MOTOP 80L ELECTRIC CREAM SEPARATOR INSTRUCTIONS

The centrifugal cream separator (hereinafter called the separator), has an electric drive motor with a productive rate of 50 litres per hour, and is designed to separate your whole milk into cream and skimmed milk, and will simultaneously remove any milk contaminants.

Your new electric Cream Separator is both easy-to-use and portable in size.

This separator is specially designed for home use, and is equipped with a modern design, electronic motor (permanent magnet type without collector and electro-brushes) for long service life and increased reliability. This separator provides quality milk/cream separation with a supply voltage between 198 – 240V.

The advanced electronic design of the separator's system board will automatically protect your unit against overuse by using a special circuit that will disconnect the motor in case of overheating.

As an added feature, in case the milk vessel wasn't attached properly to the top of the unit assembly, the motor will automatically shut off. If the motor switches its self OFF, then the separator should be turned off, the problem should be corrected and the separator can be turned back on again in 3-5 min.

NOTE: The separator drum is balanced at the factory. Replacement of drum components at home is not acceptable since it may lead to a dynamic imbalance of the drum and failure of the separator.

Design research & development is ongoing throughout the manufacturing process of the separators. In this context, design of some parts and assembly units can be slightly different from this operating manual. These differences improve the quality of the separator and make maintenance even easier.

Please NOTE: Use only fresh strained milk (fresh-drawn or warmed to 30-40°c) of 3 to 5% fat content for best separation.

1. GENERAL INFORMATION

After receiving and unpacking your new cream separator, please check it for completeness according to Section 3 of this manual. Our manufacturing plant accepts claims for non-completeness only from actual sales agencies, and not directly from the consumer, so please unpack your unit carefully. Study the operating manual carefully on the separator operation prior to operation.

2. SAFETY REQUIREMENTS

During cold weather, if the separator was kept in a room with temperature below freezing (0°c) it is necessary to warm up the separator to room temperature for about 3 hrs before plugging it in and turning it on.

DO NOT OPERATE the separator if the drum is NOT installed correctly and the separator is NOT fixed securely. The table surface should be horizontal and flat to ensure vertical installation and proper operation of the separator.

STOP operating (Switch OFF) the separator if an abnormal noise or chattering is heard in the separator machine.

DO NOT operate the separator with loose drum nuts.DO NOT allow water to get into the electric motor. This can lead to electric shock and will damage the Separator.

DO NOT leave milk in the milk bowl when the separator is turned off.

Teléfono **64 2 216 000**
Fax **64 2 216 039**
Email **ventas@shoof.cl**
Página web **www.shoof.cl**

3. PRODUCT DESIGN

The Separator comprises an electric drive mechanism, a drum and a receiving and delivery system.

The electric drive mechanism is placed in a plastic frame where an electric motor is mounted on a separate bracket with a system board and fixed to the frame.

The height of the motor and the drum is adjusted by the screw which should be locked in-place by the lockingnut.

The switch is mounted on the front side of the plastic frame. The Separator is plugged in by the cord with the electric plug.

The separator is equipped with a Red LED that indicates the operability of the separator. After turning the Separator on by plugging in and switching ON:

- LED is not lit up.
Supply converter problem; electric wiring problem; or electric motor failure.

- LED is blinking.
The drum rotation is accelerating to the proper speed for best separation.

- LED is lit up.
The separator is ready for use. Do not open the milk delivery spout until the LED is ON (lit up).

There is a drainage notch on the top part of the electric drive mechanism frame. This notch allows any milk that drips from the upper mechanism to drain away.

The Separator is fixed (mounted) to your work table by a threaded screw pin, washer and nut. To avoid damage of the separator frame while tightening up the nut place a plastic spacer/collar on the pin before tightening up. This collar/spacer will protect the bottom side of your Separator.

The delivery mechanism (hereinafter called the vessel) serves to deliver pre-heated milk to the drum, and to extract the cream and skimmed milk from the drum mechanism.

The vessel consists of the milk bowl, spout with plug, float chamber, float, cream receiver, and skimmed milk receiver.

The drum is a major operating element of the separator. The process of separating the milk into cream and skimmed milk takes place in the drum under centrifugal action. The drum consists of a base, sealing ring, disc holder, set of 11 discs, separating plate, adjusting screw, cover plate, nut.

4. SETUP PROCEDURE

The separator is sent to the customer in a semi-disassembled state in the cardboard packing.

After unpacking:

Thoroughly wash the milk vessel with hot 2% soda solution, rinse in clean water, wipe dry with a towel. While washing the vessel, do not use sand, powders, ash or other solid materials to protect against scratches and loss of gloss to the highly polished surface.

The drum should be disassembled; the drum parts should be washed with hot 2% soda solution, rinsed in clean hot water, dried and assembled as follows below:

A) Insert the sealing ring in the drum base groove, then put the disc holder on the feeding tube so that the drum base pin enters into the disc holder hole.

B) Next, put all of the discs on the disc holder, one-by-one as follows:

The first disc has bumps or “dimples”, the next disc is plain and so on with the “dimple” discs and plain discs alternating one-after-another. The last disc is to be placed in the assembly has dimples.

C) Next put on the separating disc, drum cover, so that the lock with the adjusting screw on the separating disc enters the drum cover groove, and the punching point on the cylindrical part of the drum cover matches the drum base groove. Screw the washer onto the drum base tube and tighten it with the special wrench to hand-tightness.

Fix the separator mechanism to the work area as follows:

Make certain that your work table is level and stable.

For best support for your separator, use a table top with a small slot cut into it.

Next, install the separator mechanism on the table top, placing the Pin, with a collar into the slot and secure it to the work table by washer and nut.

Place the assembled drum onto the spindle so that the drum drive pin slides into the spindle groove of the drive motor.

Then place one by one the Skim Milk Receiver, Cream Receiver, Float Chamber with Float, Milk Receiver/ Vessel, and Spout onto the top of the mechanism.

Set the spout in the closed position so that the arrow on the spout handle is directed towards “closed” on the milk receiver. (You can see the small opening where the milk flows through the spout when it is in the open position.)

Assemble the components carefully so they line-up vertically and without skewing side-to-side.

The cream and skim milk receivers may be rotated and installed in a convenient position for cream and skim milk to flow out to their separate containers, and so that the drum does not touch the feeding tube of the float chamber.

5. OPERATION PROCEDURE

After properly fixing the separator on the table, plug it in and slide the switch to the ON position (to the right). After a short sound-signal the drum will smoothly start rotating and in approximately 2 minutes will reach its working mode speed.

Once the drum is in full working order (the LED is lit up) it is necessary to warm up the internal milk-path by passing through the separator at least 1 litre of water, preheated up to 40-50°C.WITHOUT turning the separator OFF, close the spout and pour the milk into the milk bowl/vessel to the milk level mark. Open the spout and start separating. If required, keep adding milk to the bowl. There is no specific time-limit for the electric motor to work.

However, it’s recommended that you turn off the separator and clean the drum after 30-40 minutes of non stop work.

On completing your work, BEFORE stopping the separator, it is recommended to pass no less than 1 litre of the skim milk through the drum to extract any remaining cream from the drum.

After stopping the separator by turning the switch OFF and unplugging it, the milk bowl/vessel and the drum should be disassembled, washed in hot water, wiped and carefully dried.

The mechanism should be wiped with a damp cloth moistened in lukewarm water (no more than 40°C) and carefully wiped dry.

By turning the adjusting screw, you can regulate the cream fat content.

To increase cream fat content, screw IN (rotate clockwise), this screw up to 1.5 turns from the position that is “flush” with the surface of the separating disc.

To reduce cream fat content, screw OUT (rotate counter-clockwise) the screw up to 5 turns.

If the screw blocks the removal of the cover when disassembling the drum, it is necessary to screw IN the screw to the position that is “flush” with the surface of the separating disc.

Rotate the Screw IN and OUT using the special L-shaped adjusting wrench.

6. MAINTENANCE AND SERVICE

Service life and reliability of the separator depend on the correct maintenance of your separator according to the operating manual's requirements.

The separator does not require any special technical maintenance during the first 12 months due to the modern design of the electric motor.

After one year of use, it's recommended that you re-lubricate the motor bearings.

On completion of the separation process, the plastic vessel (milk receiver, spout, float chamber, float, cream receiver and skim milk receiver), and all drum parts should be washed with hot 2% soda solution, rinsed in clean hot water, wiped with a towel and dried.

7. STORAGE REQUIREMENTS

Store the separator milk bowl/vessel at room temperature, because at a temperature below -10°C the separator plastic elements get brittle, and drying them with a heater or in the sun may cause them to become darkened.

The drum parts should be stored in a disassembled state in the dry and clean place.

Protect all Separator element parts against physical or mechanical damage.