

OPERATING INSTRUCTIONS

PRINCE CASTLE INC. 
WORLDWIDE

Shortening Filter Model No. 99-A, 102-A, & 107-A Series

Frequent Fryer®



The Prince Castle Shortening Filter was designed and constructed to perform an important part in the operation and maintenance of fryers. This filter was designed to give excellent service and save hundreds of dollars by keeping oil as clean as possible. Cleaner oil not only saves money it results in making a better product.

PRODUCT SPECIFICATION

Electrical

115 Volts, 1/3 Hp Motor, 60 Hz, 6.5 Amps, 780 Watts

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LIMITED WARRANTY

This product is warranted to be free from defects in material and/or workmanship for a period of one (1) years from date of original installation, not to exceed 18 months from date of shipment from our factory.

Any component which proves to be faulty in material and/or workmanship will be replaced or repaired (at the option of Prince Castle, Inc.) without cost to the customer for parts or labor.

This warranty is subject to the following exceptions/conditions:

- Use of non-genuine Prince Castle spare parts will void this warranty.
- This equipment is portable; charges for on-location service (e.g., trip charges, mileage) are only included in the provisions of this warranty for a failure which occurs within the first 30 days of installation.
- All labor should be performed during regular work hours. Overtime is not covered under the provisions of this warranty.
- Damage caused by carelessness, neglect, and/or abuse (e.g., dropping, tampering or altering electrical parts), equipment damaged in shipment, by fire, flood or an act of God is not covered under this warranty.
- Running water through the pump rusts internal parts and will void this warranty.

Clogged pumps are not covered under the warranty. Cleaning the pump is part of the routine maintenance for this equipment.

PRINCE CASTLE INC. 
WORLDWIDE

355 East Kehoe Blvd. • Carol Stream, IL 60188

Tel: (630) 462-8800 • Fax: (630) 462-1460

Toll Free: 1-800-PCASTLE

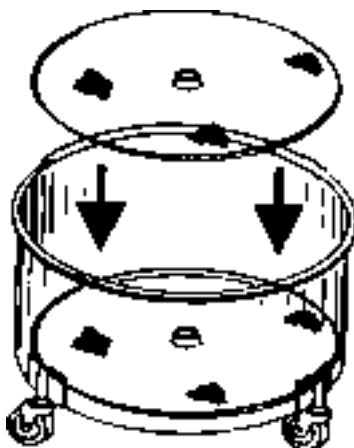
INSTALLATION

1. After you have removed the Shortening Filter from the carton, inspect the unit for signs of damage. If there is damage to the unit:
 - Notify carrier within 24 hours after delivery.
 - Save carton and packing materials for inspection purposes.
 - Contact the Prince Castle Customer Sales Department at 1-800-722-7853 to arrange for a replacement to be sent.
2. Verify that all parts have been received.
 - Motor, Pump and Hardware Assembly
 - Ring Weight
 - Standpipe/Casters
 - Hose Assembly
 - Screen Assembly

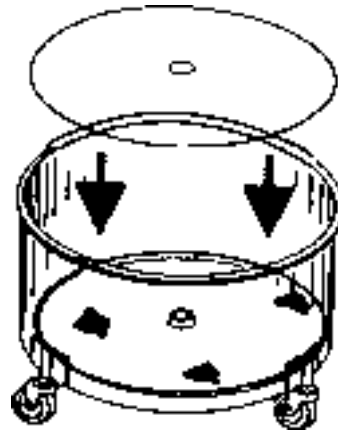
3. Insert (4) casters into caster bracket weldments.



4. Place screen assembly, with thread facing up, inside filter tank.

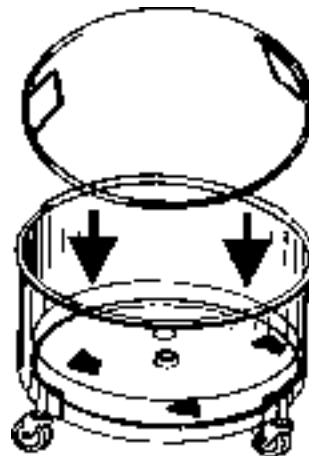


5. Place filter paper over thread on top of screen.



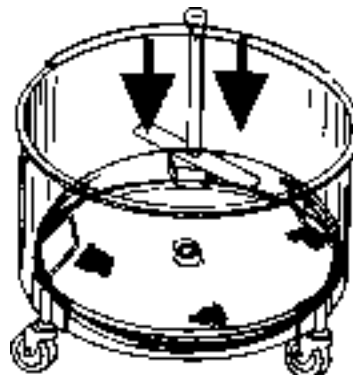
IMPORTANT: Center paper properly so it lays flat on the screen and overlaps on each end. If incorrect, torn, or no filter paper is used the unit will not filter properly.

6. Spread approximately 16oz, by volume, of filter powder (Prince Castle No. 712) over filter paper.
7. Place the ring weight on the filter paper.

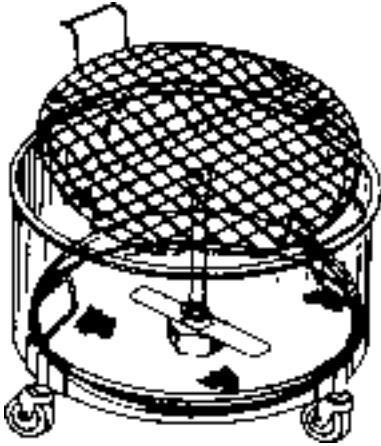


IMPORTANT: Make sure paper is not folded or creased under the ring weight.

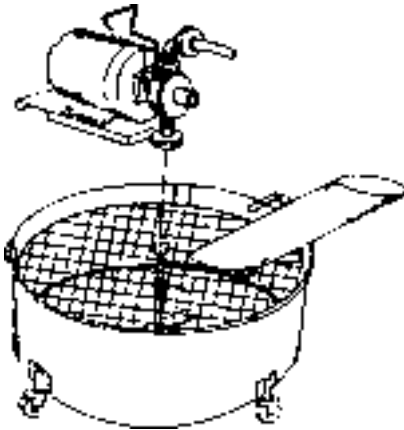
8. Hand-tighten standpipe to screen.



9. Place safety guard on tank.

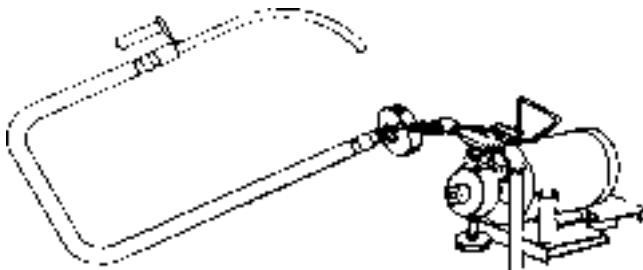


10. Grasp motor assembly by handle and set it on the edge of the tank so the union nut lines up with standpipe. Hand tighten the union nut to the standpipe, making sure the connection is tight.



11. Attach anti-splash tube on the filter tank by hooking the tube over the rim of the tank so that the diffuser end of the tube is closest to the safety guard.
12. Hand tighten hose to the pump union nut, making sure the connection is tight.

IMPORTANT: This hose is flexible, however, excessive bending can crease or crack the hose causing hot oil to leak. Do not use a cracked hose.



OPERATION

Required Protective Equipment:

- ▣ Face Shield
- ▣ Rubber Gloves
- ▣ Apron



CAUTION: Handle and Hose are Hot



CAUTION: Maximum normal operating pressure 50PSI (35, 155 KGS/SQ Meter)

1. Remove cooking probes from fryer, if present.
2. Turn on fryer and set thermostat to cooking temperature.

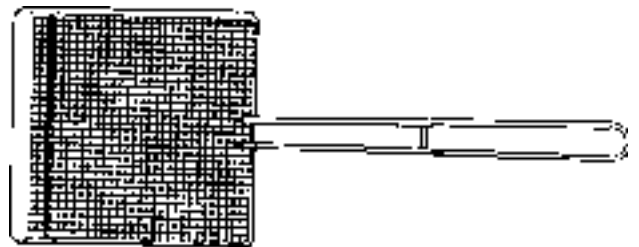
IMPORTANT: Do not turn off fryer until you are ready to filter, this will allow shortening to remain hot for filtering.

3. Slowly agitate the shortening in all the fryers with the wood paddle provided. This will blend hot and cold shortening, boil off excess moisture and bring any debris to the surface.



CAUTION: Excessive moisture could cause fryer to boil over. Continue agitation to all boiling ceases.

4. Skim off any debris from the shortening surface (use a Prince Castle Fry Vat Skimmer).

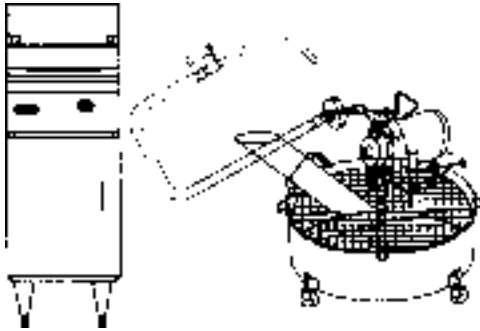


IMPORTANT: Failure to skim the fryer thoroughly could cause excess food particles to clog the drain valve or the filter machine pump.

5. Roll assembled filter machine to fryer and plug power cord into wall outlet. Turn off fryer and engage locking casters.

IMPORTANT: Do not pull filter machine by hose assembly or power cord.

6. Connect drain extension to fryer and place a strainer under the drain to catch large food particles. Open drain slowly and let hot shortening enter the tank. If drain valve is clogged use a drain line clean out rod to free the drain.

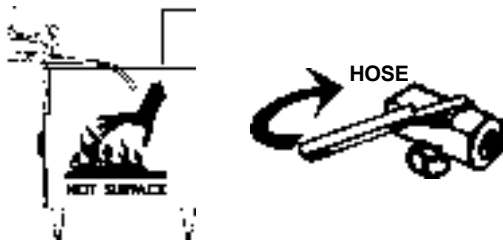


7. **Standard Motor:**

When the shortening covers the ring weight, insert the nozzle of the hose into the fryer and turn the motor on. Aim the nozzle along the sidewalls of the fryer to remove any particles.

Recirculating Motor:

When the shortening covers the ring weight, move the **3-way valve** to **Hose**. Insert the nozzle of the hose into the fryer and turn the motor on. Aim the nozzle along the sidewalls of the fryer to remove any particles.



8. When the fryer is clean of particles, turn the motor off and allow shortening to drain into the bowl. Put hose nozzle into the hole on the motor plate.
9. Let shortening drain from the fryer and proceed to clean the fryer according to your accepted method.
10. After cleaning, insert the hose nozzle into the fryer and turn the motor on leaving the fryer drain open. Rinse the fryer clean. Direct the flow of shortening against the sides of the fryer to minimize splashing.

11. For the **Recirculating Motor** move the **3-Way Valve** to the **Recirculating position**, place hose nozzle into the hole on the motor plate, and turn the motor on allowing the shortening to recirculate in the bowl for a minimum of 4 to 5 minutes before turning motor off.



IMPORTANT: Do not leave filter machine unattended while filtering.

12. Remove the drain extension and close the drain.
13. Insert hose nozzle into fryer vat, turn motor on to allow shortening back into the fry vat.



Note: For the Recirculating Motor turn the 3-way valve to hose (back to the center) before turning motor on.



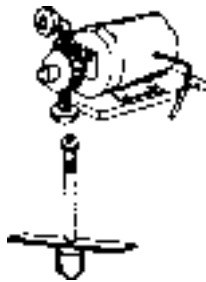
14. Turn the fryer on and make sure the thermostat is set to your cooking temperature. Using fresh shortening carefully refill the fryer to the proper level. A small amount of shortening will be left in the filter tank, which is normal.
15. Replace the cooking computer probes.
- IMPORTANT:** Make sure the floor around the filtering area is free from any splattering. Floor should be kept clean and dry.
16. Repeat procedures for the remaining fryers.
17. The number of fryers that can be filtered with one dose of powder will depend on the product being cooked and the amount of debris in each fryer.

CLEANING

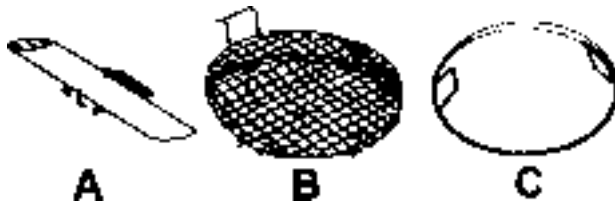


CAUTION: Parts are extremely hot after filtering!

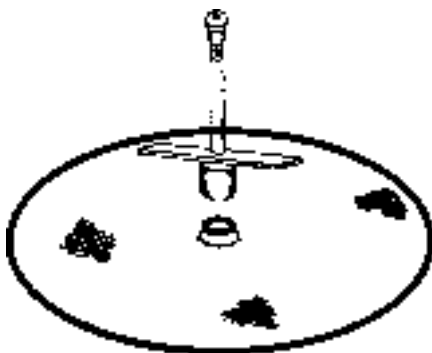
1. Unplug the power cord from wall outlet and from motor power inlet, wrap cord around motor base.
2. Disconnect the hose from the pump union nut and drain the excess shortening from the hose into the bowl.
3. Disconnect the pump from the standpipe and remove the motor assembly from the bowl.



4. Remove the anti-splash tube, safety guard and ring weight from the tank and place in the sink.



5. Disassemble the standpipe from the screen and place in the sink.



6. Remove the filter paper from the screen and discard.



CAUTION: Filter paper may be hot.

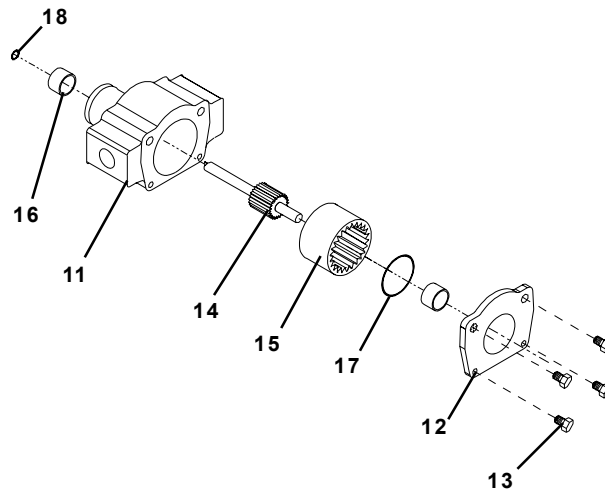
7. Remove the screen from the tank and place it in the sink.
8. Wash the parts in very hot water.
9. Wipe all parts dry with a clean towel.

IMPORTANT: Do not run water through the motor and pump assembly at any time. This will cause the pump to rust internally and void the warranty.

10. Place all the parts (excluding the motor and pump) inside the tank and roll into the storage area.

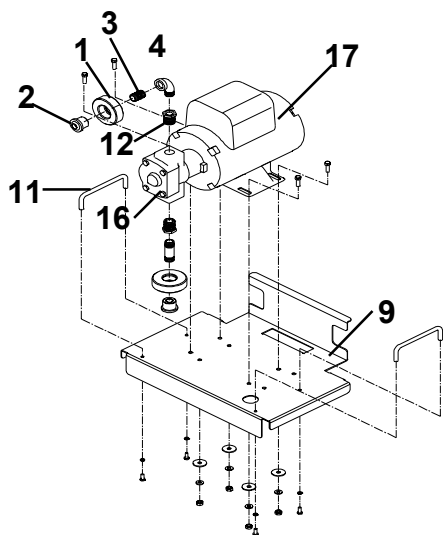
IMPORTANT: Do not store motor and pump assembly on the screen. This could cause the screen to warp or cause grease to damage the power cord and motor.

105-77 BLUE PUMP EXPLODED VIEW

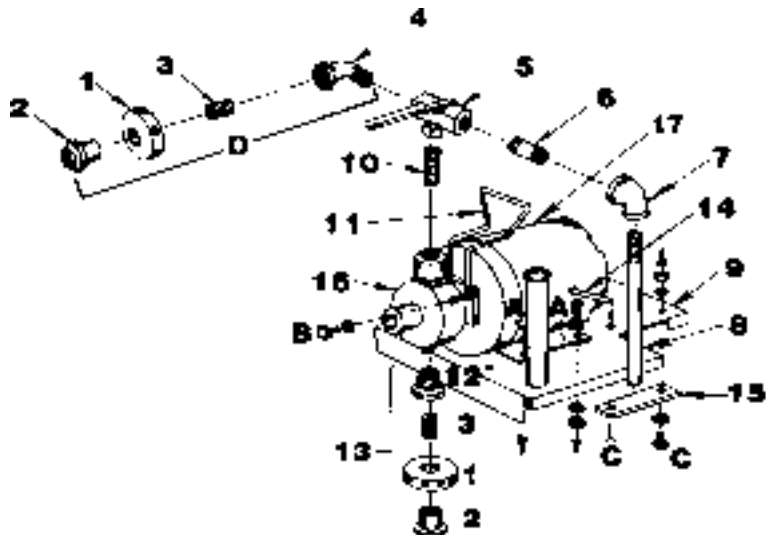


PARTS LIST

ITEM	PART NO.	DESCRIPTION
11	105-140	Casting
12	105-144	Cover
13	105-145S	Screw (Pkg of 4)
14	102-128S	Drive Shaft
15	105-73S	Idler Gear
16	93-021S	Oil Seal (Includes items 17 & 18)
17	105-146	O' Ring (New Style)
18	105-139	O' Ring



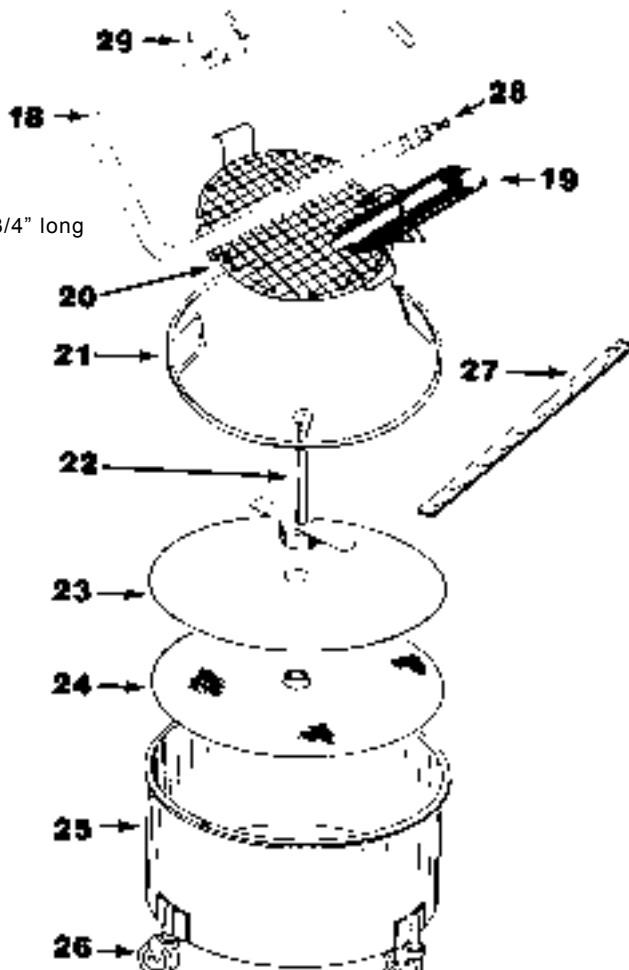
New Style Motor, Pump and Hardware



Recirculating Motor, Pump and Hardware (Old Style)

PARTS LIST

ITEM	PART NUMBER	DESCRIPTION
1	102-32	Union Nut, Knurled
2	102-33	Female Union
3	100-59	3/8" NPT x 1" Nipple
4	100-57	Street Elbow 3/8"-18 NPT
5	102-171	3-Way Recirculating Valve (107)
6	93-027	Nipple 1/2" NPT x 1-1/2" Long
7	93-026	Elbow (1/2" NPT 90°)
8	93-023	Nipple (1/2" NPT)
9	107-087	Motor Base Assembly
10	93-003	Close Nipple 1/2" NPT
11	107-6	Handle (107)
	102-7	Handle (102)
12	100-58	Reducing Bushing 1/2" to 3/8" NPT x 3/4" long
13	102-117S	Standpipe Coupling
14	72-296S	Power Cord
15	100-22	Rubber Strip
16	105-77	Pump Assembly
17	108-385S	Motor Only
18	102-286	Hose Assembly
19	110	Anti-Splash Tube
20	102-125	Safety Guard
21	105-22	Ring Weight
22	102-10	Stand Pipe Assembly, 102-A, 107A
	100-11	Stand Pipe Assembly, 99-A
23	713	Filter Paper (100 Sheets)
•	712	Filter Powder (50 lbs)
24	100-13	Screen Assembly
25	105-21	Bowl w/Casters
26	89-410S	Locking Casters (Pkg. of 2)
	89-112S	Casters (Pkg. of 2)
27	126	Wood Paddle
28	100-62	Male Union Fitting
29	102-240S	Handle w/Hardware
A&C	76-061	Hex Head Screw 1/4" #20 x 3/4"
	79-028	Split Lock Washer 1/4" ID
	79-030	Flat Washer 1/4" ID
	73-022	Hex Nut 1/4" 20
B	76-049	Hex Head Screw 5/16"-18" x 5/8"
	79-046	Split Lock Washer 5/16"
D	100-5	Hose Coupling Assy.
•	102-281	Motor, Pump and Hardware (102-A)
	107-088	Motor, Pump and Hardware (107-A)
	99-033	Motor, Pump And Hardware (99-A)
•	102-219	Haight Pump Retaining Screws (Pkg. of 3)
•	Not Shown	



TROUBLESHOOTING GUIDE

PROBLEM	CAUSE	SOLUTION
Filter will not pump shortening or pumping shortening slowly.	Filter paper too thick.	Try a sheet from another part of the package.
	Dirt or nick on standpipe or pump fittings which results in leaking air into the pump.	Clean off dirt. Replace standpipe assembly. Replace standpipe coupling.
	Oil seal and O'Rings	Replace oil seal and o'rings.
	Motor not running.	Check motor reset. Check circuit breaker. Replace on/off switch. Clean shortening debris in pump.
	Cold shortening.	Ensure vat is at cooking temperature.
	Hose clogged. Hose not drained at finish of previous operation (caution: hose may burst if used in this condition).	Soak in hot water until loose (Make sure there is no water in hose before reconnecting to pump).
	Pump clogged with debris. Using too much filter powder.	Clean pump of debris. Use recommended amount (16 oz. by volume).
	Loose connections.	Check all fittings for tightness.
	Shortening too cool. (will cause paper to clog and machine to pump slowly).	Keep vat at cooking temperature until emptied into filter machine.
	Using too much Gycor or filter aid causing pump to clog.	Use recommended amount (16oz by volume) and clean pump of debris.
	Power cord attached improperly or not in good repair.	Repair or replace cord.
	Motor not operating correctly.	Repair or replace motor.
	O-rings or oil seal defective.	Replace O-rings and oil seal.
Shortening cannot be completely pumped out.	Filter paper not centered or creased under ring.	Ensure paper is centered and placed flat on screen.
	Ring weight is bent or warped.	Warped or bent ring should be replaced.
	Tank rim is bent or not clean.	Clean bowl thoroughly. Remove dents or replace bowl.
	Tank not level (can cause seal to break).	Repair or replace wheels on filter machine.
	Filter paper clogged.	Machine must be broken down, cleaned and set up again.
	Too much filter aid or Gycor. Excessive food particles.	Use 16oz. by volume. Skim vats before filtering.
	Shortening too cool.	Shortening must be at cooking temperature prior to filtering.
Filter powder pumped back into fryer.	Ring weight bent.	Straighten or replace.
	Nick or debris on seal surface on tank.	Replace bowl.
	Screen assembly bent.	Straighten or replace.
	Filter paper torn.	Replace filter paper.