

## PORTABLE PRESSURE BLASTER CABINETS

Models 346,646,1046 with systems RC-176, RC-186 and Dual



# INSTRUCTION MANUAL

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DEFINITION OF TERMS USED IN THIS MANUAL

**Abrasive (also known as “media”):** granular material used for blasting a surface.

**Blow down (also known as “depressurize”):** to expulse air automatically or manually from a pressurized vessel.

**Control Handle:** mandatory remote-control device used to start and stop the blaster.

**Depressurize (also known as “blow down”):** to expulse air automatically or manually from a pressurized vessel.

**Pressure Hold System (also known as “manual blow-down system”):** blasting system in which the pressure vessel stays pressurized when the control handle is released.

**Pressure Release System (also known as “automatic blow-down system”):** blasting system in which the pressure vessel is automatically depressurized when the control handle is released.

**Pressure Vessel:** enclosed section of the blaster filled with pressurized air and abrasive during blasting operations.

**Pressurize:** to fill the pressure vessel with compressed air.



**Properly Trained Person:** a person who has successfully passed a training course in sandblasting pertaining mainly to the safe operation of stationary or portable Abrasive Blasters with capacities ranging from 1.5 ft³ to 6.5 ft³ and who has read this entire manual and understands it

**Silica :** hazardous substance found in many naturally occurring abrasives.



NOTE: Abrasives containing silica must NEVER be used in any blasting situation. Even if respiratory protective equipment is used, the resulting dust can cause respiratory disease

SAFETY SYMBOLS

The safety symbols below are designed to ensure the safety and protection of the Abrasive Blaster operator and of anyone else nearby. The explanations provided apply to sandblasting equipment.

 OR 

**WARNING :**This symbol indicates a potentially dangerous situation that could result in serious injury or death if the instructions related to the symbol are not carried out. Throughout the manual, this warning triangle will appear to denote instructions requiring special attention.

 OR 

**DANGER :** This symbol indicates a potentially dangerous situation that WILL result in serious injury or death if the instructions related to the symbol are not carried out. Throughout the manual, this warning triangle will appear to denote instructions requiring special attention.



## WARNINGS

### WARNING

- Anyone who will be running the Abrasive Blaster or who will be nearby during its operation must receive appropriate training in the safe operation of the equipment and must be cautioned about the potential hazards. Besides being adequately trained, anyone who will be running the Abrasive Blaster or who will be nearby during its operation must read, understand and follow all the procedures explained in the user manual. For replacement manuals, please contact your distributor or go to [www.ISTblast.com](http://www.ISTblast.com).
- Anyone who will be running the Abrasive Blaster or who will be nearby during its operation must use respiratory protection that meets OSHA and NIOSH standards for breathing apparatus and supplied air.
- Because they contain large amounts of accumulated energy, Pressurized Vessels can cause serious injury or death if safety procedures are ignored. Never perform maintenance on a pressurized Pressure Vessel or attempt to open it under any circumstances. Always depressurize the equipment and disconnect it properly from its air source before beginning maintenance. Never modify the Pressure Vessel or do grinding or welding on it under any circumstances. Otherwise, the ASME certification will be void. Damaged pressure vessels must NEVER be used.
- The appropriate Remote (Deadman) Control System must be used to operate the Abrasive Blaster. Abrasive Blasters must NEVER be used without Remote Controls. Bleeder-Type Control Handles must NEVER be used with RC-176 or RC-186 Series Blasters because they can create dangerous conditions where the blaster does not shut off when the handle is released.
- Anyone who will be running the Abrasive Blaster or who will be nearby during its operation must use the appropriate safety equipment as well as common sense to protect themselves. The required safety equipment includes, but is not limited to, hearing, eye, body and lung protection. Because of their weight, Abrasive Blasters and the objects being blasted can cause serious injury or death if they topple over. All OSHA and NIOSH safety requirements must be followed at all times.
- Only genuine ISTblast replacement parts must be used for maintenance on the Abrasive Blaster. The equipment must NEVER be altered under any circumstances. Using altered brand parts can create hazardous conditions and will void your warranty.
- Before using the Abrasive Blaster, inspect it and make sure it is in good working order. Malfunctioning or damaged equipment must NEVER be used.
- Only clean, cool, dry compressed air must be supplied to the Abrasive Blaster. Hazardous conditions can result if moisture or debris reaches the Remote Control System. Compressed air supplied to the Blaster must not exceed 150 psi.
- Using an air-line pressure regulator is strongly recommended.
- Abrasive Blasters must NEVER be used in locations that could be deemed potentially hazardous according to Article 500 of the National Electrical Code, NFPA 70. The Abrasive Blaster must NEVER be used in wet locations. Electrically controlled Abrasive Blasters must always be connected to a ground fault circuit interrupter (GFCI).

## HOW TO SET UP THE BLASTER

### WARNING

The Operating Procedures described in this manual are intended to provide basic information about the safe operation of the features of ISTblast RC-176/RC-186 Series Abrasive Blasters. The Abrasive Blaster should be operated only by persons who are fully trained in abrasive blasting.

### INSPECT THE PRESSURE VESSEL

When your Abrasive Blaster arrives, remove the Handway Assembly and check if any foreign objects have fallen in through the pop-up opening. If so, remove them all, and then reinstall the Handway Assembly.



**DANGER :** Maintenance must NEVER be done on the Abrasive Blaster nor should anyone try to open it while it is pressurized. Otherwise, serious injury or death will result from the violent expulsion of compressed air and propelled objects.

### RE-TIGHTEN THE HANDWAY ASSEMBLY

Once you have pressurized the Abrasive Blaster for the first time, tighten the nut on the Handway Assembly. Also, whenever the Handway Assembly is removed for maintenance, you must tighten the nut again, prior to and following the next pressurization.



**DANGER :** Maintenance must NEVER be done on the Abrasive Blaster nor should anyone try to open it while it is pressurized. Serious injury or death will result from the violent expulsion of compressed air and propelled objects.

### PURGE THE AIR SUPPLY HOSE

Before the Air Supply Hose is connected to the Abrasive Blaster, the hose must be purged of any moisture or debris. If there is standing water or moisture in the air line, the Abrasive Blaster will not perform optimally. Air supplied to the Abrasive Blaster must be cool, dry and clean.

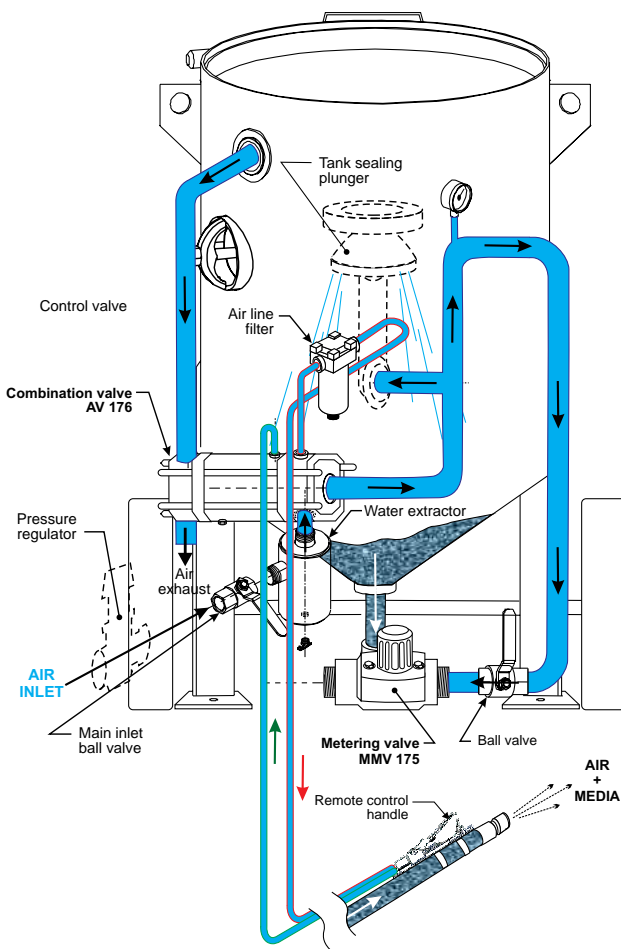
### ATTACH THE REMOTE CONTROL HANDLE

Using hose clamps or heavy wire ties, fasten the Remote Control Handle to the Blast Hose near the Nozzle. Next, form a loop of Twinline/Control Cord where the first 6 inches of cord curve away from the Blast Hose, then the next 6 inches run parallel to the Blast Hose, and then the last 6 inches curve back to join the Blast Hose. At the location where the loop ends, fasten the Twinline/Control Cord to the Blast Hose by wrapping duct tape twice around the Twinline/Control Cord and then around the Blast Hose to form a strain-relief attachment. Do this only on the first connection near the Control Handle. Fasten the rest of the Twinline/Control Cord to the blast hose by wrapping duct tape around the cord and the hose, every 3 feet, beginning at the Nozzle end of the Blast Hose.



## RC 176 CONTROL SYSTEM

### How it works



#### IMPORTANT :

**A PRESSURE REGULATOR SHOULD BE INSTALLED ON THE AIRLINE FROM AIR COMPRESSOR**

When the main air-line ball valve is ON, air is supplied to the AV-176 Combination Air Intake and Exhaust Valve, which is usually closed.

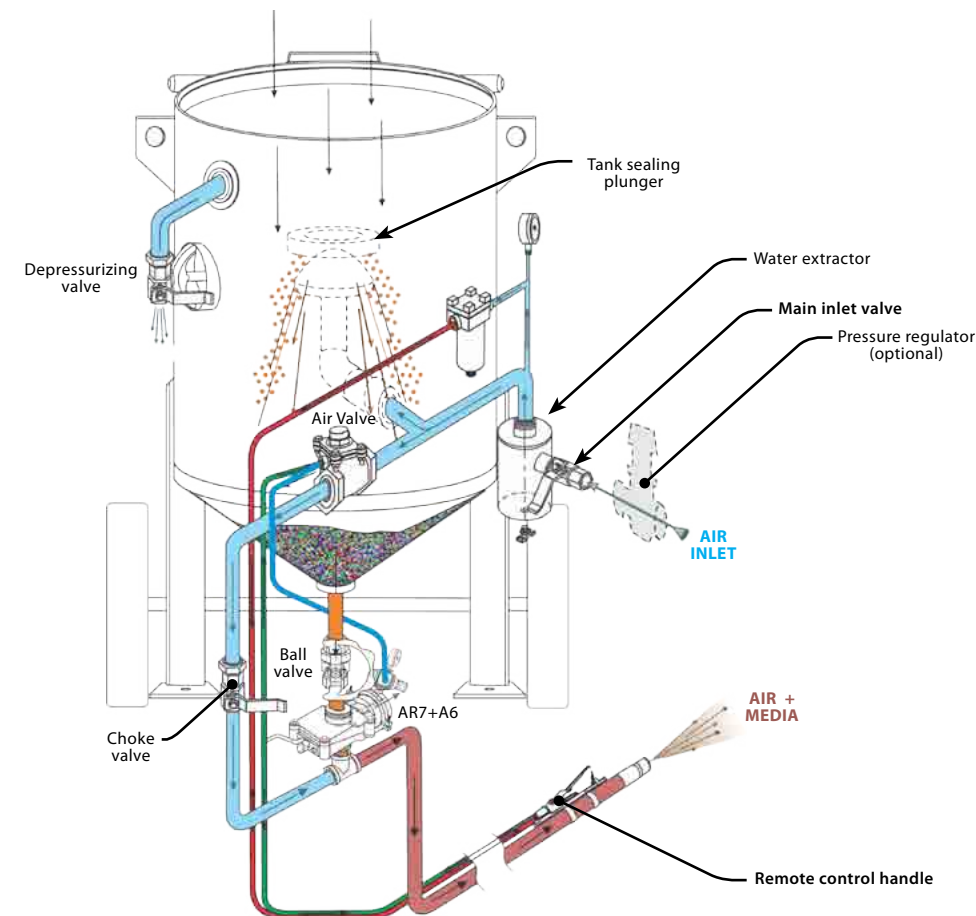
When the Remote Control Handle on the dual air line is depressed, the AV-176 Combination Valve will be activated, so the air can flow in. This forces the Plunger Pop-up Valve to seal the filling port and close the exhaust section of the Combination Valve at the same time, thus pressurizing the Pressure Vessel.

When the Control Handle is released, blasting will stop and the Pressure Vessel will automatically depressurize.

When you have finished blasting, always be sure to close the main inlet air-line ball valve.

## RC 186 CONTROL SYSTEM

### How it works



#### IMPORTANT :

**A PRESSURE REGULATOR SHOULD BE ON THE AIR LINE FROM THE AIR COMPRESSOR**

Make sure the main air-line ball valve is turned on. The Vessel will be pressurized, so the air can flow to the AV-186 Air Valve.

To begin blasting, depress the Remote Control Handle on the Blasting Hose near the Nozzle end. The Air Valve and the AR7+A6 Abrasive Metering Valve will then open, and blasting will begin.

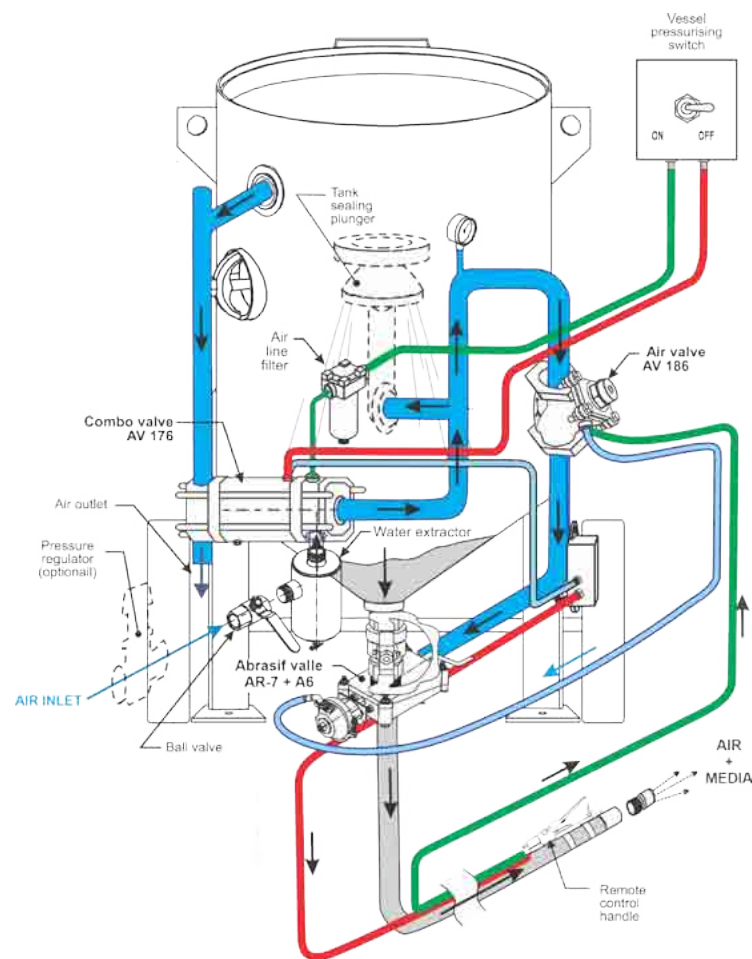
To stop blasting, release the Remote Control Handle. The Air Valve and the Abrasive Metering Valve will then close to interrupt the blasting stream; however, the Pressure Vessel will stay pressurized.

When you have finished blasting or when you need to refill the Pressure Vessel with abrasive, depressurize the Vessel. To do so, first make sure the Control Handle is released. Next, close the main inlet air-line ball valve, and then slowly turn the manual depressurizing ball valve.



## RC176/RC186 DUAL CONTROL SYSTEM

### HOW IT WORKS



The air line feeds air to an AV-176 Combination Air Intake and Exhaust Valve, which is usually closed.

Turning the Vessel Pressurizing Switch to ON activates the AV-176 Combination Valve. The Exhaust Valve part of the valve seals the Vessel as air pushes the Plunger up to seal the filling port of the Vessel, which will then become pressurized. Once pressurized, the Vessel is ready for blasting.

Before blasting begins, close all the doors in the blasting room equipped with a safety door switch.

Blasting can begin only once all the doors are closed. To begin, depress the Remote Control Handle on the Blasting Hose near the Nozzle end. The Air Valve and the AR7+A6 Abrasive Metering Valve will then open, and blasting will begin.

When you release the Remote Control Handle, the blasting will STOP. The Pressure Vessel will stay pressurized, ready to resume blasting when the Remote Control Handle is depressed again.

When you have finished blasting or when you need to refill the Pressure Vessel with abrasive, release the Remote Control Handle. To depressurize the Pressure Vessel, switch the Vessel Depressurizing Switch to OFF.

**WARNING : THE PRESSURE VESSEL MUST NEVER BE LEFT PRESSURIZED WHEN NOT IN USE.**

The Pressure Vessel should be depressurized and the air-line supply turned OFF.

## BEFORE BLASTING

### PRE-BLASTING INSPECTION

Before each use of the Abrasive Blaster, check and make sure it is in safe working condition. Examine the seals, hoses and other components closely for wear or damage. Replace any damaged or worn component before you begin blasting.



**WARNING :** An Abrasive Blaster must NEVER be used if any of its components are damaged or worn. Replace all damaged or worn parts before using the equipment.

### HOW TO ADD THE ABRASIVE

Before you fill the Abrasive Blaster, be sure that the Inlet Valve is closed and that the Pressure Vessel is depressurized. Pour the abrasive into the top of the Abrasive Blaster. Allow it to flow around the Pop-up and into the Pressure Vessel. Make sure you neither overfill nor allow foreign materials to enter. To prevent foreign items from getting inside, the use of a screen is recommended.



**DANGER :** NEVER reach inside while the Abrasive Blaster is being filled. The pop-up opening can close unexpectedly and cause serious injury or death.

**WARNING :** Abrasives containing silica must NEVER be used with ISTblast Abrasive Blasters.

**WARNING :** The Inlet Valve must NEVER be open while the Abrasive Blaster is being filled. Before you begin filling, always be sure to close it.



**WARNING :** NEVER use electrically conductive abrasives when the Abrasive Blaster is being used with Electrical Remote Control Systems, unless the sealed strain relief connectors have been changed.

**WARNING :** An Abrasive Blaster containing abrasive must NEVER be moved or transported.

### ABOUT THE REMOTE CONTROL SYSTEM

An electrical or pneumatic Remote Control System (also referred to as "Deadman") must always be used with an Abrasive Blaster to start and stop blasting.

**Electrical :** On the Abrasive Blaster, the Remote Control Handle must be connected to the female twist-lock connector on the Abrasive Blaster. A 12 VDC power source (12-V battery or optional 120 VAC to 12 VDC converter) must be connected to the male twist-lock connector.

**Pneumatic :** The Remote Control twin-line hose must be connected to the Abrasive Blaster using the threaded or quick-disconnect fittings that are supplied. Using pneumatic Remote Control Systems is not recommended with Blast Hoses exceeding 100 feet.



**WARNING :** The Abrasive Blaster must NEVER be operated without a Remote Control System.



**DANGER :** Caution must always be used around electrical sources to avoid electrical shock. Never operate electrically remote-controlled Abrasive Blasters in wet or other hazardous conditions.

### HOW TO CONNECT HOSES

Before you connect hoses to the Abrasive Blaster, be sure the Inlet Valve is closed and the compressed air supply is off. Next, connect the hose from the compressed air supply to the inlet on the Abrasive Blaster and use safety clips to secure it. **Using an air-line pressure regulator is strongly recommended.** Connect the blast hose to the coupling on the Metering Valve at the base of the Abrasive Blaster. Use safety clips to secure it.



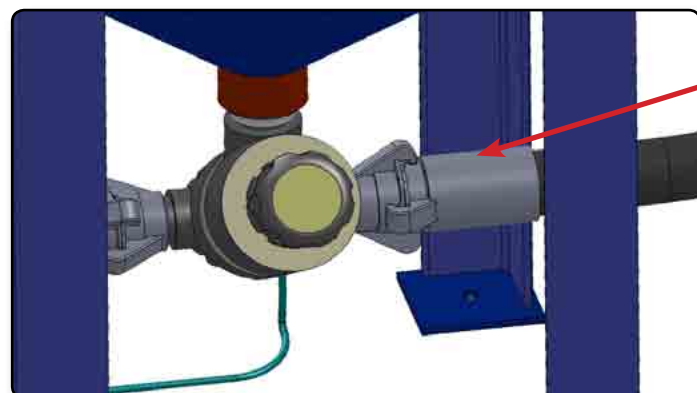
**WARNING :** Safety devices, such as clips and whip checks (safety cables), must always be used to secure the hose.



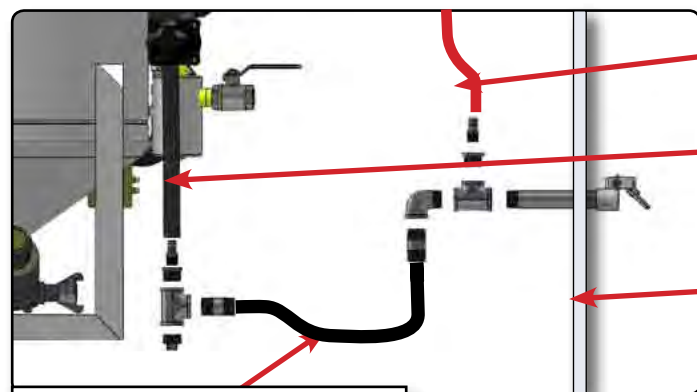
## BEFORE BLASTING (FOR AN ABRASIVE BLAST ROOM)

### RSC76 / RC186 PRESSURE VESSEL WITH DUAL CONTROL SYSTEM

#### PRE-BLAST CHECKING (CONT'D)



Connect the blasting hose to the abrasive valve.

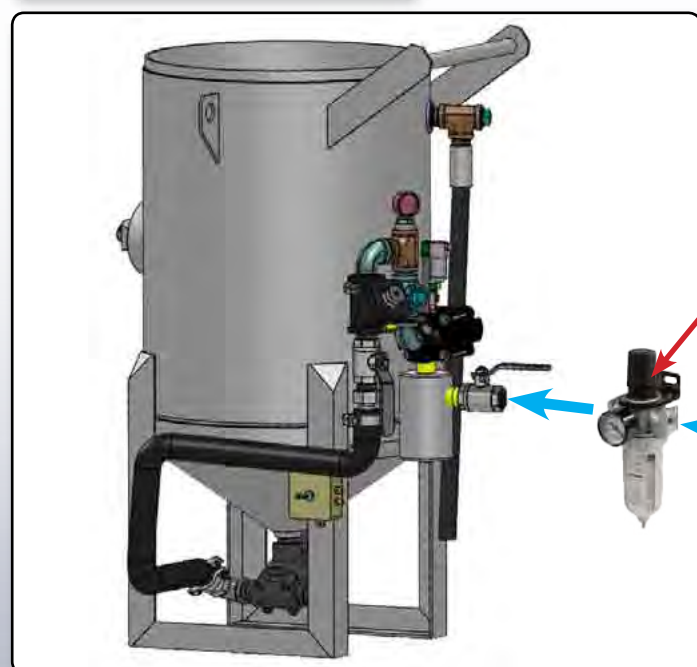


Towards the storage hopper

Pressure Vessel Depressurization Hose

Abrasive blast room wall

To the abrasive blast room



Install a 1 1/4 "air regulator (not included) to stabilize the internal pressure in the pressure vessel and in the sandblasting hose.

Main compressed air supply. The inside diam. of the hoses must be 1 1/4 "or more in order to leave enough air in the sandblasting hose.

## BLASTING

### HOW TO PRESSURIZING THE ABRASIVE BLASTER

**Before you pressurize the Abrasive Blaster, make sure that:**

- All "BEFORE BLASTING" procedures have been carried out.
- **The Inlet Valve is shut off.**
- **The Blow-down Valve is shut off (RC-186 systems only).**
- **The Remote Control Handle is released.**
- Each hose connection is secure and reinforced with a safety clip.
- The Abrasive Blaster is set up in a safe location, on level ground, and everyone nearby has been informed of its presence.
- Anyone who will be near the Abrasive Blaster is wearing the required safety equipment.
- The only persons who will be near the Abrasive Blaster are those who have received the proper training and who have read the manual and understand it.
- Once these conditions are met, you can turn on the compressed air source and open the Inlet Valve on the Abrasive Blaster. At that point, the Abrasive Blaster will be ready for blasting.

**! DANGER :** Maintenance must NEVER be done on the Abrasive Blaster nor should anyone try to open it while it is pressurized. Otherwise, serious injury or death will result from the violent expulsion of compressed air and propelled objects.

The compressed air supplied to the Abrasive Blaster should NEVER exceed 150 PSI (10.3 BAR).

**! WARNING :** Activating the Remote Control Handle can cause the Blast Hose to kick back. Prepare by bracing yourself. Blasters with MMV-175 Metering Valves usually kick back erratically for a short while when they first start up.

**WARNING :** All persons who will be in the vicinity of the blasting operation must be adequately trained, must have read and understood the manual and must be wearing the necessary safety equipment.

### HOW TO USE THE ABRASIVE BLASTER

To prepare for blasting, pressurize the Abrasive Blaster. To begin the flow of abrasive and compressed air, push the safety flap down and squeeze the Remote Control Handle. To adjust the air-abrasive mixture, turn the handle on the Metering Valve. It will take a bit of time for the adjusted mixture to reach the Nozzle. The delay will vary according to the length of the Blast Hose. Before you make adjustments, stop the Abrasive Blaster by releasing the Remote Control Handle. After a short period, which will again depend on the length of the hose, the flow of compressed air and abrasive will come to a halt. On Pressure Release (RC-176) Abrasive Blasters, the Pressure Vessel automatically exhausts through the Blow-Down valve. This causes a burst of compressed air, which can project loose objects, debris or abrasive toward anyone in the area. Therefore, no one should be close to a Pressure Release (RC-176) Abrasive Blaster during blasting operations.

**! DANGER :** Respiratory disease can result from airborne particles generated by abrasive blasting. Anyone involved in the blasting operation or in the vicinity must wear the appropriate NIOSH/OSHA-approved breathing apparatus. Abrasives containing silica must NEVER be used.

**! DANGER :** Always stay clear of a Pressure Release (RC-176) Abrasive Blaster while it is running. When the Remote Control Handle is released, compressed air will rush out suddenly and violently from the exhaust valve. You must wait until the Abrasive Blaster is depressurized before adjusting the Metering Valve.

**! WARNING :** Only persons who have been fully trained in abrasive blasting should run the Abrasive Blaster. This manual provides only basic information on the safe operation of the features of ISTblast RC-176/RC-186 Series Abrasive Blasters..

**! WARNING :** You must NEVER point the Blast Nozzle towards anyone, including yourself, or towards the Abrasive Blaster.

**WARNING :** Make sure the Choke Valve is completely open during blasting to prevent damage to the equipment.



BLASTING (END)

HOWTO DRAIN THE MOISTURE SEPARATOR

The Moisture Separator must be drained periodically during blasting. To do so, it is best to keep the Drain Valve slightly open. This way, air will continuously escape and force the moisture out.



**WARNING :** The Abrasive Blaster must receive clean, cool, dry compressed air to run properly. Depending on the quality of the air being supplied, the Moisture Separator included with the Abrasive Blaster may not have the capacity to ensure this is the case.

HOW TO SHUT DOWN THE ABRASIVE BLASTER

When you have finished blasting, you must shut down the Abrasive Blaster. To do so, release the Remote Control Handle and then shut off the Inlet Valve. In the case of an RC-176 Pressure Release, the Abrasive Blaster will be depressurized by that time.

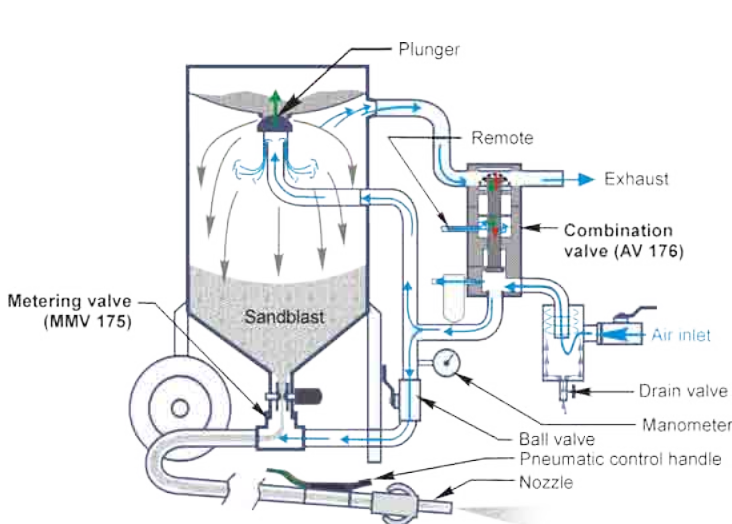
When using an RC-186 Pressure Hold, make sure that the pneumatic Control Handle is released. Next, shut off the Main Air Supply Valve and slowly open the Blow-Down Valve to let out the compressed air that is stored in the Abrasive Blaster.

HOW TO DISCONNECT THE AIR SUPPLY HOSE

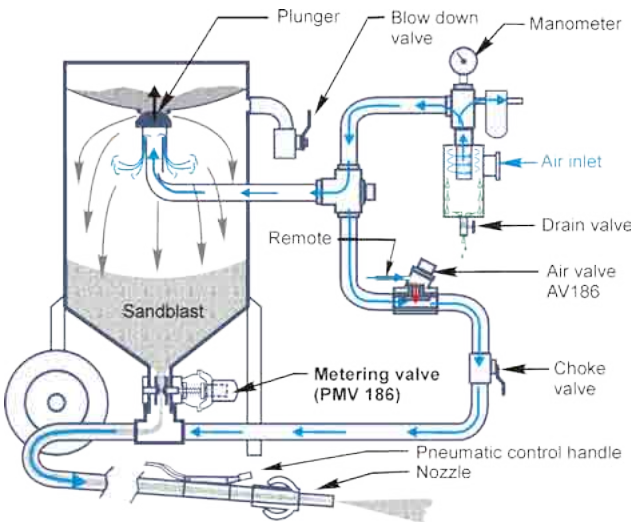
Even once you have depressurized the Abrasive Blaster and shut off the Inlet Valve, the Compressed Air Supply Hose may still contain pressure, which must be expelled before you disconnect the hose. To do so, shut off the compressed air at its source and open the Drain Valve on the Abrasive Blaster. Slowly open the Inlet Valve on the Abrasive Blaster. This will allow the compressed air stored in the Compressed Air Supply Hose to exit through the Drain Valve. Once the sound of air escaping through the Drain Valve has stopped, squeeze the Compressed Air Supply Hose and make sure there is no more compressed air left inside. Once this is done, you can disconnect it.



**DANGER :** Compressed Air Supply Hoses must NEVER be disconnected until the "HOW TO DISCONNECT THE AIR SUPPLY HOSE" procedures have been carried out. Otherwise, the hose could blow off violently and injure or kill someone in the area.



RC-176 Pressure Release System



RC-186 Pressure Hold System

MAINTENANCE SCHEDULE



**WARNING :** Only experienced, qualified persons should perform maintenance. The maintenance procedures and timetable below must be followed; otherwise, the equipment may perform poorly or fail. Furthermore, the equipment warranty will become void.



**DANGER :** Maintenance must NEVER be done on the Abrasive Blaster nor should anyone try to open it while it is pressurized. Serious injury or death will result from the violent expulsion of compressed air and propelled objects.

INSPECTIONS AND MAINTENANCE	FREQUENCY
1- Inspect personal protective equipment	Every day
2- Inspect remote control handles and control hose/cord	Every Day
3- Inspect blast hose, couplings & gaskets	Every Day
4- Inspect blasting nozzle	Every Day
5- Inspect air hose, couplings and gasket	Every Day
6- Inspect & clean blow-down muffler (if equipped)	Every Week
7- Inspect pop-up & pop-up gasket	Every Months
8- Service metering valve	Every 3 Months
9- Service combination valve (if equipped)	Every 3 Months
10- Service control valve(s) (if equipped)	Every 3 Months



## MAINTENANCE PROCEDURES

### 1. Inspect Personal Protective Equipment (PPE)

Inspect all PPE to make sure that it fits and that it is in good working condition. Replace or repair PPE, or have it fitted, as needed.

### 2. Inspect Remote Control Handles and Control Hose/Cord

#### Pneumatic Remote Control Systems :

Inspect the Control Handle to be sure the Safety Flap/Lever Lock/Button is in good working condition. Check for damages, and replace or repair components as needed. Inspect the twin-line hoses and replace them if there are leaks, abrasions or soft spots.

#### Electric Remote Control Systems :

Inspect the Control Handle and make sure the Safety Flap/Lever Lock/Button is in good working condition. Check for damages, and replace or repair components as needed. Inspect the control cord and replace it if there are damaged plug ends or signs of abrasion, exposed wires or cracks

### 3. Inspect Blast Hose, Couplings & Gaskets

Check the Blast Hose for leaks, abrasions and soft spots. Inspect the couplings for damage, leaks and wear. Check the coupling gaskets for leaks and wear. Replace all components as needed. Be sure safety clips and whip checks (safety cables) are used to secure Blast Hose connections.

### 4. Inspect Blasting Nozzle

Check the Blasting Nozzle for wear, and measure the bore diameter. If the bore diameter is worn to the point of being 1/16 in. larger than its original diameter, replace the Blasting Nozzle. For instance, a #5 Nozzle (5/16 in. bore) needs to be replaced when the bore reaches 3/8 in.

### 5. Inspect Air Hose, Couplings & Gaskets

Check the Air Hose for leaks, abrasions and soft spots. Check the couplings for damage, leaks and wear. Check the coupling gaskets for leaks and wear. Replace all components as needed. Be sure safety clips and whip checks (safety cables) are used to secure Air Hose connections.

### 6. Inspect & Clean Blow-down Muffler

Remove the Blow-Down Muffler and turn it upside down. Tap it on a hard surface to free any debris that may be trapped inside. Replace the muffler if it is blocked and the obstruction cannot be cleared

### 7. Inspect Blow-down Hose Assembly

Remove and inspect the Blow-Down Hose Assembly. Replace it if you find leaks or soft spots.

### 8. Inspect Pop-Up & Pop-Up Gasket

Check the Pop-up and Pop-up Gasket for wear. Replace as needed

### 9. Service Metering Valve

Disassemble and clean the Metering Valve. Check for worn components and make sure it is working properly. Replace any worn components. Lubricate the MMV-175 and AR7+A6 valves with an anti-seize compound before reassembly.

### 10. Service Air Valve AV-186

Disassemble and clean the valve. Check for worn components and make sure it is working properly. Replace any worn components. Lubricate with an anti-seize compound before reassembly.

### 11. Service Combination Valve AV-176

Disassemble and clean the valve. Check for worn components and make sure it is working properly. Replace any worn components. Lubricate with an anti-seize compound before reassembly.

### 12. Service Control Valve(s)

Disassemble and clean the valve(s). Check for worn components and make sure everything is working properly. Replace any worn components. Lubricate with an anti-seize compound before reassembly

## TROUBLESHOOTING



**DANGER: The Abrasive Blaster must NEVER be opened while it is pressurized. Extreme caution is required when troubleshooting involves pressurizing the Abrasive Blaster. Only experienced, qualified persons should perform troubleshooting procedures.**

### ABRASIVE NOT FLOWING DURING BLASTING (AIR ONLY)

#### Possible Causes :

#### 1. The Abrasive Blaster is empty.

The abrasive cut-off function (if equipped) is engaged and is preventing the abrasive from flowing.

#### 2. The Metering Valve is closed or not properly adjusted.

If you suspect that a AR7+A6 Metering Valve is not opening, conduct the following test : Shut off the Metering Valve completely by turning the knob clockwise until it stops. Next, turn it counterclockwise about 9 full turns. Then, depress the Control Handle and check if the knob is difficult to turn or does not turn at all. If so, the Metering Valve is opening properly.

#### 3. There is a blockage in the Metering Valve.

To free the blockage from a AR7+A6 Metering Valve, begin by turning the knob on the Metering Valve clockwise until it stops. Then, turn the knob counterclockwise 9 full turns so it is fully open. Depress the Control Handle and have a second qualified person close the choke valve for 2 seconds and then re-open it immediately. Minor obstructions, such as paint chips, a bit of wet abrasive or a piece of paper, will be forced through the Metering Valve and out the Nozzle. Turn the Metering Valve back to the required blast setting and check if the obstruction has been removed.

If there is still a blockage, depressurize the Abrasive Blaster, remove the Pusher Line and the Metering Valve and check if there is a steady stream of abrasive. If so, allow the Abrasive Blaster to empty, and then reinstall the Metering Valve.

If you find a large obstruction, you will have to remove it from inside the Pressure Vessel. To do so, start by making sure that the Abrasive Blaster is depressurized. Next, remove the Handway Assembly, scoop or vacuum all the abrasive out of the Pressure Vessel, and then remove the obstruction. You can then reinstall the Handway Assembly and the Metering Valve. Be sure to tighten them securely.

Once this is done, you can refill the Abrasive Blaster.

It is advisable to use a screen to keep foreign objects from getting inside the Abrasive Blaster and causing a blockage.

#### 4. There is wet abrasive in the Abrasive Blaster.

The wet abrasive must be removed. To do so, depressurize the Abrasive Blaster, remove the Handway Assembly and scoop or vacuum out the wet abrasive.

**The Abrasive Blaster must always be used with dry abrasive and supplied with clean, cool, dry air to keep the abrasive dry. For outdoor operations, using a lid is recommended to prevent water from getting inside the Abrasive Blaster.**

### ABRASIVE STREAM TOO HEAVY OR THROBBING DURING BLASTING

#### Possible Causes :

Note : When RC-176 systems first start up, they may throb for a while if there is an accumulation of abrasive in the blast hose from a previous operation. This is normal, and no corrective action is needed.

#### 1. The Choke Valve is partially closed.

The Abrasive Blaster should be operated ONLY with the Choke Valve fully open. Doing otherwise will cause

#### 2. The Metering Valve needs adjusting.

Refer to the instructions on page 10 on how to adjust Metering Valves.



## TROUBLESHOOTING (CONT'D)



**DANGER:** The Abrasive Blaster must NEVER be opened while it is pressurized. Extreme caution is required when troubleshooting involves pressurizing the Abrasive Blaster. Only experienced, qualified persons should perform troubleshooting procedures.

### LOW PRESSURE AT THE NOZZLE

#### Possible Causes :

1. The air compressor is too small or the load button is not activated.
2. The Nozzle is worn out, creating too much demand for the compressor.
3. The hose supplying air to the blaster is too small.
4. There is a hole in the blast hose.
5. The pop-up is not sealing properly.
6. There are one or more leaks in the Handway Assembly.
7. The Inlet Air Valve is dirty or blocked.
8. The lower plunger (if equipped) in the Inlet Air Valve is damaged, faulty or worn out.
9. The Choke Valve is partially closed. The Abrasive Blaster should be operated ONLY with the Choke Valve fully open. Doing otherwise will cause damage to the Abrasive Blaster.
10. The Abrasive Metering Valve is open too far.
11. The Nozzle is blocked.
12. The Regulator (if equipped) needs adjusting.

### ABRASIVE BLASTER DOES NOT TURN ON OR IS SLOW TO DO SO

#### Possible Causes :

1. The air compressor is too small or the load button is not activated.
2. The Nozzle is worn out, creating too much demand for the compressor.
3. The hose supplying air to the blaster is too small.
4. There are one or more leaks in the control hoses and/or fittings.
5. The Nozzle is blocked.
6. The Inlet Air Valve is dirty or blocked.
7. The Pneumatic Control Handle (if equipped) is faulty, damaged or worn out.
8. The Electrical Control Handle (if equipped) is faulty, damaged or worn out.
9. The Electrical Control coil or coils (if equipped) are faulty.
10. The Power Source (battery or AC-DC converter) is not generating enough power to open the electrical control valves (if equipped).
11. The Control Valve (if equipped) needs servicing due to insufficient lubrication, or it is jammed, faulty, damaged or worn out.

## TROUBLESHOOTING (END)



**DANGER:** The Abrasive Blaster must NEVER be opened while it is pressurized. Extreme caution is required when troubleshooting involves pressurizing the Abrasive Blaster. Only experienced, qualified persons should perform troubleshooting procedures.

### BLAST MACHINE TURNS ON ACCIDENTALLY OR unexpectedly

#### Possible Causes :

1. The safety flap, lever or lock button on the Control Handle is damaged or missing.
2. The Pneumatic Control Handle (if equipped) is faulty, damaged or worn out.
3. The Electrical Control Handle (if equipped) is faulty, damaged or worn out.
4. The Electrical Control Cord (if equipped) is faulty, damaged or worn out (if equipped).

### BLAST MACHINE TURNS OFF TOO SLOWLY OR DOES NOT TURN OFF WHEN CONTROL HANDLE IS RELEASED

#### Possible Causes :

1. The Pneumatic Control Handle (if equipped) is faulty, damaged or worn out
2. The Electrical Control Handle (if equipped) is faulty, damaged or worn out.
3. The Electrical Control Cord (if equipped) is faulty, damaged or worn out.
4. The Air Valve (if equipped) needs servicing due to insufficient lubrication, or it is jammed, faulty, damaged or worn out.
5. The Combination Valve Assembly (if equipped) is not seating properly because it is faulty, damaged or worn out.
6. An obstruction in the Blow-Down Muffler is hindering the release of air. .

### AIR BLAST STOPS BUT ABRASIVE CONTINUES TO FLOW WHEN CONTROL HANDLE IS RELEASED (APPLIES ONLY TO SYSTEMS WITH AR7+A6 SERIES METERING VALVES)

#### Possible Causes :

1. The Urethane Seat (black) in the Metering Valve is faulty, damaged or worn out.
2. The MN2 Sleeve in the Metering Valve is faulty, damaged or worn out.
3. The MN2 Plunger in the Metering Valve is faulty, damaged or worn out.
4. Foreign material is jammed between the Plunger and the Metering Valve Seat.
5. The Metering Valve Spring is faulty, damaged or worn out.

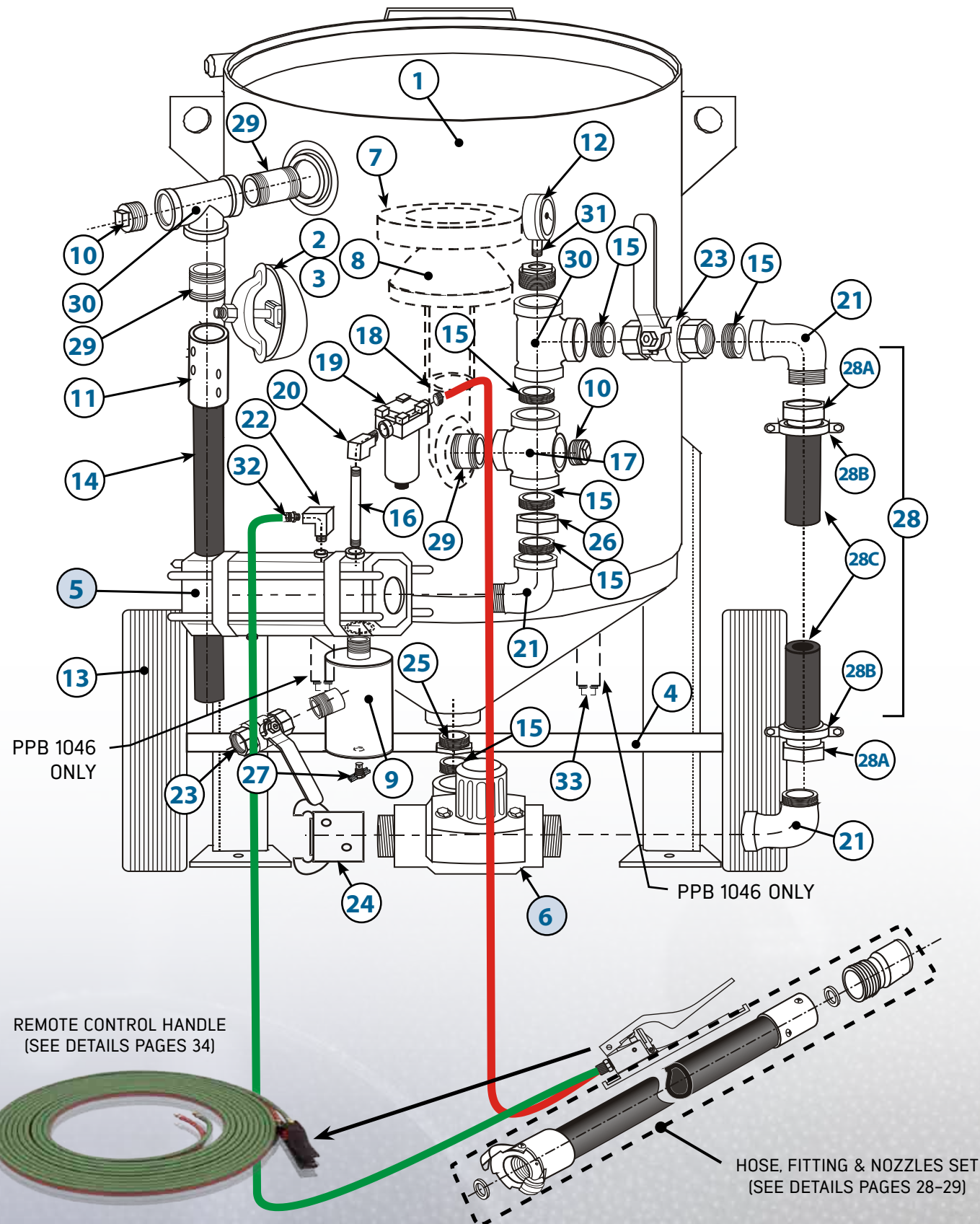
### ABRASIVE STOPS FLOWING BUT AIR BLAST CONTINUES WHEN CONTROL HANDLE IS RELEASED

#### Possible Causes :

1. The lower plunger in the AV-176 or AV-186 Air Valve is faulty, damaged or worn out.
2. The piston seal in the AV-176 or AV-186 is faulty, damaged or worn out.
3. The O-ring in the AV-176 or AV-186 Valve is faulty, damaged or worn out.



SANDBLASTERS PPB-346/646/1046 : RC-176 PRESSURE RELEASE SYSTEM  
EXPLODED VIEW



SANDBLASTERS PPB-346/646/1046 : RC-176 PRESSURE RELEASE SYSTEM  
PARTS LIST

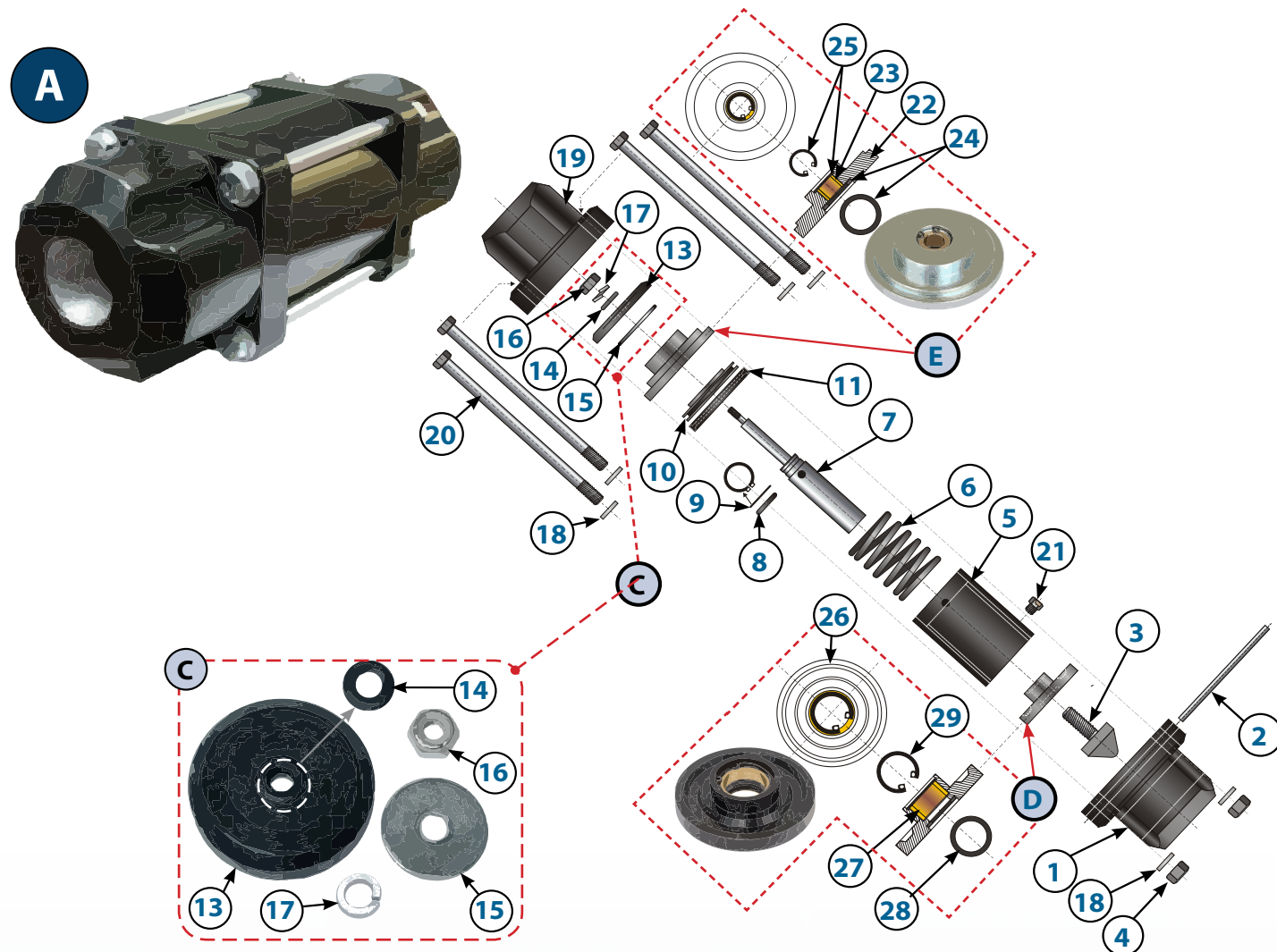
#	STOCK	DESCRIPTION	#	STOCK	DESCRIPTION
1	713000	PRESSURE VESSEL ONLY (346)	15	630801	1¼" NIPPLE CLOSE
	723000	PRESSURE VESSEL ONLY (646)	16	630111	NIPPLE 6" X ¼"
	733000	PRESSURE VESSEL ONLY (1046)	17	630838	CROSS 1¼"
2	610056	ACCESS DOOR KIT (OLDER VERSION)	18	632214	HEX NIPPLE ¼" X 1/8"
	740102	ACCESS DOOR KIT (LG SERIE)	19	611035	AIR LINE FILTER
3	618241	ACCESS DOOR GASKET (OLDER VERSION)	20	632232	¼" BRASS STREET ELBOW
	740101	ACCESS DOOR GASKET (LG SERIE)	21	630851	1¼" X 90° ELBOW MF
4	740001	AXLE (MODEL 346)	22	632026	1/8" BRASS STREET ELBOW
	740002	AXLE (MODEL 646-1046)	23	608105	1¼" BALL VALVE
5	608821	COMBO VALVE AV-176 <sup>1</sup>	24	607075	TANK COUPLING 1¼" NYLON
6	770070	MMV-175 METERING VALVE <sup>2</sup>	25	631151	2" X 1¼" REDUCER
7	740004	"O" RING (OLDER VERSION)	26	630890	UNION PA 1¼"
	740100	"O" RING (LG SERIE)	27	608230	DRAIN COCK VALVE
	740104	"O" RING FOR 10 pi³ (LG SERIE)	28	770100	PUSH LINE HOSE ASS'Y (28A-B-C)
8	740007	5" PLUNGER (OLDER VERSION)	28A	607088	HOSE INSERT SWIVEL 1¼"
	610044	5" PLUNGER (LG SERIE)	28B	607087	DOUBLE BOLT CLAMP
9	611053	1¼" MOISTURE SEPARATOR	28C	770101	PUSH LINE HOSE 30" X 1¼"
10	630884	1¼" PLUG	29	630805	NIPPLE 3" X 1¼"
11	607051	NH-¾" ALUM. NOZZLE HOLDER	30	630840	"T" 1¼" X 1¼"
12	611022	¼" NTP GAUGE	31	630864	1¼" X ¼" COUPLING
13	740006	WHEEL	32	632214	REDUCER NIPPLE ¼" X 1/8"
14	606003	HOSE ¾" SBH	33	NPN	1¼" PLUG (PPB 1046 ONLY)

<sup>1</sup>See details parts page 20

<sup>2</sup>See details parts page 21



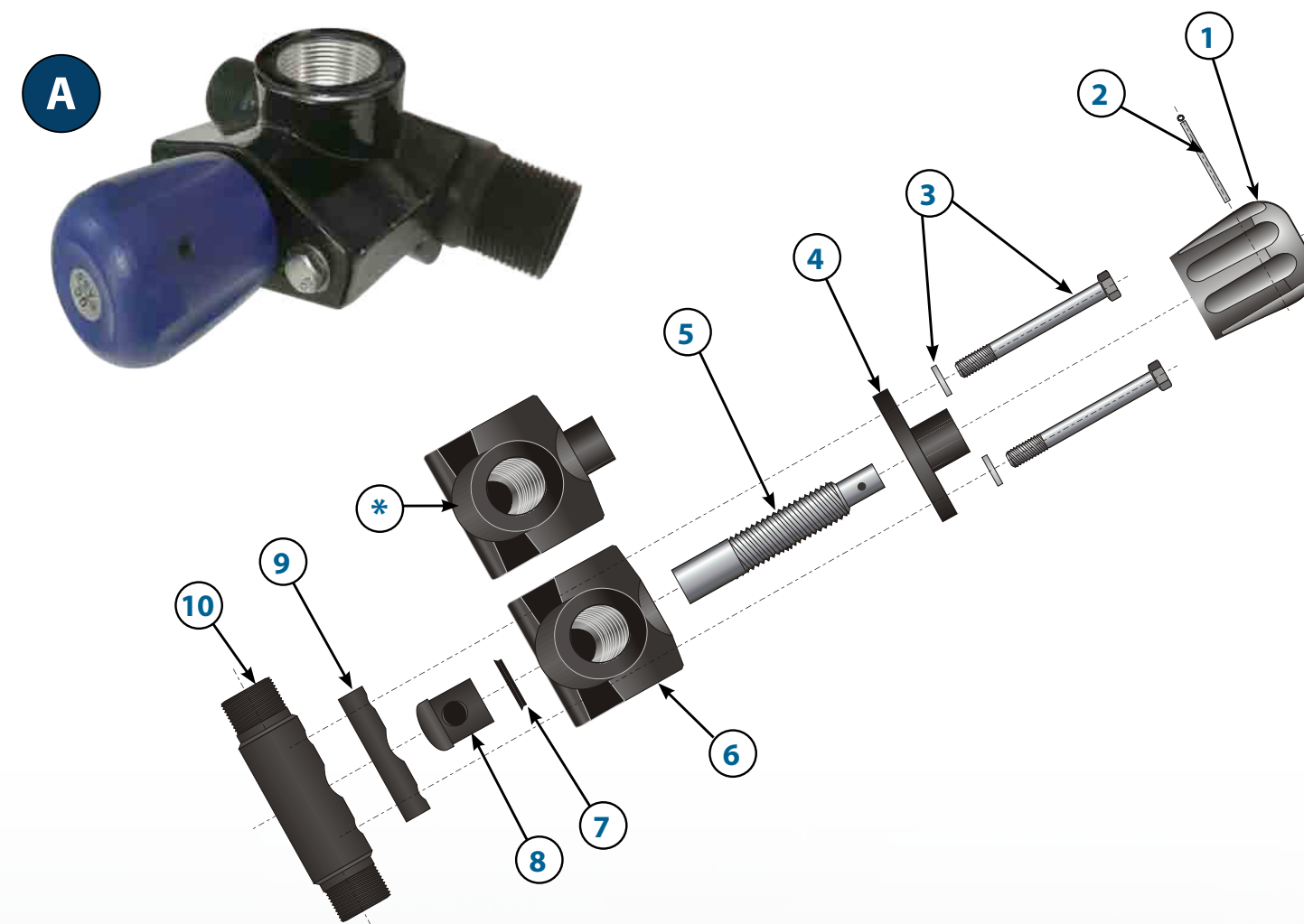
## SANDBLASTERS PPB-346/646/1046 : RC-176 PRESSURE RELEASE SYSTEM AV-176 COMBINED VALVE



#	CODE	DESCRIPTION
A	608821	AV-176 COMPLETE VALVE ASS'Y
B	770182	GASKET KIT (8, 9, 11, 12, 13, 14, 16, 17, 24, 28, 29)
C	770183	CAP KIT (13, 14, 15, 16, 17)
D	770184	UPPER ROD ASS'Y (26, 27, 28, 29)
E	770185	LOWER ROD ASS'Y (22, 23, 24, 25)
1	770181	CAP
2	770191	ROD
3	770186	PINCH RAM
4	770199	NUT
5	770192	CYLINDER
6	770187	SPRING
7	770188	SHAFT
8	N/D	O-RING
9	N/D	CIRCLIP
10	770189	PISTON
11	770190	PISTON SEAL
12	N/D	VALVE CAP

#	CODE	DESCRIPTION
13	N/D	BASE
14	N/D	O-RING
15	N/D	FLAT WASHER
16	N/D	LOCKNUT
17	N/D	LOCK WASHER
18	770198	FLAT WASHER
19	770196	BASE
20	770197	HEX HEAD BOLT
21	770208	EXHAUST FILTER
22	770223	LOWER ROD GUIDE
23	770224	LOWER ROD GUIDE BUSH
24	770225	LOWER ROD SEAL
25	770226	CIRCLIP
26	770219	UPPER ROD GUIDE
27	770220	UPPER ROD GUIDE BUSH
28	N/D	UPPER ROD SEAL
29	N/D	CIRCLIP

## SANDBLASTERS PPB-346/646/1046 : RC-176 PRESSURE RELEASE SYSTEM MMV-175 ABRASIVE METERING VALVE



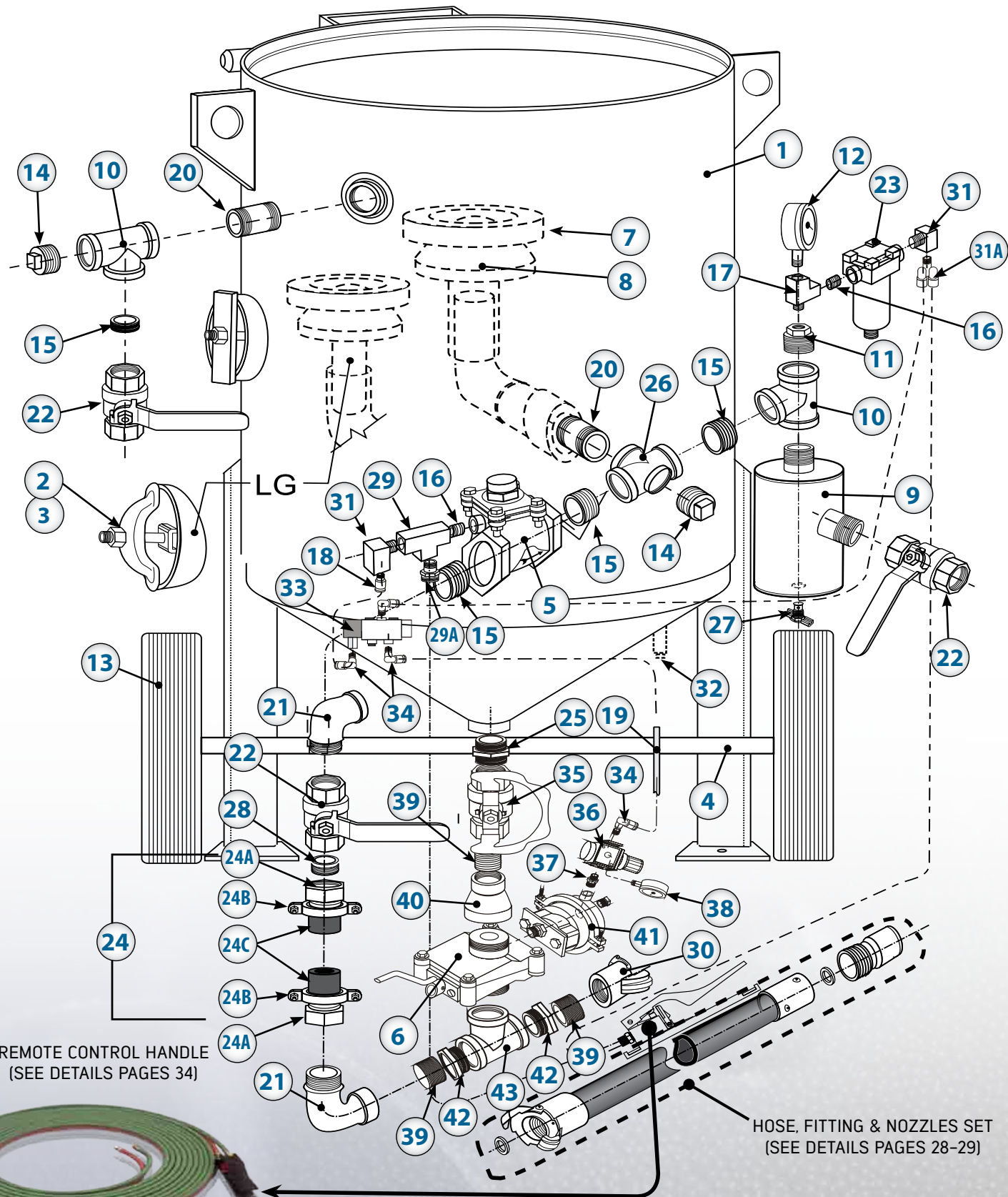
#	STOCK	DESCRIPTION	#	STOCK	DESCRIPTION
A	770070	MMV-175 COMPLETE ABRASIVE METERING VALVE ASSEMBLY			
1	770069	KNOB	6	770076	BODY
2	770079	ROLL PIN	7	770072	SEAL
3	770078	BOLT C/W WASHER	8	770074	URETHANE SLEEVE
4	770077	CAP	9	770075	GASKET
5	770073	PLUNGER	10	770071	PIPE NIPPLE 1¼" X 1¼" MALE

\* With this kind of body, the part #4 is not required



**SANDBLASTERS PPB-346/646/1046 : RC-186 PRESSURE HOLD SYSTEM**

**EXPLODED VIEW**



REMOTE CONTROL HANDLE  
(SEE DETAILS PAGES 34)

HOSE, FITTING & NOZZLES SET  
(SEE DETAILS PAGES 28-29)

**SANDBLASTERS PPB-346/646/1046 : RC-186 PRESSURE HOLD SYSTEM**

**PARTS LIST**

#	STOCK	DESCRIPTION	#	STOCK	DESCRIPTION
1	713000	PRESSURE VESSEL ONLY (346)	24	770100	PUSH LINE ASSEMBLY (24A-B-C)
	723000	PRESSURE VESSEL ONLY (646/1046)	24A	607088	HOSE INSERT SWIVEL 1 1/4"
2	610056	ACCESS DOOR KIT (OLDER VERSION)	24B	607087	DOUBLE BOLT CLAMP
	740102	ACCESS DOOR KIT (LG SERIE)	24C	770101	PUSH LINE HOSE 30" X 1 1/4"
3	618241	ACCESS DOOR GASKET (OLDER VERSION)	25	770180	2" X 1 1/4" REDUCER BST
	740101	ACCESS DOOR GASKET (LG SERIE)	26	630838	1 1/4" COUPLING CROSS
4	740001	AXLE (MODEL 346)	27	608230	DRAIN COCK VALVE
	740002	AXLE (MODEL 646/1046)	28	630805	1 1/4" x 3" PA NIPPLE
5	608822	AIR VALVE AV-186 <sup>1</sup>	29	632018	"T" 1/8"
6	608043	ABRASIVE REGULATOR AR-7 <sup>2</sup>	29A	632214	NIPPLE REDUCT. 1/4" x 1/8"
7	740004	"O" RING (OLDER VERSION)	30	607075	TANK COUPLING 1 1/4" NCV
	740100	"O" RING (LG SERIE)	31	632214	REDUCER NIPPLE 1/4" X 1/8"
	740104	"O" RING FOR 10 pi <sup>3</sup> (LG SERIE)	31A	324557	FITTING BRANCH "Y" 1/4"
8	740007	5" PLUNGER (OLDER VERSION)	32	NPN	1 1/4" SQUARE PLUG
	610044	5" PLUNGER (LG SERIE)	33	608534	SOLENOID VALVE
9	611053	1 1/4" MOISTURE SEPARATOR	34	324560	1/4" PUSH-IN @ 90°
10	630840	1 1/4" "T" COUPLING	35	908847	1 1/4" BALL VALVE
11	630864	1 1/4" x 1/4" COUPLIN	36	608015	1/4" PRESSURE REGULATOR
12	611022	1/4" NTP GAUGE	37	632202	1/4" HEX. NIPPLE
13	740006	WHEEL	38	611022	1/4" PRESSURE GAUGE
14	630884	1 1/4" PLUG	39	630801	1 1/4" NIPPLE
15	630801	1 1/4" NIPPLE CLOSE	40	631160	2" X 1 1/4" REDUCER
16	632202	NIPPLE 1/4"	41	608482	A6 ACTUATOR <sup>3</sup>
17	632226	STREET "T" 1/4"	42	631151	2" X 1 1/4" ADAPTER
18	324570	PUSH IN FITTING 1/8"	43	631135	2" "T"
19	324571	BLUE TUBING AIR LINE			
20	630805	NIPPLE 3" X 1 1/4"			
21	630851	1 1/4" X 90° ELBOW MF			
22	608105	1 1/4" BALL VALVE			
23	611035	AIR LINE FILTER			

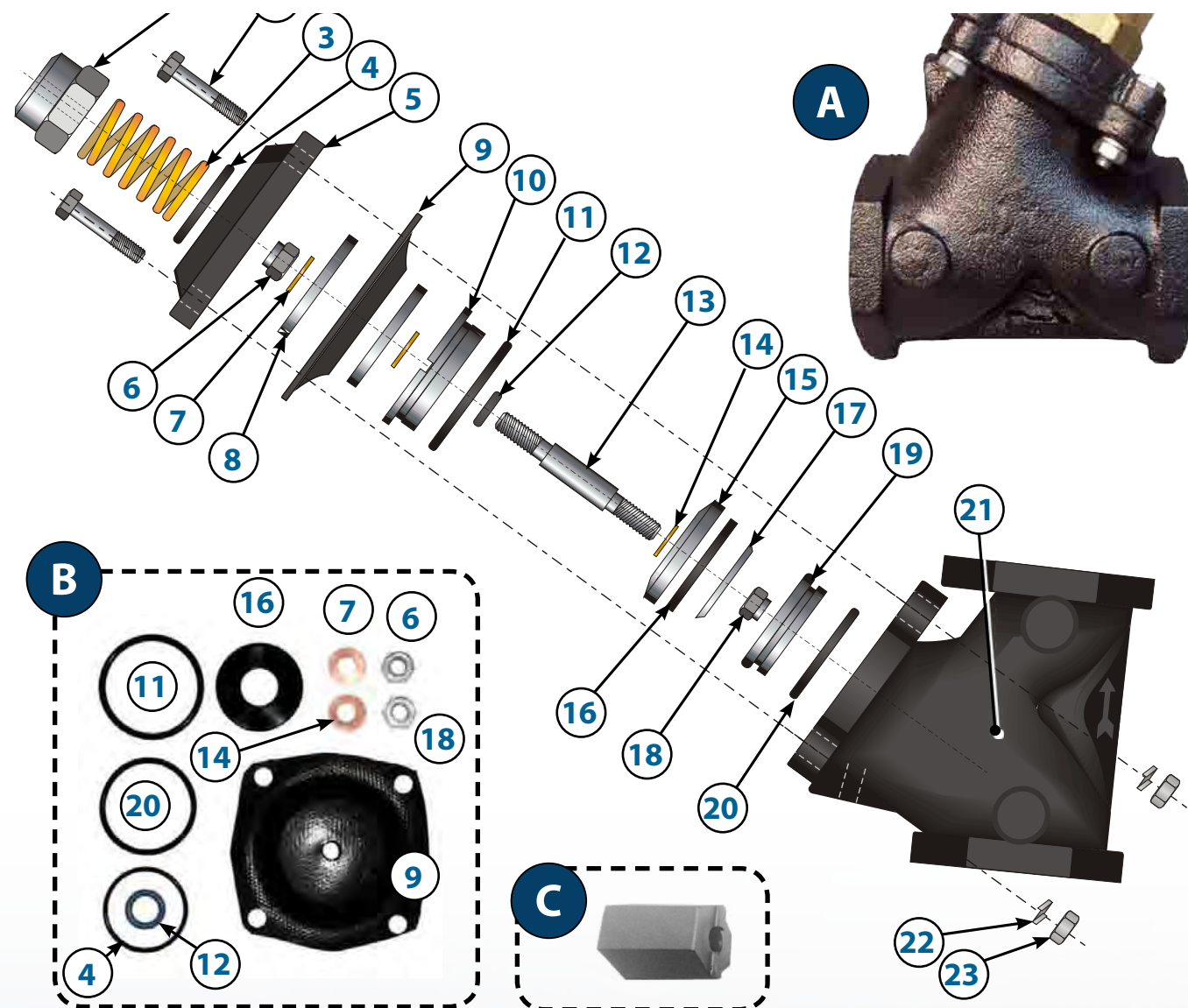
<sup>1</sup>See details parts page 24

<sup>2</sup>See details parts page 25

<sup>3</sup>See details parts page 25



**SANDBLASTERS PPB-346/646/1046 : RC-186 PRESSURE HOLD SYSTEM**  
**AV-186 AIR VALVE - EXPLODED VIEW**

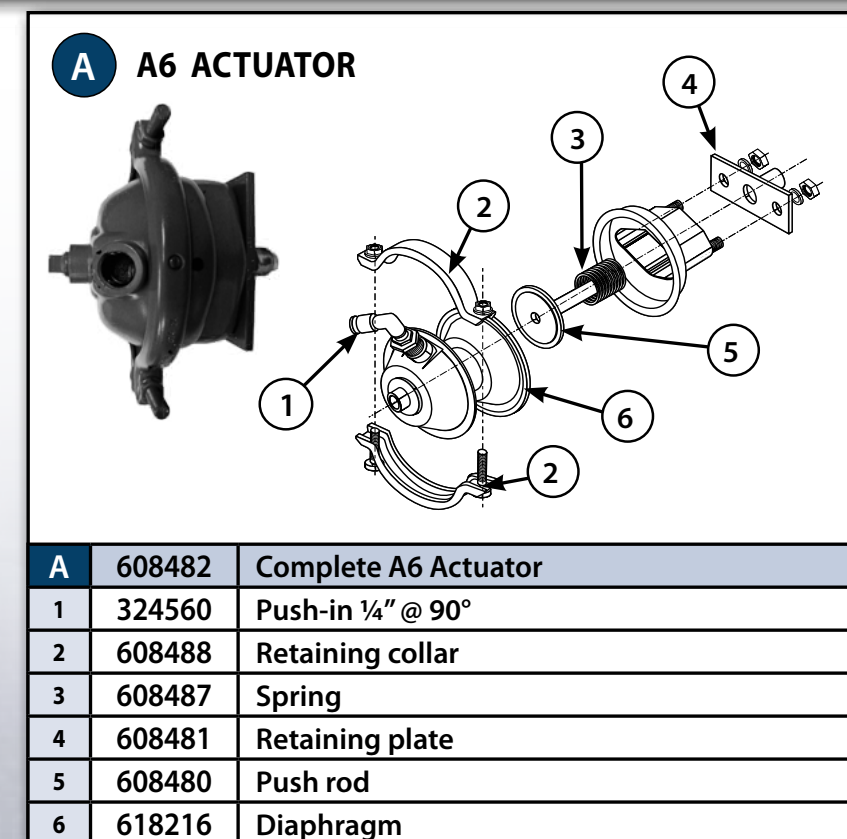
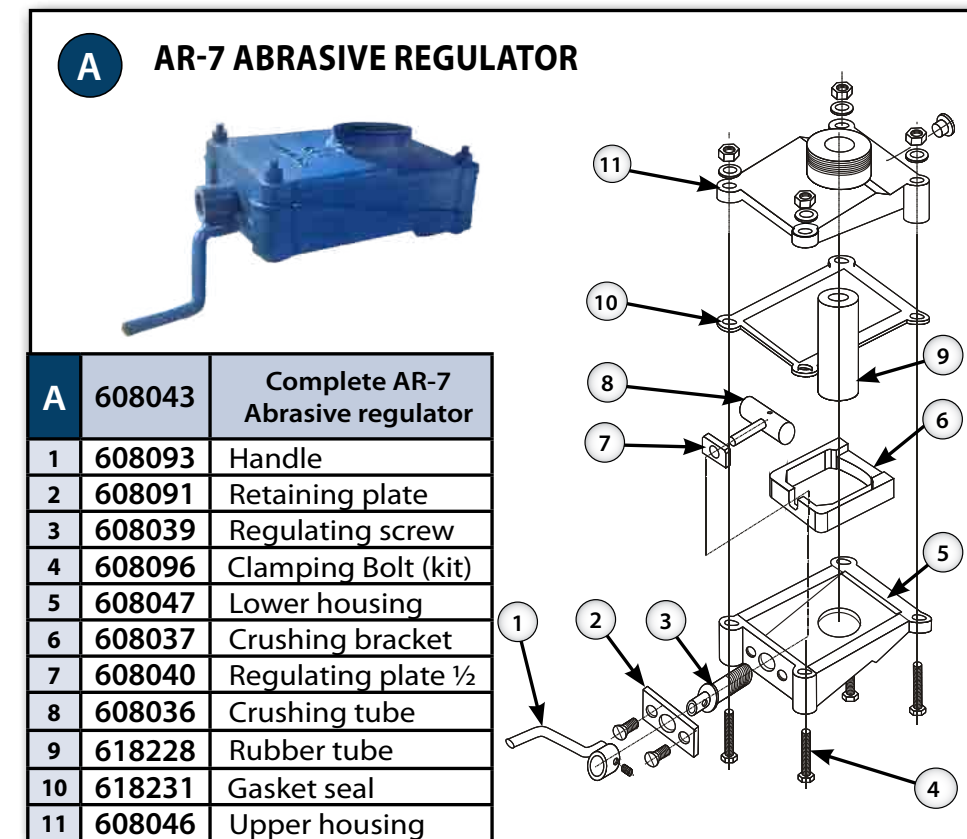


#	DESCRIPTION	1 1/4" Ø	1 1/2" Ø
A	AV-186 AIR VALVE: COMPLETE VALVE ASSEMBLY	608822	908846
B	SERVICE KIT INCLUDES ITEMS : 4, 6, 7, 9, 11, 12, 14, 16, 18, 20	608823	908944
C	SERVICE KIT INCLUDING THIS TOOL	608823A	908944A

#		DESCRIPTION	QTY
1	N-A	CAP	1
2	N-A	HEX MACHINE SCREW 1/4" UNC X 35 MM	4
3	608825	SPRING	1
4	N-A	O-RING 31.5 mm x 2 mm	1
5	N-A	CAP	1
6	N-A	LOCK NUT 5/16" UNF	1
7	N-A	FLAT WASHER 8 mm	2
8	N-A	FLAT WASHER	2
9	N-A	DIAPHRAGM	1

#	PART #	DESCRIPTION	QTY
10	608826	GUIDE BUSH	1
11	N-A	O-RING 45 MM X 3 MM	2
12	N-A	O-RING 9 MM X 2.65 MM	2
13	N-A	SHAFT	1
14	N-A	FLAT WASHER	1
15	608955	SEAT HOLDER	1
16	N-A	RUBBER GASKET	1
17	608954	RETAINER	1
18	N-A	LOCK NUT 1/4" UNF	1
19	N-A	INNER BUSH	1
20	N-A	O-RING 34 MM X 1.8 MM	1
21	N-A	BODY	1
22	N-A	SPRING WASHER 1/4"	4
23	N-A	NUT 1/4" UNC	4

**SANDBLASTERS PPB-346/646/1046 : RC-186 PRESSURE HOLD SYSTEM**  
**AR7 & A6 ABRASIVE METERING VALVES - EXPLODED VIEW**

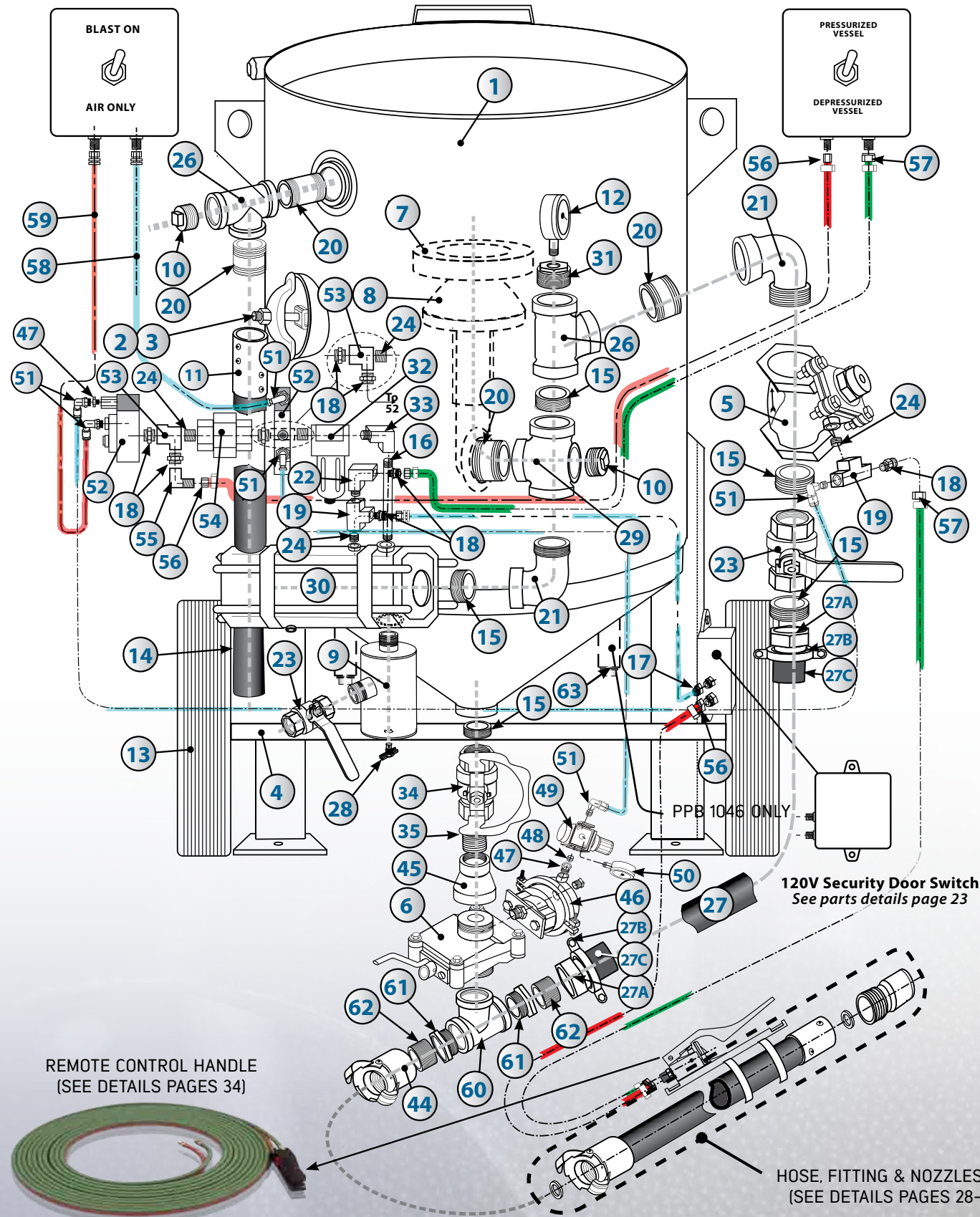




SANDBLASTERS PPB-346/646/1046 : RC-176/186 COMBINED SYSTEM

EXPLODED VIEW

Blast or Air only  
See parts details page 23



SANDBLASTERS PPB-346/646/1046 : RC-176/186 COMBINED SYSTEM

PARTS LIST

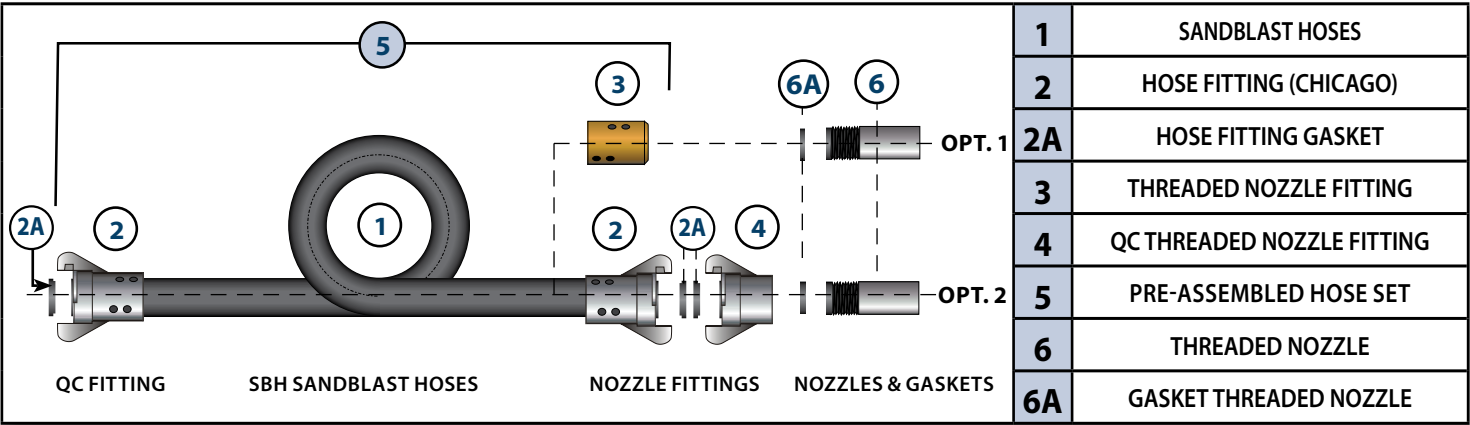
#	STOCK	DESCRIPTION
1	723000	PRESSURE VESSEL ONLY (646)
	733000	PRESSURE VESSEL ONLY (1046)
2	610056	ACCESS DOOR KIT (OLDER VERSION)
	740102	ACCESS DOOR KIT (LG SERIE)
3	618241	ACCESS DOOR GASKET (OLDER VERSION)
	740101	ACCESS DOOR GASKET (LG SERIE)
4	619091	4" AXLE
5	608822	AIR VALVE AV-186 <sup>1</sup>
6	608043	ABRASIVE REGULATOR AR-7 <sup>2</sup>
7	740004	"O" RING (OLDER VERSION)
	740100	"O" RING (LG SERIE)
	740104	"O" RING FOR 10 pi.ca. (LG SERIE)
8	740007	5" PLUNGER (OLDER VERSION)
	610044	5" PLUNGER (LG SERIE)
9	611053	1 1/4" MOISTURE SEPARATOR
10	630884	1 1/4" PLUG
11	607051	NH-3/4" ALUM. NOZZLE HOLDER
12	611022	1/4" NTP GAUGE
13	740006	WHEEL
14	606003	HOSE 3/4" SBH
15	630801	1 1/4" NIPPLE CLOSE
16	630111	NIPPLE 6" X 1/4"
17	324570	PUSH IN 1/8"
18	632214	ADAPTOR 1/4" TO 1/8"
19	632018	TEE 1/8" FF
20	630805	NIPPLE 3" X 1 1/4"
21	630851	1 1/4" X 90° ELBOW MF
22	632026	STREET ELBOW 1/8"
23	608105	1 1/4" BALL VALVE
24	632002	HEX. NIPPLE 1/8"
26	630840	TEE 1 1/4"
27	770100	PUSH LINE HOSE ASS'Y (27-A-B-C)
27A	607087	SWIVEL HOSE INSERT 1 1/4"
27B	607088	DOUBLE BOLT CLAMP
27C	770101	PUSH LINE HOSE 30" X 1 1/4"
28	608230	DRAIN COCK VALVE
29	630838	1 1/4" COUPLING CROSS

#	STOCK	DESCRIPTION
30	608821	AV 176 VALVE ASS'Y <sup>3</sup>
31	630864	1 1/4" X 1/4" COUPLING
32	611035	AIR LINE FILTER
33	632232	ELBOW 1/4" X 90° MF
34	908847	1 1/4" BALL VALVE
35	630801	1 1/4" NIPPLE
44	607075	TANK COUPLING 1 1/4" NVC NYLON
45	631160	2" X 1 1/4" REDUCER
46	608482	ACTUATOR A6 <sup>4</sup>
47	324561	FITTING PUSH-IN 90° 1/8" NPT 1/4" TU
48	632202	1/4" NIPPLE
49	608015	1/4" PRESSURE REGULATOR
50	311002	1/8" PRESSURE GAUGE
51	324560	1/4" @ 90° PUSH-IN
52	608534	SOLENOID VALVE
53	632226	1/4" FFF BRASS "T" STREET
54	632260	1/4" PL UNION
55	632026	1/8" MF ELBOW
56	632281	BP MENDER 1/ 8" B.F.SW. X 1/4" ST
57	632279	BP 1/4" SWIVEL MENDER
58	324571	1/4" POLY BLUE TUBING
59	324586	1/4" POLY RED TUBING
60	631135	2" "T"
61	631151	2" TO 1 1/4" ADAPTER
62	630801	1 1/4" CLOSE NIPPLE
63	NPN	1 1/4" SQUARE PLUG

<sup>1</sup>See parts details page 24      <sup>3</sup>See parts details page 20  
<sup>2</sup>See parts details page 25      <sup>4</sup>See parts details page 25




SANDBLASTER MODEL 346/646/1046: NOZZLES & HOSES




BULK SANDBLAST HOSES  
(LENGTH OF 12.5', 25' & 50' ONLY)

		MODEL	INSIDE DIAMETER	OUTSIDE DIAMETER
<div>1</div> 	606004	SBHW-1 1/4" whip	1 1/4"	1 7/8"
	606005	SBH-1"	1"	1 31/32"
	606006	SBH-1 1/4"	1 1/4"	2 5/32"
	606007	SBH-1 1/2"	1 1/2"	2 3/8"
	606008	SBH-2"	2"	2 7/8"

HOSES FITTINGS


	Part Nb.	Model	SBH I.D.	SBH O.D.
<div>2</div>  (CHICAGO)	607005	QC	1"	1 31/32"
	607007		1 1/4"	2 5/32"
	607009		1 1/2"	2 3/8"

FITTING GASKETS\*


	Part Nb.	Model	Hose I.D.
<div>2A</div> 	618000	QCW	1"
	618001		1 1/4"
	618003		1 1/2"

\* The gasket is included with hose fittings.

OPTION 1: THREADED NOZZLE FITTINGS

	Model	Hose I.D.	Thread	
			1"-1/4 NPS	2"-4 1/2 UNC
<div>3</div> 	NH-1	1"	607018	407020
	NH-1 1/4	1 1/4"	607019	407021
	NH-1 1/2	1 1/2"	607054	N/A

OPTION 2: QUICK CONNECT NOZZLE COUPLINGS

	Part Nb.	Model	Hose I.D.	Thread
<div>4</div> 	607075	TC-1 1/4"	1 1/4"	1"-1/4 NPS
	907011	TC-1 1/2"	1 1/2"	

Nozzle couplings are primarily used by operators who need to regularly change nozzles, but this type of connection could cause wear on the hose and / or nozzle.

SANDBLASTER MODEL 346/646/1046: NOZZLES & HOSES (CONT'D)

5 HOSE AND FITTINGS PRE-ASSEMBLED KITS (INCLUDES 1, 2 AND 3)

Kits with two hose connections (QC-QC) to the end pieces can be used to make extensions. Assemblies that include a hose connector (QC) and a nozzle connector (NH) are those used to insert the nozzle.


The SBHW-1 1/4" Whip hose offers lightness and flexibility in use, but wears out faster because its wall is thinner than standard hoses. The Whip system is generally used at the "last length" blast hose in blast chambers and should be replaced more frequently.

1 SANDBLASTING HOSE			(2 3) FITTINGS	
Model	Inside Diam. (I.D.)	Hose length (feet)	QC-QC	QC-NH
SBH-1"	1"	12.5	606030	606029
		25	606036	606031
		50	606037	606032
SBH-1 1/4"	1 1/4"	50	606042	606040
SBH-1 1/2"	1 1/2"		606052	606050
SBHW-1 1/4"	1 1/4" Whip	12.5	606049	606053

6 THREADED NOZZLES SIMPLE VENTURI

Simple Venturi nozzles provide exceptional sanding performance. Their design is designed with a narrow entrance and a wide opening which considerably increases the velocity at the exit

DCV- TUNGSTEN CARBIDE*	Part #	Model	Orifice	Length	Thread
	605203	DCV-3	3/16" Ø	4 1/4"	1 1/4" NPS
	605204	DCV-4	1/4" Ø	5 1/4"	
	605205	DCV-5	5/16" Ø	6"	
	605206	DCV-6	3/8" Ø	6 3/4"	
	605207	DCV-7	7/16" Ø	8"	
	605208	DCV-8	1/2" Ø	9 1/4"	
BCV4- BORE CARBIDE*	Part #	Model	Orifice	Length	Thread
	605453	BCV4-3	3/16" Ø	4 1/8"	1 1/4" NPS
	605454	BCV4-4	1/4" Ø		
	605455	BCV4-5	5/16" Ø		
	605456	BCV4-6	3/8" Ø		
	605458	BCV4-8	1/2" Ø		


6 GASKET	Part #	Model	Thickness
	618016	NW-1	1/4"

\* The gasket is included with the nozzles.

THREADED NOZZLES DOUBLE VENTURI

Double Venturi nozzles provide increased performance compared to the Single Venturi nozzle. The hole inside the nozzle allows atmospheric air to be introduced, which considerably increases the velocity while reducing the loss of velocity.

BCV- BORE CARBIDE*	Part #	Model	Orifice	Length	Thread
	405464	BCV-4	1/4" Ø	5 5/16"	2"-4 1/2 UNC
	405465	BCV-5	5/16" Ø	6 11/16"	
	405466	BCV-6	3/8" Ø	6 1/8"	
	405467	BCV-7	7/16" Ø	8 15/32"	
	405468	BCV-8	1/2" Ø	9 1/16"	

6 GASKET	Part #	Model	Thickness
	407025	NW3	1/4"

\* Gasket sold separately.

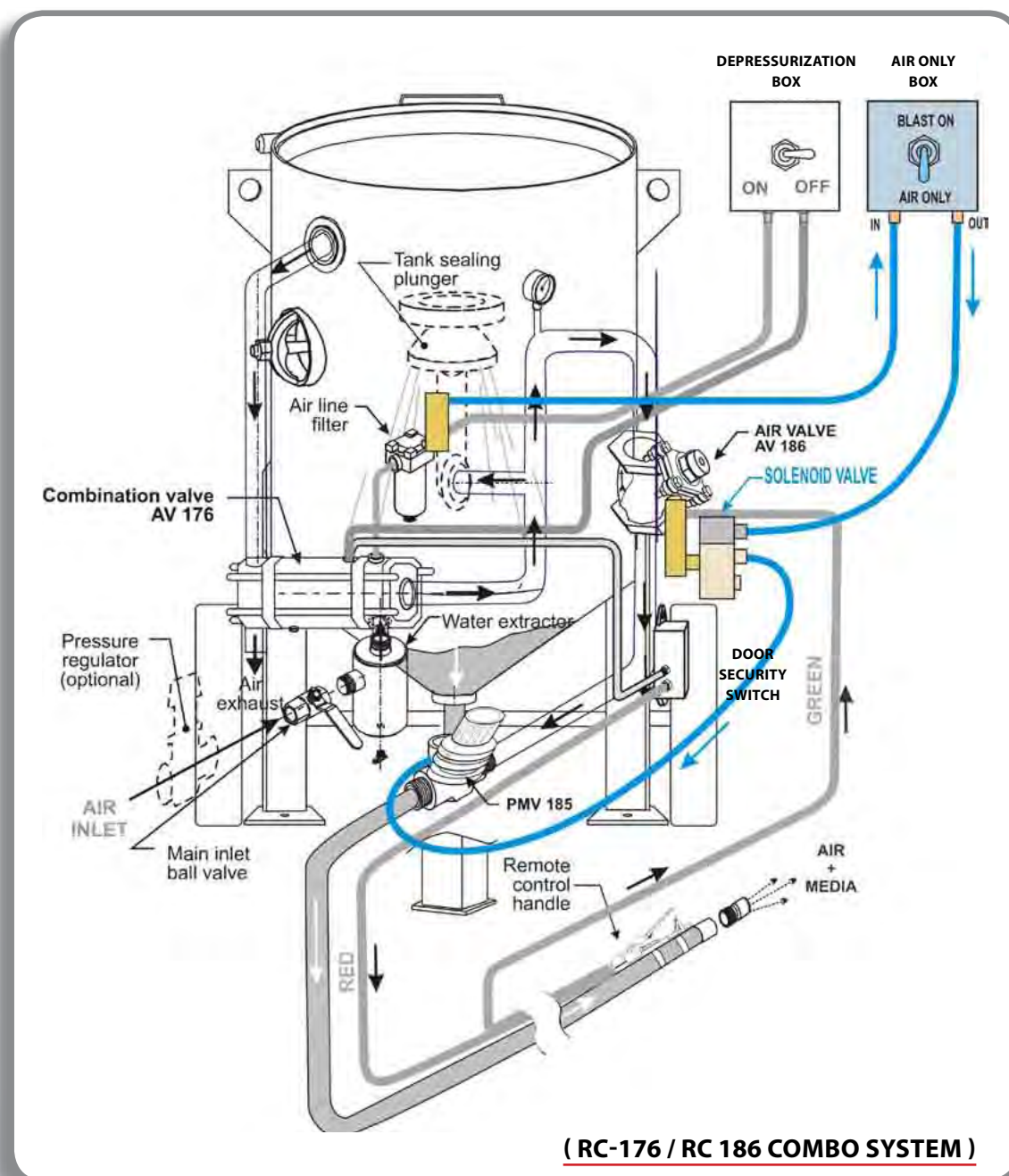


## MANUAL CONTROL SYSTEMS

### OPTION AIR ONLY / BLAST ON FOR PRESSURE VESSELS

#### OPERATING PRINCIPLE

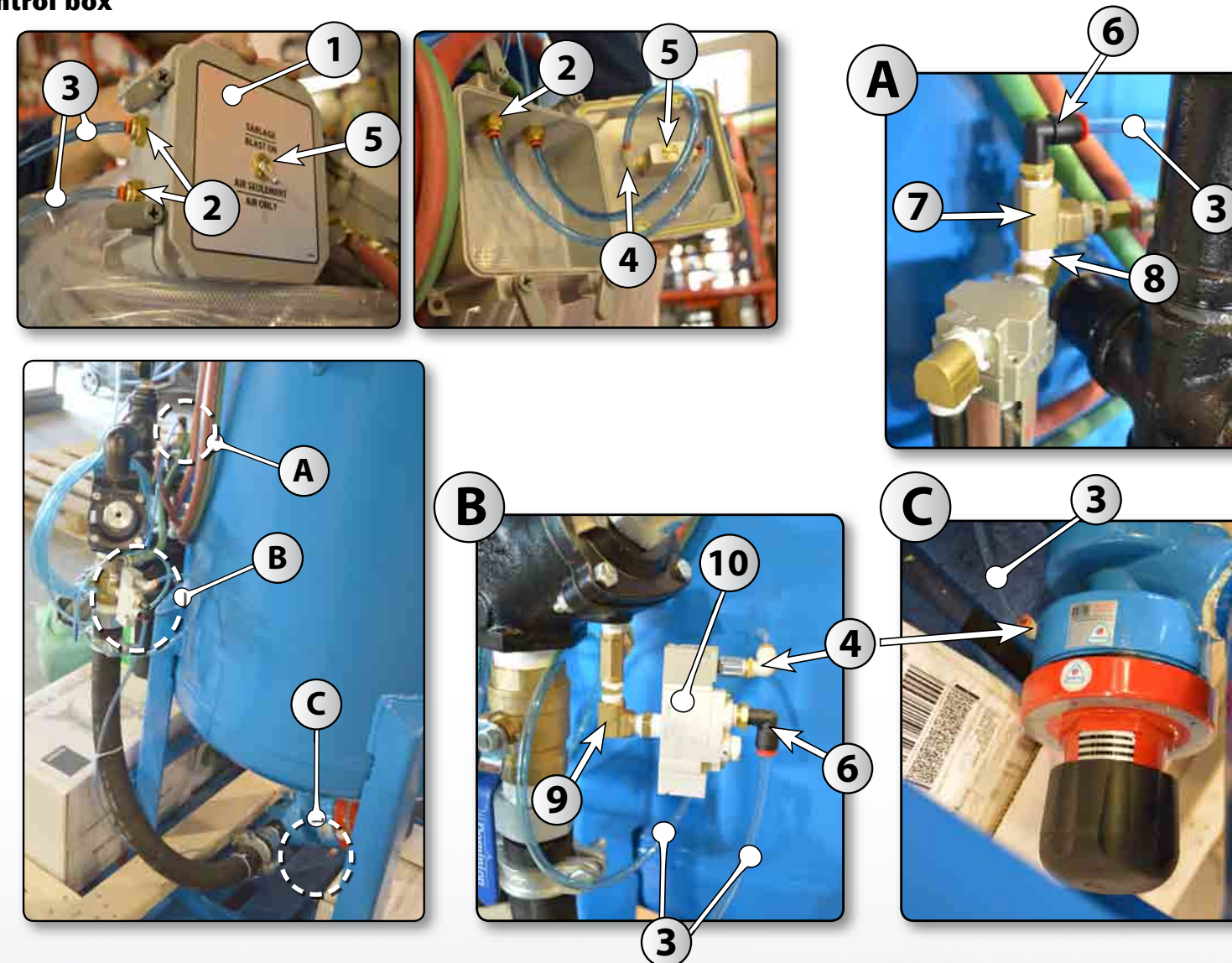
Through the pneumatic use of the pneumatic switch [5], you can disable blasting in order to blow air only by switching it on the position : **AIR ONLY**. When this switch is returned on **BLASTING** position, the sandblast process can resume normally.



## MANUAL CONTROL SYSTEMS

### OPTION AIR ONLY / BLAST ON FOR PRESSURE VESSELS

#### Control box



#	STOCK	DESCRIPTION	#	STOCK	DESCRIPTION
1	617336	JUNCTION BOX 5"X 5" X 2" PVC	6	324560	90° 1/4" PUSH-IN
2	324502	PUSH IN BULKHEAD UNION 1/4"	7	632226	1/4" BRASS "T" STREET
3	324571	1/4" BLUE TUBING	8	632232	BP 1/4" 90° BRASS ELBOW M/F
4	324561	FITTING PUSH-IN 90° 1/8"NPT 1/4" TU	9	632233	BP 90° FF 1/4" BRASS ELBOW
5	608528	PILOT VALVE TAC 2 #41V	10	608534	SOLENOID VALVE

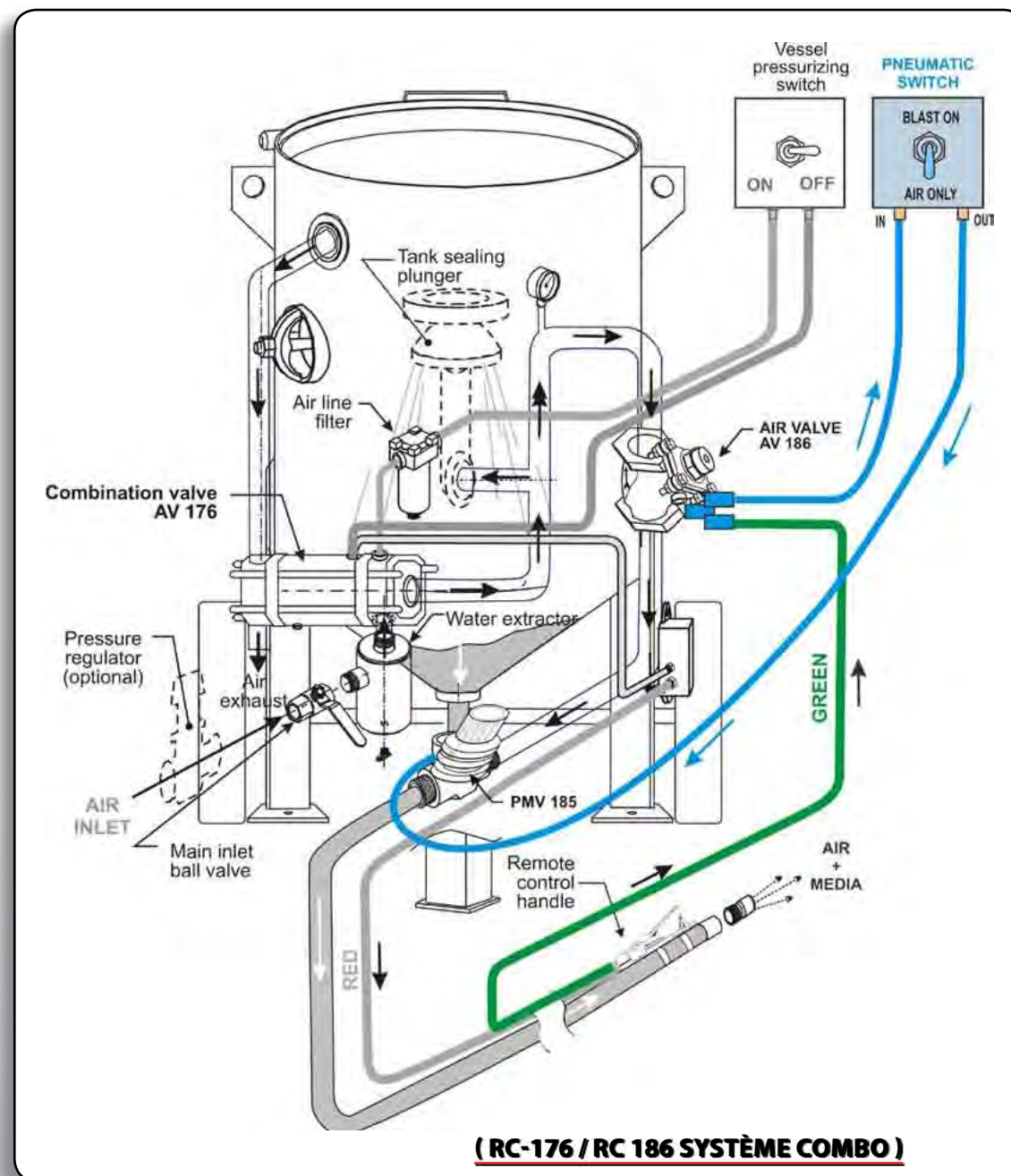


## MANUAL CONTROL SYSTEMS

### OPTION AIR ONLY / BLAST ON FOR ABRASIVE BLAST ROOMS

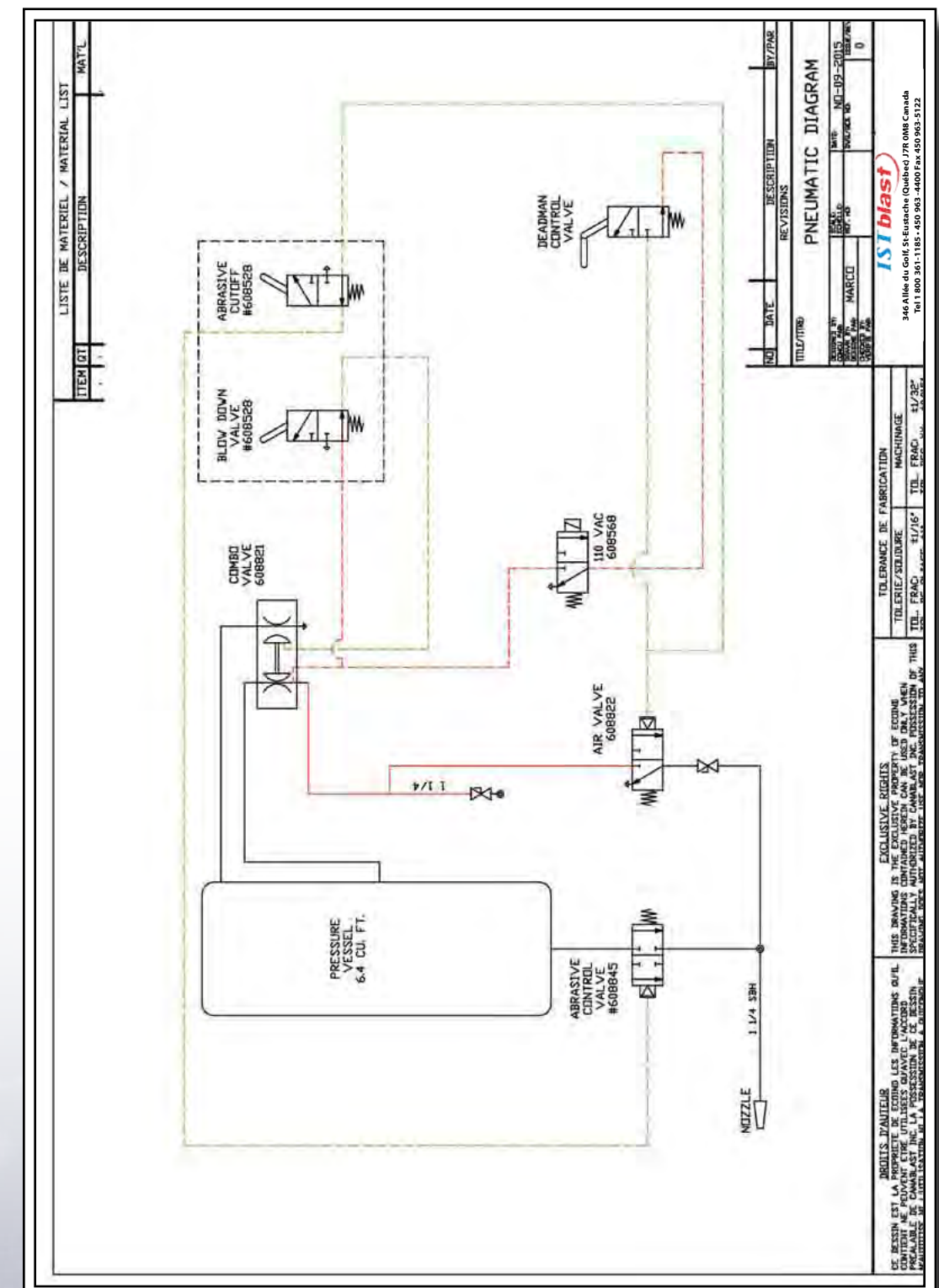
#### OPERATING PRINCIPLE

Through the pneumatic use of the pneumatic switch, you can disable blasting in order to blow air only by switching it on the position : **AIR ONLY**. When this switch is returned on **BLASTING** position, the sandblast process can resume normally. For parts, refer to page 29



## MANUAL CONTROL SYSTEMS PNEUMATIC DIAGRAM

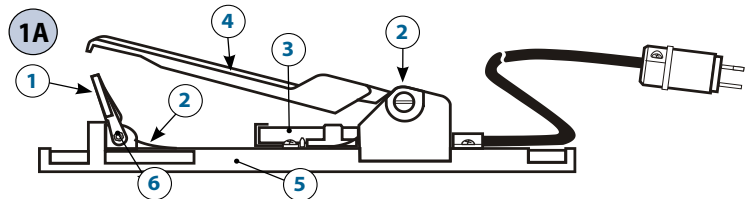
### OPTION AIR ONLY / BLAST ON FOR ABRASIVE BLAST ROOMS



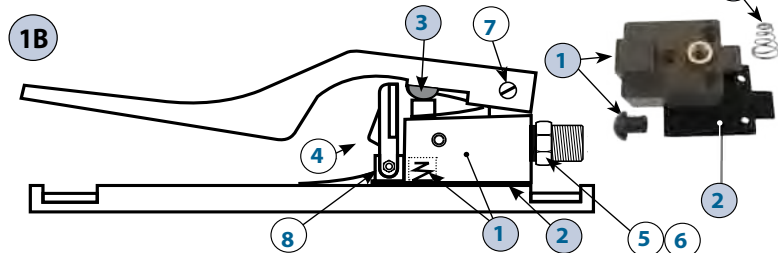


## ELECTRICAL & PNEUMATIC CONTROL HANDLES

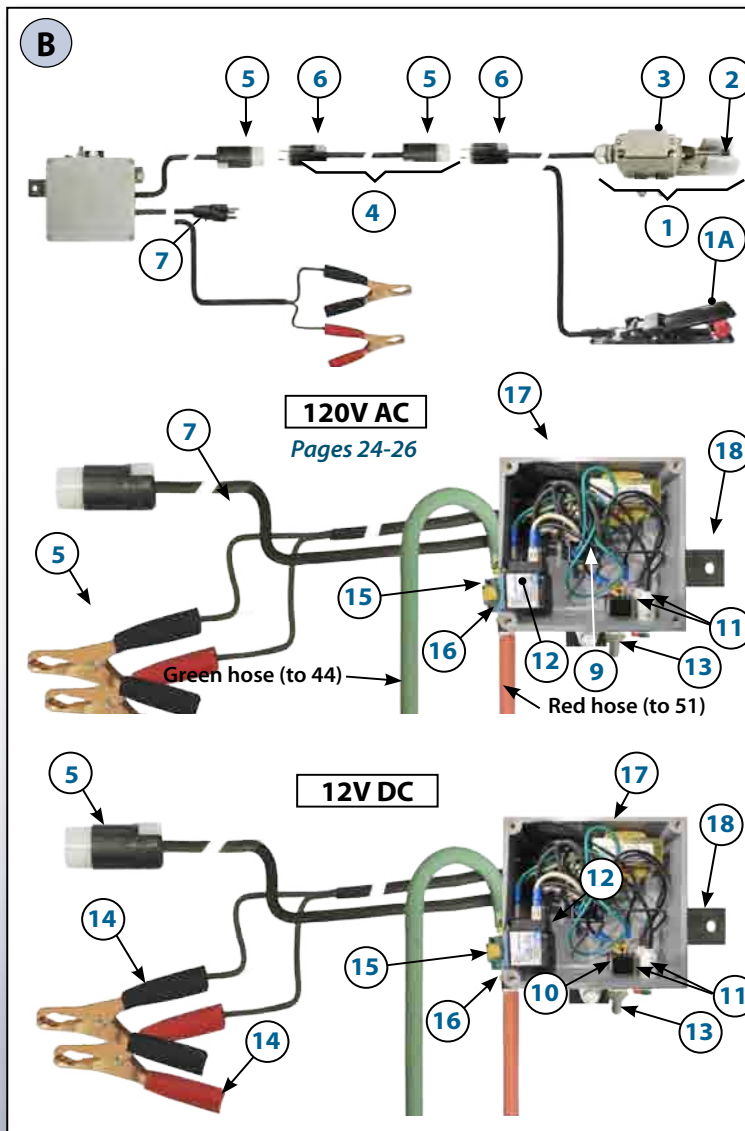
### ELECTRIC CONTROL HANDLE



### PNEUMATIC CONTROL HANDLE



### ELECTRIC REMOTE CONTROL OPTION 12 V DC / 120 V

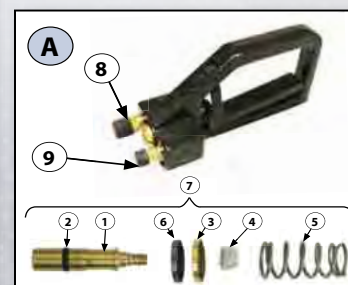


#	STOCK	DESCRIPTION
1A	770160	Complete electric control handle
1	770051	Safety level
2	770052	Spring
3	770063	Switch
4	770054	Handle
5	770055	Base
6	770060	Shoulder screw

#	STOCK	DESCRIPTION
1B	908006	Complete pneumatic control handle
1	770061	Repair kit for control handle
3		
4	770062	Safety flap
5	632214	Hex. nipple 1/4" NPT x 1/8" c/w ball ST
6		Hex. nipple 1/8" NPT x 1/4" c/w ball ST
7	770052	Spring
8	770060	Shoulder screw

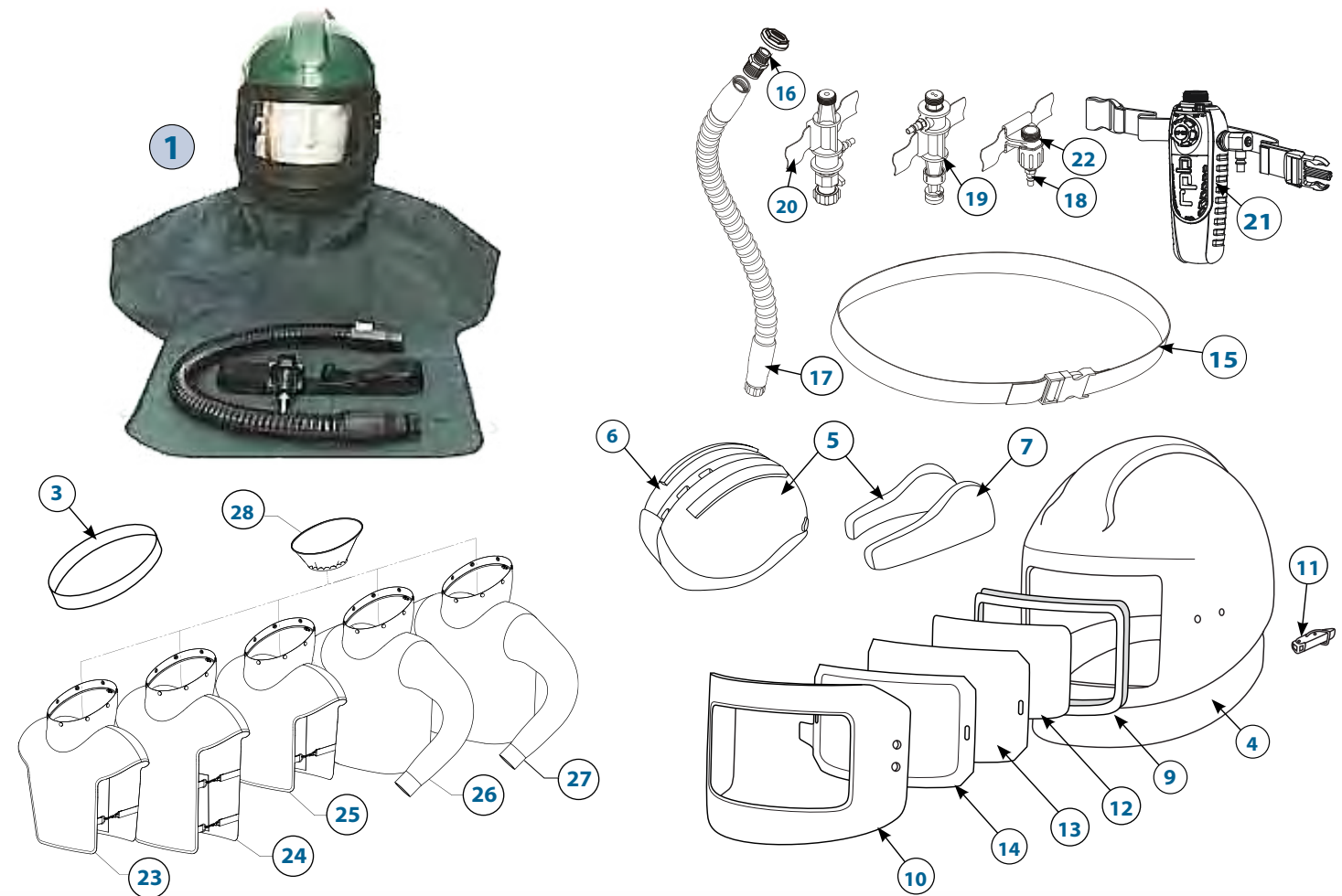
B	616068	12 V DC remote control
	616070	120 V AC remote control
1	616120	Electric control handle (Old)
1A	770160	Electric control handle (Actual)
2	616101	Control body
3	616130	Complete switch
	616519	Extension cable 30'
4	616520	Extension cable 55'
	616522	Extension cable 105'
5	616411	Electric connector
6	616410	Electric plug
7	616585	Electric plug & wire
8	617205	Transformer 120-12 Volts
9	617240	Diode
10	617014	Switch E3
11	617104	Red light 12 Volts
	617105	Green light 12 Volts
12	608565	Solenoid valve 12 Volts NC
13	617019	Switch protector E3
14	616105	12 Volts clips (pair)
15	608284	Muffler 1/8" MPT
16	632273	PL 1/4" x 1/8" MPT adaptor
17	617336	Junction box
18	616096	Control bracket

### PNEUMATIC CONTROL HANDLE ("D" SHAPE)



A	608800	Complete handle
1	608806	Piston
2	608808	"O" ring
3	608810	Washer
4	608809	Nut
5	608807	Spring
6	NPN	Rubber washer
7	608804	Repair kit
8	632002	1/8" Nipple
9	632202	1/4" Nipple

## NOVA 2000 ASSEMBLY - EXPLODED VIEW

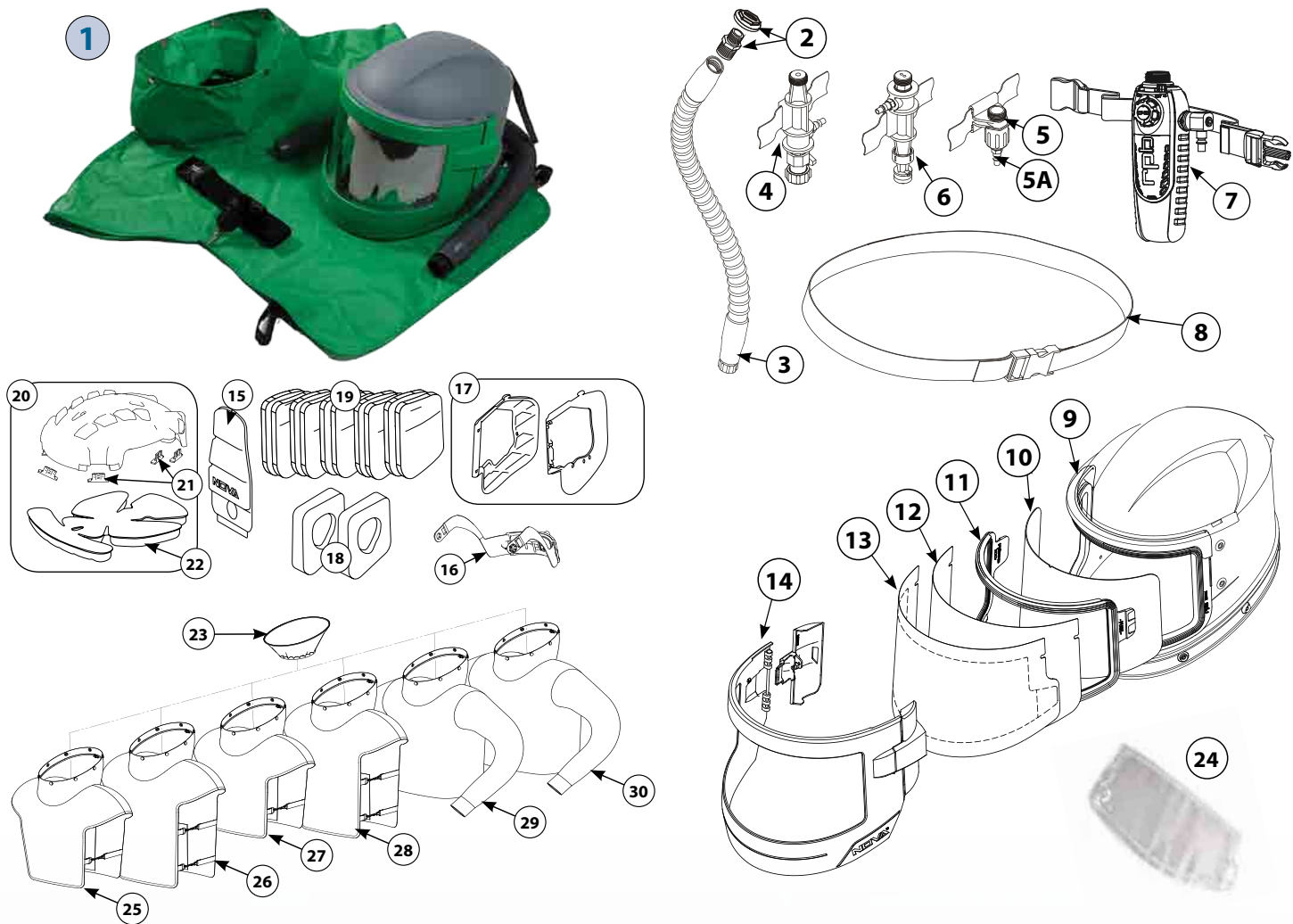


#	STOCK	DESCRIPTION
1	NV2000	NYLON CAPE, FLOW CONTROL VALVE
3	NV2012	INNER BIB
4	NV2013	CAPE COVER BAND
	NV2009-10LH	NOVA 2000 HYGIENE KIT SIZE LARGE
5	NV2009-10	HYGIENE KIT SIZE MEDIUM
	NV2009-10SH	HYGIENE KIT SIZE SMALL
6	NV2009	HELMET LINER SIZE MEDIUM
7	NV2010	SIDE WINGS M (PAIR)
8	NV2034	QUICK CONNECT 3/8" MNPT
9	NV2003	WINDOW FRAME GASKET
10	NV2004	VISOR KIT
11	NV2008	LATCH KIT
12	NV2018	INNER LENS - PK 10 (4 3/4" x 8 3/4")
13	NV2031-015	OUTER LENS - PK 50
14	NV2017	TEAR-OFF LENS - PK 50

#	STOCK	DESCRIPTION
15	NV2022	BELT
16	03-035	AIR INLET KIT
17	NV2021	SAR BREATHING TUBE FOR ASTRO & NOVA 2000
18	4000-06	QUICK RELEASE TAIL 1/4" MALE THREAD
19	4000-01	COOL AIR TUBE ASSEMBLY
20	4000-20	HOT AIR TUBE WITH MBSP THREAD & BELT
21	03-501	C40 CLIMATE CONTROL DEVICE
22	NV2016	FLOW CONTROL VALVE
23	NV2002	NYLON RESPIRATOR CAPE
24	NV2002XL	EXTRA LENGTH NYLON RESPIRATOR CAPE
25	NV2002L	LEATHER CAPE 28"
26	NV2002HB-XL	LEATHER CAPE 38" XL
27	NV2002HB-XXL	BLASTING JACKET XXL
28	NV2012	INNER BIB



NOVA 3 HOOD

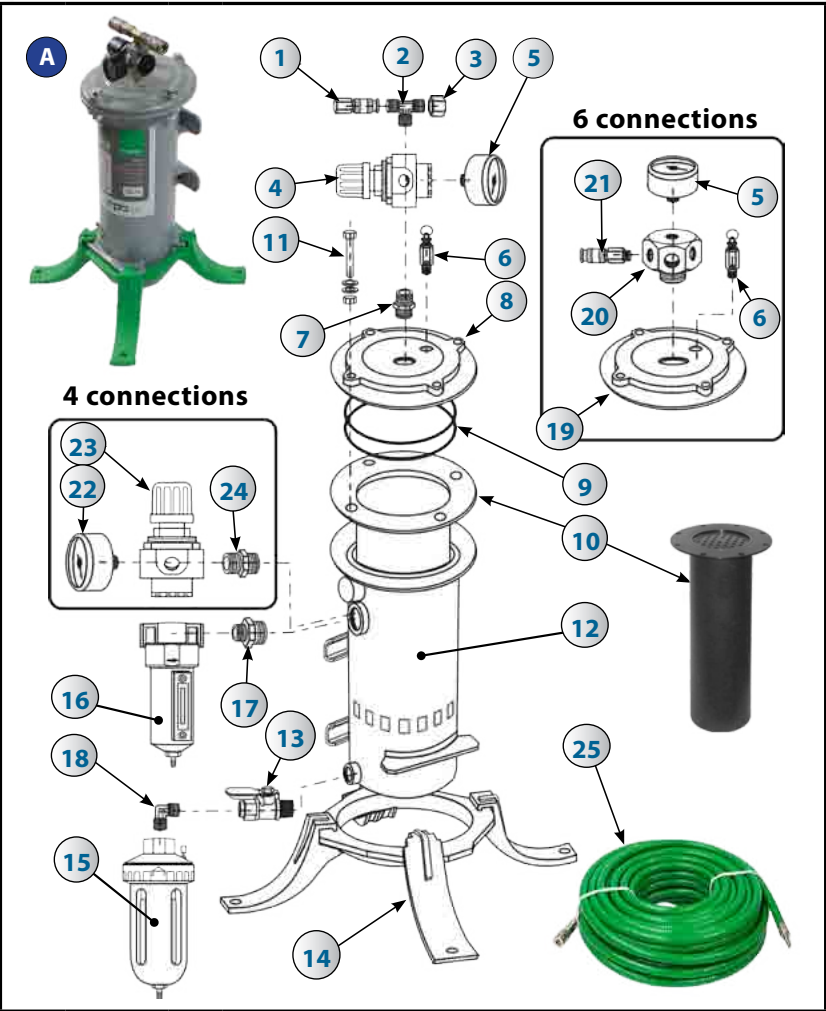


#	STOCK	DESCRIPTION
1	NV3-702-50	FLOW CONTROL, NYLON CAPE
2	03-035	AIR INLET KIT
3	NV2021	SAR BREATHING TUBE
4	4000-20	HOT AIR TUBE C/W BELT
5	NV2016	FLOW CONTROL VALVE
5A	4000-06	QUICK RELEASE TAIL ¼" MALE THREAD
6	4000-01	COOL AIR TUBE ASSEMBLY
7	03-501	C40 CLIMATE CONTROL DEVICE
8	NV2022	BELT
9	NV3-721	INNER GASKET
10	NV3-722	INNER LENS (PK. OF 10)
11	NV3-723	INNER LENS FRAME
12	NV3-724	OUTER LENS (PK. OF 50)
13	NV3-725	TEAR-OFF LENS (PK. OF 50)
14	NV3-726	VISOR KIT

#	STOCK	DESCRIPTION
15	NV3-735	HEAD LINER FOAM PADDING
16	07-900	ADJUSTABLE HEAD SUPPORT
17	NV3-731	SIDE PADDING FRAMES (PAIR)
18	NV3-732-XXX	SIDE PADDING FOAM & COVERS, SIZE A-05*
19	NV3-733	SIDE PADDING COVERS (5 PAIRS)
20	NV3-734	HEAD LINER KIT (INCLUDES NV3-734-1)
21	NV3-734-1	HEAD LINER CLIPS (PK 4)
22	NV3-735	HEAD LINER FOAM PADDING
23	NV2012	INNER BID
24	NV3-745	CASSETTE LENSE (PK 20)
25	NV3-750	NYLON RESPIRATOR CAPE
26	NV3-751	EXTRA LENGTH NYLON RESPIRATOR CAPE
27	NV3-752	LEATHER RESPIRATOR CAPE
28	NV3-753	EXTRA LENGTH LEATHER RESPIRATOR CAPE
29	NV3-754	BLAST JACKET SIZE XL
30	NV3-755	BLAST JACKET SIZE XXL

\* Side wings are available in 5mm (A05), 10 mm (A10), 15 mm (A15), and 20 mm (A20). Standard size supplied with Nova 3 is 10 mm. A05 is the thinnest padding system (for large heads) and A20 is the thickest (for small heads).  
1046 Pressure Blaster - Instruction Manual & Parts

RADEX AIR PURIFIER



#	STOCK	DESCRIPTION
A	04-900	Complete RADEX Airline filter 2 outlets
	04-906	Complete RADEX Airline filter 6 outlets
1	04-911	¾" FTP quick release coupler
2	04-912	¾" Brass "T"
3	04-913	¾" Brass cap
4	04-914	Pressure Regulator( no pressure gauge)
5	04-915	Pressure Gauge
6	04-916	125 psi ¼" MPT Pressure Relief Valve
7	04-917	¾" Hex. brass nipple
8	04-918	FILTer lid
9	04-919	O- Ring (set of 2)
10	APF3100	Filter cartridge
11	04-920	Bolt, Nut, Washer, (set of 4)
12	04-922	Filter body
13	04-923	¼", MPT brass drain tap

#	STOCK	DESCRIPTION	
14	04-924	Base mount	
15	04-925	¼" FPT Auto drain unit	
16	04-927	½" Micro mist filter, assembled	
17	04-928	1" X ½" Brass nipple reducer	
18	04-960	¼" MPT Brass elbow	
19	04-965	6 outlet cover	
20	04-911	6 outlet FPT Manifold	
21	04-915	Quick connect coupling	
22	04-962	Pressure gauge	
23	04-966	High flow regulator (Include 04-962)	
24	603624	1", MPT Hex connector	
25	NV2027	100'	¾" diam. Breathing Air Supply Hose c/w Quick Release Fittings
	NV2028	25'	
	NV2029	50'	



## ISTBLAST WARRANTY REGISTRATION

ISTblast would like to thank you for your recent purchase of our product line. Please complete the card below and either mail or fax it to our office so that we may start the warranty of your product and keep you up to date on the EPA regulations by fax. Again, thank you for your purchase and if you have any suggestions or comments, please feel free to contact our office.

**COMPANY NAME :**

**ADDRESS :**

**CITY :** |\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|\_| **STATE/PROV. :** |\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|

**COUNTRY :** |\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|\_| **ZIP CODE :** |\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|\_|

[illegible]

**TEL. NUMBER:** |\_\_|\_\_|\_\_| |\_\_|\_\_|\_\_| - |\_\_|\_\_|\_\_|\_\_|

**FAX NUMBER:** |\_\_|\_\_|\_\_| |\_\_|\_\_|\_\_| - |\_\_|\_\_|\_\_|\_\_|

**PURCHASE FROM:** | | | | | | | | | | | | | | | | | | | | | | | | | |

DATE OF PURCHASE: 

--	--	--	--	--	--	--	--

Month Day Year

**SERIAL NUMBER:**    -     -     **MODEL NUMBER:**

**TYPE OF MEDIA USED:** | | | | | | | | | | | | | | | | | | | | | |

**Which factors most influenced your decision to purchase this ISTblast unit?**

[illegible]

**SUGGESTIONS ABOUT THE EQUIPMENT:** \_\_\_\_\_

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**IMPORTANT! Please complete and return within 30 days after purchase to activate the warranty.**

**PLEASE SEND THE COMPLETED FORM TO :**

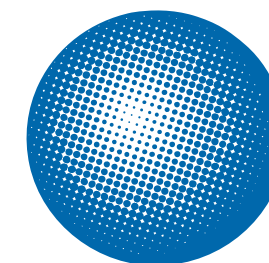
## International Surface Technologies

**346 Allée du Golf  
Saint-Eustache (Québec)  
J7R 0M8 Canada**

**Tel.: 450 963-4400 or 1 877 629-8202 • Fax: 450 963-5122**

## INFORMATION / TECHNICAL ASSISTANCE

ISTblast is a registered trademark of:



**International  
Surface  
Technologies**  

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**istsurface.com**

For more information, pricing or technical support, contact your local  
IST distributor or call / fax to our Consumer Information numbers:

**TEL.: 1 877 629-8202 & 450 963-4400 FAX : 450 963-5122**

Or visit us at:  
**istsurface.com**





## **ABOUT THE COMPANY**

### **WHO WE ARE**

IST is a leading industrial manufacturer of standard and custom engineered equipment for the surface treatment industry and the solvent recycling industry.

### **MISSION**

IST is dedicated to being an innovative and trusted supplier in the conception, fabrication and distribution of surface treatment equipment and recycling equipment.

The success of our mission relies on the following core values :

### **Innovation - Integrity - Quality**

The products, technologies and industry expertise of IST are used in a wide range of manufacturing and industrial applications, including but not limited to :

- General Manufacturing
- Industrial Equipment
- Metal forming
- Aerospace and Aviation
- Rail and Transit
- Marine
- Automotive
- Petroleum
- Flexography (labelling) & Lithography
- Wood finishing
- Power & Energy
- Pharmaceutical

