SUPPLEMENT TO VB27002H

VB2700 OWNERS MANUAL

1.0 INTRODUCTION

The model VB2700 is a direct pressure machine designed for surface conditioning, cleaning, and peening of ferrous and non-ferrous metals.

Blasting is accomplished by media carried in a high speed air stream that is directed at the surface to be blasted. Standard commercial size abrasives may be used with the VB2700 in mesh sizes from 20 to 400.

When the operator presses the deadman switch to start the blast action, the exhaust and filling valves of the pressure vessel close allowing the tank to pressurize. The abrasive metering valve located below the pressure vessel meters a controlled quantity of abrasive to the blast line, through which it is carried to the blast gun. Blasting is contained entirely within the hand held gun body. Atmospheric air enters through the back of the gun and the brush located on the end of the gun, sweeping the blast area clean. Spent abrasive and air are mixed to be conveyed to the reclaimer. Here the reusable abrasive material drops out of suspension due to the cyclone action of the reclaim, passes through a screen and collects in a hopper located above the pressure vessel. Air, dust and debris leave the reclaimer and are deposited in cartridge filter and dust pan. The cleaned air passes through the exhaust fan above the filter cartridge and is discharged into the atmosphere. Dust particles trapped by the filter cartridge are removed by a reverse air pulse that allows the dust to collect in a pan for disposal. When the operator releases the control switch, stopping the blast action, the pressure generator is automatically recharged with abrasive collected in the reclaim hopper.

Various shaped brushes and retainers are provided to blast irregular shaped surfaces.

An air supply of 60 CFM is required to operate the machine at 80 to 100 PSI at the blast gun.

2.0 INSTALLATION AND ADJUSTMENTS

CAUTION: All parts to be blasted must be free of oil, water, and other contaminants. If not clean, the abrasive will tend to clog and equipment malfunction will occur.

A. Open access door of reclaim located above the pressure vessel. Pour in 200 pounds of abrasive. This is a full charge.

B. Attach air supply hose to the air filter of the unit. It is important that a minimum air supply of 60 CFM is available. This will allow you to maintain pressure of 80 to 100 PSI during blasting operation.

C. Adjust air regulator to recommended blast pressure while equipment is in operation (turn knob clockwise to increase pressure).

D. A choke valve (on blast machine) has been placed in the air line to regulate amount of air necessary for proper media flow through the blast nozzle. Different sizes of nozzles and different types of media require air pressures of higher or lower velocity. If no media flows from the nozzle, close the choke valve until media flows as a fine mist from the nozzle. Slowly closing choke valve allows pressure vessel to deliver more air to force media down and through the abrasive metering valve to the blast nozzle. By opening or closing choke valve in varying degrees, the proper media flow is assured in relation to media type and size, and size of nozzle being used.

3.0 OPERATIONAL PROCEDURE

A. When activating the hand switch to start the blast cycle approximately three seconds will be required to begin blasting. Approximately five seconds will be required to stop and blast action after the hand switch is released.

3.1 EQUIPMENT SHUT DOWN

A. To stop the blasting operation, completely release the hand control valve.

4.0 TROUBLE-SHOOTING

4.1 NO MEDIA DELIVERY

A. Check for obstruction in hose or nozzle. Clear obstruction from hose or nozzle.

CAUTION: Before unscrewing nozzle be sure pressure has been released from the tank.

B. Check for clogging in the abrasive supply valve. Refer to RFS remote control valve manual for trouble shooting valve infromation.

C. Check pop-up valve and o-ring inside pressure pot for wear or damage. Reclaim system must be removed from the pressure vessel for this inspection. Replace damaged or worn parts.

4.2 UNIT FAILS TO SHUT OFF

A. Check for air leaks in the remote control system. Tighten fittings and replace worn parts as necessary.

B. Check for sticking solenoid valve. Replace solenoid if necessary.

4.3 EXCESSIVE MEDIA CONSUMPTION

A. Check for loose or worn out cartridge in dust collector. Reseat or replace cartridge as necessary.

B. Reclaim door may not be closing tightly. Air entering the reclaim at this point will cause media to be carried into the dust collector. Do not operate the system with the reclaim door open.

4.4 REDUCTION OF CLEANING EFFICIENCY

A. Low media level in the reclaim hopper. Check and add media as required.

B. Reduced air pressure may be caused malfunctioning regulator, dirty moisture trap, ruptured air line. Clean or replace parts as necessary.

C. Check for foreign material in media line as a result of a clogged filter screen. Disassemble and clean screen.

D. Check for worn gun parts and replace if necessary.

E. Check for worn pop-up valve or valve seat in the pressure vessel. Replace worn part if necessary.

F. There may be excessive moisture in the media. Pressure vessel must be emptied completely. Recharge the machine with clean, dry abrasive.

5.0 PREVENTIVE MAINTENANCE

A. Every four hours pulse the filter cartridge 4-6 times (short pulses) by depressing black button.

B. Never allow hoses to be subjected to extended contact with oils or cleaning solvents.

C. Clean the filter screen in the abrasive trap once in during every four hours of operation.

IMPORTANT: When the type of media being used is changed, make sure the filter screen, abrasive reclaim, abrasive supply hose, and the supply valve are all blown free to remove any remaining abrasive material. If this is not carefully done the new media will be contaminated.

5.1 WEEKLY MAINTENANCE

A. Check abrasive supply hose and vacuum return hose for wear by squeezing and feeling for soft spots.

B. Inspect cartridge for excessive wear or clogging.

C. Hepa filter - the hepa filter normally will not require maintenance, however, it should be removed periodically and inspected for accumulating dust on the inlet side. If dust is present, both the filter cartridge and hepa filter should be replaced.