**TRENDS IN INDUSTRIAL PARTS CLEANING**

**Cover Story**

**Increasingly popular**

From necessary evil to added value factor – it is difficult to think of another process in the manufacturing chain that has seen such a meteoric rise as industrial parts cleaning. And the cleaning results demanded by all sectors of industry – especially the automotive industry – are not only high, they look set to become even higher. So we must ask ourselves the question which processes, media and measures will we need in future to meet the required cleaning quality.

When it is the wrong place, even the lightest of soiling can have dire consequences – from a large number of production rejects, through costly reworking, right up to production stoppages. Parts cleaning therefore makes a significant contribution to the added value chain in the manufacture of components. Indeed, technical cleanliness requirements for work pieces has increased sharply in the last few years, and there is no end in sight. This presents both manufacturers and users of industrial cleaning technology with new challenges.

**Individual part cleaning or batch process** Sadly, there is no magic formula for

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**Inside This Issue:**

- **From the Forum:** OK...Silly Question
- **Finishing Spotlight:** PRECISION PLATING COMPANY
- **Survival is not enough:** What you can do to thrive in today’s economy

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INDUSTRY EVENTS 2009

January 27-28, 2009
SFA Powder Coating Course
Dallas, TX
www.surfacefinishingacademy.com

February 1-2, 2009
Coatings for Concrete Conference
Las Vegas, NV
www.coatingstech.org

February 8-12, 2009
NASF Management Conference
Palm Beach, Aruba
Website: www.nasf.org

February 15-18, 2009
PACE 2009
New Orleans, LA
Website: www.pace2009.com

February 17-18, 2009
RadTech UV/EB West
Los Angeles, CA
http://www.uvebwest.com/

March 2 - 3, 2009
COATING WEST
Las Vegas, NV
www.thecoatingshow.com

March 4-5, 2009
21st Century Cleaning Tech.
Philadelphia, PA
www.surfacefinishingacademy.com

March 4-5, 2009
SFA Powder Coating Course
Philadelphia, PA
www.surfacefinishingacademy.com

March 17-19, 2009
Middle East Coatings Show 2009
Cairo, Egypt
middleeastcoatingsshow.com

March 22-26, 2009
American Chemical Society 2009 National Meeting & Expo
Salt Lake City, UT
www.acs.org

March 31- April 2, 2009
European Coatings Show
Nuremberg, Germany
European-Coatings-show.com

For more calendar events, please visit:
www.finishingtalk.com/events

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Washington, DC The National Association for Surface Finishing (NASF) has announced the names of the new officers and board members for 2009. Michael Siegmund, MacDermid, Inc., Waterbury, Conn., has been selected to serve as the president of the trade association for 2009. He will succeed Ray Lucas, Valley Chrome Plating, Inc., Clovis, Calif., who has completed a two-year term. Other officers for 2009: Tony Revier, Uyemura International Corporation, Ontario, Calif., vice president; Pat Gleason, Microfinish Co., Inc., St. Louis, Mo., secretary/treasurer; Rick Delawder, SWD, Inc., Addison, Ill., executive committee member at-large; and Ray Lucas, past-president.

Nashville, TN The dates for COATING EAST have been moved up two weeks. The conference will be collocating with the Electrical Mfg. & Coil Winding show and they have encountered a conflict within their industry that required a date change. They have therefore agreed to change the dates so COATING EAST can continue to co-locate. The new dates for COATING EAST 2009 are: September 30 & October 1, 2009. Also, they have announced their programming for COATING WEST, scheduled for March 2 & 3, 2009 in Las Vegas.

Grand Rapids, MI GE Aviation was selected by the US Army to partner with Aviation Applied Technology Directorate (AATD) to research, develop and apply the technology behind an integrated corrosion health monitoring system (I-CHMS) for rotorcraft fleets. The contract is valued at $2 million and will cover a 2-year span of rotorcraft research and monitoring.

Johnsville, TN DuPont announced the start-up of a new titanium tetrachloride purification unit at the company’s titanium dioxide site. Majority of the production of the high-purity chemical will be used in the growing titanium metal manufacturing industry. In addition to its specialized applications in pearlescent pigments used in products ranging from cars and cosmetics to bicycle helmets.

Gebze, Turkey Rohm and Haas Co. celebrated the opening of its new manufacturing facility for plastics additives acrylic impact modifier and processing aids. This new manufacturing facility has a potential capacity of 40,000 metric tons, to respond to the growing demand for acrylic impact modifiers and processing aids from the plastics industry in the local domestic and neighboring markets. This is the first time that Rohm and Haas has opened a new plastics additives plant in 25 years.

WASHINGTON, D.C. The Bluegrass State will roll out the red carpet for metal finishers, suppliers, end users, and OEMs on June 16 – 17, 2009. That’s when the participants of SUR/FIN 2009 - the North American surface finishing industry’s premier trade show and technical conference—are expected to descend on the Kentucky International Convention Center in Louisville to network, preview new products, and share best business and operational practices. SUR/FIN 2009 is sponsored by the National Association for Surface Finishing (www.nasf.org). At SUR/FIN 2009, you’ll find a technical program that includes sessions focused on OEM and captive platers, as well as the expansion of exhibitors and attendees to reflect the entire supply chain. Potential attendees are also invited to submit technical papers for presentation at the conference. For more information, visit www.nasf.org or contact Cheryl Clark at 202-457-8403; (e-mail) cclark@nasf.org.

Roswell, GA The Research Triangle Region of North Carolina is the new home of Sipcam Agro USA, Inc. and its two wholly owned subsidiaries, Advan LLC and Sostram Corp. The new corporate headquarters officially opens on Jan. 5, 2009. The relocation coincides with the company’s plans for growth, based on new technologies as well as traditional plant protection chemistries. Owned by the Sipcam/Oxon Group, an Italian company known for its formulation and manufacturing expertise, Sipcam Agro USA utilizes a distribution-focused marketing strategy to provide fungicides, herbicides and insecticides to the agricultural marketplace.

London, UK Rolls-Royce said on Dec. 23 it had struck deals to supply and service engines for Airbus planes owned by Etihad Airways of the United Arab Emirates worth $575 million. The British maker of plane engines said that Etihad, the national carrier of the UAE, has chosen its Trent 700 engines to power another eight Airbus A330 aircraft. The Airbus jets, which will be delivered between 2009 and 2011, will bring Etihad’s Rolls-Royce powered A330 fleet to 24 aircraft.

Orlando, FL Event Chairman, Ken Hinkinson, of the National Association for Surface Finishing (NASF) Regional Committee, has decided to cancel the 2009 Regional / Energy Conference previously scheduled for January 20–21 in Orlando, FL. due to poor attendance and speaker response.

Tokyo, Japan Toyota Motor Company has forecast its first ever operating loss. In a statement Monday, the company says profits for its business year ending in March 2009 have been slashed by both the soaring value of the Japanese yen and a worldwide decline in auto sales. Toyota sales were down by more than a third in the United States and Europe in November. In the last financial year, Toyota enjoyed an operating profit of more than $25 billion. Last week Japanese automaker Honda cut its annual profit forecast by two thirds. In the United States, automakers are in even bigger trouble. General Motors and Chrysler have been granted federal government aid of up to $17.4 billion to stave off bankruptcy while they undertake a major restructuring. Ford says it can do without federal aid for a while longer, but will likely need help next year if sales do not improve.

Correction: There was a typo in the Nov/Dec 2008 issue of Finishing Talk in the article What Your Chemical Supplier Should Tell But Doesn’t by Jack Berg, President of SERFILCO. At the end of the top paragraph on page 5 - the word should be adsorption, not absorption, as carbon is used for adsorption. Our apologies for the mistake.
TRENDS IN INDUSTRIAL PARTS CLEANING... (CONT FROM PG 1)

Batch processes allow high-grade cleaning of mass-produced parts with high throughput per unit time. This helps keep down the proportion of cleaning costs within the total production costs of a work piece. 

Image from: EMO

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Individual part cleaning, which engine and gear manufacturers have already been using for a long time, will also become more common in other sectors due to the strict cleanliness requirements and increased automation of production processes. 

Image from: Dürr Ecoclean GmbH

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Image from: Dürr Ecoclean GmbH

achieving precisely defined residual soiling values on the surface of components. Each cleaning task needs an individually defined solution. Key factors in this regard are the material or combination of materials, the soiling, the geometry of the component, the degree of cleanliness required in terms of both film and particulate soiling, and the production throughput. The appropriate process is derived from all these criteria. For example, companies engaged in engine and gear manufacturing have already been using individual part cleaning for many years, as the geometry of various parts and the strict cleanliness requirements make targeted treatment of channels, boreholes and surfaces necessary. We can also see a tendency toward individual part cleaning in several other fields of the automotive supply industry. The reasons for this are stricter cleanliness requirements as well as avoidance of damage due to unnecessary parts handling. It is safe to assume that the ever increasing level of automation in modern manufacturing will lead to increased use of individual part cleaning – providing the process can run inline. An optimum workflow can only be guaranteed when the various manufacturing steps and intermediate cleaning between these steps are perfectly matched to one another. This involves bringing manufacturing steps and cleaning procedures together to form a technological process that, in certain circumstances, can be performed in a single unit. Individual part cleaning is also set to increase in fields where it offers logistic advantages, for example if downstream processes require components to be in a specific position. Batch processes also have potential here, as they offer the advantage of high throughput in a relatively short
time when cleaning mass-produced parts - thereby also representing a lower cost proportion of the total production costs of a work piece.

**Cost and time savings through functional surface cleaning** The targeted cleaning of functional surfaces and component sections, such as sealing surfaces, laser-welded surfaces or also pre-assembled and preserved parts with CO2 snow jet, laser or plasma cleaning processes is currently something of a niche sector. However, functional surface cleaning is set to become increasingly important. This is due to the often drastically different cleanliness requirements of workpieces - for example the need for a specific surface quality of defined parts or sections for downstream processing steps. In cases like these, classic water-based or solvent-based cleaning can often be very costly, as the entire component has to be cleaned to the strict standard of the functional section. As cost pressure in manufacturing processes increases, targeted functional surface cleaning offers welcome savings, both in terms of time and costs. Another key advantage of having functional surface cleaning integrated into the manufacturing process is that the clean surface can be provided "just-in-time", therefore eliminating any measures to keep parts clean after cleaning and during transport.

**Easy to handle cleaning fluids** When it comes to cleaning fluids, solvents and water-based fluids will continue to play an important part in future. However, alongside quality aspects, the economic and ecological requirements of the user will also help determine which cleaning solutions are used. The easiest fluids to handle are those with which multi-stage or combined cleaning processes, such as immersion cleaning, ultrasonic treatment and injection flood washing, can be performed. With water-based fluids the trend is moving toward cleaning solutions that are capable of removing heavy soiling at low temperatures. This leads to shorter treatment times and helps conserve energy and water due to the lower temperature. With solvent-based cleaning, the introduction of polar solvents has helped make the cleaning processes both faster and easier. These fluids are capable of removing both non-polar soiling, such as grease or oil, and polar contamination, such as water-based coolants and lubricants, salts, burrs and other particulate material in a single wash. Cleaning fluid treatment is also set to become increasingly important.

Continued on page 8...
This month, DC Inc. questions forum members **Steve Anzelc, PE, JSF!**, and **Bill Doherty** about crude/gas price fluctuations and how they affect the powder coating industry. Check out what they had to say, and 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 internet television show, Finishing Talk Live, where hosts Paul Fisher and Paul Skelton bring the boards to life!

**Steve Anzelc, PE**
Supply and Demand.  Oops! I mean, Demand and Demand economics... :)

**DC Inc**
LOL - It is below $60 a barrel today.

**JSF!**
Here is the problem with riding crude oil price up and down as though it was parallel to Coatings Raw Materials (RMs) Cost movement...

It is not. Why?

Because the RMs are impacted by Oil and Natural Gas prices in terms of base constituents, but many times the impact of the oil and gas swing is overridden by the supply and demand curves of the actual raw material or the raw materials upstream between that RM and oil or natural gas.

It should be noted the supply (capacity) of certain coatings RMs in NA has been steady for a couple decades with more capacity than demand. In 2004, that changed as the global NA, Europe, SA and Asia economies heated up in conjunction with the falling dollar. As Asia’s requirements in particular for RMs increased due to tremendous growth, they needed to feed that demand. This growth happened in the other regions as well but not to the same extent as in Asia. Since NA had capacity and the dollar was weak they came here and took our RM supply to other regions. This impacted MANY supply demand curves and in many cases took the demand to a higher level than NA supply. When that happens, RM prices skyrocket until demand changes or substitutes are found.

In addition, the chemicals industry that supports coatings RMs had performed horribly financially for decades due to the overcapacity in NA. All the coating suppliers used this to play all the RM suppliers against each other and drive price lower and lower for many years. When the tables turned in 2004, these RM suppliers were not bashful about raising prices even higher than one would expect (profiteering) to make up for years of financial famine. They hide behind additional cost increases caused by things we know well such as new government regulation on Chemicals manufacturing facilities.

Now let’s talk about choices...Oil and Gas are primary constituents of many coatings RM. When
the RM suppliers “crack” the Oil and Gas molecule they have choices on where to feed the downstream molecules... gasoline, diesel or industrial chemicals feed stocks to name three choices for just crude oil. They select the stream based on its profitability. Many times this creates shortages of particular RM until the profit of the coatings RM stream equals the other options. The chain can be very long and complicated between oil and the final Coating formula RMs, as many chemical intermediates and their individual supply chains are normally involved.

Another issue impacting the long term equations is the fact that most chemicals plant capacity additions are HUGE Capital investments with 2-4 year plant installation timelines. The Chemicals company CEO and his Board must decide 2-4 years in advance what demand will look like, if they miss... they and their company’s financials are dead. No decision is better than a bad decision. So new capacity installations are therefore few and far between. Right now the RM suppliers are loving it no matter what oil does. They see this as their day in the sun.

-Lastly it should again be noted...
-Oil and Gas price
-Molecule cracking profit stream choices
-Lack of industrial chemicals capacity
-Asian growth
-Weak dollar
All affect Intermediate RM supply demand curves and that drives price.

These factors have changed the game between the coatings suppliers and RM suppliers.

The bad news is the RM suppliers have learned their lesson and even when crude has fallen they have so far stuck together in terms of price discipline and no new capacity additions. They missed badly in the eighties and over built capacity. They paid dearly for decades. Right now they are loving it no matter what oil does. To assume that because Oil and Natural gas have dropped, RM pricing will fall in parallel any time soon is just not true.

DCInc
OK. Good info but why then have the coatings companies used it as an excuse to raise prices for the last 2 years?

Bill Doherty
Maybe the recent R & D award for Soy based powder is the answer. If not I guess we all better go back and read Daniel Quinn's novel Ishmael.

Have something to add? Visit the forums at www.finishingtalk.com today, and let us know what you think!

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TRENDS IN INDUSTRIAL PARTS CLEANING, (CONTINUED FROM PG 5)...

Perfectly matched filtration and separator systems extend the useful life of the cleaning fluids, thereby increasing the quality, profitability and environmental friendliness of parts cleaning as a whole.

Cleanliness tests becoming more important
Cleanliness checks of material surfaces have become a significant part of quality-oriented manufacturing. Non-destructive methods of analysis with a high degree of accuracy and reliability are needed to check the cleanliness of surfaces on components and functional areas. These methods must also be able to work fast, preferably at full production speed. Only then can deviations from specified values be detected quickly, allowing rapid reactions.

parts2clean 2009 What trends are there in plant and process engineering? What direction are developments in cleaning fluids taking? What methods of analysis allow the effectiveness of cleaning processes to be checked both efficiently and reliably in terms of residual particulate and film soiling? You can find answers to these and many other questions at parts2clean. The leading international trade fair for cleaning within the production process is being held from 20th to 22nd October 2009 in Stuttgart, Germany. Additional there will be an international convention titled Requirements, Technologies and Markets Worldwide.

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www.parts2clean.de
About 5 years ago, Precision Plating, a Chicago-based company originally specializing in decorative plating, celebrated its 100 year anniversary. Founded by Robert Zacharias in 1904, Precision Plating has withstood the test of time - but not without a fight. In its first twenty years, the building that housed the company, then known as the Robert Zacharias Company, and its operations was destroyed by a fire. Though uninsured, Zacharias still managed to regroup and centralize the business at a new location in Chicago.

Ten years later, the strength of the company was once again tested by another obstacle - the Great Depression. The resulting lull in business forced Zacharias to resort to selling religious pictures, which were made all the more appealing by their silver and gold plated frames. Even in the economic downturn, the company continued to fully guarantee its products in an effort to maintain its reputation of quality.

The subsequent demand for precious metal plating instigated by World War II allowed Zacharias to utilize some of the assets he already had: oblique open plating barrels and horizontal portable barrels which made it possible to plate small parts to exacting tolerances. In this way, the Robert Zacharias Company began focusing on precious metal plating for military application - becoming a leader in the industry, and inspiring the new company name - Precision Plating.

Over the next 80 years, Precision Plating moved twice, having outgrown two facilities, and finally settled in its present location at 4123 W. Peterson Ave in Chicago, IL, in 1971. Even this building proved too small for the company’s ambition, however, and an expansion project was underway two years later. The religious picture frame business fell to the wayside as the de-

Continued on next page...
mand for Job shop plating rose dramatically. From here, Precision Plating established itself early on in Coil work, and with the hiring of Jim Belmonti as Plant Manager in the 1970's, the company moved into its current focus in electronic plating.

Today, Jim (James) Belmonti's impact on the company lives on. Aside from purchasing the company in 1989 and becoming CEO, Belmonti has turned it into a family business - in more ways than one. His two sons, Gary and Jeff (now President and Vice President, respectively) are both strong contributors to the business, dedicated to continuing its legacy as it embarks on its second century. But extended family plays an even bigger part in the continued success of Precision Plating. A simple glance at the company's website, www.ppc1904.com, makes it apparent that the company places great value in its workers. Indeed, the company bases its good fortune not just on its "strong focus on 100% customer satisfaction" and the "importance of quality from the very beginning", but also on its employees, who are shown continuous appreciation through company sponsored family picnics, employee of the month awards, and the support of a strong, workplace community.

Precision Plating will be turning a robust and respectable 105 years old this year. So, what's it's secret? Throughout the years, the company has maintained its values and placed them as the top priority. While they have evolved to fit the times, the fundamentals are still the same: a set of core values based on its responsibility to its customers, employees, suppliers and the environment.
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**NITROFREEZE CRYOGENIC DEBURRING SERVICE EXPANDS**

**Worcester, MA** - The Cryogenic Institute of New England, Inc. is pleased to announce expanded capabilities for the removal of machine burrs from complex machined parts. The process, known as Nitrofreeze® cryogenic deburring service, has been adopted by a wide range of customers in diverse industries including medical devices, aerospace, automotive, and process control, among others. Nitrofreeze® cryogenic deburring service is ideal for today’s advanced materials, including most plastics, composites, organics, polymers and advanced synthetics.

“The adoption of these advanced materials by engineers has expanded the market for associated finishing processes and the company’s Nitrofreeze® cryogenic deburring service has filled this niche”, according to Robin Rhodes, President of the Cryogenic Institute of New England, Inc. The company first offered its cryogenic deburring process in 2003 and it has since become one of its fastest growing product lines.

Many of the parts that benefit from this unique form of burr removal have intricate shapes that are cut or milled on sophisticated CNC machines. They contain critical dimensions and have strict requirements for a blemish free surface finish. The Nitrofreeze® cryogenic deburring process is able to protect the surface finish and critical dimensions of the parts during burr removal because the parts are processed in a cryogenically frozen condition. This not only protects the part, it also promotes the clean removal of the undesired machine burrs when precisely attacked by the systems cryogenic-grade polycarbonate blasting media.

“One of our biggest challenges is that many potential customers in need of machine burr removal solutions, including machinists, manufacturing engineers and quality managers, have not heard of Nitrofreeze® cryogenic deburring,” according to Ryan Taylor, Product Marketing Specialist at Cryogenic Institute of New England, Inc. “This is despite the fact that our cryogenic deburring offers many advantages, including consistent cleaning, repeatable results, and our ability to remove burrs in recessed and blind holes as small as 0.015 inches”, he added.

The company processes parts for customers on a job-shop or service basis. Typical batch sizes range from dozens of individual components to tens and even hundreds of thousand per week. Typical turnaround time is within a few days of receipt and fast turn service for prototype of other rush parts can be accommodated for a small premium charge. The process is environmentally-friendly, clean, fast and cost effective – especially when compared to other alternative deburring processes.


The Cryogenic Institute of New England, Inc. offers a full range of Nitrofreeze® cryogenic services, including cryogenic burr removal service, cryogenic de-flashing services, conventional cryogenic treatment, heat & freeze thermal cycling, shrink fitting services, and dry ice (CO2) blast cleaning. It also offers engineering services, cryogenic lab work in support of R & D, and custom equipment design for new and unique cryogenic applications. It is a corporate sustaining member of the Cryogenic Society of America and ASM-The Material Society.

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Electrochemically, alloys can be designed to produce different corrosion potentials than their alloying elements. It is possible, therefore, to maintain the sacrificial protection of zinc coating over steel, but at a different potential, closer to steel, by alloying it with another metal, preferably more noble than zinc. As a result, the alloy corrodes at a much slower rate than zinc alone, affording better corrosion protection. Some of these plating alloys have also been found to be excellent replacements for cadmium.

**Zinc-Nickel Alloy**

Some Advantages:
- Excellent corrosion resistance, generally 5X better than pure Zinc
- Excellent corrosion resistance when exposed to high temperature
- Highest abrasion resistance of all zinc alloys
- Excellent covering power for deep recesses
- Replacement for the toxic metal, Cadmium
- There are two types of zinc-nickel plating systems available commercially:
  - Alkaline-type (non-cyanide) bath
  - Acid-type bath
The nickel content in this alloy ranges from 5-15% by weight of the deposit; the balance is zinc. Corrosion resistance studies have shown a peak performance after chromating in alloys containing 10-15% nickel. At nickel levels higher than 25-30%, the deposit ceases to be sacrificial to steel.

The alkaline-type bath plates at 20-40% efficiency, and has the advantage of producing uniform thickness and nickel distribution in the deposit across low- and high-current density areas. The deposit has good ductility and has been successfully used on parts requiring post plate forming. The inherent alkalinity of the bath reduces the post plating corrosion tendency of non-plated surfaces, such as internal areas of tubular parts. The acid type bath plates faster at twice the efficiency and has been used to produce 10-15% nickel alloys. However, due to its higher efficiency, plated material distribution varies across the current density range, and nickel content in the deposit may be higher in the low-current density areas.

Proper care must be exercised with zinc-nickel alloy baths to not substantially exceed 15% nickel in the deposit in order to maintain optimum corrosion resistance. As the nickel content increases beyond 15%, chromate passivation becomes exceedingly difficult, and eventually impossible to obtain resulting in reduced corrosion resistance.

**Zinc-Iron Alloy**

Some Advantages:
- Economical Way to Get Extended Corrosion Protection over Zinc
- Easy to Make Black - Does Not Need Silver Based Black Chromate

This process produces alloy deposits containing 15-25% iron. The deposit has enhance corrosion protection, good weldability and ductility that are needed in subsequent manufacturing steps. This alloy can be adjusted to improve adhesion of electro-painting of formed steel components. When chromating, black is the most suitable for this type of alloy.

Although zinc-iron offers good corrosion resistance as plated and chromated, exposure to heat deteriorates this resistance rapidly.

**Zinc-Cobalt Alloy**

- Easy to Apply Black Chromate
- Excellent Corrosion Protection Bright Finish, Good Adhesion and Ductility

Zinc-cobalt alloy plating has been...
ZINC ALLOY ELECTROPLATINGS,

come more popular because of its relatively lower cost of operation compared to zinc-nickel. It offers lower corrosion resistance; however, the level is still adequate for certain applications and an improvement over plain zinc of the same thickness. The coating can be applied in an acidic or caustic bath. The deposit will contain up to 1% cobalt. The acid-type bath has a higher cathode efficiency, and reduced hydrogen embrittlement, but its plating thickness distribution varies substantially between low- and high-current-density areas.

**Tin-Zinc Alloy**

- Excellent Ductility
- Excellent Solderability
- Excellent Conductivity
- Extremely high corrosion resistance to salt water and sulfur dioxide
- Maintains high corrosion resistance even after hard crimping and bending
- Can be safely applied to sensitive electronic components and glass to metal seals, with no attack to the glass
- Replacement for the toxic metal, Cadmium
- Provides good protection on steel when in contact with Aluminum

This alloy contains 70-90% tin with the balance being zinc. The deposit is ductile and maintains good solderability even after aging. Corrosion resistance equals or exceeds that of zinc-nickel alloys. Chromating is usually limited to clear or yellow. Passivation and Post Plate Treatment.

There are several hexavalent chromate Passivation treatments for the zinc alloys, which are necessary to produce the enhanced corrosion resistance of these alloys. Recent developments have introduced trivalent chromate formulations as well as chromate free passivates in various finishes ranging from clear to iridescent and black. Inorganic and organic topcoats are also available to further enhance overall corrosion resistance and provide other properties such as lubricity and torque and tension.

Contact me for information on the corrosion resistance of the various zinc alloy deposits.

This article was written and submitted by:

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See What The Industry's Talkin' About.
Happy New Year everybody! My name is Leah Greene and I’m the new editor here at Finishing Talk. I’m also new to the metal finishing industry and as you can imagine I’m eager to get more acquainted with this incredibly interesting industry. Much of the news about manufacturing and the metal finishing industry that I’ve read since starting this position has not been very positive. I’ve even talked to a few who fear that 2009 could even be worse.

So in an effort to help all of our readers stay competitive in such an interesting economy, I’ve put together a quick list of possible New Years Eve resolutions that if incorporated into your organization’s yearly business strategy, could pay dividends. Remember the key element in keeping your New year’s resolution is by making realistic ones.

Here are a few that I’ve picked up over the past few months here at Finishing Talk.

**Identify Your Limitations**
Every organization has limitations, so identify yours because these very limitations, if left unidentified, will eventually erode the value of your organization. Once these areas are identified, consider bringing in some extra support to increase your efficiency. It’s important to weigh the cost of early improvement against the cost of cleaning up a potential mess down the road – particularly one that could have been avoided.

**Collaborate**
This is the recursive process where two or more people or organizations work together toward an intersection of common goals. Collaboration can be done with a key supplier, an industry alliance, or even with a competitor. It begins with a little brainstorming but can easily lead to new innovative ideas. You will not only discover a hidden market or product, but you will also most certainly learn from other’s perspectives and experiences, not to mention split up burdensome project responsibilities. Collaboration when done right helps make the two halves bigger than the whole.

**Join an Online Network**
These online communities are popping up everywhere. There’s a community for everything these days; from pets to hobbies to our very own metal finishing bulletin boards (we prefer www.finishingtalk.com). With a quick search on Face Book I found Finishing.com, Cache Valley Plating, and Dragon Powder Coating. Not only is Face Book a great way to reach out to a younger audience, it is an excellent tool for connecting with industry friends, coworkers, and even clients.

**Use a Database**
All good marketing programs start with a good database. A couple of common programs for contact management today include Outlook and ACT. In either of these programs you can create a “master database” that you can add to over time. You also should add as much additional information about these contacts as you can. Try adding categories to your database like “Client, Prospect, Christmas Card List, and/or Vendor. You can even get a little more indepth by adding categories about specialties such as Ni Plating, Anodizing, Powder Coating, etc. Also don’t forget to capture all personal information you can about each contact such as birthday, spouse name, etc. Once all of this information is in place you can easily create sub-lists that allow you to begin target marketing your products and services. Use it often, and update it daily.

If you have any additional ideas that you’d like to share that our community could benefit from, please visit our forums at www.finishingtalk.com/community. I would love to hear your input on the newsletter, any ideas or questions you have, feel free to call or email me at leah@finishingtalk.com.

It is going to be an exciting New Year here at Finishing Talk and I am personally excited to establish a relationship with you all.