

# VULCAN HIGH SPEED DEEP FAT FRYER (ELECTRIC)

2 PAN X 10 LITRES WITH OR WITHOUT FILTRATION PUMP



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## GENERAL DATA

MANUFACTURER:	Reg No. 1954/002040/07 Vulcan Catering Equipment (Pty) Ltd P O Box 60188                      15 Newclare Road Langlaagte 2102                    Industria 2093 Johannesburg                        Johannesburg South Africa                         South Africa Web Site:                              www.vulcan.co.za
MODEL/SERIAL NUMBERS:	095/5                                      Onwards
OVERALL SIZE:	510W x 600L x 1040H
NET MASS:	41kg / 66kg with pump
PAN SIZE:	Front to back 370 x 430 wide
VOLUME OF OIL:	10 Litres per pan
HEATING ELEMENTS:	Stainless steel tubular sheathed 3 elements per pan 2,5kW
ELECTRICAL LOAD:	15kW
ELECTRICAL SUPPLY:	400 volts, A.C., 3-phase, 4-wire, 50Hz (400V 3~N)
MAIN TERMINALS:	Behind access panel at front
PROTECTION:	Circuit breakers fitted behind access panel (up for "on" position)
SAFETY:	Fitted with overriding thermostat, automatically cuts off electrical load in the event of the oil rising to a dangerous temperature set 220°C.
FILTRATION PUMP WHEN FITTED:	0,25 kW/230V single phase
DRAIN VALVE:	25mm BSP, full bore spherical valve behind hinged door.

## OPTIONAL EXTRAS

DRAIN PAN:	Stainless steel pan fitted with conical filter holder (without filtration pump)
DRAIN PAN:	Stainless steel pan fitted with filter frame connected to over (with filtration pump) head hose
FRYER BASKETS:	Half pan size or Full pan size
COOKING RATE:	Through-put of fully raw to cooked chips 40kg/hour 20 kg per pan

## OWNERS RESPONSIBILITY

### It is the owners responsibility to:

- Ensure that the Deep Fat Fryer is regularly and properly maintained.
- Ensure that all safety devices and warning signs remain in their original location.
- Allow only trained personnel to operate, clean and maintain the fryer.
- Replace warning signs or manuals when necessary. Contact an authorised Vulcan Catering Equipment Dealer for replacement.
- Oil Levels:  
Min Level - NB. This is the minimum fill limit for 20 Litres of cold oil.  
Max Level - WARNING. Do not fill past this level with cold oil, as when heated the oil may spill over edge and could ignite causing a fire.

## AUTHORISED VULCAN CATERING EQUIPMENT BRANCHES AND DEALERS:

<b>Vulcan Toll Free Number</b>	0860	Vulcan / 885226
<b>Johannesburg Branch Office</b>	(011)	249 - 8500
Johannesburg Service Department	(011)	249 - 8578 / 8582
Johannesburg Spares Department	(011)	249 - 8600
Johannesburg Standby Tel. Number	(082)	446 - 7095 <b><u>After Hours</u></b>
<b>Cape Town Branch Office</b>		
Cape Town Office Tel. Number	(021)	510 - 5010
<b>Durban Branch Office</b>		
Durban Branch Office Tel. Number	(031)	569 - 7800
<b>Port Elizabeth Office</b>		
Port Elizabeth Office Tel. Number	(041)	453 - 5177
<b>East London Branch Office</b>		
East London Office Tel. Number	(043)	722 - 2883
<b>Botswana Dealer Office</b>		
Botswana Dealer Office Tel. Number	(+267)	395 - 2228
<b>Namibia Dealer Office</b>		
Namibia Dealer Office Tel. Number	(+264)	61 251 - 708

## PARTS ORDERING / SERVICE INFORMATION

Parts/spares orders must be placed directly with your local branch/distributor. To help to speed up your order, we require the following information:

1. Model/Serial No. \_\_\_\_\_
2. Voltage 230/400V or \_\_\_\_\_
3. Item Part No. \_\_\_\_\_
4. Quantity required \_\_\_\_\_

The Serial Number Data Plate is sited on the electrical Access Panel behind the Door.

Service Information may be obtained by calling your local branch/distributor. When calling, please have the following information available:

1. Model/Serial No. \_\_\_\_\_
2. Voltage 230/400V or \_\_\_\_\_
3. Nature of Service problem etc. \_\_\_\_\_

## PRIOR TO INSTALLATION OF EQUIPMENT

- Read the operating manual to ensure that the installation meets all the requirements as specified within the Operating and Installation manual provided with your unit.
- **Capillary Guard** This guard protects the temperature sensor probe, high limit bulb and capillary from damage. Ensure that this is always in place.
- **Caution** Check the oil level in the fryer prior to switching on the fryer.
- **Oil Levels:**
  - Min Level - NB. This is the minimum fill limit for 20 Litres of cold oil.
  - Max Level - WARNING. Do not fill past this level with cold oil, as when heated the oil may spill over edge and could ignite causing a fire.

## CLEANING PROCESS

### Please Note

- Always switch off main power supply after use, during maintenance and cleaning.
- Drain used oil into a clean container
- Rinse cleaning utensils and cooking well with a vinegar and water solution (Half a cup of vinegar to 2 litres of water)

## CLEANING AFTER USE

### Pan

1. Filter the oil and pour it into a clean container.
2. Switch off current at isolator.
3. Remove filter paper from filter holder
4. Clean the interior of the drain pan, frying pan and filter frame, using a caustic substance based detergent to break down the oil residue. Do not use soda or harsh abrasives. Take particular care when cleaning around the elements.
5. Thoroughly rinse and wipe dry, or allow time to dry.
6. Replace drain pan and filter frame.
7. Ensure that the drain valve is closed, and replace the filtered oil in the pan.

## NIGHT SHUT DOWN

- Isolate at switch disconnecter
- Turn cook switch off.
- Filter cooking oil.
- Wipe oil and crumbs from the units surfaces with a clean cloth. Do not use harsh abrasives and chemicals.
- Clean baskets.
- Clean fish plate.

## TROUBLE SHOOTING

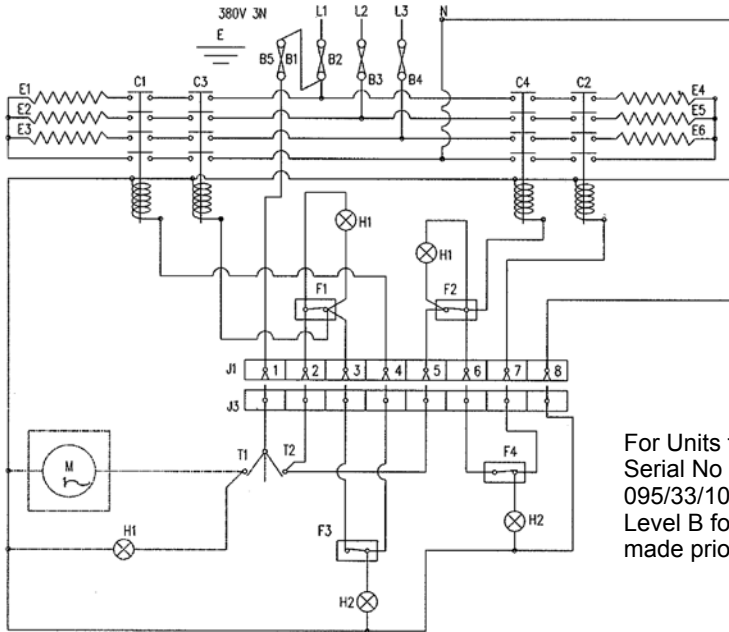
COMPLAINT	POSSIBLE CAUSE	REMEDY
Power On Light colour Red Not illuminated	1. Main power off. 2. Cook switch off. 3. Unplugged.	1. Turn main power on. 2. Turn cook switch on. 3. Plug unit in.
Heat On Light colour Amber Not illuminated.	1. Oil temperature has reached programmed temperature. 2. Temperature control is off	Unit is ready to cook.  Turn temperature control on.
High Limit Light On colour Red.	Safety switch activated.	Press safety re-set button located at the bottom of the chassis. If problem persists call Vulcan Service Department in your area.

## INSTALLATION

1. Before leaving the factory, all Deep Fat Fryers have been assembled and undergone final testing.
2. Fryer must be installed on fireproof floor. If floor is of wood, arrangements must be made to comply with local fire regulations.
3. Remove the plastic material protecting the stainless steel panels.
4. Position Fryer. Check with spirit level, use floor adjusters on legs to bring to correct level.
5. An electrical isolator switch must be incorporated in supply line and fitted adjacent to unit.
6. Before connecting the electrical supply to the unit, check voltage details correspond with the data plate positioned on the electrical access panel behind the door.
7. For access to main terminals remove electrical access panel (held by 4 screws) behind door. Connect the 3 phase wires to circuit breakers, neutral wire to neutral block and earth wire to earth connection, ensure that unit is effectively earthed.
8. The unit is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
9. Children should be supervised to ensure that they do not play with the appliance.
10. A stud with equipotential symbol at rear of unit to connect to earth. Equipotential bonding involves joining together metalwork that is or may be earthed so that it is at the same potential to prevent shock from between those pieces of metal as the earth system handles a fault.
11. **PLEASE NOTE**

**The installation of the equipment must be done by a qualified registered technician all in compliance with statutory Health and Safety Regulations.**

## WIRING DIAGRAM VULCAN HIGH SPEED DEEP FAT FRYER (ELECTRIC) 2 PAN X 10 LITRES WITH OR WITHOUT FILTRATION PUMP



For Units form  
Serial No  
095/33/1093 see  
Level B for units  
made prior

Part No	Stores No	Description
B1	3010 29	6 Amp Circuit Breaker
B2-4	3010 28	40 Amp Circuit Breaker
C1-2	3009 25	Load Contractor BF9
C3-C4	3009 25	Safety contractor BF9
E1-6	3017 33	Heating Element 2,5kW/230V
F1-2	3077 81	Safety Thermostat 220 °C
F3-4	3077 42	Control Thermostat 185 °C
H1	3051 02	Red Pilot Light
H1	3051 01	Amber Pilot Light
J1	3076 07	6 Way Terminal Block Female
J3	3076 06	6 Way Terminal Block Male
T1	3067 06	Toggle Switch
<b>Optional Extra</b>		
B5	3010 30	10 Amp Circuit Breaker
M	3045 03	Motor/Pump
T2	3067 01	Toggle Switch

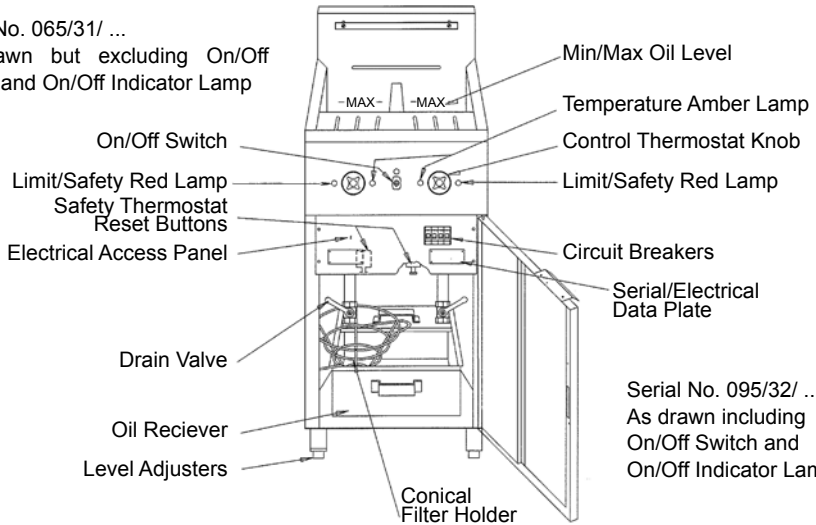
## DESCRIPTION OF CONTROLS

### 2x10 Litre Deep Fat Fryer MKII Without Filtration Pump

Edition: 3

Serial No. 065/31/ ...

As drawn but excluding On/Off Switch and On/Off Indicator Lamp

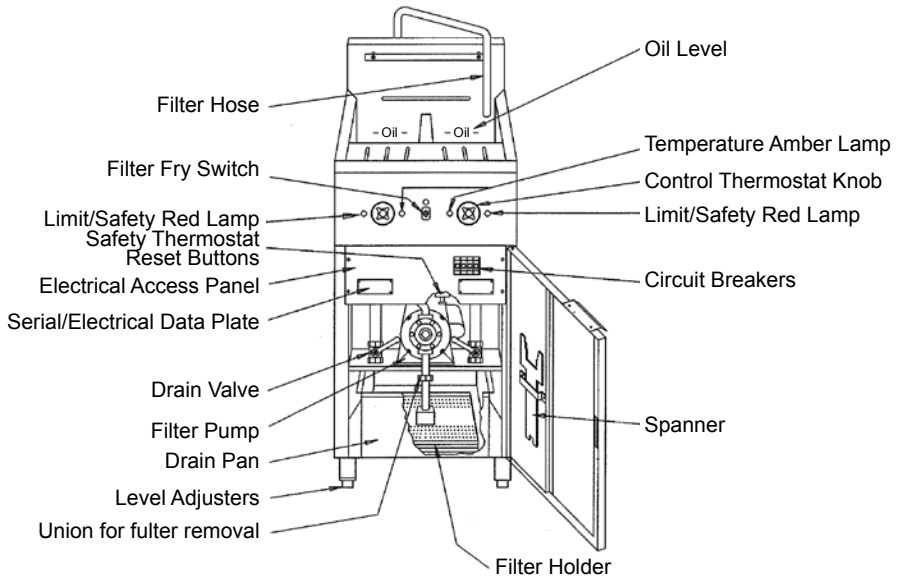


Serial No. 095/32/ ...  
As drawn including  
On/Off Switch and  
On/Off Indicator Lamp

### 2x10 Litre Deep Fat Fryer MKII With Filtration Pump

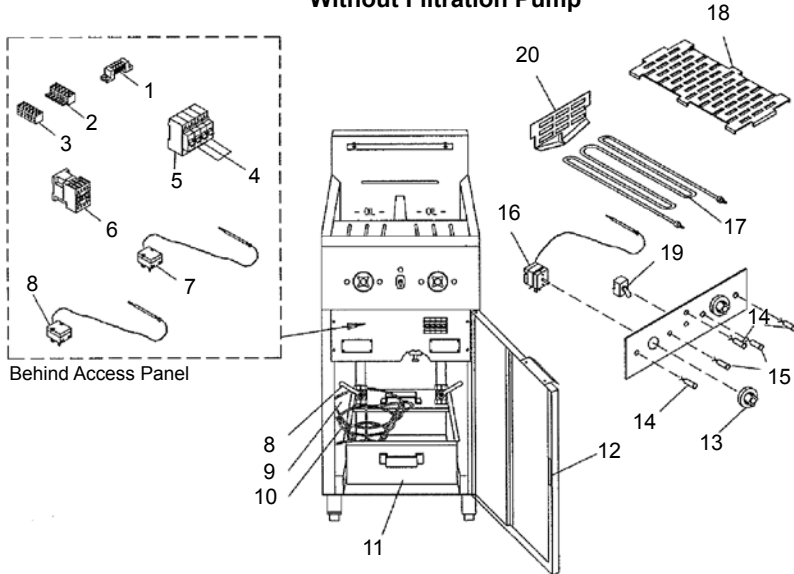
Edition: 3

Serial No. 095/31/ ...  
and Serial No. 095/32/...



## SPARES

### 2x10 Litre Deep Fat Fryer MKII Without Filtration Pump

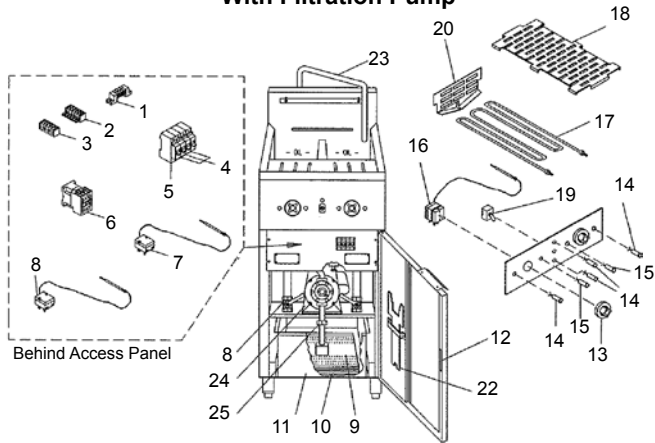


Item No	Stores Ref. No	Description	Qty Spares
1	3076 - 01	Neutral link block 6 way	1
2	3076 - 06	Terminal block (M) 6 way	1
3	3076 - 07	Terminal block (F) 6 way	1
4	3010 - 28	Circuit breaker 40 amp	3
5	3010 - 29	Circuit breaker 6 amp	1
6	3009 - 25	Contactors BF9 / 220V	4
7	3077 - 81	Thermostat switch limit 220° C	2
8	3474 - 51	Spherical ball valve 25mm BSP	2
9	2715504	Filter paper pack of 50	1
10	2715404	Conical filter holder	1
11	DN.6657 - 8	Oil receiver	1
12	3242 - 10	Magnetic catch	1
13	3311 - 15	Thermostat knob 100° C - 185° C	2
14	3051 - 02	Red pilot safety light	2
15	3051 - 01	Amber pilot light	2
16	3077 - 42	Thermostat 100° C - 185° C	2
17	3017 - 33	Element 2,5kW/230V	6
18	DN.6651 - 3	Element cover grid	2
19	3067 - 06	Switch <b>ON/OFF</b>	1
20	DN.6651 - 4	Element support bracket	2
21	3051 - 02	Red pilot <b>ON/OFF</b> light	1



## SPARES

### 2x10 Litre Deep Fat Fryer MKII With Filtration Pump



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2	3076 - 06	Terminal block (M) 6 way	1
3	3076 - 07	Terminal block (F) 6 way	1
4	3010 - 28	Circuit breaker 40 amp	3
5	3010 - 29	Circuit breaker 6 amp	1
6	3009 - 25	Contactur BF9 / 220V	4
7	3077 - 81	Thermostat switch limit 220° C	2
8	3474 - 51	Spherical ball valve 25mm BSP	2
9	2715503	Filter paper pack of 100	1
10	DN.6660	Filtration Panel	1
11	DN.6657 - 8	Oil receiver	1
12	3242 - 10	Magnetic catch	1
13	3311 - 15	Thermostat knob 100° C - 185°C	2
14	3051 - 02	Red pilot safety light	2
15	3051 - 01	Amber pilot light	2
16	3077 - 42	Thermostat 100° C - 185°C	2
17	3017 - 33	Element 2,5kW/230V	6
18	DN.6651 - 3	Element cover grid	2
19	3067 - 01	Spring Loaded Switch <b>ON/OFF</b>	1
20	DN.6651 - 4	Element support bracket	2
21	3051 - 02	Red pilot <b>ON/OFF</b> light	1
22	DN.6657	Spanner	1
23	3702 - 26	Pump over head hose	1
24	3045 - 03	Motor pump	1
25	3374 - 22	W/iron pipe union 15mm BSP	1

## OPERATING

- Note before operating the fryer for the first time or after a prolonged period of disuse, thoroughly clean the pans.
- Check Oil Level.

## USE OF CONTROLS

### Thermostat Switches

(All fryers) Switch on the thermostat and set to required temperature. The amber light will come on. Wait for the amber light to go out, this will indicate that the oil has reached the required temperature and frying can commence.

### To switch off

Turn the thermostat knob back to zero (all units) and the filter-off-fry switch or on/off switch (if fitted) to the off position.

## SAFETY THERMOSTAT

If the red 'limit' lamp comes on, the safety thermostat has cut out.

It can be reset when the elements have cooled by pressing the reset button situated under the electrical access panel. If it comes on repeatedly this indicates that the control thermostat is faulty. In this event switch off and have an electrician replace the faulty thermostat.

## DRAINING/FILTERING

(Fryer without pumped filtration)

### Switch the fryer off

The drain pan is supplied with an optional cone filter holder. When fitting a new paper filter turn it inside out and it will remain open. Position the filter holder below the pan to be drained and open the drain valve.

## DRAINING/FILTERING

(Fryer with pumped filtration)

### Switch the fryer off

The drain pan is fitted with a rectangular filter holder. To fit a new filter paper sleeve unscrew the union which attaches the filter to the pump using the spanner fitted inside the door. Unscrew the pipe holding the filter frame together. The filter frame is made up of three perforated sheets. Fit the filter paper over the middle perforated sheet and fold the end over. Reassemble the filter frame and connect it to the pump. Open the drain valve and allow the oil to drain into the pan. Hold the filter switch in the up position, the oil will be sucked through the filter paper and pumped into the frying pan through the flexible hose above. Use the hose to rinse out the frying pan. Close the drain valve and pump the oil back into the frying pan.

## WHEN USING FRYING OIL

1. Close the drain valve and check that the perforated base plate over the elements is in position.
2. Fill the pan to the depth indicated by the line on the rear wall of pan.

## WHEN USING SOLIDIFIED FAT

### The following steps must be implemented in order shown

1. Close the drain valve and remove the perforated base plate from the pan.
2. Break the fat into small pieces and fill the pan to cover the elements.
3. Turn the thermostat knob and set the temperature to 70°C. As the fat melts continue to keep the elements covered with pieces of fat until they are submerged in melted fat.
4. Place the perforated base plate over the elements and fill the pan with pieces of fat until the melted fat reaches the line on rear wall of pan.
5. Alternatively, it is recommended that when using solidified fat, approximately 8 liters per pan is melted in a separate vessel and poured into the fryer pan. Fill to the correct level with pieces of fat until melted fat reaches the line on rear wall of pan.
6. Never put a cover on the pan when melting solidified fat (it is dangerous).

## TIME TO HEAT OIL

The fat should heat to a temperature of 180°C in approximately 12 minutes. Times in excess of this indicate that the electrical details require attention, report to an electrician.

## TO OBTAIN BEST RESULTS

1. Use a good quality oil or fat, preferably a vegetable oil that has a high breakdown temperature.
2. Do not exceed the cooking temperature of oil recommended by the supplier.(180°)
3. Maintain the oil at the correct level as indicated by the line on the rear wall of pan.
4. Only start to fry when the oil is at the correct temperature, which is when the amber light goes out.
5. When frying, remove crumbs and pieces that float on the surface.
6. Use only fresh, clean oil. Filter daily. "It is highly recommended that when filtering oil that the oil temperature should be between 80 and 100°C"
7. Keep the pan clean.
8. Do not overload the pan. It is recommended that the baskets are half filled. The maximum load per pan should not exceed 1,5kg.
9. Excessive foaming indicates either that the temperature of the oil is too high, excessively wet chips, or that the oil is spent and requires renewing.
10. Slide fish into oil do not plunge as this may cause the fish to sink and stick to the base plate.
11. When the pan is idling, either switch off or reduce the thermostat temperature.
12. Always ensure that the elements are covered with oil before switching on the current.
13. Consistent results can only be obtained by using fresh, clean and good quality oil or fat, and frying at the correct temperature.

## FILTERING

With correct filtering, it is estimated that you can save up to 40% of your oil costs. Here are five ways that filtering can help you save oil, serve better food and increase profits.

### 1. Helps control Fat Loss and Breakdown

A major cause of oil breakdown is the carbonising of food particles in the fat.

Regular filtering (at least once a day) removes these particles before they can contaminate the fat.

### 2. Improves Food Quality and Appearance

Burning or carbonising food particles in the cooking fat impart undesirable flavours and odors. Removing them helps protect food quality and promotes uniform, even browning.

### 3. Lengthens Equipment Life, Helps Performance

As the food particles build up and carbonise in unfiltered fat, they contribute to a film that coats the heating elements of fryers, reducing both their life and efficiency. Filtering helps control this condition.

### 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 Costs .... Up to 40%

Cooking oil is too costly to throw away. Ideally, with regular filtering a proper heat control, the only fat lost should be that absorbed by the surface of the food, which is replaced with new fat to maintain the proper frying level. It is estimated that as much as 40% of the oil can be conserved by filtering.

## ADDITIONAL OIL SAVING HINTS

- Check thermostats regularly.
- Reduce temperatures when not frying.
- Do not fry salted foods or salted batter.
- Keep oil at a proper frying level.
- Rinse fryers thoroughly after cleaning.

## CLEANING AFTER USE refer page 4 of the manual

Subject to standard Vulcan warranty within South Africa borders. Subject to standard Vulcan Export warranty outside South Africa borders. Vulcan reserves the right to modify or alter appliances without prior notice. Local prices subject to confirmation at time of purchase / placing of order.

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