TechGelato TG100 Basic Soft Ice Cream Machine Instruction Manual

Contents

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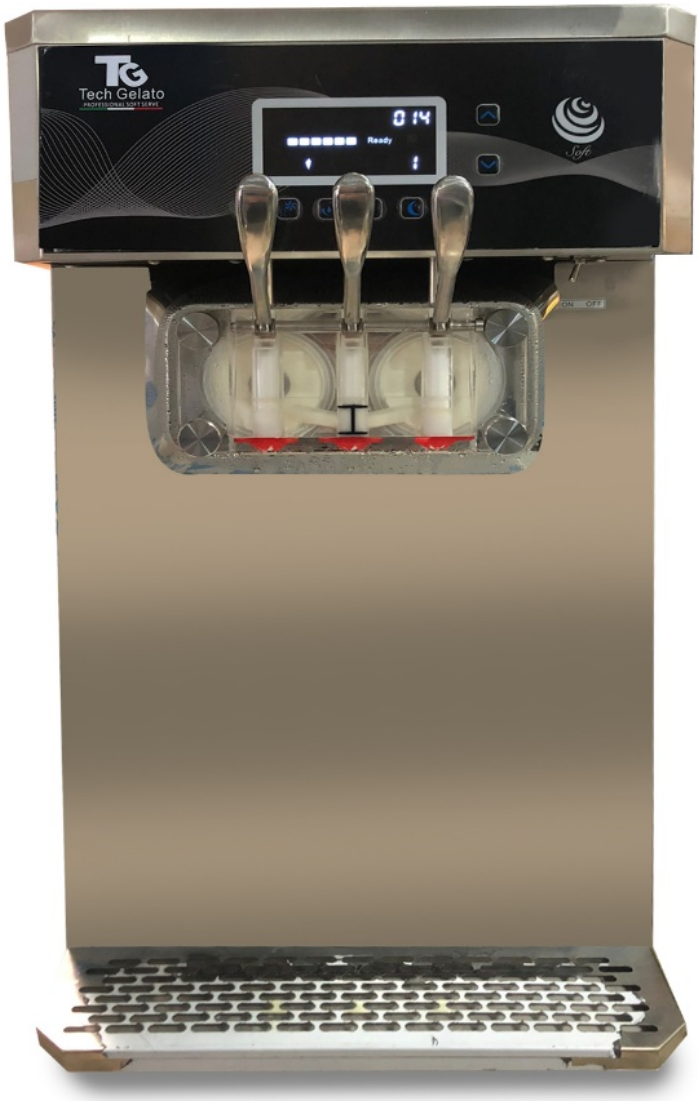


Product Information

The product is an ice cream machine designed for producing ice cream. It has a built-in LCD screen and touch screen for operation. The machine is equipped with various buttons and indicators to control different functions such as cleaning, defrosting, hardness parameter setting, freshness preservation, pre-cooling, timing, and cup count.

Product Usage Instructions

Unpacking and Inspection:

Open the cylinder head and check if all the accessories listed in the packing list are complete.

Using Environment:

- The material temperature should be between 5 degrees and 40 degrees Celsius. It is recommended to store the machine in a low-temperature environment to improve ice cream production efficiency.
- Choose a well-ventilated location with a level and solid surface for placing the ice cream machine.
- Ensure there is at least 80 cm of space behind the machine and no less than 30 cm of space on each side for proper air circulation and condensation cycle. Regularly clean the dust on the condenser.
- Note: After transportation, it is recommended to let the machine stabilize for 4 hours before use.

Electrical Connection:

- Determine the wire size based on the required power for the connection circuit. All internal lines in the ice cream machine are pre-connected at the factory.
- Simply connect the wires to the power cord from the lower rear of the machine and connect the ground wire.
- Note: External wiring, plugs, and sockets should meet the national standards.
- The rated voltage of the power supply should not deviate too high or too low. Deviation will cause the indicator light to flash, alarm, and prevent the cooling function from starting.
- Voltage specifications:
  - 220V: -10% (198V-245V)
  - 380V: -10% (342V-403V)

Product Structure:

The product has a structured design to accommodate various components and ensure efficient ice cream production.

Operation Panel and Function Introduction:

The operation panel consists of an LCD screen and a touch screen. The buttons and functions are as follows:

- **Cleaning/Defrosting Button:** Click to enter the cleaning state. The cleaning indicator lights up, and the buzzer sounds. The stirring motor runs and the LCD displays the current value. Press and hold the button for 1 second to enter the hardness parameter setting state. Click this button to change the hardness value.
- **Fresh/Pre-cool Button:** In the standby state, press to activate freshness preservation. The freshness indicator lights up, and the buzzer beeps. The stirring motor, compressor, and fan motor start with a delay. The LCD displays the current value of the stirring motor. Press again to enter the standby state. In the cooling state, press to automatically activate trough pre-cooling function after cooling is completed (only for models with this function).
- **Timing/Clear Button:** In the standby state, jog the button to enter the restart time setting state. Click to change the restart time setting value. Press and hold the button for 10 seconds to clear the number of cups.
- **Number of Ice Cream Cups:** Displays the count of ice cream cups squeezed. The count is automatically recorded.

Foreword
The commercial ice cream machine produced by our company adopts all- digital computer control system, famous brand high-quality electrical components, and advanced production technology, and has a variety of colors to choose from, which is easy to operate, safe, and reliable. The ice cream machine has a high puffing rate and a high output, and the ice cream tastes smooth and delicate. Our ice cream machines are widely used in catering service industries such as cold drink shops, fast food chain stores, western restaurants, grocery stores, and other food service industries

Safety Precautions

The Unpacking and Inspection of New Machines

1. Cut and unpack the straps and planks that secure the carton; Remove the carton and foam board , and remove

the bag to see if the machine is damaged; (Note: The machine must not be tilted more than 45° during handling)
2. Open the cylinder head and check if the accessories are complete against the packing list.

Using Environment

1. Minimum ambient temperature 5 ° C, maximum ambient temperature 35 ° C. Do not use in places where moisture is high and it will be wet by rain.Do not use it in a place with a lot of sulfuric acid such as hot springs or in a place with a lot of salt such as the bay.
2. The material temperature is at least 5 degrees and the highest is 40 degrees. Low-temperature storage is recommended to improve the efficiency of ice cream production.
3. Choose a well-ventilated location, on a level and solid surface.
4. There should be at least 80 cm of space behind the ice cream machine, and there should be no less than 30 cm of space left and right on each side to allow cold air to enter the machine and allow hot air to escape, to ensure the condensation cycle of the machine.Clean the dust on the condenser regularly.
   Note: The machine will inevitably be shaken during transportation. It is best to use it for 4 hours after smoothing.

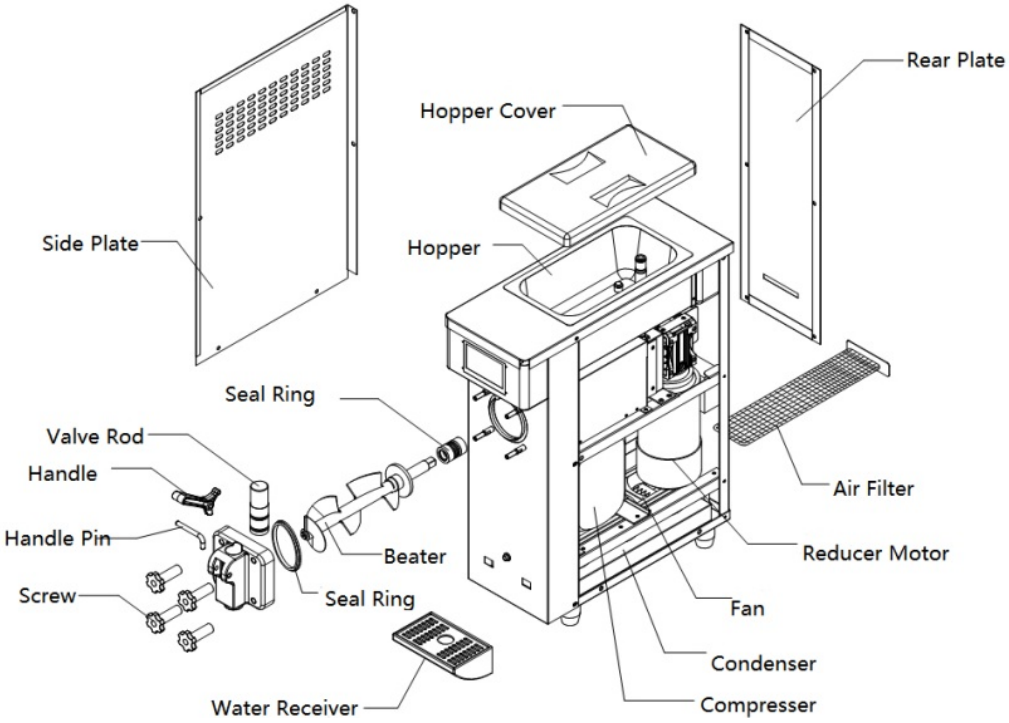
Electrical Connection

1. According to the required power, determine the wire size used in the connection circuit. All internal lines in the ice cream machines have been connected before leaving the factory. Simply connect the wires to the power cord from the lower rear of the machine and connect the ground wire.
   Note: All external wiring, plugs and sockets should meet the requirements of national standards.
2. The rated voltage deviation of the incoming power supply should not be too high or too low. If it is too high or too low, the indicator light (red) will flash and alarm (beep), the machine cooling function will not start. +6%
   Note Voltage 220V -10% 198V-245V 380V -10% 342V-403V
3. Look at the nameplate attached to the rear panel of the machine, to check if the voltage specified on the machine matches the local power supply voltage.
4. Be sure to entrust the electrical construction unit to connect the ground wire. Otherwise, an electric shock may occur in the event of a malfunction or leakage. (The grounding yellow-green line at the bottom of some models)
5. Do not damage the power cord or cause it to be damaged or processed. Gathered into bundles, stretched, barely bent, twisted.
6. When the machine is malfunctioning, turn off the power. If a trip occurs, contact the store or service personnel.

Refrigeration Condition

- Refrigeration is not allowed when the empty cylinder has a stirring shaft.
- No cooling when there is water in the tank.

Product Structure



Operation Panel and Function Introduction

The operation panel is divided into LCD screen and touch screen (select the corresponding operation by physical comparison)

LCD screen operation and function introduction

Cleaning/defrosting button:
In the standby state, the button is clicked to enter the cleaning state, the cleaning indicator lights, the buzzer sounds short, the stirring motor runs, and the liquid crystal display shows the current value of the current stirring motor. Press this button again to enter the standby state. Press and hold the button for 5 seconds, and the defrosting function is turned on, the cleaning icon flashes, and then the button is pressed, and the defrosting function is turned off. (Only for models with this feature)

Cooling button
In the standby state, the button is clicked to enter the cooling state, the cooling indicator light is on, the buzzer sounds short, the stirring motor, the compressor, and the fan motor start, and the liquid crystal display displays the current value of the current stirring motor. Press this button again to enter the standby state.

Puffing button:
In the standby state, press the “Puffing” button, the air pump indicator light is on, and the air pump is not working; in the cleaning or cooling state, press the puffing button, the air pump indicator light flashes, and the air pump starts. (Only for models with this feature)

Hardness adjustment setting button:

Press and hold “△” “▽” or ⇅ for 1 second to enter the hardness parameter setting state, then click this button to change the hardness value. The higher the hardness value, the harder the ice cream and the softer the hardness of the ice cream.

Fresh/pre-cool button:
In the standby state, press the “preservation” button, the freshness indicator light is on, the buzzer will beep once, the stirring motor, compressor, and fan motor will start at a delay, and the liquid crystal display will display the

current value of the current stirring motor. Press this button again to enter the standby state. In the cooling state, press this button to automatically enter the trough pre-cooling function after cooling is completed (only for models with this function)

Timing / Clear button:
In the standby state, jog the button to enter the restart time setting state, and then click the button to change the restart time setting value. Press and hold the button for 10 seconds to clear the number of cups. The number of ice cream cups shows that each time an ice cream is squeezed, the number is automatically recorded

CL1: Lack of material on left

Material shortage display (only for models with this function):
When the material is missing, the missing code is displayed in the cup number display area and the buzzer is intermittently alarmed.

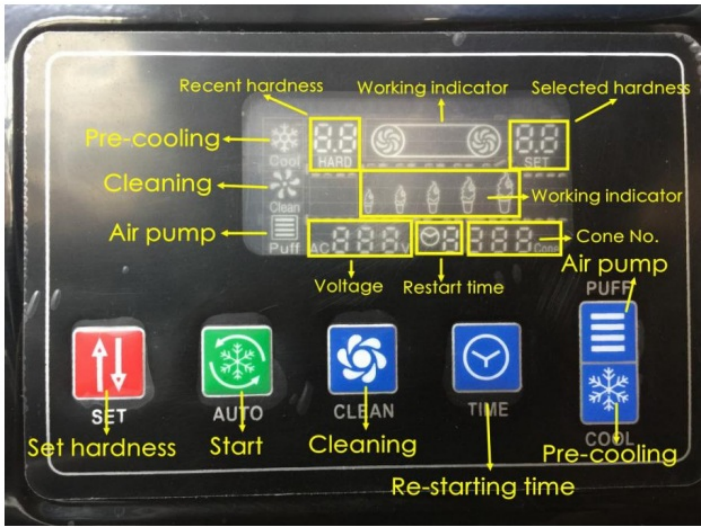
	hopper
CL2	Lack of material in the right hopper
CL3	Lack of material in both hoppers

Alarm display

UH	Over voltage alarm
UL	Low voltage alarm
JJ	Motor overload alarm

Temperature Display:
Due to the content limitation on the screen, the chute temperature and the freezing cylinder temperature display can only be displayed in the same area. The display rules are as follows

	Tank temperature display prompt
XX ℃	Tank temperature display value
	Freezer temperature display prompt
XX ℃	Freezer temperature display value



Sanitary and Parts Cleaning of the Ice Cream Machine

1. Use hygienic raw materials, otherwise, it may endanger
2. Do not return the ice cream that has been taken out to the tank, otherwise, it may be harmful to health.
3. For the operator of the ice cream machine, you must wash your hands first and wear them neatly, otherwise, it may endanger your health.
4. The seal O-ring for a period of 3
5. Please use the 6-month replacement period for the
6. When using it for the first time or not using it for a long time, please clean the parts before using it.

Please use the food detergent and cleaning brush to clean the parts that have been dismantled (refer to the product structure drawing), especially the groove of the O-ring should be thoroughly cleaned.

Note: Please do not damage or lose parts during operation; do not use hot water or dishwashing detergent to clean the resin parts, otherwise it may cause deformation; please do not soak the parts in the detergent for more than 30 minutes, otherwise it may cause deterioration. For those parts that are prone to dirt, please wash them carefully. The blade is very sharp, please be careful not to scratch your hand.

Assembly Method of Parts

1. Assembly of the square shaft and bellows of the agitator, refer to Figure C to fit the bellows into the square Rotate the square shaft after inserting the freezing cylinder to make it align the inner square hole.

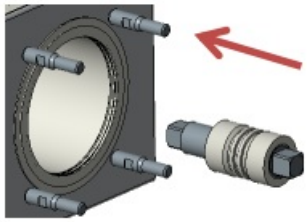


Figure C

2. Install the stirrer on the machine, refer to Figure D After inserting the freezing cylinder, rotate the stirrer to make it align the square shaft and press the stirrer resilience, it has been determined whether it is installed in place.

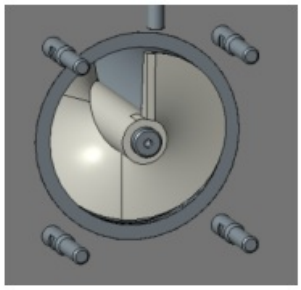
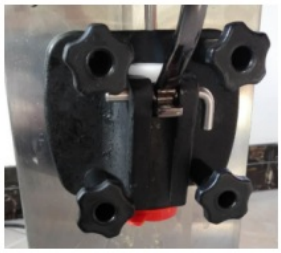


Figure D

3. For assembly of the discharge valve, refer to Figure E

   Note: Don't forget to install the seal ring

Figure E



4. Install the water tank as shown (Figure F).

   Note: The components are assembled in the process of the ice cream machine, make sure the control power switch is off.

Figure F

Ice Cream Manufacturing Method

1. Place the prepared ice cream slurry in 15 minutes and pour into the two tanks at the top of the ice cream machine;

   Note: Requires slurry not to agglomerate
2. Turn on the power, the ice cream machine enters the standby state, Press the "clean button" to let the machine run for 3-5 minutes. At this time, press the handle to let the slurry release 2-3 cups and then pour into the upper tank to prevent the effect of water freezing at the discharge opening makes ice cream;

   Note: Please prepare the slurry according to the proportion of the ice cream powder.
3. Press the "Set" button, (the button version "△" "▽" or the button for 1 second, and you can adjust the stall position (softness) of the ice cream as needed.

   Note: Please refer to the machine's "warm tips" to set the adjustment hardness value. 4
4. Press the "cooling" button, the machine enters the cooling state. Before pressing the cooling button, you can press the "Puffing" button to increase the puffing effect; press the "Pre-cool" button to cool the slurry in the feed chute.
5. 5)When the hardness of the current ice cream reaches the set hardness, the machine will automatically stop and rest; when the machine stops taking a rest, the automatic start time adjustment range is within 3-9 minutes. At this time, press the time adjustment button to set the machine to enter the next refrigeration. The time required for the cycle is increased by one minute per press time, and after 9 minutes, it is returned to the

3-minute state.

Note: When the weather is hot, it is best to set a short time; when the weather is cold, it is best to set a longer time.

6. Take an egg cone or cup and place it at the exit of the outlet Press the discharge handle to squeeze out the ice cream and push the handle back off.
7. If there is residual slurry or ice cream left in the machine for a long time, press the “pre-cooling” button to keep the slurry at a low temperature. To ensure food hygiene and safety, and to reduce energy consumption, it is recommended to clean the machine every day, leaving no residual ice cream in the machine.

- After the cooling is completed, the hardness of the ice cream is too hard to make the display alarm, or the freezing cylinder does not stir, no discharge phenomenon, cut off the power switch, press the switch again after 30 seconds, press the “Thaw” button to freeze Thaw in the After the thawing is completed, press the “Cleaning” button, whether the material is discharged, and the material can be discharged normally. Press the “Start” button again. (Only for models with this feature)

Ice Cream Machine Cleaning and Maintenance Methods

Cleaning of the freezing cylinder and tank

To ensure the health of ice cream consumers and improve the service life of machine parts, the freezing cylinder must be cleaned and disinfected once, as long as the ice cream machine is stopped after use.

- Press the cleaning button to discharge all the slurry in the tank, and press it again, and the machine stops.
- Please use hot water and an appropriate amount of disinfectant, pour it into the tank, and pour it into a volume of about 70% of the tank.
- Press the cleaning button again and stir for about 5 minutes before draining the cleaning solution.
- Please wash with hot water for 2-3 times and
- Use a cleaning brush to clean the chute discharge Carefully clean the liquid level sensor with a clean cloth and a cleaning brush. If the cleaning is not clean, sometimes the material shortage alarm will not work. Please remove the mixing blade and clean the rotating shaft and the head with a clean cloth. Use a cleaning brush to thoroughly clean the groove inside the rotating shaft. Wipe the tank with a clean cloth.

Washing and Unloading Parts

- Turn off the power supply, screw out the four nuts of the discharge valve, and remove the discharge valve assembly;
- Pulling out the handle fixing pin, handle, valve rod, and sealing ring in the discharge valve assembly in sequence;
- The agitator is withdrawn from the freezing cylinder; the parts are disassembled to the minimum unit and cleaned.
- Reinstall the cleaned parts following the opposite steps to remove.

Body Cleaning and Maintenance

- The control switch power must be turned off before cleaning the body.
- Wipe with a dry, soft cloth. If the soil is dirty, use a warm towel sprayed with food detergent to remove the stain and wipe off the remaining detergent.
- The lower part of the machine and the base are also susceptible to contamination. Please clean it.
- Regarding the drain pipe, the drain pipe is connected from the inside of the water tank and inside the machine. If the drain pipe has liquid such as raw materials, it may be caused by a defective motor shaft in the deep part of the freezing cylinder, so please contact the store or maintenance personnel who purchased the product.
  Note: Please do not use polishing powder, gasoline, hot water, etc., otherwise it will damage the outer surface of the machine. Please do not use water directly to avoid leakage or accidents. If the power cord is damaged, do not use it. Please check it 1 or 2 times a month. To check if there is any damage.

Cleaning and maintenance of the condenser

During the working period, the condenser will be covered with dust, which will affect the heat dissipation. The cooling effect is poor. It must be cleaned every two months. It is best to clean it by a professional. Always turn off the power before cleaning, and do not damage the condenser fins.

Annex

1. Consumable parts Seal O ring 1 set; Scraper 2 pieces; Cleaning brushes 1 set
2. Hex wrench 1 piece ;
3. Manual ;
4. 4Warrenty card;

Fault Analysis and Solutions

No.	Fault phenomenon	Cause	Method of exclusion
1	The machine does not start.	1. The power cord is not connected.	1. Verify the power cord and connect it
		2. Zero line is not connected	2. Check the neutral line and connect it
		3. The control power switch is not turned on	3. Turn on the control power switch
		4. Control power switch connection problem	4. Control power switch connection problem
		5. There is a problem with the PCB	5. Replace the PCB board
2	The cleaning function does not work	1. Loose connection	1. Reconnect the break
		2. The motor or capacitor is bad	2. Repair or replace the motor or capacitor
		3. The contactor is bad	3. Replace contactor
	The compressor	1. Low voltage	1. Check the supply voltage
3	does not run	2. Function switch wiring loose	2. Function switch cable reconnection
		3. The contactor is bad	3. Replace contactor
		4. There is a problem with the PCB	4. Replace the PCB board
		5. Capacitor failure (220V series)	5. Replace capacitor
		6. Compressor is bad	6. Replace compressor
4	Not cooling	1. Refrigerant leak	1. Repair the leak point and vacuum the refrigerant
		2. Condenser blocked	2. Cleaning the condenser

		3. The fan does not turn	3. Repair or replace the fan
5	Can’t make ice cr eam	1 No material in the cylinder	1. Add slurry to the cylinder
		2. Unloading puffing tube blocked	2. Pull out the puffing tube and clean it up
		3. The slurry ratio is wrong, too thick	3. Reconstitute the qualified slurry
		4. The panel travel switch is damaged or disconnected	4. Reconnect the line or replace the travel switch
		5. There is a problem with the reducer	5. Repair or replace the gear unit
6	Poor expansion	1. Expanded tube is not inserted	1. Reinsert the expansion tube
		2 No open puffing switch	2. Turn on the puffing switch
7	Ice cream is too soft	1. The slurry ratio is wrong	1. Reconstitute qualified slurry
		2. Improper hardness setting	2. Reset hardness
		3. The motor current is large, there is a short circuit.	3. Repair or replace the motor
8	Ice cream is too hard	1. Too much water in the ingredients	1. Reconstitute qualified slurry
		2. Improper hardness setting	2. Reset hardness
10	Material Leakage	1. Discharge valve leakage	1. Replace the discharge valve seal
		2. Leakage at the rod	2. Replace the stem seal
		3. Leakage at the leak	3. Replace the outlet valve seal
		4. Stirring shaft seal rupture	4. Replace the seal
11	The compressor stops after the ice cream is fo rmed, and the motor do es not stop.	1. Travel switch contacts are attach ed.	1. Repair or replace the travel switch

12	When the ice cream is made, the motor does not turn, and	1. Travel switch damage	1. Repair or replace the travel switch

	The ice cream does not come out.		
13	Beater split	Under normal circumstances, it will not happen. The abnormal situation is as follows.	Replace the beater
14	LCD does not display	1. Slurry water, freezing tank	1. Replace the PCB board
		2. Mis-press the cooling button during cleaning, with water cooling	
		3. Refrigeration when one cylinder has material and the other cylinder has no material	
		4. Empty cylinder refrigeration	
		5. Excessive use of a cylinder When playing with ice cream	
		6. Hot slurry is poured into the cylinder for rapid cooling	
		7. When the motor direction is reversed, the material is cooled.	
		8. There is a problem with the PCB	
15	LCD missing word	1. Loose plug	2. Check the wiring plug
		2. LCD monitor is damaged	2. Replace the display
16	Alarm display	UH–Over voltage alarm	
		UL–Low voltage alarm	
		JJ — Motor overload alarm	

Technical Parameters:

Specific technical parameters and refrigerant performance are subject to the nameplate. The pictures in the manual are for illustrative purposes only, please refer to the actual product!

Documents / Resources

	TechGelato TG100 Basic Soft Ice Cream Machine [pdf] Instruction Manual TG100 Basic, TG100 Basic Soft Ice Cream Machine, Soft Ice Cream Machine, Ice Cream Machine, Cream Machine, Machine

References

- 1.Travel