

PRESSURE CABINETS

PROBLEM	CAUSE	SOLUTION
1. Poor Visibility.	Motor rotating backwards.	The motor should rotate as indicated by the arrow on the housing. If it does not rotate in the proper direction, lockout and tagout the power supply and switch the motor leads as shown on the motor
	Outlet damper closed too far restricting air movement in cabinet	Adjust outlet damper.
	Inlet damper closed too far restricting air entering cabinet.	Adjust inlet damper.
	Using friable media that rapidly breaks down, or using media that is too fine or worn out.	Switch to a recyclable media, and purge the cabinet of worn media.
	Hole worn in flex hose between cabinet hopper and reclaimer inlet. If RP collector is used also check hose between the reclaimer outlet and dust collector inlet.	Inspect hose and replace as needed.
	Obstruction in flex hose between the cabinet hopper and reclaimer inlet.	Inspect hose and clear obstruction as required.
	Reclaimer door open.	Close reclaimer door.
	Paddle wheel worn.	Inspect wheel and replace as needed.
	Dry filter: Dirty tube filters.	Dry Filter: Shake tube filters, and empty dust drawer regularly.
	RP Dust Collector: Dirty filter cartridges	RP Dust Collector: Increase pulse pressure and or cycle time.
2. Abnormally High Media Consumption	Door on reclaimer open or improper fit or worn door gasket.	Correct as needed. Air entering the reclaimer at this point will cause media to be carried into the dust collector.
	Dust collector damper open too far	Adjusts static pressure.
	Using friable media that rapidly breaks down.	Switch to recyclable media.
	Media too fine.	If using very fine media (200 mesh and finer), the inlet baffle of the reclaimer may need to be removed. Consult the factory before proceeding with this option.
	Nozzle pressure too high for the media, causing media to break down.	If application allows, lower nozzle pressure.
	Hole worn in reclaimer or leak in reclaimer seam.	Check entire reclaimer for negative-pressure leaks.
	Optional externally adjustable vortex cylinder out of adjustment	Adjust vortex cylinder.

PRESSURE CABINETS CONTINUED

PROBLEM	CAUSE	SOLUTION
3. Reduction in Blast Cleaning Rate	Low media level reducing media flow.	Check media level and media as needed..
	Incorrect metering valve adjustment.	Adjust metering valve flow rate.
	Reduced air pressure. This may be caused by a malfunctioning regulator, a dirty filter element in air filter, partially closed air valve, leaking air line, or other air tools in use.	Inspect air supply and correct condition as needed.
	Blockage in nozzle.	Depressurize the blast machine and inspect the nozzle. Blockage may occur as a result of a damaged or missing reclaimers, debris screen. Replace screen as needed.
	Moist media	Frequent bridging or blockage in the area of the metering valve can be caused by moisture. See Problem No.4.
4. Media Bridging	Moist or Damp Media	Frequent bridging or blockage in the media metering valve can be caused by damp media. Media becomes damp by blasting parts that are slightly oily, from moisture in the compressed air line, or from absorption.
	Media contamination from workpiece	To avoid contaminating media, all parts put into the cabinet should be clean and dry. If parts are oily or greasy, degrease and dry them prior to blasting.
	Moist compressed air	Moist air may be due to a faulty compressor that overheats, or pumps oil or moisture into the air line, too long an air line permitting moisture to condense on the inside, and from high humidity. Drain filters and receiver tank regularly. If the problem persists, it may be necessary to change media more often, or install an aftercooler or air dryer.
	Media absorbing moisture from air.	Some media tends to absorb moisture from the air, especially fine-mesh media in high humidity areas. Empty the media and store it in an airtight container when cabinet is not in use.
5. Neither Media Nor Air Comes Out the Nozzle When the Foot Pedal is Pressed	Nozzle plugged.	Depressurize the blast machine, and check the nozzle to see if it is plugged. If plugged, inspect reclaimers debris screen.
	Blast machine is not pressurizing.	See Problem Number 9.
	Media metering valve and choke valve closed.	Make sure metering valve and choke valve are open.

PRESSURE CABINETS CONTINUED

PROBLEM	CAUSE	SOLUTION
6. Blast Machine Does Not Depressurize or Depressurizes Too Slowly	Mufflers in 4-way control valve blocked.	Remove the mufflers and check for blockage.
	3-Way valve in foot pedal not functioning.	Make sure the 3-way valve in the foot pedal exhausts air when pedal is released. If it does not, check the line for blockage, and check the switch for fault.
	Outlet muffler (located inside of cabinet plugged).	Inspect muffler for blockage and replace as needed.
	4-Way valve not functioning.	Inspect 4-way valve as instructed in Problem No. 8.
7. Heavy Media Flow	Choke valve closed.	Make sure the choke valve is open.
	Media metering valve open too far.	Adjust media metering valve. If adjusting the media valve does not regulate media flow, empty the machine, depressurize the machine, and inspect the internal parts of the valve for wear.
8. Air Only (no media) Comes Out the Nozzle	Machine empty.	Make sure the machine contains media.
	Media metering valve closed.	Adjust metering valve.
	Blockage in metering valve	Fully opening the metering valve, and close the choke valve. Activate the foot pedal to blow out obstructions. If this procedure fails, depressurize the machine, open the metering valve clean out cap and check for foreign objects.
	Muffler on 4-way valve blocked	Air should exhaust from the mufflers when the foot pedal is pressed. If air does not exhaust, remove the muffler and try again. If air exhausts now, the muffler is blocked. If air still does not exhaust, the 4-way valve may be faulty.
	4-Way valve not functioning correctly.	Check the 4-way valve as follows: Depressurize the air supply line. Remove the tubing leading to either the media metering valve or diaphragm outlet valve. Pressurize the air supply line. No air should exhaust from the tube adaptor. Press the foot pedal, air should start exhausting at the adaptor, and stop when pressure on the pedal is released. If it does not operate accordingly, the 4-way valve is probably faulty.
9. Blast Machine Does Not Pressurize	Compressed air supply off.	Make sure that the air compressor is on and air supply valves are open.
	Pressure regulator turn off or set too low.	Make sure the pressure regulator is not turned down. Minimum pressure is 40 psi.
	Door interlocks not engaging	Adjust door interlocks.
	Inadequate air supply.	Refer to the owner's manual for compressed air requirements.

PRESSURE CABINETS CONTINUED

PROBLEM	CAUSE	SOLUTION
9. Blast Machine Does Not Pressurize (continued)	Hole in outlet valve diaphragm.	Inspect diaphragm and replace as needed.
	Pop-up valve not sealing.	Inspect pop-up and seat for wear, and replace as needed.
		Pop-up valve out of alignment, align as needed.
	Blocked or leaking control line.	Check all fittings and urethane tubing for blockage or leaks.
	Foot pedal valve malfunction.	Check foot pedal for alignment, and inlet and outlet lines for pressure.
	Control lines reversed.	Make sure the lines are not reversed on the foot pedal or pilot regulator. Refer to the schematic in the owner's manual.
	4-Way valve not functioning correctly.	Inspect 4-way valve as instructed in Problem No. 8.
Flap in check valve broken	Lockout and tagout the compressed air supply and inspect the check valve for obstruction or broken flap.	
10. Static Shocks	Cabinet, part being blasted, and/or operator not grounded. Abrasive blasting creates static electricity.	<p>Make sure the cabinet is grounded to an earth ground.</p> <p>Avoid holding parts off the grate; static will build-up in the part if not dissipated through the metal cabinet.</p> <p>If shocks persist, the operator may be building up static. Attach a small ground wire (such as a wrist strap) from the operator to the cabinet.</p>
11. Dust Leaking From Dust Collector Refer to Section IV to troubleshoot RP dust collector.	Filters or cartridge leaking.	Inspect for damaged or loose filter bags or cartridges. Replace or secure filters as required.
	Dust drawer leaking.	Check for a faulty seal on the dust drawer. Replace seal as needed.
	Upper and/or lower tube sheets leaking.	Make sure the upper and lower tube sheets are sealed on both sides, and front, and rear.

SUCTION CABINETS

PROBLEM	CAUSE	SOLUTION
1. Poor Visibility.	Motor rotating backwards.	The motor should rotate as indicated by the arrow on the housing. If it does not rotate in the proper direction, lockout and tagout the power supply and switch the motor leads as shown on the motor
	Outlet damper closed too far restricting air movement in cabinet	Adjust outlet damper.
	Inlet damper closed too far restricting air entering cabinet.	Adjust inlet damper.
	Using friable media that rapidly breaks down, or using media that is too fine or worn out.	Switch to a recyclable media, and purge the cabinet of worn media.
	Hole worn in flex hose between cabinet hopper and reclaimer inlet. If RP collector is used also check hose between the reclaimer outlet and dust collector inlet.	Inspect hose and replace as needed.
	Obstruction in flex hose between the cabinet hopper and reclaimer inlet.	Inspect hose and clear obstruction as required.
	Reclaimer door open.	Close reclaimer door.
	Paddle wheel worn.	Inspect wheel and replace as needed.
	Dry filter: Dirty tube filters.	Dry Filter: Shake tube filters, and empty dust drawer regularly.
RP Dust Collector: Dirty filter cartridges	RP Dust Collector: Increase pulse pressure and or cycle time.	
2. Abnormally High Media Consumption	Door on reclaimer open, or improper fit or worn door gasket.	Correct as needed. Air entering the reclaimer at this point will cause media to be carried into the dust collector.
	Dust collector damper open too far	Adjusts static pressure.
	Using friable media that rapidly breaks down.	Switch to recyclable media.
	Media too fine.	If using very fine media (200 mesh and finer), the inlet baffle of the reclaimer may need to be removed. Consult the factory before proceeding with this option.
	Nozzle pressure too high for the media, causing media to break down.	If application allows, lower nozzle pressure.
	Hole worn in reclaimer or leak in reclaimer seam.	Check entire reclaimer for negative-pressure leaks.
	Optional externally adjustable vortex cylinder out of adjustment	Adjust vortex cylinder.

SUCTION CABINETS CONTINUED

PROBLEM	CAUSE	SOLUTION
3. Reduction in Blast Cleaning Rate	Low media level reducing media flow.	Check media level and media as needed.
	Media mixture too rich	Adjust the metering valve to correct the media/air mixture.
	Reduced air pressure. This may be caused by a malfunctioning regulator, a dirty filter element in air filter, partially closed air valve, leaking air line, or other air tools in use.	Inspect air supply and correct condition as needed.
	Blockage in media line or gun.	Blockage may occur as a result of a damaged or missing reclaimers debris screen. Replace screen as needed.
		Adjust metering valve to allow additional air to enter the media hose.
	Worn gun parts.	Inspect gun body, nozzle and air jet for wear. Replace worn parts.
	Media hose worn	Inspect hose for leaks and soft spots. Replace worn or damaged hose.
	Air jet out of adjustment.	Refer to cabinet manual and adjust air jet.
Moist media	Frequent bridging or blockage in the area of the metering valve can be caused by moisture. Refer to Problem No. 4.	
4. Media Bridging	Moist or Damp Media	Frequent bridging or blockage in the media metering valve can be caused by damp media. Media becomes damp by blasting parts that are slightly oily, from moisture in the compressed air line, or from absorption. Refer to Problem No.
	Media contamination from workpiece	To avoid contaminating media, all parts put into the cabinet should be clean and dry. If parts are oily or greasy, degrease and dry them prior to blasting.
	Moist compressed air	Moist air may be due to a faulty compressor that overheats, or pumps oil or moisture into the air line, too long an air line permitting moisture to condense on the inside, and from high humidity. Drain filters and receiver tank regularly. If the problem persists, it may be necessary to change media more often, or install an aftercooler or air dryer.
	Media absorbing moisture from air.	Some media tends to absorb moisture from the air, especially fine-mesh media in high humidity areas. Empty the media and store it in an airtight container when cabinet is not in use.

SUCTION CABINETS CONTINUED

PROBLEM	CAUSE	SOLUTION
5. Neither Media Nor Air Comes Out the Nozzle When the Foot Pedal is Pressed	Nozzle plugged.	Remove the nozzle to see if it is plugged. If plugged, inspect reclaimer debris screen. A damaged or missing reclaimer screen will allow large particles to pass and block the nozzle. Replace or re-install as necessary.
	Blocked or leaking control lines.	Check all urethane tubing for blockage or leaks.
	Compressed air supply off.	Make sure that the air compressor is on and air supply valves are open.
	Pressure regulator turn off or set too low.	Make sure the pressure regulator is not turned down. Minimum pressure is 40 psi.
	Door interlocks not engaging	Adjust door interlocks.
	Inadequate air supply.	Refer to the owner's manual for compressed air requirements.
	Blocked or leaking control line.	Check all fittings and urethane tubing for blockage or leaks.
	Foot pedal valve malfunction.	Check foot pedal for alignment, and inlet and outlet lines for pressure.
Control lines reversed.	Make sure the lines are not reversed on the foot pedal or pilot regulator. Refer to the schematic in the owner's manual.	
6 Media Surge	Media mixture too rich.	Adjust air/media mixture at the metering valve.
7. Air Only (no media) Comes Out the Nozzle	Reclaimer empty	Check media level and refill as needed.
	Blockage in media hose	Media mixture too rich. Adjust air/media mixture at the metering valve.
	Inadequate air supply.	Refer to the owner's manual for compressed air requirements.
	Air jet out of adjustment	Adjust air jet.
	Nozzle worn	Replace nozzle if worn 1/16" or more.
	Wrong size air jet and nozzle combination	Refer to the owner's manual for the correct jet and nozzle combinations.
	Air jet sleeve extends past end of air jet.	Cut the sleeve to align with the air jet.
8. Blow-Back Through Media Hose	Blockage in nozzle.	Remove the nozzle and check for blockage.
	Air jet may be too large for nozzle.	Refer to the owner's manual for the correct jet and nozzle combinations.

SUCTION CABINETS CONTINUED

PROBLEM	CAUSE	SOLUTION
<p>9. Static Shocks</p>	<p>Cabinet, part being blasted, and/or operator not grounded. Abrasive blasting creates static electricity.</p>	<p>Make sure the cabinet is grounded to an earth ground.</p> <p>Avoid holding parts off the grate; static will build-up in the part if not dissipated through the metal cabinet.</p> <p>If shocks persist, the operator may be building up static. Attach a small ground wire (such as a wrist strap) from the operator to the cabinet.</p>
<p>10. Dust Leaking From Dust Collector Refer to Section IV to troubleshoot RP dust collector.</p>	<p>Filters or cartridge leaking.</p>	<p>Inspect for damaged or loose filter bags or cartridges. Replace or secure filters as required.</p>
	<p>Dust drawer leaking.</p>	<p>Check for a faulty seal on the dust drawer. Replace seal as needed.</p>
	<p>Upper and/or lower tube sheets leaking.</p>	<p>Make sure the upper and lower tube sheets are sealed on both sides, and front, and rear.</p>