

ac products, inc.

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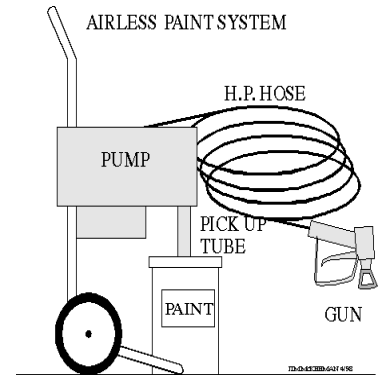
Airless Spray Equipment FAQ's

How is airless equipment different?

Airless spray equipment is different from conventional air spray equipment. Conventional air spray systems use pressurized air to move the paint through the gun and then atomize it into a spray. Airless spray equipment uses a pump to move and atomize the paint. No air is involved in the airless system hence the name.

How does the airless system work?

Airless paint systems usually consist of a pick up tube or paint reservoir, a pump, a high pressure hose and a spray gun. The pump draws the paint in and then pressurizes it for delivery to the gun through the high pressure hose. The fluid pressure is usually in the 2,000 to 3,000 pounds per square inch (p.s.i.) range. When the trigger on the gun is pulled, the paint is forced through the tip. This high pressure paint passing through the spray tip causes the paint to atomize and form a spray fan.



Why is airless better than conventional air spray?

Because airless systems are not limited by the forces of pressurized air, they can typically spray (atomize) much thicker liquids and deliver high volumes when needed. It is for this reason that airless paint systems are popular with painting contractors and for industrial applications.

Why would I want to use a thicker coating?

Higher viscosity or thick coatings such as AC Products Temporary Protective Coatings (TPC's) typically provide several benefits over thinner ones. Thick coatings usually require less material to do the same job, tend to be more resistant to running (thixotropic) and may dry faster since they usually contain less solvent.

How do I select an airless system that is right for me?

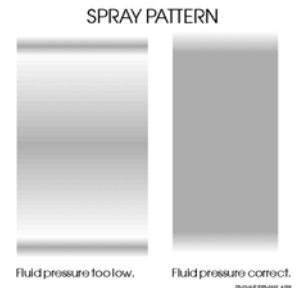
Almost any airless spray system will spray AC Products Temporary Protective Coatings. These products have been optimized for use with airless equipment and typically may be applied in a single application! We would recommend a system that is capable of producing 2500-3000 psi of fluid pressure and then match the pump capacity and the tip size to the size of the job. Generally the higher the pump capacity the better. If you select a pump that is too small or a spray tip that is too large, the pump may run constantly when spraying and may not be able to maintain a high enough pressure to properly atomize the coating.

Are there any airless units that will not work with these coatings?

Try to avoid pumps with a capacity lower than 0.5 gallons per minute. Smaller and lower quality units will have difficulty drawing the coating up into the pump. Avoid the type of sprayer which can be held in one hand (the pump is in the gun). (Figure 2.) This type of sprayer is best suited for water thin paints and stains and will not atomize thick coatings.

How do I adjust the sprayer for the best performance?

There are typically only two variables controlling the way airless units spray, tip size and fluid pressure. Larger tips will deliver more coating and require the pump to work harder to maintain pressure. High viscosity coatings require larger tip sizes than low viscosity coatings. The best performance can be obtained by spraying at the lowest possible fluid pressure that will produce a well atomized and even spray fan. Too much pressure will only increase overspray and the rate of tip wear.



What is an air assisted airless?

Air assisted airless is an airless unit with a spray gun that is supplied with compressed air to assist in breaking-up or atomizing the coating spray fan.

I have seen airless units that use compressed air. Are they still airless?

Yes, this type is either air assisted airless or it uses an air powered pump to pressurize the coating. Most airless sprayer pumps will be powered by either electric motor, gas engine or a compressed air pump.

How do I clean an airless sprayer after use?

You should follow the manufacturer's instructions for your particular unit. It is usually acceptable with airless equipment to leave water based or solvent based coatings in the sprayer for short periods of time (24-48 hours). Since these coatings require evaporation to cure, they will not set up in the gun. Flush the equipment with the appropriate solvent (warm soapy water works well for water based products), clean all filters and be sure to leave a conditioning liquid in the sprayer to prevent corrosion.

What about filters for reducing tip clogging?

Using a correctly sized filter will reduce but may not eliminate tip clogging. There are several locations that may incorporate filters on spray equipment. The strainer on the pickup side of the pump will keep foreign objects and heavy paint skins out of the pump. Manifold, gun and tip filters keep smaller particles from clogging the spray tip. The larger the surface area of the filter, the longer it will last. For tip sizes of .011"-.015" use a 100 mesh (149 micron) filter. For tip sizes .017" and larger use a 60 mesh (250 micron) filter. Clean filters with a soft nylon brush and an appropriate solvent. Replace the filter when it will no longer wash clean.

Should I be concerned about the high pressures involved when using airless equipment?

Airless spray equipment is relatively safe. However, it does pose an injection hazard. Since the coatings may be coming out of the spray tip in excess of 2000 pounds per square inch, extreme care should be exercised when spraying. All spray tips should have a tip guard attached to keep body parts away from the tip. Otherwise high pressure paint could be injected through the skin if the gun is triggered with the tip in contact with or very close to the skin. Keep your equipment in good working condition, replace worn or kinked hoses and repair all leaking fittings to prevent spills and accidental discharge.