Finisher's Think Tank

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The Bottom Line - Make it Better

In our daily lives, we undoubtedly follow up various activities and projects, determining if there is an advantage or disadvantage. For many instances, finances in the form of cost versus economy become relevant factors. The driving force is to get the most improved situation at the least expense. This could not be more relevant or appropriate in today's metal finishing industry. Whether a supplier or end product user, we have to juggle operating costs versus price increases and competition to maintain customer relationships. Unfortunately, price increases are not just encountered once or twice a year.

This has evolved into at least three or four increases in a year. Insurance and health care coverage have gone up. Add to this fuel cost, which hits us all heavily across every facet of operation. Suppliers consume energy to synthesize, blend, package and ship products. Finishers require energy sources to maintain bath temperatures, process work and ship finished parts. We are meeting a zone in which it is very difficult to pass along price increases. This is specifically with regards to keeping the customer base, while working to expand it. This critical issue can be addressed by evaluating the bottom line, with respect to the operation. It can never be said that there are no ways to reduce operating costs. Looking at the system, improvements can be identified, which do result in lowering these costs. This certainly helps to offset the price of doing business. In fact, associated savings may keep certain areas economically stable. Let us consider some areas of change that may lower operating costs and perhaps improve the operating system.

Parts

Parts are the life blood of our industry. It is important for manufacturers to advise the plater of any changes to them. Some concerns are switching to different processing oils, heat treatment and the grade of the basis material. Any changes in the routine for these and other steps have raised some major problems in surface preparation. It is therefore important to communicate any such changes or revisions, thereby alerting the plater to practical modifications necessary in their operating cycle. Fabrication of parts is also very important. It is not unusual to advise or suggest to the customer minor alterations that would make the plater's job easier. Examples would be drilled holes to improve drainage, casting or stamping parts in an orientation that minimizes nesting in barrels and better racking. Larger bulk shipments from the customer of various parts reduce related shipping costs both ways. Some finishers may not handle certain jobs, but could do so in a joint venture with other finishers, by helping one another. Small parts for barrel finishing may be handled in a bulk surface preparation, such as ambient temperature mass finishing. This would eliminate a series of surface preparation tanks (hot soak and electrocleaners) and their rinse tanks. It would also save steps, time and effort.

Product selections

Suppliers provide a wide range of proprietary systems for just about any type of requirement. By considering surface preparation, soak cleaning can be achieved using emulsification or displacement cleaners. The benefit to displacement cleaning is that oils are continually displaced, to be removed manually or mechanically. This process extends the service life of the cleaner. It relates to less downtime, less scheduled dumps, reduced consumption of cleaner and easing the burden in waste treatment. All of these examples are realistic and can be calculated as operating costs savings.

In considering cleaners, let's take it a step further. The finisher has a choice of powder versus liquid cleaners. I make no comparison to which type is better as a cleaner. My observation is that both are fairly equivalent. As concentrates, the liquid cleaner may be slightly more expensive. However, there are operating and safety benefits that can be attributed to the liquid cleaner. These include:

- Easier and safer handling and dispensing,
- Uniform product concentrate that does not require premixing,
- 75 to 80% less sludging than powders,
- Accurate and simpler process control,
- F-006 compliance,
- Reduced inventory and
- Economical packaging.

Each benefit can be further highlighted.

Liquid cleaners can be packaged in 200 gallon or greater volume returnable totes and 55 gallon drums. Empty totes can be exchanged with the supplier with full totes, thereby eliminating disposal issues. Product totes and drums can be stored in areas further away from a potentially cluttered and tight floor space in a plating line. Product concentrates can be automatically pumped through conveniently installed plumbing directly to the cleaner tank. The set-up may include a peristaltic pump that is activated by a conductivity meter wired to a probe, dosing the required liquid cleaner to continually meet the desired operating concentration. This is a very effective means of monitoring concentration as it is related to solution conductivity. With this

set-up, the operator does not have to add cleaner manually or spend time in related functions. Less direct handling of these chemicals is a safety benefit, which should be a plus with OSHA and the insurance company. All that is required is to monitor the level of cleaner concentrate in the drum or tote. The plant chemist only has to calibrate probes and maintain their cleanliness. Automatic dosing of the cleaner will closely maintain its concentration to the initial make-up. This significantly helps to minimize rejects due to poor cleaning.

In some instances, the cleaner concentrate may be dosed in a specific ratio with liquid 50% caustic soda in the soak tank and a specific ratio in the electrocleaner tank. This allows the finisher to reduce inventory and use the same products in two cleaner tanks. In fact, where applicable, one liquid cleaner concentrate may function as a combination soak and electrocleaner in the same tank or in separate tanks, without a rinse in between.

Because liquid cleaners contain fewer solids, they are less sludging. This makes tank preparation after dumps easier and quicker. It also speeds new make-up, reducing overall downtime, so that production may resume. Due to reduced sludging, heavy metals precipitation in waste treatment is easier and more complete. It may also result in less consumption of waste treatment products. Less sludge is also very beneficial to F-006 regulation compliance.

These are some of the practical, cost effective benefits to considering liquid cleaner concentrates. Savings can really help the bottom line, offsetting expenses that continually roll along. In the next installment we will consider the benefits, in performance and cost reduction, of some plating systems and related equipment. *P&SF*

People in the News

John Dauber

FARR APC appoints Dauber to North American Sales Manager

Farr Air Pollution Control (APC), Jonesboro, AR., a leading manufacturer of dust collection equipment for indoor air quality (IAQ) control and product recovery, has announced the promotion of John Dauber to North American Sales Manager.

Dauber brings 15 years of related experience to this newly created post. He joined Farr APC in 1998 as a regional sales manager. Prior to that, he held a range of sales engineering and sales management posts in the dust collection industry. In his new position, Dauber will be responsible for Farr APC dust collection equipment sales throughout North America and will oversee the company's U.S. regional sales managers, Canadian sales engineers and representative and distributor networks. Mr. Dauber will report to Farr APC president Lee Morgan.

Farr APC is a member of Camfil Farr, the largest air filter manufacturer in the world. For information, e -mail filterman@farrapc.com or consult the website at www.farrapc.com.

New General Manager takes the helm for HOSCO Finish Systems

HOSCO, an Illinois Tool Works Company and manufacturer of paint delivery system components, located in Livonia, MI, announced the appointment of Jan Pitzer to the position of General Manager, effective July 1, 2006. In his new post, Mr. Pitzer oversees the day-to-day operation of the organization, and provides direction for the long term objectives of the company, including the expansion of existing overseas sales and development of new international markets. Mr. Pitzer succeeds Tom Boyce, HOSCO managing director, upon his retirement. Mr. Pitzer has served with HOSCO for nine years, most recently in the position of sales and marketing manager. His more than 27 years of finish process experience has contributed to multiple development projects and product introductions as well as increased product line recognition during his time with the company.

Mr. Pitzer is a graduate of General Motors Institute, Flint, MI, holds an advanced degree from the University of St. Thomas in Minnesota, and is a member of the Society of Manufacturing Engineers. He resides in Brighton, MI with his family.