



Better Results.  
Less Chemistry.™



**Expertise from Around the Hall**

# Chemistry and expertise for solving manufacturing's toughest problems

**Have a Hubbard-Hall expert speak at your next event.**

Infinitely curious and always happy to roll up their sleeves to solve problems that no one else can, our expert Technical Team also enjoys sharing their insight and knowledge.

Hubbard-Hall experts have built their street cred at several industry trade shows, presenting real life examples of how we have improved a process or increased productivity for our customers. Our talented bullpen of technical experts is ready to bring their skills to your next event. From aqueous or solvent cleaning to metal finishing (such as rust prevention and coloring) and wastewater treatment. We've got 170 years experience to share.



**Cleaning**  
the Hard to Clean



**Finishing**  
the Hard to Finish



**Treating**  
the Hard to Treat



## Cleaning the Hard to Clean

Manufacturers who adhere to strict cleaning processes have 40% fewer defects due to poor cleaning. Our experts can show you a choice for every challenge – aqueous or solvent. Learn how reducing rework and rejects and improving your cleaning process can reduce chemical consumption and complexity while having lasting effects on your wastewater treatment.

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## Solvent alternatives: Don't let your process lines go down

From supply chain issues and facility shutdowns to increasing regulatory constraints and environmental concerns, learn about the current situation and what that means for your business. Hubbard-Hall experts will discuss the current situation with every type of solvent and future regulations and what that means for your business—plus, our experts will share their position on what this means for manufacturing in the future. Learn:

- What your options are.
- How to maintain chemistry: reclaim solvent and aqueous cleaners.
- How to maintain equipment: check monthly and clean often.
- About replacing your chemistry: non-halogenated solvents, fluorinated solvent blends, modified alcohols, or aqueous cleaning.

## The real cost of parts cleaning

Soils and contaminants are notoriously difficult to remove from drawn and formed metal parts. If not removed properly, they can cause downstream contamination, rework, downtime, and customer rejects. But companies have different attitudes toward cleaning costs, risks, and impact. Learn:

- How attitudes about cleaning relate to quality yield.
- How quality yield relates to what a shop spends on cleaning and its profit margins.
- How the hidden cost of not cleaning properly can far outweigh the initial cleaning cost.
- Tips on building a cleaning process to improve quality, yield, and the bottom line.

## Aqueous cleaning 101

For decades, aqueous cleaners have been widely used. Understand and appreciate the basics of water-based parts cleaning from the best in the business. A high-end overview of aqueous cleaning processes and technology that extend the life of cleaners, including a membrane technology that results in a 95% reclaim efficiency. Learn:

- What applications benefit from aqueous cleaning.
- How you can improve your current process in just a few steps.
- About the environmental, health and safety impact.
- How to reduce your total chemical cost.

## Overcoming the challenges of cleaning aluminum

Cleaning aluminum is far different and more challenging than cleaning stainless steel due to its short supply and difficulty to clean safely. Metal finishers worry about over-etching, difficult stains and damaging expensive aluminum. We cover the basic principles that make aluminum unique, cleaners that remove stubborn contaminants and case studies on how to reduce the cost, complexity, and chemical consumption of cleaning aluminum. Learn:

- How is the aluminum being used? Will a caustic soda-based cleaner impact this?
- To identify the contaminant you are trying to remove.
- Why over-etching aluminum is a concern.
- The benefits of post-cleaning waste treatment.

## Have you considered how chemical paint stripping can cut costs, improve quality, and boost capacity?

It is generally accepted that paint and powder coating processes suffer from the overspray that builds up on hooks, racks, and hangers. Consequences include a drop in electrical conductivity, which reduces coating adhesion, and results in a poor visual appearance. The solution is to remove the build-up as often as possible, but that's something many coaters find hard and expensive. Chipping, burning, and blasting the excess buildup of paint and powder are slow, labor-intensive processes that end up damaging and adding to the repair cost for hooks and racks. Learn:

- Which process is best for you.
- What happens to coating that's been removed.
- What the key benefits from moving away from chipping, burning, and blasting are.
- How has this worked for other companies like you.

## What if you could reuse your masking materials and see savings as high as 85% per year?

Many companies spend considerable amount of money on caps, plugs and masking materials to just discard them. Why not recycle and reuse them to increase the lifespan, save time and money while increasing sustainability? Hubbard-Hall customers agree that implementing the right process to reuse their masking plugs allows them to save money, improve profitability and satisfy the need for environmental and most importantly economic sustainability. Learn:

- The benefits of reusing your masking materials.
- How non-hazardous solvents allow for a safer work environment.
- Why biodegradable is for easier waste treatment.
- Strip masking materials, increase the life span... and produce less waste.

## ABC's of phosphate free

Phosphate conversion coatings on metals are used to impart corrosion resistance and lubricity and serve as a base layer. Accordingly, phosphates in process wastewater can produce serious problems in the environment. There are options available to remove phosphates safely and stay within EPA Guidelines. Learn:

- How Zirconium coatings are the next generation of pre-paint chemistries.
- The benefits of being phosphate free.
- What is required to improve your process.
- The long-term effects of Zirconium coatings.



## **Finishing** the Hard to Finish

Our focus is on the manufacturing process – we specialize in the tricky and temperamental from pre-treatment all the way through to waste-water treatment. Our experts can help with color, corrosion and heat treat and share how to save time and money.

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### **Higher heat, higher corrosion rates – rust preventative to the rescue**

Studies show that the metal finishing industry is spending \$276 billion/year addressing corrosion. Conditions in warmer climates are optimal for high humidity corrosion. Protecting your parts begins with improving your process. Finished parts represent a significant dollar investment whether they are sitting in inventory on a shelf or waiting for the next metal finishing process. Using the right chemistry to prevent rust and corrosion will extend shelf life and reduce costs incurred by re-work. Learn:

- How companies like yours can benefit from better corrosion protection.
- What can be implemented into your current process for longer lasting protection.
- How you can use biodegradable, water miscible products.
- How to save costs by eliminating re-processing.

### **Choosing the right rust preventative to make your process more profitable.**

Rust and corrosion are costly issues in the metal finishing industry. Whether your products are being shipped overseas, sitting in inventory on a shelf or waiting for the next metal finishing process, they deserve protection. There are options available to protect your products. Improve your process, protect your parts, and see a significant savings on rework. Learn:

- The difference between solvent, soluble oil, water based and more.
- The importance of each.
- Which process is best for you.
- How companies like you changed their process for better protection

### **Mineral acids for activation vs. acid salt**

Acid salts and Mineral acids like hydrochloric and sulfuric have always been used in metal finishing. The benefits of using acid salt in place of mineral acids have been overlooked in many applications. Learn:

- Improving activation of alloyed brass and steel
- Drawbacks of using HCL
- Environmental and safety considerations
- Reducing operating costs over time.



## Treating the Hard to Treat

With 525 consults per year, our experts are trusted tank side. To stay within discharge limits, you must know what's in your wastewater and how it got there. Our experts can help you optimize your treatment plan, even if it means making changes upstream.

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### 5 ways to remove five metals in your wastewater

Have you struggled with removing metals from your wastewater stream? Hubbard-Hall will look at the top five ways to remove chrome, nickel, copper, zinc, and cadmium from metal finishing wastewater. We will also go over hydroxide versus sulfide as well as metal precipitants and how to use them. Learn:

- Hydroxide versus sulfide precipitation.
- Metal precipitants: how and when to use them.
- Flocculants: the differences in them, their makeup, and their use.
- Mechanical treatment, such as membrane filtration, electrocoagulation, and ion exchange.

### Phosphates: How they impact your discharge

To meet EPA regulations, a facility needs to understand how to remove phosphorus from its water. This session will cover two processes – chemical and biological removal. The presentation looks at what the future holds and further discussion around additional work that is being done - such as the Hypoxia Task Force, industry research for better practices, and nutrition management plans for the recovery of impaired water. Learn:

- About the element phosphorus and its uses.
- How it can ultimately lead to the eutrophication of our water supply and how to alleviate this issue.
- How to remove phosphorus from wastewater—chemical and biological.
- What the future of wastewater looks like.

### 5 ways to future proof your wastewater system

Whether you are scaling up production or just want to ensure that your wastewater system is running smoothly for the future, planning is crucial. Let's look at changes and precautions that a plant can do to ensure that its wastewater system is up to par with the production demands. Learn:

- If production increases, can your wastewater system keep up with the increased flow?
- How do you remove the metal contaminants from the wastewater effectively?
- Has phosphorus showed up on your discharge permit; are there concerns about how to remove it effectively?
- Let's discuss the top ways to remove phosphorus from your wastewater system.

## Start to finish... upstream solutions for hard-to-treat metals in wastewater treatment

Metal finishing operations struggle with removing metal ions in their wastewater treatment process. This presentation covers how to maintain regulated levels of metal with a concentration on less cost and chemistry. Learn:

- How to implement solutions in the upstream operations to mitigate metal problems.
- The benefits of choosing a better cleaning chemistry.
- How to achieve higher efficiency and lower cost in wastewater treatment.

## Wastewater treatment for metal finishers

Often the manufacturing world looks at wastewater treatment as a baffling process. The treatment systems are given the least amount of attention in a plant. The thought is that if there are no violations from the wastewater treatment, then everything is going smooth. This is a process that never makes a dime for the plant, and often costs thousands to run. In this discussion we showcase ways to prevent fines that come along with regulation level violations. Learn:

- Ways that LEAN wastewater treatment practices can help reduce the overall cost.
- How to maintain the requirements set by the discharge permits.
- How manufacturing facilities were able to save money and bring their treatment plants into compliance.
- How to maintain the levels that are compliant with constant regulation changes.



# Meet our experts



## **Mike Valenti, Director of Cleaning Technologies**

A graduate of the University of Georgia, Mike has over 25 years of experience in specialty chemical development and product management. He has experience in the development and sales of specialty chemicals, detergents and cleaners, and metal finishing products. His expertise is in cleaners for both aqueous and solvent cleaning processes, non-ferrous surface preparation, equipment, and testing protocols for a wide range of requirements for critical metal finishing operations.



## **Larry Ensley, Director of Technical Applications**

Larry is a graduate of North Greenville University and oversees Hubbard-Hall's technical service team and lab operations. He has extensive experience in the chemical industry has been with the organization for almost 30 years successfully guiding his technical team. Larry is the acting Product Manager for AquaStrip and MetalGuard product lines.



## **Joshua McClellan, Application Engineer**

Joshua has over ten years of experience as a technical account manager in the chemical industry, specializing in metal cleaning and processes. He graduated from Winthrop University with a Degree in Chemistry and an MBA from Webster University. Joshua works closely with his customers to understand their specific operations and applications to help them get better results with less chemistry.



## **Conner Callais, Technical Applications Specialist**

Connor recently began his career in the metal finishing industry when joining Hubbard-Hall as an application specialist in 2019. A graduate of Wofford College with a B.S. in chemistry and B.A. in applied mathematics. He spent a year at the University of South Carolina studying physical chemistry and in research working with synthetic techniques for RAFT polymerization of nanocomposites. Connor enjoys working with a variety of applications including metal coloring, pre-treatment, corrosion protection, & aqueous cleaning.



## Meet our experts (cont.)



### **Jason Potts, Product Manager**

Jason brings 25 years of experience in metal finishing. Prior to joining Hubbard-Hall, Potts was a Business Development Manager at Coventya and an Operations Manager at HMQ. Potts is also a Licensed Wastewater Operator. In addition to wastewater treatment, he has experience with aluminum metal finishing, cleaning, anodizing, electroless nickel, phosphating, heat treating and zinc plating.



### **André Depew, Product Manager**

A graduate of Michigan State University in Chemical Engineering and University of Dayton's MBA program. André has experience in technical sales & service of proprietary and commodity chemistry used in metal finishing. He brings extensive knowledge of pre-treating, cleaning, finishing, heat treat, rust prevention, and water treatment. Andre enjoys analyzing and understanding customer goals and objectives for desired improvements then helping to devise and implement plans for improvements.



### **Jerry Dwyer, Market Manager, Heat Treat Salts**

Jerry is a graduate of The University of Texas, San Antonio with a BS in Biology/Chemistry. Jerry has served, in various capacities, the metal working and finishing industry for over thirty years. He has extensive knowledge and experience in heat treating, phosphates, and black oxide. He has progressed from service technician to regional sales management, and finally Market Manager at Hubbard-Hall for the past half decade. His passion for science, problem solving and helping customers has always kept him active and engaged with his work.



### **Kevin O'Brien, Business Development Manager**

Kevin O'Brien has established himself as an industry expert with over 35 years of experience in the zinc phosphate market. He developed his expertise by working in multiple facets including manufacturing, quality, technical support, and sales for local, regional and global chemical suppliers. In addition to his broad background, he specializes in the various processes of fastener manufacturing from wire drawing through the final finish

## Meet our experts (cont.)



### Robin Deal, Product Leader, Aquapure

Specializing in industrial wastewater treatment with Hubbard-Hall for the past 8 years. Robin has worked as a wastewater operator, holding a physical/chemical wastewater license in the state of North Carolina. She has also completed the wastewater treatment plant operations specialist certificate program at Sacramento State University. Robin speaks frequently at events, educating and helping to work toward finding efficient ways to transform to a leaner treatment process.



### David Joyce, Waste Water Specialist

David specializes in solving industrial Wastewater issues through chemistry & process improvements, receiving recognition from numerous companies supporting Aerospace, Military and Medical fields. Twenty-eight years of experience with environmental compliance, manufacturing/metal finishing and wastewater treatment. David can be found on site providing audits to help improve processes while maximizing system performance through chemistry.

## Our people. Your problem solvers.

Expertise you can trust. 32% of Hubbard-Hall associates are in tech support, customer service, or sales. This means that you get answers fast while the rest of our team gets your order delivered on time and in spec.

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