Sandblaster Modifications, Tips, & Information

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Sandblaster & Sandblasting Guide

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Part One:
Basics of Sandblasting & Sandblaster Types

For the first two brief chapters of this guide, I will discuss the basics of sandblasting and the 2 most typical types of sandblasters that are available. Then I will talk about the positive and negative characteristics of two of the most popular sandblaster types. This way, you can decide which one fits your needs. My latest bonus goes in more detail near the end of this ebook.

Most people that read this guide will already understand this information so feel free to jump to the other sections. I later cover my step by step modification guide, my essential tips for producing a smooth flowing abrasive, sources for inexpensive sandblasters to help save you money, and other needs for sandblasting.

1. Sandblaster Basics

This will cover the basics of using a sandblaster and the different types available to use that will best fit your typical projects.

Common Sandblaster Types

First off, a sandblaster functions by spraying a fast moving stream of abrasive particles out of a nozzle gun, all powered or forced by a source of compressed air. An air compressor is needed to supply the compressed air to the sandblaster. To explain further, an air compressor is connected to the sandblaster setup by an air hose which supplies the system with the force to blast the abrasive media.

Depending on the sandblaster type, the setup is configured by a specific holding tank for the abrasive particles and another hose connects it to the nozzle. The air compressor is configured to the system a certain way to provide the power, but it depends on the sandblaster type.

Common sandblaster types used in the industry are:

- Siphon Sandblaster
- Pressure Pot Sandblaster
- Pressure Washer Blaster
- Soda Blaster

2. Siphon vs. Pressure Pot

Selecting One of the Main Sandblaster Types

You will need to decide what kind of sandblaster will fit your needs and the size required for the amount of blasting that will be done. To decide on which type of sandblaster to use for your projects, you will first need to determine what you need to accomplish.

The pressure pot system has a lot of advantages to blasting and I recommend that you invest in one unless you won't use it often. Siphon systems can be very cheap but they use up a lot of the air supplied from your air compressor and they don't have as strong of a blasting pressure. With that said, I recommend you use a pressure pot if you plan on either blasting for long periods of time or frequently. Siphon systems are more common with people blasting smaller components.

There are other types in the marketplace, but since they are used less often, we won't go into much detail about them here until later in the bonus section. Listed below is a comparison of both the siphon and pressure pot system, along with their characteristics:

⇒ **Siphon Sandblaster:** A siphon is the most commonly used sandblaster because it is cheap, simple, and abundant. Since most people work with light surface sandblasting, this usually fits most people's needs. You can usually make one yourself quite easily, but I suggest that you buy one that is already manufactured since they are very cheap anyway. It is not worth the effort unless you want to make it a certain way that is beneficial such as installing a gravity feed hopper to supply the abrasive. A pressure pot sandblaster can be made also, but it is a little more complex and dangerous if not done correctly.

Siphon systems can sometimes cost only a few dollars, so might as well purchase one rather than build. The cheapest ones will consist of just a hose that you stick in a bag of abrasives and a nozzle gun. The nozzle gun is connected to the abrasive hose and another to the air line from the air compressor. Once the operator pulls the trigger of the nozzle gun, the compressed air flows through while vacuuming out or siphoning

the abrasive from the bag. The abrasive then gets mixed into the flowing air and forced out of the nozzle.

Since the compressed air has to work on two different jobs at the same time, the siphon sandblaster setup requires a larger air compressor. This larger air compressor is needed to power enough air for both duties. The duties are to siphon the abrasive media from a container and then blast that same media out the nozzle. In other words, the siphon blaster is less efficient. It is then aimed at the surface to be blasted.

- **Positive Characteristics:** This is the cheapest sand blaster setup. Another advantage is that some are manufactured with a nicer nozzle setup that allows better control to allow a variable flow of abrasive and air mixture with a slight move of your fingers on the trigger. Not all siphon sandblaster nozzles have the variable pressure feature and usually isn't needed for most projects, but is nice to easily control the rate of blasting.

- **Negative Characteristics:** The siphon setup doesn't have as much blasting power which can take a longer time to blast and uses more compressed air to operate. So it's not as good for very deep cleanings such as heavy rust, but it's still powerful enough for most applications that people need it for. To sum it up, it is less efficient than the pressure pot sandblaster.

⇒ **Pressure Pot Sandblaster:** A pressure pot sandblaster is slightly different from the other popular siphon sandblaster setup. One of the key things to realize is the name of each sandblaster type to determine what they mean. Just by looking at the names of each type explains the major differences between them, but I will explain it further.

A pressure pot is exactly what it says. It is a pot or tank that is pressurized. The tank used on a pressure pot sandblaster is an enclosed container that holds the abrasive media mixed with compressed air, supplied from the air compressor. Sandblasting abrasive must first be poured into the tank and is then closed off with a sealed cap. This is a more efficient sandblasting process because all of the air is working on one goal- to flow a pressurized mixture out of one container.

These pressurized sandblasters are usually more desirable because they use less air and have higher blasting pressures, making them abrade faster and deeper into the item being cleaned. Because it abrades faster, your nozzle tips usually wear out quicker also.

Overall, a pressure pot sandblaster usually is more expensive and can require more nozzle tips.

- **Positive Characteristics:** It has more blasting power, allowing you to finish the job quicker. Second, it uses less air, allowing you to buy a smaller, less expensive air compressor or allows a larger compressor to have less wear and tear on it.

- **Negative Characteristics:** This is generally a very expensive sandblaster setup (but I will show you where to get one inexpensively and save you a lot of money). Also, most pressure pot systems don't have a variable trigger feature which can be very convenient, but I have found many solutions to that. One of these solutions uses a foot switch that I designed and the plans on how to make them can be found here: http://www.sandblasterinfo.com/sandblaster-manual/foot-switch-plans/

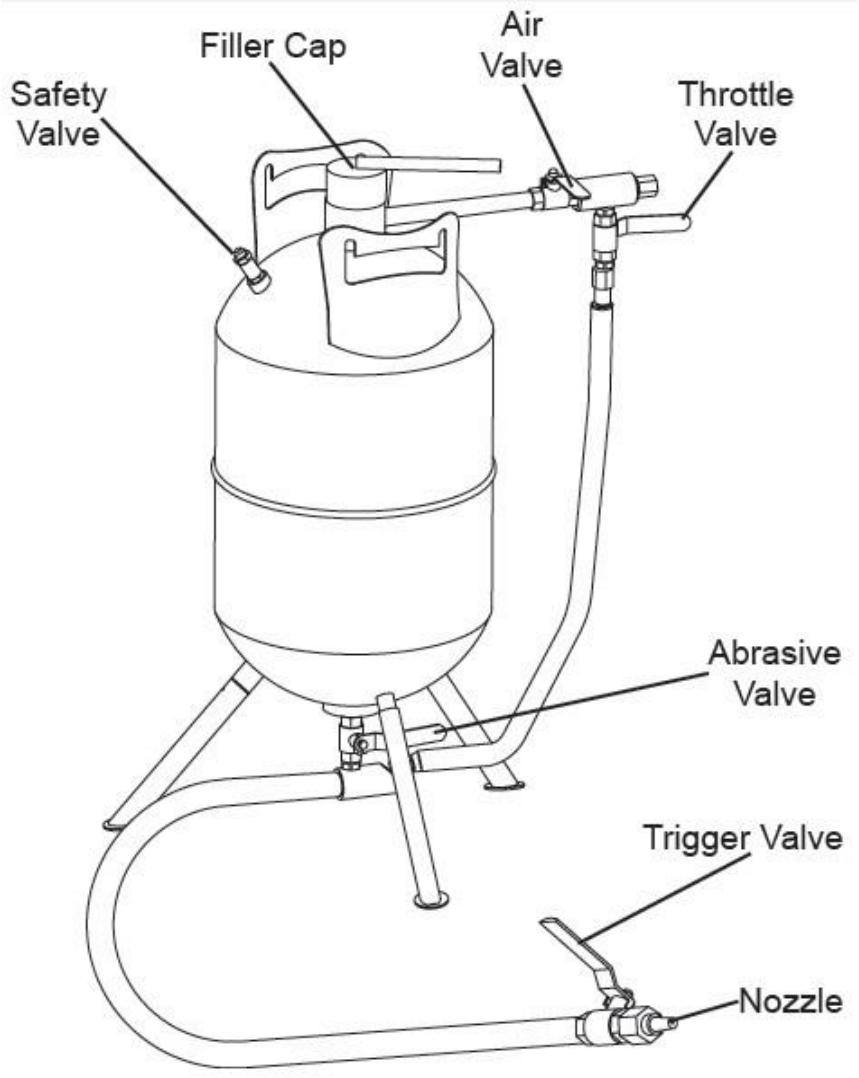
Part Two: Solutions and Plans for Fixing Inconsistent Abrasive Flow

The following section of this ebook will show you how to fix inconsistent abrasive flow problems. It covers:

- Pressure Pot Sandblaster Flow Plan Fixes
- Siphon Sandblaster Flow Fix Suggestions
- Other Tips for Improving Siphon & Pressure Pot's Abrasive Flow

3. Correct Pressure Pot Operating Procedure for Abrasive Flow

Before I get onto showing you how to make modifications to your sandblaster and improve the flow of abrasive, I wanted to write about this much needed chapter on how you are really suppose to operate the pressure pot sandblaster. To help you follow along with the terms for the valves, I include a diagram which points out the parts on the pressure pot below.



The manufacturer recommends that the bottom abrasive valve, which adjusts the amount of abrasive, should be opened all the way when in use and that the throttle valve which supplies the extra air to the bottom tee should be partially opened.

Many people, including myself do not typically open the abrasive valve all the way open because too much abrasive will come out and we like to meter that. The reason they recommend this is because the valve can deteriorate if left partially opened, but usually this takes place at such a slow rate that it is not that crucial. I believe another more crucial reason they suggest this is because the wider opening in the abrasive valve allows the air supply's path of exit to be greater here so that it effectively blows the abrasive out the nozzle.

With this in mind, the bottom abrasive valve should always be opened much more than the side throttle valve. You can still open the abrasive valve partially at about 50% or so, as long as you barely crack open the throttle valve.

A high pressure air always goes toward a low pressure air in order to stabilize. If the throttle valve (which only supplies the air without any abrasive) has a wider opening, then most of the air pressure will follow this path. We need most of the air to flow through the abrasive in the tank and blow it out the nozzle.

The main point here is that the throttle valve should be barely opened, much less than the abrasive valve.

Will widening the bottom hole improve flow?

I decided to insert this topic into this chapter because it goes with it in a few ways. A quick response to that question is- NO.

A few people have suggested to me that the real problem of flow is that the bottom hole needs to be bigger. Although I was always a skeptic of this solution, I decided to test it. As shown in the below pictures, I drilled out a much larger hole and made new threads with a thread tap so a ½" NPT pipe fitting would screw on.

After testing this, it did not really solve our main problem of flow. It had the same effects we already had in the two situations:

- When the abrasive valve was opened half way and the throttle valve was opened about the same, abrasive flow would stop.
- When the throttle valve was barely opened, the nozzle was overwhelmed with too much abrasive so widening the hole actually made it worse.

With this test, I hope it will prevent you from doing it and saving you a lot of money which required me to buy an expensive, large 23/32" drill bit and a ½" NPT thread tap. Since the drill bit was so large, it also wouldn't fit most standard drills and required a more professional drill! Luckily my father had one of these that I borrowed.

So the real fix to our problem does not require enlarging the hole, but to adjust the valve to be larger relative to the others. This is usually only part of the problem that people are having though. More tips and solutions will be provided in the next 2 chapters.

4. Latest Abrasive Problems Guide

You may find out that even if you purchase these plans an implemented my modifications, that you still encounter problems with the abrasive coming out.

You might fill up the tank to 50% of its capacity, sandblast for awhile and then the abrasive just flat out stops!! This is by far one of the most frustrating things that will happen to these sandblasters.

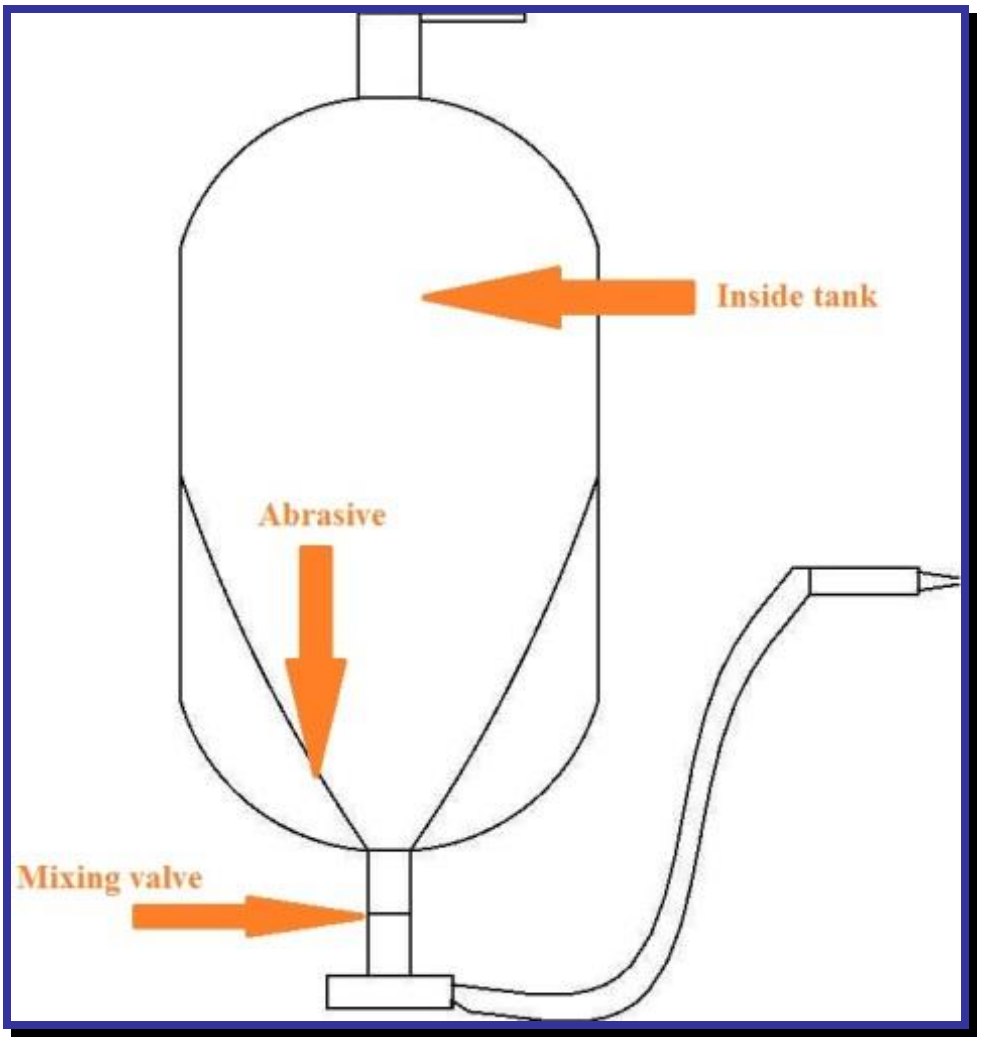
To get the abrasive moving again, you can shake the tank or tilt it to one side which helps the abrasive shift free and move down to the bottom hole of the abrasive mixing valve.

What I found out is most of the time the abrasive is settling on the sides of the tank and doesn't even funnel down to the mixing valve. I found this out by removing the bottom mixing valve and the top cap so that light could shine through each side. Then I dropped a tiny flashlight down the tank to see why the abrasive was binding up.

The problem with these sandblasters is the tank doesn't have a perfect funnel design or shape to it. Essentially, most of these sandblasters have a cylinder shape with slightly curved corners which doesn't do a good enough job of funneling all the abrasive you put in to be used. A decent portion of the abrasive settles on the bottom edges of the tank and up along the sides.

With my inexpensive 40 lb Harbor Freight sandblaster model, I found that a good 15 lbs of the abrasive piles up on the bottom edges and sides. So when my sandblaster is filled up to full capacity, over 37 percent of the abrasive is unusable! The amount that is unusable depends on the size and brand of the pressure pot, but this gives you an idea.

To show you what it would look like inside, I created a rough sketch below which shows you how the abrasive binds up on the side.



The main point to get out of this chapter is most sandblasters aren't designed well enough to feed all of the abrasive to the mixing valve. So if you're wandering why the abrasive is not coming out even after using most of my solutions in this ebook, this may be the issue.

Rule of Thumb: To correct this problem, try making sure there is plenty of abrasive in the tank. As a rough estimate, you should assume that about 35% of the tank's capacity will be unusable.

Having damp abrasive and moisture in the system is one of the most talked about solutions when someone asks for help with abrasive problems, but little do most know, a lot of times it's actually due to my findings discussed in this chapter.

5. Pressure Pot Sandblaster Modification Flow Plans

Below I have written about a procedure allowing you to easily improve your pressure pot sandblaster. This has proven to prevent the stoppage /inconsistent flow of the Pressure Pot system.

Step by Step Pressure Pot Sandblaster Modification:

Plans for Improving Flow

If you're like a lot of people seeking to sandblast on a budget, a low cost, usually Chinese pressure pot will do. You can buy a very low cost pressure pot such as the Harbor Freight brand or some of the other low cost brands that are available which I will show you later. These low cost pressure pots will allow you to blast at high pressures for those desirable quick and deep cleanings, but they may have problems with constant flow. This can happen because of many reasons, but one of the reasons is the gravity force from the abrasive's weight inside the tank can be compacted to the bottom.

This becomes very frustrating and you will need to tilt or bang on the pressure pot to help loosen the compacted abrasive. Some people go as far as hooking up a device that vibrates the whole pressure pot. But there is an easier and very low cost effective way to modify your low cost pressure pot which can perform just as good as an expensive pressure pot system. If you have bought a low cost pressure pot and found out that it wasn't the best, don't decide to throw it away unless you try a few things.

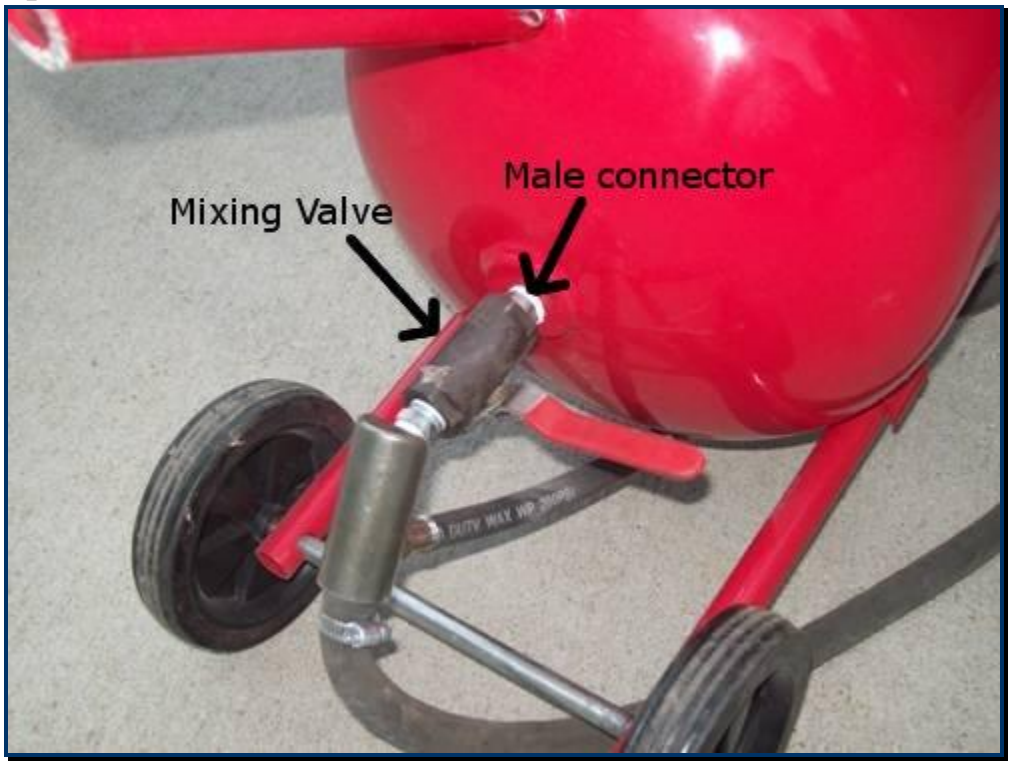
Follow these steps to make a quick modification. Some people have even thought that this simple modified pressure pot works as good as or even better than the ones costing a few hundred dollars.

To make this modification, you will need to make a small perforated tube that is connected to the bottom mixing valve configuration and insert it up into the pressure pot container. This is simple, fairly easy, and a very low cost solution to make an inadequate pressure pot into a great working

sandblaster. Another great thing is that it can only take about 15 minutes or less to install if you have a perforated tube on hand.

Follow the Steps Below:

1. Remove the bottom mixing valve with its male connector from the pressure pot.



Please Note: the picture above was not even set up correctly. When I first started sandblasting a long time ago with the pressure pot, I ignorantly installed the fittings incorrectly. Be sure you do not install the fittings the way I did in the above photo.

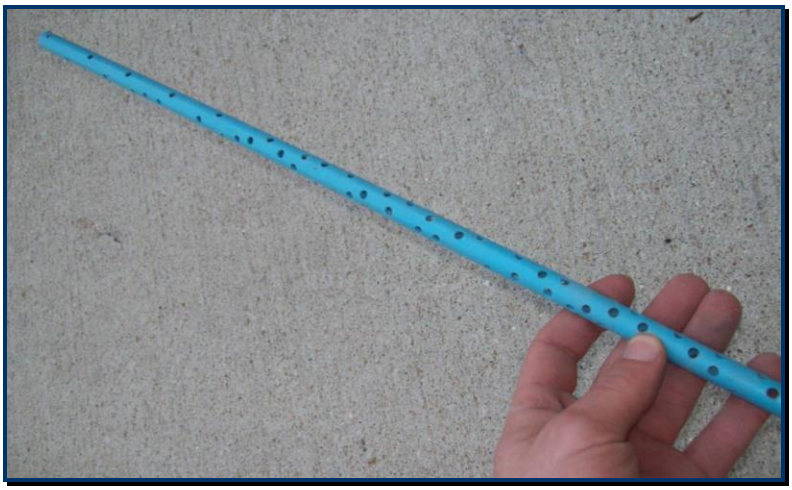
2. Find a hollow tube that will fit within the male connector. To make the pressure pot most effective, I suggest drilling a larger hole in the male connector to acquire a wider tube for greater constant abrasive flow (as shown in the next step).

You can use various types of tubing, such as flexible copper tubing or plastic tubing since there isn't much stress until abrasive hits the mixing valve area. Check the hardware store for tubes to use. Your hardware store should have copper plumbing tubes. Yes it is flexible, but there is no real stress inside the pressure pot except the weight of the abrasive.

I suggest using a tube that is at least half the length of the pressure pot container, but ¾ of the length might be more appropriate. I have used one that goes almost up toward the lid on top of the container. As shown in the photo below, I found a fairly strong piece of plastic tube lying around the garage, most likely PVC plastic. Its outside diameter was roughly 7/16".

Once, you found a tube that could be inserted into the male connector (whether you enlarged the hole or not), you will need to drill multiple holes through the tube. These holes will perforate it and will allow abrasive to flow into the mixing valve at multiple levels of the pressure pot container. I drilled the holes with a 5/32" drill bit. You might want to experiment with the size of the holes for your particular abrasive and grit size. I usually use 150 grit abrasive.

Drill the holes from the bottom to the top of tube through the center every .5" spaced at different angles each step up (could just drill each level 90 degrees from the last hole).



3. With the mixing valve configuration removed, you will need to drill a hole in the male connector (part that is screwed into the pressure pot container). The hole should allow the accommodation of the chosen tube to fit snuggly inside. See the picture below; the male connector is only drilled out about .5 inch deep and 7/16" wide.

4. Fit your perforated tube into the male connector. Ensure it is fairly snug and if it isn't, use may want to use a light adhesive (such as Gorilla Glue, JB weld, or epoxy) to secure it inside. If adhesive is used, make sure that no glue gets inside the actual tube part where abrasive is supposed to flow through. Apply a light coating to make sure that the adhesive doesn't seep inside the tube.

5. Insert mixing valve assembly and perforated tube back into the pressure pot. Always remember to use Teflon tape on the threads.

6. Tighten all connectors and lines, and then enjoy your smooth flowing low cost pressure pot modification.

6. Siphon Sandblaster Flow Fix

Just like the pressure pot sandblaster can have problems with abrasive consistently flowing out of the nozzle, so can the siphon sandblaster. My first advice is to:

- Make sure the sandblasting cabinet has a steep bottom funnel. I see a lot of siphon sandblaster cabinet setups with fairly shallow funnels. If your abrasive doesn't seem to easily funnel down to the bottom freely, then you can try modifying the funnel. You can do this by placing a new steeper one on. It will take some fabrication, but it might be worth the effort.

- Make sure the pick up tube (where the abrasive is siphoned out) is fully submerged in plenty of abrasive or place the abrasive container above the nozzle so it's gravity feed.

These are just some suggestions that primarily pertain to the siphon sandblaster setup. My best advice for keeping a smooth flowing siphon sandblaster also pertains to the pressure pot sandblaster so I combined these in the next chapter. Please read those because they are essential for optimal flow for either sandblaster.

7. Essential Tips for Smooth Flowing Sandblasters

This chapter is essential for having a smooth flowing sandblaster. These tips pertain to both siphon and pressure pot sandblasters. Some of it is basic information and others might be a new idea to you so be sure to read them. They are listed below:

A. Air/ Water Separator: Installing a Filter

You really should make sure you have a water separator. This is one of the first steps that you should definitely make sure you have, because even my modification plans listed before won't work if you don't have dry abrasive media running through the sandblaster. If you live in a humid climate, this is almost required to even work. Even if it starts working for a little bit without a separator, it may get clogged sometime soon.

Basically, a water separator is just a filter which separates water out of the air lines before being sent to the sandblaster. If a separator isn't hooked up to your sandblaster system, then the moisture in the compressed air will dampen the abrasive.

When an abrasive gets damp/ wet, the media tends to bind up and clog the system. Since this is essential, most sandblasters you buy will come with a separator. To ensure that the driest air is going into the sandblaster, you can also hook up two of them. An air separator will obviously not get 100% of the water out of the air. Essentially, the dryer the air, the better the sandblasting flow will be.

Rule of Thumb: The farther the air separator is placed on the air line away from the compressor, the better the moisture will be removed. This is because air condenses better when its cooler and the air close by an air compressor will be hotter due to the friction of the pistons. It's best to hook up an air separator near the sandblaster because the air won't be as hot.

B. Keeping the Abrasive Grit Clean

A second essential step is to make sure the grit that you are reusing is clean. Since most sandblaster abrasive is reused over and over again, the grit should be clean, whether it's being blasted in a sandblasting room or cabinet.

In order to recycle a grit that was already used, you need to collect it and filter out all the debris. Some debris may be big and can clog the sandblaster by getting stuck inside or in the nozzle tip. To clean, I recommend pouring the abrasive through a screen filter. You can use an inexpensive window screen to filter the abrasive which can usually be bought at your local hardware store. This will catch the large particles while filtering the regular abrasive through and collected into a bucket.

After that, you can then pour the abrasive back into the sandblaster system.

Rule of Thumb: It's best to get a mesh screen that is suggested for your grit size so that it removes all inconsistent debris.

C. Use a Consistent Grit Size

Another reason that abrasive tends to clogged up inside a sandblaster is because the grit you're using might have an inconsistent grit size. When you have a mixture of large abrasive particles and small abrasives contained together, they can collectively bind up, which can prevent the grit from easily sliding over each other.

An example of a poor selection of abrasive grit having inconsistent particles is sand. Usually the sand particles have various inconsistent grit sizes. Although, I don't recommend using sand to begin with, you can fix this by using the same strategy mentioned in the previous step to maintain a consistent grit size. That is by using a screen filter to mesh out all the large particles from the sand.

D. Ensure Abrasive is Dry

This tip is mostly common sense, but you always need to ensure that the abrasive is dry before putting it in the sandblaster. Sometimes leaving the abrasive in a bag on the ground in a damp garage can affect the flow. If the abrasive is damp, you can:

- Lay the abrasive out in the Sun to dry.
- Or direct a heater over the abrasive.

E. Rigging Up an Air Line Cooler

This is an interesting idea which involves cooling the air before it hits the water separator. Since air condenses at cooler temperatures and an air compressor usually pumps out hot air from all the friction, an air cooler can help improve the air separator's effectiveness of filtering the water out of the air better. Then when the cooler air hits the water separator, it can be extracted easier which means that more of its filtered out.

You can make an airline cooler by twisting copper tubing into a 5 gallon bucket and connecting each end to the air hose with hose clamps. One end will be connected to the hose from the air compressor and the other would be connected to the hose going to the sandblaster. Then all you would do is fill up the bucket with ice so that it cools the lines. A more creative way would be to run the lines through an old freezer in your garage.

F. Prevent Hose from Compacting with Abrasive

This tip actually pertains to the pressure pot sandblaster mostly, so skip this step if you are using a siphon system.

A lot of times when you close the nozzle valve located at the end of the hose for periods of time and open it up again later in the day, the abrasive will fill up the hose and clog at the nozzle. The reason for this is because most valves still have a slight leak even when it is closed. Through time, air will seep out while building up compacted abrasive in the line since the abrasive is too small to exit along with the leaked air. To my surprise, you may not hear or even see the leak because it is so small.

Depending on the size of the leak, the hose could fill up anywhere from a few minutes to few hours. Many deadman valves have this problem most often.

To prevent the abrasive from compacting inside the hose and clogging the nozzle, you should turn off the other mixing valve which supplies the abrasive. I suggest you turn off both valves at the same time if you plan on leaving it closed for more than 5 minutes.

G. Last Resort: Installing a Vibrating Motor

If my tips and plans still don't keep a consistent flow, you can also strap a motor to constantly vibrate the outside of the pressure pot or siphon cabinet to help shake up the abrasive so it flows into the bottom of the hole. By following my tips and modification, the problems should be fixed, but you can chose to try this instead because it does help.

After I suggested this in my original version of this ebook in 2010, a few people have emailed me some creative things they rigged up. One idea was to strap an angle grinder to the sandblaster and use a wheel that was purposely off set so that it would vibrate.

That may work, but it is a little dangerous. I did some research and found out that there are other products created for this type of thing which is used in other industries. Some are electric powered, and others are air powered which would be more convenient because you could tap into the air line to power it. The only issue I have with using a air powered vibrator is that it may consume too much air from your compressor because it is important to have sufficient air delivered to your sandblaster.

Since I haven't tested any of these vibrators yet, I can't confidently say they will be sufficient enough to help shake the abrasive down to the hole. I believe most of these will work and I already noticed another manufacturer which supplies wet sandblasters use them. You can search through all of the options here: http://www.mcmaster.com/#shakers/=qojsw7

To break it down more, I will suggest some direct links to vibrators that caught my eye in the categories below.

Electric Vibrators:

The good thing about these electric vibrators is that they are quieter than air powered units.

Super-Quiet Low-Impact Electric Vibrators

Below is a direct link to the lowest priced one that I saw on McMaster Carr which works with the regular 120 volt outlet. The negative thing about some of these electric vibrators is that they can get expensive, but it may be worth it to some people.

Find part number **5802K12** on this page:
http://www.mcmaster.com/#vibrators/=qokl2a

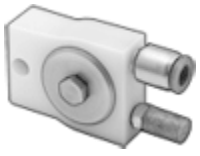
- The bad thing about this is that it is not dust resistant and has an open motor enclosure.
- Even though the other closed motor enclosure version isn't 100% dust resistant, it is better at preventing dust. Look up part number **5802K13**.
- The safest thing is to buy a dust resistant vibrator such as the **Nonadjustable Force with Mounting Channel** version on that page. It is the less expensive dust resistant one which part number **5805K26**.

Air Powered Vibrators:

There are all types of these if you search through the main page I linked to in the above section, but I wanted to show you these that I found.

They are efficient so they won't consume too much air, are quieter because they have a muffler, and are lower priced in comparison to most of them. I did see some that were about $100 cheaper, but am not sure if they would work well because of the amount of air that is used.

Energy-Efficient Low-Impact Air-Powered Vibrators



(A) Miniature acetal vibrators with push-to-connect fitting

- Part number: 3987K62
- Direct Link: http://www.mcmaster.com/#3987k62/=qokx7u

(B) High-strength ductile iron vibrators with NPT threads

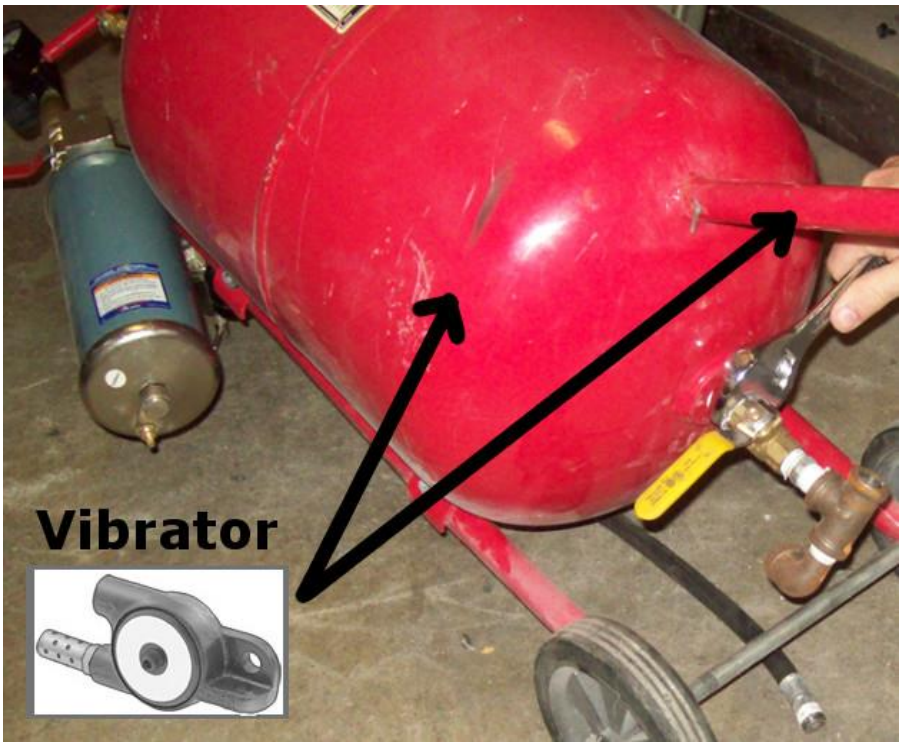
- Part number: 3886K41
- Direct Link: http://www.mcmaster.com/#3886k41/=qokz4s

Installing the Vibrator to Sandblaster

Although I think installing the vibrator to a siphon cabinet to get the abrasive to slide down into the bottom better is not worth the price, it can be done. To do this, simply drill a hole onto the cabinet and bolt it on, preferably near the top of the funnel area. You can also weld it on.

To install it on a pressure pot, I think it would be best to place it near the bottom or on the front leg. The safest thing to do is to drill a hole in the leg and bolt it on. This will prevent any damage to the tank and bolting it to the leg instead of welding it will prevent heat damage to the vibrator. If you do weld it, you might want to use some sort of heat sink such as play dough to prevent heat from touching the vibrator.

See the picture below which points out desirable places to mount the vibrator.



Part Three: Sources for Inexpensive Sandblasters & Attachments

For those that haven't purchased a sandblaster yet, I included this section to show you some sources for inexpensive sandblasters to help you save some money. I included one chapter on pressure pots and another on siphon sandblasters.

You can also make your own sandblaster exactly the way you want it with my new plans here: http://www.sandblasterinfo.com/sandblaster-manual/plans/ This ebook compliments my sandblaster plans also.

Also, I included information on sandblaster attachments.

8. Pressure Pot Sources

Pressure Pot: Where to Get a Low Cost Sandblaster & Save Money

Source to buy an inexpensive pressure pot

One of the lowest priced places to get a pressure pot sandblaster is from **Harbor Freight Tools**. I am not trying to promote this company and in fact, I recommend you buy most of your tools elsewhere. Some tools and equipment are decent when considering the money you pay for it.

Harbor Freight Tools sells these pressure pots under the brand name called, Central Pneumatic. There are a few different pressure pot sizes that you can buy, which includes most of required equipment in the package, except for the air compressor and airline hose to connect it. There are also additional items that I recommend buying, but aren't required. Listed below are the following sizes and prices for Harbor Freight's pressure pot sandblasters.

You can buy them through the website or go to a local Harbor Freight store if there's one near your home. If there is one near you, I strongly recommend that you go there before ordering off the website. It will be a lot cheaper to go to a local store because you don't have to pay shipping charges and sales occur often. You could wait for a sale to occur because they regularly have low priced sales every week for different products. It might be a case where the desired sandblaster goes on sale the next day or week.

20 lb Pressure Pot= $55- $75

Harbor Freight's 20 LB pressure pot

Quick Specs:

Doesn't have an air gauge or air separator. Has a simple on/ off valve for nozzle.

40 lb Pressure Pot= $80- $100

Harbor Freight's 40 LB pressure pot

Quick Specs:

Has pressure gauge, air separator, and a on/ off valve. My recommendation: this is a good size; not to small, not to big. Get at least this size unless your only do small work for short periods of time. If this is the case, the 20 lb would probably be alright for your needs.

110 lb Pressure Pot

Harbor Freight's 110 LB pressure pot

Quick Specs:

Has an air separator, air gauge, and easy on/ off deadman valve nozzle.

Collection of Other Inexpensive Sandblasters to Choose From

Note: most of the inexpensive sandblaster brands are all the same. Companies buy them from a private label rights manufacturer in China and market them as their brand. Other companies have a similar brand but it's hard to tell which is made differently. For the most part, the inexpensive pressure pots are usually the same in quality.

Generic Sandblaster Brand

- 10 Gallon listing
- 20 Gallon listing
- Professional 20 gallon listing

Eastwood Sandblaster Brand

- 100 LB Portable Sandblaster

Buffalo Tools Sandblaster Brand

- 10 Gallon Portable Sandblaster

ATD Tools Sandblaster Brand

- 40 LB Portable Sandblaster
- 90 LB Portable Sandblaster

All of these sandblasters are decent quality for the price and have decent blasting pressure. The only bad aspect that I have noticed is its inconsistent flow of abrasive media being blasted.

And the finer your sandblasting media grit is, the more likely it is to have these problems. If you have very fine grit such as 180, 220, and finer, the abrasive tends to bind to each other more frequently. It's even worse if it's humid and water gets in the sandblaster or in the media. But that can be improved with a water separator and plans as stated before.

To fix the major inconsistent abrasive flow problem, follow the guide in the previous sections and this will allow you to have a low priced sandblaster that is actually very functional to use.

Pressure Pot Attachments

One thing that I suggest you do is get a different nozzle configuration than the standard on/off ball valve which is supplied with most pressure pots.

One solution that some people may like is a dead-man valve which is a quick on and off valve that operates by squeezing a handle. The set up is nicer, but it requires a lot of hand strength for long periods of time. It can really fatique your hand because the spring is fairly hard. Here are some sources for different inexpensive dead-man valves.

- **Dead-man Valve:**
  - Amazon's Deadman Nozzle
  - DBM's Deadman Nozzle

Harbor Freight's low cost dead-man valve

- **Foot Operated Switch:**

I haven't found sources for these and most people are making them with the use of a product called Air Pinch. It basically pinches the sandblaster hose shut when activated by the foot switch. You can see there products here: http://www.airpinch.com/

- **My Foot Operated Switch:**

In 2013, I began experimenting with a design that uses the foot switch idea, but allows you to control the amount of abrasive pressure and flow out the nozzle. I call this variable flow. I wrote plans on how these can be made inexpensively and I describe all the benefits here: http://www.sandblasterinfo.com/sandblaster-manual/foot-switch-plans/

I have been using this since I made it and it is the best thing that I ever used.

Another item that I suggest getting is an air separator with an adjustable pressure gauge on it. This allows you to easily adjust the pressure going into your sandblaster when blasting your component because it is directly mounted onto the sandblaster. This also separates the air better when it's farther away from the air compressor, as discussed before.

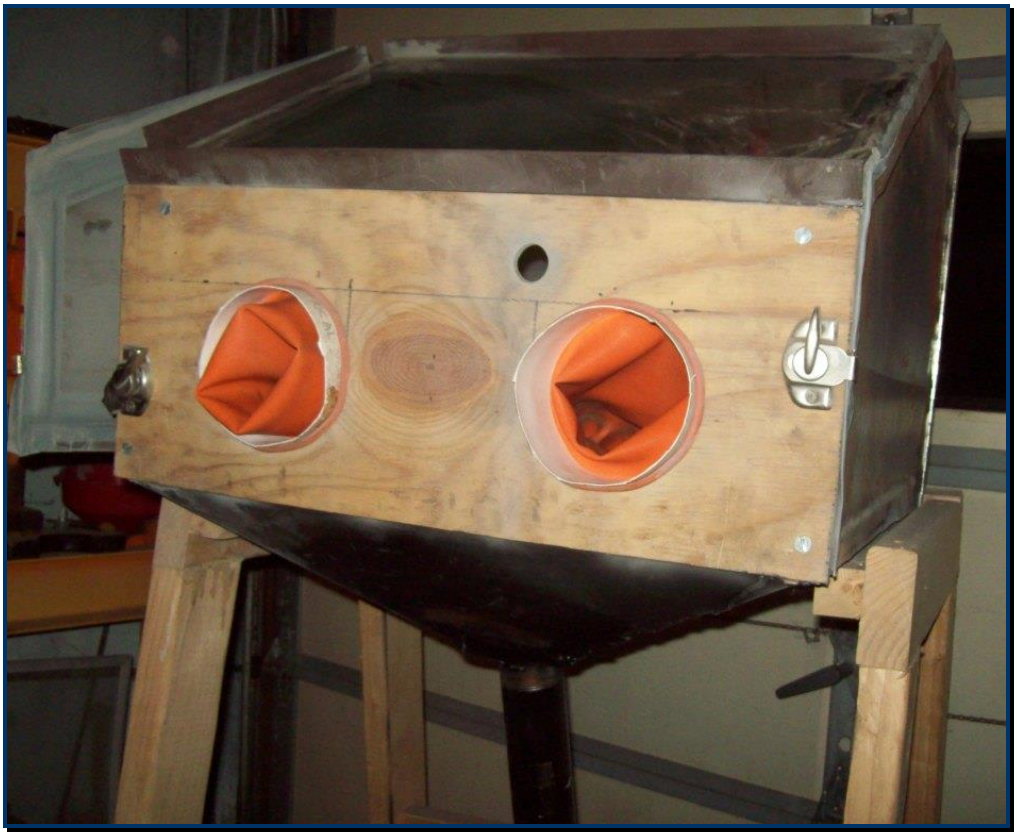
If you use one of these, I suggest that you use the air separator they included in additional to further ensure dry air and abrasive. Because even my modification plans which is known to stop inconsistent flow problems won't help when you have wet abrasive. Here is where you can get an additional low cost air separator with an adjustable air pressure gauge.

- **Air Filter Regulator**
  - Best Deal Tool's Filter Regulator
  - TCP Global's Filter Regulator

Air Filter Regulator configured to Pressure Pot

A third thing is actually obvious, and that is to get a sandblaster cabinet to collect your abrasive flow. You definitely should use one if you are using abrasives like aluminum oxide or silicon carbide because they can be used over 70 times. Recollecting them is most economical.

You can make your own cabinet as I have done in the picture below or just place the nozzle of your pressure pot sandblaster in a low cost siphon blaster cabinet by drilling a hole.



Homemade low cost sandblaster cabinet with drilled hole to insert pressure pot hose and nozzle.

You can also get low cost siphon cabinets in the links below:

Pit Bull's Cabinet
Magnum's Cabinet
ALC's Cabinet
Harbor Freight's Cabinets

9. Siphon Sandblaster Sources

Some of this relates to the previous chapter about pressure pot sandblasters so there will be some redundancy here. Here is a list of different types of siphon sandblasters and cabinets:

- **Siphon Sandblaster Connected to Cabinet**:
  - Pit Bull's Cabinet
  - Magnum's Cabinet
  - ALC's Cabinet
  - Harbor Freight's Cabinets

- **Siphon Sandblaster with Hopper:**
  - Campbell Hausfeld's siphon
  - Campbell Hausfeld's larger siphon
  - Gimour's Siphon

- **Gravity Feed Siphon Sandblaster**
  - Unitec's Siphon
  - Central Pneumatic's Siphon
  - Ampro's Siphon

10. Mini Sandblaster Sources

There are a lot of people that want to sandblast only smaller items lightly and don't want to invest in large sandblasters, so I decided to point out the different small sandblasters that you can use. These mini sandblasters are less cumbersome, cheaper, and don't require as big of an air compressor.

There are actually mini air compressors sold also, but make sure they meet the minimum requirements for the mini sandblaster. Listed below are some of the mini sandblasters and where you can get them. Just click the link which takes you to the resource:
http://www.glassetchingsecrets.com/blog/mini-sandblasters/

Part Four:
Air Compressors

11. Air Compressor Guide

You will obviously need an air compressor if you plan on sandblasting. The selection of an air compressor can sometimes get confusing because of the ratings and various types available. The specifications to look at when buying an air compressor are the **"CFM" rating**, maximum **air pressure output**, **air tank size**, and the **horsepower of the engine**. The horsepower of the engine will usually go hand and hand with the amount of air power the compressor generates.

In addition to this, you can also consider the type of air compressor such as an electric or gas powered engine and a single or two stage compressor. Usually a single stage compressor will work for a pressure pot sandblaster. My rule of thumb is to at least buy an air compressor based on the sandblaster requirements given from the manufacturer or better.

A siphon sandblaster will generally require more air power in contrast to the pressure pot, because a siphon setup is less efficient.

Sometimes when I am sandblasting smaller items, I can easily get away from lower than minimum requirements, but if you're doing this a lot or working it for long durations, then you should follow the air requirements.

To give you an example I listed the air/sand supply requirements for the Central Pneumatic pressure pot sandblaster from Harbor Freight below. The requirements are from this particular manufacturer, but they should be fairly similar to other sandblaster brands.

Hose ID	Nozzle ID	Compressor HP	CFM@ 125 PSI	Sand Use per Hour
3/8"	0.1"	2	6	60 lbs.
3/8"	0.125"	4	12	100 lbs.
½"	0.15"	7	20	150 lbs.
½"	0.175"	10	25	200 lbs.

Bonus Section

Bonus 1:

Creative Things You Can Do with Your Sandblaster

I regularly use my sandblaster for cleaning car parts when I am restoring an old car because I am a car guy. But you can also use is for other creative things such as glass etching or sandcarving wood signs. This is done by placing a cut out abrasive resistance stencil of a design that will be sandblasted. In order to sandcarve you would need the high blasting pressure that the pressure pot has in comparison to the siphon sandblaster. The siphon sandblaster can etch glass but it won't allow you to etch deep to create a carving in the glass. The following guide can be done with either a pressure pot or a siphon sandblaster.

I am fairly big into glass etching and sandcarving to create unique designs in glass, wood, concrete, rock, etc. It's a cool hobby once you get into it. If you liked this manual and would like to know more about glass etching and sandcarving, be sure to check out my downloadable information manual with advanced low cost equipment here: http://www.glassetchingsecrets.com/info.html

Also check out my main website: http://www.glassetchingsecrets.com for more information.

Here is a quick step by step of the glass etching process:

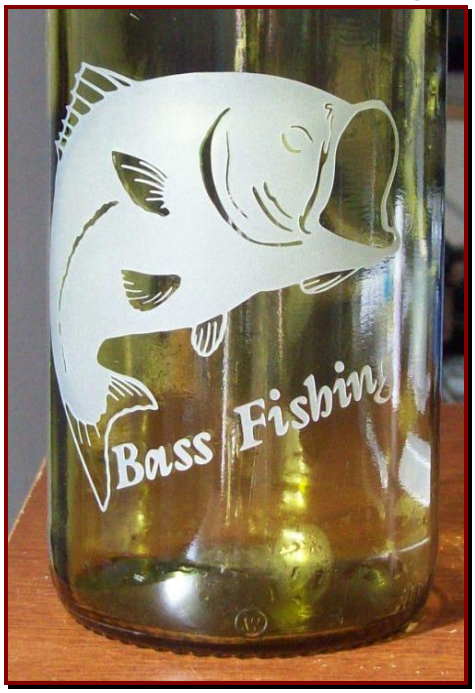
1. Cut out a stencil from a black and white graphic from vinyl and place on glass piece.

2. Mask edges to ensure the glass won't be over blasted off the side of the stencil.

3. Blast glass with stencil securely placed on. To lightly etch use about 30 psi or less. To carve, use up to 90 psi. The higher the blasting pressure, the thicker the stencil resist you will need. To lightly etch, you can just use contact paper that you can buy from a nearby store.

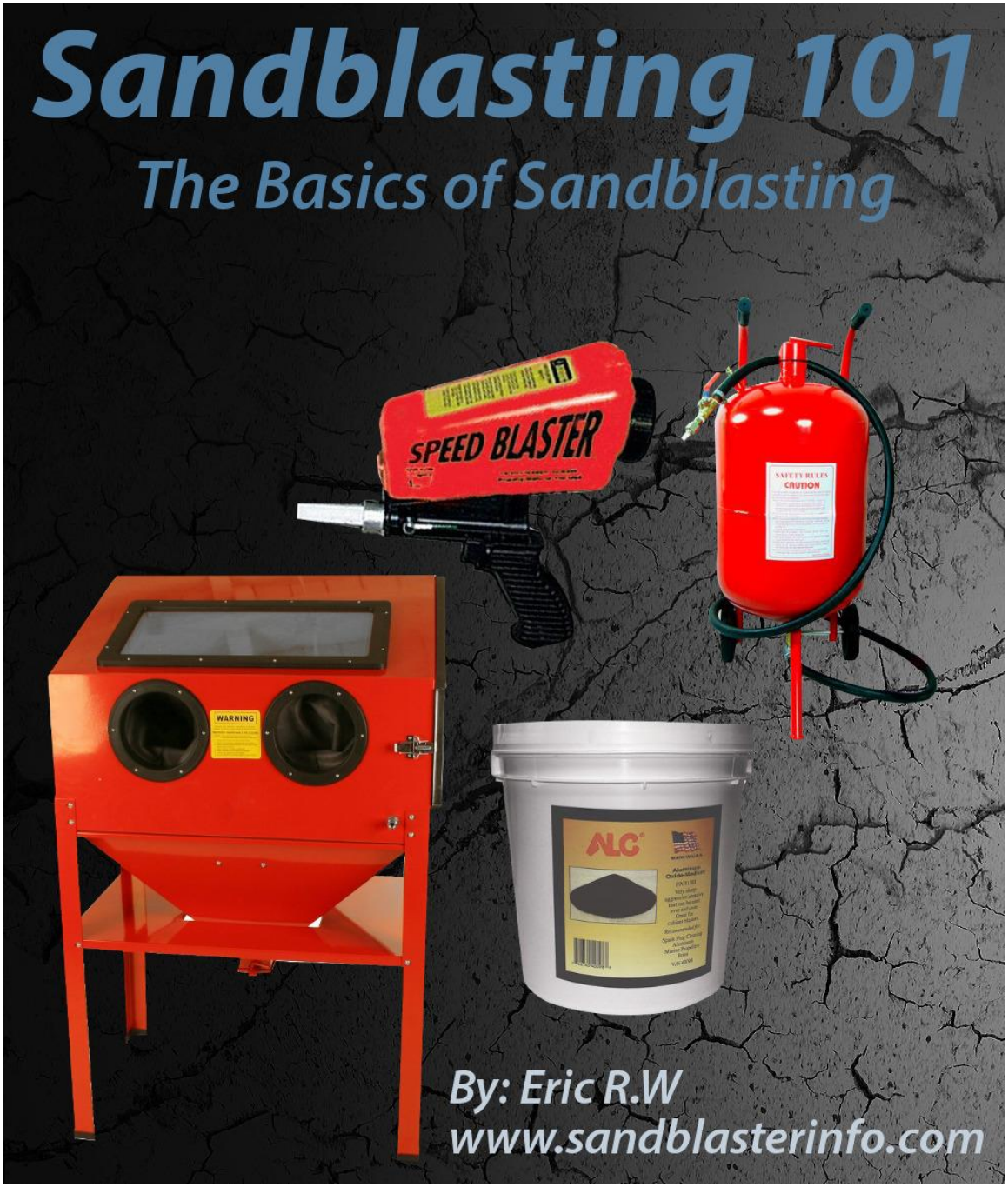
4. Peel off stencil and clean any adhesive left behind or any abrasive residue.

5. Here is the finished customized glass piece.



Bonus 2:

I have actually been giving away this quick ebook on the basics of sandblasting. But I wanted to include it here as a bonus to keep it together and it is fairly well written. Some of the material here is redundant, but I decided to attach it any way.



Sandblasting 101:
The Basics of Sandblasting

I hope you enjoy this quick guide and that it is helpful.

I created this after having many of my subscribers asking some of these basic questions.

Whether you are new to sandblasting or want to learn more about it, I think this is a great start for you. Feel free to ask me other questions by email through my website.

This guide explains all the different types of sandblasters to help you decide what you need and it shows sources of where you can buy them. It also explains how to operate the two most common sandblaster types called the siphon and pressure pot.

The last section explains the different abrasive types, the grit sizes, and what type should be used for different applications.

Eric R. W.
www.sandblasterinfo.com

Introduction

To start out the ebook I included sections on how a sandblaster works with steps to turning it on since many people want to know this. The beginning sections explain how to operate the two most common types which are the siphon and pressure pot sandblaster.

Siphon Sandblaster

The siphon sandblaster is used more often because it is usually cheaper. The bad thing about these is that they aren't as powerful and use a lot of air which usually requires a bigger air compressor.

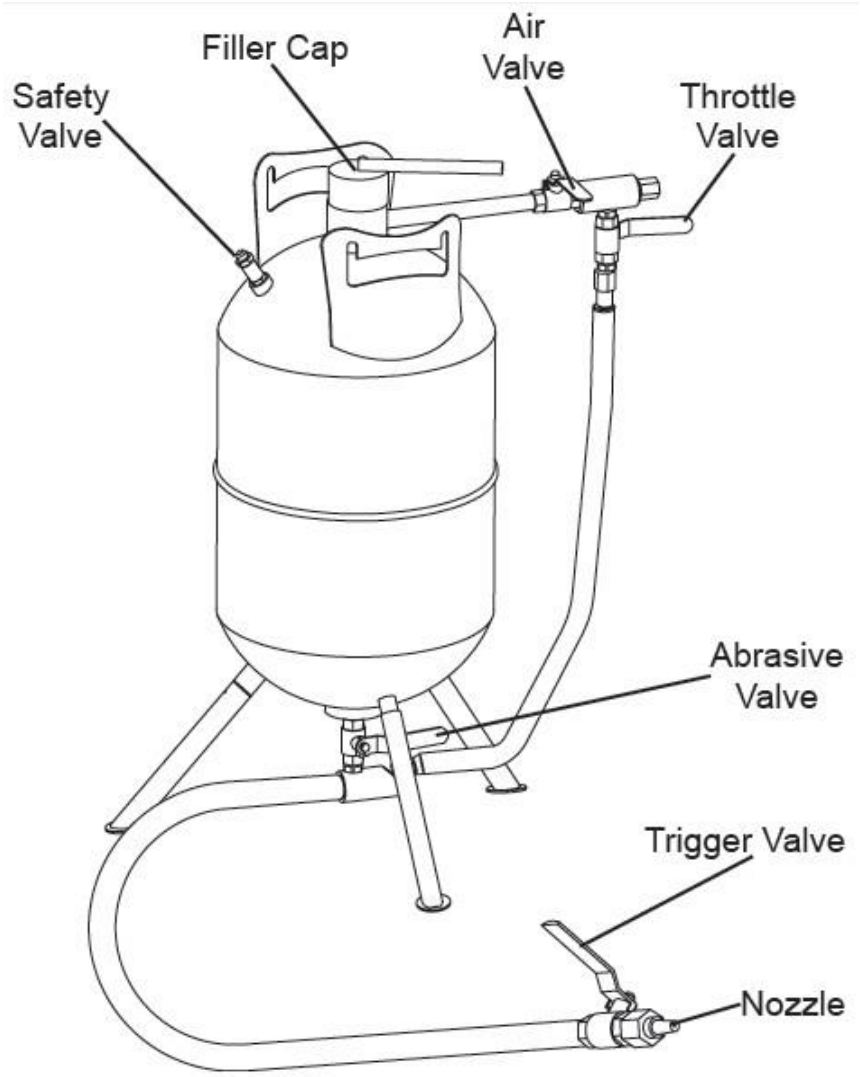
Pressure Pot Sandblaster

The pressure pot sandblaster is more much more efficient, has a stronger blasting pressure, and uses less air so the air compressor is more likely to keep up. These are just some of the reasons professionals prefer to use the pressure pot.

How a Pressure Pot Sandblaster Works

Typically on the pressure pot sandblaster main body, there are 3 different valves to operate and adjust. The top two directly deal with only the air and the bottom comes in contact with the abrasive & air.

Some people call these valves different names and I even name them a little bit different in my ebooks and plans. For the sake of consistency, I will name these the same as another manufacturer calls them.



Top Valves
As shown in the photo, the "Air Valve" and "Throttle Valve" are the top two. Their purpose is explained below:

- **Air Valve**- Opens and closes air flow into the tank. This is meant to be opened fully when in use.
- **Throttle Valve**- Adjusts the amount of flow down to the Abrasive Valve. This valve is meant to be only partially opened.

Bottom Valve
The bottom valve is called the "**Abrasive Valve**". This valve is supposed to be turned only to the full open or fully closed position. The reason is because the abrasive flow can deteriorate the valve if it is partially open. Although it isn't meant to be partially open, it usually doesn't deteriorate very fast and I always open it about 50%.

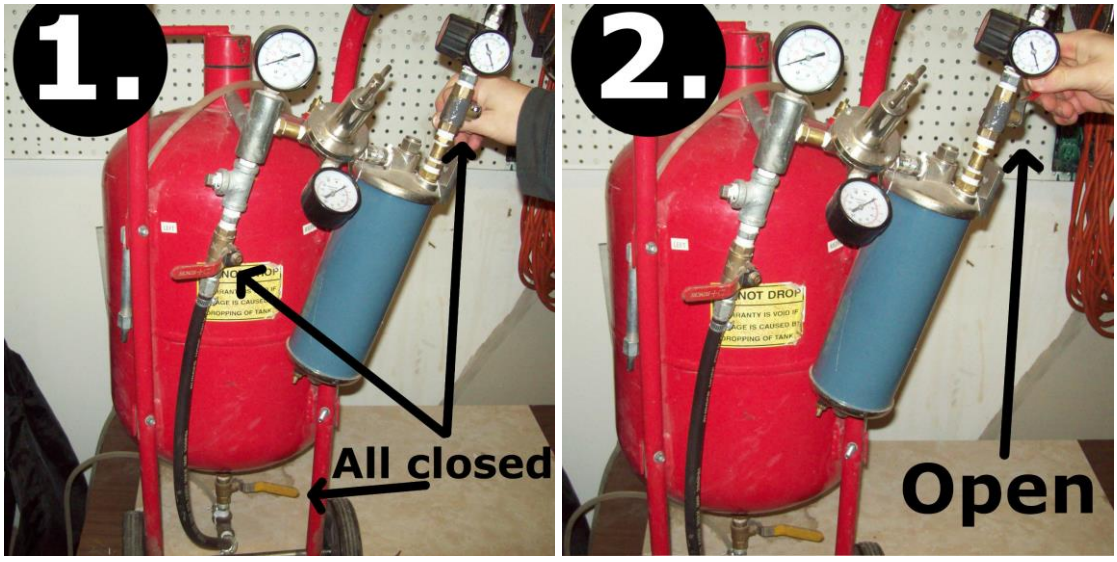
If it is opened too much, the abrasive flow will often be too much for my preference.

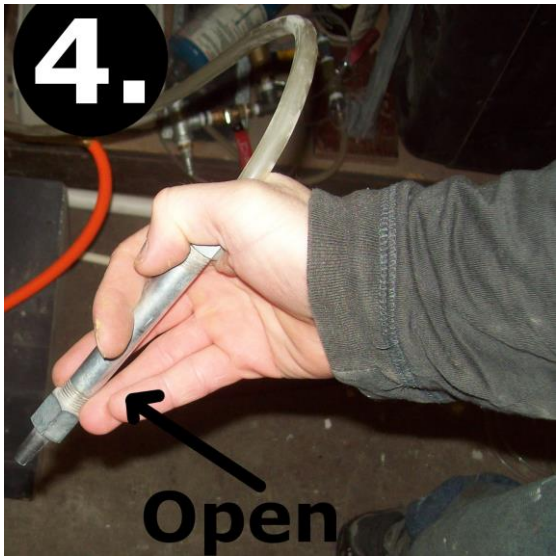
How to Operate the Pressure Pot
Listed here are the steps on how to operate the pressure pot. You can see the photos below that which depicts these steps.

1. **Valves Closed**- When starting out, all the valves should be in the closed position.
2. **Air Valve On**- Then connect the air hose and open the Air Valve so that the tank fills up with air. You will hear it filling up within 30 seconds to a few minutes depending on the size.
3. **Abrasive Valve On**- As I stated before, you are suppose to open the Abrasive Valve so it is wide open, but I turn this valve so that it is about 1/3 to ½ way open so it limits the amount of abrasive being delivered to the nozzle.
4. **Nozzle/ Trigger Valve On**- Aim the nozzle at your object and open it so that is completely on which is usually using a Trigger Valve. Abrasive will start shooting out. Right after abrasive comes out in an almost simultaneous fashion; turn on the next valve described next. (You may prefer to open both of these at the same time.)
5. **Throttle Valve Slightly On**- Immediately crack open the Throttle Valve and adjust until you get a preferred abrasive to air ratio.

Note: the Throttle valve has to be opened less than the Abrasive Valve so that the higher air pressure flows through the tank and pushes out the abrasive. I believe this may be some of the problems people are having when the abrasive doesn't come out.

The abrasive adjustment will lag and manufacturers suggest that it can take a minute until fully stabilized to your setting.





How a Siphon Sandblaster Works

How to Operate the Siphon Sandblaster
The siphon sandblaster actually varies by design and for the most part turning it on is common sense, but this section describes how it operates.

Siphon systems typically have two different hoses going to the nozzle. One hose directly connects the compressed air to the nozzle. The second hose connects to some sort of abrasive holding tank or hopper which typically isn't an enclosed area. Most sandblast cabinets already have the siphon system installed.

How it operates as described below:

1. Make sure the tank hopper is filled up with abrasive and the abrasive tube from the nozzle is stuck in the abrasive media; usually at the very bottom. Some people call the end of this tube the pickup tube which has a piece of metal at the end of it to jab into the abrasive pile.
2. Connect the air hose line to the nozzle with the air tool coupler and fitting.
3. Press the trigger which will allow air to flow out the nozzle. Within a second or two the air flowing out of the nozzle creates a vacuum which siphons the abrasive from the other (abrasive) tube and mixes in with the air.
4. Then it simply blasts out the nozzle. Aim & blast!

Types of Sandblasters

There are a few types of sandblaster categories but even more types within those categories with different designs and sizes.

These are the main sandblaster category types at a quick view:

- Siphon Sandblaster
- Pressure Pot Sandblaster
- Wet Sandblaster
- Soda Blaster

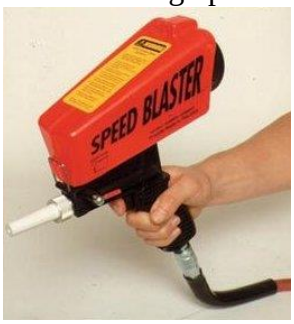
Sandblaster Types in Depth

To explain these further, I created a more in depth list below which also discusses all the subcategories available within these main category types. Links are included to a few sources also.

- **Siphon Sandblaster-**
  - **Traditional**- The typical type simply has a pile of abrasive which is siphoned out from a pickup tube the nozzle. The pickup tube can be either placed in a bag of abrasive or is fixated at the bottom of a sandblast cabinet.

Sources
Siphon Cabinet system: http://amzn.to/19t71fk
Pickup tube siphon kit: http://amzn.to/SQcRis

- **Gravity Feed-** The only difference here is that the abrasive is located above the nozzle. These work much better because gravity is helping to force the abrasive down into the nozzle. With gravity feed sandblasters you are also less likely to have abrasive flow problems because the abrasive is contained better toward the point of exit. Most of these are handheld units but you can also place a large hopper above and connect a nozzle to it with a hose. You can get creative with this idea and rig something up.



Source: http://amzn.to/UMosEH

- **Mini Units-** Most of the small sandblasters available are siphons but there are some that are pressure pots also. I wrote plans on how to make a mini pressure pot on my website. Many of these are also gravity feed sandblasters but the traditional design is sold also. They are also commonly called pencil sandblasters.

Sources
Gravity Feed Mini Sandblaster: http://amzn.to/1cya4Hw
Make a Mini Pressure Pot Sandblaster:
http://www.sandblasterinfo.com/sandblaster-manual/mini-plans/
Lists of Other Minis: http://www.glassetchingsecrets.com/blog/mini-sandblasters/

- **Pressure Pot Sandblaster-**
  - **Shop Sized**- Essentially the only different thing between these are the sizes available. The typical shop sized ones used are the 20 lb, 40 lb, or 110 lb tanks which indicate how much abrasive it can hold by weight.

Source
20 lb Pressure Pot: http://amzn.to/19gK2cy

40 lb Pressure Pot: http://amzn.to/19t9wOw & http://amzn.to/1dj2vGB

Larger sizes: http://amzn.to/1eaErUJ , http://amzn.to/1evbDo0 , http://amzn.to/T5hrwc

  - **Large Sized**- You can buy larger industrial sizes or even make them from larger propane tanks as described in my plans. A lot of people that sandblast for a living will have these large sandblasters attached to a trailer with there own large air compressor run by a gasoline powered car engine.

- **Cabinet Pressure Pot**- Some manufacturers actually make cabinet systems directly connected to the pressure pot. These types are a little less common because they are very expensive, but they are very nice setups because the system automatically recycles the abrasive back into the tank for you! It is very possible to make one of these yourself.

I have seen two different designs for how these work. The one type has the pressure pot welded directly under the cabinet so that all the abrasive funnels down to where the fill up port is. When the air pressure is turned off, the depressurized tank allows the plug to drop so the port opens and the abrasive pours into the tank.

The other type I have worked with operates in a similar way, except it uses a large vacuum to suck the abrasive from the bottom of the tank to the sandblaster which also works as the dust collector.

- **Wet Sandblaster**- Sandblasting with water is a great way to keep dust down to a minimum. Even though it is messy, it is well worth the effort by removing dust which also causes lung problems.

  - **Pressure Washer Blasters**- These work in a similar way as the siphon sandblasters except they use a pressure washer with a special attachment to force water out of the nozzle while simultaneously siphoning the abrasive out from another bottle.

Source
Attachment Kits: http://amzn.to/13JzBJl & http://amzn.to/1dYU6Do

- **Traditional Wet Blaster**- These have been around for quite some time. It is essentially a pressure pot blaster with a water fed hose connected at the end of the abrasive nozzle which sprays a light amount of water in mist form internally or externally after it exits depending on the product. Clemco makes an attachment which can be connected to any sandblaster.

Source
Clemco external attachment:
http://www.clemcoindustries.com/products_showitem_clemco.php?item_id=02701

- **Dustless Sandblaster**- These are a little bit newer to the industry, which are also called "Slurry blasters". Most people call them dustless sandblasters after the company that started marketing them. If you look at them, they essentially look and work similarly to the pressure pot sandblaster except the inside design is different. Unlike the traditional wet blaster, these units actually have the abrasive and water mixed inside the tank.

- **Soda Sandblaster**- These are usually similar to the pressure pots, but some are designed like the dustless sandblasters. They are used a lot for blasting softer items to prevent sheet metal from warping and pitting since the sodium bicarbonate abrasive is soft.

  - **Top Exited Soda Blaster**- Most of the soda blasters I see are built so that the soda media exits out of the top. I believe this is designed so that the flow is better. There are many different sizes available also.

Source
40 lb soda blaster:
http://amzn.to/1cHL4g2

Larger sizes:
http://amzn.to/1aLlof6 ,
http://amzn.to/1cHM1VI ,
http://amzn.to/1aLlDa3

Smaller size:
http://amzn.to/1iX6Cdn

  - **Soda Blaster Kits**- There are also kits available that hook up to any typical pressure pot which exit out of the bottom of the tank. I don't know how well they work, but these can be made easily or purchased.

Source
Eastwood Kit: http://amzn.to/Ui4Ng3

Abrasives

The first type of abrasive many newcomers typically think of using is play sand, but it should not be used.

It is understandable that people think this is what is suppose to be used because the word "sand" is in the name sandblasters. Some suppliers are even renaming their equipment "abrasive blasters" so there is no misunderstanding with the fact that sand shouldn't be used. This is a good idea on their part, but since the word sandblaster is most often used, I tend to term it that.

Why Sand Should Not Be Used

The main reason sand should not be used is because it is made up of silica. When abrasives that contain a lot of silica are blasted against objects, they will break apart and emit dust which contains silica. When this silica dust is inhaled, it causes a very serious lung problem known as silicosis. Silicosis can cause breathing problems and eventually lead to death. That is the main reason play sand is not used.

Using play sand or any type of sand in blasters is also against OHSA rules in the United States. If you buy play sand by the bag from stores, you will often notice the bag saying not to use it for blasting.

Some people are still stubborn enough to use play sand because it is one of the cheapest abrasives to buy. But when you look at the facts at how many times it can be reused, you aren't really saving that much money. Play sand breaks down much quicker than blaster recommended abrasive such as aluminum oxide. So even though recommended abrasives such as aluminum oxide are much more expensive, they can be reused many times over again making it just about as cost effective. Play sand can only be reused a few times, while it has been said that aluminum oxide can be reused up to 70 times.

Do not use sand for your blasting! I am dedicated to educating people on this because I don't want people to develop serious health problems. It is much better to spend 10, 20, or even 100 dollars more for quality abrasive than to risk your health to save a few bucks which may end up costing you thousands or even 10's of thousands of dollars for medical bills in the future.

Types of Abrasive Used in the Sandblaster

First I want to list some of the common types of abrasive used for sandblasting, then I will discuss what type should be used for different applications.

You should also know that abrasives are usually categorized by hardness using the Mohs scale with 1 as a soft material and 10 as a hard. The abrasives below are listed by hardness.

Soft Abrasives

- Sodium Bicarbonate (aka baking soda): 2.5 Mohs
- Walnut Shells: 3-4 Mohs
- Plastic Media: 3-4 Mohs
- Corn Cob grit: 3-4.5 Mohs

Medium Abrasives

- Glass Beads: 5.5 Mohs
- Crushed Glass: 5.5 Mohs
- Coal Slag (common brands are Black Beauty & Black Magnum): 7-7.5 Mohs
- Garnet: 7.5 Mohs
- Steel Shot: 8 Mohs
- Steel Grit: 8 Mohs

Hard Abrasives

- Aluminum Oxide: 8-9 Mohs
- Silicon Carbide: 9-10 Mohs

Abrasive Grit Sizes & Types for Different Applications

I frequently get asked by many visitors that come to my website what types of abrasive they should use. This is a tough question, because it can vary by the type of material being blasted and what application is being blasted. Then it is also a preference for that person depending on how much they are willing to spend, how often they will reuse it if at all, and what is available to them.

Choice of Grit Size

It even gets more complicated when looking at the grit size. A course grit will typically clean an object faster than a fine grit, but is also more likely to cause pitting which digs into the object's surface being blasted.

Grit size or mesh is a term used for the measure of how fine or coarse the abrasive media is. A larger grit number means it is finer such as 600, while a smaller grit means the abrasive is coarser such as 50. Basically, as the grit number gets larger, the abrasive particles become finer.

See the table below for an example and representation of some grit numbers. For creating a smoother surface, a finer grit size is used but it is usually more expensive than a coarse grit size.

(Chart numbers do not represent the extreme values available in the marketplace. Numbers used are for example purposes only.)

Grit	Measure
50	Coarse
100	Finer
600	Finest

Some abrasive types such as coal slag will use different numbers like 12/40. This essentially means the sieve size for a bag of the abrasive can vary from 12 to 40 grit. It is very hard to get every particle the same size so they use a range.

You still might wonder why other types of abrasive like aluminum oxide has a sieve range size also, but use stand alone single number such as 100 grit. I contacted an abrasive distributor and they told me it is because aluminum oxide users go off a tight sieve specification.

Applications

Sandblasting is used for all types of things from dentistry to car restoration. Some of the common uses for sandblasting are:

- **Dentistry cleaning** for prosthetic & orthodontic devices, and even teeth cleaning!
  - Use soft abrasives
- **Concrete cleaning** to remove graffiti and various grime
  - Use soft to light medium abrasives
- **Building & sculpture cleaning**
  - Use soft to light medium abrasives
- **Industrial equipment cleaning**
  - Use soft to hard abrasives
- **Car restoration** to remove old paint and rust to bare metal
  - Car frame can use soft to hard
  - Car body should use soft or medium with wet blasting
- **Precise cleaning** such as carburetors, engine blocks, electric devices
  - Use soft abrasives
- **Peening** of precise parts for aircraft engines, gears, etc..
  - Use medium abrasives only in shot or bead form
- **Bridge cleaning**
  - Use Medium to hard abrasives
- **Log cabin cleaning** to clean outside surfaces
  - Use soft to light medium abrasives.
- **Glass etching & glass carving**
  - Use hard abrasives
- **Stone carving**
  - Use hard abrasives
- Etc…. I can go on and on!

Applications to Note

As noted in the above, I listed the range of abrasives that are typically used and can be tolerated for those applications. For this section, I'd like to explain a few other things that you should know.

Soda blasting and other soft abrasives is commonly used for cleaning all parts of a car restoration from engine parts to the body because it does not pit into the metal and does not produce a lot of heat.

Since the chassis has thick metal and isn't a precision item of the car, this can use hard abrasives to clean it quicker. The body should not use hard abrasives because it can pit into the metal and create a lot of heat which warps the thin sheet metal. However, if you use wet blasting, the water will cool down any heat so a lot of car restorers will use something like crushed glass with water.

Shots/ Beads vs. Grit

Many types of abrasive with have different types known as shot, bead, or grit. Abrasives that are shot or bead are similar types with a more circular shape and may cost much more. They are commonly used for finishing, deburring, and peening in addition to surface cleaning.

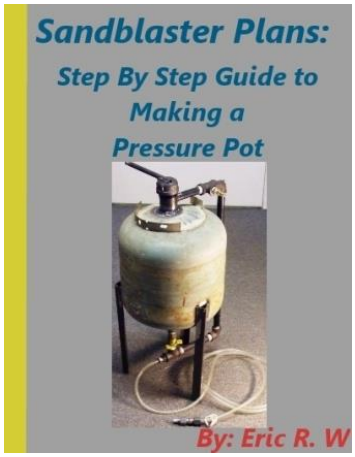
Grit on the other hand is a more angular abrasive type with a sharper edge which may clean items faster but are also more likely to cause pitting.

A good example of this is glass bead verses crushed glass which is considered more of a grit. Crushed glass is much cheaper!

Other Information!

Sandblasting equipment can be expensive, but there are other ways around these high prices. I have been making all kinds of my own equipment inexpensively and it is sort of fun making this stuff. I even wrote plans documenting all the steps, where to get parts, and how some of these sandblasters work.

Make Your Own Sandblaster



If you want to make your own sandblaster, my plans here (http://www.sandblasterinfo.com/sandblaster-manual/plans/) show to make it out of a old propane tank safely and easily. Plus, it explains how to make my unique and inexpensive nozzle set up which allows you to actually adjust the amount of abrasive flow from your finger tips.

It also includes the following bonuses:

1. **Finding the Right Compressor Guide**
2. **Air compressor Types Guide**
3. **New Abrasive Problems Guide**
4. **Sandblasting Safety Guide**

On- Site Sandblaster Attachment

As an alternate to wet blasting for preventing dust, I created my own attachment which sucks all the dust out directly after abrasive impacts the surface. They typically call these On-site sandblasters which can cost thousands of dollars. These are easy to make and work great to prevent abrasive and dust from getting all over.

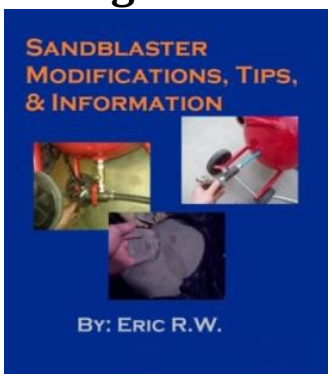
I create the plans here:
http://www.sandblasterinfo.com/sandblaster-manual/on-site-plans/

Mini Sandblaster Plans

I often need a mini sandblaster for small projects and use it for smaller items requiring fine abrasive. Since most mini sandblasters are only siphon powered, I decided to make my own out of a torch or camping propane tank so it has the power of a pressure pot.

These are designed completely differently with a unique internal structure. I documented exactly how to make them in my plans below: http://www.sandblasterinfo.com/sandblaster-manual/mini-plans/

Fixing Abrasive Clog & Flow Modifications



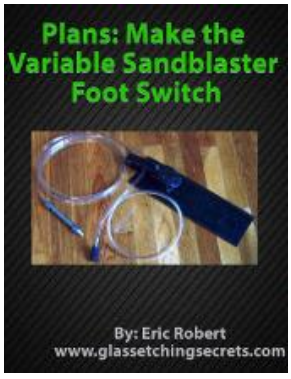
This is one of my most popular plans which show a unique way to fix abrasive clogs and flow problems that many people experience with sandblasters. It includes steps on how to modify it and suggestions to keep the abrasive consistently moving through the blaster.

You can get these here:
http://www.sandblasterinfo.com/sandblaster-manual/

It also includes the following bonuses:

1. Multiple different sources to get inexpensive pressure pots at different sizes.
2. How to easily make them from an okay piece of equipment to a great smooth flowing sandblaster.
3. Low cost sources for add-on appliances such as an dead man valve.
4. Guide to other creative things you can do with your pressure pot.

Variable Sandblaster Foot Switch Plans



This is the latest creation that I thought of which shows how to make a unique foot control switch which both easily adjusts the abrasive flow for varying the pressure and operates as the on/off switch.

Since I blast small to medium sized objects in a cabinet, this foot switch has been my favorite nozzle set up to use since I designed it. I still use it to this day!
You can learn more about it here:
http://www.glassetchingsecrets.com/shop/vari-blast-footswitch-plans.html

In The End

I hope you got a lot out of this guide and I put a lot of time into creating it for you. Remember, safety always comes first. Please read about some important safety information and equipment to use when sandblasting on my site: http://www.sandblasterinfo.com/blasting-safety

If you ever have any questions or want to leave me a comment, please email me at eric@sandblasterinfo.com.

Also follow the blog with the latest posts and leave any comments on the site here: http://www.sandblasterinfo.com/category/sand-blasting-news/

As stated before, you can also make your own sandblaster exactly the way you want it with my new plans here:
http://www.sandblasterinfo.com/sandblaster-manual/plans/

This ebook complements my sandblaster plans also.

Thanks and happy blasting!
-Eric R.W.