



# **INSTALLATION & OPERATION MANUAL TEPPAN-YAKI GRIDDLES**

## **MODELS**

TYG48  
TYG60



TYG48

For additional information on Vulcan or to locate an authorized parts and service provider in your area, visit our website at [www.vulcanequipment.com](http://www.vulcanequipment.com)

## IMPORTANT FOR YOUR SAFETY

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 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.

IN THE EVENT OF A POWER FAILURE, DO NOT ATTEMPT TO OPERATE THIS DEVICE.

# INSTALLATION, OPERATION AND CARE OF HEAVY DUTY GAS GRIDDLES

## GENERAL

Teppan-Yaki Griddles are produced with quality workmanship and materials. Proper installation, usage and maintenance of your griddle will result in many years of satisfactory performance.

Thoroughly read this entire manual and carefully follow all of the instructions provided

Model	Number of Burners	BTU/hr Input Rating
TYG48C / TYG60C	1	30,000

## INSTALLATION

Before installing, verify that the type of gas supply (natural gas or propane) agrees with the specifications on the rating plate riveted behind the chassis panel on the right side of the unit. If the supply and equipment requirements do not agree, do not proceed with the installation. Contact your dealer immediately. It is recommended that a trained gas service technician with the necessary tools, instruments, skills and experience with this type of restaurant operation perform the installation of the griddle.

### UNPACKING

This griddle was inspected before leaving the factory. The carrier assumes full responsibility for the safe delivery upon acceptance of the shipment. Check for possible shipping damage immediately after receipt.

If the griddle is found to be damaged, complete the following steps:

1. Carrier must be notified within 5 business days of receipt.
2. Carrier's local terminal must be notified immediately upon discovery (note time, date, and who was spoken to), and follow up and confirm with written or electronic communication.
3. All original packing materials must be kept for inspection purposes.
4. The griddle cannot have been moved, installed, or modified.
5. Notify Vulcan Customer Service immediately at 800-814-2028.

Carefully unpack your griddle and make sure that no parts are discarded with packaging material. A pressure regulator designed to operate with the griddle has been supplied and must be installed before the griddle is placed into service (Refer to GAS PRESSURE REGULATOR INSTALLATION in this manual).

### LOCATION

Do not permit air to blow directly at the griddle. Avoid open windows next to the griddle wherever possible. Avoid wall-type fans which create air cross-currents within the room.

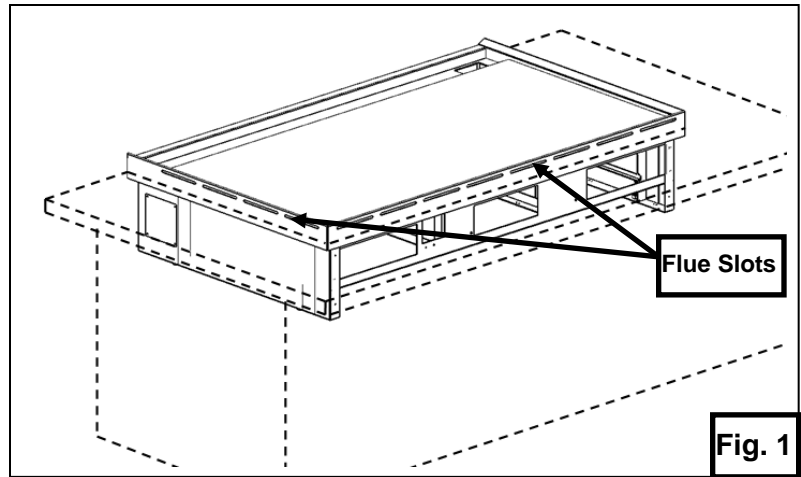
This griddle is Design Certified for installation on a non-combustible counter with 4" legs, or combustible floor with 20" high stand.

The Teppan-Yaki Griddle is designed for installation in conjunction with a dining counter or table. The design of the counter and installation should only be done by those experienced with this type of restaurant operation.

**NOTICE** Do not obstruct the flue slots located around the edge of the griddle. The griddle should be installed with the flue slots  $\frac{1}{4}$ " above the counter or table surface.

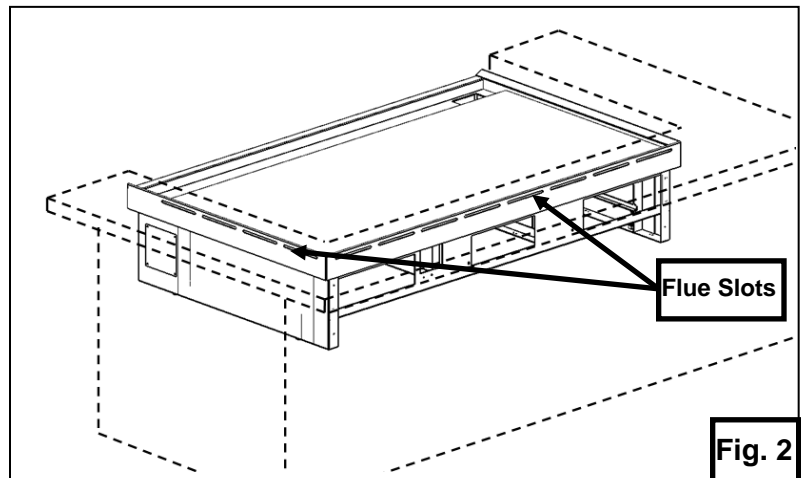
**CORRECT INSTALLATION**

Griddle is correctly installed in table with flue slots exposed a minimum of  $\frac{1}{4}$ " above table surface. Fig. 1



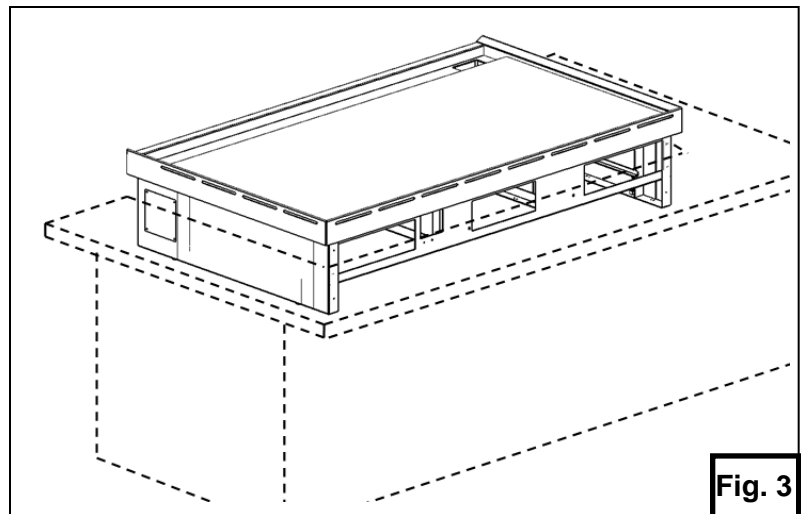
**INCORRECT INSTALLATION**

Griddle is incorrectly installed in table with flue slots covered by table edge. Fig. 2



**INCORRECT INSTALLATION**

Griddle is incorrectly installed in table too high with entire flue slot trim exposed. Fig. 3



## INSTALLATION CLEARANCES

	COMBUSTIBLE CONSTRUCTION	NON-COMBUSTIBLE CONSTRUCTION
Back:	0"	0"
Sides:	0"	0"

## INSTALLATION CODES AND STANDARDS

### The griddle must be installed in accordance with:

In the United States of America:

1. State and local codes.
2. National Fuel Gas Code, ANSI-Z223.1/NFPA #54 (latest edition). This shall include but not be limited to: NFPA #54 Section 10.3.5.2 for Venting. 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

#### **NOTE: In the Commonwealth of Massachusetts**

All gas appliances vented through a ventilation hood or exhaust system equipped with a damper or with a power means of exhaust shall comply with 248 CMR.

3. NFPA Standard # 96 *Vapor Removal from Cooking Equipment*, latest edition, available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

In Canada:

1. Local codes.
2. CAN/CSA-B149.1 Natural Gas Installation (latest edition)
3. CAN/CSA-B149.2 Propane Installation Code (latest edition), available from the Canadian Gas Association, 178 Rexdale Blvd., Etobicoke, Ontario, Canada M9W 1R3

## GAS CONNECTIONS

**⚠ WARNING** Gas supply connections and any pipe joint compound must be resistant to the action of propane gases.

Use a ¾" NPT gas supply line for the griddle inlet, located at the rear of the griddle. All of flexible and semi-rigid gas supply lines must comply with the applicable ANSI standard. To ensure maximum operating efficiency this appliance must be connected with a gas supply line of solid pipe or a commercial type Flexible Connector with the net inside diameter (I.D.) as large as or larger than the gas pipe inlet on this appliance. Codes require that a gas shutoff valve must be installed in the gas line upstream of the griddle.

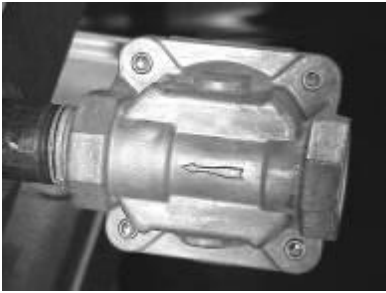
**⚠ WARNING** Prior to lighting, check all joints in the gas supply line for leaks. Use soap and water solution. Do not use an open flame.

After checking for leaks all lines receiving gas should be fully purged to remove air.

## GAS PRESSURE REGULATOR INSTALLATION

Gas regulator pressure is preset at 5" Water Column (W.C.) for natural gas, and 10" W.C. for propane gas. No further adjustment should be required.

Make sure that the arrow on the underside of the regulator is oriented in the direction of gas flow to the griddle (Fig. 4) and the regulator is positioned with the vent plug and adjustment screw upright (Fig. 5).



**Fig. 4**



**Fig. 5**

The supply pressure (upstream of the regulator) should be 7-9" W.C. for natural gas and 11-12" W.C. for propane gas. At no time should the griddle be connected to supply pressure greater than ½ psig (3.45 kPa) or 14" W.C.

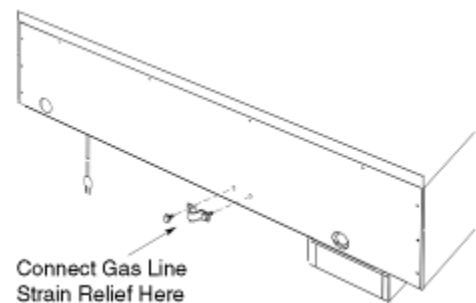
## TESTING THE GAS SUPPLY SYSTEM

When the gas supply pressure exceeds ½ psig (3.45 kPa), the griddle and its individual shutoff valve must be disconnected from the gas supply piping system.

When the gas supply pressure is ½ psig (3.45 kPa) or less, the griddle should be isolated from the gas supply system by closing its individual manual shutoff valve.

## GRIDDLES MOUNTED ON STANDS WITH CASTERS

**⚠ WARNING** Griddles mounted on stands with casters must use a flexible connector (not supplied) that complies with the Standard for Connectors for Movable Gas Appliances ANSI Z21.69•CSA6.16, and a quick-disconnect device that complies with Gas Fuel, ANSI Z21.3•CSA6.9. In addition, adequate means must be provided to limit movement of the appliance without depending on the connector and the quick-disconnect device (or its associated piping) to limit appliance movement. Attach the restraining device at the rear of the griddle as shown in Fig. 6.



**Fig. 6**

**⚠ WARNING** If disconnection of the restraint is necessary, turn off the gas supply before disconnecting. Reconnect the restraint prior to turning the gas supply on and returning the griddle to its installation position.

Castors are only supplied on a griddle stand. If the griddle is moved for any reason the griddle should be re-leveled (see LEVELING in this manual).

## FLUE CONNECTIONS

Do not obstruct the flow of flue gases from the flue slots, located around the outside perimeter of the griddle. It is recommended that flue gases be ventilated to the outside of the building through a ventilation system installed by qualified personnel.

From the termination of the flue to the filters of the hood venting system, a minimum clearance of 18" must be maintained.

Information on the construction and installation of ventilating hoods may be obtained from the standard for "Vapor Removal from Cooking Equipment", NFPA No. 96 (latest edition), available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

## OPERATION

**⚠ WARNING** The griddle and its parts are hot. Use care when operating, cleaning or servicing the griddle

### BEFORE FIRST USE

Remove all packing material and protective plastic from the surfaces of the unit. Before leaving the factory the griddle is coated with vegetable oil as a rust inhibitor. Remove this film when the griddle plate is being cleaned prior to its first cooking use. Heat the griddle to 200-300°F to loosen and melt the coating, then clean the surface by adding water or a non-corrosive, grease dissolving commercial cleaner, following the manufacturer's directions. Scrape the oil residue from the plate with a griddle scraper. Rinse thoroughly and wipe dry with a soft clean cloth.

### SEASONING THE GRIDDLE

Season the griddle to avoid possible surface corrosion before first use, and after every cleaning. This will also help reduce the sticking of cooked food product. Heat griddle to a low temperature (300-350°F) and apply a small amount of cooking oil – about one ounce per square foot of surface. Use a soft lint-free cloth to spread the oil over the entire griddle surface to create a thin film. Wipe off any excess oil with a cloth. Repeat the procedure until the griddle has a slick, mirror-like finish.

### CONTROLS

This model features a standing pilot that must be manually lit with an outside ignition source (such as a lit taper, etc). The pilot is monitored by a thermocouple and pilot safety valve. If the pilot goes out, the safety valve will shut-off the gas supply to the pilot and main burner.

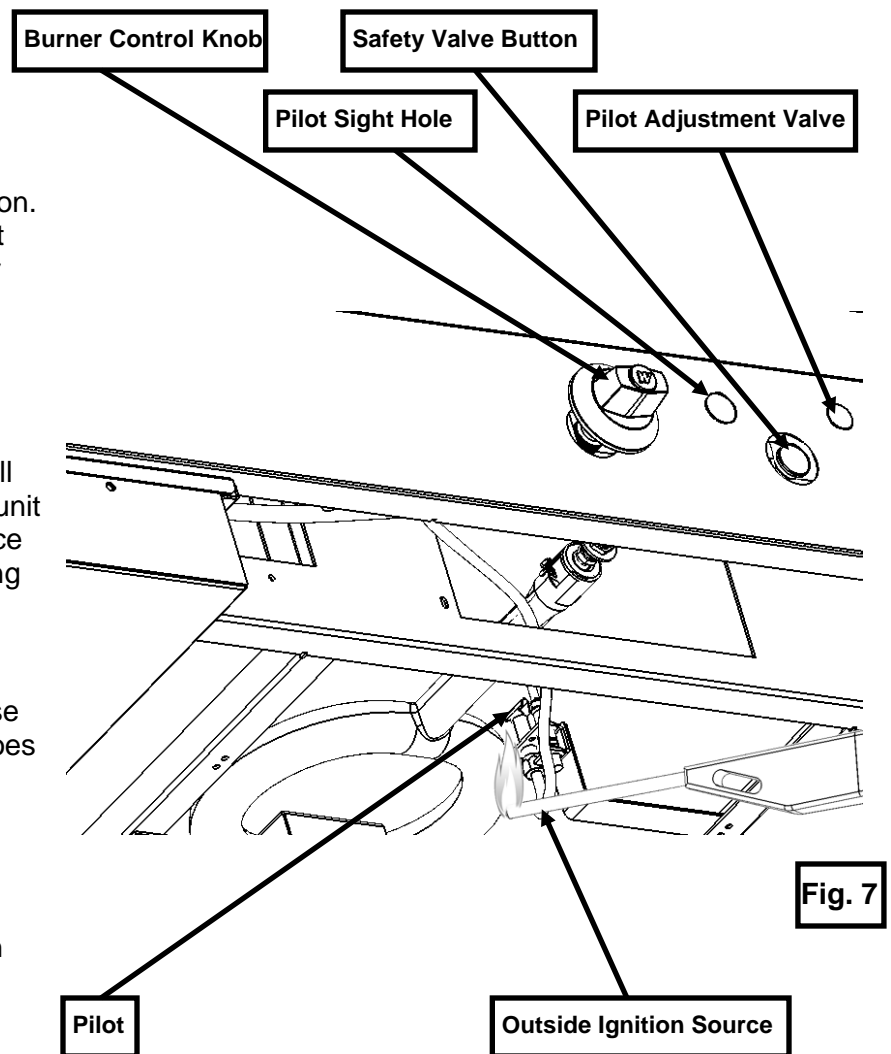
The griddle burner is controlled by an infinite heat control valve. Once the pilot is lit, turning the burner control knob to the full ON position will light the burner. The burner will be in the full ON position when the burner control knob is turned all the way to the left. The burner will be in the OFF position when the burner control knob is turned all the

way to the right. The height of the burner flame and cooking plate temperature can be adjusted by turning the burner control knob while viewing burner through the burner sight holes.

**⚠ WARNING** The griddle and its parts are hot. Use care when operating, cleaning or servicing the griddle

### PILOT LIGHTING PROCEDURE

1. Turn the main gas shut-off valve and burner control knob to the OFF position. Wait 5 minutes to allow any gas that may have accumulated in the burner compartment to escape.
2. Turn the main gas shut-off valve ON.
3. Depress and hold the safety valve button while lighting the pilot. You will have to reach under the front of the unit to light with an outside ignition source (such as a lit taper, etc.) while viewing thru the pilot sight hole.
4. When the gas at the pilot has been burning for about 45 seconds, release the safety valve button. If the pilot does not remain lit, repeat the operation allowing more time before releasing the button. The amount of time necessary to hold the safety valve button will increase at the initial installation of the unit and if the main gas supply has been turned off for a long period of time. It may be necessary to adjust the pilot valve to increase gas to the pilot.
6. If after completing steps 1-4 pilot does not light, turn off the main gas shut-off valve and contact an authorized service contractor.





## **PILOT ADJUSTMENT**

Using a flathead screwdriver, turn the slotted hex-head pilot adjustment screw clockwise to decrease the flame, and counterclockwise to increase the flame.

## **LEVELING**

The griddle must be level (side-to-side and front-to-back) during operation to ensure proper performance. Improper leveling can result in uneven temperature distribution.

1. Place a level on the griddle.
2. Adjust level by turning the bolts on the bottom of the unit. Using pliers or a crescent wrench, turn the bolts counter-clockwise to increase height, and clockwise to decrease height until leveling is achieved.

## **SHUTDOWN**

1. Turn burner control knobs to the OFF position to cut off burners.
2. The pilots will remain lit as long as the main gas supply is on.

## **EXTENDED SHUTDOWN**

1. Shut off the main gas supply valve.
2. Apply a heavy coat of vegetable oil over the griddle plate to inhibit rust.

**NOTICE** It is recommended to avoid using ice to rapidly cool the griddle surface temperature. Doing so could result in thermal shock and damage to the cooking surface.

## **CLEANING THE GRIDDLE**

Empty the grease drawer as needed throughout the day and regularly clean at least once daily.

Clean the griddle regularly. A clean griddle always looks better, lasts longer and performs better. To produce evenly cooked, perfectly browned griddle products keep the griddle plate clean and free of carbonized grease. Carbonized grease on the surface hinders the transfer of heat from the griddle surface to the food, resulting in spotty browning and loss of cooking efficiency. Carbonized grease tends to cling to griddle foods, giving them a highly unsatisfactory and unappetizing appearance.

To keep the griddle clean and operating at peak efficiency, follow these procedures:

### **AFTER EACH USE**

Clean the griddle with a wire brush or flexible spatula.

### **ONCE PER DAY**

Thoroughly clean the griddle back splash, sides and front. Remove, empty and wash the grease drawer in the same manner as an ordinary cooking utensil.

### **ONCE PER WEEK**

Clean the griddle surface thoroughly. Use a griddle stone, screen, or Scotch Brite™ pad on the surface as necessary. Rub with the grain of the metal while the griddle is still warm (not hot). A detergent may be used on the plate surface to help clean it, but be sure the detergent is thoroughly removed by flushing with clear water.

After removal of detergent the surface of the plate the griddle should be seasoned according to the instructions in this manual.

Clean stainless steel surfaces with a damp cloth and polish with a soft dry cloth. To remove discoloration, use a griddle cleaner.

If the griddle usage is very high, consider conducting this weekly cleaning procedure more than once per week.

## **CLEANING A CHROME GRIDDLE PLATE**

### **AFTER EACH USE**

Clean the griddle with a palmetto brush or flexible spatula.

**NOTICE** Never use an abrasive scouring pad or griddle stone on a chrome plate surface.

### **ONCE PER DAY**

Thoroughly clean backsplash, sides, and front. Do not hit the backsplash with a spatula or any other tool. This may create a gap between the splash and griddle plate that is hard to clean.

Clean stainless steel and chrome surfaces with a damp cloth and polish with a soft dry cloth.

## **MAINTENANCE**

**WARNING** The griddle and its parts are hot. Use care when operating, cleaning or servicing the griddle

### **LUBRICATION**

All valves must be checked and lubricated periodically. Check with your service agency for details.

### **VENT**

Daily, when the griddle is cool, check the flue slots and clear any obstructions.

### **SERVICE AND PARTS INFORMATION**

Contact the Service Contactor in your area to obtain service and parts information. For a complete listing of Service and Parts depots refer to or [www.vulcanquipment.com](http://www.vulcanquipment.com).

When calling for service the following information should be available from the appliance serial plate: Model Number, Serial Number and Gas Type.

## TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES
Heat does not come on when the burner valve is turned on	<ol style="list-style-type: none"> <li>1. Problem with burner valve. (Call for service)</li> <li>2. Pilot burner not lit.</li> <li>3. Low gas pressure. (Call for service)</li> </ol>
Pilot burner will not light	<ol style="list-style-type: none"> <li>1. Obstructed pilot orifice. (Call for service)</li> <li>2. Pilot gas turned off at pilot. Adjust pilot to allow gas flow</li> <li>3. Problem with pilot safety valve. (Call for service)</li> <li>4. Problem with thermocouple. (Call for service)</li> <li>5. Low gas pressure. (Call for service)</li> </ol>
Pilot burner will not stay lit	<ol style="list-style-type: none"> <li>1. Obstructed or wrong size pilot orifice. (Call for service)</li> <li>2. Gas supply not purged of air. Depress pilot safety button until air is purged.</li> <li>3. Air blowing pilot out. (Call for service)</li> <li>4. Problem with pilot safety valve. (Call for service)</li> <li>5. Thermocouple not in flame. (Call for service)</li> <li>6. Low gas pressure. (Call for service)</li> </ol>
Fat appears to smoke excessively	<ol style="list-style-type: none"> <li>1. Temperature set too high.</li> <li>2. Moisture in food may be turning into steam</li> </ol>
Food sticks to griddle or burned around edges or contains dark specs	<ol style="list-style-type: none"> <li>1. Temperature set too high.</li> <li>2. Griddle surface requires cleaning and/or seasoning.</li> <li>3. Surface under food not covered with enough cooking oil.</li> </ol>
Food under-cooked inside	<ol style="list-style-type: none"> <li>1. Temperature set too low.</li> <li>2. Food not cooked for long enough time.</li> </ol>
Food tastes greasy or has objectionable off-flavor	<ol style="list-style-type: none"> <li>1. Food itself may have off-flavor.</li> <li>2. Food stored improperly before cooking.</li> <li>3. Too much griddle fat used.</li> <li>4. Temperature set too low.</li> </ol>
Noticeable build-up of gum on griddle	<ol style="list-style-type: none"> <li>1. Temperature set too high.</li> <li>2. Griddle surface needs cleaning and/or seasoning.</li> <li>3. Too much griddle fat used.</li> </ol>

## **NOTES**