

FinishingTalk

See What The Industry's Talkin' About.

MARCH 2009

VOLUME 2, ISSUE 3

DEDICATED TO DECORATIVE ADVERSITY BECOMES OPPORTUNITY

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Valley City Plating (VCP) has been around a long time—the Grand Rapids, MI-based company began providing decorative finishing services to local furniture and other manufacturers in 1897.

VCP's current owners, Jeff and Jon Rasche, acquired the company from their parents in 2002. Shortly after the current owners took over, they began experiencing problems with nickel/chrome plated parts for a major customer, Honda motorcycles.

The company currently operates out of an 82,000-ft² facility, with approximately 70 employees per-

forming buffing, polishing and decorative chrome plating of steel and brass parts for motorcycle OEMs such as Harley-Davidson and Honda. VCP also does work for furniture and gaming OEMs, and performs specialty finishing processes including antique, bright satin and satin brass and copper, black nickel and brushed chrome.

Jon Rasche recalls the difficult early days when he and his brother first took over the business. "We were burning through money, and we were investing in things like our wastewater treatment system, which was a six-figure upgrade.

Then the problem started," he recalls.

"The problem" was a severe issue with adhesion of decorative chrome plating on muffler covers for Honda's Gold Wing touring bikes and VTX cruisers. "It didn't show up until the parts were heated," Rasche says. "They discovered it when they would start the bikes at the end of the Honda assembly line. When the pipes cooled, they'd blister on the outside.

It got to a point where Honda was heating the parts with a torch before assembly to see if they were going to blister. The vast majority were failing."

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INDUSTRY EVENTS 2009

March 4-5, 2009

SFA Powder Coating Course
Philadelphia, PA
www.surfacefinishingacademy.com

March 4-5, 2009

21st Century Cleaning Tech.
Philadelphia, PA
www.surfacefinishingacademy.com

March 17-19, 2009

Middle East Coatings Show 2009
Cairo, Egypt
www.middleeastcoatingsshow.com

March 22-26, 2009

American Chemical Society 2009 National Meeting & Expo
Salt Lake City, UT
www.acs.org

March 30–April 2, 2009

WESTEC 2009 Exposition
Los Angeles, CA
www.sme.org

March 31– April 2, 2009

European Coatings Show
Nuremberg, Germany

April 7-8, 2009

SFA Powder Coating Course
San Jose , CA
www.surfacefinishingacademy.com

April 18-20, 2009

2009 MEP National Conference
Orlando, FL
www.mep.nist.gov

April 20-22, 2009

Aluminum Assn. 2009 Spring Meeting
San Antonio, TX
www.aluminum.org

April 28-29, 2009

NASF Washington Forum
Washington, DC
www.nasf.org

May 4-7, 2009

Porcelain Enamel Inst. Tech Forum
Norcross, GA
www.porcelainenamel.com

May 18 - 20, 2009

COATEXPO China 2009
Guangzhou Int'l Convention Center
www.coatexpo.cn/en

May 19 - 20, 2009

National Industrial Fastener Show-East
Columbus, OH
www.fastenershow.com

June 7 - 11, 2009

AeroMat 2009
Dayton, OH
www.asminternational.org

June 15 - 17, 2009

Sur-Fin 2009
Louisville, KY
www.nasf.org

Jun 21 - 24, 2009

ASTM Mtg on Paint & Related Coatings
Norfolk, VA
www.astm.org

Jul 15 - 16, 2009

Latin American Coatings Show 2009
Mexico City, Mexico
www.coatings-group.com

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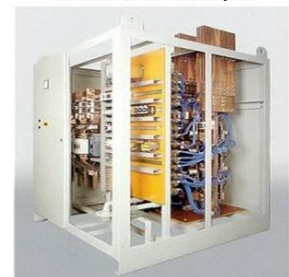


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NEWS & NOTES

Washington, D.C. The US trade deficit shrank more than forecast in December and showed the first annual drop since 2001 as the faltering economy eroded demand for imported autos and Chinese made consumer goods. The gap narrowed 6.9 percent from November to \$58.8 billion, the Commerce Department said yesterday. Imports fell 1.1 percent, while exports increased 1.5 percent, aided by stronger growth abroad.

San Francisco Intel Corp. plans to invest \$7 billion over two years to build next-generation U.S. chip manufacturing plants, unveiling its biggest spending plan for new technology amid a deepening economic recession and huge internal job cuts. Intel, who is in the business of making computer micro-processors, wants to make faster, smaller chips that use less energy. Intel's investment will be apportioned among existing manufacturing sites in Oregon, Arizona and New Mexico and will support about 7,000 jobs at those locations.

Wolfsburg, Germany Volkswagen, Europe's biggest carmaker, and Toshiba have unveiled an accord to jointly develop electric drive units and other elements that VW said will allow it to become the first manufacturer of an affordable electric vehicle. The Wolfsburg based company said it hoped to push the development of future drive technologies in many fields and that more research and development would be needed, particularly for smaller but more powerful lithium-ion batteries. VW said it aimed to be the first manufacturer to provide "an emissions-free, affordable and safe large-scale production electric vehicle."

Shanghai, China Aluminum Corp. of China said it will invest \$19.5 billion in Rio Tinto Group, easing the Anglo-Australian miner's heavy debt burden while securing Chinese access to long-coveted mining resources. The deal, announced Thursday, is China's biggest overseas investment so far and highlights the country's growing financial

clout even as it grapples with the world's worst economic downturn in decades.

Wauconda, IL The Aluminum Anodizers Council invites you to help shape the content of this year's conference program will a "call for papers" announced for relevant topics for their annual conference. The council issues the proceedings of the conference on CD to all delegates on site and will need to receive papers (and license of copyright) well in advance of the conference. The program is scheduled for the first week in October 2009 in Fort Worth, Texas, USA. The committee is eager to plan the next conference and looks forward to your response before January 15, 2009.

San Francisco, CA State Science & Technology Institute will co-host a TIP-MEP Regional Meeting on March 12, 2009. Officials from the Technology Innovation Program (TIP) and the Manufacturing Extension Partnership (MEP) are hosting the meeting to inform small manufacturers of opportunities for Federal assistance and will include topics such as; new federal funding opportunities, new resources to support early-stage research, new products and services to expand manufacturing, new tools to help foster growth and innovation in companies you work with, new models to accelerate technology commercialization and translation, and new ideas about ways to integrate state, local, and federal investments. To register for the meeting, please go to: <http://www.ssti.org/tipreg/tipreg.htm> alternate reservation number 800.228.9290

Birmingham, England Britain will create 10,000 jobs on former MG Rover site, south of Birmingham by building nearly 1,500 homes on the site. The 750-million-pound (US\$ 1.1 billion) 15-year plan was submitted to the government in Feb. A section of the 140-hectare site is now used for car production by Shanghai Automotive Industry Corp.

Washington, DC U.S. Retail Sales rebound with the adjusted data reported the sharpest monthly percentage gain in retail and food services sales since Nov. 2007. Rising retail sales were seen in a

broad range of categories. Gasoline stations and electronics and appliance stores both notched up 2.6% sales gains from December. Clothing sales also rose 1.6% and grocery stores posted a 2.2% increase. Reflecting the prolonged housing crisis and the winter season, sales of building material and garden equipment stores had the sharpest decline, of 3.2%. Furniture and home furnishings store sales tumbled 1.3%.

Randers, Denmark Vestas Wind Systems reported strong results for the all of 2008 on Feb. 11 and posted a 75.6% rise in net profit to 511 million euros (US\$661 million) on sales that were up 24% on an annual comparison to 6.03 billion euros. Its operating profit meanwhile climbed 50.8 % to 668 million euros. The wind turbine maker also said it had posted its "biggest fourth quarter ever," with sales of 2.48 billion euros and an operating margin of 15.4%, up from 1.88 billion in sales on a margin of 12.3% for the same period a year earlier. The company plans to expand its production capacity in Colorado, where it aims to more than double its blade capacity to 4,000 blades in 2010. Vestas also said it was establishing the world's largest tower factory, as well as its first U.S. nacelle factory in Colorado.

Richmond, VA Gov. Tim Kaine recently unveiled proposed amendments to the fiscal year 2008-10 biennial budget and announced a new initiative aimed at creating jobs by attracting renewable energy companies to Virginia. The governor will seek legislative support for both proposals in the coming months. The Renew Virginia Initiative is the governor's plan to boost job creation and position the state as a leader in alternative energy generation and R&D. Gov. Kaine created a new Interagency Task Force for Energy Project Recruitment that consists of state agencies, university research centers and federal labs. The Virginia Economic Development Partnership is charged with assembling a marketing plan for promoting the state.

CONTINUED... DEDICATED TO DECORATIVE BY: JIM DESTEFANI, PF MAGAZINE

Faulty Analysis

Getting to the root cause of the adhesion issue proved difficult. "Usually, adhesion problems are caused by poor cleaning," Rasche says. "This was much deeper and more complex than that."

At the core of the problem was VCP's nickel chemistry vendor,

which was advising addition of more brightener to the plating baths used for the parts. "The supplier was a company we had been doing business with for about 15 years," Rasche recalls. "We would send bath samples to them on a regular basis for analysis. They had outsourced their analytical capability and they were getting some bad information

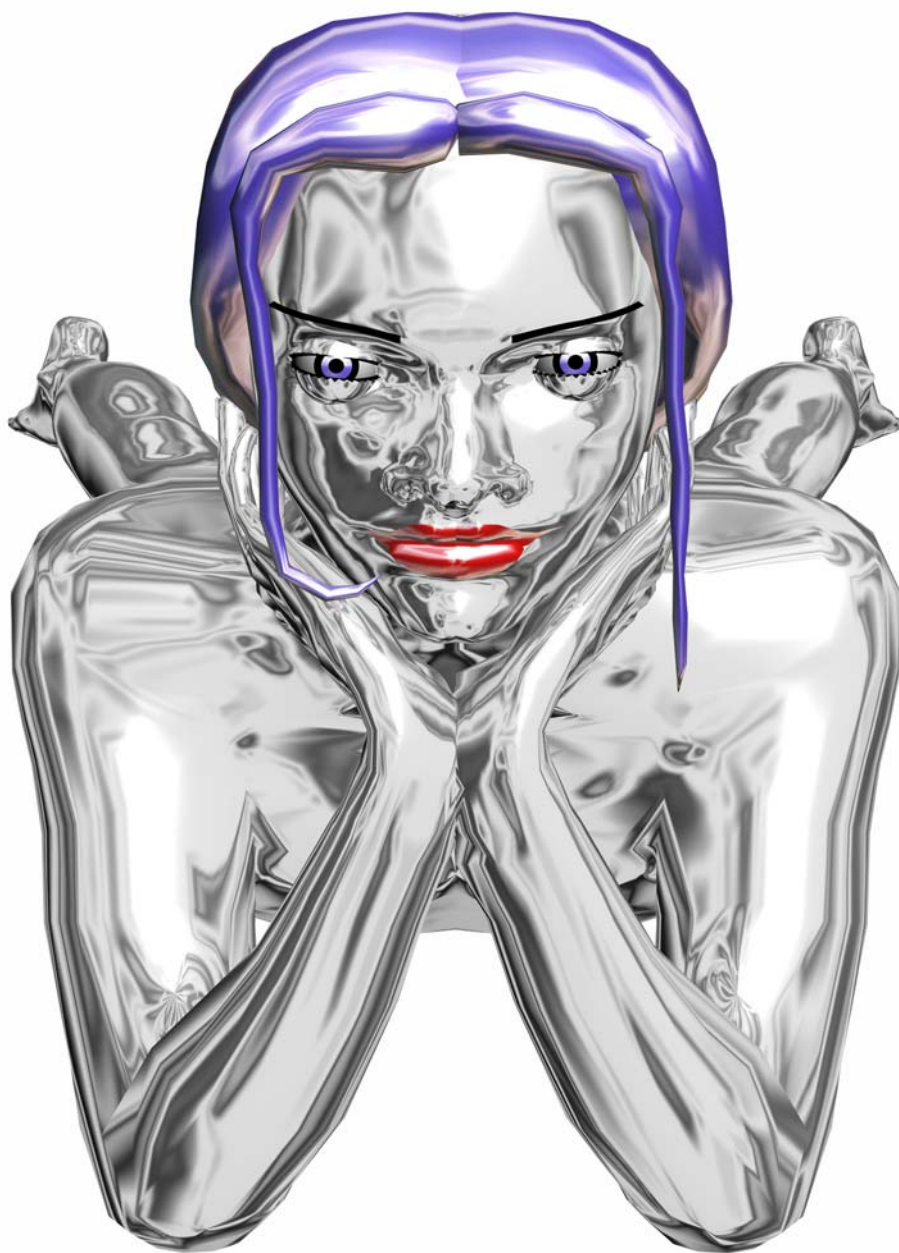
from their outside lab. "Unfortunately, once they discovered they were getting the bad information, they did a heck of a job trying to cover it up."

As attempts to solve the problem by adding brightener to the nickel baths failed, Honda representatives arrived to help troubleshoot the defect. A jet flew what few good parts there were from Grand Rapids to Honda's Marysville, OH, assembly plant.

Finally, VCP enlisted help from Haviland Products Co., a plating process supplier based in Grand Rapids. "Several people from Haviland were here for several days, and they were adamant that our brightener level was way, way higher than it was supposed to be—maybe 50 times higher," Rasche says. "Yet the vendor kept recommending that we add more brightener. We struggled a bit to believe what Haviland was telling us, but in the end we didn't have much choice but to try their recommendation.

"My brother and I had just acquired the business in May 2002, and this was happening in January 2003," Rasche recalls. "So we were in a tough spot—we had been losing money for months, and then we got hit with this. We had never been through anything like it before. We nearly went bankrupt—if our parents weren't our sole bank, we probably would've gone bankrupt.

"But, in a lot of ways, that situation made us the company we are today," he continues. "We learned a lot, and the experience still impacts the way we do some things. "For example, we're probably one of the only platers that now bakes the majority of



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Continued on next page

our motorcycle parts that will be subjected to heat. We bake parts every day for 30 min at 500°F, one piece per lot, and if there are any problems with the sample part, we bake them all. "We put the baking into our long-term corrective action plan for Honda, so we still do it."

Ramping Up Business

Since those rough early months, VCP has grown in its niche. "Our mentality is really a job shop mentality—smaller lots, shorter lead times, fussy parts," Rasche says. "Our Harley work is for Custom Vehicle Operations, which is still OEM but it's the custom vehicle end of OEM. CVO takes an OEM platform and modifies it. The CVO business is about 5,000 bikes/yr. We also plate accessories for Harley."

Typical lot sizes at VCP run from 50–500 pieces. The company operates one manual chrome plating line with two semi-bright nickels, three bright

nickels, one particle nickel and one chrome tank. "We can run a fair amount of volume through that line," Rasche says. "Right now, we're running four days a week, two shifts. We also have a specialty line that runs brasses, coppers and other finishes. We run that line one shift a day, four days a week."

Rasche explains that particle nickel is a third layer of nickel under chrome plating. "When you hear people talk about triple nickel, that's what they're talking about," he says. "Harley is requiring it now on OEM parts. It's basically like a nickel flash that further improves corrosion protection." Most parts are in the particle nickel bath for only about 90 sec, he adds.

Processing for a typical motorcycle component begins with buffing and polishing, either by hand or in one of the company's robotic polishing cells. "Volume is the primary factor that determines whether parts will

be hand-polished or sent to a robot," Rasche says. An example of a part that is processed on the robot cell is the muffler tip for the Honda Gold Wing. VCP operates three robotic polishing cells.



Finishing for most motorcycle parts begins with polishing, either by hand or on one of VCP's three robotic cells.

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FROM THE FORUM: NON ISULATED ANODES

This month we're taking a look at an issue that **jfieker** is currently experiencing with a reoccurring Powder Defect. Several forum members including **Dustin Gebhardt**, **Travis Stirewalt**, **DCInc** and **Bill Doherty** have pitched in to help solve this problem. Feel free to add your thoughts to their ongoing discussion by visiting the forums at www.finishingtalk.com/community and choosing the Powder Coating Forum.

For more "From the Forum" discussions, check out our live internet television show, **Finishing Talk Live**, where hosts Paul Fisher and Paul Skelton bring our bulletin boards to life on the only IPTV Channel dedicated to the Metal Finishing Industry.

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jfieker

We have an issue with one of the parts that we fabricate and powder coat. It is a 37" X 52" steel enclosure door with several brackets welded to the back side. On about half of the panels, we get a "wrinkle" type of a defect in the powder finish (polyester). The defects only show up after the powder is cured, only on the front surface of the part and only on this particular item of several that make up the final unit.

We are confident that this is not a cleaning or pretreatment issue. There is another door panel that is a little smaller, and it does not have brackets welded on its back. It is processed in the exact same way with no problems at all.

The attached photos are of one of the panels. It is curious how the defect has showed up as two identical patterns, one above the other. It doesn't always happen this way, and it isn't always in the same location. Possible grounding issue???? Any ideas?

DustinGebhardt

You say that there are brackets welded to the back of the panel. Do the wrinkles appear behind the brackets?

Looking at the photos, you say that the blemish occurs above a certain line. Are you certain that there is nothing in your oven that could be disturbing the powder? Or even something between your painting area to the oven? Is your oven a batch oven or continuous? What type of heat source?

**jfieker**

We use a gas-fired batch oven for curing. These parts are not processed any differently than any of the others that we do, including a very similar part (without the brackets). They are staged in the same location as all other parts between coating and curing.

I have attached a picture of the back side of the panel showing the location of the welded brackets. The defects never really seem to coincide with the location of the brackets, but they do only appear on the front side of the panel. The wrinkles usually (90% of the time) occur anywhere on the upper third of the panel as it is hung. Our customer is extremely picky about the location of hook marks, so we don't have any other options in the way that we hang these.

Travis Stirewalt

Good morning. That is a fun problem you have there. It is always the unknown that takes the fun out this isnt it.

I have a couple of questions:

1. Please give me the steps in MFG. Are these parts handled by 1 or more operators as they are being punched, cut, welded?
2. What is your pretreatment method? Batch, Automated, 3 stage, 5 stage, spray wand?

3. Are there any silicones in your plant? WD-40 etc?

I worked with a company in the Charlotte area that had similar problems, we narrowed it down to 1 of 4 of the metal workers in the plant that was sneaking WD-40 onto his work station because it was his preference in lubrication chemistry. It was disastrous. The problem was not quite as bad as what we see with yours in the photos, however, the parts failed quickly in use from UV and weather ability.

Let me know about this. We might also be able to send someone in to help you. I am not so convinced that this problem is cure related as it would be more predominant throughout the part. I am thinking there is something there.

Even if properly cleaned, if there is a history of a silicone contaminant, it will show itself with adverse properties following cure. Good luck here. I will look for your response.



jfieker

These parts are handled by many people throughout the manufacturing process. We shear the raw material and move through laser-cutting, press brake forming, self-clinching hardware installation (nuts and studs), mig welding, grinding on to pretreatment and paint. At a minimum, we have no less than seven individuals handling them before assembly.

Our pretreatment system is of the batch type - combination cleaner/coater (iron phosphate), clear water rinse and final seal/rinse coat. All chemicals are applied using manual spray wand technology. Cleaned parts are dried using a gas-fired oven, and powder is applied the same day, usually within one hour after cleaning.

We use several oils and lubricants during many of the production stages, but I could not find any that were silicone based or contained any silicone after a "quick check". I will have to

look into this more thoroughly. We do, however, install silicone masking products (caps and plugs) on the hardware prior to cleaning. Of course, we also use the same masking products on thousands of other parts with no problems.

Before they go into the curing oven, we connect the coated and racked parts with spreader bars that maintain a distance of about 10" between parts. We usually cure them six at a time lined up front-to-back. I am wondering if the brackets are creating some interesting convection currents in the oven that may be affecting the front surface of the adjacent panels. We will change the loading pattern or spacing to see if that helps. Would that produce a defect like this?

DustinGebhardt

With a strange problem like this, it is often helpful to break the steps down (just like you have) and go through them with a fine-toothed comb. I agree with Travis that this is probably not a cure related item, per se. What I mean is that it is probably not related to temperature or time. Let's create a simple test procedure and see what happens:

1) Isolate the cleaning process by cleaning the heck out of the part. Go over the part 2 or 3 or 4 or 5 times instead of the normal process. Make sure you are using good spray wand

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FROM THE FORUM, (CONTINUED FROM PG 7)...

practices by cleaning it starting at the top and working your way down. Rinse the part several times and watch for water breaks. Apply the seal the same way. It can also help if there is a supervisor or, better yet, a manager present to oversee this. Employees have a tendency to do things differently when "nobody's looking", right Travis. By the way, Travis, you have a great story that illustrates this point perfectly, but in regards to applying the powder itself.

Process the parts as normal. If the parts come out good, then your problem was in cleaning. If the parts come out bad, move on to the next part of the process.

2) Try running only 1 part at a time in the oven. This can help isolate the air currents and a few other intangibles related to the oven. Try orienting the parts differently. Try a rack with all of the parts front-to-back. Try another rack with the parts front-to-front and back-to-back. Space the parts out further.

3) Try making a panel without the brackets. Or change some other part of the manufacturing process. Compare the exact process used by these problematic parts with the ones that come out fine every time. The environment can sometimes affect the quality of the finished part. Are you always running the larger parts at the same time of the day? Try mixing it up.

DC Inc.

Not sure if this will help but I have seen similar defects in my shop. Some of my fabricators use anti-splatter oil when welding and any of this residue left over causes wrinkle type defects.

There is one more things that caused/causes these type of imperfections but it is mostly during the hot months. I have seen sweat from employees drop onto parts before spraying and it creates the same pattern when the coating is cured. I did not see whether you are pre-heating the part before spraying after it is hung on the rack. Maybe the larger panels cause the employees to come into closer contact with them when they are hangingjust a thought but it does look exactly like your picture when it happens here.

jfieker

Thanks for all of the great ideas and advice. We will be running another batch of these panels within the next couple of weeks, and I now have a list of several things that we will try doing differently. Hopefully, we'll determine the cause and get the problem cured. I'll let you know what happens.

bill doherly

Check the cleaning, especially if any beeswax derived lubes are used anywhere. Preclean the parts with MEK then process as normal.

jfieker

We have been concentrating our efforts on our cleaning process for the past several weeks, and we have also begun using a different anti-splatter. Although we aren't confident that we have pinpointed the real cause, we've had good results. In fact, we haven't had any of these specific defects for the last three or four production runs.

We would like to explore the possibility of brining an independent consultant in to assess our overall powder coating process and equipment. Does anyone have any recommendations?



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FINISHING SPOTLIGHT: NASF'S MANAGEMENT CONFERENCE 2009

The NASF Management conference began on Monday February 9th with a half day presentation called "Selling Has Nothing To Do With Selling", presented by Richard Farrell of Tangent Knowledge Systems. While I was not very impressed with the concepts presented in this session, mostly because I have to believe that if those of us in attendance didn't already know these concepts, then most of us would not still exist in the current economy.

Regardless, I do believe that a speaker getting us to discuss the concepts of increasing sales and customer service can be very productive. Throughout the course of the event I personally had several very enlightening discussions because of this speaker, and have gained some unique insight on the topic from a different perspective as a result. You can download an overview of the "Selling Has Nothing To Do With Selling" presentation on our bulletin boards and decide for yourself what you think. Make sure to share you thoughts with us the rest of the members.

Tuesday morning began with an impromptu supplier meeting where some of the difficult issues the NASF is currently facing were discussed. It seemed to be the general consensus that extraordinary times call for extraordinary measures. Some new, and good ideas were proposed as a result of that basis. One example of this was the idea of creating a committee within the AESF to take the lead in developing and maintaining surface finishing specifications, which is not a short term solution by any means but is still one of the newer ideas I've heard in a while from this association. I'll be sure to follow up on this and share more

information on the Finishing Talk Boards as it develops.

Shortly after this committee meeting, we switched pace for an insightful presentation by past NASF president Ray Lucas. Ray discussed his well known and very informative overview of his company, Valley Chrome Plating and their journey to zero discharge. If you are not familiar with the concept of "zero discharge" I highly recommend you take a look at this presentation as it provides a very nice snapshot of a system layout and the associated benefits as they may apply to your shop. Some of these include conservation of H2O, elimination or drastically reducing discharge to POTW, and the ability to re-use chemistry. Finishing Talk members can download this presentation on our bulletin boards

Next up was an update from the Policy Group presented by Christian Richter who provided some of the big picture issues that our industry is currently facing in Washington, some trends that are currently playing out in Washington, and an overview of new key personnel in Washington.

According to Christian, it sounds as if the jury is still out on how President Obama will treat the Metal Finishing industry. It was pointed out that he currently has a 67% approval rating, which may mean that this is a common sentiment across the country. He said that from what he can see - it does seem that the President is doing his best to govern from the center with a true effort at bi-partisan politics, and has a sincere desire to balance change with jobs.

It also sounds like the jury is still

out on Lisa Jackson, the new EPA Chief. She was described as a fairly pragmatic decision maker on one hand, and the same person who recently handpicked Lisa Heinzerling on the other. Heinzerling is the person who wrote the brief for the Environmentalist to argue in the Massachusetts vs. EPA - which is where the decision was made that ruled that the EPA must mandate CO2 emissions, which has proven to be devastating to many US manufacturers.

Christian briefly described the nightmare referred to as the California trifecta including Nancy Pelosi, Barbara Boxer, Henry Waxman.... who have stated that the "entire country should be run more like the state of California", and who simultaneously do not seem to have any sort of alignment with manufacturing or much less - the metal finishing industry's agenda.

Carol Browning the new White House Energy Czar - (Clinton's EPA chief), has been put in charge of transforming the Department of Energy, while working more hand in hand with the EPA on issues like climate control and global warming.

Cass Sunstein of the Office of Information and Regulatory affairs.... (which is the office where all rule making goes before it gets finalized). Cass is a controversial person (disliked by most environmentalists), who is liked by Industry because of his practical views on how government can help or hurt industry. He has written many interesting articles including one on why OSHA is unconstitutional, and another on why cost benefit analysis have to be applied to regulatory decisions in Washington.... I'm lik-

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CONTINUED... DEDICATED TO DECORATIVE BY: JIM DESTEFANI, PF MAGAZINE

From polishing, parts move to the plating line for a thorough cleaning designed to remove any buffing or polishing compounds. The multi-stage cleaning process takes place at 160–170°F, and includes alkaline cleaning, electrocleaning, power washing, acid dip and multiple rinse stages.

Clean parts are semi-bright nickel electroplated, with typical plating times of 25–30 min. The semi-bright nickel is followed by bright nickel, particle nickel and finally chrome plating. "The first layer of nickel is usually between 0.3–0.6 mil thick," Rasche says. "By adding the particle nickel, we were able to lower our minimum nickel thickness from 0.78 to 0.56 mil for some customers."



A video screen near the chrome line provides visual confirmation of process conditions, including time left in tank and other variables.

All tanks in the chrome line are 12 ft long, 2 ft wide and 3.5 ft deep, and the line includes multiple extra tanks that can be ramped up as needed. Video screens near the plating line show what tanks are available, how much time is left at each tank and other process conditions.

VCP's decorative chrome process is hexavalent, and Rasche believes that's still the way his big customers want it. "We have not gone to trivalent chrome yet," he says. "Trivalent chrome has come a long way, and some systems are better than others. There may be some potential new business we've lost because we don't have a trivalent process, but I'm not aware of any current work that we've lost because of it." Wastewater treatment for the chrome line and the plant's other processes consists of multiple tanks for settling and precipitating metals.

"We put a six-figure investment into expanding and upgrading our waste treatment system in 2002," Rasche says. "Our goal is to run at about half the local regulations for metals content. Nickel in the wastewater, for example, is about 0.4 ppm." Some rinse water, from tanks in front of the chrome plating process, is discharged directly to sewer. The rest is batched and discharged daily.

Continuous Improvement

VCP has no formal lean manufacturing program, but the company constantly looks for ways to operate more efficiently. "One of the big things we've done is reduce variation by standardizing process parameters for each job," he says. "So now each bar carries a tag that tells the operator which tanks it goes in, the amperage, time and other processing conditions. It's really kind of common sense stuff, but it pays off."

Also literally paying dividends is the company's monthly incentive program, which enables workers to earn a bonus based on their regular pay each month. "We elimi-

nated piece work when we took over the company. That pay system really just encourages a 'me, me, me' attitude and multiple quality issues, and that's not what we wanted," Rasche says. The incentive program covers only things that employees can affect and control, Rasche explains. "So chemical consumption, utilities and other items that employees can impact are included. Things they can't control, such as rent, equipment purchases and the cost of our employee health insurance, don't count."

The bonuses encourage employees to take ownership of the processes, and the program has paid off for them and for VCP. "Last year, for example, we had very similar sales to 2006, but our nickel consumption was significantly lower," Rasche says. "So we've found more and more ways to obtain the minimum nickel thickness we need and still have a beautiful part while operating more efficiently." According to Rasche, the monthly incentive program has paid out about \$850,000 over the past three years to approximately 40 non-officer employees. The company also has a quarterly profit-sharing plan separate from the incentive system. "There are pay periods when employees might get their regular check, a profit sharing check and a monthly incentive check, so they could receive several times what their normal weekly earnings would be," he says.

Jon Rasche is proud of the operating changes his team has made since he and his brother Jeff took over the business. "Our problem-solving ability has improved a lot, our maintenance program has improved

Continued on next page

a lot, and we're competing for work with some of the elite jobs shops in the U.S.," he says. "We may not have all the capabilities of some of the others, but we have a very committed team and we do the basics very well."

This article was previously published in Products Finishing Magazine and reprinted for the readers of Finishing Talk with permission.

"Dedicated to Decorative" was written by: **By Jim Destefani, Editor Products Finishing Magazine, a Gardner Publication.**



Spotlight Continued from page 8

ing this guy already!

Other issues touched on by the Policy Group presentation include: Chrome is under attack again – and this time from multiple sources including the EPA and OSHA. Environmentalists have filed nearly 20 law suits against EPA this year – one of which has the EPA going back to review the current Cr emissions standards in the plating industry.

The OSHA chromium exposure limit is also being reviewed because of the lawsuit filed by the Public Citizen group, and the United Steelworkers group, which is being argued at the US Third Circuit Court of Appeals with a decision expected by March 2009. The worker exposure standard could be rewritten and several groups are currently arguing to lower the new standard to and unobtainable .2 mgpl.... You can expect to see more of this topic again in the near future.

Congress and the EPA are being forced by the Europeans, because of their global initiatives, to overhaul chemicals laws. A panel is currently being formed to discuss the future of these Ni regulations at Sur-Fin this year with the goal of having proportionate representation in these future discussions in order to regain our footing as leaders, rather than constantly reacting to the European initiatives.

Christian wrapped up his presentation by reminding us how crucial it is for us to attend the Washington Forum this April to meet with our legislators to inform them of how critical the decisions they face this year are to the health and future of our industry. He also suggested that we set up our own meetings (with their assistance and guidance) in order to create personal relationships and reoccurring dialog with our individual representatives.

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CLEANING - THE UNDER-RATED FACTOR IN PRODUCTION MANUFACTURING BY: DORIS SCHULZ

On average, 27.5% of the production time required for manufacturing a cylinder head for a 4 cylinder diesel engine goes to cleaning, and manufacturing costs amount to 6.6%. Thus the cleanliness of components is not only a quality feature, it also plays an essential role as a factor in the value creation sequence. Considerable, but nevertheless unheeded quality and cost optimization potential is frequently harbored by the parts cleaning process. Information regarding how this potential can be exploited will be provided by parts2clean, leading international trade fair for cleaning within the production process, at the Stuttgart Exhibition Centre from the 28th through the 30th of October, 2009.

The proportion of production time and costs required for cleaning is considerable for many components: Cleaning time comes in at roughly 10% for an auto body frame component made of steel, and the expenditures amount to about 5% of total manufacturing costs. This figure can be as high as 25% for ball bearings. These, as well as the above cited figures, were calculated by the Market and Trend Analysis division of the Fraunhofer Alliance for Cleaning Technology. Despite its great significance with regard to quality, as well as for efficient production of the respective components, cleaning in the production and value creation processes is underrated.

Cutting Costs and Increasing Quality with an Optimized Cleaning Concept A requirements-oriented, well matched cleaning concept often makes it possible to exploit optimization potential throughout the entire production sequence, and makes manufacturing more efficient. However, this can only be realized with the necessary know-how regarding the performance characteristics of the various cleaning technologies and how they can be ideally implemented. As Europe's only trade fair for cleaning within the production process, parts2clean offers this know-how in a concentrated fashion at a single location. At the exhibition centre directly adjacent to Stuttgart International Airport, renowned foreign and domestic suppliers will present comprehensive

product and service offerings covering the entire process sequence for cleaning within the production process from the 28th through the 30th of October, 2008.

Solutions for a Great Variety of Industries and Materials In order to efficiently and reliably obtain the required degrees of cleanliness for work pieces and components made of various materials, for example in the automotive, electronics, semiconductor and food industries, machinery and equipment manufacturing, aviation and aerospace, hydraulics and pneumatics, optics, precision mechanics and precision engineering, as well as turning shops, foundries and hardening plants, parts2clean offers systems and equipment for individual parts cleaning and functional surface cleaning, as well as for batch processes, even in the cleanroom. The criteria which must be taken into consideration when selecting the ideal cleaning process include the spectrum of parts, contamination, the material or combination of materials, part geometry and cleanliness requirements with regard to film-like contamination and particulates, as well as production throughput. The most suitable process (wet-chemical cleaning, blasting with liquid or solid media, plasma or laser cleaning and shock-wave cleaning, as well as special processes and combinations), process parameters and the number of process steps can be derived from this data.

In particular in the automotive industry and for its suppliers, the growing variety of variants and ever shorter product life cycles necessitate a great deal of flexibility. The use of modern automation and handling systems such as robots allows for quick adjustment to varying components and changing requirements within the cleaning process itself, as well as in manufacturing. Where cleaning agents are concerned, the suppliers are assuring improved economy, environmental compatibility and shorter process times by means of ongoing development and innovations. Media treatment also has a great influence on the efficiency of the cleaning process – especially in the case of aqueous cleaning. In this respect, effective, ideally matched filtration and separation sys-

tems are in demand (e.g. oil separators, particle filters, membrane filters and water treatment), and will be presented by the exhibitors at parts2clean.

If a batch process is used, the utilized cleaning racks have a great influence on cleaning results, time and costs. If the parts can be easily accessed from all sides, the right racks offer optimization potential with regard to parts cleaning results, time and costs. Whether inspection for technical cleanliness of functionally relevant components for the automotive industry in accordance with VDA 19 and ISO 16232, or checking for work piece cleanliness in other industries is involved – the inspection of component surfaces for cleanliness is a significant factor for quality oriented manufacturing. Thus quality assurance and analysis systems for inspecting surface cleanliness on work pieces, as well as for monitoring cleaning baths, represent further exhibition topics. In addition to this, solutions for temporary corrosion protection, preservation and packaging will also be presented, which assure that parts which have already been cleaned arrive at the customer's facility in accordance with the specified cleanliness requirements.

Supplementary Program with Expert Forum and Special Show As a supplement to exhibitor information offered at the event, the parts2clean expert forum will present comprehensive know-how covering all aspects of cleaning within the production process on all three trade fair days. The special show covering the process sequence for economical parts cleanliness in accordance with specified requirements will offer food for thought regarding optimization of the cleaning process.

This article was written by Dorris Schultz, fairXperts of Stuttgart, Germany to promote the well respected International Conference and Expo parts2clean created for Cleaning in the Manufacturing Process. It will be held in Stuttgart, Germany October 20-22, 2009



POSSIBLE NEW PEL FOR n-PB

JOHN DURKEE, PRECISION CLEANING

If you're manufacturing, selling, or interested in using normal propyl bromide (n-PB) as a cleaning solvent, you will want to be knowledgeable about a process of regulation happening NOW in California.

California has (or perhaps had) a significant level of industry. More importantly, environmental regulations promulgated in California often later become adopted by the other 49 states (and foreign countries). That's why you might want to be knowledgeable about a meeting to collect information about a new permissible exposure limit for n-PB.

This proposed permissible exposure limit (PEL) will be 5 ppm – lower than the ACGIH value of 10 and the EPA recommendation of 25.

This author believes no open-top vapor degreasing machine made today can meet the 5 ppm PEL. And the ability to meet this PEL with the more expensive vacuum-based machines is problematic.

It may be an overreaction to write that this PEL will ultimately regulate n-PB as being used in solvent cleaning processes. But, promulgation of this PEL is certainly a step toward that end.

The scientific data upon which this PEL will be based upon that collected by the state's Airborne Contaminants Advisory Committee which considered substances for development of this proposal and met between May 2001 and January 2004. Between then and now, little sunlight fell on this topic; nor was any newer data evaluated for production of the new PEL. In late January, the proposed regulation was published and a meeting scheduled for its presumed adoption.

On March 19, 2009, at 10:00 a.m., the Occupational Safety and Health Standards Board of the State of California has set the time and place for a Public Meeting, Public Hearing, and Business Meeting in the Costa Mesa City Council

Chambers, 77 Fair Drive, Costa Mesa, California 92626.

Here is where you have an opportunity to speak: "...At the Public Meeting, the Board will make time available to receive comments or proposals from interested persons on any item concerning occupational safety and health..." as "...the Board will make time available to receive comments or proposals from interested persons on any item concerning occupational safety and health...".

You can find links about the proposed rulemaking on our website in the forums at www.finishingtalk.com/community

For a friendly human contact try Bob Barish whose email address is Bbarish@dir.ca.gov, and whose non-electronic contact information are Bob Barish, Cal/OSHA Research & Standards Unit, P.O. Box 420603, San Francisco, CA 94142-0603; (510) 286-7001; and FAX 286-7037.

ITW GEMA AND HALO COATINGS TEAM UP TO MARKET NEW RETRO-REFLECTIVE COATING

ITW Gema and MKB, LLC (Halo Coatings) announced today that they have reached an agreement on a strategic global partnership to promote a new technology, known as the Halo Process. This unique process utilizes powder coatings that are designed to reflect light; and this major breakthrough in coating materials is expected to impact markets where nighttime safety or reflectivity is important.

Retro-reflectivity is the return of light to your eye along the same path as the light source - the functional principle in all nighttime safety tape used on products such as street signs, truck delineation, or bicycle reflectors. With the Halo Process, retro-reflective powder coatings can now offer tremendous benefits in place of tape application and "light up at night" for improved safety.

Aaron Bates, Chief Executive Officer, MKB states – "Aside from being a pioneer in the powder coating industry, we are glad to partner with ITW Gema so that our customers take advantage of the expertise and support they need to use the Halo Coating Process."

"Halo Coatings has developed a truly innovative material technology that opens markets to the improved benefits of powder coating, while enhancing the end use product appearance. We are excited to be an integral part of the solution for this application with Halo Coating's products," says Chris Merritt, General Manager of ITW Gema, North America.

This new partnership allows ITW Gema, the world's leading supplier of powder coating application and recovery equipment and Halo Coatings, the leading

developer of retro-reflective powder coatings, to join together and provide a manufacturing solution for producing products with a retro-reflective surface on nearly any substrate, and in three dimensional configurations and shapes. Guardrails that become life saving rays of light at night; bicycles that can be fully seen in the dark from over 1,000 feet away and hi-viz shopping carts are just a few of the new products that are now made possible with the ITW Gema/Halo Coatings partnership.

For more information, contact Karen Walters by telephone at (317) 298-5072, by email at kwalters@itwgema.com, or visit us on the web at www.itwgema.us.

KEYNOTE SPEAKER FOR NASF WASHINGTON FORUM ANNOUNCED

MICHAEL BARONE OF THE U.S. NEWS & WORLD REPORT

This year's NASF Washington Forum will kick off with a major keynote address on where the agenda of the White House and Congress will take the nation in these difficult times.

Michael Barone is Senior Writer, U.S. News & World Report and a Resident Scholar at the American Enterprise Institute. Barone grew up in Detroit and Birmingham, Michigan. He graduated from Harvard College (1966) and Yale Law School (1969), and was an editor of the Harvard Crimson and the Yale Law Journal.

Over the years he has written for many other publications, including the Economist, the New York Times, the Weekly Standard, the New Republic, National Review, the American Spectator, American

Enterprise, the Times Literary Supplement and the Daily Telegraph and the Sunday Times of London. His column is syndicated by Creators Syndicate and appears in the Washington Times, the Chicago Sun-Times and the St. Louis Post-Dispatch.

Mr. Barone is a contributor to the Fox News Channel and has ap-

peared on many other television programs.

Topics that will be covered at this the Washington Forum this year include: International Regulatory Updates (European REACH, China RoHS), Outlook for the 111th Congress and New Administration, EPA and OSHA Regulatory Updates, and Small Business and Manufacturing Competitiveness Issues

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THE LAST WORD

THE BALL IS IN YOUR COURT

BY: PAUL FISHER

As I sit here trying to think of a topic appropriate for this column, I can't help but be distracted by the chaos all around me. No, I don't mean a chaotic office or kids running around or anything like that. I mean the constant bombardment from all directions of bad news about the economy.

This barrage of bad news begins for me at about 6:00 a.m. with Fox news before I go to work. Then once settled into my workspace, there is my Google home page with all of its news and reminders (including an RSS feed of the DOW), then to top it all off there is a healthy dose of industry news reports that hit my email inbox all day long.

Enough is enough with all of this gloom and doom. I want to use this time here to talk about things we can do to work towards a more positive direction.

Lets all take a hard look around our workplace to see what we can do ourselves to make a difference. I'm talking about getting back to the basics in some ways, about being more efficient, and trying new things to generate new business.

I've listed below a few ideas and suggestions that I came up with to help get you started in the right direction. I challenge everyone to take a few minutes to create your own list. Don't forget to share these ideas on our bulletin boards in the Finishing Talk Community.

- Attend a webinar or other online training event.
- Take a class or workshop to hone your skills or to learn new ones.
- Ask your boss once a week if there is anything else you can do to help.
- Attend a local association meeting and stay in touch with your industry.
- Participate in a corporate brown bag program.
- Look for and share cost cutting and efficiency ideas with your boss or management team.
- Share helpful print and online articles with your co-workers.
- Participate in online forums and blogs about your industry.
- Take a good look at your market niche, thoroughly review your competitions posi-

tioning, and update your website.

- Use the telephone more often rather than email. You'd be surprised how well this works.

You may not have noticed but we go out of our way to print only positive news for the industry in our News and Events section of this publication. This may seem especially difficult these days but you'd be surprised..... there are a number of interesting and positive things going on in our industry these days and I encourage you to stay open to finding them.

I think once we all refocus our attention on "the ball" rather than succumbing to all of the negative media, not only will we feel better about taking control of our situation, but we'll find more of the opportunities that are out there for personal and professional growth. Above all please remember - you can choose to use this time wisely!



Paul E. Fisher

FinishingTalk

See What The Industry's Talkin' About.

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