

OWNER'S MANUAL THOMPSON 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 abrasive metering valves, 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 Thompson Valve 1¼" (Tungsten).

1.1 Product description: The Thompson Valve Tungsten 1¼" (TVT-1¼") is designed to operate on all single/ double chamber blast machines with 1¼" or 1½" pipeline. The Thompson Valve Tungsten 1¼" consists of main aluminum body with tungsten carbide plunger and sleeve. Thompson Valve Tungsten 1¼" valve is normally in close situation. A precision knob is provided to set the quantity of abrasive to come out of port of the valve. Thompson Valve Tungsten 1¼" automatically opens up when operator press deadman handle lever and automatically shuts down on release of deadman handle lever..

2.0 INSTALLATION: To complete installation, follow instructions below:

- a. Make sure that all the connections are air tight.
- b. Fit the 45degree 1¼" or 1½" threaded aluminum body of Thompson Valve at the bottom of blasting pot's cone.
- c. Fit 1¼" or 1½" air hose pipe, coming from compressor, with intake of pipe nipple (barrel) provided in Thompson valve.
- d. Fit 1¼" or 1½" blasting hose pipe (having nozzle of other end) with outlet of pipe nipple (barrel) provided in Thompson valve.
- e. Connect 1/8" air connection with remote.

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.

4.0 MAINTENANCE

4.1 Valve disassembly:

- a. Disconnect the valve from the blast machine
- b. Remove the knob(1) on the top of Thompson valve.
- c. Remove Cap (2). Take out Bump Ring (3) and Spring (4).
- d. Unscrew 4 Bolts (12) rest of valve will be disassembled take all parts safely.
- e. Tungsten plunger (8) and piston (7) can be dismantle with help of two spanners.

Maintenance program

DAILY:

1. Check for water contents with abrasives. If water is present, check the condition of the water separator.
2. Check the knob (1) position for proper opening of abrasive inlet.
3. Check all hoses and fittings on condition and proper fixation.

MONTHLY OR AFTER EACH CYCLE OF 160WORKING HOURS:

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

5.0 TROUBLE SHOOTING:The following checklist can be used to trace a problem in case the Thompson 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/ abrasives.
5. Check knob position should not be fully closed.

PROBLEM	CAUSE	SOLUTION
Only air coming out of nozzle. No abrasive is coming out of nozzle.	a. Knob is full closed position. b. Blast pot is empty c. Moisture in air coming from compressor d. Air inlet 1/8" is blocked or damage	a. Check position of knob and adjust it in open position. b. Depressurize the machine and fill the pot with abrasives. c. Check the condition of moisture separator. If it is not in good condition then repair it or change it. d. Check the condition of 1/8" air pipe coming from remote control. If it is choked then clean it, and if it is damaged replace it.

S.N	DRG.No.	DESCRIPTION	QTY.
1	J022001	KNOB	1
2	J022002	CAP	1
3	J022003	BUMP RING	1
4	J022004	SPRING	1
5	J022005	NUT	1
6*	J022006	PISTON SEAL	1
7	J022007	PISTON	1
8*	J022008	TUNGSTEN PLUNGER	1
9	J022009	BODY CYLINDER	1
10*	J022010	U-SEAL	1
12	J022012	BASE	1
13	J022013	BOLT	4
14	J022014	PIPE NIPPLE (BRREL)	1
15	J023015	O RING FOR INSERT	1
16*	J023016	INSERT	1
17	J023017	SEAT	1
18*	J023018	TUNGSTEN SLEEVE	1
19	J022019	1/8" L-NIPPLE	1
20	J022020	WASHER	4
21*	J022021	O RING FOR U-SEAL	1

Items having * are in Repair Kit

PARTS LIST OF
THOMPSON VALVE 1-1/4"

