



PO Box 815
Dowagiac, MI 49047
269-782-9670 (phone)
269-782-9623 (fax)

info@cycloneblasters.com *

BEFORE OPERATING
1) READ THIS MANUAL.
2) PERFORM DRY RUN ACCORDING TO INSTRUCTIONS
ON BACK PAGE OF MANUAL.
cycloneblasters.com

ATTENTION

MODEL DP-38 PARTS & INSTRUCTION MANUAL

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.

CAUTION

1. Follow all electrical and safety codes as well as the National Electric Code (NEC) and the Occupational Safety & Health Act (OSHA).
2. Follow assembly instructions BEFORE plugging system into electrical or air supply. Always unplug blaster before changing light bulb to avoid electrical shock or damage to the lamp holder.



CAUTION

1. The unit is equipped with a 3 prong grounding plug for your protection against electrical shock. Use only adequate extension cords with 3 prong grounding type plugs which are appropriate for long periods of use. Replace damaged or worn extension cord(s) immediately. Use a 3 prong receptacle to plug system or extension cord into.
2. Make sure power source conforms to the requirements of your equipment.
3. This is a dry blast system. It is not made to accommodate use with anything liquid or metal.
4. Change blasting material regularly. Continued use of abrasives will result in poor performance and excess dust.
5. DO NOT exceed recommended maximum air pressure of 120 PSI.
6. Check and clean dust collection system and filters regularly. Do not wait until dust is escaping from dust collection housings and/or blast cabinet before cleaning the system.



WARNING

1. Keep any spilt blast abrasive clear from all paths around and near the blast cabinet. Many blast abrasives are powder fine and can be very slippery, causing a person to slip and fall.
2. Silica sand should be avoided for use in blast systems for health reasons.



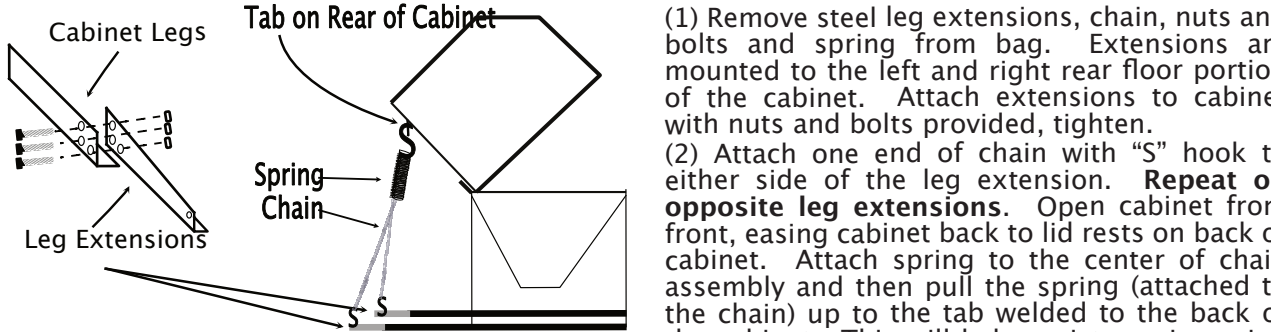
DANGER

1. DO NOT OPERATE CABINET WITH LID AND/OR DOOR OPEN! THIS WILL RESULT IN SKIN DAMAGE, SERIOUS EYE DAMAGE OR BLINDNESS AND OTHER HEALTH RISKS IF THE BLAST STREAM WERE TO COME INTO CONTACT WITH PARTS OF THE BODY.
2. This system is assembled with a standard 1/4" thick clear acrylic view window. Replacement with tempered or single strength glass is DANGEROUS. Replacing view window with material other than acrylic will result in dangerous glass breakage that can injure the operator or bystanders.
3. NEVER USE ANY TYPE OF FLAMMABLE OR COMBUSTABLE MATERIAL IN THIS BLAST SYSTEM.

INSTALLATION

1. Unwrap plastic from cabinet. Lift lid, remove dust collector (if supplied), unwrap foot pedal (if so equipped).
2. Cabinet is fully assembled, once you place cabinet you can install the foot pedal on the floor under your work table (if equipped with foot pedal).
3. Electrical system is already installed. Light bulbs are not included. 70 watt max bulbs is/are required but not included. Screw in fluorescent, LED, or rough service bulbs. LED Recommended.

ATTACH LEG EXTENSIONS, CHAIN & SPRING



- (1) Remove steel leg extensions, chain, nuts and bolts and spring from bag. Extensions are mounted to the left and right rear floor portion of the cabinet. Attach extensions to cabinet with nuts and bolts provided, tighten.
- (2) Attach one end of chain with "S" hook to either side of the leg extension. **Repeat on opposite leg extensions.** Open cabinet from front, easing cabinet back to lid rests on back of cabinet. Attach spring to the center of chain assembly and then pull the spring (attached to the chain) up to the tab welded to the back of the cabinet. This will help assist you in easing the lid back to open it rather than letting it slam or fall abruptly.

DUST COLLECTION SYSTEM - IF SUPPLIED

Assemble the dust collector system according to the manufacturers directions. The dust collector hose will slide right into the 2.25" hole (DC-1500) or 5" hole (DC-4000) on the upper left side of the cabinet. DC-1500: It will fit snugly so there should be no need for any holding device(s). DC-4000: Secure the hose with the included hose clamp. The cabinet has a 3-pronged grounded receptacle to guard against electrical shock. If only 2 pronged receptacle is available, a ground adapter can be used. Make sure the green lead 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.

AIR LINE PRESSURE INFORMATION

This unit features a unique system for controlling air flow to the blast nozzle. Air that enters the system is at line pressure from the air source (compressor) – a high pressure. As the air flows into the regulator, it is reduced to lower than line pressure. THIS IS CRITICAL. We adjust the regulator at the factory. You MAY NEED to adjust the regulator for your own particular application.

! DANGER

IF THE AIR PRESSURE IN THE TANK EQUALS THE LINE PRESSURE THE PINCH VALVE WILL NOT FUNCTION AS DESIGNED. AS A RESULT, THE TANK PLUMBING WILL NOT CORRECTLY FUNCTION AND WILL RESULT IN AIR AND ABRASIVE COMING UNCONTROLLABLY OUT OF THE BLAST NOZZLE. THIS WILL CAUSE DAMAGE TO THE CABINET AND/OR POTENTIAL INJURY TO USERS AND SURROUNDINGS.

THE REGULATOR MUST BE SET 25 PSI LOWER THAN YOUR LINE PRESSURE IN ORDER FOR THE SYSTEM TO FUNCTION PROPERLY.

! WARNING

DO NOT POINT BLAST PENCIL/GUN SYSTEM AT THE VIEW WINDOW! This will cause the window to irreparably frost and be damaged – MAY ALSO RESULT IN PERSONAL INJURY.

BASIC OPERATION - PERFORM DRY RUN IF THIS IS YOUR FIRST TIME USING THE SYSTEM.

1. PRIOR TO ANYTHING FURTHER – Make sure all ball valves are in the "fully closed" position. See image for reference.
2. Pour blast media into hopper of cabinet, into tank. We suggest 25 pounds of abrasive. Do not overfill the pot or it will not seal and the system will not work.
3. Again – make certain all ball valves are in "fully closed" position.
4. Place part(s) to be blasted on metal grate. Close lid, pull latches to closed position.
5. Connect Air Supply to fitting labeled A in diagram.
6. Open valve B in diagram to the ¼ to ½ open position.
- ! WARNING Never open any valves or the hoses and system will fill with abrasive and clog the system.
7. Turn electrical switch to on on. The dust collector can be plugged into the cabinet's electrical box. This allows you to control the lighting and dust collector system at the same time.
8. To blast, insert your hands into the gloves. Hold onto the blast gun.
9. Depress the foot pedal. DO NOT POINT BLAST GUN AT THE WINDOW – DAMAGE / INJURY WILL OCCUR.
10. It may take several seconds until the blast media comes out of the nozzle. Adjust valve B to get an even abrasive flow.

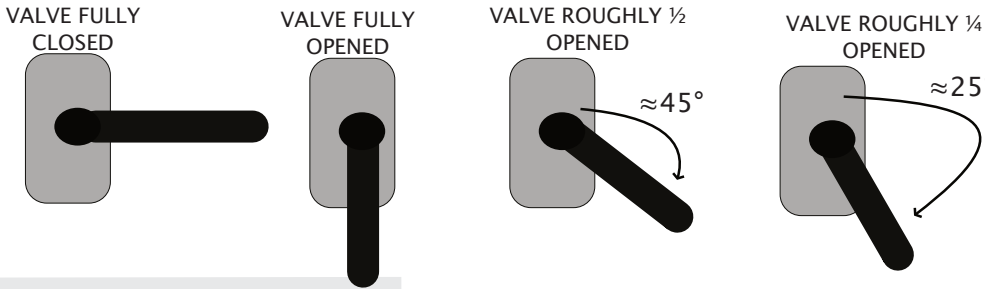
SHUTDOWN INSTRUCTIONS

1. Keep the cabinet lid/doors closed.
2. Disconnect the air supply from the cabinet.
3. Depress the foot pedal and allow ALL air pressure to leave the system through the nozzle end.
4. After air pressure is released, the lid may be opened.

! WARNING

DO NOT POINT BLAST PENCIL/GUN SYSTEM AT THE VIEW WINDOW! This will cause the window to irreparably frost and be damaged – RESULTING IN PERSONAL INJURY.

Ball Valve Operation



Avoid Common Problems

NEVER OPEN VALVE AT BOTTOM OF TANK (VALVE B IN DIAGRAM) TO FULLY OPEN. FULL OPEN WILL CLOG THE HOSES. OPEN THIS VALVE SLOWLY, THIS ALLOWS SMALL AMOUNTS OF MEDIA TO BE INTRODUCED.

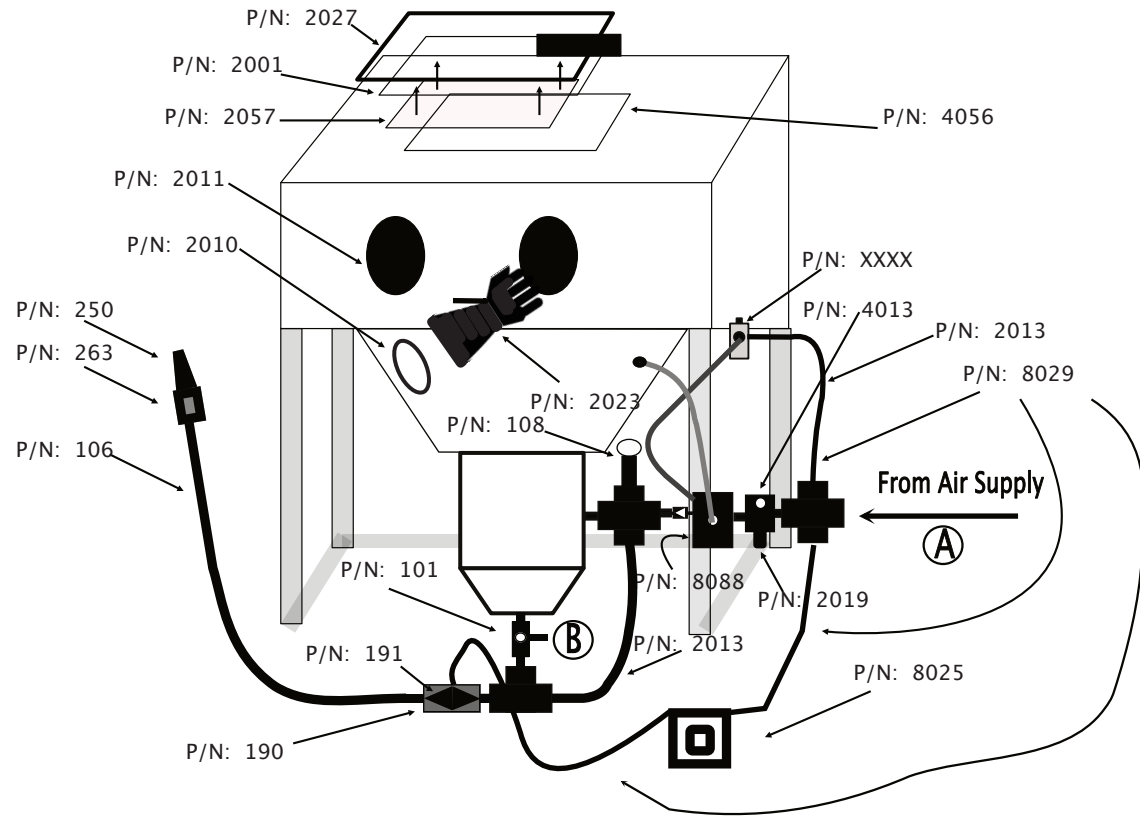
INSTALL A MOISTURE SEPARATOR IN YOUR AIR LINES IF MOISTURE IS PRESENT. WATER/MOISTURE CAN CAUSE ABRASIVE TO BIND AND CLOG THE SYSTEM.

ALWAYS USE DRY ABRASIVES. DO NOT ALLOW ABRASIVES TO SIT UNUSED IN THE BLASTING POT FOR EXTENDED PERIODS OF TIME. IT MAY ABSORB HUMIDITY/MOISTURE AND CAUSE THE ABRASIVE TO BIND AND CLOG THE SYSTEM.

AVOID LETTING EXCESSIVE DEBRIS FALL INTO BLAST POT. LARGE PARTICLES MAY CAUSE CLOG THE SYSTEM.

DO NOT USE WALNUT SHELLS, PLASTIC GRANULES OR METAL ABRASIVES IN THIS SYSTEM. 80 GRIT OR FINER IS RECOMMENDED. DO NOT ADD MORE THAN 25 POUNDS OF ABRASIVE AT A TIME. THIS WILL JAM THE VALVE ON THE INTERIOR OF THE PRESSURE TANK.

REPLACEMENT PARTS LIST



Part Number	Description	Part Number	Description
2001	View Window	2004	Lid Gasket (SPECIFY MODEL)
2010	Glove Clamp	2011	Glove Insert
2018	*Gauge	2015	Pickup Hose & Tube (SPECIFY MODEL)
2023	24" Unlined Gloves (Pair)	2013	3/8" ID Air Hose (SPECIFY MODEL)
4056	Window/Door Gasket (SPECIFY MODEL)	4056	Lid Gasket (SPECIFY MODEL)
2027	Window Frame (SPECIFY MODEL)	XXXX	Safety Valve
2057	*12 Pack Mylar Shields	2074	32" Lined Gloves (Pair)
2019	Regulator	8029	Air Tubing
8025	Foot Pedal Assembly	190	Pinch/Diaphragm Valve
101	Ball Valve	191	Internal Valve
250	Nozzle	8088	MAC Valve
106	3/8" Sandblast Hose		

Items marked (*) are accessories and *DO NOT* come standard with this unit. They can be purchased separately. See DC-1500 / DC-4000 (if so equipped) manual for dust collector system parts.

LIMITED WARRANTY

Cyclone abrasive blast cabinets 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 cabinet. 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.

TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
Excessive Dust	Dust collection system malfunctioning	Empty canister & replace or clean filter bag
	Abrasive Media worn out	Replace Media
	Too much media in hopper	Remove excess media
Uneven Blasting Action	Too much media in hopper	Cover hole in metal pickup tube with sleeve on tube
	Moisture present in air line	Install moisture separator
	Top of abrasive tube covered	Move media away from top of pickup tube
Inadequate speed or efficiency of blast	Media worn out	Replace with new media
	Worn blast gun parts	Inspect/adjust/replace parts
	Too much blast material	Remove excess material, 10–15 lbs. max
Poor Blast Pattern	Too much air	Regulate air to 70–90 PSI
	Nozzle worn	Replace nozzle
Static Electricity	Dry environmental conditions	Install static electricity band Get lined gloves
	Change in humidity	Stand on cardboard/rubber mat Get lined gloves
	Faulty ground wiring	Check electrical wiring
Surging	Air/Media Mixture Incorrect	Open/Close valves per instructions
	Too much media in hopper	Remove excess material
Unit Won't Blast	Excessively worn blast gun parts	Properly replace parts

Keep this document for future use. Following this guide will help prevent system issues and help avoid frustrating experience with the system.

DRY RUN TEST UNIT BEFORE ADDING MEDIA

DP Unit Safety Guide

WARNING

- Before operating with media make sure to DRY RUN the unit to get a feel for how it should operate.
- Open the top of cabinet.
- Hook up your air to the cabinet and then adjust the regulator to desired PSI.
- Tank pressure must be a minimum of 25 PSI less than AIR IN PRESSURE for the pinch valve to operate properly.
- Once regulator is set, close the top and make sure the tab presses on the valve to activate the charging of the tank. (You may need to bend the tab in if it is not pressing hard enough)
- When tank pressurizes you will hear a **thunk sound**. It is NORMAL. That is the tank closing the valve on the inside.
- When the tank is pressurized you should open the ball valve below the tank. That valve is the metering valve for media flow and you want to check that it is clear of debris.
- Now press on the foot pedal to make air come out of the gun assembly. If no air comes out you may need to take the gun nozzle off and clean it because there may be debris clogging it.
- If the air comes out you are ready to operate the cabinet.
- Open the cabinet top slowly because when the valve on the side is released the tank will discharge into the cabinet.
- Close the ball valve on the bottom of the cabinet before you add media to the cabinet because this could result in a clog in the valve and other issues.
- Add your media to the tank by pouring it into the hopper of the cabinet. (Do not overfill the tank because this will jam the valve on the inside of the tank.) Recommended amount of media is 25 pounds or less. Recommended media is 80 GRIT or finer.
- Crack open the ball valve at the bottom to start the metering of the media. (You may adjust this to your preference of media air mixture but we recommend opening no more than half way.) **DO NOT OPEN VALVE ALL THE WAY WITH MEDIA IN THE CABINET.**

DANGER

- Under no circumstances should you disconnect the air to the cabinet until you discharge the tank and adjust the regulator back to zero. This prevents back blow to the blue MAC valve and regulator and prevents damage to the regulator, foot pedal and clear air lines.
- The normal operation of the cabinet is when the lid is closed the tank will charge to the set PSI and when the pedal is pressed, air will come out of the gun nozzle. When media is in the tank and the metering valve cracked open then media will mix with the air coming out of the gun nozzle. When the lid is opened the tank will discharge back into the cabinet.
- When you are finished using the cabinet, it is recommended that you dial the regulator back down to zero so there is always a pressure differential in the clear air lines for proper operation of the pinch valve. This is especially true when hooking the air up to the cabinet

Any questions or issues feel free to call 269-782-9670 and ask for Joe Bober.