STOELTING®
A VOLLRATH® DIVISION

Model CF101
OPERATORS MANUAL

Manual No. 513624 Rev.4

This manual provides basic information about the machine. Instructions and suggestions are given covering its operation and care. This manual follows the guidance set forth in the following industry standards: ANSI Z535.6, ASTM F760-93, ASTM F1827-13, FDA Food Code.

The illustrations and specifications in this manual are not binding in detail. We reserve the right to make changes to the machine without notice, and without incurring any obligation to modify or provide new parts for machines built prior to date of change.

DO NOT ATTEMPT to operate the machine until instructions and safety precautions in this manual are read completely and are thoroughly understood. If problems develop or questions arise in connection with installation, operation, or servicing of the machine, contact Stoelting White Glove Service.

For warranty information, visit stoeltingfoodservice.com

STOELTING®
A VOLLRATH® DIVISION

stoeltingfoodservice.com

Stoelting Foodservice Equipment
502 Highway 67
Kiel, WI 53042-1600
U.S.A.

White Glove Service Network
Phone: 888.319.9549

A Few Words About Safety

Safety Information

Read and understand the entire manual before operating or maintaining Stoelting equipment.

This manual provides the operator with information for the safe operation and maintenance of Stoelting equipment. As with any machine, there are hazards associated with their operation. For this reason safety is emphasized throughout the manual. To highlight specific safety information, the following safety definitions are provided to assist the reader.

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and their explanations, deserve your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

If you need to replace a part, use genuine Stoelting parts with the correct part number or an equivalent part. We strongly recommend that you do not use replacement parts of inferior quality.

Safety Alert Symbol:

This symbol Indicates danger, warning or caution. Attention is required in order to avoid serious personal injury. The message that follows the symbol contains important information about safety.

Signal Word:

Signal words are distinctive words used throughout this manual that alert the reader to the existence and relative degree of a hazard.

WARNING

The signal word “WARNING” indicates a potentially hazardous situation, which, if not avoided, may result in death or serious injury.

CAUTION

The signal word “CAUTION” indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.

NOTICE

The signal word “*NOTICE*” indicates information relating to equipment/property damage. The information is not hazard-related.

NOTE

The signal word “NOTE” indicates additional information relating to the subject, usually a hint or tip, that is not hazard-related and does not involve equipment/property damage.

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Section 1 - Description and Specifications

1.1 DESCRIPTION

The CF101 is a countertop continuous flow custard machine. It is equipped with fully automatic controls to provide a uniform product and features Quick-Freeze technology. This manual is designed to assist qualified service personnel and operators in the installation, operation and maintenance of the CF101 frozen custard machine.

NOTE

Product breakdown could happen quicker if product is stored in the freezing cylinder for more than one hour. After a batch is made, close the flow control and empty the contents of the freezing cylinder.

Figure 1-1 Model CF101

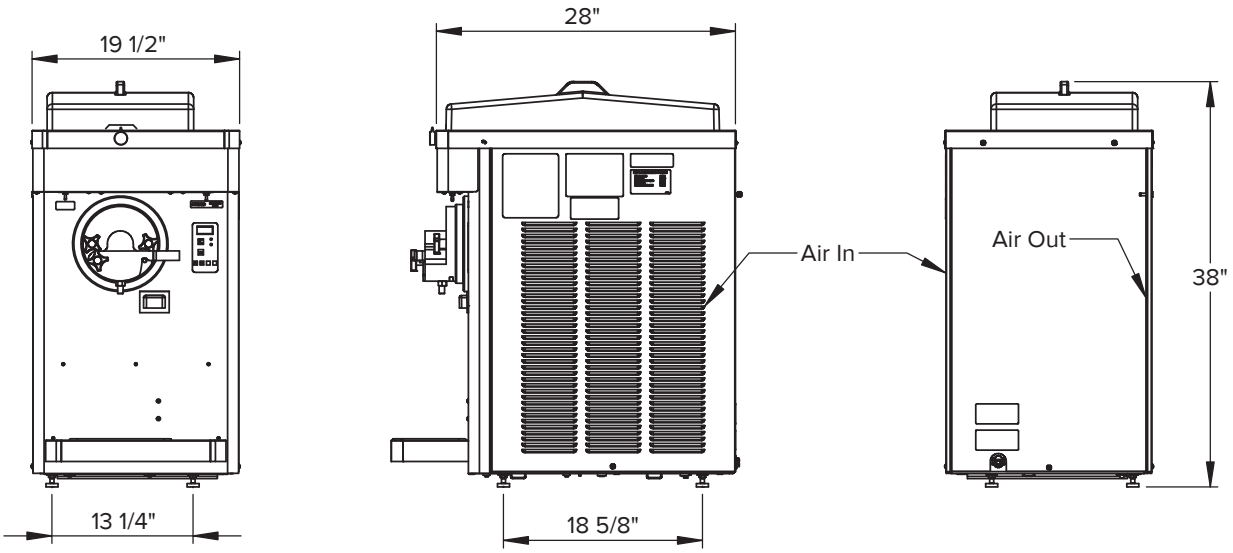


Figure 1-2 Model CF101 Dimensions

1.2 SPECIFICATIONS

	CF101	
Dimensions	**Machine**	**with crate**
width	19-1/2'' (49,5 cm)	38-3/4'' (98,4 cm)
height	37-3/4'' (95,9 cm)	28-3/4'' (73,0 cm)
depth	28'' (71,1 cm)	43'' (109,2 cm)
Weight	310 lbs (140,6 kg)	410 lbs (185,9 kg)
Electrical	**1 Phase, 208-240 VAC, 60Hz**	
running amps	15A	
connection type	NEMA6-20P power cord provided	
Compressor	6,690 Btu/hr	
Drive Motor	1-1/2 hp	
Air Flow	Air cooled units require 6” (15,2 cm) air space at left and right sides and 10” (25,4) air space above the machine.	
Hopper Volume	5.4 gallon (30,28 liters)	
Freezing Cylinder Volume	0.8 gallon (3,03 liters)	

Section 2 - Description and Specifications

2.1 SAFETY PRECAUTIONS

Do not attempt to operate the machine until the safety precautions and operating instructions in this manual are read completely and are thoroughly understood.

Take notice of all warning labels on the machine. The labels have been put there to help maintain a safe working environment. The labels have been designed to withstand washing and cleaning. All labels must remain legible for the life of the machine. Labels should be checked periodically to be sure they can be recognized as warning labels.

If danger, warning or caution labels are needed, indicate the part number, type of label, location of label, and quantity required along with your address and mail to:

STOELTING
ATTENTION: Customer Service
502 Hwy. 67
Kiel, Wisconsin 53042

2.2 SHIPMENT AND TRANSIT

The machine has been assembled, operated and inspected at the factory. Upon arrival at the final destination, the entire machine must be checked for any damage which may have occurred during transit.

With the method of packaging used, the machine should arrive in excellent condition. THE CARRIER IS RESPONSIBLE FOR ALL DAMAGE IN TRANSIT, WHETHER VISIBLE OR CONCEALED. Do not pay the freight bill until the machine has been checked for damage. Have the carrier note any visible damage on the freight bill. If concealed damage and/or shortage is found later, advise the carrier within 10 days and request inspection. The customer must place claim for damages and/or shortages in shipment with the carrier. Stoelting cannot make any claims against the carrier.

2.3 MACHINE INSTALLATION

Installation of the machine involves moving the machine close to its permanent location, removing all crating, setting in place, assembling parts, and cleaning.

⚠ CAUTION

Installation MUST be completed by a qualified electrician/refrigeration specialist

Incorrect installation may cause personal injury, severe damage to the machine and voids factory warranty.

1. Uncrate the machine.
2. Accurate leveling is necessary for correct drainage of machine barrel and to ensure correct overrun. Place a bubble level on top of the machine at each corner to check for level condition. If an adjustment is necessary, level the machine by turning the bottom part of each leg in or out. Then separate the machine base gasket and install it with the seam to the back and angle to the top.
3. Correct ventilation is required. The machine requires 6” clearance on both sides.
4. Place the Main Freezer Power Off/On switch in the OFF position.
5. Connect the power cord to the proper power supply. Refer to the nameplate on your machine for proper supply. The unit must be connected to a properly grounded receptacle. The electrical cord furnished as part of the machine has a three prong grounding type plug. The use of an extension cord is not recommended. Do not use an adapter to circumvent the grounding requirement.
6. Follow the steps in Section 3 for proper cleaning and assembly prior to operation.

Section 3 - Initial Set-Up And Operation

3.1 OPERATOR'S SAFETY PRECAUTIONS

SAFE OPERATION IS NO ACCIDENT; observe these rules:

A. Know the machine. Read and understand the Operating Instructions.

B. Notice all warning labels on the machine.

C. Wear proper clothing. Avoid loose fitting garments, and remove watches, rings or jewelry that could cause a serious accident.

D. Maintain a clean work area. Avoid accidents by cleaning up the area and keeping it clean.

E. Stay alert at all times. Know which switch, push button or control you are about to use and what effect it is going to have.

F. Disconnect electrical cord for maintenance. Never attempt to repair or perform maintenance on the machine until the main electrical power has been disconnected.

G. Do not operate under unsafe operating conditions. Never operate the machine if unusual or excessive noise or vibration occurs.

3.2 OPERATING CONTROLS AND INDICATORS

Before operating the machine, it is required that the operator know the function of each operating control. Refer to Figure 3-1 for the location of the operating controls on the machine.

⚠ WARNING

Moving machinery can grab, mangle and dismember. Place the Main Freezer Power Off/On switch in the OFF position before disassembling for cleaning or servicing.

A. Main Freezer Power Off/On

The Main Freezer Power OFF/ON switch is a two-position toggle switch used to supply power to the control circuit. When the switch is in the OFF position, the freezing cylinder's refrigeration system and auger do not operate. When the switch is in the ON position, the freezing cylinder is operational.

Figure 3-1 Machine Controls

B. Product Selector Switch

The product selector switch changes the refrigeration profile to allow two different products to be made. Before the machine is in ready mode, this switch can be moved to the desired profile.

C. PUSH TO FREEZE Button

The PUSH TO FREEZE button initiates the run mode. To start the machine, place the Main Freezer Power Off/On switch in the ON position then press the PUSH TO FREEZE button.

D. LEDs

The membrane switch features two lights; a green LED and an amber LED. The green LED flashes when the freezing cylinder is near ready mode and stays lit during ready mode. The amber LED is lit during standby, purge, and clean modes.

NOTE

If the machine enters an error condition, alternating green and amber lights flash. The LCD displays an error. Turn the Main Freezer Power Off/On switch to the OFF position, correct the problem (Refer to Troubleshooting in Section 4) and turn the machine back on.

E. PURGE/CLEAN Button

PURGE Mode - When the PURGE/CLEAN button is pressed, the auger rotates. A PURGE message displays on the screen along with a 5-minute timer. Hopper refrigeration continues to run. When the timer gets to 0:00 and no other buttons are pressed, the machine enters standby mode.

CLEAN Mode - During PURGE mode, if the PURGE/CLEAN button is pressed, the CLEAN mode begins. The auger continues to rotate and hopper refrigeration stops.

F. Mix Low Light Indicator

The MIX LOW message appears on the LCD display to alert the operator of a low mix condition. The message displays when there is approximately one gallon of mix left in the hopper. When the MIX LOW message is displayed, refill hopper immediately.

NOTE

Failure to refill hopper immediately may result in operational problems.

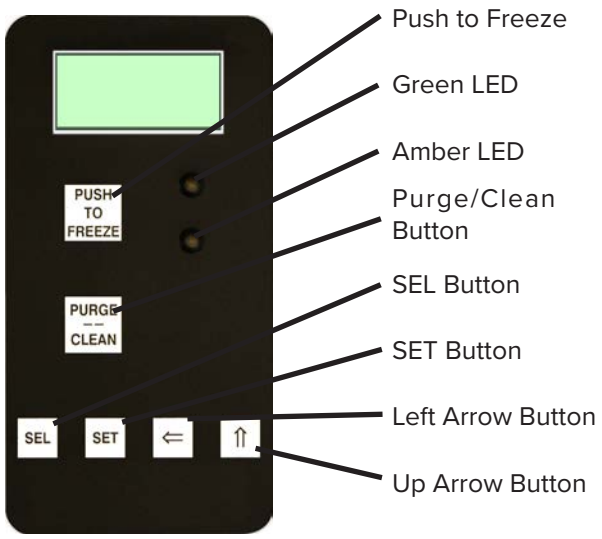


Figure 3-2 IntelliTec Control

G. Menu Navigation Buttons

The Menu Navigation Buttons are primarily used for machine calibration.

Selection Button (SEL) The SEL button is not functional in the normal operation mode. This button is only used by service technicians for machine calibration.

Set Button (SET) The SET button is not functional in the normal operation mode. This button is only used by service technicians for machine calibration.

Left Arrow Button (⇦) Pressing any button on the control panel automatically illuminates the display. The backlight turns off several seconds after use. To keep the display constantly lit, press and hold the left (⇦) button for five seconds. The backlight function can be reset to normal operation in the same manner.

Up Arrow Button (⇧) The ⇧ button is not functional in the normal operation mode. This button is only used by service technicians for machine calibration.

H. Front Door Safety Switch

The front door safety switch prevents the auger from turning when the front door is removed. The switch is open when the door is not in place and closed when the door is properly installed.

3.3 SANITIZING

Sanitizing must be done after the machine is cleaned and just before the hopper is filled with mix. Sanitizing the night before is not effective. However, you should always clean the machine and parts after each use.

NOTE

The United States Department of Agriculture and the Food and Drug Administration require that all cleaning and sanitizing solutions used with food processing equipment be certified for this use.

When sanitizing the machine, refer to local sanitary regulations for applicable codes and recommended sanitizing products and procedures. The frequency of sanitizing must comply with local health regulations.

Mix Stera Sheen sanitizer according to manufacturer's instructions to provide a 100 parts per million (ppm) strength solution. Mix sanitizer in quantities of no less than 2 gallons (7.5 liters) of 90° to 110°F (32° to 43°C) water. Allow sanitizer to contact the surfaces to be sanitized for 5 minutes. Any sanitizer must be used only in accordance with the manufacturer's instructions.

A. Prepare Stera-Sheen Green Label Sanitizer or equivalent according to manufacturer's instructions to provide a 100ppm strength solution. Mix the sanitizer in quantities of no less than 2 gallons of 90° to 110°F (32° to 43°C) water. Any sanitizer must be used only in accordance with the manufacturer's instructions.

B. Place the tapered end of the flow valve into the hopper drain hole with the arm pointing towards the left. Connect the flow control rod to the flow valve and the flow valve arm (Fig. 3-3).

C. Make sure the flow control valve is shut by turning the control knob counterclockwise to the OFF position.

Figure 3-3 Flow Control Assembly

D. Place a bucket under the slide.

E. Pour the sanitizer into the hopper.

NOTE

A small amount of sanitizer may drain into the bucket with the flow control shut and may seep out of the rear seal.

F. Clean sides of hopper, flow valve and underside of hopper cover using a sanitized soft bristle brush dipped in the sanitizing solution.

G. Place the Main Freezer Power Off/On switch in the ON position.

H. Turn the flow control knob clockwise to the second band and wait 2 seconds.

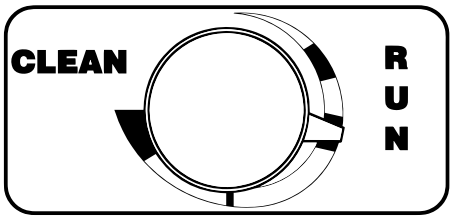


Figure 3-4 Flow Control Knob - Second Band

I. Press the PURGE/CLEAN button twice. The display reads CLEAN and a 10-minute timer starts.

J. Slightly open the front gate. Ensure sanitizer comes in contact with all surfaces (5 minutes).

K. Turn the flow control knob fully open (clockwise) to drain the sanitizer from the freezing cylinder.

L. When the sanitizer has drained from the hopper, place the Main Freezer Power switch and flow control knob OFF.

3.4 FREEZE DOWN AND OPERATION

This section covers the recommended operating procedures to be followed for the safe operation of the machine. The flow control settings may be different depending on the mix. Adjust as necessary.

NOTE

The following instructions are for making custard. If making Italian ice, go to Section 3.7.

A. Sanitize just prior to use.

NOTE

Make sure the flow control assembly is in place before adding mix and that the flow control knob is set to the OFF position.

B. Fill the hopper with pre-chilled (40°F or 4°C) mix.

C. Place the Main Freezer Power switch in the ON position. The display reads STANDBY MODE.

D. Press the PURGE/CLEAN button. The display reads PURGE.

E. Turn the flow control knob to the second band for approximately 3 seconds then turn the knob to “OFF”.

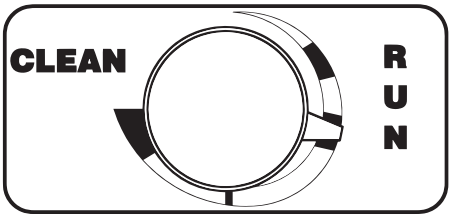


Figure 3-5 Flow Control Knob - Second Band

F. Open the front gate to allow custard mix and sanitizer to exit the front gate and discard the product.

G. Press the PURGE/CLEAN button twice to stop the auger and close the front gate.

H. Press the PUSH TO FREEZE button. The display reads CUSTARD and a bar on the second line starts to fill.

I. When the display reads CUSTARD READY, the freezing cylinder is at the correct temperature (Fig. 3-6).

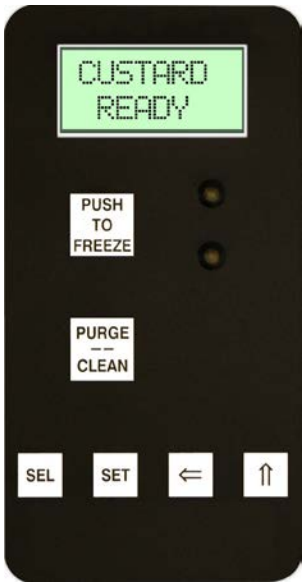


Figure 3-6 Custard Mode

J. Open the front gate.

K. Turn the flow control knob to the first band. After a few minutes, a ribbon of product starts to form.

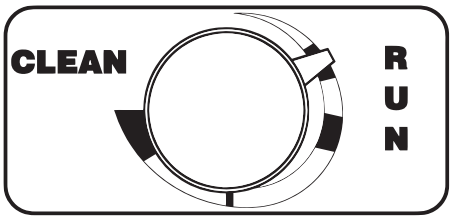


Figure 3-7 Flow Control Knob - First Band

L. Adjust the flow control knob until the product flow fills the faceplate outlet and is at the desired texture (Fig. 3-8). The flow control knob setting is different for each type of product.

NOTE

Adjustments take up to 1 minute before a noticeable difference is seen in the product.

NOTE

A high-pitched noise from the freezing cylinder is an indication that there is not enough mix entering the barrel. Slowly turn the flow control knob clockwise to increase the flow. It can take up to 1 minute for the adjustment to stop the noise.

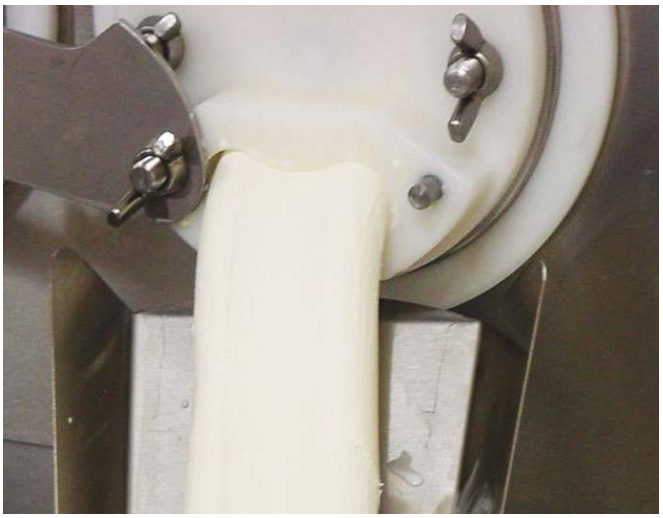


Figure 3-8 Proper Flow

3.5 HOLD CYCLE

A. Turn flow control knob to the OFF position.

B. Press the PURGE/CLEAN button. The display reads PURGE

WARNING

Hazardous Moving Parts

Never put hands, fingers or any object into the front gate during operation of the custard machine.

C. After the timer expires and all usable product is removed, close the gate.

D. Remove the slides.

E. Clean excess product from the faceplate.

3.6 PRODUCTION FROM HOLD

A. Press the PUSH TO FREEZE button.

B. Open the front gate. Collect any liquid mix that comes out of the freezing cylinder in a sanitized container and treat it as rerun.

C. When the display reads CUSTARD READY, the freezing cylinder is at the correct temperature and the auger starts automatically.

D. Turn the flow control knob clockwise to the second band. A small amount of mix will drain from the machine.

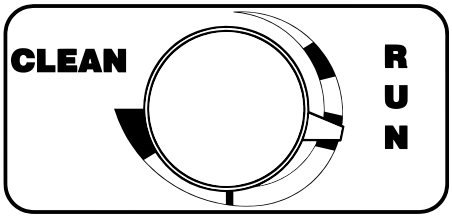


Figure 3-10 Flow Control Knob - Second Band

E. Gradually adjust the flow control knob to gain the desired custard texture.

F. Install the custard slide.

NOTE

A growling or chattering noise during production indicates that not enough mix is entering the barrel. Slightly increase the flow. There are several minutes of lag time between increasing flow and eliminating the growling or chattering.

3.7 ITALIAN ICE FREEZE DOWN AND OPERATION

A. Sanitize just prior to use.

NOTE

Make sure the flow control assembly is in place before adding Italian ice and that the flow control knob is set to the OFF position.

B. Fill the hopper with pre-chilled (40°F or 4°C) Italian ice.

C. Place the Main Freezer Power switch in the ON position. The display reads STANDBY MODE.

D. Press the PURGE/CLEAN button. The display reads PURGE.

E. Turn the flow control knob to the first band for approximately 3 seconds then turn the knob to “OFF”.

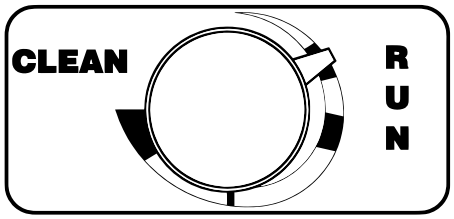


Figure 3-11 Flow Control Knob - First Band

F. Open the front gate to allow Italian Ice and sanitizer to exit the front gate and discard the product.

G. Press the PURGE/CLEAN button twice to stop the auger and close the front gate.

H. Press the PUSH TO FREEZE button. The display reads ITALIAN ICE and a bar on the second line starts to fill. If the display reads CUSTARD, move the product selector switch on the front of the machine to ITALIAN ICE.

I. When the display reads ITALIAN ICE READY, the freezing cylinder is at the correct temperature.

J. Open the front gate.

K. Turn the flow control knob to the second band.

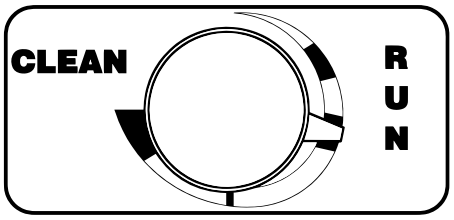


Figure 3-12 Flow Control Knob - Second Band

L. When product starts to collect at the front door, increase the flow control knob to the second band.

M. Gradually adjust the flow control knob in small increments until Italian Ice flow is consistent.

HOLD CYCLE - ITALIAN ICE

A. Turn flow control knob to the OFF position.

B. Press the PURGE/CLEAN button. The display reads PURGE

D. After the timer expires and all usable product is removed, close the gate.

E. Remove the slide.

F. Clean excess product from the faceplate.

PRODUCTION FROM HOLD - ITALIAN ICE

A. Press the PUSH TO FREEZE button.

B. Install the slide and open the front gate.

C. When the display reads ITALIAN ICE READY, the freezing cylinder is at the correct temperature and the auger starts automatically.

3.8 REMOVING MIX FROM MACHINE

To remove the mix from the machine, refer to the following steps. Make sure the gate on the faceplate is open.

NOTE

The following instructions are for both custard and Italian ice.

A. Press the PURGE/CLEAN button. The display reads PURGE.

B. Press the PURGE/CLEAN button again. The display reads CLEAN and a 10-minute timer starts.

C. Once the timer has expired, allow the barrel to rest for at least 5 minutes before removing the custard.

D. If there is mix in the hopper, place a sanitized container at the opening of the faceplate.

E. Open the flow control valve fully by turning the flow control knob clockwise to the CLEAN position.

F. After the hopper and freezing cylinder have drained, place the Main Freezer Power switch in the OFF position.

G. Close the front gate.

H. Cover, label, date and place the sanitized container in the walk-in cooler.

3.9 CLEANING THE MACHINE

NOTE

The frequency of cleaning the machine and machine parts must comply with local health regulations.

After the mix has been removed from the machine, the machine must be cleaned. To clean the machine, refer to the following steps:

A. Place a container under the slide of the faceplate. Fill the hopper with 2 to 4 gallons of tap water (Not to exceed 100°F).

B. Replace the front gate with the splash guard and turn the flow control knob to the second band.

C. Press the PURGE/CLEAN button twice. The display reads CLEAN.

D. Allow the water to drain.

F. When the water has drained, press the PURGE/CLEAN button again to stop the CLEAN cycle.

G. Prepare Stera-Sheen Green Label Sanitizer or equivalent according to manufacturer's instructions to provide a 100ppm strength solution (follow the instructions on the package). Any sanitizer must be used only in accordance with the manufacturer's instructions

H. Place a bucket under the slide.

I. Pour 1 (to 1 1/4) gallons of the sanitizer into the hopper. Using a clean sanitized brush, ensure all the surfaces of the hopper have been sanitized.

J. Press the PURGE/CLEAN button twice. The display reads CLEAN

K. Turn the flow control knob clockwise to the second band.

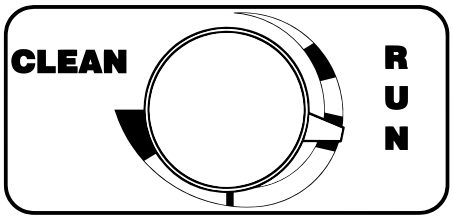


Figure 3-13 Flow Control Knob - Second Band

L. Allow the sanitizer to drain (approximately 5 minutes).

M. When the sanitizer has drained from the hopper, place the Main Freezer Power switch and flow control knob OFF.

3.10 DISASSEMBLY OF MACHINE PARTS

Inspection for worn or broken parts should be made each time the machine is disassembled. All worn or broken parts should be replaced to ensure safety to both the operator and the customer and to maintain good machine performance and a quality product. Frequency of cleaning must comply with local health regulations.

To disassemble the machine, refer to the following steps:

⚠ CAUTION

Hazardous Moving Parts

Revolving auger shaft can grab and cause injury. Place the Main Freezer Power Off/On switch in the OFF position before disassembling for cleaning or servicing.

A. Remove the flow control rod and flow control valve from the hopper by pulling straight up.

C. Remove the slide from the faceplate and remove the faceplate.

D. Remove the front wear bushing.

F. Remove the auger assembly from the machine. Pull the auger out of the freezing cylinder slowly using the shaft wrench. As the auger is being pulled out, carefully remove each of the blades and springs.

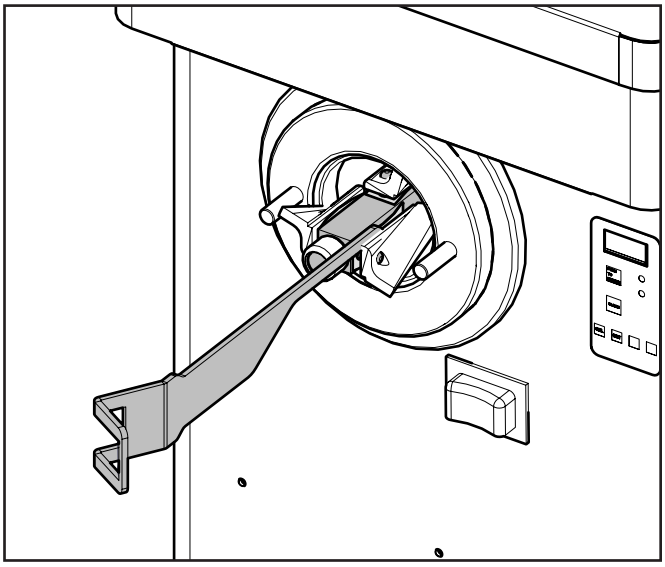


Figure 3-15 Removing Auger

G. Keep the rear of the auger shaft tipped up once it is clear of the machine to avoid dropping the rear seal.

H. Remove the rear seal.

I. Wipe the lubricant from the drive end (rear) of the auger with a cloth or paper towel.

3.11 CLEANING THE MACHINE PARTS

Disassembled machine parts require complete cleaning, sanitizing and air drying before assembling. Local and state health codes dictate the procedure required. Some state health codes require a four sink process (pre-wash, wash, rinse, sanitize, air dry), while others require a three sink process (without the pre-wash step). The following procedures are a general guideline only. Consult your local and state health codes for the procedures required in your location.

Place all loose parts in a pan or container and take to the wash sink for cleaning. To clean machine parts refer to the following steps:

A. Prepare cleaning solution to manufacturers recommendation.

B. Place all parts in cleaning solution and clean with provided brushes.

C. Wash the hopper and freezing cylinder with sanitized water and the designated long handle brush. Clean the rear seal surfaces on the inside of the freezing cylinder.

D. Clean the drip tray located below the freezing cylinder. Wipe down the exterior of the entire machine, top to bottom, with sanitized water.

E. Polish the machine exterior with a clean dry cloth.

F. Rinse all parts with clean 90° to 110°F (32° to 43°C) water.

G. Place all parts in a sanitizing solution for 5 minutes, then remove and let air dry completely before assembling the machine.

NOTE

If the machine is not going to be immediately operated, store the faceplate in a clean and sanitized container in a cooler.

3.12 ASSEMBLY OF MACHINE

To assemble the machine parts, refer to the following steps:

NOTE

Total Blend sanitary lubricant or equivalent must be used when lubrication of parts is specified.

Total Blend can be used to lubricate parts and as a spline lubricant. Do not use more than one packet of Total Blend per freezing cylinder.

NOTE

The United States Department of Agriculture and the Food and Drug Administration require that lubricants used on food processing equipment be certified for this use. Use lubricants only in accordance with the manufacturer's instructions.

A. Install the rear gasket onto the auger shaft. Do not lubricate the rear gasket.

B. Lubricate the hex end of the auger shaft with a small amount of Total Blend lubricant.

C. Install the springs and blades onto the first two positions at the rear of the auger shaft.

D. Rest the auger shaft inside the barrel with the first blade facing down. Push the auger inwards and rotate it until second blade is facing down.

NOTE

Do not drop the auger shaft inside the barrel. This causes serious damage to the barrel surface

E. Rotate the auger shaft clockwise and place the next spring and blade on the pins. Continue until all 8 springs and blades are installed.

F. Using the auger shaft wrench, push and turn the auger shaft until it engages with the drive coupling in the back of the machine.

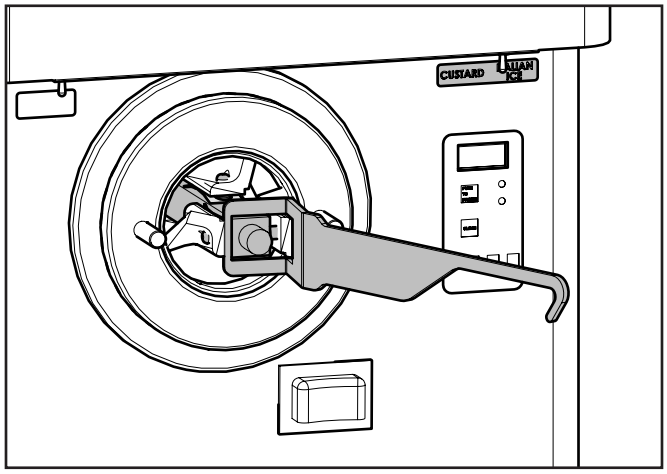


Figure 3-17 Rotate Auger Shaft to Engage

G. Lubricate the front end of the auger shaft and the inside of the faceplate, where the bushing sits, with Total Blend lubricant.

H. Lubricate the inside and outside of the front bushing with Total Blend lubricant. Place the bushing on the end of the auger shaft.

I. Place the large o-ring onto the faceplate with a small amount of Total Blend lubricant.

J. Install the faceplate onto the machine and secure the front gate.

K. The machine is now ready for sanitizing.

3.13 ROUTINE CLEANING

To remove spilled or dried mix from the machine exterior, wash in the direction of the finish grain with warm soapy water and wipe dry. Do not use highly abrasive materials, as they mar the finish.

3.14 PREVENTATIVE MAINTENANCE

Use the following maintenance schedule to keep the machine clean and operating properly.

A. DAILY

Disassemble and Clean

The frequency of cleaning the freezer and freezer parts must comply with local health regulations. Refer to the previous sections for proper disassembly and cleaning instructions.

Lubricate Front Bushing

Total Blend lubricant or equivalent must be used when lubrication of parts is specified. Apply a thin film of lubricant to the inside and outside of the front bushing.

Inspect Parts

Inspect parts for wear or breakage each time the freezer is disassembled. Replace all worn or broken parts to ensure safety to both the operator and the customer and to maintain good freezer performance and a quality product.

Lubricate Hex End of the Auger

Lubricate the hex end of the auger with a small amount of Total Blend lubricant.

B. QUARTERLY

Service Technician only - Clean Condenser Coils (And Filters If Applicable)

The coils on condenser need to be cleaned to ensure proper airflow. Use compressed air to clean the condensers. Blow the air in the opposite direction of the normal airflow.

C. ANNUALLY

⚠ WARNING

High voltage will shock, burn or cause death. Turn off and lock out main power disconnect before servicing. Do not operate machine with panels removed.

Service Technician Only - Drive Belt Wear and Tension

Inspect the drive belt for wear. Check for wear marks from the belt rubbing on the pulley. Use a Burroughs Belt Tension Gauge to set the tension for the drive belt. Set the belt tension to 40-50 lbs. If an adjustment is necessary, loosen the four motor plate retaining nuts, adjust the belt tension then retighten the four nuts.

3.15 EXTENDED STORAGE

Refer to the following steps for winterizing the machine or for storing the machine over any long period.

A. Clean all of the parts that come in contact with mix thoroughly with warm detergent. Rinse in clear water and dry all parts. Do not sanitize.

NOTE

Do not let cleaning solution stand in machine barrel during the shutdown period.

B. Remove, disassemble, and clean the front door and auger shaft. Leave disassembled during the shutdown period.

C. Place the plastic auger blades in a plastic bag with a moist paper towel. This will prevent the blades from becoming brittle if exposed to dry air over an extended period (over 30 days).

D. For water-cooled machines that are left in unheated buildings, or buildings subject to freezing, the water must be shut off and disconnected. Disconnect the water inlet fitting. The fitting is located at the rear of the machine. Run the compressor for 2 - 3 minutes to open the water valve (the front door must be attached for the compressor to run). Blow out all the water through the water inlet. Drain the water supply line coming to the machine. Disconnect the water outlet fitting.

E. Disconnect the machine from the source of the electrical supply in the building.

Section 4 - Troubleshooting

4.1 ERROR CODES

When the machine experiences a problem, one of the following error codes is displayed on the control panel. Each error code directs you to the system location of the malfunction.

ERROR CODE	MALFUNCTION
1	Soft
2	High Torque
3	Extended Run Time
4	Clean
5	Barrel Sensor
6	Hopper Sensor
7	Drive Motor
8	Cab Sensor
9	High Pressure Cutout
10	Auxiliary Sensor

To return the machine to normal operation, any error causing condition must be corrected and the Main Power Off/On switch must be placed in the OFF position and back in the ON position before the machine returns to normal operation.

4.2 TROUBLESHOOTING ERROR CODES

Error Code 1 - Soft Error

The Soft Error (E1) is an internal control board error that is logged for future analysis. The refrigeration is never stopped and the machine continues to operate normally.

Error Code 2 - High Torque

If the control panel displays a High Torque Error (E2), the drive motor is running at a high load for 10 or more seconds. Place the Main Power Off/On switch in the OFF position, wait until the product in the barrel thaws to a reasonably soft consistency and return the switch to the ON position. If the error persists, contact White Glove Service for further assistance.

Error Code 3 - Run Time

The Run Time Error (E3) occurs when the compressor runs continuously for an extended period. This error could happen if the cutout value is not attained during “Standby Mode” or if the “Ready” signal does not come on in “Custard Mode” or “Italian Ice Mode”.

This error is generally caused by very low mix levels in the hopper or from product breakdown. Check the mix in the hopper. If the level mix is low, add mix. If there is a possibility that the mix has broken down, clean and sanitize the machine and replace the mix with fresh product.

The Run Time Error may occur if airflow within the machine has reduced or stopped or if there is a refrigeration issue. Check the sides of the machine for anything that would restrict airflow.

If the error persists after attempting to clear it, contact White Glove Service for further assistance.

Error Code 4 - Clean

If the machine is left in the Clean Mode for more than 10 minutes, the control panel displays a Clean Error (E4). This condition does not reflect a problem with the machine itself. The Clean Error has been programmed into the controller as a safeguard to protect the machine from potential damage caused by the machine being accidentally left in “Clean Mode”. The control attempts to restart itself after 5 minutes. The display then flashes and reads Restart. To immediately clear the Clean Error, place the Main Power Off/On switch in the OFF position and back in the ON position. After the Clean Error has been cleared, the machine starts a refrigeration cycle to protect the product in case the clean button was pressed by mistake.

Error Code 5 - Freezing Cylinder Sensor

The Freezing Cylinder Sensor Error (E5) indicates a failure of the barrel sensor or if the sensor is out of range. If the error occurs, contact White Glove Service for further assistance.

NOTE

When the machine encounters a Freezing Cylinder Sensor Error, it continues to run using preset timers. This mode allows the freezing cylinder to continue making product until it can be serviced.

Error Code 6 - Hopper Sensor

The Hopper Sensor Error (E6) indicates a hopper temperature sensor failure. This error also appears if the sensor is out of range. If the error occurs, contact White Glove Service for further assistance.

Error Code 7 - Drive Motor

If the control panel displays a Drive Motor Error (E7), the control does not sense the drive motor. If the error occurs, contact White Glove Service for further assistance.

Error Code 8 - Cab Sensor

A Cab Sensor Error (E8) does not occur on the CF101 machine.

Error Code 9 - High Pressure Cutout

High Pressure Cutout Errors (E9) are usually caused by a dirty or inefficient condenser. If the control panel displays an E9 on an air cooled machine, check for proper air clearance around the condenser. In a water cooled machine, check that the water is not shut off. If the error persists, contact White Glove Service for further assistance.

Error Code 10 - Auxiliary Sensor

An Auxiliary Temperature Sensor Error (E10) occurs if the temperature sensor on the control board fails. If the error occurs, contact White Glove Service for further assistance.

Error Code 12 - Right Hopper Sensor

The Right Hopper Sensor Error (E12) does not occur on the CF101 machine.

Error Code 13 - Left Hopper Sensor

The Left Hopper Sensor Error (E13) does not occur on the CF101 machine.

ALTERNATING FLASHING CONTROL PANEL LIGHTS

The display panel lights flash in an alternating sequence under any error code. Clear the error and place the Main Power Off/On switch in the OFF position and back in the ON position.

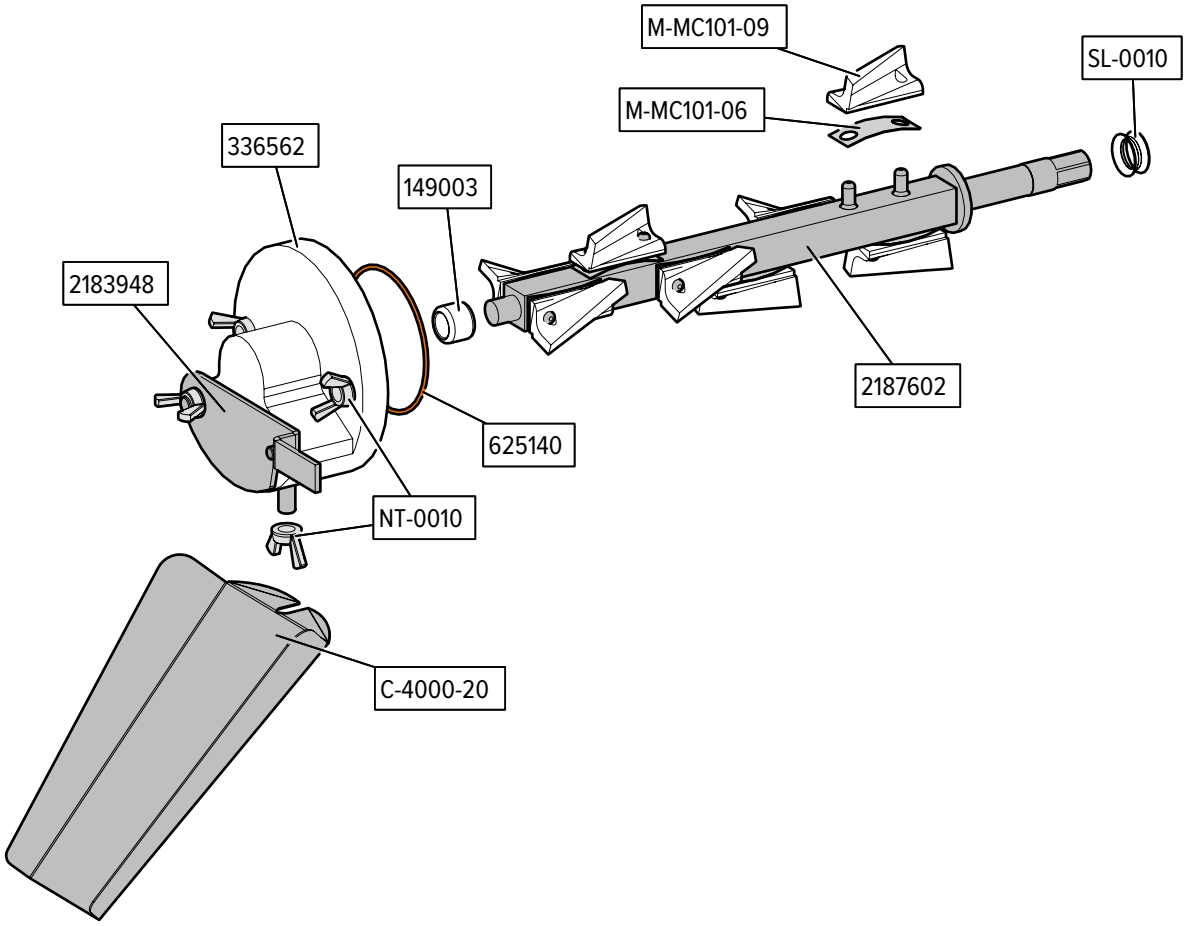
4.3 TROUBLESHOOTING TABLES

PROBLEM	POSSIBLE CAUSE	REMEDY
Custard is running too cold or auger blades chatter during running.	1 Flow is not high enough.	1 Increase the flow. Machine needs to run for at least a minute before seeing a change in the product.
	2 Hopper is low or out of mix.	2 Add Mix
	3 Flow valve is plugged.	3 Check flow valve.
	4 The refrigeration system is set too cold for the mix.	4 Call Stoelting White Glove Service.
Custard has gritty texture	1 Blades or springs are worn	1 Inspect and replace worn parts
	2 The refrigeration system is set too cold for the mix.	2 Call Stoelting White Glove Service.
Custard is running too soft.	1 Flow is too high.	1 Decrease the flow. Machine needs to run for at least a minute before you see a change in the product.
	2 The refrigeration system for that barrel set too warm for the mix.	2 Call Stoelting White Glove Service.
	3 Condenser on remote unit is blocked.	3 Check for blockage and clean if necessary.
	4 Water cooled machine has water shut off.	4 Check that water is connected and turned on.
	5 Refrigeration system not functioning correctly.	5 Call Stoelting White Glove Service.
Beater motor freezes up in the run mode.	1 Hopper is low or out of mix.	1 Add Mix
	2 Flow valve is plugged.	2 Check flow valve.
	3 Belt is loose and slipping.	3 Check the belt and tighten if necessary.

5.1 DECALS AND LUBRICATION

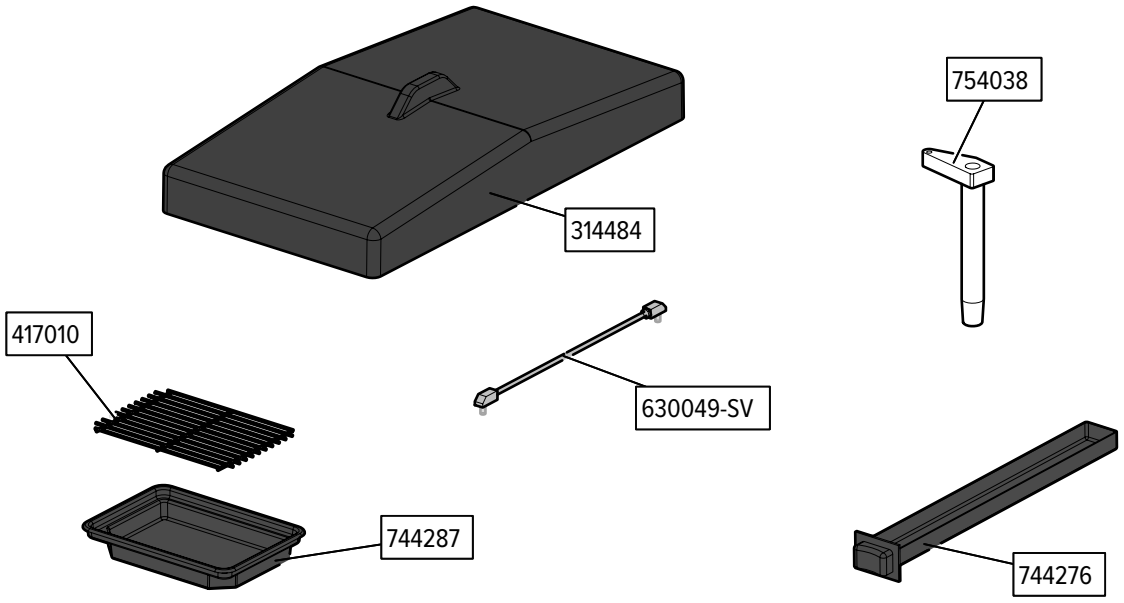
Part	Description	Quantity
C-2000-57	Wrench - Auger Shaft	1
C74	O-Ring Pick	1
208135	Brush - 4” x 8” x 16” (Barrel)	1
208401	Brush - 1” x 3” x 10”	1
232091	Cap - Protective (Gray) - #490716 Leg	
236048	Card - Cleaning Instruction	1
324105	Decal - Caution Electrical Shock	1
324106	Decal - Caution Electrical Wiring Materials	1
324107	Decal - Caution Hazardous Moving Parts	1
324151	Decal - Field Connections (CF101-38A)	1
324208	Decal - Attention Refrigerant Leak Check	1
324509	Decal - Cleaning Instructions	1
324566	Decal - Wired According To	1
324584	Decal - Adequate Ventilation 3”	2
324594	Decal - Attention Heat Sensitive	1
324686	Decal - Danger Automatic Start	1
324728	Decal - Contactor Identification	1
324825	Decal - Main Freezer Power	1
324855	Decal - Flow Control	1
324858	Decal - Custard / Italian Ice	1
324878	Decal - #149014 Wearguard	-
324879	Decal - #149003 Wearguard	-
324880	Decal - #149015 Wearguard	-
324888	Decal - Fan Motor Reset	1
324901	Decal - Transformer Switch	1
325023	Decal - Stoelting (Black) (Large)	1
325032	Decal - White Glove Service	1
396243	Gasket - Freezer Base	1
490716	Leg	4
508053	Lubricant - Total Blend (50 Packets)	1
513624	Manual - Operators	1
2177917	Brush Kit	1
2208433	Maintenance Kit - Semi-Annual	-
2208435	Maintenance Kit - Annual	-

5.2 AUGER SHAFT AND FACEPLATE PARTS



Part	Description	Quantity
C-2000-40	Wearguard - Auger Shaft (Ser. #0 - #27431)	-
C-4000-19	Slide - Long (Chute) (14”)	1
C-4000-20	Slide - Short (Chute) (10”)	1
M-MC101-06	Spring - Auger Blade (Has 8)	8
M-MC101-09	Blade - Auger (Has 8)	8
NT-0010	Wing Nut - Stainless Steel (Front Door)	4
SL-0010	Seal - Auger Shaft (Ser. #26919 Plus)	1
149003	Wearguard - Auger Shaft (Ser. #27432 Plus)	1
149014	Wearguard - Auger Shaft (“S”)	-
149015	Wearguard - Auger Shaft (“L”)	-
336557	Door - Front - Italian Ice (Ser. #0 - #27788)	-
336581	Door - Front - Italian Ice (Ser. #27789 Plus)	-
336558	Door - Front (Ser. #0 - #26918)	-
336562	Door - Front (Ser. #26919 Plus)	1
624678-5	O-Ring - Rear Seal - Black (5 Pack) (Ser. #0 - #26918)	-
625140	O-Ring - Front Door	1
667868	Seal - Rear Auger (Orange) (Ser. #0 - #26918)	-
674182	Auger Shaft (Uses #C-2000-40 Wearguard) (Ser. #0 - #26918)	-
1151859	Adapter - Rear Seal (Code 1) (Ser. #0 - #26918)	-
2183948	Gate - Front Door	1
2187602	Auger Shaft (Check Decal on R.H Side Panel for Proper Wearguard) (Ser. #27789 Plus)	1
2187609	Auger Shaft (Uses C-2000-40 Wearguard) (Ser. #26919 - # 27431)	-
2187654	Auger Shaft (Check Decal on R.H Side Panel for Proper Wearguard) (Ser. #27432 - #27788)	-

5.3 HOPPER PARTS



Part	Description	Quantity
314484	Cover - Hopper	1
417010	Insert - Drip Tray	1
630049-SV	Rod - Flow Control	1
744276	Tray - Drain (18 3/8” Long)	1
744287	Tray - Drip (Black)	1
754038	Tube - Flow Control (Hopper)	1