



PRODUCT OPERATING MANUAL

PANBLAST™

PB1000P BLAST CABINET ASSEMBLY

Manual Number: ZVP-PC-0213-00

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BLAST CABINET SERIAL NUMBER:

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, safety footwear, protective eyewear and hearing protection.

1.1.3 Panblast Standard Terms and Conditions of Sale apply. Contact your local Panblast office 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 equipment (SAR) 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(s) and all personnel 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 trade's 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 prior to any service or maintenance work being carried out.

1.3.6 All care must be taken by the operator(s) when lifting or moving equipment or components in order to prevent injury. 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 and/or components 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 media 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 to ensure the safety of the operator and others.

1.3.10 The operator should carry out a daily inspection of all related components prior to start up of all wearing and safety items to ensure they are in correct operating order. In particular check the blast cabinet safety door interlock system, cabinet lighting, pressure regulator and foot pedal for correct operation. Ensure that all compressed air coupling connections have engaged correctly, the safety locking pins are fitted and in good order. Always install safety whip check cables at every air supply connection. Ensure that the blast nozzle is securely fitted to the suction blast gun assembly and that the suction gun air and abrasive media hoses are securely attached to the suction blast gun.

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.

2.0 ASSEMBLY INSTRUCTIONS

 ! 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.

2.1 The PanBlast™ PB1000P Blast Cabinet is a freestanding unit, which should be installed in a dry area, on a flat and level surface. It is recommended a clear area of 2800mm (47") be provided around all sides of the cabinet to provide access for operation, loading and servicing.

2.2 The cabinet should only be lifted by the lifting lugs provided using suitable sized lifting equipment in good condition.

2.3 It is recommended that the cabinet should be permanently fixed in position with suitably sized fasteners for added stability and safety during use.

2.4 Connect 3/4" air supply to the inlet of the ball valve on the pressure regulator located at the side of the blast pot.

NOTE: THE MINIMUM COMPRESSED AIR VOLUME OF 1.416M³/MIN (50CFM) IS

REQUIRED. ALL COMPRESSED AIRLINES, FITTINGS AND CONNECTIONS MUST BE OF THE APPROPRIATE PRESSURE RATING.

- 2.5 The compressed air supply must also be clean and dry for the blast cabinet to operate effectively.
- 2.6 Connect a suitably sized electrical power supply. If the electrical supply is being hard wired into an existing power supply, this must only be done by a suitably qualified and registered electrical tradesman.

NOTE: THE RECOMMENDED ELECTRICAL SUPPLY IS 415VAC 3 PHASE 10AMP

- 2.7 Position the cabinet foot pedal at the front of the cabinet in a position that is comfortable for the operator to use. On some models, the foot pedal may be mounted on a frame attached to the cabinet itself.
- 2.8 It is recommended that the cabinet foot pedal be fixed in position with suitably sized fasteners for added stability and ease of operation during use.
- 2.9 The blast cabinet is now ready for operation.

3.0 OPERATING INSTRUCTIONS

- 3.1 Install the blast cabinet as detailed in Section 2.0 of this manual.
- 3.2 Remove the pot adaptor cover plate by untighten the two nuts at the pot adaptor.
- 3.3 Load the abrasive media into the blast pot through the pot adaptor. The abrasive level should remain below the bottom of the pop up valve to prevent premature wear to the remote exhaust valve assembly.
- 3.4 Refit the pot adaptor panel and ensuring that the two nuts are properly tightened.
- 3.5 Turn on the compressed air supply, and slowly open the main ball valve located at the pressure regulator assembly.
- 3.6 Lift up the pressure regulator control knob to release the lock, and adjust the regulator to the desired blasting pressure. This is done by spinning the adjustment knob clockwise to increase pressure, and counter clockwise to decrease pressure.
- 3.7 The pressure gauge mounted on the front of the regulator indicates the system air pressure, in both kPa and PSI. Do not set the blast pressure below 345kPa (50psi) as the blast system may not operate correctly (this is to ensure that the pop up valve will fully close)

⚠ ! WARNING! - DO NOT EXCEED THE MAXIMUM OPERATING PRESSURE OF THE BLAST POT AT ANY TIME AS THIS COULD RESULT IN SERIOUS INJURY OR DEATH..

- 3.8 Open the main cabinet door, and load the component to be blasted into the main cabinet area.
- 3.9 Close the main cabinet door, making sure that the safety door interlock is properly engaged. It

is a safety feature that the blasting system will not activate while the cabinet door is open.

- 3.10 Turn on the main power supply, and switch on the cabinet light at the switch on the front of the cabinet, and start the dust collector fan by depressing the on green button located on the fan starter assembly.
- 3.11 The blast cabinet is now ready for operation.
- 3.12 Depressing the foot pedal will pressurise the blast pot and blasting will start. Ensure the nozzle is held in hand before depressing the foot pedal.
- 3.13 When the operator is ready to start blasting, point the blast nozzle at the work piece before pressing the foot pedal. This will then actuate the UniFlo remote control valve and start blasting. Abrasive will not be discharge from the nozzle if the abrasive valve is not set.
- 3.14 As there are many different sizes and types of abrasive blasting media, it is necessary for the system to be adjusted to allow for each abrasive type individual performance characteristics. Most of this adjustment is carried out at the abrasive valve, located at the bottom of the blast pot.
- 3.15 Turn the Fina II abrasive valve knob located at the bottom of blast pot to fully close (Clockwise direction), and then slowly open it until the desired abrasive flow level is achieved. The optimum abrasive flow level will vary depending on actual operating conditions and the desired end result, but as a general rule, the abrasive should appear in the air stream as a fine mist. Once the desired abrasive flow rate has been achieved, the system is now set for ongoing blasting operations.
- 3.16 The operator should now manipulate the blast nozzle to move the blasting action over the surface of the component being blasted, until the desired result is achieved. Smooth, continuous strokes over the component surface are normally the most effective, with the nozzle being held approximately 75mm (3") to 125mm (5") from the component surface.
- 3.17 To stop the blasting operation, releasing the foot pedal.
- 3.18 Allow a few moments for the fan and dust collector to clear the airborne dust from the cabinet before opening the cabinet door and removing the work piece/s
- 3.19 After removing the work piece, close the door, shut off the compressed air supply at the main ball valve.
- 3.20 Be sure to empty the machine of all abrasive when shutting down for more than 3-4 hours as this will reduce the problems associated with moisture, humidity, etc. when starting a new day's operation.

4.0 MAINTENANCE

DAILY SET UP CHECKLIST

⚠ ! WARNING ! - THE COMPRESSED AIR SOURCE MUST BE ISOLATED BEFORE PERFORMING ANY MAINTENANCE WORK.

FAILURE TO DO SO MAY CAUSE SERIOUS INJURY OR DEATH.

- 4.1 All piping, fittings and hoses must be checked daily for tightness and leakage.
- 4.2 All equipment and components must be thoroughly checked for wear.
- 4.3 All worn or suspect parts must be replaced
- 4.4 All blast operators must be properly trained to operate equipment.
- 4.5 Before Blasting, always use the following checklist :
- 4.6 If moisture separator is fitted, clean filter daily & drain away excess water.
- 4.7 Use abrasive that is properly sized and free of harmful substances such as free silica, cyanide, arsenic or lead. Check for presence of toxic or harmful substances

Blasting nozzle

- 4.8 On a weekly basis, remove the blast nozzle from the nozzle holder by unscrewing the nozzle in a counter-clockwise direction, and inspect it for wear. Replace the nozzle if the internal diameter is worn by 1.5mm (1/16") from its original size, or if the liner is chipped or cracked.
- 4.9 Check the condition of the nozzle washer and replace as required, then re-fit/replace the blast nozzle by screwing it clockwise into the nozzle holder until it is fully sealed against the nozzle washer.
- 4.10 Check the condition of the nozzle holder and inspect for any cracks or signs of damage. Replace if required.

Blast pot

- 4.11 On a monthly basis, inspect the pop up valve located in the top of the blast pot for wear in the form of cracks or grooves. If replacement is required, remove the blast pot shell inspection cover located on the front of the blast pot. Using a suitable pipe wrench, unscrew the vertical pipe section which houses the pop up valve, and remove both the pipe section and pop up valve through the inspection opening. Installation of the new pop up valve is a reversal of the removal procedure and ensures that the pop up valve is positioned directly below the top opening of the blast pot for correct sealing.
- 4.12 Check and inspect the pop up valve seating ring for wear. If replacement is necessary, use a large screwdriver or similar tool to pry the seating ring out of the seat. When re-fitting the seating ring, ensure that it is correctly seated within the seating ring housing.

Abrasives delivery hose

- 4.13 On a monthly basis, inspect the abrasive supply hose along its entire length, by feeling for soft spots, which will indicate areas of wear. If the wear is near the end of the hose, it is permissible to cut off the worn section of hose and re-connect the shortened hose. Otherwise it will be necessary to replace the entire length of hose.

Dust collector

- 4.14 On a weekly basis, or when the visibility within the cabinet becomes poor, with the dust collector fan turned off, operate the dust collector pulse system 2-3 times by depressing then releasing the valve lever located on the side of the dust collector behind the main cabinet. Wait a few moments for the dust to settle, and then open the drain valve at the bottom of the dust collector to drain the dust into a refuse dustbin. When all the dust has completely drained out, close the drain valve. Do not over pulse the dust collector cart, as this will cause damage to the filter cartridge media, and this in turn will cause the dust collector to leak dust from the fan outlet.
- 4.15 Open the dust collector inspection door, and visually inspect the filter cartridge for any damage, wear or excessive dust build up. If the filter media is damaged in any way, or there is dust present in the air being discharged from the dust collector, then the filter cartridge should be replaced.
- 4.16 As the abrasive is used, dust and debris may build up in the abrasive mix. This will reduce the performance of the blast gun, increase wear on the gun parts and hoses, and also reduce visibility within the cabinet area. If cabinet visibility does not improve after carrying maintenance as detailed in 4.8 and 4.8.1, then it will be necessary to drain all the abrasive from the cabinet, and replace it with new, clean abrasive media.

Cabinet gloves

- 4.17 On a weekly basis, give the cabinet gloves a visual inspection and check for holes and signs of deterioration. Replace the gloves as necessary.

Cabinet window

- 4.18 Over a period of time, the cabinet's viewing window will become frosted by the impact from rebounding abrasive. The service life of the window will be increased by ensuring that the operator always directs the blasting action away from the window as much as possible. Replace the window by unscrewing the four retaining nuts and removing the cabinet window frame.

NOTE: THE CABINET VIEWING WINDOW IS MADE FROM 6MM THICK LAMINATED GLASS. NEVER USE PLAIN PLATE GLASS FOR A CABINET WINDOW, AS SERIOUS INJURY MAY OCCUR.

Pressure regulator/filter

- 4.19 Over a period of time, depending on the air-drying capacity of the compressed air supply, water may build up in the air pressure regulator/filter assembly. This water should be drained from the regulator on a daily basis, or more often if required, by opening the drain valve in the bottom of the regulator filter bowl. Close the drain valve after draining is complete.

Rubber seals

- 4.20 On a weekly basis, inspect the main cabinet door seal around the door opening for wear and damage. Also inspect the abrasive hopper seal

and the dust collector inspection door seal for wear and damage. Replace all seals as required.

Door safety interlock

- 4.21 On a weekly basis, inspect the cabinet door safety interlock for condition and operation. The blasting system should not operate with the main cabinet door open. Replace/adjust the door interlock as required.

NOTE: NEVER BYPASS OR DISABLE THE DOOR INTERLOCK AS SERIOUS INJURY MAY OCCUR.

5.0 TROUBLE SHOOTING GUIDE

Item	Problem	Possible Cause	Corrective Actions
1	Blasting system will not operate	Door safety interlock not fully engaged	Check that the main cabinet door is fully closed and the interlock is engaged
		Door safety interlock faulty	Check/repair/replace door interlock assembly as required
		Faulty foot pedal operation	Check/repair/replace foot pedal assembly as required
2	Blast pot will not pressurize	No/inadequate compressed air supply	Check that air compressor is operational. Ensure air output and supply hose size is correct
		Main supply ball valve is closed	Open ball valve
		Pop up valve/seating ring worn or damaged	Inspect and replace as required
3	No air and/or abrasive flow from blast nozzle	Blast nozzle blocked	Depressurize system and remove nozzle for holder
			Check and clear any possible blockage
			Re-fit nozzle
		Pusher line choke valve fully closed	Open and adjust the choke valve as necessary
		Abrasive valve fully closed	Open and adjust abrasive ball valve as required
		Insufficient abrasive in blast pot	Refill with abrasive as required
		Excessive dust and fines in abrasive	Drain abrasive from blast pot and refill with clean abrasive
Damp or wet abrasive in blast pot	Drain abrasive from blast pot and refill with clean abrasive		
4	Poor visibility in cabinet while blasting	Dirty dust collector bags/cartridge	Operate dust collector shaker/purge system and empty dust collector hopper
		High level of dust in abrasive media	Drain and abrasive from the system and replace with new clean abrasive media
		Dust collector fan damper closed	Adjust fan damper to correct setting
		Blocked/dirty cabinet air inlet filters	Remove, clean and re-fit inlet filters
		Dust collector fan rotation incorrect (3 phase models only)	Have an authorised tradesman reverse the direction of fan rotation
		Dust collector fan not operating	Turn dust collector fan on
5	Intermittent abrasive flow	Excessive dust and fines in abrasive	Drain abrasive from blast pot and refill with clean abrasive
		Insufficient abrasive in blast pot	Refill with abrasive as required
		Damp or wet abrasive in blast pot	Drain abrasive from blast pot and refill with clean abrasive
		Excessive abrasive	Check and adjust air pressure as required
		Compressed air supply pressure too low	
6	Dust emission from fan outlet	Damaged or poorly fitted filter cartridges	Check and replace dust cartridges as required, and ensure that fitment is correct
		Dust build up on clean side of dust collector plenum	Clean out dust and check condition and fit of dust bags/cartridges
		Excessive dust build up in refuse dust hopper	Drain dust hopper and clean out as required.

6.0 ASSEMBLIES, PARTS LISTING AND EXPLODED VIEW

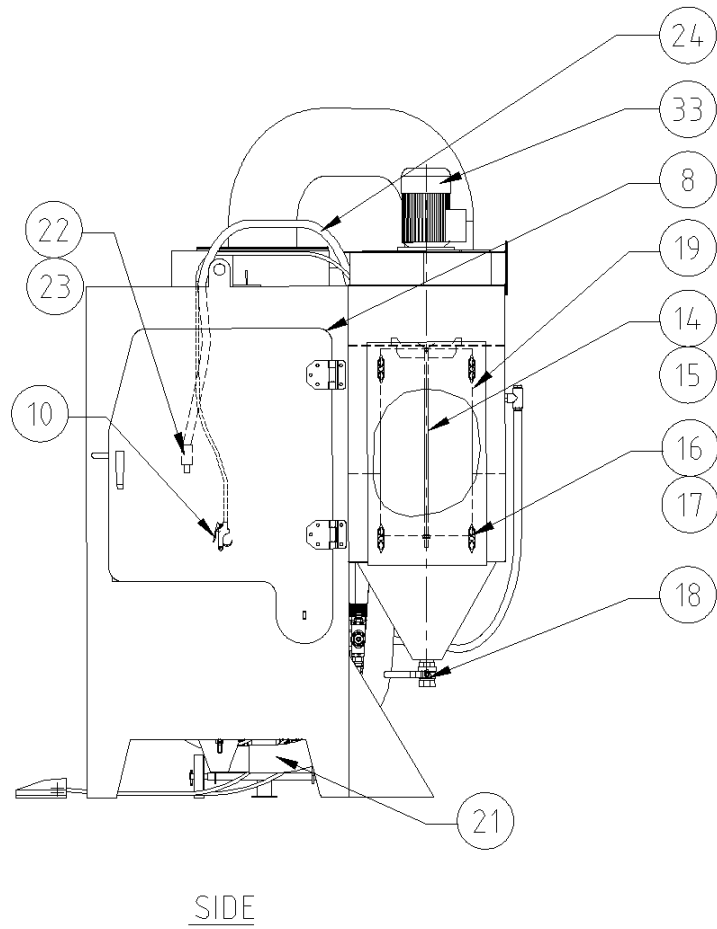
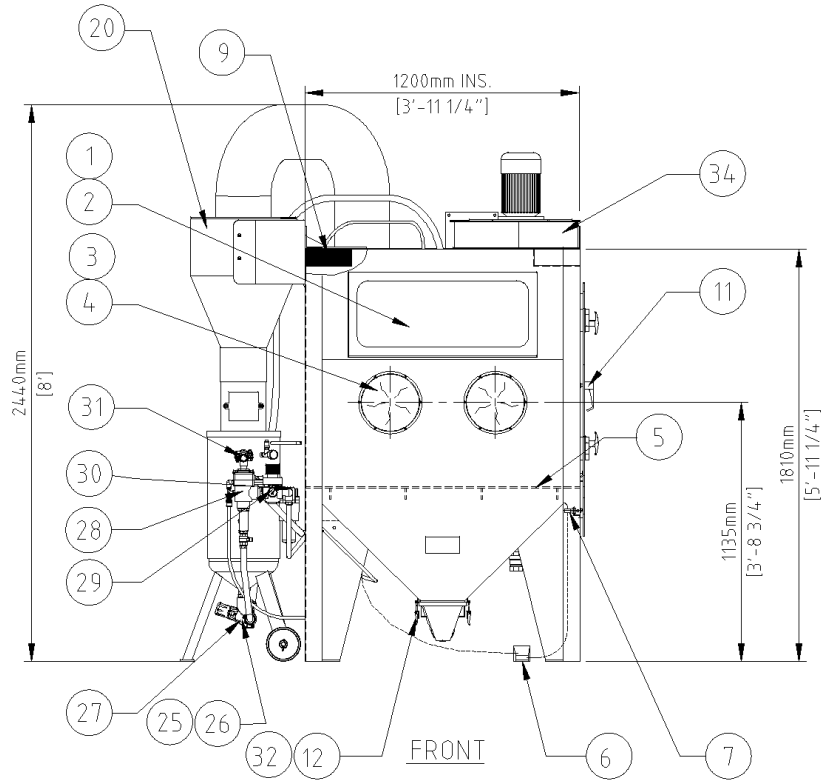
6.1 PanBlast™ PB1000P Blast Cabinet Assemblies

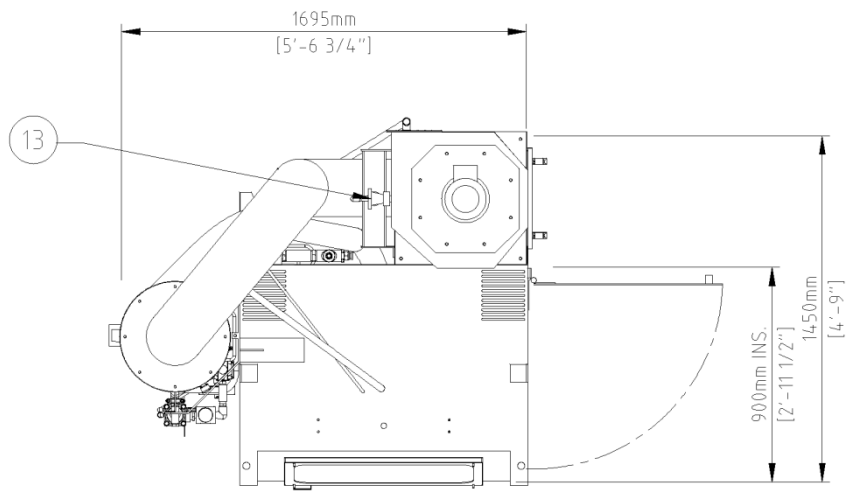
Stock Code	Description	Weight
BEC-CA-PB-0009	PB1000P/NZ/AU Pressure Cabinet Assembly	600 kg (1322 lbs)
BEC-CA-0565-00	PB1000P/SG Pressure Cabinet Assembly	600 kg (1322 lbs)

6.1.1 PanBlast™ PB1000P Blast Cabinet Parts Listing

Item	Stock Code	Description	Qty
1	BAC-CA-PB-0137	Rectangular Window	1
2	BAC-CA-PB-0141	Cabinet Window Seal	2
3	BAC-GL-PB-0003	10 Ø Cabinet Rubber Gloves	1 pr
4	BAC-CA-PB-0157	Cabinet Entry Ring	2
5	BAC-CA-PB-0126	Cabinet Floor Mesh	1
6	BAC-CA-PB-0086	Foot Valve Spring Return	1
7	YAC-CA-PB-0219	Door Interlock Valve	1
8	BAC-CA-PB-0178	Cabinet Door Seal	1
9	BAC-CA-PB-0140	Air Entry Filter	2
10	YAC-CA-PB-0145	1/4" Blow Off Gun	1
11	YAC-CA-PB-0138	Latch	1
12	YAC-FN-PB-0041	Toggle Catch	2
13	BAC-DC-PB-0007	Pulse Valve	1
14	BAC-DF-PB-0002	Filter Cartridge - Size 2 (Open/Close)	1
15	YAC-DC-PB-0005	700mm Hanger Rod	1
16	YAC-CA-PB-0146	Handle	4
17	YAC-CA-PB-0205	Handle Tongue	4
18	BAC-PF-PB-0008	38mm (1 1/2") Ball Valve	1
19	YAC-CA-PB-0375	Dust Collector Door Seal	0.6 m
20	BAC-CA-0281-04	Rubber Lined Cyclone	1
21	BAC-CA-0597-00	Recovery Hose	1
22	BAC-NZ-PB-0025	ANH-1/2 Aluminium Nozzle Holder	1
23	BAC-NZ-PB-0054	Blast Nozzle ATN-3s Alum/Tungsten Short	1
24	BAC-HB-PB-0002	Blast Hose 19mm X 34mm X 20mm L2	2.5 m
25	BAC-HC-0090-00	SHC-1/2 Steel Hose Coupling	1
26	BAC-HC-0086-00	STC-1/2 Steel Threaded Pot Coupling	1
27	BAC-VA-0397-00	Fina II Valve 1/2"M X 3/4"F	1
28	BAC-RC-PB-0086	UniFlo Remote Control Valve	1
29	BAC-AF-PB-0153	19mm (3/4") Pressure Regulator	1
30	BAC-PF-PB-0004	19mm (3/4") Ball Valve	1
31	BAC-PF-PB-0030	6mm (1/4") - 125 psi Pressure Relief Valve	1
32	YAC-CA-PB-0226	Spigot	1
33	YAC-CA-PB-0144	1.5kw 415v/50hz Motor	1
34	YAC-CA-PB-0183	Fan Impellor - 360cfm Aluminium	1

6.1.2 PanBlast™ PB1000P Blast Cabinet Exploded View





TOP