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Spray Gun Maintenance

Avoid problems and lengthen the life of your tool with two simple acts.

As with any tool, a properly working spray gun is a joy to use. On the other hand, one that isn't working well can go unused or even end up in the trash if you don't know how to resolve the problems.

You can avoid most problems by keeping your spray gun well maintained. There are three levels of maintenance: lubricate the moving parts, clean the spray gun and rebuild the spray gun.

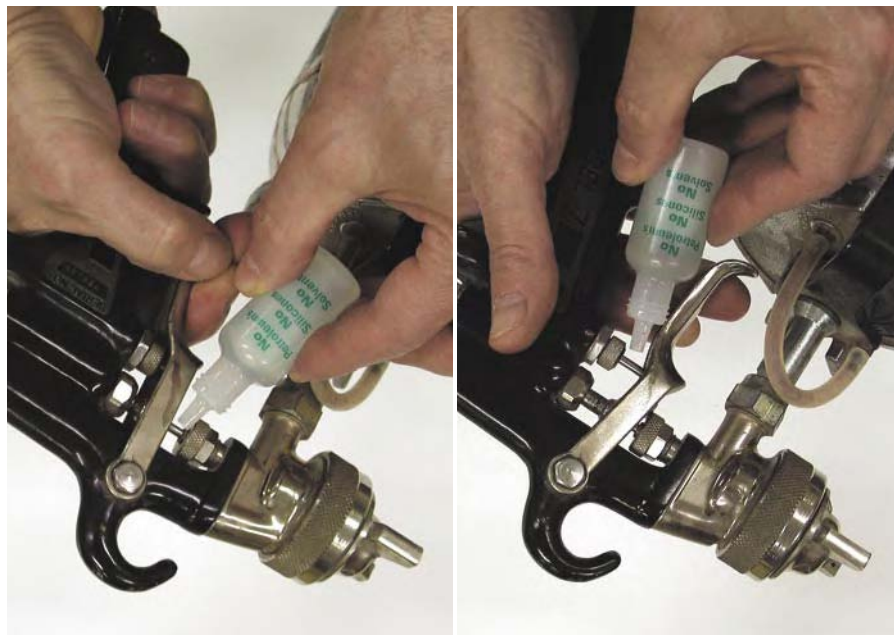
I cover lubricating and cleaning below. Rebuilding can be accomplished in two ways. You can do it yourself with a kit of springs, washers and packings that you buy from the manufacturer, or you can have someone rebuild the gun for you.

If your spray gun is sold at an auto-body supply store, you can usually buy the kit there, and most of these stores know someone who will rebuild your gun for you. Some manufacturers of turbine guns supply kits and a rebuilding service, but not all. Spray Gun Repair (860-928-1802 or spraygunrepair.com) rebuilds most guns.

The need to rebuild a spray gun should be as rare as the need to rebuild a router unless you let paint or finish cure in the gun. You can avoid the need for rebuilding for a very long time, and maybe forever, if you follow these simple lubricating and cleaning procedures.

Lubricating a Spray Gun

There are two parts on a spray gun that should be lubricated often: the fluid-needle packing, which is similar to a gasket and located just in front of the gun's trigger, and the air valve just behind the trigger. You can also lubricate the pin that the trigger swings on and the screw threads at the back of the gun. But I don't find either of these critical.



Photos by the author

It's important to keep the fluid-needle "packing" oiled and flexible so it seals around the needle to prevent leaking. The packing is held in place by the packing nut, which is just in front of the trigger. Lubricate the packing without removing the nut by applying oil to the needle (left). If your spray gun has an exposed air-valve needle behind the trigger (right), you should keep it oiled also. Use oil that is free of silicone and petroleum distillate.

Use a type of oil that doesn't contain silicone or petroleum distillate (thinner). Mineral oil is a good choice. Auto-body supply stores and many spray-gun manufacturers sell a handy oil-containing squeeze bottle with the correct oil.

If you use the spray gun on a daily basis, you should perform the lubrication at the end of each day. Otherwise, you can do it at the end of each project, before you put the spray gun away.

Cleaning a Spray Gun

If you spray only shellac or lacquer, it's rare that you should have to disassemble the spray gun and clean it. The thinner makes the gun self-cleaning because alcohol or lacquer thin-

ner dissolves any finish that might have hardened and caused blockage.

However, spraying any other finish or any paint can lead to blockage if you don't clean the spray gun adequately after each use. The easiest way to do this is to spray solvent through the gun. To remove blockage you will have to do a thorough cleaning.

Some manufacturers sell cleaning kits containing brushes, picks and needles of proper sizes for cleaning their guns. For this article I'm using a kit sold by Spray Gun Solutions (303-424-3741 or spraygunsolutions.com), which includes cleaning tools that fit any spray gun.

For a cleaning solvent, I'm using lacquer thinner. This is the most effective solvent to use, even if the finish you are cleaning is water-based. I'm using a Binks #7 spray gun for the photos. It's an old-fashioned high-pressure gun, but its parts photograph well. Every spray gun is a little different. Use the following as a guide for cleaning your gun.

by Bob Flexner

Bob is author of "Understanding Wood Finishing" now in its second, fully revised, edition. To purchase, visit amazon.com, your local bookstore or a woodworking supply store.

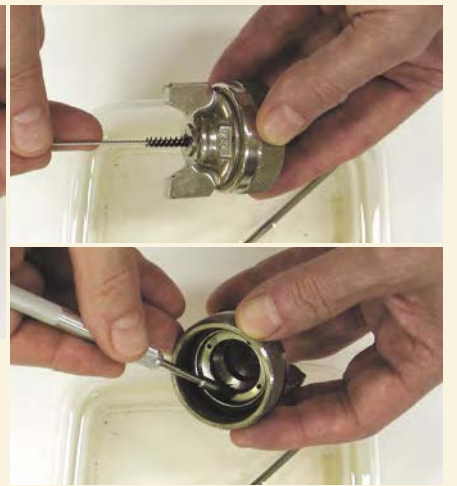
HOW TO CLEAN A SPRAY GUN



1 Remove the air cap, fluid nozzle, fluid needle and plastic air tube, and soak them in lacquer thinner. After soaking you may be able to clean these parts adequately using compressed air. Otherwise, perform the following steps.



2 Scrub the air cap inside and out using various brushes. Be very careful if you use a toothpick because it may break off and become lodged, which will create greater problems. You can use an old toothbrush for most surfaces.



3 If necessary, clean the atomization holes using a needle of some sort. For example, the needle on a small brass safety pin works well. Don't damage these holes by using a metal that is harder than the metal in the cap or larger than the holes themselves, or you may end up having to replace the air cap.



4 Follow the same cleaning procedures on the fluid nozzle that you used on the air cap.



5 Wipe the fluid needle with solvent and a cloth to remove any finish or paint stuck to it. Don't use an abrasive such as steel wool on the tip or you will damage it.



6 Remove all blockages from the air tube.



7 Use a round bristle brush to scrub the inside of the fluid tube.



8 Use a brush, metal pick or toothpick to remove any blockage from the air inlet hole on the top of the spray-gun cup. The dimensions of this hole aren't critical like on the air cap and fluid nozzle.



9 Finally, use a round bristle brush to scrub the fluid chamber and fluid inlet. Then reassemble the gun. **PW**



QUALITY SUPPORT

For spray-gun support, contact the company that sold you the gun or look at the manufacturer's web site, which often has very helpful information. The availability of customer support is one of the most important considerations when choosing a brand of gun to buy.

—BF