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The Leading Name in Corrosion Prevention®

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AIRLESS SPRAY GUN OPERATIONAL HINTS

DEFECTS	CAUSE	CORRECTION
Coarse spray	Low pressure	Increase air pressure.
Thin distribution in center of pattern, "horns"	Wrong tip Material too viscous	Use next higher nozzle group (larger orifice and/or narrow spray angle). Contact Daubert Cromwell for specific viscosity adjustment instructions.
Excessive fogging	High pressure Choice of nozzle Material too thin	Reduce air pressure to a minimum, with satisfactory pattern distribution. May use next lower nozzle group, but only if less flow or larger spray angle is also desired. Use less thinner.
Pattern too wide	Spray angle too large	Use smaller spray angle. (If coverage is okay, try tip in same nozzle group.)
Pattern too narrow	Spray angle too small	Use larger spray angle. (If coverage is okay, try tip in same nozzle group.)
Too much material	Nozzle group too high	Use next lower nozzle group. Material too thin. Air pressure too high.
Too little material	Nozzle group too low	Use next higher nozzle group.
Craters of pock marks; bubbles on work	Solvent balance	Contact Daubert Cromwell for specific viscosity adjustment instructions.
Coating fails to close and smooth over	Material too viscous	Contact Daubert Cromwell for specific viscosity adjustment instructions.
Thick skin on work	Application too heavy	Reduce air pressure and/or use tip in next lower nozzle group.
Clogged orifice	Orifice clogged. Screens not properly sized for orifice.	Clean carefully. Use smaller-mesh screens (70 mesh foot, 70 or 100 mesh line screen).
Spray pattern irregular, deflected	Orifice clogged Tip damaged	Clean carefully. Replace with new tip. (Harder material, if necessary.)
Clogged screens	Extraneous material in paint Coarse pigments Poorly milled pigments (paint pigments flocculate and cover over screen) Incompatible paint mixture and thinners	Clean screens. Use 40 mesh screen, if orifice size allows. Use coarser screens, larger orifice tips (such as 8001). Obtain ball-milled points. Contact Daubert Cromwell for specific viscosity adjustment instructions.

TROUBLE SHOOTING GUIDE FOR AIRLESS SPRAY EQUIPMENT

Here are some field problems sometimes encountered when using airless spray equipment to apply undercoating. Some basic maintenance suggestions follow, together with tips to remedy problems.

MAINTENANCE OF EQUIPMENT

NOTE: Remember, the pump manufacturer has a manual for service operation maintenance and spare parts. Read it and follow directions for trouble-free operation.

1) Pumps in daily use should be cleaned at least every week.

2) If the pump is to be stored for any length of time, it must be cleaned before storing.

3) Never let pump remain in an empty drum overnight. The result of this practice is clogged ports or foot valves. Always place pumps in a fresh drum of product, or clean pump immediately.

RECOMMENDED CLEANING INSTRUCTIONS

1) Immerse pump in recommended solvent. Contact Daubert Cromwell or consult applicable Product Information Sheet for recommended cleaning methods. (Be sure to reduce the air pressure before flushing.)

2) Pump approximately two quarts of cleaning solution through the complete system, leaving the tip and filter intact.

3) Remove the tip and filter, then repeat the procedure as outlined in Number 2. Flush or soak at least three minutes, using the recommended cleaning solution.

4) Clean filter and tip with recommended cleaning solution. Do not use any object such as a pin to clean the tip. If the apparatus is not completely clean, try pressing air hose to tip and use the air pressure to clean tip.

NOTE: Before use of recommended cleaning solution, consult the applicable Material Safety Data Sheet for safety instructions. Local regulations for emissions and disposal should be determined before applying any of these procedures.

ANALYZING FIELD PROBLEMS

PROBLEM: Material will not spray.

A) Check air lines to compressor.

B) Check air pressure gauge to see if correct recommended pressure is being used.

C) Try increasing air pressure gradually. (This will also, at times, blow tip clean if clogged.)

D) Remove and clean both filter and tip.

PROBLEM: Material sprays, but in an uneven pattern.

A) Check air pressure.

B) Spray material for half a minute, shut gun off, and, if pump continues after gun is shut off, pump is worn and an uneven flow of material is reaching the gun. (Equipment won't last forever. Contact your equipment dealer for specific recommendations.)

C) Tip should be removed and cleaned; it may be partially clogged.

D) Material may be too cold. Minimum recommended temperature for spraying is about 40°F (4°C). Best results are achieved where material is 60 - 90°F (18 - 32°C).

E) Filter may be clogged; remove and clean.

PROBLEM: Material building up and dropping off.

A) Check tip. This is a sure sign that tip is either worn or damaged, causing an uneven spray pattern.

B) Check air pressure. Pressure should not drop more than 5 psi with a 15:1 pump, or 15 psi with a 45:1 pump.

C) Try increasing air pressure. Pump may be worn and not giving an even flow of material.

D) Be sure the surface being undercoated is not excessively dirty.

Most airless spray equipment on the market today is of good quality, but all must be maintained properly to give the ultimate in service. Nearly all spraying problems can be solved or minimized by knowing how to operate the equipment and by keeping it clean and in good repair.

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