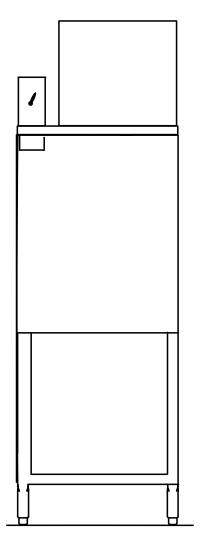


The Dishwashing Machine Specialists

Installation, Operation, Cleaning, and Service Replacement Parts



Model: 33BD-PRO

Optional Blower Dryer Accessory (Electric and Steam)





Issue Date: 4.24.24

Manual P/N 117246 rev. B

3765 Champion Boulevard Winston-Salem, NC 27105 (336) 661-1556 Fax: (336) 661-1660 Toll-free: 1(800)858-4477 2674 N. Service Road, Jordan Station Ontario, Canada L0R 1S0 (905) 562-4195 Fax: (905) 562-4618 Toll-free: 1(800)263-5798



National Service Department

In Canada: In the USA:

Toll-free: 800/ 263-5798 Toll-free: 800/ 858-4477
Tel: 905/ 562-4195 Tel: 336/ 661-1556
Fax: 905/ 562-4618 Fax: 336/ 661-1660

email: service@moyerdiebellimited.com email: service@championindustries.com

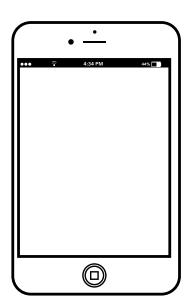
ATTENTION:

The dishwasher machine data plate is located on the side of the dishwasher control cabinet.

The model no., serial no., voltage, Hz and phase are needed to identify your machine and to answer questions.

Please have this information ready if you call for service assistance.

REGISTER YOUR PRODUCT and ACTIVATE YOUR WARRANTY.





 Use your mobile phone and scan the QR code on the front of the control cabinet to access the URL http://www.champdw.us/PRO and register your product.

or

• Use the fax form on the next page.

PRODUCT REGISTRATION BY FAX

COMPLETE THIS FORM AND FAX TO:

(336) 661-1660 in the USA

1-(800) 204-0109 in Canada

Revision History

Specifications are subject to change based on continual product improvement. Equipment owners may request a revised manual, at no charge, by calling 1 (800) 858-4477 in the USA or 1(800) 263-5798 in Canada.

Revision	Revised	Serial Number	Revision
Date	Pages	Effectivity	Description
4.24.24	All	Engineered system	Released second edition

LIMITED WARRANTY

Champion Industries (herein referred to as "The Company"), 3765 Champion Blvd., Winston-Salem, North Carolina 27105, and 2674 N. Service Road, Jordan Station, Ontario, Canada, L0R 1S0, warrants machines, and parts, as set out below.

Warranty of Machines: The Company warrants all new machines of its manufacture bearing the name "Champion and installed within the United States and Canada to be free from defects in material and workmanship for a period of one (1) year after the date of installation or fifteen (15) months after the date of shipment by The Company, whichever occurs first. [See below for special provisions relating to glasswashers.] Warranty registration must be submitted to The Company within ten (10) days after installation either online at Champion Industries website (http://www.championindustries.com/warranty-registration or by the fax form at the front of this manual. The Company will not assume any responsibility for extra costs for installation in any area where there are jurisdictional problems with local trades or unions.

If a defect in workmanship or material is found to exist within the warranty period, The Company, at its election, will either repair or replace the defective part or accept return of the machine for full credit; provided; however, as to glasswashers, The Company's obligation with respect to labor associated with any repairs shall end (a) 120 days after shipment, or (b) 90 days after installation, whichever occurs first. In the event that The Company elects to repair, the labor and work to be performed in connection with the warranty shall be done during regular working hours by a Champion authorized service technician. Defective parts become the property of The Company. Use of replacement parts not authorized by The Company will relieve The Company of all further liability in connection with its warranty. In no event will The Company's warranty obligation exceed The Company's charge for the machine. The following are not covered by The Company's warranty:

- a. Lighting of gas pilots or burners.
- b. Cleaning of gas lines.
- c. Replacement of fuses or resetting of overload breakers.
- d. Adjustment of thermostats.
- e. Adjustment of clutches.
- f. Opening or closing of utility supply valves or switching of electrical supply current.
- g. Cleaning of valves, strainers, screens, nozzles, or spray pipes.
- h. Performance of regular maintenance and cleaning as outlined in the operator's guide.
- i. Damages resulting from water conditions, accidents, alterations, improper use, abuse, tampering, improper installation, or failure to follow maintenance and operation procedures.
- j. Wear on Pulper cutter blocks, pulse vanes, and auger brush.

Examples of the defects not covered by warranty include, but are not limited to: (1) Damage to the exterior or interior finish as a result of the above, (2) Use with utility service other than that designated on the rating plate, (3) Improper connection to utility service, (4) Inadequate or excessive water pressure, (5) Corrosion from chemicals dispensed in excess of recommended concentrations, (6) Failure of electrical components due to connection of chemical dispensing equipment installed by others, (7) Leaks or damage resulting from such leaks caused by the installer, including those at machine table connections or by connection of chemical dispensing equipment installed by others, (8) Failure to comply with local building codes, (9) Damage caused by labor dispute.

Warranty of Parts: The Company warrants all new machine parts produced or authorized by The Company to be free from defects in material and workmanship for a period of 90 days from date of invoice. If any defect in material and workmanship is found to exist within the warranty period The Company will replace the defective part without charge.

DISCLAIMER OF WARRANTIES AND LIMITATIONS OF LIABILITY. THE COMPANY'S WARRANTY IS ONLY TO THE EXTENT REFLECTED ABOVE. THE COMPANY MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED, TO ANY WARRANTY OF MERCHANTABILITY, OR FITNESS OF PURPOSE. THE COMPANY SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. THE REMEDIES SET OUT ABOVE ARE THE EXCLUSIVE REMEDIES FOR ANY DEFECTS FOUND TO EXIST IN THE COMPANY'S DISHWASHING MACHINES AND THE COMPANY'S PARTS, AND ALL OTHER REMEDIES ARE EXCLUDED, INCLUDING ANY LIABILITY FOR INCIDENTALS OR CONSEQUENTIAL DAMAGES.

The Company does not authorize any other person, including persons who deal in Champion dishwashing machines to change this warranty or create any other obligation in connection with Champion dishwashing machines.

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Model Descriptions:

33BD-PRO Electric Blower Dryer

Electric 8 kW heater

Voltage: 208/60/3, 240/60/3, 480/60/3, 575/60/3

2 HP Blower Motor

Weight: 160 lbs. uncrated, 210 lbs. crated, (Does not include hood assembly).

33BD-PRO Steam Blower Dryer

Steam 65 lbs./hr. @ 10-30 PSI

Voltage: 208/60/3, 240/60/3, 480/60/3, 575/60/3

2 HP Blower Motor

Weight: 160 lbs. uncrated, 210 lbs crated, (Does not include hood assembly).

SAFETY SYMBOLS

The following symbols are used throughout this manual to alert the reader to important information.



WARNING:

Warning statements indicate a condition or practice that may result in personal injury.



CAUTION:

Caution statements indicate a condition or practice that may result in damage to the machine or associated equipment.



NOTE:

Note statements highlight important information necessary for the installation and operation of the machine.

UNPACKING

- Upon receipt, inspect the machine and its shipping containers for damage.
- <u>Immediately contact the carrier</u> and save all packing material for inspection if damaged.
- Accessories and hardware kits are shipped inside the machine. Do not discard anything stored with or inside the machine.
- Do not remove any labels attached to the machine until assembly is complete.



NOTE:

Immediately register the machine warranty by scanning the QR code located on the machine control cabinet, or by fax using the fax form at the front of this manual, or using the Champion Industries website at https://www.championindustries.com/warranty-registration

INSTALLATION CODES

The installation of the dishwasher must comply with all local electrical, plumbing, health and safety codes or in the absence of local codes, installed in accordance with the applicable requirements in the National Electrical Code, NFPA 70, Canadian Electrical Code (CEC), Part 1, CSA C22.1; and the Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, NFPA 96.



NOTE:

Only qualified personnel familiar with the installation of food service equipment should attempt the installation of this machine. Damage or problems associated with improper installation will not be covered by the dishwasher limited warranty.

INSPECT THE INSTALLATION SITE

- Make sure the machine will pass through all doors, passageways and ceilings.
- Check the level and condition of the floors before placing the machine.
- Compare the size and location of the utilities, (water, electric, drain, ventilation etc.), and make sure they agree with the P&E and the machine.
- Test the electrical service(s) to ensure they correspond to the machine requirements.

PLACING THE MACHINE



CAUTION:

Inspect the bottom of the machine before removing the machine from their pallets. Never lift the units by its plumbing or electrical conduits.



NOTE:

The dishwasher and blower dryer hood may ship assembled or separately. The blower dryer may ship mounted or separately on its own pallet.

Dishwasher and 33BD-PRO Shipped Assembled.

- 1. Place the machine in its final location and level it front-to-back and side-to-side with a bubble level and the adjustable feet, (Fig. 1).
- 2. Make sure the tracks and the pawl bar assemblies align.
- 3. See page 5 to mount the blower dryer.



Fig. 1 - Legs

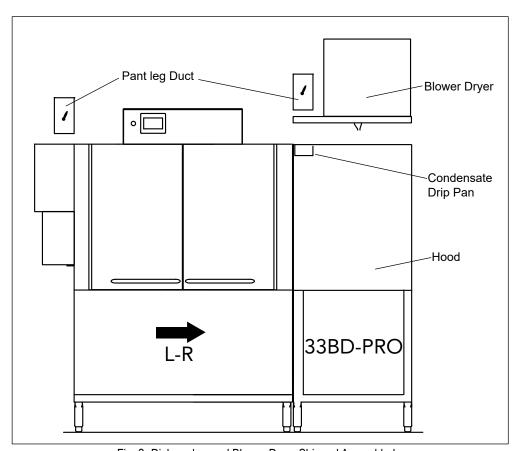


Fig. 2- Dishwasher and Blower Dryer Shipped Assembled

PLACING THE MACHINE



CAUTION:

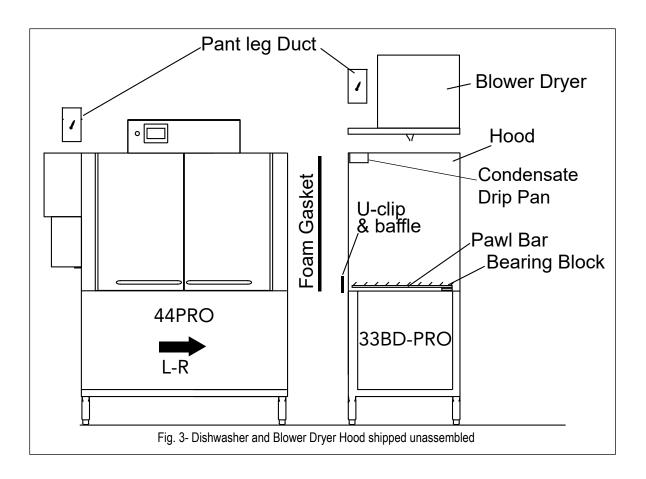
Inspect the bottom of the machine before removing the machine from their pallets. Never lift the units by its plumbing or electrical conduits.

Dishwasher and 33BD-PRO shipped unassembled.

• The 33BD-PRO assembly kit includes: (2) ducts, (1) baffles, (1) hood u-clip, foam tape, (1) tube sealant, and fasteners.

Joining the Dishwasher and Blower Dryer Hood.

- 1. Remove the blower dryer condensate drip pan and set aside for reinstall later.
- 2. Place the dishwasher in its final location and level it front-to-back and side-to-side with a bubble level and adjustable feet, (see Fig. 1).
- 3. Move the blower dryer hood close to the dishwasher.
- 4. See next page to join the dishwasher to the blower dryer hood.



Joining the Dishwasher and Blower Dryer Hood (continued)

- 1. At the same time, apply foam strips on the dishwasher unload end and the entrance to the blower dryer hood.
- 2. (See Fig. 4 below). Apply one (1) strip of foam on each side and two (2) strips of foam at the top and bottom.

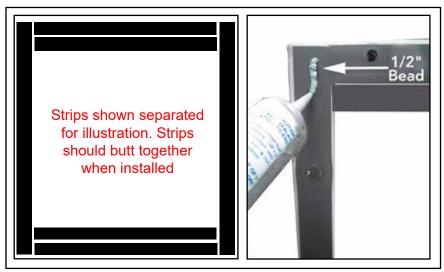
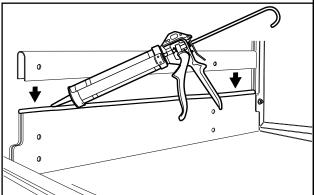


Fig. 4 - Blower dryer load end baffle and U-clip installation.

- 3. Apply a 1/2" bead of sealant on the gaskets (Fig. 4).
- 4. Apply a small bead of sealant at the u-clip joint.

5. Install the clip on the dishwasher and blower hoods. Install the baffle on the outside of the U-clip, (Fig. 5).

6. For standard hoods, install seventeen (17) bolts around the hoods. Use nineteen (19) bolts for a high-hood.



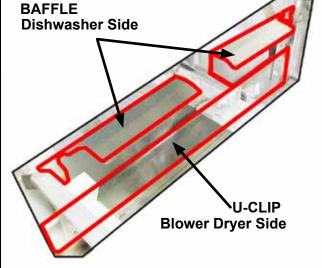


Fig. 5- Blower dryer load end baffle and U-clip installation.

- Bolt the tracks in place at the same time the hoods are connected.
- 8. Tighten bolts in a cross-pattern to ensure the hoods are evenly connected.
- Apply sealant along seams and corners to ensure a watertight seal.

Sealing the Outside Hood Joints (continued)

- The hood joints need to be sealed with sealant. Follow the steps below to seal.
- 1. Ensure the hoods are level and the joint is clear of debris.
- 2. Tape the edge of the joint (tape not included in hardware kit). Apply a bead of sealant.
- 3. Wipe the excess sealant away with a damp cloth.
- 4. Ensure finished joint adheres to the hood and does not extend above the top of the hood.
- 5. Joint seals are complete. Allow approximately 15 minutes for the sealant to dry.

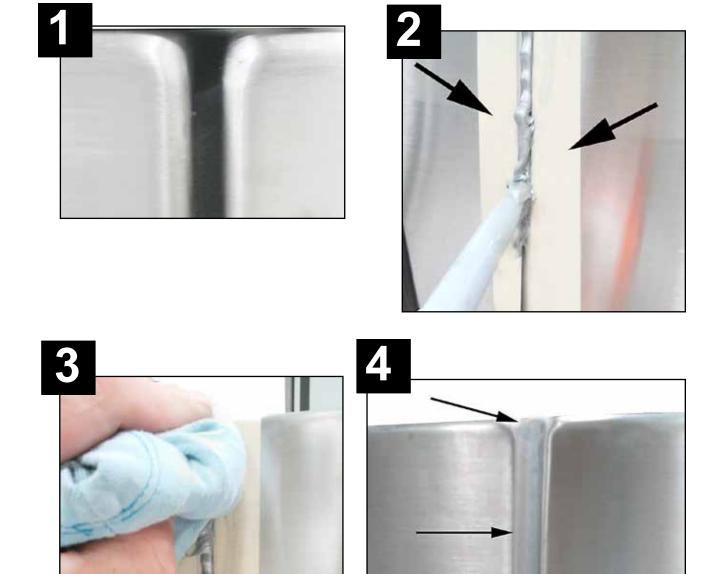


Fig. 6 - Apply sealant to the hood seams.

MOUNTING THE BLOWER DRYER

CAUTION:

The blower dryer air nozzle extends below the blower dryer base. Be careful when moving the blower dryer to prevent damage to the air nozzle, (Fig. 7). The blower dryer weighs 160 lbs./73 kg. Three people are recommended to mount the unit on top of the blower dryer hood.

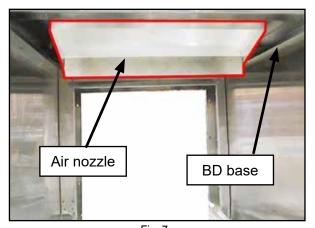


Fig. 7 The air nozzle extends below the blower dryer base.

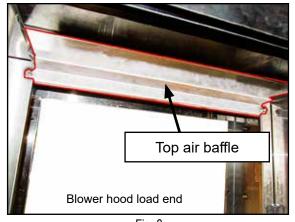


Fig. 8 - Remove blower hood baffle, before mounting blower dryer.



NOTE:

Remove air baffle on the load end of the blower dryer hood before mounting the blower dryer. Reinstall when mounting is complete, (Fig. 8).

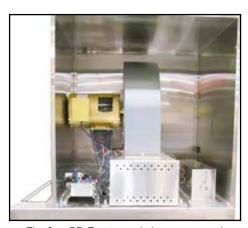


Fig. 9 - BD Front panel shown removed.

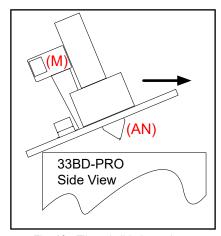


Fig. 10 -Tilt and slide in to place.

To mount the blower dryer to the hood:

- 1. Remove the blower dryer panels and wrap, (Fig. 9).
- 2. The blower dryer motor (M) is always to the left.
- 3. Tilt the blower dryer and carefully slide it on the hood taking care to clear the air nozzle (AN) to prevent damage, (Fig. 10).
- 4. Bolt the blower dryer to the base using twelve 1/4-20 bolts and fasteners from kit.
- 5. Reinstall the condensate drip pan under external vent stack.

ELECTRICAL CONNECTIONS



WARNING:

Disconnect all power sources at the breakers or service disconnect switch(es) to prevent electrocution.

There may be more than one power source connected to the machine.

- Check the electrical specifications on the Machine Electrical Connection Data Plate before connecting power to the machine.
- 2. Conduit holes are located on the right and left side panels for incoming power and inter-wiring between the dishwasher and blower dryer (Fig. 12 on next page).
- 3. Connect incoming power to Terminal Block TB1). Connect the ground wire to the ground lug (GRD).
- 4. Inter wiring conduit and wires are stowed on the dishwasher.
- 5. Run the conduit from to the blower dryer.
- 6. Connect the numbered control wires to their corresponding terminals.

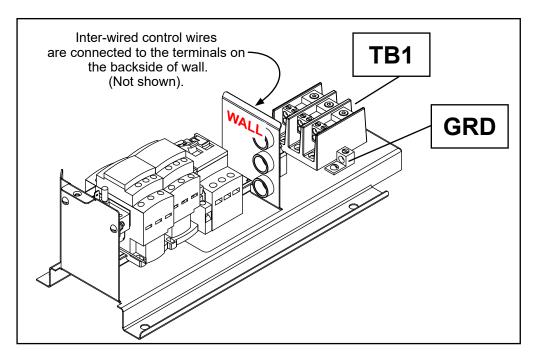


Fig. 11 - Control panel is located inside the blower dryer.

ELECTRICAL CONNECTIONS (continued)

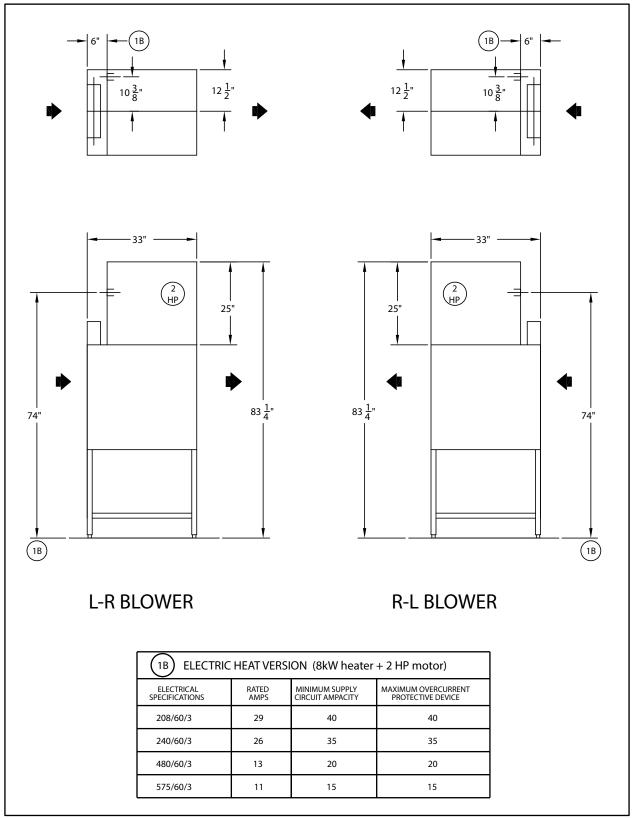
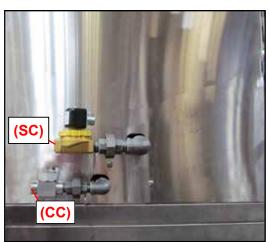


Fig. 12 - Electrical connections and amp chart.

STEAM CONNECTIONS



- Steam connection (SC) is located at the rear of the blower dryer.
- Supply is a 3/4"NPT inlet @ 65 lbs./hr. @ 10-30 PSI flow pressure.
- Gravity drain condensate connection (CC) is a 1/2" NPT blower dryer return to the boiler (with no back pressure).
- A condensate transfer pump is required if condensate line is above the machine base.



1B STEAM HEAT VERSION (2 HP motor)				
ELECTRICAL SPECIFICATIONS	RATED AMPS	MINIMUM SUPPLY CIRCUIT AMPACITY	MAXIMUM OVERCURRENT PROTECTIVE DEVICE	
208/60/3	7	15	15	
240/60/3	6	15	15	
480/60/3	3	15	15	
575/60/3	3	15	15	

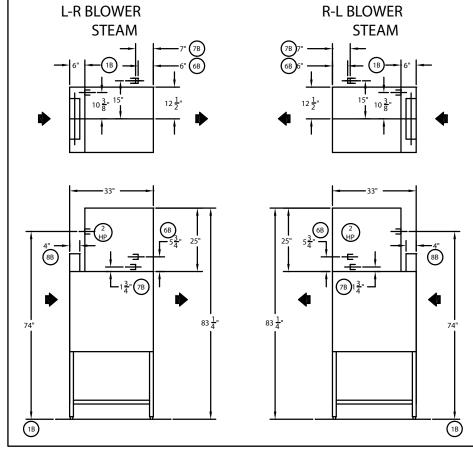


Fig. 13 - Steam connections and amp chart.



BLOWER DRYER DRAIN CONNECTION

- 1. Single 1-1/4" drain basket outlet @ 15 US Gal./min.
- 2. Removable strainer for cleaning (Fig. 14),
- 3. 1-1/4" slip-fit drain pipe (Fig. 15).
- 4. Uses 1/2" blue drain hose connected to dishwasher drain line



Fig. 14 - Blower dryer hood drain screen.



Fig. 15 - 1-1/4" slip-fit connection

Ventilation



- 1. The dishwasher requires 400 C.F.M. for dishroom ventilation.
- When the dishwasher is equipped with a blower dryer system, for a normal sized dishroom, the dishroom ventilation should be increased by 600 C.F.M.
- 3. 4 " x 16" standard vent stacks, (A1 and A2)), are stowed inside the dishwasher. The HVAC vender connects building service. The Factory usually adjusts the damper settings.
- 4. Vent, (B), is bolted to the blower dryer and does not receive an HVAC connection. The Factory adjusts the damper setting.
- 5. A1 and A2 reduce water vapor exiting the machine. Initial setting for A1 is open, A2 is 1/8th closed. Continue to adjust until desired results are achieved.

Set B to 1/2 open and adjust to closed position until the exhaust air achieves the best heat and air volume to dry the wares.

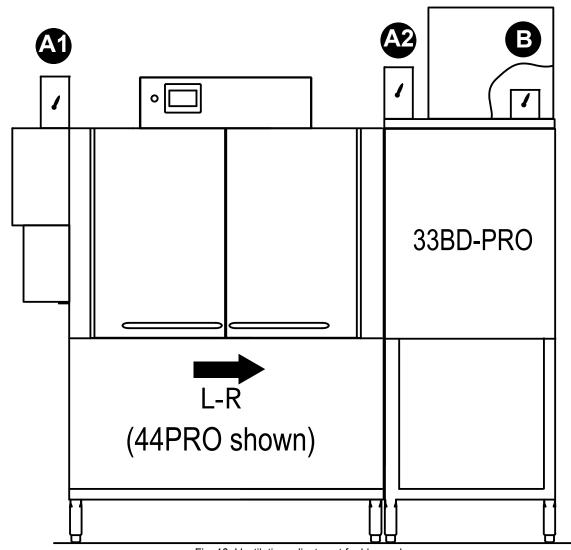


Fig. 16- Ventilation adjustment for blower dryer

OPERATION



NOTE:

The blower dryer heaters come on when a dish rack enters the machine. Then, the blower dryer fan runs when the final rinse runs. The blower dryer runs for 30 seconds after the dish rack exits the blower dryer hood unless another dish rack enters the dishwasher.

To operate the blower dryer:

- 1. Turn the main power to the dishwasher and blower dryer on.
- 2. Wait for the dishwasher to reach 165°F/74°C operating temperature.
- 3. Press the dishwasher START button.
- 4. Insert a dish rack of wares in the dishwasher. The blower dryer will begin to heat.
- 5. The blower dryer fan comes on when the dish rack enters the final rinse zone.
- 6. The blower dryer will run for 30 secs. after the rack exits the blower dryer hood.
- 7. The blower dryer continues to run if additional racks are inserted in the machine.
- 8. Press the dishwasher STOP button. The dishwasher and blower dryer will stop.
- 9. The blower dryer will stop whenever the dishwasher stops.
- 10. Turn dishwasher and blower dryer main power off to clean the blower dryer.

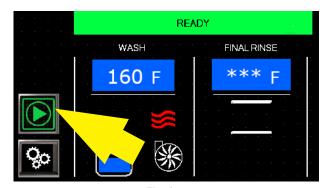


Fig. 17 Press the dishwasher START button and insert a dish rack to start the blower dryer heaters.



Fig.18 Press the dishwasher STOP button to stop the dishwasher. The blower dryer will stop in 30 secs.

CLEANING - Every 8 hours of continuous operation and the end of the day:

- 1. Inspect the interior of the blower dryer hood for debris.
- 2. Flush the interior of the blower dryer hood with fresh water.

 <u>DO NOT SPRAY WATER DIRECTLY INTO THE BLOWER NOZZLE.</u>
- 3. Do NOT SPRAY WATER INTO VENT B, (See Fig. 19).
- 4. Wipe the exterior with a soft cloth and mild detergent.

 <u>DO NOT HOSE THE EXTERIOR OF THE BLOWER DRYER WITH WATER.</u>

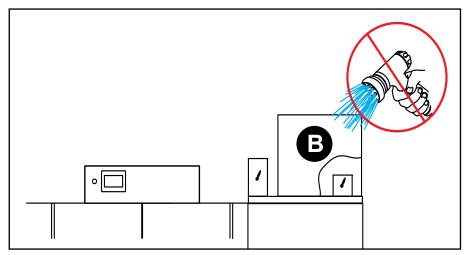


Fig. 19 - DO NOT SPRAY WATER INTO THE INTERNAL VENT B.

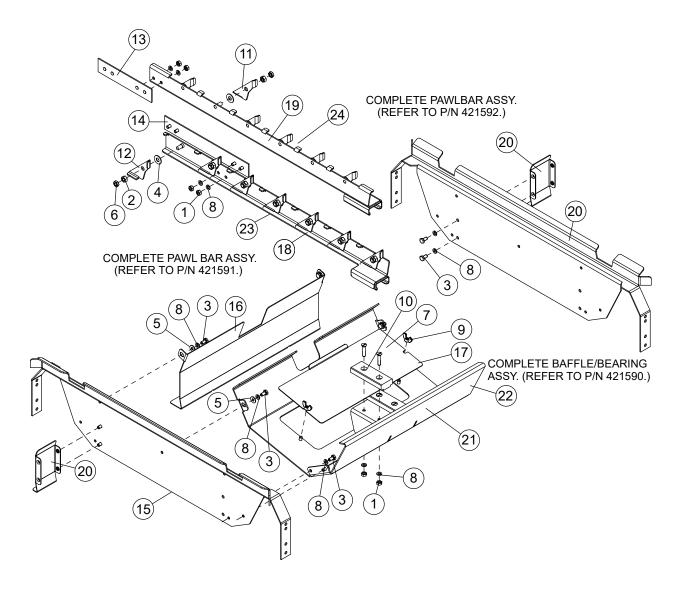
TROUBLESHOOTING

Condition	Cause	Solution
Blower dryer will not run.	Dishwasher doors open. Main power OFF. Dishwasher OFF Blower dryer OFF Dishwasher pumps OFF. Conveyor jammed.	Close doors. Check breaker on panel. Turn dishwasher ON. Check breaker (if equipped) Clear jam
Poor drying results.	Dishwasher pumps OFF -	Insert wares in dishwasher to start wash pumps.
	Blower dryer hi-limit tripped. Blower dryer thermostat defective.	Contact Service Agent. Contact Service Agent.
	Dishwasher curtains missing or placed wrong.	Check curtain placement.
	Dishwasher vents misadjusted.	Check adjustments.
	Dishroom ventilation not working properly.	Contact your Building Maintenance Dept.

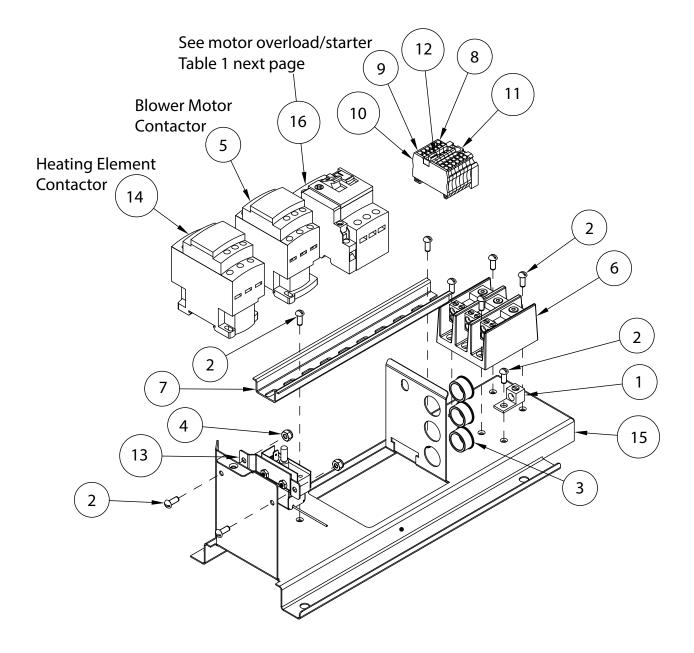
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SERVICE REPLACEMENT PARTS

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Control Panel - Steam	20
Electric Blower Assembly	22
Steam Blower Assembly	24
Panels and Drain	26
Electrical Schematic	28



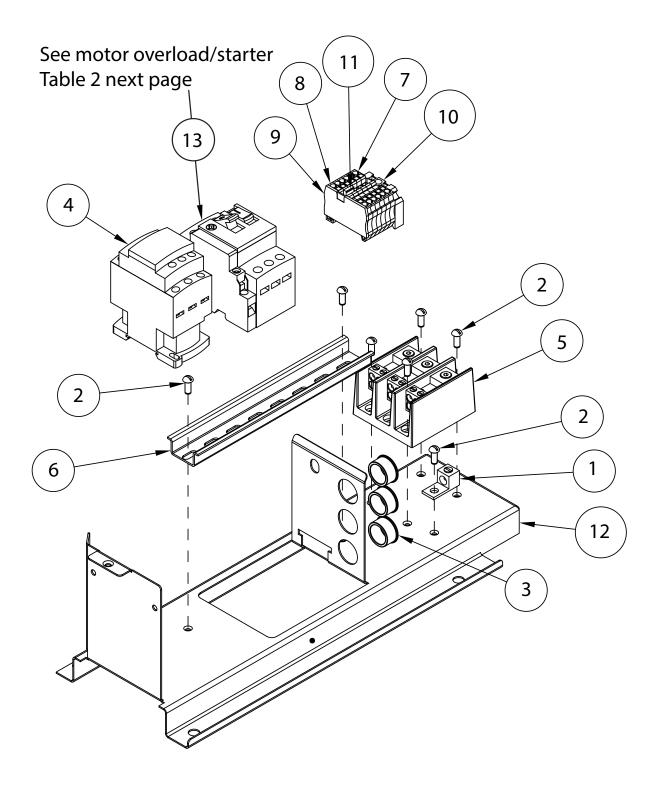
Item No.	Part No.	Description	Qty.
1	100003	HEX PLAIN NUT, 1/4-20 SST	8
2	100154	HEX PLAIN NUT, 5/16-18 SST	13
3	100734	CAP SCREW, HEX HEAD, 1/4-20 X 1/2" SST	12
4	104618	WASHER, FLAT, 3/8" x 7/8" x 1/16" SST	13
5	106026	WASHER, FLAT 1/4 X 5/8 X .06 SST	4
6	106198	HEX PLAIN JAM NUT, 5/16-18 SST	13
7	106474	SCREW, FLAT HEAD, SLOTTED 1/4-20 X 1-1/4" SST	4
8	106482	WASHER, LOCK, 1/4" SPLIT SST	20
9	112258	WINGNUT, 1/4-20 X TYPE A, LIGHT SST	2
10	116333	BEARING BLOCK, UHMW	2
11	337602-1	PAWL, DEV. FRONT RL, PRO RACK - FAS	6
12	337602-2	PAWL, DEV. FRONT LR, PRO RACK - FOP	7
13	337644	PLATE, PAWL BAR CONNECTOR - SHORT	1
14	337645	PLATE, PAWL BAR CONNECTOR - LONG	1
15	339626	TRACK DEVELOPMENT, 33BD-PRO	2
16	340149	FRONT BAFFLE, 33BD-PRO	1
17	340153	DRAIN ACCESS PANEL, 33BD-PRO	1
18	340173	PAWL BAR WELD, 33BD-PRO, LR-FR OR RL-RR, GEN 2	1
19	340175	PAWL BAR WELD, 33BD-PRO, LR-RR OR RL-FR, GEN2	1
20	340192	TRACK SIDE BAFFLE, 33BD-PRO	2
21	340677	END BAFFLE/BEARING MNT WELD, 33BD-PRO, GEN 2	1
22	421590	END BAFFLE/BEARING ASSY.	1
23	421591	PAWL BAR ASSY., 33BD-PRO LR-FR OR RL-RR, GEN 2	1
24	421592	PAWL BAR ASSY., LR-RR OR RL-FR	1



Item No.	Part No.	Description	Qty.
1	103310	GROUND LUG	1
2	107525	SCREW, ROUND HEAD, 10-32 X 1/2" SST	9
3	107964	BUSHING, SNAP #2126, 0.875" X 0.687"	3
4	107966	HEX GRIP NUT, 10-32 SST W/NYLON	2
5	108122	CONTACTOR, 3-POLE, 12A	1
6	111833	INPUT TERMINAL BLOCK, 175A, 3-POLE	1
7	113769	DIN RAIL, 35 MM X 15 MM	1
8	114512	TERMINAL BLOCK, PT 2.5, GRAY,	4
9	114514	TERMINAL BLOCK, PT 2.5, WHITE	2
10	114516	END PLATE, D-ST 2.5	1
11	114519	END BLOCK, E/NS 35 N	1
12	114523	BRIDGE, 2-POLE, FBS 2-5	1
13	114780	THERMOSTAT, HI-LIMIT 260°F CUTOUT, COPPER PROBE, 1/2 FTG EBD	1
14	116634	CONTACTOR, 32A, 120VAC COIL, LC1D32G7	1
15	339867	BRACKET, 33BD-PRO CONTROLS	1
16	SEE TABLE	MOTOR STARTER/OVERLOAD	1

MOTOR OVERLOAD/STARTER		
VOLTAGE	P/N	
208VAC (6-10A)	111629	
240VAC (4.0-6.3A)	111628	
480VAC-575VAC (2.5-4.0A)	111627	

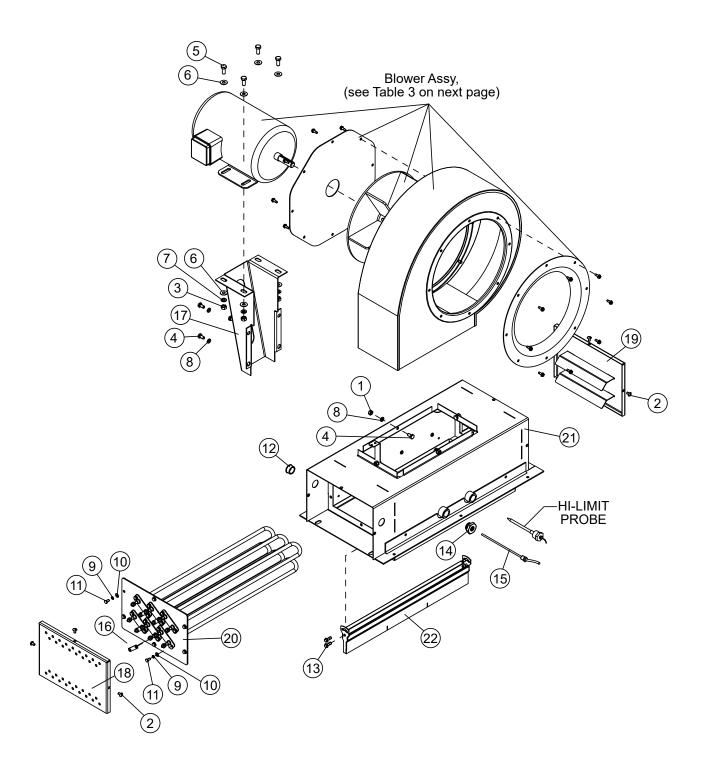
Table 1 - Motor Overload/Starter



Item No.	Part No.	Description	Qty.
1	103310	GROUND LUG	1
2	107525	SCREW, ROUND HEAD, 10-32 X 1/2" SST	7
3	107964	BUSHING, SNAP #2126, 0.875" X 0.687"	3
4	108122	CONTACTOR, 3-POLE, 12A	1
5	111833	INPUT TERMINAL BLOCK, 175A, 3-POLE	1
6	113769	DIN RAIL, 35 MM X 15 MM	1
7	114512	TERMINAL BLOCK, PT 2.5, GRAY,	4
8	114514	TERMINAL BLOCK, PT 2.5, WHITE	2
9	114516	END PLATE, D-ST 2.5	1
10	114519	END BLOCK, E/NS 35 N	1
11	114523	BRIDGE, 2-POLE, FBS 2-5	1
12	339867	BRACKET, DEVP, 33BD CONTROLS	1
13	SEE TABLE	MOTOR STARTER/OVERLOAD	1

MOTOR OVERLOAD/STARTER		
VOLTAGE	P/N	
208VAC (6-10A)	111629	
240VAC (4.0-6.3A)	111628	
480VAC-575VAC (2.5-4.0A)	111627	

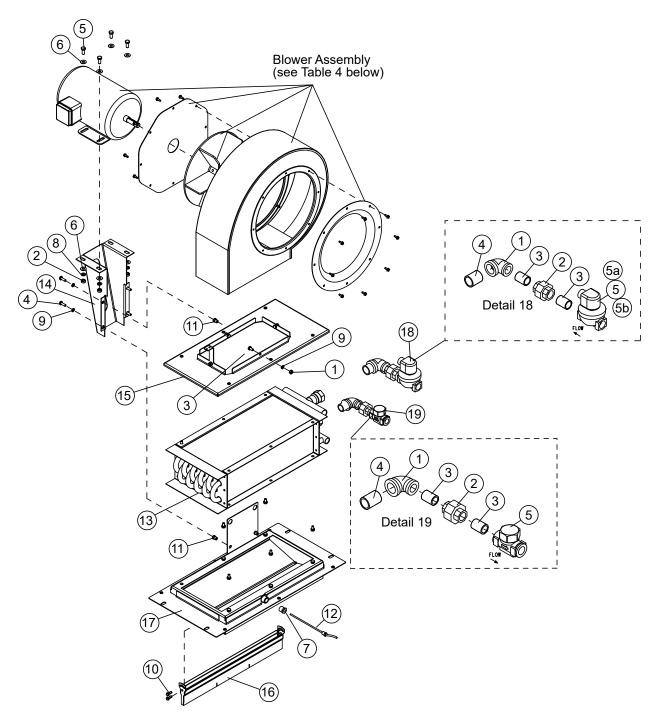
Table 2 - Motor Overload/Starter



Item No.	Part No.	Description	Qty.
1	100003	HEX PLAIN NUT, 1/4-20 SST	4
2	100007	SCREW, TRUSS HEAD, 10-32 X 3/8" SST	6
3	100154	HEX PLAIN NUT, 5/16-18 SST	4
4	100734	BOLT, HEX HEAD, 1/4-20 X 1/2" SST	8
5	100739	BOLT, HEX HEAD, 5/16-18 X 3/4" SST	4
6	102376	WASHER, FLAT 5/16"	8
7	106013	WASHER, LOCK, 5/16" SPLIT, SST	4
8	106482	WASHER, LOCK, 1/4" SPLIT, SST	8
9	106486	WASHER, LOCK, #10 SPLIT, SST	18
10	107033	WASHER, FLAT, .208" x .437 x .047	18
11	107136	SCREW, HEX HEAD, 10-32 X 3/8", SST	18
12	107964	BUSHING, SNAP #2126, 0.875" X 0.687"	1
13	111370	CAP SCREW, HEX HEAD, 10-32 X 5/8" SST	4
14	111530	ADAPTER, THERMOMETER, DIGITAL	1
15	116553	THERMISTOR, 10kΩ, 6" PROBE USP1845	1
16	333494	BUSBAR, COPPER, EBD, .065" THK, ALLOY C10100	4
17	339860	SUPPORT, BLOWER MOTOR, 33BD 8kW	1
18	339861	COVER, HEAT CHAMBER, TERMINAL END	1
19	339863	COVER, HEAT CHAMBER, HEATER END	1
20	339864	PLATE, HEATER MOUNTING	1
21	340658	HEATER CHAMPER, WELD, 33EBD 8kW GEN 2	1
22	340668	ADJUSTABLE AIR NOZZLE, 33BD-PRO	1

	HEATING ELEMENTS AND BLOWER ASSEMBLY				
ASSY NO.	VOLTAGE	HEATING ELEMENT NO.	BLOWER ASSY. NO.		
421242-1	208/60/3	114787 / 6 PER	416424		
421242-2	240/60/3	114788 / 6 PER	416424		
421242-3	480/60/3	114786 / 6 PER	416424		
421242-4	575/60/3	114790 / 6 PER	417655		

TABLE 3 - Heating Elements and Blower Assembly

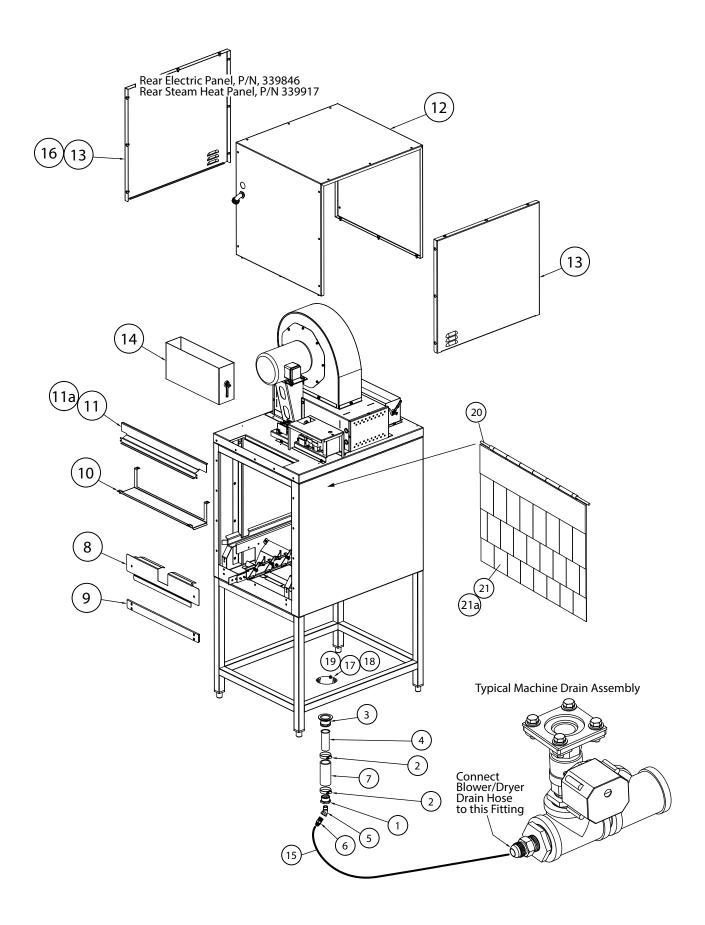


L-R STEAM BLOWER ASSEMBLY				
ASSY NO. VOLTAGE BLOWER ASSY. NO				
421261-1	208-480/60/3	416424		
421261-4	575/60/3	417655		

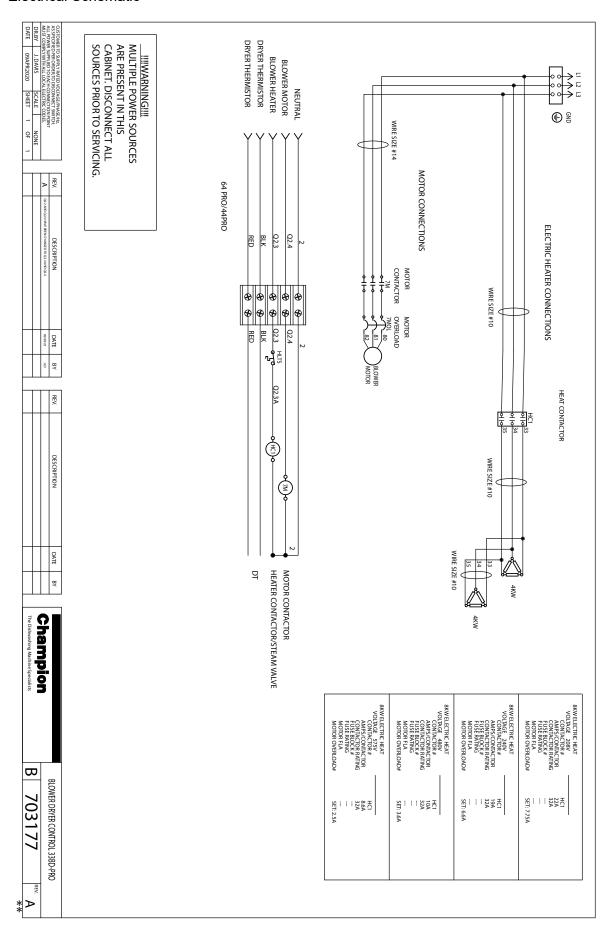
R-L STEAM BLOWER ASSEMBLY				
ASSY NO. VOLTAGE BLOWER ASSY. N				
421263-1	208-480/60/3	416424		
421263-4	575/60/3	417655		

TABLE 4 - Steam Blower Assembly

Item No.	Part No.	Description	Qty.
1	100003	HEX PLAIN NUT, 1/4-20 SST	4
2	100154	HEX PLAIN NUT, 5/16-18 SST	4
3	100734	CAP SCREW, HEX HEAD, 1/4-20 X 1/2" SST	16
4	100736	CAP SCREW, HEX HEAD, 1/4-20 X 3/4" SST	4
5	100739	CAP SCREW, HEX HEAD, 5/16-18 X 3/4" SST	4
6	102376	WASHER, FLAT	8
7	102386	BUSHING, REDUCING 3/8" NPT X 1/8" NPT BRASS	1
8	106013	WASHER, LOCK, 5/16" SPLIT, SST	4
9	106482	WASHER, LOCK 1/4" SPLIT, SST	20
10	111370	CAP SCREW, HEX WASHER HEAD, 10-32 X 5/8" SST	4
11	112433	RIVNUT, 1/4-20 STEEL, ZP	4
12	116553	THERMISTOR, $10k\Omega$, $6"$ PROBE	1
13	117247	STEAM COIL ASSEMBLY, 33BD-PRO	1
14	339860	SUPPORT, BLOWER MOTOR, 33BD 8KW	1
15	339916	COIL, TOP PLATE, STEAM 33BD-PRO	1
16	340668	ADJUSTABLE AIR NOZZLE, 33BD-PRO	1
17	340672	AIR CHAMBER, STEAM, 33BD-PRO	1
18	602527-LR	PIPING ASSEMBLY, STEAM IN,, 33BD-PRO	1
19	602528-LR	PIPING ASSEMBLY, CONDENSATE OUT, 33BD-PRO	
60252	7-LR PIPING AS	SEMBLY, PARTS DETAIL	
1	105739	ELBOW, REDUCING, 1" NPT X 3/4" NPT X 90° M.I.	1
2	105779	UNION, 3/4" NPT X CLOSE, B.I.	1
3	105803	NIPPLE, 3/4" NPT X CLOSE, B.I.	
4	105847	NIPPLE, 1" NPT X CLOSE, B.I.	
5	109887	VALVE, SOLENOID 3/4" NPT, STEAM	
5a	109903	KIT, REPAIR, STEAM VALVE	A/R
5b	108516	COIL, SOLENOID 120VAC	A/R
60252	8-LR PIPING AS	SEMBLY, PARTS DETAIL	
1	105738	ELBOW, REDUCING 3/4" NPT, X 1/2" NPT, 90° M.I.	1
2	105778	UNION, 1/2" NPT , M.I.	1
3	105782	NIPPLE, 1/2" NPT X CLOSE, B.I.	
4	105803	NIPPLE, 3/4" NPT X CLOSE, B.I.	
5	111380	TRAP, STEAM, 1/2" NPT, TDC	1



Item No.	Part No.	Description	Qty.
1	102398	BUSHING, REDUCING, 1-1/4" NPT X 1/2" NPT, BRASS	1
2	107340	CLAMP, HOSE M28, SST W/CS SCREW	
3	107342	BASKET, DRAIN ASSEMBLY	1
4	107473	TAIL PIECE, #5698-3 4"	1
5	113807	ELBOW, STREET, 1/2" X 45° BRASS	1
6	115101	COUPLING, MALE 1/2" NPT X 1/2" 37° FLARE JIC BRASS	1
7	205202	HOSE, 1.625" ID X 4.75" LG. EPDM	1
8	337629	BAFFLE, WELDMENT,	1
9	339287	U-CLIP, HOOD SEAM 33BD-PRO	1
10	339940	DRIP PAN 33BD-PRO	1
11	339742-1	TOP BAFFLE, 33BD-PRO, LR VENT, RACKS	1
11a	339742-2	TOP BAFFLE, 33BD-PRO, RL VENT, RACKS	
12	339845	WRAP, PANEL, FAN ENCLOSURE	1
13	339846	PANEL, FRONT/REAR FAN ENCLOSURE (Electric)	2
14	401487	VENT STACK 4" X 16"	1
15	115145	HOSE, 1/2" ID, 212°F/300PSI PUSH-LOCK-BLUE (CUT TO F	IT) 1
16	339917	PANEL, REAR (STEAM HEAT ONLY)	1
17	106026	WASHER, FLAT 1/4" SST	1
18	304816	STRAINER, DRAIN, 6"	1
19	107967	HEX GRIP NUT, 1/4-20 SST W/NYLON	1
20	108250	ROD, CURTAIN	1
21	113720	CURTAIN, STANDARD HOOD	1
21a	114026	CURTAIN, HIGH HOOD	1



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