Assembly Guide

Sand Blast Cabinet

110 Gallon Capacity

555-81362

JEGS.com

1-800-345-4545

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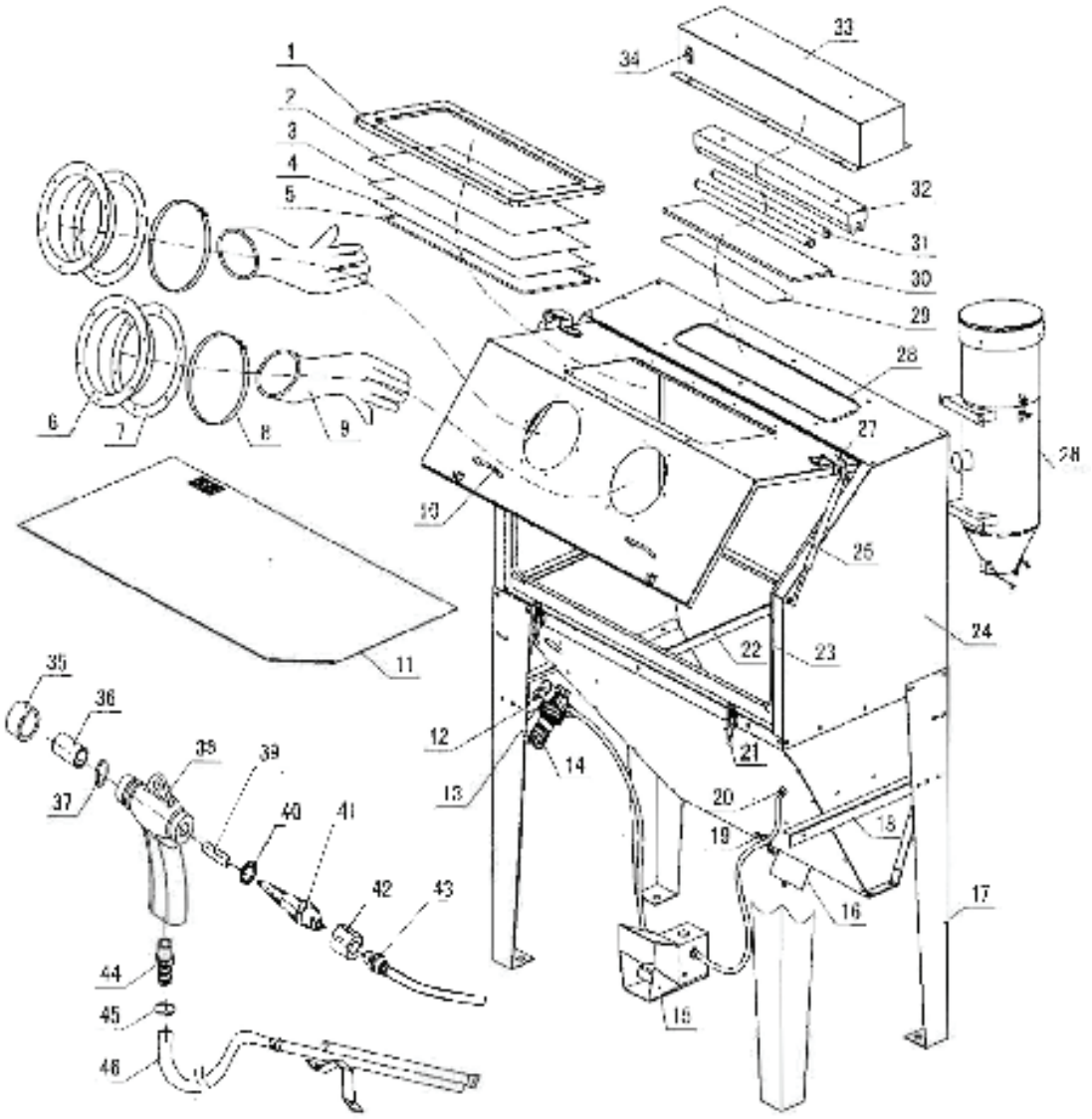
Parts List



1	Window Frame Cover
2	Plastic Board
3	Glass
4	Protective Film
5	Sealing Gasket (Window)
6	Glove Mounting Ring
7	Sealing Gasket (Gloves)
8	Glove Clamps
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15	Foot Pedal Complete
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21	Latch
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23	Sealing Gasket (Door)
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26	Dust Collector
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31	Light
32	Lamp Fixture (2 Bulbs)
33	Lamp Housing
34	Switch
35	Nozzle Holding Nut
36	Nozzle
37	O-Ring (Nozzle)
38	Gun Body
39	Sleeve (Air Jet)
40	Air Jet Hex Nut
41	Air Jet
42	Air Inlet Fitting
43	Air Inlet Fitting
44	Air Inlet Fitting
45	Hose Clamp
46	Hose (Media)

Read Before Assembly Safety

Thank you for your purchase of this JEGS 110 Gallon Sand Blast Cabinet. Before assembly, please be sure to verify that all of the components have been received. Reference the parts list on the previous page. If any components are missing or damaged please contact customer service at: 1.800.345.4545.

If you are having issues, or have questions regarding the assembly or operation of this sand blasting cabinet, please contact our technical support department at: 1.800.345.4545.

Return Information: Before modifying any of the parts of this sand blast cabinet, please trial fit all components. ***Once this kit has been modified, it will not be accepted for return.***

Read all instruction before using this 110 Gallon sand blast cabinet.

1. **Requirements**
   - See chart for supply air hose size on pg. 11.
   - Air supply line must be rated at least 125 psi
   - Isolation valve must be used for air line removal to service blast cabinet.
   - Supply air must be free of contaminates.
   - Electrical outlet is needed to bpower the lights and dust collector.

2. **Inspection prior to use**
   - Inspect the air line fittings and hoses for damage and wear.
   - Check seal on blast cabinet doors. All doors must be securely closed for the dust collection system to work properly.
   - Clean dust from dust collector and replace filter as needed.

3. **Safety**
   - Take precautions to prevent silicosis (dust created when using silica sand as a blast media). DO NOT USE MEDIA CONTAINING FREE SILICA.
   - Working air pressure must not exceed 125psi.
   - Keep blast nozzle controlled and aimed at the working surface.

4. **Maintenance**
   - Keep your machine in good repair. Use the correct replacement parts and do not modify
   - Replacement parts listed on pg. 11.

Notice

The use of this sand blast cabinet is intended for experienced and knowledgeable users of abrasive blasting equipment and supplies.

The performance, surface finish, is the sole responsibility of the user based on their experience level and choice of media.

It is the responsibility of the user to ensure that proper and comprehensive training of operators has been performed. Also, all environmental and safety precautions must be observed.

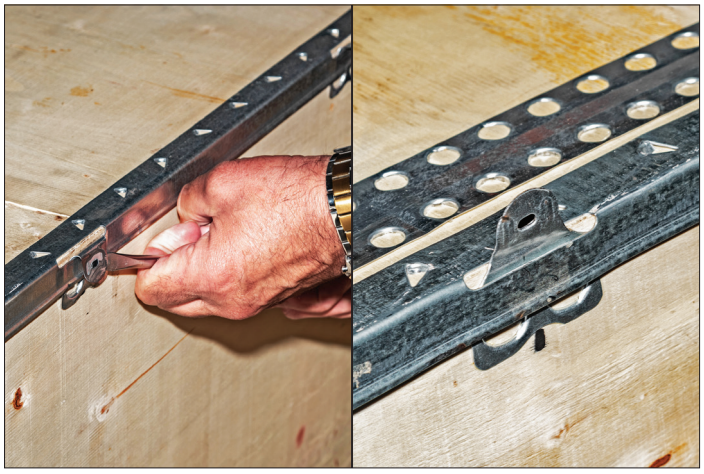
Before using this sand blast cabinet read all instructions, literature, labels, specifications, and warnings affixed to the unit. If the operation of this cabinet is unclear after reading this guide, contact our technical support department at: 1.800.345.4545.

Periodic inspection of the cabinet is necessary to ensure that it is being properly used and maintained.

Unboxing

Step 1

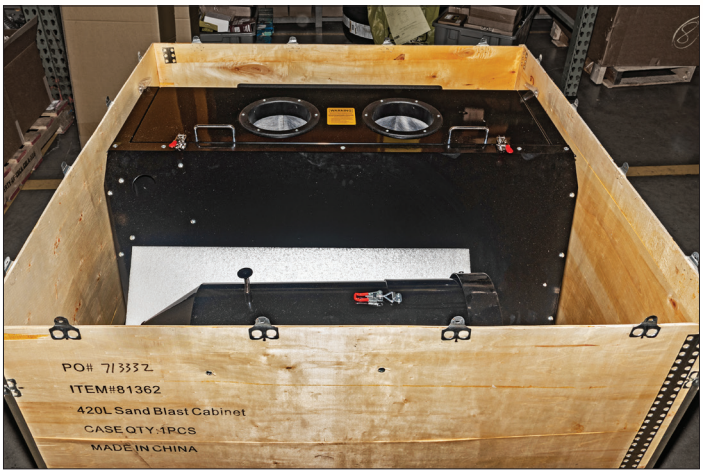
- Once your cabinet has been delivered open the case and verify the crate contents.



Step 2

- Using a screwdriver, or pry-bar, bend all of the metal tabs upward.
- Once the tabs are straight, pry off the lid.

Assembly

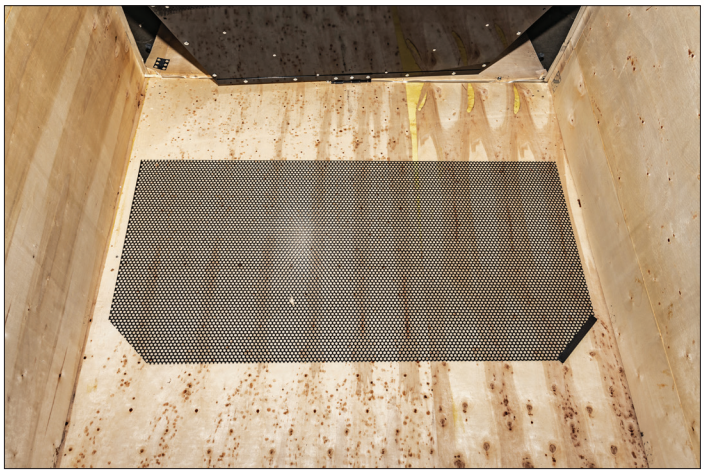


Step 1

- Remove all of the parts from the wooden case.
- Place cabinet main body on floor.

Step 2

- Before removing the cabinet, you must first remove the dust collector (#26).
- Unbolt the collector from the side of the case.



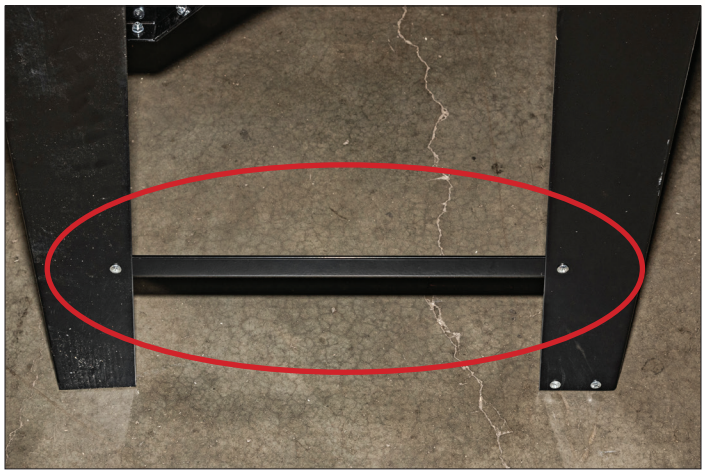
Step 3

- When removing parts, make sure to remove the cabinet webbing (#11) located under a piece of cardboard beneath the cabinet.

Step 4

- Using the provided hardware install the 4 legs (#17) to the cabinet
- Make sure that all bolts are securely fastened.

Assembly Cntd.



Step 5

- Connect 2 braces (#18) to sides of the legs (#17).
- The braces will go along both sides of the cabinet.

Step 6

- Set the cabinet upright on its legs.
- The included lamp is mounted internally to protect it during storage. Unbolt the light assembly (#33) and remove it from inside of the cabinet.

Step 7

- The sealing gasket (#28) is directional and must be flipped over from it delivered orientation when placing the light on top of the cabinet.

Step 7

- Place the glass (#30) on the seal (#28).

Assembly Cntd.

Step 8

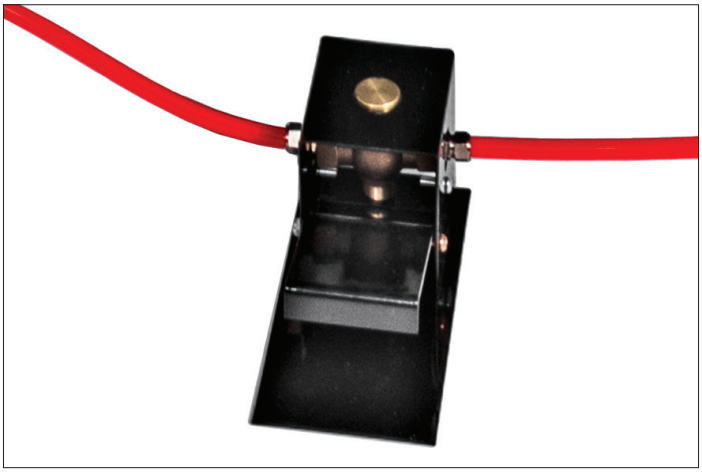
- Place the light assembly (#33) over the glass (#30) and securely fasten with the provided hardware.

Step 9

- To install the dust collector (#26) first connect it to the vacuum port on the back of the cabinet and secure it with the provided hardware.
- Plug the collector into the light assembly (#33).

Step 10

- The air regulator is connected to the foot pedal using the supplied hose.
- Slip the fitting over the hose, push the hose onto the barbed fitting, and then secure the nut.



Step 11

- Cut the hose to into two segments of your needed length, and with the nuts in place, push the ends onto both sides of the pedal and both ports on the cabinet. Tighten to secure.

Operating

1. **Preparing Parts for Blasting**
   - All parts processed must be free of oil, grease, and moisture.
   - Make sure parts are dry before putting them into the cabinet for cleaning.

2. **Air Pressure**
   - Operating Pressure: 90-125psi.
   - Higher pressures, up to 125psi, can be used but this breaks down some types of media prematurely (ex. glass bead).
   - 100psi is the ideal pressure for most parts.
   - For light gauge steel, aluminum, and delicate parts, start at a lower pressure and gradually increase the pressure, at the regulator, until the desired result is achieved.

3. **Gun Angle and Distance**
   - Direct the blast gun at 45°-60° angle. This allows the media to ricochet toward the back of the cabinet.
   - Do not hold the gun at a 90° angle to the part being cleaned. This will cause the media to bounce back into the stream and reduce it effectiveness. This angle will also cause excessive wear to the gun and viewing glass.
   - Hold the gun approximately 6" from the part being blasted.

WARNING

Do not connect this blast cabinet to high pressure bottle gas.
Rupture and explosions can occur.

Gun must always be pointed away from the operator and toward the item being cleaned.

Never blast with the cabinet door open.

4. **Media**
   - Media should be of a good quality and dry.
   - Moisture will cause the media to not flow and will clog metering valve and hopper.
   - Never use sand.
   - There are many types and sizes of media for different finished. If you are having problems selecting a media for a specific job, contact your local supplier for advice.

5. **Metering Valve**
   - The metering valve adjusts the amount of media being pulled into the venturi gun. This valve, located at the bottom of the hopper, has the media stored on top of it.
   - When the air is sent to the gun from the foot pedal a vacuum is created and sucks air and media up into the gun though the clear media hose.
   - A $^{7}/_{16}$" bolt at the top of the metering valve can be adjusted to vary the amount of air used for suction.
   - If the valve is too far closed, the mixture will have to much media and cause the gun to pulsate.
   - If the valve is too far open the mixture will have too little media and this will decrease effectiveness.

6. **Nozzle Size**
   - By changing to the next larger size of nozzle, productivity can be significantly increased.
   - Larger sized nozzles produce a larger cleaning pattern. But by increasing flow you will need to use more air. Ensure that your air compressor is capable of consistently providing a higher air pressure before using larger nozzles.

Maintenance

1. **Blasting Gun**
   - After 10-12 hours of blasting time, the nozzle should be checked.
   - If the nozzle shows uneven wear it should be turned a 1/4 turn every 10 hours of use.

2. **Caking of Media**
   - Media caking is caused by moisture in the air supply or from oily and greasy parts. If this is not corrected the media will not flow evenly and will plug the metering valve and gun.
   - Check the air supply, if water is present install a good moisture trap.
   - If oily or greasy parts are being blasted, you should degrease and dry them first.

3. **Reverse Pressure**
   - If media flow stops occasionally, place your thumb over the nozzle, and while holding tightly, push the foot pedal down for a couple seconds. This will cause the system to back flow through the gun and down the media hose helping to break up any clogs.

4. **Gun Air Pressure Drop**
   - Set the air pressure to 100psi on the air gauge at the regulator. Push the pedal while holding the gun to see if the air pressure drops significantly.
   - If there is a notable pressure drop, this indicates that there is a restriction on the air supply side. This could be that the air hose is too small of a diameter, issues with a coupler or reducer, a plugged filter, or other piping that restricting the air flow.
   - Also, if the cabinet is located too far from the air compressor a pressure drop will occur.
   - The air supply line should be 1/2" or larger.

5. **Poor Visibility - Excessive Dust**
   - The air inlet, located at the left front above the regulator, should be free to allow air into the cabinet.
   - The dust container is full and needs to be emptied and cleaned. There is a latch at the bottom of the dust collector to open it for emptying.
   - The dust cartridge is contaminated; clean or replace (#29).
   - Media breakdown. Eventually the media will become so small that it is essentially dust. Replace media and clean the dust collector.

6. **Poor Visibility - Viewing Window**
   - The blast cabinet's window comes with a plastic protector on it. As these become pitted with use they can be easily replaced to extend the life of the window glass.
   - If needed, the window can be easily replaced.

7. **Poor Media Flow**
   - Check for moisture as mentioned in Item 2.
   - Install moisture trap as needed.
   - Replace damp media and clean hoses and sump.
   - Holes in media hose will cause poor media delivery. Replace hose.
   - Debris in media. Screen or replace media.

Efficiency

The most common problem experienced by customers with their venturi/suction-style blast cabinets is a decrease in productivity. A properly maintained blasting cabinet should provide years of consistent service.

When production rates fall check the following.

1. **Air Supply**
   - If the pressure gauge on the regulator shows an adequate no-load supply (when the blast gun is not being used), press the foot pedal. If the pressure drops more than a few psi your air supply is restricted or inadequate.
   - Clean filters and moisture separators all the way back to the air compressor.
   - Straighten any kinked lines.
   - Use a master gauge to check the air pressure or replace the existing gauge if you suspect it is giving you a false reading.

2. **Blast Gun**
   - The nozzle of the blast gun will eventually wear out. Replace it if the inside diameter measures 1/16" over the original size; or it is showing uneven wear.
   - Adjust as needed for different media and conditions.
   - A properly working blast gun will pull 15-17" of mercury on a manometer.

3. **Dust Collector**
   - Inadequate cabinet ventilation results in reduced cleaning power at the nozzle as well as diminished view of the work in progress.
   - Empty the dust collector at least once a day.
   - Remove the filter and blow it out occasionally to keep the duct collector and vacuum working efficiently.
   - Replace filter as needed.

4. **Media**
   - Use quality blast media sized to do the job.
   - Dirty or damp media can bring blasting to an instant halt. Store media in a dry location
   - Load the appropriate quantity. The media should be 6" deep on top of the metering valve.
   - If you run out of media as you are blasting add enough so that it can keep circulating through the gun.
   - The media will eventually break down or get too contaminated to use. The less media you keep in the blast cabinet, the less you have to replace.

5. **Media Delivery**
   - Replace any media hose that has soft spots or visible wear.
   - Adjust the metering valve to provide adequate flow. A mixture that is flows too much media will cause the gun to pulsate. Overly loud noise while blasting is indicative of not flowing enough media.
   - Flowing too much media with result in lower impact velocity. Flowing too little media will result in a reduced amount of impact to the part being cleaned. Both will reduce your cleaning rate.

If everything is adjusted correctly and you are still not getting the desired results, contact tech support at 800.345.4545.

Air Requirements

Line	Volume of air through pipe (CFM)									
Length	**25**	**30**	**35**	**45**	**50**	**60**	**70**	**80**	**100**	**125**
25’	.75	.75	.75	.75	1.0	1.0	1.0	1.25	1.25	1.25
50’	.75	.75	.75	1.0	1.0	1.0	1.0	1.25	1.25	1.25
75’	.75	.75	1.0	1.0	1.0	1.0	1.0	1.25	1.25	1.25
100’	.75	.75	1.0	1.0	1.0	1.0	1.25	1.25	1.25	1.25
150’	.75	1.0	1.0	1.0	1.0	1.25	1.25	1.5	1.5	1.5
200’	1.0	1.0	1.0	1.0	1.0	1.25	1.25	1.5	1.5	1.5
250’	1.0	1.0	1.0	1.0	1.0	1.25	1.25	1.5	1.5	1.5
300’	1.0	1.0	1.0	1.0	1.0	1.25	1.25	1.5	1.5	1.5

Replacement Parts

Part Number	Description
555-81363	Air Gun (With Nozzle)
555-81364	Gun Nozzles (4-Pack)
555-81365	Light Protector Shield (5-Pack)
555-81636	Glass Protector Shield (5-Pack)
555-81637	Light Bulb
555-81638	Foot Pedal
555-81639	Door Strut (Pair)

Air Pressure Conversion

PSI	kgf/cm^2	MPa
29	2	0.2
58	4	0.4
87	6	0.6
116	8	0.8
145	10	1.0