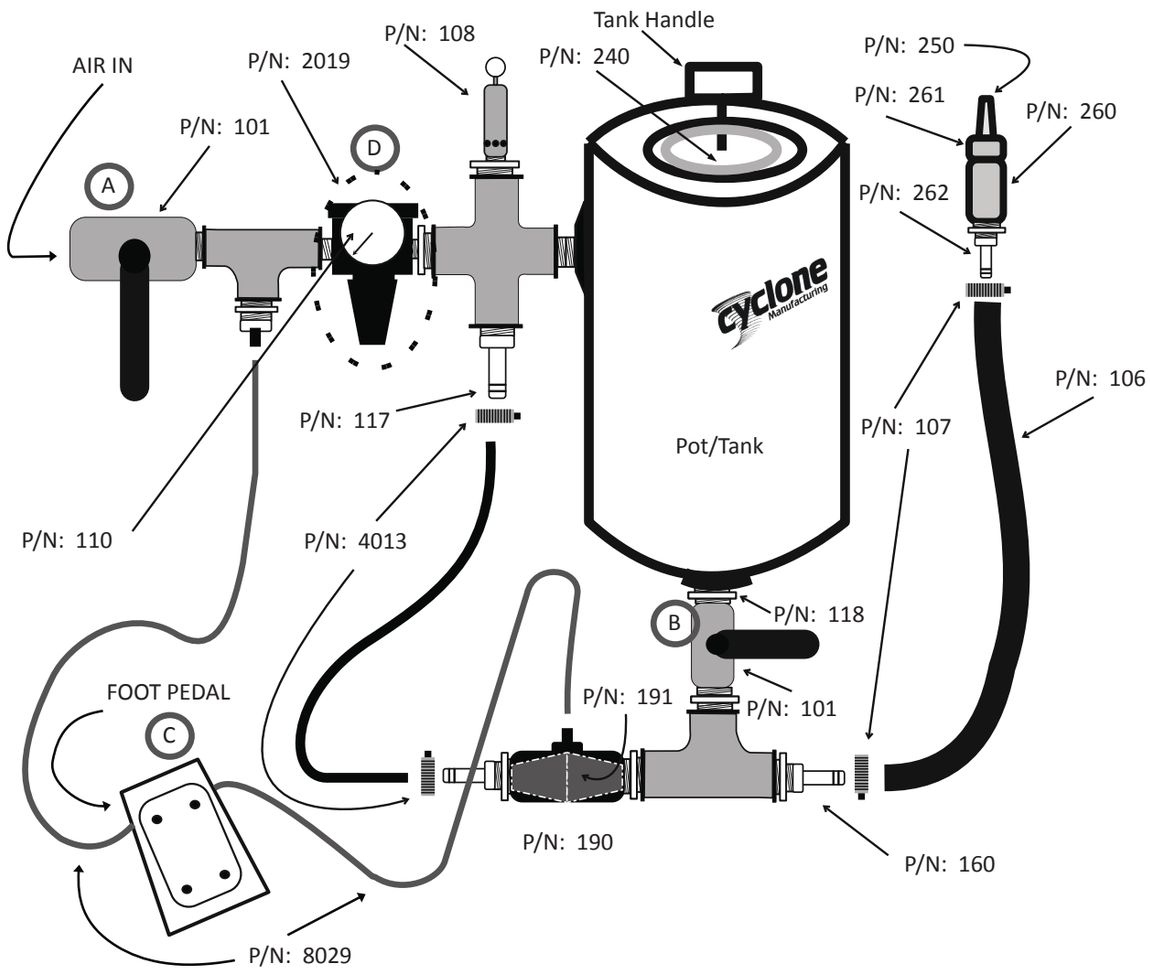
REPLACEMENT PARTS LIST & SCHEMATIC

Part Number	Description	Part Number	Description
110	Air Gauge	207	1/8” Ceramic Nozzle (Standard)
109	1/2” to 1/4” NPT Reducer	*208	1/4” Ceramic Nozzle
110	1/2” Black Iron Cross	*209	3/32” Ceramic Nozzle
116	1/2” Black Close Nipple	*210	3/16” Ceramic Nozzle
101	1/2” NPT Ball Valve (Mixing Valve)	*211	5/32” Ceramic Nozzle
119	1/2” Carbon Steel Ball Valve	*212	5/16” Ceramic Nozzle
108	Pressure Relief Valve	102	1/2” x 1/2” (Steel) Hose Barb
115	1/2” Black Pipe Tee	105	1/2” ID Sandblast Hose (10’ minimum length)
117	1/2” x 3/8” Nylon Barb	2013	3/8” ID Air Hose
112	Nozzle Nut & Holder	103	1/2” 2-Bolt Hose Clamps
113	Nozzle Gasket	101A	1/2” Brass Air Valve
190	Pressure Control Valve (Complete)	2019	Regulator
191	Pressure Control Diaphragm		

Items marked (*) are accessories and *DO NOT* come standard with this unit. They can be purchased separately.



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ATTENTION

Cyclone blast cabinets produce a powerful flow of abrasive particles. To avoid personal injury and property damage, read this manual thoroughly before operating. Keep manual handy for future reference and replacement parts list. ***Safety alert signal words based on ANSI Z535.4-1998 are used to alert the user of a potentially hazardous situation that may be encountered during operation of this equipment. ANSI definitions are as follows.***

CAUTION Caution used without the alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

! CAUTION Caution indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate damage.

! WARNING Warning indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death.

! DANGER Danger indicates an imminently hazardous situation which, if not avoided, will result in serious injury or death.

! DANGER

This unit operates under very high pressure when attached to an air supply and before the pressure has been bled off. Whenever any type of maintenance, clean-up, or shut-down is attempted, the unit MUST BE DISCONNECTED from the air supply and the air exhausted/removed from the tank. Failure to do so could result in serious personal injury and/or property damage.

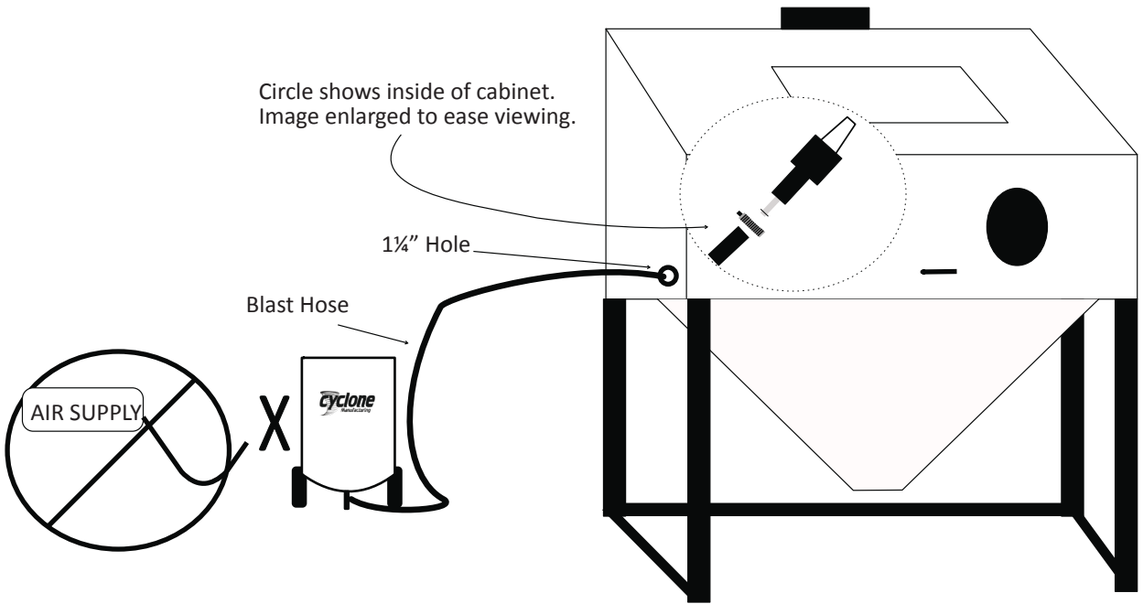
CAUTION

1. Follow all electrical and safety codes as well as the National Electric Code (NEC) and the Occupational Safety & Health Act (OSHA).

DANGER DO NOT ATTACH AIR SUPPLY UNTIL INSTRUCTED

INSTALLATION WITH AN EXISTING BLAST CABINET

1. Drill a 1 ¼" hole on the left hand side of the cabinet.
2. Place supplied grommet into the hole in Step 1.
3. Loosen clamp from the nozzle end on the hose.
4. Take the nozzle end assembly off the hose.
5. Spray grommet with windex to ease insertion of hose.
6. Insert/Slide hose through the grommet.
7. Slide clamp over hose, keep it loose.
8. Put nozzle end assembly back onto the hose
9. Securely tighten clamp.
10. Follow instructions on how to setup pressure tank.



AIR LINE PRESSURE INFORMATION IMPORTANT

DANGER

This unit features a unique system for controlling air flow to the blast nozzle. Air that enters Ball VALVE A enters at LINE PRESSURE. It then flows INTO and OUT OF the Air Regulator (See Schematic, D). The factory turned the air regulator down to a low pressure setting. YOU MAY NEED TO ADJUST THIS FOR YOUR PARTICULAR APPLICATION.

If the pressure in the tank is equal to the line pressure, the valve on the bottom (Schematic, P/N: 190) WILL NOT FUNCTION AS EXPECTED AND ALLOW BLAST MATERIAL TO FLOW UNCONTROLLED OUT OF THE BLAST NOZZLE. THIS CREATES A POTENTIALLY DANGEROUS SITUATION. DAMAGE CAN RESULT TO YOUR WORK PIECE AND THE CABINET.

THE REGULATOR SHOULD BE SET 30-40 PSI LOWER THAN YOUR LINE PRESSURE IN ORDER FOR THE SYSTEM TO FUNCTION PROPERLY.

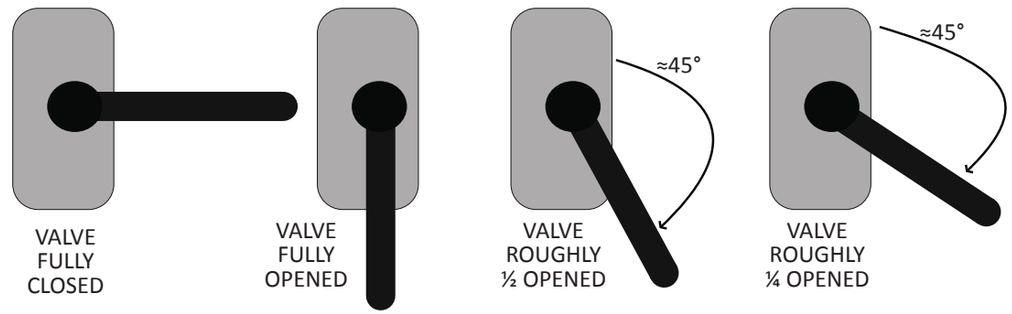
OPERATION

DANGER DO NOT ATTACH AIR SUPPLY UNTIL INSTRUCTED

1. Make sure all ball valves are in the closed position - see valves if you are not sure.
2. Pour clean blasting abrasive material into hole on top of pot. The PT-100-SK can hold up to 90-95 pounds of abrasive.
3. Attach your air supply to VALVE A. REMINDER - ALL VALVES REMAIN CLOSED UNTIL INSTRUCTED TO DO OTHERWISE.
4. Pull up on handle at top of tank to cover the tank opening.
5. SLOWLY OPEN VALVE A ONLY. This will begin to pressurize the pot. This will seal the handle allowing you to release it.
6. SLOWLY adjust the regulator by turning the black knob, observe the air gauge.
7. REDUCE air pressure until the gauge reads 60-80 PSI.

   YOU ARE ALMOST READY TO BLAST. WE WILL REFER TO VALVE B IN THE NEXT STEP. NEVER OPEN VALVE B TO A FULLY OPEN POSITION. THIS WILL CLOG THE HOSES AND PREVENT BLASTING.

8. Open VALVE B - ¼ to ½ OPEN. This ensures a good flow of material coming out of the nozzle when you begin blasting . **NEVER OPERATE VALVE B in the FULLY OPEN POSITION - THIS WILL CLOG HOSES AND PREVENT BLASTING.**
9. YOU ARE READY TO BEGIN BLASTING. Point the nozzle at your workpiece inside the cabinet and depress the foot pedal to begin the flow of abrasives out of the nozzle.



CAUTION

PLEASE NOTE: WHEN SHUTTING DOWN THE SYSTEM, PERFORMING MAINTENANCE, REPLACING PARTS, OR REFILLING THE POT YOU MUST FOLLOW THE SHUT DOWN INSTRUCTIONS.

FAILURE TO DO SO WILL RUIN THE VALVE IN THE FOOT PEDAL & THE REGULATOR. DAMAGE TO UNIT FROM FAILURE TO PROPERLY SHUT DOWN UNIT IS NOT COVERED BY WARRANTY.

SHUTTING DOWN THE UNIT - SHUT DOWN INSTRUCTIONS

1. Close the air inlet valve - VALVE A.
2. Disconnect your air supply from VALVE A
3. MAKE SURE THE NOZZLE IS IN A SAFE POSITION INSIDE THE CABINET AND THAT ALL CABINET OPENINGS ARE SECURELY CLOSED. The next step will release air and media out of the nozzle - creating the potential for harm to persons or property.
4. Depress the foot pedal and ALLOW ALL AIR PRESSURE TO LEAVE THE SYSTEM FROM THROUGH THE NOZZLE END.
5. After the pressure is released, the tank handle will fall. Alternatively, the tank handle may not fall, you can push the handle open.
6. The pressure gauge should indicate the pressure releasing.
7. When the pressure is released from the tank, the handle will fall into the tank.

AVOID COMMON PROBLEMS

NEVER FULLY OPEN VALVE B AT BOTTOM OF TANK. DOING SO WILL CLOG HOSES AND PREVENT BLASTING. ALWAYS SLOWLY OPEN VALVE B TO ALLOW SMALL AMOUNTS OF ABRASIVE.

INSTALL A MOISTURE TRAP IF YOUR AIR LINES HAVE WATER. WATER AND MOISTURE WILL PLUG THE HOSES AND KEEP ABRASIVE FROM FLOWING FROM UNIT.

ALWAYS USE DRY BLASTING ABRASIVES. DO NOT ALLOW BLASTING MATERIAL TO SIT IN THE BLAST POT. IF UNUSED FOR A LONG PERIOD OF TIME THE MATERIAL WILL PICK UP HUMIDITY AND NOT FLOW. DO NOT MIX ANY FLUIDS WITH THE ABRASIVE, USE ONLY DRY ABRASIVES.

NEVER LET ANY DEBRIS FALL INTO THE BLAST POT AS CLOGGING WILL OCCUR.

DO NOT USE WALNUT SHELLS, PLASTIC GRANULES OR METAL ABRASIVE IN THIS SYSTEM. THEY MAY CLOG THE HOSES, NOZZLES, AND PREVENT BLASTING.

TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
Sand-air mix stops completely	Proper valves are not open.	Open valves according to these instructions.
	The nozzle is clogged.	SHUT DOWN UNIT BEFORE UNCLOGGING OR UNSCREWING THE NOZZLE NUT.
Surging or sputtering	Usually related to improper air/ sand mixture.	Close the mixing valve on the bottom of the tank and reopen it until the proper flow is reached. REMEMBER - the leaner (less media to air ratio) the better.
	Worn nozzle	Replace nozzle.
	Insufficient Air Supply	The minimum air pressure in the tank is 70 P.S.I.
Air only coming out of the nozzle	No abrasive in the tank.	Add appropriate media to tank.
	Wet or damp media clogging the mixing valve.	SHUT UNIT DOWN AND BLEED/REMOVE PRESSURE before proceeding. This problem is caused by wet abrasives from wet air. If this happens, install a good airline moisture separator as appropriate in your airline near the blaster if the condition persists.

LIMITED WARRANTY

Cyclone abrasive blast systems are warrantied against defects in workmanship or materials in accord with the following terms:

- Warranty extends to original owner only.
- Warranty does not cover blast cabinets used in commercial rentals
- Warranty is valid for one (1) year following the date of purchase.
- Warranty does not cover standard wear items such as the nozzle, orifice, blasting material, window and gaskets.
- Warranty does not cover misuse of the blast system. This includes the failure to follow instructions.
- Warranty does not cover blast unit if altered or otherwise changed from its original state form the factory.
- WARRANTY DOES NOT COVER DAMAGES IN TRANSIT:
  IN SUCH CASES, THE RECEIVER SHOULD CONTACT THE FREIGHT CARRIER WITHIN 15 DAYS OF DELIVERY TO FILE A CLAIM. IT IS NOT THE RESPONSIBILITY OF THE MANUFACTURER OR SUPPLIER TO FILE THE CLAIM. IF ANY PARTS SHOULD BE REQUIRED TO FIX A FREIGHT DAMAGED UNIT, THE RECEIVER WILL BE BILLED ACCORDINGLY. THIS BILL CAN THEN BE TURNED OVER OT THE FREIGHT CARRIER. USERS SHOULD CALL THEIR DISTRIBUTOR OR THE FACTORY UPON INSPECTION/DISCOVERY OF ANY PROBLEM. A TECHNICAL PERSON CAN ASSIST. YOU.
- This warranty grants the user certain legal rights. Users and purchasers may also be protected by other rights that vary with location.
- NOTE: Except for the warranties set forth above, Cyclone makes no other warranties of any kind - express or implied. This includes warranties of merchantability or fitness of product for a particular purpose.

NOTE: The nature of this blasting system makes it impossible to guarantee the nozzle, nozzle valve, nozzle hose barb and nozzle nipple. These are considered high wear items and should be checked and replaced as needed on a regular basis.