



PRODUCT OPERATING MANUAL

Manual No. ZVP-PC-0072-01

**UNIFLO REMOTE 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 operation and maintenance of the PanBlast™ UniFlo Remote Control Valve.

2.2 The PanBlast™ UniFlo Remote Control Valve features a diaphragm driven piston type inlet and exhaust valve. The PanBlast™ UniFlo Remote Control Valve is ideally suited to blast pots with inlet sockets of 1" through to 1 1/2" with a operating pressure not exceeding 1034kPa (150psi).

2.3 The PanBlast™ UniFlo Remote Control Valve is generally used in conjunction with the PanBlast™ AirFlo Pneumatic Control Handle.

NOTE: UNDER OSHA 1915:34(c)(1)(iv) DEAD MAN CONTROL. A DEADMAN CONTROL DEVICE SHALL BE PROVIDED AT THE NOZZLE END OF THE BLAST HOSE EITHER TO PROVIDE DIRECT CUTOFF OR TO SIGNAL THE POT TENDER BY MEANS OF A VISUAL AND AUDIBLE SIGNAL TO CUT OFF THE FLOW, IN THE EVENT THE BLASTER LOSES CONTROL OF THE HOSE. THE POT TENDER SHALL BE



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AVAILABLE AT ALL TIMES TO RESPOND IMMEDIATELY TO THE SIGNAL.

3.0 OPERATING INSTRUCTIONS

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

- 3.1 Before connecting the main compressed air supply, check the operation of the deadman control handle and ensure that the deadman handle lock is operational and that the handle is free in its action.
- 3.2 Ensure that all hose fittings are secured and safety pins are engaged.
- 3.3 The PanBlast™ UniFlo Remote Control Valve should be supplied with a 1-1/4" bore or larger supply compressed air line to provide adequate air supply.
- 3.4 Start the compressor and slowly open the main air supply ball valve to the blast pot.
- 3.5 Close the mini ball valve on the UniFlo main body inlet chamber. After closing the mini ball valve there should be air escaping from the bleed hole in the deadman handle assembly. The system is now ready for blasting.
- 3.6 Pull back the safety lever lock on the deadman handle assembly and depress the handle. This will close off the bleed hole at the handle and send a return signal to the UniFlo remote system, simultaneously opening the inlet valve which then pressurizes the blast pot and pusher line and closes the exhaust valve preventing the pot from exhausting.
- 3.7 Release the handle to stop blasting, this engages the safety lock lever preventing inadvertent operation of the handle. This in turn opens the handle bleed hole, removing the return signal to the UniFlo remote system; this in turn closes the inlet valve and opens the exhaust valve which then depressurizes the blast pot and shuts down the blast.

4.0 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

- 4.1 Periodically the valve should be disassembled and checked for wear and tear, and lubrication on the piston and O Rings. Check for scoring of the housing bore and inlet piston, if either are badly scored, they or the valve should be replaced.

- 4.2 Check the exhaust chamber body for wear and tear, and inspect the condition of the diaphragm for cracking, replace as required.
- 4.3 Check the condition of the exhaust pad for wear and tear, if there are signs of wear and tear or grooving, this should be replaced.
- 4.4 Check the condition of the exhaust inlet nipple located on the top of the exhaust chamber and replace if worn.



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5.0 TROUBLE SHOOTING GUIDE

PROBLEM	PROBABLE SOLUTION
Unable to start blasting operations	Make sure that the mini ball valve at the top of the inlet valve is closed; also ensure that the lower drain valve has been closed.
	Check the main air supply.
	Check the nozzle for a blockage.
	Check if the pop up valve is fully lifted, if a rattle or hovering can be detected there is insufficient air supply.
	Make sure that there are no air leaks in the twinline control hoses.
	Is there air escaping from the handle bleed hole when the handle is released? If not, the air supply to the handle is blocked. Check the restricted orifice nipple in the supply fitting to the handle and ensure that it is not blocked.
	Open the upper mini ball valve on the inlet valve and depress the deadman handle, is there air escaping from the ball valve? If not, and there is air supply to the handle there is an air leakage from the return signal side of the system, either at the handle or along the return signal hose.
	If there is air escaping from the mini ball valve when in operation, it is likely that the piston in the inlet valve is seized up. Disassemble and check piston and O Rings.
Check if there is air escaping from the exhaust valve when the deadman handle is depressed. If so, the diaphragm should be inspected for wear and tear, replace as required. Also check and ensure that the seat in the casting is not worn off.	
Blasting Operation Cannot be shut down or stop	Verify that the twinline hoses have been connected to the deadman handle correctly. Check that the supply line is connected to the handle inlet fitting and signal line to the handle outlet fitting.
	Check for and ensure that the deadman handle bleed hole is not blocked or restricted.
	If there is no air escaping from the mini ball valve when the deadman handle has been released and the pot continues to blast then it is likely that the piston in the inlet valve has seized up. Disassemble and check the inlet piston, O Rings, piston, U seals and housing bore.



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6.0 ASSEMBLIES, PARTS LISTING & EXPLODED VIEW

6.1 UniFlo Remote Control Valve Assembly

Stock Code	Description	Weight
BAC-RC-PB-0014	Uniflo Valve Assembly With Fittings	2.50 kg (5.51 lbs)

6.2 UniFlo Remote Control Valve Parts Listing

Item	Stock Code	Description	Qty
1	YAC-RC-PB-0068	Body	1
2	BAC-RC-PB-0069	Exhaust Chamber	1
3	YAC-RC-PB-0070	Exhaust Pad	1
4	YAC-RC-PB-0071	Piston	1
5	YAC-RC-PB-0072	Diaphragm	1
6	YAC-RC-PB-0073	Backing Washer	1
7	YAC-RC-PB-0074	Piston Rod	1
8	YAC-RC-PB-0075	Bush	1
9	YAC-RC-PB-0076	Spring	1
10	YAC-RC-PB-0077	Piston End Cap	1
11	YAC-RC-PB-0078	Retaining Disk	1
12	YAC-FN-PB-0099	Screw	1
13	YAC-FN-PB-0100	Screw	1
14	YAC-FN-PB-0101	Circlip	1
15	YAC-BS-PB-0012	O-Ring	1
16	YAC-BS-PB-0006	O-Ring	1
17	YAC-BS-PB-0005	O-Ring	1
18	YAC-FN-PB-0102	Hex Head Bolt	4
19	YAC-FN-PB-0022	Flat Washer	4
20	YAC-RC-PB-0083	Nipple - Customized	1
21	YAC-RC-PB-0095	Lock Nut	1
22	YAC-PF-PB-0067	Quick Disconnect Fitting Male	1
23	YAC-PF-PB-0066	Quick Disconnect Fitting Female	1
24	YAC-PF-PB-0068	Quick Disconnect Fitting Male	1
25	YAC-PF-PB-0069	Quick Disconnect Fitting Male	1
26	YAC-PF-PB-0167	Mini Ball Valve	1
27	YAC-FN-PB-0149	Hose Clamp	2
28	YAC-PF-PB-0088	Plug	1

6.3 UniFlo Remote Control Valve Service Kits

Stock Code	Description
BAC-RC-PB-0092	Uniflo Seal Service Kit. Items 3, 5, 15, 16 & 17
BAC-RC-PB-0004	Uniflo Pneumatic Fittings Kit. Items 20, 21, 24, 25, 26 & 28
BAC-RC-PB-0005	Uniflo Piston Service Kit. Items 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 18 & 19
BAC-RC-PB-0097	Uniflo Top End Service Kit. Items 3, 4, 5 & 20
BAC-RC-PB-0098	Uniflo Exhaust Pad Kit. Items 3 (3 off)
BAC-RC-PB-0099	Uniflo Diaphragm Pad Kit. Items 5 (3 off)



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6.4 UniFlo Remote Control Valve Exploded View

