



PRODUCT OPERATING MANUAL

Manual No. ZVP-PC-0071-01

**FINA ABRASIVE CONTROL
VALVE**

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1.0 GENERAL INFORMATION

1.1 All products and equipment designed and manufactured by Pan Abrasives are intended for use by experienced users of abrasive blasting equipment and its associated operations and abrasive blasting media.

1.2 It is the responsibility of the user to:

1.2.1 Determine if the equipment and abrasive media is suitable for the users' intended use and application.

1.2.2 Familiarize themselves with any appropriate laws, regulations and safe working practices which may apply within the users' working environment.

1.2.3 Provide appropriate operator training and a safe working environment including operator protective equipment such as, but not limited to, blasting suit, safety footwear, protective eyewear and hearing protection.

1.3 Pan Abrasives Standard Terms and Conditions of Sale apply. Contact your local Pan Abrasives office or distributor should you require any further information or assistance.

⚠ ! WARNING ! - READ THIS SECTION CAREFULLY BEFORE USING THIS EQUIPMENT

1.4 Heavy metal paint, asbestos and other toxic material dusts will cause serious lung disease or death without the use of properly designed and approved air supplied respiratory equipment by blast operators and all personnel within the work site area.

1.5 The compressor must have adequate output and the plumbing between the compressor and the point of attaching the air supply hose must have sufficient capacity to supply the volume of air at the pressure required.

1.6 Standard Safety Precautions

1.7 Approved safety eyewear, hearing and footwear protection should be worn at all times by the operator and anyone else in the immediate area that may be exposed to any hazards generated by the abrasive blasting process.

1.8 Suitably approved respiratory protection should also be worn when handling abrasive media, abrasive refuse dust and when carrying out any service/maintenance work where any dust may be present.

1.9 Any work performed on electrical wiring or components must only be carried out by suitably qualified and registered electrical trades' personnel.

1.10 Under no circumstances should any safety interlocks or features be altered or disabled in

any way.

1.11 All equipment must be isolated from the compressed air supply and electrical power source prior to any service or maintenance work being carried out.

1.12 All care must be taken by the operator when lifting or moving equipment or components in order to prevent injury. Pressure Blast Pots must always be emptied of abrasive media before any attempt is made to move them.

1.13 Any modification of the equipment or use of non genuine PanBlast™ replacement parts will void warranty.

1.14 Always check the Material Safety Data Sheet on the abrasive being used to ensure that it is free of harmful substances, in particular, free silica, cyanide, arsenic or lead.

1.15 Test the surface to be blasted for harmful substances, taking the appropriate measures and precautions to ensure the safety of the operator and others.

1.16 The operator should carry out a daily inspection before start up of all wearing and safety items to ensure that they are in correct operating order. In particular check all blast hose couplings and nozzle holders, ensuring that all couplings have engaged correctly and the Safety Locking Pins are fitted and in good condition. Always install safety whip check cables at every connection. Ensure that the blast nozzle has been securely screwed into the nozzle holder and the nozzle holder has been secured to the blast hose correctly and that all screws are engaged.

2.0 INTRODUCTION

2.1 These instructions cover the installation, operation and maintenance of the PanBlast™ Fina Abrasive Control Valve in BSP format.

2.2 The PanBlast™ Fina Abrasive Control Valve is designed to meter any commercially available abrasive from delicate plastic media through to aggressive metallic abrasives such as steel grit and is designed for operating pressures not exceeding 1034kPa (150psi).

3.0 PREPARATION FOR OPERATION

3.1 Depressurize and disconnect the air supply from the blast machine and drain the abrasive from the vessel ensuring all threads are clean of abrasive.

3.2 Disconnect the lower pusher line hose at the existing valve. Remove the existing abrasive valve and pipe fittings, inspect the condition of the rubber hose pusher line, replace if



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necessary.

- 3.3 Fix the PanBlast™ Fina Abrasive Control Valve onto the existing nipple, ensure the threads are free of abrasive and debris, use thread sealant to ensure that an air tight joint is achieved.
- 3.4 Ensure that the valve aligns itself with the opening in the front support leg.
- 3.5 Fit the pusher line hose barb fitting to the supply air end of the pipe nipple, (note the Fina Valve is a bi-directional flow valve), use thread sealant to ensure an air tight joint.
- 3.6 Push the pusher line hose onto the hose barb fitting and tighten the two bolt hose clamps on to the hose.
- 3.7 Fit the screwed hose coupling to the discharge end of the pipe nipple, use thread sealant to ensure an air tight joint.
- 3.8 Refit the blast hose ensuring the safety pins are fitted.

4.0 OPERATING INSTRUCTIONS

⚠ ! WARNING ! - READ THIS SECTION CAREFULLY BEFORE USING THIS EQUIPMENT/ APPARATUS.

- 4.1 Rotate the control knob all the way in, noting the position of the control knob. Now wind the control knob out 2 & 1/2 turns. This gives you your initial start position.
- 4.2 Perform a test run to check if the valve opening is correct. The flow from the nozzle should slightly discolor a light or contrasting background.
- 4.3 If no discoloration is evident and there is a high pitched sound from the nozzle, then the adjustment is lean and the abrasive flow needs to be increased by further opening the valve. This should be done in 1/4 turn increments until the correct abrasive flow is achieved.
- 4.4 If the feed to the nozzle is erratic and surging, then the feed is too rich and the abrasive flow needs to be decreased, again in 1/4 turn increments until the correct flow is achieved.

5.0 MAINTENANCE

⚠ ! WARNING ! THE SYSTEM MUST BE IN SHUT DOWN MODE AND THE COMPRESSED AIR DISCONNECTED BEFORE PERFORMING

ANY MAINTENANCE WORK. FAILING TO DO SO MAY RESULT IN PREMATURE ACTIVATION OF THE SYSTEM THAT MAY CAUSE SERIOUS INJURY OR DEATH

- 5.1 Inspection of the pipe nipple and urethane sleeve can be done by simply removing the two bolts that clamp the pipe nipple to the valve body. This can be done with the valve still attached to the blast machine.
- 5.2 With the pipe nipple removed, the urethane sleeve can also be removed for inspection.
- 5.3 Inspection of the plunger and seals can also be performed by further removing the two bolts from the valve body.
- 5.4 To replace the plunger, remove the plunger and top body assembly as described above; remove the spring pin holding the control knob to the plunger. Screw the plunger out from the top body; it is advisable to change the upper plunger seal at the same time.
- 5.5 With the top body assembly removed it is also advisable at this time to inspect the condition of the two O Rings fitted to the top body, replace if damaged.

6.0 TROUBLE SHOOTING GUIDE

PROBLEM	PROBABLE SOLUTION
No abrasive flow	Check for damp Abrasive. Choke machine as instructed in the Blast Machine Owner's Manual.
	Check for obstruction in the valve. Depressurize the blast machine and remove drain plug, check for debris covering the feed opening.
Irregular abrasive flow	Incorrect adjustment of the valve, check valve setting, may be too rich.
	A high degree of fines in the abrasive mix can cause "Rat Holing" leading to erratic abrasive feed, check the abrasive and replace if necessary.
Air leakage at valve	Abrasive may not be free flowing; this will require adjustment of the choke valve to improve flow from the machine.
Air leakage at valve	Check the pipe nipple for wear and tear, replace as required.
No abrasive or air from nozzle	Obstruction at the nozzle, depressurize the blast machine and remove the nozzle from the nozzle holder.



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7.0 ASSEMBLIES, PARTS LISTING & EXPLODED VIEW

7.1 Fina Abrasive Control Valve Assemblies

Stock Code	Description	Weight
BAC-VA-PB-0060	Fina Valve 1-1/4" M X 1-1/4" M Assembly	2.10 kg (4.63 lbs)
BAC-VA-PB-0061	Fina Valve 1-1/2" M X 1-1/2" M Assembly	
BAC-VA-PB-0062	Fina Valve 1-1/4" M X 1-1/2" M Assembly	
BAC-VA-PB-0063	Fina Valve 1" F X 1-1/2" M Assembly	

7.2 Fina Abrasive Control Valve Parts Listing

Item	Stock Code	Description	Qty
1	BAC-VA-PB-0047	Control Knob	1
2	YAC-VA-PB-0048	Spring Pin	1
3	YAC-FN-PB-0183	Bolt	2
4	YAC-FN-PB-0022	Flat Washer	2
5	BAC-VA-PB-0049	Top Body	1
6	BAC-VA-PB-0050	Plunger	1
7	BAC-VA-PB-0051	Body	1
8	YAC-VA-PB-0052	Plunger Seal	1
9	YAC-VA-PB-0053	Urethane Sleeve	1
10	YAC-VA-PB-0054	Gasket	1
11	YAC-BS-PB-0032	O-Ring	1
12	YAC-BS-PB-0054	O-Ring	2

7.3 Fina Abrasive Control Valve Pipe Nipples

Item	Stock Code	Description	Qty
13	BAC-VA-PB-0055	Pipe Nipple 1-1/4" M X 1-1/4"M	1
14	BAC-VA-PB-0056	Pipe Nipple 1-1/2" M X 1-1/2"M	1
15	BAC-VA-PB-0057	Pipe Nipple 1-1/4" M X 1-1/2"M	1
16	BAC-VA-PB-0058	Pipe Nipple 1" F X 1-1/2"M	1

7.4 Fina Abrasive Control Valve Service Kits

Stock Code	Description
BAC-VA-PB-0016	Fina Valve Service Kit Items 2, 3, 4, 8, 9, 10 & 11
BAC-VA-PB-0122	Fina Urethane Sleeve Kit Item 9 (3 off)



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7.5 Fina Abrasive Control Valve Product Exploded View

