Champion®

Installation/Operation Manual with Service Replacement Parts

Waste Handling Systems

Close-Coupled Pulper /Water Extractor

Model P5-24

Models:

P5-24
5HP with 24" Tank

P5-27
5HP with 27" Tank

P7-30
7.5HP with 30" Tank

Machine Serial No.

Issue Date: 10.15.13

***Manual P/N** 114509 rev. D*

For machines beginning with S/N J08072511 and above

3765 Champion Blvd.
Winston-Salem, NC 27105
336/661-1556 Fax: 336/661-1660
Toll-free: 800.858.4477

2674 N. Service Road, Jordan Station
Ontario, Canada L0R 1S0
905/562-4195 Fax: 905/562-4618
Toll-free: 800.263.5798

Printed in the USA

For future reference, record your Remote Waste Handling Systems information in the box below.

Model Number_____ Serial Number_____

Voltage_____Hertz_____ Phase_____

Service Agent _____ Tel:_____

Parts Distributor _____ Tel:_____

National Service Department

In Canada:
Toll-free: 800/ 263-5798
Tel: 905/ 562-4195
Fax: 905/ 562-4618
email: service@moyerdiebellimited.com

In the USA:
Toll-free: 800/ 858-4477
Tel: 336/ 661-1556
Fax: 336/ 661-1660
email: service@championindustries.com

ATTENTION:

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

The Serial No. is located on the front of the remote-mounted control cabinet

Please have this information on-hand if you call for service assistance.

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REGISTER YOUR PRODUCT ONLINE

Make sure you are connected to the internet then enter the address below.

In the U.S.A

http://www.championindustries.com/register

In Canada

http://www.championindustries.com/canada/register

Champion®

The Dishwashing Machine Specialists

PRODUCT REGISTRATION BY FAX

COMPLETE THIS FORM AND FAX TO:

(336) 661-1660 in the USA

1-(800) 204-0109 in Canada

PRODUCT REGISTRATION CARD

Model	Serial #

Date of Installation: ___/___ /____

Company Name: _____

Address: _____ _____ _____
(Street) Province Postal Code

Telephone #: ( ) _____ --- _____

Contact: _____

Installation Company: _____

Address: _____

Telephone #: _____

Contact: _____

FAILURE TO REGISTER YOUR PRODUCT MAY VOID YOUR WARRANTY

IMPORTANT IMPORTANT

Revision History

A revision might be a part number change, a new instruction, or other information that was not available at print time. We reserve the right to make changes to these instructions without notice and without incurring any liability by making the changes. Equipment owners may request a revised manual, at no charge, by calling 1 (800) 858-4477 in the USA or by calling 1 (800) 263-5798 in Canada.

Revision Date	Revised Pages	Serial Number Effectivity	Revision Description
10.10.08	*All*	*J08072511*	*Released First Edition*
2.15.10	*8*	*J08072511*	*Added trough conversion kit instructions*
10.11.10	*34-35*	*J08072511*	*Added Key, P/N 113728 to P/L*
	49	*All*	*Added 2HP 380V/50/3PH to P/L*
4.2.12	*33*	*All*	*Changed P/N 111939 description & added P/N 319310 Auger Assembly*
10.15.13	*49*	*All*	*Changed Item 9 to P/N 109568*

LIMITED WARRANTY

Champion Industries Inc. (herein referred to as Champion), P.O. Box 4149, Winston-Salem, North Carolina 27115, and P.O. Box 301, 2674 N. Service Road, Jordan Station, Canada, L0R 1S0, warrants machines, and parts, as set out below.

Warranty of Machines: Champion 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 workman ship for a period of one (1) year after the date of installation or fifteen (15) months after the date of shipment by Champion, whichever occurs first. [See below for special provisions relating to glasswashers.] The warranty registration card must be returned to Champion within ten (10) days after installation. If warranty card is not returned to Champion within such period, the warranty will expire after one year from the date of shipment.

Champion 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, Champion, at its election, will either repair or replace the defective machine or accept return of the machine for full credit; provided; however, as to glasswashers, Champion'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 Champion 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 Champion. Use of replacement parts not authorized by Champion will relieve Champion of all further liability in connection with its warranty. In no event will Champion's warranty obligation exceed Champion's charge for the machine. The following are not covered by Champion'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 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: Champion warrants all new machine parts produced or authorized by Champion 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 Champion will replace the defective part without charge.

<u>DISCLAIMER OF WARRANTIES AND LIMITATIONS OF LIABILITY.</u> CHAMPION'S WARRANTY IS ONLY TO THE EXTENT REFLECTED ABOVE. CHAMPION MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED, TO ANY WARRANTY OF MERCHANTABILITY, OR FITNESS OF PURPOSE. CHAMPION 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 CHAMPION DISHWASHING MACHINES AND CHAMPION PARTS, AND ALL OTHER REMEDIES ARE EXCLUDED, INCLUDING ANY LIABILITY FOR INCIDENTALS OR CONSEQUENTIAL DAMAGES.

Champion 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

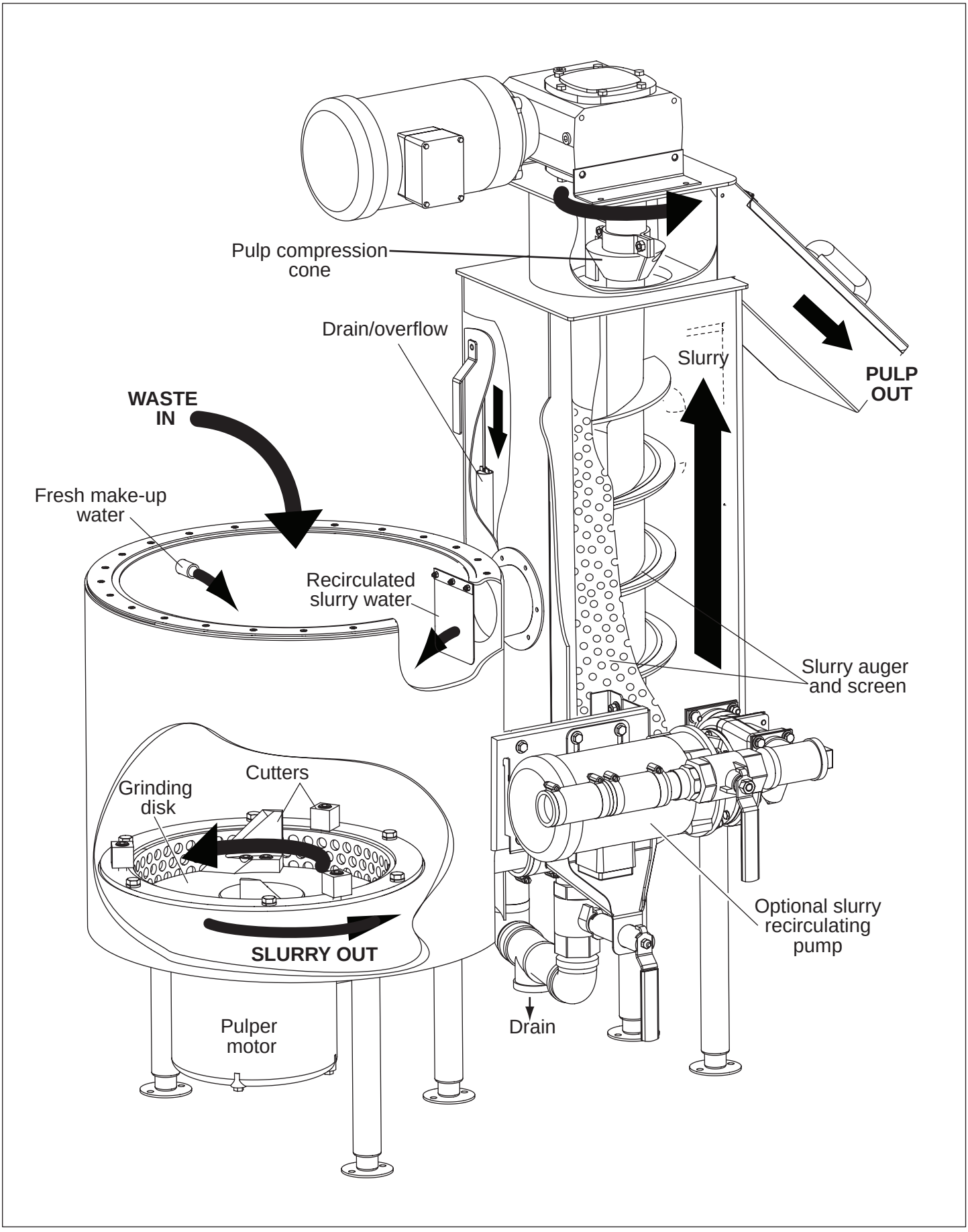
P5-24
24" diameter waste grinding chamber with 5 HP grinder motor
4 stationary cutter blocks and 2 tool-steel cutting blades.
Flatware saver
Pressure switch water-level control
Mounted start/stop station
Remote mounted control cabinet
Close-coupled water press/extractor with 2 HP motor
(700 lb/hr. input capacity)

P5-27 and P5-30
27" or 30" diameter waste grinding chamber with 5 HP grinder motor respectively
4 stationary cutter blocks and 2 tool-steel cutting blades.
Flatware saver
Pressure switch water-level control
Mounted start/stop station
Remote mounted control cabinet
Close-coupled water press/extractor with 2 HP motor
(700 lb/hr. input capacity)

P7-30
30" diameter waste grinding chamber with 7.5 HP grinder motor
4 stationary cutter blocks and 2 tool-steel cutting blades.
Flatware saver
Pressure switch water-level control
Mounted start/stop station
Remote mounted control cabinet
Close-coupled water press/extractor with 3 HP motor
(1000 lb/hr. input capacity)

Optional Equipment *(consult factory)*
Anti-vibration feet
Recirculating pump
Flushing systems for pulper and water press
Deodorizer injector
Remote start/stop station (unmounted)
Automatic shut-down timer
Spray reel - 30 ft. (unmounted)
Feed tray and hood assembly
Trough feed configurations

Introduction


Pulp compression cone
Drain/overflow
Slurry
PULP OUT
WASTE IN
Fresh make-up water
Recirculated slurry water
Slurry auger and screen
Cutters
Grinding disk
SLURRY OUT
Optional slurry recirculating pump
Pulper motor
Drain

Theory of Operation

Refer to the illustration on the preceding page as you read the theory of operation below. The close-coupled waste handling system is made up of 2 units: a pulper and a water extractor.

1. The close-coupled waste handling system is designed to reduce the volume of waste created in the food service operation thereby reducing the expense associated with conventional methods of waste removal and disposal. The waste handling system accomplishes this by combining food, paper and water, removing the water and then compressing the waste for disposal.
2. The waste handling system consists of a grinding tank, (pulper), and a water press, (water extractor). The 2 components are physically connected (close-coupled) and share a common electrical control system.
3. The pulper contains a spinning grinding disk and cutting blocks which shred food waste and paper to a water-laden mixture called slurry. The pulper forces the slurry into the water extractor.
4. The water extractor contains an auger and screen. The auger rotates inside the circular screen moving the slurry upward to the top of the water extractor. Water is gradually removed from the slurry by the action of the auger and screen.
5. A compression cone, located at the top of the water extractor is the final stage in the water extraction process. The cone compresses the waste into a semi-dry, papery pulp and then pushes it out of the water extractor and into waste containers for disposal.
6. The pulper is filled with fresh water initially. After that, the water-level in the pulper and the water extractor is maintained by the combination of recirculated slurry water and fresh make-up water. Slurry moves from the pulper into the extractor, water is removed from the slurry and then returned to the pulper via cross-flow piping or via an optional recirculating pump and waste trough system. The cross-flow piping is blocked when the optional recirculating pump is used. A drain/overflow skims excess water from the water extractor during normal operation and is used to drain the system during the clean-up operation.
7. There are 2 methods for feeding waste into the pulper. In the first method, the operator manually feeds the waste directly into the pulper. In the second method, waste is conveyed into the pulper via a water-fed trough system.
8. The standard electrical controls consist of a common remote-mounted control box , 1 Start/Stop push-button station on the pulper and 1 push-button station on the water extractor. The pulper water-level is controlled by a pressure switch mounted on the side of the pulper. Safety switches mounted on the pulper and the water extractor protect the operator from rotating components. An optional deodorizer injector can be mounted on the water extractor.
9. The waste handling system must be cleaned daily after the day's operation. Optional flushing systems in the pulper and the water extractor aid in removing solids that may be present. Foreign matter must be removed manually and the machine interiors must be flushed with fresh water. The machine exteriors must be cleaned as well as the surrounding work areas to prevent odors and reduce the accumulation of debris.

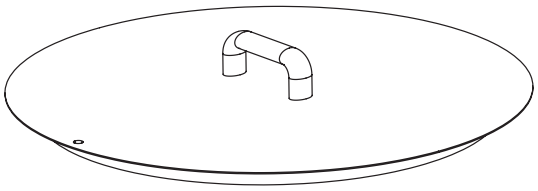
Waste is compressed into a semi-dry, papery pulp.

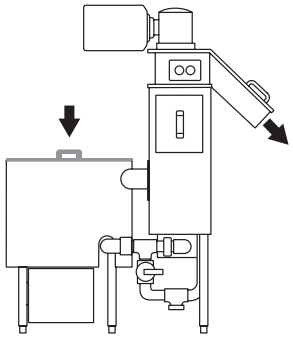
Theory of Operation

Under-table Feed tray and Hood Configurations

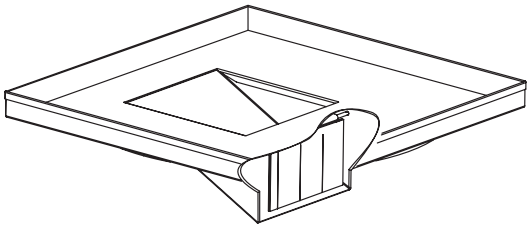
The illustrations below show the standard under-table designs employed to manually feed food and paper waste into the pulper. The feed tray/feed hood components are removable for cleaning and access to the pulper interior.

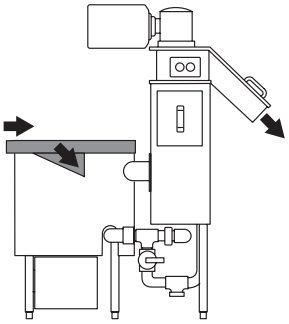
Direct feed w/cover



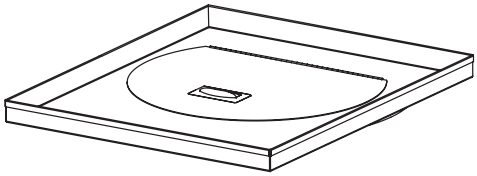


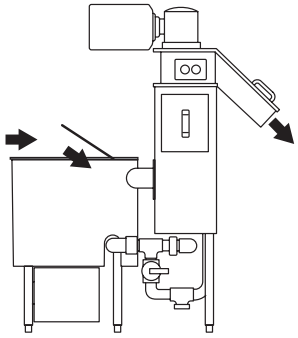
Feed tray w/hood





Feed hood w/hinged lid



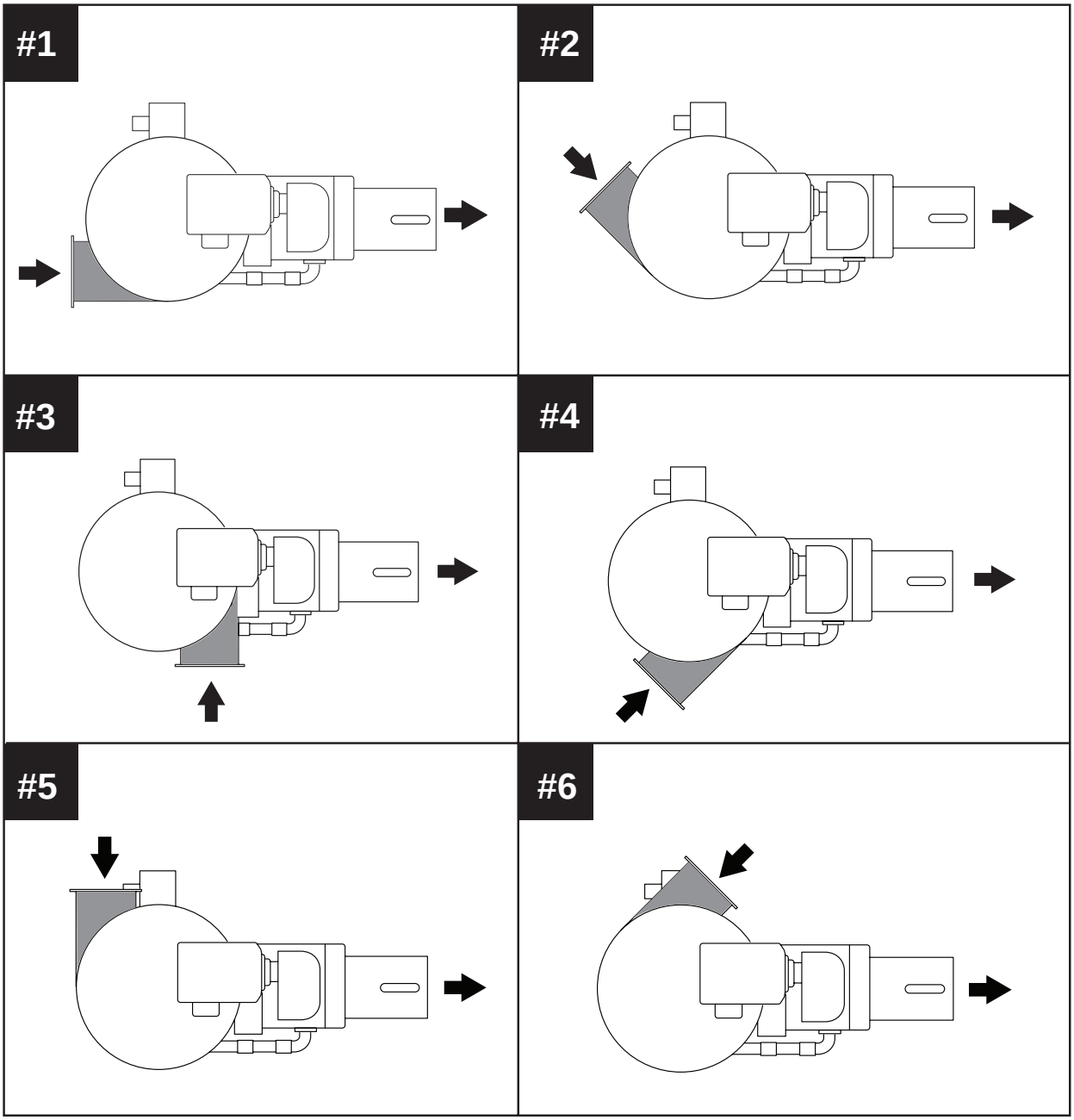


Theory of Operation

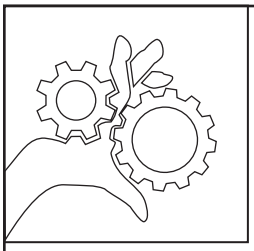
Feed-trough Configurations

Six standard feed-trough configurations for the waste handling system are shown below. A feed-trough system semi-automates the waste loading operation by providing an alternative to the under-table feed-tray design shown on the previous page.

The operator separates food and paper waste from the wares and places them in the trough. Slurry water, which flows down the trough, carries the waste into the pulper. The slurry water is supplied by a recirculating pump mounted on the water extractor.



Waste Handling Precautions



WARNING!

The Remote Waste Handling System contains <u>ROTATING PARTS</u> moving at high speed.

Death or serious injury may result if clothing, jewelry, or body are caught in the machine.

<u>NEVER</u> run the machine unless all safety devices are in good working condition and all safety covers are installed on the machine.

CAUTION:

Damage to the waste handling system will result if metal objects are fed into the machine. This includes, but is not limited to, box staples, metal foil, steel wool, metal fasteners, wire, coins, and metal utensils

WHEN IN DOUBT— KEEP IT OUT.

1. The waste handling system is designed to process a wide range of waste products that are water soluble including: food waste, paper (e.g., paper napkins, cardboard).
2. The system will process waxed paper in limited amounts but only if the waxed paper is loaded in conjunction with waste products described above.
3. DO NOT FEED THE FOLLOWING MATERIALS INTO THE PULPER:
4. Metal (e.g., box staples, metal foil, steel wool, metal fasteners, wire, coins, and metal utensils
5. Styrofoam
6. Plastic spoons, forks, knives, cups, plates, or bowls
7. Condiment packages (e.g., ketchup, mustard, etc.)
8. Plastic bottles/bottle caps

9. Cellophane wrappers (typically used for saltine crackers, candy or nuts.)
10. Plastic package tape
11. Plastic banding,
12. Cloth rubber, leather, wood,
13. Glass, rocks, dirt
14. Paint, solvents or any other chemicals
15. The pulper is equipped with a powerful magnet in the bottom of the grinding chamber that is intended to attract eating/cooking utensils if they contain a percentage of iron. The magnet will not attract high quality stainless steel nor sterling silver.

The waste handling system can process a wide range of waste products; but plastic products should not be fed into the system.

A powerful magnet is in the pulper grinding chamber.

The magnet will attract utensils and other metal objects if they contain enough iron in their composition.

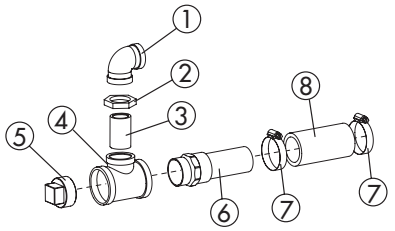
P-5 Recirculating Pump Trough Connection Kit: P/N 407365

Form # 900822

A trough connection kit (See No. 1 below) is shipped with each pulper equipped with a recirculating pump. The kit is designed to connect the recirculating pump discharge to a waste trough (supplied by others).

Trunk Option A and Trunk Option B (See No. 2 below) are two suggested methods of making the trunk connection to the trough which is supplied by others.

1

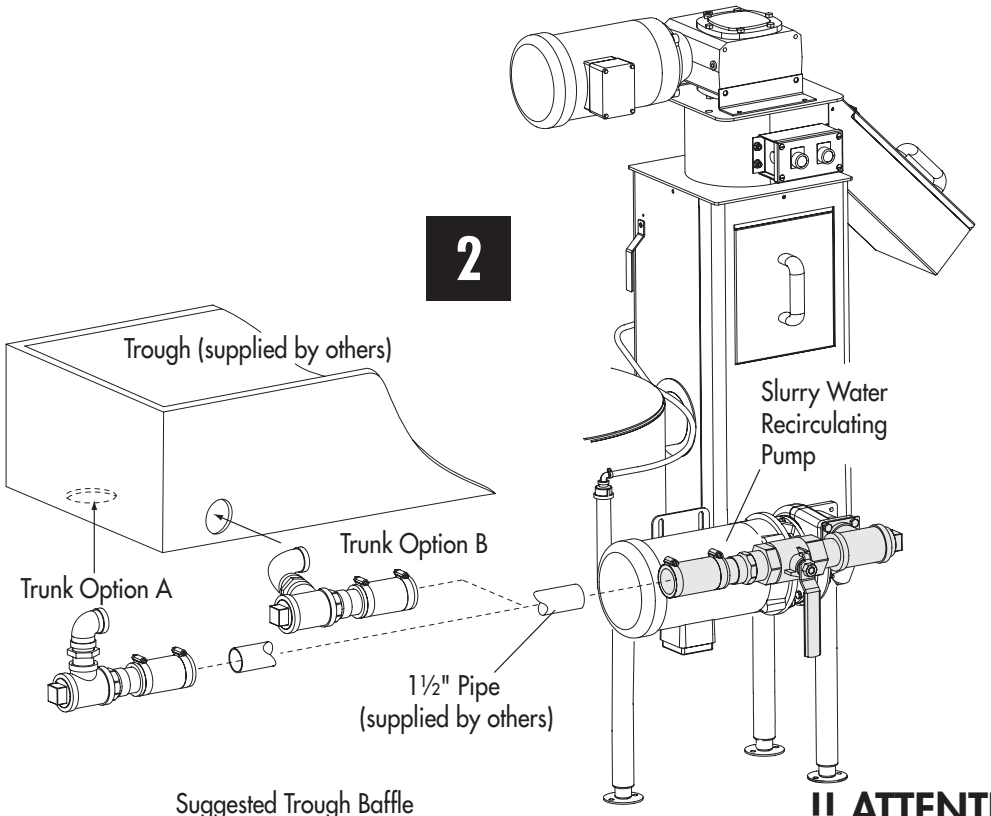


Recirculating Pump Trough Connection Kit: P/N 407365

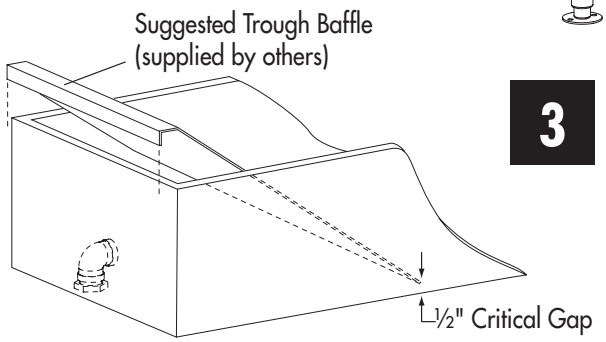
Recirculating Pump Trough Connection Kit P/N 407365

Item No.	Part No.	Description	Qty.
1	102448	Elbow, 1" x 90° Brass	1
2	100585	Locknut, 1" NPT Brass	1
3	111557	Nipple RTOE 1" x 2-12" Brass	1
4	111079	Tee, Red. 1-1/2" x 1-1/2" x 1" Brass	1
5	111080	Plug 1-1/2" Brass	1
6	204731	Stub End, Recirc Pump	1
7	107340	Clamp, Hose SST w/CS Screw	2
8	111117	Hose, 1-5/8" I.D.	1
9	104889	Compound, Grey Sealing	1 ft.

2



3



!! ATTENTION !!

A splash baffle (supplied by others) must be fabricated and installed in the discharge end of the trough to create the proper water flow. See No. 3 at left for a suggested design for the baffle.

The splash baffle must extend across the entire length of the trough and maintain a 1/2" gap between the baffle and the trough bottom. The trough must be removable for cleaning.

Form # 900822

Installation

Receiving

IMPORTANT:

Plan the route used to transport the main components/pallets. Halls and doorways may be to small to travel through to the final site.

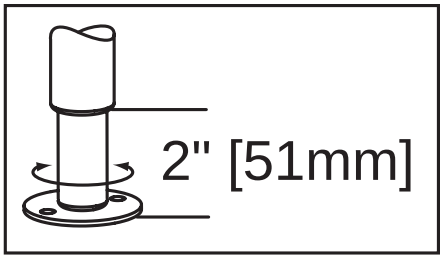
Follow the steps below to receive the waste handling system at the installation site.
Refer to Theory of Operation on page 2 for an illustration of the system.

NOTE:
The waste handling system may require parts and materials that are not supplied by the factory. The scrapping station water trough is an example of an item typically supplied by others.

NOTE:
Observe all safety regulations and procedures when moving and placing the machine.

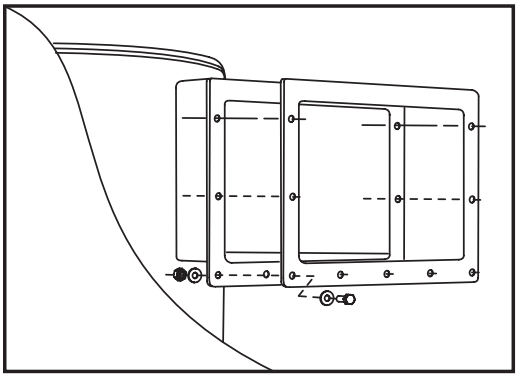
CAUTION:
To prevent damage to the machine, do not lift the machine by any of its piping or electrical conduit.

1. The waste handling system is shipped on a single pallet. The system consists of a pulper, water extractor, and remote control cabinet.
2. If specified, optional fasteners, trough gaskets, and anti-vibration feet are stored inside the pulper tank.
3. Inspect the installation site before moving the machine, then place the machine and the remote control cabinet at their permanent locations.
4. Complete the Warranty Registration Card located at the front of this manual and mail it immediately to validate the machine warranty.
5. Level the pulper and water extractor front-to-back and side-to-side.
   The legs are fitted with adjustable feet to level the machine.



Legs are fitted with adjustable feet.

6. Follow the instructions (supplied by others) to permanently attach the machine to the floor.
7. A rubber gasket and mounting hardware is supplied with the pulper if the installation includes a feed trough system. The feed trough system is supplied by others.



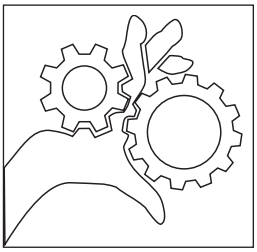
Rubber gasket for a trough connection is supplied with the pulper.

Utility Connections

WARNING!

Electric shock may cause death or serious injury.

<u>Do not work on energized circuits. Turn off all main power service disconnects, lock them out and</u> place a tag on the switch and/or breaker to indicate that work is being performed on the circuit.



WARNING!

Death or serious injury may result if hands, clothing, or jewelry are caught in the machine.

The Waste Handling System contains <u>ROTATING PARTS</u> moving at high speed.

WARNING!

Death or serious injury may result if safety devices are not working.

<u>NEVER</u> operate the machine unless all safety devices are in good working condition and all safety covers are in place on the machine.

ATTENTION!

Utility connections must be performed by authorized installers who will follow all electrical, plumbing, sanitary, safety procedures and regulations.

Plumbing and Electrical Connection Diagram (P&E)

The plumbing and electrical specifications and connection locations are detailed in a P&E diagram. This diagram is supplied for the installation prior to shipment. Contact a supervisor if you do not have the P&E at the time of installation.

Utility Connections *(continued)*

The Plumbing and Electrical Diagram-P&E *(continued)*

1. Refer to the P&E and match the utilities at the installation site to the P&E.
2. Contact a supervisor if the installation site does not match P&E.
3. The general utility requirements may include, but are not limited:

   Cold water supply
   Electrical supply
   Drain

Cold Water Supply

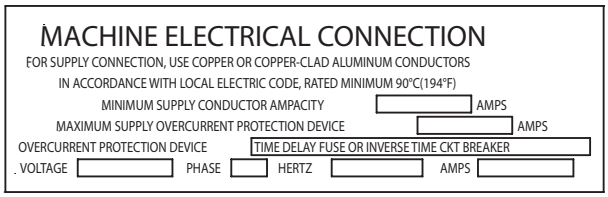
1. Connect a 1/2" NPT cold water supply line to the pulper.
2. If the incoming water pressure is greater than 25 PSI/172 kPa, then install a pressure regulating valve (PRV) in the cold water supply.
3. Install a 3/4" NPT shut-off valve in the 1/2" NPT water supply line as close to the machine as possible.

Drain

1. Connect a 1-1/2" NPT gravity drain line to the pulper.
2. Drain discharge must comply with local sanitary codes and regulations.

Electrical

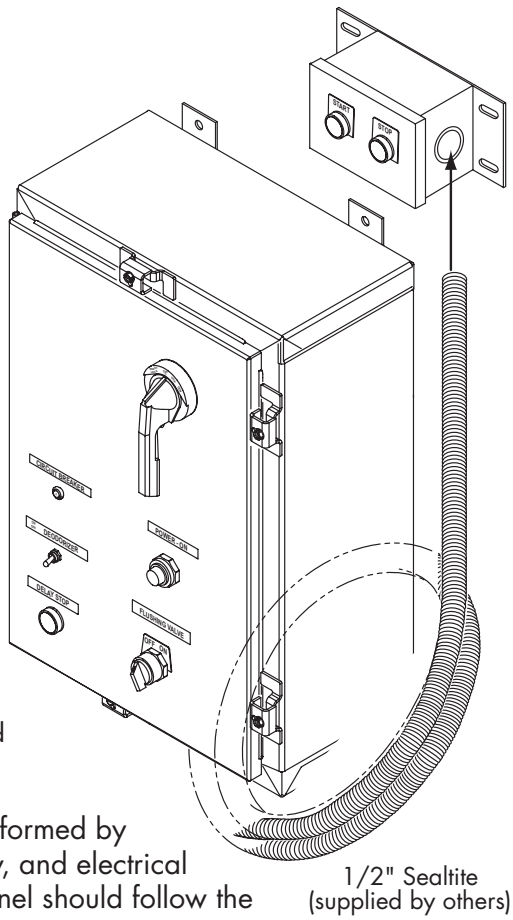
1. Refer to the Machine Electrical Connection Data Plate located inside the Remote Control Cabinet



2. Make sure the installation site power supply matches the data recorded on the connection plate.
3. Install the Remote Control Cabinet adjacent to or in sight of the waste handling system. The control cabinet location should make the operation of the system practical for the operator and service technician.
4. The 3-phase motor rotation was checked at the factory. The pulper disk must rotate CCW and the water extractor auger screw must rotate CCW. If it is necessary to reverse the motor rotation, reverse L1 and L2 main incoming power supply wires in the remote control cabinet. DO NOT REVERSE L1 and L2 at the motors.

Model P5-24, P5-27, P7-30 Pulper Remote Start/Stop Station Option Installation Instructions

Remote Start/Stop Station



An optional remote start/stop station may have shipped inside the pulper tank for remote installation by others. The remote station consists of two push buttons in a metal enclosure.

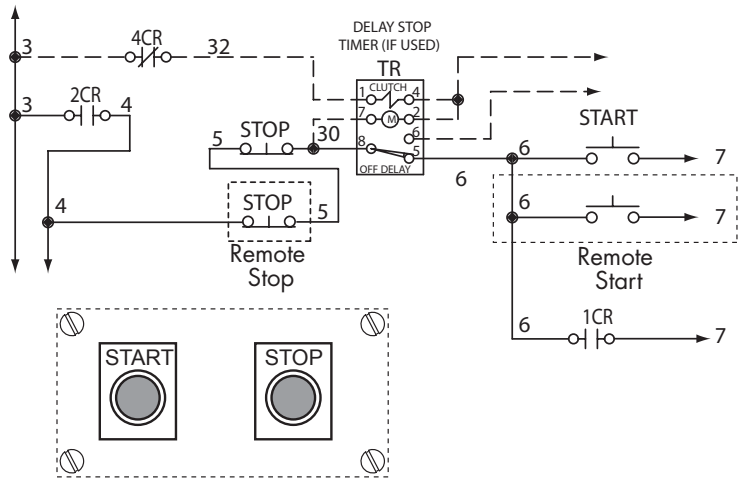
Mounting hardware, flexible1/2" sealtite, wiring and connectors are supplied by others. Wire size must be 14 AWG. THHN (90°C). Refer to the wiring diagram below which shows how the start/stop station is connected in the pulper control circuit.

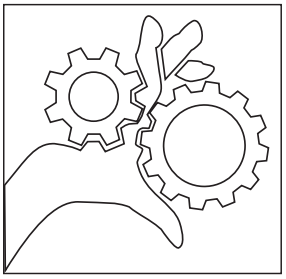
WARNING!!
Electrocution or serious injury may result when working on an energized circuit. Disconnect power at the main breaker or service disconnect switch before working on the circuit. Lock-out and tag the breaker to indicate that work is being performed on the circuit.

The installation of the remote start/stop station should be performed by qualified personnel who will observe all local safety, sanitary, and electrical codes or in the absence of local electrical codes then personnel should follow the National Electrical Code.

Refer to the Champion Service Manual, P/N 114509 for complete operating instructions for the machine.

Remote Start/Stop Station Wiring Diagram





WARNING!

Death or serious injury may result if hands, clothing, or jewelry are caught in the machine.

The Waste Handling System contains <u>ROTATING PARTS</u> moving at high speed.

WARNING!

Death or serious injury may result if safety devices are not working.

<u>NEVER</u> operate the machine unless all safety devices are in good working condition and all safety covers are in place on the machine.

Pulper • Initial Start-up

1. The steps below describe the initial start-up procedure for the close-coupled pulper and water extractor. The Remote Control Cabinet controls both units.
2. Make sure the waste handling system matches the specifications detailed in the P&E.
3. Make sure the pulper and the water extractor are securely mounted to the finished floor.
4. Review the <u>Theory of Operation</u> beginning on page 2.
5. Make sure the main power supply is disconnected. Lock-out the circuit and place a tag on the switch and/or breaker to indicate that work is being performed on the circuit.

WARNING!

Electric shock may cause death or serious injury.

<u>Do not work on energized circuits. Turn off all main power service disconnects, lock them out and</u> place a tag on the switch and/or breaker to indicate that work is being performed on the circuit.

Pulper/Water Extractor Electrical Controls

POWER MUST BE TURNED OFF UNTIL ALL MECHANICAL CHECKS ARE COMPLETE.

The Remote Control Cabinet offers the following controls:

A: **ON/OFF manual reset breaker switch.**
Rotate handle fully CW to turn power ON. Rotate handle fully CCW to reset tripped breaker and to lock-out breaker to service.

B: **3 amp manual reset circuit breaker.**
Push reset button in if 120VAC control circuit breaker trips.

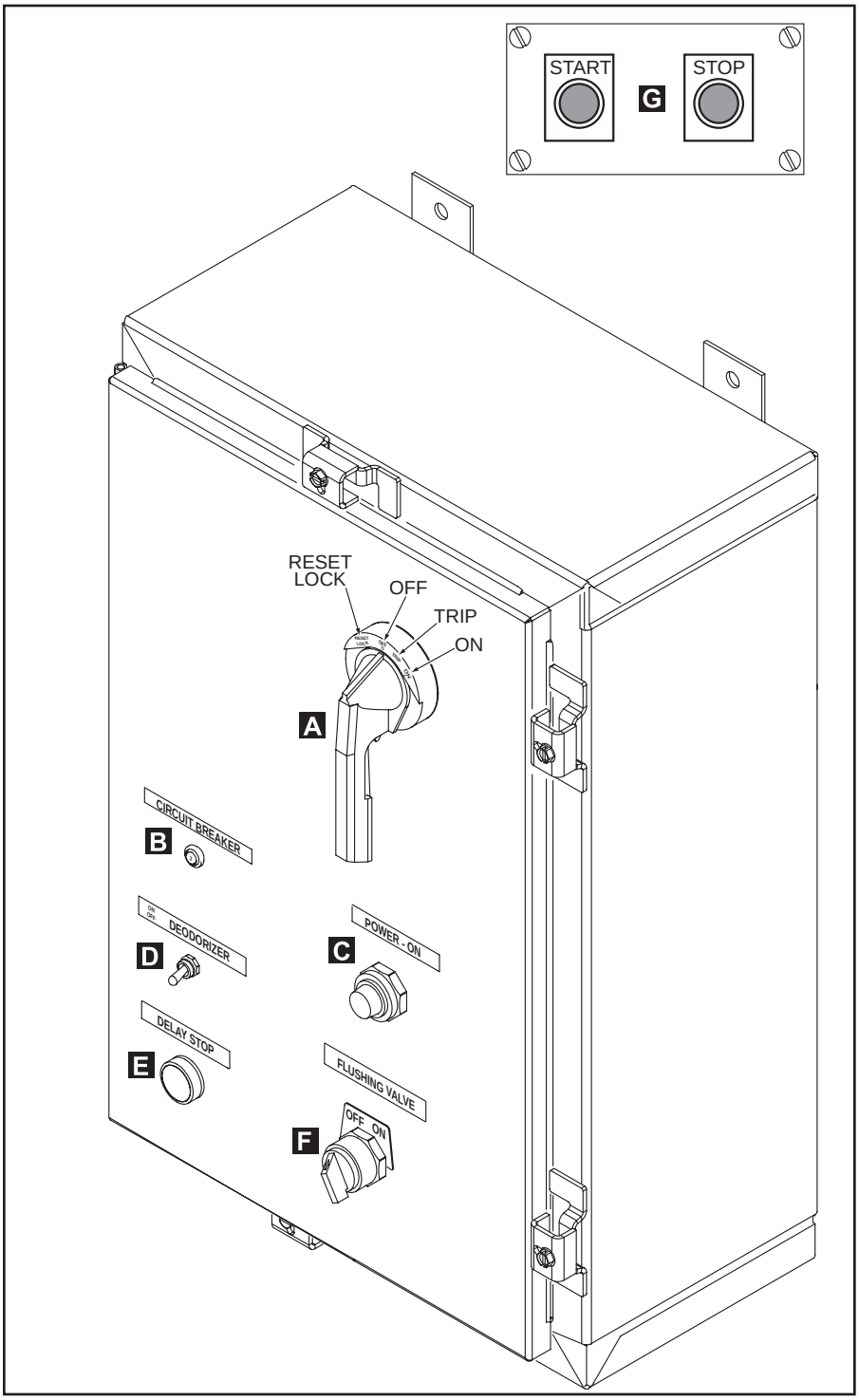
C: **Red POWER ON indicator light**.
Indicator illuminates when ON/OFF breaker switch (A) is in the ON position.

D: **Optional Deodorizer Injector On/Off switch.**
Push toggle switch ON to run the Injector. The injector speed-control is located inside the remote control cabinet. Amount of deodorizer injected depends on the customer's requirements.

E: **Optional Delay/Stop switch with adjustable 6-minute timer.**
Push the Delay/Stop switch. Depending on the timer setting, the system will STOP after the preset time DELAY.

F: **Optional Flushing Valve On/Off selector switch.**
Turn the selector switch ON and the water extractor and/or pulper flushing system will operate.

G: **System START/STOP station located on the water extractor.**
Push the Start push button and the waste handling system will run. Push the Stop push button and the system will shut-off.



Remote Control Cabinet shown with deodorizer, delay stop, and flushing valve options and the system Start/Stop Station located at the top of the water extractor.

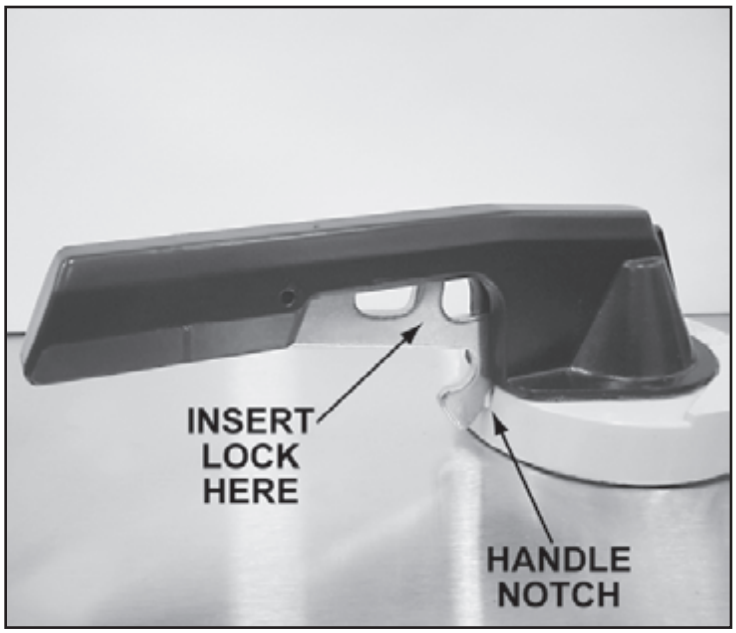
Electrical Controls (continued)

Note:
The remote control cabinet controls the pulper and the water extractor.

1. Push the STOP push button on the Start/Stop Station located at the top of the water extractor.

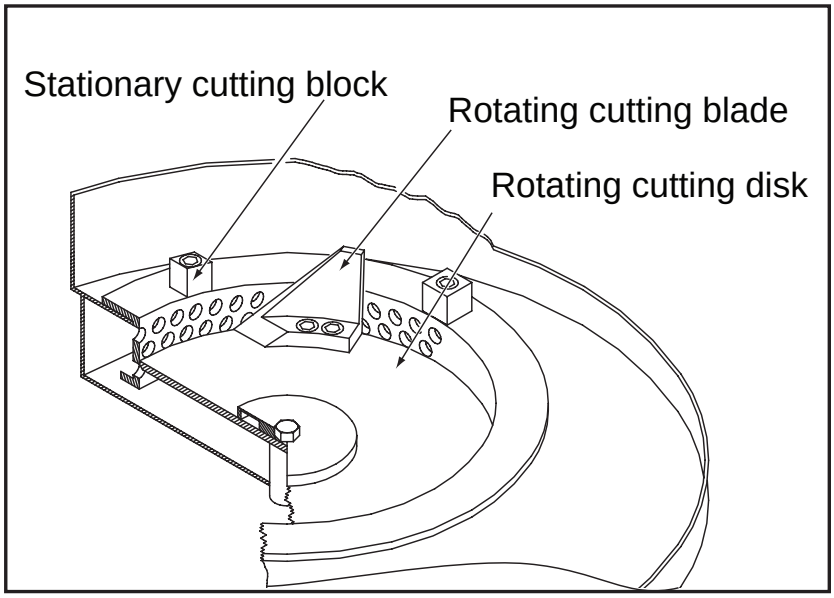
2. Turn the Disconnect Breaker Switch located on the Remote Control Cabinet to the RESET/LOCK position.

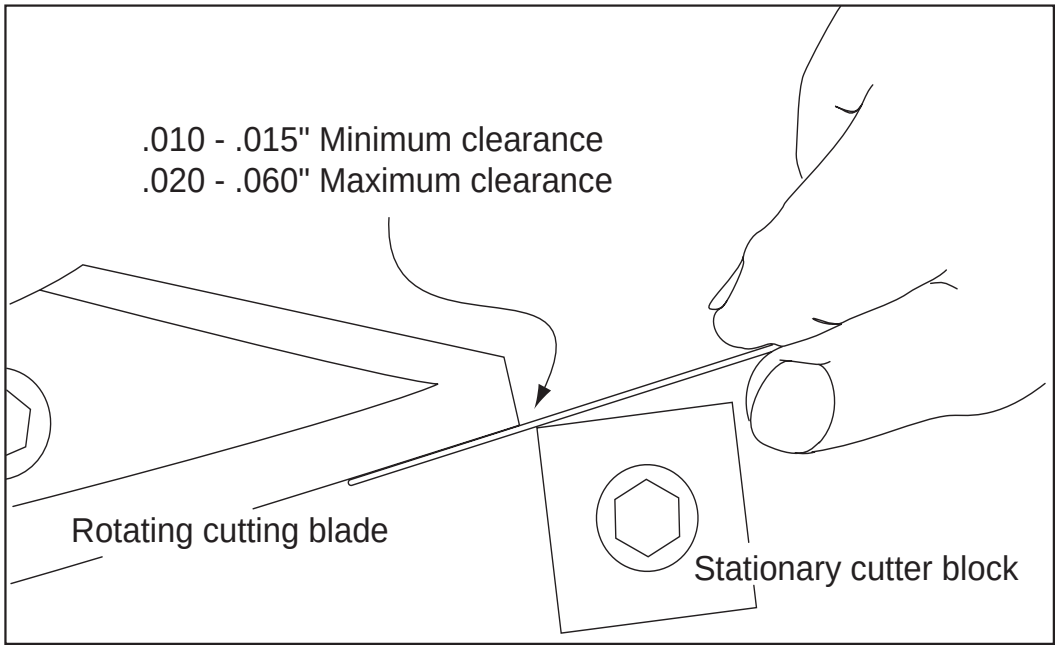
3. Engage the handle lock and insert a locking device to prevent the Breaker Switch from turning. Attach a tag on the Breaker Switch to indicate that work is being performed on the circuit.



Pulper Mechanical Adjustments

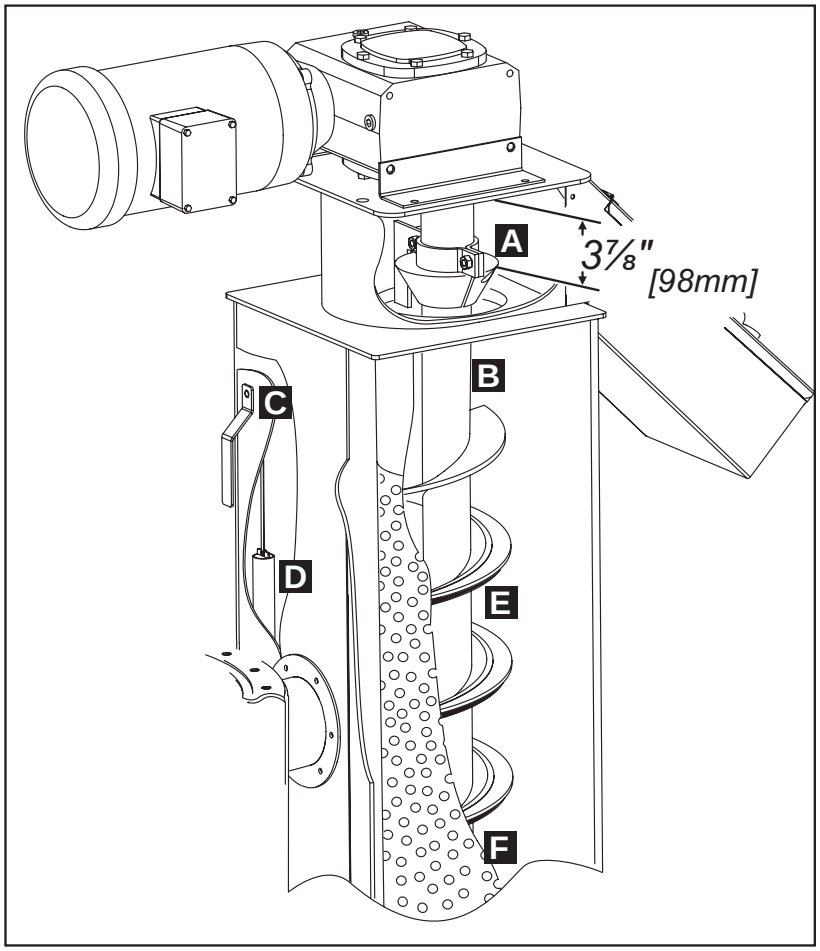
1. Refer to the illustrations below and check the clearance between the stationary cutter blocks and rotating cutter blades.
2. Slowly rotate the cutting disk to make sure that the rotating blades do not hit any of the blocks.
3. Using a feeler gauge, adjust each stationary block between a minimum clearance of .010-.015" and a maximum clearance of .020-.060". A close clearance produces a finer waste cut.
4. In the event that the cutting blades have burrs on the cutting side of the blade, then remove them with a metal file. File outward toward the cutting block and dress the blade with fine grit metal oxide sandpaper if necessary.
5. Securely tighten all fasteners and recheck the clearances to ensure that the clearances are maintained.





Water Extractor Mechanical Adjustments

1. The water extractor Compression Cone **(A)** should be adjusted to 3⅞" from the top of the water extractor housing and the top of Compression Cone.



The main components of the water extractor interior are listed below:

A: Compression Cone
Final stage in removing water from the pulp. The cone has a wiper blade that pushes the semi-dry pulp down the conveyor chute.

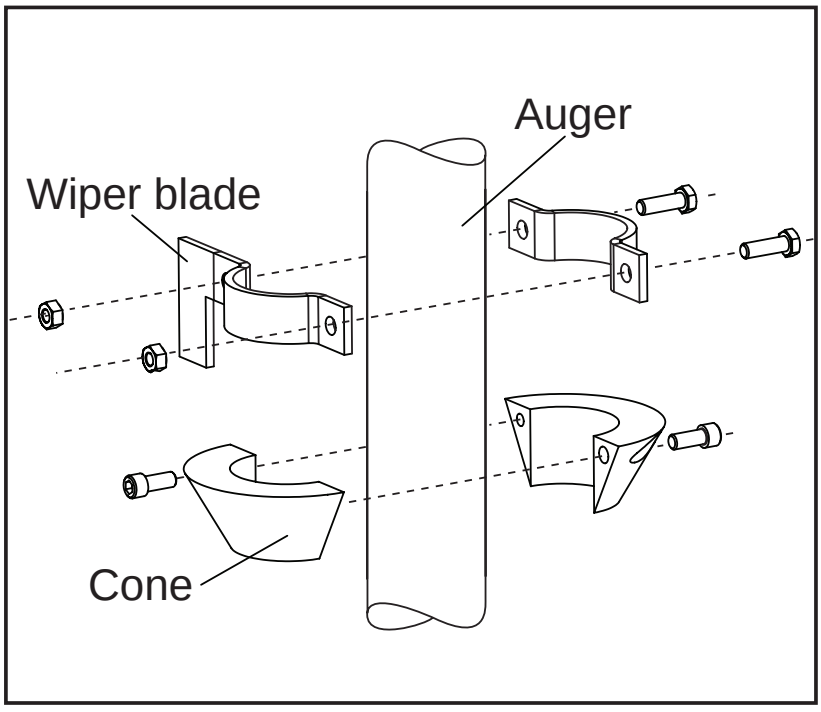
B: Auger Conveyor Screw
Carries the de-watered pulp from the bottom of the water extractor up to the compression cone.

C: Drain/overflow Lever
Raises the drain/overflow tube to drain the water extractor during cleaning.

D: Drain/overflow Tube
Maintains water level in the water extractor to prevent overflowing and to drain the machine.

E: Auger Conveyor Brush
Attached to the auger conveyor screw. The brush sweeps across the water extractor screen in order to keep the screen clean and allow slurry water to flow from the pulp.

F: Extractor Screen
Allows water to flow off the auger conveyor screw and back to the bottom of the water extractor. The auger brush sweeps the screen to keep it from becoming clogged with pulp.



Water Fill Adjustments

1. Make sure all access doors, panels and safety devices are in place, secure and operating.
2. Turn the Main Circuit Breaker Switch on the remote control cabinet to the ON position.

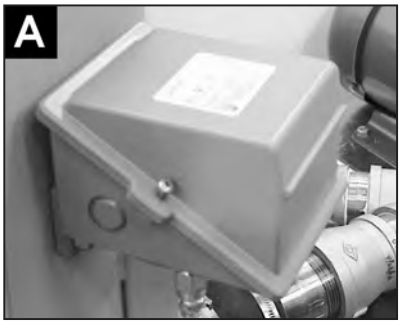
Turn the Main Circuit Breaker Switch to the ON position.

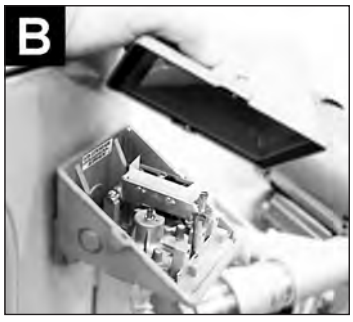
Push the START push button located on the water extractor.

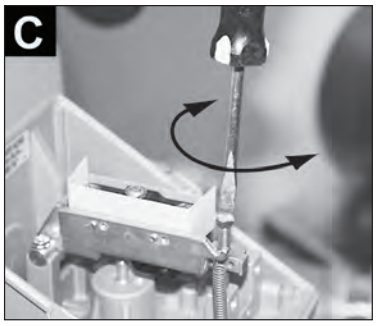
3. Use an assistant to watch the pump and drive motors for proper rotation. Push the START push button and then immediately push the STOP push button and check the rotation of the pumps, pulper drive and water extractor drive motors. Correct the phasing of the motors as required.
4. Push the green Start push button on the Start/Stop station located on the Water Extractor. All motors will run and the pulper will fill with water to the level previously set at the factory.
5. The pulper water level is controlled by the water level pressure switch located on the side of the pulper tank. The water level pressure switch is housed in a blue enclosure. (See photos below).

6. To adjust the water level pressure switch:
   A. Remove 2 screws on the switch cover
   B. Remove the cover.
   C. Turn the level adjusting screw CW to reduce the water level, CCW to increase.

7. The proper water level in the pulper tank should be below the level of the water extractor return piping. If the pulper is fed by a trough system, then the pulper water level should be below the trough inlet to the pulper. The water should not flow back into the trough when the water level is set at the correct level.







System Operation Tests

The Waste Handling System is the following operating state:
Doors and panels are closed.
Safety switches are closed.
Drain valves are closed
Water supply is on.
Main power supply is on.
Pulper and water extractor are filled to preset water level.
Pulper drive motor is running.
Pulper drive motor seal flushing valve is open.
Water extractor drive motor is running.
Optional water extractor recirculating pump (if equipped) is running.
Optional water extractor and/or pulper flushing valve (if equipped) is open.

Test Safety Switches

Note:
The waste handling system must stop running when the pulper cover or the water extractor discharge chute are opened.

1. Lift the pulper tank cover. The pulper and water extractor must stop running.
2. Lift the water extractor discharge chute. The pulper and water extractor must stop running.

Test Main Circuit Breaker Switch

Caution:
Turn the main incoming power OFF before performing this test.

1. With the main power supply to the waste handling system turned off, turn the Remote Control Cabinet Main Breaker Switch to the ON position.
2. Loosen, do not remove, the control cabinet cover retaining clips.
3. Try to open the control cabinet. It should not open. Repair or replace the switch if you are able to open the control cabinet.
4. Tighten the retaining clips, turn the switch to OFF, and turn main power supply on.

Test Start/Stop Push button Station

1. Push the Start push button. The pulper/water extractor drive motors, and optional pumps run.
2. Push the Stop push button. The drive motors and optional pumps stop.

Test the Flushing Valve Option (if equipped)

1. Turn the Flushing Valve Selector Switch located on the bottom right corner of the remote control cabinet to the ON position. Water will spray from nozzles located inside the pulper and/or the water extractor flushing piping.
2. Flushing systems are used to pulp deposits but are not intended to replace the daily cleaning procedures explained in the *Cleaning* section of this manual.

System Operation Tests

Test Delay Stop Option (if equipped)

Note:
The adjustable timer located inside the control cabinet is preset at the factory for 6-minutes.

1. While the system is running, push the Delay Stop Switch. The system should run for 6-minutes then shut off.
2. Restart the system. Push the Delay Stop Switch, then push the Stop push button on the Start/Stop station. The system should stop immediately.

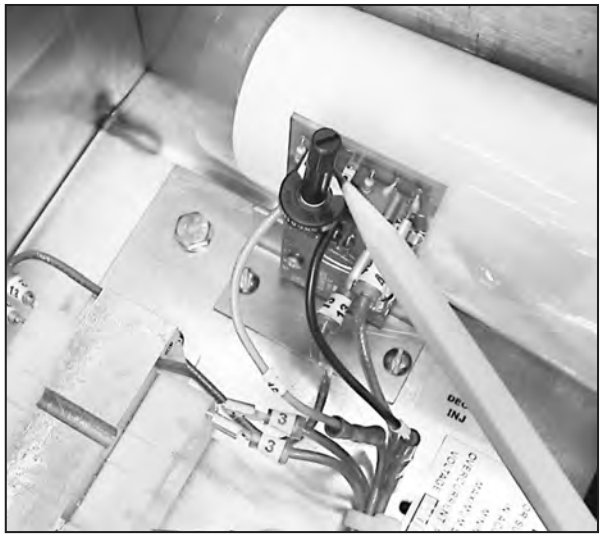
Deodorizer Injector Option (if equipped)

Note:
The deodorizer injector pump speed control is located inside the remote control cabinet.

Consult a chemical supplier for the correct deodorizing chemical.

1. Deodorizer speed adjustments depend upon the customer's needs and the chemical recommended by the chemical supplier; therefore, the factory cannot provide speed adjustment guidelines.
2. Place the chemical pick-up tube in the chemical container. The container must not be higher than the injection point on the water extractor.
3. Push the Deodorizer Toggle Switch to ON. The deodorizer injector will run.
4. Turn the adjustment screw on the deodorizer speed control circuit board CW to increase the injector motor speed or CCW to reduce the injector motor speed.
5. Push the deodorizer toggle switch to OFF. The deodorizer injector will stop.

The Deodorizer Power Switch is located on the front of the remote control cabinet.



The Deodorizer Injector Speed Control Circuit board is located in the top left corner of the remote control cabinet.

System Operation Tests
Waste Processing and System Balancing

Attention: Waste processing adjustments are best performed under normal loading conditions.

Note: A water level fill adjustments and/or the condition of the water extractor pulp usually requires some time before the system responds to a change.

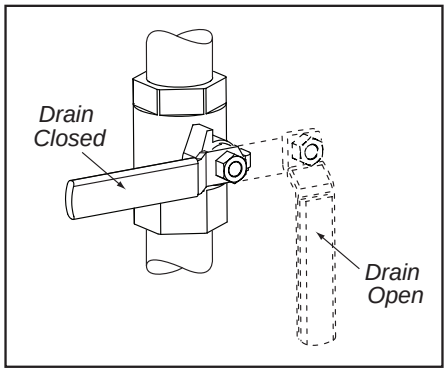
Make small incremental changes to balance the waste handling system and closely observe operation response.

Read the Waste Handling Precautions on page 6 before processing waste in the system.

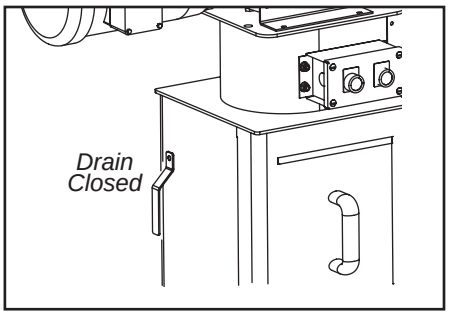
1. Close the pulper drain valve and the water extractor drain/ overflow handle. Place a refuse container under the water extractor discharge chute.
2. FOR OPTIONAL FEED TROUGH CONFIGURATIONS ONLY: Perform Step No. 1 above and open the recirculating pump feed trough valve half-way. Adjust this setting to achieve the slurry water flow best suited to the waste being processed.
3. Make sure the main water and power supplies are on.
4. Turn the remote control cabinet breaker switch on. Wait for the pulper to fill, then push the Start push button on the water extractor.
5. Check the water level in the pulper tank. The water must be rotating in a counter-clockwise direction and have a whirlpool appearance. The pulper water level is too high if the whirlpool effect is not observed.
6. There should be a pulsating sound to the water as it rotates in the pulper tank.
7. Begin feeding a mixture of food waste, paper, and cardboard into the pulper. Cardboard boxes must be reduced.
8. The pulper will shudder when heavy items such as cardboard are fed into the tank. This is normal.
9. Pulper water should begin to turn a milky color. In the water extractor, a wet pulp should begin to appear around the screen.
10. A semi-dry pulp will appear at the top of the water extractor and be forced into the discharge chute by the wiper blade.

    There are 3 main factors that affect the dryness of the pulp:
    1. The ratio of food waste, water, and paper in the pulper
    2. How finely the waste is shredded in the pulper tank.
    3. The cone setting at the top of the water extractor.

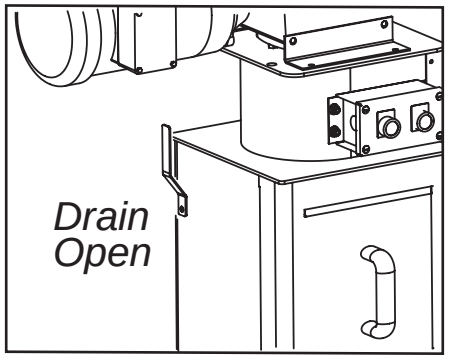
11. The inter-relationship of these 3 variables makes it impossible to provide a definite procedure for adjusting the waste handling system. Observation, careful adjustment, and consultation with the end-user is the only way to reach a favorable result when balancing the system.



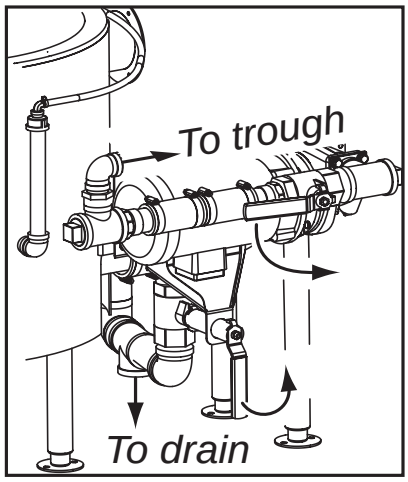
Pulper drain valve positions



Water extractor drain/overflow handle in the closed position.



Water extractor drain/overflow handle in the open position.



Feed trough supply valve and system drain valve.

Operation

Operation

Refer to the Theory of Operation and Waste Handling Precautions beginning on page 1 of this manual prior to operating the waste handling system.

1. Turn on main power supply and water supply.
2. Make sure all drain valves are closed.
3. Inspect the interior of the pulper tank for metal or other debris.
4. Inspect the interior of the water extractor and make sure it is clean.
5. Check the (optional) deodorizer chemical container and replenish as necessary.
6. Open the water extractor discharge chute and make sure that the top of the water extractor and especially the space directly under the compression cone is clear of any obstructions.
7. Fully close the discharge chute and place a refuse container under the chute.
8. Make sure the safety switch on the water extractor and the pulper are in place and secure.
9. Make sure all access doors, feed hoods, curtains and covers are in place and secure.
10. Make sure all personnel are standing away from the waste handling system.
11. Turn the Main Circuit Breaker Switch on the remote control cabinet to the ON position. The Power On light illuminates and the pulper fills with water.
12. Push the green Start push button on the Water Extractor.
    A. The pulper drive motor and the water extractor drive motor will run.
    B. The optional recirculating pump motor (if equipped) will run.
13. If equipped, push the (optional) deodorizer switch ON. The switch is located on the remote control cabinet.
14. Feed a combination of food waste, paper waste, and cardboard into the pulper. Cardboard boxes must be reduced in size before loading.
15. Push the red Stop push button on the water extractor to Stop the system.
16. In case of an emergency, the system also can be turned off by rotating the Main Circuit Breaker Switch on the remote control cabinet counter-clockwise (CCW) to the OFF position.

Main Circuit Breaker Switch in the OFF position

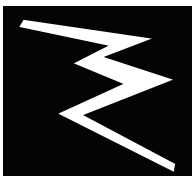
Main Circuit Breaker Switch in the ON position

Start/Stop Station OFF.

Start/Stop Station ON.

Cleaning and Maintenance

Cleaning



WARNING!
Make sure that power is turned off and the main circuit breaker switch on the remote control cabinet is in the RESET/LOCK position. Install a lock on the Breaker Switch to prevent the switch from being operated.

THE WASTE HANDLING SYSTEM MUST BE CLEANED EVERY DAY OF OPERATION.

Refer to the illustration on the next page and follow the steps below to clean the waste handling system.

1. Open the water extractor drain by turning the drain handle to the OPEN position, then open the main system drain located at the bottom of the pulper/water extractor drain line.

2. Open the water extractor discharge chute cover and lean it against the extractor gearbox, then remove the water extractor side access door.
   For Feed-hood Pulper: Remove splash curtain(s) and release the black rubber retaining handles holding the hood to the pulper tank. Lift the feed-hood off the pulper tank. Clean and flush the feed-hood separately if possible.
   For Trough-feed Pulper: Remove the round pulper tank cover. Clean and flush the cover separately. Remove any large waste then use a wash-down hose to flush the trough clean.

3. Use a wash-down hose and plenty of fresh water to thoroughly flush the top of the water extractor. Make sure the area around and below the water extractor compression cone is clean.
   PULP LEFT IN THE AREA OF THE CONE CAN SERIOUSLY DAMAGE THE WATER EXTRACTOR.

4. Use the wash-down hose and thoroughly flush all pulp from the water extractor screen. Be sure that you flush behind the screen assembly, and around the drain/overflow tube. Remove by hand, large particles remaining in the bottom of the water extractor tank.

5. Inspect the interior of the pulper tank for metal utensils. A strong magnet is located on the bottom of the pulper tank to attract metal; but, it will not attract silverware or high-quality stainless steel. Remove by hand any plastics, un-shredded paper, or other deposits.

6. Use a wash-down hose and thoroughly flush the interior of the pulper tank.
   Inspect and clean the screen in the bottom of the pulper.
   Inspect and clean the cutting blades, blocks and disk.
   Inspect and clean the rubber flap and cross-flow piping. *(Except trough-fed installations)*
   Inspect and clean the pulper feed-trough connection. *(Trough-fed only)*

7. Reassemble the pulper and the water extractor. Make sure all covers and safety switches are in place. Remove the lock and the lock-out tag on the main circuit breaker switch and turn the power on.

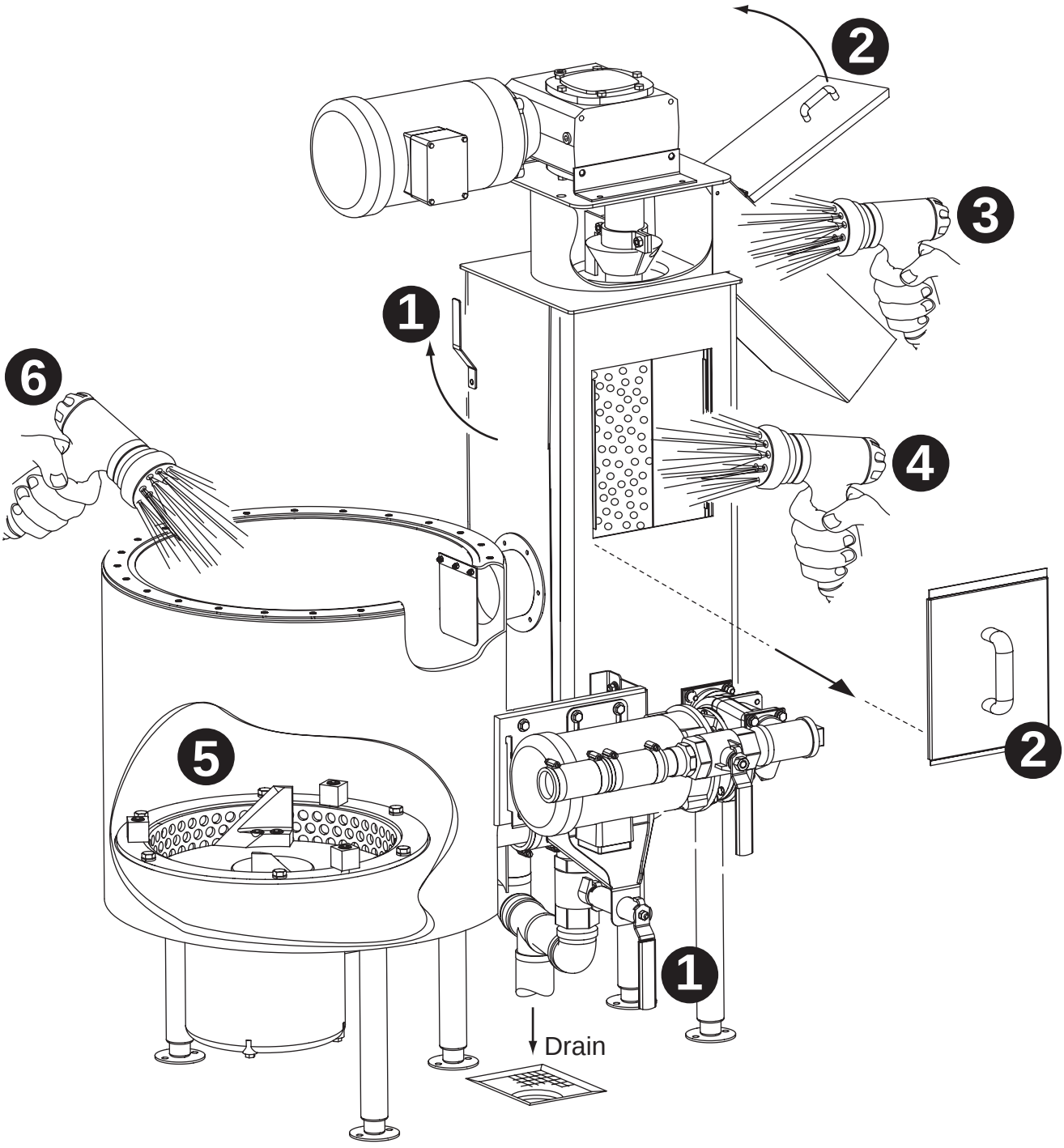
8. Pour ½ cup of a non-foaming liquid detergent (supplied by others) into the pulper tank. Push the Start push button and run for 10-minutes, then shutdown and drain the system.

9. Use a soft cloth and mild detergent to clean exterior surfaces. Rinse by hand with fresh water.

DO NOT HOSE THE EXTERIOR OF THE MACHINE WITH WATER

Cleaning

DO NOT HOSE THE EXTERIOR OF THE MACHINE WITH WATER



Maintenance

Daily Maintenance Checks

1. Check the general cleanliness of the waste handling system and the room. Deodorizers are not a substitute for daily cleaning procedures.
   Do not hose the exterior of the machine with water.
2. Check the optional deodorizer injector (if equipped) chemical supply tubing and chemical pick-up tube.
3. Refill the deodorizer chemical supply container (supplied by others) if necessary.
4. Inspect the water supply lines for leaks, make sure the floor drains are clear.
5. Inspect the pulper and water extractor to ensure that all safety switches are in good working condition.
6. Make sure that access panels and covers are in good working condition.
7. Inspect the splash curtains for wear and replace if necessary.
8. Inspect the Remote Control Cabinet and the Start/Stop Station. Make sure that switch covers, switches, indicator lights, latches and fasteners are installed and in good working condition.
9. Inspect warning and caution labels on the components. Make sure these labels are legible and if not, then order replacement labels and replace immediately.

Weekly Maintenance Checks

1. Perform all of the Daily Checks listed above.
2. Inspect the rotating cutter blades, stationary cutter blocks, and rotating cutter disk for damage.
3. Contact a Factory Authorized Service Agent if any damage is found.

Semi-Annual Maintenance Checks

(Must be performed by a Factory Authorized Service Agent Only)

1. Drain, flush, and refill the water extractor drive motor gearbox with approved lubricant (see below) every 6 months or 2500 hours of operation (which ever occurs first).
2. Clean the gearbox vent plug. Proper oil level is to the bottom edge of the oil fill hole.
3. Inspect the rotating cutter blades, stationary cutter blocks for wear. Check tolerances.
4. Inspect the rotating disk and sizing ring for wear.
5. Inspect the pulper drive motor seal and flushing system.
6. Inspect the pressure switch and pressure switch tubing, Check water level setting.
7. Inspect cross-flow piping, recirculating pumps (if equipped), drain valves and drain piping.
8. Inspect the water extractor compression cone and wiper blade for wear and proper adjustment.
9. Inspect the water extractor slurry screen and auger brush for wear.
10. Inspect the pulper and/or water extractor flushing nozzles and piping.
11. Inspect the remote control cabinet electrical components and tighten all connections.

APPROVED LUBRICANTS:

Kluber, Klubersynth UH1 6-460 (Synthetic)
ExxonMobil, Mobil SHC 634 (Non-synthetic)

Gearbox oil capacity: 35.9 ounces [1.06 liters]
Do not mix lubricants.

The following troubleshooting guide can help identify a problem and provide a solution. Inspect your waste handling system before you contact an authorized service representative.

Problem	Cause(s)	Solution(s)
System will not turn ON.	Main Power Supply OFF	Turn on or reset breaker.
	Remote Control Cabinet 3A push button breaker tripped.	Push to reset 3A breaker
	Remote control cabinet Main Circuit Breaker Switch OFF.	Rotate Handle to ON Position.
	Safety Switch not closed or defective.	Check/replace pulper and/or water extractor safety switch.
	Start/Stop Station switch not operated or defective.	Push Start push button to run.
No fill water to pulper.	Main water supply valve is closed.	Open valve.
	Remote control cabinet Main Circuit Breaker Switch OFF.	Rotate Handle to ON Position.
	Pulper water level pressure switch mis-adjusted or defective.	Adjust or replace switch.
	Water solenoid valve defective.	Repair or replace solenoid valve.
Pulper fills constantly.	Drain valve or water extractor drain/overflow open.	Close drain valve, rotate drain/overflow handle to closed position.
	Pulper water level pressure switch mis-adjusted or defective.	Adjust or replace switch.
	Pressure switch tubing or air snubber is clogged or broken.	Clean or replace snubber/tubing.
	Water solenoid valve defective.	Repair or replace solenoid valve.
	Water extractor screen clogged and/or auger brush defective.	Clean extractor screen and/or contact service agent.
Banging noise coming from pulper.	Metal object in tank.	Remove object.
	Cutting blades hitting cutting blocks.	Shut down system and contact service agent.
Pulp discharge is too wet.	Waste input lacks paper	Feed cardboard into pulper to thicken slurry.
	Extractor drain/overflow restricted.	Check drain/overflow in water extractor.
	Compression Cone mis-adjusted.	Contact service agent to adjust.
System shuts down unexpectedly.	Remote Control Cabinet Main Circuit Breaker Switch has tripped. Handle is in the TRIP position.	Turn handle CCW to RESET then CW to OFF and contact service agent.
	Main Power Supply to system OFF.	Check Main Power Supply Breaker.

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Service Replacement Parts

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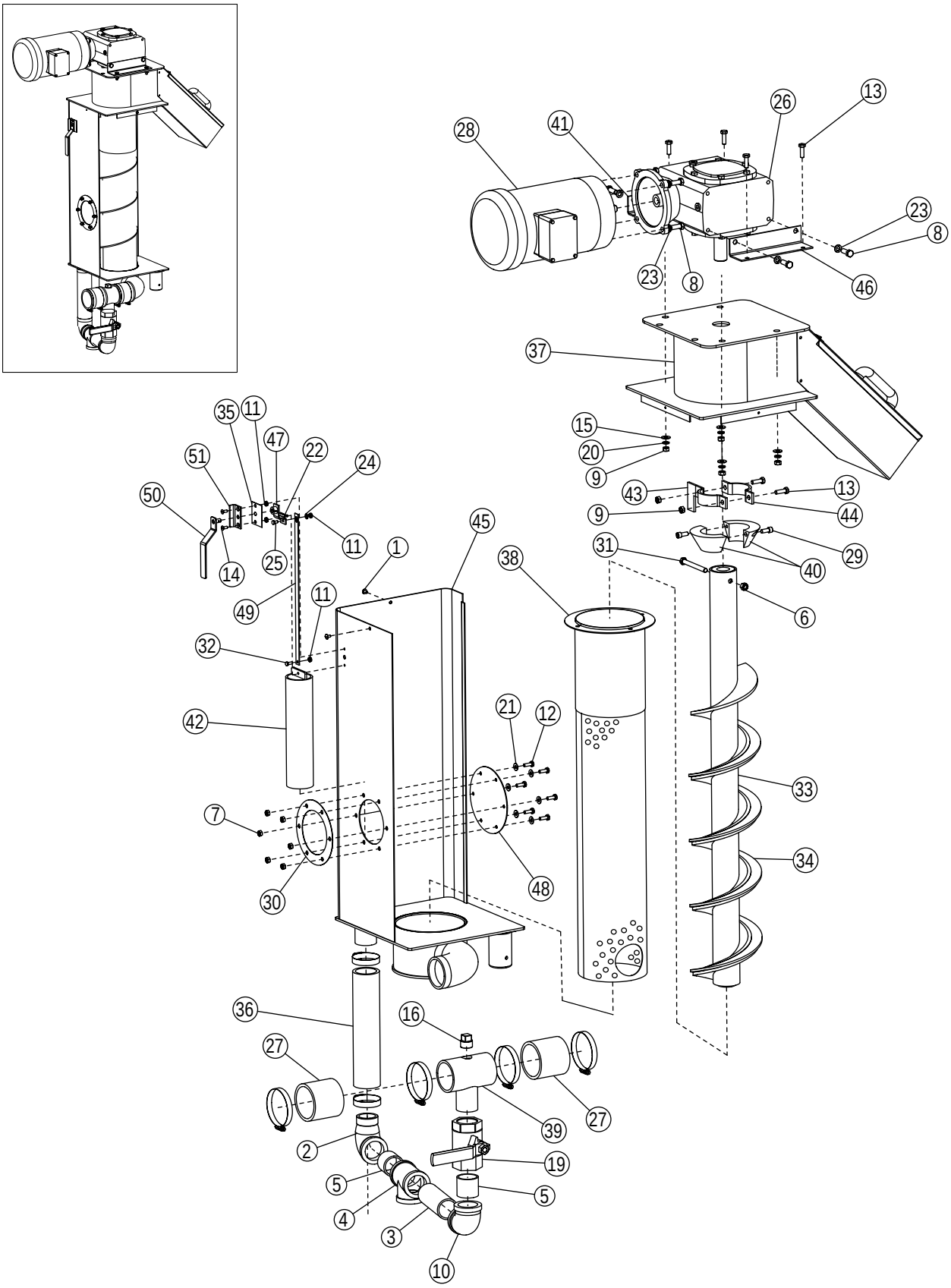
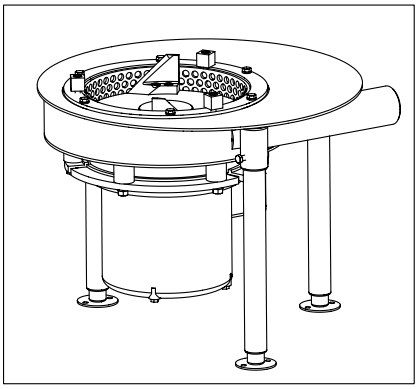
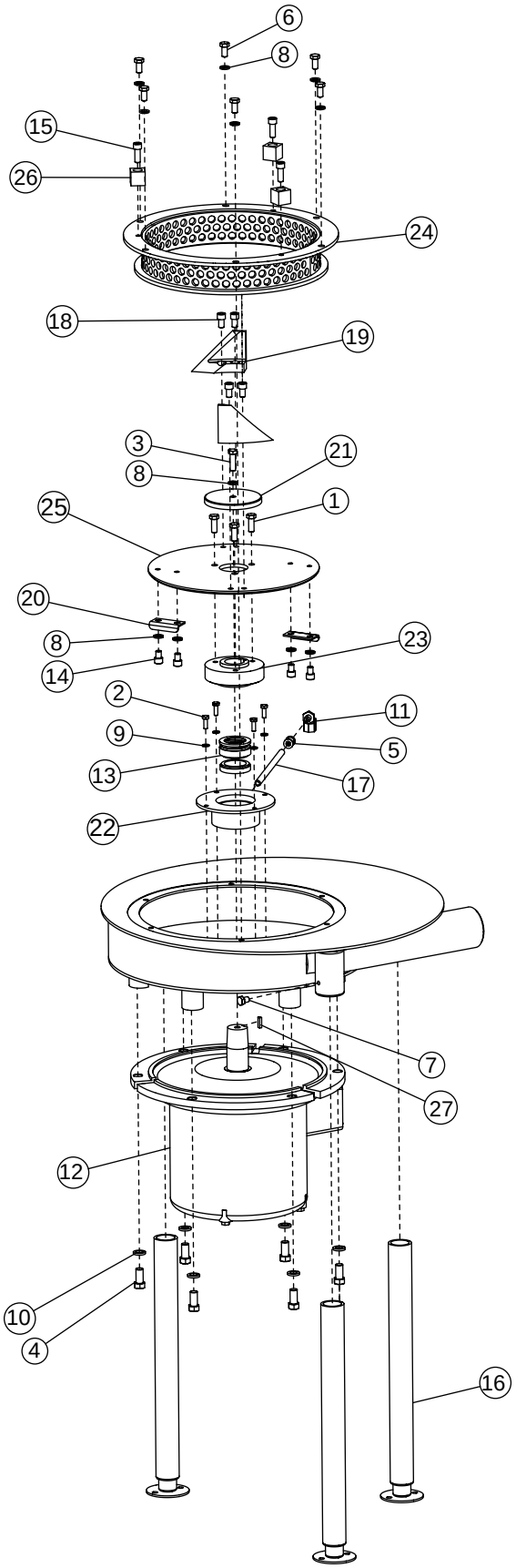
Water Extractor Assembly - Inner View



Item No.	Part No.	Description	Qty.
1	100007	SCREW, TRUSS HEAD, 10-32 X 3/8” SST	3
2	100028	ELBOW, STREET, 1-1/2 NPT X 90° GALV.	1
3	100034	NIPPLE, 1-1/2 NPT X 5-1/4” LG. GALV.	1
4	100036	TEE, 1-1/2” NPT GALV.	1
5	100043	NIPPLE, 1-1/2 NPT, X CLOSE GALV.	2
6	100140	HEX, PLAIN NUT 3/8-16 SST	1
7	100141-T	HEX, GRIP NUT 1/4-20 X SST TOP LOCK	6
8	100153	BOLT, HEX HD, 3/8-16 X 1 SST	8
9	100054	HEX, PLAIN NUT 5/16-18 SST	6
10	100159	ELBOX, 1-1/2 X 90° GALV.	1
11	100194	HEX, GRIP NUT 10-32 SST	4
12	100736	BOLT, HEX HD 1/4-20 X 3/4” SST	6
13	100740	BOLT, HEX HD 5/16-18 X 1 SST	6
14	100754	SCREW FLAT HD 10-32 X 1/2 SST	2
15	102376	WASHER, FLAT 5/16 X 3/4 X .06 SST	4
16	102506	PLUG, 3/4” NPT SQ HD. SST	1
17	105165	CLAMP, HOSE M40, SST GEAR TYPE	2
18	104203	CLAMP, HOSE M52 SST GEAR TYPE	4
19	105751	BALL VALVE, 1-1/2 NPT BRONZE	1
20	106013	WASHER, LOCK 5/16 SPLIT SST	4
21	106026	WASHER, FLAT 1/4 X 5/8 X .06 SST	6
22	106035	COTTER PIN 3/32 X 1” UNEVEN	1
23	106407	WASHER, LOCK, 3/8 SPLIT SST	8
24	107033	WASHER, FLAT	1
25	107136	BOLT, HEX HD. 10-32 X 3/8 SST	1
26	110564	REDUCER, PULPER WATER EXTRACTOR	1
27	110594	HOSE, 2-7/8 X 1” LG.EPDM	2
28	110629	MOTOR, 2HP, P5 AUGER DRIVE MV 3PH	1
---	112442	MOTOR, 3HP, P7 AUGER DRIVE MV 3PH	1
---	180286	MOTOR, 2HP, P5 AUGER DRIVE 575/3PH	1
---	111742	MOTOR, 3HP, P5 AUGER DRIVE 575V/3PH	1
---	111412	MOTOR, 2HP, P5 AUGER DRIVE, 380V/3PH	1
29	110893	CAP SCREW, 5/16-18 X 3/4" LG, SOC, HD.	2
30	111001	GASKET, WATER Extractor SHELL	1
31	111114	BOLT, HEX HD. 3/8-16 X 3-1/2" LG. SST	1
32	111478	BOLT, HEX HD. 10-32 X 1/2 SST	1
33	111939	AUGER, WITH CLIPS AND BEARING (ONLY)	1
34	111940	BRUSH, AUGER, CLIP ON (ONLY)	1
35	112295	NAMEPLATE, P5 WATER EXTRACTOR, DRAIN RH	1
36	202869	HOSE, 1-7/8 ID X 10-1/2" LG.	1
37	312395	DISCHARGE, HOUSING P5 PULPER	1
38	312398	SCREEN, WATER Extractor P5, 6"	1
39	312489	DRAIN TEE, PULPER	1
40	312512	COMPRESSION CONE	2
41	312574	ANGLE REDUCER MTG, RH	1
42	312611	OVERFLOW, WATER EXTRACTOR	1
43	312782	WIPER BLADE, PULPER	1
44	312783	CLAMP, WIPER BLADE	1
45	312785	WATER EXTRACTOR, WELDMENT RH	1
46	312788	ANGLE REDUCER MTG. LH	1
47	313164	CHAIN LEVER	1
48	313878	CAP PLATE, WATER EXTRACTOR SHELL	1
49	314378	DRAIN LIFT STRIP	1
50	314522	HANDLE, DRAIN	1
51	317027	STOP, DRAIN HANDLE	1
---	319310	PULPER-AUGER AND BRUSH ASSY, W/CLIPS (INCLUDES ITEMS 33 AND 34)	1

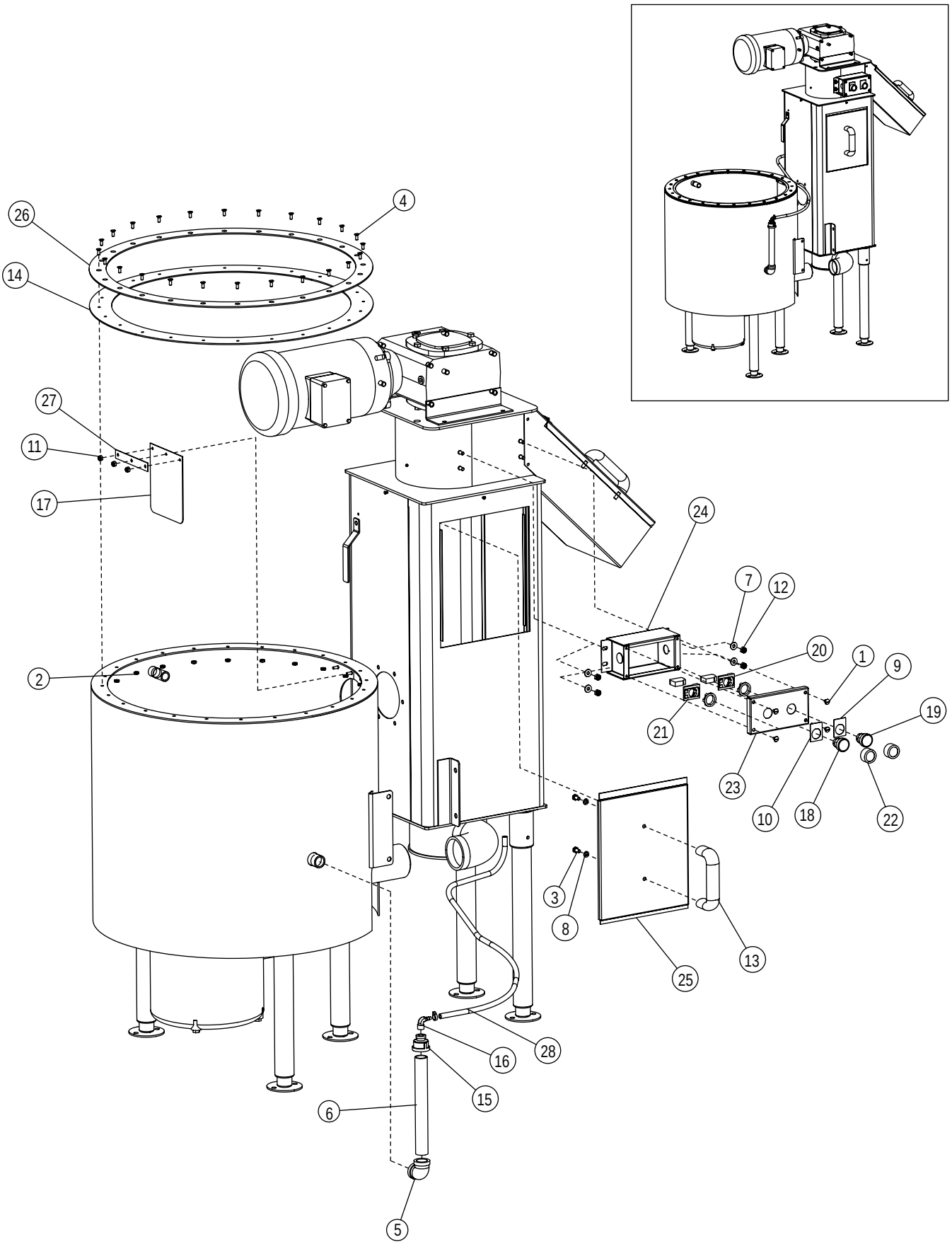
Pulper Assembly - Inner View





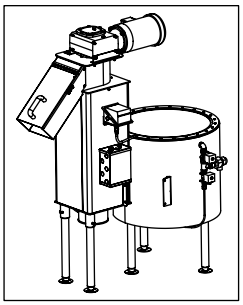
Item No.	Part No.	Description	Qty.
1	100153	BOLT, HEX HD., 3/8-16 X 1" SST	3
2	100736	BOLT, HEX HD., 1/4-20 X 3/4" SST	4
3	100746	BOLT, HEX HD., 3/8-16 X 1-1/4" SST	1
4	100747	BOLT, HEX HD., 1/2-13 X 1" SST	6
5	102409	COUPLING, 1/8" NPT	1
6	102563	BOLT, HEX HD., 3/8-16 X 3/4" SST	6
7	106314	BOLT, HEX HD., 3/8-16 X 1/2" SST	3
8	106407	WASHER, LOCK, 3/8 SPLIT SST	11
9	106482	WASHER, LOCK, 1/4 SPLIT SST	4
10	107589	WASHER, LOCK, 1/2 SPLIT SST	6
11	109814	ELBOW, 1/4 OD X 1/8 NPT, PLASTIC	1
12	110495	MOTOR, 5HP, PULPER DRIVE, MV/3PH.....P5	1
----	111743	MOTOR, 5HP, PULPER DRIVE, 575V/3PH.....P5	1
----	111411	MOTOR, 5HP, PULPER DRIVE, 380V/3PH.....P5	1
----	110496	MOTOR, 7.5HP, PULPER DRIVE, MV/3PH.....P7	1
13	110611	SEAL ASSY, PULPER SHAFT	1
14	110617	CAP SCREW, 3/8-16 X 1/2" LG. SOC. HD.	4
15	110618	CAP SCREW, 3/8-16 X 1" LG. SOC. HD.	3
16	110620	LEG ASSY, PULPER	3
17	110989	NIPPLE, 1/8" NPT X 8" LG. SST	1
18	112447	CAP SCREW, 3/8-16 X 5/8" LG. SOC HD.	4
19	113901	CUTTING BLADE, ROTATING, PULPER	2
20	204474	PUMPING VANE, PULPER	2
21	312391	CAP, DISC PULPER	1
22	312393	SEAL, RETAINER, PULPER	1
23	312394	HUB, DISC, PULPER	1
24	312400	SIZING RING, PULPER	1
25	312787	DISC, CUTTING BLADE P5	1
26	113900	CUTTER BLOCK, STATIONARY.....P5	3
---	113900	CUTTER BLOCK, STATIONARY.....P7	4
27	113278	KEY, 3/8" X 3/8" X 1"	1

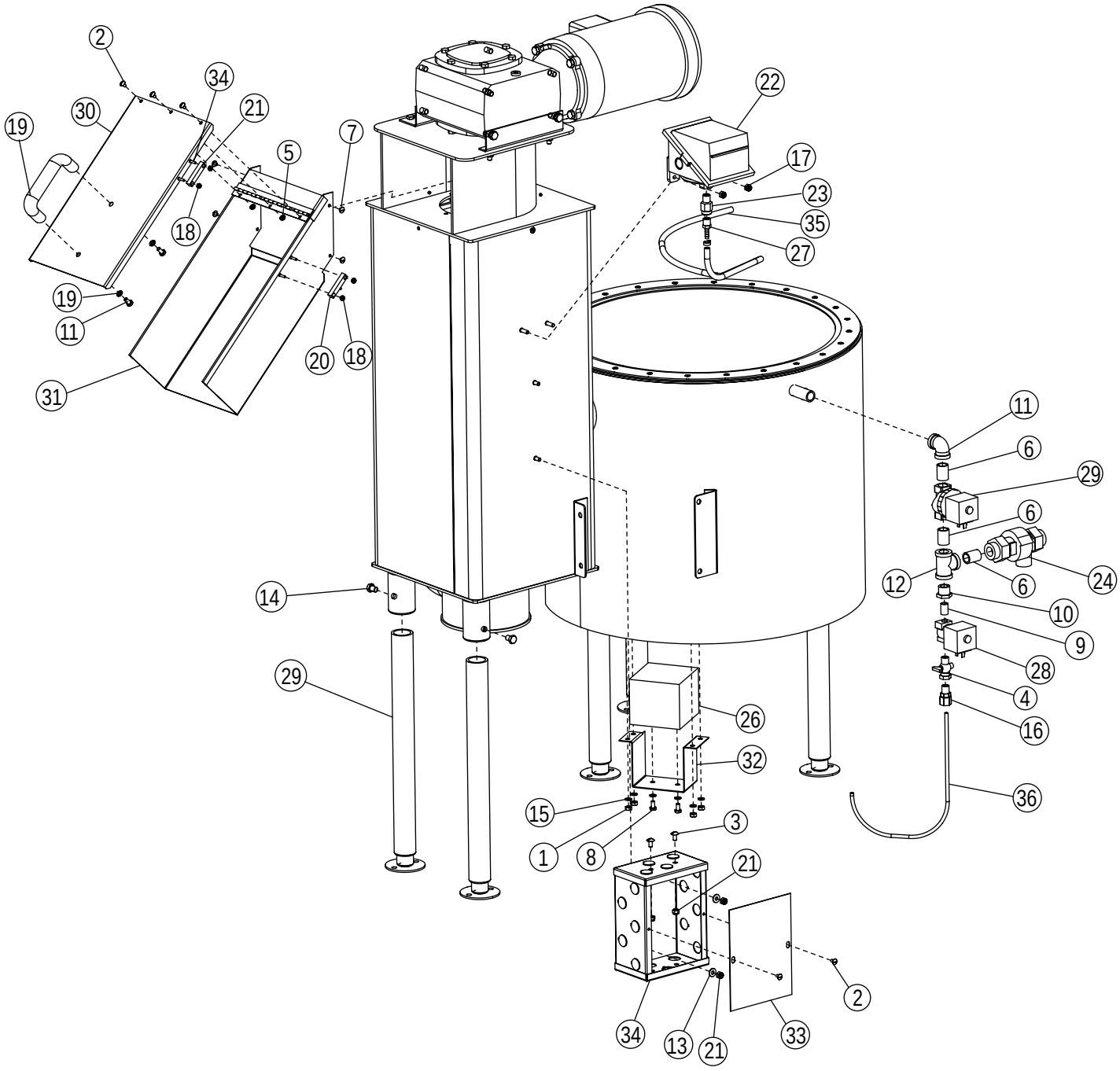
Water Extractor/Pulper Assembly - Front Outer View



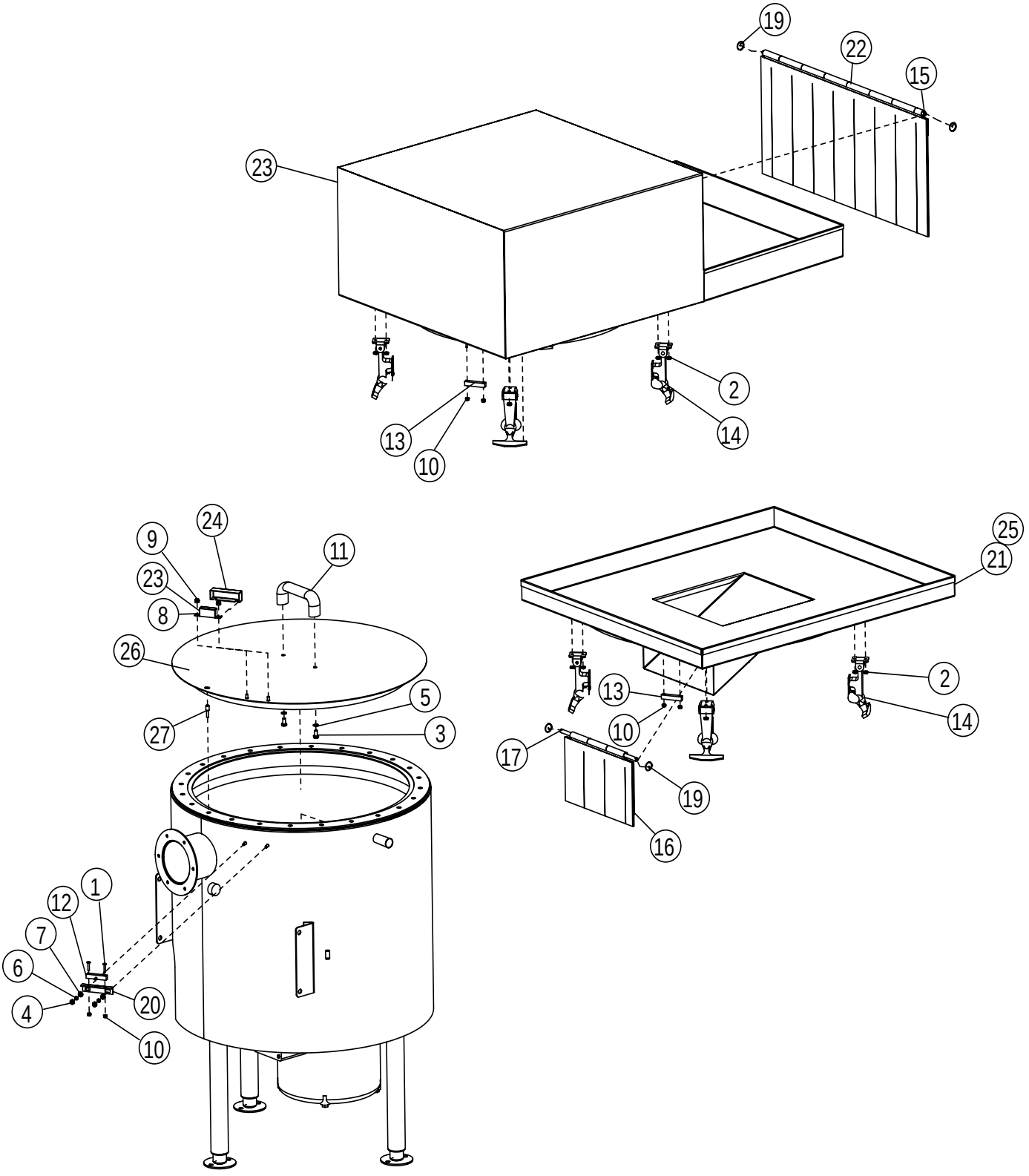
Item No.	Part No.	Description	Qty.
1	100007	SCREW, TRUSS HD. 10-32 X 3/8" SST	4
2	100194	HEX GRIP NUT, 10-32 SST	4
3	100734	BOLT, HEX HD., 1/4-20 X 1/2" SST	2
4	100754	SCREW, FLAT HD., 10-32 X 1/2 SST	24
5	102442	ELBOW, 3/4" NPT, X 90° BRASS	1
6	102669	NIPPLE, 3/4" NPT X 8-1/2" LG. BRASS	1
7	106026	WASHER, FLAT	4
8	106482	WASHER, LOCK 1/4 SPLIT, SST	2
9	112823	NAMEPLATE, STOP	1
10	112822	NAMEPLATE, START	1
11	107966	HEX GRIP NUT, 10-32 SST W/NYLON	3
12	107967	HEX GRIP NUT, 1/4-20 SST W/NYLON	4
13	108966	HANDLE, DOOR	2
14	110596	GASKET, PULPER TANK RING 24"	1
---	113311	GASKET, PULPER TANK RING 27"	1
---	113336	GASKET, PULPER TANK RING 30"	1
15	110654	COUPLING, RED. 3/4" NPT X 1/4" NPT BRASS	1
16	110656	HOSE, BARB, 1/4" MPT X 1/4"OD X 90°	1
17	110872	GUARD, FLOW RETURN, PULPER	1
18	111614	PUSHBUTTON ASSY., GREEN	1
19	111615	PUSHBUTTON ASSY., RED	1
20	111616	CONTACT BLOCK, NC START/STOP	1
21	111617	CONTACT BLOCK, NO START/STOP	1
22	113140	BOOT, PUSHBUTTON	2
23	307831	COVER, START/STOP SST	1
24	307833	ENCLOSURE, BOX SST	1
25	312397	ACCESS DOOR, WATER EXTRACTOR	1
26	312480	RING, PULPER TANK 24"	1
---	325940	RING, PULPER TANK 27"	1
---	326077	RING, PULPER TANK 30"	1
27	313415	MTG. STRIP, FLOW-BACK GUARD	1
28	108150	TUBING, 1/4 ID, CLEAR	6FT.

Water Extractor/Pulper Assembly - Rear Outer View





Item No.	Part No.	Description	Qty.
1	100003	HEX PLAIN NUT, 1/4-20 SST	4
2	100007	SCREW, TRUSS HD., 10-32 X 3/8" SST	8
3	100073	SCREW, TRUSS HD. 1/4-20 X 1/2" SST	2
4	100123	PETCOCK, 1/4" NPT FEMALE, BRASS	1
5	100194	HEX GRIP NUT, 10-32 SST	3
6	100209	NIPPLE, 1/2" X CLOSE, BRASS	3
7	100213	SCREW, TRUSS HD. 10-32 X 1/4" SST	4
8	100734	BOLT, HEX HD., 1/4-20 X 1/2" SST	4
9	100947	NIPPLE, 1/4" X CLOSE BRASS	1
10	102388	BUSHING, RED. 1/2" NPT X 1/4" NPT BRASS	1
11	102435	ELBOW, 1/2"NPT X 90° BRASS	1
12	102514	TEE, 1/2" NPT BRASS	1
13	106026	WASHER, FLAT 1/4 SST	2
14	106314	BOLT, HEX HD., 3/8-16 X 1/2" SST	2
15	106482	WASHER, SPLIT 1/4 SST	8
16	107065	ADAPTER, 1/4 OD X 1/4 MPT PLASTIC	1
17	107967	HEX GRIP NUT, 1/4-20 SST W/NYLON	6
18	108954	HEX GRIP NUT, 6-32 SST W/NYLON	4
19	108966	HANDLE, DOOR	1
20	109934	SWITCH, MAGNET DOOR SWITCH	1
21	109935	MAGNET, DOOR SWITCH	1
22	110525	PRESSURE, SWITCH PULPER	1
N/S	111264	SWITCH, MICRO PRESSURE SWITCH	1
23	110545	SNUBBER, PRESSURE SWITCH	1
24	110551	BACKFLOW PREVENTER, 1/2" NPT BRONZE	1
25	110620	LEG ASSY.	5
26	110640	MAGNET SILVER SAVER	1
27	110655	HOSE BARB, 1/4" MPT X 1/4" OD	1
28	110675	VALVE, SOLENOID 1/4" 120VAC	1
---	112152	REPAIR KIT, 1/4" SOLENOID VALVE	1
---	110549	COIL, SOLENOID VALVE 120VAC	1
29	110676	VALVE, SOLENOID 1/2" 120VAC	1
---	109902	REPAIR KIT, 1/2" SOLENOID VALVE	1
---	110549	COIL, SOLENOID VALVE 120VAC	1
30	312686	LID, DISCHARGE CHUTE	1
31	312695	DISCHARGE CHUTE	1
32	313319	BRACKET, MAGNET MTG. PULPER	1
33	313402	COVER, WIREWAY 6" X 8"	1
34	313403	WIREWAY, 8"	1
35	108150	TUBING, 1/4" ID X 3/8" OD CLEAR	6FT.
36	0502667	TUBING, 1/4" ID X 3/8" OD WHITE	6FT.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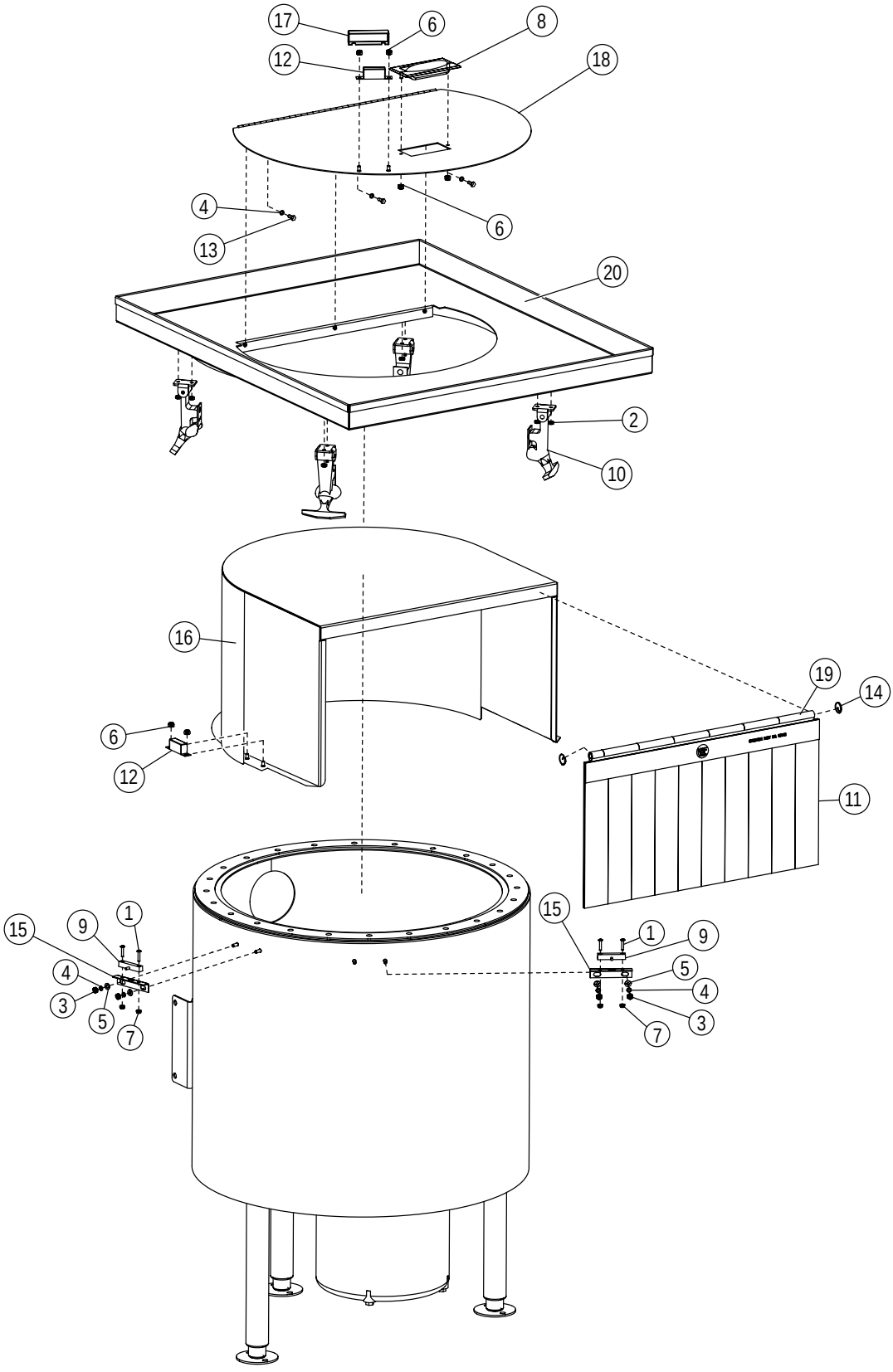
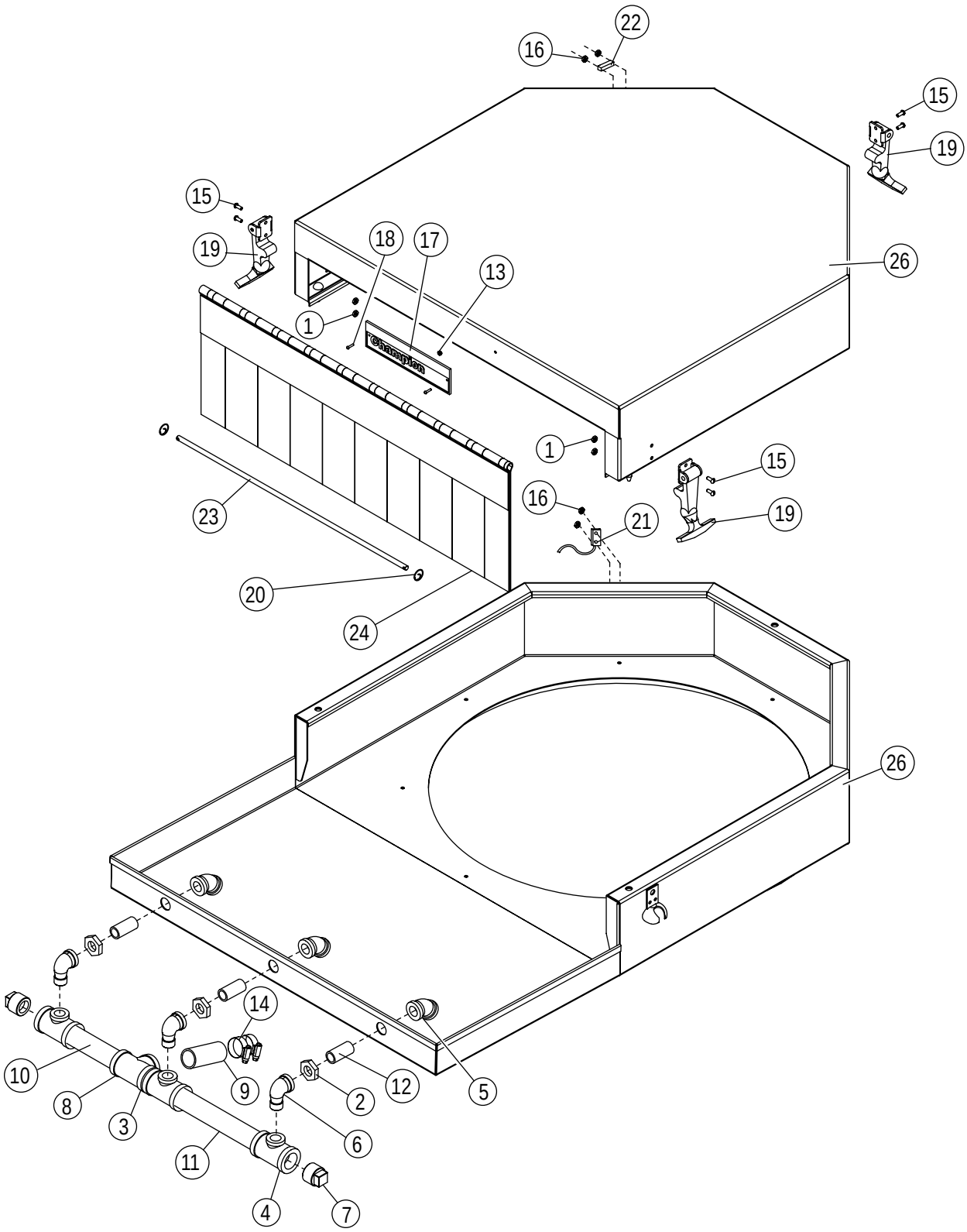
Item No.	Part No.	Description	Qty.
1	107654	SCREW, TRUSS HD., 6-32 X 1" SST	2
2	100194	HEX GRIP NUT, 10-32 SST	24
3	100734	BOLT, HEX HD., 1/4-20 X 1/2" SST	2
4	104985	HEX PLAIN NUT, 10-32 SST	2
5	106482	WASHER, LOCK 1/4 SPLIT SST	2
6	106486	WASHER, LOCK #10 SPLIT SST	2
7	107033	WASHER, FLAT SST	2
8	107135	WASHER, FLAT SST	1
9	107966	HEX GRIP NUT 10-32 SST W/NYLON	2
10	108954	HEX GRIP NUT, 6-32 SST W/NYLON	8
11	108966	HANDLE, DOOR	1
12	109934	MAGNETIC, SWITCH DOOR	1
13	109935	MAGNET, DOOR SWITCH	3
14	110593	LATCH ASSY. PULPER FEED TRAY	12
15	110763	CURTAIN, FEED TRAY W/HOOD	1
16	110890	CURTAIN, FEED TRAY	2
17	110891	ROD, CURTAIN FEED TRAY 24", PULPER	2
18	111026	MAGNET	1
19	113489	COTTER PIN, CIRCLE	6
20	309753	BRACKET, UC DRIVE SWITCH	1
21	312475	FEED TRAY	1
22	313228	ROD, CURTAIN FEED TRAY W/HOOD 24" PULPER	1
23	313229	FEED TRAY W/HOOD 24" PULPER	1
24	314187	COVER, MAGNET	1
25	316145	FEED TRAY P5-24	1
26	316147	MANHOLE, COVER P5-27	1
27	320985	ALIGNMENT PIN, MANHOLE COVER	1

Feed Tray with Hinged Lid - Pulper Assembly

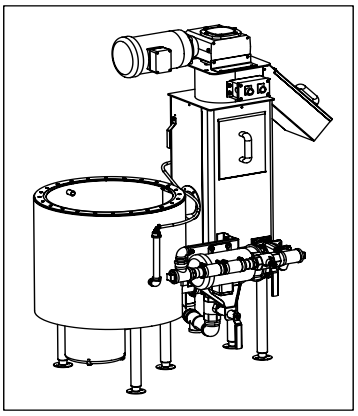


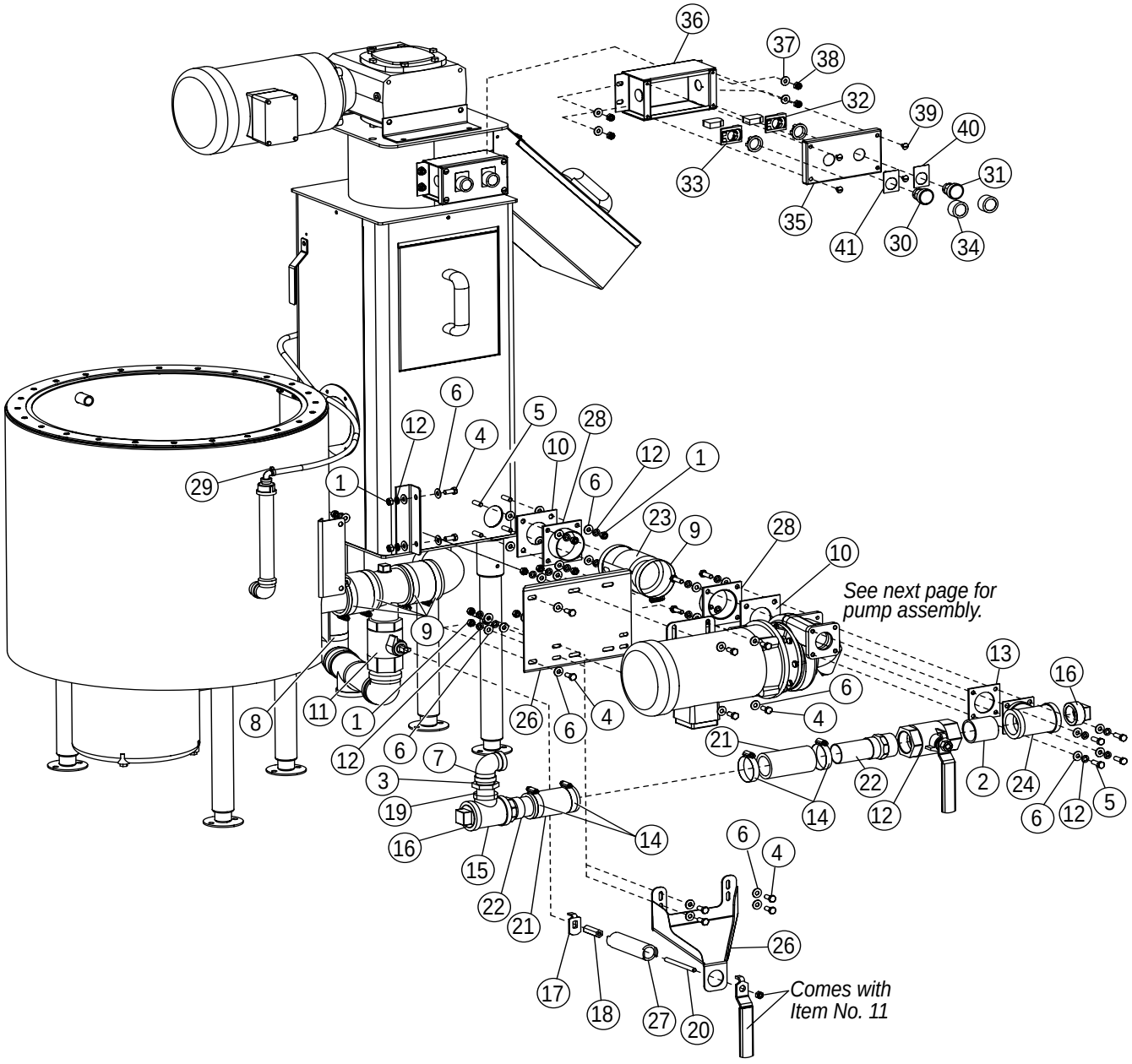
Item No.	Part No.	Description	Qty.
1	107654	SCREW, TRUSS HD., 6-32 X 1" SST	4
2	100194	HEX GRIP NUT, 10-32 SST	8
3	104985	HEX PLAIN NUT, 10-32 SST	4
4	106486	WASHER, LOCK #10 SPLIT SST	7
5	107033	WASHER, FLAT SST	4
6	107966	HEX GRIP NUT 10-32 SST W/NYLON	6
7	108954	HEX GRIP NUT, 6-32 SST W/NYLON	4
8	109666	HANDLE	1
9	109934	MAGNETIC, SWITCH DOOR	2
10	110593	LATCH ASSY. PULPER FEED TRAY	4
11	110762	CURTAIN, UNDER-TABLE FEED HOOD, PULPER	1
12	111026	MAGNET	2
13	111478	SCREW, HEX HD., 10-32 X 1/2" SST	3
14	113489	COTTER PIN, CIRCLE	2
15	309753	BRACKET, UC DRIVE SWITCH	2
16	313230	FEED HOOD, UNDER-TABLE 24" PULPER	1
17	314187	COVER, MAGNET	1
18	319877	LID, FEED TRAY	1
19	321147	ROD, CURTAIN	1
20	327100	FEED TRAY, 26" X 31" HINGED LID	1

Two Piece Feed Tray with Flushing Nozzles - 30" Pulper Assembly

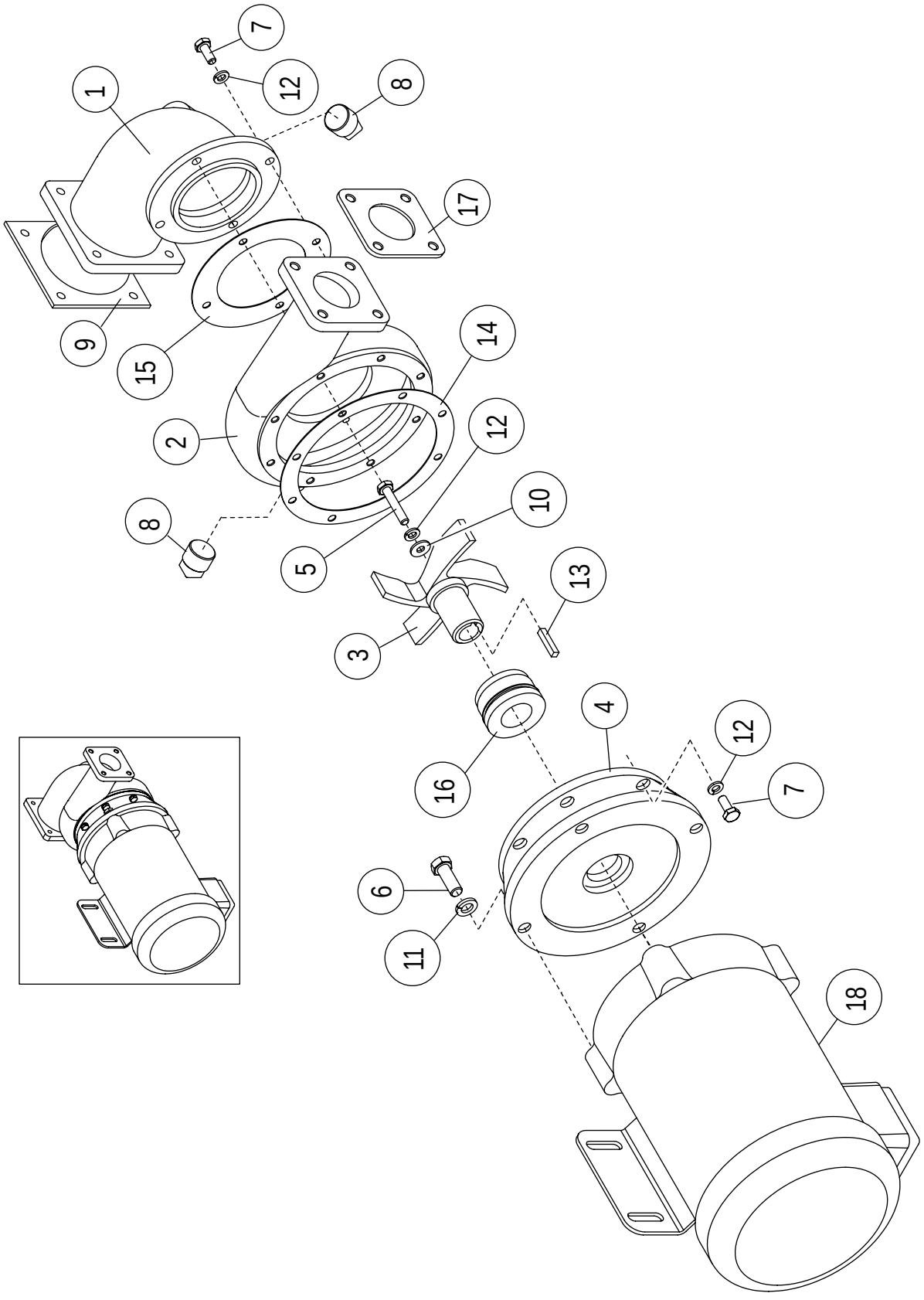


Item No.	Part No.	Description	Qty.
1	100194	HEX GRIP NUT, 10-32 SST	6
2	100709	LOCKNUT, 1/2" NPT, BRASS	3
3	101000	NIPPLE, 1" NPT X CLOSE	1
4	101026	TEE, RED, 1" X 1" X 1/2" NPT BRASS	3
5	102434	ELBOW, 1/2" NPT X 45°	3
6	102438	ELBOW, STREET 1/2" NPT X 90° BRASS	3
7	102507	PLUG, 1" NPT, SQ. HD., BRASS	2
8	102528	TEE, 1" NPT BRASS	1
9	107261	NIPPLE, 1" NPT, X 3" LG. BRASS	1
10	102767	NIPPLE, 1" NPT X 5" LG. BRASS	1
11	102775	NIPPLE, 1" NPT X 8" LG. BRASS	1
12	103435	NIPPLE, RTOE X 1/2" NPT, X 1-3/4" LG. BRASS	3
13	107016	HEX GRIP NUT, 4-40 SST W/NYLON	2
14	107340	CLAMP, HOSE M28 SST GEAR-TYPE	2
15	107525	SCREW, ROUND HD. 10-32 X 1/2" SST	6
16	108954	HEX GRIP NUT, 6-32 SST W/NYLON	4
17	109158	NAMEPLATE, CHAMPION	1
18	110110	SCREW, ROUND HD. 4-40 X 1/2" SST	2
19	110593	LATCH ASSY. PULPER FEED TRAY	3
20	113489	COTTER PIN, CIRCLE	2
21	113719	REED SWITCH, ALEPH	1
22	113937	MAGNET, REED SWITCH	1
23	206332	ROD, CURTAIN FEED TRAY 3O" PULPER	1
24	206737	CURTAIN, MODIFIED 30" PULPER	1
25	331168	FEED TRAY, BOTTOM	1
26	331172	FEED TRAY, TOP	1




See next page for pump assembly.
Comes with Item No. 11

Item No.	Part No.	Description	Qty.
1	100154	HEX PLAIN NUT, 5/16-18 SST	16
2	100173	NIPPLE, 1-1/2" X 2" LG. BRASS	1
3	100585	LOCKNUT, 1" NPT BRASS	1
4	100739	BOLT, HEX HD., 5/16-18 X 3/4" SST	12
5	100740	BOLT, HEX HD., 5/16-18 X 1" SST	12
6	102376	WASHER, FLAT	44
7	102448	ELBOW, 1" NPT X 90º BRASS	1
8	104165	CLAMP, HOSE M40 SST GEAR-TYPE	2
9	104203	CLAMP, HOSE M52 SST GEAR-TYPE	6
10	109568	GASKET, PUMP SUCTION	1
11	104751	BALL VALVE, 1-1/2" NPT BRONZE	2
12	106013	WASHER, LOCK 5/16" SPLIT SST	24
13	106990	GASKET, PUMP DISCHARGE	1
14	107340	CLAMP, HOSE M28 SST GEAR-TYPE	4
15	111709	TEE, RED, 1-1/2" X 1" NPT BRASS	1
16	111080	PLUG, 1-1/2" NPT SQ. HD. BRASS	2
17	111134-2	STOP BRACKET, EXTENDED BALL VALVE HANDLE	1
18	111134-5	STEM, EXTENDED BALL VALVE HANDLE	1
19	111157	NIPPLE, RTOE, 1" NPT X 2-1/2" LG. BRASS	1
20	113329	ROD, THREADED, 5/16-18 X 4" LG. SST	1
21	202291	HOSE, 1-5/8" ID X 4" LG.	2
22	204731	STUB END, PULPER	2
23	204535	HOSE, PUMP SUCTION	1
24	315147	FLANGE TEE WELDMENT, RECIRC PUMP	1
25	326045	BASE PLATE, FRT MTD RECIRC PUMP	1
26	326050	BRACKET DRAIN, HANDLE SUPT.	1
27	326052	EXTENSION, BALL VALVE HANDLE	1
28	326054	FLANGE WELDMENT, P5 RECIRC PUMP	2
29	103378	TIE, WRAP	2
30	111614	PUSHBUTTON ASSY., GREEN	1
31	111615	PUSHBUTTON ASSY., RED	1
32	111616	CONTACT BLOCK, NC START/STOP	1
33	111617	CONTACT BLOCK, NO START/STOP	1
34	113140	BOOT, PUSHBUTTON	2
35	307831	COVER, START/STOP SST	1
36	307833	ENCLOSURE, BOX SST	1
37	106026	WASHER, FLAT	4
38	107967	HEX GRIP NUT, 1/4-20 SST W/NYLON	4
39	100007	SCREW, TRUSS HD. 10-32 X 3/8" SST	4
40	112823	NAMEPLATE, STOP	1
41	112822	NAMEPLATE, START	1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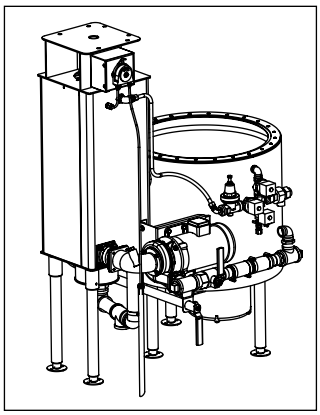
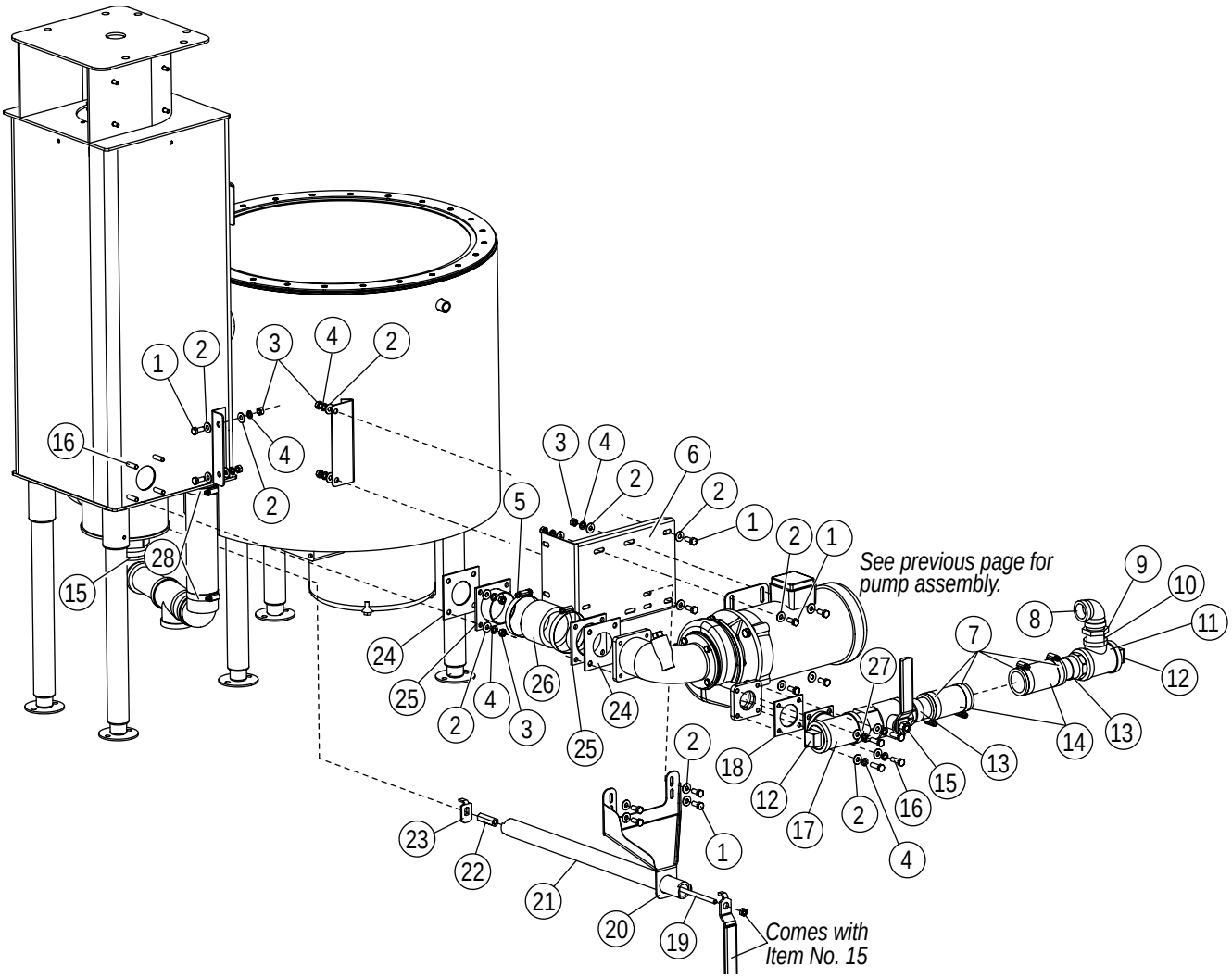
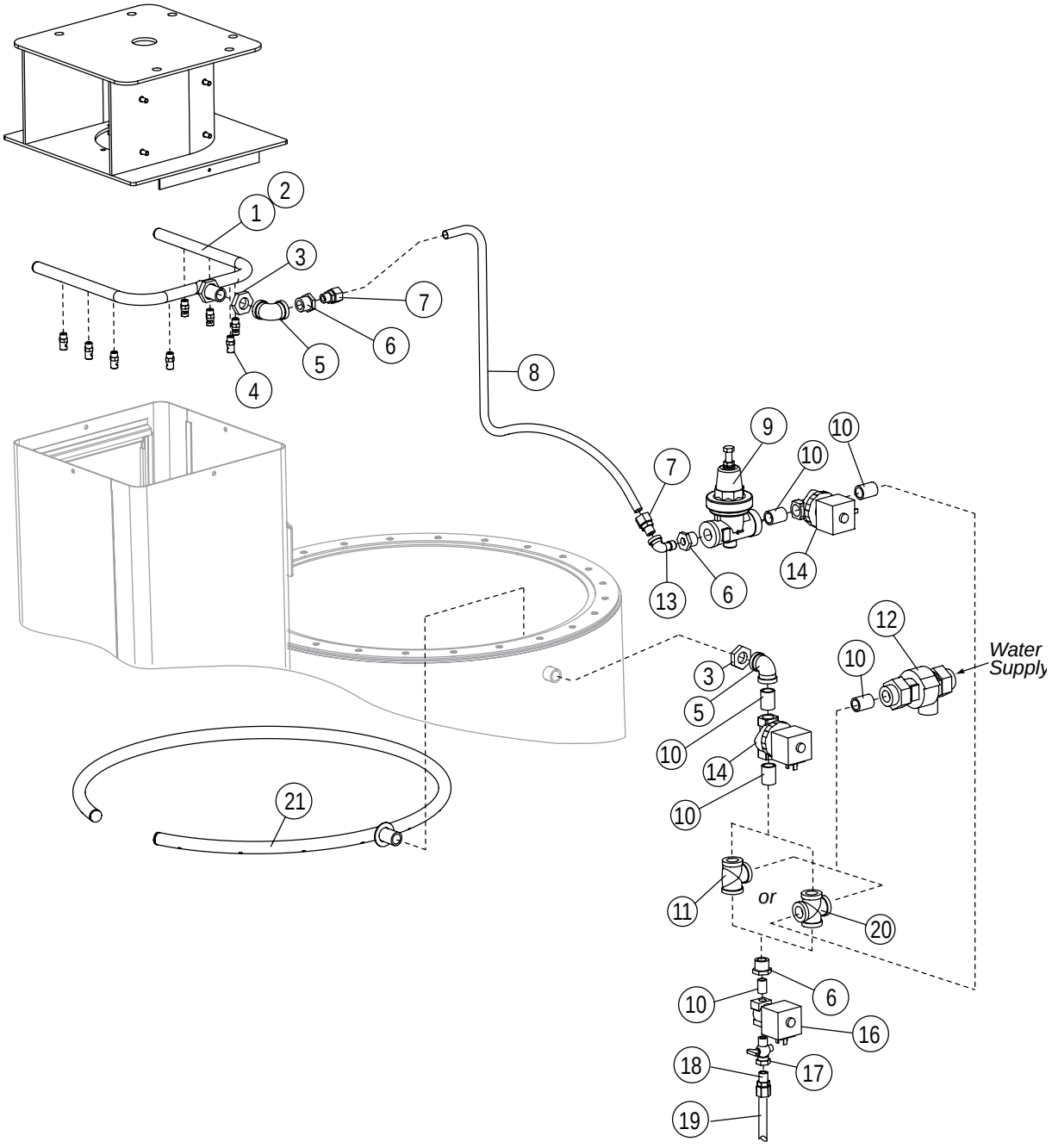
Item No.	Part No.	Description	Qty.
1	C3819	PUMP SUCTION, MACHINED	1
2	D4820	PUMP DISCHARGE HOUSING	1
3	12799-1	IMPELLER	1
4	14269-1	HOUSING, PUMP SEAL	1
5	100002	BOLT, HEX HD. 1/4-20 X 1-3/8" SST	1
6	100153	BOLT, HEX HD. 3/8-16 X 1" SST	4
7	100735	BOLT, HEX HD. 1/4-20 X 5/8" SST	12
8	102504	PIPE PLUG, 1/2" NPT BRASS	2
9	104638	GASKET, PUMP SUCTION	1
10	107364	WASHER, FIBER, 1/4 iD X 7/8 OD	1
11	106407	WASHER, LOCK 3/8" SPLIT SST	1
12	106482	WASHER, LOCK 1/4" SPLIT SST	13
13	106619	KEY, 3/16" X 3/16" LG. SST	1
14	109678	GASKET, FIBER	1
15	109679	GASKET, FIBER	1
16	110276	PUMP SEAL 1"	1
17	106990	GASKET, PUMP DISCHARGE	1
18	113326	MOTOR, 1HP 208-240, 480V/60/3PH	1
---	204725	MOTOR, 3/4HP 208-240, 480V/60/3PH	1
---	180287	MOTOR, 3/4HP 575V/60/3PH	1
---	112678	MOTOR, 3/4HP 200V/50-60/3PH	1
---	111413	MOTOR, 3/4HP 380V/50/3PH	1
---	180409	MOTOR, 3/4HP 415V/50/3PH REWOUND	1
---	114843	MOTOR, 2HP 380V/50/3PH	1




See previous page for pump assembly.
Comes with Item No. 15

Item No.	Part No.	Description	Qty.
1	100739	BOLT, HEX HD., 5/16-18 X 3/4" SST	12
2	102376	WASHER, FLAT 5/16 SST	40
3	100154	HEX PLAIN NUT, 5/16-18 SST	16
4	106013	WASHER, LOCK 5/16-18 SST	24
5	104203	CLAMP, HOSE M52 SST GEAR-TYPE	4
6	326045-1	BASE PLATE, FRONT MTD, RECIRC PUMP	1
7	107340	CLAMP, HOSE M28 SST GEAR-TYPE	4
8	102448	ELBOW, 1" NPT X 90º BRASS	1
9	100585	LOCKNUT, 1" NPT BRASS	1
10	111157	NIPPLE, RTOE, 1" NPT 2-1/2" LG. BRASS	1
11	111079	TEE, RED. 1-1/2" X 1-1/2" X 1" NPT BRASS	1
12	111080	PLUG, 1-1/2" NPT SQ. HD. BRASS	2
13	204731	STUB END, PULPER	2
14	202291	HOSE, 1-5/8" ID X 4" LG.	2
15	104751	BALL VALVE, 1-1/2" NPT BRONZE	2
16	100740	BOLT, HEX HD., 5/16-18 X 1" SST	12
17	315147	FLANGE/TEE, WELDMENT RECIRC PUMP	1
18	106990	GASKET, PUMP DISCHARGE	1
19	113331	ROD, THREADED 5/16-18 X 19-1/2" SST	1
20	326050	BRACKET, DRAIN HANDLE SUPT.	1
21	326065	EXTENSION, BALL VALVE HANDLE	1
22	111134-5	STEM, EXTENDED BALL VALVE HANDLE	1
23	111134-2	STOP BRACKET, EXTENDED BALL VALVE HANDLE	1
24	104638	GASKET, PUMP SUCTION	1
25	326054	FLANGE, WELDMENT, RECIRC PUMP	2
26	205435	HOSE, PUMP SUCTION	1
27	100173	NIPPLE, 1-1/2" NPT X 2" LG. BRASS	1
28	104165	CLAMP, HOSE M40 SST, GEAR-TYPE	2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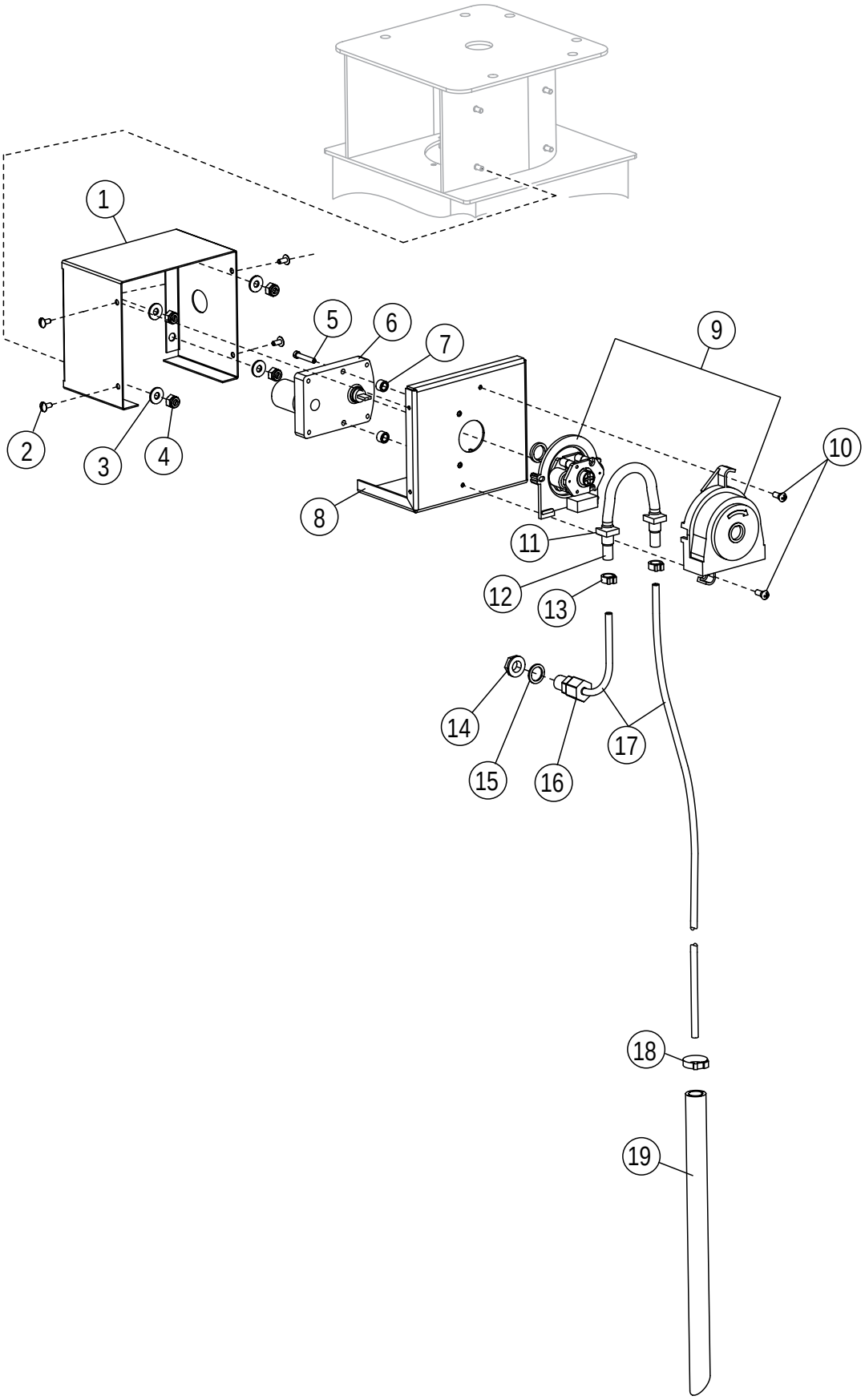
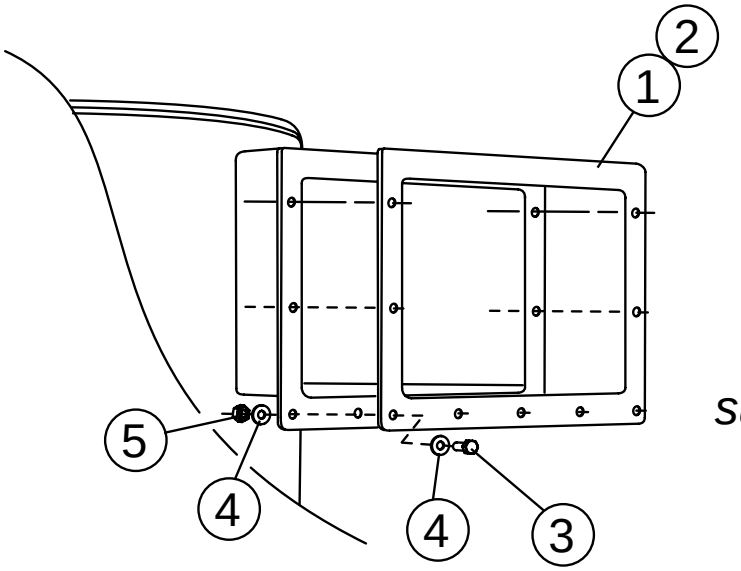
Item No.	Part No.	Description	Qty.
1	317171	SPRAY ARM WELDMENT	1
2	314131	SPRAY ARM ASSY., (Includes Item Nos. 1,3, 4)	1
3	100547	LOCKNUT, 1/2" NPT BRASS	3
4	111518	NOZZLE, SPRAY, K-4	8
5	102435	ELBOW, 1/2" NPT X 90º BRASS	2
6	102388	BUSHING, RED., 1/2" NPT X 1/4" NPT BRASS	3
7	109909	FITTING, COMP 1/2" OD X 1/4" MPT BRASS	2
8	107380	TUBING, 1/2" TYPE L COPPER	A/R
9	108265	VALVE, PRESSURE REG., 1/2" NPT BRONZE	1
10	100209	NIPPLE, 1/2" X CLOSE BRASS	5
11	102514	TEE, 1/2" NPT BRASS	1
12	110551	BACKFLOW PREVENTER, 1/2" NPT BRONZE	1
13	101261	ELBOW, STREET, 1/4" NPT X 90º BRASS	1
14	110676	VALVE, SOLENOID, 1/2" NPT W/DIN PLUG	2
---	109902	REPAIR KIT, 1/2" SOLENOID VALVE	1
---	110549	COIL, SOLENOID VALVE 120VAC	1
15	100947	NIPPLE, 1/4" NPT X CLOSE BRASS	1
16	100675	VALVE, SOLENOID 1/4" NPT W/DIN PLUG	2
---	112152	REPAIR KIT, 1/4" SOLENOID VALVE	1
---	110549	COIL, SOLENOID VALVE 120VAC	1
17	100123	PETCOCK, 1/4" NPT FEMALE BRASS	2
18	107065	ADAPTER, 1/4 OD X 1/4 MPT PLASTIC	2
19	0502667	TUBING, 1/4" ID X 3/8" OD, WHITE	A/R
20	100598	CROSS, 1/2" NPT BRASS	1
21	316653	TUBE, WELDMENT, PULPER FLUSHING	1

Deodorizer Pump Assembly - Pulper/Water Extractor

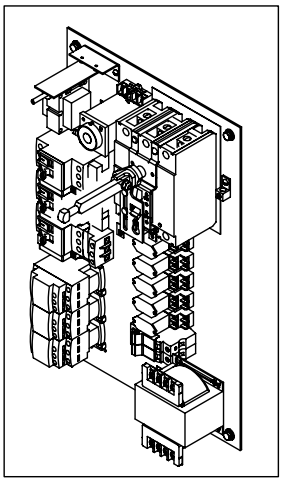


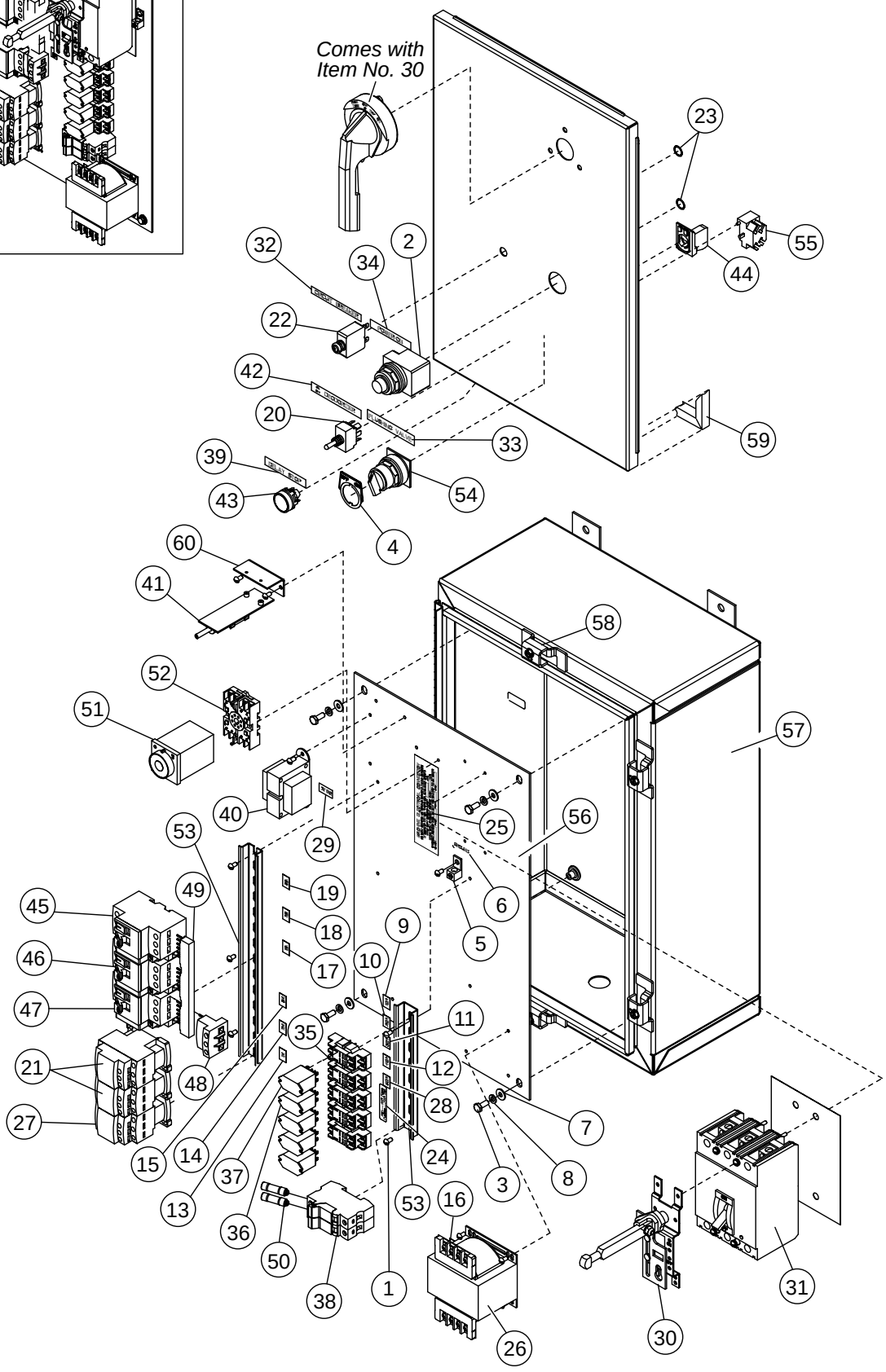
Item No.	Part No.	Description	Qty.
1	317006	BOX, DEODORIZER	1
2	104624	SCREW, TRUSS HD. 8-32 X 3/8" SST	4
3	106026	WASHER, FLAT, 1/4 SST	4
4	107967	HEX GRIP NUT, 1/4-20 SST W/NYLON	4
5	107970	SCREW, FILLISTER HD. 8-32 X 1" SST	2
6	111509	MOTOR/GEAR REDUCER, DEODORIZER PUMP	1
7	108173	SPACER, SST	2
8	317007	COVER, DEODORIZER BOX	1
9	111511	PUMP ASSY, DEODORIZER	1
10	111510	SCREW, SHOULDER, ROUND HD. 10-24 X 1/2" SST	2
11	111513	COLLAR, DISPENSING PUMP HOSE	2
12	111512	TUBE ASSY., DEODORIZER PUMP	1
13	108411	CLAMP, HOSE SNP-2	2
14	110856	LOCKNUT, 1/4" PLASTIC	1
15	110750	GASKET, 1/4" PLASTIC	1
16	107065	ADAPTER, 1/4" OD X 1/4 MPT, PLASTIC	2
17	0502667	TUBING, 1/4" id X 3/8" OD, WHITE	A/R
18	108412	CLAMP, HOSE SNP-6	1
19	107931	TUBE, PICK-UP	1
---	111514	DEODORIZER PUMP ASSY., COMPLETE (INCLUDES ITEMS 6, 9, 10, 11, 12)	1



Feed trough supplied by others

Item No.	Part No.	Description	Qty.
1	111873	GASKET, PULPER, 9" TROUGH	1
2	113324	GASKET, PULPER 12" TROUGH	1
3	111478	BOLT, HEX HD. 10-32 X 1/2" SST	9
4	107033	WASHER, FLAT	9
5	107966	GRIPNUT, HEX HD., 10-32 SST W/NYLON INSERT	9

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Item No.	Part No.	Description	Qty.
1	100095	SCREW, ROUND HD., 10-32 X 3/8" SST	14
2	100302	PILOT LIGHT, 120VAC, RED	1
3	100735	BOLT, HEX HD., 1/4-20 X 5/8" SST	4
4	102292	NAMEPLATE, ON-OFF	1
5	103310	GROUND, LUG	1
6	104873	LABEL, GROUND	1
7	106026	WASHER, FLAT 1/4 SST	4
8	106482	WASHER, LOCK 1/4 SST	4
9	106975	LABEL, 1CR	1
10	106976	LABEL 2CR	1
11	106977	LABEL, 3CR	1
12	106978	LABEL, 4CR	1
13	106980	LABEL, 1M	1
14	106981	LABEL, 2M	1
15	107096	LABEL, 3M	1
16	107098	LABEL, XFMR	1
17	107099	LABEL, 1MOL	1
18	107100	LABEL, 2MOL	1
19	107101	LABEL, 3MOL	1
20	107351	SWITCH, TOGGLE DPDT, ON/NONE/OFF	1
21	--- * ---	CONTACTOR, 3 POLE 120VAC COIL (Water Extractor & Recir. Pmp.)	A/R
22	108311	CIRCUIT BREAKER, 3 AMP	1
23	108370	LOCK WASHER, ELECTRICAL	2
24	108498	LABEL, MAX FUSE AMP	1
25	108615	LABEL, MACH ELECTRICAL CONNECTION	1
26	--- * ---	STEP-DOWN TRANSFORMER, 250VA	1
27	--- * ---	CONTACTOR, MOTOR 3 POLE 120VAC COIL (Pulper Drive)	1
28	110346	LABEL, 5CR	1
29	110348	LABEL, 24V XFRM	1
30	110541	SHAFT, CIRCUIT BREAKER	1
31	--- * ---	CIRCUIT BREAKER	1
32	110612	NAMEPLATE, CIRCUIT BREAKER	1
33	110613	NAMEPLATE, FLUSHING VALVE	1
34	110628	NAMEPLATE, POWER ON	1
35	111036	SOCKET, RELAY, 2 POLE, 10A	5
36	111067	RELAY, 2 POLE, 10A, 24VAC COIL	1
37	111068	RELAY, 2 POLE, 10A, 120VAC COIL	4
38	111153	FUSE HOLDER ASSEMBLY	2
39	111162	NAMEPLATE, DELAY STOP	1
40	111277	TRANSFORMER, 120VAC:24VAC	1
41	111508	CIRCUIT BD. DEODORIZER SPEED CONTROL	1
42	111523	NAMPLATE, DEODORIZER ON/OFF	1
43	111615	PUSHBUTTON ASSY. RED	1
44	111617	CONTACT BLOCK, NO. START/STOP	1

(CONTINUED ON NEXT PAGE

ATTENTION

***** Refer to the Remote Control Cabinet Component Selection Chart at the end of the manual.

Item No.	Part No.	Description	Qty.
45	--- * ---	MOTOR STARTER OVERLOAD (Optional Recirculating Pump)	A/R
46	--- * ---	MOTOR STARTER OVERLOAD (Water Extractor Drive)	A/R
47	--- * ---	MOTOR STARTER OVERLOAD (Pulper Drive)	A/R
48	111636	BUS CONNECTOR, 3 POLE	1
49	--- * ---	BUS SYSTEM, 3 POLE	1
50	111822	FUSE, ATDR 5 AMP	2
51	112351	TIMER, OMRON	1
52	112352	SOCKET, OMRON TIMER	1
53	113769	RAIL, DIN	A/R
54	114194	SWITCH, SELECTOR	1
55	114195	CONTACT BLOCK, N.O., 2-POLE (use with 114194)	1
56	312583	PANEL, INNER	1
57	313114	CONTROL CABINET, WELDMENT	1
58	107860	CLIPS, DOOR HOLD-DOWN	4
59	107431	GASKET, DOOR 3/8" X 3/4" X 12"	A/R
60	317008	BRACKET, DEODORIZER SPEED CONTROL BD.	1

ATTENTION

***** Refer to the Remote Control Cabinet Component Selection Chart at the end of the manual.

Electrical Schematic

Remote Control Cabinet
Component Selection Chart

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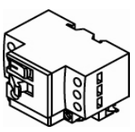
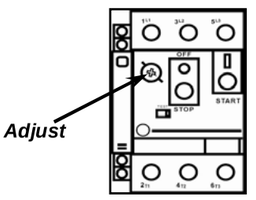
Remote Control Cabinet Component Selection Chart

Motor Overloads ● Motor Contactors ● Bus Systems
Step-down Transformers ● Circuit Breakers

Motor Starter Overload *(Items 45, 46, 47)*



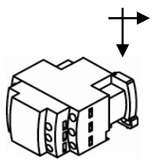
Voltage (VAC)	208-240V/60/3	480V/60/3	575/60/3	380/50/3	415/50/3
Motor (HP)					
PULPER DRIVE					
5 HP	111632	111629	111629	111630	113161
7.5 HP	113810	113161	113161		113161
WATER PRESS					
2 HP	111629	111627	111627	111627	111627
3 HP	113161	111628	111628		111628
RECIRC. PUMP					
3/4 HP	111628	111625	111625	111626	111626
1 HP	111628	111626	111626		



Motor Overload Range and Setting

Part No.	Range (Amps)	Setting
111625	1.0 - 1.6	1.5
111626	1.6 - 2.4	2.0
111627	2.5 - 4.0	3.0
111628	4.0 - 6.3	6.0
111629	6.0 - 10.0	9.0
111630	13.0 - 18.0	16.0
111632	20.0 - 25.0	23.0
113161	9.0 - 14.0	12.0
113810	24.0 - 32.0	26.0

Motor Contactor *(Item 27)*

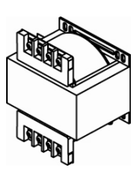


Voltage (VAC)	208-240V/60/3	480V/60/3	575/60/3	380/50/3	415/50/3
Motor (HP)					
PULPER DRIVE					
5 HP	109582	109582	109582	109582	109582
7.5 HP	109582	109582	109582	109582	109582
WATER PRESS					
2 HP	108122	108122	108122	108122	108122
3 HP	108122	108122	108122	108122	108122
RECIRC. PUMP					
3/4 HP	108122	108122	108122	108122	108122
1 HP	108122	108122	108122	108122	108122

Bus System *(Item 49)*

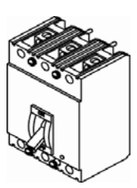
Voltage (VAC)	208-240V/60/3	480V/60/3	575/60/3	380/50/3	415/50/3
3-unit motor system	111671	111671	111671	111671	111671
2-unit motor system	111633	111633	111633	111633	111633

Step-down Transformer *(Item 26)*

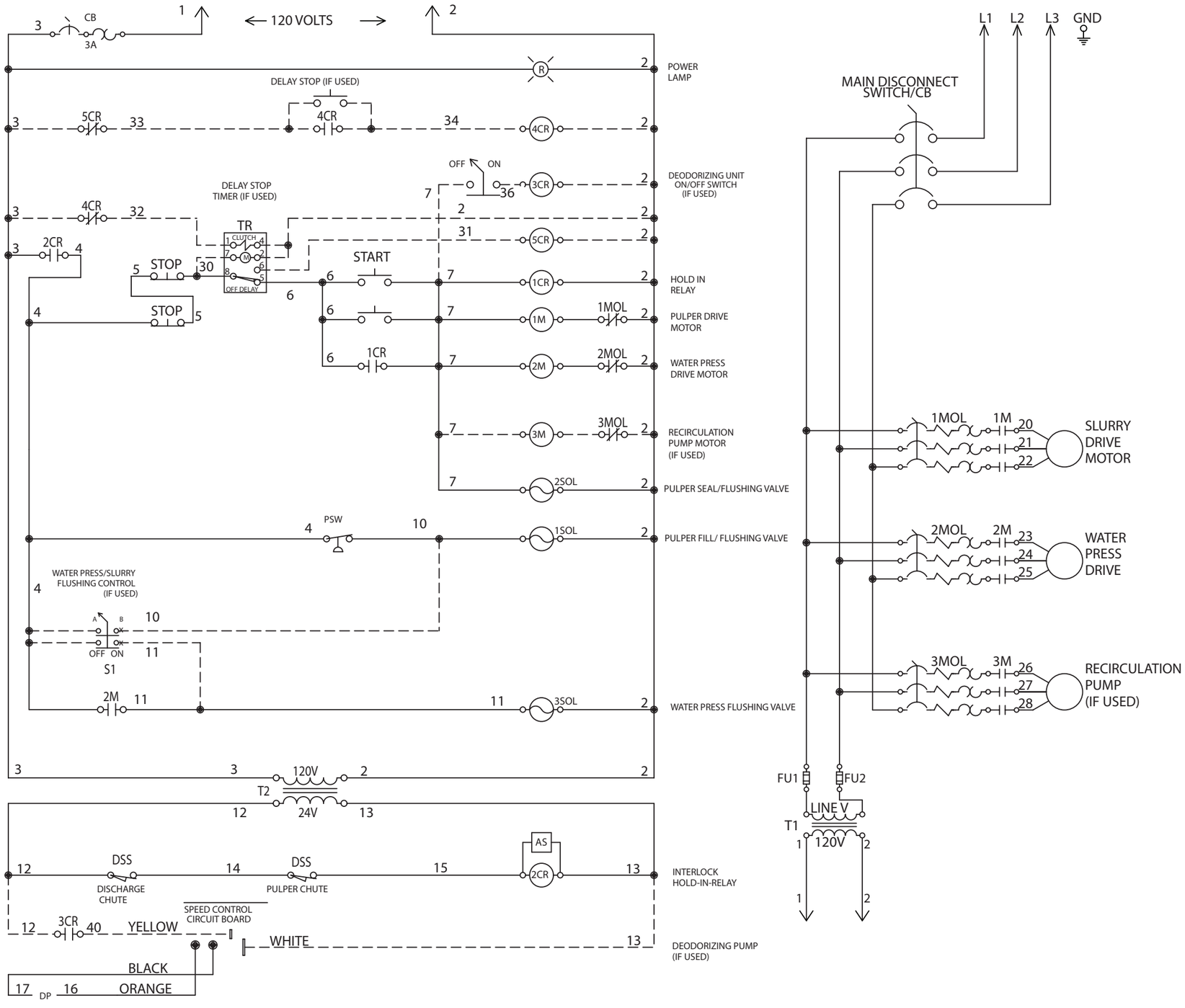


Voltage (VAC)	208-240V/60/3	480V/60/3	575/60/3	380/50/3	415/50/3
	109064	109064	111521	111464	111464
	45 A	25A	25A	25A	25A

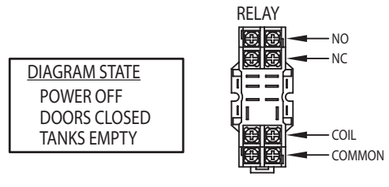
Circuit Breaker *(Item 31)*



Voltage (VAC)	208-240V/60/3	480V/60/3	575/60/3	380/50/3	415/50/3
	110589	110587	110587	110587	110587



1CR	HOLD-IN RELAY
2CR	DOOR INTERLOCK RELAY
3CR	DEODORIZING UNIT RELAY
4CR	DELAY STOP RELAY
5CR	DELAY STOP HOLD IN RELAY
7CR	BOOSTER HEAT HOLD-IN RELAY
1M	PULPER DRIVE MOTOR CONTACTOR
1MOL	PULPER DRIVE MOTOR OVERLOAD
2M	WATER PRESS MOTOR CONTACTOR
2MOL	WATER PRESS MOTOR OVERLOAD
3M	RECIRCULATION MOTOR CONTACTOR
3MOL	RECIRCULATION MOTOR OVERLOAD
1SOL	PULPER FILL/FLUSHING VALVE
2SOL	SEAL FLUSHING VALVE
3SOL	WATER PRESSS FLUSHING VALVE
AS	ARC SUPPRESSOR
CB	CIRCUIT BREAKER
DP	DEODORIZING PUMP
DSS	DOOR SAFETY SWITCH
FU	FUSE/FUSE BLOCK
PSW	PRESSURE SWITCH
S1	WATER PRESS/SLURRY FLUSH SW.
T1	120V CONTROL TRANSFORMER
T2	24V CONTROL TRANSFORMER
TR	DELAY STOP TIMER



PULPER
B/701012 Rev.J