



PRODUCT OPERATING MANUAL

PANBLAST™

UNIFLO REMOTE CONTROL CONVERSION KIT

Manual Number: ZVP-PC-0175-00

SECTION

- 1. GENERAL INFORMATION**
- 2. INTRODUCTION**
- 3. INSTALLATION**
- 4. OPERATING INSTRUCTIONS**
- 5. MAINTENANCE**
- 6. TROUBLE SHOOTING GUIDE**
- 7. ASSEMBLIES, PARTS LISTING & EXPLODED VIEW**

1.0 GENERAL INFORMATION

1.1 Panblast Notice to Purchasers and Users

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

1.1.2 It is the responsibility of the user to:

- Determine if the equipment and abrasive media is suitable for the users' intended use and application.
- Familiarize themselves with any appropriate laws, regulations and safe work practices, which may apply within the users' working environment.
- Provide appropriate operator training and a safe working environment including operator protective equipment (PPE) such as, but not limited to, blasting suit, safety footwear, protective eyewear and hearing protection.

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

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

1.2.1 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 (SAR) equipment by blast operators and all personnel within the work site area.

1.2.2 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.

1.3 Standard Safety Precautions

1.3.1 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.

1.3.2 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.

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

1.3.4 Under no circumstances should any safety interlocks / lockouts or features be altered or disabled in any way.

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

1.3.6 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.

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

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

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

1.3.10 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 Conversion Kit.

2.2 The PanBlast™ UniFlo Remote Control Conversion Kit comprises the UniFlo combination remote control valve, remote control handle, twinline control hose, exhaust muffler and all related plumbing fittings. The PanBlast™ UniFlo Remote Conversion Kit is ideally suited to blast pots with inlet sockets of 25mm (1") through to 38mm (1 1/2") with an 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 AVAILABLE AT ALL TIMES TO RESPOND IMMEDIATELY TO THE SIGNAL.

3.0 INSTALLATION

⚠ ! WARNING ! THE SYSTEM MUST BE IN SHUT DOWN MODE AND THE COMPRESSED AIR DISCONNECTED BEFORE PERFORMING ANY INSTALLATION WORK. FAILURE TO DO SO MAY RESULT IN PREMATURE ACTIVATION OF THE SYSTEM THAT MAY CAUSE SERIOUS INJURY OR DEATH.

3.1 Check all fittings and sub components are present within the supplied UniFlo Remote

Control Conversion Kit against the parts listing as per 7.2 of this manual.

- 3.2 The UniFlo Remote Control Conversion Kit is not supplied with the abrasive metering valve. Panblast recommend the use of either the Fina or Fina II Abrasive Metering Valve in conjunction with the UniFlo Remote Control Conversion Kit.
- 3.3 Appropriate tools such as a pipe wrench or correctly sized spanners will be required for undertaking the fitting procedure. Ensure thread sealant is utilized on all screwed plumbing threads to obtain an airtight seal.
- 3.4 Remove all existing valves, plumbing fittings and hoses from the exterior of the blast pot, ensuring that either the Fina or Fina II Abrasive Metering Valve remains in place.
- 3.5 Screw item (26) pipe piece in to the main air inlet socket of the blast pot.
- 3.6 Screw item (17) "T" junction on to item (26) and position the "T" junction at 90 degrees to the top and bottom of the blast pot (refer 7.3 of this manual for positioning).
- 3.7 Screw item (16) nipples into the two remaining female ports of item (17) "T" junction.
- 3.8 Attach item (18) UniFlo Valve to item (16) nipple as per the configuration and position as outlined in 7.3 of this manual.
- 3.9 Using a suitable bench vice or clamp, assemble items (20), (21) & (22) as per the configuration shown in 7.3 of this manual.
- 3.10 After the assembly of (20), (21) & (22) has been completed, screw the "T" junction to the top of the UniFlo valve as per the configuration as outlined in 7.3 of this manual.
- 3.11 Screw item (25) hose tail in to the 25mm (1") female exhaust air socket of the blast pot.
- 3.12 Measure the distance between the two items (22) & (25) fitted to the blast pot and the "T" junction, which is in place on the top of the UniFlo valve. Proceed to cut a section of hose item (24) to be positioned as the joining hose between the blast pot and UniFlo Valve.
- 3.13 To fit the joining hose item (24), loosen the four (4) × hex head bolts located on the top of the UniFlo valve. Insert the cut to size joining hose item (24) to both hose tails and secure with the two hose clamps item (23) as supplied. Once the joining hose is secured, re-tighten the four (4) hex head bolts located on top of the UniFlo valve.
- 3.14 Using a suitable bench vice or clamp, prepare and pre-assemble items (14) & (15). Now proceed to screw this assembly to item (16) on the lower section of the "T" junction below the UniFlo Valve.
- 3.15 Screw item (28) socket to the screwed thread section of the pipe nipple located on either the Fina or Fina II Abrasive Metering Valve. Once the socket is tight proceed to screw item (14) hose tail in to the socket.

3.16 Using item (27) pusher line hose, place both hose clamps item (13) over the hose. Push both ends of the hose firmly on to the hose tails item (14). Once the hose is firmly secure on both hose tails, secure with the supplied hose clamps item (13) ensure that both clamps are secure on both hose tails and are adequately tight.

3.17 Using a suitable bench vice or clamp, prepare and pre-assemble items (19), (20), (21) and (5). Now proceed to screw this assembly to the UniFlo 19mm (¾") Air Exhaust Port located on the UniFlo Valve. Refer to 7.3 of this manual for orientation and positioning.

3.18 Position item (6) exhaust muffler in an appropriate position on the exterior of the blast pot by using item (7) & (8) muffler mounting bracket, preferably the blast pot leg or external frame. The exhaust muffler must be positioned with the multi air vent holes facing downwards for safety purposes.

Note: Do not affix the exhaust muffler directly to the main blast pot shell.

3.19 Using item (3) exhaust hose, place both hose clamps item (4) over the hose. Push both ends of the hose firmly on to the hose tails item (5). Once the hose is firmly secure on both hose tails, secure with the supplied hose clamps item (4) ensure that both clamps are secure on both hose tails and are adequately tight.

3.20 Using a suitable bench vice or clamp, prepare and pre-assemble items (9), (10), (11). Now proceed to screw this assembly to the blast pot auxiliary air socket located on the blast pot shell. Refer to 7.3 of this manual for orientation and positioning.

4.0 OPERATING INSTRUCTIONS

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

4.1 Connect the twinline hose from the marked (IN) port of the remote control handle to the live air source on the UniFlo Remote Control Valve. Proceed to connect the second twinline hose from the remote control handle marked (Out) port to the UniFlo Remote Control Valves air activation port. Then lay the twinline hose out alongside the blast hose for its full length.

4.2 Using cable ties, heavy tape or similar, attach the twinline hose directly to the blast hose at approximately 1000mm (40") intervals. The remote control handle should be cable tied to the blast hose at a point directly behind the previously fitted nozzle holder.

4.3 Before connecting the main compressed air supply, check the operation of the remote control handle and ensure that the safety lever lock is operational and that the handle lever is free in its action.

4.4 Ensure that all hose fittings are secured and that the coupling safety locking pins and safety whip check cables are engaged at all hose connection points.

- 4.5 The PanBlast™ UniFlo Remote Control Valve should be supplied with a 32mm (1-1/4") bore or larger compressed air supply line to provide adequate air supply and volume.
- 4.6 Start the compressor and slowly open the main air supply ball valve to the blast pot.
- 4.7 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 on the remote control handle assembly. The system is now ready for abrasive blasting.
- 4.8 Pull back the safety lever lock on the remote control handle assembly and depress the lever handle. This will close off the bleed hole in the remote control handle and send a return signal to the UniFlo remote system, simultaneously opening the inlet valve ports, which will pressurize the blast pot and pusher line and closing the exhaust valve preventing the blast pot from exhausting compressed air from the blast pot.
- 4.9 Release the lever handle to stop blasting, this engages the safety lever lock preventing inadvertent operation of the remote control handle. This in turn opens the handles bleed hole removing the return signal to the UniFlo remote system. This will close the inlet valve and opens the exhaust valve, which depressurizes the blast pot and shuts down the abrasive blasting process.

5.0 MAINTENANCE

⚠ ! WARNING ! THE SYSTEM MUST BE IN SHUT DOWN MODE AND THE COMPRESSED AIR DISCONNECTED BEFORE PERFORMING ANY MAINTENANCE WORK. FAILURE TO DO SO MAY RESULT IN PREMATURE ACTIVATION OF THE SYSTEM THAT MAY CAUSE SERIOUS INJURY OR DEATH.

- 5.1 Periodically the UniFlo Remote Control 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 is badly scored they or the valve should be replaced.
- 5.2 Check the exhaust chamber body for wear and tear, and inspect the condition of the diaphragm for any signs of splits, tears or cracks, replace as required.
- 5.3 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.
- 5.4 Check the condition of the exhaust inlet nipple located on the top of the exhaust chamber and replace if worn.

6.0 TROUBLE SHOOTING GUIDE

PROBLEM	PROBABLE SOLUTION
Unable to start blasting operations.	Make sure that the mini ball valve at the top of the UniFlo Valve is closed.
	Check the main air supply.
	Check the blast nozzle for blockages.
	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 remote handle bleed hole when the lever handle is released? If not, the air supply to the remote 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 UniFlo valve and depress the remote handle, is there air escaping from the mini ball valve? If not, and there is air supply to the remote handle there is an air leakage from the return signal side of the system, either at the remote handle or along the return signal twinline hose.
Blasting operation cannot be shut down or stopped.	If there is air escaping from the mini ball valve when in operation? If so, it is likely that the piston in the inlet valve is seized up. Disassemble and check the piston and O-rings.
	Check if there is air escaping from the exhaust valve when the remote 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.
	Verify that the twinline hoses have been connected to the remote control handle correctly. Check that the supply line is connected to the handles inlet fitting and signal line to the handle outlet fitting.
	Check for and ensure that the remote control handle bleed hole is not blocked or restricted.
	If there is no air escaping from the mini ball valve when the remote control handle lever has been released and the blast 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.

7.0 ASSEMBLIES, PARTS LISTING & EXPLODED VIEW

7.1 UniFlo Remote Control Conversion Kit Assembly

Stock Code	Description	Weight
BAC-RC-PB-0001	UniFlo Remote System Conversion Kit	21Kg (46.3lbs)

7.1.1 UniFlo Remote Control Conversion Kit - Parts Listing

Item	Stock Code	Description	Qty
1	BAC-RC-PB-0085	AirFlo Pneumatic Control Handle	1
2	BAC-RC-PB-0012	20m (66') Twinline Hose Assembly	1
3	YAC-BF-PB-0041	Hose-Air/Water Delivery 19mmID x 29mmOD	1
4	YAC-FN-PB-0242	Hose Clamp	2
5	YAC-PF-PB-0186	KC Nipple	1
6	BAC-RC-PB-0022	Exhaust Muffler	1
7	YAC-BF-PB-0048	Muffler - Support Bracket	2
8	YAC-FN-PB-0088	Screw	2
9	BAC-PF-PB-0030	6mm (1/4")125psi Pressure Relief Valve	1
10	YAC-PF-0302-00	Nipple	1
11	YAC-PF-0303-00	Tee	1
12	YAC-PF-0292-00	Reducing Nipple	1
13	YAC-FN-PB-0244	Hose Clamp	2
14	YAC-PF-PB-0184	KC Nipple	2
15	BAC-PF-PB-0006	32mm (1-1/4") Ball Valve	1
16	YAC-PF-0293-00	Nipple	4
17	YAC-PF-0362-00	Tee	1
18	BAC-RC-PB-0014	UniFlo Valve Assembly With Fittings	1
19	YAC-PF-0288-00	Nipple	1
20	YAC-PF-PB-0083	Plug	2
21	YAC-PF-0364-00	Tee	2
22	YAC-PF-PB-0058	Hose Barb	1
23	YAC-FN-PB-0243	Hose Clamp	2
24	YAC-BF-PB-0047	Hose Air/Water Delivery 25 ID x 35 OD	1
25	YAC-PF-PB-0057	Hose Barb	1
26	YAC-PF-PB-0073	Pipe Piece	1
27	YAC-BF-PB-0046	Hose-Air/Water Delivery 32mmID x 45mmOD	1
28	YAC-PF-0289-00	Socket	1
29	YAC-PF-0307-00	Tee (Optional)	1
30	YAC-PF-0301-00	Nipple (Optional)	1
31	YAC-PF-PB-0128	Plug (Optional)	1

7.1.2 UniFlo Remote Control Conversion Kit - Exploded View

