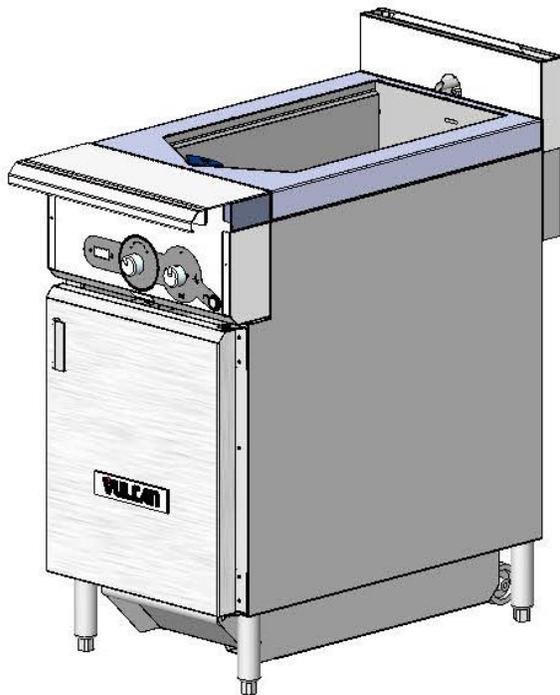


# INSTALLATION & OPERATION MANUAL

## VERSATILE CHEF STATION VULCAN MULTIFUNCTION COOKER Heavy Duty Units

**ITW Food Equipment Group**



**MODELS:**  
VCS18  
VCS36  
VCS36D

[www.vulcanequipment.com](http://www.vulcanequipment.com)

[www.wolfequipment.com](http://www.wolfequipment.com)

ITW Food Equipment Group, LLC  
3600 North Point Blvd  
Baltimore, MD 21222

**RETAIN THIS MANUAL FOR FUTURE USE**

**FORM F47674 Rev. D (6-18)**

## **IMPORTANT FOR YOUR SAFETY**

**THIS MANUAL HAS BEEN PREPARED FOR PERSONNEL QUALIFIED TO INSTALL ELECTRICAL AND 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 OF AN ELECTRICAL ISSUE OR IF THE SMELL OF GAS IS DETECTED. THIS INFORMATION CAN BE OBTAINED FROM THE LOCAL UTILITY COMPANY.**

### **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 VULCAN MULTIFUNCTION COOKER UNITS**

## **PLEASE KEEP THIS MANUAL FOR FUTURE USE**

### **GENERAL**

Vulcan Equipment is produced with quality workmanship and material. These units are designed with efficiency in cooking performance, sanitation and ease of cleaning ability in mind. Proper installation, usage and maintenance of your equipment will result in many years of satisfactory performance.

The manufacturer suggests that you thoroughly read this entire manual and carefully follow all of the instructions provided.

### **CAUTION**

- These appliances are for professional use only, only persons with appropriate and adequate training should use them.
- Cooking appliances reach high temperatures. **USE CARE AT ALL TIMES** as burns may occur if handling utensils or components without adequate protection. Especially when handling the drain plug and drain pipe as they are in direct contact with the hot fluids and will get equally hot.
- Do not manually pour water into an empty tank when unit is hot. Water should only ever be introduced to the tank using the built in controls of the unit.
- Do not install unit next to open flames as grease laden vapors produced during cooking operations can be flammable and could ignite. If such installation can not be avoided, a fryer shield must be used between the units.
- Do not use the unit in Fryer or Boil modes unless the tank is filled with liquid between the minimum and maximum markings.
- Never drain the tank if the fluid temperature is above 125°F
- Oils should never be drained into a water drainage system. Always dispose of oils and other cooking effluent in proper disposal containers. **DO NOT ALLOW WATER AND HOT OIL TO MIX IN ANY RECEPTACLE, DAMAGE AND INJURY CAN RESULT.**
- **NEVER** clean this unit with high pressure jets or wash systems.
- **ALWAYS** disconnect unit from power supply before performing any kind of maintenance.
- **PROBLEMS CAUSED BY FAILURE TO COMPLY WITH THE INSTRUCTIONS CONTAINED IN THIS MANUAL WILL NOT BE COVERED BY WARRANTY.**

### **INSTALLATION**

#### **UNPACKING**

This equipment was inspected before leaving the factory. The transportation company assumes full responsibility for safe delivery upon acceptance of the shipment. Immediately after unpacking, check for possible shipping damage. If the unit is found to be damaged, save the packaging material and contact the carrier within 5 days of delivery.

Carefully unpack unit(s) and place in the approximate installation position. Make sure to retain parts packed separately in their own boxes or shipped separately in finishing kit.

Before installing, verify that the electrical service agrees with the specifications on the rating plate located inside the front door of the unit. If the supply and equipment requirements do not agree, contact your dealer immediately.

## LOCATION

The equipment area must be kept free and clear of combustible substances.

Installation clearances:	<u>COMBUSTIBLE CONSTRUCTION</u>	<u>NON-COMBUSTIBLE CONSTRUCTION</u>
Back:	2"	0"
Right Side:	1"	0"
Left Side:	1"	0"

The installation location must allow adequate clearances for servicing and proper operation. A minimum front clearance of 35" (889 mm) is required.

The unit is suitable for installation on combustible floors when 6" (152 mm) adjustable legs or casters are used. When legs or casters are removed, use only on noncombustible floors, curb, or platform, with front appliance base projecting 3" (76 mm) beyond curb or platform.

The unit(s) must be installed so that the flow of ventilation air will not be obstructed.

The unit requires connection to a fresh water supply. The unit is provided with a 48" connection hose with standard 3/4" GHT threaded faucet adapter. Do not attempt to modify or replace this hose as it is part of the safety systems of this unit. If hose is not long enough to reach the water supply, a short hose extension may be used, or the water supply may be piped to the location of the unit by a licensed plumber.

This unit may be supplied with an optional gas manifold for insertion into a battered range lineup. In this case, ensure that all gas connections are leak free before operations and that only a licensed gas plumbing technician performs service to the unit.

## INSTALLATION CODES AND STANDARDS

Your Vulcan Unit must be installed in accordance with:

### In the United States of America:

1. State and local codes.
2. National Electrical Code ANSI/NFPA-70 (latest edition) available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.
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. Canadian electrical code C22.1 Part 1 (latest edition).

## LEG/CASTER ASSEMBLY

The unit is provided with 6"(152 mm) adjustable stainless steel legs (hardware included). A set of 6"(152 mm) casters (adjustable or non- adjustable) are available as an optional field installable accessory.

Installation of Legs/Casters:

1. Carefully tip unit on its side.
2. Thread leg/caster mounting stem into weld nuts provided on the bottom of unit located in each of the four corners.
3. After all legs/casters have been installed, carefully return the unit to its upright position.  
(For additional leg information, see -LEVELING section of this manual).

A permanently connected appliance mounted on casters and intended to be secured to the building structure should adhere to the following:

- Adequate means must be provided to limit the movement of the appliance without depending on or transmitting stress to the electrical conduit
- The location(s) where restraining means are to be attached to the appliance needs to be on the outside rear parts of the chassis frame. Use the connection points provided.
- The appliance shall be installed using a flexible conduit.

If the unit is installed on casters and is moved for any reason, it is recommended that it be re-leveled front to back and side to side before resuming operation.

## LEVELING

To level the unit, place a carpenter's level on the unit top and check leveling of the unit side to side and front to rear. Achieve leveling by turning each foot section of the unit's leg as needed. Turning the foot in a counter clockwise direction will increase height and clockwise will decrease.

## DRAIN

Unit comes equipped with a drain pipe for emptying the contents of the tank for disposal. A catch basin for this drain must be put in place before attempting to use the unit. This can be accomplished through the use of the optional Drain Caddy, a standard  $\frac{1}{2}$  or  $\frac{2}{3}$  size hotel pan, or through connecting the unit to a floor drain. If using a floor drain, ensure that plumbing and waste effluent are in compliance with all local codes. **DO NOT DISPOSE OF USED GREASE OR OIL THROUGH A FLOOR DRAIN.**

## ELECTRICAL CONNECTIONS

**⚠ WARNING** Electrical and grounding connections must comply with the applicable portions of the National Electrical Code and/or other local electrical codes.

**⚠ WARNING** Disconnect the electrical power to the machine and follow Lockout / Tagout procedures.

The unit is designed for 208 or 240 volt, three phase power supply only. Do not attempt to connect the unit to any other type of power supply, the unit will not operate on a single phase supply. The unit has a current draw of 25 amps per leg, make sure to use the appropriate size disconnect for your locality.

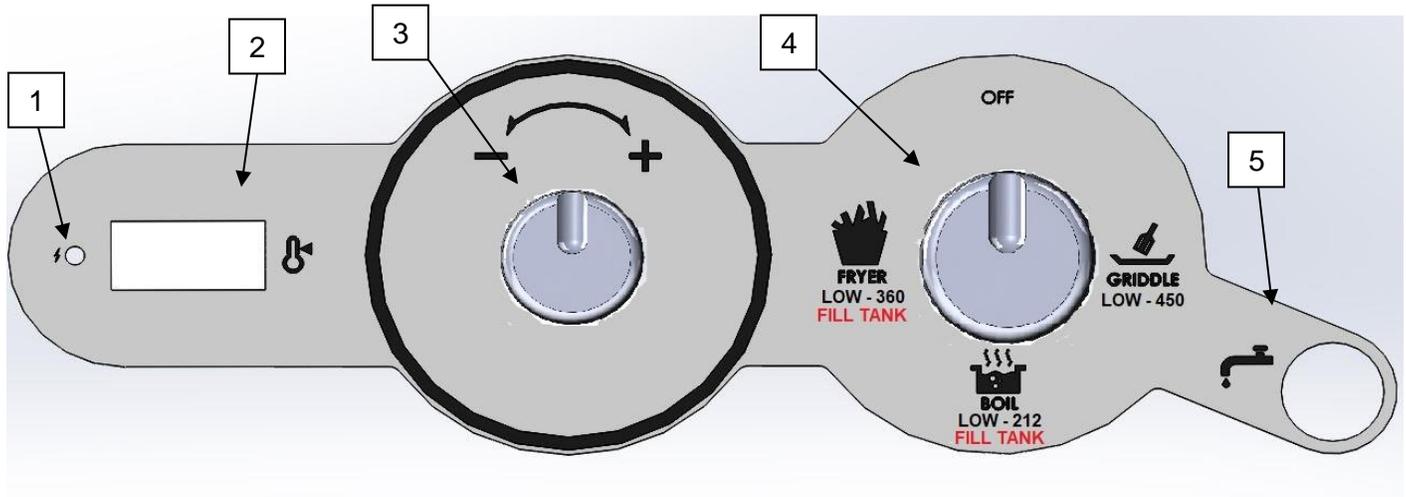
Position the unit in its final location. Bring conduit containing the proper supply wire to the unit through the knock out located on the back of the unit. Select the size and type of field wire in accordance with the National Electrical Code suitable for carrying the equipment's rated amps and voltage. Use field wires suitable for 75°C (167°F).

Connect supply leads to field terminal block and grounding lead to the labeled ground lug. The supply wire should be anchored through the access hole with a bulkhead fitting.

# OPERATION

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

## CONTROLS



**1. Power Indicator** — Green LED light is on when the unit is connected to power.

**2. Temperature Display** — Displays current temperature (in degrees F) of the tank surface when in Griddle mode, or of the cooking fluid when in Boil or Fryer modes. Will momentarily display current set point when Temperature Adjustment Knob is pressed.

**3. Temperature Adjustment Knob** — Allows the operator to adjust the cooking temperature of the unit. In Griddle mode, this adjusts the temperature of the tank surface. In Boil and Fryer Modes, this adjusts the temperature of the cooking fluid. Pressing this knob will cause the current unit set point to be displayed for 3 seconds. Turn clockwise to increase temperature, counterclockwise to decrease temperature. Temperature will adjust in single degree increments below 220°F and five degree increments above 220°F.

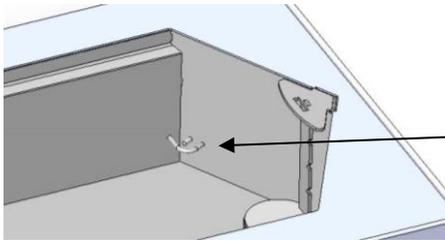
**4. Selector Knob** — Activates unit for use and allows operator to choose the cooking mode.

Griddle Mode – Allows unit to be used as a griddle, with temperatures adjustable from Room Temperature to 450°F. Temperatures displayed in this mode are those of the tank surface.

Boil Mode – Allows unit to be used for steaming, boiling, bain marie, and water bath cooking. Temperatures are adjustable from Room Temperature to 212°F. Temperatures displayed in this mode are those of the water in the tank.

Fryer Mode – Allows unit to be used for shallow frying and tempura. Temperature defaults to 360°F, but is adjustable from Room Temperature to 360°F. Temperatures displayed in this mode are those of the cooking fluid in the tank.

OFF – Deactivates the unit at the end of the operating day. DOES NOT CUT POWER TO THE UNIT, NOT AN ADEQUATE DISCONNECT FOR UNIT SERVICE.



In Tank Probe – used to provide temperatures in BOIL and FRYER modes. TANK MUST BE FILLED TO MINIMUM MARKING IN THESE MODES

**5. Water Button** — Activates water flow from built in unit faucet. Single press will activate a continuous flow of water, press again to end. Continuous press will activate a flow of water that ends when the button is released. FOR SAFETY PURPOSES, the button is not active during Fryer Mode and when tank surface temperature is above 260°F.

## BEFORE FIRST USE

Remove all protective paper from the unit before turning on. Paper is left in place to protect the finish and help prevent scratches during shipping and placement of the unit. Failure to remove the paper before heating can result in permanent marking of the finish and/or the inability to fully remove the paper.

Clean all cooking surfaces thoroughly with water and a non-chlorinated soap. Rinse to remove all soap residue.

**NOTICE** The tank surface is stainless steel. Chlorinated cleaners can corrode this surface, as can prolonged exposure to salt. Do not use chlorinated cleaners on the unit and always clean the tank thoroughly to remove salt residue after use.

SEE “CLEANING” ON PAGE 10 FOR FULL INSTRUCTIONS ON HOW TO PROPERLY CARE FOR UNIT

## FIRST OPERATION

Unit comes equipped with a drain plug and a drain pipe for emptying of the tank. Ensure that both are in place before attempting to use the unit. Failure to do so may result in effluent flooding the interior of the unit. In the event that this occurs, turn the unit off and disconnect from power source. Clean the interior of the unit thoroughly and ensure that no standing liquid remains before reconnecting and resuming operation.

Tank surface is stainless steel and does not require seasoning prior to use, although it is recommended to apply a thin coat of oil or other non-stick spray whenever using the unit in Griddle mode.

To begin use, ensure that drain plug and drain pipe are in place and that an adequate catch basin is in place for effluent. This can be the optional Drain Caddy, a standard hotel pan of ½ or ¾ size, or a dedicated floor drain. Ensure that unit door is closed securely and that water supply is turned on and purged of air.

Unit is ready to use.

## NORMAL OPERATION

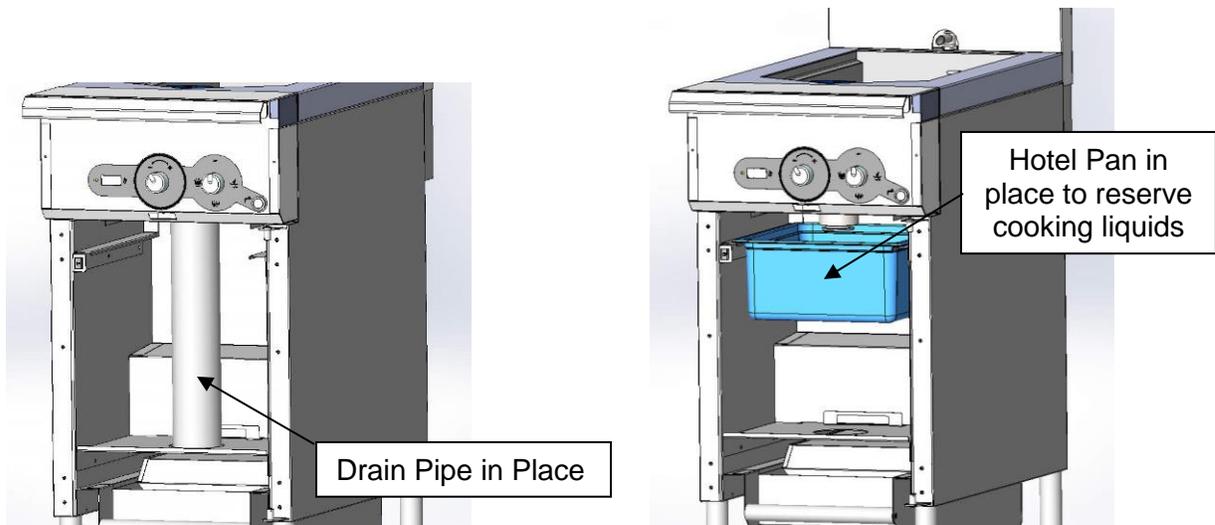
### GRIDDLE MODE

Griddle mode can be used to perform sauté work, braising, griddle cooking, melting (sugar, chocolate, etc), and hot plate work. Griddle mode is entered by turning the Selector Knob to GRIDDLE and turning the Temperature Adjustment Knob to the desired cooking temperature. Any temperature between Room Temperature and 450°F can be selected.

All cooking in Griddle mode will be performed directly on the bottom surface of the tank and the temperature displayed while in this mode is the temperature of this surface. On initial heat up, unit will reach desired temperature in five minutes or less. When desiring to cook at a lower temperature than the current setting, adjust the Temperature Adjustment Knob to the desired lower temperature and allow the unit adequate time to cool before beginning next operation.

HINT: When performing multiple cooking operations requiring different temperatures, for the most efficient use of time and energy, start with the lowest temperature first and move to higher temperatures in progressive order. Stage changes to lower cooking temperatures to coincide with cleanout of the tank so that the use of water can help bring the temperature down quickly.

HINT: When using the unit for braising, it is possible to retain and reserve the liquid for use in sauces. To do so, ensure that the unit drain is clean and free from contaminating substances. Ensure that drain plug is in place and firmly seated. Open the front door of the unit and remove the drain pipe. Place a ½ or ¾ size hotel pan on the rails provided, ensuring that the pan is positioned under the tank drain and is of adequate size to hold the amount of liquid being used. When braising is complete, lift drain plug and catch liquid in pan. Replace drain plug, carefully remove pan with liquid, then replace drain pipe, ensuring that pipe is securely fastened in place before closing front door and resuming normal operations.

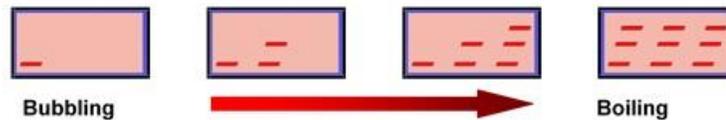


### BOIL MODE

Boil mode can be used to steam, boil, poach, and water bath cooking as well as be used as a bain marie. When the unit is in Boil mode, the tank **MUST** be filled with water at least to the minimum marking. Failure to do so may result in damage to the unit. While the unit is in Boil mode, the water button is active and can be used at any time. The temperature displayed will be the temperature of the water itself.

To begin using Boil mode, ensure that the tank is clean of any contaminating substances and ensure that the drain plug is firmly seated in place to close the drain. Turn the Selector Knob to the BOIL setting and begin filling the tank for use.

- To steam – fill the tank to a point between the minimum and maximum markings. Set the temperature for the amount of steam desired. 170°F for a gentle steam, 212°F for a vigorous steam. Place items to be steamed into a standard steam pan and place so that pan sits on upper ledges of tank. Cover tank with the covers provided with the unit. **USE PROVIDED HANDLES TO PLACE AND REMOVE COVERS, AS COVERS WILL BECOME HOT WITH USE AND MAY CAUSE BURNS.** Be sure to periodically check the water level and add fresh water as needed to prevent level from falling below minimum.
- To boil – fill the tank to a point at or just below the maximum marking. Set the temperature for 212°F, or use the duty settings (shown below) to set the vigor of the boil. Refill tank as necessary.



- To poach or cook with a water bath – fill the tank to a point between the minimum and maximum markings. Set the temperature for the desired water temperature. Unit can be covered using the provided covers to conserve energy, or left open, the unit will maintain the water temperature as set.

## FRYER MODE

Fryer mode can be used for shallow frying and tempura. When the unit is in Fryer mode, the tank **MUST** be filled with oil at least to the minimum marking. Failure to do so may result in damage to the unit. While the unit is in Fryer mode, the water button is **NOT** active and **CANNOT** be used at any time. The temperature displayed will be the temperature of the oil.

To begin using Fryer mode, ensure that the tank is clean of any contaminating substances and ensure that the drain plug is firmly seated in place to close the drain. Fill the tank with oil for use to at least the minimum level marking, then turn the Selector Knob to the FRYER setting and set desired oil temperature. **WATER SYSTEM IS DISABLED IN FRYER MODE, INTRODUCTION OF WATER TO HOT OIL CAN RESULT IN INJURY FROM SPLATTER. DO NOT ATTEMPT TO INTRODUCE WATER TO TANK WHILE FILLED WITH OIL.**

### WHEN FINISHED FRYING:

Allow oil to cool to a safe temperature before attempting to drain. **ENSURE THAT APPROPRIATE RECEPTACLE IS IN PLACE AND THAT RECEPTACLE DOES NOT CONTAIN ANY WATER BEFORE OPENING DRAIN, FAILURE TO DO SO CAN RESULT IN DAMAGE AND INJURY.** Once appropriate receptacle is in place, open drain and allow oil to drain completely into receptacle. Very carefully remove receptacle and dispose of oil according to local regulations. **DO NOT PUT USED OIL DOWN A DRAIN INTENDED FOR WASTE WATER.**

Tank may then be cleaned as normal and prepared for next use.

## POWER OUTAGE

If a power outage occurs, the unit will cease to function. When power is restored, the unit will automatically resume normal functions if controls are still in an active configuration. In order to prevent damage or injury, turn Selector Knob to OFF during the power outage. When power is restored, resume operation as normal.

The unit controls include a temperature sensor that will automatically stop the cooking cycle if high temperatures are detected in the cabinet. In this event, the display will briefly show error code "EE1", then if the overheat condition persists, it will show "EE2" and shut down the elements. The display will continue to show the temperature of the tank, but all heating will cease. In order to reset the controls and resume cooking, the unit must be allowed to cool sufficiently, then switched off before selecting the desired cooking mode and setting the desired temperature. If this occurs repeatedly, the unit is in too hot an environment and steps must be taken to isolate it from heat sources.

## CLEANING

**⚠ WARNING** ENSURE THAT UNIT IS TURNED OFF AND POWER SUPPLY IS DISCONNECTED BEFORE CLEANING.

**DO NOT** use Dawn® dish detergent to clean the unit. This detergent contains chlorine and is harmful to stainless steel.

**DO NOT** use scouring powders. It is very difficult to remove completely and can cause build ups that will damage the unit.

**DO NOT** use cleaning products containing TSC or sodium hydroxide.

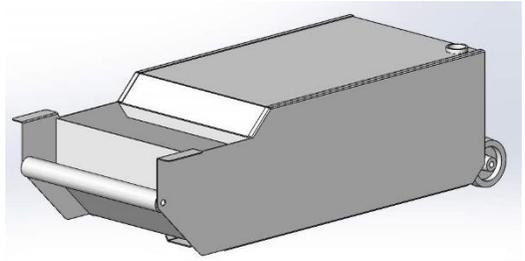
All cooking components of the unit are stainless steel and should be cleaned thoroughly with warm water and a mild detergent at the end of each cooking shift.

For changeovers from one cooking type to another during a cooking shift, the degree of cleaning must be commensurate with the needs of the cooking type. Cooked on debris can be scraped loose from the tank surface with a spatula or scouring pad. Use only stainless or plastic utensils to avoid degrading the stainless steel of the tank and unit body. Only use the built in water to rinse, **DO NOT POUR WATER ONTO THE UNIT** using a bucket or other means.

Drain plug with attached trap should be removed and cleaned at least once per day. Take care not to damage or dislodge the O-ring seal on the drain plug. Damage to the O-ring will cause the drain plug to leak.

If any spills occur inside the unit, immediately disconnect the unit from power and clean thoroughly. **DO NOT REMOVE THE PROTECTIVE COVER**, doing so will increase the risk of electric shock or damage to the unit. Use a squeegee or towel to push standing liquids through the drain hole into an acceptable receptacle or drain and clean any stains or food items from the inside of the cabinet. Failure to do so can result in corrosion or unsanitary conditions.

**OPTIONAL DRAIN CADDY:** If you have purchased the optional Drain Caddy, it is designed to hold approximately the same volume of liquid as the tank. Therefore, it has only enough capacity to catch one full emptying of the tank before it will need to be emptied itself. If disposing of small amounts of liquid at a time, open the unit door and check the fluid level in the Caddy often to avoid overflow conditions.



When Drain Caddy is ready to be emptied, open the unit door and grasp Caddy handle firmly. Use caution when pulling the Caddy out from the unit, as Caddy can be hot and Caddy handle can be slippery from moisture or fluid splash. Lift the Drain Caddy into an angled or full upright position as you draw it out from the unit so that the contents do not splash out of the Caddy. Use the handle to wheel the Caddy to a proper disposal area. The Drain Caddy can be emptied by either tipping it to allow fluid to pour out of the main opening, or by removing the drain plug while Caddy is in upright position. **DO NOT DISPOSE OF OILS IN A WATER DRAINAGE SYSTEM,** always use the appropriate disposal container for the effluent in use.

To clean the Drain Caddy, use warm water and a mild detergent to thoroughly clean the inside and outside of the body. The Drain Caddy is stainless steel, but food residue left in place can cause corrosion. Rinse Drain Caddy thoroughly and allow to dry before replacing drain plug and returning to service.

## MAINTENANCE

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

**⚠ WARNING** Always disconnect unit from power supply and follow lockout/tagout procedures before servicing the appliance.

Due to the electronic nature of the controls, there are no user serviceable items on the unit. Please contact the Vulcan-Hart Service Department in your area to schedule any required service or repairs.