Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

21i

CENTRAL® MACHINERY

INDUSTRIAL BLAST CABINET WITH DOORS



Visit our website at: http://www.harborfreight.com Email our technical support at: productsupport@harborfreight.com 60738

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

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Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein.

Tools required for assembly and service may not be included.

AWARNING

Read this material before using this product. Failure to do so can result in serious injury. SAVE THIS MANUAL.

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WARNING SYMBOLS AND DEFINITIONS			
A	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.		
▲ DANGER	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.		
▲ WARNING	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.		
ACAUTION	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.		
NOTICE CAUTION	Addresses practices not related to personal injury.		

IMPORTANT SAFETY INSTRUCTIONS

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS

WARNING - When using tools, basic precautions should always be followed, including the following:

General

To reduce the risks of electric shock, fire, and injury to persons, read all the instructions before using the tool.

Work Area

- Keep the work area clean and well lighted.
 Cluttered benches and dark areas increase the risks of electric shock, fire, and injury to persons.
- Do not operate the tool in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. The tool is able to create sparks resulting in the ignition of the dust or fumes.
- 3. **Keep bystanders, children, and visitors away while operating the tool.** Distractions are able to result in the loss of control of the tool.

Personal Safety

- Stay alert. Watch what you are doing and use common sense when operating the tool. Do not use the tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating the tool increases the risk of injury to persons.
- Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair increases the risk of injury to persons as a result of being caught in moving parts.
- Avoid unintentional starting. Be sure the switch is off before connecting to the air supply.
 Do not carry the tool with your finger on the switch or connect the tool to the air supply with the switch on.

- Do not overreach.
 Keep proper footing and balance at all times.
 Proper footing and balance enables better control of the tool in unexpected situations.
- 5.

Use safety equipment.
A dust mask, non-skid safety shoes and a hard hat must be used for the applicable conditions.



Always wear eye protection. Wear ANSI-approved safety goggles.



Always wear hearing protection when using the tool.

Prolonged exposure to high intensity

Prolonged exposure to high intensity noise is able to cause hearing loss.

8. Wear heavy-duty work gloves during use.

Tool Use and Care

- Do not force the tool. Use the correct tool for the application. The correct tool will do the job better and safer at the rate for which the tool is designed.
- Do not use the tool if the switch does not turn the tool on or off. Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- 3. Disconnect the tool from the air source before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool unintentionally. Turn off and detach the air supply, safely discharge any residual air pressure, and release the throttle and/or turn the switch to its off position before leaving the work area.
- Store the tool when it is idle out of reach
 of children and other untrained persons.
 A tool is dangerous in the hands of untrained users.
- 5. **Maintain the tool with care.** Keep a cutting tool sharp and clean. A properly maintained tool, with sharp cutting edges reduces the risk of binding and is easier to control.
- 6. Check for misalignment or binding of moving parts, breakage of parts, and any other condition that affects the tool's operation. If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools. There is a risk of bursting if the tool is damaged.
- Use only accessories that are identified by the manufacturer for the specific tool model. Use of an accessory not intended for use with the specific tool model, increases the risk of injury to persons.

Service

- 1. Tool service must be performed only by qualified repair personnel.
- 2. When servicing a tool, use only identical replacement parts. Use only authorized parts.

Air Source



Never connect to an air source that is capable of exceeding 200 psi. Over pressurizing the tool may cause bursting, abnormal operation, breakage of the tool or serious injury to persons.

Use only clean, dry, regulated compressed air at the rated pressure or within the rated pressure range as marked on the tool. Always verify prior to using the tool that the air source has been adjusted to the rated air pressure or within the rated air-pressure range.

 Never use oxygen, carbon dioxide, combustible gases or any bottled gas as an air source for the tool. Such gases are capable of explosion and serious injury to persons.



SAVE THESE INSTRUCTIONS.

Symbols and Specific Safety Instructions

Symbol Definitions

Symbol	Property or statement
n _o	No-load speed
/min	Revolutions or reciprocation per minute
PSI	Pounds per square inch of pressure
ft-lb	Foot-pounds of torque
ВРМ	Blows per minute
CFM	Cubic Feet per Minute flow
SCFM	Cubic Feet per Minute flow at standard conditions

Symbol	Property or statement
NPT	National pipe thread, tapered
NPS	National pipe thread, straight
	WARNING marking concerning Risk of Eye Injury. Wear ANSI-approved eye protection.
4	WARNING marking concerning Risk of Hearing Loss. Wear hearing protection.
	WARNING marking concerning Risk of Respiratory Injury. Wear NIOSH-approved dust mask/respirator.
	WARNING marking concerning Risk of Explosion.

Specific Safety Instructions

- The warnings and precautions discussed in this manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.
- Before each use, check the seal on all doors of the Blast Cabinet. Only operate the Blast Cabinet with all doors securely closed.
- 3. People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.
- Attach all accessories properly to the tool before connecting the air supply. A loose accessory may detach or break during operation.
- 5. Obey the manual for the air compressor used to power this tool.
- 6. Install an in-line shutoff valve to allow immediate control over the air supply in an emergency, even if a hose is ruptured.

Table A: RECOMMENDED MINIMUM WIRE GAUGE FOR EXTENSION CORDS (120 VOLT)				
NAMEPLATE EXTENSION CORD AMPERES LENGTH			RD	
(at full load)	25'	50′	100'	150′
0 – 6	18	16	16	14
6.1 – 10	18	16	14	12
10.1 – 12	16	16	14	12
12.1 – 16	14	12	Do no	t use.

7. USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table A shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

Silicosis and Aluminum Oxide Warnings

<u>WARNING!</u> Abrasive blasting with sand containing crystalline silica can cause serious or fatal respiratory disease. Exposure to crystalline silica may cause silicosis (a serious lung disease), cancer and death. Exposure to aluminum oxide (a dust generated from material removing processes) can result in eye, skin and breathing irritation. Always use a NIOSH (National Institute for Occupational Safety and Health) approved respirator and safety goggles. Avoid skin exposure. Proper ventilation in the work area is required. Read and understand the 10 recommended measures below to reduce crystalline silica exposures in the workplace and prevent silicosis and silicosis related deaths.

NIOSH recommends the following measures to reduce crystalline silica exposures in the workplace and prevent silicosis and silicosis-related deaths:

- Prohibit silica sand (or other substances containing more than 1% crystalline silica) as an abrasive blasting material and substitute less hazardous materials.
- Conduct air monitoring to measure worker exposures.
- Use containment methods such as blast-cleaning machines and cabinets to control the hazard and protect adjacent workers from exposure.
- Practice good personal hygiene to avoid unnecessary exposure to silica dust.
- Wear washable or disposable protective clothes at the work site. Shower and change into clean clothes before leaving the work site to prevent contamination of cars, homes and other work areas.

- 6. Use respiratory protection when source controls cannot keep silica exposures below the NIOSH REL.
- Provide periodic medical examinations for all workers who may be exposed to crystalline silica.
- 8. Post signs to warn workers about the hazard and to inform them about required protective equipment.
- Provide workers with training that includes information about health effects, work practices and protective equipment for crystalline silica.
- Report all cases of silicosis to State health departments and to OSHA or the Mine Safety and Health Administration (MSHA).

Vibration Precautions

This tool vibrates during use. Repeated or long-term exposure to vibration may cause temporary or permanent physical injury, particularly to the hands, arms and shoulders. To reduce the risk of vibration-related injury:

- Anyone using vibrating tools regularly or for an extended period should first be examined by a doctor and then have regular medical check-ups to ensure medical problems are not being caused or worsened from use. Pregnant women or people who have impaired blood circulation to the hand, past hand injuries, nervous system disorders, diabetes, or Raynaud's Disease should not use this tool. If you feel any symptoms related to vibration (such as tingling, numbness, and white or blue fingers), seek medical advice as soon as possible.
- Do not smoke during use. Nicotine reduces the blood supply to the hands and fingers, increasing the risk of vibration-related injury.
- 3. Wear suitable gloves to reduce the vibration effects on the user.
- 4. Use tools with the lowest vibration when there is a choice.
- 5. Include vibration-free periods each day of work.
- 6. Grip tool as lightly as possible (while still keeping safe control of it). Let the tool do the work.
- To reduce vibration, maintain tool as explained in this manual.
 If abnormal vibration occurs, stop immediately.



SAVE THESE INSTRUCTIONS.

Grounding Instructions



AWARNING

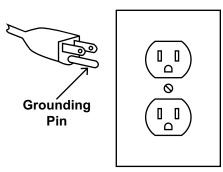
TO PREVENT ELECTRIC SHOCK AND DEATH FROM INCORRECT GROUNDING WIRE CONNECTION

READ AND FOLLOW THESE INSTRUCTIONS:

110-120 V~ Grounded Tools: Tools with Three Prong Plugs

- In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.
- 2. Do not modify the plug provided if it will not fit the outlet, have the proper outlet installed by a qualified electrician.
- 3. Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.
- Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.
- 5. Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.

Repair or replace damaged or worn cord immediately.



125 V~ 3-Prong Plug and Outlet (for up to 125 V~ and up to 15 A)

- 7. This tool is intended for use on a circuit that has an outlet that looks like the one illustrated above in IMPORTANT SAFETY INSTRUCTIONS. The tool has a grounding plug that looks like the plug illustrated above in IMPORTANT SAFETY INSTRUCTIONS.
- 8. The outlet must be properly installed and grounded in accordance with all codes and ordinances.
- 9. Do not use an adapter to connect this tool to a different outlet.

Functional Description

Specifications

Electrical Rating	120V~ / 60Hz / 40W (Light)
	120V~ / 60Hz / 12A (Motor)
Fluorescent Bulb	18W, 23" L x 1" Dia. (Qty. 2)
Working Pressure	50 ~ 125 PSI
Air Consumption	13 ~ 15 CFM @ 80 PSI
Air Inlet Size	3/8"-18 NPT
Abrasive Capacity	Approximately 15 lb.
Inner Cabinet	47-3/4" W x 24" D x 22-1/2" H (Rear), 14" H (Front)
Front Window	22-1/2" W x 10-1/2" H
Accessories	4mm, 5mm, 6mm & 7mm Ceramic Nozzles

Initial Tool Set Up/Assembly



Read the <u>ENTIRE</u> IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

<u>Note:</u> For additional information regarding the parts listed in the following pages, refer to the Assembly Diagram near the end of this manual.

Note: This air tool may be shipped with a protective plug covering the air inlet. Remove this plug before set up.

Air Supply

AWARNING



TO PREVENT SERIOUS INJURY FROM EXPLOSION:

Use only clean, dry, regulated, compressed air to power this tool. Do not use oxygen, carbon dioxide, combustible gases, or any other bottled gas as a power source for this tool.

 Incorporate a filter, regulator with pressure gauge, dryer, in-line shutoff valve, and quick coupler for best service, as shown on Figure A on page 9. An in-line shutoff ball valve is an important safety device because it controls the air supply even if the air hose is ruptured. The shutoff valve should be a ball valve because it can be closed quickly.

<u>Note:</u> An oiler system should not be used with this tool. The oil will mix with the material being propelled, causing poor results.

Attach an air hose to the compressor's air outlet.
 Connect the air hose to the air inlet of the tool.
 Other components, such as a coupler plug and quick coupler, will make operation more efficient, but are not required.

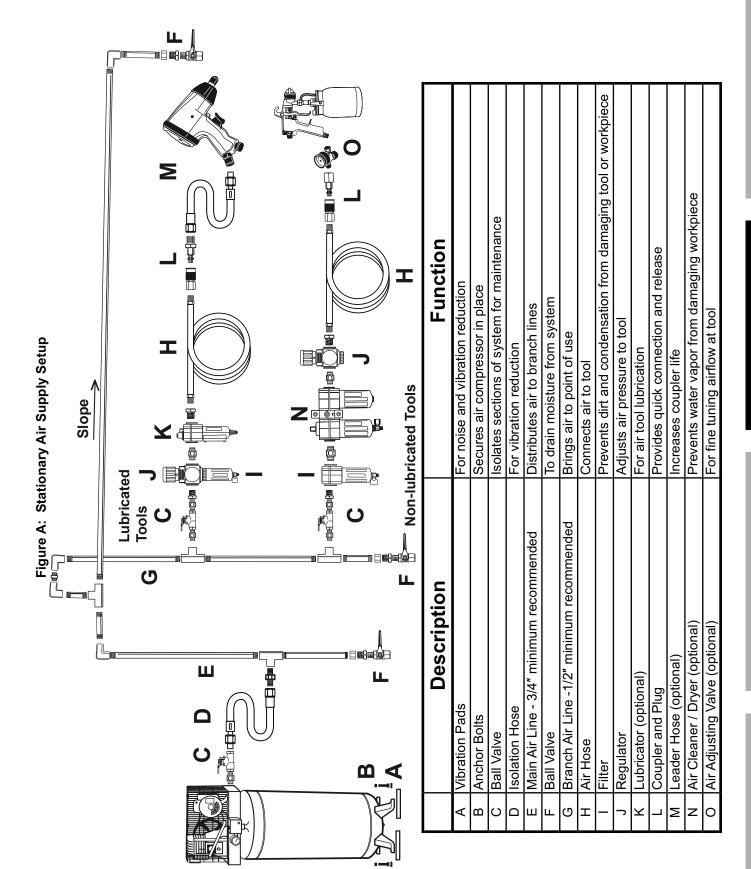
AWARNING! TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:

Do not install a female quick coupler on the tool. Such a coupler contains an air valve that will allow the air tool to retain pressure and operate accidentally after the air supply is disconnected.

<u>Note:</u> Air flow, and therefore tool performance, can be hindered by undersized air supply components. The air hose must be long enough to reach the work area with enough extra length to allow free movement while working.

- 3. Release the pedal; refer to Operation section for description of controls.
- 4. Close the in-line shutoff valve between the compressor and the tool.
- 5. Turn on the air compressor according to the manufacturer's directions and allow it to build up pressure until it cycles off.
- 6. Adjust the air compressor's output regulator so that the air output is enough to properly power the tool, but the output will not exceed the tool's maximum air pressure at any time. Adjust the pressure gradually, while checking the air output gauge to set the right pressure range.
- 7. Inspect the air connections for leaks. Repair any leaks found.
- If the tool will not be used at this time, turn off and detach the air supply, safely discharge any residual air pressure, and release the pedal to prevent accidental operation.

Note: Residual air pressure should not be present after the tool is disconnected from the air supply. However, it is a good safety measure to attempt to discharge the tool in a safe fashion after disconnecting to ensure that the tool is disconnected and not powered.



AWARNING

TO PREVENT SERIOUS INJURY:

The Blast Cabinet weighs approximately 250 pounds, and will require additional assistance and/or a proper lifting device during assembly.

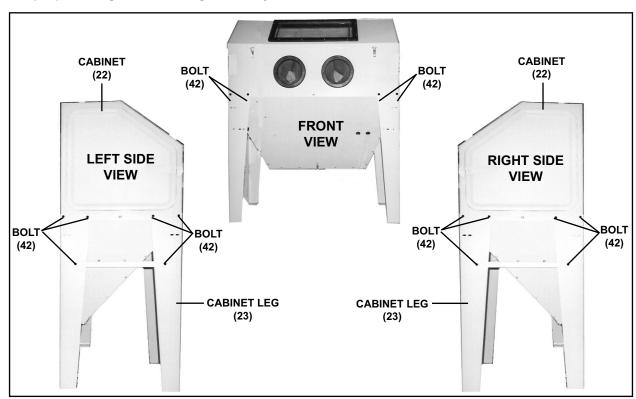


Figure B:

- Remove all parts from within the Cabinet (22).
 Then, with assistance, carefully place the Cabinet upside down on the floor surface. (See Figure B.)
- 2. Attach the four Cabinet Legs (23) to the Cabinet (22), using five Bolts (42) per Cabinet Leg. (See Figure B.)

NOTE: The front left Cabinet Leg should have a *nameplate* on it. Each of the two rear Cabinet Legs will also require two Self-Tapping Screws (43).

3. Once the Cabinet Legs (23) are attached to the Cabinet (22), stand the Cabinet upright on its Cabinet Legs. (See Figure B.)



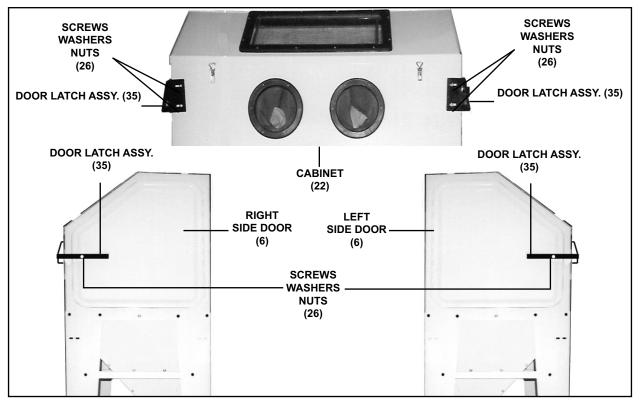
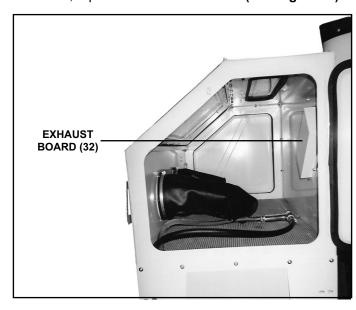


Figure C: Figure D:

- 4. Attach one Door Latch Assembly (35) to the left and right Side Doors (6) and the Cabinet (22), using the Screws, Washers, and Nuts (26) provided. Adjust the Door Latch Assemblies to allow the Side Doors to shut firmly in place. (See Figure C.)
- Remove the Exhaust Board (32) that covers the exhaust port within the Cabinet (22) and place a bead of caulking (not included) around the port to seal it.
 Then, replace the Exhaust Board. (See Figure D.)



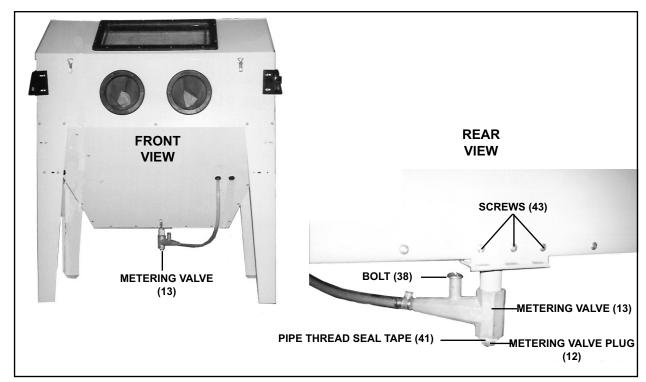


Figure E:

6. Attach the Metering Valve (13) to the rear/bottom section of the Cabinet (22), using three Screws (43). **IMPORTANT:** Wrap the male threads of the Metering Valve Plug (12) with about 3" of Pipe Thread Seal Tape (41). Then, screw the Metering Valve Plug into the Metering Valve. **(See Figure E.)**



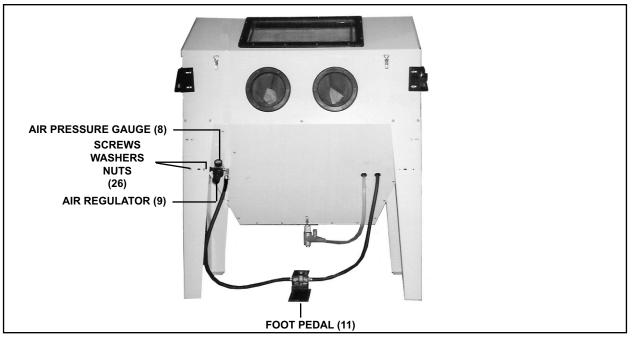
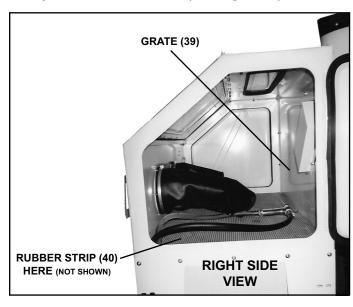


Figure F:

- 7. Attach the Pressure Gauge (8) and Air Regulator (9) to the left/front Cabinet Leg (23), using the Screws, Washers, and Nuts (26) provided. (See Figure F.)
- 8. Attach the Lamp Housing (1) to the top of the Cabinet (22), using the Screws, Washers, and Nuts (26) provided.

NOTE: The two Fluorescent Lamps (3) come pre-installed.

9. The Grate (39) has one small edge covered by a Rubber Strip (40). Place the Grate inside the Cabinet (22) with the Rubber Strip edge to the right/front of the Cabinet. (See Figure G.)



Operating Instructions



Read the <u>ENTIRE</u> IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

Inspect tool before use, looking for damaged, loose, and missing parts. If any problems are found, do not use tool until repaired.

Tool Set Up

Abrasive Selection

- 1. The type of *media* chosen will greatly influence the amount of time needed to clean a particular surface area.
- 2. Abrasive blasting media include silicon carbide, glass bead, walnut shell, brass bead, and alumina.
- If you decide to reuse media, remember, it does wear out. The sharp edges become rounder and are less effective. At that point you should replace the tank of media you are using.

Loading the Blast Cabinet

AWARNING

TO PREVENT SERIOUS INJURY:

Always wear ANSI-approved safety impact eye glasses under a full face shield, a respirator, and heavy duty work gloves when operating the Blast Cabinet. Also, wear heavy duty work boots, long trousers, and long sleeve shirt.

Never service the Blast Cabinet or disassemble with the air hose attached. Always release any built-up air even after disconnecting the hose.

1. Open a Side Door and pour the media (up to 15 pounds) over the Grate within the Cabinet.

<u>Note:</u> The media used must be dry to avoid clogging the Metering Valve or Blast Gun.

- All parts to be blasted must be free of oil, grease, and moisture. Once cleaned and dried, place the parts on the Grate within the Cabinet.
- 3. Close and securely lock the Door Latch.

Nozzle Size

Depending on the size (diameter) of the media, install the proper size Nozzle (6mm, 7mm) into the Blast Gun.

- Unscrew and remove the Nozzle Holding Nut (1B).
- 2. Insert the desired Nozzle into the front portion of the Blast Gun.

3. Then screw the Nozzle Holding Nut back onto the Blast Gun to secure the Nozzle in place.

Note: By changing to the next larger size of Nozzle, production can increase significantly. Larger size Nozzles produce a larger cleaning pattern. This, however, requires a higher air pressure and greater air flow.

Electrical Power

- Plug the male Power Cord from the Lamp Housing into the nearest 120 volt, grounded, electrical outlet.
- Turn the Power Switch on the Lamp Housing to its "ON" position. The two Fluorescent Lamps will illuminate.

Workpiece and Work Area Set Up

- Designate a work area that is clean and well-lit.
 The work area must not allow access by children or pets to prevent distraction and injury.
- Route the air hose along a safe route to reach the work area without creating a tripping hazard or exposing the air hose to possible damage.

General Operating Instructions

- 1. Turn on the air compressor to supply compressed air to the Blast Cabinet.
- The operating air pressure for the Blast Cabinet is between 50 and 125 PSI. Pressures up to 125 PSI can be used, but this breaks down some type of media prematurely (i.e., glass bead).
- 3. Start by setting the Air Regulator at 80 PSI. Most parts for blasting can be successfully blasted at 80 PSI. For light gauge steel, aluminum, and other more delicate parts start at a lower pressure and gradually increase the pressure until the desired finish is achieved. For more pressure, turn the Air Regulator Knob clockwise. For less pressure, turn the Air Regulator Knob counterclockwise. (See Figure J.)

Blast Gun Angle and Distance

AWARNING

TO PREVENT SERIOUS INJURY:

Point the Blast Gun away from yourself and others and only towards the parts being blasted. Never blast with either Side Door open. While loading and unloading media, no one, except the operator, should be near the Blast Cabinet.

- 1. Aim the Blast Gun at the parts at a 45° to 60° angle which will direct the ricochet of media towards the back of the Cabinet. Hold the Blast Gun approximately 6" from the parts being blasted.
- Do not hold the Blast Gun at a 90° angle to the parts being blasted. This will cause the media blast to bounce back into the blast stream and slow the blasting action. A 90° angle will also cause excessive wear on the Blast Gun and viewing Glass Window.

The Metering Valve

- The Metering Valve adjusts the amount of media being pulled into the Blast Gun. This Valve, located at the bottom of the hopper, has the media stored on top of it. When air is sent to the Blast Gun from the Foot Pedal, a vacuum is created that sucks air and media up into the Blast Gun through the clear media hose.
- 2. A Bolt on the top of the Metering Valve can be adjusted to vary the amount of air that is sucked through the holes in the Valve. If the holes are too far closed, the mixture will have too much media and the Blast Gun will pulsate. If the holes are too far opened, too little media will go to the Blast Gun and production will decrease.

Shut Down Procedure

- When the abrasive blasting job is completed, release pressure on the Foot Pedal of the Blast Cabinet. Turn the Power Switch to its "OFF" position and unplug the Power Cord from its electrical outlet. Turn off the air compressor. Press the Foot Pedal again to release any remaining compressed air in the system.
- Disconnect the compressor air hose from the Quick Connector on the Air Regulator.
- If necessary, empty the Cabinet of any remaining media by unscrewing and removing the Metering Valve Plug. Always use Pipe Thread Seal Tape when replacing the Metering Valve Plug.



User-Maintenance Instructions



Procedures not specifically explained in this manual must be performed only by a qualified technician.

AWARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:

Turn off the tool, detach the air supply, safely discharge any residual air pressure in the tool, and release the throttle and/or turn the switch to its off position before performing any inspection, maintenance, or cleaning procedures.

TO PREVENT SERIOUS INJURY FROM TOOL FAILURE:

Do not use damaged equipment. If abnormal noise, vibration, or leaking air occurs, have the problem corrected before further use.

Cleaning, Maintenance, and Lubrication

<u>Note:</u> These procedures are <u>in addition to</u> the regular checks and maintenance explained as part of the regular operation of the air-operated tool.

- BEFORE EACH USE, inspect the general condition of the tool. Check for:
 - · loose hardware or housing,
 - misalignment or binding of moving parts,
 - · cracked or broken parts, and
 - any other condition that may affect its safe operation.

2. Daily - Air Supply Maintenance:

Every day, maintain the air supply according to the component manufacturers' instructions. Drain the moisture filter regularly. Performing routine air supply maintenance will allow the tool to operate more safely and will also reduce wear on the tool.

3. **Disposal of media:** Follow local solid waste authority guidelines when disposing of used media.

Troubleshooting

- Blast Gun. After 10 to 12 hours of blasting time, the Nozzle (2D, 2E) should be checked. It it shows uneven wear it should be turned 1/4 turn every 10 hours of use. Replace as needed.
- 2. Caking of media. Media caking is caused by moisture in the air supply or from oily or greasy parts. If this is not corrected the media will not flow evenly and will plug up in the Metering Valve (13) and Blast Gun (4B). Check the air supply. If water is present, install a quality moisture trap. If oily or greasy parts are being blasted, degrease and dry the part first.
- Reverse pressure. If the media stops flowing occasionally, use an object to plug the Nozzle (2D, 2E) and press the Foot Pedal (11) down for about two seconds. This will cause the system to back blast through the Blast Gun (4B) and up the media hose. This will help loosen any clogs.
- 4. Blast Gun air pressure drop. Turn the Air Regulator Knob (9) and set the air pressure to 80 PSI as indicated on the Pressure Gauge (8). Push the Foot Pedal (11) while holding the Blast Gun (4B), and observe if the gauge pressure

- drops significantly. If the pressure drops, this indicates there is a restriction in the air supply line. This could indicate the air supply hose is too small, a reducer or quick coupler, or other piping that doesn't allow enough air through. Also, if the air compressor is too far away from the Blast Cabinet a pressure drop will result. The air supply line should be 1/2" diameter or larger.
- 5. **Poor visibility (excessive dust).** Make sure the Quick Coupler on the Air Regulator (9) is allowing air to the Cabinet (22).
- Poor visibility (viewing window). The Glass Window (17) is equipped with a clear plastic protector on it and may become pitted. If necessary, replace the plastic protector and/or Glass Window.
- 7. **Poor media flow.** Check for moisture as discussed in Step #2 of this section. Holes in media hose will cause poor media delivery. If necessary, replace hose. Debris in media. Replace or screen media.

Maintaining Suction Efficiency

The most common problem operators have when using a suction (venturi) Blast Cabinet is a decrease in production rates. When production rates fall the operator can usually locate the problem by checking the following:

- 1. Air supply. If the Pressure Gauge (8) on the Air Regulator (9) shows an adequate no-load supply (when the Blast Gun (4B) is not running), press the Foot Pedal (11). If the pressure drops more than a few PSI the air supply is restricted or inadequate. Clean filters and moisture separators all the way back to the air compressor. Straighten any kinked hoses. Use a master gauge (not included) to check the air pressure, or replace the existing Pressure Gauge if you suspect it is giving you false readings.
- Blast Gun. The Nozzle (2D, 2E) will wear out eventually. Replace the Nozzle if its opening measures 1/16" over its original size or if it shows uneven wear. Adjust as needed for different media and conditions. A properly working Blast Gun (4B) will pull 15 to 17 inches of mercury on a manometer. (See Assy. Diagram.)
- 3. **Media.** Use quality blast media sized to the job. Damp or dirty media can bring blasting to an instant halt. Store media in a dry area and load the appropriate quantity (up to 15 pounds). Add enough media through the Grate (39) within the Cabinet (22) to have 6 inches deep of media on top of the Metering Valve (13). If you run out of media as you are blasting, add enough so it keeps circulating to the Blast Gun (4B). The media will eventually break down or get too contaminated to use. The less there is in the system, the less you will have to replace.
- 4. **Media delivery.** Replace any media hose that has soft spots or visible wear. Adjust the Metering Valve (13) to provide adequate flow. A mixture that is too rich will cause pulsating at the Blast Gun (4B). An unusually loud noise while blasting means the mixture is too lean. A rich mixture can result in lower impact velocities, while a lean mixture reduces the number of impacts.

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO.

Main Parts List

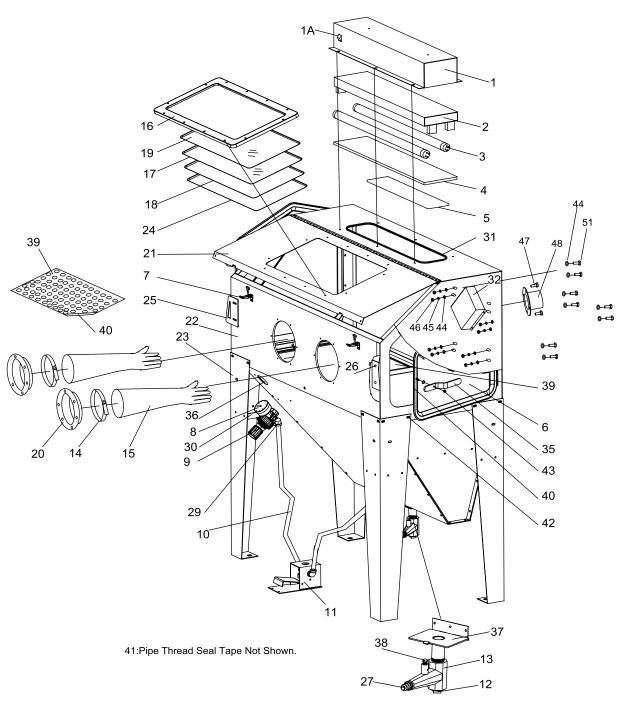
Part	Description
1	Lamp Housing
1A	Power Switch
3	Lamp Fixture
3	Fluorescent Lamp, 18 W
4	Lamp Window
5	Window Seal, PE
6	Side Door
7	Adjustable Latch
8	Pressure Gauge (1/4" 150 PSI)
9	Air Regulator (3/8")
10	Push-on Air Hose (1/2")
11	Foot Pedal
12	Metering Valve Plug
13	Metering Valve
14	Glove Clamp
15	Glove
16	Window Frame Cover
17	Glass
18	Protection Film, PE
19	Plastic Board
20	Glove Mounting Ring
21	Cabinet Lid
22	Cabinet
23	Cabinet Leg

Part	Description
24	Seal
25	Side Door Retaining Block
26	Screw, Washer, & Nut
27	3/8" Coupler
28	1/2" Curved Tube Connector
29	3/8" Curved Tube Connector
30	Regulator Bracket
31	Sealing Tape
32	Exhaust Board
35	Door Latch Assembly
36	Port
37	Cover
38	Bolt
39	Grate
40	Rubber Strip
41	Pipe Thread Seal Tape (not shown)
42	Bolt
43	Screw
44	Flat Washer
45	Spring Washer
46	Nut, M8
47	Bolt, M5 x 12
48	Hose Connector
51	Bolt. M8 x 20

Record Product's Serial Number Here:

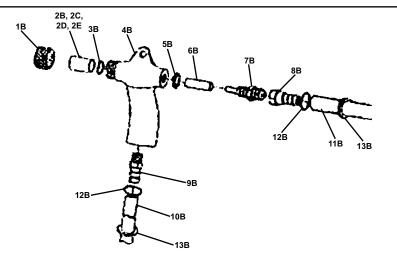
Note: If product has no serial number, record month and year of purchase instead.

Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts. Specify UPC 193175465757 when ordering parts.



Parts List & Assembly Diagram B - Blast Gun

Part	Description
1B	Nozzle Holding Nut (Brass)
2D	Ceramic Nozzle (6mm)
2E	Ceramic Nozzle (7mm)
3B	Nozzle O-Ring
4B	Gun Body (Mod-U-Blast)
5B	Air Jet nut (Brass)
6B	Air Jet Sleeve
7B	Air Jet
8B	Swivel Air Inlet Fitting (3/8")
9B	Media Inlet Fitting (Barb 3/8")
10B	Media Hose (1/2")
11B	Air Hose (1/2")
12B	Seal
13B	Ring



Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

