



ANVIL

Installation, Operation and Care Manual

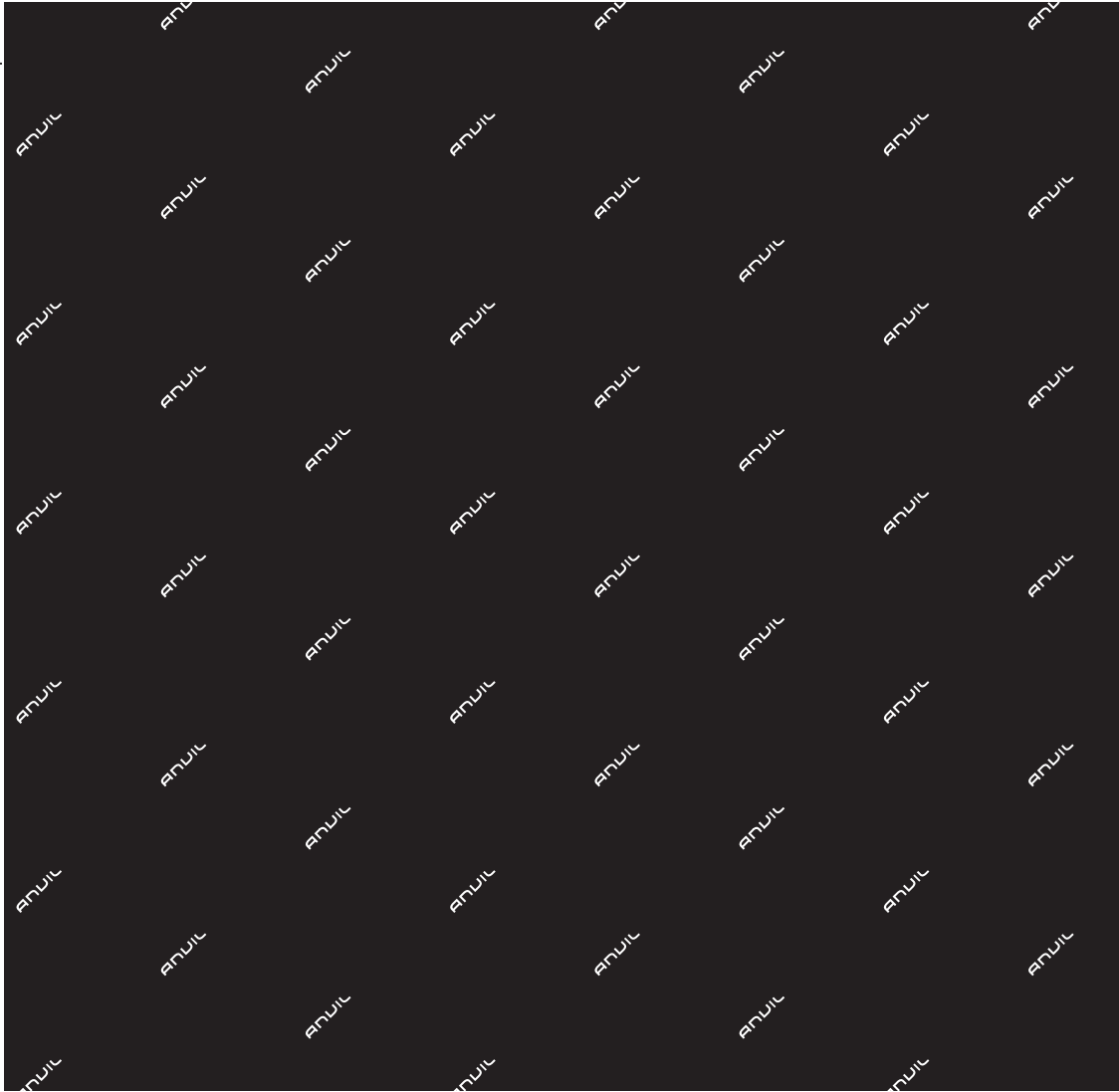


SCAN ME
TO GO TO
WARRANTY
REGISTRATION

MANUFACTURING
SINCE 1966

4-INS-FFA3200

THE CHEFS COMPANION



THE CHEFS COMPANION



THANK YOU FOR PURCHASING AN ANVIL PRODUCT!



REGISTER ONLINE TODAY

Register your warranty on-line at www.anvilworld.com today and learn how to get the best out of your Anvil product, tips to care for your Anvil product for long lasting performance, exciting recipes and more.

NO WEB ACCESS?

If you do not have access to the Web, register by completing this form and faxing it to the Anvil head office in South Africa. Fax: +27 11 474 1630

ONLY COMPLETE IF YOU DO NOT HAVE WEB ACCESS

Company _____

Name _____

Surname _____

Telephone _____

Cellphone _____

Email Address _____

Country _____

Postal address _____

Anvil products purchased _____

Code (see box label) _____

Serial number (see back of machine) _____

INTENDED USE

- | | |
|--|--|
| <input type="checkbox"/> Full-Service restaurant | <input type="checkbox"/> Institutional Cafeteria |
| <input type="checkbox"/> Coffee Shop / Deli | <input type="checkbox"/> Corporate Catering |
| <input type="checkbox"/> Fast Food Outlet | <input type="checkbox"/> Private Use |
| <input type="checkbox"/> Hotel | <input type="checkbox"/> Franchisor |
| <input type="checkbox"/> Bed & Breakfast | <input type="checkbox"/> Convenience Store |
| <input type="checkbox"/> School Cafeteria | <input type="checkbox"/> Other |

 ALL ANVIL EQUIPMENT COMES WITH A TWO YEAR WARRANTY ON COMPONENTS AND DEFECTIVE WORKMANSHIP.

www.anvilworld.com

LIMITED WARRANTY

All equipment which is sold under ANVIL trademark and used for commercial purposes is warranted against defects in materials and workmanship. The warranty runs for two years from the date of original installation and is for the benefit of the original purchaser only. All other Warranties ,expressed or implied , statutory or otherwise, including without limitations any implied Warranty of Merchantability or fitness for purpose are excluded .The Seller shall in no event be liable for direct,indirect or consequential damages in connection with ANVIL commercial products.

The Sellers obligation under this Warranty is limited to the repair of defects without charge. Defective units must be taken or shipped,transportation charges prepaid,to ANVIL.

This Warranty is not effective if damage occurs because of accident, carelessness, improper installation, lack of proper set-up, supervision when required or if the equipment is installed or operated in any manner contrary to the installation and operating instructions. In these cases, repairs will be made at a reasonable cost. Work performed by unauthorized personnel or unauthorized service agencies using non Anvil spares voids this Warranty.



NB:

REGISTER ON-LINE TODAY

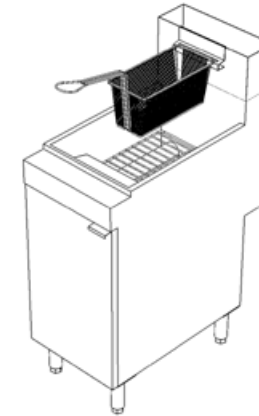
Register your warranty on-line now at www.anvilworld.com

NO WEB ACCESS

If you do not have access to the Web. Kindly register by completing the warranty registration form and fax it to the ANVIL office in the country of purchase.

Failure to do so will invalidate your warranty.

20 LITER GAS FRYER



**INSTALLATION OPERATION AND CARE OF
20 LITER GAS FRYER
MODEL: FFA3200**

UNPACKING

Unpack the product and check for any damage incurred during transit. This should be reported to the responsible carrier, railway or postal authority, and a request for a damage report should be made.



THESE INSTRUCTIONS MUST BE FOLLOWED FOR US TO GUARANTEE OUR FULL SUPPORT OF YOUR CLAIM FOR PROTECTING AGAINST LOSS FROM CONCEALED DAMAGE. THE FORM FOR FILING SUCH A CLAIM WILL BE PROVIDED BY THE CARRIER.

DESCRIPTION OF MODEL

MODEL	DESCRIPTION	POWER (BTU)	JET SIZE (mm)
FFA3200	20 LITER GAS FRYER	90 000	1,2

IMPORTANT INFORMATION FOR THE USER

This appliance may only be installed by a registered LP Gas installer. All registered installers are issued with a card carrying their registration number. Ask to be shown the card before allowing the installation to commence and make a note of the Installer's QCC number. Upon completion of the installation, the installer is required to explain the operational details of the appliance together with the safety instructions. You will be asked to sign acceptance of the installation and be provided with a completion certificate. You should only sign acceptance of the installation when the installation is completed to your satisfaction.

- Note that your invoice is required in the event that you wish to make a guarantee claim.



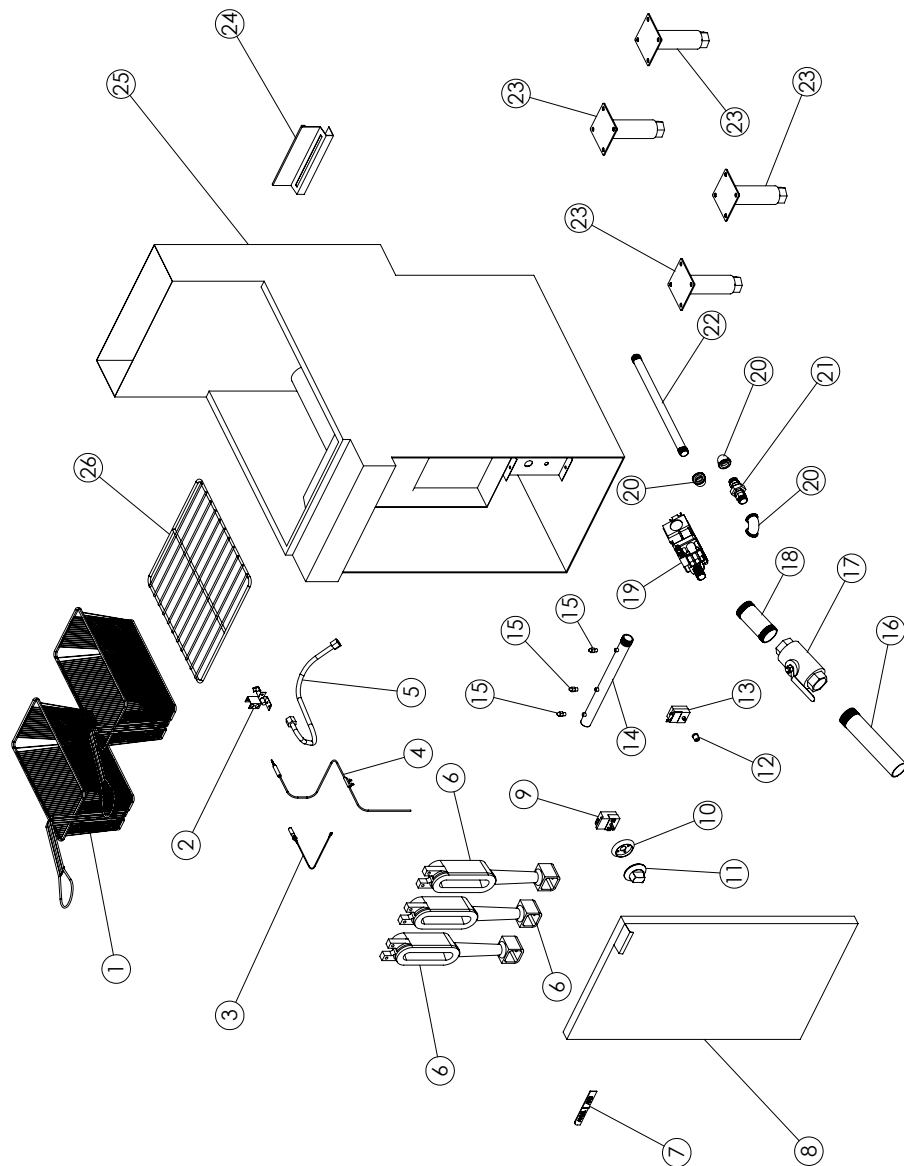
THIS APPLIANCE MUST NOT BE USED IN BASEMENTS OR ROOMS LESS THAN 15 CUBIC METRES IN VOLUME. (TYPICALLY 2.6M SQUARE)

20L FREE STANDING GAS FRYER

MODEL CODE : FFA3200 R03

Part No.	Description
1	FRYER BASKET
2	PILOT BURNER BRACKET
3	THERMOPILE
4	THERMOCOUPLE
5	PILOT BURNER MANIFOLD
6	BURNER
7	ANVIL APEX LOGO
8	DOOR
9	CONTROL THERMOSTAT
10	BEZEL
11	KNOB
12	SAFETY CAP
13	OVER TEMPERATURE THERMOSTAT
14	MANIFOLD
15	JET
16	DRAIN Ø1" PIPE - 196 LONG
17	1" BALL VALVE
18	1/2" OUTLET PIPE
19	ROBERTSHAW CONTROL VALVE
20	1/2" ELBOW
21	UNIVERSAL COUPLING
22	1/2" REAR MANIFOLD
23	ADJUSTABLE FOOT
24	BASKET HANGER BRACKET
25	BODY ASSEMBLY
26	WIRE RACK

**EXPLODED DIAGRAM
20L GAS FRYER
FFA3200**



IMPORTANT INFORMATION FOR THE INSTALLER

This appliance may only be installed by an LP gas installer registered with the LPGASA. The appliance must be installed with the requirements of SANS10087-1 and any fire department regulation and/or local bylaws applicable to the area. If in doubt check with the relevant authority before undertaking the installation. Upon completion of the installation you are required to fully explain and demonstrate to the user the operational details and safety practices applicable to the appliance and the installation.

INSTALLATION

- This fryer is designed for use with LPG at a pressure of 2.8kPa.
- Regulators used with this appliance must comply to SANS 1237 and be approved by the LPGASA. Only regulators certified for operation at 2.8kPa must be used on these appliances.
- A gas cock must be incorporated in the supply pipe and fitted close to the unit.
- This appliance has a factory set, fixed primary air intake and no adjustment is necessary. No adjustments to jets or air intakes should be undertaken unless carried out by a factory approved agent.
- Remove all packaging materials and protective film before installation.
- This unit must be installed in a well ventilated area. Adequate ventilation is required for combustion and for the removal of the products of combustion, which can be harmful to health. It is unlikely that natural ventilation will be sufficient and so the unit should ideally be placed under an extractor canopy. Each gas fryer requires a minimum airflow of 26m³/min (600ft³/min).
- The unit must be installed on a fire proof floor. If the floor is of wood, arrangement must be made to comply with local fire regulations by covering the floor in suitable non-combustible material. There must also be a minimum clearance of 100mm at the rear and sides of the unit and any surfaces in close proximity must be made of, or clad in, non-combustible material.

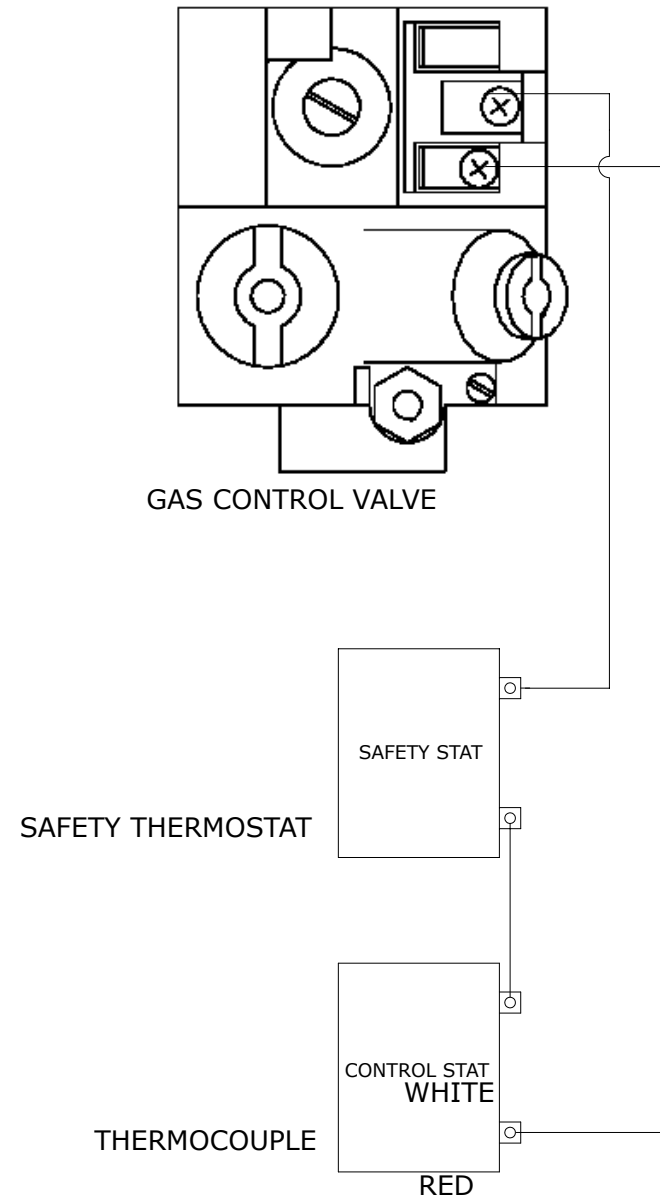
- The top of the unit must be level and it must be stable. All four feet can be adjusted to get the unit level and all four must be in contact with the floor to ensure the unit is unable to tilt in any direction and possibly spill oil.
- Install an automatic fire extinguisher over the fryer and in the exhaust duct. Never direct such extinguishers so as to blow the oil out of the fryer.
- The unit has a flue at the top of the panel at the back of the frypan. This discharges at a height of 1.2m and any overhanging objects should be a minimum of 600mm above this. The flue should never be obstructed in any way and there should be no direct connection between the flue and the extractor hood or any kind of channeling directing the exhaust gasses.

CONNECTING THE FRYER TO THE GAS REGULATOR

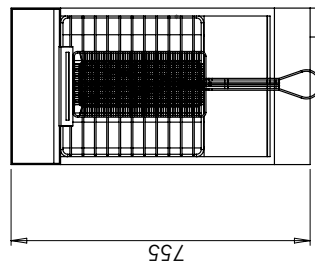
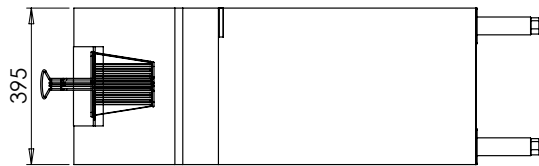
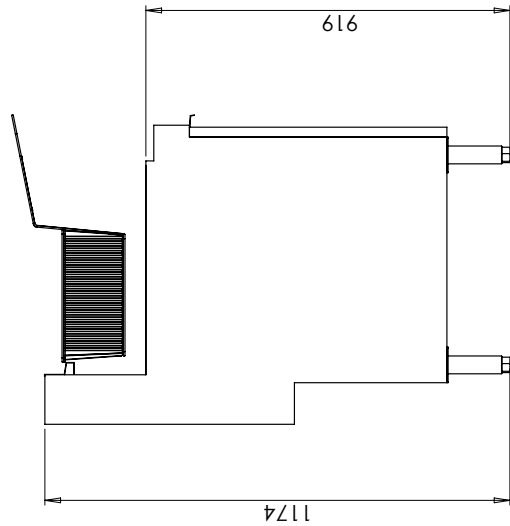
Check O rings and neoprene seals on the regulator.

1. Support the regulator with one hand while aligning the regulator bullnose (threaded part) with the threaded gas outlet on the cylinder valve.
2. Screw regulator hand-wheel ANTI-CLOCKWISE (LEFT-HAND THREAD) into gas outlet.
3. Tighten regulator hand-wheel as tight as possible by hand only.
4. DO NOT USE TOOLS OR LEVERS TO TIGHTEN.
5. When connecting the regulator to the gas cylinder, avoid undue twisting of the flexible hose. Open cylinder valve by turning gas stop cock anti-clockwise.
6. Make sure that all connections are gas tight by brushing with a soapy solution or liquid detergent (a gas leak will form bubbles). If bubbles form, close cylinder valve and hand tighten all fittings again. IF BUBBLES STILL FORM, DO NOT USE FRYER. Have a dealer check the appliance.

SCHEMATIC GAS CONTROL SYSTEM FFA3200

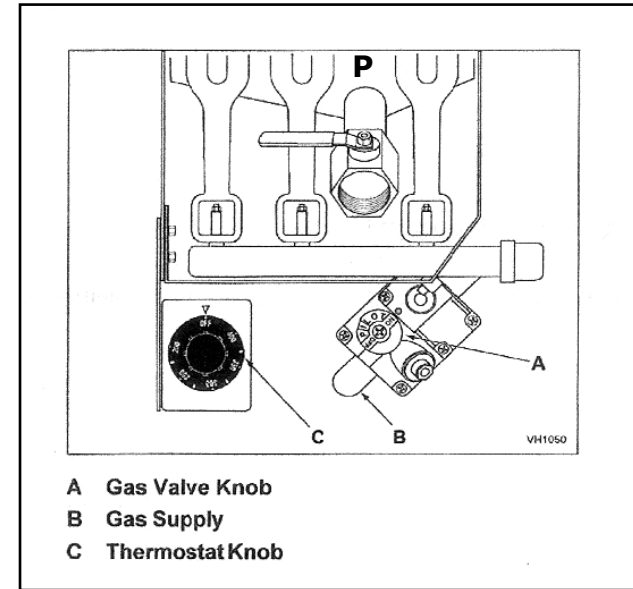


**POSITIONING DIAGRAM
20L GAS FRYER
FFA3200 R02**



PILOT POSITION

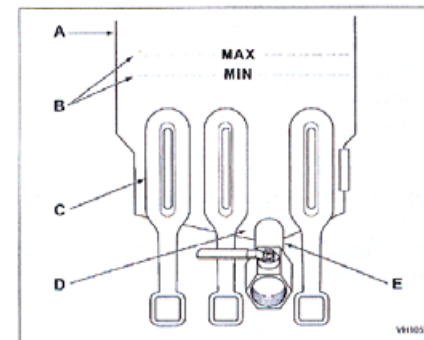
The Pilot flame is located between the 2nd and 3rd burner marked "P" in diagram below.



- A Gas Valve Knob
- B Gas Supply
- C Thermostat Knob

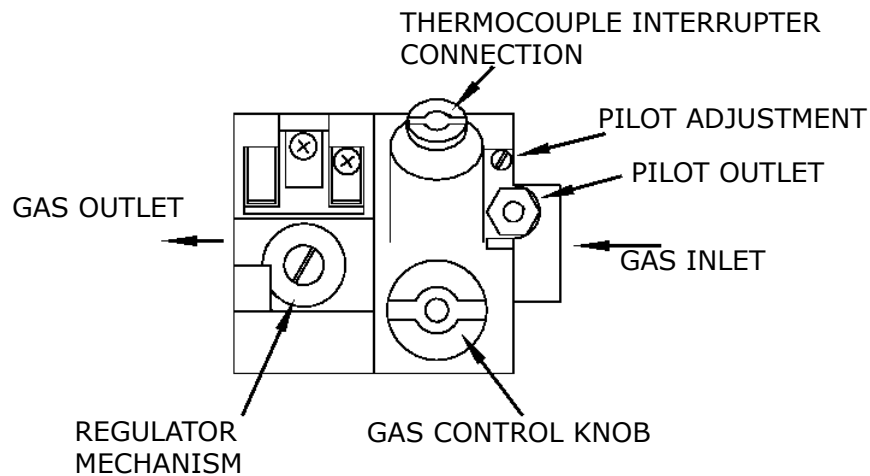
OPERATING INSTRUCTIONS

The oil tank must be filled to at least the minimum level before lighting the fryer. DO NOT OVER-FILL THE TANK.



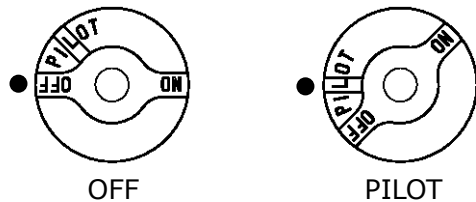
- A Fryer Tank
- B MIN and MAX Fill Level Lines
- C Heat Pipes
- D Cold Zone
- E Drain Pipe

MULTIFUNCTION GAS CONTROLLER



LIGHTING THE PILOT

1. Turn the thermostat knob anti-clockwise all the way to the lowest setting.
2. Turn the gas control knob to the PILOT position and press and hold it in.



3. Light the pilot burner with a suitable length igniter.
4. Once the pilot light is lit, continue to hold the knob in for at least 10 seconds to heat and activate the thermopile.
5. Check that the pilot light stays lit when the control knob is released. If it goes out, wait at least 3 minutes before repeating step 1-4 above.

THE ADVANTAGES OF FILTERING AND MANAGING COOKING OIL

1. Reduces oil loss and breakdown

A major cause of oil breakdown is the carbonizing of food particles in the oil. Regular filtering (at least once a day) removes these particles before they can contaminate the oil.

2. Improves food quality and appearance

Burning or carbonizing food particles in the cooking oil imparts undesirable flavours and odors. Removing them helps protect food quality and promotes uniform, even browning.

3. Improves equipment life

As food particles build up and carbonize in unfiltered oil they contribute to a film that coats the heating elements of fryers, reducing both their life and efficiency. Filtering reduces this problem.

4. Saves time/labour costs

Heavy scouring and equipment breakdown can be time consuming and costly. With filtering, heavy scouring is usually eliminated. Normal maintenance is all that is needed to keep fryers in top condition.

5. Reduce oil cost

Cooking oil is too costly to throw away. Ideally with regular filtering and proper heat control, the only fat loss should be that absorbed by the surface of the food, which is replaced with new fat to maintain the proper frying level.

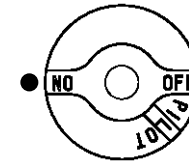
8. **Slow blanching** - To prepare for peak periods chips can be pre-fried to cut down on cooking time. For slow blanching they can be fried at 150°C (300°F) for 3-5 minutes. When blanching the chips should not be kept for more than 3 hours. When needed they can then be fried for a further 1-2 minutes at 180°C (356°F) for dripping or shortening or 190°C (370°F) for vegetable oil.
9. **Fast blanching** - For faster blanching the chips can be cooked for 1-2 minutes at 180°C (356°F) for dripping or shortening or 190°C (370°F) for vegetable oil.
10. **Frying other foods** - When frying fish, the baskets can be removed and the fillets lowered on to the fish plate grid at the bottom of the oil tank using a steel lifter. Small quantities of fish or other food can be fried in the baskets but they should be seasoned in hot oil first to avoid sticking.

OIL TIPS:

1. **Start with a high quality oil** - A low quality oil deteriorates faster and, over time, transfers flavours to other fried foods.
3. **Change oil every 7 to 10 days** - Change more often if the oil has been contaminated by other elements such as salt or water.
4. **Skim oil often and filter it daily** - Be sure to skim the oil between frying to extend its life and filter it every day.
5. **Use a clean, well-maintained fryer** - Keep your fryer clean and in good working order to sustain higher frying performance.

LIGHTING THE MAIN BURNER

1. Allow the pilot light to burn for at least 30 seconds before turning the gas control knob anti-clockwise to the ON position.



2. Turn the thermostat control to 190°C (370°F).
4. The burner will light automatically light from the pilot. Once lit, the thermostat control can be set to a lower temperature if desired.
5. Once the temperature has been set on the thermostat control knob, no further adjustment is necessary and the burner will automatically cut-out or re-ignite to maintain the desired temperature.
6. When the fryer is not being used the control knob should be turned to the PILOT position to turn of the main burner. Do not use the thermostat control to cut off the gas supply as it will relight when the minimum temperature is reached.

TURNING THE FRYER OFF

If the fryer is going to be left unattended it must be turned off.

1. Turn the gas control knob off by pressing it in and turning it clockwise to the OFF position.
2. The gas must also be turned off at the gas supply line by turning the gas stop cock anti-clockwise.

BURN-BACK (FIRE IN BURNER TUBE OR CHAMBER)

In the event of a burn-back, where the flame burns back to the jet, immediately turn off the gas supply at the control valve on the panel. After ensuring the flame is extinguished, re-light the appliance in the normal manner. Should the appliance burn-back again, close the control valve and call a service technician. Do not use the appliance again until the service technician has declared that it is safe to do so.

RESETTING THE SAFETY THERMOSTAT

In the event that the control thermostat fails and the temperature goes above 230°C (446°F) the safety thermostat will engage and cut off the gas supply to the burner and pilot.

To reset, allow the unit to cool down, open the door and press the red reset button located below the control thermostat.

SAFETY

1. When these units are to be positioned in close proximity to walls, partitions, kitchen furniture, decorative finishes, etc., it is recommended that they be made of noncombustible material. If not, they shall be clad with a suitable noncombustible, heat-insulating material and the closest attention must be paid to fire prevention regulations.
2. Do not use an appliance that is damaged, leaking or which does not operate properly.
3. Ensure that the gas cylinder is connected or changed in well ventilated area, preferably outdoors and away from any source of ignition, such as open flames, and away from other people.
4. Keep gas cylinder away from heat and flames.
5. Ensure that the assembled unit is stable and does not rock.
6. Do not cover or change the primary air supply apertures in the burner as this will affect the performance of the product and may lead to unstable flames.

- If the flame power drops or the gas will not light, check that the gas cylinder still contains gas (shake to hear the noise made by the liquid). If there is still gas, the jet might have become blocked or partially blocked. If you suspect a blocked jet, follow the instructions in point 3 above.

COOKING TIPS:

Cooking is not an exact science. Due to many variables such as fryer size and quantity of food, temperature of food when first put in the unit etc., performance will vary but these simple steps will help to ensure your chips/fries or other fried foods are the best:

1. **Cook chips from a frozen state** - For the best texture and flavour, be sure chips are completely frozen until required for cooking.
2. **Never fill basket more than half full** - Overfilling will result in greasy, soggy chips. Carefully lower basket into oil ensuring that all chips are covered.
3. **Shake basket 30 seconds into fry** - Lift the basket after 30 seconds of fry time and shake it gently to break up clusters and cook chips evenly.
4. **Fry for the correct length of time** - Please read chip carton for the ideal frying time. Oil must be at 175-190°C (345-375°F). For lard, dripping or shortening the temperature should always the frying temperature should never exceed 180°C (356°F).
5. **Drain chips for 10 seconds after cooking** - When chips are cooked, drain them over the fryer for 10 seconds to remove excess oil before transferring to the holding area.
6. **Avoid piling cooked chips more than two layers on a chip dump** - Chips that are piled too high will steam themselves and go soggy very quickly.
7. **Keep hold time to a minimum** - Keep regular chips under the chip warmer for no more than 7 minutes.

MAINTENANCE

There are no predetermined maintenance intervals for this appliance however the following should be observed.

1. Inspect hoses and replace if they are not in order before using the appliance as cracked and perished hoses can be dangerous. Replace if necessary with hoses as detailed in point 5.
2. Allow the appliance to cool sufficiently before attempting any maintenance.
3. The appliance is fitted with a jet to regulate the correct amount of gas. The small hole in the jet may become blocked resulting in a small flame or no flame on the burner. To clean, unscrew it from the appliance and clean the jet by blowing the hexagonal end or by using a jet cleaner. Do NOT attempt to clean the jet with a sharp object as this will damage the very small jet aperture and cause the stove to malfunction. If the jet still does not function, replace it with a new jet of the correct size.
4. Check that the flexible hose is completely connected over the nozzles at each end and that it is held firmly in place by hose clamps. Examine the flexible hose regularly, at least each time the gas cylinder is changed, and ask your dealer to fit a new LPG hose if it becomes perished, worn or damaged.
5. Only LPG hoses that comply with SANS 1156-2 or BS 3212 may be used with this appliance.

TROUBLE SHOOTING

- A normal flame is blue and may have an orange or yellow tip. If the flame is completely yellow it may be that the jet is not securely fitted. Retighten to give a gas-tight seal. An over-filled gas cylinder can also cause large yellow flames. The cylinder should then be returned to the filling station and checked by weight.
- Check that the primary air supply apertures in the burners are clear and free of obstructions.



WARNING

Burn Hazard.

Do not touch hot food, liquid or heating surfaces while equipment is heating or operating.

Hot surfaces and food can burn skin. Allow the hot surfaces to cool before handling.

7. If there is a leak on your appliance (smell of gas), turn gas off the at the control knob by pressing it in and turning it clockwise to the OFF position.
8. Do not try to detect leaks using a flame. The correct way is to smear the joint with a soapy solution. Where bubbles form it will indicate a gas leak. Immediately turn off the gas supply. Check that all the connections are properly fitted. Re-check with a soapy solution. If a gas leak persists call in a qualified technician or return the product to your dealer for inspection and repair.
9. Do not modify the appliance or use it for anything other than what it has been designed for.
10. During use part of the appliance will become hot, particularly the cooking areas and top. Avoid touching hot parts with your bare hands. The use of oven gloves is recommended.
12. Keep young children away from the appliance at all times.
13. This appliance consumes oxygen and needs ventilation for optimum performance and for the safety of those in close proximity.



THE FRYER MUST NEVER BE MOVED UNLESS IT HAS BEEN ALLOWED TO COOL TO ROOM TEMPERATURE AND ALL THE OIL HAS BEEN DRAINED OUT. SPILLING HOT OIL CAN CAUSE SEVERE INJURY.



NEVER POUR WATER ON A FAT FIRE. A SUITABLE DRY POWDER FIRE EXTINGUISHER MUST BE PLACED CLOSE TO THE FRYER.

NEVER DIRECT A WATER JET AT THE OIL. IF THE OIL IS HOT IT WILL CAUSE AN EXPLOSION.



A DANGER OF SURGE BOILING CAN OCCUR IF THE FOOD TO BE FRIED IS EXCESSIVELY WET OR IF THE FRYING BASKET IS TOO FULL.

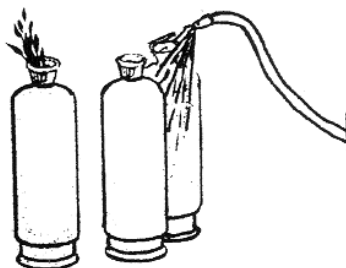
DO NOT OVERFILL THE BASKET AND LOAD IT INTO THE HOT OIL CAREFULLY.

FIRE AT CYLINDERS

(A) Don't panic - Flames from joints near a cylinder are not dangerous in themselves, as long as they do not heat up the cylinder.

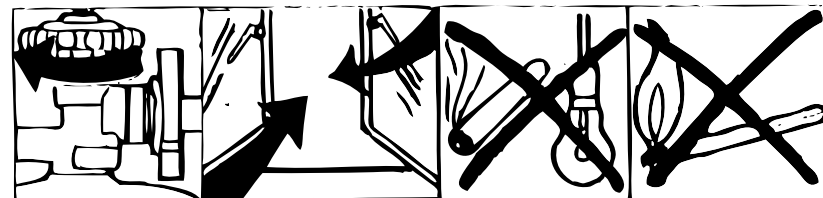
(B) If possible, close the cylinder valve using a wet cloth to protect your hand.

(C) Spray cold water onto cylinders exposed to the fire in order to keep them cool. Use a hose pipe. Keep people away from the area.



IF YOU SHOULD SMELL GAS:

- * Turn off gas supply at cylinder.
- * DO NOT switch electrical equipment ON or OFF
- * Open all doors and windows to increase ventilation.
- * Extinguish open flames
- * Move cylinder outside if safe
- * Look for leaks with soapy water
- * No smoking



DAILY CLEANING

1. Before cleaning, the unit should be turned off and the gas supply isolated.
2. Allow the oil to cool completely.
3. Open the drain valve and pour the oil through a strainer into a clean dry container so that fine food particles will be removed.
4. Close the drain valve and wipe down surfaces with a cloth dipped in soapy water and wrung out.
5. Rinse with clean water and then wipe dry with a clean cloth.



THIS APPLIANCE SHOULD NOT BE CLEANED WITH A WATER JET OR IMMERSED IN WATER.



CLEAN THE STAINLESS STEEL PARTS WITH WATER AND SOAP. AVOID THE USE OF DETERGENTS CONTAINING ABRASIVE SUBSTANCES. ALWAYS RINSE WELL AND DRY CAREFULLY AFTER CLEANING. DO NOT USE PRODUCTS CONTAINING AGGRESSIVE CHEMICALS, ACIDS OR PRODUCTS WITH CHLORINE TO CLEAN THE STAINLESS STEEL EVEN IF DILUTED