

TROUBLE SHOOTING - OPERATIONAL RELATED ISSUES



DANGER: Never attempt to open the Soda Blaster in any way while it is pressurized. Use extreme caution when performing troubleshooting procedures that involve pressurizing the Soda Blaster. Trouble shooting procedures are to be performed by experienced personnel only

BLAST MACHINE TURNS ON ACCIDENTALLY OR WITHOUT WARNING

Possible Clauses:

1. The safety flap, lever or lock button on the Control Handle is damaged or missing.
2. The Pneumatic Control Handle is damaged, defective or worn out (if equipped)
3. A bleeder type control handle has been installed.
4. The Electric Control Handle is damaged, defective or worn out (if equipped)
5. The Electric Control Cord is damaged, defective or worn out (if equipped)
6. O-ring on the shaft of the Auto Air Valve is damaged, defective or worn out (if equipped)

BLAST MACHINE IS SLOW TO TURN OFF OR WILL NOT TURN OFF WHEN CONTROL HANDLE IS RELEASED

Possible Clauses:

1. A bleeder type control handle has been installed.
2. The Pneumatic Control handle is damaged, defective or worn out (if equipped).
3. The Electric Control Handle is damaged, defective or worn out (if equipped)
4. The Electric Control Cord is damaged, defective or worn out (if equipped)
5. The Control Valve is stuck or in need of service due to lack of lubrication, or is damaged, defective or worn out.

VESSEL PRESSURE AND DIFFERENTIAL PRESSURE GAUGES DO NOT AGREE

(Vessel Pressure and Differential Pressure Gauges should agree when the Pressure Vessel is pressurized and blasting is taking place with the Differential Pressure Gate Valve completely open.)

Possible Causes:

1. The choke valve is closed. Never operate the Soda Blaster with the Choke Valve in any other position than completely open.
2. The Differential Pressure Gate Valve is partially closed. The Differential Pressure Gate Valve must be completely open when comparing gauges for matching values.

3. One of the gauges is damaged, defective or worn out and needs to be replaced. Depressurize the Soda Blaster and swap the Differential Pressure Gauge with the Vessel Pressure Gauge. If the reading discrepancy follows the gauge to its new location, install a new gauge and keep the existing gauge that agrees with the new one. If the readings stay the same at the same positions, then the gauges are working properly and the problem is not with the gauges.
4. The Auto Air Valve is not opening fully. Check for proper operation of the Auto Air Valve, and that its vent is not clogged. The Auto Air Valve will also not open completely if it is not receiving the sufficient signal air pressure.
5. There is an obstruction between the Choke Valve and the Metering Valve. Depressurize the Soda Blaster and disassemble the strong of components between the Choke Valve and Metering Valve. Remove the obstruction and reassemble the components.

Soda Blaster AIR BLAST STOPS BUT ABRASIVE KEEPS FLOWING WHEN CONTROL HANDLE IS RELEASED (SYSTEMS WITH APV SERIES METERING VALVES ONLY)

Possible Clauses:

1. The Urethane Seat (black) in the Metering Valve is damaged, defective, or worn out.
2. The Urethane Sleeve (black) in the Metering Valve is damaged, defective, or worn out.
3. The plunger (tungsten carbide) in the Metering Valve is damaged, defective, or worn out.
4. Foreign material is stuck between the Plunger and the Seat in the Metering Valve.
5. The Metering Valve Spring is damaged, defective, or worn out.

BLAST MACHINE ABRASIVE STOPS BUT AIR BLAST WILL NOT SHUT OFF WHEN CONTROL HANDLE IS RELEASED

Possible Clauses:

1. Auto Air Valve Seat is damaged, defective, or worn out.
2. Auto Air Valve Disc is damaged, defective, or worn out.
3. O-ring on the Auto Air Valve Shaft is damaged defective or worn out.
4. Auto Air Valve Spring is damaged, defective, or worn out.

TROUBLE SHOOTING - PERFORMANCE RELATED ISSUES



DANGER: Never attempt to open the Soda Blaster in any way while it is pressurized. Use extreme caution when performing troubleshooting procedures that involve pressurizing the Soda Blaster. Trouble shooting procedures are to be performed by experienced personnel only

NO ABRASIVE FLOW WHEN BLASTING (AIR ONLY)

Possible Causes:

1. The Soda Blaster is empty or has no Abrasive in it.
2. Abrasive cut-off function is engaged halting the flow of abrasive (if equipped)
3. The Metering Valve is closed or has not been adjusted properly. If the Metering Valve is an APV or APVII and you are concerned the valve is not opening, the following test can be performed:
4. There is an obstruction in the Metering Valve. To clear the obstruction perform the following procedure:

Turn the knob on the Metering Valve clockwise until it stops and then turn the knob counter-clockwise 9 full turns to open it completely. Depress the control handle and have a second qualified person close the choke valve for 2 seconds, and then open it again immediately. This will push minor obstructions such as a small amount of wet abrasive a piece of paper from a bag, or bridged paint chips through the Metering Valve and out the Nozzle. Readjust the Metering Valve back to the desired setting for blasting, and check to see if the obstruction has been cleared.

If the obstruction was not cleared by following the above procedure, slowly open the Clean-Out Ball Valve on the metering valve about a quarter of the way while the vessel is pressurized. Leave the Clean-out Ball Valve open for a couple seconds then close it completely. If successful, the obstruction, some abrasive & a jet of compressed air will be expelled from the open end of the Clean-out Ball Valve. Extra care should be taken to ensure the stream will not be directed at personnel or objects as they may be propelled at dangerous speeds.



WARNING: When the Clean-out Ball Valve is opened while the Soda Blaster is pressurized, abrasive, high-pressure air & nearby objects will be propelled from the open end of the valve. The area where this will occur must be free of personnel and structures/equipment or severe injury & damage may occur.

If trying to clear the obstruction with the Clean-Out Ball Valve fails, the Soda Blaster must be depressurized and the Metering Valve must be removed by separating the sanitary coupling that holds the Metering Valve to the Pressure Vessel. Be aware that when the obstruction is cleared, abrasive remaining in the Pressure Vessel will come pouring out. All Abrasive must be allowed to leave the Pressure Vessel before reattaching the Metering Valve.

If all the above procedures fail to clear the obstruction, there is a large obstruction that must be removed from inside the pressure Vessel. To do this, make sure the Soda Blaster is depressurized and remove the Handway Assembly. Scoop or vacuum out all the abrasive from inside the pressure vessel and remove the obstruction. Reinstall the Handway Assembly and Metering Valve and tighten them securely, then Refill the Soda Blaster. It is recommended that a screen be used to prevent foreign to enter the Soda Blaster.

5. The Soda Blaster has wet abrasive in it. The wet abrasive must be removed by depressurizing the Soda Blaster, removing the Handway Assembly, and scooping or vacuuming it out. **DRY ABRASIVE MUST ALWAYS BE USED. CLEAN, COOL, DRY AIR MUST BE SUPPLIED TO THE Soda Blaster IN ORDER TO PREVENT THE ABRASIVE FROM GETTING WET**

ABRASIVE STREAM IS TOO HEAVY OR THROBBING WHEN BLASTING

Possible Causes:

1. Choke Valve is partially closed. Never run the Soda Blaster with the Choke Valve in any other position except fully open or damage to the Soda Blaster will occur.
2. The Metering Valve needs to be adjusted.
3. Differential pressure is in excess of the recommended 4 PSI maximum.

LOW PRESSURE AT THE NOZZLE

Possible Causes:

1. Air compressor is the wrong size (too small) or the load button has not been pushed or turned on.
2. Nozzle is worn out and the compressor cannot keep up with the increased demand.
3. Air supply hose to the blast machine is too small.
4. There is a hole in the blast hose.
5. Pop-up is not sealing properly.
6. Handway assembly is leaking.
7. Dirty or clogged Auto Air Valve Vent.
8. Diaphragm in Auto Air Valve is damaged, defective, or worn out (if equipped)
9. Choke Valve is partially closed. Never run the Soda Blaster with the Choke Valve in any other position except fully open or damage to the Soda Blaster will occur.
10. Obstruction in Nozzle.
11. Regulator needs adjustment (if equipped)

Soda Blaster WILL NOT TURN ON OR IS SLOW TO TURN ON

Possible Causes:

1. Air compressor is the wrong size (too small) or the load button has not been pushed or turned on.
2. Nozzle is worn out and the compressor cannot keep up with the increased demand.
3. Air supply hose to the blast machine is too small.
4. Control hoses and/or fittings are leaking.
5. 50 micron Moisture Separator/Filter is clogged
6. Obstruction in Nozzle.
7. Dirty or clogged Auto Air Valve Vent
8. The Pneumatic Control Handle is damaged, defective or worn out.
9. Control Valve stuck or in need of service due to lack of lubrication, or is damaged, defective or worn out (if equipped)
10. Diaphragm in Auto Air Valve is damaged, defective or worn out (if equipped). To test, put your thumb over the vent. If any air coming out with the control handle depressed, the diaphragm must be replaced.