

Cleaning Your Spray Gun

Keeping the spray gun spotlessly clean insures that it sprays properly. Cleaning methods can range from simple hand cleaning to using a gun washer. The method used should follow national, regional, and local regulations.

The spray gun should be cleaned immediately after each use. Newer waterborne paints and clear coats dry very quickly and are very difficult to remove when dry.

Cleaning the air cap and fluid nozzle is particularly important. Partially clogged holes affect the spray pattern and spray gun performance.

Proper gun cleaning can be performed using the following methods:

Guns with metal gravity cups:

- 1) Remove gun from air supply, empty remaining paint from cup, and fully trigger the gun to drain remaining paint from fluid passages. Solvents, cleaners, and paints should always be poured or expelled into an approved container.
- 2) Squirt cleaner into the cup, slosh it around, and fully trigger the gun to expel the dirty cleaner. Repeat again and wipe cup out with a clean lint free towel.
- 3) Remove cup and remove barrel filter if used. Clean filter or replace and reinstall into cup and reassemble cup onto gun.
- 4) Squirt more cleaner into cup and trigger gun until it is completely expelled.
- 5) If a waterborne cleaner is used, the gun's fluid passageways should be flushed out immediately after cleaning with a fast drying solvent such as acetone to displace any water from the fluid passageways. This is very important to help prevent possible internal gun corrosion.
- 6) Remove the air cap, squirt it with cleaner or immerse it in cleaner, and brush away paint residue using a non-metallic, soft bristle brush. Rinse off the cap and wipe with a clean lint free towel and blow dry completely.
- 7) If paint residue is seen inside any of the cap holes, it must be cleaned out using appropriately sized, non-metallic, soft cleaning brushes or wooden picks. Metal picks can damage holes and cause poor spray performance. If metallic picks are used, extreme care must be exercised.
- 8) Blow off exterior of gun, fluid nozzle, and through the fluid passageway. Reassemble cap onto gun. The gun is now ready for the next job.

Guns with disposable gravity cups:

- 1) Remove gun from air supply, invert gun and cup, and fully trigger gun to drain paint back into cup.
- 2) Release trigger and remove cup from gun. Turn gun upright.
- 3) If used, remove and clean barrel filter.
- 4) Squirt cleaner into fluid adapter on gun while fully triggering gun to expel dirty cleaner. Repeat until cleaner is fairly clean coming out of gun.
- 5) Squirt some cleaner into the fluid adapter and brush out the adapter with a properly sized brush. Rinse out the gun and adapter with cleaner until the cleaner is clean coming out of the gun. Install a clean barrel filter if desired, and finish cleaning procedure per steps 5 through 8 above.
- 6) Store or dispose of paint remaining in cup as desired.

Gun washers

Gun washers reduce the amount of time spent cleaning guns, and allow the painter to do other tasks while the gun is being cleaned. Gun washers typically are dedicated to the type of paint sprayed, solvent or waterborne, based on the chemical cleaners used in them. Some special procedural steps must be taken to avoid damage to the gun being cleaned:

- 1) Any pressure gage must be removed from the gun if possible before cleaning so that the gage isn't damaged by the cleaning solution.
- 2) The gun's trigger must be held fully open during the cleaning procedure to permit complete flushing of the fluid passageways.
- 3) The gun's air inlet should be connected to a pressurized airline inside the gun washer during the cleaning procedure. This keeps cleaning solution from entering the air passageways in the gun, and this prevents seals from swelling, parts from sticking together, and possible corrosion of parts. If the gun washer doesn't have a pressurized airline for this purpose, the gun should be positioned in such a way that the front end of the gun is aimed down and the air inlet capped. This will prevent the cleaning solution from flowing back into the gun's air passageways.
- 4) The gun should always be removed from the gun washer immediately after the cleaning cycle is finished. This keeps seals from swelling, contaminants from sticking to gun surfaces, and possible corrosion of parts.
- 5) If a waterborne cleaner is used in the gun washer, the gun's fluid passageways should be flushed out immediately after the cleaning cycle with a fast drying solvent such as acetone to displace any water from the fluid passageways.
- 6) Fluid passageways must be thoroughly blown out immediately after removing the gun from the gun washer to eliminate any residue and to prevent any possible corrosion.
- 7) The exterior gun surfaces must be wiped off with a clean lint free towel immediately after removing the gun from the gun washer. This removes any solution and dries off the gun to keep the gun tack free and looking good.
- 8) Air caps must be hand cleaned separately after removing them from the gun washer. This allows thorough cleaning of all cap surfaces and holes. Proper size non-metallic, soft bristle cleaning brushes must be used along with wooden picks to prevent damage to the cap. As stated above, metal picks can damage holes and cause poor spray performance. If metallic picks are used, extreme care must be exercised.
- 9) Gun washer cleaning solution must be monitored and changed or reconditioned frequently to allow proper cleaning and to prevent possible corrosion of gun parts. Waterborne cleaning solutions should be in the neutral PH range of 6 to 8 to prevent corrosion of gun parts. Corrosion may occur as waterborne cleaning solution often becomes more acidic the longer it is used. Corrosion can occur with all types of metal spray gun finishes. Therefore, the best way to prevent corrosion of a spray gun is to follow the cleaning procedure steps indicated above.

Spray guns should also be cleaned and inspected at least once a week to insure proper spray performance. If the gun isn't performing as it did when it was new, the gun should be fully disassembled, cleaned, and inspected for loose or missing parts. The spray gun manufacturer's service manual should be consulted for proper disassembly and assembly. Care must be taken to insure the correct quantity of seals is installed in the correct orientation.

Suction and pressure feed guns are cleaned in manners similar to those used with gravity feed guns. Gravity or suction cups can be cleaned in gun washers along with the guns at the same time. Many gun washers can also flush out pressure feed lines while the gun is being cleaned. An alternative method for cleaning pressure feed guns and hoses is the DeVilbiss Solvent Saver. The DeVilbiss Solvent Saver is a pulsed solvent cup system which quickly cleans pressure feed hoses and guns with a minimum amount of solvent.

DeVilbiss highly recommends and offers the following products which are designed to help a painter clean and maintain any spray gun in top condition:

Spray Gun Cleaning Kit, part # 192212 contains a variety of cleaning brushes and picks.

Spray Gun Lube, part # 181001 (SSL-10) is a silicone free lubricant designed specifically for spray guns. It keeps guns working smoothly and should be applied regularly for optimum operation.

Cleaning Bottle, part # 192316 (DPC-8) is a squeeze bottle with a flexible tube. It allows easy flushing of passageways and air cap holes.

Cleaning Brush, part # 802212 (DPC-44) is a tapered brush designed to easily clean out fluid adapters for disposable cups and reusable lids of disposable cup systems.

Solvent Saver, part # 180037 (HD-503), and KB Adapter Fitting and Hose Kit, part # 192026 (KK-5052) are a pulsed solvent cup system which quickly cleans pressure feed hoses and guns with a minimum amount of solvent.