

OPERATING INSTRUCTIONS

PRINCE CASTLE INC. 

Shortening Filter Model No. 107-H



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.

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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 year from the date of original installation. Any component which proves to be faulty during the warranty period will be replaced without cost to the customer.

This warranty is subject to the following exceptions/conditions:

- This equipment is portable; charges for on-location service (e. g., trip charges, mileage) are not included in the provisions of this warranty.
- Damage caused by carelessness, neglect, and/or abuse (e.g., using wrong current, dropping, tampering with or altering electrical components) voids this warranty.
- Running water through pump rusts internal parts and will void the warranty.

SPECIFICATION

107-H

Diameter bowl
Height
Four 2" (cm) Casters
Capacity

Dimensions

26" (cm)
12" (58.92 cm)
50 lbs.

ELECTRICAL

107-H

Volts 115
Hz. 60
Motor 1/3 HP

PRINCE CASTLE INC. 
WORLDWIDE

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INSTALLATION

1. After you have removed the 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.

figure 3

HOSE ASSEMBLY

IMPORTANT: Clean out any remaining water from filter machine bowl.

1. Place the screen, with its thread facing up, inside the filtering bowl. See figure 1.

figure 1

2. Place filter paper over the threads and on top of the screen. Be sure the hole in the paper is centered to fit over the shoulder so the paper will lay flat. See figure 2.

figure 2

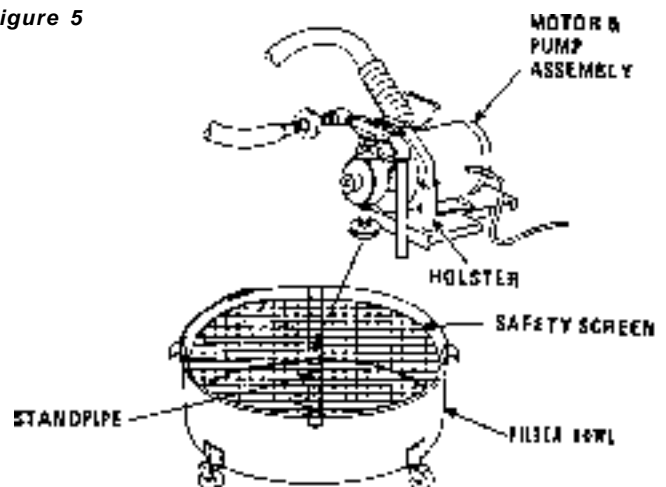
3. Screw on the standpipe. Tighten by hand. See figure 3.

4. Place the ring weight on the filter paper. Make sure paper is not folded or creased under the ring. See figure 4.

figure 4

5. Spread filter powder (approximately 48 oz. by volume or as Hardee's Food Systems may advise) evenly over filter paper. Be sure some powder is between ring and bowl.
6. Place safety screen on top of bowl. The top of the standpipe will stick through the center of the screen.
7. Place motor and pump assembly on filter bowl and tighten to standpipe (handtight). See figure 5.

figure 5



8. Attach hose to pump. Make sure connection is handtight. Put nozzle in nozzle holster.



CAUTION: Before energizing shortening filter always pull hose fittings to make sure all are secure. This hose is made to bend

until it meets resistance. If the hose is bent beyond this point or is crimped, it could crack causing it to leak hot oil which causes severe burns. If the hose is cracked and/or leaking, do not use it until it has been replaced or repaired.

OPERATION

1. Light fryers and set temperature normally used for cooking product. Allow shortening to reach this temperature, then turn off all burners and pilots before proceeding.



CAUTION: Wear protective equipment such as gloves, face shields and apron.

2. Slowly agitate shortening in all fryers with special maple wood paddle to blend hot and cold shortening, to boil off excess moisture, and to bring any debris to surface.
3. Agitate the second vat while the first fry vat is boiling. Proceed in this manner until all vats are agitated.
4. Return to the first vat and reagitate the shortening. Do so until all vats are finished boiling.



CAUTION: Excessive moisture could cause fryer to boil over. Continue agitation until all boiling ceases. Then skim the surface of the shortening to remove any debris.

5. Relight all fryers and set temperature you normally use for cooking product. Allow shortening to reach this temperature before proceeding.
6. Shut off burners and pilot on first fryer.
7. Roll assembled filter in position under drain and place a strainer to catch large particles when fryer is draining.
8. Open drain slowly and allow hot shortening to flow through strainer into bowl until bowl is about 1-inch full. Then open drain fully.

IMPORTANT: It may be necessary to insert a metal rod into the drain valve for loosening solidified shortening to start shortening flow.

9. When fryer is empty, leave drain open. Direct nozzle of hose into fryer and turn on switch on motor. Flush debris from fryer with hot shortening.
10. When fryer is clean of all debris, turn off motor, replace nozzle in holder, and proceed to clean fryer vat.
11. To recirculate the shortening move valve A to the right. The shortening will now bypass the hose and go through pipe B into the filter bowl. Recirculate

shortening for 5 minutes. When the recirculating time is up, shut off the motor and move valve A to the left.

figure 6



The shortening will now go throughout the hose. See figure 6.



CAUTION: Do not recirculate with nozzle holster, the nozzle could slip out and spray hot shortening causing burns.

12. After cleaning vat, turn on motor and use filtered shortening to rinse fryer clean.
13. Close drain and complete filtration by filling fryer with filtered shortening.
14. Relight fryer and set to proper frying or blanching temperature.
15. Repeat steps 4 through 7 for remaining fryers.

IMPORTANT: If it is necessary at any time to use filter machine to discard shortening be sure a paper filter is used to catch any debris to prevent clogging of the pump.

CLEANING



CAUTION: Parts are hot. Handle with care and use gloves.

1. Unplug electric cord. Immediately disconnect hose from pump and allow hose to drain into bowl to remove excess shortening.
2. Uncouple pump from standpipe and lift motor assembly from bowl.
3. Using protective gloves lift out ring weight and place in sink.
4. Using gloves, grasp standpipe and lift out complete ring weight and screen assembly.
5. Disassemble standpipe assembly from screen assembly, and discard filter paper.

6. Wash ring weight, standpipe assembly and screen assembly. Use only hot water. Wipe down with dry cloth, throw away remaining shortening, and thoroughly clean. Wipe down motor assembly.

IMPORTANT: Do not pump water through the motor and pump assembly. This will cause the pump gears to rust and void the warranty.

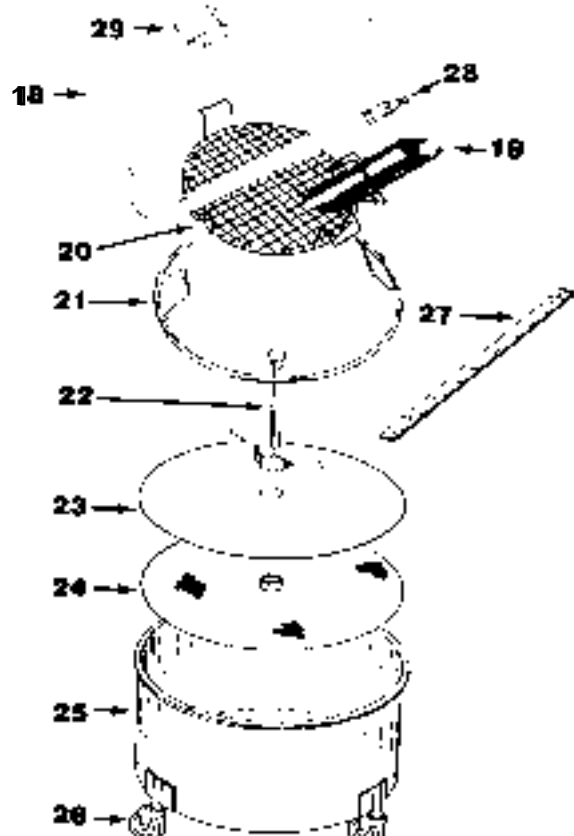
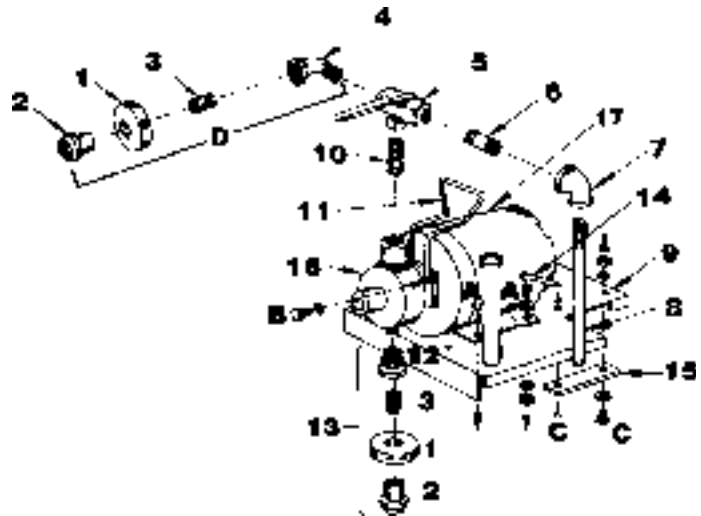
7. Bowl and screen assembly may be stored under grill or in protected area. Do not place paper on screen until ready to use filter. Motor and hose should be stored in cool area.



CAUTION: Do not store motor and pump assembly on screen assembly. This could cause the screen to warp and/or tear away from the welds. It could also cause grease to damage the line cord and motor.

SHORTENING FILTER EXPLODED VIEW PARTS LIST

ITEM	PART NO.	DESCRIPTION
1	102-32	Union Nut, Knurled
2	102-33	Female Union
3	100-59	3/8" NPT x 1" (10 X 25 mm)
4	100-57	3/8" (10 mm)– 18 NPT
5	102-171	Three way Valve & Bushing
6	93-027	Nipple 1/2" NPT X 1 1/2" Long (13 X 38 mm)
7	93-026	Elbow (1/2" NPT 90°)
8	93-023	Nipple (1/2" NPT) (13 mm)
9	107-4	Motor Base Assembly
10	93-003	Close Nipple 1/2" NPT (13 mm)
11	107-6	Handle
12	100-58	Reducing Bushing 1/2" to 3/8" (13 to 10 mm) NPT X 3/4" (19 mm) Long
13	102-117	Standpipe Coupling Assembly for Blue Pump
14	72-096S	Power Cord
15	100-22	Rubber Strip
16	105-77	Pump Assembly (Blue)
17	108-385S	Motor Assembly (Blue)
	102-189	220 volt 50 hz (International Only)
	66-039	Strain Relief (Not shown)
A	76-061	1/4" #20 X 3/4" (19 mm) Hex Head Screw
	79-028	1/4" I.D. Split Lockwasher (6 mm)
	79-030	1/4" (6 mm) I.D. Flatwasher
	73-022	1/4" – #20 (6 mm) Hex Nut
B	76-049	5/16" – 18 X 5/8" (16 mm) Hex Head Screw
	79-046	5/16" (10 MM) I.D. Split Lockwasher
C	76-061	1/4" – 20 X 3/4" (19 mm) Hex Head Screw
	79-028	1/4" (6 mm) Split Lockwasher
	79-030	1/4" (6 mm) I.D. Flatwasher
	73-022	1/4" – 20 (6 mm) Hex Nut
D	100-5	Hose Coupling Assembly
18	108-373	Hose Assembly
19	110	Anti-splash Tube
20	102-125	Safety Screen
21	105-22	Ring Weight
22	102-10	Standpipe
23	713	Filter Paper
24	100-13	Screen
25	105-21	Bowl with Casters
26	89-410S	Castors (Locking) (Package of 2)
	89-410S	Castors (Package of 2)
27	126	Maple Wood Paddle
28	100-62	Male Union Fitting
29	102-240S	Handle With Hardware

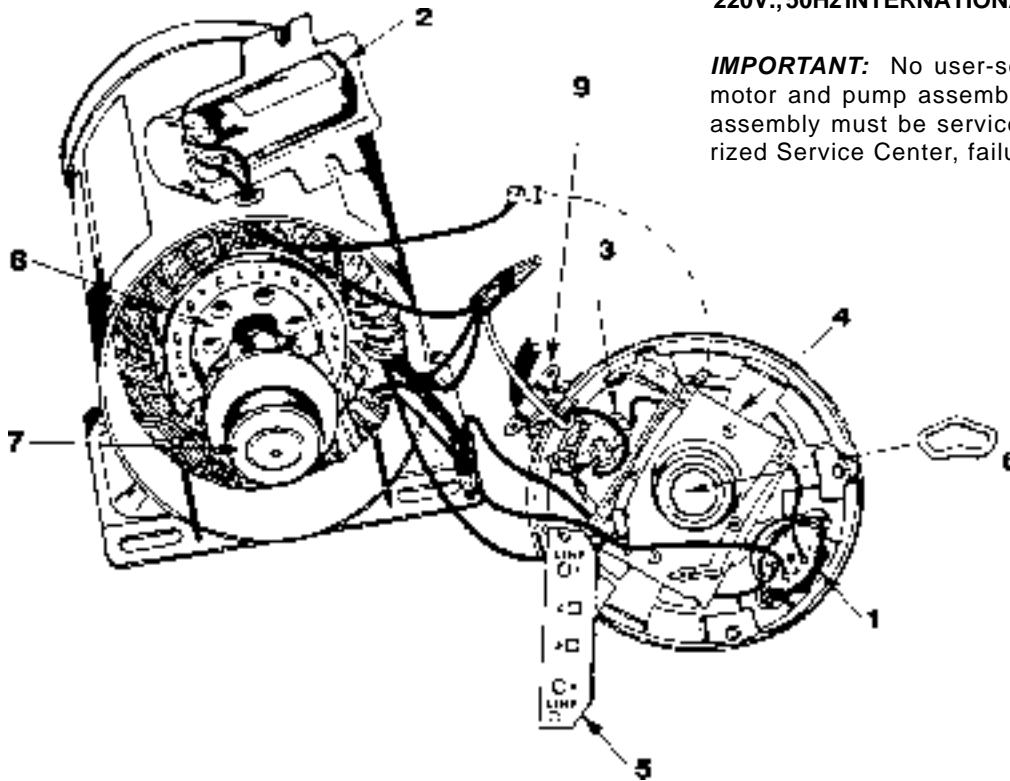


102-176 BLUE LEESON MOTOR 110 V

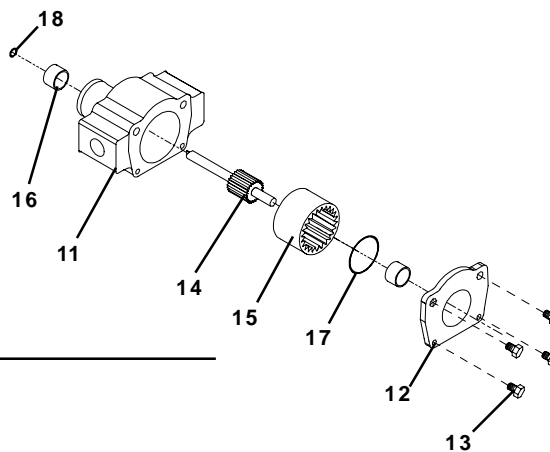
102-189 BLUE LEESON MOTOR

220V., 50Hz INTERNATIONAL ONLY

IMPORTANT: No user-serviceable parts are inside this motor and pump assembly. This motor and pump assembly must be serviced by a Prince Castle Authorized Service Center, failure to do so voids the warranty.



105-77 BLUE PUMP EXPLODED VIEW



PARTS LIST

ITEM	PART NO.	DESCRIPTION
1	78-120	Overload Protector Switch
2	63-077	Starting Capacitor
3	78-129	On/Off Toggle Switch
	78-108	On/Off Plastic Rocker Switch
4	102-202	Starting Switch (Old Style)
5	102-211	Insulator
6	102-210	Spring Wave Washer
7	102-209	Bearing
8	102-193	Rotor Switch (115 V)
	102-194	Rotor Switch (220 V)
		(International Only)
9	88-409	Strain Relief
10	578-61	Switch Guard (Not Shown)
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 7 & 8)
17	105-146	O' Ring
18	105-139	O' Ring

TROUBLESHOOTING CHART

PROBLEM	PROBABLE CAUSE	CORRECTIVE ACTION
Filter will not pump shortening.	Filter paper too thick.	Use new sheet of paper.
	Dirt or nick on standpipe pump fittings which results in leaking air into the pump intake.	Clean off dirt. Replace standpipe assembly. Replace standpipe coupling.
	Leaking gaskets.	Return for service.
	Oil seal leaking.	Return for service.
	Motor not running.	Check power supply. Return for service.
	Cold shortening.	Ensure vat is at operating 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. CAUTION: Make sure there is not water in hose before reconnecting to pump.
	Pump not operating.	Consult operating procedures. Return for service.
	Filter paper clogged. 2" (5 cm) of shortening in bowl.	Spread filter powder around ring weight. See sealing procedure on page 11. Examine ring weight and bowl for defects (ie, warps, dents). If defective, replace. Lost seal. See sealing procedure on page 11.
	Using too much Filteraid.	Use recommended amount.
Filter powder pumped back into fryer bowl.	Ring weight bent.	Replace ring weight.
	Nick or debris on seal surface on bowl.	Replace bowl.
	Screen assembly bent.	Replace screen assembly.
	Filter paper torn. (run at full power).	Replace filter paper.
Hose cracked, kinked or has bubbles.	Hose worn out	Replace hose.
	ON/OFF switch inoperable.	Replace ON/OFF switch
Motor won't run.	ON/OFF switch inoperable.	Replace ON/OFF switch.
	Line Cord broken.	Replace line cord.
	Loose wires or connections inside motor.	Replace wire or connections as necessary.
	Motor stopped on thermal overload.	Allow motor to cool and press reset button.