

Using a Compressed Air Paint Spray Gun

A compressed air sprayer is the best way to rapidly put down a flat, even coat of paint. The paint is mixed with compressed air, which atomizes your paint.

Compressors, which are powered by either electricity or gasoline, take in air and compresses it in a cylinder, diaphragm or rotating blades, then expels it in the form of high pressure air.

There are compressors which deliver pressurized air directly to the [spray gun](#), and other types which store it in a metal receiver tank which delivers air on an as needed basis. Either one can be used.

How does a Paint Spray Gun Work

As you pull the trigger, a needle valve opens in the nozzle tip of the gun where the paint comes out.

This tip has an air cap that directs compressed air into the stream of paint coming from the gun's reservoir container. In a paint spray gun, paint is delivered through either gravity feed, suction feed, or pressure feed.

With the gravity feed, you have a paint container that is mounted on the top of the gun; paint drips down into the nozzle. For suction feed guns, you have a specialized air cap producing low vacuum in the fluid tip.

Paint is delivered via overall atmospheric pressure from a container on the bottom of the gun. Compressed air spray guns are of the pressure feed type, compressed air is used instead of the atmospheric pressure/vacuum system.

Getting Ready

Since overspray is inevitable, you must protect areas surrounding the surface being painted.

Give a straight line to the edges of the surface with masking tape, laying newspaper behind the edge. For larger areas, plastic tarp or sheeting can be used; staple, tape or weight it down to fix in place.

Paint **should be thinned** before spaying. It will smooth out better on the surface and the nozzle fluid tip will be less likely to clog up.

To thin, add the proper solvent for the paint type, stirring to a smooth consistency that easily runs from the stirring stick's surface. Strain any older paint if it has

developed a skin. Straining it through a cheesecloth several times will remove any lumps or particles.

Spraying Paint

First, adjust the gun to get the best shape and density of spray. To do this, the air control screw knob is turned clockwise to make the cone of spray narrower, or counter clockwise to widen the cone. Increasing the cone size requires adjusting the paint flow, using the fluid control screw knob.

The shape that gives the most coverage is a **fan pattern**. It is created by the position of the air cap horns; vertically set they produce a vertical fan, and horizontally set produce a horizontal fan pattern.

Hold the sprayer gun 8 to 10 inches from the surface to be painted. Depress the trigger and move the gun in steady parallel passes from side to side.

At the end of each pass, direct the spray off the work onto the newspaper or plastic tarp, while at the same time releasing the trigger. This prevents paint build-up at the sides of the pass.

Give each pass a slight overlap with the previous one.

Be careful to keep the gun the same distance from the surface all through the pass. Also make sure you keep the pass parallel to the floor (it you are painting a wall, for example) throughout the pass, rather making your spray in an arc motion.

Spray Paint Problems

If your spray gun is **spitting intermittently**, you need to stop and fix it or you will get uneven coverage. Spitting is caused by a needle valve with dried out packing rings. The dried out packing lets air seep into the fluid passages, or dirt to enter the fluid top seating.

Disassemble the nozzle and apply a drop or two of machine oil to the packing. With a shop rag dampened with paint thinner, clean the fluid tip, seating and spray gun body in that area. Reassemble the nozzle tip.

Spattering of paint is caused by either too much air pressure for the paint or not enough atomization. It will produce a speckled and uneven looking painted surface. You need to adjust your air pressure level to eliminate this problem.

An **uneven spray pattern** that deflects or is heavy on one side and light on the other is usually the fault of uneven pressure due to an air hole blockage. You need to clean out the nozzle tip as outlined above.

Clean Up

When you are finished, any remaining paint should be poured out of the container. Spray the proper thinner solvent for the paint type through the gun until it comes out clear.

The container should then be wiped clean with a rag dampened in the same solvent. Disassemble the air cap and fluid tip. Wipe them clean, making sure all air passages are clear of paint and debris.