



CYCLONE BLASTING SYSTEMS  
P.O. BOX 815  
DOWAGIAC, MI 49047  
(269) 782-9670  
(269) 782-9623 FAX

## Parts Break-Down List

Description	Drawing Number	Part Number
Air Gauge	1	110
1/2" to 1/4" npt Reducer	2	109
1/2" Blk. Cross	3	100
1/2" Blk. Close Nipple	4	116
1/2" Brass Ball Valve (Mixing Valve)	17	101
1/2" Carbon Steel Ball Valve	6	119
Pressure Relief Valve	7	108
1/2" Blk. Pipe Tee	8	115
1/2" x 3/8" Nylon Barb	9	117
Nozzle Nut & Holder	11	112
Nozzle Gasket	16	113
Ceramic Nozzle 1/8"	12	207
Ceramic Nozzle 1/4"	Special Order	208
Ceramic Nozzle 3/32"	Special Order	209
Ceramic Nozzle 3/16"	Special Order	210
Ceramic Nozzle 5/32"	Special Order	211
Ceramic Nozzle 5/16"	Special Order	212
1/2" x 1/2" (Steel) Hose Barb	13	102
1/2" I.D. Sandblast Hose	14	105
3/8" I.D. Air Hose	15	2013
1/2" 2 Bolt Hose Clamps		103
1/2 Brass Air Valve	5	101A

## Operating Manual & Parts List PT-100 & PT-250 Blast System

### CAUTION!

This unit operates under high pressure when attached to an air supply or 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 from the tank. Failure to do so could result in serious personal injury and/or property damage.

### OPERATION

1. This unit arrives completely assembled. Fill the unit with abrasive through the opening in the top of the tank.
2. Air connection is accomplished by the owner supplying and attaching a 1/2" air hose with a quick disconnect fitting to the air inlet valve in the rear of the tank.
3. Before turning on the air system, make sure that the air inlet valve and the valve at the nozzle end are closed. Connect air system and at the same time hold the handle of the tank closure up. Slowly open the air inlet valve. The pressure gauge should rise and the handle should be held in place by the pressure building in the tank. This unit has a pressure relief valve designed to release at 150 p.s.i.
4. The choke valve, located just under the inlet valve, is used to supply air pressure to the media as it is flowing out of the tank during operation. This valve should be set at the half open position and adjusted to keep the flow smooth and even.
5. The mixing valve at the bottom of the tank is adjusted to determine the amount of sand flowing through the nozzle. A lean mixture works best.

### Do Not Run Pressure Over 120 PSI.

**BEFORE YOU OPERATE THE UNIT, BE SURE THAT YOU HAVE ADEQUATE HAND, HEAD AND FACE PROTECTION. (A RESPIRATOR IS RECOMMENDED ESPECIALLY WHEN USING SILICA SAND.)**

### IMPORTANT!

**YOU ARE FINALLY READY TO BLAST. THIS IS DONE BY OPENING THE NOZZLE END VALVE TO THE FULL OPEN POSITION. THIS VALVE SHOULD BE IN EITHER THE FULLY OPEN OR FULLY CLOSED POSITION AND NEVER LEFT IN A THROTTLED OR INTERMEDIATE POSITION. THIS WILL CAUSE THE VALVE TO WEAR OUT VERY RAPIDLY.**

### SHUTTING DOWN THE UNIT

1. Close the nozzle valve completely.
2. Close the air inlet nozzle completely.  
(Note the choke and mixing valves need not be closed.)
3. Disconnect the air supply at the quick disconnect.
4. SLOWLY, bleed off the air pressure in the tank by slowly opening the air inlet valve.
5. The pressure gauge should indicate the pressure releasing.

### TROUBLESHOOTING

1. Sand-air mixture stops completely.
  - Proper valves aren't open.
  - The nozzle is clogged. **SHUT DOWN UNIT BEFORE CLEANING OUT OR UNSCREWING THE NOZZLE NUT!**
2. Surging or sputtering
  - This is usually due to too much 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 the better!
  - A worn nozzle can cause sputtering.
  - Insufficient air supply can also cause sputtering. The minimum pressure in the tank should be 70 p.s.i.
3. Air only coming out of the nozzle.
  - This is usually caused by wet or damp sand clogging the mixing valve. **SHUT UNIT DOWN AND BLEED OFF PRESSURE** before proceeding. Remove the bottom cap plug on the fitting in the bottom of the tank. The sand can then be cleared with a wire or brush inserted through this opening. This problem is caused by wet sand from wet air. We recommend a good airline moisture trap be installed at the sandblaster if this condition persists.

### MAINTENANCE

1. The nature of this blasting system makes it impossible to guarantee the nozzle, nozzle valve, nozzle hose barb and the nozzle nipple. These are considered as high wear items and should be checked and replaced on a regular basis. This makes it very important to operate the unit with the nozzle valve in the fully open position and not use this valve as a flow control.
2. A ceramic nozzle will last approximately 4-6 hours before it is worn to a point where it requires replacement.
3. Tungsten carbide and boron carbide nozzles available.

