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## Operation Manual & Part List

### DP48 Direct Pressure Blast Cabinet

**WARNING!!** Abrasive blast cabinets produce a powerful flow of abrasive particles. To avoid personal injury and/or property damage, read this manual thoroughly before operating the blast cabinet. It is suggested this manual is kept for reference of blaster model number and replacement parts listing.

This blast cabinet is set up for use with DRY Abrasive Materials ONLY!  
DO NOT MIX FLUIDS WITH BLAST MATERIAL!

#### Introduction

Cyclone abrasive blast cabinets are designed for cleaning and finishing with dry blast materials such as glass beads, aluminum oxide, blasting garnet, walnut shells, silicon carbide and sands. The system is sealed at all openings. The blast system will produce several different finishes, depending on the type of blasting material and the air pressure used.

#### Precautionary Check List

- \* Always close cabinet doors before blasting.
- \* Make sure all air connections are secure.
- \* Do Not Operate Over 120 PSI.
- \* Always clean any spilt blasting material from work area. It can cause floors to become slippery.
- \* Use lower air pressure to clean soft metals and delicate parts.
- \* Always keep the blast stream moving in a circular or horizontal motion. Any blast concentrated in one area will result in pitting and uneven blast surfaces.
- \* **DO NOT USE STEEL SHOT IN THIS BLAST CABINET!** This cabinet is not designed for or set up for steel shot. Use of steel shot in this blast unit will void the warranty and possibly injure the Operator! This includes black beauty.
- \* **DO NOT USE LIQUID OF ANY KIND IN THIS BLAST CABINET!** Liquids will cause the blast media to clump up and not flow through the hoses properly. Use of any liquids will void the warranty and could cause damage to the cabinet!



### How To Assemble and Install Blast Cabinet

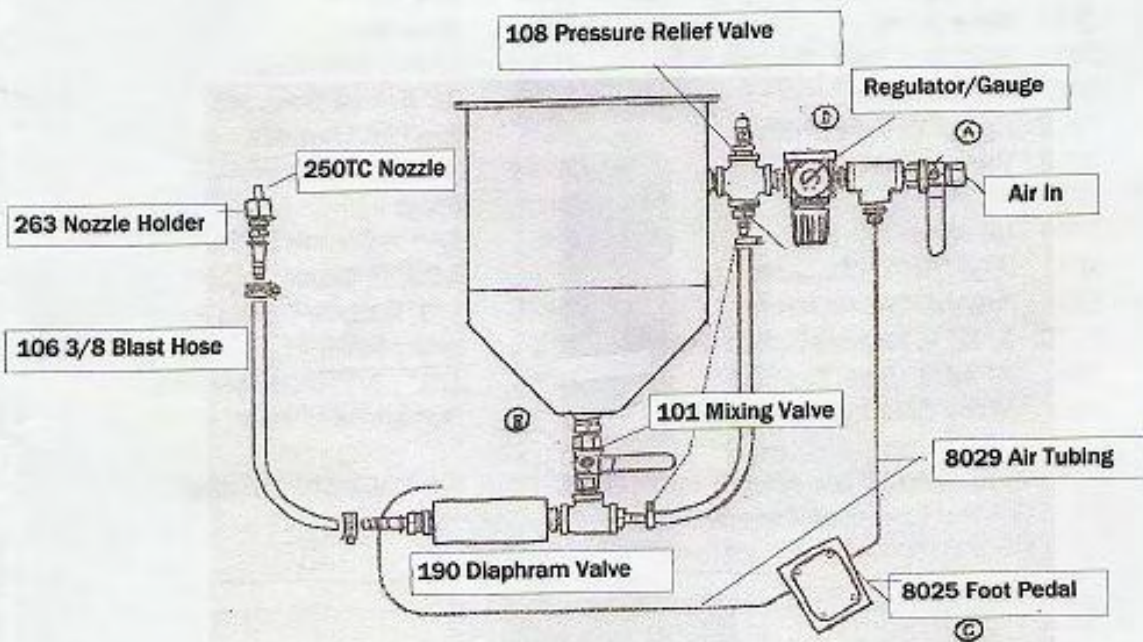
- 1) Open cabinet, reach in and screw one max 70 watt rough service lamp into socket located just inside the cabinet.
- 2) Take chain, spring assembly and the electrical assembly from the bag. The chain should be connected to each floor leg extension of the cabinet. The spring connects on the back of the cabinet. Open cabinet so that the spring hangs away from the cabinet. Connect the hook from the bottom of the spring through the middle of the chain assembly (that was attached to the skid). This will help assist you in 'easing' the lid back to open it, rather than allowing it to slam or fall back abruptly.
- 3) Assemble the dust collection system according to manufacturers directions. The dust system hose should fit into the 2 1/4" hole found on the upper left hand side of blast unit. It just slides in-no holding device. Plug cabinet into a grounded outlet. The blast cabinet has a 3 pronged grounded plug to guard against electric shock. If only 2 pronged receptacle is available, a ground adapter can be used. Make sure the green lead from the adapter is properly attached to a grounded wire system. If any extension cords are used, be sure they are in good condition. Note: The Canadian Electrical Code prohibits the use of 3 pronged adapters.
- 4) Make sure all ball valves are in the 'closed' position.
- 5) Pour blast media through the metal screen on the inside of cabinet into the blast hopper. We suggest 25-35 lbs. of blast material. Make sure not to overfill as the plunger will not seal properly with too much media in the pot.
- 6) Pull the handle on the outside of the cabinet toward you. This will allow the blast material to fall into the tank. Let the handle 'slap' closed several times to ensure no blasting material is blocking the tank seal.
- 7) Check again to make sure all valves are in the closed position.
- 8) Place part to be blasted on metal grate. Close all doors.
- 9) Connect air supply to ball valve 'A' in drawing. Open valve 'A' to a fully open position.
- 10) Open valve 'B' to 1/4-1/2 open position. NEVER OPEN ANY FURTHER!! This will cause hoses to get plugged up with blast materials.
- 11) Turn switch on, this will operate the light and the dust collection system.
- 12) Place hands into gloves. Hold onto the blast gun assembly.
- 13) Depress foot pedal. It may take several seconds until the blast media will come out the nozzle end. Make adjustments to valve 'B' to get an even flow of blast materials.

### Shut Down Instructions

- 1) Close the air inlet valve 'A'.
- 2) Disconnect air supply from this valve.
- 3) Depress foot pedal and allow ALL air pressure to leave the system thru the nozzle end.
- 4) After all air pressure is released, you can push the lever handle in to open the tank seal and add blast material if necessary.

## Trouble Shooting

| <u>Problem</u>       | <u>Cause</u>   | <u>Remedy</u>   |
|----------------------|--|---|
| Excessive Dust       | Dust collection system failing<br>Too much blasting material<br>Blasting material worn | Clean out canister and/or replace filters.<br>Remove excess material<br>Replace with new material |
| Surging              | Too much blasting material   | Remove excess material  |
| Inadequate Blast     | Blast material worn<br>Gun parts worn<br>Too much air                                  | Replace with new material<br>Replace with new nozzle & orifice<br>Regulate air to 80-100 psi      |
| Static               | Change in humidity   | Stand on cardboard/rubber mat.<br>Install static electric band.                                   |
| Faulty ground wiring | Check electrical wiring  | Get lined gloves  |
| Unit Won't Blast     | Excessively worn gun parts.  | Replace parts and be sure they are in the proper place.   |





**Warranty:**

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

- \* Warranty extends to the original owner only.
- \* Warranty does not cover blast cabinets used in commercial rentals.
- \* Warranty is valid for one year (1) 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 blast cabinet This includes failure to follow instructions.
- \* Warranty does not cover blast unit if altered or otherwise changed from original state from 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 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 TO THE FREIGHT CARRIER.

USERS SHOULD CALL THEIR DISTRIBUTOR OR THE FACTORY UPON INSPECTION 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, including warranties of merchantability of fitness of product for a particular purpose.

**Replacement Parts List and Accessory Listing DP48**

|       |                                   |       |                              |
|-------|-----------------------------------|-------|------------------------------|
| 4056  | Window/Door Gasket (Spec. Model)  | 2001  | View Window                  |
| 2010  | Glove Clamp                       | 2011  | Glove Insert                 |
| 2013  | 3/8" ID Air Hose (Spec. Model)    | 106   | 3/8" ID Blast Hose           |
| 2027  | Window Frame                      | 2023  | 24" Unlined Gloves (pr)      |
| 2057  | Pack of 12 Mylar Sheets*          | 8025  | Foot Pedal Assembly          |
| 8026  | Valve only for 8025               | 265DP | Nozzle End Assembly          |
| 2019  | Regulator                         | 2018  | Gauge                        |
| 2004  | Lid Gasket                        | 250   | 1/8" ID Ceramic Nozzle*      |
| 251   | 3/32" ID Ceramic Nozzle*          | 252   | 5/32" ID Ceramic Nozzle*     |
| 253   | 7/64" ID Ceramic Nozzle*          | 250TC | 1/8" Tungsten Carbide Nozzle |
| 251TC | 3/32" ID Tungsten Carbide Nozzle* | 263   | Nozzle Holder                |
| 160   | 1/2" x 3/8" Steel Hose Barb       | 262   | 1/4" x 3/8" Steel Hose Barb  |
| 101   | Mixing Valve                      | 108   | Pressure Relief Valve        |

\*Items marked (\*) are accessories and DO NOT COME STANDARD WITH THIS UNIT.  
They may be purchased separately.  
See DC1500 Manual for dust collection system parts.



## **AIR LINE PRESSURE INFORMATION!!**

### **VERY IMPORTANT FOR PROPER OPERATION OF SYSTEM.**

THIS UNIT FEATURES A UNIQUE SYSTEM FOR CONTROLLING AIR FLOW TO THE BLAST NOZZLE. AIR THAT ENTERS BALL VALVE 'A' ENTERS AT LINE PRESSURE.

THEN IT FLOWS INTO THE AIR REGULATOR 'D' AND ENTERS THE TANK AT A LOWER AIR PRESSURE THAN THE LINE PRESSURE. WE HAVE TURNED THE REGULATOR DOWN AFTER TESTING. YOU WILL NEED TO ADJUST THIS FOR YOUR PARTICULAR APPLICATION.

IF THE PRESSURE IN THE TANK EQUALS THE LINE PRESSURE, THE DIAPHRAM VALVE ON THE BOTTOM OF THE TANK PLUMBING WILL NOT FUNCTION, ALLOWING AIR & BLAST MATERIAL TO FLOW UNCONTROLLED OUT OF THE BLAST NOZZLE INSIDE THE CABINET. THE CAN CAUSE DAMAGE TO YOUR WORK PIECE AND POSSIBLY TO THE CABINET.

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

### **SHUT DOWN INSTRUCTIONS:**

- 1) CLOSE THE AIR INLET VALVE 'A'.
- 2) DISCONNECT AIR SUPPLY FROM THIS VALVE.
- 3) DEPRESS FOOT PEDAL AND ALLOW ALL AIR PRESSURE TO LEAVE THE SYSTEM THRU THE NOZZLE END.
- 4) AFTER ALL AIR PRESSURE IS RELEASED, YOU CAN PUSH THE LEVER HANDLE DOWN TO OPEN TANK SEAL TO ADD BLAST MATERIAL IF NECESSARY.