

OWNER'S MANUAL
FLAT SAND VALVE 1-1/4"



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IMPORTANT WARNING FOR SAFE BLAST CLEANING

1. Operator must use protective equipment, abrasive resistant clothing, safety shoes, leather gloves, ear protection. Approved air fed helmet. Air supplied by a breathing air compressor (Oil less air pump) for helmet must be dust free and grade D quality.
2. Check for possible silicosis hazards. Avoid dust.
3. Always check equipment, rubber seals and gaskets before blasting. Never blast with damaged or worn equipment.
4. Never point nozzle at area not being cleaned.
5. Use only proper dry and well screened abrasives specially intended for blasting
6. Keep unprotected workers out of the blasting area
7. Always check for following before blasting:
 - Check fittings and hose for wear.
 - Check Couplings and safety wire coupled properly.
 - Check air supply to helmet as improper supply can cause serious injury.
 - Check pop up valve for alignment
 - Test remote controls and operating handles
 - Make sure blast machine is adequately grounded
- 8 Do not weld on blast machine this avoid approval

1.0 INTRODUCTION: This manual covers the operation and maintenance of the FSV-1¼”.

1.1 Product description: The FSV-1¼” Flat Sand Valve is designed to operate on all single/ double chamber blast machines with 1¼” pipeline. The FSV-1¼” Flat Sand Valve consists of main aluminum body with mild steel plates. A large inspection/ clean port is provided to check the valve without un-assembling it. The FSV-1¼” is provided with a long handle to adjust the flow of abrasives comfortably.

2.0 INSTALLATION: To complete installation, follow instructions below:

- a. Make sure that all the connections are air tight.
- b. Fit the 45degree 1¼” threaded aluminum body of FSV at the bottom of blasting pot's cone.
- c. Fit 1¼” air hose pipe, coming from compressor, with intake of rubber lined Y fitting.
- d. Fit 1¼” blasting hose pipe (having nozzle of other end) with outlet of rubber lined Y fitting.

3.0 BLASTING OPERATION: Make sure to have full understanding of the blast machine before operating the machine.

- a. Check all connections from the compressor up to the nozzle and see to it that they are properly fixed (a loose coming compressor air hose can cause serious damage).
- b. Make sure that the blast machine is filled with abrasive.
- c. Make sure to have taken the proper safety precautions for operator and environment (proper clothing & clean air supply to the helmet)
- d. Always check all the valves in air-line from compressor to nozzle are opened.

The system is now ready to be pressurized.

4.0 MAINTENANCE

4.1 Valve disassembly:

- a. Disconnect the valve from the blast machine
- b. Remove the Indicator from the valve (4)
- c. Remove the spring pin (25) and remove the lever (3) then spring (10) then brass bush (9)
- d. Remove the Nuts (16), Bolts (15), Washers (17), studs (6) and all the remaining parts will un-assembled automatically.
- e. Remove Fly nuts (19), Bolts (18), Spring washers (20) to remove Inspection plate.

4.2 Maintenance program

DAILY:

1. Remove inspection plate and check for water contents with abrasives/ sand. If water is present, check the condition of the moisture/ water separator.
2. Check the proper functioning of abrasive flow control lever and its position before start blasting.
3. Check all hoses and fittings on condition and proper fixation.

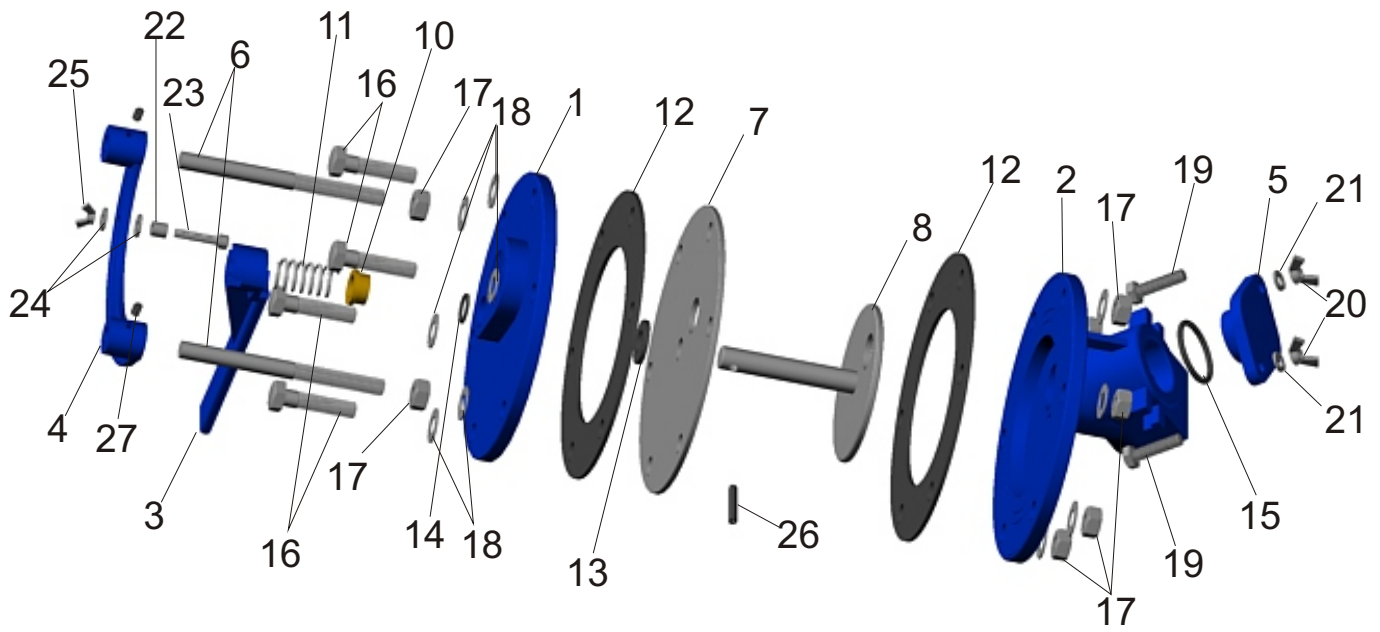
4.3 Monthly or after each cycle of 160working hours:

1. Check all joints of valve for leakage.
2. Check all connections for leakage.
3. Disassemble the control valve by following the steps of 4.1 and check all moving parts. If they look worn, replace to prevent unnecessary damage. Clean all the parts and assemble the valve.

5.0 TROUBLE SHOOTING: The following checklist can be used to trace a problem in case the Flat Sand Valve does not work properly.

1. Review instructions in this manual.
2. Inspect all air hoses and connections for air leaks.
3. Be sure that the safety and drain petcocks are closed.
4. Check moisture/ water contents in sand/ abrasive by removing inspection plate.

PROBLEM	CAUSE	SOLUTION
Only Air coming out of nozzle, no sand/ abrasive is coming out of nozzle	a. Valve is in close position. b. Blast pot is empty. c. Moisture in air coming from compressor.	a. check the position of lever of valve and adjust it in the open position. b. depressurize the machine and check the blast pot. If it is empty the fill it with sand and abrasives. c. check the condition of moisture separator if it is not in good condition then repair it or change it.



S.NO.	DISCRIPTION	QTY
1	PLATE	1
2	PLATE WITH NECK	1
3	LEVER	1
4	INDICATOR	1
5	INSPECTION PLATE	1
6	STUD	2
7	STEEL PLATE	1
8	DIAPHRAM	1
9		
10	BRASS BUSH	1
11	SPRING	1
12	PACKING	2
13	FLAT RING	1
14	DIAPHRAM 'O' RING	1
15	INSPECTION PLATE 'O' RING	1
16	HEX BOLT	4
17	NUT	8
18	WASHER	12
19	INSPECTION PLATE BOLT	2
20	INSPECTION PLATE FLYNUT	2
21	SPRING WASHER	2
22	SPACER FOR LEVER STOPPER	1
23	L N BOLT FOR LEVER STOPPER	1
24	WASHER FOR LEVER STOPPER	2
25	FLY NUT FOR LEVER STOPPER	1
26	SPRING PIN	1
27	L N SCREW FOR INDICATOR	2