



IMPORTANT FOR FUTURE REFERENCE

Please complete this information and retain this manual for the life of the equipment:

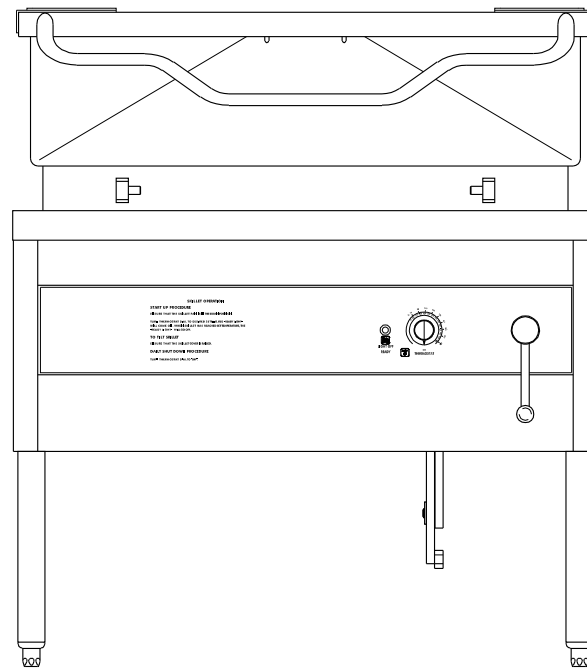
Model #: _____

Serial #: _____

Date Purchased: _____

INSTALLATION & OPERATION MANUAL


Electric Floor Model Braising Pan With Manual Gearbox Tilt ES-30 ES-40



⚠ 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

 A Middleby Company

70 Oakdale Road, Downsview (Toronto) Ontario, Canada, M3N 1V9

Telephone: 919-762-1000 www.crownsteamgroup.com

Printed in Canada



INSTALLATION AND OPERATION MANUAL, ELECTRIC FLOOR MODEL BRAISING PAN
WITH MANUAL GEARBOX TILT, MODELS ES-30, ES-40

1.0 IMPORTANT NOTES FOR INSTALLATION AND 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.

Adequate clearances must be maintained for servicing and proper operation.



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.

Intended for commercial use only. Not for household use.

INSTALLATION AND OPERATION MANUAL, ELECTRIC FLOOR MODEL BRAISING PAN
WITH MANUAL GEARBOX TILT, MODELS ES-30, ES-40

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INSTALLATION AND OPERATION MANUAL, ELECTRIC FLOOR MODEL BRAISING PAN WITH MANUAL GEARBOX TILT, MODELS ES-30, ES-40

2.0 SERVICE CONNECTIONS

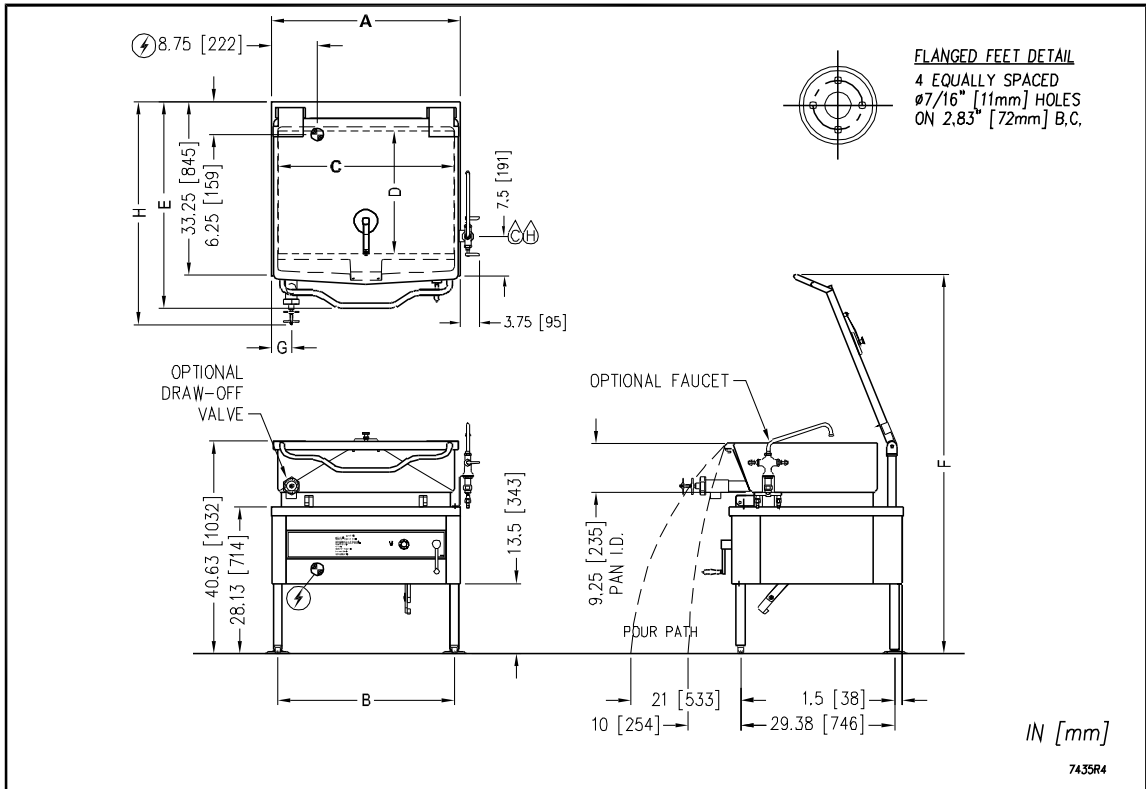
- ⚡ - Electrical connection to be as specified on data plate.
- 💧 - COLD WATER: 3/8" O.D. tubing to faucet (OPTIONAL)
- 🔥 - HOT WATER: 3/8" O.D. tubing to faucet (OPTIONAL)

ELECTRICAL CHARACTERISTICS

MODEL	kW	PHASE	AMPS PER LINE						MIN. CLEARANCE	
			208V	220V	240V	380V	415V	480V	SIDES	BACK
ES-30	12	1	57.7	54.5	50.0	N/A	N/A	N/A	0	0
		3	33.3	31.5	28.9	18.2	16.7	14.4		
ES-40	18	1	86.5	81.8	75.0	N/A	N/A	N/A	0	0
		3	50.0	47.2	43.3	27.3	25.0	21.7		

DIMENSIONS

MODEL	SHIPPING WT.	CAPACITY	UNITS	A	B	C	D	E	G	H		
										ø2	ø3	
ES-30	545 lbs. [247 kg]	30 gallons 114 litres	Inches mm	36 914	33.63 854	33.5 851	23.5 597	39.5 1003	72.38 1838	3.75 95	42.63 1083	46.5 1181
ES-40	710 lbs. [322 kg]	40 gallons 151 litres	Inches mm	48 1219	45.63 1159	43.5 1105	23 584	39.88 1013	71.88 1826	4.75 121	42.63 1083	46.5 1181



As continued product improvement is a policy of Crown, specifications are subject to change without notice.

INSTALLATION AND OPERATION MANUAL, ELECTRIC FLOOR MODEL BRAISING PAN WITH MANUAL GEARBOX TILT, MODELS ES-30, ES-40

WITH OPTIONAL S-SDP-2 ASSEMBLY

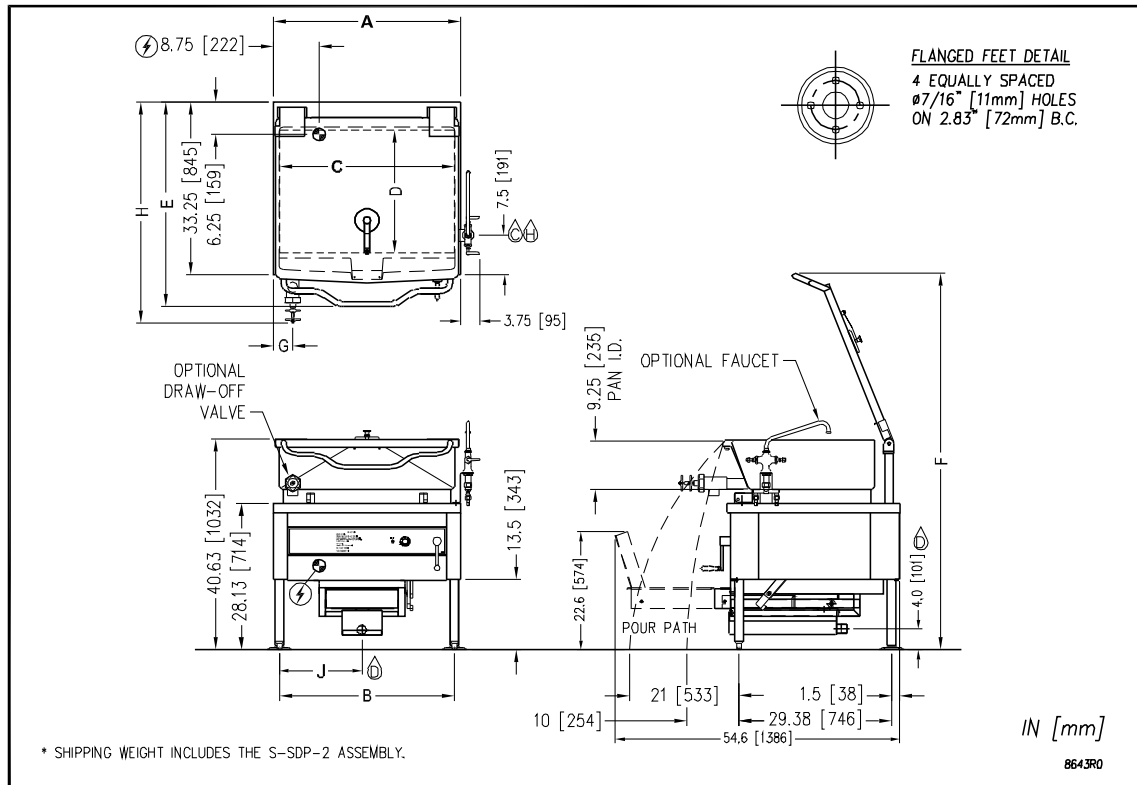
- ⚡ - Electrical connection to be as specified on data plate.
- 💧 - COLD WATER: 3/8" O.D. tubing to faucet (OPTIONAL)
- 🔥 - HOT WATER: 3/8" O.D. tubing to faucet (OPTIONAL)
- 🚰 - DRAIN 1 1/2" - 11 1/2 NPT (OPTIONAL)

ELECTRICAL CHARACTERISTICS

MODEL	KW	PHASE	AMPS PER LINE						MIN. CLEARANCE	
			208V	220V	240V	380V	415V	480V	SIDES	BACK
ES-30	12	1	57.7	54.5	50.0	N/A	N/A	N/A	0	0
		3	33.3	31.5	28.9	18.2	16.7	14.4		
ES-40	18	1	86.5	81.8	75.0	N/A	N/A	N/A	0	0
		3	50.0	47.2	43.3	27.3	25.0	21.7		

DIMENSIONS

MODEL	*SHIPPING WT.	CAPACITY	UNITS	A	B	C	D	E	F	G	H		J
											ø2	ø3	
ES-30	585 lbs. [265 kg]	30 gallons 114 litres	Inches mm	36	33.63	33.5	23.5	39.5	72.38	3.75	42.63	46.5	15.9
				914	854	851	597	1003	1838	95	1083	1181	404
ES-40	750 lbs. [340 kg]	40 gallons 151 litres	Inches mm	48	45.63	43.5	23	39.88	71.88	4.75	42.63	46.5	22.8
				1219	1159	1105	584	1013	1826	121	1083	1181	580



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INSTALLATION AND OPERATION MANUAL, ELECTRIC FLOOR MODEL BRAISING PAN
WITH MANUAL GEARBOX TILT, MODELS ES-30, ES-40

3.0 INSTALLATION INSTRUCTIONS

UNPACKING

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

Before installing, verify that the electrical service agrees with the specifications on the rating plate located on the left side panel as you face the front of the braising pan. If the supply and equipment requirements do not agree, contact your dealer or Crown Food Service Equipment Ltd.

LOCATION

The installation location must allow adequate clearances for servicing and proper operation. A minimum front clearance of 36", and rear clearance of 6" is required.

INSTALLATION CODES AND STANDARDS

Your Crown Tilting Braising Pan must be installed in accordance with:

1. In the U.S.A. installation must comply with state and local codes, or in the absence of local codes, with the National Electrical Code ANSI/NFPA-70 (latest edition). In Canada installation must comply with Provincial and local codes, or in the absence of local codes, with: C.S.A. C22.1 Canadian Electrical Code, Part 1.
2. ANSI NFPA Standard #96, "Vapor Removal from Cooking Equipment," (latest edition), available from the National Fire Protection Association, Batterymarch Park, Quincy, MA, U.S.A. 02269.


INSTALLATION AND OPERATION MANUAL, ELECTRIC FLOOR MODEL BRAISING PAN
WITH MANUAL GEARBOX TILT, MODELS ES-30, ES-40

3.0 INSTALLATION INSTRUCTIONS (Continued)

LEVELLING AND ANCHORING TILTING BRAISING PAN

1. Place tilting braising pan in the installation position.
2. Place a carpenter's level on top of the braising pan and turn the adjustable feet to level braising pan side-to-side and front-to-back.
3. Mark hole locations on the floor through the anchoring holes provided in the rear flanged adjustable feet.
4. Remove tilting braising pan from installation position and drill holes in locations marked on the floor. (See installation diagram on page 4.) Insert proper anchoring devices (not supplied).
5. Place tilting braising pan back in the installation position.
6. Place carpenter's level on top of braising pan and re-level side-to-side and front-to-back.
7. Bolt and anchor tilting braising pan securely to the floor.
8. Seal bolts and flanged feet with silastic or equivalent compound.

ELECTRICAL CONNECTIONS

	WARNING: Electrical and grounding connections must comply with the applicable portions of the National Electrical Code and/or other local codes.
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INSTALLATION AND OPERATION MANUAL, ELECTRIC FLOOR MODEL BRAISING PAN
WITH MANUAL GEARBOX TILT, MODELS ES-30, ES-40

3.0 INSTALLATION INSTRUCTIONS (Continued)



WARNING: Before performing any maintenance disconnect the electrical power supply and place a tag at the disconnect switch to indicate that you are working on the circuit.

The wiring compartment is located behind the control panel. Refer to Page 4 Service Connections.

1. Remove the wiring compartment cover and make electrical connections per the wiring diagram located inside the control housing cover panel. (The braising pan must be grounded in accordance with requirements of the National Electrical Code or applicable local codes.) See warning (page 6). Connection from incoming lines must be waterproof.
2. To access the wiring compartment: remove the tilt handle, loosen hinge screws (about 1/2") at the bottom of compartment and pull down the front control panel.
3. Ground skillet to terminal provided in control housing. A wiring diagram is provided and is located inside the control cover panel.
4. Replace wiring compartment cover.

SERVICE CONNECTIONS


All internal wiring for the skillet is complete.

Make service connections as indicated on page 4 and electrical connections above.

If a faucet is provided, connect the water supplies and check for proper operation.

INSTALLATION AND OPERATION MANUAL, ELECTRIC FLOOR MODEL BRAISING PAN
WITH MANUAL GEARBOX TILT, MODELS ES-30, ES-40

4.0 OPERATION INSTRUCTIONS

	WARNING: The tilting braising pan and its parts are hot. Use care when operating, cleaning and servicing the tilting braising pan.
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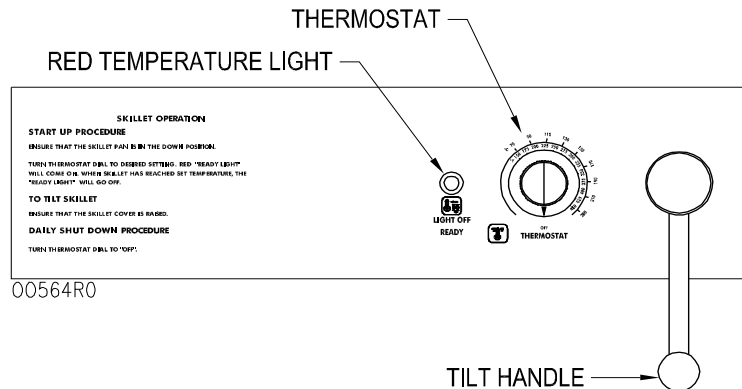
BEFORE FIRST USE

Using a non-corrosive, grease-dissolving commercial cleaner, clean the protective metal oils from all surface parts and the interior of the tilting braising pan. Follow the cleaner manufacturer's directions. Rinse thoroughly and drain the pan. Wipe dry with a soft clean cloth.

CONTROLS (Figure 1)

- Red Temperature Light -** Illuminates when heating elements are supplying heat to the tilting braising pan.
- Thermostat -** Turns tilting braising pan ON and maintains set temperature by controlling power supply. Temperature settings are marked on the control panel in either °C or °F.
- Tilt Handle -** Used to manually raise and lower braising pan.

FIGURE 1



INSTALLATION AND OPERATION MANUAL, ELECTRIC FLOOR MODEL BRAISING PAN
WITH MANUAL GEARBOX TILT, MODELS ES-30, ES-40

START-UP PROCEDURE

1. Ensure that the braising pan is in the DOWN position.
2. Turn THERMOSTAT dial to desired temperature (reference Cooking Guidelines, Page 11). The red TEMPERATURE light will come on.
3. When braising pan has reached set temperature, the red TEMPERATURE light will go off and the heating elements will shut off. The heating elements will cycle on and off thereafter to maintain set temperature. The red TEMPERATURE light will cycle on and off with the heating elements.
4. Preheat braising pan and allow it to cycle to equalize heat across the entire surface.
5. Water will boil faster with the lid down.
6. Turn THERMOSTAT to OFF when braising pan is not in use.

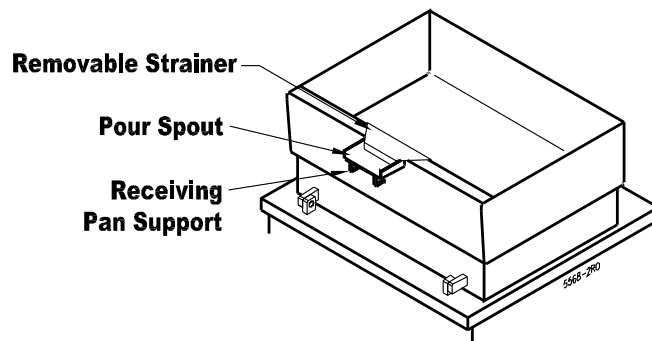
DAILY SHUTDOWN PROCEDURE

Turn THERMOSTAT dial to OFF.

TILTING THE BRAISING PAN

1. DO NOT try to tilt braising pan with lid down.
2. Make sure the receiving pan is in place.
3. Turn crank handle clockwise to lift the braising pan and counterclockwise to lower the braising pan. When the braising pan is raised 5° or more, the electrical supply will be turned off automatically. The braising pan will not operate once the pan has been tilted.
4. Food is poured through the removable strainer (Figure 2) into a food receiving pan positioned under the lip of the pouring spout.

FIGURE 2



INSTALLATION AND OPERATION MANUAL, ELECTRIC FLOOR MODEL BRAISING PAN
WITH MANUAL GEARBOX TILT, MODELS ES-30, ES-40

5.0 CLEANING INSTRUCTIONS



WARNING: Disconnect electrical power supply before cleaning.

Before cleaning allow the tilting braising pan to cool and then clean it. Keep exposed cleanable areas of the tilting braising pan clean at all times. Do not get water in electrical box or any electrical component.

1. Thoroughly wash pan, pouring spout (see Figure 2), lid and exterior surfaces with detergent and warm water. If necessary, soak pan to remove food that is stuck to pan surface. Rinse thoroughly and wipe dry with a soft clean cloth.
2. Clean removable strainer and receiving pan support (Figure 2) with detergent and warm water. Rinse thoroughly and wipe dry with a soft clean cloth.

INSTALLATION AND OPERATION MANUAL, ELECTRIC FLOOR MODEL BRAISING PAN
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6.0 COOKING GUIDELINES

The guidelines given below are suggested quantities, temperature settings, and **estimated** numbers of orders per load and per hour. When two temperatures are given, the first is to start the product, and the second to finish the product.

The following temperatures should be used:

	<u>Temperature (°F)</u>
Simmering	200 Maximum
Sautéing	225 - 275
Searing	300 - 350
Frying	325 - 375
Grilling	350 - 450

<u>ITEM</u>	<u>PORTION SIZE</u>	<u>TEMP. (°F)</u>	<u>BATCHES PER HOUR</u>	<u>ES-30 PER LOAD QTY.</u>	<u>ES-30 PER LOAD PORTIONS</u>	<u>ES-40 PER LOAD QTY.</u>	<u>ES-40 PER LOAD PORTIONS</u>
BREAKFAST FOODS							
Bacon	3 slices	350	12	2 lb.	10	3 lb.	15
Eggs							
- Boiled - Hard	1 egg	225	5	50 eggs	50	75 eggs	75
- Boiled-Soft	1 egg	225	8	50 eggs	50	75 eggs	75
- Fried	1 egg	400	4	30 eggs	30	45 eggs	45
- Poached	1 egg	225	5	36 eggs	36	60 eggs	60
- Scrambled	1-1/2 eggs	300 - 200	1	18 gallons	720	28 gallons	1100
French Toast	3 slices	450	7	35 slices	12	50 slices	17
Regular Oatmeal	1/2 cup	250	2	20 lb. (100 cups)	500	40 lb. (200 cups)	1000
Pancakes	2 each	400	10	30 each	15	50 each	25

INSTALLATION AND OPERATION MANUAL, ELECTRIC FLOOR MODEL BRAISING PAN
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<u>ITEM</u>	<u>PORTION SIZE</u>	<u>TEMP. (°F)</u>	<u>BATCHES PER HOUR</u>	<u>ES-30 PER LOAD QTY. PORTIONS</u>	<u>ES-40 PER LOAD QTY. PORTIONS</u>
FISH					
Clams	1 pint	400	10	10 quarts 20	15 quarts 30
Fish Cakes	2 - 3 oz.	400	5	70 - 3 oz. 35	110 - 3 oz. 55
Haddock Fillet	4 oz.	400	4	60 - 4 oz. 60	90 - 4 oz. 90
Halibut Steak	5 oz.	450	3	60 - 4 oz. 60	90 - 4 oz. 90
Lobster	1 - 1 lb.	350	4	20 - 1 lb. 20	30 - 1 lb. 30
Swordfish	5 oz.	450	3	50 - 5 oz. 50	75 - 5 oz. 75
SAUCES, GRAVIES, SOUPS					
Brown Gravy	1 oz.	350 - 200	2	18 gal. 2300	35 gal. 4500
Cream Sauce	2 oz.	250 - 175	1	18 gal. 1150	35 gal. 2250
Cream Soup	6 oz.	200	1	18 gal. 375	35 gal. 725
French Onion Soup	6 oz.	225	1	18 gal. 350	35 gal. 700
Meat Sauce	4 oz.	350 - 200	1	18 gal. 575	35 gal. 1100
VEGETABLES					
CANNED	3 oz.	400	6	30 lb. 125	45 lb. 200
FRESH					
Beans, Wax, Green	3 oz.	400	3	25 lb. 125	50 lb. 250
Beets	3 oz.	400	1	30 lb. 125	60 lb. 300
Broccoli	3 oz.	400	3	25 lb. 125	40 lb. 200
Cabbage	3 oz.	400	5	20 lb. 80	30 lb. 125
Carrots	3 oz.	400	2	35 lb. 150	70 lb. 300
Cauliflower	3 oz.	250	5	15 lb. 75	25 lb. 125
Corn	1 ear	400	8	50 ears 50	75 ears 75

INSTALLATION AND OPERATION MANUAL, ELECTRIC FLOOR MODEL BRAISING PAN
WITH MANUAL GEARBOX TILT, MODELS ES-30, ES-40

<u>ITEM</u>	<u>PORTION SIZE</u>	<u>TEMP. (°F)</u>	<u>BATCHES PER HOUR</u>	<u>ES-30 PER LOAD</u>		<u>ES-40 PER LOAD</u>	
				<u>QTY.</u>	<u>PORTIONS</u>	<u>QTY.</u>	<u>PORTIONS</u>
Potatoes	3 oz.	400	2	40 lb.	200	60 lb.	300
Spinach	4 oz.	250	10	6 lb.	25	9 lb.	35
Turnips	4 oz.	400	2	20 lb.	100	30 lb.	150
FROZEN							
Beans, French Green	3 oz.	400	6	15 lb.	60	22-1/2 lb.	90
Lima Beans	3 oz.	250	4	15 lb.	60	22-1/2 lb.	90
Broccoli	3 oz.	400	8	12 lb.	50	18 lb.	75
Sliced Carrots	3 oz.	250	6	15 lb.	60	22-1/2 lb.	90
Small Whole Carrots	3 oz.	250	3	15 lb.	50	22-1/2 lb.	90
Corn	3 oz.	250	18	15 lb.	50	22-1/2 lb.	90
Small Whole Onions	3 oz.	250	7	15 lb.	50	22-1/2 lb.	90
Peas	3 oz.	400	10	15 lb.	75	22-1/2 lb.	110
Spinach	3 oz.	400	3	15 lb.	75	22-1/2 lb.	110
DESSERTS, PUDDINGS, SWEET SAUCES							
Butterscotch Sauce	1 oz.	200	1	18 gal.	2300	35 gal.	4500
Cherry Cobbler	3 oz.	200	1	18 gal.	750	35 gal.	1500
Chocolate Sauce	1 oz.	200	1	18 gal.	2300	35 gal.	4500
Cornstarch Pudding	4 oz.	200	1	18 gal.	575	35 gal.	1100
Fruit Gelatin	3 oz.	250	2	18 gal.	750	35 gal.	1500

INSTALLATION AND OPERATION MANUAL, ELECTRIC FLOOR MODEL BRAISING PAN
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<u>ITEM</u>	<u>PORTION SIZE</u>	<u>TEMP. (°F)</u>	<u>BATCHES PER HOUR</u>	<u>ES-30 PER LOAD QTY.</u>	<u>PORTIONS</u>	<u>ES-40 PER LOAD QTY.</u>	<u>PORTIONS</u>
MEAT-POULTRY							
BEEF							
American Chop Suey	6 oz.	400 - 225	2	18 gal.	350	35 gal.	700
Beef Stew	8 oz.	300	-	18 gal.	280	35 gal.	560
Corned Beef Hash	5 oz.	400	5	16 lb.	50	25 lb.	75
Cheeseburger	3 oz.	300	12	7 lb.	35	10 lb.	50
Hamburger	3 oz.	300	15	7 lb.	35	10 lb.	50
Meatballs	1 oz.	400 - 225	3	12-1/2 lb.	65	18 lb.	100
Pot Roast	2 oz.	350 - 200		120 lb.	500	180 lb.	750
Salisbury Steak	5 oz.	400	3	16 lb.	50	24 lb.	75
Sirloin Steak	6 oz.	400	5	15 lb.	40	22-1/2 lb.	60
Swiss Steak	4 oz.	300 - 200	1	25 lb.	110	40 lb.	160
CHICKEN							
Pan Fried	2-1/4's	350	3	50 pieces	25	80 pieces	40
Whole	2 oz.	350 - 200		16 - 5 lb.	200	24-5 lb.	265
FRANKFURTERS							
Grilled	2 oz.	300	8	22 lb.	176	33 lb.	264
Boiled	2 oz.	250	12	16 lb.	128	25 lb.	200
PORK							
Bacon	3 slices	350	12	2 lb.	10	3 lb.	15
Ham Steak	3 oz.	400	8	10 lb.	50	15 lb.	75
Pork Chops	5 oz.	350	4	15 lb.	50	25 lb.	75

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<u>ITEM</u>	<u>PORTION SIZE</u>	<u>TEMP. (°F)</u>	<u>BATCHES PER HOUR</u>	<u>ES-30 PER LOAD</u>		<u>ES-40 PER LOAD</u>	
				<u>QTY.</u>	<u>PORTIONS</u>	<u>QTY.</u>	<u>PORTIONS</u>
Sausage Links	3 links	350	7	30 lb.	120	45 lb.	180
TURKEY							
Off Carcass	2 oz.	400 - 200	–	3 26-30 lb.	200	4 26-30 lb.	275
On Carcass	2 oz.	400 - 200	–	4 16-20 lb.	175	6 16-20 lb.	265
MISCELLANEOUS							
Grilled Cheese Sandwich	1 sandwich	400	8	35 sandwiches	35	50 sand.	50
Macaroni & Cheese	8 oz.	200	2	18 gal.	300	35 gal.	525
Rice	4 oz.	350 - 225	1	20 lb. raw	320	40 lb. raw	650
Spaghetti	4 oz.	350 - 225	2	8 lb. raw	200	12 lb. raw	300

INSTALLATION AND OPERATION MANUAL, ELECTRIC FLOOR MODEL BRAISING PAN
WITH MANUAL GEARBOX TILT, MODELS ES-30, ES-40

7.0 MAINTENANCE



WARNING: The tilting braising pan and its parts are hot. Use care when operating, cleaning and servicing the tilting braising pan.



WARNING: Disconnect electrical power supply and place a tag at the disconnect switch to indicate that you are working on the circuit before performing any maintenance.

ADJUSTMENTS

All tilting braising pans are adjusted at the factory.

At least twice a year, have an authorized service person clean and adjust the tilting braising pan for maximum performance.

INSTALLATION AND OPERATION MANUAL, ELECTRIC FLOOR MODEL BRAISING PAN
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8.0 TROUBLESHOOTING

HEATING ELEMENTS DO NOT COME ON:

1. Power supply not "ON".
2. Pan not in down position.
3. Defective thermostat or elements.
4. Defective limit switch or activator mechanism.
5. Defective contactors.