

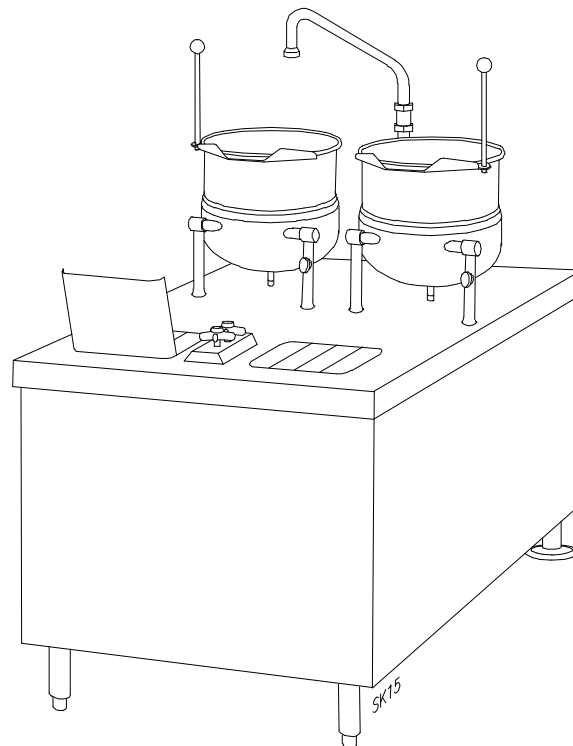


IMPORTANT FOR FUTURE REFERENCE
Please complete this information and retain this manual for the life of the equipment:

Model #: _____
Serial #: _____
Date Purchased: _____

INSTALLATION & OPERATION MANUAL

Direct Steam Kettles cb 7 Uj b Yh 6 Ug Y
8 A H! * !ff 2/\$ 2/&L 8 A H! * \$!ff 2/\$ 2/&L 8 A H! * &!ff 2/\$ 2/&L



⚠ 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.

CROWN FOOD SERVICE EQUIPMENT

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INSTALLATION AND OPERATION MANUAL, DIRECT STEAM MODULAR TILTING
KETTLES, DMT-6, DMT-6-6, DMT-10-6, DMT-10, DMT-10-10.

IMPORTANT NOTES FOR INSTALLATION AND OPERATION

It is recommended that this manual be read thoroughly and that all instructions be followed carefully.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



WARNING: Improper installation, operation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing, operating or servicing this equipment.

NOTICE: Contact the factory, the factory representative or local service company to perform maintenance and repairs.

Intended for commercial use only. Not for household use.

This manual should be retained for future reference.

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1.0 INTRODUCTION

DESCRIPTION

All direct connected steam jacketed kettles pertaining to this manual are direct steam operated pressure vessels of a double-wall stainless steel construction forming a steam chamber (jacket) enveloping the lower two thirds of the kettle bowl surface. All kettles are tilting and counter top mounted in fixed positions on legs.

CAPACITIES

All models are suffixed with either -6, or -10 to indicate the capacity of that kettle in US gallons.

FUNCTIONING MODE

Direct connected steam jacketed kettles consist of a stainless steel bowl and a stainless steel jacket which envelops two thirds of the lower surface of the bowl thus forming a sealed pressure vessel (chamber) into which steam is introduced by means of a manual control valve.

The kettle bowl is the container for the food product which ideally should be of a liquid or semi-liquid consistency to achieve complete contact with the bowl surface and thus fully absorb the heat transmitted through that surface.

The temperatures required for the cooking process to function adequately must be greater than the boiling point of the liquid food product. Further, the greater the steam pressure used, the higher the temperature and consequently the quicker the cooking process. For example, steam pressurized at 30 p.s.i. attains a temperature of 274 degrees Fahrenheit (135 degrees Celsius).

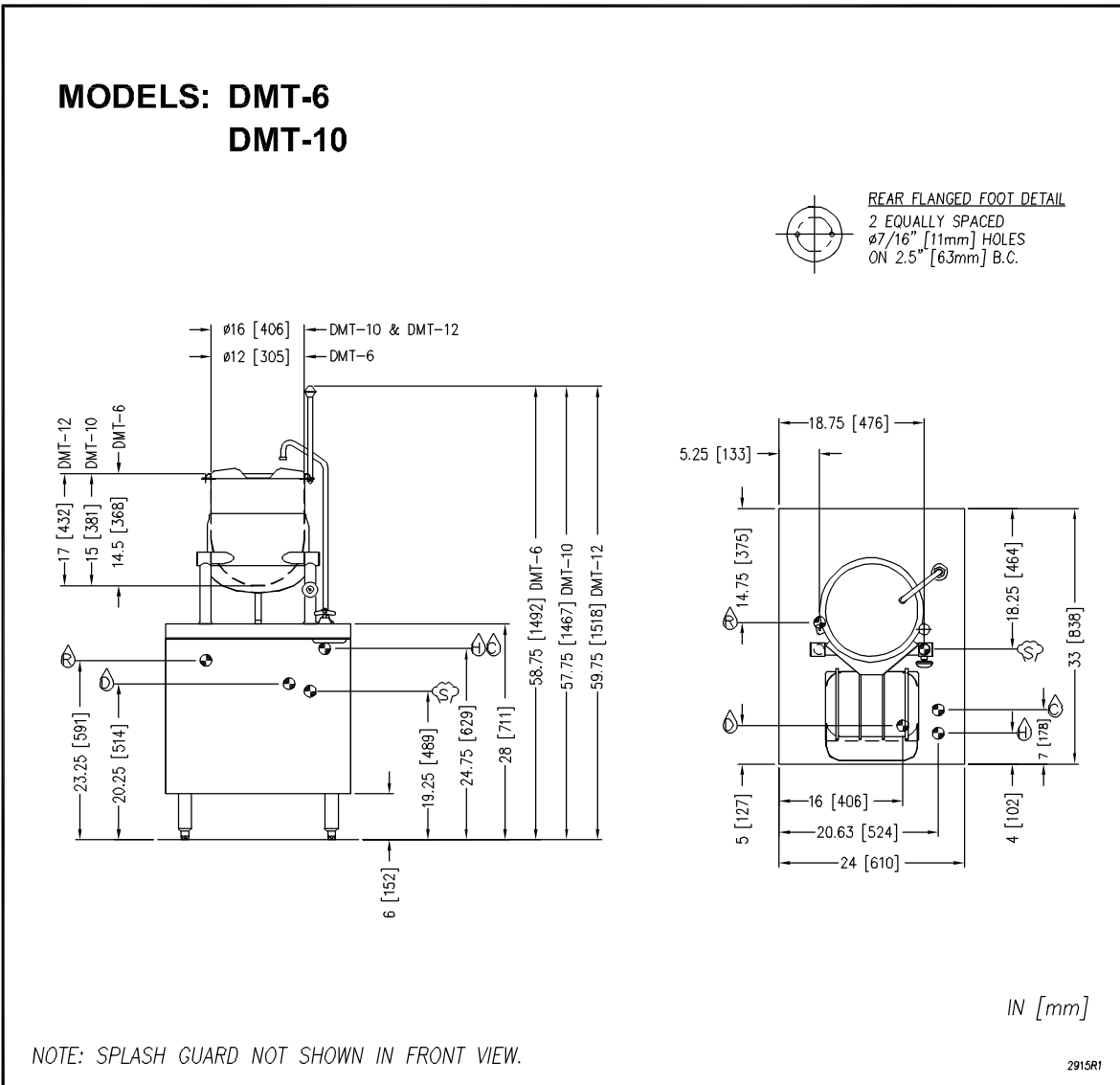
In the initial stages of the cooking process when the steam comes in contact with the cold kettle bowl surface it condenses and forms considerable amounts of water. A thermostatic steam trap should be plumbed to the exit end of the kettle jacket. This trap is a mechanical device that closes on high temperatures and opens when the temperature drops thus allowing the water formed from condensate to exhaust but retain steam under pressure.

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2.0 SERVICE CONNECTIONS

- ☞ - STEAM SUPPLY: 3/4"IPS for incoming steam at 5–50 PSI(35–345 kPa). *
- ☞ - CONDENSATE RETURN: 1/2"IPS.
- ☞ - COLD WATER: 3/8" O.D. tubing for cold water to faucet, to fill kettle.
- ☞ - HOT WATER: 3/8" O.D. tubing for hot water to faucet, to fill kettle.
- ☞ - DRAIN: 1 1/8" O.D. tubing.

* Pressure reducing valve is required if incoming pressure exceeds 50 PSI(345 kPa).



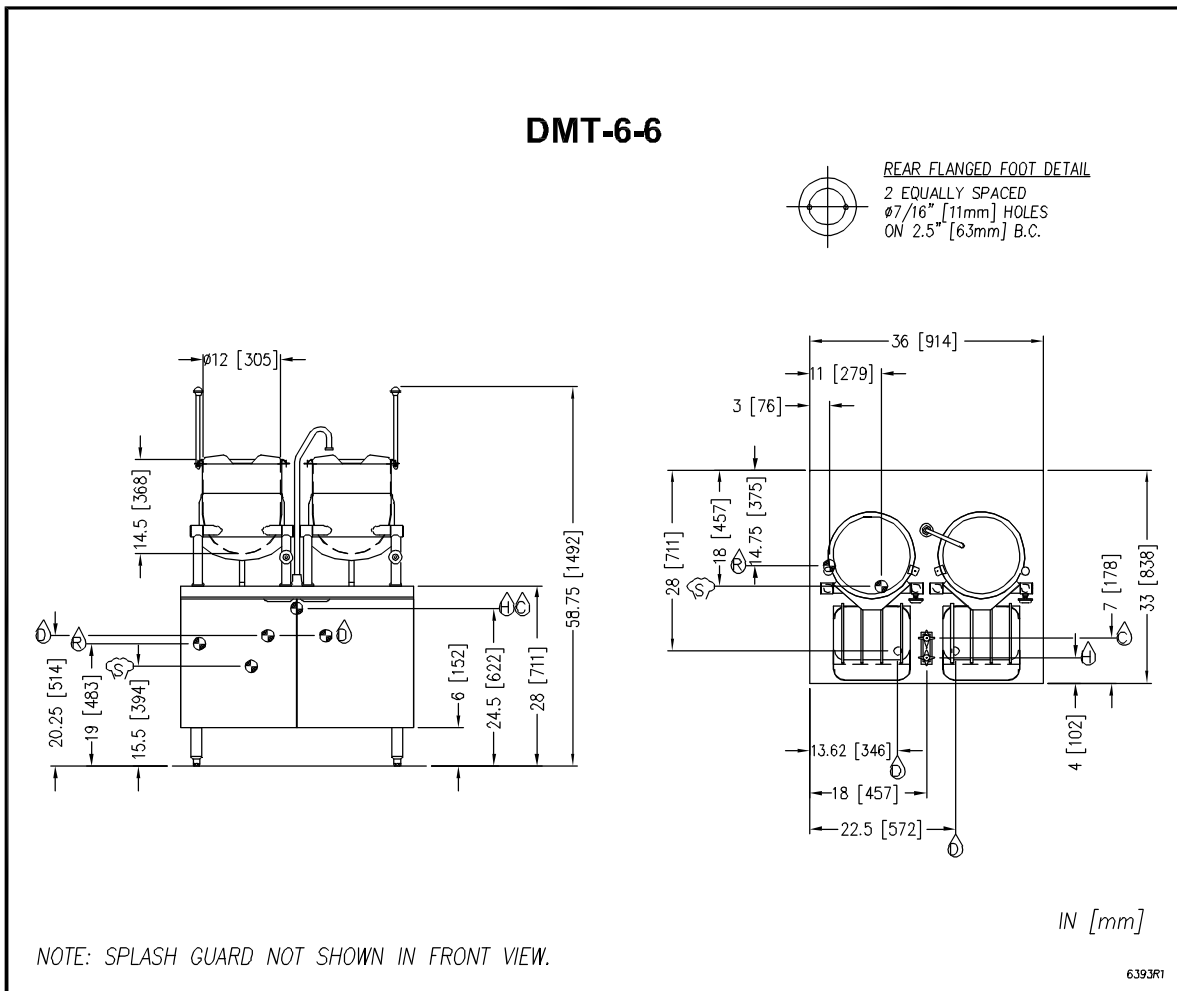
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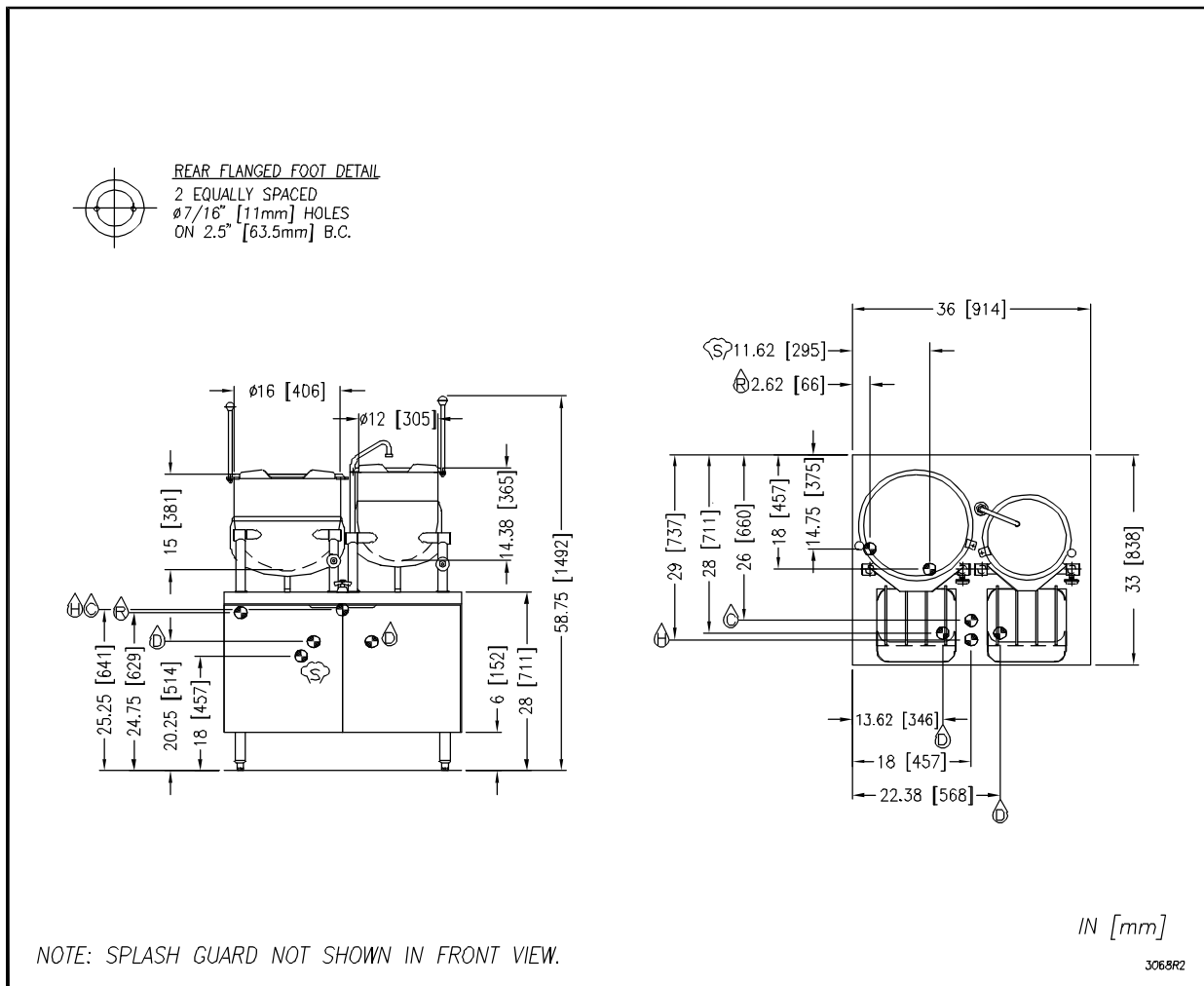
2.0 SERVICE CONNECTIONS

DMT-10-6

SERVICE CONNECTIONS

- ☉ – DRAIN: 1 1/8" O.D. tubing.
- ☉ – COLD WATER: 3/8" O.D. tubing for cold water to faucet, to fill kettle.
- ☉ – CONDENSATE RETURN: 1/2" IPS
- ☉ – HOT WATER: 3/8" O.D. tubing for hot water to faucet, to fill kettle.
- ☉ – STEAM SUPPLY: 3/4" IPS for incoming steam at 5–50 PSI.*

* Pressure reducing valve is required if incoming pressure exceeds 50 PSI.



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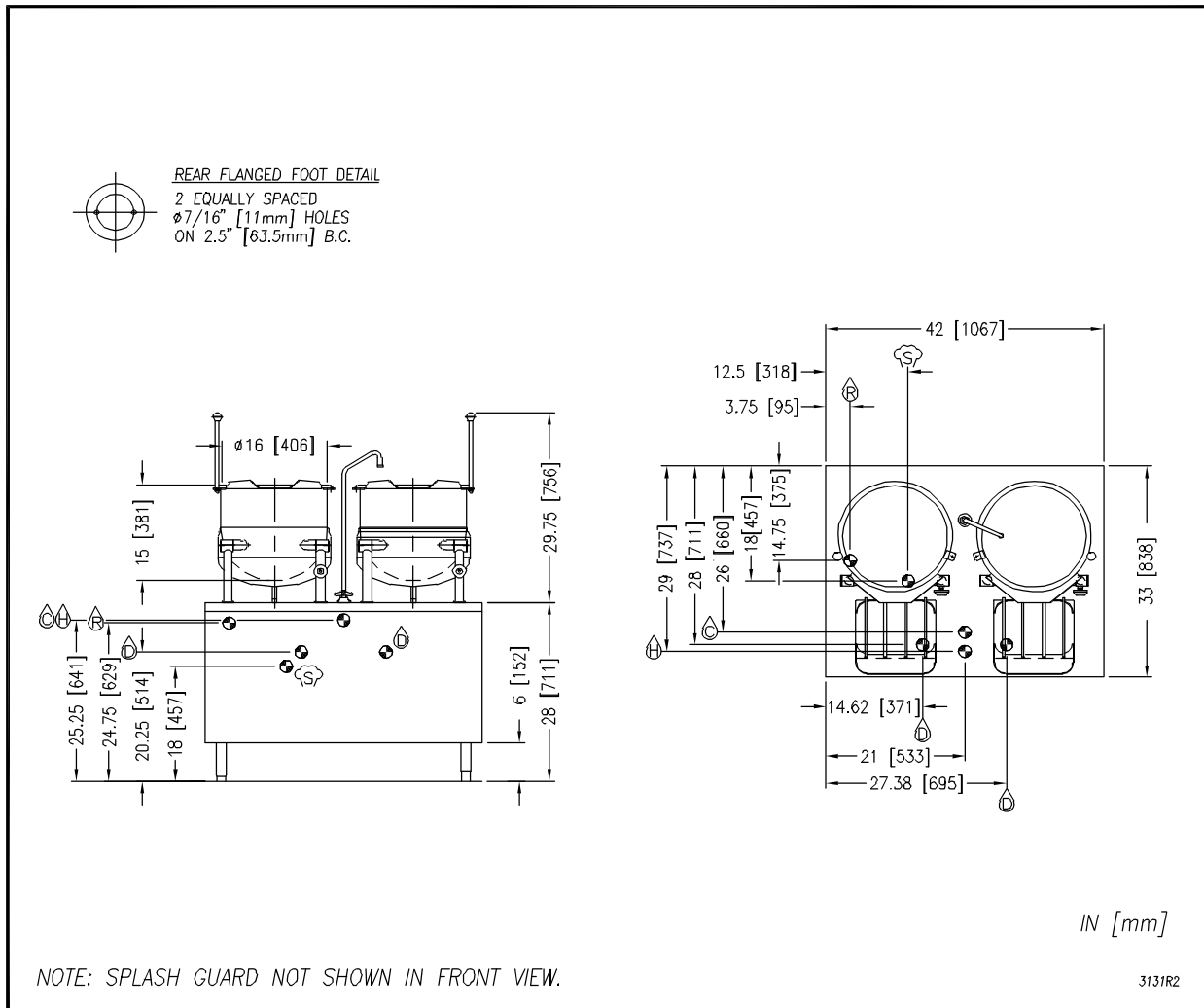
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2.0 SERVICE CONNECTIONS

DMT-10-10
SERVICE CONNECTIONS

- ☉ - DRAIN: 1 1/8" O.D. tubing.
- ☉ - COLD WATER: 3/8" O.D. tubing for cold water to kettle fill faucet.
- ☉ - HOT WATER: 3/8" O.D. tubing for hot water to kettle fill faucet.
- ☉ - CONDENSATE RETURN: 1/2" IPS O.D.
- ☉ - STEAM SUPPLY: 3/4" IPS O.D. for incoming steam at 5-50 PSI.*

* Pressure reducing valve is required if incoming pressure exceeds 50 PSI.



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3.0 INSTALLATION INSTRUCTIONS



WARNING: Plumbing connections must comply with applicable health, safety and plumbing codes.

Ideally an exhaust system should be located directly above the appliance to exhaust steam and heat generated by the appliance.

1. Set the unit in place and level using a spirit level.
2. Ascertain that a floor drain (open gap) is convenient to the appliance drain.
3. Mark hole locations on floor through anchoring holes provided in flanged adjustable feet.
4. Remove appliance and drill holes in locations marked on floor and insert proper anchoring devices.
5. Set unit back in position and re-level left to right and front to back.
6. Bolt and anchor appliance securely to the floor.
7. Seal bolts and flanged feet with Silastic or equivalent compound.
8. Connect the steam line to the kettle (3/4" i.p.s., 5 psi minimum to 45 psi maximum.)
9. If the incoming steam pressure is greater than the kettle maximum operating pressure, then a pressure reducing valve (supplied by others) must be installed in the line.
10. Connect hot and cold water supply to the faucet.
11. Connect the kettle condensate return line to a 2" open air gap drain or to a boiler return line. Each kettle return line must have a suitable steam trap (supplied by others). Boiler return lines must have a check valve (supplied by others).
12. The relief valve for the kettle(s) must not be adjusted or closed off as it is set to relieve excess pressure.
13. If large amounts of water accumulate in the steam line, it will be necessary to install one or more ball float traps (supplied by others) in the line to eliminate the water.
14. A steam line pressure gauge (supplied by others) is also recommended to determine the actual amount of steam coming to the kettle(s).

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4.0 OPERATING PROCEDURE

1. Fill kettle with product to desired level.
2. Slowly turn the steam control valve ON to full open position.
3. The water or food should boil three to four minutes per gallon. If it does not then incoming pressure should be checked to determine that it is adequate to operate the kettle efficiently.
4. Regulate steam control valve depending on type of food being prepared.
5. When food is cooked, turn off steam, remove food and clean kettle immediately to prevent residue from drying on kettle bowl surface.

5.0 CLEANING PROCEDURE

KETTLE CLEANING INSTRUCTIONS

	CAUTION: The equipment and its parts are hot. Use care when operating, cleaning and servicing.
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	CAUTION: Do not use cleaning agents that are corrosive.
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Your kettle should be cleaned immediately after each use or when cooking a different product. Before cleaning, check that the kettle has cooled enough to touch it.

1. Rinse the inside of the kettle thoroughly and drain to remove any food particles.
2. Using a nylon brush, clean the kettle with a mild detergent and water. Never use steel wool or scouring powder as it will scratch stainless steel. Plain steel wool can leave small pieces of steel which can rust.
3. Rinse the inside of the kettle thoroughly with clean water. Drain the kettle by tilting or by the tangent draw-off valve, depending on model, to allow the detergent and water solution to drain.

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5.0 CLEANING PROCEDURE (Continued)

4. Wipe the exterior of the kettle with a clean, damp cloth.

Use of cleaning agents that contain chloride, acids or salts are corrosive and may cause pitting and corrosion when used over a period of time; this will reduce the life of the appliance.

Should pitting or corrosion occur this is not covered by warranty.

Follow the recommended cleaning instructions. Use a mild detergent, warm water and rinse thoroughly.

WHAT TO DO IF SURFACE RUST APPEARS

Metal utensils should never be used as they will scratch the surface of the equipment and rust may begin to form. To remove surface accumulation of rust from the inadvertent use of such utensils the following procedure may be used.



CAUTION: Improper use of this procedure may damage your appliance!

1. Use undiluted white vinegar with a non-abrasive scouring pad (plastic) or cloth on the affected area to remove the rust stain. The appliance should not be heated and remain at room temperature during the entire cleaning process.
2. If the stain resists removal, additional exposure time with vinegar may be required, to a maximum of one hour.
3. Thoroughly wash all of the vinegar away with fresh clear water. Dry the surface completely and allow one hour before using the appliance to cook.

Following daily and period maintenance procedures will prolong the life for your equipment. Climatic conditions - salt air - may require more thorough and frequent cleaning or the life of the equipment could be adversely affected.

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6.0 PREVENTIVE MAINTENANCE

No preventive maintenance is required other than adhering to the Cleaning Procedure Instructions.

TROUBLESHOOTING

EXTREMELY SLOW COOKING TIME

Abnormally slow cooking time may be due to insufficient steam pressure and/or volume. Inlet pressures of less than 10 psi will result in slow cooking performance. Note that pressures approaching the rated kettle pressure are liable to set off the safety relief valve. If required pressure is not available to kettle, then volume of steam is not sufficient. Minimum 3/4" pipe size is required to the kettle, but if the steam generating source is at a great distance from the kettle, larger pipe will be required. Also check the core of the steam supply pipe for debris or scalants that impede steam flow. May require disassembly and inspection.