

## SECTION 2. INSTALLATION

### 2-1. INTRODUCTION

This section provides the installation instructions for the electric and gas models of Henny Penny Pressure Fryers.

#### NOTICE

Installation of this unit should be performed only by a qualified service technician.



**Do not puncture the fryer with any objects such as drills or screws as electrical shock or component damage could result.**

1. Cut the bands from around the carton.

#### NOTICE

Any shipping damage should be noted in the presence of the delivery agent and signed prior to his or her departure.

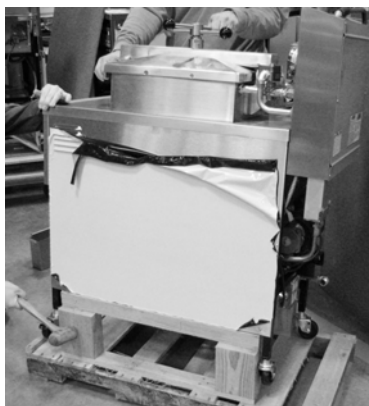
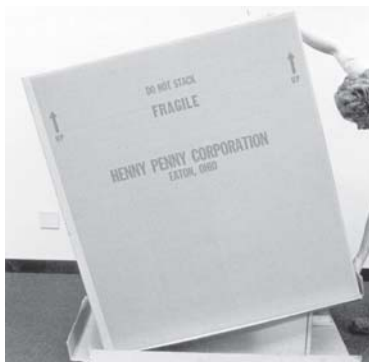
2. Lift the carton from the fryer.
3. Remove the inside packing from the fryer.
4. Open fryer lid and remove the basket plus all accessories.
5. Open the front door and remove the condensation drain pan.
6. Unscrew the filter union and remove the filter drain pan.
7. Close the door.



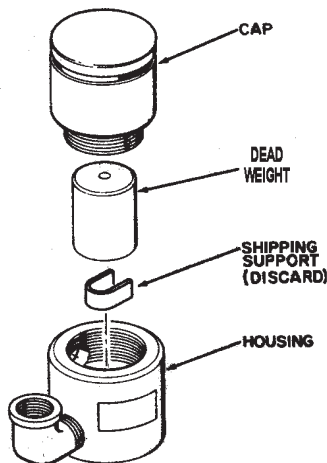
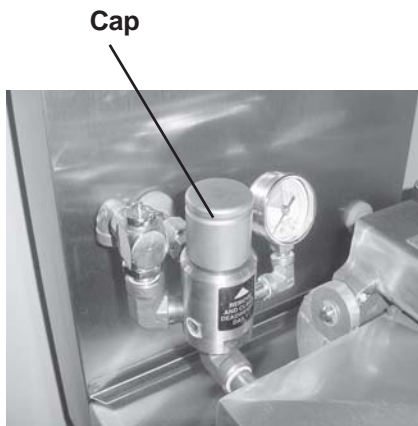
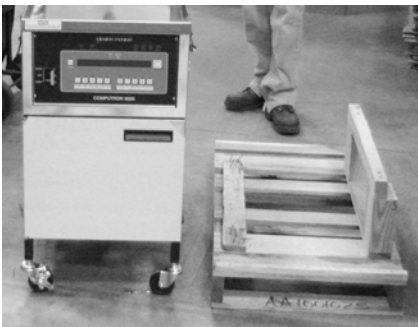
**Take care when moving the fryer to prevent personal injury. The fryer weighs approximately 300 lbs. (136 kgs).**

8. Tilt fryer to one side so one side of fryer frame is raised up off skid.
9. While one person holds unit up, another person hits the vertical wood supports with a hammer pushing them under the fryer.
10. Return the fryer to fully upright.

### 2-2. UNPACKING INSTRUCTIONS



## **2-2. UNPACKING INSTRUCTIONS (Continued)**



11. Open front door, remove two vertical supports and a horizontal support and close the front door.
12. Unlock all four casters.
13. Lift fryer up so casters are above the skid, move the fryer off the skid, and set the fryer on the floor.
14. Prepare the deadweight assembly for operation:

### **NOTICE**

A metal shipping support is installed inside the deadweight valve assembly and must be removed prior to installation and startup, or unit will NOT build pressure.

- a. Unscrew the deadweight cap.
  - b. Remove the round deadweight.
  - c. Remove and discard the shipping support.
  - d. Clean the deadweight orifice with a dry cloth.
  - e. Replace the deadweight and secure the deadweight cap.
15. Remove the protective paper from the fryer cabinet and clean the surfaces with a cloth, soap, and water.

## **2-3. SELECTING THE FRYER LOCATION**

The proper location of the fryer is very important for operation, speed, and convenience. Choose a location which will provide easy loading and unloading without interfering with the final assembly of food orders. Operators have found that frying from raw to finish, and holding the product in a warmer provides fast continuous service. Landing or dumping tables should be provided next to at least one side of the fryer. Keep in mind the best efficiency will be obtained by a straight line operation, i.e., raw in one side and finish out the other side. Order assembly can be moved away with only a slight loss of efficiency. To properly service the fryer, 24 inches (60.96 cm) of clearance is needed on all sides of the fryer. Access for servicing can be attained by removing a side panel. Also, at least 6 inches (15.24 cm) around the base of the gas units is needed for proper air supply to the combustion chamber.



*To avoid a fire, install the gas fryer with minimum clearance from all combustible and noncombustible materials, 6 inches (15.24 cm) from side and 6 inches (15.24 cm) from back. If installed properly, the gas fryer is designed for operation on combustible floors and adjacent to combustible walls.*

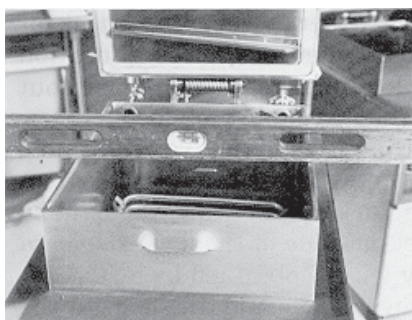
*To avoid fire and ruined supplies, the area under the fryer should not be used to store supplies.*

*Do not spray aerosols in the vicinity of this appliance while it is in operation.*



**To prevent severe burns from splashing hot shortening, position and install fryer to prevent tipping or movement. Restraining ties may be used for stabilization.**

## **2-4. LEVELING THE FRYER**



For proper operation, level the fryer from side to side and front to back, using level on the flat areas around the frypot collar.



**FAILURE TO FOLLOW THESE LEVELING INSTRUCTIONS CAN RESULT IN SHORTENING OVERFLOWING THE FRYPOT WHICH COULD CAUSE SERIOUS BURNS, PERSONAL INJURY, FIRE, AND/OR PROPERTY DAMAGE.**

## 2-5. VENTILATION OF FRYER

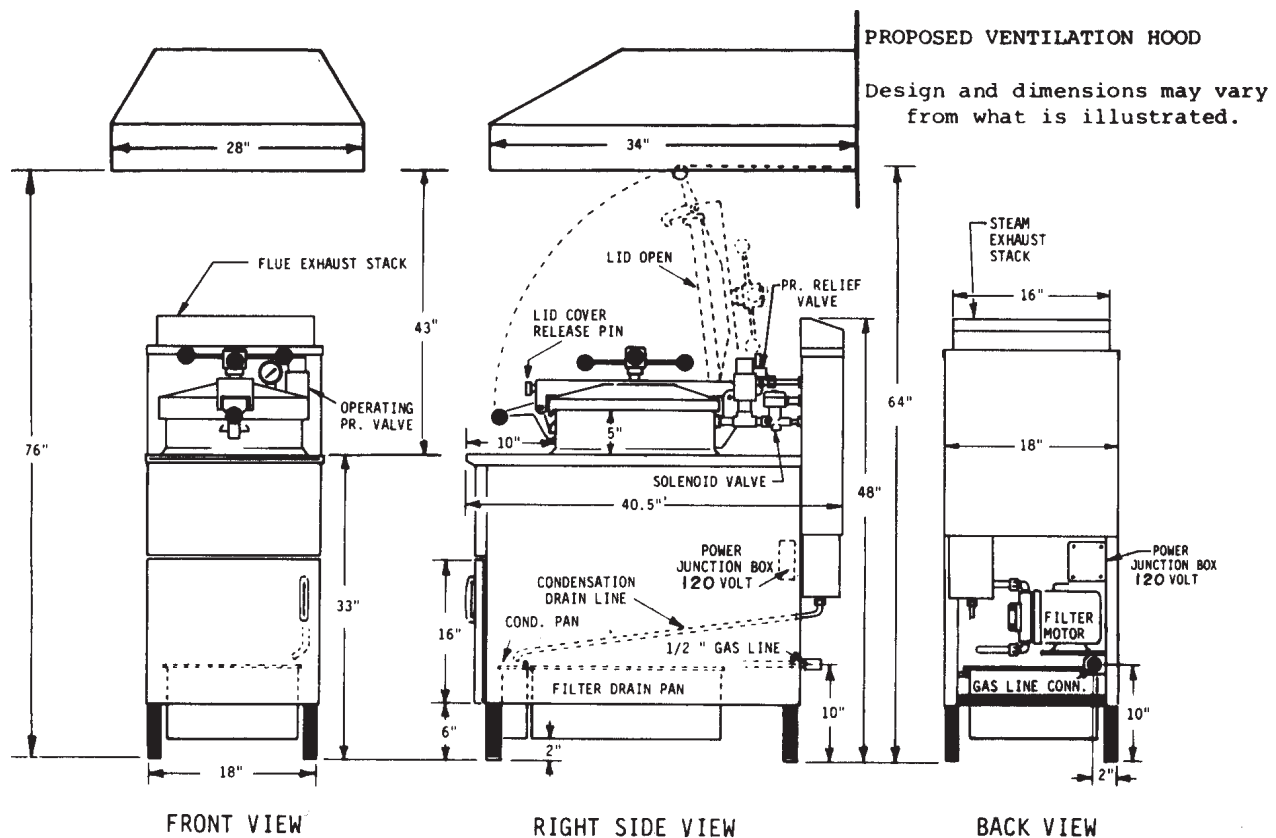
The fryer must be located with provision for venting into adequate exhaust hood or ventilation system. This is essential to permit efficient removal of the flue gases and frying odors. Special precaution must be taken in designing an exhaust canopy to avoid interference with the operation of the fryer. We recommend you consult a local ventilation or heating company to help in designing an adequate system.

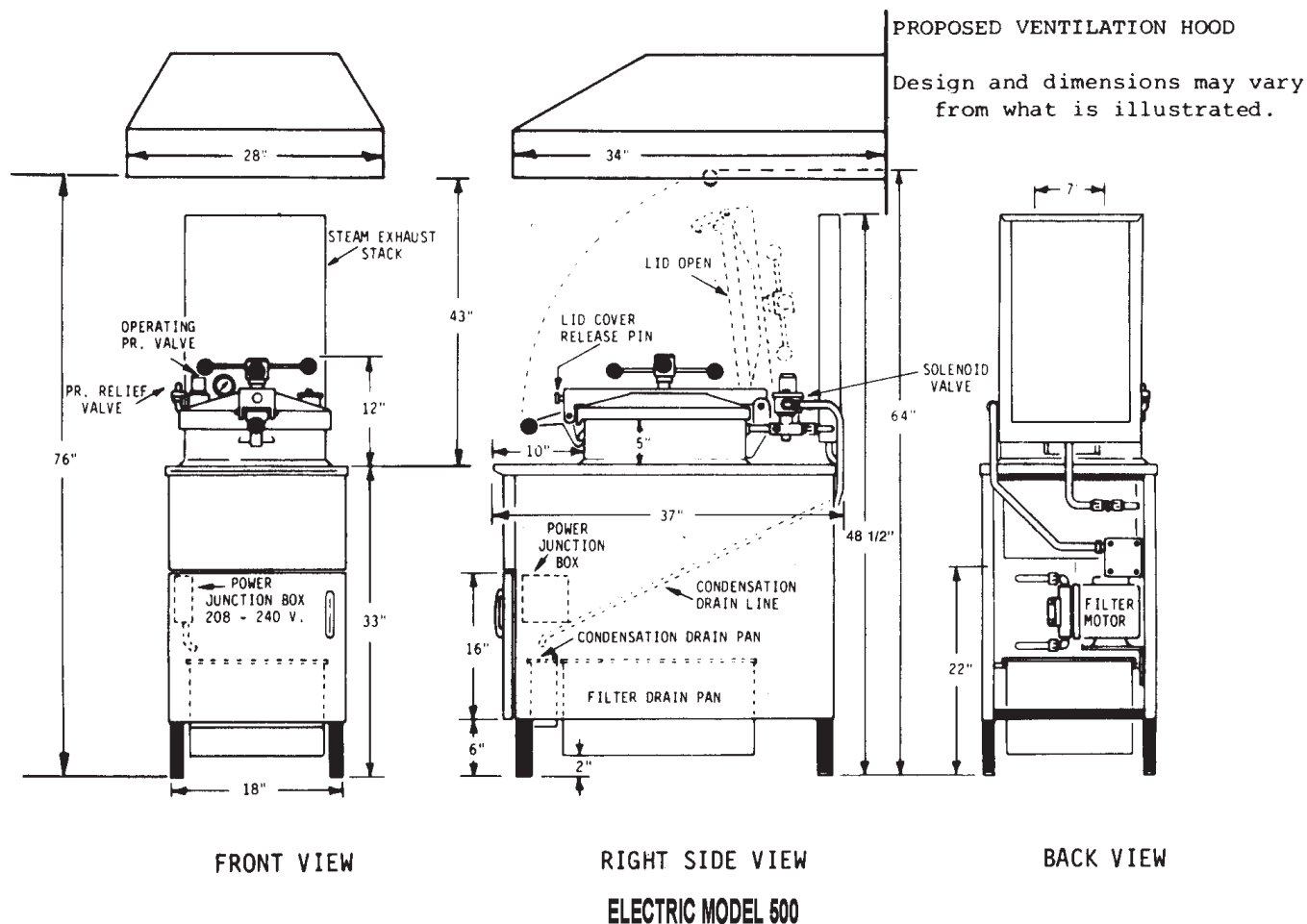
### NOTICE

Ventilation must conform to local, state, and national codes. Consult your local fire department or building authorities.

### CAUTION

*When installing the gas fryer do not attach an extension to the gas flue exhaust stack. This may impair proper operation of the burner, causing malfunctions and possible negative backdraft.*





## 2-6. GAS SUPPLY

The gas fryer is factory available for either natural or propane gas. Check the data plate on the right side panel of the cabinet to determine the proper gas supply requirements. The minimum supply for natural gas is 7 inches water column (1.7 kPa), and 10 inches water column (2.49 kPa) for propane. Maximum gas supply is 14 inches water column (3.49 kPa, or .5 psi).



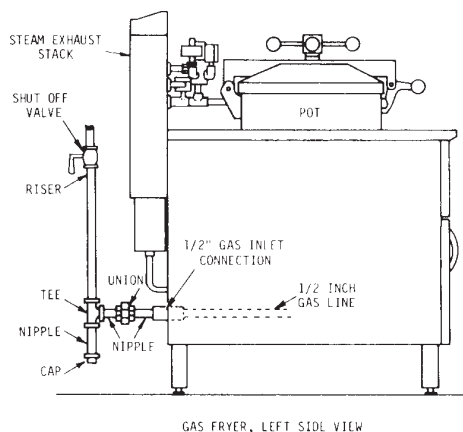
**Do not attempt to use any gas other than that specified on the data plate. Conversion kits can be installed by your distributor if required. Incorrect gas supply could cause an explosion or fire resulting in severe injuries and/or property damage.**

## 2-7. GAS PIPING

Please refer below for the recommended hookup of the fryer to main gas line supply.



To avoid possible serious personal injury:



- **Installation must conform with American National Standard Z223.1-Latest Edition National Fuel Gas Code and the local municipal building codes. In Canada, installation must be in accordance with Canadian Gas Authority Standard CSA B149-& 2, Installation Codes - Gas Burning Appliances and in accordance with Australian Gas Association current edition of AS5601 Gas Installations.**
- **The fryer and its manual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig (3.45 kPa) (34.47 mbar).**
- **The fryer must be isolated from the gas supply piping system by closing its manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig. (3.45 kPa) (34.47 mbar).**
- **A standard 1/2 inch, black steel pipe and malleable fittings should be used for gas service connections.**
- **Do not use cast iron fittings.**
- **Although 1/2 inch size pipe is recommended, piping should be of adequate size and installed to provide a supply of gas sufficient to meet the maximum demand without undue loss of pressure between the meter and the fryer. The pressure loss in the piping system should not exceed 0.3 inch water column (0.747 mbar).**

Provisions should be made for moving the fryer for cleaning and servicing. This may be accomplished by:

1. Installing a manual gas shutoff valve and a disconnect union, or
2. Installing a heavy duty design A.G.A. certified connector which complies with the Standard for Connectors for Moveable Gas Appliances, ANSI Z21.6, or CAN/CSA 6.16 with a quick disconnect coupling



**2-7. GAS PIPING**  
**(Continued)**

(Henny Penny Part No. 19921), which complies with ANSI standard Z21.41, or CAN 1-6.9. Also adequate means must be provided to limit the movement of the fryer without depending on the connector and quick-disconnect device or its associated piping to limit the fryer movement.

3. See the illustration on following page for the proper connections of the flexible gas line and cable restraint.

**NOTICE**

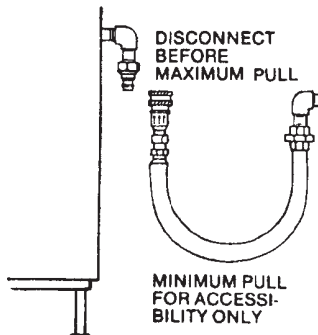
The cable restraint limits the distance the fryer can be pulled from the wall. For cleaning and servicing the fryer, the cable must be unsnapped from the unit and the flexible gas line disconnected. This will allow better access to all sides of the fryer. The gas line and cable restraint must be reconnected once the cleaning and servicing is complete.

## 2-7. GAS PIPING (Continued)

### GAS PIPING

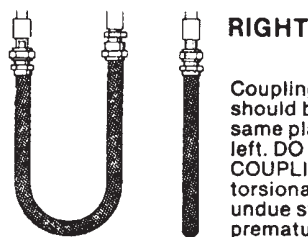
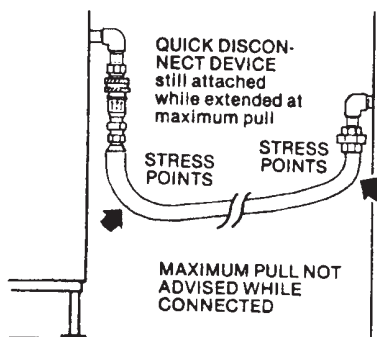
#### RIGHT

MINIMUM PULL of equipment away from wall permissible for accessibility to Quick Disconnect Device.

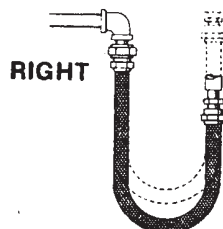
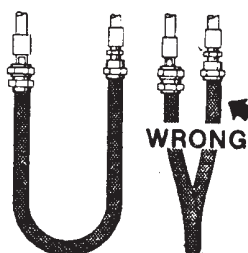


#### WRONG

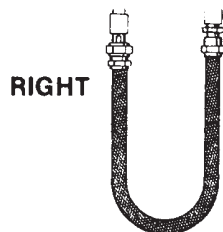
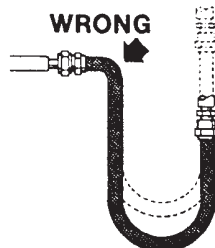
AVOID SHARP BENDS AND KINKS when pulling equipment away from wall. (Maximum pull will kink ends, even if installed properly, and reduce Connector life.)



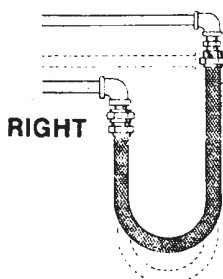
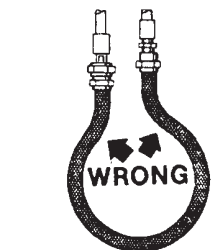
**RIGHT**  
Couplings and hose should be installed in the same plane as shown at left. **DO NOT OFFSET COUPLINGS**—this causes torsional twisting and undue strain causing premature failure.



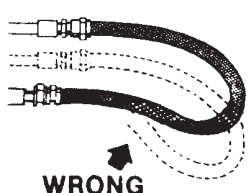
**RIGHT**  
This is the correct way to install metal hose for vertical traverse. Note the single, natural loop. Allowing a sharp bend, as shown at right, strains and twists the metal hose to a point of early failure at the coupling.



**RIGHT**  
Maintain the minimum or larger bending diameter between the couplings for longest life. Closing in the diameter at the couplings, as shown at right, creates double bends causing work fatigue failure of the fittings.

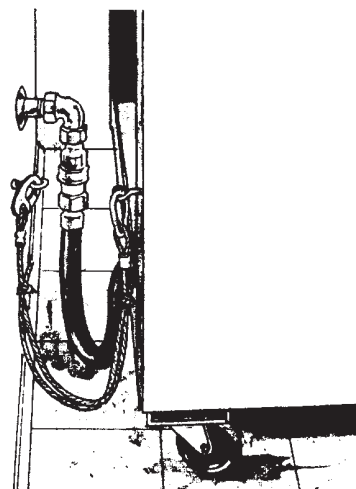


**RIGHT**  
In all installations where "self-draining" is not necessary, connect metal hose in a vertical loop. **DO NOT CONNECT METAL HOSE HORIZONTALLY**... unless "self-draining" is necessary, then use support on lower plane as shown at left.



### CABLE RESTRAINT

Please refer to the illustration below when installing cable restraint on all moveable gas fryers.



I-bolt is to be secured to the building using acceptable building construction practices.

### CAUTION

#### DRY WALL CONSTRUCTION

Secure I-bolt to a building stud. Do not attach to dry wall only. Also, locate the I-bolt at the same height as the gas service. Preferred installation is approximately six inches to either side of service. Cable restraint must be at least six inches shorter than flexible gas line.

### CAUTION

Utilize elbows when necessary to avoid sharp kinks or excessive bending. For ease of movement, install with a "lazy" loop. Gas appliance must be disconnected prior to maximum movement. (Minimum movement is permissible for hose disconnection).



## 2.8 GAS LEAK TEST

### **NOTICE**

Prior to turning the gas supply on, move “ON/OFF” selector on gas control valve to the OFF position.

After the piping and fittings have been installed, check for gas leaks. A simple checking method is to turn on the gas and brush all connections with a soap solution. If bubbles occur, it indicates escaping gas. In this event, the piping connection must be redone.



**To avoid fire or explosion, never use a lighted match or open flame to test for gas leaks. Ignited gas could result in severe personal injury and/or property damage.**

## 2-9. GAS PRESSURE REGULATOR SETTING

The gas pressure regulator on the automatic gas valve is factory set as follows:

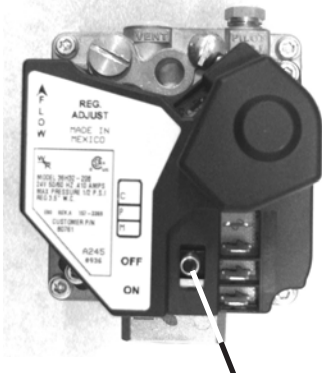
Natural: 3.5 inches water column (0.87 kPa)

Propane: 10.0 inches water column (2.49 kPa)

### **NOTICE**

The gas pressure regulator has been set by Henny Penny and is not to be adjusted by the user.

## 2-10. GAS PILOT & BURNER LIGHTING AND SHUTDOWN PROCEDURE



**Gas Control Valve “ON/OFF” Selector**

### Lighting Procedure - Solid State Ignition

1. Turn main power switch to OFF position.
2. Move “ON/OFF” selector on gas control valve to OFF position.
3. Wait a sufficient length of time (at least 5 minutes) to allow any gas which may have accumulated in burner compartment to escape.
4. Move “ON/OFF” selector on gas control valve to ON position.
5. Turn main power switch to ON position.
6. Wait about 45 seconds for the burner to light.
7. Listen for the gas burner ignition.
  - It will be an audible sound due to the gas igniting at the gas jets within the burner.

**2-10. GAS PILOT & BURNER**  
**LIGHTING AND**  
**SHUTDOWN**  
**PROCEDURE (Continued)**

8. The burner lights and operates until the shortening temperature reaches a preset temperature, and when temperature light goes out, set controls for desired length of time.

**CAUTION**

*Do not leave burner on for more than 10 seconds without shortening in the frypot or damage to the frypot may result.*

9. The frypot should be cleaned per the instructions in Section 3.
10. The frypot must be filled to the proper level with shortening. Refer to Filling or Adding Shortening Section.

**Shutdown Procedure**

1. Move “ON/OFF” selector on gas control valve to OFF position.
2. Turn main power switch to ON position.

**2-11. PILOT FLAME**  
**ADJUSTMENT**  
**(GAS ONLY)**

The pilot flame is preset at the factory. If adjustment is necessary, contact your local independent Henny Penny distributor.

**2-12. PRESSURE**  
**REGULATOR**  
**ADJUSTMENT**  
**(GAS ONLY)**

The gas regulator is preset at the factory at 3.5 inch water column (0.87 kPa) for natural gas (10.0 inch (2.49 kPa) for propane). If adjustment is necessary, contact your local independent Henny Penny distributor.

## **2-13. ELECTRICAL** **REQUIREMENTS** **(ELECTRIC FRYER)**

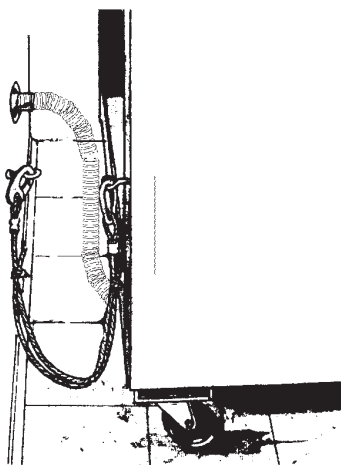
The electric fryer is available from the factory wired for 208, 220/240, or 440/480 volts, single or three phase, 60 Hertz service. The proper power service cable must be ordered as an accessory or provided at installation. Check the data plate on the inside of the fryer door to determine the correct power supply.



This fryer must be adequately and safely grounded (earthed) or electrical shock could result. Refer to local electrical codes for correct grounding (earthing) procedures or in absence of local codes, with The National Electrical Code, ANSI/NFPA No. 70-(the current edition). In Canada, all electrical connections are to be made in accordance with CSA C22.1, Canadian Electrical Code Part 1, and/or local codes.

To avoid electrical shock, this appliance must be equipped with an external circuit breaker which will disconnect all ungrounded (unearthed) conductors. The main power switch on this appliance does not disconnect all line conductors.

### **CABLE RESTRAINT**



I-bolt is to be secured to the building using acceptable building construction practices.

### **CAUTION**

**DRYWALL CONSTRUCTION**  
Secure I-bolt to a building stud. Do not attach to drywall only. Preferred installation is approximately six inches to either side of service. Cable restraint must be at least six inches shorter than flexible conduit.

The field supply wiring to the fryer should be of the size indicated in the data table. It should be an insulated copper conductor rated for 600 volts and 90°C. For runs longer than 50 feet (15.24 m), use the next larger size wire.

### **NOTICE**

Permanently connected electric fryers with casters must be installed with flexible conduit and a cable restraint, when installed in the United States. See illustration at left. Holes are available in the rear fryer frame for securing the cable restraint to the fryer. The cable restraint does not prevent the fryer from tipping.

### **Electrical Specifications Table**

<b>Volts</b>	<b>Phase</b>	<b>KW</b>	<b>Amps</b>
208	Single	11.25	54
208	Single	13.50	65
208	Three	11.25	31
208	Three	13.50	38
240	Single	11.25	47
240	Single	13.50	56
240	Three	11.25	27
240	Three	13.50	33
480	Three	11.25	14
480	Three	13.50	16

**2-13. ELECTRICAL**  
**REQUIREMENTS**  
**(ELECTRIC FRYER)**  
**(Continued)**

**Additional CE Electrical Statements:**

- The supply power cords shall be oil-resistant, sheathed flexible cable, no lighter than ordinary polychloroprene or other equivalent synthetic elastomer-sheathed cord, and must be HO7RN type.
- It is recommended that a 30 mA rated protective device such as a residual current circuit breaker (RCCB), or ground fault circuit interrupter (GFCI), be used on the fryer circuit.



**(FOR EQUIPMENT WITH CE MARK ONLY!)**

**To prevent electric shock hazard this appliance must be bonded to other appliances or touchable metal surfaces in close proximity to this appliance with an equipotential bonding conductor. This appliance is equipped with an equipotential lug for this purpose. The equipotential lug is marked with the following symbol**



## **2-14. ELECTRICAL REQUIREMENTS (GAS FRYER)**

The gas fryer requires 120-volt, single-phase, 60-Hertz, 10-amp, 3-wire grounded (earthed) service, or 230-volt, single-phase, 50-Hz, 5 amp, 1 phase service. The 120-volt gas fryer is factory equipped with a grounded (earthed) cord and plug for your protection against shock, and should be plugged into a three prong grounded (earthed) receptacle. Do not cut or remove grounding (earthing) prong. A wiring diagram is located behind the right side panel, and can be accessed by removing the side panel. The 230-volt plug must conform to all local, state, and national codes.



**Do not disconnect the ground (earth) plug.** This fryer **MUST** be adequately and safely grounded (earthed) or electrical shock could result. Refer to local electrical codes for correct grounding (earthing) procedures or in absence of local codes, with The National Electrical Code, ANSI/NFPA No. 70-(the current edition). In Canada, all electrical connections are to be made in accordance with CSA C22.1, Canadian Electrical Code Part 1, and/or local codes.

**To avoid electrical shock, this appliance must be equipped with an external circuit breaker which will disconnect all ungrounded (unearthed) conductors. The main power switch on this appliance does not disconnect all line conductors.**

## **2-15. TESTING THE FRYER**

Each Henny Penny pressure fryer was completely checked and tested prior to shipment. However, it is good practice to check the unit for proper operation. Refer to the C1000 Operation and Procedures Section for testing an initial load of product.

## **2-16. MOTOR BEARINGS**

The electric motor bearings are permanently lubricated. **DO NOT LUBRICATE.**

