

## **HAND SPRAY TROUBLESHOOTING**

**Problem:** Sags or runs

**Description:** Tears or curtains of paint on vertical or inclined lines

**Investigate:**

- Film build may be high
- Fluid delivery may be too high
- Slow evaporation rate of paint, solvent, or reducer
- Insufficient flash time
- Gun distance too close
- Low booth temperature
- Low atomizing air pressure

**Problem:** Dry Spray

**Description:** Rough, irregular orientation of the painted surface

**Investigate:**

- Gun distance too far from surface
- Evaporation rate or reducer too fast
- Air atomizing pressure too high
- Booth temperature too high
- Booth air velocity too high
- Low film build

**Problem:** Telegraphing

**Description:** Unseen marks or patterns that show through after the application of additional coats of paint

**Investigate:**

- Contamination; hand prints etc on the surface prior to painting
- Clean up solvent may be contaminated
- Other contaminants such as conveyor lubricants, hand creams, etc

**Problem: Solvent Pop**

**Description:** Small bumps in the paint film which, under close examination, have small holes in the top. This condition is more likely to occur on edges or areas where film build is the heaviest. The surface skins over, trapping solvent underneath.

- Investigate:**
- Change to slower evaporating solvent
  - Applying lower film thickness with more flash between coats
  - First stage oven temperature is too high
  - Reducing fluid delivery
  - Reducing viscosity

**Problem: Soft Paint**

**Description:** Easy to mar or penetrate film with fingernail

- Investigate:**
- Oven temperature too low - under baked
  - Film thickness may be too high
  - Two part – catalyst level may be low

**Problem: Off color**

**Description:** Does not match master control panel

- Investigate:**
- Poor spray technique
  - Mottling, wet or dry spray
  - Settling, poor agitation of drum
  - Low film build causing transparency
  - Hiding power of paint
  - Over bake
  - Insufficient turnover of supply material
  - Contamination of lines and equipment by previous color
  - Application difference between coats, booths, painters

**Problem:** **Mottling**

**Description:** Non-uniform, blotchy appearance of metallic paint. Aluminum Particles gather together rather than maintaining even distribution.

**Investigate:**

- Gun distance may be too close
- Reducing solvent may be too slow evaporating
- Atomizing air pressure may be too low
- Fluid delivery may be too high
- Fan width may be too narrow
- Spray viscosity is too high or too low
- Uniformity or overlap of final coat is lacking
- Temperature of paint may be too low
- Booth temperature may be too low
- High voltage problems causing metallic to stand up or lay down together

**Problem:** **Cratering**

**Description:** Small rounded indentations, normally evenly spread over the affected area. Larger craters may have slightly raised edges.

**Investigate:**

- Over spray falling from proceeding of following job that is incompatible
- Paint contamination by oil, silicone, etc.
- Surface contamination may come through
- Booth not under positive pressure – contaminants being drawn in
- Oil in air lines
- Contaminants brought in on clothing
- Unbalanced spray booth that accentuates incompatibility problems