

# INSTALLATION AND OPERATION MANUAL

SELF-GENERATING STEAM JACKETED COUNTER TILTING KETTLES

MODELS: EC - 6TW

EC - 10TW

EC - 12TW



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PRINTED IN CANADA

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**IMPORTANT NOTES FOR INSTALLATION AND OPERATION**

It is recommended that this manual be read thoroughly and that all instructions be followed carefully. This manual should be retained for future reference.

**DO NOT ATTEMPT TO OPERATE THIS UNIT IN THE EVENT OF A POWER FAILURE.**

**ADEQUATE CLEARANCES MUST BE MAINTAINED FOR SAFE AND PROPER OPERATION.**



**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.**

**This manual should be retained for future reference.**

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## SERVICE CONNECTIONS

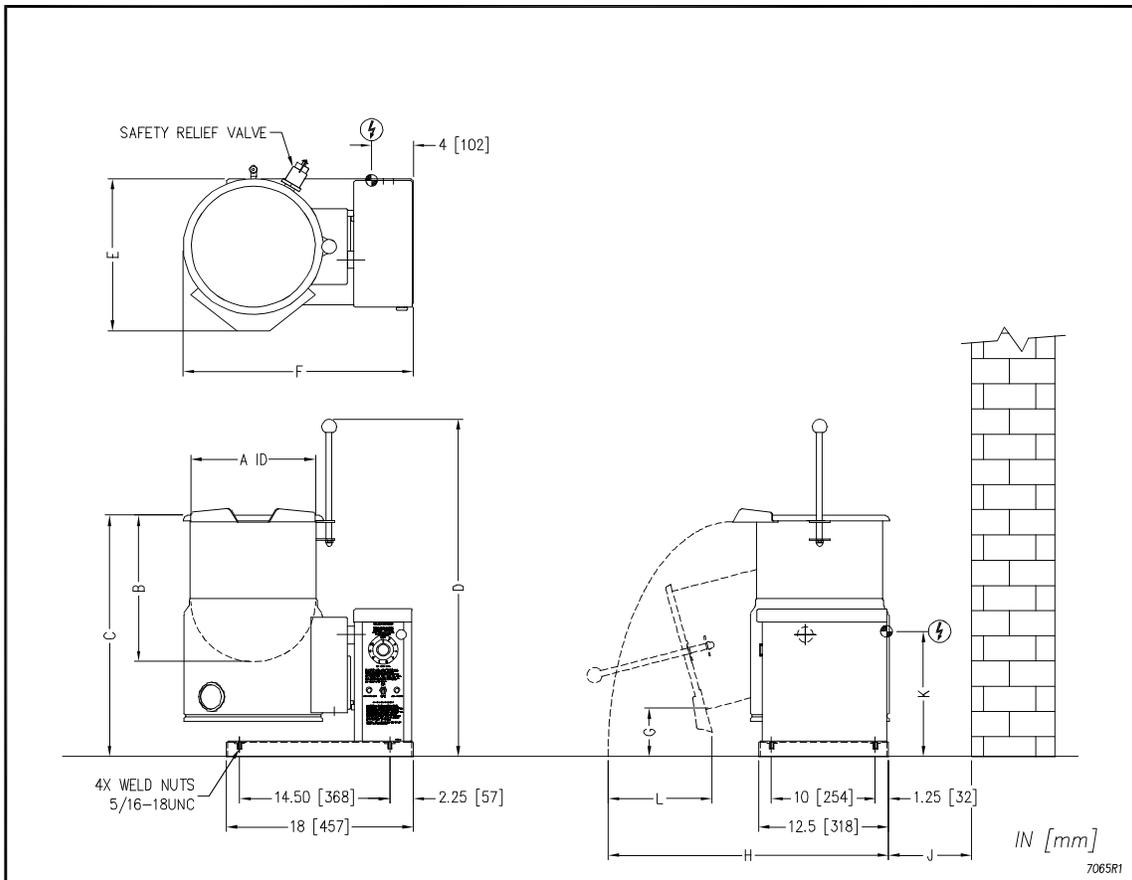
⚡ - ELECTRICAL CONNECTION TO BE AS SPECIFIED ON DATA PLATE

## ELECTRICAL CHARACTERISTICS

MODEL	kW	PHASE	AMPS PER LINE					
			208V	220V	240V	380V	415V	480V
EC-6TW	7.5	1	36.0	34.1	31.3			
	7.5	3	20.8	19.7	18.1	11.4	10.4	9.0
EC-10TW/12TW	12.0	1	57.6	54.6	50.0			
	12.0	3	33.3	31.5	28.9	18.3	16.7	14.5

## DIMENSIONS

MODEL	CAPACITY	UNITS	A	B	C	D	E	F	G	H	J	K	L
EC-6TW	6 gallons	Inches	12	14.38	24	33.5	15.25	22.25	4.50	27	4.25	12.38	10
	23 litres	mm	305	365	610	851	387	565	114	686	108	314	254
EC-10TW	10 gallons	inches	16	15	26	34.88	17.25	26.25	4.62	28	6.12	14.75	12.75
	38 litres	mm		381	660	886			117	711			324
EC-12TW	12 gallons	Inches	16	17	28	36.88	17.25	26.25	4.12	30	6.12	14.75	12.75
	45 litres	mm		432	711	937			105	762			324



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**1.0 INSTALLATION INSTRUCTIONS**

Immediately after unpacking, check for possible shipping damage. If the kettle is found to be damaged, save the packaging materials and contact the carrier within 15 days of delivery.

1. The kettle must be installed in accordance with:
  1. State and/or local codes.
  2. In the USA, the National Electrical Code, ANSI/NFPA-70 (latest edition). In Canada, the Canadian Electrical Code, Part 1, CSA Standard C22.1 (latest edition).
1. Position appliance on counter allowing sufficient rear clearance from wall to tilt freely and completely without obstruction.
2. Mark four corner locations of appliance base.
3. Remove appliance from counter and locate position of 4 holes as per Figure 1. Drill four 7/16" diameter holes.
4. Apply a continuous bead of Silastic or other equivalent sealant along the complete perimeter edge of the appliance base.
5. Use 5/16-18 Hex Cap Screws with suitable flat washers to bolt down. Screw length must be 1-1/4 long plus counter top thickness.
7. Wipe off excess sealant.
8. A Control Box with power supply equivalent to Electrical Rating of appliance should be located conveniently nearby.

**WARNING**

**ELECTRICAL AND GROUNDING CONNECTIONS MUST COMPLY WITH THE  
APPLICABLE PORTIONS OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER  
LOCAL ELECTRICAL CODES.**

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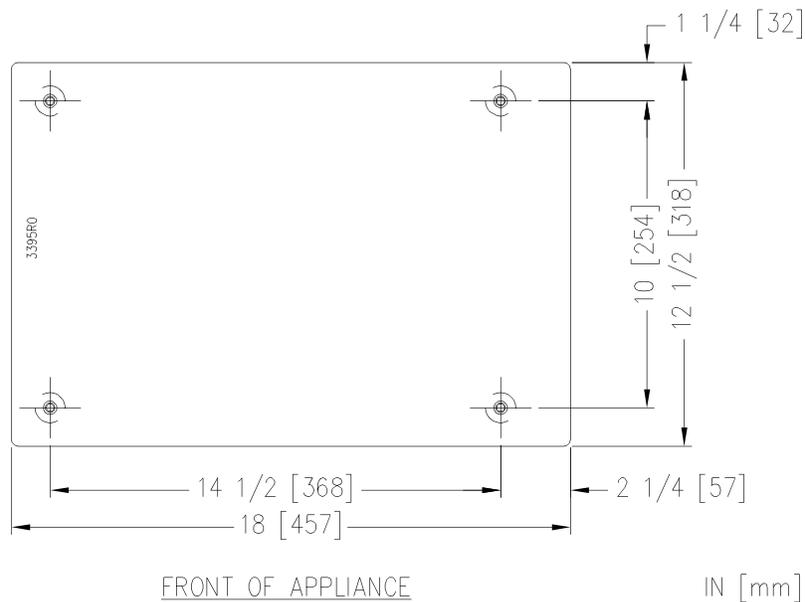
1.0 **INSTALLATION INSTRUCTIONS** (Continued)

**WARNING**

**DISCONNECT ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE  
DISCONNECT SWITCH TO INDICATE YOU ARE ON THE CIRCUIT.**

9. A waterproof electrical connection for power supply to console housing must be provided.
10. Ground appliance to terminal provided inside console housing.
11. Turn power ON and check for proper operation.

**Figure 1**



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## **2.0 INTRODUCTION**

### **DESCRIPTION**

Models EC-6TW (6 gallon capacity) and EC-10TW (10 gallon capacity) and EC-12TW (12 gallon capacity) electrically powered, self-contained, countertop, tilting kettles. Each model has a jacket of double-wall construction forming a sealed reservoir around the lower two-thirds of the kettle. The reservoir is charged with distilled water. Kettles are equipped with a removable electric heating element and controls, including a low water cutoff device for protection of the heating element. All models are of identical construction, except for kettle size and element heating capacity.

### **BASIC FUNCTION**

Self-contained kettles operate by generating steam in the kettle reservoir. The sequence of operation is as follows:

1. Operator turns the power switch to the ON position and sets the temperature control dial to the desired setting from 1 to 10.
2. Control circuit is normally completed to the temperature controller if the following conditions exist:
  1. Water level in the kettle reservoir is adequate to prevent circuit interruption by the low water cut off device. An activated cutoff is indicated by the amber low water light turning on, and the heating element shut off.
  2. Kettle is in vertical position with circuit completed through the tilt interlock switch.
3. Thermostat control contacts close to energize contactor coils.
4. Power is supplied to the elements through closed power contactors.
5. As the temperature of water rises in the kettle reservoir, increase in steam pressure is indicated on the pressure gauge.
6. When the temperature of steam in the reservoir reaches the setting of the temperature control dial, the temperature controller opens to break the contacts and shuts off the heating element. On/off cycles will occur as required to maintain temperature setting.

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**3.0 OPERATION INSTRUCTIONS**

1. Ensure that the external electrical shut-off to the kettle is on.
2. Check pressure gauge for correct cold kettle reading. Reading should be in the green vacuum zone. If reading is not in the vacuum zone, follow VENTING INSTRUCTION prior to using the kettle.
3. Place power switch in ON position.
4. Preheat the kettle by placing thermostat knob at '10' and wait until TEMPERATURE light goes off.

**NOTE**

**PREHEATING SHOULD NOT BE USED WHEN COOKING MILK AND EGG FOOD PRODUCTS WHICH ADHERE TO HOT COOKING SURFACES. THESE FOODS SHOULD BE PLACED INTO KETTLE BEFORE HEATING IS BEGUN.**

5. Add food to be cooked into the kettle.
6. Place thermostat knob at required temperature setting from 1 to 10 coinciding with a temperature range from roughly 165°F to 289°F (74° C to 143° C, jacket temperature.) Approximate cooking temperatures with water at various thermostat settings are as follows:

<u>THERMOSTAT SETTING</u>	<u>APPROXIMATE TEMPERATURE (WATER)</u>	
	<u>FAHRENHEIT</u>	<u>CELSIUS</u>
4	90°	32°
5	125°	52°
6	160°	41°
7	195°	91°
8	231°	110°
9	273°	134°
10	289°	143°

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**3.0 OPERATION INSTRUCTIONS** (Continued)

7. When cooking is finished set thermostat knob and power switch to the OFF position.
8. Pour finished product from kettle using tilt handle. Be careful to avoid splashing.
9. Add water to kettle for cleaning purposes.
10. Wash kettle thoroughly. See CLEANING procedure.

**TILTING INSTRUCTIONS**

Your kettle has the standard “Clean Lock” feature and may not be tilted without disengaging the tilt knob located on the console at the top right. This feature locks the kettle in the upright position and also allows the operator to lock the kettle at 105 degrees for ease of cleaning. To tilt the kettle the full distance, the tilt lock knob must be disengaged from the cleaning position by pulling out the tilt lock knob and tilting the kettle forward the full distance. Follow these steps to tilt kettle:

1. Pull out the tilt knob near top right of console.
2. Using kettle tilt handle pull kettle forward to desired angle of pour or until kettle locks at 105 degrees. The tilt knob can be released after the kettle has been tilted approximately 10°.
3. Kettle will lock in position at 105 degrees and may be tilted further by pulling the tilt lock knob a second time allowing the kettle to tilt the full distance.
4. To return the kettle to the upright position, pull out the tilt lock knob and tilt the kettle upward until it locks in the upright position. The kettle should not move in either direction once in the upright position.

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#### 4.0 CLEANING INSTRUCTIONS

The kettle interior and exterior should be thoroughly washed after each use in preparation of a different food.

1. Add water and mild detergent to the kettle immediately after use.
2. Scrub kettle interior with nylon brush.

**NOTE**

**NEVER SCRAPE THE INSIDE OF THE KETTLE WITH METAL TOOLS, STEEL SCOURING PADS, OR ABRASIVE CLEANERS. SCRATCHES WILL RESULT WHICH WILL SPOIL THE KETTLE'S GENERAL APPEARANCE AND MAKE IT HARDER TO CLEAN AND MAINTAIN A SANITARY CONDITION.**

3. Loosen food which is stuck to kettle by allowing it to soak at a low temperature setting.
4. Rinse with clear water and dry.

**WARNING**

**DO NOT HOSE DOWN APPLIANCE UNDER ANY CONDITION. FAILURE TO COMPLY WILL VOID WARRANTY.**

5. Wipe down exterior, rinse and dry.

**WARNING**

**IT IS NOT RECOMMENDED TO USE CLEANING AGENTS THAT ARE CORROSIVE.**

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.

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**5.0 TROUBLESHOOTING**

**5.1 GENERAL MAINTENANCE**

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

**5.2 LOW WATER LEVEL**

Proper water level must be maintained within the jacket for the kettle to operate. Depletion of water may occur from excessive opening of, or leakage through the safety relief valve.

If water is below required operating level, either initially at start-up or during use, the kettle will automatically shut off, and the LOW WATER signal light will come on.

In order for the kettle to operate, the following procedure must be followed:

1. Trip the safety relief valve lever to relieve all pressure from the kettle jacket.
2. At exterior rear of kettle jacket remove nut from Air Vent.
3. Insert funnel into Air Vent opening and slowly add the indicated amount of distilled water for:

EC-6TW	Add 50 oz.	(1.5 litres)
EC-10TW and EC-12TW	Add 100 oz.	(3 litres)

4. Replace Air Vent nut.
5. Follow Air Venting Instructions below.
6. Continue normal Operating Procedure of kettle.

**5.3 VENTING INSTRUCTION**

Check pressure gauge when kettle is cold. Gauge should be in the green vacuum zone. If not, air is present which must be vented (removed) for proper heating. Use the following procedures to vent air.

1. With an empty kettle, place power switch to the ON position.
2. Set temperature control thermostat to '10'. Heat kettle until heat indicator light goes off.
3. Using a 7/16" wrench, open bleed vent one full turn for 10 seconds and then close.
4. Cool kettle. Check for proper vacuum in the green vacuum zone. If reading is not low enough, repeat entire procedure, steps 1-3.