

- ! increase productivity and lower labor costs because of reduced transfer tasks
- ! lower solvent cost and reduced solvent wastes because interim containers do not need to be cleaned

Use Heat to Obtain Desired Coating Viscosity

Traditionally, viscosity adjustments to coatings have been made by adding organic solvents as a reducer to the coating material. Also, as the ambient temperature of the work place changes, the viscosity of the coating being applied changes, which causes operator problems and gun adjustments. Heat, instead of solvent, can be used in some cases to adjust and maintain the incoming coating to the desired viscosity.

Benefits

- ! less solvent usage
- ! less waste solvent and VOC emissions
- ! more consistent viscosities
- ! faster curing
- ! allows the use of higher solids coatings
- ! improves coating flow and finish appearance

Spray Equipment Maintenance

Regular care and maintenance must be performed on all equipment, especially spray equipment, to keep it in optimum working condition, prevent breakdowns or malfunctions, and waste. Some fundamental measures include:

- ! keep feed tanks clean of contamination such as dirt, dried coating particles, and dust, by keeping them covered whenever possible
- ! keep tanks agitated to prevent skim from forming and solids from settling
- ! locate the compressor where it can intake clean air and maintain it properly by checking filters and draining condensate
- ! select the appropriate spray gun attachments - needle, nozzle, air cap - for each coating utilized
- ! maintain proper fluid and air pressures
- ! correlate air pressure at the spray gun with the air pressure of the coating tank to maintain proper air pressure
- ! perform solvent pump maintenance to prevent leakage
- ! prevent spray gun leakage by placing only the front end of the gun in solvent when cleaning, lubricate bearings and packings of the spray gun daily
- ! do not spray and varnish in the same booth as it may cause spontaneous combustion
- ! whenever possible, do not spray different types of coatings in the same booth as it may make the resulting wastes mixed and more difficult and costly to dispose of or recycle
- ! use closed paint gun cleaning units to control VOC emissions and exposure
- ! equipment should be cleaned as soon as possible after use before coating cures and is more difficult to remove

Ashley Furniture Industries, Inc.
Case Study
Whitehall, Wisconsin

Solvents were used to clean and flush spray application equipment between color changes and for thin coatings. Only new solvent was used and the spent solvent managed as hazardous waste.

After reviewing cost, capacity and ease of operation of distillation equipment, the company installed a batch solvent distiller, cooler for condenser water, pump and plumbing and electrical hookups.

While the project initially cost \$23,000, Ashley Furniture realized a payback period in just 6-1/2 months.