

Pressure Pot Vs Siphon Systems for Sandblasting

When purchasing sandblast equipment it is important to identify your requirements so you can determine which system is right for your general sandcarving applications. The two most prevalent systems on the market are siphon and pressure-pot blasters.

Pressure Pot Systems

Pressure pot systems are very effective for larger production runs and, on average, blast four times faster than a siphon system. The use of compressed air is much more efficient and enables you to blast your surfaces more quickly at lower pressures.

Pour the abrasive media into the pressure vessel, pull up the tee handle to seal the tank, and turn on the air inlet valve to fill the vessel with air. The pressurized abrasive and air mix is regulated with a metering valve, then travels quickly through the hose to etch your workpiece.

The main drawback of pressure pot systems is the higher cost compared to siphon systems. One factor to consider when selecting a pressure pot system is the size of the pressurized vessel where the abrasive media is stored. The size is determined by the number of pounds of abrasives it can hold. The larger the vessel, the longer the blasting between refills. This is an important consideration when high-volume production runs are anticipated.

Pressure pot systems provide excellent control for virtually all sandblast applications and the efficiency reduces your overall blasting time.

Siphon Systems

The siphon system is the most basic of all existing sandblasters found on the market today. The primary advantages are the economical price and the continuous blast capability without the need to refill the abrasive media. The siphon system is excellent for the beginner and low-volume blaster.

The major drawback is that it is a slower sandblasting system. Siphon systems use air less effectively because a large volume of air is required to draw the abrasive materials from the hopper or bottom of the cabinet. The abrasive media is suctioned up through the hose, mixed with the air in the nozzle and is projected onto the object being blasted.

Purchasing a siphon system is a good choice if low production runs and specialized sandblasting techniques (such as shading) are your primary requirements.

Options to Consider

Both systems are available in a variety of sizes and come with many options which may be beneficial for maintenance and ease-of-use. One important option is the water separator which filters out all condensed humidity from your incoming air line. Humidity can cause the abrasives to clump resulting in an irregular spurting action of the abrasives out of the nozzle. Humidity can also cause your sandblasting system to clog requiring you to clean out all the abrasives.

Another useful feature is the dust blow-off gun which will remove all excess abrasives from your sandblasted object. This is especially useful when blasting with aluminum oxide which causes a lot of static.