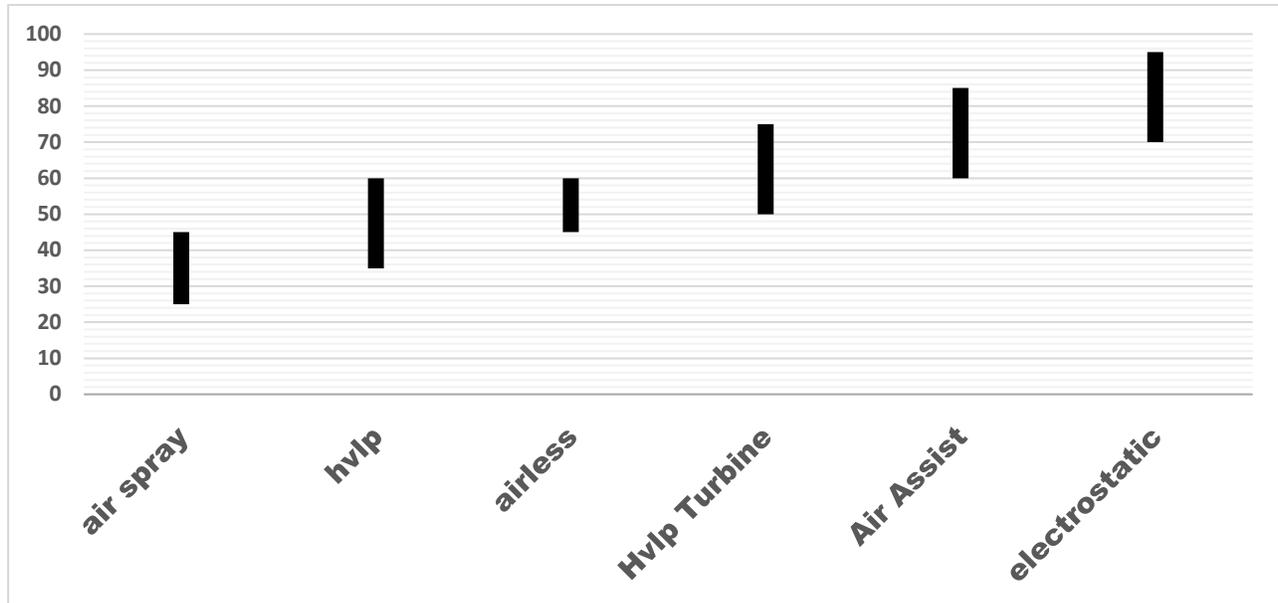
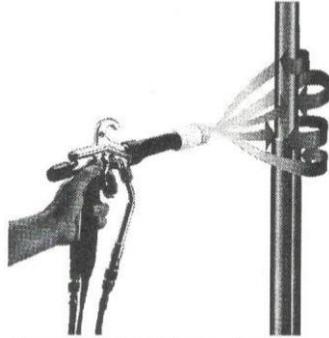


TRANSFER EFFICIENCY CHART



Electrostatic spray systems charge the paint at the spray tip. The paint particles are charged as they move through the electrostatic field, and are then attracted to the grounded objects. When used properly, the result can be a very high transfer efficiency with a relatively uniform mil thickness on all sides of the target object. A variety of electrostatic systems



are available, including air, airless and air-assisted airless. Applications include chain link fences, wrought iron, lockers, and metal office furniture. Transfer efficiency ranges from about 70 to 95%.

HVLP systems are available using different air sources, but atomizing material in similar manners.

Portable Turbine: Most commonly found in the painting contractor market for portable applications, this type of HVLP system uses a centrifugal blower motor as the low pressure air source. Transfer efficiency ranges from about 50 to 75%.

Direct Hook-up Guns: Direct hook-up guns require an air compressor as the air source. These spray guns are designed to reduce the incoming high pressure air to a much lower higher volume of air. This gun type generally requires about 5-15 CFM. They are used both on site and in stationary booth applications. Transfer efficiency ranges from about 35 to 60%.

Air-Assisted Airless sprayers offer fine **finish** capabilities combined with a medium production rate. Air-assisted Airless technology uses a combination of airless and air spray atomization. Fluid pressure ranges from 500 to 1500 PSI, with air

intermixed at 10 to 30 PSI. The systems typically are found in stationary and portable fine finish production applications. Transfer efficiency ranges from about 60 to 85%.

Airless sprayers atomize coatings by forcing the paint through a small tip orifice at very high fluid pressure. Typical working fluid pressures range from 800 to 3200 PSI. Airless spray transfer efficiency is much higher than conventional air spray and offers the ability to spray the widest variety of coatings. Airless sprayers typically are portable with electric air, and gas operated available. The primary application is construction and production work. These systems are capable of covering large areas in a short amount of time. When used properly with correct fluid pressure and tip size, airless systems handle the widest range of applications. As a result, it is rare to find a commercial painting contractor who does not own or need airless spray equipment. Transfer efficiency ranges from about 45 to 60%.

Conventional Air spray guns atomize material at high air pressure (20 to 80 PSI). The negative aspect of conventional air spray is the sometimes excessive overspray and bounce back that results from high air pressure. Conventional air spray creates excessive turbulence at the air cap for superior atomization, but which also contributes to additional overspray. Bounce back results from the material being discharged from the nozzle, moving to the substrate at a very high velocity and bouncing off the substrate with the air. Conventional systems are used on finishing work ranging in size from small jobs to production lines. Transfer efficiency ranges from about 25 to 45%.