⚠ WARNING

This section only identifies conditions and problems. It does not show repair procedure and does not identify safety hazards needed to safely service related equipment. Always refer to the appropriate manual and review the service process before servicing equipment.

BLAST MACHINE and REMOTE CONTROLS

PROBLEM	CAUSE	SOLUTION
1. Neither Abrasive Nor Air Exits the Nozzle While the Machine is Under Pressure.	Nozzle plugged.	Depressurize the blast machine. After the pop-up valve has dropped, remove the nozzle, and check it for obstruction.
	Metering valve and choke valve closed.	Make sure that both the abrasive metering valve and choke valve are open.
2. Air Only (no abrasive) Exits the Nozzle.	Metering valve closed.	Adjust metering valve.
	Optional abrasive cut-off (ACS) switch closed.	Make sure ACS switch is in the "on" position.
	Blast machine empty.	Check abrasive level in blast machine and/or storage hopper.
	Damp abrasive.	While blasting, close choke valve to clear obstruction. Also, see Problem No. 5 and No. 6.
	Obstruction in metering valve.	Depressurize the blast machine, lockout and tagout the compressed air supply and check metering valve for obstruction.
3. Heavy Abrasive Flow.	Choke valve closed.	Make sure the choke valve is open. The valve is open when the handle is in-line with the piping.
	Abrasive metering valve open too far.	Adjust metering valve.
4. Abrasive Surging. NOTE: A certain amount of surge is normal at start-up.	Excessively rich media mixture.	Adjust metering valve.
	Blockage in abrasive trap or exhaust muffler.	Depressurize the blast machine, check the abrasive trap, and exhaust muffler for blockage. Slow depressurization will load the blast hose with abrasive, and cause surging at start-up. Also, see Problem No. 7.
5. Intermittent Abrasive Flow.	Moisture in the blast machine or air supply.	Drain moisture from the compressor's receiver tank, and the blast machine's filter. If moisture continues, a dryer or after cooler may be required in the air supply line. See problem No. 8.
	Media worn from recycling.	Replace media.

BLAST MACHINE and REMOTE CONTROLS CONTINUED

6. Media Bridging.	Damp media can cause frequent bridging or blockages in the metering valve.	Media becomes damp by blasting parts that are slightly oily, from moisture in the compressed air line, or from absorption.
	When reusing media, look for contamination from the workpiece.	All parts should be clean and dry. If parts are oily or greasy, degrease and dry them prior to blasting.
	Moist compressed air. Faulty compressor pumping moisture into the air line, or from humidity.	Drain the moisture separator and receiver tank regularly. If the problem persists, it may be necessary to change media more often or install an aftercooler or air dryer.
	Absorption.	Some media tends to absorb moisture from the air, especially fine-mesh media in high humidity areas. Store media in a dry area. Store opened media in an airtight container.

7. Blast Machine Does Not Pressurize.	Compressed air supply shut off.	Make sure the compressor is on and all air supply valves to the machine are open.
	Optional door interlocks not engaging.	Check the mechanical and electrical functions of the door interlocks.
	Safety petcock open	Make sure the safety petcock is closed.
	Remote control handle leaking.	Check the rubber button on the control handle for wear or damage, and make sure the opening on the control handle seals when the handle is pressed.
		Press the control handle lever. Feel and listen for air leaks any place on the handle. If there is a leak, it must be located and corrected.
	Leaks in control lines or control line fittings.	Check control lines and fittings for leaks or breaks. All leaks must be located and corrected.
	Blockage in control lines.	Check for air escaping through the opening under the control handle lever. If no air is escaping, check for blockage in the orifice on the inlet valve, or blockage in the control line from the orifice to the control handle. Remove blockage.
		Open the safety petcock, and press the control handle lever; If air does not escape from the petcock, Check the line from the control handle to the return fitting on the inlet valve for blockage. Remove blockage.
	Diaphragm leaking in optional diaphragm outlet valve.	Inspect diaphragm for wear or damage. Replace faulty diaphragm.
	Internal leak in the inlet valve.	Inlet valve requires service. Depressurize the air supply line, lockout and tagout the compressed air supply and service the valve.
	Insufficient-size air supply line.	Check size of supply line. Air supply line should be at least four times the diameter of the nozzle orifice.
	Dirty filter element in air filter.	Depressurize the air supply line, lockout and tagout the compressed air supply and inspect filter element. Replace as necessary.
	Pop-up valve stuck, or internal piping worn, or out of alignment.	Turn off the compressed air supply and inspect internal piping. Replace and realign parts as necessary.

BLAST MACHINE and REMOTE CONTROLS CONTINUED

8. Blast Machine Does Not Depressurize, Or Depressurizes Too Slowly.	Abrasive trap screen blocked, or abrasive trap is full of abrasive.	Make sure machine is depressurized before cleaning the trap at least twice daily.
	Exhaust muffler blocked.	Make sure machine is depressurized before replacing exhaust muffler element.
	Adaptor gasket on the control handle swollen, restricting air flow through the handle.	Inspect gasket, and replace as necessary.
	Blockage in the return line from the inlet valve to the control handle.	Check for blockage in the control hose. Remove blockage or replace hose.
	Check the control handle supply fitting on the inlet valve. It must have a .052" orifice.	Depressurize the air supply line, lockout and tagout the compressed air supply and replace fitting with correct fitting.
	Make sure the inlet valve closes If air can be heard entering the blast machine when it is depressurized, the inlet valve is malfunctioning.	Depressurize the air supply line, lockout and tagout the compressed air supply and service the inlet valve.
	If the outlet valve does not fully exhaust air from the blast machine, the outlet valve is malfunctioning.	Turn off the compressed air supply and service the outlet valve.

9. Outlet Valve Does Not Seal.	Outlet valve requires service.	Turn off the compressed air supply and service the valve.

10. RLX Control Handle Lever Fails to Return to the Up (Non-Blast) Position When Released.	Handle lever binding against the RLX body.	Check the handle lever for interference or damage that prevents it from returning to full "up" position. Replace the handle lever as necessary.
	Return spring damaged or fatigued.	Replace spring.

11. RLX Safety Lever Lock Fails to Pop Up When the Handle is Released.	Lever lock binding.	Check the lever lock for interference or damage that prevents it from returning to full "up" position. Replace the lever lock as necessary.
	Return spring damaged or fatigued.	Replace spring.
12. Abrasive Flow Does Not Stop When the Optional ACS Toggle is Moved to the "OFF" Position.	Exhaust filter on ACS switch clogged.	Replace filter.
	Metering valve requires service.	Depressurize the blast machine, lockout and tagout the air supply and service the metering valve.

BLAST MACHINE and REMOTE CONTROLS CONTINUED

13. No Abrasive When the Optional ACS Toggle is Moved to "ON" Position.	Metering valve closed.	Adjust metering valve.
	Obstruction in abrasive valve or valve requires service	Depressurize blast machine and check metering valve for obstruction. If no obstruction found, service metering valve.
	Air leak or blockage in the single line hose or fittings from the ACS switch to the metering valve	Check control lines and fittings for leaks or breaks. All leaks must be located and corrected. If leaks are not found check for blockage in the control hose. Remove blockage or replace hose.
	Blast machine empty.	Check abrasive level in blast machine and/or storage hopper.

CAT COOL AIR TUBE

PROBLEM	CAUSE	SOLUTION
1. Inadequate Air Flow.	Inlet filter screen partially blocked.	Clean debris from filter screen..
	Low pressure at the point of attachment.	Supply air pressure must be 90 to 100 psi. A pressure regulator and gauge must be installed at the point of attachment (where the respirator supply hose is connected to the respirable air source).
2. Poor Cooling Performance	Inadequate air flow.	Inadequate air flow affects cooling performance. Refer to Problem No.1
	Respirator hose and or air supply hose is located near a heat source.	Make sure that none of the lines that supply compressed air to the cool-air tube is routed near any source of heat, such as a steam radiator, furnace, etc. When possible avoid exposure to direct sunlight.
	Vortex breaker may be loose, worn, or damaged.	Inspect the vortex breaker and repair as needed.

CCT CLIMATE CONTROL TUBE

PROBLEM	CAUSE	SOLUTION
1. Inadequate Air Flow.	Inlet filter screen partially blocked.	Clean debris from filter screen..
	Low pressure at the point of attachment.	Supply air pressure must be 90 to 100 psi. A pressure regulator and gauge must be installed at the point of attachment (where the respirator supply hose is connected to the respirable air source).
2. Poor Heating / Cooling Performance	Inadequate air flow.	Inadequate air flow affects heating and cooling performance. Refer to Problem No.1
	Respirator hose and or air supply hose is located near a heat source.	Make sure that none of the lines that supply compressed air to the climate control tube is routed near any source of heat, such as a steam radiator, furnace, etc. When possible avoid exposure to direct sunlight.
	Vortex breaker may be loose, worn, or damaged.	Inspect the vortex breaker and repair as needed.
	O-Rings at outlet end of the CCT leaking. Leaking o-rings combines hot and cold air.	Replace o-rings.

CAP-4 AMBIENT AIR PUMP

PROBLEM	CAUSE	SOLUTION
1. Low Outlet Pressure at Pump.	Air motor not running at full rpm.	Check inlet pressure, or adjust air-flow valve to increase rpm.
	Air leak in outlet filter.	Make sure the outlet filter bowl gasket is in place, and the bowl is tight against the gasket.
	Air leak in outlet plumbing.	Inspect outlet plumbing for air leaks.
	Manifold drain cock open.	Close drain cock.
	Inlet filter media dirty.	Clean or replace the inlet filter as needed.
	Outlet filter cartridge dirty.	Replace outlet filter cartridge.
	Relief valve set too low	Adjust relief valve.
	Optional intake hose blocked or collapsed.	Inspect intake hose for obstruction.
	Vanes sticking, or dust in pump.	Flush the pump. If flushing does not correct the condition, inspect the vanes, rotor and body.
	Vanes worn.	Refer to manufacturers manual.
	Respirator demand too large for pump output.	Make sure the pressure range of the respirator is compatible with the output of the pump.
	Respirator hose and/or respirator not connected.	Make sure respirator and hose are connected when making air adjustments.
	Pressure gauge faulty	Check gauge for accuracy.
2. High Pressure at Pump.	Air motor operating too fast.	Lower inlet pressure or adjust air-flow valve to decrease rpm.
	Respirator demand lower than pump output.	Make sure the pressure range of the respirator is compatible with the output of the pump.
	Restriction in respirator supply hose.	Make sure the respirator hose is approved for the respirator.
		Check for a kink or pinch in the respirator hose.
	Relief valve set too high.	Adjust relief valve.
3. Low Pressure at the Respirator.	Low outlet pressure at the pump.	See problem No.1.
	Respirator pressure demand too high for pump output.	Make sure the pressure range of the respirator is compatible with the output of the pump.
	Leak in respirator hose.	Inspect respirator supply hose for leaks.
	Restriction from respirator supply hose.	Make sure the supply hose is NIOSH approved for the respirator in use.
4. Pump Overheating.	Dirty inlet or outlet filter.	Cleans or replace filters as necessary.
	Optional intake hose blocked or collapsed.	Inspect intake hose for obstruction.
	Air motor operating too fast.	Lower inlet pressure or adjust air-flow valve to decrease rpm.
	Vanes sticking, or dust in pump.	Flush pump.
5. Air Motor Overheating	Motor not lubricated.	Check lubricator oil level and drip rate.

CAP-1 AMBIENT AIR PUMP

PROBLEM	CAUSE	SOLUTION
1. Low Outlet Pressure at Pump.	Faulty gauge.	Inspect gauge; replace if faulty.
	Air leaking at outlet filter or plumbing.	Make sure that the outlet filter bowl gasket is in place, not worn, and the bowl is tight against the gasket.
		Inspect outlet plumbing and correct for air leaks.
	Inlet filter media dirty.	Remove and clean, or replace filter media.
	Relief valve set too low.	Adjust relief valve.
	Optional intake hose blocked or collapsed.	Make sure the intake hose is unobstructed.
	Pump vanes sticking.	Flush the pump. If flushing does not correct the condition, inspect the vanes, rotor and body.
	Carbon dust build-up in pump.	Flush the pump. If flushing does not correct the condition, inspect the vanes, rotor and body.
	Pump vanes worn.	Inspect vanes and replace if worn or damaged.
	Motor not running at full rpm.	Check power supply and wiring.
	Respirator not compatible with pump.	Make sure the pressure range of the respirator is compatible with the pump.
2. High Pressure at Pump	Relief valve set too high.	Adjust relief valve to 10 psi max.
	Outlet filter cartridge dirty	Inspect filter cartridge and replace as needed.
	Restrictions in respirator hose.	Check hose for kinks or blockage.
		Make sure respirator hose is low pressure hose with 1/2” ID and not high pressure hose with 3/8” ID.
3. Pump Overheating	Dirty inlet and/or outlet filter.	Inspect filter cartridge and clean or replace as needed.
	Optional intake hose blocked or collapsed.	Make sure the intake hose is unobstructed.
	Relief valve set too high.	Verify that the pressure range of the respirator is compatible with the pump, and that the pressure is not above 10 psi.
	Carbon dust build-up in pump.	Flush the pump. If flushing does not correct the condition, inspect the vanes, rotor and body.
	Faulty power supply	Check power supply and wiring.
	Undersized or long extension cord.	It must be at least 14 gauge wire and a maximum length of 100 feet.
4. Motor Overload	Dirty inlet and/or outlet filter.	Inspect filter cartridge and clean or replace as needed.
	Optional intake hose blocked or collapsed.	Make sure the intake hose is unobstructed.
	Relief valve set too high.	Adjust relief valve to 10 psi max.
	Restrictions in respirator hose.	Check hose for kinks or blockage.
		Make sure respirator hose is low pressure hose with 1/2” ID and not high pressure hose with 3/8” ID.
	Carbon dust build-up in	Flush the pump. If flushing does not correct the

	pump.	condition, inspect the vanes, rotor and body.
	Motor not running at full RPM	Check power supply and wiring.
	Undersized or long extension cord.	It must be at least 14 gauge wire and a maximum length of 100 feet.

5. Motor Fails to Start or Slows Down	Power supply disconnected	Check power supply for open breakers or blown fuses.
	Inadequate power supply	Make sure the supply voltage conforms to the requirements on the motor post terminals and the motor data name plate.
	Relief valve set too low or closed.	Adjust relief valve.
	Carbon dust build-up in pump.	Flush the pump. If flushing does not correct the condition, inspect the vanes, rotor and body.

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 to 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

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 reclaimer, debris screen. Replace screen as needed.
	Moist media	Frequent bridges 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 fro 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 reclaimer 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

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.
	Hole in outlet valve	Inspect diaphragm and replace as needed.

	diaphragm.	
	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.	Make sure the cabinet is grounded to an earth ground. Avoid holding parts off the grate; static will build-up in the part if not dissipated through the metal cabinet. 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.

11. Dust Leaking From Dust Collector Refer to Section <> 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 to 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

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 reclaimer 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 bridges 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 fro 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

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.

9. Static Shocks	Cabinet, part being blasted, and/or operator not grounded. Abrasive blasting creates static electricity.	Make sure the cabinet is grounded to an earth ground. Avoid holding parts off the grate; static will build-up in the part if not dissipated through the metal cabinet. 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.

10. Dust Leaking From Dust Collector Refer to Section <> 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.

BLAST ROOM ENCLOSURE

PROBLEM	CAUSE	SOLUTION
1. Dust and/or Media Leaking From Blast Room.	Saturated dust collector cartridges.	Check dust collector differential pressure gauge. Refer to the Dust Collector Operations Manual for pulse pressure and sequence. Replace filter cartridges as required.
	Dust collector exhauster 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 power, and switch the motor leads as shown on the motor plate.
	Damaged or worn blast room door gaskets.	Inspect and replace damaged gaskets.
	Exhauster damper closed too far restricting air movement in the room.	Adjust the dust collector exhauster damper to increase airflow.
2. Static Shocks.	Inadequate grounding of room, nozzle and hose, blast machine, parts being blasted, and/or operator.	Abrasive blasting generates static electricity. The room and accessories, parts, and in some cases the operator must be grounded to earth ground to prevent static buildup.

PNEUMATIC RECOVERY SYSTEM

Refer to the Table of Contents and manuals shown in the Media Recovery and Separation System.

PROBLEM	CAUSE	SOLUTION
1. Excessive Media Carryover.	Dust collector damper open too far.	Adjust damper to lower the static pressure.
	Vortex cylinder out of adjustment.	Adjust vortex cylinder per the Reclaimer Instructions Manual.
	Reclaimer or storage hopper door open or leaking.	Inspect reclaimer door and gasket for leaks. Air entering the reclaimer at this point will cause media to be carried into the dust collector. DO NOT operate unless all doors are closed.
	Leak in reclaimer weldment.	Inspect entire reclaimer for negative pressure leaks.
	Flange gasket between the blast machine, storage hopper, or reclaimer leaking.	Check flange and gasket for negative pressure leak.
	Media level too high.	Check media level. Do not overfill.
	Reclaimer debris screen clogged with debris.	Check debris screen daily. Clean as required.
2. Reclaimer Not Recovering Media.	Exhauster motor rotating backwards.	The motor should rotate as indicated by the arrow on the exhauster housing. If it does not rotate in the proper direction, LOCKOUT and TAGOUT electrical power, and switch the motor leads as shown on the motor plate.
	Dust collector damper closed too far restricting air movement in M-Section®.	Adjust damper to increase static pressure.
	Hole worn in flex hose between transition and reclaimer inlet, or between the reclaimer outlet and dust collector inlet.	Inspect hoses, and replace as needed.
	Reclaimer door open.	Close door. Do not operate unless doors are closed.
	Obstruction in transition, flex hose, or any segment before the reclaimer inlet.	Remove hose and check for blockage.
	Booster exhauster paddle wheel worn.	Check wheel for wear. Replace as necessary.
	Blocked M-Section® hopper(s).	Blockage in the hoppers restricts incoming air. Check for blockages and clear as necessary.
3. Excessively High Media Consumption.	Media carryover to dust collector.	See Problem 1.
	Media too fine or worn out.	Replace media as necessary.
	Friable media rapidly breaking down.	If the application allows for it, change to durable media, or lower blast pressure.

Bucket Elevator

Refer to the Table of Contents for the location of the Bucket Elevator and Underspeed Monitor Manuals.

PROBLEM	CAUSE	SOLUTION
1. Bucket Elevator Starts, But Shuts Down After Several Seconds.	Malfunctioning or incorrect adjustment on underspeed monitor.	Check the adjustment and function of the underspeed monitor.
	Elevator belt slipping.	Check belt tension and adjust as required.
	Elevator belt binding from obstruction. Look for hardened abrasive in the elevator boot. Check for sag in discharge hose.	Look for obstructions at the elevator inlet chute, discharge spout or discharge hose. Clear obstruction as required. Discharge hose must be straight and have at least a 45° slope. Support hose as required.
	Too much abrasive entering the boot. Causing belt to bind.	Lower the flow control, slide gate to reduce abrasive level in the boot.
	Motor overload, fuse blown or breaker tripped.	Have qualified electrician check the motor and electric circuit for malfunction.
2. Bucket Elevator Does Not Lift Abrasive.	Belt Slipping.	Check belt tension and adjust as required. See Problem No.1.
	Flow control slide gate too low.	Raise slide gate to increase abrasive level in the boot.
3. Elevator Making Excessive Noise.	Foreign object in elevator boot.	Inspect boot and remove object as required.
	Loose buckets on belt.	Tighten bucket as required.
	Belt to loose.	Adjust belt tension.
	Belt off-center.	Adjust belt tracking.
	Worn pulley bearings.	Replace bearings as required.

AWAC Abrasive Cleaner

Refer to the Table of Contents for the location of the AWAC Abrasive Cleaner Manual.

PROBLEM	CAUSE	SOLUTION
1. Large Object Passing Through Abrasive Cleaner.	Motor rotating backward	The motor should rotate as indicated by the arrow on the gear reducer side of the housing. If it does not rotate in the proper direction, LOCKOUT and TAGOUT power, and switch the motor leads as shown on the motor plate.
	Damaged or obstructed rotating screen.	LOCKOUT and TAGOUT power, inspect screen for damage, and clean as required.
2. Fines Not Removed From Cleaned Abrasive.	Insufficient airflow through the air-wash.	Adjust AWAC damper gate to increase airflow through the air-wash.
	Poor ventilation in blast room.	Adjust dust collector damper to improve blast room ventilation.
3. Too Much Good Media in Fines Chute.	Excessive airflow through the air-wash.	Adjust AWAC damper gate to decrease airflow through the air-wash.

4.0 DUST COLLECTOR

Refer to the Table of Contents for the location of the Dust Collector Manual.

PROBLEM	CAUSE	SOLUTION
1. Dust Discharge From Dust Collector.	If dust is emitting from the exhauster.	Inspect for damaged or loose filter cartridges.
	Cartridges not seasoned.	Season cartridges before starting pulse cycle.
	If dust is emitting from the dust container.	Check for a faulty seal on or around the dust container.
2. Collector Not Pulsing.	Low manifold pressure.	Check the manifold pressure gauge. If low or off increase pressure. Check the compressed air supply.
	Sequencer Switch off.	Turn on sequencer switch.
	Electrical malfunction.	Check for fault by qualified electrician.
3. Some Dust Collector Cartridges Not Pulsing.	Faulty diaphragm in corresponding pulse valve.	Inspect and replace diaphragm as necessary.
	Faulty pulse solenoid or circuit board.	Check for fault by qualified electrician.
	Blockage in poly tubing between the pulse valve and solenoid.	Check for blockage in the tubing. Clear blockage or replace tubing as needed.
4. Pulse is a Steady Stream of Air Instead of a Quick Pulse.	Leak in poly tubing between the pulse valve and solenoid.	Check for a leak or split in the tubing. Replace tubing as needed.
	Solenoid remaining in open position.	Check for fault by qualified electrician. Clean or replace the solenoid as needed.
5. Exhauster Motor Not Operating.	Exhauster overload tripped.	Have a qualified electrician reset and check for overload.
	Disconnect off.	Make sure that the main disconnect is in the "on" position.
6. Excessive Differential Pressure.	Cartridges not pulsing correctly.	See Problems 2 and 3.
	The sequence "off" time set too high.	Decrease sequence "off" time.
	Manifold pressure too low.	Increase manifold pressure.
	Differential pressure gauge lines plugged.	Inspect and clean lines as required.
	In-line dust filter may be blocked.	Inspect and clean, or replace dust filter.
	Snubber fitting blocked with dust.	Inspect and clean, or replace snubber fittings.
	Filter cartridges need to be replaced.	Replace filter cartridges.
7. No Reading On Differential Pressure Gauge.	Low and high-pressure lines reversed.	Inspect and reverse lines as needed.

ROTARY AIRLOCK

Refer to the Table of Contents for location of Airlock Manuals.

PROBLEM	CAUSE	SOLUTION
1. Airlock Squeals During Operation.	Airlock rotating backwards.	The motor should rotate as indicated by the arrow on the housing and or drive guard. If it does not rotate in the proper direction, LOCKOUT and TAGOUT power, and switch the motor leads as shown on the motor plate.
	Insufficient Rotor Clearance.	Check clearance and adjust as necessary in section "Checking Rotor Clearance"
	Driver chain rubbing on guard.	Adjust guard and/or sprocket position.
	Drive shaft rubbing on guard.	Adjust guard position.
	Bearing failure	Remove and inspect bearings. Replace if necessary as described in section "Replacing Bearings and Seals"
	Rotor incorrectly positioned axially in housing.	Inspect and adjust rotor position a described in section "Checking Rotor Clearance". If rotor position is changed, sprockets must be realigned.
	Air-purge not operating.	Make sure purge plumbing compressed air supply in one and electrical power is to the solenoid.
2. Airlock Does Not Rotate.	No power to airlock.	Check fuses by qualified electrician.
		Check motor overload settings by qualified electrician.
		Check motor starter operation by qualified electrician.
	Faulty motor	Check motor by qualified electrician.
	Chain not connected	Check chain for broken link; repair link or replace chain and reconnect.
	Foreign object caught in inlet throat.	Inspect and remove object.
	Faulty gear reducer.	If motor is turning, but rear reducer is not, replace gear reducer.
3. Material Does Not Flow Through Airlock.	Supply source plugged, empty or not running.	Check supply source.
	Airlock turning too fast	Reduce speed if variable speed motor is used.
	Airlock not rotating	See problem No.2.
	Excessive moisture in media.	Check for damp media.
	Excessive blow-by air.	Check and adjust rotor clearance.
4. Short Seal Life.	Incorrect air-purge pressure.	Adjust air pressure as described in section "Typical Air Purge System".
	Seal out of position.	Inspect and reposition seal.