



Pretreatment & Organic Finishing

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Responsibility is Everyone's Job

What if your boss suddenly walked in and said: "I'm promoting you. You are now in charge of everything that goes wrong."?

Most of us would probably think it was something other than a promotion. If you really think about it, however, the first person we should look to when something goes wrong is ourselves.

A List of Problems

When performing an evaluation for one client who was complaining about a lot of little problems, I was stumped about what direction to take. Going over the list of problems, it seemed to be an insurmountable mountain surrounded by a very dangerous swamp.

Finally, I decided to have several meetings with different groups of operating personnel at this shop—painters, hangers, maintenance, technical support, management, and quality control personnel. I didn't want to talk with them all at the same time. I wanted to have no more than three people at a time, with each group consisting of people from a different phase of the operation. I would let one of the three from the previous group sit in with the next group and cover the same subjects. It was surprising how different some individuals acted during the second review. The same questions, asked in a different way, produced a lot of conflicting information that was difficult to sort out.

From this one day of meetings, it was determined that the main problems were:

1. Specks and voids in paint occurring at different times of the day, or with certain colors of paint.
2. Lack of sufficient airflow into the booths to keep the fogging appearance down.
3. Strings in the paint (made up of paint, not fiber).

4. Bad spots, such as blisters or circles, in certain paints.

Some were blaming other departments for the problems, while some were blaming management for not allowing enough time to clean the equipment between color changes.

Evaluating the Problems

After investigating, we did find that there was a lack of sufficient airflow into, and out of, the booths. The filters used for incoming air were too fine, and they were using a double layer to be sure that no particulate entered from outside. The filters being used in the booth were fouling up so heavily that they would break away from the hangers and open holes, allowing large volumes of air to pull paint away from parts. This caused light and heavy areas of paint application. When this happened, the painters would increase the air pressure in the electrostatic guns, causing paint to lose some of its electrostatic charge. Paint would then build-up on the tips of the wire that introduced the charge and form a string that could break away and deposit on the surface. The excess air pressure would also cause paint to pass by the parts without wrapping around them, especially at the edges, resulting in low coverage and specks of dried paint on the surface. Sometimes, a mist of paint was transferred out of the booth and around the adjacent area, or out of the entrance door. Clean paint can be filtered through 200 mesh and still form trash.

Heaters were not being adjusted per supplier specifications for the different paints being used. Operators felt they could just average the settings and get satisfactory results. This was causing coverage that was too thick or too thin, wavy deposits, and runs and sags during baking.

Air used in the application was not being filtered to prevent oil from

leaking into the paint lines. Someone had also forgotten to order additional filters, so the old filters were being washed with solvents and reused. They felt the solvent was cleaning the filters satisfactorily, and it was even saving the company money. But, the washed filters were allowing oil to enter, and it was not so economical to process the rejects caused by this.

The use of high-solid, low-VOC paints requires operators to watch for potential problems that used to be avoided when a painter sprayed parts by sight. The manufacturer of the equipment being used in this shop was called in to give all personnel a three-day seminar on proper operating techniques. Some of the experienced operators were still reluctant to listen to "strangers."

Assigning Responsibility

Following several months of quality control meetings, we determined who should be responsible for different areas of operation. We also formed teams in different areas, so that at least two people checked behind the person performing a function to be sure it was done correctly. Now, they all have so much responsibility that they fall over each other to be sure the job is done right, and the problems have been corrected.

My wife recently retired from an elementary school where she taught remedial reading. She has worked in four schools during the last 16 years in our home town. She and I share the view that we are doing our youth a disservice, because as parents, teachers, and other role models, we are not preparing them adequately for the future in the real world where they will be evaluated on their knowledge and ability to perform. To be successful, we all need to be assertive, cooperative, coordinated and well-trained. Unless we are prepared, accepting responsibility is a hard job.

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