

Start-Up Check List Procedure

'Close Coupled'

This check list will cover Close Coupled Systems. This Start-up Check List will go through a step by step procedure on how to perform a "start-up and demonstration".

Because of individual circumstances SOMAT cannot predict all of the problems that you may find , therefore if you have questions please call the service department for help and or clarification at 800-237-6628 ext. 126

Walk through the system with the contractor so that he can show you the location of all the equipment and the location of all electrical disconnects. For a Close Coupled unit the equipment will be at one location.

Drawings:

The (F) Final drawing will show the height dimension and layout of the equipment. This may need to be checked if the equipment interfaces with wall openings etc. All equipment has been manufactured to approved prints. It also shows the plumbing as to what was supplied by SOMAT and what was to be supplied by " Others ".

The (FE) Final Electric drawing will show all information needed by the electrician plus the control logic for the system. This drawing will show what was wired by SOMAT and what was to be supplied by " Others ".

HIGH TANK MODELS

General Layout

1. Equipment installed Per Dwg. F- (final)
2. Anti-Vibration Pads installed under the pulper and extractor.
3. Check that the unit is level and plumb
4. Gasket installed between the pulper inlet and the trough.
5. If the system has a tray be sure the gasket and anti-bacterial curtain are installed.

Plumbing; Piping sizes are NOT to be reduced !

1. Confirm all piping is in accordance with Dwg. F- (final)
2. Fresh water supply line for SP-50 is 1/2" and for SP-75 3/4". The equipment must have adequate water supply to operate properly. The plumbing print will call out the required PSI.
3. Insure proper pipe bracing.
4. Overflow line; There is a 1 1/2" bulkhead fitting coming off the side of extractor shell that needs to be piped to the floor sink or floor drain.
Pulper drain valve located between the pulper and extractor to be piped to the floor sink.

5. Review trough-piping details, making sure each nozzle is properly sized (no ½ “ nozzles), all trough nozzles / inlets must be valved with supplied 1” gates. (no ball valves accepted)
6. Air line / stand pipe: On the side of the pulper tank is 3/4" x 10" standpipe. At the top of the stand pipe there is a 3/4"x3/8" 90 degree elbow and at the 3/8" port there is a 3/8"x3/8" male connector. The 3/8" airline is installed here and goes back to the pressure switch located in the control panel.

Electrical

1. Confirm that Som-A-Trol panel is properly installed.
2. Check for proper voltage (3 Phase) according to electric print / Dwg. FE- (final electric)
3. Inspect interconnecting wiring **between panel and junction box**. (confirm proper connections)
4. Set / confirm overload settings per Dwg. FE- (final electric)
5. Check motor rotations and correct as needed. (pulper drive, extractor drive, return pump)

Power on Testing

1. Close all drains and lids
2. Turn on power, release stop lock out. (unit should Pre-fill; if not check fresh water supply)
3. Adjust pressure switch in panel to turn water off within 1” of trough opening, or 7” if tray fed. (Drain and repeat, water should stop at set level)
4. Press “Green” start button, check for leaks. (If no leaks, start gate valve adjustments.)
5. Trough / tray valves (start with furthest valves from pulper) adjust to approx. 40 gpm. for SP-50 and 60 gpm for SP-75 (if system has a silversaver, this nozzle should just trickle in enough to keep waste from settling in sump area.)
6. After valves are set, a constant level will be seen in the pulper and the extractor should have an over-flow of approx. 1-3 gpm. If over-flow is extreme open the valves in the trough to increase flow, if no over-flow then reduce settings for proper over-flow.
7. Monitor correct amp draw on all motors and record on start up form.

(Special attention to return pump motor for overramping!)

After all valves are set and the system is operating and balanced, tighten packing glands, remove handles and place in panel for “Maintenance Personnel “ only.

Default Settings / Throttling Valves

After the system is balanced and running properly the default settings of the throttling valves need to be recorded. Record the settings on the table located inside the electric panel and also on the start up form to be sent back to the factory. Start at the end farthest away from the pulper and work towards the pulper. Close the valve and count the number of turns open. Record this on the table as number of turns open, re-open and confirm setting as correct. NOTE: Even ¼ turn change is critical on some systems. Continue with the remainder of the throttling valves until all are correct and recorded properly.

These settings are important should the operators make unauthorized adjustments, in order to eliminate nuisance service calls !

Demonstration to Customer / Operators: See Demonstration page.

UDT MODELS

General Layout

1. Equipment installed Per Dwg. F- (final)
2. Anti-Vibration Pads installed under the pulper and extractor.
3. Check that the unit is level and plumb.
4. Gasket installed between the pulper inlet and the trough.
5. Check that the UDT cone adapter is installed properly in the center of the pulper opening.
6. If the unit is a UDT model; Refer to Detail A on the (F) Drawing.
 - A. Check that the cone adapter is welded in properly.
 - B. Distance between the top of the pulper and the table 2" (Must have for motor removal)
 - C. Inspect the UDT gasket for proper installation. (Common error)
 - D. Be sure the lid fits properly and the limit switch activates.

Plumbing **Piping sizes are NOT to be reduced !**

1. Confirm all piping is in accordance with Dwg. F- (final)
2. Fresh water supply line for SP-50 is 1/2" and for SP-75 3/4". The equipment must have adequate water supply to operate properly. See (F) Drawing for PSI required.
3. Insure proper pipe bracing.
4. Overflow: There is a 1 1/2" bulkhead fitting coming off the side of extractor shell that needs to be piped to the floor sink or floor drain.
5. Pulper drain valve located between the pulper and extractor to be piped to the floor sink.
6. Air line / stand pipe: On the side of the pulper tank is 3/4" x 10" standpipe. At the top of the stand pipe there is a 3/4"x3/8" 90 degree elbow and at the 3/8" port there is a 3/8"x3/8" male connector. The 3/8" airline is installed here and goes back to the pressure switch located in the control panel.

ELECTRICAL: Refer to (FE) final electric prints.

1. Confirm that Som-A-Trol panel is properly installed.
2. Check for proper voltage (3 Phase) according to electric print / Dwg. FE- (final electric)
3. Inspect interconnecting wiring **between panel and junction box**. (Confirm proper connections)
4. Set / confirm overload settings per Dwg. FE- (final electric)
5. Check motor rotations and correct as needed. (Pulper drive, extractor drive, return pump)

Power on Testing

1. Close all drains and lids
2. Turn on power, release stop lock out. (Unit should Pre-fill; if not ck fresh water supply)
3. Adjust pressure switch in panel to turn water off within 1/2" of trough opening.
(Drain and repeat, water should stop at set level)
4. Press "Green" start button, check for leaks. (If no leaks, start gate valve adjustments.)

5. Trough / tray valves (start with furthest valves from pulper) adjust to approx. 40 gpm for SP-50 and 60gpm for SP-75. (If system has a silversaver, this nozzle should just trickle in enough to keep waste from settling in sump area.)
6. After valves are set, a constant level will be seen in the pulper and the extractor should have an over-flow of approx. 1-3 gpm. If over-flow is extreme open the valves in the trough to increase flow, if no over-flow then reduce settings for proper over-flow.
7. Monitor correct amp draw on all motors and record on start up form.
(Special attention to return pump motor for overamping!)

After all valves are set and the system is operating and balanced, tighten packing glands, remove handles and place in panel for "Maintenance Personnel " only.

Default Settings / Throttling Valves

After the system is balanced and running properly the default settings of the throttling valves need to be recorded. Record the settings on the table located inside the electric panel and also on the start up form to be sent back to the factory. Start at the end farthest away from the pulper and work towards the pulper. Close the valve closed and count the number of turns. Record this on the table as number of turns open, re-open and confirm setting as correct. NOTE: Even 1/4 turn change is critical on some systems. Continue with the remainder of the throttling valves until all are correct and recorded properly.

These settings are important should the operators make unauthorized adjustments, in order to eliminate nuisance service calls!

Demonstration to Customer / Operators: See Demonstration page.

Demonstration to the Operators (Close Coupled Systems)

1. Turn main disconnect on the panel to the on position.
2. Close all drain valves, pulper and silver-saver.
3. Close pulper and chute lids.
4. Release the latch on the stop button. (Explain the 'pre-fill' for the system)
While the pulper is pre-filling instruct them on what can be put into the equipment; all food waste, paper products, cooked bones, Styrofoam and some small plastic. Also explain what not to put into the system, like metal (silverware), glass, rags anything that would be considered non-pulpable.
5. Instruct on feeding; not to put food waste into the trough without the system turned on and the return flow coming down the trough to push the waste into the pulper. Do not 'slug feed' the system. (Dumping large quantities of waste at one time, the system is designed for steady continuous feeding.)
7. After they have put the last of the waste into the system tell them to let it run for a minimum of 10 minutes after the last waste is fed before pushing the stop button to turn the system off.
8. If the unit is equipped with a rinse system they should turn the selector switch to "Empty" and let the machine time out.
7. Turn the main disconnect off.
8. Open the pulper lid and scoop out any of the floatables left.
9. Open the drain valves at the pulper and silver-saver.
10. With a hot water hose and toilet bowl brush clean the inside of the pulper. Make sure that the underside of the lip is cleaned. Remove any waste and non-pulpables left in the bottom of the pulper.
11. Remove the access door from the extractor, using the hot water hose and brush clean the inside of the extractor shell and screen.
12. Have the operators start and shut down the system to insure they understand the proper procedures.
13. Have the managers and operators sign the start-up form and turn the system over to them.
14. Wish them happy pulping!