Using a CFD With Low Air Pressure

An LVLP spray gun certainly is a good choice if you prefer to have a low pressure used compressor and only use a low strength air compressor, allowing you to skip over the learning curve of LVLP paint spraying and do it cheaper and easier. There is a lot to know about this popular alternative type of paint spraying gun, however, and it is definitely useful advice to pick up, especially if you plan to get into paintballing with as little cost as possible. The LVLP spray guns are fairly new on the paintball scene, and paintballers are jumping on the bandwagon really fast. These guns give the look of a standard compressor/siphon system without the complexity and the size. In fact, they can be used in conjunction with full-sized air compressors.

The concept behind LVLP guns is based on the latest technology in high pressure air compressors. spray gun lvlp A typical VLP system will have a high pressure needle and an atomization control. The needle, which is typically made from fiberglass, pushes the liquid paint through the atomization feeder. This feeder pushes a continuous stream of air through the needle/atomization chamber. The atomization chambers are designed to push the paint at extremely high pressure. Because of this, it is possible to get a higher volume of paint sprayed per nozzle, allowing for more precise spraying and less wasted pressure.

The two basic ways in which the LVLP gun works is by gravity and siphon. The concept of gravity is simple. The gun will start at the lowest possible pressure and shoot the paint through the nozzle at the highest achievable pressure. On the other hand, the siphon method is rather simple. It consists of placing a siphon line from the compressor or solenoid outlet, up into the atomization chamber.

Once the gun has reached the necessary pressure to pop the paint, the air stops flowing through the nozzle. Instead, the liquid is forced through the siphon by the pressure change and accelerated into the gun. By doing this, the gun creates a vacuum and removes the air from the chamber. In essence, the gun runs without air but instead becomes a very efficient suction pump.

For those who may be unfamiliar with the basic working of the LVLP system, the way it operates is based on two primary principles. The first principle is gravity-fed system. As the name implies, this is where the gun shoots fluid at very high pressure off of gravity. This causes the paint to be propelled through the nozzle at very high velocity. For those who may not know, gravity-fed systems allow for greater surface area of the finished product because there are no restrictions as to how the fluid is expelled.

On the other hand, a cast-to-cast system involves more complicated procedures for the application of the fluid. First, the gun metal is heated so that the forged metal body can be applied to the wall and capped. Next, the gun metal is hammered and the forged metal is placed inside the cavities. Finally, the cavities are filled with the desired type of fluid, which is then expelled through the nozzle.

For those who are wondering if low air pressure can affect the performance of the spray guns, the answer is yes. If low air pressure is experienced during the application process, the particles will not be ejected as they should. Instead, they will be forced to fall back into the cavities instead. This will cause poor application results and, in turn, poor final results. Therefore, when spraying objects using a low volume spray gun, it is advisable to use low pressure so as to ensure flawless and even spray coverage.

Low volume CFDs have a number of advantages over other types of spraying equipment. First, because the gun requires low pressures, it offers a cost effective solution to applications where high air consumption is a factor. Secondly, this type of gun allows for a faster drying time and therefore allows for faster production levels. Finally, a good quality gun produces high pressures and superior results. The advantages of this kind of gun are clear.