

Operating Instruction Manual

Electric Boiling Pan

E28300

PRODUCT REFERENCE

E28300

Electric Oil-Jacketed Boiling Pan

Thank you for purchasing the Basterfield Electric Boiling Pan. This manual aims to provide a brief overview of operation of the unit as well as key steps to follow for maintenance and care.

Document reference
E28300(OIM)

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USING THIS MANUAL

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01 Introduction

The E28300 Electric Boiling Pan operates with an oil jacket heating system, where a high flash-point heat transfer oil circulates around the inner cooking vessel. This indirect heating method ensures even heat distribution, reducing the risk of scorching and maintaining precise temperature control for bulk food preparation.

A thermostatic control system allows users to set and maintain the desired cooking temperature. The external thermostat governs the heat level, while a safety thermostat prevents overheating by cutting off the electrical supply if temperatures exceed the set safety limit.

To ensure optimal performance, the oil level must be maintained within the recommended range, which can be checked using the dipstick gauge. The boiling pan is also equipped with an oil drain system for periodic maintenance, preventing sludge buildup and ensuring efficient heat transfer.

Designed for commercial kitchens, catering operations, and industrial food production, the E28300 series provides a robust, durable, and high-capacity solution for cooking large batches of food with precision and efficiency.

02 Safety

It is imperative to always follow the safety instructions as they are vital for ensuring your safety and the safe use of your equipment in all situations.

03 General Safety Precautions

- Read all instructions: Carefully read and understand this manual before using the boiling pan.
- Hot surface warning: Do not touch hot surfaces; always use insulated gloves or protective equipment.
- Intended use only: This appliance is designed solely for cooking food. Any improper use may result in injury or equipment damage.
- Scalding risk: Avoid direct exposure to steam or hot liquids. Ensure all valves and lids are securely closed before operation.
- Electrical safety: Ensure proper electrical connections as per the instructions below. If unsure, consult a qualified electrician.
- Proper shutdown: Switch off and allow the unit to cool before cleaning or maintenance.
- Oil handling precautions: Use only the specified high-flash-point heat transfer oils and avoid mixing different brands or types.

04 Electrical Supply and Connections

The unit requires a three-phase power supply. Ensure proper wiring and grounding. Identify the terminal blocks as follows:

- Connect live wires (L1, L2, L3) to their respective terminal blocks.
- Secure the green earth wire to the designated grounding terminal.
- Connect the neutral wire to the marked neutral terminal.

05 Circuit Protection

- Activate the circuit breakers by switching to “ON”.
- Set the safety thermostat to a maximum of 150°C or 180°C, depending on the model. Never exceed this limit. This is factory pre-set.

06 Troubleshooting Power Issues

If the master circuit breaker trips, disconnect the unit and inspect heating elements for short circuits or damage.

07 Preparation Before Use

Please take a moment to thoroughly read through the operating instructions.

1. Ensure proper installation: Place the boiling pan on a level surface using the adjustable feet.
2. Check oil levels: Before operation, ensure that the oil is at the correct level using the dipstick.
3. Preheat before cooking: Allow the unit to reach the desired temperature before adding food.

08 Filling the Jacket with Oil

1. Use Engen Genheat 22, Shell Thermia D, or Castrol Perfecto T100 high-flash-point heat transfer oils.
2. Do not mix different oils.
3. Ensure the drain outlet is sealed before filling the jacket. Refer to the recommended oil quantities below and use the dipstick to check the oil level.
4. Avoid overfilling: If overfilled, excess oil may flow through the overflow pipes, which may appear as a leak.

09 Recommended Oil Quantities

Recommended quantities by pan capacity. Heat transfer oil is supplied separately in 20L drums; confirm quantities before ordering. Use the dipstick to check the oil level when filling and avoid overfilling.

Pan Capacity	Recommended Oil Quantity	20L Drums
75L	40L	2
135L	60L	3
225L	80L	4
300L	80L	4
350L	100L	5
500L	140L	7
750L	180L	9
1000L	240L	12

10 Starting the Unit

1. Power on: Press the “Switch On/Off” toggle to the “ON” position. The red pilot light will illuminate.
2. Set temperature: Adjust the operating thermostat to the required temperature. The yellow pilot light will indicate heating is in progress.
3. Monitor heating: Once the desired temperature is reached, the yellow pilot light will turn off, signalling that cooking can begin.

11 Cooking Process

1. Carefully add food to the pan.
2. Stir periodically to ensure even cooking and prevent sticking.
3. Monitor food consistency and doneness. Use a food-safe thermometer for precise temperature control.

12 Decanting and Cooling

1. Once cooking is complete, use the outlet valve at the bottom to decant liquid products into a heat-resistant and food-safe container.
2. Allow the remaining contents to cool before storage or cleaning.

13 Daily Cleaning

- Allow the unit to cool completely before cleaning.
- Use mild detergent and warm water to clean the interior and exterior surfaces.
- Do not use abrasive cleaners or metal scouring pads that may damage the stainless steel surface.
- Ensure all residue is removed from the drain valve.

14 Monthly Maintenance

- Drain 1 L of oil from the drain cock at the bottom to remove potential water condensation.
- Inspect electrical connections for signs of wear or corrosion.

15 Annual Maintenance

Complete oil change: Drain and replace all the oil with the same type to prevent sludge formation that could impair heating efficiency.

16 Oil Drainage Process

1. Set the thermostat to 60°C and allow the oil to heat.
2. Turn off the thermostat and place a collection pan beneath the drain valve.
3. Open the valve to drain the oil completely.
4. If the drain cock is blocked, use a thick wire rod to clear carbonised oil buildup.

17 Troubleshooting

Issue	Possible Cause	Solution
Unit does not power on	Circuit breaker tripped	Reset the breaker and check for short circuits.
Oil not heating	Faulty thermostat or heating elements	Inspect and replace any faulty components.
Overheating	Thermostat set too high	Adjust to the appropriate temperature.
Drain valve blocked	Carbonised oil buildup	Use a wire rod to clear the blockage.
Leaking oil	Overflow due to overfilling	Check the oil level and drain excess if necessary.

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