# **Service & Parts Manual**

# Convotherm Combination Oven-Steamer





Enodis

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## INSTALLATION

## FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

# **WARNING**

I 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.

# **WARNING**

Disconnect power at the main external power switch before servicing or repairing a Combi. Failure to disconnect power can result in death, injury, and property damage.

ALL SERVICE MUST BE PERFORMED BY A QUALIFIED CLEVELAND RANGE AUTHORIZED TECHNICIAN.

# **A** WARNING

Do not connect the Combi Oven-Steamer drain connection to any drain material that cannot sustain 140° Fahrenheit.

Using drain material that cannot withstand 140° Fahrenheit can result in injury, equipment damage, and property damage.

The Installation Manual is a part of your new Combi Oven-Steamer. You must keep and maintain it for the entire life span of your Combi and pass it on to the next owner of the Combi.

# For complete installation instruction refer to the installation manual supplied with the combi.

This manual may be subject to new technical developments, modifications, and unforeseen errors.

DO NOT OPERATE OR ATTEMPT TO OPERATE THIS APPLIANCE OR ANY ACCESSORIES WITHOUT READING COMPLETELY AND FULLY UNDERSTANDING THIS MANUAL

For caster equipped Combis: Per separate instructions, connect the strain relief (restraining device) and complete any remaining installation procedures BEFORE starting the Combi.

Convotherm by Cleveland Combi Oven-Steamers are intended for other than household use.

## **Cleveland STATEMENT OF POLICIES**

## LIMITED WARRANTY

CLEVELAND RANGE products are warranted to the original purchaser to be free from defects in materials and workmanship under normal use and service for the standard warranty period of one year from date of installation or 18 months from date of shipment, which ever comes first.

CLEVELAND RANGE agrees to repair or replace, at its option, f.o.b. factory, any part which proves to be defective due to defects in material or workmanship during the warranty period, providing the equipment has been unaltered, and has been PROPERLY INSTALLED, MAINTAINED, AND OPERATED IN ACCORDANCE WITH THE CLEVELAND RANGE OWNER'S MANUAL.

CLEVELAND RANGE agrees to pay any FACTORY AUTHORIZED EQUIPMENT SERVICE AGENCY (within the continental United States, and Hawaii) for reasonable labor required to repair or replace, at our option, f.o.b. factory, any part which proves to be defective due to defects in material or workmanship, during the labor warranty period. This warranty includes travel time not to exceed two hours and mileage not to exceed 50 miles (100 miles round-trip), BUT DOES NOT INCLUDE POST START-UP, TIGHTENING LOOSE FITTINGS, MINOR ADJUSTMENTS, MAINTENANCE, CLEANING OR DESCALING.

The standard labor warranty allows factory payment of reasonable labor required to repair or replace such defective parts. Cleveland Range will not reimburse the expense of labor required for the repair or replacement of parts after the standard warranty period, unless an Extended Labor Warranty Contract has been purchased to cover the equipment for the balance of the warranty period from the date of equipment installation, start-up, or demonstration.

PROPER INSTALLATION IS THE RESPONSIBILITY OF THE DEALER, THE OWNER-USER, OR INSTALLING CONTRACTOR, AND IS NOT COVERED BY THIS WARRANTY. Many local codes exist, and it is the responsibility of the owner and installer to comply with these codes. Cleveland Range equipment is built to comply with applicable standards for manufacturers, including UL, ANSI, NSF, ASME/Ntl. Bd., CSA, and others.

BOILER (Steam Generator) MAINTENANCE IS THE RESPONSIBILITY OF THE OWNER-USER AND IS NOT COVERED BY THIS WARRANTY. The use of good quality feed water is the responsibility of the Owner-User (see Water Quality Recommendations below). THE USE OF POOR QUALITY FEED WATER WILL VOID EQUIPMENT WARRANTIES. Boiler maintenance supplies, including boiler hand hole gaskets, are not warranted beyond the first 90 days after the date the equipment is placed into service. Preventive maintenance records must be available showing descaling per applicable Cleveland Operator Manual for Boiler Proration Program considerations.

#### WATER QUALITY RECOMMENDATIONS

TOTAL DISSOLVED SOLIDS	less than	60 parts per million
TOTAL ALKALINITY	less than	20 parts per million
SILICA	less than	13 parts per million
CHLORIDE	less than	30 parts per million
pH FACTOR	greater tha	n 7.5

The foregoing shall constitute the sole and exclusive remedy of original purchaser and the full liability of Cleveland Range for any breach of warranty. THE FOREGOING IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER WRITTEN, ORAL, OR IMPLIED, INCLUDING ANY WARRANTY OF PERFORMANCE, MERCHANTABILITY, OR FITNESS FOR PURPOSE, AND SUPERSEDES AND EXCLUDES ANY ORAL WARRANTIES OR REPRESENTATIONS, OR WRITTEN WARRANTIES OR REPRESENTATIONS, NOT EXPRESSLY DESIGNATED IN WRITING AS A "WARRANTY" OR "GUARANTEE" OF CLEVELAND RANGE MADE OR IMPLIED IN ANY MANUAL, LITERATURE, ADVERTISING BROCHURE OR OTHER MATERIALS.

CLEVELAND RANGE'S liability on any claim of any kind, including negligence, with respect to the goods or services covered hereunder, shall in no case exceed the price of the goods or services, or part thereof, which gives rise to the claim. IN NO EVENT SHALL CLEVELAND RANGE BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, OR ANY DAMAGES IN THE NATURE OF PENALTIES.

#### A. PRODUCT INFORMATION

Cleveland Range, LLC assigns two product identification numbers to each Combi: a model number and a serial number. The model number identifies the product characteristics. The serial number identifies the individual unit.

#### 1. Model Number

- a. This manual covers installation of the OEB and OES model electric powered Combis.
- b. Model Number Key: "O" stands for the Combi series Oven, "E" or "G" designates Electric or Gas, "B" designates Steam Generator, and "S" designates Boilerless. The first number designates the number of shelves in the oven rack. The second number is either ".10" for 12" X 20" steam table pans or ".20" for 18" X 26" full size sheet pans. For further information, contact your Convotherm by Cleveland sales representative or Cleveland Range.

## 2. Serial Number and Equipment Record

During manufacture, Combis are assigned individual serial numbers. Please provide the following information when you contact Cleveland Range or a qualified Cleveland Range authorized service representative:

Serial Number		
	(Write the Serial Number of your Combi here.)	
Model Number		
	(Write the Model Number of your Combi here.)	

## 3. Product Information Plate

The Product Information Plate on the left side of the unit lists the model, serial number, electric, and wiring requirements of the steamer. Figure 1-1 illustrates a typical Product Information Plate.

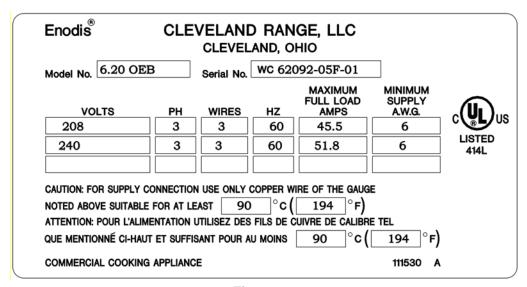


Figure 1-1
Typical Product Information Plate

## INSTALLATION INSTRUCTIONS

## A. GENERAL

This equipment should be installed only by qualified, professional plumbers, pipe fitters, and electricians.

- 1. The installation of this Combi must conform with:
  - a. The National Electrical Code, ANSI/NFPA 70 (latest edition), or the Canadian Electrical Code, CSA C22.2 as applicable.
  - b. The Food Service Sanitation Manual of the Food and Drug Administration (FDA).
  - c. All applicable national, state, and local laws, codes, and regulations.
- 2. This equipment is to be installed to comply with the applicable federal, state, or local plumbing codes.
- 3. Installation instructions must be read in their entirety before starting installation of a Combi.
- 4. Install the Combi according to the policies and procedures outlined in this manual.

# **A** DANGER

Improper installation, adjustment, alteration, service, or maintenance of a Combi, or installation of a damaged Combi can result in DEATH, INJURY, EQUIPMENT DAMAGE, and void the warranty.

**NEVER** install damaged Combis.

**ALWAYS** have qualified Cleveland Range authorized personnel install and service Combis.

- 5. Inspect the Combi for shipping damage.
  - a. Check carton and packing for shipping damage.
  - b. Note any damage on the shipping paperwork as soon as the carton arrives.
  - c. Unpack the Combi and check for shipping damage.
  - d. If the Combi is damaged or damage is suspected:
    - 1) Inform your dealer at once.
    - 2) Inform Cleveland Range in writing within 3 days.
    - 3) Submit a Damage Claim to the shipper.

#### B. INSTALLATION OF THE COMBI - General Instructions

#### General Instructions:

- 1. Select the Combi's operating location.
- 2. Complete the water, drain, and electric lines before positioning and leveling the Combi.
- 3. Position and level the Combi.
- 4. Connect the utility lines after positioning and leveling the Combi.
- 5. Call Cleveland Range at 216-481-4900 for the Free Start-Up Program's Performance Checkout.
- 6. After Setup and Performance Checkout, the Combi should provide years of reliable operation.

# **A** DANGER

Improper lifting can result in DEATH, INJURY, AND EQUIPMENT DAMAGE.

Use enough workers with training and experience lifting heavy equipment to place Combis on supporting surfaces, and lift and handle Combis and accessories.

## **A** DANGER

Operating an out of level Combi can cause DEATH, INJURY, and EQUIPMENT DAMAGE.

Combis must be level both front-to-back and side-to-side in all installations.

NEVER operate an out of level Combi.

If a Combi is suspected to be out of level, shut it down at once and call you qualified Cleveland Range authorized service agency at once.

#### C. SPECIAL INSTRUCTIONS FOR CASTER EQUIPPED COMBI STANDS AND COMBIS

- 1. Read all instructions before beginning installation.
- 2. Level the floor if needed.
- NOTE: Combis on caster-equipped stands have less adjustment for level than adjustable foot equipped stands.
- 4. The front wheels of caster-equipped stands and Combis have locks. Check the caster locks for function and position before installation.
- 5. Follow the separate instructions included with the Stand, Stacking Kit, or Caster Kit.
- 6. Make sure the Stand, Stacking Kit, or Caster Kit matches the Combi(s).
- 7. Use only genuine Cleveland Range Stands, Stacking Kits, Caster Kits, and replacement parts.
- 8. Use of Stands, Stacking Kits, Caster Kits, and replacement parts other than genuine Cleveland Range Stands, Stacking Kits, and Caster Kits and replacement parts can result in injury and / or catastrophic equipment failure, and voids the Warranty.
- 9. The appliance must be secured to building structure, to prevent any strain on the utility connections, and to help reduce the risk of electric shock.
- 10. The strain relief (restraining device) must be installed to limit the movement of the appliance without depending on the water and electric connectors or their associated piping (water or electric). See separate instructions for attachment location and other details.
- 11. Connect the strain relief (restraining device) BEFORE starting the Combi
- 12. If the strain relief (restraining device) must be disconnected, it must be reconnected after the Combi has been returned to its originally installed position BEFORE restarting the Combi.
- 13. Prepare the installation location as described in the Combi Installation Manual.
- 14. The Combi shall be installed using flexible conduit.
- 15. Mechanically secure the flexible conduit to the Combi's electrical access hole.



## **COMBI OVEN-STEAMER**

Enodis



Featuring the

"Advanced Closed System +3"

## ELECTRIC HEATED - with Steam Generator

## **Cooking Modes:**

- Hot Air
- Retherm
- "Delta T" slow cooking

- Steam
- "Cook & Hold"
- "Crisp & Tasty"

■ Combi

#### **Cleveland Standard Features:**

- "Advanced closed system" with "Crisp & Tasty" de-moisturizing feature
- Efficient heating system for hot air and steam generator saves energy and provides fast heat up times
- Fully insulated steam generator and cooking compartment for maximum energy savings
- Polished cooking compartment with coved corners for easy cleaning
- Three (3) 12" x 20" wire shelves
- Hinged fan guard and hinged removable pan racks
- Two (2) speed auto reversing convection fan for even heat distribution
- Space saving, easy to close "Disappearing Door"
- Door latch with safety vent position and wear-free door switch
- Vented, double glass door with integrated door stop and self draining condensate drip pan
- Easy to change, press-fit door seal
- Oven light with shock resistant safety glass
- Multipoint core temperature probe
- Easy to use electronic controls for all operational functions
- Self diagnostic system with full text message display
- Easy to understand menu icons with bright graphics display
- User friendly selector dial
- Exclusive "Smart Key" for selecting option settings
- Digital controls for temperature, time and core probe settings
- Eight (8) "Press & Go" one step, recipe start buttons
- Cook book library for up to 250 stored recipe programs, each recipe capable of 20 steps
- RS 232 connection for controlling one unit with a PC (personal computer)
- Memory module automatically saves unit settings and recipes
- Manual program override feature for operational settings
- Smooth action hand shower for compartment cleaning

## Electric Steam Generator

- Built-in automatic rinse system
- Automatic fill and water level control
- Automatic generator drain

**MODEL**: □ OEB-10.10

**CAPACITY:** TEN (10) – 12" by 20" by 2 1/2" steam table pans

ITEM NUMBER \_\_\_\_\_

JOB NAME / NUMBER \_\_\_



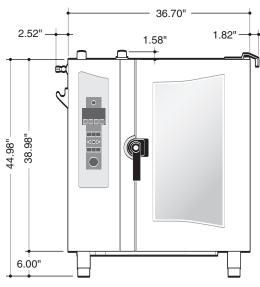
## Short Form Specifications

Shall be Cleveland Model: OEB-10.10 Combination Convection Oven / Steamer with simple to operate electronic programmable controls for Hot Air, Convection Steam, and Combination cooking modes, "Cook & Hold" and "Delta T' slow-cooking capabilities, "Advanced Closed System" with "Crisp & Tasty" demoisturizing feature. Multiple cooking stage programs, stored recipe library, multipoint core temperature probe, "Press & Go", one-step recipe start buttons, "Smart Key" for selecting option settings, Two (2) speed auto reversing convection fan. Electric steam generator with automatic drain. "Disappearing Door". Capacity for ten (10) 12" x 20" x 2 1/2" pans.

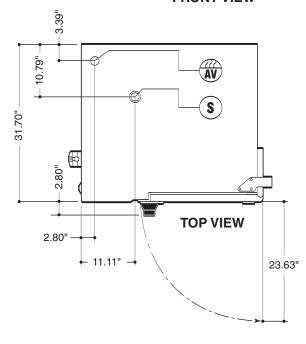
### **Options and Accessories**

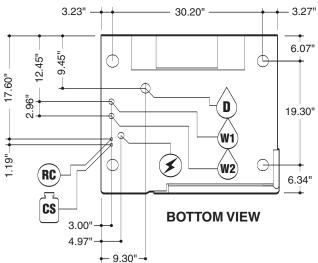
- ☐ ConvoClean automatic compartment washing system
- PC-HACCP software for establishing "HACCP controls" and automatic documentation of the cooking process
- Equipment stand(s)
- Equipment stand(s) with Casters
- Stacking kit for mounting one (1) OEB-6.10 model on top of one (1) OEB-10.10
- ☐ Lockable cover over operating controls for prison installations
- USB or RS 485 connection for networking and controlling up to 32 units with a personal computer
- Plate rack for banquet operations
- Plate rack cart
- ☐ Thermal cover for plate or pan rack
- ☐ ConvoClean compartment cleaning solution
- □ ConvoCare concentrate for compartment rinse cycle
- □ "Dissolve" generator descaling solution
- Chicken Grill Rack
- □ 12" x 20" Wire Baskets for frying products
- ☐ Additional 12" x 20" Wire Shelves

SECT. IIC PAGE 3



#### **FRONT VIEW**





#### The "Advanced Closed System" offers the following advantages:

- Saves energy
- Automatic moisture level adjustment
- Low heat and steam emission to the kitchen
- Automatically regulated steam injection
- Enables immediate change into the steam mode
- "Crisp & Tasty" demoisturizing function

Model: 0EB-10.10

Pan Capacity [Unit has 11 slide rails at 2.64" (67mm) apart]: **10** (12" x 20" x 2 1/2") steam table pans 11 (12" x 20" x 1") steam table pans 11 (13" x 20") half size wire racks 11 (13" x 18") half size sheet pans

10 (12" x 20") frying baskets - (no wire racks needed)

For Banquet Operations: Optional Plate Rack holds 32 plates

**Unit Dimensions:** Width - 41.04", Depth - 34.50", Height - 45.68"

**Shipping Dimensions:** Width - 47", Depth - 41", Height - 54" (including packaging)

**Shipping Weight:** 475 Lbs

**Required Clearances:** Rear - 2", Left Side - 4", Right Side - 2 1/2"

- · Allow for sufficient distance if a "high heat source" (i.e. Broiler) is located next to the unit.
- · Allow for sufficient clearance on left side for service access (contact the factory service department for recommendations).
- · Installation must comply with all local fire and health codes.

	Agency Approvals:	UL, UL - Sanitation (NSF Standards)			
	Electrical Requirements:	208/3/60	240/3/60	440/3/60	480/3/60
$\circ$	Total Connected Load:	16.4 KW	21.6 KW	18.5 KW	22 KW
	Hot Air:	14.7 KW	19.6 KW	16.5 KW	19.6 KW
	Steam Generator:	12.8 KW	17.1 KW	14.3 KW	17.1 KW
	Amps per Phase:	45.5	51.8	24.2	26.4
	Do not connect to a G.F.I. o	utlet		•	

**Water Connections:** Cold Water (drinking water quality) Flow Pressure: 30 - 60 PSI

Water Inlets: 3/4" GHT-F (Female Garden Hose Connection)

Treated Water for Steam Generator

Untreated Water for Condenser and Hand Shower

**Drain Connection:** 2" Tube

Venting: Exhaust Hood required

Air Vent

CS \*Connection for Cleaning Solution

RC \*Connection for Rinse Cycle

S Low Pressure Safety Valve

D

\*Available as an option



## COMBI OVEN-STEAMER



Enodis

Featuring the

"Advanced Closed System +3"

## ELECTRIC HEATED - Boilerless

## **Cooking Modes:**

- Hot Air
- Retherm
- "Delta T" slow cooking

- Steam
- "Cook & Hold"
- "Crisp & Tasty"

Combi

#### Cleveland Standard Features:

- "Advanced closed system" with "Crisp & Tasty" de-moisturizing feature
- Efficient heating system saves energy and provides fast heat up times
- Fully insulated cooking compartment for maximum energy savings
- Polished cooking compartment with coved corners for easy cleaning
- Three (3) 12" x 20" wire shelves
- Hinged fan guard and hinged removable pan racks
- Two (2) speed auto reversing convection fan for even heat distribution
- Space saving, easy to close "Disappearing Door"
- Door latch with safety vent position and wear-free door switch
- Vented, double glass door with integrated door stop and self draining condensate drip pan
- Easy to change, press-fit door seal
- Oven light with shock resistant safety glass
- Multipoint core temperature probe
- Easy to use electronic controls for all operational functions
- Self diagnostic system with full text message display
- Easy to understand menu icons with bright graphics display
- User friendly selector dial
- Exclusive "Smart Key" for selecting option settings
- Digital controls for temperature, time and core probe settings
- Eight (8) "Press & Go" one step, recipe start buttons
- Cook book library for up to 250 stored recipe programs, each recipe capable of 20 steps
- RS 232 connection for controlling one unit with a PC (personal computer)
- Memory module automatically saves unit settings and recipes
- Manual program override feature for operational settings
- Smooth action hand shower for compartment cleaning
- Injection system for steam

## Options and Accessories

- ☐ ConvoClean automatic compartment washing system
- ☐ PC-HACCP software for establishing "HACCP controls" and automatic documentation of the cooking process
- □ Equipment stand(s)
- ☐ Equipment stand(s) with Casters

<i>MODEL:</i>		OES-10.10
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**CAPACITY:** TEN (10) – 12" by 20" by 2 1/2" steam table pans

ITEM NUMBER		

JOB NAME / NUMBER \_

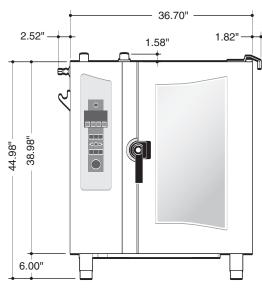


## **Short Form Specifications**

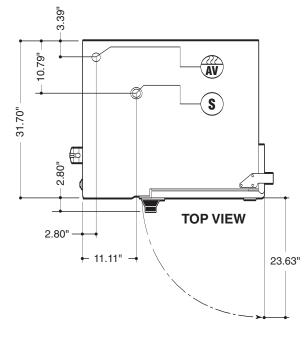
Shall be Cleveland Model: OES-10.10 Combination Convection Oven / Steamer with simple to operate electronic programmable controls for Hot Air, Convection Steam, and Combination cooking modes, "Cook & Hold" and "Delta T" slow-cooking capabilities, "Advanced Closed System" with "Crisp & Tasty" de-moisturizing feature. Multiple cooking stage programs, stored recipe library, multipoint core temperature probe, "Press & Go", one-step recipe start buttons, "Smart Key" for selecting option settings, two (2) speed auto reversing convection fan, boilerless. "Disappearing Door". Capacity for ten (10) 12" x 20" x 2 1/2" pans. pans.

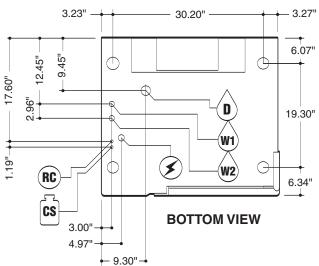
- ☐ Stacking kit for mounting one (1) OES-6.10 model on top of one (1) OES-10.10
- ☐ Lockable cover over operating controls for prison installations
- ☐ USB or RS 485 connection for networking and controlling up to 32 units with a personal computer
- ☐ Plate rack for banquet operations
- Plate rack cart
- ☐ Thermal cover for plate or pan rack
- ☐ ConvoClean compartment cleaning solution
- ☐ ConvoCare concentrate for compartment rinse cycle
- □ "Dissolve" generator descaling solution
- Chicken Grill Rack
- ☐ 12" x 20" Wire Baskets for frying products
- ☐ Additional 12" x 20" Wire Shelves

SECT. IIC PAGE 31



## **FRONT VIEW**





#### The "Advanced Closed System" offers the following advantages:

- Saves energy
- Automatic moisture level adjustment
- Low heat and steam emission to the kitchen
- Automatically regulated steam injection
- Enables immediate change into the steam mode
- "Crisp & Tasty" demoisturizing function

Model: 0ES-10.10

**Pan Capacity** [Unit has 11 slide rails at 2.64" (67mm) apart]:

 **10** (12" x 20" x 2 1/2") steam table pans
 **11** (12" x 20" x 1") steam table pans

 **11** (13" x 20") half size wire racks
 **11** (13" x 18") half size sheet pans

10 (12" x 20") frying baskets - (no wire racks needed)

For Banquet Operations:	Optional Plate Rack holds 32 plates		
Unit Dimensions:	Width - 41.04", Depth - 34.50", Height - 45.68"		
Shipping Dimensions: (including packaging)	Width - 47", Depth - 41", Height - 54"		
Shipping Weight:	475 Lbs		

Required Clearances: Rear - 2", Left Side - 4", Right Side - 2 1/2"

- Allow for sufficient distance if a "high heat source" (i.e. Broiler) is located next to the unit.
- Allow for sufficient clearance on left side for service access (contact the factory service department for recommendations).
- Installation must comply with all local fire and health codes.

	Agency Approvals:	UL, UL - Sanitation (NSF Standards)			
(3)	Electrical Requirements:	208/3/60	240/3/60	440/3/60	480/3/60
$\sim$	Total Connected Load:	16.4 KW	21.6 KW	18.5 KW	22 KW
	Hot Air:	14.7 KW	19.6 KW	16.5 KW	19.6 KW
	Amps per Phase:	45.5	51.8	24.2	26.4
	Do not connect to a G.F.I. or	utlet			

Water Connections: Cold Water (drinking water quality)
Flow Pressure: 30 - 60 PSI
Water Inlets: 3/4" GHT-F (Female Garden Hose Co

3/4" GHT-F (Female Garden Hose Connection)

Treated Water for Steam Production

N2) Untreated Water for Condenser and Hand Shower

D	Drain Connection:		2" Tube
	Venting:		Exhaust Hood required
		AV	Air Vent

\*Connection for Cleaning Solution

\*Connection for Rinse Cycle

Low Pressure Safety Valve

\*Available as an option



## COMBI OVEN-STEAMER



Featuring the

"Advanced Closed System +3"

## ELECTRIC HEATED – with Steam Generator

## **Cooking Modes:**

- Hot Air
  - Retherm
- "Delta T" slow cooking

- Steam
- "Cook & Hold"
- "Crisp & Tasty"

Combi

#### Cleveland Standard Features:

- "Advanced closed system" with "Crisp & Tasty" de-moisturizing feature
- Efficient heating system for hot air and steam generator saves energy and provides fast heat up times
- Fully insulated steam generator and cooking compartment for maximum energy savings
- Polished cooking compartment with coved corners for easy cleaning
- Three (3) 26" x 20" wire shelves
- Hinged fan guard and hinged removable pan racks
- Two (2) speed auto reversing convection fan for even heat distribution
- Space saving, easy to close "Disappearing Door"
- Door latch with safety vent position and wear-free door switch
- Vented, double glass door with integrated door stop and self draining condensate drip pan
- Easy to change, press-fit door seal
- Oven light with shock resistant safety glass
- Multipoint core temperature probe
- Easy to use electronic controls for all operational functions
- Self diagnostic system with full text message display
- Easy to understand menu icons with bright graphics display
- User friendly selector dial
- Exclusive "Smart Key" for selecting option settings
- Digital controls for temperature, time and core probe settings
- Eight (8) "Press & Go" one step, recipe start buttons
- Cook book library for up to 250 stored recipe programs, each recipe capable of 20 steps
- RS 232 connection for controlling one unit with a PC (personal computer)
- Memory module automatically saves unit settings and recipes
- Manual program override feature for operational settings
- Smooth action hand shower for compartment cleaning

## Electric Steam Generator

- Built-in automatic rinse system
- Automatic fill and water level control
- Automatic generator drain

**MODEL**: □ 0EB-6.20

CAPACITY: Seven (7) – 18" by 26" full size sheet pans or

Fourteen (14) – 12" by 20" by 2 1/2" steam table pans

ITEM NUMBER

JOB NAME / NUMBER \_\_\_



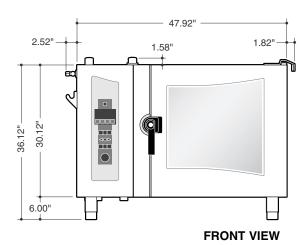
## Short Form Specifications

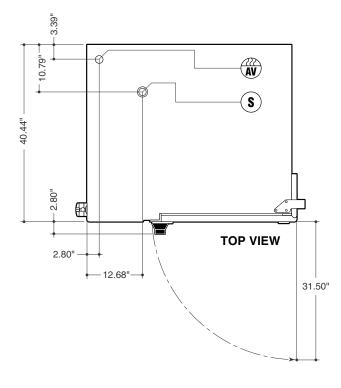
Shall be Cleveland Model: OEB-6.20 Combination Convection Oven Steamer with simple to operate electronic programmable controls for Hot Air, Convection Steam, and Combination cooking modes, "Cook & Hold" and "Delta T" slow-cooking capabilities, "Advanced Closed System" with "Crisp & Tasty" de-moisturizing feature. Multiple cooking stage programs, stored recipe library, multipoint core temperature probe, "Press & Go", one-step recipe start buttons, "Smart Key" for selecting option settings, Two (2) speed auto reversing convection fan. Electric steam generator with automatic drain. "Disappearing Door". Capacity for seven (7) 18" x 26" full size sheet pans, or fourteen (14) 12" x 20" x 2 1/2" pans.

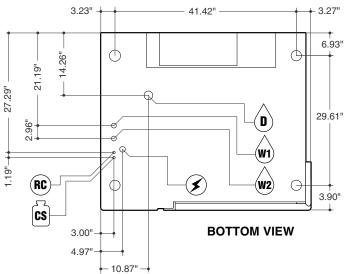
## **Options and Accessories**

- ☐ ConvoClean automatic compartment washing system
- PC-HACCP software for establishing "HACCP controls" and automatic documentation of the cooking process
- Equipment stand(s)
- Equipment stand(s) with Casters
- Stacking kit for stacking two (2) OEB-6.20 models
- Stacking kit for mounting one (1) OEB-6.20 model on top of one (1) OEB-10.20
- Universal pan-rack system to hold full size sheet pans without the use of wire shelves
- Lockable cover over operating controls for prison installations
- USB or RS 485 connection for networking and controlling up to 32 units with a personal computer
- Plate rack for banquet operations
- □ Plate rack cart
- Thermal cover for plate or pan rack
- ConvoClean compartment cleaning solution
- ConvoCare concentrate for compartment rinse cycle
- "Dissolve" generator descaling solution
- Chicken Grill Rack
- 12" x 20" Wire Baskets for frying products
- ☐ Additional 26" x 20" Wire Shelves
- □ Special Baking Rack System

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## The "Advanced Closed System" offers the following advantages:

- Saves energy
- Automatic moisture level adjustment
- Low heat and steam emission to the kitchen
- Automatically regulated steam injection
- Enables immediate change into the steam mode
- "Crisp & Tasty" demoisturizing function

Model: OEB-6.20

Pan Capacity [Unit has 7 slide rails at 2.64" (67mm) apart]:

7 (20" x 26") full size wire racks
14 (13" x 18") half size sheet pans - on wire racks
14 (13" x 18") half size sheet pans - on wire racks
14 (12" x 20" x 2 1/2") steam table pans

**14** (12" x 20" x 1") steam table pans **14** (12" x 20") frying Baskets - (**no wire racks needed**)

For Banquet Operations: Optional Plate Rack holds 42 plates

Unit Dimensions: Width - 52.26", Depth - 43.24", Height - 36.82"

Shipping Dimensions: (including packaging)

Width - 58", Depth - 49", Height - 45"

485 Lbs

Required Clearances: Rear - 2", Left Side - 4", Right Side - 2 1/2"

- Allow for sufficient distance if a "high heat source" (i.e. Broiler) is located next to the unit.
- Allow for sufficient clearance on left side for service access (contact the factory service department for recommendations).
- Installation must comply with all local fire and health codes.

	Agency Approvals:	UL, UL - Sanitation (NSF Standards)			
<b>3</b>	Electrical Requirements:	208/3/60	240/3/60	440/3/60	480/3/60
	Total Connected Load:	16.4 KW	21.6 KW	18.5 KW	22 KW
	Hot Air:	14.7 KW	19.6 KW	16.5 KW	19.6 KW
	Steam Generator:	12.8 KW	17.1 KW	14.3 KW	17.1 KW
	Amps per Phase:	45.5	51.8	24.2	26.4
	Do not connect to a G.F.I. ou	itlet			

Water Connections: Cold Water (drinking water quality)
Flow Pressure: 30 - 60 PSI

Water Inlets: 3/4" GHT-F (Female Garden Hose Connection)

W1 Treated Water for Steam Generator

Untreated Water for Condenser and Hand Shower

Drain Connection: 2" Tube

Venting: Exhaust Hood required

Air Vent

\*Connection for Cleaning Solution

(RC) \*Connection for Rinse Cycle

D'

CS

S Low Pressure Safety Valve

\*Available as an option



## COMBI OVEN-STEAMER



Enodis

Featuring the

"Advanced Closed System +3"

## ELECTRIC HEATED - Boilerless

## **Cooking Modes:**

- Hot Air
  - Retherm
  - "Cook & Hold"
- "Crisp & Tasty"

■ "Delta T" slow cooking

Steam Combi

#### Cleveland Standard Features:

- "Advanced closed system" with "Crisp & Tasty" de-moisturizing feature
- Efficient heating system saves energy and provides fast heat up times
- Fully insulated cooking compartment for maximum energy savings
- Polished cooking compartment with coved corners for easy cleaning
- Three (3) 26" x 20" wire shelves
- Hinged fan guard and hinged removable pan racks
- Two (2) speed auto reversing convection fan for even heat distribution
- Space saving, easy to close "Disappearing Door"
- Door latch with safety vent position and wear-free door switch
- Vented, double glass door with integrated door stop and self draining condensate drip pan
- Easy to change, press-fit door seal
- Oven light with shock resistant safety glass
- Multipoint core temperature probe
- Easy to use electronic controls for all operational functions
- Self diagnostic system with full text message display
- Easy to understand menu icons with bright graphics display
- User friendly selector dial
- Exclusive "Smart Key" for selecting option settings
- Digital controls for temperature, time and core probe settings
- Eight (8) "Press & Go" one step, recipe start buttons
- Cook book library for up to 250 stored recipe programs, each recipe capable of 20 steps
- RS 232 connection for controlling one unit with a PC (personal computer)
- Memory module automatically saves unit settings and recipes
- Manual program override feature for operational settings
- Smooth action hand shower for compartment cleaning
- Injection system for steam

## Options and Accessories

- ☐ ConvoClean automatic compartment washing system
- ☐ PC-HACCP software for establishing "HACCP controls" and automatic documentation of the cooking process
- Equipment stand(s)
- ☐ Equipment stand(s) with Casters

**MODEL**: □ 0ES-6.20

CAPACITY: Seven (7) – 18" by 26" full size sheet pans or

Fourteen (14) – 12" by 20" by 2 1/2" steam table pans

ITEM NUMBER

JOB NAME / NUMBER \_\_\_\_\_

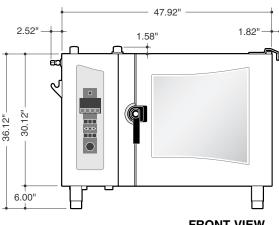


## Short Form Specifications

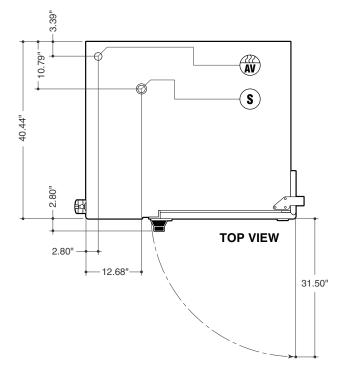
Shall be Cleveland Model: OES-6.20 Combination Convection Oven / Steamer with simple to operate electronic programmable controls for Hot Air, Convection Steam, and Combination cooking modes, "Cook & Hold" and "Delta T" slow-cooking capabilities, "Advanced Closed System" with "Crisp & Tasty" de-moisturizing feature. Multiple cooking stage programs, stored recipe library, multipoint core temperature probe, "Press & Go", one-step recipe start buttons, "Smart Key" for selecting option settings, two (2) speed auto reversing convection fan, boilerless. "Disappearing Door". Capacity for seven (7) 18" x 26" full size sheet pans, or fourteen (14) 12" x 20" x 2 1/2" pans.

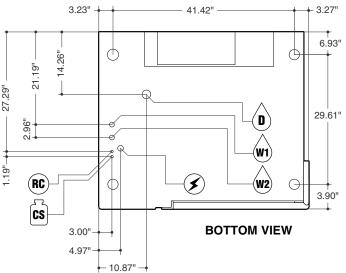
- ☐ Universal pan-rack system to hold full size sheet pans without the use of wire shelves
- ☐ Stacking kit for stacking two (2) OES-6.20 models
- ☐ Stacking kit for mounting one (1) OES-6.20 model on top of one (1) OES-10.20
- ☐ Lockable cover over operating controls for prison installations
- ☐ USB or RS 485 connection for networking and controlling up to 32 units with a personal computer
- Plate rack for banquet operations
- □ Plate rack cart
- ☐ Thermal cover for plate or pan rack
- ☐ ConvoClean compartment cleaning solution
- □ ConvoCare concentrate for compartment rinse cycle
- ☐ "Dissolve" generator descaling solution
- ☐ Chicken Grill Rack
- ☐ 12" x 20" Wire Baskets for frying products
- ☐ Additional 26" x 20" Wire Shelves
- □ Special Baking Rack System

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### **FRONT VIEW**





#### The "Advanced Closed System" offers the following advantages:

- Saves energy
- Automatic moisture level adjustment
- Low heat and steam emission to the kitchen
- Automatically regulated steam injection
- Enables immediate change into the steam mode
- "Crisp & Tasty" demoisturizing function

Model: 0ES-6.20

Pan Capacity [Unit has 7 slide rails at 2.64" (67mm) apart]:

7 (20" x 26") full size wire racks 7 (18" x 26") full size sheet pans - on wire racks 14 (13" x 18") half size sheet pans - on wire racks 14 (12" x 20" x 2 1/2") steam table pans

14 (12" x 20" x 1") steam table pans 14 (12" x 20") frying Baskets - (no wire racks needed)

For Banquet Operations: Optional Plate Rack holds 42 plates **Unit Dimensions:** Width - 52.26", Depth - 43.24", Height - 36.82"

**Shipping Dimensions:** Width - 58", Depth - 49", Height - 45" (including packaging)

**Shipping Weight:** 485 Lbs

**Required Clearances:** Rear - 2", Left Side - 4", Right Side - 2 1/2"

- Allow for sufficient distance if a "high heat source" (i.e. Broiler) is located next to the unit.
- Allow for sufficient clearance on left side for service access (contact the factory service department for recommendations).
- · Installation must comply with all local fire and health codes.

**Agency Approvals:** UL, UL - Sanitation (NSF Standards)

**Electrical Requirements:** 208/3/60 240/3/60 440/3/60 480/3/60 Total Connected Load: 16.4 KW 21.6 KW 18.5 KW 22 KW Hot Air: 14.7 KW 19.6 KW 16.5 KW 19.6 KW Amps per Phase: 45.5 51.8 24.2 26.4 Do not connect to a G.F.I. outlet

Water Connections: Cold Water (drinking water quality)

Flow Pressure:

Water Inlets: 3/4" GHT-F (Female Garden Hose Connection)

> (W1 Treated Water for Steam Production

(W2) Untreated Water for Condenser and Hand Shower

D **Drain Connection:** 2" Tube

> Venting: Exhaust Hood required

> > Air Vent

CS \*Connection for Cleaning Solution

(RC \*Connection for Rinse Cycle

**Low Pressure Safety Valve** 

\*Available as an option

# CONTROL PANEL BASIC OPERATION

# A. QUICK START GUIDE ALWAYS PRE-HEAT THE OVEN CHAMBER!

- 1. Switch on with key (1).
- 2. Select cooking mode with keys (2-5).
- 3. Press key (6) to start.

#### OR

- 1. Press key (18) and rotate Selector Dial (23) to set oven temperature.
- 2. Press key (19) and rotate Selector Dial (23) to set cooking time.

#### OR

1. Press key (20) and rotate Selector Dial (23) to set core temperature.

## ALL

- 1. Press key (6) to start the Combi.
- 2. To change the settings while cooking: press keys (18) OR (19) OR (20) and adjust the settings with the Selector Dial (23).
- 3. When the buzzer sounds press key (6) or open the door.

NOTES: See "CONTROL PANEL DETAIL VIEW" in Chapter 4, Section B for detailed descriptions of control panel functions.



Figure 4-1a Control Panel

## **B. CONTROL PANEL DETAIL VIEW**

Note: Item numbers correspond to numbers on the control panels in Figure 4-1b

#### 1. ON/OFF

When the Combi is turned ON:

- Self-diagnosis is performed.
- Oven light turns on.
- Steam generator fills and heats (OEB and OGB models).

## **Cooking Modes**

## 2. Steam

 Oven temperature is continuously variable between 86°F and 248°F.

#### 3. Combi Hot Air and Steam

 Oven temperature is continuously variable between 212°F and 482°F.

#### 4. Hot Air

 Oven temperature is continuously variable between 86°F and 482°F.

#### 5. Retherm

 Oven temperature is continuously variable between 248°F and 320°F.

#### 6. Start/Stop

- Start cooking modes and recipes.
- Stop the cooking activity.
- Escape or Exit Smart Key functions

## **Programming / Help**

#### 7. Cookbook

- Call up, exit cookbook.
- View a list of stored recipes in the display.

## 8. Smart Key

- Set Extra Functions.
- Set-Up the Combi.
- Enter Sub-Menus.

## 9. Edit

Create, change, copy, and delete recipes.



Figure 4-1b Control Panel

## **Function Indicators**

- Light up when function or activity is engaged:
- 10. Reduced Power
- 11. Burner or Electric Heating ON
- 12. Reduced Fan Speed
- 13. Cooking Mode Engaged
- 14. Button Lock
- 15. Crisp & Tasty Engaged
- 16. Program Protection

### 17. Display

- Display in normal mode:
  - Date.
  - Time.
  - Oven Temperature.
  - Cooking Time
  - Core Probe Temperature.
- Display in programming mode:
  - Clear text.
  - Memory.
  - Symbols.

## **Settings**

#### 18. Oven Temperature

- Set the nominal oven temperature.
- View the actual or nominal oven temperature.

#### 19. Cooking Time

- Set the cooking time from 1 minute to 9 hours, 59 minutes using the Selector Dial.
- Set Continuous Mode
  - 1. At 9:59 or 0:01, release the Selector Dial.
  - 2. Turn the Selector Dial again to the left or right.
- See the actual or nominal cooking time.
- See elapsed cooking time when using Core Temperature mode.

### 20. Core Temperature

- Set the nominal core temperature.
- See the actual or nominal core temperature.
- See the actual core temperature during cooking time mode.

#### 21 & 22. Scroll Left and Scroll Right

 Page / Scroll one step forward or back in programming mode.

#### 23. Selector Dial

- Set: Oven temperature, cooking time, core temperature, recipe name, recipe number.
- Select Smart Key functions, editing functions and recipes in the cookbook.

## 24. Press & Go Keys

- Start saved recipes with one key.
- LED below key lights up when corresponding recipe is started.

#### Notes:

### Magnetic door switch

If the oven door is opened during operation, the magnetic door switch automatically interrupts the recipe. The timer stops. After closing the oven door, the Combi automatically continues the recipe. If the oven door is opened when the buzzer sounds at the end of a recipe, it automatically switches off.

Operate controls with hands only!

## AT THE END OF THE DAY OR SHIFT

## A. Cleaning the Oven Chamber

## **A** CAUTION

Clean the oven chamber at least once per day or more frequently as needed Failure to clean the Combi properly and regularly can cause equipment damage.

Damage caused by improper cleaning will invalidate the Warranty!

## 1. Cleaning – General

- a. Regular cleaning of the Combi after use, inside and out, helps guarantee many years of satisfaction from your Combi.
- b. Clean and maintain the Combi ONLY when the Combi is cold.
- c. Use the hand shower only inside the oven chamber.
- d. Clean the outside the Combi by hand.
- Never use the hand shower, hose, pressure washer or similar device on the outside of the Combi.
- f. NEVER spray anything on or into the air intakes or outlets of the Combi.
- g. Do NOT use hoses, pressure washers, high-pressure cleaners, or water jets to clean inside the Combi oven chamber.
- h. Do NOT spray water into a hot oven chamber.
- i. Use only genuine Convotherm by Cleveland and Cleveland Range cleaning and descaling products. Follow the instructions and heed and obey the warnings on the labels. Other products can cause injury, present heath hazards, and damage the Combi.
- j. Never use irritant, acidic, highly alkaline cleaners, high-alcohol, chlorine, chlorinated, or abrasive cleaning agents, scrapers, or abrasive materials to clean the Combi.
- k. Poor water quality can cause discoloration inside the oven chamber. Remove these discolorations with CONVOCare. Spray CONVOCare on the affected surfaces in a COLD oven chamber, wait 10 minutes, wipe off with a soft cloth or sponge, and begin cleaning as usual.
- I. Damage caused as a result of improper cleaning voids the warranty.

#### 2. Semi-Automatic and Automatic Cleaning - General

- a. If the oven chamber is very heavily soiled, additional manual cleaning may be necessary.
- b. Depending on the level of soiling of the oven chamber, the engaging frames and grills may be left in the oven during the automatic cleaning process.
- c. Do NOT interrupt the semi-automatic or automatic cleaning process.

# **A** WARNING

When working with cleaning agents, nozzle rinsing fluid and spray bottles: Wear suitable clothing, protective gloves and protective goggles to help protect from splashes and spills. Failure to do so can result in chemical burns on skin and in eyes.

# **A** WARNING

Read, understand, and heed and obey all instructions and safety information found on cleaning agent labels, Material Safety Data Sheets, and related documents and sources. Failure to do so can result in death, injury, and equipment damage.

### 3. Manual Cleaning of the Oven Chamber

- a. Clean the Combi daily to prevent discoloration and corrosion of the stainless steel.
  - 1) Avoid scratching the oven chamber or engaging frame.
  - 2) Scratches can collect soil and / or allow corrosion to begin.
  - 3) Do NOT use harsh or abrasive cleaning agents, scouring pads, or scrapers.
- b. Clean the fan guard and the fan area behind the fan guard at the same time.
  - 1) Release the quick-action locks on the oven racks and fan guard.
  - 2) Pivot the oven racks and fan guard out into the oven chamber.
  - 3) After cleaning, push the oven racks and fan guard closed and fix them in place with the quick-action locks.

## **A** CAUTION

Do NOT use U-Shaped racks that are bent or otherwise damaged in any way. Pans and accessories placed in damaged racks can tip and spill, causing burns, injuries and/or equipment damage

- 4) Make sure that the U-Shaped racks do not become bent; otherwise grills, racks, containers and accessories will no longer be safely supported. If U-Shaped racks become bent then remove the Combi from service and contact your qualified Cleveland Range authorized service representative at once.
- c. Clean the interior of the of the double glass doors daily.
  - 1) Release the quick-action locks on the door glass.
  - 2) Clean the glass with a non-abrasive cleaner and a soft cloth.
  - 3) Do not use harsh or abrasive cleaning agents, scouring pads, or scrapers because they will damage the glass.
- Regular cleaning of the hygienic plug-in gasket (door gasket) increases service life.
  - 1) Wait for the gasket to cool.
  - 2) Clean the gasket with mild, scent free dish detergent and a soft cloth.
  - Do not use harsh or abrasive agents, scouring pads or scrapers because they will damage the gasket.
  - 4) Air dry the gasket.

- e. Clean the Bypass Measuring Aperture. (Opening in the oven chamber on the left-hand side, slightly below the door latch. See diagram.)
  - 1) Spray with CONVOClean.
  - 2) Rinse clean with the hand shower.
- f. Remove and clean the drain cover.
  - 1) Clean food residue and drippings from the tray and drain in the oven chamber.
  - 2) Spray on original CONVOClean oven chamber cleaner and allow it to take effect.
  - 3) Rinse thoroughly with the hand shower.
- g. Clean the drain and make sure that it is not blocked.
- h. Clean the demoisturizing tray (trough shaped area under the drain cover).

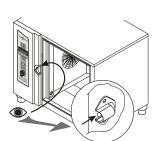


**Drain Cover and Drain** 

i. Clean the door drip tray, appliance drip trays and accessory drip trays.

### NOTES:

- If a white deposit forms inside the oven chamber, the water treatment system is not correctly set, or the addition of a water treatment system is required. To remove this deposit, use vinegar and a soft cloth.
- Ask your qualified Cleveland Range authorized service representative about adding or setting a water treatment system.



**Bypass** 



## B. Semi-Automatic Cleaning of the Oven Chamber

NOTE: Do NOT press the Start/Stop key while using the Semi-automatic Cleaning process. This stops the cleaning process.

## **A** WARNING

The Semi-Automatic Cleaning process is designed to be started when the oven chamber temperature is at or below 158°F. Death, injury, and equipment damage can result from starting the Semi-Automatic Cleaning process when the oven chamber is above 158°F.

- 1. Before starting the Semi-Automatic Cleaning process, make sure the oven chamber is below 158°F by stopping all processes and pressing the Temperature key twice to view the actual temperature.
  - a. If the oven chamber is above 158°F then open the Combi door and wait 15 minutes.
  - b. Check the oven temperature again.
    - 1) If the oven temperature is at or below 158°F then go to Step 2.
    - 2) If the oven temperature is still above 158°F then wait 15 more minutes and check the oven chamber temperature. Repeat this step as needed until the oven chamber temperature is at or below 158°F and then go to Step 2.
- See separate instruction sheet P/N 260AYM, "One-Hand Sprayer with Telescoping Wand," for safety information, detailed instructions for using the sprayer, P/N 111598, and other information.
- Always wear appropriate protective clothing and equipment when using this Sprayer, including protective gloves and goggles.
- 4. Close and latch the Combi door.
- 5. If the Combi is OFF, turn it ON.
- 6. Press the Smart Key. Various options appear in the display.
- 7. Use the Selector Dial to select "Cleaning" ...
- 8. Confirm by pressing the Smart Key.
- 9. Confirm "Yes" with the Smart Key. The semi-automatic cleaning process starts.
- 10. Semi-automatic cleaning uses cooking modes to assist the cleaning process. The display shows the nominal values for the cooking modes.
  - a. The first step is Hot Air mode at 158°F for 10 minutes, followed by a Signal Tone.
- 11. After the first Signal Tone, open the oven door, and follow instruction sheet in P/N 260AYM to spray the oven chamber, drain, grills, plates etc. with original Convotherm by Cleveland CONVOClean.
- 12. Close and latch the Combi door and allow the CONVOClean to take effect. The Semi-Automatic Cleaning mode continues to run.
  - a. The second step is Steam mode at 86°F for 10 minutes, followed by a Signal Tone.
- 13. After the second Signal Tone, clean behind the fan guard and the fan area.
  - a. Release the guick-action locks on the oven racks and fan guard.
  - b. Swing the oven racks and fan guard into the oven chamber.
  - c. After cleaning, swing the oven racks and fan guard closed and fix it in place with the quick-action locks.
- 14. Close and latch the Combi door. The Semi-Automatic Cleaning mode continues automatically.

- a. The third step is Steam mode at 86°F for 1 minute. No action is needed.
- b. The fourth step is Steam at 212°F for 10 minutes, followed by a Signal Tone.
- 15. Turn OFF the Combi when the Signal Tone sounds.
- 16. Use the hand shower to rinse thoroughly the oven chamber, accessories, and behind the fan guard.
- 17. In the case of severe staining or soiling, repeat the cleaning process.
- 18. After use or after cleaning, leave the Combi door open.



## C. CONVOClean Automatic Cleaning System (optional):

#### NOTES:

- Do NOT interrupt the automatic cleaning process. Interrupting and restarting the
  Automatic Cleaning System with the ON/OFF key may start a 6 minute forced rinsing of
  the oven chamber to remove any CONVOClean and CONVOCare residue when the
  ON/OFF key is turned back ON. The Signal Tone sounds at the end of the forced rinsing
  cycle and the Combi is ON.
- Do not open the Combi door during the automatic cleaning process, unless the instruction "Open the door" and "close the door," appears in the display.
- Pre-clean manually to save water and CONVOClean by selecting a lower cleaning setting.
- If the security questions are not answered within 5 seconds, the Combi resets itself to the query level and will not start.
- If the message "No cleaner pressure" appears, check that there is enough CONVOClean and/or CONVOCare in the correct containers. Refill them if necessary (red hose for CONVOClean, and blue or white hose for CONVOCare).

## **A** CAUTION

Always make sure the cleaning agent containers are correctly connected to the Combi

CONVOClean => RED

CONVOCare => BLUE or WHITE

- A. See P/N 260AZA, "Instructions for CONVOClean System Start-up Kit," for hose attachment, solution mixing, and other information.
- B. The CONVOClean Automatic Cleaning Process
  - 1. The oven chamber **must be cold** before starting this process. If the oven chamber is still hot, the error message, "oven temp too hi / please wait" appears in the display. If this error message appears, open the Combi door, wait 15 minutes and then try to start the automatic cleaning process. Repeat as needed.
  - 2. Before starting, remove large pieces food or cooking residue from the oven chamber to help prevent the drain from becoming blocked.
  - 3. Check the level of Convotherm by Cleveland CONVOClean and CONVOCare.
    - a. The containers must be full.
    - b. The suction pipes **must** be located in the fluid.
    - c. The hoses must be properly attached to the Combi.
  - 4. Press the Smart Key. Various options appear in the display.

  - 6. Confirm by pressing the Smart Key.
  - 7. PRESS the Temperature key and select the cleaning level (1-4) with the Selector Dial. Approximate run times are listed to help plan use of the CONVOClean system. Times may vary by +/- 15 minutes.

1 "Light Soiling" 55 minutes.

2 "Medium Soiling" 1 hour and 30 minutes.

- 3 "Strong Soiling" 2 hours.
- 4 'Strong Soiling Shining+" 2 hours and 45 minutes.
- 8. Press the Smart Key.
- 9. "Food inside oven?" appears in the display.
- 10. If the oven is empty, then answer "No."
- 11. Confirm by pressing the Smart Key.
- 12. "Start auto-cleaning?" appears in the display.
- 13. Answer "Yes."
- 14. Confirm by pressing the Smart Key.
- 15. The CONVOClean system starts.
- 16. The instruction "open the door" appears in the display to check the function of the magnetic door switch.
- 17. Open the Combi door.
- 18. The instruction "close the door," appears in the display to check the function of the magnetic door switch.
- 19. Close the door.
- 20. The self test "water supply open?" appears in the display. If the water supply is on (open), then the self test question disappears from the display.
  - a. If "water supply open?" does not disappear from the display, or "not enough water" appears in the display, then check the water supply.
  - b. The CONVOClean system resumes running after the water supply is restored.
- 21. "Cleaning in progress" appears in the display and the CONVOClean process runs.
- 22. The Signal Tone sounds at the end of the CONVOClean cycle and "end of cleaning" appears in the display.
- 23. Press the Start/Stop key to stop the Signal Tone and end the CONVOClean process.
- 24. The Combi is ON and ready to use.
- 25. After use or after cleaning, leave the Combi door open.

## **DESCALE STEAM GENERATOR**

#### A. GENERAL INFORMATION

- Steam generators should be descaled at least once a month, depending on scale buildup. If you have serious steam generator scale buildup, a water treatment system should be installed for the steamer. If this is not possible, the frequency of descaling should be increased.
- 2. Cleveland Range, recommends the use of *DISSOLVE*® **Descaler Solution, Cleveland** Range Part Number 106174. No other system of steamer descaling should be used.
- NOTE: Part No. 106174 is the Part No. for a case (6 1-gallon containers) of DISSOLVE® descaler.
- 4. THESE INSTRUCTIONS ARE FOR USE WITH *DISSOLVE*® DESCALER SOLUTION Cleveland Range Part Number 106174 ONLY.
- 5. **Health Hazard Data, Effects of Overexposure** This product may cause a burning sensation to eyes or skin.
- 6. **Emergency and First Aid Procedures** In case of eye contact, immediately flush eyes with plenty of water. If irritation persists, seek medical attention. In case of skin contact: wash with soap and water. If inhaled, remove to fresh air. If burning persists, call a physician. If swallowed, drink 1 or 2 glasses of water and call a physician.
- 7. **Spill or Leak Procedures** Rinse with plenty of water to dilute. Sodium carbonate or calcium carbonate may be used to soak up liquid. Spent material is considered non-hazardous and may be disposed of in a sewer system with water flush.

# **WARNING**

The liquid solution in Cleveland Range Descaler Solution Part No. 106174, "*DISSOLVE*® **Descaler Solution**," can be harmful if not handled properly.

Follow these basic safety rules for handling and using this product to help prevent death or injury:

- Wear protective clothing when mixing or applying chemical cleaners.
- Wear rubber gloves, and OSHA approved eye protection when descaling to help avoid injury.
- Avoid breathing fumes. If liquid comes in contact with skin, wash with soap and water.
- If chemical contacts eyes, flush with water. If irritation persists, seek medical attention
- If chemical is swallowed or ingested, drink 1 or 2 glasses of water and call a physician.

Failure to do so can result in death or injury.

## **A** CAUTION

Use ONLY the  $\emph{DISSOLVE}^{\$}$  Descaler method using Part No. 106174 to descale the Combi.

Read, understand, and follow both the descaling procedure instructions and warnings, and the instructions and warnings on the *DISSOLVE*<sup>®</sup> label and MSDS.

Injury, equipment damage, and property damage can result from using other descaling systems and/or failing to follow the descaling procedure and *DISSOLVE*® instructions and warnings.

# **A** DANGER

Do NOT heat the Combi during descaling.

Death, injury, equipment and property damage can result.

# **WARNING**

This procedure is slightly different depending on the model being descaled. This entire procedure should be read and fully understand as it applies to the model being descaled, before beginning the actual descaling operation.

#### **B. GENERAL SAFETY FOR DESCALING**

- 1. Always wear suitable protective clothing including appropriate gloves, and eye protection.
- Read, understand, heed and obey and obey, and follow all directions on the descaler label, MSDS, and related documents
- 3. Never operate the Combi when descaler has been applied or while descaling.
- 4. Descale only when the Combi is cold.
- 5. Immediately wipe up any leaked or spilled descaling fluid.

# C. COMBI ATMOSPHERIC STEAM GENERATOR DESCALING PROCEDURE

(For DISSOLVE® Descaler Solution Part No. 106174)

This procedure takes approximately 3 hours to complete.

#### Do NOT heat the Combi during descaling.

- Turn ON the Combi at the Control Power Service Disconnect switch located below the hand shower.
  - 2. Turn ON the Combi with the ON/OFF key.
  - 3. Open the door to the cooking compartment.
  - 4. Run a manual steam generator rinse cycle.

To Empty and Rinse the Steam Generator:

- a. Press the Smart Key.
- b. Select "Manual Steam Generator Rinse" with the Selector Dial.
- c. Confirm "Yes" with the Smart Key.
- d. Steam generator rinses and begins to refill to operating level.
- 4. Remove the cap from the descale port located at the top of the Combi (See Figure 6-1).
- 5. While the steam generator is filling with water, use a funnel (NOT INCLUDED) to add 3/4 gallon of *DISSOLVE*® descaler solution into the descaling port of 20.20 Combis, and 1/2 gallon for all other models

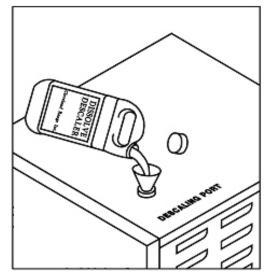
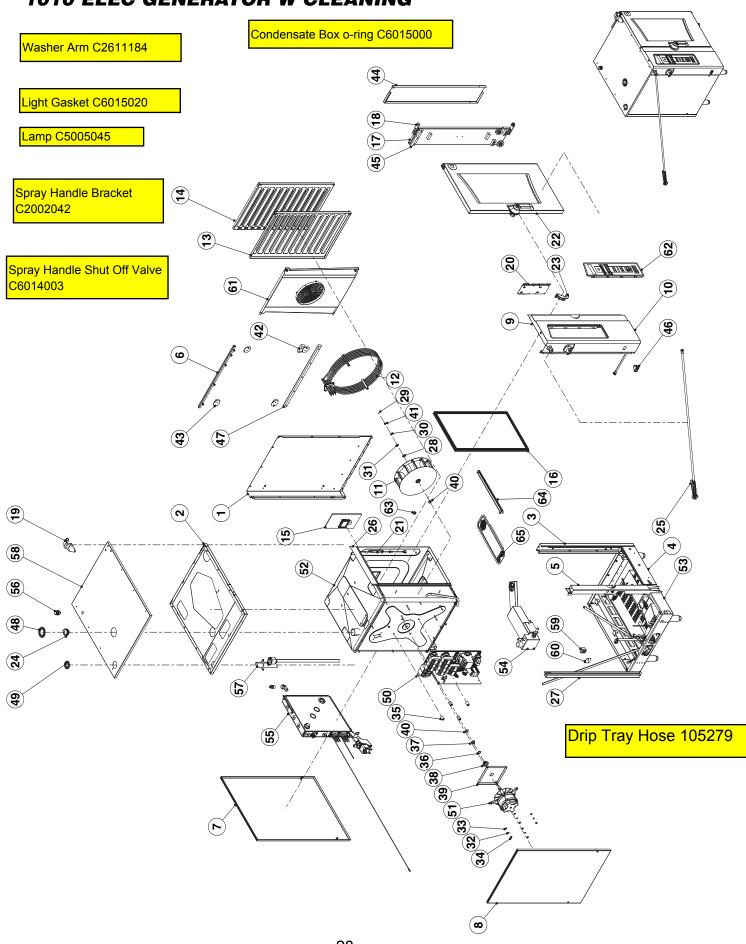


Figure 6-1
Descaling Port
Located at Right Rear of the Combi

- While adding liquid to the steam generator through the descaler inlets, pour slowly to avoid overflow.
- Wipe up any spills at once to avoid etching.
- After the automatic fill cycle has ended, turn OFF the Combi with the ON/OFF key, and at the Control Power Service Disconnect switch located below the hand shower. See Figure 6-2
- 7. Add cold tap water through the descale port until descaling solution enters the cooking compartment through the steam port or until the descaling port overflows (water required varies depending on the Model).
  - Wipe up any spills and overflows.
- 8. Let the Descaler work for 1 hour.
- 9. Turn the Combi ON at the Control Power Service Disconnect switch located below the hand shower. See Figure 6-2.
- 10. Turn ON the Combi with the ON/OFF key.
- 11. Run a manual steam generator rinse cycle (Step 4).
- 12. After the automatic fill cycle has ended, turn OFF the Combi with ON/OFF key, and at the Control Power Service Disconnect switch located below the hand shower. See Figure 6-2.
- 13. Add water through the descale port until water enters the cooking compartment through the steam port or until the descaling port overflows (water required varies depending on the Model) to rinse descaler from the area above the normal water fill level.
- 14. Replace the descale port cap.
- 15. Turn the Combi ON at the Control Power Service Disconnect switch located below the hand shower. See Figure 6-2.
- 16. Turn ON the Combi with the ON/OFF key.
- 17. After the Automatic Fill ends, run a manual steam generator rinse cycle (See Step 4).
- 18. Run Combi mode for 30 minutes at 212° F with Crisp & Tasty function.
- 19. Close the cooking compartment door.
  - a. Press Combi key.
  - b. Press Temperature key.
  - c. Set temperature with Selector Dial to 212° F.
  - d. Press Time key.
  - e. Set time with the Selector Dial for 30 minutes.
  - f. Press Smart Key Various options appear in the display.
  - g. Select "Crisp & Tasty" with the Selector Dial.
  - h. Select the Crisp & Tasty level to "high demoisturizing continuous" with the Selector Dial.
  - i. Confirm "Yes" with Smart Key.
  - j. The Crisp & Tasty icon Departs in the display.
  - k. Press the Start/Stop key to start.
  - I. Signal Tone sounds and steaming stops after 30 minutes.
  - m. Press the Start/Stop key to end the Signal Tone.
- 20. Run a manual steam generator rinse cycle. (See Step 4) This is the final rinse. The Combi is now ready for normal operation.

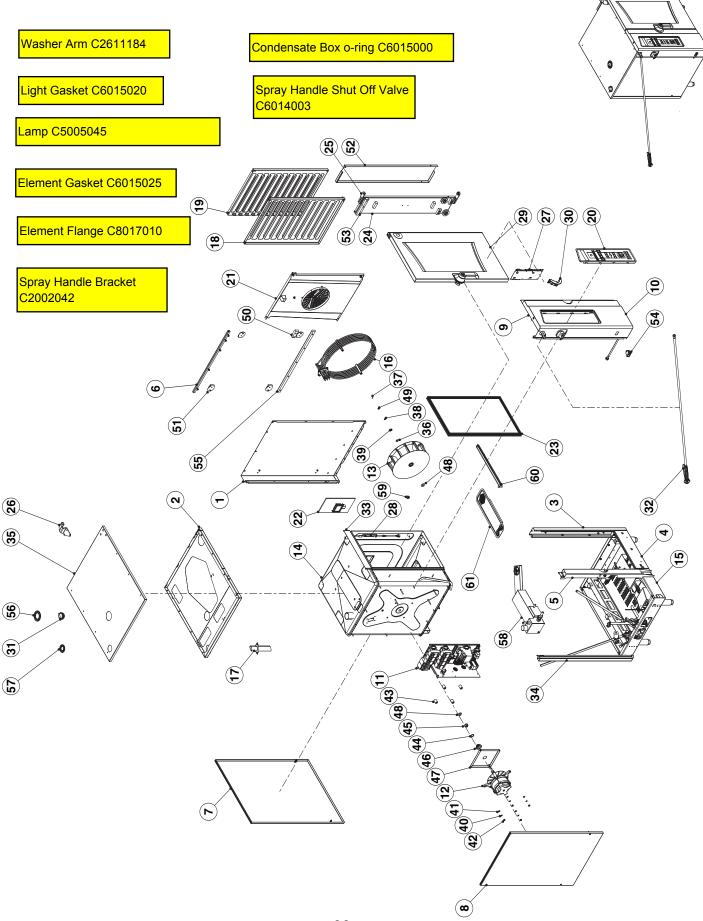
# 1010 ELEC GENERATOR W CLEANING



## 1010 ELEC GENERATOR W CLEANING

ITEM	QTY	PART NO.	DESCRIPTION
1	1	C2115483	ASSEMBLY, PANEL, RIGHT SIDE, 10.10
2 3	1	C2114824 C2115490	ASSEMBLY/WELDMENT, INTERMEDIATE TOP, 6.10/10.10 ASSEMBLY, CORNER, FRONT, RIGHT, 10.10/10.20
4	1 1	C2113490 C2114452	WELDMENT, FACE PLATE, LOWER, 6.10/10.10
5	i	C2114719	WELDMENT, REINFORCEMENT, DOOR LATCH, 10.10/10.20
6	1	C2114688	ASSEMBLY, SLIDE BAR, DISAPPEARING DOOR, 6.10/10.10
7	1	C2114743	ASSEMBLY, PANEL, REAR, ELECTRIC & GAS INJ, 10.10
8 9	1 1	C2114783 C2115375	ASSEMBLY, PANEL, LEFT SIDE, 10.10 WELDMENT, CHANNEL, FRONT, 6.10/10.10
10	i	C2115443	FRONT PIECE, PRE-MOUNTED, 10.10,
11	1	C6010001	WHEEL, BLOWER, 350mm OD X 110mm WIDE, TYPE 304 SST,
10		00014051	6.20 & 10.10 COMBI
12 13	1 1	C2614251 C22141901	ASSEMBLY, TUBULAR HEATING ELEMENT, 18.9KW PAN RACK,LEFT, ELECTROPOLISHED, 10.10
14	i	C2214191	WELDMENT, PAN RACK, RIGHT, 10.10
15	1	C2614841	CAVITY LIGHT
16	1	C7011002	DOOR SEAL, 10.10
17 18	1 1	C2614802 C2013006	ASSEMBLY, SLIDING PLATE VST 10.10/10.20 WELDMENT, HINGE CARRIER, UPPER, DOOR
19	1	C2614740	ASSEMBLY, GUIDE CLIP. VST. COUNTERTOP MODEL
20	i	C2614266	ASSEMBLY, CONTROLLER
21	1	C2614263	ASSEMBLY, CORE TEMPERATURE SENSOR
22 23	1	C2514352	ASSEMBLY, DOOR 10.10 ASSEMBLED, BLOCK
23 24	1 1	C2216070 C2608962	ASSEMBLY, NEGATIVE PRESSURE SAFETY VENT
25	i	C22160801	ASSEMBLY, HAND SHOWER, 10.10, 6.10
26	1	C2114731	FACEPLATE, UPPER X.10
27	1	C2114634	CORNER, WELDED, REAR, LEFT, 10.10/10.20
28	1	111544	WASHER, BELLEVILLE, M10, SMOOTH, TYPE 301 SST, 10.21mm ID X 24mm OD X 1.85mm THICK
29	1	111543	RING, RETAINING, EXTERNAL, 1/4", STAINLESS STEEL,
			WALDES #5100-25H
30	1	111542	WASHER, BELLEVILLE, M8, SERRATED BOTH SIDES, SST, 8.4mm ID X 13mm OD X 0.8mm THICK
31	1	111540	NUT, HEX, M10 X 1.5 (DIN 934), STAINLESS STEEL
32	4	C8006060	SCHNORR LOCK WASHER
33	4	C8005050	WASHER, 8.4 A2 DIN 125
34 35	4 4	C8004057	NUT, HEX, M8 A4
36	1	C6015213 C6015210	SPACER, MOTOR 1.299 (FAN DISTANCE 2.008in) SHIM, WEARING MOTOR SHAFT SEAL
37	i	C6015206	BUSHING, LABYRINTH
38	1	C6015050	SPRING, MOTOR SHAFT SEAL
39 40	1 2	C2114140 C6015021	MOTOR MOUNTING PLATE SEALING RING, MOTOR SHAFT, VITON, COMBI
41	1	111541	NUT, HEX, LEFT-HAND, M8 X 1.25 (DIN 934L), STAINLESS STEEL
42	i	C6012009	GUIDE STRIP, LOWER VST
43	4	C6012011	DOORSTOPPER VA VST
44 45	1 1	C2114817	COVER PANEL VST 10.10/10.20
45 46	1	C6012008 19993	SUPPORT STRIP RST SWITCH, ROCKER, DPDT, ON/OFF 15A, 125V
47	i	C2017001	SAFETY RAIL VST 6.10/10.10
48	1	C6005427	DIAPHRAGM GROMMET Ø 83 (DG60) FOR VAC. REG. VALVE
49 50	1	C6005048 300479	DIAPHRAGM GROMMET Ø 60 mm (DG 48) P2 INSTR.ASSEMBLY, COMP.PANEL, OEB 6.20/10.10
51	1 1	C50180041	MOTOR W/STUD, 208-240V 60HZ, 200V 50HZ, 3-PHASE, 4/8
0.		000.000	POLE, 0.6KW, ELECT. COMBI
52	1	C2215034	WELDMENT, INNER HOUSING, ELEC, GEN, 10.10, REI
53 54	1 1	C2114525 C2414125	BASE, ELEC, GEN, 10.10 W/CLEANING FINAL ASSEMBLY, CONDENSER,
55	1	C2314202	ASSEMBLY INSTRUCTION, STEAM GEN, ELEC, 6.20/10.10
56	i	109641	PORT ASSY, DESCALER
57	1	C2114287	ASSEMBLY, AIR OUTLET,
58 59	1 1	C2114700 C5001041	PANEL, TOP, ELECTRIC GEN, 6.10/10.10 SAFETY TEMPERATURE LIMITER, 340°C
60	1	C2114798	BRACKET, HIGH LIMIT, STEAM GENERATOR
61	i	C2214143	ASSEMBLY, INTAKE PANEL, GEN, 10.10
62	1	C2114296	ASSY, CONTROL PANEL, STEAM GEN, WITH PICTO
63 64	1 1	C2016009 C2018000	COVER, BYPASS DRIP TRAY, 10.10
65	1	C2016000 C2216796	ASSEMBLY, COVER, DEHUMIDIFYING GUTTER
		•	-

## 1010 ELEC INJ W CLEANING

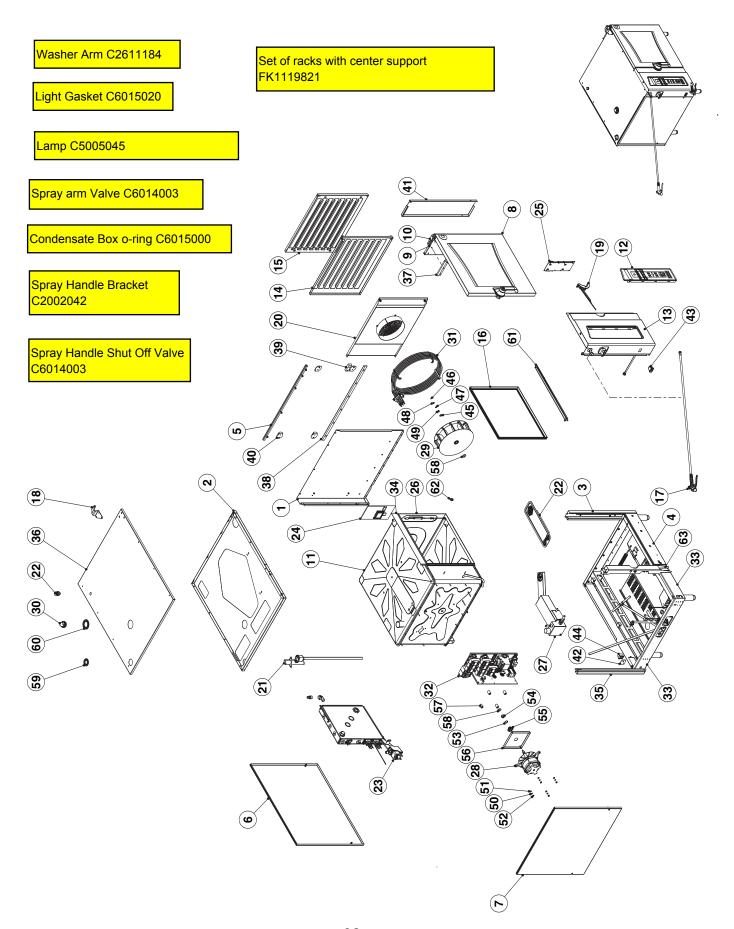


## 1010 ELEC INJ W CLEANING

ITEM	QTY	PART NO.	DESCRIPTION
1	1	C2115483	ASSEMBLY, PANEL, RIGHT SIDE, 10.10
2	1	C2114824	ASSEMBLY/WELDMENT, INTERMEDIATE TOP, 6.10/10.10
3 4	1	C2115490 C2114452	ASSEMBLY, CORNER, FRONT, RIGHT, 10.10/10.20 WELDMENT, FACE PLATE, LOWER, 6.10/10.10
5	1	C2114719	WELDMENT, REINFORCEMENT, DOOR LATCH, 10.10/10.20
6 7	1	C2114688 C2114743	ASSEMBLY, SLIDE BAR, DISAPPEARING DOOR, 6.10/10.10 ASSEMBLY, PANEL, REAR, ELECTRIC & GAS INJ, 10.10
8	i	C2114783	ASSEMBLY, PANEL, LEFT SIDE, 10.10
9 10	1 1	C2115375 C2115443	WELDMENT, CHANNEL, FRONT, 6.10/10.10 FRONT PIECE, PRE-MOUNTED, 10.10,
11	1	300487	INSTRUCTION, COMPONENT, PANEL, OES 6.20/10.10
12	1	C50180041	MOTOR W/STÚD, 208-240V 60HZ, 200V 50HZ, 3-PHASE, 4/
13	1	C6010001	POLE, 0.6KW, ELECT. COMBI WHEEL, BLOWER, 350mm OD X 110mm WIDE, TYPE 304 SST,
4.4	4	00015000	6.20 & 10.10 COMBI
14 15	1	C2215033 C21145251	WELDMENT, INNER HOUSING, ELEC, INJ, 10.10, REI BASE, ELEC, INJ, 10.10 W/CLEANING
16	1	C2614251	ASSEMBLY, TUBULAR HEATING ELEMENT, 18.9KW,
17 18	1 1	C2114292 C22141901	AIR OUTLET CONECTING PIECE 20.20 GEN. 6.20/10.10/20.20,INJ. PAN RACK,LEFT, ELECTROPOLISHED, 10.10
19	1	C2214191	WELDMENT, PAN RACK, RIGHT, 10.10,
20 21	1	C2114296-3 C2214153	ASSY, CONTROL PANEL, SPRITZER, WITH PICTO ASSEMBLY, INTAKE PANEL INJ 10.10
22	1	C2614841	CAVITY LIGHT
23 24	1	C7011002 C2614802	DOOR SEAL, 10.10 ASSEMBLY, SLIDING PLATE VST 10.10/10.20
2 <del>4</del> 25	1 1	C2014602 C2013006	WELDMENT, HINGE CARRIER, UPPER, DOOR
26	1	C2614740	ASSEMBLY, GUIDE CLIP, VST, COUNTERTOP MODEL
27 28	1 1	C2614266 C2614263	ASSEMBLY, CONTROLLER ASSEMBLY, CORE TEMPERATURE SENSOR
<b>2</b> 9	1	C2514352	ASSEMBLY, DOOR 10.10
1 30 31	1 1	<del>C2216070</del> C2608962	ASSEMBLED, BLOCK ASSEMBLY, NEGATIVE PRESSURE SAFETY VENT
32	1	C22160801	ASSEMBLY, HAND SHOWER, 10.10, 6.10
33 34	1 1	C2114731 C2114634	FACEPLATE, UPPER X.10 CORNER, WELDED, REAR, LEFT, 10.10/10.20
35	1	111638	PANEL, TOP, ELECTRIC INJ, 6.10/10.10
36	1	111544	WASHER, BELLEVILLE, M10, SMOOTH, TYPE 301 SST, 10.21mm ID X 24mm OD X 1.85mm THICK
37	1	111543	RING, RETAINING, EXTERNAL, 1/4", STAINLESS STEEL,
38	1	111542	WALDES #5100-25H WASHER, BELLEVILLE, M8, SERRATED BOTH SIDES, SST,
30	ı	111042	8.4mm ID X 13mm OD X 0.8mm THICK
39	1	111540	NUT, HEX, M10 X 1.5 (DIN 934), STAINLESS STEEL
40 41	4 4	C8006060 C8005050	SCHNORR LOCK WASHER WASHER, 8.4 A2 DIN 125
42	4	C8004057	NUT. HEX. M8 A4
43 44	4 1	C6015213 C6015210	SPACER, MOTOR 1.299 (FAN DISTANCE 2.008in) SHIM, WEARING MOTOR SHAFT SEAL
45	1	C6015206	BUSHING, LABYRINTH
46 47	1 1	C6015050 C2114140	SPRING, MOTOR SHAFT SEAL MOTOR MOUNTING PLATE
48	2	C6015021	SEALING RING, MOTOR SHAFT, VITON, COMBI
49 50	1 1	111541 C6012009	NUT, HEX, LEFT-HAND, M8 X 1.25 (DIN 934L), STAINLESS STEEL GUIDE STRIP. LOWER VST
51	4	C6012011	DOORSTOPPER VA VST
52 53	1 1	C2114817 C6012008	COVER PANEL VST 10.10/10.20 SUPPORT STRIP RST
53 54	1	19993	SWITCH, ROCKER, DPDT, ON/OFF 15A, 125V
55 56	1	C2017001	SAFETY RAIL VST 6.10/10.10
56 57	1 1	C6005427 C6005048	DIAPHRAGM GROMMET Ø 83 (DG60) FOR VAC. REG. VALVE DIAPHRAGM GROMMET Ø 60 mm (DG 48)
58	1	C2414125	FINAL ASSEMBLY, CONDENSER
59 60	1 1	C2016009 C2018000	COVER, BYPASS DRIP TRAY, 10.10
61	i	C2216796	ASSEMBLY, COVER, DEHUMIDIFYING GUTTER

C6012001

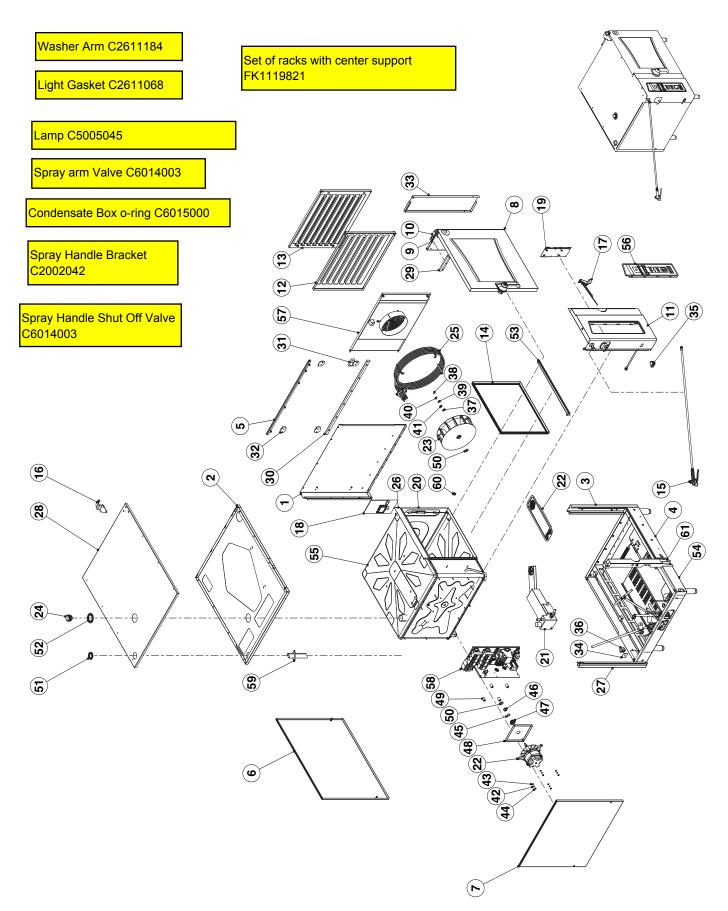
## **620 ELECTRIC GENERATOR W CLEANING**



## **620 ELECTRIC GENERATOR W CLEANING**

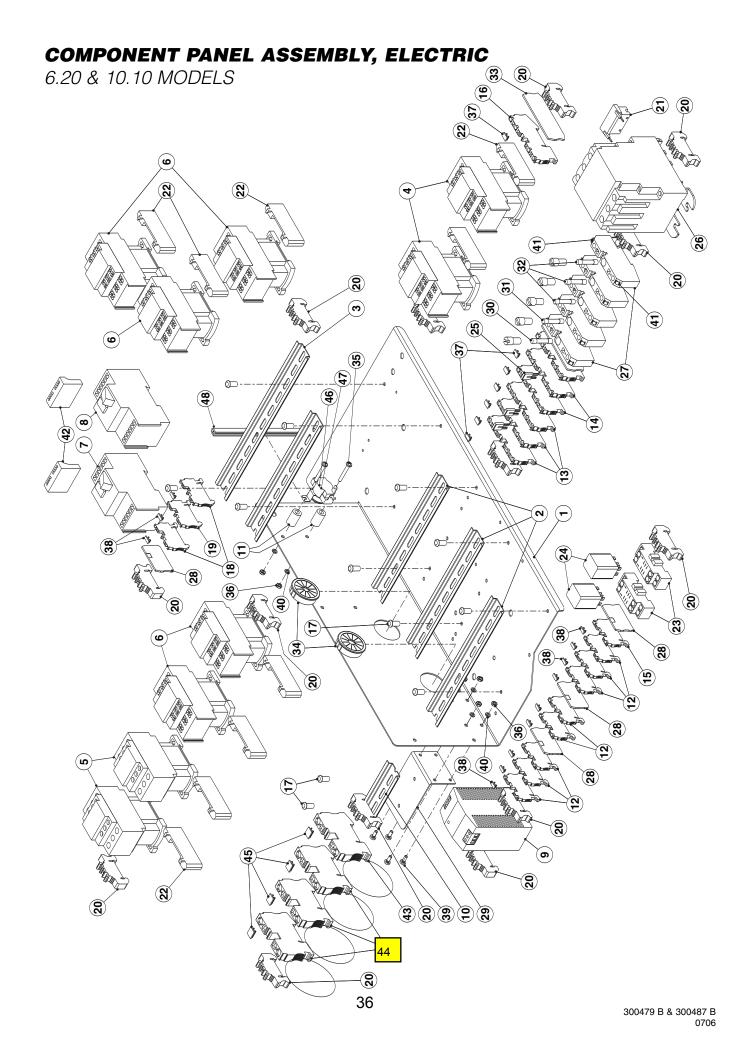
ITEM	QTY	PART NO.	DESCRIPTION
1	1	C2115482	ASSEMBLY, PANEL, RIGHT SIDE, 6.20
2	1	C2114826	ASSEMBLY/WELDMENT, INTERMEDIATE TOP, 6.20/10.20
3 4	1 1	C2115489 C2114453	ASSEMBLY, CORNER, FRONT, RIGHT, 6.20 WELDMENT, FACEPLATE, LOWER, 6.20/10.20
5	i	C2114433	ASSEMBLY, SLIDE BAR, DISAPPEARING DOOR, X.20
6	1	C2114742	ASSEMBLY, PANEL, REAR, ELECTRIC & GAS INJ, 6.20
7	1	C2114782	ASSEMBLY, PANEL, LEFT SIDE, 6.20
8 9	1 1	C2514351 C2614801	DOOR 6.20 COMPLETE SLIDING PLATE VST 6.20 COMPLETE
10	1	C2014001 C2013006	WELDMENT, HINGE CARRIER, UPPER, DOOR
11	i	C2215018	ASSEMBLY, INNER SHELL 6.20, ELEC, DE, REI
12	1	C2114296	ASSY, CONTROL PANEL, STEAM GEN, WITH PICTO
13 14	1 1	C2115442 C22141881	ASSEMBLY, CORNER, FRONT LEFT, 6.20
15	1	C22141891	PAN RACKS,LEFT, ELECTROPOLISHED, 6.20 PAN RACKS,RIGHT, ELECTROPOLISHED, 6.20
16	i	C7011004	DOOR SEAL, 6.20
17	1	C2216080	ASSEMBLY, HAND SHOWER
18 19	1 1	C2614740 C6012001	ASSEMBLY, GUIDE CLIP, VST, COUNTERTOP MODEL ASSEMBLY, BLOCK
20	1	C2214142	INTAKE PANEL STEAM GENERATOR 6.20, COMPLETE
21	i	C2114287	ASSEMBLY, AIR OUTLET
22	1	109641	PORT ASSY, DESCALER
23	1 1	C2314202	ASSEMBLY INSTRUCTION, STEAM GEN, ELEC, 6.20/10.10 CAVITY LIGHT
24 25	1	C2614841 C2614266	ASSEMBLY, CONTROLLER
26	1	C2614263	ASSEMBLY, CORE TEMPERATURE SENSOR
27	1	C2414125	FINAL ASSEMBLY, CONDENSER
28	1	C50180041	MOTOR W/STUD, 208-240V 60HZ, 200V 50HZ, 3-PHASE, 4/8 POLE, 0.6KW, ELECT. COMBI
29	1	C6010001	WHEEL, BLOWER, 350mm OD X 110mm WIDE, TYPE 304 SST, 6.20 & 10.10 COMBI
30	1	C2608962	ASSEMBLY, NEGATIVE PRESSURE SAFETY VENT
31	1	02614251	ASSEMBLY, TUBULAR HEATING FLEMENT, 18.9KW C5017016
32 33	1	300479 C2114527	INSTR.ASSEMBLY,COMP,PANEL, OEB 6.20/10.10 BASE, ELEC GEN, 6.20, W/ CLEANING
34	i	C2114732	FACEPLATE, UPPER X.20
35	1	C2114633	CORNER, WELDED, REAR, LEFT, 6.20
36	1	C2114702	PANEL, TOP, ELECTRIC GEN, 6.20
37 38	1	C6012008 C2017000	SUPPORT STRIP RST SAFETY RAIL, VST, X.20
39	i	C6012009	GUIDE STRIP, LOWER VST
40	4	C6012011	DOORSTOPPER VA VST
41	1	C2114816	COVER PANEL, DISAPPEARING DOOR RST 6.20
42 43	1	C2114798 19993	BRACKET, HIGH LIMIT, STEAM GENERATOR SWITCH, ROCKER, DPDT, ON/OFF 15A, 125V
44	i	C5001041	SAFETY TEMPERATURE LIMITER, 340°C
45	1	111544	WASHER, BELLEVILLE, M10, SMOOTH, TYPE 301 SST,
46	4	111540	10.21mm ID X 24mm OD X 1.85mm THICK
46	1	111543	RING, RETAINING, EXTERNAL, 1/4", STAINLESS STEEL, WALDES #5100-25H
47	1	111542	WASHER, BELLEVILLE, M8, SERRATED BOTH SIDES, SST,
4.0			8.4mm ID X 13mm OD X 0.8mm THICK
48	1	111541	NUT, HEX, LEFT-HAND, M8 X 1.25 (DIN 934L), STAINLESSSTEEL
49 50	1 4	111540 C8006060	NUT, HEX, M10 X 1.5 (DIN 934), STAINLESS STEEL SCHNORR LOCK WASHER
51	4	C8005050	WASHER, 8.4 A2 DIN 125
52	4	C8004057	NUT, HEX, M8 A4
53	1	C6015210	SHIM, WEARING MOTOR SHAFT SEAL BUSHING. LABYRINTH
54 55	1	C6015206 C6015050	SPRING, MOTOR SHAFT SEAL
56	i	C2114140	MOTOR MOUNTING PLATE
57	4	C6015213	SPACER, MOTOR 1.299 (FAN DISTANCE 2.008in)
58 59	2 1	C6015021 C6005048	SEALING RING, MOTOR SHAFT, VITON, COMBI DIAPHRAGM GROMMET ø 60 mm (DG 48)
60	1	C6005048 C6005427	DIAPHRAGM GROMMET Ø 80 MM (DG 48) DIAPHRAGM GROMMET Ø 83 (DG60) FOR VAC. REG. VALVE
61	1	C2018001	DRIP TRAY, DOOR
62	1	C2016009	COVER, BYPASS
63	1	C2114718	ASSEMBLY, REINFORCEMENT, DOOR LATCH, 6.20

#### **620 ELEC INJ W CLEANING**



#### **620 ELEC INJ W CLEANING**

ITEM	QTY	PART NO.	DESCRIPTION
1	1	C2115482	ASSEMBLY, PANEL, RIGHT SIDE, 6.20
	i	C2114826	ASSEMBLY/WELDMENT, INTERMEDIATE TOP, 6.20/10.20
2 3	1	C2115489	ASSEMBLY, CORNER, FRONT, RIGHT, 6.20
4	1	C2114453	WELDMENT, FACEPLATE, LOWER, 6.20/10.20
5 6	1	C2114690	ASSEMBLY, SLIDE BAR, DISAPPEARING DOOR, X.20
7	1	C2114742 C2114782	ASSEMBLY, PANEL, REAR, ELECTRIC & GAS INJ, 6.20 ASSEMBLY, PANEL, LEFT SIDE, 6.20
8	i	C2514351	DOOR 6.20 COMPLETE
9	1	C2614801	SLIDING PLATE VST 6.20 COMPLETE
10	1	C2013006	WELDMENT, HINGE CARRIER, UPPER, DOOR
11	1 1	C2115442	ASSEMBLY, CORNER, FRONT LEFT, 6.20
12 13	1	C22141881 C22141891	PAN RACKS,LEFT, ELECTROPOLISHED, 6.20 PAN RACKS,RIGHT, ELECTROPOLISHED, 6.20
14	i	C7011004	DOOR SEAL, 6.20,
15	1	C2216080	ASSEMBLY, HAND SHOWER,
16	1	C2614740	ASSEMBLY, GUIDE CLIP, VST, COUNTERTOP MODEL
17 18	1	C6012001	ASSEMBLY, BLOCK CAVITY LIGHT
19	1	C2614841 C2614266	ASSEMBLY, CONTROLLER
20	i	C2614263	ASSEMBLY, CORE TEMPERATURE SENSOR
21	1	C2414125	FINAL ASSEMBLY. CONDENSER
22	1	C50180041	MOTOR W/STUD, 208-240V 60HZ, 200V 50HZ, 3-PHASE, 4/8 POLE, 0.6KW, ELECT. COMBI
23 24	1 1	C6010001 C2608962	WHEEL, BLOWER, 350mm OD X 110mm WIDE, TYPE 304 SST, 6.20 & 10.10 COMBI ASSEMBLY, NEGATIVE PRESSURE SAFETY VENT
25	1	02000902 0 <del>261425</del> 1	
26	i	C2114732	FACEPLATE, UPPER X.20 C5017016
27	1	C2114633	CORNER, WELDED, REAR, LEFT, 6.20
28	1	111628	PANEL, TOP, ELECTRIC INJ, 6.20
29 30	1 1	C6012008 C2017000	SUPPORT STRIP RST SAFETY RAIL, VST, X.20,
31	1	C6012009	GUIDE STRIP, LOWER VST
32	4	C6012011	DOORSTOPPER VA VST
33	1	C2114816	COVER PANEL, DISAPPEARING DOOR RST 6.20
34	1	C2114798	BRACKET, HIGH LIMIT, STEAM GENERATOR,
35 36	1 1	19993 C5001041	SWITCH, ROCKER, DPDT, ON/OFF 15A, 125V SAFETY TEMPERATURE LIMITER, 340°C
37	i	111544	WASHER, BELLEVILLE, M10, SMOOTH, TYPE 301 SST,
			10.21mm ID X 24mm OD X 1.85mm THICK
38	1	111543	RING, RETAINING, EXTERNAL, 1/4", STAINLESS STEEL, WALDES #5100-25H
39	1	111542	WASHER, BELLEVILLE, M8, SERRATED BOTH SIDES, SST,
40	1	111541	8.4mm ID X 13mm OD X 0.8mm THICK NUT, HEX, LEFT-HAND, M8 X 1.25 (DIN 934L), STAINLESS STEEL
41	i	111540	NUT, HEX, M10 X 1.5 (DIN 934), STAINLESS STEEL
42	4	C8006060	SCHNORR LOCK WASHER
43	4	C8005050	WASHER, 8.4 A2 DIN 125
44 45	4 1	C8004057	NUT, HEX, M8 A4 SHIM, WEARING MOTOR SHAFT SEAL
45 46	1	C6015210 C6015206	BUSHING, LABYRINTH
47	i	C6015050	SPRING, MOTOR SHAFT SEAL
48	1	C2114140	MOTOR MOUNTING PLATE
49	4	C6015213	SPACER, MOTOR 1.299 (FAN DISTANCE 2.008in)
50 51	2 1	C6015021 C6005048	SEALING RING, MOTOR SHAFT, VITON, COMBI DIAPHRAGM GROMMET ø 60 mm (DG 48) P2
52	1	C6005048 C6005427	DIAPHRAGM GROMMET Ø 80 MM (DG 48) F2 DIAPHRAGM GROMMET Ø 83 (DG60) FOR VAC. REG. VALVE
53	i	C2018001	DRIP TRAY, DOOR
54	1	C21145271	BASE, OES 6.20, W/ CLEANING
55 56	1	C2215017	ASSEMBLY, INNER SHELL 6.20, ELEC, IN, REI, KTM
56 57	1 1	C2114296-3 C2214152	ASSY, CONTROL PANEL, SPRITZER, WITH PICTO ASSEMBLY, INTAKE PLATE, IN, 6.20
58	i	300487	INSTRUCTION, COMPONENT, PANEL, OES 6.20/10.10
59	1	C2114292	AIR OUTLET CONECTING PIECE 20.20 GEN. 6.20/10.10/20.20 INJ.
60	1	C2016009	COVER, BYPASS
61	1	C2114718	ASSEMBLY, REINFORCEMENT, DOOR LATCH, 6.20

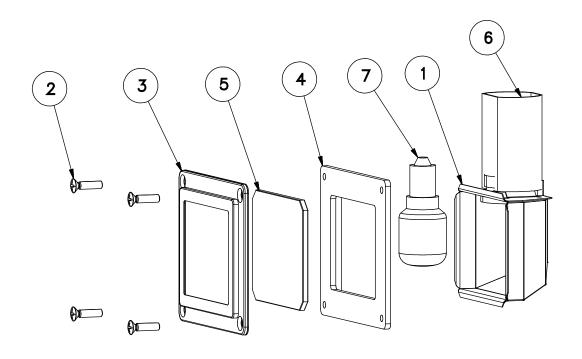


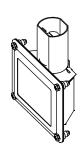
### COMPONENT PANEL ASSEMBLY, ELECTRIC

6.20 & 10.10 MODELS

ITEM	QTY	PART NO.	DESCRIPTION
1	1	C5115400	PANEL, ELECTRICAL COMPONENT 6.10/6.20/10.10
2	4	111601	DIN RAIL 8.375"
3	1	111602	DIN RAIL 10.5"
4	2	C4011001	CONTACTOR, 32A SPRING LOADED, OEB 6.20/10.10
5	2	C4011013	CONTACTOR, 50A SCREW TERMINAL
6	5	C4011000	CONTACTOR, 25A SPRING LOADED TERMINAL
7	1	300458	MOTOR STARTER, 2.5-4 AMP
8	1	300426	MOTOR STARTER, 1.6 - 2.5 AMP
9	1	300350	POWER SUPPLY (12V)
10	1	111603	DIN RAIL 3.25"
11	2	19555	SPACER, 1/4" I.D. X 1/2 O.D.
12	8	C4014030	TERMINAL BLOCK, SPRING LOADED, 1.5MM2
13	3	C4014012	TERMINAL BLOCK, SPRING-LOADED, FOUR-WIRE, BLUE
14	2	C4014013	TERMINAL BLOCK, SPRING- LOADED, FOUR-WIRE
15	1	C4014029	TERMINAL BLOCK, SPRING-LOADED, 1.5MM-BLUE
16	'	2 C4014006	TERMINAL BLOCK, SI TIMO-LOADED, 1.5MM-BLOE TERMINAL BLOCK, CONDUCTOR, SPRING-LOADED
17	12	106123	SCREW, 10-32 X 1/2, TORX/ PAN HD, THRD FORMING, ZN
18	2	C4014027	TERMINAL BLOCK, SPRING-LOADED
19	1	C4014025	TERMINAL BLOCK, GROUNDING, SPRING-LOADED
20	14	C4014000	SNAP-ON END BRACKET
21	1	300428	RC FILTER, CONTACTOR
22	9	C4011004	RC FILTER, CONTACTOR
23	2	300473	RELAY SOCKET
24	2	300473	RELAY, DPDT
25	3	C4014001	JUMPER, 2 PIN
26	1	300439	CONTACTOR 60A (SAFETY)
27	5	C4014037	DINRAIL MOUNTED FUSEHOLDER (6.3X32)
28	4	C4014031	COVER 2.5 MM2
29	1	C5116110	BRACKET, TERMINAL BLOCK, COMPONENT PANEL
30	1	300416	FUSE MDA-2
31		300418	FUSE MDA-2 FUSE MDA-1
32	1 3	300410	FUSE, MDA-10
33	2	C4014011	COVER, FOUR-WIRE
34	2	111751	BUSHING, UNIVERSAL, 1.5DIA HOLE, HEYCO#2213, SNAP-IN UL
35	2	111607	SCREW, FILISTER HD, M4 X 30
36	6	111607 111605 M4	NUT
37	7	C4014044	LABEL, BLANK, TERMINAL BLOCK, ZB6
38	, 12	C4014033	LABEL BLANK, TERMINAL BLOCK, ZB4
39	4	C8001024	SCREW, FILISTER HD, M4x10 DIN 7985
40	6	111606	M4 LOCK WASHER
41	10	C4014039	LABEL BLANK, TERMINAL BLOCK, ZBF6
42	2	300477	AUXILIARY CONTACT
43	1	C4014055	TERMINAL BLOCK, GROUNDING, SPRING-LOADED
43 44	3	C4014057	TERMINAL BLOCK, GROUNDING, SPRING-LOADED  TERMINAL BLOCK, SPRING LOADED
44 45	4	C4014037	LABEL BLANK, TERMINAL BLOCK, ZB10
45 46	1	300454	THERMOSTAT (62C)
46 47	1	300454	THERMOSTAT (62C) THERMOSTAT (77C)
48	1	C700106606000	EDGE GUARD
49	1	300482	WIRE HARNESS, OEB 6.20/10.10 (NOT SHOWN)
43	1	300489	WIRE HARNESS, OES 6.20/10.10 (NOT SHOWN)
		JUU403	WHILL HARINESS, OLS U.ZU/ 10. 10 (INOT SHOWIN)

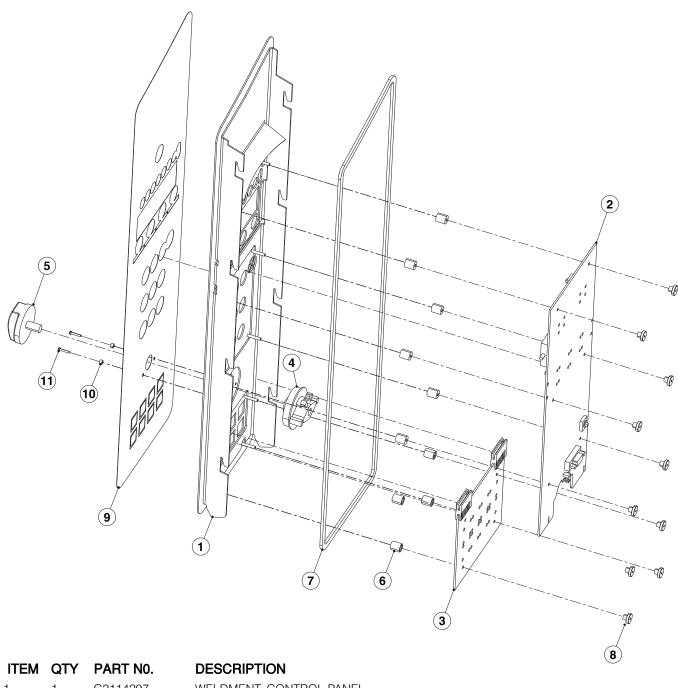
# **LIGHT ASSEMBLY** ALL MODELS





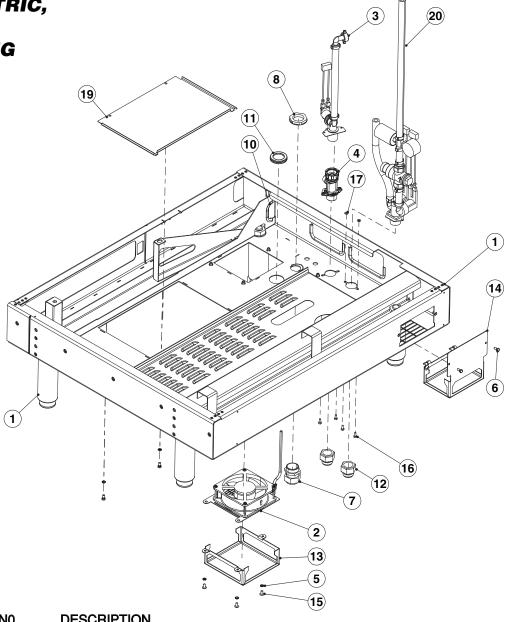
7	1	C5005045	BULB, LIGHT, 25W, 230V (ELECTRIC UNITS)
		C5005043	BULB, LIGHT, 25W, 120V (GAS UNITS)
6	1	C8019006	PROTECTION CAP, CAVITY LIGHT
5	1	C5015002	GLASS, CAVITY LIGHT
4	1	C6015020	GASKET, CAVITY LIGHT
3	1	C5015003	FRAME, CAVITY LIGHT
2	4	C8002025	ROUNDED COUNTERSUNK HEAD SCREW M4X16
1	1	C5015001	REFLECTOR HOUSING, CAVITY LIGHT
ITEM	QTY	PART NO.	DESCRIPTION

# **ASSEMBLY, CONTROL PANEL, WITH PICTO** *ALL MODELS*

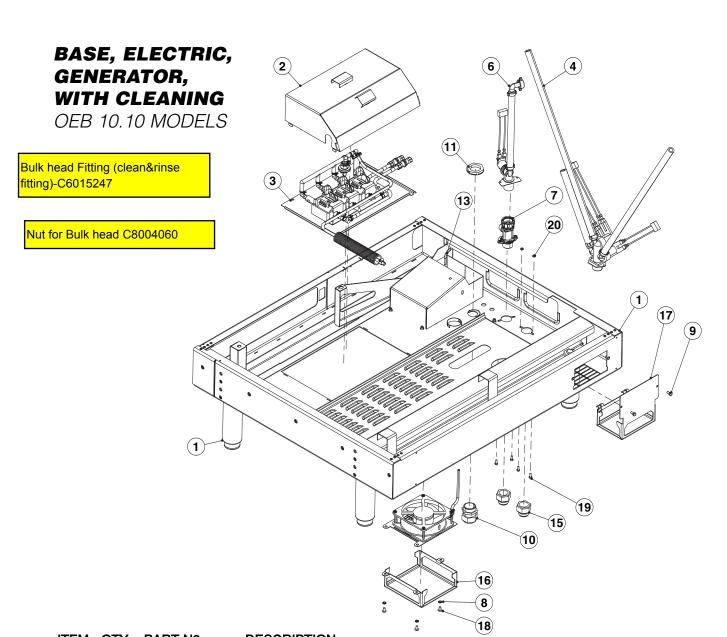


IIEM	QIY	PART NO.	DESCRIPTION
1	1	C2114297	WELDMENT, CONTROL PANEL
2	1	C5019101	CONTROLLER, 5010 OPERATING MODULE
3	1	C5019105	CONTROLLER, 5010 PICTOMODULE PICTO
4	1	C5009313	LATCH ROCKER
5	1	C5009314	KNOB, SELECTOR, COMBI
6	10	C8009030	SPACER, CONTROL PANEL
7	1	C7011010	GASKET, FRONT PLATE
8	10	C6005254	NUT, KNURLED
9	1	111588	LABEL, CONTROL PANEL, STEAM GEN, WITH PICTO
	1	111590	LABEL, CONTROL PANEL, SPRITZER, WITH PICTO
10	2	C6005270	SPACER, CONTROL KNOB STOP
11	2	C8007013	SLOTTED PAN-HEAD TAPPING SCREW 2.2 X 13
12	1	300533	CABLE, CONNECTING, CONTROL (NOT SHOWN)

### BASE, ELECTRIC, INJECTOR, NO CLEANING



ITEM	QTY	PART NO.	DESCRIPTION
1	1	C2114520	OUTER BASE, EL, 6.10/10.10
2	1	C2216088	AIR INLET BOX FINAL ASSEMBLY
3	1	C2016023	ASSEMBLY, WATER HOSE SYSTEM COND.
4	1	C5011003	CONNECTION FLANGE
5	5	C8006058	SCHNORR LOCK WASHER (NOT SHOWN)
6	4	C8003035	HEXAGON BOLT M5X10
7	1	C5006063	SCREWED CABLE GLAND
8	1	C5006064	LOCKNUT
10	1	C70016603000	EDGE PROTECTOR, CUT 3.000"
11	1	C6005021	RUBBER BUSHING 42 MM OD
12	2	111538	ADAPTER, 3/4-14 BSPP FEMALE X 3/4 GHT MALE,
13	1	111522	TRAY, DRIP, FAN, FRONT, 6.20/20.20/10.10
14	1	111551	TRAY, DRIP, FAN, REAR, ELECTRIC & GAS INJ, 6.10/
15	3	C8003029	MLF, SCREW, M5x10
16	4	C8013004	HEXAGON BOLT M4 X 10
17	2	C8005021	WASHER, 4.3, DIN 125
18	1	C5215897	CABLE HARNESS, ILLUMINATION
19	1	C2114626	COVER, BOTTOM, PUMP HOUSING
20	1	C2016039	ASSEMBLY, WATER VALVE, ELEC, 10.10
26	1	C700106607000-1	EDGE PROTECTOR, CUT 7.000"
27	1	C700106607000	EDGE PROTECTOR, CUT 7.000"



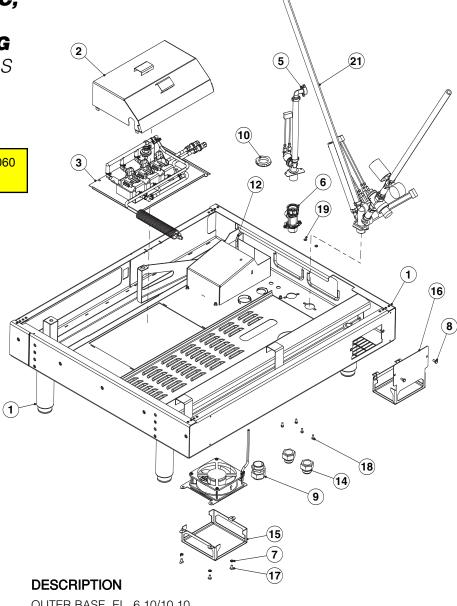
ITEM	QTY	PART NO.	DESCRIPTION
1	1	C2114520	OUTER BASE, EL, 6.10/10.10
2	1	C2114699	ASSEMBLY, TOP COVER, PUMP HOUSING, AUTO CLEAN SYSTEM
3	1	C2614472	BOTTOM FLAP, PUMP HOUSING, ELEC, 10.10 240V PREASSEMBLED (NOT SHOWN)
4	1	C2016042	ASSEMBLY, WATER VALVE, ELEC. W/CLEANING SYSTEM 10.10
6	1	C2016023	ASSEMBLY, WATER HOSE SYSTEM COND.
7	1	C5011003	CONNECTION FLANGE
8	5	C8006058	SCHNORR LOCK WASHER
9	4	C8003035	HEXAGON BOLT M5X10
10	1	C5006063	SCREWED CABLE GLAND
11	1	C5006064	LOCKNUT
13	1	C70016603000	EDGE PROTECTOR, CUT 3.000"
15	2	111538	ADAPTER, 3/4-14 BSPP FEMALE X 3/4 GHT MALE, GH
16	1	111522	TRAY, DRIP, FAN, FRONT, 6.20/20.20/10.10
17	1	111551	TRAY, DRIP, FAN, REAR, ELECTRIC & GAS INJ, 6.10/10.10
18	3	C8003029	MLF, SCREW, M5x10
19	4	C8013004	HEXAGON BOLT M4 X 10
20	2	C8005021	WASHER, 4.3, DIN 125
21	1	C5215897	CABLE HARNESS, ILLUMINATION
23	1	C2216090	FAN, AIR INLET BOX ASSEMBLY
24	1	C700106607000-1	
25	1	C700106607000	EDGE PROTECTOR, CUT 7.000"
26	1	111752	PLUG, 1.500 DIA, HOLE, SNAP-IN
27	1	C2116092	BOX, AIR INTAKE

### BASE, ELECTRIC, INJECTOR, WITH CLEANING

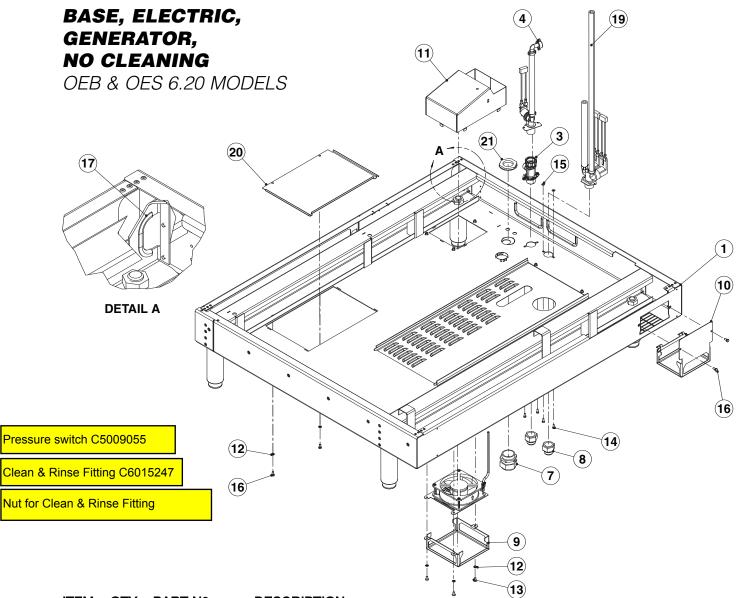
OES 10.10 MODELS

Clean and Rinse Fitting C6015247

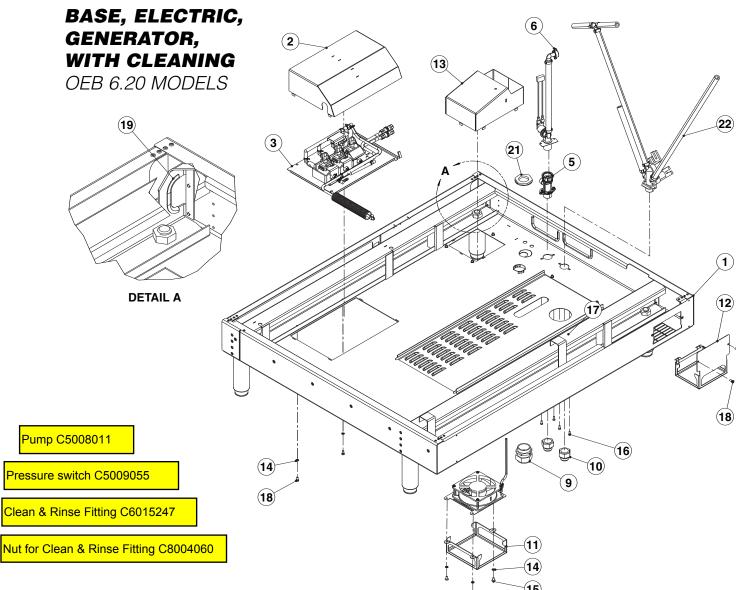
Nut for Clean and Rinse fitting C8004060



ITEM	QTY	PART NO.	DESCRIPTION
1	1	C2114520	OUTER BASE, EL, 6.10/10.10
2	1	C2114699	ASSEMBLY, TOP COVER, PUMP HOUSING, AUTO CLEAN SYSTEM
3	1	C2614472	BOTTOM FLAP, PUMP HOUSING, ELEC, 10.10 240V PREASSEMBLED (NOT SHOWN)
5	1	C2016023	ASSEMBLY, WATER HOSE SYSTEM COND.
6	1	C5011003	CONNECTION FLANGE
7	5	C8006058	SCHNORR LOCK WASHER
8	4	C8003035	HEXAGON BOLT M5X10
9	1	C5006063	SCREWED CABLE GLAND
10	1	C5006064	LOCKNUT
12	1	C70016603000	EDGE PROTECTOR, CUT 3.000"
14	2	111538	ADAPTER, 3/4-14 BSPP FEMALE X 3/4 GHT MALE, GH
15	1	111522	TRAY, DRIP, FAN, FRONT, 6.20/20.20/10.10
16	1	111551	TRAY, DRIP, FAN, REAR, ELECTRIC & GAS INJ, 6.10/10.10
17	3	C8003029	MLF, SCREW, M5x10
18	4	C8013004	HEXAGON BOLT M4 X 10
19	2	C8005021	WASHER, 4.3, DIN 125
20	1	C5215897	CABLE HARNESS, ILLUMINATION
21	1	C2016038	ASSY, WATER VALVE, ELEC, 10.10
24	1	C2216090	FAN, AIR INLET BOX ASSEMBLY
25	1	111752	PLUG, 1.500 DIA, HOLE, SNAP-IN
26	1	C700106607000-1	,
27	1	C700106607000	EDGE PROTECTOR, CUT 7.000"
28	1	C2116092	BOX, AIR INTAKE



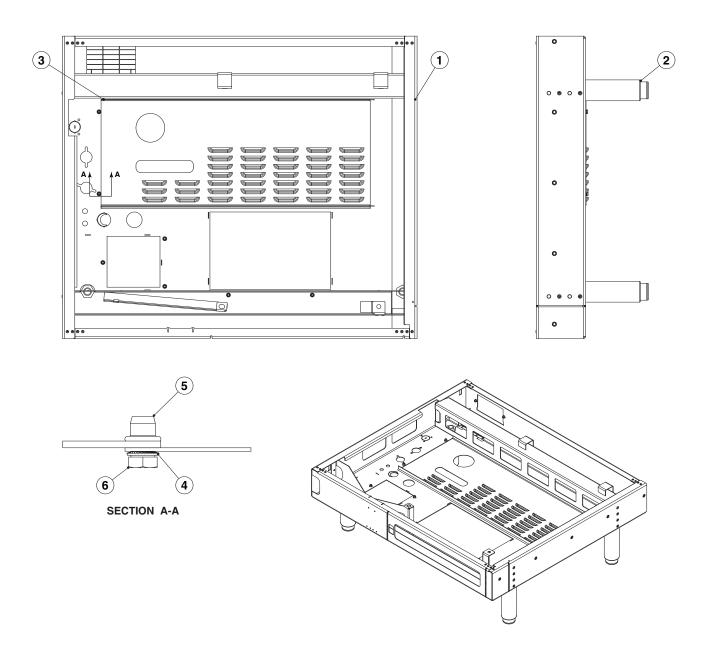
ITEM	QTY	PART NO.	DESCRIPTION
1	1	C2114522	ASSEMBLY, OUTER PLATE EL 6.20/10.20
3	1	C5011003	CONNECTION FLANGE
4	1	C2016023	ASSEMBLY, WATER HOSE SYSTEM COND.
7	1	C5006065	SCREWED CABLE GLAND
8	2	111538	ADAPTER, 3/4-14 BSPP FEMALE X 3/4 GHT MALE, GH
9	1	111522	TRAY, DRIP, FAN, FRONT, 6.20/20.20/10.10
10	1	111524	TRAY, DRIP, FAN, REAR, 6.20/20.20
11	1	C2116092	BOX, AIR INTAKE
12	5	C8006058	SCHNORR LOCK WASHER
13	3	C8003029	MLF, SCREW, M5X10
14	4	C8013004	HEXAGON BOLT M4X10
15	2	C8005021	WASHER, 4.3, DIN 125
16	4	C8003035	HEXAGON BOLT M5X10
17	1	C70016603000	EDGE PROTECTOR, CUT 3.000"
18	1	C5215897	CABLE HARNESS, ILLUMINATION
19	1	C2016025	ASSEMBLY, WATER VALVE, ELEC, 6.20, OEB
		C2016032	ASSEMBLY, WATER VALVE, ELEC, 6.20, OES
20	1	C2114626	COVER, BOTTOM, PUMP HOUSING
21	1	C5006066	LOCKNUT, M40
27	1	C2216090	FAN, AIR INLET BOX ASSEMBLY (NOT SHOWN)
28	1	111752	PLUG, 1.500 DIA, HOLE, SNAP-IN
29	1	C700106607000-1	,
30	1	C700106607000	EDGE PROTECTOR, CUT 7.000"



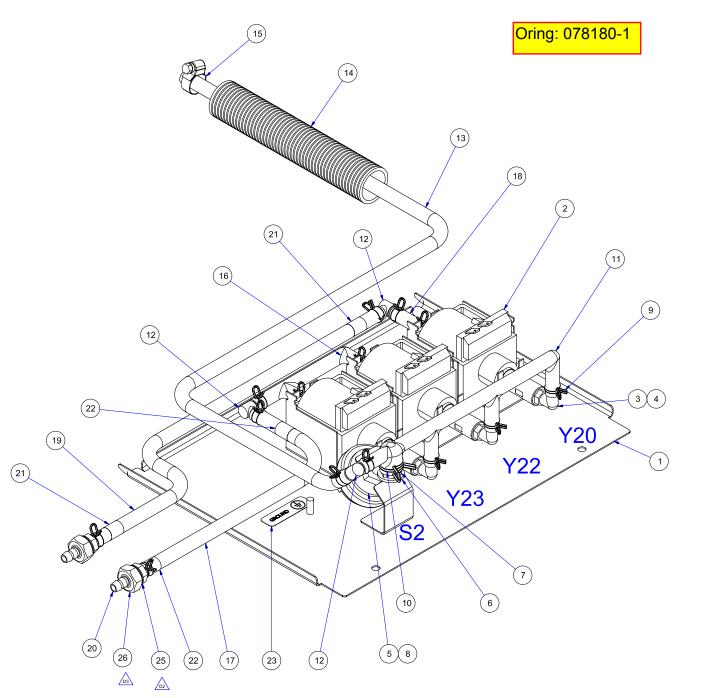
			(15)
ITEM	QTY	PART NO.	DESCRIPTION
1	1	C2114522	ASSEMBLY, OUTER PLATE EL 6.20/10.20
2	1	C2114699	ASSEMBLY, TOP COVER, PUMP HOUSING, AUTO CLEAN SYSTEM
3	1	C2614471	BOTTOM FLAP, PUMP HOUSING ELEC, 6.20 240V PREASSEMBLED
5	1	C5011003	CONNECTION FLANGE
6	1	C2016023	ASSEMBLY, WATER HOSE SYSTEM COND.
9	1	C5006065	SCREWED CABLE GLAND
10	2	111538	ADAPTER, 3/4-14 BSPP FEMALE X 3/4 GHT MALE, GH
11	1	111522	TRAY, DRIP, FAN, FRONT, 6.20/20.20/10.10
12	1	111524	TRAY, DRIP, FAN, REAR, 6.20/20.20
13	1	C2116092	BOX, AIR INTAKE
14	5	C8006058	SCHNORR LOCK WASHER
15	3	C8003029	MLF, SCREW, M5x10
16	4	C8013004	HEXAGON BOLT
17	2	C8005021	WASHER, 4.3, DIN 125
18	4	C8003035	HEXAGON BOLT M5X10
19	1	C70016603000	EDGE PROTECTOR, CUT 3.000"
20	1	C5215897	CABLE HARNESS, ILLUMINATION
21	1	C5006066	LOCKNUT
22	1	C2016035	ASSEMBLY, WATER SUPPLY GEN W/CLEANING SYSTEM 6.20
26	1	C2216090	FAN, AIR INLET BOX ASSEMBLY (NOT SHOWN)
27	1	111752 PLUG,	1.500 DIA, HOLE, SNAP-IN
28	1	C700106607000-1	EDGE PROTECTOR, CUT 7.000"
29	1	C700106607000	EDGE PROTECTOR, CUT 7.000"

#### **OUTER BASE**

### ALL ELECTRIC 6.10 & 10.10 MODELS



ITEM	QTY	PART NO.	DESCRIPTION
1	1	C2115380	WELDMENT, OUTER BASE, ELECTRIC & GAS INJ, 6.10/10.10
2	4	111604	FOOT, 6" ADJUSTABLE, PEG FOOT, COMBI
3	1	C2114627	COVER, BOTTOM, ACCESS, CONDENSER
4	2	C8006058	SCHNORR LOCK WASHER
5	9	C8008094	BLIND RIVET NUT M5 A2 HEXAGON
6	2	C8003035	HEXAGON BOLT M5X10



#### NOT SHOWN

27 1 14672

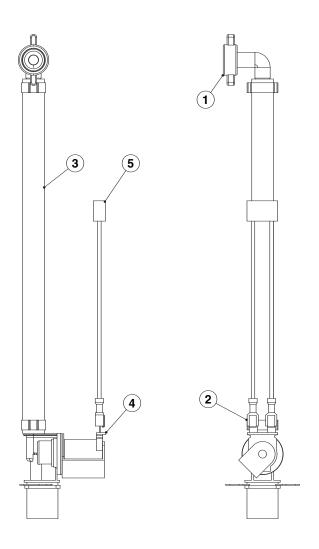
#### NOT SHOWN

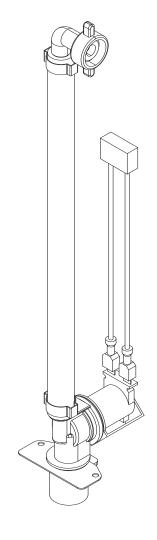
2	444540	
	111540	NUT, HEX, M10 X 1.5 (DIN 934), STAINLESS STEEL
2	C8006063	WASHER, BELLEVILLE, M10, SERRATED BOTH SIDES,
		SST, 10.5mm ID X 16mm OD X 1mm THICK
1	C5215886	HARNESS, WIRE, CLEANING, 10.10
1	14897	LABEL, GROUND
2	C6019109	LABEL, RED, CONVOCLEAN, CLEANER HOSE
2	C6019111	LABEL, BLUE, CONVOCARE, CLEANER HOSE
2	C6015247	FITTING, BULKHEAD, HOSE, 6mm ID
1	C701230245500	HOSE, EPDM, 6mm ID X 10mm OD, 45.500" LONG
1	C701230201250	HOSE, EPDM, 6mm ID X 10mm OD, 1-1/4" LONG
1	C701230239500	HOSE, EPDM, 6mm ID X 10mm OD, 39.500" LONG
1	C6014001	MANIFOLD, SUCTION, CLEANING PUMPS, EPDM
1	106526	CLAMP, HOSE, WORM DRIVE, 3/8 TO 5/8x5/16W, SST
1	C700204423500	HOSE, PROTECTION, 28mm OD X 23mm ID, CUT 23-1/2"
		LONG
1	C701230259000	HOSE, EPDM, 6mm ID X 10mm OD, 59.000" LONG
3	C6005414	FITTING, HOSE, 90 DEGREE ELBOW, 6mm BARB X 6mm
		BARB, PLASTIC (POM)
1	C6014000	MANIFOLD, DISCHARGE, CLEANING PUMPS, EPDM
1	C8019010	CLAMP, HOSE, SPRING, DOUBLE WIRE, 14.1 - 14.8 mm
		(0.555 - 0.583 in)
14	C8009058	CLAMP, HOSE, SPRING, DOUBLE WIRE, 9.1 - 9.6 mm
		(0.358 - 0.378 in)
A/R	111568	THREAD SEALANT, (LOCTITE 577)
1	C6015229	BUSHING, THREADED, PRESSURE SWITCH P3
1	C6005016	GASKET, FLAT, 18.8mm OD X 10.3mm ID X 2mm THICK
1	C5009055	SWITCH, PRESSURE, AUTO CLEANING SYSTEM, P3
A/R	C7004004	THREAD SEALANT, CORD, (LOCTITE 55)
3	C6005416	FITTING, HOSE, 90° ELBOW, 6mm BARB X R1/8 MPT,
		PLASTIC (POLYAMIDE 6)
3	C5008011	PUMP, OSCILLATING PISTON, 208-240VAC, 50-60Hz P3
1	C2114823	WELDMENT, PUMP HOUSING, 110V P3
QTY	PART NO.	DESCRIPTION
	1 1 2 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 C5215886 1 14897 2 C6019109 2 C6019111 2 C6015247 1 C701230245500 1 C701230201250 1 C701230239500 1 C6014001 1 106526 1 C700204423500 1 C701230259000 3 C6005414 1 C6014000 1 C8019010 14 C8009058 A/R 111568 1 C6015229 1 C6005016 1 C5009055 A/R C7004004 3 C6005416 3 C5008011

NUT, HEX, NYLOK, 10-32, ZP (FOR GROUND WIRE)

# **ASSEMBLY, WATER HOSE SYSTEM, CONDENSER** ALL ELECTRIC 6.20 MODELS

Connecter Flange C5011003

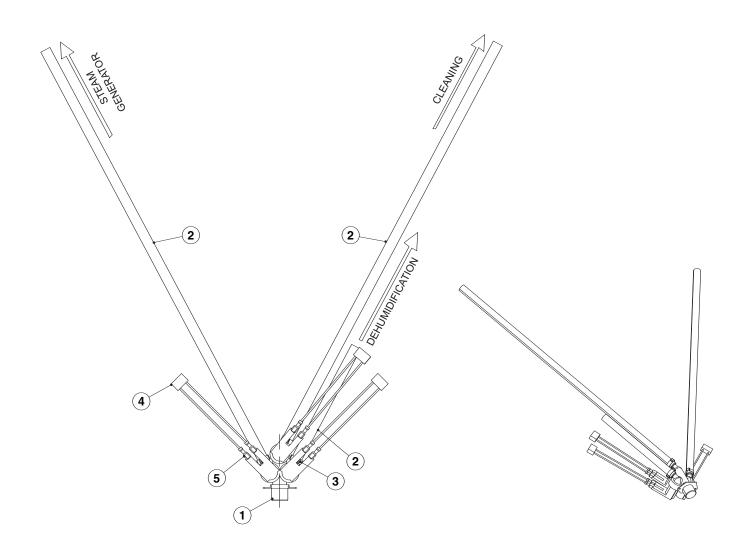




ITEM	QTY	PART NO.	DESCRIPTION
1	1	C6015215	ELBOW, HOSE CONNECTION, 3/8" WITH SEAL
2	2	111647	CLAMP, OETIKER, S/S, 19/32"
3	1	11149811000	HOSE, SILICONE, 3/8" ID X 11.000
4	1	300362	VALVE ASSEMBLY, 1 WAY, 240 VAC
5	1	300407	FILTER, ELECTRICAL
6	2	300509	TERMINAL, 18-22 AWG PIGGY BACK

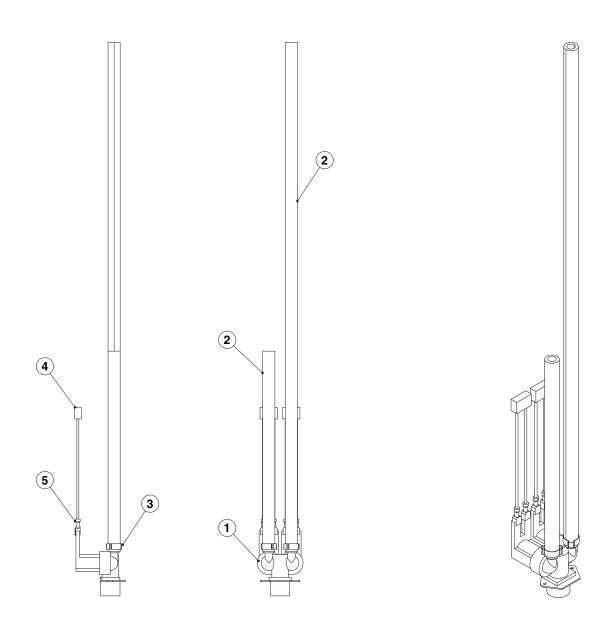
### ASSEMBLY, WATER VALVE, W/CLEANING SYSTEM

OEB 10.10 MODELS



ITEM	QTY	PART NO.	DESCRIPTION
1	1	300453	VALVE ASSEMBLY, 3WAY 240VAC
2	3	111498	HOSE, SILICONE, 3/8" ID (SPECIFY LENGHT)
3	3	111647	CLAMP, OETIKER, S/S, 19/32"
4	3	300407	FILTER, ELECTRICAL
5	6	300509	TERMINAL, 18-22 AWG PIGGY BACK

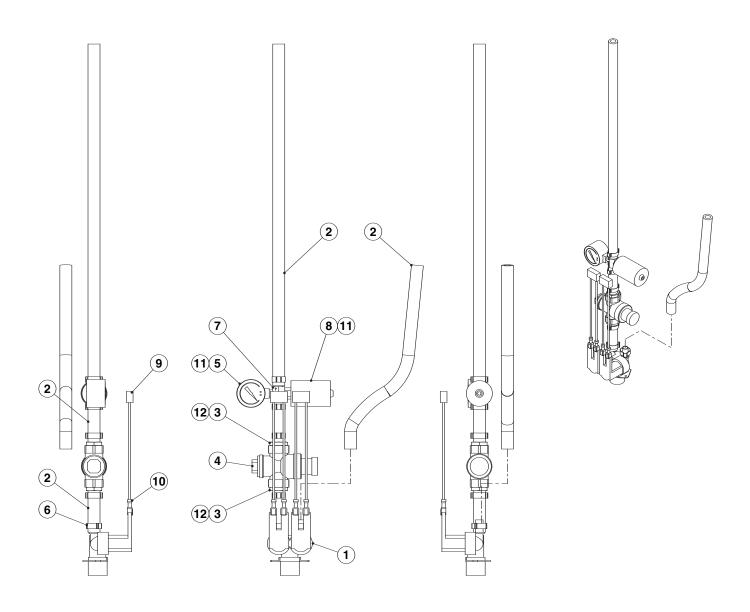
# **ASSEMBLY, WATER VALVE**ALL ELECTRIC 6.20 & 10.10 MODELS



ITEM	QTY	PART NO.	DESCRIPTION
1	1	300457	VALVE ASSY. 2 WAY 240VAC
2	2	111498	HOSE, SILICONE, 3/8" ID (SPECIFY LENGTH)
3	2	111647	CLAMP, OETIKER, S/S, 19/32"
4	2	300407	FILTER, ELECTRICAL
5	4	300509	TERMINAL, 18-22 AWG PIGGY BACK

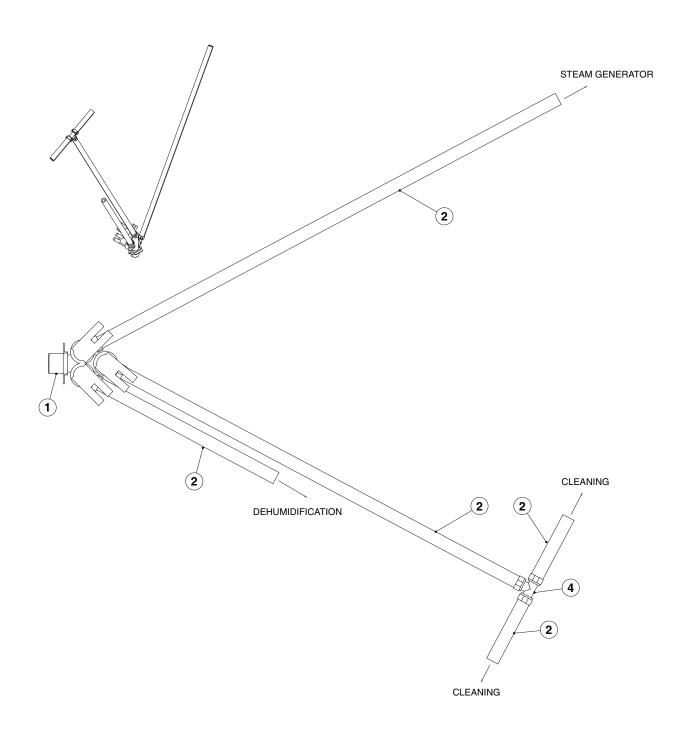
### ASSEMBLY, WATER VALVE, INJECTOR, ELECTRIC

OES 6.20 & 10.10 MODELS



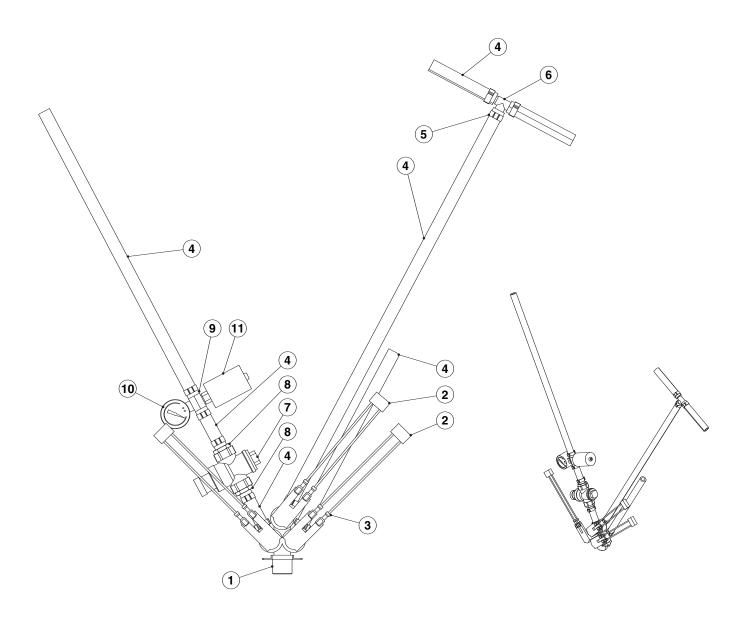
ITEM	QTY	PART NO.	DESCRIPTION
1	1	300457	VALVE ASSY. 2 WAY 240VAC
2	4	111498	HOSE, SILICONE, 3/8" ID (SPECIFY LENGTH)
3	2	C6015401	BARB, 1/2 R X 3/8 HOSE
4	1	C5001085	PRESSURE REGULATING VALVE OD GAS
5	1	C6006140	GAUGE, 60 PSI BOTTOM MOUNT
6	6	111647	CLAMP, OETIKER, S/S, 19/32"
7	1	C6015232	CONNECTION NOZZLE 0.6MM 6.20/10.10/10.20
8	1	C5009063	PUSH BUTTON SWITCH, INJ, (CHANGE-OVER CONTACT)
9	2	300407	FILTER, ELECTRICAL
10	4	300509	TERMINAL, 18-22 AWG PIGGY BACK
11	A/R	00946	TAPE, TEFLON, 1/2"
12	A/R	111651	SEALANT, LOCTITE, WHITE, DRI-SEAL 513

### **ASSEMBLY, WATER SUPPLY, GENERATOR W/CLEANING SYSTEM**OEB & OGB 6.20 MODELS



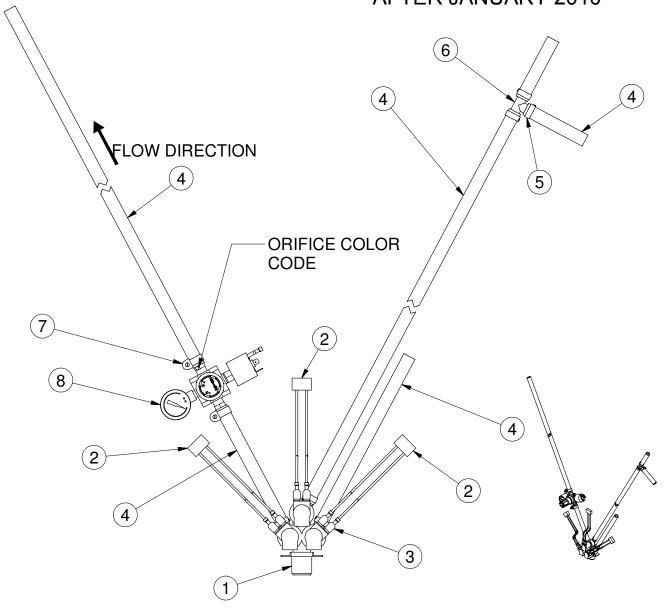
ITEM	QTY	PART NO.	DESCRIPTION
1	1	300453	VALVE ASSEMBLY, 3WAY 240VAC
		300363	TRIPLE SOLENOID VALVE 110-120V 50/60 Hz 180º
2	5	111498	HOSE, SILICONE, 3/8" ID (SPECIFY LENGTH)
3	6	111647	CLAMP, OETIKER, S/S, 19/32"
4	1	111646	TEE, BRASS, 3/8" BRASS

# **ASSEMBLY, WATER VALVE** OES 6.20 MODELS



ITEM	QTY	PART NO.	DESCRIPTION
1	1	300453	VALVE ASSEMBLY, 3 WAY 240VAC (OES 6.20)
2	3	300407	FILTER, ELECTRICAL
3	6	300509	TERMINAL, 18-22 AWG PIGGY BACK
4	5	111498	HOSE, SILICONE, 3/8" ID (SPECIFY LENGTH)
5	10	111647	CLAMP, OETIKER, S/S, 19/32"
6	1	111646	TEE, BRASS, 3/8" BRASS
7	1	C5001085	PRESSURE REGULATING VALVE ODGAS
8	2	C6015401	BARB, 1/2 R X 3/8 HOSE
9	1	C6015232	CONNECTION NOZZLE 0.6MM 6.20/10.10/10.20
10	1	C6006140	GAUGE, 60 PSI BOTTOM MOUNT
11	1	C5009063	PUSH BUTTON SWITCH, INJ, (CHANGE-OVER CONTACT)

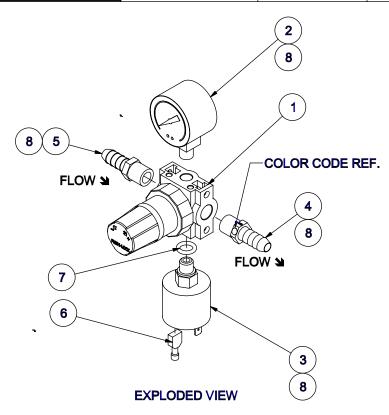
### WATER VALVE ASSEMBLY OES & OGS MODELS AFTER JANUARY 2010



ITEM	QTY	PART NO.	DESCRIPTION
1	1	300453	VALVE, SOLENOID, 3 WAY, 240VAC
		300363	VALVE, SOLENOID, 3 WAY, 120VAC
2	3	300407	FILTER, ELECTRICAL, RC NETWORK, 125 VAC, 200 VDC
3	6	300509	TERMINAL, SLIPON, INSUL., 18-22 AWG, PIGGYBACK
4	7	111498	HOSE, SILICONE, 0.375" ID X 0.655" OD
5	6	C6016070	CLAMP, HOSE, 0.630" - 0.756", SST, OETIKER
6	1	111646	TEE, HOSE BARB, BRASS, 3/8"H X 3/8"H X 3/8"H
7	2	C6006086	HOSE CLAMP, 1/2" 12-20 MM, 15 MM ADJUSTED
8	1	SEE DRAWING	REGULATOR ASSEMBLY, W / ORIFICE, COMBI

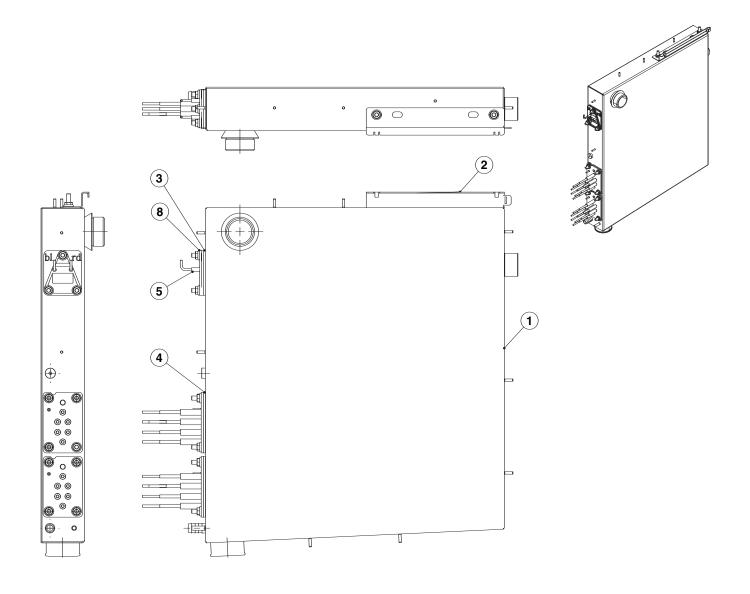
### **REGULATOR ASSEMBLY**

ASSEMBLY PART NO.	ORIFICE FTG. PN.	ORIFICE SIZE	COL	OR CODE
FK1132281	1132301	0.5mm	RED	3.10
FK1132282	1132302	0.6mm	BLUE	6.20/10.10/10.20
FK1132283	1132303	0.7mm	YELLO	OW 12.20
FK1132284	1132304	1.0mm	GREE	N 20.20



8	A/R	111651	SEALANT, LOCTITE, WHITE, HIGH TEMP, DRI-SEAL 513
7	1	113236	O-RING, 3/8"ID X 9/16"OD X 3/32"THK, BUNA-N
6	1	20356	SLIP-ON FULL INSULATED, FEMALE, 0.032 X 0,250
5	1	105277	FTG, HOSE BARB, 3/8 H X 1/4 NPT, BR
4	1	SEE CHART	FTG, HOSE BARB,3/8H X 1/4NPT,BR; W/ORIFICE
3	1	C5009063	SWITCH, PRESSURE, INJECTOR SYSTEM
2	1	C6006140	GAUGE, PRESSURE, 0 -60 PSI (4 BAR) 1/8* BPP BOTTOM
			CONNECTION
1	1	113229	REGULATOR, 0-60PSIG, 1/4"NPT
ITEM	QTY	PART NO.	DESCRIPTION

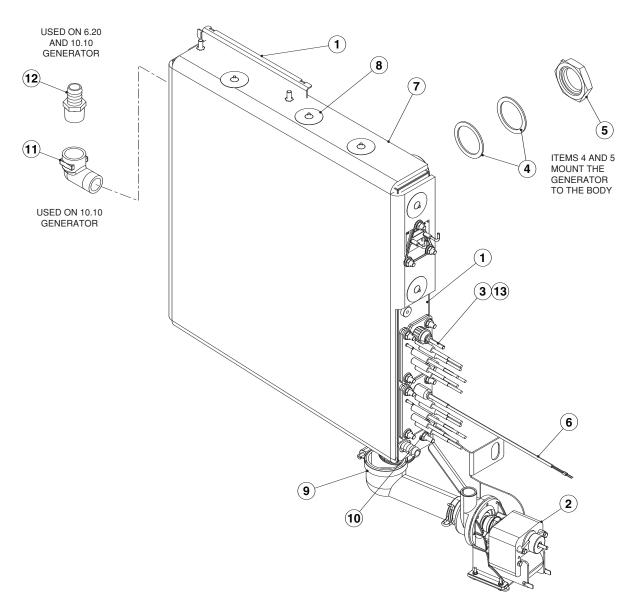
### **ASSEMBLY, STEAM GENERATOR, ELECTRIC, HEATER SELECTION** *OEB 6.20 & OEB-10.10 MODELS*



ITEM	QTY	PART NO.	DESCRIPTION
1	1	C2314217	WELDMENT, GEN, ELEC 6.20/10.10
2	1	C2314243	SUPPORT, STEAM GEN, TABLE TOP UNIT
3	1	C6015040	FLAT GASKET FOR DOUBLE-LEVEL PROBE
4	2	C6015023	FLAT GASKET FOR IMMERSION HEATER
5	1	C5019003	ASSEMBLY, DOUBLE LEVEL PROBE
6	1	C5017012	ASSEMBLY, IMMERSION HEATER, 6.3 KW, 230V
7	1	C5017013	ASSEMBLY, IMMERSION HEATER, 9.4 KW, 230V
8	13	C8017011	NUT, FLANGE, HEX

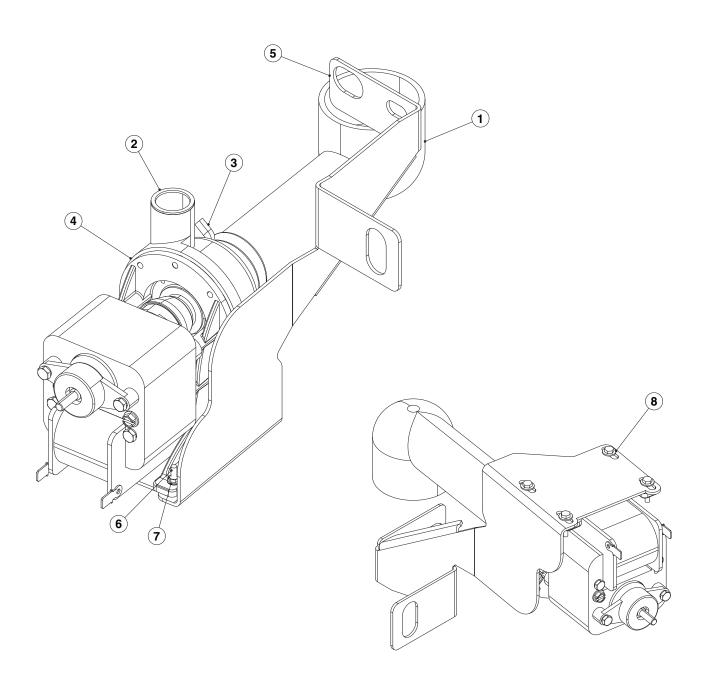
### ASSEMBLY, STEAM GENERATOR, ELECTRIC

OEB 6.20 & OEB-10.10 MODELS



ITEM	QTY	PART NO.	DESCRIPTION
1	1	C2314207	ASSEMBLY INSTRUCTION, STM GEN, ELEC, HEATER SELECTION, 6.20/10.10
2	1	C2314247	PUMP, STEAM GEN, EL, 240V PREASSEMBLED, 6.20/10.10
3	1	C5016006	THERMOCOUPLE, SENSOR, OSC/OSP, 64.960" (1650MM)
4	2	C6005025	FLAT GASKET, 1.673 x 2.126 x 0.079 in.
5	1	C6006092	HEXAGON NUT R 1 1/4"
6	1	C5016004	STB THERMO COUPLE SENSORS CABLE LENGTH 1650 mm
7	1	C7013155	INSULATION, OUTSIDE, STEAM GEN, ELEC, 10.10
8	10	101953	CLIP, INSULATION RETAINER, 1-1/2, .105 HOLE, GALV.
9	1	C6006089	HOSE CLAMP, 40-60 MM
10	1	C8017011	NUT, FLANGE, HEX
11	1	05231	ELBOW, STREET 90 X 3/4 NPT, BRASS
12	1	06240 FTG,	HOSE BARB, 3/4 X 3/4 MPT
13	1	C6005260 SEAL,	THERMOCOUPLE SENSOR, OSC/OSP
14	A/R	00934	SEALANT, PIPE DOPE
15	1	0851019000	HOSE, WHITE, EPDM, 1" X 19" (NOT SHOWN - 6.20)
16	1	08510800	HOSE, WHITE, EPDM, 1" X 18" (NOT SHOWN - 10.10)
17	1	107481	CLAMP, HOSE, DOUBLE WIRE, 1.500 NOM HOSE DIA (NOT SHOWN)

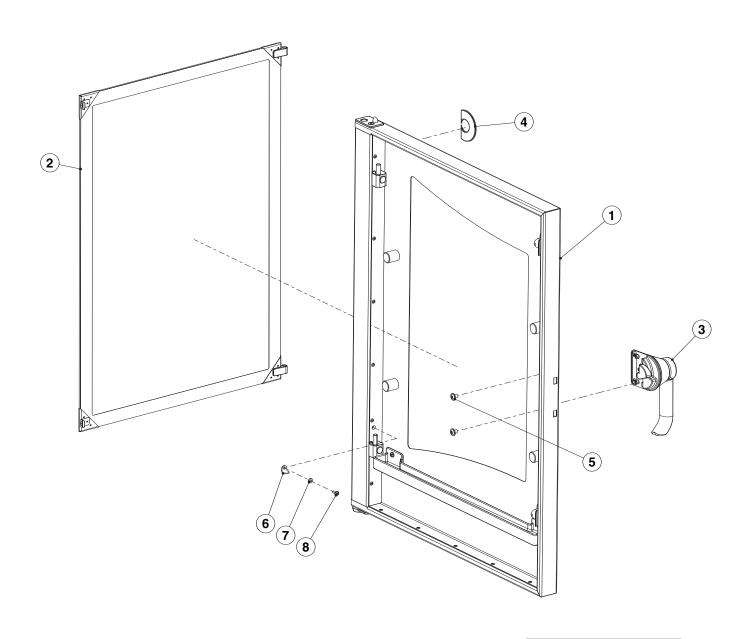
# **PUMP, STEAM GENERATOR, ELECTRIC, 240V PREASSEMBLED** OEB 6.20 & OEB-10.10 MODELS



ITEM	QTY	PART NO.	DESCRIPTION
1	1	C6015101	DRAIN ELBOW FOR STEAM GENERATOR
2	1	C6005299	SUPPORT BUSHING, STEAM GENERATOR - PUMP
3	1	C8009057	WIRE CLAMP D: 36, BLACK
4	1	300507	DRAIN PUMP, 230 V
5	1	111629	PUMP BRACKET, GEN, ELEC
6	4	111633	SCREW, HEX HD, M3 x 16, SST, FULLY THREADED
7	4	C8017008	NUT, LOCKING, SERRATED
8	4	C8005015	WASHER 3.2 A2 DIN 9021

### **DOOR 6.20 COMPLETE**

OES 6.20 & 10.10 MODELS



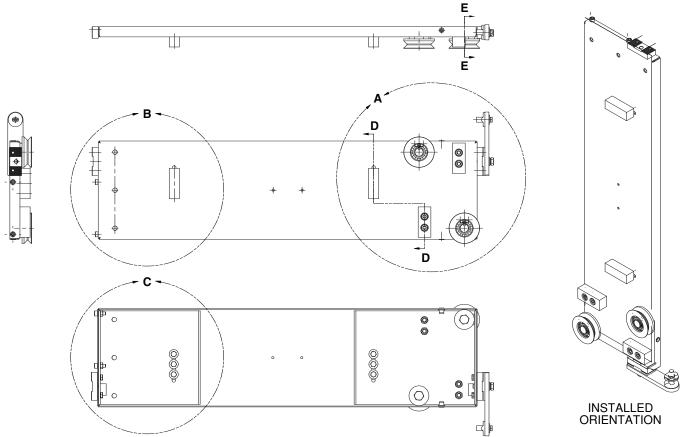
Spring clip C6015248

ITEM	QTY	PART NO.	DESCRIPTION
1	1	C2514358	ASSEMBLY, OUTER DOOR, 6.20
	1	C2514359	ASSEMBLY, OUTER DOOR, 10.10
2	1	C2514389	ASSEMBLY, INNER DOOR, 6.20
	1	C2514390	ASSEMBLY, INNER DOOR, 10.10
3	1	C6012000	DOOR HANDLE, LOCKING
4	1	C6009016	PLASTIC LETTER "C" RED
5	2	C8015000	MLF SCREW M6X8
6	1	C2514430	UNHINGING SAFEGUARD, DOOR
7	1	C8001024	SCREW, FILISTER HD, M4x10 DIN 7985
8	1	C8005021	WASHER, 4.3, DIN 125
9	A/R	C7004012	LOCTITE 243 (NOT SHOWN)
10	A/R	C7003087	GREASE FRONT DOORS OD

### **SLIDING PLATE, COMPLETE**

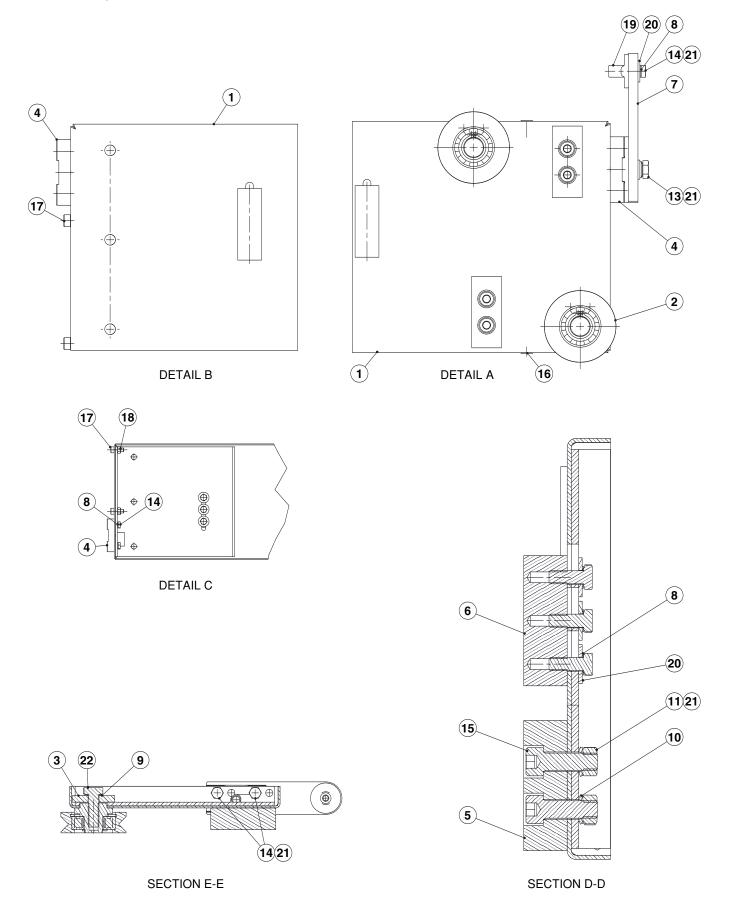
ALL 6.20, 10.10 MODELS & 20.20 MODELS

#### Upper Hinge C2013006

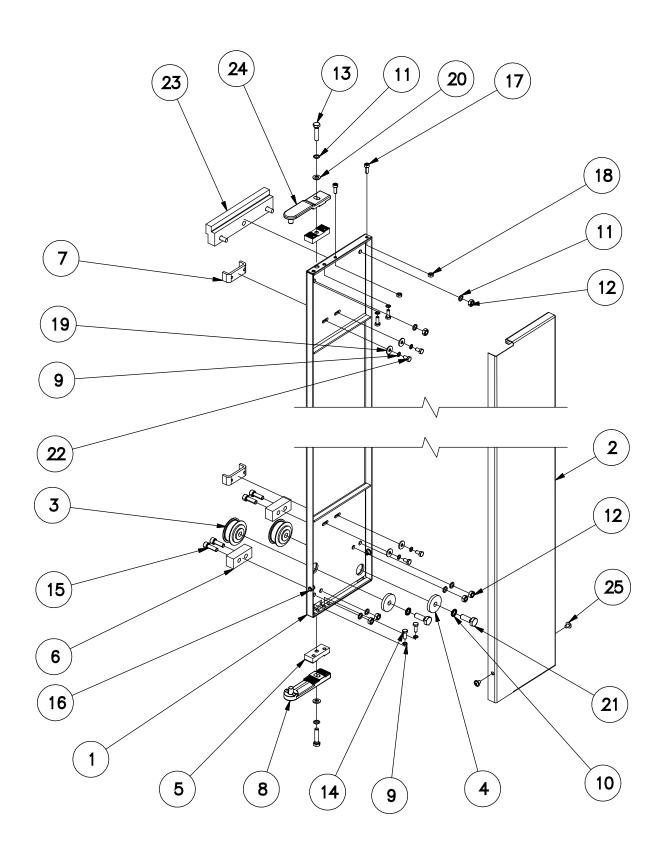


ITEM	QTY	PART NO.	DESCRIPTION
1	1	C2614806	CARRIAGE PLATE, WELDED, 6.20
		C2614807	CARRIAGE PLATE, WELDED, 10.10 & 10.20
		C2614809	CARRIAGE PLATE, WELDED, 20.10 & 20.20
2	2	C6012002	ASSEMBLED, GUIDE ROLLER RST CPL
3	2	C6012005	DISC ø 39 x 6 RST
4	2	C2014008	LOCKING BLOCK, CARRIAGE PLATE
5	2	C6015226	LOCKING BLOCK RST
6	2	C6012006	DOOR STOP, RST
7	1	C2013004	HINGE, LOWER, WELDMENT, DOOR
8	11	C8006057	SCHNORR LOCK WASHER
9	2	C8006063	SCHNORR-LOCK WASHER
10	5	C8006060	SCHNORR LOCK WASHER
11	4	C8004057	NUT, HEX
12	1	C8005050	WASHER, 8.4 A2 DIN 125
13	1	C8003058	HEXAGON BOLT, M8 X 35
14	11	C8003043	HEXAGON BOLT M6x16
15	4	C8013002	FILLISTER HEAD SCREW DIN 912 - M8X25
16	2	C8008095	BLIND RIVET NUT M6 ROUND
17	2	C8001073	HEXAGON SOCKET SCREW M6x16
18	2	C8004040	HEXAGON NUT
19	1	C2014004	LOCKING PLATE, CARRIAGE, LOWER PART
20	7	C8005041	WASHER 6.4 A2 DIN 9021
21	A/R	C7004014	LOCTITE 638
22	2	C8003066	BOLT, HEX HD, M10x30, 6.20, 10.10 & 10.20
		C8013000	BOLT, HEX HD, M10x25, 20.10 & 20.20

### ALL 6.20, 10.10 MODELS & 20.20 MODELS



### **SLIDING PLATE ASSEMBLY**

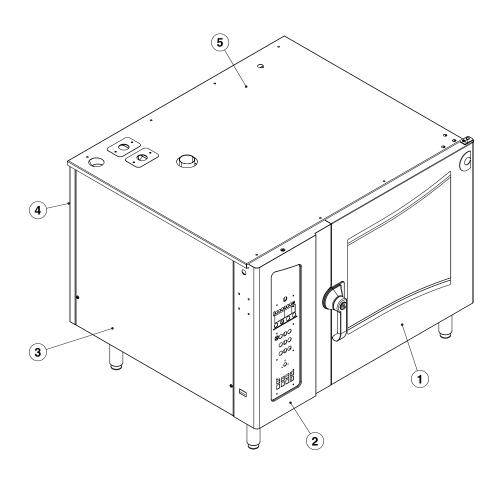


### **SLIDING PLATE ASSEMBLY**

ITEM	QTY	PART NO.	DESCRIPTION
11 🗆 1	1	113069	SLIDING PLATE WELDMENT, 6.10
'	'	113009	SLIDING PLATE WELDMENT, 10.10/10.20
		113070	SLIDING PLATE WELDMENT, 10.10/10.20 SLIDING PLATE WELDMENT, 6.20
		113071	· ·
			SLIDING PLATE WELDMENT, 12.20
0	4	113073	SLIDING PLATE WELDMENT, 20.10/20.20
2	1	C2114815	COVER PANEL, 6.10
		C2114816	COVER PANEL, 6.20
		C2114817	COVER PANEL, 10.10/10.20
		C2114818	COVER PANEL, 12.20
		C2114819	COVER PANEL, 20.10/20.20
3	2	C6012017	ROLLER, ASSEMBLY, DOOR GUIDE
4	2	C6012005	DISC Ø39 x 6 RST P3
5	2	C2014008	LOCKING BLOCK, CARRIAGE PLATE, P3
6	2	C6015226	LOCKING BLOCK RST
7	2	C6012006	DOOR STOP, RST P3
8	1	C2013012	HINGE, DOOR, BOTTOM, CAST
9	8	C8006057	SCHNORR LOCK WASHER S6 A2 P3
10	2	C8006063	WASHER, BELLEVILLE, M10, SERRATED BOTH SIDES, SST
11	8	C8006060	SCHNORR LOCK WASHER, S8, A2, P3
12	6	C8004057	NUT, HEX, M8 A4
13	2	C8003058	HEXAGON BOLT, M8 X 35, A2 P2/P3
14	4	C8003043	HEXAGON BOLT M6x16 A2 P2/P3
15	4	C8013002	FILLISTER HEAD SCREW DIN 912 - M8X25 A2
16	2	C8008095	BLIND RIVET NUT M6 ROUND A2 P3
17	2	C8001073	HEXAGON SOCKET SCREW M6x16 A2 P2/P3
18	2	C8004040	HEXAGON NUT M6 A4 P2/P3
19	4	C8005041	WASHER 6.4 A2 DIN 9021 P2 P3
20	2	C8005050	WASHER, 8.4 A2 DIN 125 P3
21	2	C8003066	BOLT,HEX HD,M10x30,A2
22	4	C8013011	HEXAGON BOLT M6x12 A2 P2/P3
23	1	C6012008	SUPPORT STRIP VST P3
24	1	C2013013	HINGE, DOOR, TOP, CAST
25	2	C8015000	MLF SCREW M6X8 A2 P3

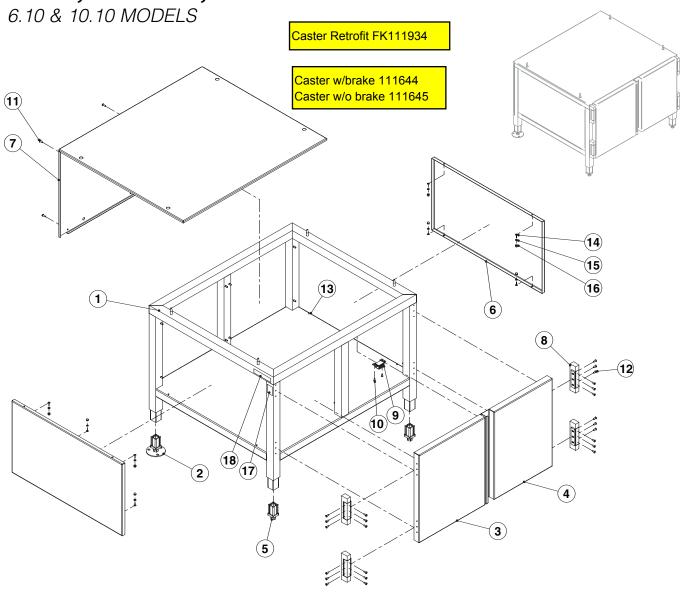
### **EXTERIOR SHEETING**

ALL 6.20 & 10.10 MODELS



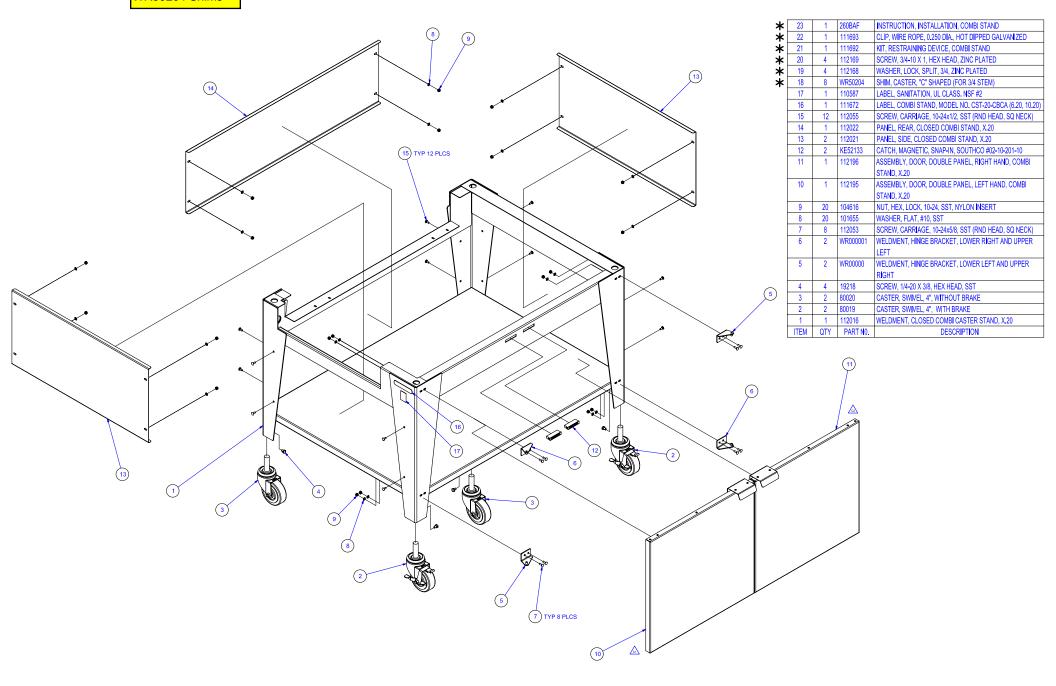
ITEM	QTY	PART NO.	DESCRIPTION
1	1	C2514351	DOOR, 6.20, COMPLETE
-	1	C2514352	DOOR, 10.10, COMPLETE
2	1	C2114652	WELDMENT, CORNER, FRONT LEFT, 6.20
-	1	C2114653	WELDMENT, CORNER, FRONT LEFT, 10.10
3	1	C2114782	PANEL ASSY, LEFT, OGB 6.20, OGS 6.20, OEB 6.20, OES 6.20
-	1	C2114783	PANEL ASSY, LEFT, OGB 10.10, OGS 10.10, OEB 10.10, OES 10.10
4	1	C2114762	PANEL ASSY, REAR, OGB 6.20
-	1	C2114742	PANEL ASSY, REAR, OGS 6.20, OEB 6.20, OES 6.20
-	1	C2114763	PANEL ASSY, REAR, OGB 10.10
-	1	C2114743	PANEL ASSY, REAR, OGS 10.10, OEB 10.10, OES 10.10
5	1	C2115462	PANEL, TOP, OGB 6.20
-	1	C2115452	PANEL, TOP, OGS 6.20
-	1	C2114702	PANEL, TOP, OEB 6.20
-	1	111628	PANEL, TOP, OES 6.20
-	1	C2115463	PANEL, TOP, OGB 10.10
-	1	C2115453	PANEL, TOP, OGS 10.10
-	1	C2114700	PANEL, TOP, OEB 10.10
-	1	111638	PANEL, TOP, OES 10.10

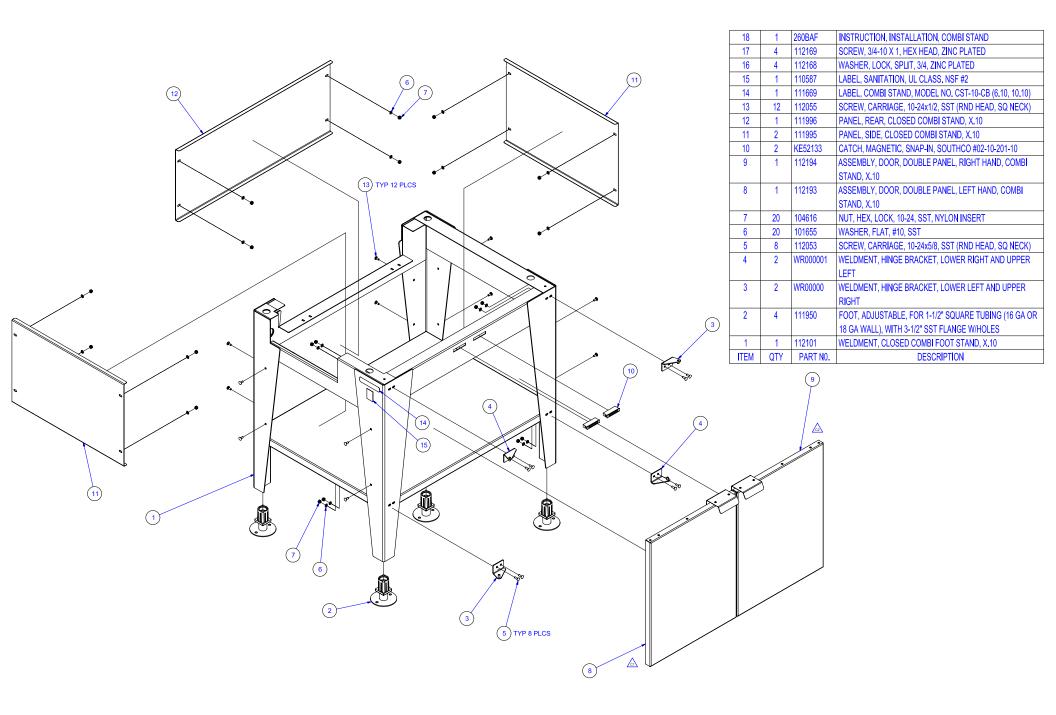
### STAND, ASSEMBLY, CLOSED BASE

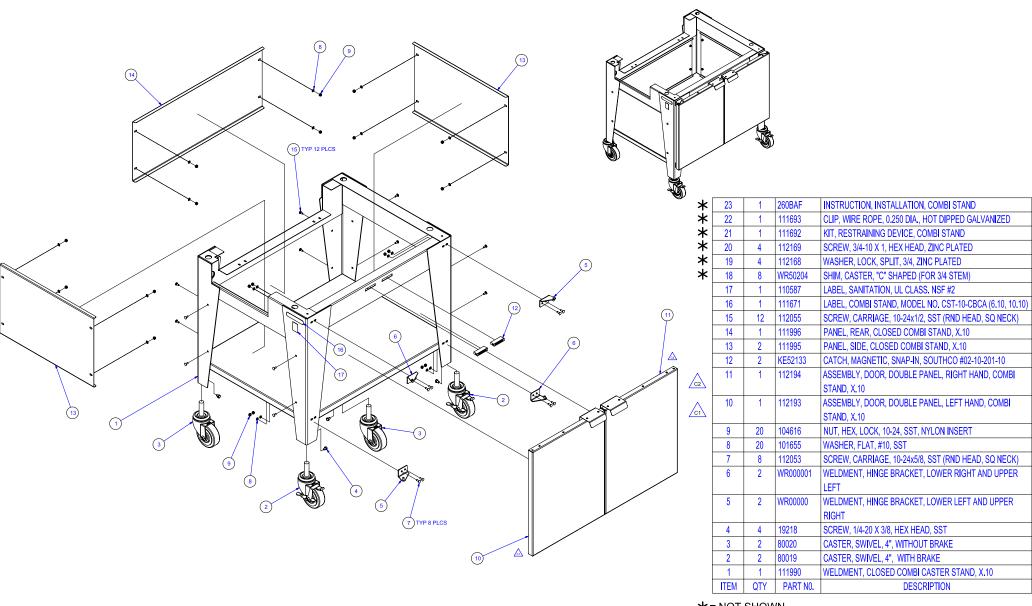


ITEM	QTY	PART NO.	DESCRIPTION
1	1	C3216201	WELDMENT, STAND, COMBI, 6.10/10.10
2	2	100413	FOOT ASS'Y, ADJUSTABLE (FOR 1.250 SQ. TUBING), ANCHORABLE TIEDOWN
3	1	C3216245	WELDMENT, STAND DOOR, 6.10/10.10, LEFT SIDE
4	1	C3216249	WELDMENT, STAND DOOR, 6.10/10.10, RIGHT SIDE
5	2	100241	FOOT, ADJUSTABLE (FOR 1.250 SQ. TUBE)
6	2	C3216237	PANEL, STAND, LEFT & RIGHT SIDE, 6.10/10.10
7	1	C3216238	SHEETING, TOP & REAR, COMBI STAND, 6.10/10.10
8	4	111673	HINGE, COMBI STAND
9	1	111674	CATCH, MAGNETIC, COMBI STAND
10	2	110492	SCREW, 6-32 X 0.312, PAN HD, PHILLIPS, SST
11	3	104080	SCREW, TR, PHH, 8x1/2, TYPE B, SST
12	24	111686	SCREW, 10-32 X 0.500, COUNTERSUNK FLAT HEAD, SST
13	8	111687	STUD, WELD, 6-32 X 0.188, CD, SST, NO FLANGE
14	8	110715	WASHER, 0.158 ID X 0.340 OD X 0.032 THK, SST
15	8	23154	WASHER, LOCK, INTERNAL TOOTH, #6, SST
16	8	14262	NUT, HEX, 6-32, ACORN, SST
17	1	110587	LABEL, SANITATION, UL CLASS NSF #2
18	1	111669	LABEL, COMBI STAND, MODEL NO. CST-10-CB (6.10, 10.10)

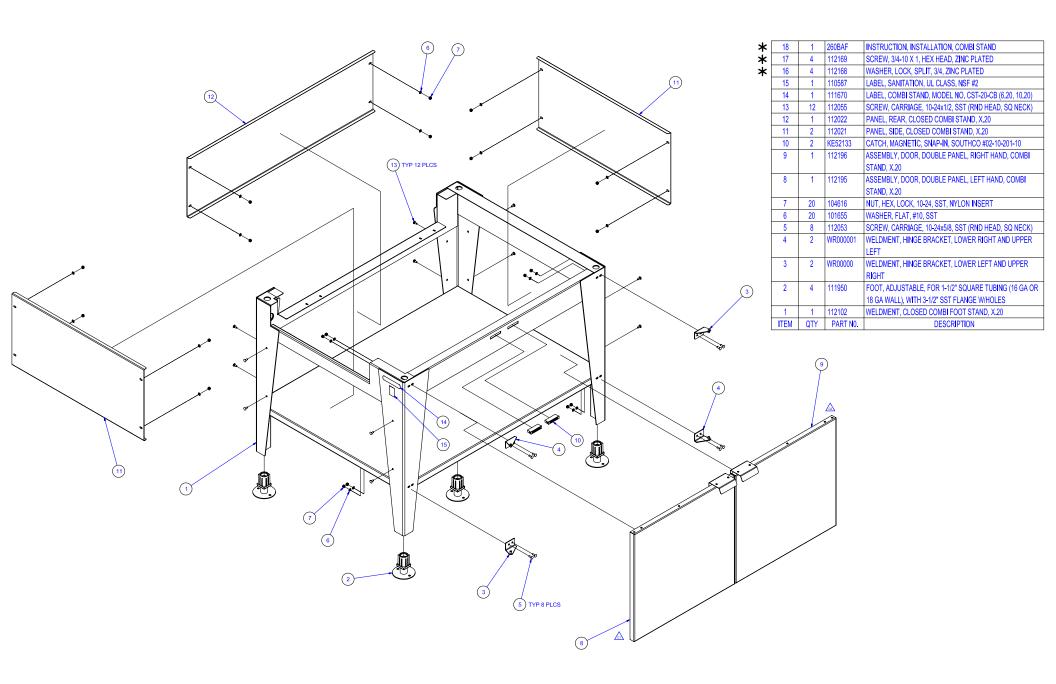
#### WR50204 Shims

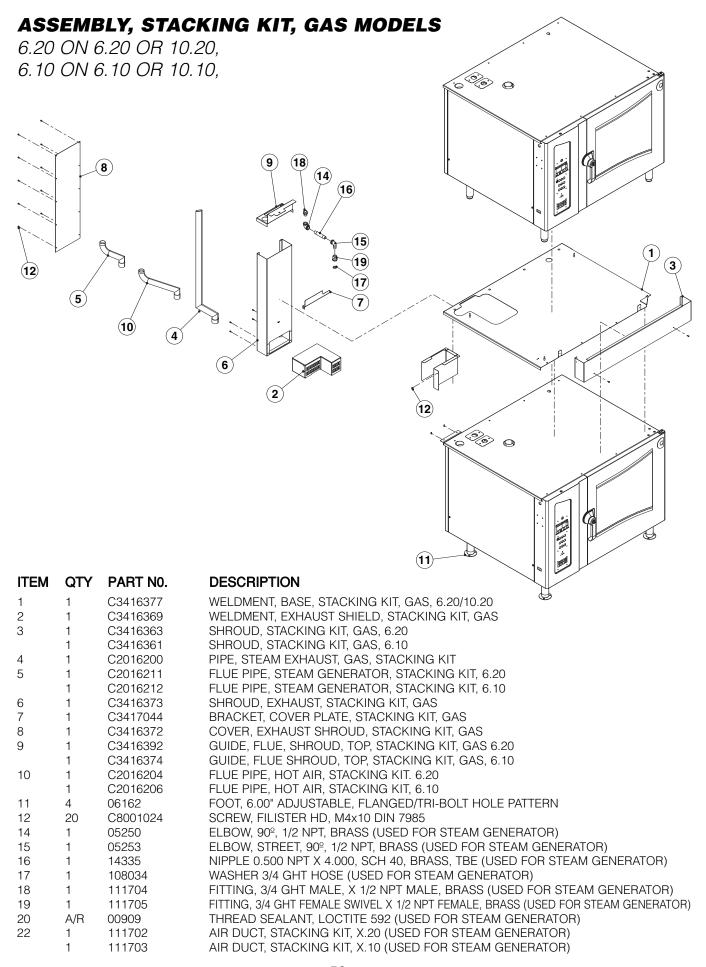






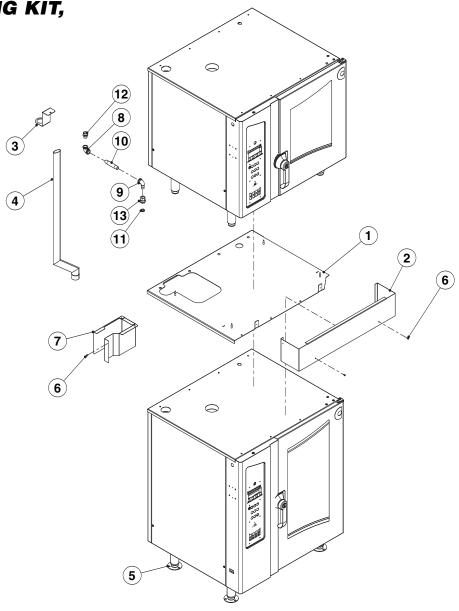
**★**= NOT SHOWN





# ASSEMBLY, STACKING KIT, ELECTRIC MODELS

6.10 ON 6.10 OR 10.10



ITEM	QTY	PART NO.	DESCRIPTION
1*	1	C3416368	WELDMENT, BASE, STACKING KIT, ELECTRIC, 6.10/10.10
2*	1	C3416362	SHROUD, STACKING KIT, ELECTRIC, X.10
3*	1	C3416365	BRACKET, STEAM EXHAUST PIPE, STACKING KIT, ELECTRIC
4*	1	C2016201	PIPE, STEAM EXHAUST, ELECTRIC, STACKING KIT
5*	4	06162	FOOT, 6.00" ADJUSTABLE, FLANGED/TRI-BOLT HOLE PATTERN
6*	3	C8001024	SCREW, FILISTER HD, M4x10 DIN 7985
7*	1	111703	AIR DUCT, STACKING KIT, x.10
8	1	05250	ELBOW, 90°, 1/2 NPT, BRASS
9	1	05253	ELBOW, STREET, 90°, 1/2 NPT, BRASS
10	1	14335	NIPPLE 0.500 NPT X 4.000, SCH 40, BRASS, TBE
11	1	108034	WASHER 3/4 GHT HOSE
12	1	111704	FITTING, 3/4 GHT MALE, X 1/2 NPT MALE, BRASS
13	1	111705	FITTING, 3/4 GHT FEMALE SWIVEL X 1/2 NPT FEMALE, BRASS
14	A/R	00909	THREAD SEALANT,LOCTITE 592

<sup>\*</sup> Used for Steam Generator only.

# CLEVELAND RANGE OEB 6.20/10.10 SEQUENCE OF OPERATIONS

### When using these instructions refer to the OEB 6.20/10.10 wiring schematic.

- 1 When incoming power (220 VAC) is connected to the combi, 220 VAC is sent to
  - a The contacts 2,4 and 6 of the Safety Contactor (KO)
  - b The terminals 2 and 3 of the Control Power Switch (S1)
- 2 When the Control Power Switch (S1) is turned on (closed)
  - a The red light on the switch is energized.
  - b Incoming power (220 VAC) is sent through the 2A fuse (F1.1) to
    - The 12 vdc power supply (G1)
      - ♦ 12vdc is sent to terminals 3 and 4 of the connector X10 on the Control Board (A10)
    - Terminal 1 of connector X12 on the Control Board (A10)
    - Terminal 10 of connector X13 on the Control Board (A10)
    - The return of the Supply is sent to terminal 7 of connector X13 on the Control Board (A10)
  - c With 220 VAC to the Control Board (A10) The Operation Board (A11) is energized
    - An alarm will sound for one second
    - All the LED's and the display will energize one at a time.
    - "STARTING" will be displayed for 3 seconds
    - "please wait" will be displayed
    - The international model number will be displayed
    - The time and date will be displayed and this will continue until the on/off switch is depressed.
- 3 When the ON/OFF is depressed with the combi in the steam mode
  - a After a date change (the first time the combi is turned on) the display will ask "Generator Flush?". If no answer is given in 10 seconds or a yes is indicated the flush will begin.
    - 220 VAC is sent from terminal 1 of connector X13 on the Control Board (A10) to the Generator Pump (M4).
    - As the water level drops below the probes the fill solenoid (Y3) will energize. This rocking of the water will help flush scale from the generator.
    - Then the pumps will be energized again
    - When the condensate box is heated to 140 degrees F at the B3probe, 220 VAC is sent from terminal 5 of connector X12 to the condenser valve (Y1) until the temperature drops.,
  - b The display will show the set temperature and set time when the flush cycle is complete.
  - c The Control Board (A10) will check the water level by looking for a ground at terminals 1 and 2 on connector X15. These are connected to the high and low probes (B1) in the steam generator.

- If the ground is not found 220 VAC is sent from terminal 7 on connector X12 on the Control Board (A10) to the fill solenoid (Y3)
- The fill solenoid opens and the generator is filled until both probes are grounded.
  - ♦ If the top probe becomes ungrounded for more that 5 seconds the fill solenoid (Y3) will energize.
  - ♦ If the bottom probe becomes ungrounded the combi will fill immediately and the combi will not heat
- d When the terminal 2 on connector X15 is grounded
  - 220 VAC is sent from terminal 4 of connector X12 on the Control Board (A10) through the normally closed auxiliary contacts of K4 to the coil of Contactor K1 until the steam generator get to 190 degrees F (probe B4).
    - ♦ The contactor K1 closes and 220 VAC is sent to the 9.4 KW element (E1)
    - ♦ The normally closed auxiliary contact of K1 opens preventing the Hot Air Contactor K4 from energizing
  - 220 VAC is sent from terminal 8 of connector X11 on the Control Board (A10) through the normally closed auxiliary contacts of K44 to the coil of Contactor K2 until the steam generator get to 190 degrees F (probe B4).
    - ♦ The contactor K2 closes and 220 VAC is sent to the 6.27 KW element (E2)
    - ♦ The normally closed auxiliary contact of K2 opens preventing the Hot Air Contactor K4 from energizing
- 4 With the combi in the steam mode with time on the timer, the door closed and the start switch is depressed
  - a The front display will include a lighted bar under the steam symbol
    - When the heat circuit is energized the heat symbol will be energized
    - The cooking mode symbol will be energized.
    - The time display will invert and begin to count down.
  - b The fan circuit is energized
    - **NOTE:** If the temperature is less than 212 degrees F than fan will be pulsed on for 2 seconds every 60 seconds after the cabinet set temp (B6).
    - If the combi fan is in the normal setting 220 VAC is sent from terminal 5 on connector X11 through the normally closed auxiliary contacts of contactor K57 to the coils of contactors K55 and K56
      - ♦ The K55 and K56 contactors close sending 220 VAC through the Q56 overload to the motor and the motor turns at a high speed.
      - ♦ The normally closed auxiliary contacts of both K55 and K56 open preventing the K57 contactor from energizing.
    - If the combi fan is in the reduced setting 220 VAC is sent from terminal 6 on connector X11 through the normally closed auxiliary contacts of contactors K55 and K56 to the coil of contactor K57
      - ♦ The K57 contactor closes Sending 220 VAC through the Q57 thermal overload to the motor and the motor turns at a reduced speed.
      - ♦ The normally closed auxiliary contacts of K57 open preventing the K55 and K56 contactors from energizing.

- For the first 2 minutes 220 VAC is sent from terminal 4 on connector X11 through the normally closed auxiliary contacts of contactor K5 to the K50 contactor coil
  - ♦ K50 contactor closes and the motor turns CW
  - ♦ The normally closed auxiliary contacts on K50 open preventing the K5 contactor from energizing.
- For 15 seconds the motor is de-energized and allowed to coast.
- For the next 2 minutes 220 VAC is sent from terminal 3 on connector X11 through the normally closed auxiliary contacts of contactor K50 to the K5 contactor coil
  - ♦ K5 contactor closes and the motor turns CCW
  - ♦ The normally closed auxiliary contacts on K5 open preventing the K50 contactor from energizing.
- **NOTE:** If the door switch (S7) opens by the door opening, then the fan circuit is de-energized. Then the motor will be pulsed in the opposite direction to "break" the fan. This is to stop the fan quicker for the operator.
- c The steam generator circuit is energized
  - 220 VAC is sent from terminal 4 of connector X12 on the Control Board (A10) through the normally closed auxiliary contacts of K4 to the coil of Contactor K1 until the cabinet reaches the set temperature and the bypass probe (B5) senses 162 degrees F.
    - ♦ The contactor K1 closes and 220 VAC is sent to the 9.4 KW element (E1)
    - ♦ The normally closed auxiliary contact of K1 opens preventing the Hot Air Contactor K4 from energizing
  - 220 VAC is sent from terminal 8 of connector X11 on the Control Board (A10) through the normally closed auxiliary contacts of K44 to the coil of Contactor K2 until the cabinet reaches the set temperature and the bypass probe (B5) senses 162 degrees F.
    - ♦ The contactor K2 closes and 220 VAC is sent to the 6.27 KW element (E2)
    - ♦ The normally closed auxiliary contact of K2 opens preventing the Hot Air Contactor K4 from energizing
    - ♦ If the reduced power option is chosen then the K2 Contactor is not energized.
  - When the compartment temp is reached, the steam heat circuit is controlled by the B4 probe in the bypass tube.
  - **NOTE:** If the set temperature is above 212 degrees F the hot air circuit will be energized (after the by pass probe is satisfied) until the compartment setting is reached. The steam circuit always takes precedence.
- d When the condensate box is heated to 140 degrees F at the B3probe, 220 VAC is sent from terminal 5 of connector X12 to the condenser valve (Y1) until the temperature drops.
- e When the timer counts to 0 or the core temp probe (B10) reaches the set amount the cycle ends and the steam generator reverts to the standby temperature of 190-degree F.

- 5 With the combi in the Hot Air mode with time on the timer, the door closed and the start switch is depressed
  - a The front display will include a lighted bar under the Hot Air symbol
    - When the heat circuit is energized the heat symbol will be energized
    - The cooking mode symbol will be energized.
    - The time display will invert and begin to count down.
  - b The fan circuit is energized
    - **NOTE:** If the temperature is less than 212 degrees F than fan will be pulsed on for 2 seconds every 60 seconds after the cabinet set temp (B6)
    - If the combi fan is in the normal setting 220 VAC is sent from terminal 5 on connector X11 through the normally closed auxiliary contacts of contactor K57 to the coils of contactors K55 and K56
      - ♦ The K55 and K56 contactors close sending 220 VAC through the Q56 overload to the motor and the motor turns at a high speed.
      - ♦ The normally closed auxiliary contacts of both K55 and K56 open preventing the K57 contactor from energizing.
    - If the combi fan is in the reduced setting 220 VAC is sent from terminal 6 on connector X11 through the normally closed auxiliary contacts of contactors K55 and K56 to the coil of contactor K57
      - ♦ The K57 contactor closes Sending 220 VAC through the Q57 thermal overload to the motor and the motor turns at a reduced speed.
      - ♦ The normally closed auxiliary contacts of K57 open preventing the K55 and K56 contactors from energizing.
    - For the first 2 minutes 220 VAC is sent from terminal 4 on connector X11 through the normally closed auxiliary contacts of contactor K5 to the K50 contactor coil
      - ♦ K50 contactor closes and the motor turns CW
      - ♦ The normally closed auxiliary contacts on K50 open preventing the K5 contactor from energizing.
    - For 15 seconds the motor is de-energized and allowed to coast.
    - For the next 2 minutes 220 VAC is sent from terminal 3 on connector X11 through the normally closed auxiliary contacts of contactor K50 to the K5 contactor coil
      - ♦ K5 contactor closes and the motor turns CCW
      - ♦ The normally closed auxiliary contacts on K5 open preventing the K50 contactor from energizing.
    - **NOTE:** If the door switch (S7) opens by the door opening, then the fan circuit is de-energized. Then the motor will be pulsed in the opposite direction to "break" the fan. This is to stop the fan quicker for the operator.
  - c The hot air heat circuit is energized
    - 220 VAC is sent from terminal 3 of connector X12 on the Control Board (A10) through the normally closed auxiliary contacts of K2 and K1 to the coil of Contactor K4 until the cabinet reaches the set temperature.
      - ♦ The contactor K4 closes and to legs of the 220 VAC is sent to the 18 KW element (E4)

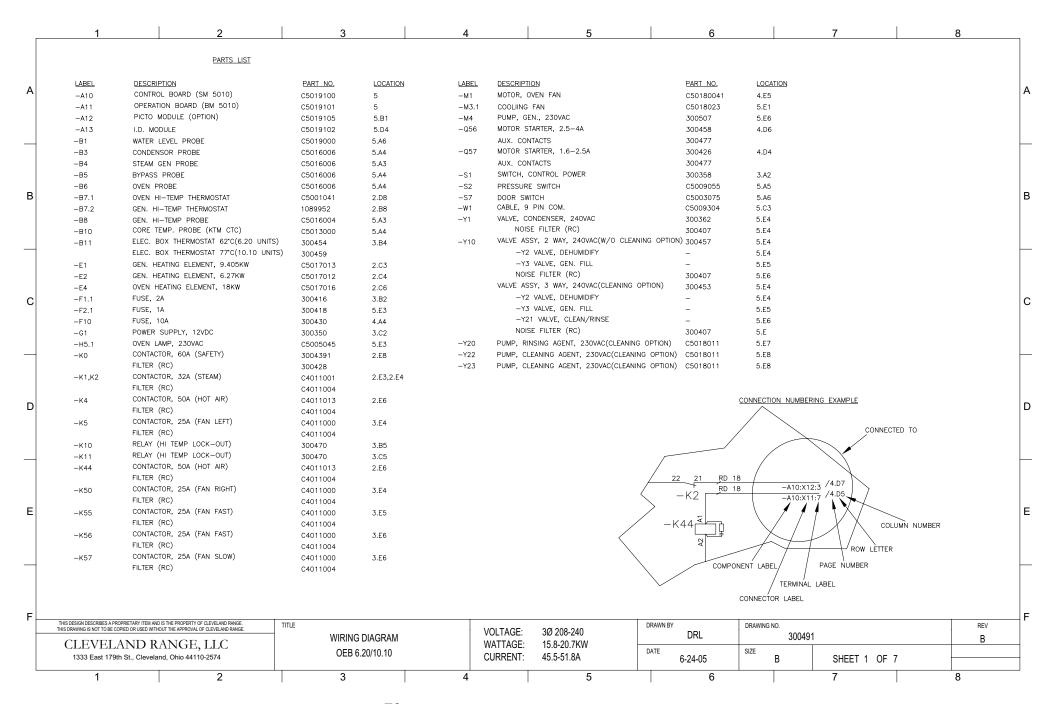
- ♦ The normally closed auxiliary contact of K4 opens preventing the Steam Contactor K1 from energizing
- 220 VAC is sent from terminal 7 of connector X11 on the Control Board (A10) to the coil of Contactor K44 until the cabinet reaches the set temperature.
  - ♦ The contactor K44 closes and the third leg of 220 VAC is sent to the 18 KW element (E4)
  - ♦ If the reduced power option is chosen then the K44 Contactor is not energized.
- d When the condensate box is heated to 140 degrees F at the B3probe, 220 VAC is sent from terminal 5 of connector X12 to the condenser valve (Y1) until the temperature drops.
- e If the "Crisp and Tasty" mode is selected
  - 220 VAC is sent from terminal 6 of connector X12 on the Control Board (A10) to the Dehumidification Valve (Y2) to pull the humidity out of the cabinet down the drain.
    - ♦ In the light and medium modes (one and two drops in the display) the Y2 valve will be energized until the bypass probe (B5) is satisfied.
    - ♦ In the full mode (3 drops in the display) the Y2 valve will be energized continuously.
- f When the timer counts to 0 or the core temp probe (B10) reaches the set amount the cycle ends and the steam generator reverts to the standby temperature of 190-degree F.
- 6 With the combi in the Combi mode with time on the timer, the door closed and the start switch is depressed
  - a The front display will include a lighted bar under the combi symbol
    - When the heat circuit is energized the heat symbol will be energized
    - The cooking mode symbol will be energized.
    - The time display will invert and begin to count down.
  - b The fan circuit is energized
    - If the combi fan is in the normal setting 220 VAC is sent from terminal 5 on connector X11 through the normally closed auxiliary contacts of contactor K57 to the coils of contactors K55 and K56
      - ♦ The K55 and K56 contactors close sending 220 VAC through the Q56 overload to the motor and the motor turns at a high speed.
      - ♦ The normally closed auxiliary contacts of both K55 and K56 open preventing the K57 contactor from energizing.
    - If the combi fan is in the reduced setting 220 VAC is sent from terminal 6 on connector X11 through the normally closed auxiliary contacts of contactors K55 and K56 to the coil of contactor K57
      - ♦ The K57 contactor closes Sending 220 VAC through the Q57 thermal overload to the motor and the motor turns at a reduced speed.
      - ♦ The normally closed auxiliary contacts of K57 open preventing the K55 and K56 contactors from energizing.

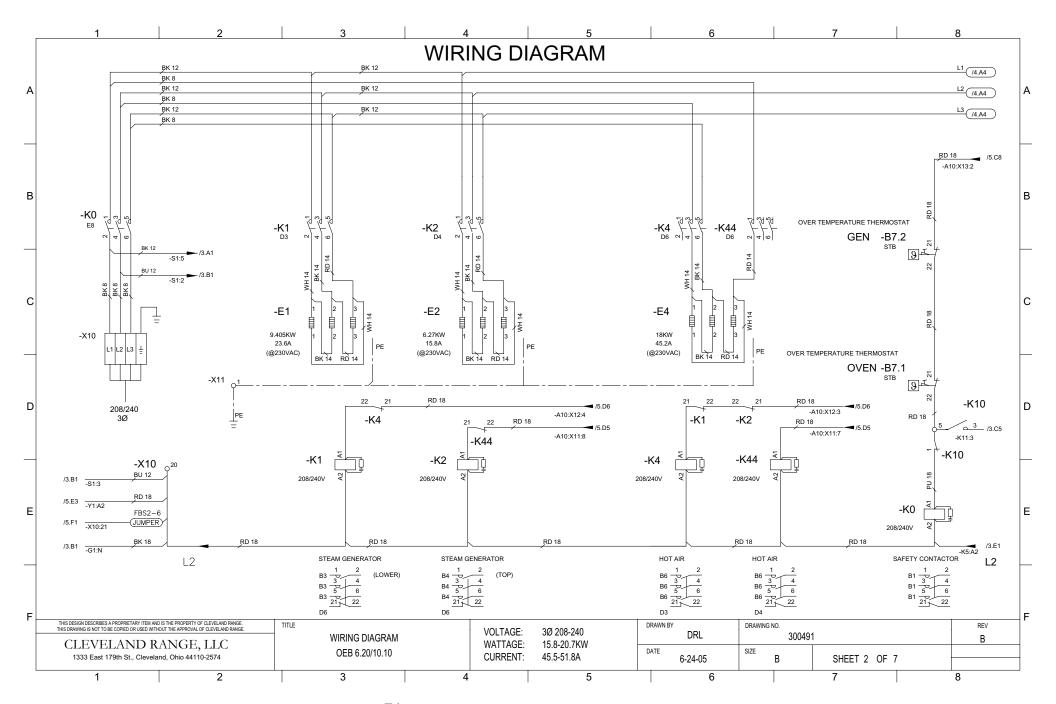
- For the first 2 minutes 220 VAC is sent from terminal 4 on connector X11 through the normally closed auxiliary contacts of contactor K5 to the K50 contactor coil
  - ♦ K50 contactor closes and the motor turns CW
  - ♦ The normally closed auxiliary contacts on K50 open preventing the K5 contactor from energizing.
- For 15 seconds the motor is de-energized and allowed to coast.
- For the next 2 minutes 220 VAC is sent from terminal 3 on connector X11 through the normally closed auxiliary contacts of contactor K50 to the K5 contactor coil
  - ♦ K5 contactor closes and the motor turns CCW
  - ♦ The normally closed auxiliary contacts on K5 open preventing the K50 contactor from energizing.
- **NOTE:** If the door switch (S7) opens by the door opening, then the fan circuit is de-energized. Then the motor will be pulsed in the opposite direction to "break" the fan. This is to stop the fan quicker for the operator.
- c The steam generator circuit is energized. Steam production takes precedence in the combi mode.
  - 220 VAC is sent from terminal 4 of connector X12 on the Control Board (A10) through the normally closed auxiliary contacts of K4 to the coil of Contactor K1 until the bypass probe (B5) senses 162 degrees F.
    - ♦ The contactor K1 closes and 220 VAC is sent to the 9.4 KW element (E1)
    - ♦ The normally closed auxiliary contact of K1 opens preventing the Hot Air Contactor K4 from energizing
  - 220 VAC is sent from terminal 8 of connector X11 on the Control Board (A10) through the normally closed auxiliary contacts of K44 to the coil of Contactor K2 until the bypass probe (B5) senses 162 degrees F.
    - ♦ The contactor K2 closes and 220 VAC is sent to the 6.27 KW element (E2)
    - ♦ The normally closed auxiliary contact of K2 opens preventing the Hot Air Contactor K4 from energizing
    - ♦ If the reduced power option is chosen then the K2 Contactor is not energized.
- d After the bypass probe (B5) is satisfied then the hot air heat circuit is energized to increase the cabinet temperature to the setting.
  - 220 VAC is sent from terminal 3 of connector X12 on the Control Board (A10) through the normally closed auxiliary contacts of K2 and K1 to the coil of Contactor K4 until the cabinet reaches the set temperature.
    - ♦ The contactor K4 closes and to legs of the 220 VAC is sent to the 18 KW element (E4)
    - ♦ The normally closed auxiliary contact of K4 opens preventing the Steam Contactor K1 from energizing
  - 220 VAC is sent from terminal 7 of connector X11 on the Control Board (A10) to the coil of Contactor K44 until the cabinet reaches the set temperature.

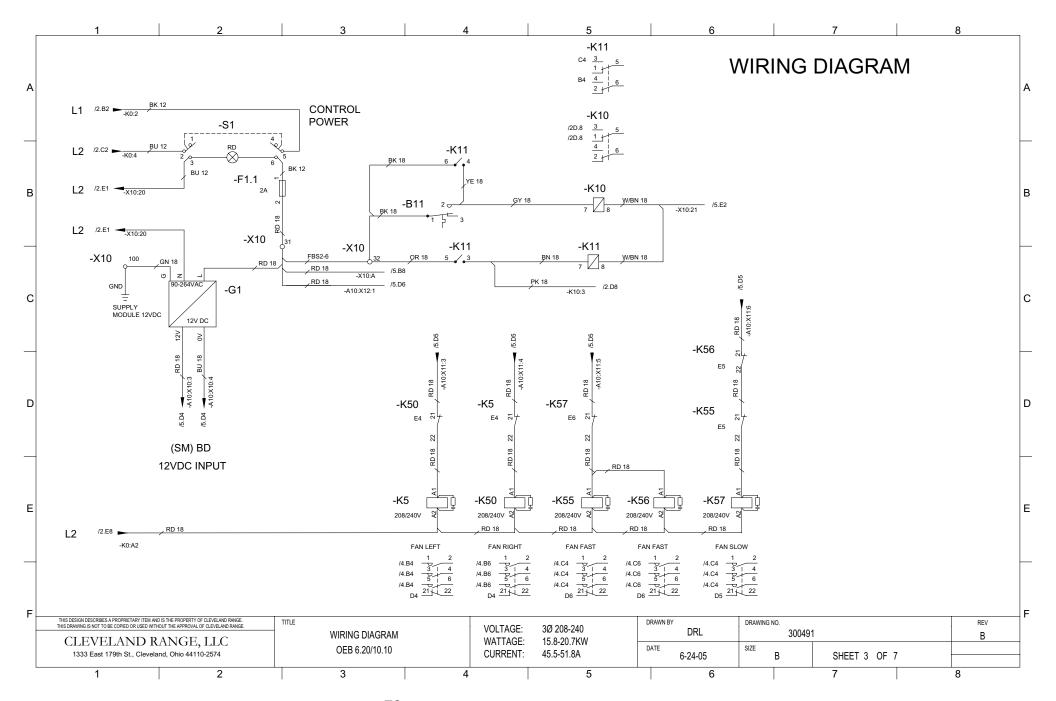
- ♦ The contactor K44 closes and the third leg of 220 VAC is sent to the 18 KW element (E4)
- ♦ If the reduced power option is chosen then the K44 Contactor is not energized.
- e When the condensate box is heated to 140 degrees F at the B3probe, 220 VAC is sent from terminal 5 of connector X12 to the condenser valve (Y1) until the temperature drops.
- f If the "Crisp and Tasty" mode is selected
  - 220 VAC is sent from terminal 6 of connector X12 on the Control Board (A10) to the Dehumidification Valve (Y2) to pull the humidity out of the cabinet down the drain.
    - ♦ In the light and medium modes (one and two drops in the display) the Y2 valve will be energized until the bypass probe (B5) is satisfied.
    - ♦ In the full mode (3 drops in the display) the Y2 valve will be energized continuously.
- g When the timer counts to 0 or the core temp probe (B10) reaches the set amount the cycle ends and the steam generator reverts to the standby temperature of 190-degree F.
- With the combi in the Rethermalization mode with time on the timer, the door closed and the start switch is depressed
  - a The front display will include a lighted bar under the Rethermalization symbol
    - When the heat circuit is energized the heat symbol will be energized
    - The cooking mode symbol will be energized.
    - The time display will invert and begin to count down.
  - b The fan circuit is energized
    - If the combi fan is in the normal setting 220 VAC is sent from terminal 5 on connector X11 through the normally closed auxiliary contacts of contactor K57 to the coils of contactors K55 and K56
      - ♦ The K55 and K56 contactors close sending 220 VAC through the Q56 overload to the motor and the motor turns at a high speed.
      - ♦ The normally closed auxiliary contacts of both K55 and K56 open preventing the K57 contactor from energizing.
    - If the combi fan is in the reduced setting 220 VAC is sent from terminal 6 on connector X11 through the normally closed auxiliary contacts of contactors K55 and K56 to the coil of contactor K57
      - ♦ The K57 contactor closes Sending 220 VAC through the Q57 thermal overload to the motor and the motor turns at a reduced speed.
      - ♦ The normally closed auxiliary contacts of K57 open preventing the K55 and K56 contactors from energizing.
    - For the first 2 minutes 220 VAC is sent from terminal 4 on connector X11 through the normally closed auxiliary contacts of contactor K5 to the K50 contactor coil
      - ♦ K50 contactor closes and the motor turns CW
      - ♦ The normally closed auxiliary contacts on K50 open preventing the K5 contactor from energizing.

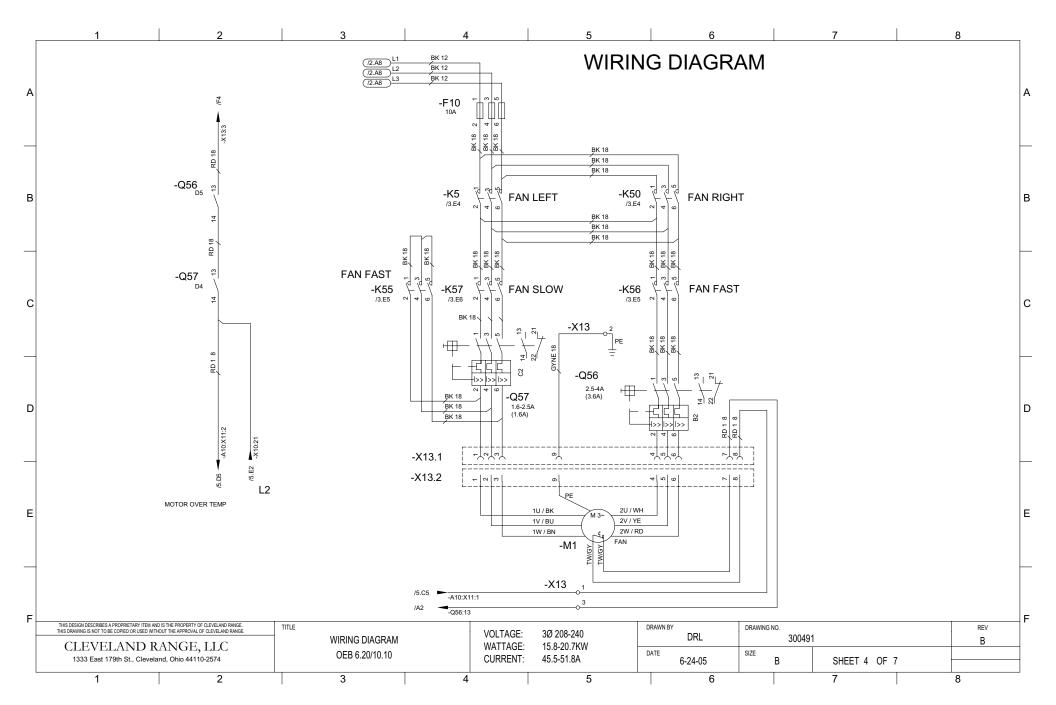
- For 15 seconds the motor is de-energized and allowed to coast.
- For the next 2 minutes 220 VAC is sent from terminal 3 on connector X11 through the normally closed auxiliary contacts of contactor K50 to the K5 contactor coil
  - ♦ K5 contactor closes and the motor turns CCW
  - ♦ The normally closed auxiliary contacts on K5 open preventing the K50 contactor from energizing.
- **NOTE:** If the door switch (S7) opens by the door opening, then the fan circuit is de-energized. Then the motor will be pulsed in the opposite direction to "break" the fan. This is to stop the fan quicker for the operator.
- The steam generator circuit is energized. Steam production takes precedence in the Rethermalization mode.
  - 220 VAC is sent from terminal 4 of connector X12 on the Control Board (A10) through the normally closed auxiliary contacts of K4 to the coil of Contactor K1 until the bypass probe (B5) senses 68 degrees F.
    - ♦ The contactor K1 closes and 220 VAC is sent to the 9.4 KW element (E1)
    - ♦ The normally closed auxiliary contact of K1 opens preventing the Hot Air Contactor K4 from energizing
  - 220 VAC is sent from terminal 8 of connector X11 on the Control Board (A10) through the normally closed auxiliary contacts of K44 to the coil of Contactor K2 until the bypass probe (B5) senses 68 degrees F.
    - ♦ The contactor K2 closes and 220 VAC is sent to the 6.27 KW element (E2)
    - ♦ The normally closed auxiliary contact of K2 opens preventing the Hot Air Contactor K4 from energizing
    - ♦ If the reduced power option is chosen then the K2 Contactor is not energized.
- d After the bypass probe (B5) is satisfied then the hot air heat circuit is energized to increase the cabinet temperature to the setting.
  - 220 VAC is sent from terminal 3 of connector X12 on the Control Board (A10) through the normally closed auxiliary contacts of K2 and K1 to the coil of Contactor K4 until the cabinet reaches the set temperature.
    - ♦ The contactor K4 closes and to legs of the 220 VAC is sent to the 18 KW element (E4)
    - ♦ The normally closed auxiliary contact of K4 opens preventing the Steam Contactor K1 from energizing
  - 220 VAC is sent from terminal 7 of connector X11 on the Control Board (A10) to the coil of Contactor K44 until the cabinet reaches the set temperature.
    - ♦ The contactor K44 closes and the third leg of 220 VAC is sent to the 18 KW element (E4)
    - ♦ If the reduced power option is chosen then the K44 Contactor is not energized.

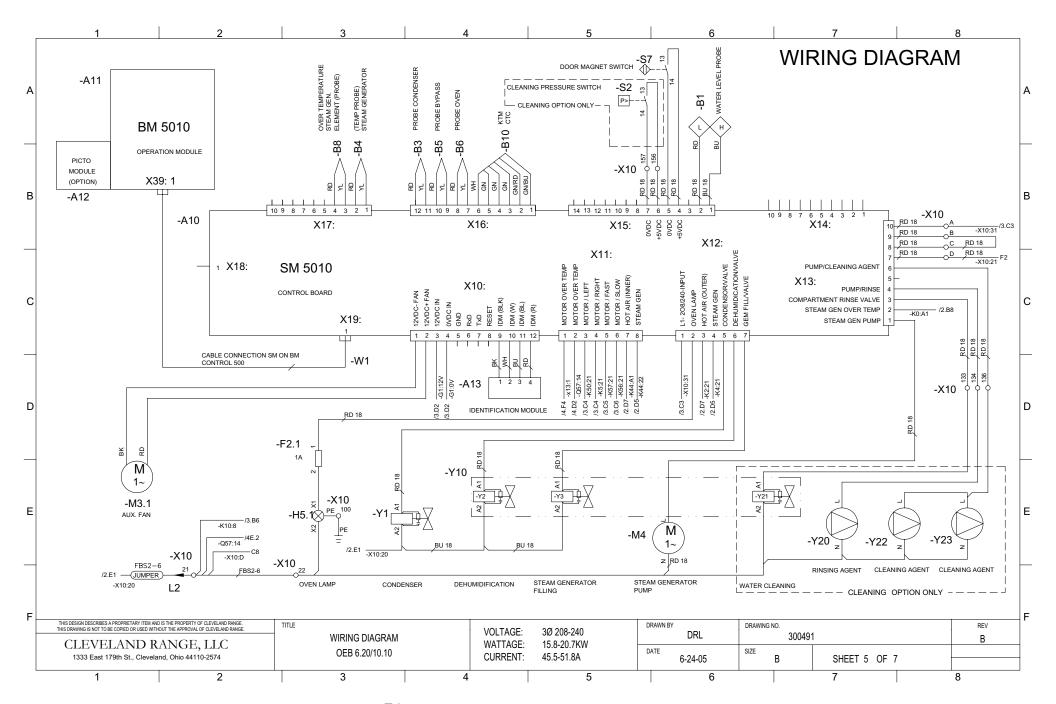
- e When the condensate box is heated to 140 degrees F at the B3probe, 220 VAC is sent from terminal 5 of connector X12 to the condenser valve (Y1) until the temperature drops.
- f When the timer counts to 0 or the core temp probe (B10) reaches the set amount the cycle ends and the steam generator reverts to the standby temperature of 190-degree F.

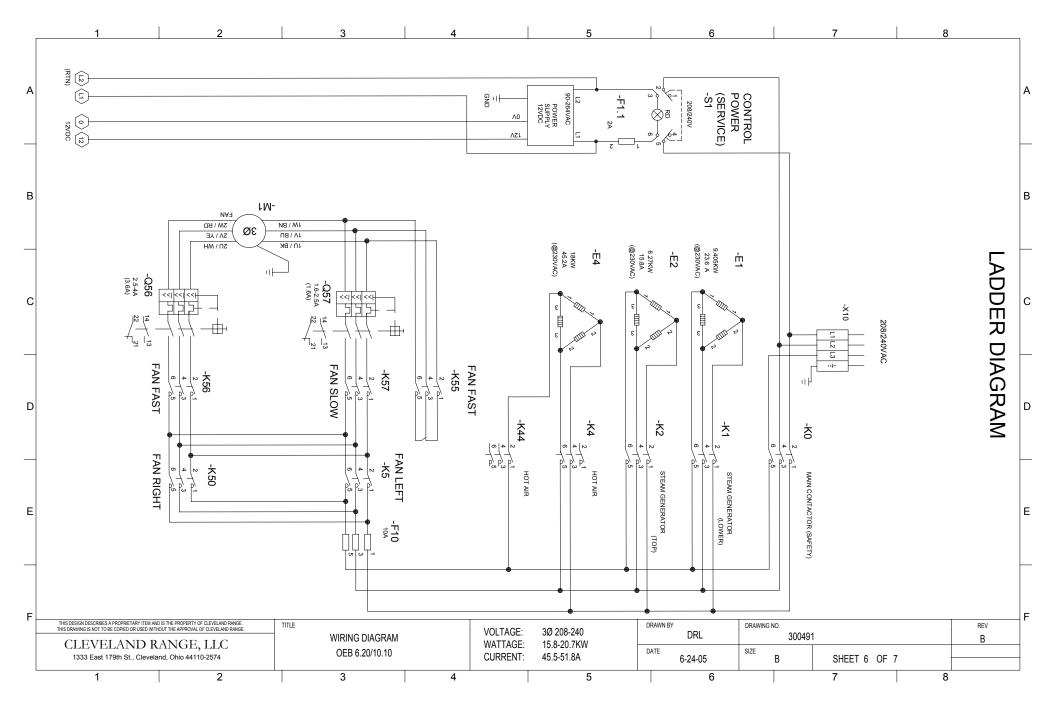


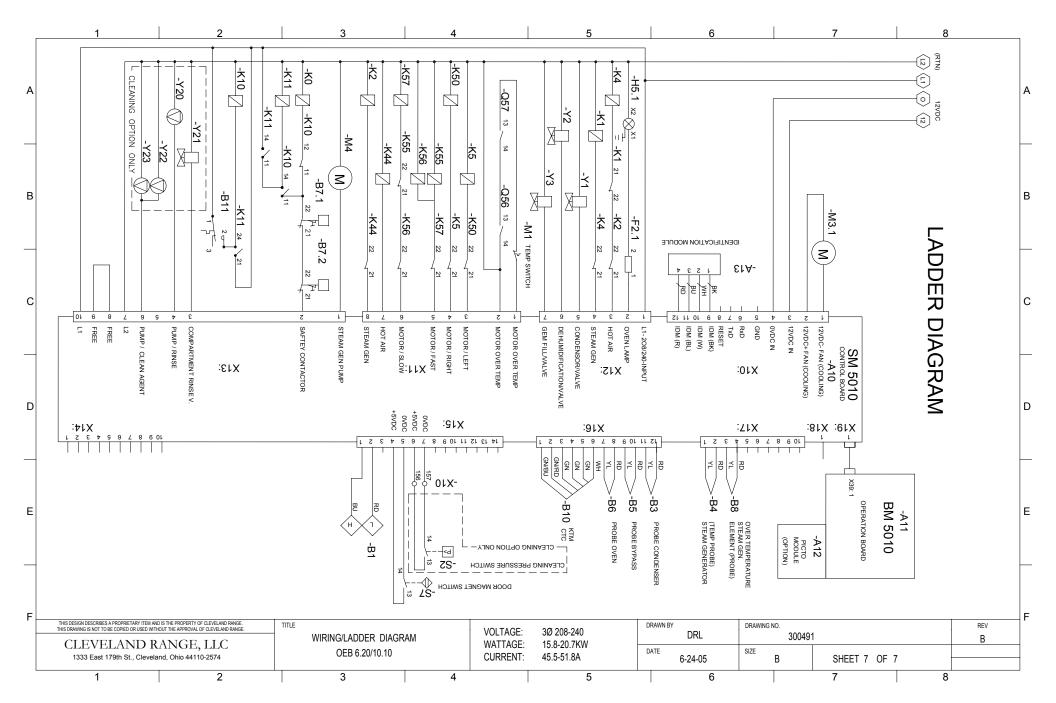












# CLEVELAND RANGE OES 6.20/10.10 SEQUENCE OF OPERATIONS

### When using these instructions refer to the OES 6.20/10.10 wiring schematic.

- 1 When incoming power (220 VAC) is connected to the combi, 220 VAC is sent to
  - a The contacts 2,4 and 6 of the Safety Contactor (KO)
  - b The terminals 2 and 5 of the Control Power Switch (S1)
- 2 When the Control Power Switch (S1) is turned on (closed)
  - a The red light on the switch is energized.
  - b Incoming power (220 VAC) is sent through the 2A fuse (F1.1) to
    - The 12 vdc power supply (G1)
      - ♦ 12vdc is sent to terminals 3 and 4 of the connector X10 on the Control Board (A10)
    - Terminal 1 of connector X12 on the Control Board (A10)
    - Terminal 10 of connector X13 on the Control Board (A10)
    - The return of the Supply is sent to terminal 7 of connector X13 on the Control Board (A10)
  - c With 220 VAC to the Control Board (A10) The Operation Board (A11) is energized
    - An alarm will sound for one second
    - All the LED's and the display will energize one at a time.
    - "STARTING" will be displayed for 3 seconds
    - "please wait" will be displayed
    - The international model number will be displayed
    - The time and date will be displayed and this will continue until the on/off switch is depressed.
- 3 When the ON/OFF is depressed with the combi in the steam mode
  - The display will show the set temperature and set time when the flush cycle is complete.
- 4 With the combi in the steam mode with time on the timer, the door closed and the start switch is depressed
  - a The front display will include a lighted bar under the steam symbol
    - When the heat circuit is energized the heat symbol will be energized
    - The cooking mode symbol will be energized.
    - The time display will invert and begin to count down.
  - b The fan circuit is energized
    - If the combi fan is in the normal setting 220 VAC is sent from terminal 5 on connector X11 through the normally closed auxiliary contacts of contactor K57 to the coils of contactors K55 and K56
      - ♦ The K55 and K56 contactors close sending 220 VAC through the Q56 overload to the motor and the motor turns at a high speed.
      - ♦ The normally closed auxiliary contacts of both K55 and K56 open preventing the K57 contactor from energizing.

- If the combi fan is in the reduced setting 220 VAC is sent from terminal 6 on connector X11 through the normally closed auxiliary contacts of contactors K55 and K56 to the coil of contactor K57
  - ♦ The K57 contactor closes Sending 220 VAC through the Q57 thermal overload to the motor and the motor turns at a reduced speed.
  - ♦ The normally closed auxiliary contacts of K57 open preventing the K55 and K56 contactors from energizing.
- For the first 2 minutes 220 VAC is sent from terminal 4 on connector X11 through the normally closed auxiliary contacts of contactor K5 to the K50 contactor coil
  - ♦ K50 contactor closes and the motor turns CW
  - ♦ The normally closed auxiliary contacts on K50 open preventing the K5 contactor from energizing.
- For 15 seconds the motor is de-energized and allowed to coast.
- For the next 2 minutes 220 VAC is sent from terminal 3 on connector X11 through the normally closed auxiliary contacts of contactor K50 to the K5 contactor coil
  - ♦ K5 contactor closes and the motor turns CCW
  - ♦ The normally closed auxiliary contacts on K5 open preventing the K50 contactor from energizing.
- **NOTE:** If the door switch (S7) opens by the door opening, then the fan circuit is de-energized. Then the motor will be pulsed in the opposite direction to "break" the fan. This is to stop the fan quicker for the operator.
- c The hot air heat circuit is energized
  - 220 VAC is sent from terminal 3 of connector X12 on the Control Board (A10) through the normally closed auxiliary contacts of K2 and K1 to the coil of Contactor K4 until the cabinet reaches the set temperature as sensed at probe B6.
    - ♦ The contactor K4 closes and to legs of the 220 VAC is sent to the 18 KW element (E4)
  - 220 VAC is sent from terminal 7 of connector X11 on the Control Board (A10) to the coil of Contactor K44 until the cabinet reaches the set temperature.
    - ♦ The contactor K44 closes and the third leg of 220 VAC is sent to the 18 KW element (E4)
    - ♦ If the reduced power option is chosen then the K44 Contactor is not energized.
- d The steam circuit is energized
  - 220 VAC is sent from terminal 4 of connector X12 on the Control Board (A10) to the coil of the Y3 solenoid allowing water to be thrown against the element until the bypass probe (B5) senses 183 degrees F.
  - **NOTE:** If the set temperature is above 212 degrees F the hot air circuit will be energized (after the by pass probe is satisfied) until the compartment setting is reached.

- e When the condensate box is heated to 140 degrees F at the B3 probe, 220 VAC is sent from terminal 5 of connector X12 to the condenser valve (Y1) until the temperature drops.
- f When the timer counts to 0 or the core temp probe (B10) reaches the set amount the cycle ends.
- With the combi in the Hot Air mode with time on the timer, the door closed and the start switch is depressed
  - a The front display will include a lighted bar under the Hot Air symbol
    - When the heat circuit is energized the heat symbol will be energized
    - The cooking mode symbol will be energized.
    - The time display will invert and begin to count down.
  - b The fan circuit is energized
    - **NOTE:** If the temperature is less than 212 degrees F than fan will be pulsed on for 2 seconds every 60 seconds after the cabinet set temp (B6)
    - If the combi fan is in the normal setting 220 VAC is sent from terminal 5 on connector X11 through the normally closed auxiliary contacts of contactor K57 to the coils of contactors K55 and K56
      - ♦ The K55 and K56 contactors close sending 220 VAC through the Q56 overload to the motor and the motor turns at a high speed.
      - ♦ The normally closed auxiliary contacts of both K55 and K56 open preventing the K57 contactor from energizing.
    - If the combi fan is in the reduced setting 220 VAC is sent from terminal 6 on connector X11 through the normally closed auxiliary contacts of contactors K55 and K56 to the coil of contactor K57
      - ♦ The K57 contactor closes Sending 220 VAC through the Q57 thermal overload to the motor and the motor turns at a reduced speed.
      - ♦ The normally closed auxiliary contacts of K57 open preventing the K55 and K56 contactors from energizing.
    - For the first 2 minutes 220 VAC is sent from terminal 4 on connector X11 through the normally closed auxiliary contacts of contactor K5 to the K50 contactor coil
      - ♦ K50 contactor closes and the motor turns CW
      - ♦ The normally closed auxiliary contacts on K50 open preventing the K5 contactor from energizing.
    - For 15 seconds the motor is de-energized and allowed to coast.
    - For the next 2 minutes 220 VAC is sent from terminal 3 on connector X11 through the normally closed auxiliary contacts of contactor K50 to the K5 contactor coil

      - ♦ The normally closed auxiliary contacts on K5 open preventing the K50 contactor from energizing.
    - **NOTE:** If the door switch (S7) opens by the door opening, then the fan circuit is de-energized. Then the motor will be pulsed in the opposite direction to "break" the fan. This is to stop the fan quicker for the operator.
  - c The hot air heat circuit is energized

- 220 VAC is sent from terminal 3 of connector X12 on the Control Board (A10) through the normally closed auxiliary contacts of K2 and K1 to the coil of Contactor K4 until the cabinet reaches the set temperature as sensed at probe B6.
  - ♦ The contactor K4 closes and to legs of the 220 VAC is sent to the 18 KW element (E4)
- 220 VAC is sent from terminal 7 of connector X11 on the Control Board (A10) to the coil of Contactor K44 until the cabinet reaches the set temperature.
  - ♦ The contactor K44 closes and the third leg of 220 VAC is sent to the 18 KW element (E4)
  - ♦ If the reduced power option is chosen then the K44 Contactor is not energized.
- d When the condensate box is heated to 140 degrees F at the B3probe, 220 VAC is sent from terminal 5 of connector X12 to the condenser valve (Y1) until the temperature drops.
- e If the "Crisp and Tasty" mode is selected
  - 220 VAC is sent from terminal 6 of connector X12 on the Control Board (A10) to the Dehumidification Valve (Y2) to pull the humidity out of the cabinet down the drain.
    - ♦ In the light and medium modes (one and two drops in the display) the Y2 valve will be energized until the bypass probe (B5) is satisfied.
    - ♦ In the full mode (3 drops in the display) the Y2 valve will be energized continuously.
- f When the timer counts to 0 or the core temp probe (B10) reaches the set amount the cycle ends and the steam generator reverts to the standby temperature of 190-degree F.
- 6 With the combi in the Combi mode with time on the timer, the door closed and the start switch is depressed
  - a The front display will include a lighted bar under the combi symbol
    - When the heat circuit is energized the heat symbol will be energized
    - The cooking mode symbol will be energized.
    - The time display will invert and begin to count down.
  - b The fan circuit is energized
    - If the combi fan is in the normal setting 220 VAC is sent from terminal 5 on connector X11 through the normally closed auxiliary contacts of contactor K57 to the coils of contactors K55 and K56
      - ♦ The K55 and K56 contactors close sending 220 VAC through the Q56 overload to the motor and the motor turns at a high speed.
      - ♦ The normally closed auxiliary contacts of both K55 and K56 open preventing the K57 contactor from energizing.
    - If the combi fan is in the reduced setting 220 VAC is sent from terminal 6 on connector X11 through the normally closed auxiliary contacts of contactors K55 and K56 to the coil of contactor K57

- ♦ The K57 contactor closes Sending 220 VAC through the Q57 thermal overload to the motor and the motor turns at a reduced speed.
- ♦ The normally closed auxiliary contacts of K57 open preventing the K55 and K56 contactors from energizing.
- For the first 2 minutes 220 VAC is sent from terminal 4 on connector X11 through the normally closed auxiliary contacts of contactor K5 to the K50 contactor coil
  - ♦ K50 contactor closes and the motor turns CW
  - ♦ The normally closed auxiliary contacts on K50 open preventing the K5 contactor from energizing.
- For 15 seconds the motor is de-energized and allowed to coast.
- For the next 2 minutes 220 VAC is sent from terminal 3 on connector X11 through the normally closed auxiliary contacts of contactor K50 to the K5 contactor coil
  - ♦ K5 contactor closes and the motor turns CCW
  - ♦ The normally closed auxiliary contacts on K5 open preventing the K50 contactor from energizing.
- **NOTE:** If the door switch (S7) opens by the door opening, then the fan circuit is de-energized. Then the motor will be pulsed in the opposite direction to "break" the fan. This is to stop the fan quicker for the operator.
- c The hot air heat circuit is energized
  - 220 VAC is sent from terminal 3 of connector X12 on the Control Board (A10) through the normally closed auxiliary contacts of K2 and K1 to the coil of Contactor K4 until the cabinet reaches the set temperature as sensed at probe B6.
    - ♦ The contactor K4 closes and to legs of the 220 VAC is sent to the 18 KW element (E4)
  - 220 VAC is sent from terminal 7 of connector X11 on the Control Board (A10) to the coil of Contactor K44 until the cabinet reaches the set temperature.
    - ♦ The contactor K44 closes and the third leg of 220 VAC is sent to the 18 KW element (E4)
    - ♦ If the reduced power option is chosen then the K44 Contactor is not energized.
- d The steam circuit is energized
  - 220 VAC is sent from terminal 4 of connector X12 on the Control Board (A10) to the coil of the Y3 solenoid allowing water to be thrown against the element until the bypass probe (B5) senses 183 degrees F.
- e When the condensate box is heated to 140 degrees F at the B3probe, 220 VAC is sent from terminal 5 of connector X12 to the condenser valve (Y1) until the temperature drops.
- f If the "Crisp and Tasty" mode is selected
  - 220 VAC is sent from terminal 6 of connector X12 on the Control Board (A10) to the Dehumidification Valve (Y2) to pull the humidity out of the cabinet down the drain.

- ♦ In the light and medium modes (one and two drops in the display) the Y2 valve will be energized until the bypass probe (B5) is satisfied.
- ♦ In the full mode (3 drops in the display) the Y2 valve will be energized continuously.
- g When the timer counts to 0 or the core temp probe (B10) reaches the set amount the cycle ends.
- With the combi in the Rethermalization mode with time on the timer, the door closed and the start switch is depressed
  - a The front display will include a lighted bar under the Rethermalization symbol
    - When the heat circuit is energized the heat symbol will be energized
    - The cooking mode symbol will be energized.
    - The time display will invert and begin to count down.
  - b The fan circuit is energized
    - If the combi fan is in the normal setting 220 VAC is sent from terminal 5 on connector X11 through the normally closed auxiliary contacts of contactor K57 to the coils of contactors K55 and K56
      - ♦ The K55 and K56 contactors close sending 220 VAC through the Q56 overload to the motor and the motor turns at a high speed.
      - ♦ The normally closed auxiliary contacts of both K55 and K56 open preventing the K57 contactor from energizing.
    - If the combi fan is in the reduced setting 220 VAC is sent from terminal 6 on connector X11 through the normally closed auxiliary contacts of contactors K55 and K56 to the coil of contactor K57
      - ♦ The K57 contactor closes Sending 220 VAC through the Q57 thermal overload to the motor and the motor turns at a reduced speed.
      - ♦ The normally closed auxiliary contacts of K57 open preventing the K55 and K56 contactors from energizing.
    - For the first 2 minutes 220 VAC is sent from terminal 4 on connector X11 through the normally closed auxiliary contacts of contactor K5 to the K50 contactor coil
      - ♦ K50 contactor closes and the motor turns CW
      - ♦ The normally closed auxiliary contacts on K50 open preventing the K5 contactor from energizing.
    - For 15 seconds the motor is de-energized and allowed to coast.
    - For the next 2 minutes 220 VAC is sent from terminal 3 on connector X11 through the normally closed auxiliary contacts of contactor K50 to the K5 contactor coil
      - ♦ K5 contactor closes and the motor turns CCW
      - ♦ The normally closed auxiliary contacts on K5 open preventing the K50 contactor from energizing.
    - **NOTE:** If the door switch (S7) opens by the door opening, then the fan circuit is de-energized. Then the motor will be pulsed in the opposite direction to "break" the fan. This is to stop the fan quicker for the operator.
  - c The hot air heat circuit is energized

- 220 VAC is sent from terminal 3 of connector X12 on the Control Board (A10) through the normally closed auxiliary contacts of K2 and K1 to the coil of Contactor K4 until the cabinet reaches the set temperature as sensed at probe B6.
  - ♦ The contactor K4 closes and to legs of the 220 VAC is sent to the 18 KW element (E4)
- 220 VAC is sent from terminal 7 of connector X11 on the Control Board (A10) to the coil of Contactor K44 until the cabinet reaches the set temperature.
  - ♦ The contactor K44 closes and the third leg of 220 VAC is sent to the 18 KW element (E4)
  - ♦ If the reduced power option is chosen then the K44 Contactor is not energized.
- d The steam circuit is energized.
  - 220 VAC is sent from terminal 4 of connector X12 on the Control Board (A10) to the coil of the Y3 solenoid allowing water to be thrown against the element until the bypass probe (B5) senses 154 degrees F.
- e When the condensate box is heated to 140 degrees F at the B3probe, 220 VAC is sent from terminal 5 of connector X12 to the condenser valve (Y1) until the temperature drops.
- f When the timer counts to 0 or the core temp probe (B10) reaches the set amount the cycle ends and the steam generator reverts to the standby temperature of 190-degree F.

