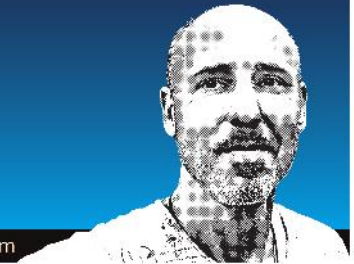


Choosing a Blast Cabinet

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In most any restoration that we do, if you are not using a blasting cabinet, most likely someone else who is restoring the parts for your car is. A blast cabinet is an essential tool in a shop and they come in many different shapes and sizes and configurations—definitely ranks in my top five most useful shop tools. Other names used for these are bead blast cabinet, sand blasting cabinet, abrasive blast cabinet, media blasting cabinet, and other similar names. The concept is the same even if the names are changed, so don't let the different names confuse you.

The most common reason to use one of these cabinets is to remove rust or some form of corrosion from metal. In most cases, this is what people are using them for but there are other uses. In general, you are cleaning parts to bring them back to their original state or to prepare them for paint or refinishing of some kind. Even in Arizona where most people think rust does not exist, I am using this machine almost on a daily basis to clean and refresh parts.

All blasting cabinets work on roughly the same principal. Finely ground media (sand, glass beads, or other coarse material) is used to clean or abrade the surface area to remove rust, paint, or other unwanted surface materials. This is done by means of an air-powered pressure gun that fires out the media at a high velocity to impact the intended surface. All cabinets use a gun with a ceramic barrel or coating to prevent the sand from eroding it over time. At some point, it's recommended to replace the gun or tip for optimal performance.

Today there are two basic styles of media cabinets, with some other variations such as vapor and wet blasting not as common. The most basic and common type of blasting cabinet that you see today is the siphon or suction machine. These cabinets use an injector gun to create suction on the abrasive supply hose. The abrasive hose is used to convey the mixture of abrasive and suction air to the gun where the compressed air supply line and the air jet are used to accelerate the abrasive. All siphon-style machines include two hoses because of their design at the gun assembly. Siphon machines operate with less frictional heat and higher operating pressures and seem to work best at a regulated pressure of 80 to 90 PSI at the cabinet, and do not work well with pressure settings below 25 PSI. Easy to operate, less expensive to purchase, and reduced maintenance are the reasons these are still the most widely sold units.

Direct pressure systems are the second most common category of blast cabinets available today from a number of manufacturers, usually the same ones who offer the siphon style. The direct pressure machines use a pressure pot to pneumatically push the blast media and air through a single hose and out a blast nozzle. Direct delivery systems concentrate the abrasive which creates greater frictional heat but can clean parts four to five times faster. There are some great YouTube videos online where you can see the same part being cleaned using the two different methods and the direct pressure style is always faster. These systems are also better for cleaning blind holes and pockets. An example would be cleaning out a



cross-drilled crankshaft where the nozzle pushes the media through. You can also use larger abrasives such as steel shot for shot peening. The only downside to these systems (besides the cost) is that you will need a larger CFM capacity from your air compressor, which means you may need to purchase a new air compressor at the same time. But if productivity is the main concern, then these cabinets are the way to go just for the time saving aspect.

Some other things to consider with any quality blast cabinet is to make sure you have a working dust collector connected to your machine. These make it so much easier to see inside the cabinet as it cuts down on the dust flying around from the media breaking down. And, as with most things, these need to be maintained so make sure you empty the contents of the dust collector periodically for maximum effect.

Of course, the media you are using is as important as the machine. I normally use glass beads in my cabinet but have a few different medias available if I need a more aggressive finish on my parts or cleaning some hard-to-remove residue. The other media use is called garnet.

Cabinets also come in many different sizes, with some large enough to allow an entire car door to fit inside. Some have lids or doors to allow for easier loading or unloading.

My best advice is to purchase from a reputable manufacturer where you can call for parts or service questions when you have them. That's always good advice for any tools you purchase for your garage or shop.