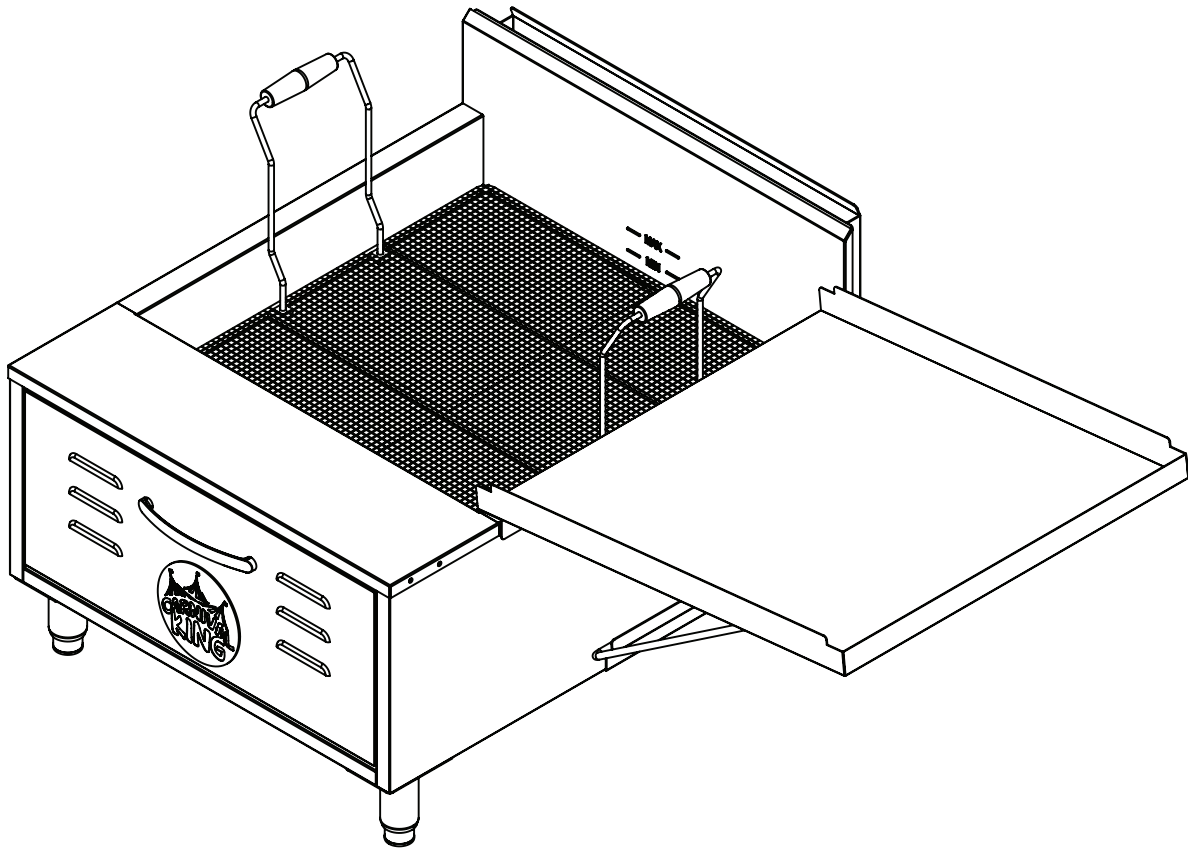


CARNIVAL KING

USER MANUAL



GAS FUNNEL CAKE FRYERS

Item #382DFCG23N, #382DFCG23L, #382DFCG32N, #382DFCG32L



03/2021

www.CarnivalKingSupplies.com



GAS FUNNEL CAKE FRYER MANUAL

General Safety Precautions

This manual has been prepared for personnel qualified to install gas equipment, who should perform the initial field start-up and adjustments of the equipment covered by this manual. Post in a prominent location the instructions to be followed in the event the smell of gas is detected. This information can be obtained from the local gas supplier.

IMPORTANT

In the event a gas odor is detected, shut down units at the main shutoff valve and contact the local gas company or gas supplier for service.

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

General

Our gas funnel cake fryers are produced with quality workmanship and material. Proper installation, usage and maintenance will result in years of satisfactory performance.

Before installing the fryer, thoroughly read this manual and carefully follow all instructions.

This manual is applicable to the models listed on the first page. Procedures in this manual will apply to all models unless specified. Pictures and illustrations can be of any model unless the picture or illustration needs to be model specific.

Highlighted Features

1. Flat bottom, "V" shaped frypot with "U" shaped burners
2. Stainless steel front, tank, and sides with double-walled construction and insulation
3. Thermostatic dial controls with 100% safety shut-off
4. Includes mesh strainer and a drip tray that doubles as a lid
5. 4" adjustable stainless steel legs
6. Front door panel protects controls from damage
7. Easy-to-clean, corrosion-resistant stainless steel finish, and drain extension

Also Available

380FUNNELKIT (sold separately)

Carnival King Funnel Cake Kit

Includes:

- Easy-to-use ring mold features a long handle and resting plate
- Large capacity pouring pitcher with handle
- 5 lb. funnel cake mix for light, golden cakes

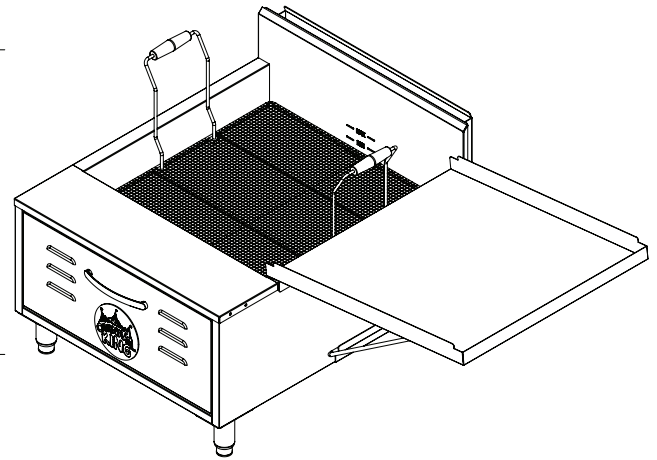
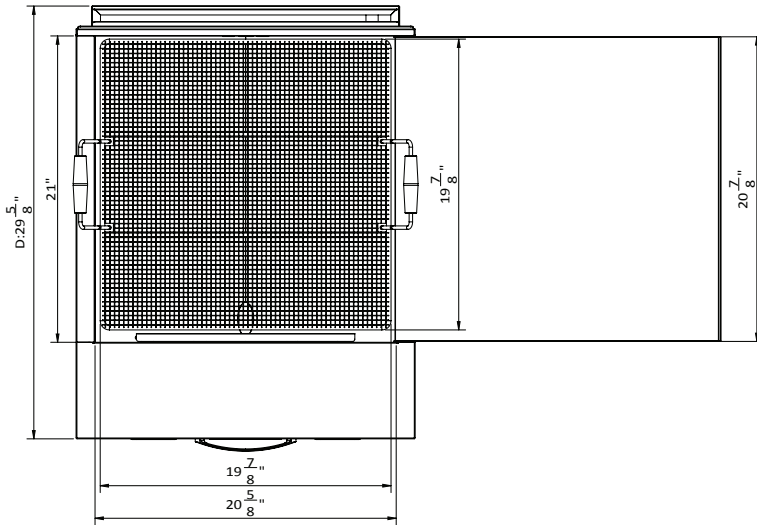
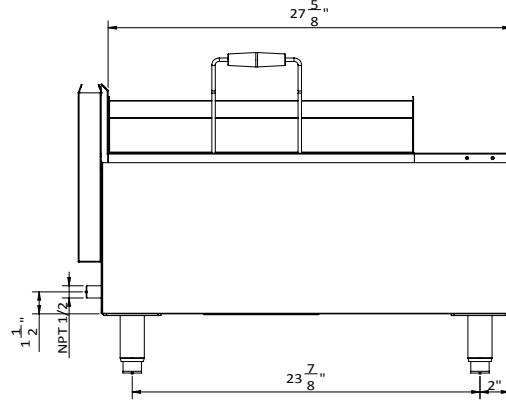
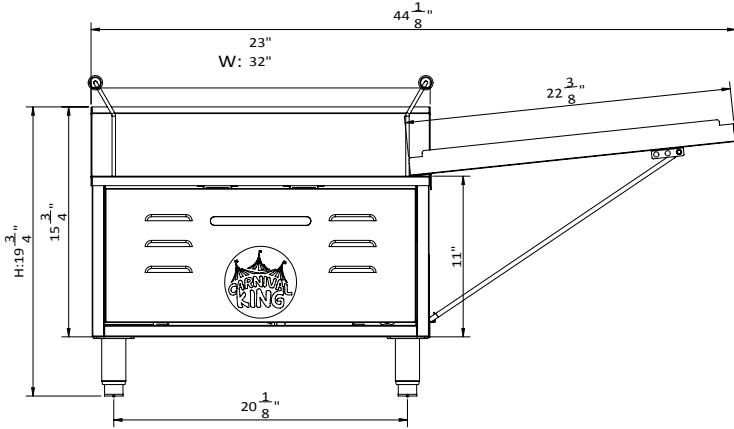
600GKM3448 (sold separately)

Regency 48" Mobile Gas Connector Hose Kit

- Includes (2) elbows, full port valve, restraining device, and quick disconnect
- 48" long hose; 3/4" diameter
- Flexible stainless steel corrugated tube with stainless steel braid for stretch prevention



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MODEL	Overall			BURNERS	TANK	CAPACITY	Tank Interior			BTU/HOUR	W.C.
	WIDTH	DEPTH	HEIGHT				WIDTH	DEPTH	HEIGHT		
382DFCG23L	23"	29 ⁵ / ₈ "	19 ³ / ₄ "	2	Single	15-30 lb.	20 ⁵ / ₈ "	21"	4 ¹ / ₄ "	54,000	10"
382DFCG23N	23"	29 ⁵ / ₈ "	19 ³ / ₄ "	2	Single	15-30 lb.	20 ⁵ / ₈ "	21"	4 ¹ / ₄ "	54,000	4"
382DFCG32L	32"	29 ⁵ / ₈ "	19 ³ / ₄ "	3	Single	20-40 lb.	29 ¹ / ₈ "	21"	4 ¹ / ₄ "	81,000	10"
382DFCG32N	32"	29 ⁵ / ₈ "	19 ³ / ₄ "	3	Single	20-40 lb.	29 ¹ / ₈ "	21"	4 ¹ / ₄ "	81,000	4"

Unpacking

This fryer was carefully inspected before leaving the factory. Immediately after unpacking the fryer, check for possible shipping damage. If the fryer is damaged, save the packaging material and contact us immediately.



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Installation

Do not use the door or its handle to lift the fryer.

Before installing the fryer, verify that the type of gas (natural or propane) is in conformity to the specifications on the fryer data plate, which is located on the inside of the door panel. Make sure the fryer is configured for the proper elevation.

CLEARANCES

- Minimum clearance from combustible construction:
 - 6" (15 cm) from the sides of the fryer
 - 6" (15 cm) from the back of the fryer
- Minimum clearance from noncombustible construction:
 - 0" from the sides of the fryer
 - 0" from the back of the fryer
- Between the fryer and any open-top flame units: 16" (41 cm)
- Allow space for servicing and operation.

LOCATION

- Install fryer in an area with sufficient air supply for gas combustion at fryer burners.
- Do not obstruct the flow of combustion and ventilation air.
- Provide adequate clearance for air openings into the combustion chamber.
- Do not permit fans to blow directly onto fryer.
- Avoid wall-type fans, which create cross-currents within a room. Avoid open windows next to sides or back.

Codes and Standards

The fryer must be installed in accordance with:

IN THE UNITED STATES:

State and local codes, or in the absence of local codes, with:

- National Fuel Gas Code, ANSI-Z223.1/NFPA #54 (latest edition). Copies may be obtained from The American Gas Association Accredited Standards Committee Z223, @ 400 N. Capital St. NW, Washington, DC 20001 or the Secretary Standards Council, NFPA, 1 Batterymarch Park Quincy, MA 02169-7471.
- NFPA Standard #96 Vapor Removal from Cooking Equipment, latest edition, available from the National Fire Protection Association, Batterymarch Park, Quincy, MA.
- National Electrical Code, ANSI/NFPA-70 (latest edition). Copies may be obtained from The National Fire Protection Association, Batterymarch Park, Quincy, MA. 02169-7471.
- In the commonwealth of Massachusetts all gas appliances vented through a ventilation hood or exhaust system with a damper or with a power means of exhaust shall comply with 248 CMR.

IN CANADA:

Local codes

- CAN/CSA-B149.1 Natural Gas and Propane Installation Code (latest edition), available from the Canadian Standards Association, 155 Queen Street, Suite 1300, Ottawa, Ontario Canada K1P 6L1.
- CSA C22.1 Canadian Electric Code (latest edition), available from the Canadian Standards Association, 155 Queen Street, Suite 1300, Ottawa, Ontario Canada K1P 6L1.



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Assembly

The fryer must be restrained to prevent tipping and the splashing of hot liquid. The means of restraint may be the manner of installation, such as connection to a battery of appliances, installing the fryer in an alcove, installing a wall restraining device, which can be found in a Regency Mobile Gas Connector Hose Kit, or by separate means such as adequate ties.

Flue Connection

Make the flue connection as follows:

- Comply with Vapor Removal from Cooking Equipment, ANSI-NFPA Standard #96 (latest edition), available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.
- Locate the fryer under a hood with adequate connection to an exhaust duct. The hood must extend 6" (15 cm) beyond fryer on both sides.
- Clearance above the fryer should be adequate for combustion byproducts to be removed efficiently.
- An 18" (46 cm) minimum clearance should be maintained between the flue vent and the filters of the hood venting system.
- Never make flue connections directly to the fryer.
- Do not obstruct the flow of the gases from the appliance. Proper air balance should be maintained in the room.
- Ensure that your ventilation system does not cause a down draft at the fryer's flue opening. Down draft will not allow the fryer to exhaust properly and will cause overheating which may cause permanent damage. Damage caused by down draft will not be covered under equipment warranty. Never allow anything to obstruct the flue or ventilation exiting from the fryer flue. Do not put anything on top of flue area.

Gas Connection

WARNING

All gas supply connections and any pipe joint compound must be resistant to the action of propane gases.

The gas inlet is located on the lower rear of the fryer. Codes require that a gas shutoff valve be installed in the gas line ahead of the fryer. The serial plate (located inside the front door of the fryer) indicates the type of gas the unit is equipped to burn (natural gas or propane). The fryer should be connected ONLY to the type of gas for which it is equipped.

The gas supply line must be at least the equivalent of ½" (12.7 mm) iron pipe. If using the optional quick-disconnect flex hose, ¾" (19 mm) iron pipe.

Make sure the pipes are clean and free of obstructions, dirt, and piping compound. A battery requires one or two connections of appropriate size for the gas requirement.

WARNING

Prior to lighting, check all joints in the gas supply line for leaks. Use soap and water solution. Do not use an open flame. After piping has been checked for leaks, fully purge gas pipes to remove air.

GAS PRESSURES (ALL MODELS):

The gas pressure should be set at 4" W.C. (Water Column) (0.8 kPa) for natural gas and 10" W.C. (2.75 kPa) for propane gas. If incoming pressure exceeds ½ PSI (3.45 kPa), an additional pressure regulator must be installed. If the fryer is being installed at over 2,000 feet altitude and that information was not specified when ordered, contact the appropriate authorized Carnival King Service Representative. Failure to install with proper orifice sizing will result in poor performance and may void the warranty.



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Gas Connection Cont.

TESTING THE GAS SUPPLY PIPING SYSTEM:

When test pressures exceed ½ PSI (3.45 kPa), the fryer and its individual shutoff valve must be disconnected from the gas supply piping system. An adequate gas supply is imperative. Undersized or low pressure lines will restrict the volume of gas necessary for satisfactory performance. The gas valve and pressure regulator, which is built-in and preset at the factory, is set to maintain a 4" W.C. manifold pressure for natural gas or 10.0" W.C. manifold pressure for propane gas. However, to maintain these conditions the pressure on the supply line, when all units are operating simultaneously, should not drop below 7" W.C. for natural gas or 11" W.C. for propane gas. Fluctuations of more than 25% on natural gas or 10% on propane gas will create problems and affect burner operating characteristics.

When test pressures are ½ PSI (3.45 kPa) or less, the fryer must be isolated from the gas supply piping system by closing its individual shutoff valve.

NOTICES:

1. Purge the supply line to clean out dust, dirt, or other foreign matter before connecting the line to the unit.
2. Use pipe joint compound that is suitable for use with both natural and LP gas on all threaded connections.

Leveling the Fryer

Check the level of the fryer by placing a level on top of the fryer after gas connections have been made. Ensure that the fryer is level front-to-back and side-to-side in the final installed position.

Before First Use

CLEANING:

New units are wiped down at the factory to remove any visible signs of dirt, oil, grease, etc. remaining from the manufacturing process.

Before any food preparation, thoroughly wash the protective oil from all surface parts and the tank interior with hot soapy water to remove any film residue and dust or debris.

NOTICE:

Do not use chlorine or sulfate/sulfide cleaners.

- Wash any accessories shipped with unit.
- Rinse fryer and accessories thoroughly and drain the fryer.
- Wipe tank completely dry with a soft, clean cloth.

Operation

WARNING

Hot oil and parts can cause burns. Use care when operating, cleaning and servicing the fryer.

WARNING

Spilling hot frying compound can cause severe burns. Do not move fryer without draining all frying compound from the tank.

WARNING

Fryer is not to be used during a power outage.



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Over-Temperature Shutdown

If the shortening becomes overheated, a high-temperature shutoff device will turn the gas valve off and extinguish the pilot.

If the fryer shuts down due to overheating, DO NOT relight the pilot until the shortening temperature is below 300°F (149 C).

If an overheating situation persists, contact your local authorized service office.

Filling Tank with Shortening

NOTICE:

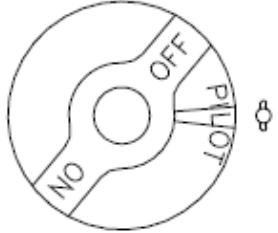
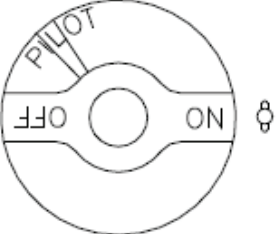
Solid shortening must NOT be used with this fryer. Melting solid shortening will damage the tank and void your warranty.

WARNING

NEVER melt blocks of solid shortening on top of the heat source. This would cause a fire and could result in personal injury.

- Close the drain valve.
- Fill the fryer tank with liquid shortening.
- Shortening level should be between the min and max lines in the fryer tank.
- Shortening will expand when heated. Do not fill the fryer tank over the MAX line.
- Add fresh shortening as needed to maintain oil level.

Lighting the Pilot

1. Open the door. The thermostat is located behind the door.
2. Make sure that thermostat is set to "OFF" by aligning the "OFF" with the red indicator.
3. Push the gas control valve knob and turn to "ON". Wait 5 minutes for unburned gas to vent.
4. Push and turn gas control valve knob to the "L" in PILOT. 
5. While pressing the knob down, use a lit match or lighter to ignite the pilot. (The pilot can be located just under the drain valve). Continue to press the knob down for about 30 seconds. If the pilot does not stay lit when the knob is released, repeat steps 3-5 and keep the knob down longer. Adjustment of pilot flame may be necessary.
6. When the pilot stays lit, turn the knob to the "ON" position. Do not press down on the knob in this step. 
 - B) Do NOT turn the thermostat "ON" until the fry pot is filled with oil or solid shortening.
7. If gas supply is interrupted, repeat steps 2 through 6.



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Turning On the Fryer

1. Do NOT turn the thermostat "ON" until the fry pot is filled with oil or solid shortening.
2. Once the fry pot is filled with shortening, set the thermostat knob to the desired temperature
3. Set the temperature knob to desired temperature.
4. After the set temperature has been reached, the thermostat shuts off the gas flow to burners.
5. The pilot remains lit. The burners will cycle on and off, maintaining the set temperature.

Turning Off the Fryer

1. Turn the thermostat "OFF".
2. To keep the pilot lit, turn the gas valve to "L" in Pilot.
3. To shut off all gas to the system, including the pilot, turn the gas valve knob to the "OFF" position.

Extended Shutdown

1. Turn the thermostat knob to "OFF".
2. Push in the pilot knob and turn to "OFF".
3. Thoroughly drain the fryer. Refer to DRAINING THE FRYER.
4. Clean the fryer according to CLEANING.
5. Turn off the main gas shutoff valve.

Fry Guidelines

1. Set the desired temperature and allow shortening to heat up to that temperature.
2. Fry items that are the same size to ensure equal doneness.
3. Drain or wipe dry raw or wet foods to minimize splatter when lowering into hot shortening.
4. Add fresh shortening as needed.
 - When frying funnel cakes, churros, doughnuts and fritters, turn product only once during frying.
 - When frying is completed, take out the supporting wiring rack and place it on the lid.

Extending Shortening Life

Shortening life can be extended by the following guidelines:

- Do not salt foods over the fryer.
- Use good-quality shortening.
- Filter shortening daily (at a minimum).
- Replace shortening if it becomes poorly flavored.
- Keep equipment and surrounding clean.
- Set thermostat correctly.
- Remove excess moisture and particles from food products before placing on fryer.



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Draining the Oil

WARNING

Hot oil and hot parts can cause burns. Let the unit cool completely before cleaning. Use care when operating, cleaning, and servicing the fryer.

1. Turn the thermostat knob to the "OFF" position.
2. Insert the drain extension into the drain valve. Tighten only hand tight.
3. Direct the drain extension into the mobile filtering device that you want to use. (We recommend using Fryclone Fryer Oil Filtration Machines and Accessories.)
4. Slowly open the drain valve to allow oil to flow from the fry tank to the filter pan. Then open the drain valve all the way.
5. When fry tank is empty brush to remove any additional debris.
6. Close the drain valve.
7. Fill tank with new shortening. Fill to a minimum of the MIN level but no higher than halfway between MIN and MAX. Oil will expand as it is heated.
8. After the fry tank is filled with new oil, turn the thermostat knob to the desired set temperature. The burners will come on and will heat the oil.

Cleaning

WARNING

Hot oil and hot parts can cause burns. Use care when operating, cleaning, and servicing the fryer.

DAILY CLEANING:

To remove normal dirt, grease and product residue from stainless steel, use ordinary soap and water (with or without detergent) applied with a sponge or cloth. Dry thoroughly with a clean cloth. Never use vinegar or any corrosive cleaner.

- To remove grease and food splatter, or condensed vapors, that have baked on the equipment, apply cleanser to a damp cloth or sponge and rub cleanser on the metal in the direction of the polishing lines on the metal. Rubbing cleanser, as gently as possible, in the direction of the polished lines will not mar the finish of the stainless steel. NEVER RUB WITH A CIRCULAR MOTION. Soil and burnt deposits that do not respond to the above procedure can usually be removed by rubbing the surface with a scouring pad. DO NOT USE ORDINARY STEEL WOOL, as any particles left on the surface will rust and further spoil the appearance of the finish. NEVER USE A WIRE BRUSH, STEEL SCOURING PADS (EXCEPT STAINLESS), SCRAPER, FILE OR OTHER STEEL TOOLS. Surfaces that are marred collect dirt more rapidly and become more difficult to clean. Marring also increases the possibility of corrosion. Refinishing may then be required.
- Darkened areas, called "heat tint," sometimes appear on stainless steel surfaces where the area has been subjected to excessive heat. These darkened areas are caused by thickening of the protective surface of the stainless steel and are not harmful. Heat tint can normally be removed by the above cleaning techniques, but tint which does not respond to that procedure calls for a vigorous scouring in the direction of the polish lines, using a scouring pad in combination with a powdered cleanser. Heat tint action may be lessened by not applying or by reducing heat to equipment during slack periods.
- Fingerprints are sometimes a problem on highly polished surfaces of stainless steel. They can be minimized by applying a cleaner that will leave a thin oily or waxy film.
- Clean all exterior surfaces of your fryer at least once daily.
- Use a damp cloth with warm water and a mild soap or detergent.



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Cleaning Cont.

NOTICE:

Do not use chlorine or sulfate/sulfide cleaners.

- Rinse thoroughly, and then polish with a soft dry cloth.
- Keep the fryer exterior clean and free of accumulated grease to prevent stubborn stains from forming. If regular cleaning is neglected, grease will be burned on and discolorations may form.
- Remove discolorations by washing with any detergent or soap and water.
- Use a self-soaping, non-metallic scouring pad for particularly stubborn discolorations.
- Always rub with the grain of the stainless steel.
- Do not use a metallic scoring pad or harsh cleaners.

Boil Out Procedure

WEEKLY OR AS REQUIRED:

1. Turn thermostat knob to "OFF" position.
2. Drain the tank as described under draining the oil.
 - B) Or place hot-oil safe container under the drain and drain the fry pot completely. Remove the basket support frame (if applicable) and flush out any sediment remaining in the fry pot with a little hot oil.
3. Once the shortening has been drained, flush out scraps and sediment using the cleaning brush.
4. Close the drain valve and fill tank water. Use a low foaming cleaner/degreaser to clean the fry tank. Follow the instructions on the side of the package.
 - B) We recommend Fryclone Boil-Out Fryer Cleaner.

NOTICE:

Do not use chlorine or sulfate/sulfide cleaners.

5. Solution level must be between the MIN and MAX levels on the fryer tank.
6. Set the temperature knob to 200°F or for the recommended solution being used. Allow solution to simmer for about 15 to 20 minutes.
7. Drain the cleaning solution from the tank.
8. Close the drain valve and refill the tank with water. Add 1 cup (1/4 L) of vinegar to neutralize alkaline left by the cleaner. Solution level must be between the MIN and MAX level on the fryer tank.
9. Bring the solution to a simmer only, turn the thermostat off. Allow to stand for a few minutes.
10. Drain the tank according to draining the oil. Rinse thoroughly with clear, hot water. All traces of cleaner must be removed. Dry the tank thoroughly.
11. Close the drain valve and add shortening. Follow the FILLING TANK WITH SHORTENING procedure in this manual. The fryer is now ready for use.



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Maintenance

WARNING

Hot oil and hot parts can cause burns. Use care when operating, cleaning, and servicing the fryer.

WARNING

Spilling hot fryer compound can cause severe burns. Do not move fryer without draining all frying compound from the tank.

Vent Inspection

When the fryer is cool, inspect annually. Check the flue and clear any obstructions.

Troubleshooting

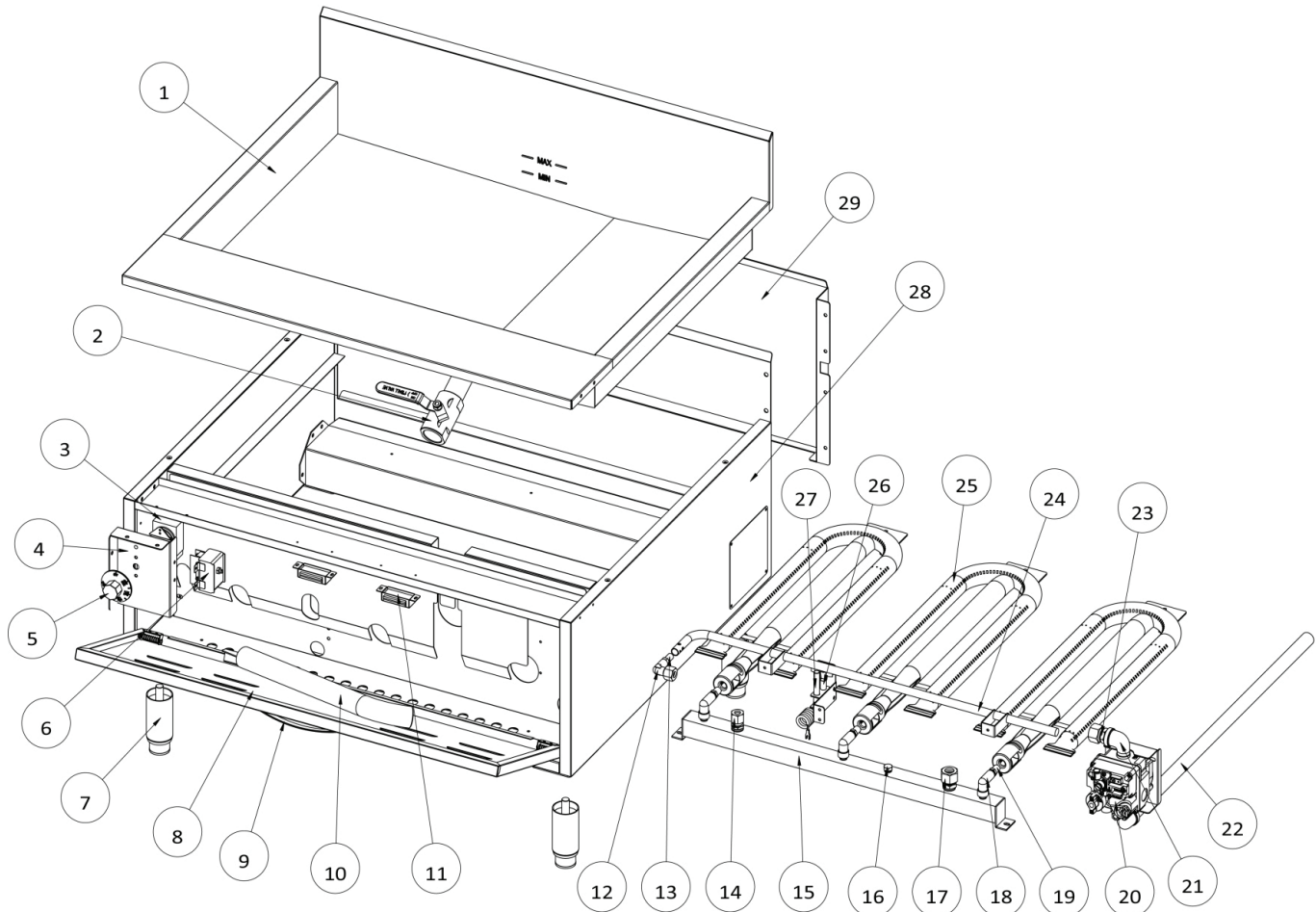
Problem	Probable Cause	Solution
No heat	Thermostat dial not turned on.	Ensure dial is set to preferred temperature. If not working, call service.
No heat	Pilot not lit.	See Lighting the Pilot instructions.
No heat	Gas supply not turned on.	Ensure gas supply piping system is providing gas. See Gas Testing instructions.
No heat	Wire connections loose	Call service.
No heat	Wires connections need cleaning	Call service.
No heat	Thermopile	Call service.
Insufficient or too much heat	Thermostat dial not set to desired temperature.	Set dial to desired temperature. See Turning on Fryer instructions.
Insufficient or too much heat	High limit tripped	Call service.
Insufficient or too much heat	Temperature probe	Call service.
Tank will not drain	Shortening too cold.	Turn ON unit and warm shortening for short while. Then follow Draining the Oil instructions above.
Tank will not drain	Drain pipe clogged with debris.	Clean drain pipe and remove debris. See cleaning instructions.

Troubles listed are for reference. If any fault occurs, please discontinue use. Do not attempt to repair



GAS FUNNEL CAKE FRYER MANUAL

Exploded Diagram



Parts Key for 382DFCG23L, 382DFCG23N, 382DFCG32L, 382DFCG32N

NO.	Description	Model
1a	Tank Assembly	All Models
1b	Tank Assembly	All Models
1c	Tank Assembly	All Models
2	1" Drain Valve	All Models
3	Thermostat	All Models
4	Thermostat Bracket	All Models
5	Knob	All Models
6	Hi Limit	All Models
7	Adjustable Leg	All Models
8	Door	All Models
9	Door Handle	All Models
10	Oil Drain Extension	All Models
11	Magnetic	All Models
12	90 Elbow	All Models
13	Nozzle for Flash Tube Burner	All Models
14	3/8"-ø10 Mounting Base	All Models
15a	Gas Pipe	All Models
15b	Gas Pipe	All Models
15c	Gas Pipe	All Models

NO.	Description	Model
16	Gas Testing Pressure Nipple	All Models
17	3/8"-ø15 Mounting Base	All Models
18	Connecting Elbow	All Models
19	Nozzle for Main Burner	All Models
20a	Gas Valve(LP)	382DFCG23L, 382DFCG32L
20b	Gas Valve(NG)	382DFCG23N, 382DFCG32N
21	1/2 Elbow	All Models
22	Gas Pipe	All Models
23	1/2"-ø15 Mounting Base	All Models
24a	Flash Tube Buner	All Models
24b	Flash Tube Buner	All Models
24c	Flash Tube Buner	All Models
25	Main Burner	All Models
26a	Pilot(LP)	382DFCG23L, 382DFCG32L
26b	Pilot (NG)	382DFCG23N, 382DFCG32N
27	Thermal Pile	All Models
28	Housing Assembly	All Models
29	Flue Assembly	All Models