

Fluid Injection Hazard: General Safety

- Airless spray equipment generates very high fluid pressure. Spray from the gun, leaks, or ruptured components can inject fluid through the skin and into your body and cause extremely serious bodily injury, including the need for amputation. Also, fluid or splashed into the eyes or onto the skin can cause serious damage.
- Never point the spray gun at anyone or at any part of the body. NEVER put hand or fingers over the spray tip.
- Always have the tip guard in place on the spray gun when spraying.
- Always follow the pressure relief procedure before cleaning or removing the spray tip or servicing any system equipment.
- Never try to stop or deflect leaks with your hand or body.
- Be sure equipment safety devices are operating properly before each use.

Spray Gun Safety Devices

- Be sure all gun safety devices are operating properly before each use. Do not remove or modify any part of the gun; this can cause a malfunction and result in serious bodily injury.

Safety Latch

- Whenever you stop spraying, even for a moment, always engage the gun safety latch in the closed or ON SAFE position, making the gun inoperative. Failure to engage the safety latch can result in accidental triggering of the gun.

Diffuser

- The gun diffuser breaks up spray and reduces the risk of fluid injection when the tip is not installed. Check diffuser operation regularly. Follow the pressure relief procedure, then remove the spray tip. Aim the gun into a grounded metal pail, holding the gun firmly to the pail. Using the lowest possible pressure, trigger the gun. If the fluid emitted is not diffused into an irregular stream, replace the diffuser immediately.

Tip Guard

- Always have the tip guard in place on the spray gun while spraying. The tip guard alerts you to the fluid injection hazard and helps reduce, but does not prevent, the risk of accidentally placing your fingers or any part of the body close to the spray tip.

Trigger Guard

- Never operate the gun with the trigger guard removed. The trigger guard reduces the risk of accidentally triggering the gun if it is dropped or bumped.

Spray Tip Safety

- Use extreme caution when cleaning or changing spray tips. If the spray tip clogs while spraying, engage the gun safety latch immediately. Always follow the pressure relief procedure, below, and then remove the spray tip to clean it.
- Never wipe off build-up around the spray tip until pressure is fully relieved and the gun safety latch is engaged

Pressure Relief Procedure

To reduce the risk of serious bodily injury, including fluid injection, splashing in the eyes or on the skin; or injury from moving parts, always follow this procedure whenever you shut off the spray equipment, when checking or servicing any part of the spray system, when installing, cleaning, or servicing any part of the spray system, when installing, cleaning or changing spray tips, and whenever you stop spraying.

1. Engage the gun safety latch
2. Shut off the power supply to the pump and close any bleed-type master air valves in the air supply.
3. Disengage the gun safety latch.
4. Hold a metal part of the gun firmly to the side of a grounded metal pail, and trigger the gun into the pail to relieve pressure.
5. Engage the gun safety latch.
6. Open the pump fluid drain valve, having a container ready to catch the drainage.
7. Leave the drain valve open until you are ready to spray again.

If you suspect that the spray tip or hose is completely clogged, or that pressure has not been fully relieved after following the steps above, very slowly loosen the tip guard retaining nut or hose end coupling and relieve pressure gradually, then loosen completely. Now clear the tip or hose.

Fire or Explosion Hazard

Static electricity is created by the high velocity flow of fluid through the pump and hose. If every part of the spray equipment is not properly grounded, sparking may also occur, and the system may become hazardous. Sparking may also occur when plugging in or unplugging a power supply cord. Sparks can ignite fumes from solvents and the fluid being sprayed, dust particles and other flammable substances, whether you are spraying indoors or outdoors, and can cause a fire or explosion and serious bodily injury and property damage. Do not plug in or unplug any power supply cords in the spray area when there is any change of igniting fumes still in the air.

Additional Resources

According to OSHA Spray operations can present both physical and health hazards to those involved. The OSHA ventilation standard for general industry ([29 CFR 1910.94](#)) defines a "spray-finishing operation" as the "employment of methods wherein organic or inorganic materials are utilized in dispersed form for deposit on surfaces to be coated, treated, or cleaned.

[OSHA - Spray Finishing](#)

[Oregon.Gov – Spray Finishing](#)