

TECH TIPS

COMPRESSED AIR FACTS

Air Drying and Air Filtration.... There is a Difference!

Air Drying - The removal of water vapor (humidity) from compressed air which is typically accomplished in one of three ways

- Desiccant (molecular sieve, activated alumina, silica gel)
- Membrane
- Refrigeration

When to use compressed air dryers

· Air dryers should be used when you want to remove or reduce the humidity levels in your compressed air system to meet the manufacturers requirements for their paint systems

Air Filtration - The removal of particulates, water, oil droplets, and oil aerosols.

This is most effective when done in stages:

- Water separator - removes bulk water, oil, and large particulates (down to 10 micron)
- Coalescing filter - removes oil, small aerosols and fine particulates (down to .01 micron)
- Activated carbon filter - removes oil vapors; eliminates odors and taste (down to .003ppm)

Where to place compressed air filtration

- Inside or near the spray booth, directly connected to your spray hose (**IMPORTANT**)
- In front of all air dryers as pre-filters
- Water separators should be placed at all air tool drops with regulators

Why do you need clean, dry air?

There are 5 main categories of paint blemishes in which contaminated air (dirt and moisture) could affect the overall appearance of a paint job.

Blistering:

Appearance: Surface will show small pimples in either the sealer or clear coat

Craters / Fish eyes:

Appearance: The wet surface is dotted with small local holes which could start at the sealer up through the basecoat and clear coat

Low gloss / Hazing:

Appearance: Lack of gloss of the clear coat which can sometimes be polished out. Severe cases may need to be repainted

Solvent pop:

Appearance: Small pops can be seen on freshly dried surfaces

Dust particles:

Can occur in all coatings. In general, it may not be sanded out with fine sandpaper (1000 grit paper) Generally speaking, these would happen with solvent based paints. If using waterborne paints, high moisture levels will make the base coat extremely slow in flash times and can easily appear in the clear coat as a blister or solvent pop.