min: 2L / 0.5 Gallons

Max 6L / 1.5 Gallons

Time in min. for making butter: 15-25 min

- **Transparent casing allows to see all the internal parts of the churn**
- **Polycarbonate bucket can be boiled and sterilized at temperatures up to 150 ° C (excluding the part that has the motor)**
- **Not subject to corrosion (or rust)**
- **Color does not change with time and requires no tint**
- **Doesn't get deformed by accidental neglect.**
- **Easy cleaning**

Supply Voltage: 220 -240 volt

European standard electric plug.

Frequency: 50Hz

Rated Consumed Power: 400W

Engine speed, rpm: 1380

The duration of continuous operation, max: 30 min

Time in min. for making butter: 15-25 min

From Cream: 10-30 min

From Sour Cream: 15-30 min

Butter outcome from input product: 35-50%

Dimensions, mm: 550H x 250W

Dimensions, inches: 22''H x 10'' W

Weight: 7 kg/ 18lb

3 COMPLETE SET

3.1 The complete set includes:

- household electric butter churn – 1 piece;

- box – 1 piece.

- Operation Manual

4 Safety requirements

4.1 Before operation check the correct assemblage of the butter churn.

4.2 Check periodically the tightening of the screw holding the impeller and the screws holding the shaft and the bushing.

4.3 Do not keep operating the butter churn without control.

4.4 Do not allow any liquid to get inside the body of the electric drive, it may result in electrical shock or failure of the electric drive.

4.5 Before disconnecting the cord from the power network set the switch to «ВЫКЛ» (OFF) position.

4.6 **It is prohibited:**

- to turn the drive of the butter churn upside down to avoid ingress of liquid products into the motor;

- to connect the butter churn with damaged insulation of current-carrying wires or a faulty plug to the mains, or the power switch being in position «ВКЛ»(ON);

- to tilt by more than 45 ° or turn over the churn filled with liquid;

- to disassemble the butter churn with no complete shutdown, the cord plug should be pulled out of the outlet from the mains;

- to spill any liquid on the drive casing, to touch the plug and switch with wet hands;

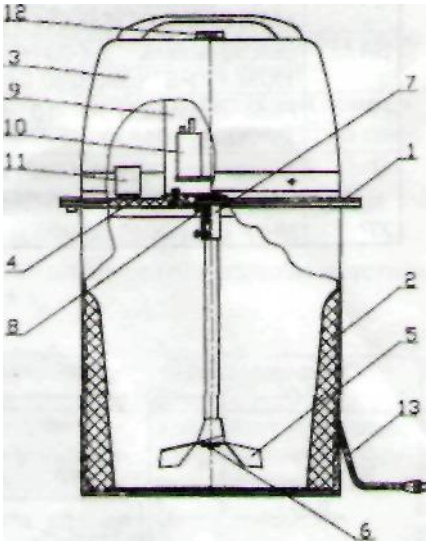
- to switch on the electric motor, if the electric drive is not installed and fixed to the container.

5 Butter churn design

5.1 The butter churn (Figure 1) consists of the electric drive 1 and the container 2.

The electric drive casing 3, the cover 4 and the container 2 are made of plastic.

On the internal surface of the container there are provided ribs required for formation of butter granule and separation of a liquid phase – buttermilk, when cream stream created by the rotation of the impeller 5 beats on their surfaces.



1- electric drive; 2- container, 3- electric drive casing, 4- cover, 5- impeller, 6- screw, 7- bushing, 8- screw, 9- electric motor, 10- condenser, 11- thermal relay, 12- switch, 13- cord

Figure 1 – Household electric butter churn

The impeller is fixed to the shaft with the screw 6. The other end of the shaft is pressed in the bush 7 being fixed to the electric motor shaft with the screw 8.

The electric equipment of the butter churn comprises the electric motor 9, the condenser 10, the thermal relay 11, the switch 12 and the cord 13.

Power is supplied to the electric drive by a cord with a plug on the end, through the switch installed on the casing of the electric drive. The switch of the butter churn has two fixed position «ВКЛ» (ON) and «ВЬІКЛ» (OFF).

The electric drive is fixed to the container, as follows: on the drive cover there are provided two figured ledges to be put into the grooves of the container. Assure secure fastening by turning the drive counterclockwise.

6 Setup and operation procedure

6.1 To put the purchased butter churn in a operation condition take out the container, the shaft with the impeller and the electric drive from the packing box, then install the shaft with the impeller on the output shaft of the electric motor and fix it by means of the screw 8, as shown in fig. 1. After that install the electric drive on the container to put two figured ledges provided on the electric drive cover into the grooves on the container, and by turning the electric drive counterclockwise fix it.

Before using a new butter churn wipe the bottom surface and metal parts of the electric drive, and also the internal surface of the container with wet, and then dry rags.

CAUTION! To pour water of more than 80°C in the container is prohibited.

6.2 When churning fresh high-fat cream of 32-37% fat content obtained by milk separation, to destroy microorganisms speeding up butter spoilage, pasteurize the cream by heating it up to 70-75 °C, but avoiding its boiling. When pasteurizing, mix the cream.

6.3 After pasteurization cool the cream to 4-7°C and keep at this temperature within 5-7 hours in the refrigerator or cellar.

6.4 Then warm up the ripen cream slowly, within 40-60 minutes, up to 13-15 °C using water (put the reservoir with cream in a basin filled with water, temperature of water is no more than 27°C, and mix the cream 2-3 times within 5 minutes). Or

keep the reservoir with cream within 3-4 hours at a room temperature mixing the cream several times.

6.5 Cream collected from milk in household conditions (sour cream of fat content not less than 25 %) within three and more days, is not processed as per Cl. 6.2, 6.3, 6.4. In order to avoid cream setting during pasteurization, the cream is churned crude, so obtained butter will have sourish taste. Churning temperature is of 10-15°C. It is required to dilute very fat and thickened cream with milk to a fluidity condition. It is not recommended to use cream of small fat content purchased in retail stores for butter churning.

6.6 Pour ready cream or sour cream into the container of nominal loading of 2-5L Then switch on the electric drive rotating the shaft with the impeller. During operation there is churning resulting in formation of butter granule and separation of a liquid phase – buttermilk.

6.7 In the course of butter churning periodically (every 15-30 sec) make a visual estimation of readiness of butter. For this purpose disconnect the butter churn, remove the electric drive. If butter granule congregated in homogeneous granulous mass, and buttermilk has transparent white colour, churning process is considered to be finished, if not, keep on churning.

6.8 When churning is finished, disconnect the butter churn from the mains, remove the electric drive, and pour out the buttermilk from the container into a separate reservoir. (Buttermilk is a valuable foodstuff.) Then to remove the rests of buttermilk, pour cold water into the container with remained mass and process butter granule by mixing the mass with a spoon or a wooden shovel. Repeat washing to clear better butter granule.

6.9 After finishing the washing spread clean paper or an oilcloth on the level surface having a small grade, and, put the obtained butter on it in a thin layer having squeezed it slightly to remove the rests of water. To accelerate the removal of water mix and knead the butter with a wooden spoon. After removal of the rests of water collect butter in a lump; the product is ready for usage or storage.

6.10 After finishing the operation disassemble the butter churn: detach the electric drive from the container, remove the impeller from the shaft. Wash the container and the impeller with hot water using cleaning agents, then wipe with a cloth and dry. Wipe the butter churn electric drive and the shaft with a wet cloth moistened in warm (not above 40°C) water, and then wipe dry with a dry cloth. When

washing the drive, check that water does not get on the electric motor through the air holes and the hole in the electric drive cover.

CAUTION! Do not rinse the electric drive under water.

7 Maintenance

7.1 Durability and non-failure operation of the butter churn depends on correct maintenance according to the requirements of the present manual.

7.2 Protect all parts of the butter churn from damage. Do not allow contact of the plastic parts with active solvents or the articles heated above 80 °C.

Wash the dirty surfaces with 0.5-2 % soda solution and soap water using soft rags. Do not use sand, metal brushes, soap-sandy and other active cleaning agents.

7.3 When washing, check that water does not get on the electric motor through the air holes and the hole in the electric drive cover.

7.4 In case of long-term break in butter churn operation grease the shaft, the impeller with technical vaseline.

7.5 The electric motor bearings are designed for operation during the whole service life without additional lubrication.

8 Storage requirements

8.1 Protect the plastic parts, the electric drive casing and the container from direct sunbeams.

8.2 Store the butter churn in a dry heated place at ambient temperature from +5°C to +40°C.

9 Lists of eventual troubles and methods of their elimination

9.1 The description of eventual troubles and methods of their elimination are given in Table 1.

Table 1

Eventual trouble	*Eventual cause*	*Remedy*

The butter churn is connected to the mains, the electric motor is humming, but the shaft with the impeller is not rotating	*Electric motor failure*	*Repaired only by specialists of repair service centers*
The butter churn is connected to the mains, but the electric drive does not function	*No voltage*	*Check if electric wiring and wiring points are correct*
During operation of the butter churn, the electric motor switches off	*Thermal relay is actuated*	*Switch off the butter churn, and swich on again in 10-20 minutes*