



OWNER'S MANUAL



CDL MAPLE CREAM MACHINES

Les Équipements d'Érablière CDL inc.

Thank you for choosing a CDL cream machine. Our 40 years of experience working with sugarmakers ensures you that you acquired a performant and quality piece of equipment. Before using this product, make sure you understand all the following instructions. If there is any problem upon reception of this product, please immediately contact CDL or your local representative.

FINDING INFORMATION

Make a record for future use

Brand: _____

Purchased Date: _____

Model Number: _____

Serial Number: _____

Serial number location

The serial number is located on the side of the machine



Serial # location



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SAFETY

Although it doesn't seem that way, accidents can happen while running a cream machine. Operate your maple cream machine safely. Do not introduce any object into the bottom hole of the auger. Do not put your fingers in the auger. If you put your machine on a table, make sure it's leveled, stable and make sure that the machine is far enough from the edge of table. The machine could move while it's running. If it fall off a table, it will likely break the machine but if someone is near the machine, a serious injury can happen.

A cream machine is heavy. If it has to be moved, it is recommended to have 2 people to do it, to avoid back injuries.

Do not turn the machine on its side or upside down. Oil from the motor speed reducer will be spilled.

Manipulate hot maple syrup can also be hazardous. Always wear heat resistant gloves and be very carefull not to spill any hot liquid on you or someone nearby. Serious burns can be caused by hot maple syrup.



INSTALLATION

No special installation required. Set the cream machine on an even flat and stable surface. It is recommended to clean the machine with hot water before using it for the first time. Fill half way the cone with hot water. Plug the machine in a 120 volt outlet. Turn on the machine to circulate the water for about a minute. Clean with a clean cloth any residu in the auger if necessary. Then, just open the valve and drain the water into a pale. When all the water is out, just wipe out with a clean cloth the remaining moisture. You are ready to go.

OPERATING THE CREAM MACHINE

HOW TO MAKE MAPLE CREAM WITH THE CDL CREAM MACHINE

- 1- Before you start, make sure the cream machine is clean.
- 2- Take a cooking container. It has to be twice as high as the level of syrup you'll put into it. Ideally, the top diameter should be bigger than the bottom
- 3- Prepare a cooling bath for your syrup. You'll have to put your container of hot syrup in cold water. The bottom of the container has to be elevated for the water to cool that surface too. The water level needs to be at the same level has the syrup. Running water has to go in the bath to make sure the temperature of the water stays cold.
- 4- Calibrate the cooking thermometer. Ideally take a maple syrup cooking thermometer. To calibrate, boil water and make sure the needle shows 0⁰F (where 0⁰F is 212⁰F). The use of a second thermometer is recommended to validate the results of the first one.
- 5- Pour the syrup in. For the small cream machine, use 1.25 gallon of syrup and 3 gallons for the big one.
- 6- Ideally cook the syrup on a propane cooker
- 7- Open the gas at maximum
- 8- Put in a table spoon of Kascher anti-foam (2 for the big machine)
- 9- Butter all around the container 1 inch wide above the syrup
- 10- Put the thermometer in the syrup
- 11- Let the temperature go up
- 12- When the temperature gets to 2⁰F above the water boiling point reduce the heat to half
- 13- BE VERY CAREFULL, WHEN THE SYRUP STARTS TO BOIL, MAKE SURE IT DOESN'T OVERFLOW, THE FIRE HAS TO BE REDUCED BEFORE IT HAPPENS AND IT HAPPENS VERY FAST. If syrup overflows on the burner, it will burn, very dangerous.
- 14- To help, put in another tea spoon of defoamer or a ¼ tea spoon of butter directly in the syrup.
- 15- The boiling should start around 5⁰F.



- 16-When the boiling bubbles starts breaking when they are small, the syrup is stabilized and you can turn up the heat to maximum again. (around 10⁰F)
- 17-The syrup will be ready at 22⁰F above the boiling point.
- 18-Take rubber gloves to handle the container, it's very hot and spilled syrup will go through cloth gloves
- 19-IMPORTANT, DO NOT GO OVER 22⁰F. IT'S BETTER TO STOP AT 21.5⁰F, IT WILL CONTINUE TO GO UP A LITTLE AFTER IT'S REMOVE FROM THE COOKER. If you go over 22⁰F, the syrup will jam in the machine.
- 20-When the syrup reaches 22⁰F, take the container and dip it in the cold water bath.
- 21-Splash 20 drops of cold water on the surface of the syrup
- 22-Leave the syrup in cold water for at least 4 hours.
- 23-Ideally, let the syrup rest at room temperature for another 4 hours after it's taken out of the cold water. It's going to be a little more fluid to pour in the cream machine.
- 24-Dip the container in hot water for 1 minute before pouring into the cream machine, so it flows better.
- 25-Pour into the cream machine (never go over the hole in the funnel)
- 26-Start the machine
- 27-Throughout the mixing stage, scrape the syrup that sticks on the sides of the cone and push it toward the center of the cone. Also mix the top of syrup with a wood spatula to have a homogeneous cream.
- 28-Let the mixing continue for approximatively 15 minutes. Keep scraping the walls towards the center. NEVER STOP THE MACHINE, IT WILL JAM.
- 29-The cream will be ready when you will stop seeing darker syrup lines on the surface. The surface will become dull (not shiny) and it will create bigger waves on top.
- 30-Open the bottom valve and fill your containers.
- 31-When done, remove the clear tube and empty the content in the container.
- 32-Reattach the tube and pour hot water but not boiling in the machine and let it run to clean the machine until all the cream residus are dissolved.
- 33-Empty the water from the machine and rince with hot water to prevent the surfaces from being sticky.

MAINTENANCE

The only maintenance you need to do is to keep your machine clean. After your maple cream production, or after each day of use, pour hot water (not boiling) in the auger and let the machine run until all the maple leftovers are dissolved. Then open the valve and let the water out. Shut down the machine and wipe dry all the components.



TROUBLESHOOTING GUIDE

Motor won't turn

Check electric switch or the breaker

Motor turns but product doesn't move

Gear problem in the gear reducer or the motor coupling is broken; check gears or coupling. Replace coupling or gear reducer.

Motor turns but product moves very slowly.

Gear pump problem; replace the gears or the whole gear pump.

Maple cream comes out of the pump

Because the machine is making food products, the pump was built with tolerances that will allow it to run without any lubricant. One small inconvenient is that it's normal to have a little water dripping out of the pump when you're cleaning the machine with hot water. However, if maple cream drips out when you make cream, it means that the pump seal need to be changed.

Cream machine keep running but content doesn't turn to cream

Syrup wasn't cooked enough, empty the cream machine, pour some hot water in the syrup, reboil to proper temperature and reprocess. Change thermometer.

Syrup with too much invert sugar content was used. It is common with late season or dark syrup. Invert sugar content can be measured with a measuring kit available on the market. The maximum invert value is 2.0, above that, you can't use that syrup to make cream or sugar.

Syrup wasn't cooled long enough after the boiling process

The ambient conditions are too humid. Cream must be made in a controlled environment, ideally air conditioned. If the air is too damped, the sugar will not crystallize.

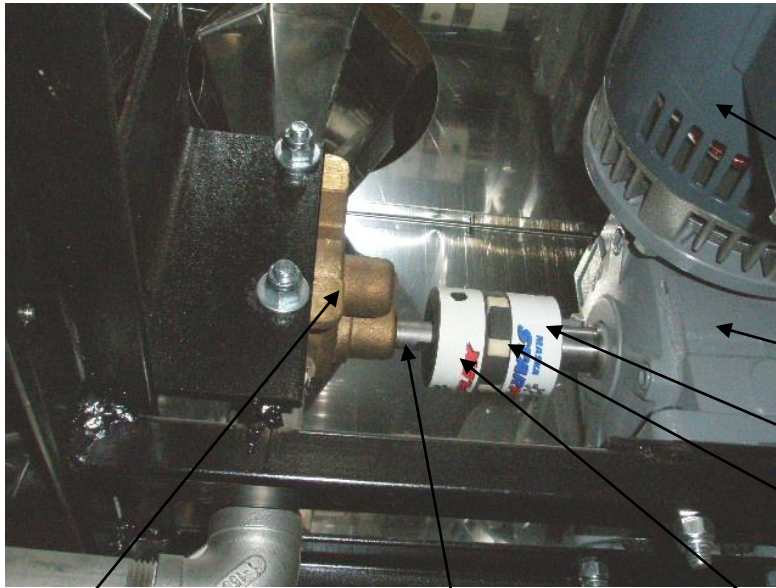
The batch in the cream machine turned solid

Syrup was cooked too much. Pour a small quantity of maple syrup in the batch and mix manually until the pump starts pumping again and finish the batch. If you can't get good cream, pull the content out of the machine, mix some hot water in it and reboil it to the right temperature.

The cream turned too long in the machine. Apply the previous solution to solve the problem.



Part # 668828: Small cream machine

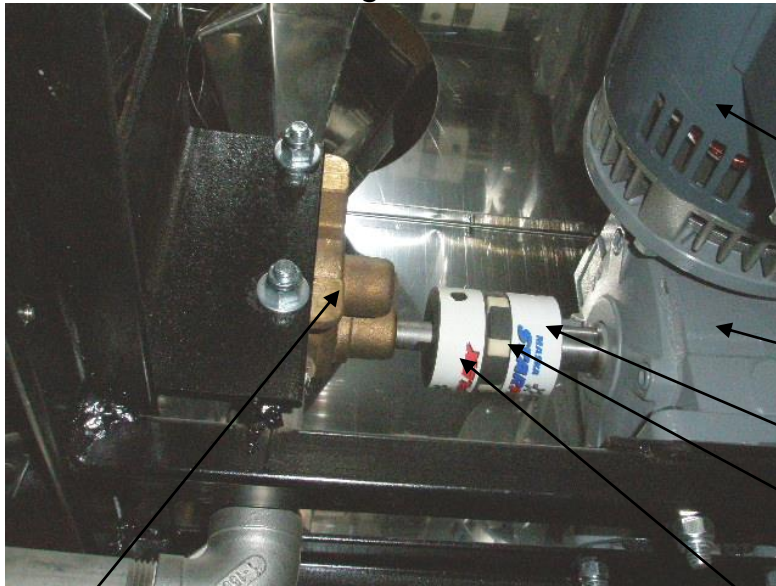


- Motor: 66G250
- Gearbox: 668859
- 1" coupling:
- Rubber coupling:
- 1" coupling:
- Shaft key:
- Gear pump:

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- SS clamp:
 - SS funnel:
 - SS cover: 69CBRS02
 - Tube: 660078 (1'-3")
 - SS clamps: 660824
 - SS nozzle: 766634
 - Electric switch:
 - 3 way valve: 71017



Part # 668827: Large cream machine



Motor: 66G274

Gearbox: 668863

1" coupling: 429021

Rubber coupling:

5/8" coupling: 429058

Gear pump: 66399M



SS funnel:

1 1/2" SS clip:

Tube:

1 1/2" SS clip:

Electric switch:

Silicone gasket:

3 way valve: 71014



WARRANTY

Your cream machine is covered by a two year limited warranty. For two years from your original date of purchase, Les Équipements d'Érablière CDL (CDL), will replace or replace any parts of this equipment that prove to be defective in materials or workmanship when such evaporator is installed, used and maintained in accordance with the provided instructions.

Exclusions

This warranty does not cover the following:

1. Products with original serial number that have been removed, altered or cannot be readily determined.
2. Product that has been transferred from its original owner to another party or removed outside the USA or Canada.
3. Production loss due to any kind of failure of the machine.
4. Revenu losses due to syrup or cream quality.
5. Service calls which do not involve malfunction or defect in materials or workmanship, or used other than in accordance with the provided instructions.
6. Any service beyond the first two years.
7. Damages caused by: services performed by unauthorized service companies; use of parts other than genuine CDL parts or parts obtained from persons other than authorized service companies; or external causes such as abuse, misuse, inadequate power supply, accidents, fires, or acts of God.
8. It doesn't cover the consumable products or accessories.
9. If the product was damaged by abusive use, negligence, accident caused by the customer, modification made by the customer, variation in the electric power.
10. Damage cause by the use of products that are not meant for use with our equipment or a bad use of cleaning products.
11. Damage cause by a use of the machine that it was not intended for.



Disclaimer of implied warranties; limitation of remedies

Customer's sole and exclusive remedy under this limited warranty shall be repair or replacement as provided herein. Claims based on implied warranties, including warranties of merchantability or fitness for a particular purpose, are limited to two years or the shortest period allowed by law, but not less than two years. CDL shall not be liable for consequential or incidental damages such as property damages and incidental expenses or loss or revenues caused by any event covered by this warranty. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, or limitations on the duration of implied warranties, so these limitations or exclusions may not apply to you. This written warranty gives you specific legal rights. You may also have other rights that vary from states to states.

If you need service

Keep your receipt, delivery slip or some other appropriate payment record to establish the warranty period should service be required. If service is performed, it is in your best interest to obtain and keep all receipts. Service under this warranty must be obtained by contacting CDL at the addresses or phone numbers below. Obligations for service and parts under this warranty will be performed by CDL in Canada. Products features or specifications as described or illustrated are subject to change without notice.

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