FUNDAMETALS

A newsletter publication of the International Metal Decorating and Packaging Association | 2021



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www.metaldecorators.org/newsletter



Brief History of the Beer Can- from 1933

The Can Advantage

The first beer can on the market was in 1933 and it was made of tin.

Read article



Op: The Infrastructure Act & Additional Incentives Nazak Nikakhtar

The Act threatens to leave many businesses with numerous disadvantages.

Read article



Size Conversion Procedure for Diameter & Height

Andy Laden

Procedure for pivoting mandrels and quick-change features Read article



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Cover Story

Employee Engagement

By Lisa Ryan, CSP Chief Appreciation Strategist, Grategy, LLC

Strategies to Keep Your Top Talent from Becoming Someone Else's

f you have had more than two jobs in your career, you have probably had several bosses to go along with those positions. Most manager personalities can be broken down into three categories. I like to call them my "A-Team" because they all begin with letter A.

The first type of boss is the *awesome boss.* When you think about your favorite boss of all time, what characteristics does that person possess? Some common traits include "trustworthy," "has my back," "challenges me," "approachable," and "fun to be around."

The second kind of boss is the average boss. For this boss, you probably worked hard enough so that you didn't get fired, and you were probably paid precisely enough so you did not quit. This type of boss is neither inspirational or offensive. He or she did not really make a positive or negative difference in your career.

The third type of boss is, of course, the *awful boss.* Words that describe this person often include "plays favorites," "unfair," "backstabber," "takes all the credit" – you get the picture.

Using the following techniques will help you to become the "awesome" boss that you would have liked to report to in your career.

Here are three ways you can create a culture of appreciation in your workplace.

1 Build trust

Trust is the foundation on which you build your culture. If there is no trust, nothing else matters. Your company culture took a long time to get to the point that it is right now, and it's not going to change overnight. What often happens to leaders is that they suffer from a condition called BSO – Bright Shiny Object Syndrome. After attending a seminar, conference or industry event, they discover "the

^{**} Committee Chair



next big idea" to increase engagement. Managers then excitedly implement these new strategies, but when they don't see immediate results, they discontinue the program.

One frequently used example is implementing "Lunch and Learns" for the professional development of your team. Don't get me wrong, having Lunch and Learns is a terrific idea. You have people from your organization gathered together, learning new ideas and having the same conversation. After the program, they can help and support each other in taking action. Terrific, right?

Unfortunately, here's what happens instead: The idea of a Lunch and Learn is proposed, and the person in charge gets really excited about the big event. Managers promote the event. They post fliers everywhere. They splurge for lunch or snacks for the session, and they may even bring in an outside trainer. The big day arrives, and only three people show up, instead of the 42 they were counting on to "make it worth their while." The person in charge figures, "Well that didn't work. We're not going to do that again."

When you, as a leader, commit to making a change no matter how long it takes, you are well on your way to creating a culture of trust.

Instead, what if you asked those three attendees, "What did you like and what can we do better next time?" Be interested in their feedback, implement their ideas and try it again. Maybe the second time, you'll have eight people show up. Same thing, "What did you like and what can we do better next time." This is how you build a program – over time.

Because employees are used to managers chasing BSO's, they know that it only takes a few weeks for things to go back to "normal." Employees won't trust you until they see consistency in your actions.



Dear IMDPA Members, Partners, and friends.

The International Metal Decorating and Packaging Association comes to the forefront of conversations on where to be and who to see at each annual IMDPA Conference. The memorable event provides the venue and setting where the industry can gather to enjoy camaraderie with peers in a social setting starting on

the first day with the Scholarship Golf Outing. Continuing the mission to foster and encourage industry advancements and provide educational benefits, the next two days consist of power-packed metal packaging and decorating presentations by some of the best minds in the industry. This gathering is facilitated by a volunteer committee of dedicated team members who strive to bring the conference attendees pertinent and valuable seminar content. Each year the group works together for six to eight months conversing, planning, and organizing an agenda for the conference and exhibition that reflects the expressed desires of industry members.

In this newsletter John Clark, IMDPA Vice President and Conference Chair, will give an update on his team's efforts and what activities you can expect at this year's conference.

If you are attending in person, I hope you find the event to be of value to you and your company, and I look forward to seeing you.

Also, we have new members in attendance wearing new member ribbons and I am sure that they would appreciate a nice welcome into the IMDPA to learn that they too can enjoy the camaraderie afforded.

Sincerely, Renee Schouten
President, International Metal Decorating
and Packaging Association

P.S. If you didn't receive our pre-show promotions and information in your email inboxes, please be sure to add info@metaldecorators.org and info+metaldecorators.org@ccsend.com to your safe sender list (and check your junk folder)!

Why Employees Leave Their Jobs

Job satisfaction plummeted during the COVID-19 pandemic. Nearly 30 percent of employees are dissatisfied with their jobs, up from just 7.4 percent in 2019. Less than 20 percent of employees consider themselves to be very satisfied at work these days.

- 1. Unsatisfactory salary or pay (15.8 percent)
- 2. Stress or an unmanageable workload (11.7 percent)
- 3. Few growth or advancement opportunities (11.5 percent)
- 4. Employer's values not aligning with their own (7.0 percent)
- 5. Interest in a different industry or career path (6.7 percent)
- 6. Poor work/life balance (6.5 percent)
- 7. Unsatisfactory benefits (3.8 percent)
- 8. Lack of employee recognition (2.9 percent)
- Concerns about their employer's ability to address health and safety concerns in the wake of COVID-19 (2.3 percent)
- 10. No options for remote work (1.3 percent)

bestmoneymoves.com

Trust takes a long time to build, and it can be erased in a moment. The deadly eye roll, the lack of follow-through, and not setting the example that you want to see within the organization are all things that destroy trust. When you, as a leader, commit to making a change no matter how long it takes, you are well on your way to creating a culture of trust.

Invest in Training

Help your employees become better tomorrow than they are today. This means investing in their personal and professional development. Out of all the attributes that potential employees are looking for in their next job, one of the most important is the opportunity to grow and develop. Some managers feel that spending money on training is a waste of resources. Those managers may say, "Why should we spend money to train our employees, they're just going to take what they learn and leave anyway." And, while in a few cases that is true, here is a little food for thought. What if you don't train them, and they stay? What you'll find is that when you invest in your employees, they will work harder for you.

While speaking at a conference, I asked the participants what they did to invest in their employees. One woman shared that they give each employee \$2,500 per year to invest in their own personal and professional development. There was a collective gasp in the room, as several people blurted out, "I have way too many employees to be able to spend that kind of money in training. We'd go broke if we did that." So, I asked her, "What percentage of your employees take you up on this generous offer?" and she responded, "About 3 to 5 percent of them." These are the percentages that are mentioned just about every time I ask the question, so you don't have a lot of risk. The good news is that those employees who do take advantage of your financial support for education - those are the ones to watch. Those people are your future leaders.

When trying to figure out the best ways to invest in your employees, you may directly ask them what they would like to see in that training or professional development program. You'll also want to change the conversation when it comes to training. Most employees, who are being "sent" to training, look at it as punishment. If instead, you let that employee know that you see something in them and would like to help them expand and grow their capabilities to help them grow both personally and professionally, you have a better chance of that employee taking full advantage of the educational program to which you are sending them.



3 Acknowledge Positive Action

Catch your employees in the act of doing things well. In other words, find ways to acknowledge, appreciate, and applaud the efforts of your team members. Mother Teresa once said, "We are more starved for appreciation than we are for bread." Showing appreciation is just as valid at work as it is at home.

Research by Marcial Losado finds that high performing teams work with a 6 to 1 positivity ratio. This statistic means that for every one negative comment that employees hear, they hear at least six positive reactions. These opinions are not necessarily, "Yea! Everything that you do is perfect," but rather, "That's a good start of an idea, let's see how we can build it from here." It's respectful communication. In an average performing team, there is a 3 to 1 positivity ratio. At this point, the company is barely surviving. Employees are doing just enough work so that they do not get fired, and the company is probably paying them just enough so that they do not quit. It's an even balance. Finally, on a low performing team, there is a 0.3 to 1 positivity ratio. People on a low performing team are hearing three times more negative remarks than they are positive comments. It's almost like the old saying, "The beatings will continue until morale improves." That doesn't work.

Stop trying to always fix what's broken and instead, acknowledge what's working. What gets recognized gets repeated, so if you want your employees to behave productively, let them know you notice their good work. The

chances are good that they will like the positive feedback and will look for ways to get more of it.

When you give positive feedback, don't just say, "Great job!" Be specific so they know that you were paying attention to them. Look for ways to recognize your employees in the way that they like to be recognized. Some of your employees will love public applause, while others will hate it. Maybe for those more reserved employees, you'll set up a one-to-one conversation with them. Written notes are also a terrific way to connect. When you tell someone you appreciate them, you create a wonderful memory; when you write it down, you create a treasure. A well placed Post-it note can make all the difference in someone's day.

Summary

To get started, sit down with your leadership team and determine the type of culture you want to create. Don't focus on the things that you "should" do, but rather the unique things that make your workplace a great place to work. Choose one or two of the top ideas that you will commit to doing over the long term. Then do it. **[FM]**



Lisa Ryan helps organizations who want to keep their top talent from becoming someone else's. She is the founder of Grategy and is an award-winning speaker and best-selling author of 10 books,

including Manufacturing Engagement: 98 Proven Strategies to Attract and Retain Your Industry's Top Talent. Learn more at www.LisaRyanSpeaks.com

EMPLOYEE ENGAGEMENT STATISTICS YOU NEED TO KNOW IN 2021

Only 36% of Employees Are Engaged in the Workplace!

While 36% of engaged employees is a rather low percentage, it's the highest since Gallup started measuring employee engagement back in 2000. The number of actively disengaged employees is

A Highly Engaged Workforce Increases Profitability by 21%!

Engaged employees are motivated to complete their tasks on time and successfully and go the extra mile to reach their goals and objectives.

They're better at meeting customers' needs, which leads to more sales and higher

85% of Employees Are Most Motivated With Effective Internal Communications!

When managers share information regularly, employees feel motivated to achieve the mission, vision, and goals. When you raise their awareness of your goals, they will be more engaged with your customers as well.

Excerpt from: hrcloud.com/blog/8-employee-engagement-statistics-you-need-to-know-in-2021

Round Table Discussion

Today's Supply and Demand Challenges Require Creative Problem Solving

The pandemic created the perfect storm of high demand and limited supply for manufacturers in our industry. We've asked three of them to provide their insights on the challenges they are facing and the solutions they are instituting to address them.

Question: The pandemic has brought significant challenges for many manufacturers. With prices on a steep incline, labor shortages, and increased orders, how is your company managing customer service and demand today vs. how it did prior to the pandemic?

Sam Pernice

Koenig & Bauer has been in business for over 200 years, and during that time we have certainly faced our share of challenges. With the pandemic beginning in early 2020 we implemented short term measures to meet customer requirements. The biggest challenge was the abrupt halt to international travel and with that the lack of factory technicians and electricians from our factories. Luckily, just before the pandemic hit we had changed from Outlook to Google Suite, enabling us to utilize powerful video conferencing tools to train our North American staff and get support from our 3rd level engineers in the factories. In addition, the use of our remote service features played a large role in keeping our machines running to support essential business infrastructure. In the meantime, we have also become experts in applying for NIE (National Interest Exception) waivers, which allow us to bring factory technicians into the USA to work on machines despite travel restrictions.

Two years ago, we initiated an apprenticeship program in which we train young talent in our factories to join our US workforce. The program runs for 18 months and we were able to integrate successfully one new electrical and one new mechanical engineer to our service organization. The program was paused due to the pandemic but we have approval to run the program continuously now in order to add resources and to replace employees who retire. Besides the apprenticeship program, we have started to



Sam Pernice
Director of Sales
& Service Metal
Print Division
Koenig & Bauer

Andy Laden
Senior Product
Director
Stolle Machinery
Company





Bob Blandford President Miltec UV

Our contributors are industry leaders with first-hand knowledge of the challenges the pandemic has had on supply chain logistics and customer service support.

search for candidates throughout our global network

Andy Laden

I am sure we are responding like most organizations. We have been trying to increase inventory levels on hand, secure capacity, and adjust lead times based on current conditions and trying to predict potential future impacts. As you know, the state of the world has been in constant flux for over a year which invariably means there will be a disconnects, especially as many companies pursue the same strategy for limited resources.

IMDPA

Bob Blandford

The pandemic has certainly imposed many new challenges all of which affects just about every aspect of our business. Most of our service has converted to remote diagnostics and troubleshooting, however, on-site installation and support may be necessary. In most cases our customers require that our service staff must be either vaccinated or show proof of a negative Covid test result prior to entry into their facility. Although we hold a firm belief that our employees should decide if they want to be vaccinated and the company should not mandate that they get the vaccine, we do insist that they are vaccinated if their position requires that they will be visiting our customers facilities. This includes our Sales, Engineering, and Service team members.

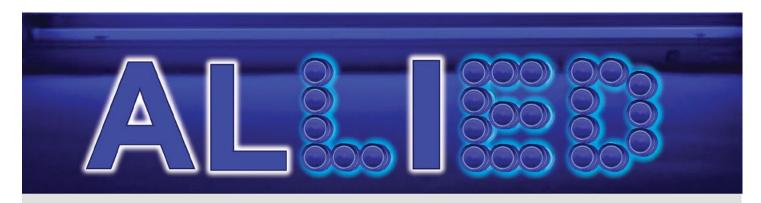
We are also working with clients both remotely through ZOOM or MS TEAMS conference calls or direct in-person meetings at their locations. The sales techniques have certainly changed so we had to make these necessary adjustments.

With the labor shortage, we have had difficulty finding new employees, so we streamlined our operations by operating more efficiently, cross training staff in other departments and taking steps to achieve a high-employee retention rate so we don't lose valuable expertise in all areas of the business

Question: "Just in time" inventory management has been flushed down the proverbial toilet in the past few months. How has this new approach changed how your firm supports your clients?

Sam Pernice

For our machines, we are fortunate to have a very deep vertical integration within Koenig & Bauer. Most of the manufacturing happens within the Koenig & Bauer group. However, we are certainly not immune to inventory challenges. For example, take the shortage of semiconductors. This alone has impacted our business. Thankfully, as a market leader in various packaging industries and being one of the largest printing machine



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manufacturers worldwide, we have a strong position in global markets. To maintain this position, we purchase huge numbers of various components. Our purchasing departments in Dallas and Stuttgart, combined with our global purchasing network work very close together, utilizing our position to ensure that component shortages are identified early and impact on our manufacturing is minimized.

For many years, Koenig & Bauer (US) has maintained an impressive spare parts inventory in Dallas to support our clients business. Our target is to fulfill 90% of spare parts demand from our warehouse. This has proven to be a very valuable measure (to be able to supply parts on short notice) and it has helped insulate us from shipping delays that we all have seen recently. We also have logistic systems in place that allow us to drop-ship parts from Germany in many cases in 24-48 hours.

Andy Laden

We continue to strive to meet our customer commitments, lead times have understandably increased and supply chain issues constantly present challenges.

Bob Blandford

We don't have a choice but to meet our clients order requirements, so we must work harder and smarter to do just that. With that said, we have an excellent Supply Chain team that constantly monitors our raw materials and supplies to assure that we have proper inventory levels to meet our customers order requirements. The global supply chain has been a big problem in every industry so working with each vendor, paying them promptly, doing adequate planning and forecasting and having true partnerships with our suppliers has allowed us to meet our customer demands with excellent on-time delivery on all customer orders.

Question: Is your business seeing a higher demand for new or used equipment?

Sam Pernice

With Koenig & Bauer's large footprint in the packaging sector, we were lucky to maintain a good order backlog and perform well financially. We saw a high number

of equipment investments for the essential food and pharmaceutical sector. Overall we do see an increase in demand for new machinery compared to the last 2 years. Partially this may be a result of a restrained approach for high volume orders in 2020 due to the unclear pandemic situation. As the pandemic situation stabilizes in most parts of the world, companies are again willing to invest in new metal decorating machinery and to start big projects once again. Additionally, we expect an overall rise in market share for metal packaging, as environmental aspects remain an important topic for consumers and for the future of our environment.

Andy Laden

Our requests for proposals and orders for new equipment and conversion has increased significantly.

Bob Blandford

We sell into many markets so the demand in each market varies. In markets that have an increase in demand due to COVID, we are also seeing an increase in equipment orders to meet those market demands. These markets include the Metal Can industry, home improvement products, construction, electronics, and various printing applications just to name a few. Overall, yes, we are seeing a higher demand. However, we have seen some reluctance by some companies, since the new Administration has taken charge, to see what is going to happen with the US and global economy due to the rapid increase in the inflation rates. These companies have adopted a "wait and see" policy as it relates to capital equipment expenditures.

Question How do you see the industry changing to accommodate the supply chain challenges?

Sam Pernice

Because of supply chain challenges, we are seeing a further decline in job sizes to accommodate the lack of raw materials. With investments in more automation, customers are focusing on shorter make-ready times and reduced waste. Oftentimes we see investments in more sophisticated and automated material workflow solutions to reduce the use of scarce labor. In general, we don't think that the industry will go back to "full

warehouses". We think that in the production of metal packaging, optimizations of production time, interlocking processes and implementation of new technologies (e.g. digital printing) will take place in the years to come. Some measures will happen sooner and indeed are already taking place, such as automation driven make ready reductions. Especially in regards to automation, there are still huge possibilities for optimization and cost reduction. The implementation of new technologies like digital printing will also take place for some applications, but most likely this will take some more time until digital printing will be implemented on a broad base for packaging printing.

Andy Laden

I wish I had a crystal ball, but we envision the supply chain worldwide will be stretched and stressed into next year sometime at the very least so we will continue to adapt. Customization could take a back seat to lead time constraints. Consumer demand for canned beverages is expected to continue to grow. Additional capacity is required to meet that demand.

Bob Blandford

We have not seen a drastic change by companies to adapt to the supply chain issues and I'm surprised. Some companies are reaching out to secondary vendors to purchase products they can't find so they can meet their delivery requirements. It seems to be more of a bandaid approach as opposed to identifying real long-term solutions. With so many products being purchased from China and Southeast Asia today, products are slow to arrive in the USA since COVID has affected so many manufacturing facilities. We may see a move to purchase USA or North American produced products in the long term since manufacturing and shipping times can be slashed dramatically. Yes, the prices might be higher but if we cannot get products from Asia, then the net price effect of buying imports is extremely expensive. Therefore, over the next two to three years, don't be surprised to see more products being produced in North America. [FM]



IMDPA Conference Committee Report

Working through COVID-19 to bring you a sucessful conference in 2021

By John Clark, Committee Chair



Well, needless to say it has been an interesting 18 months since COVID-19 hit. We have had to deal with more than we ever could have imagined two years ago. After having to cancel the 2020 Conference, the Conference Committee has been working diligently to put on a successful 2021 Conference.

I want to say a special THANK YOU! to everyone on the Committee (listed to the right) for all their hard work and dedication. My apologies if I have inadvertently left anyone out. Your efforts are greatly appreciated, and we couldn't do this without you!

Apperson, Randy Finzer Roller

Blandford, Bob Miltec

Block, Mike Carey Color

Budnick, Gregory Ardagh Group

Clark, John Heraeus

Courtney, Sam **VN** Graphics

Duca, Tim Ball Corporation

Eberts, Craig IMDPA Honorary

Fennessy, Paul Crown Cork & Seal Finch, Mark Silgan Containers

Friedman, John Northern Container INX International

Furey, Gene **IMDPA** Honorary

Graue, Bill **IMDPA** Honorary

Greenwald, John IMDPA Honorary

Hammer, Nick Ardagh Group

Hoyle, Bill Hoyle Consulting

Hrdlick, John **INX** International

Hurla, Kyle INX International Hurley, Art Silgan Containers

Jacks, Sarah

Knight, Jack **INX** International

Markovich, Steven Sherwin-Williams

Martel, Carl Coral Chemical

Masenior, Michael **AMP Management**

Merrill, Sarah **Ball Corporation**

2021 IMDPA Conference

Due to Covid-19 we had to make the decision to postpone the 2021 Conference to October 5-7. This decision was not taken lightly and provided a great opportunity to have a full live event in-person conference at the Hilton Oak Brook Hills Resort and Conference Center in Oak Brook, IL. We have a great line up of speakers that will provide entertaining and relevant content.

See the IMDPA Conference Brochure online at www.metaldecorators.org/conference-brochure_web

The Conference will kick off with a Shot Gun Start Golf Outing the morning of October 5 with a Happy Hour Reception and

Banquet Dinner to follow Tuesday evening. Wednesday October 6 will kick-off with 1½ days of informative presentations on the organization, industry, and dynamic changes underway in the metal packaging. We look forward to seeing you all in Oak Brook IL USA, October 5-7, 2021.

Best Regards

John Clark

IMDPA Conference Committee Chair

John Clark

Committees

IMDPA members can participate in a variety of committees which provide the opportunity to get involved and have your voices heard. These groups are key for the organization to be able to respond to the **needs** of the metal decorating and decorating **industry**.

Interested? Contact info@metaldecorators.org

Membership Conference Golf **Quality Awards Decorator of the Year** Newsletter Education **Technical Resources** Social Media Website Webinar



IMDPA Events

2021/22 Industry Events

IMDPA Conference & Golf Outing
October 5-7

October 5–7 Oakbrook, IL USA

Canmaker Summit October 2021

October 12–14 Prague Asia CanTech (Postponed)

October 25–27 Bangkok, Thailand

GulfCan Conference 2022

Michael Stacy

Ink Co.

Lori Terry

Mary Van

Vonderen

Chromatic

John Wagg

Seal

Crown Cork &

The CMM Group

Daniel Wachter

Technologies Inc

Industrial Physics

INX International

Terrence Taaffe

Industrial Physics

February 8-10 Dubai U.A.E CanTech The Grand
Tour 2022

March 14-16 Warsaw, Poland

Cannex & Fillex Asia Pacific 2022

June 7-10 Guangzhou, China



IMDPA Membership

Welcome New Members!

We are pleased to have the following industry personnel as new members of our Association and look forward to many years of participation in membership activities.

Victoria Barrett

Greenbank Technology

Steve Blouin Independent Can Co.

Michael Bubenheim Metlac

International

Jodi Flinn Tecnocap

Luis Gordils INX International Ink Co.

Bryce Hall Seneca Foods

Zachary Hart Stolle Machinery

Elena Hernandez

Metlac International John Hobson INX International

Ink Co.

Kevin LaPierre Chromatic

Technologies Inc

Mark Leaf

Stolle Machinery

Dara McCarthy PPG

Darrick McGuire
Actega Metal
Packaging
Solutions

Jerry Moore INX International Ink Co.

Ryan Ostrowski INX International Ink Co.

Laura Rickards DataLase Ltd

Communication Corner

Are you missing emails from the IMDPA?

Our association sends out important information, notifications, and communications once—sometimes twice every week. If you aren't seeing emails in your inbox from the IMDPA like webinar announcements, dates and deadlines, calls for content, and our product innovations newsletter, be sure to add <code>info@metaldecorators.org</code> and <code>info@metaldecorators.org@ccsend.com</code> to your safe sender list (and check your junk folder)!

Stay up-to-date on social media

For the latest news and event information, connect with IMPDA on Facebook, Twitter, and LinkedIn. While you're at it, don't forget to like, share, and comment on our posts!







Membership Statistics (as of August 31, 2021)

Members 452; Honorary, 23; Privileged, 21; TOTAL: 496

Interested in becoming a member? Join us! www.metaldecorators.org/membership

Article

HISTORY of the Beer Can

By: Decades Staff Posted: January 24, 2018

According the the Brewery Collectibles Club of America, the first beer can was developed in 1933. The Gottfried Krueger Brewing Company of Newark, NJ sold Krueger's Finest Beer and Krueger's Cream Ale in 1935.

1933

The first beer can was developed in 1933 by American Can, for Gottfried Krueger's Brewing Company. By the time it hit shelves in 1935, the benefits were already obvious. The cans were lighter than glass bottles and less likely to break. They weren't totally light, though. The flat-top cans that had to be opened with a churchkey weighed about four ounces each. They were originally made out of tin, then steel, then aluminum in 1958.

It didn't take long for the development of the small New Jersey brewers to gain national attention. Pabst, out of Milwaukee, jumped on board and started producing their blue ribbonwinning beer in cans in 1935 as well.

1935

The idea of packaging beer in cans was fine and dandy, but not possible for all breweries — especially smaller ones that didn't have the money to revamp their bottle lines for the new technology. This is where the cone top came in. This design allowed brewers to use their bottle and packaging lines to fill cans, and seal them with bottle caps. According to the Brewery Collectibles Club of America, there were four cone styles: low profile, high profile, J-spout, and crowntainer. Though this style



Schlitz, Milwaukee, WI, high-profile can top Manufactured approximately from 1942 through the mid-1950s.



was mainly used by smaller breweries, hence why we don't see many in vintage and antique shops, Schlitz used this design for a while.

1962

After a lull in can production during World War II, canned beer came sweeping back into the mainstream. With more beer brands sticking to canning as opposed to bottling, the need for versatile packaging was less important and cone top cans started fading out. The next iteration of canning started in Pittsburgh, home of aluminum manufacturer Alcoa. Iron City Beer was the first to use the the easy-open can with a pull tab. Not one to sleep on beer trends, Schlitz adopted this style can as well, tweaking it a little with the first finger loop.

1969

For the first time, the sales of canned beer surpassed those of bottled beers.

1975

Since humans are apparently unable to be trusted with small pieces of metal, lest they toss them on the ground, the first fixed tab beer can as we know it now was developed. With the tab and piece of metal staying attached to the can, people and animals rejoiced as they stopped accidentally swallowing sharp pieces of aluminum.

The first fixed tab beer can was produced by Falls City Brewing Company and is used by just about every brewery

and soda company to this day. While some hip breweries might use old can designs as part of their gimmick, the 43-year old design still seems to be going strong!

Today

A whole new generation of American craft breweries have built passionate followings for their can-only products and philosophy, further establishing craft beer in cans as the new norm for the industry. **[FM]** (AmericanCraftBeer.com)



Kingsbury Beer, c. 1960, 12 oz., Sheboygan, WI

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The Infrastructure Act and The Need for Additional Incentives for a Broader Range of Industries

More incentives are needed for a broader group of industries

By the Hon. Nazak Nikakhtar, Esq.

The Infrastructure Act's financial incentives are limited to a specific number of sectors. By not making available similar financial incentives to a broader group of industries, the Act threatens to leave many businesses with numerous disadvantages. Additional economic incentives are needed that deliver growth opportunities across a larger portion of the economy.

The bipartisan Infrastructure Investment and Jobs Act (HR 3864), which is likely to pass Congress this year, boasts a \$1 trillion or greater spending program for enhancing domestic infrastructure resilience. Key aspects of the legislation dedicate billions of U.S. dollars to improving the electrical grid, energy production, clean energy manufacturing, electric vehicle adoption, and telecommunications coverage nationwide, for example. On the supply chain side, this massive legislative effort has the potential to create thousands of jobs and expand economic output across the United States to the magnitude of several trillion dollars. At the same time, these financial incentives are limited to a specific number of sectors. By not making available similar financial incentives to a broader group of industries. the Act threatens to leave many businesses behind and confronted with a slew of new competitive disadvantages associated with the struggle to find new material, labor, energy, and sales volumes to keep afloat. As it currently stands, Congress has tilted the playing field towards critical sectors and has left others dangling in limbo.

While the Infrastructure Act is important to catalyzing U.S. economic growth for infrastructure-related sectors, more needs to be done on a broader scale.

The salient portions of the Act are summarized below and could provide a valuable template for additional legislative action that reaches a broader range of U.S. industries

Energy Resilience and Grid Security

Billions of dollars will be made available for energy projects, and tax exemptions will be utilized to incentivize and spur innovation. Specific funding provisions will focus on carbon capture and emissions; the promotion of clean energy through the growth and adoption of renewables, solar wind and geothermal programs; the promotion of energy storage and recycling R&D; and the promotion of recycling projects for industrial and manufacturing facilities. Grid project programs include efforts to prevent outages, loans and grants for the construction of transmission facilities and electric power transmission lines, and programs to improve energy conservation and emissions reductions.

Energy Efficiency

Grants and loans will be dedicated to increasing energy efficiency for commercial and residential facilities, incentives will be provided to expand energy-efficient transportation and related infrastructure, and R&D programs will be developed for sustainable manufacturing.

Critical and Strategic Materials

R&D projects will be funded to enhance separation technologies for critical minerals including rare earths,



the development of more efficient mineral uses, and better material recycling capabilities and technologies.

While these cost-imposing provisions serve to pay, in part, for the enormous capital costs associated with the Infrastructure Act, the rollout of these provisions is premature

Electric Vehicle (EV) Growth

R&D and manufacturing funds will be geared towards promoting the electrification of the vehicle fleet nationwide and accelerating the rollout of infrastructure to support EVs, including EV charging stations. Funding programs will additionally include projects that target second-life EV battery usage and the recycling of batteries.

Cybersecurity

Funding will be established to provide financial assistance to entities subject to significant cybersecurity incidents. Additional grants, technical assistance, and incentives will be provided to promote updated cybersecurity technology investments in the energy sector to prevent widespread energy disruptions.

Transportation

Major funding projects will focus on improving airport infrastructure, qualified highways and surface freight transportation facilities, and the U.S. intermodal and railroad facilities and connectivity to those facilities.

Water

Grants and tax incentives will target water storage, water recycling, and reuse programs across a number of states. Funding will also extend to drinking water infrastructure and technology to protect the health and resiliency of the water systems. Cybersecurity measures are also included, as are improvements to the nation's lead pipe systems.

Broadband

Grants and tax exemptions will be rolled out for broadband projects, including the telecommunication

infrastructure, to increase internet access across America with particular emphasis on the rollout of broadband to underserved communities.

Permits/Property Rights/Licenses

The Act provides permit authority to inject carbon dioxide for the purpose of geological sequestration on land and in the Outer Continental Shelf. Leases and other rights-of-way for energy storage will also be available. The Department of Energy will be authorized to issue construction permits for interstate electric transmission facilities under certain conditions to expedite the construction process, and it will be afforded the right to assign an entity, including the Government, real property interests to certain properties involving projects for advanced nuclear reactors. Further, the Commerce Department will be required to begin a competitive auction process to grant licenses for electromagnetic spectrum covering frequencies of 3100 and 3450 megahertz for federal and non-federal commercial use.

Federal Energy Standards

Updates to standards will apply to local roadway projects and electric vehicle charging stations to accelerate their adoption and use, oversight for public-private partnership transportation projects costing \$100 million or more, and new safety requirements for motor vehicles, including emergency breaking, recall completion, automatic shutoff, crash avoidance technology, parts performance (including headlights, hoods, and bumpers), and child safety features.

In addition to these positive benefits, the Act however also introduces measures that could impede U.S. industry growth

These provisions include the extension or modification of taxes and fees imposed on a number of sectors including transportation, energy, trade, and customs. Most notably, the Act includes a provision to reinstate the hazardous substance Superfund excise taxes on chemical manufacturing and imports, which will increase manufacturing costs across a range of sectors. The Act also requires brokers of cryptocurrencies to file tax

returns with the Internal Revenue Service, as digital assets would be treated as cash for tax purposes. Finally, the Act proposes to terminate the appropriations and tax credits associated with COVID-19 relief efforts. This includes the recission of certain unobligated balances under various coronavirus aid packages, and the recission of tax credits given to employers for retaining employees during pandemic-related closures.

While these cost-imposing provisions serve to pay, in part, for the enormous capital costs associated with the Infrastructure Act, the rollout of these provisions is premature. In fact, much of the costs will apply to businesses that do not qualify for the incentives offered in the Act, will impact small businesses and vulnerable communities the hardest, and will threaten to impede the growth of the U.S. economy at the critical stage where recovery from the pandemic is still fragile. Even though manufacturing output and jobs are slowly improving, many regions are still struggling to recover, and their recovery is often obstructed by the unfair trade practices of competitors abroad.



The Honorable Nazak Nikakhtar brings over two decades of experience in international trade and national security to help clients succeed in the domestic and

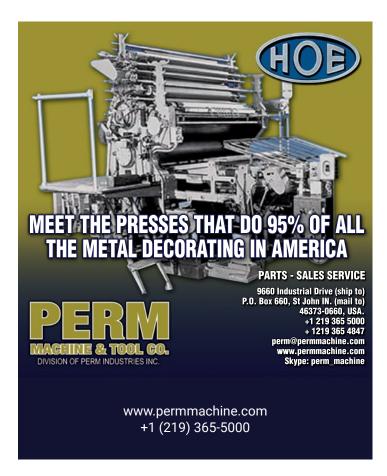
global marketplace. Through leadership roles in the U.S. government and private sector, Nazak has leveraged her valuable insights into the expansive range of U.S. and international laws, regulatory and policy processes, and federal agency resources to achieve clients' business objectives.

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Summary

The American manufacturing sector is the backbone of the U.S. economy so it needs stronger support, and support needs to be fair, even, and unbiased. As noted, the passage of the Infrastructure Act should not mark the end of Congress's efforts to support industry growth. Congress now needs a new legislative package with additional economic incentives that deliver growth opportunities across a larger portion of the economy. The American manufacturing ecosystem is diverse and includes a range of cutting-edge as well as foundational industries that are core to the U.S. commercial and defense ecosystems. The next set of legislation should reflect this.

It is worth emphasizing that, throughout the past century, American industries have driven the nation's powerful economic engine through enormous human and capital investments, innovation, workforce development, and quality output. As global competition becomes more intense and industries require greater support, it is imperative that Congress continue to rise to the challenge. **[FM]**



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PRODUCT INNOVATIONS 2021

Company: Reynolds

Services, Inc

Product: Prototype Technology



Description: The Reynolds Services' prototype technology is perhaps more about the process utilized to develop the prototype and deliver it to the customer than it is about the actual design. The deliverable product is an Augmented Reality Prototype which when used with your Apple iOS device natively or, in the future, other smart phones with third party software, creates an interactive experience which allows you to place and manipulate a virtual object like the prototype into a real-world environment.

Company: MW Lak **Solutions**

Product: UV Led Cationic Varnish

Description: UV LED Cationic Varnish overcomes the drawbacks of Free Radical System while keeping all the advantages of UV LED applications. It outperforms Free Radical System, but it also outperforms its solvent based counterparts in terms of gloss, hardness, and for being odorless.

Company: Integrated **Packaging Solutions**

Product: ToolCONTROL

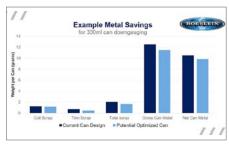
Too/Contro

Tool Tracking & Inventory Control

Description: ToolCONTROL was launched by Integrated Packaging Solutions (or IPS) in May of 2020 as a tool tracking and inventory control system designed specifically for the can manufacturing industry. By knowing which tools are in production, and what inventory gaps need filling, the tool room can assure Bodymakers have access to the right tools at the right time.

Company: Roeslein & **Associates**

Product: New Plant Efficiency Analysis Services



Description: Roeslein & Associates is helping clients reach their highest level of efficiency with a new plant efficiency analysis service. This is executed utilizing a dedicated group of industry professionals, expanding sets of technical tools and can design models, and a database of can designs with associated knowledge of how well different designs work in practice.

Company: Dantex **Product: Marathon**



Description: Marathon processor offers new sustainable standards to metal decorators and has been specifically developed to work with new Marathon, as well as standard Torelief steel-back, plates. Dantex's new technologies offer unprecedented efficiency, quality and high-speed processing. Marathon is ready to meet the growing demands of the industry.

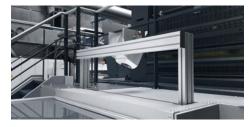
Company: INX International Ink Co.

Product: VerifyMe Inks



Description: INX International has developed a new flat sheet metal decorating security ink with a proprietary pigment from VerifyMe, a technology solutions company that markets brand protection and anti-counterfeiting products.

Company: Koenig & Bauer Product: MetalControl



Description: MetalControl reduces the colour setup times down to a minimum with 100% colour measurement. The analysing of every sheet during the production guarantees colour consistency during the whole production run. MetalControl is integrated into the MetalStar 3. A high resolution camera scans every sheet and measures the ink density within the print control strip. This information is continually evaluated and corrects the ink keys automatically. The intelligent colour controller responds to any out of tolerance reading to maintain the standard set for each colour. The benefit is a 100% closed loop colour control. which guarantees highest colour stability and consistency independent from the operator.

Company: Dantex Product: Marathon



Description: Specialist photopolymer plate material and processing equipment supplier, Dantex Group, announces the launch of Marathon; a new plate processor, specifically aimed at the growing demands of the metal decoration market.

Company: Prime Controls Product: Light-Based Leak detection systems featuring Eclipse Technology





Description: Eclipse is an ultra-sensitive light-based leak detection that is 8x more sensitive than infrared and traditional light detection methods. Eclipse technology penetrates smaller cracks more efficiently improving detection of circuitous defects; blowing away all existing light testing technology.

Do you have a new product you would like to have showcased in our e-newsletter?

As members of IMDPA, you can submit a new product or technology that contributes the metal decorating and packaging industry – including raw materials, machinery and converted items.

Email your product information to enewsletter@metaldecorators.org

Company: SPG Prints
Product: Kronos Laser
System

spgprints



Description: SPGPrints' laser system KRONOS provides top quality with higher relief depths. The system is equipped with our unique Active 3D® RIP software, which enables the direct imaging of various file formats. Like all prepress solutions from SPGPrints, the KRONOS is equipped with a digital database which stores different calibrated material specifications. This reduces the chance of human errors and increases the efficiency in the whole workflow. This direct laser engraver is designed to work with air cylinders in between 3-jaw chuck and center point.

Company: DataLase

Product: New laser coding and marking solution for metal decoration



Description: Global coding and marking specialists, DataLase, has launched a UV offset (UVO) litho metal decoration coating, designed for use on offset litho presses equipped with UV curing units.

Company: Dürr Megtec Product: NEW Generation Wet Electrostatic Precipitator



Description: Dürr Megtec has significantly improved the performance and reliability of the state-of-the-art wet electrostatic precipitators through modular design and enhancements that reduce engineering, shipping and installation efforts. The new product offers more efficient contaminant capture through increased operating voltage, requiring less collecting surface area. A high-intensity, offline-cleaning system reduces maintenance, eliminates carryover of entrained matter during washing and provides better operational performance during cleaning.

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Provide high-res image of the new product, as a png file or jpg.

Email your product information to enewsletter@metaldecorators.org

Company: HeatTek

Product: Evolve Systems



Description: A new brand has been unveiled for one of HeatTek's key categories of manufacturing equipment - Evolve Systems™. The new name unifies the company's well-known product groups exclusively designed and built for metal packaging. Evolve Systems encompasses HeatTek's Pin Ovens, Internal Bake Ovens, Dryoff Ovens as well as its recently expanded offering of Washers.

Company: Can Components Corp.

Product: Solventless film-lamination



Description: Solventless film-lamination adheres rolled Polyester films with a pre-applied adhesive bonding layer to both sides of aluminium, *Electro Tin Plate* or *Tin Free Steel* coils;

Dry-lamination of rolled films to base metal coils is achieved with infinitely adjustable and instantly responsive electromagnetic (a.k.a. microwave) energy. This advanced methodology is a significant saving, Vs convection, because the energy is absorbed by the surface of the metal, not the core.

Who invented the food can?

A Frenchman, Nicolas Appert, is widely regarded as the first to devise the idea of preserving foods in containers by driving out the air with heat before sealing. He used glass jars to win a prize early in the 19th century awarded by Emperor Napoleon to provide preserved foods for the troops at the Russian front. Another Frenchman, Philippe de Girard, first demonstrated canned foods at the Royal Society in London in 1810 and, soon after, an Englishman Peter Durand, patented some ideas for a similar process that could include the tinplate can. Durand was in effect acting as an agent for de Girard. The first cans used solder for sealing the seams. It wasn't until 1880 that mechanical seaming processes were developed. A proper hermetic double seam was developed in 1897 when Max Ams and Julius Brenzinger in the US first made the process work at high speeds and was soon after developed by the Sanitary Can Company of the US.

Fun stuff to know from Canmaker: www.canmaker.com/online/frequently-asked-questions/



IMDPA

Conference Memories

The IMDPA held our first meeting as the Metal Decorating Association in Brooklyn, New York on August 14, 1933 and then our first convention in 1935 to promote the industry. Since that time, the association has continued

to grow to include members from more than 30 countries worldwide.









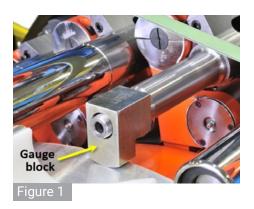


Step-by-Step: Size Conversion Procedure for Diameter and Height

Procedure for pivoting mandrels and quick-change features

By Andy Layden – Senior Product Director Concord Decorators, Basecoaters, Embossers and Pro ilers, Stolle Machinery Co, LLCy

As the demand for different size beverage containers continues to evolve, it is now common for most can makers to conduct size conversion on many production lines. Size conversions may consist of just can length or different can diameters. Below is the recommended Stolle Concord Decorator Size conversion procedure for Diameter and height conversions. This procedure is to be used with pivoting mandrels and quick-change features. Greater detail for many of these adjustments can be found in the Installation, Operation, and Maintenance Manual.



Step 1 – Before beginning this procedure, Lock-out, Tag-out, and Try to ensure the machine is at a zero-energy state.

Refer to the Installation, Operation, and Maintenance Manual for proper safety procedures.

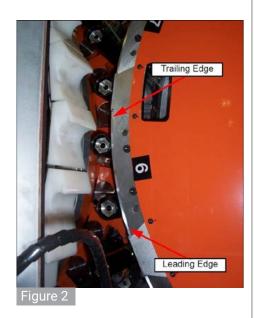
Step 2 – Remove all parts for the current can size.

- 1. Remove the quick-change pocket segments.
- 2. Remove all mandrel assemblies.
- 3. Remove the infeed chute assembly.
- 4. Remove the applicator roll tire or sleeve.

Step 3 – Set the mandrel to blanket pressure and check the cam tracking.

- 1. Inspect and adjust the mandrel circle using the #1 mandrel set up block to ensure you have a good reference to set and verify the remaining assemblies. (Fig. 1)
- 2. Install the mandrel set-up tool on the #1 mandrel station.
- 3. Rotate the machine until mandrel #1 is lined up with the center of blanket segment #1.
- 4. Ensure mandrel #1 is in the print position.
- 5. Measure the gap between the mandrel setup tool and the bare blanket segment.
- 6. Adjust the print pressure until the gap between the mandrel set-up tool and the blanket is .068 inches [1.72 mm]

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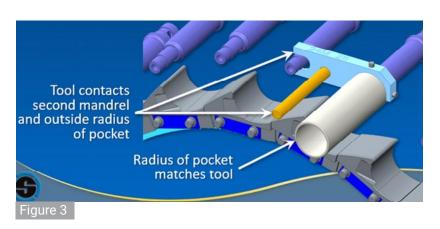
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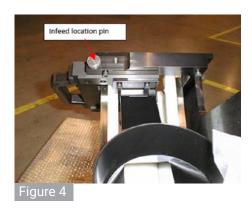
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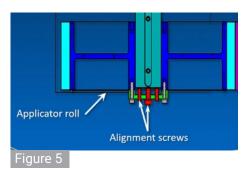
- a. The actual gap needed will depend on materials used and operating speed of the decorator. Typical gaps are between .070 to .062 inches [1.78 to 1.58 mm]. It is recommended to use the largest gap possible that still will produce a quality can. This helps promote machine longevity and reduces wear and tear on the decorator.
- b. Check the toe-in. The gap should be the same along the full-length of the mandrel setup tool. There should be no toe-in.
- 7. Rotate the machine until the mandrel set-up tool is lined up with the beginning of blanket segment #1 just after the lead in taper. (The leading edge)
 - a. Measure the gap between the mandrel tool and the segment then record it.
- 8. Rotate the machine until the mandrel tool is lined up with the end of the blanket #1 about ½ inch [13 mm] before the trail end of the segment. (Figure 2).
 - a. Measure the gap between the mandrel tool and the segment then record it.
- 9. The lead gap at the beginning of the segment should be slightly larger than the trail gap. This distance should be .0005 to .0010 inches [.013 to .025 mm] larger. If this is not the case, then the mandrel cam will need to be adjusted.

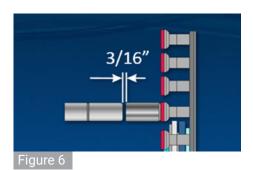
Step 4 – Install and adjust the parts for the new can size

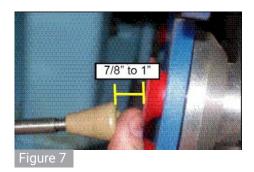
- 1. Install the quick-change pocket assembly for the new can size.
 - a. If these pockets have not been used before, verify the setting to the mandrel shafts with the correct pocket alignment tool. (Figure 3)







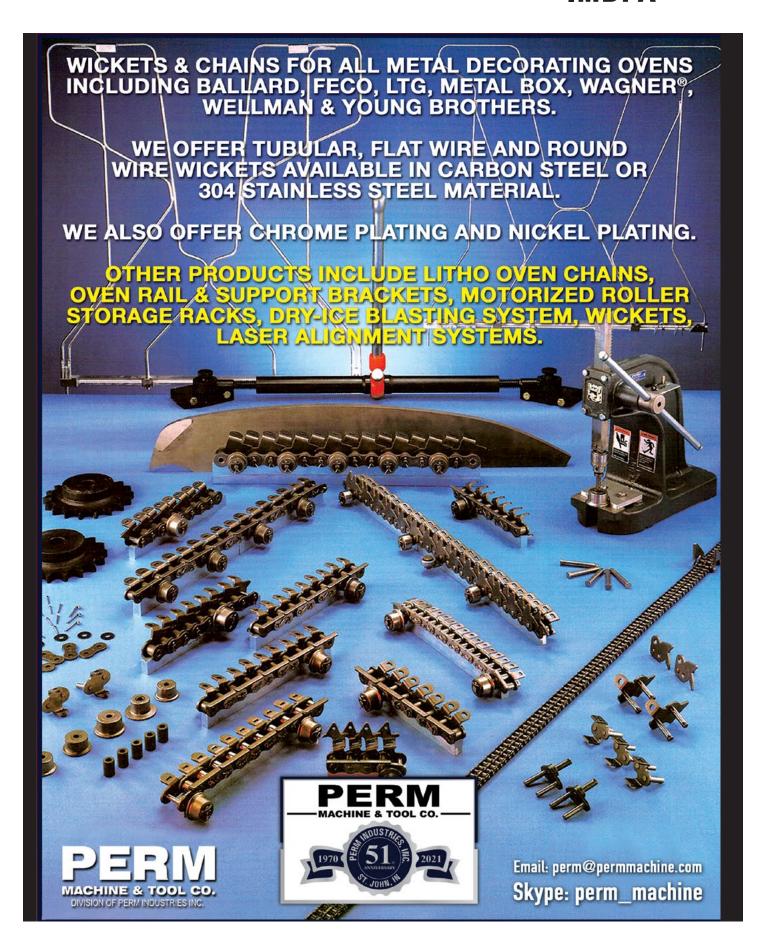




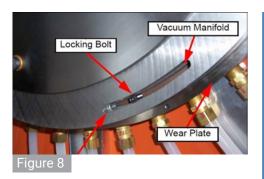
- 2. Install the mandrel sleeves for the new size and secure them with the mandrel nut assembly. Torque to 50 ft lbs [68 N m].
 - a. Depending on your specific mandrel design, a different rear spacer may be required for the new can size. Refer to the mandrel assembly drawing in your drawing package to determine if this is required.
- 3. Install the correct infeed for the new can diameter.
 - a. Depending on your specific infeed design, a different infeed spacer may be required for the new can size. This spacer is located between the infeed support tube and the infeed mounting plate. Refer to the infeed assembly drawings in your drawing package to determine if this is required.
 - b. Adjust the width of the infeed to match the length of the new can height by disengaging the 4 pins and slide the infeed to the proper width and engage the pins in the locating holes. (Figure 4)
 - c. Adjust the infeed so the infeed guide is aligned with the radius of the infeed pocket.
 - d. Install the proper air plenum (if required) to match the width of the infeed
- 4. Install and set the applicator roll for the new can size.
 - a. Adjust the mounting cap of the applicator roll to have the roll just overlap the top of a can installed on the mandrel. (Figure 5)
 - b. Ensure mandrels are sent in the print position and adjust the applicator roll to mandrel pressure until there is a 5/16" (8mm) minimum width stripe on the can when the roll is engaged.

Step 5 – Set the disk transfer and pin chain assemblies.

- 1. Place a can on the disk transfer and adjust the disk until there is a 3/16 inch [3 mm] gap between the cut edge of the can and the end of the mandrel. (Figure 6)
- 2. Adjust the height of the sprocket on the pin chain stand to have a 7/8 inch [22 mm] to 1" (25.4mm) wide gap between the pin chain tip and the suction cup at the transfer point. (Figure 7)Adjust the vacuum timing plug in the transfer manifold so the vacuum turns off 1 to 2 inches [25 to 50 mm] above the transfer point. (Figure 8)
- 3. Adjust the pin chain timing to line up with the suction cups in the disk transfer.



Size Conversion Procedure... Cont. from p24

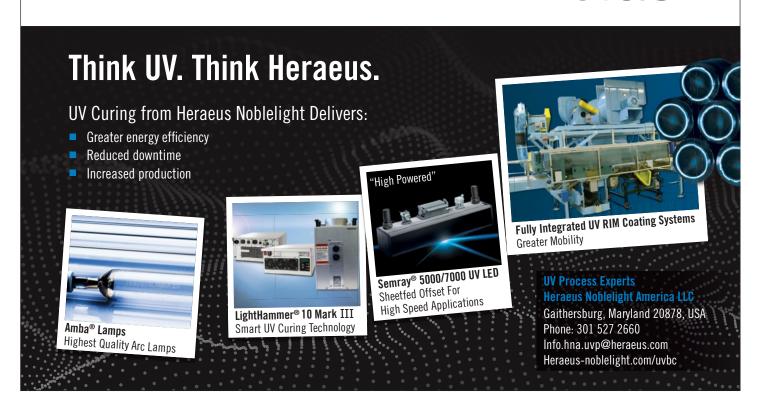


Step 6 – Final adjustments.

- 1. Adjust the Overvarnish overlap settings to have the proper Overvarnish overlap for the new can diameter.
 - a. On new machines it is only necessary to enter the new can diameter to make this adjustment on the varnish screen on the HMI panel.

Stolle Concord Decorators are made with simple size changes in mind. Recording settings for each different size can further reduce time. Saving the disk transfer position shown on the readout, Marking the casting with the sprocket location and also the location of the transfer manifold will allow you to quickly return to the same settings each time you convert. Of course there are many other items that must be converted within the production line. Once the decorator is converted, decorator team members can help support the rest of the team. Develop a checklist specific to for each different size conversion that is done on each production line. This will help bring all machines back into production quickly and back to expected operating efficiency. **[FM]**

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Prime Controls

4528 Gateway Circle Dayton, OH 45440 USA Tel: +1 937-435-8659 primecontrols.com

OVENS

Ajax TOCCO Magnethermic

1745 Overland Avenue N.E. Warren, OH 44483 Tel: +1 330-372-8552 asmetana@ajaxtocco.com

Arc Pacific Limited

1005 Richards Road, Ste. P Hartland, WI 53029 Tel: +1 262-367-5096 arcpacific.com

International Thermal Systems

4697 West Greenfield Ave Milwaukee, WI 53214 Tel: +1 414-526-0431 internationalthermalsystems. com

OVEN CLEANING

Ace Cleaning Experts

4922 Chase Rd. SE Carrollton, OH 44615 USA Tel: +1 330-283-9464 chuck@ acecleaningexperts.com

OVEN PARTS & SERVICES

Environmental Services & Technologies

4941 41st Street Moline, IL 61265 Tel: +1 309-762-9551 envsrv.com

Babcock & Wilcox Megtec Systems

830 Prosper Street De Pere, WI 54115 Tel: +1 920-337-1505 megtec.com

Perm Machine & Tool Co

9660 Industrial Drive St. John, IN 46373 USA Tel: +1 219-365-5000 permmachine.com

PREPRESS SERVICES

Anderson Vreeland

15348 Rt 127 N.E.Bryan, OH 43506 USA Tel: +1 866-282-7697 andersonvreeland.com

Carey Color, Inc (Chicago Div.)

1160 Pierson Drive Suite 102 Batavia, IL 60510 Tel: 630-858-6901

Cocks Clark Graphics, Inc

2200 Arapahoe Street Denver, CO 80205 USA Tel: +1 303-919-3920 cocksclark.com

Hell Direct Laser Engraving

2185 Highway 292 Inman, SC 29349 Tel: +1 864-472-0334 helldirectlasers.com

Olberding Brand Family

2141 Gilbert Ave Cincinnati, OH 45206 Tel: +1 513-281-0999 olberdingbrands.com

Phototype

2141 Gilbert Avenue Cincinnati, OH 45206 Tel: +1 513-281-0999 phototype.com

SGS International

626 W. Main Street Suite 500 Louisville, KY 40202 USA Tel: +1 502-637-5443 sgsintl.com

SS Studios

1023 Commerce Avenue Union, NJ 07083 Tel: +1 908-686-5536 sstudios.com

VN Graphics

14640 NE 91st Street Redmond, WA 98052 USA Tel: +1 425-454-5165 vngraphics.com

Youngstown Pre-Press Inc

3691 LeHarps Road Youngstown, OH 44515 Tel: 330-793-3690 gdobrindt@ameritech.net

PRESS/COATER CYLINDER REPAIR/REPLACEMENT

Beckon Worldwide

(see Bodymaker spare parts)

Brodie System

1539 West Elizabeth Ave Linden, NJ 07036 USA Tel: +1 908-862-8620 brodiesystem.com

QUALITY TESTING & VISUAL INSPECTION EQUIPMENT

Acu-Gage Systems

12 Park Avenue Hudson, NH 03051 Tel: +1 603-622-2481 acu-gage.com

Advanced Color Technologies

200 Capri Court Greenville, SC 29609 USA Tel: +1 864-370-2990 measurecolor.com

Applied Vision Corporation

2020 Vision Lane Akron, OH 44223 USA Tel: +1 330-926-2222 appliedvision.com

CMC-KUHNKE, Inc.

1060 Broadway Albany, NY 12204 USA Tel: +1 518-694-3310 cmc-kuhnke.com

ISRA Vision

4470 Peachtree Lakes Drive Duluth, GA 30096 USA Tel: +1 770-449-7776 isravision.com

Intelligent Sensing, Inc

46828 Butternut Road Oberlin, OH 44074 USA Tel: +1 440-774-4411 intelsen.com

Pressco Technology, Inc

29200 Aurora Road Cleveland, OH 44139 USA Tel: +1 440-498-2600 pressco.com

SACMI

3434 106th Circle Urbandale, IA 50322 Tel: +1 515-276-2052 Sacmi.com

Sencon

6385 W. 74th Street Bedford Park, IL 60638 USA Tel: +1 708-496-3100 sencon.com

Sensory Analytics

405 Pomona Dr Greensboro, NC 27407 USA Tel: +1 336-315-6090 specmetrix.com

REPAIR (SPARE) PARTS

Beckon Worldwide

see Bodymaker Spare Parts

Cleveland Folder Service 4330 Lee Ave, Gurnee, IL 60031 Tel: +1 847-782-5850 clevelandfolder.com

REBUILDS

Integrated Packaging Solutions

4010 Youngfield Street Wheat Ridge, CO 80033 Tel: +1 303-426-4881 intpacsol.com

2 PIECE DECORATOR MACHINERY

Belvac Production Machinery

237 Graves Mills Road Lynchburg, VA 24502 Tel: +1 434-832-6300 belvac.com

Intercan Group Ltd

38 Burners Lane Kiln Farm, Milton Keynes MK11 3HB United Kingdom Tel: +44 1908 270 041 intercan.co.uk

Stolle Machinery

6949 South Potomac Street Centennial, CO 80112 Tel: +1 303-708-9044 stollemachinery.com

USED EQUIPMENT DEALERS

Perm Machine & Tool

(see oven parts & services)

UV EQUIPMENT

American Ultraviolet Aetek UV

212 S. Mt. Zion Road Lebanon, IN 46052 Tel: +1 765-483-9514 auvco.com

Heraeus Noblelight America

910 Clopper Road Gaithersburg, MD 20878 Tel: +1 301-527-2660 heraeus.com

IST METZ GmbH

Lauterstrabe 14-18 D-72622 Nurtingen, Germany ist-uv.com

Miltec UV

146 Log Canoe Circle Stevensville, MD 21666 Tel: +1 410-604-2900 miltec.com

WASHERS, WASH COAT SYSTEMS, CAN WASHERS

International Thermal Systems

4697 West Greenfield Avenue Milwaukee, WI 53214 Tel: +1 414-526-0431 internationalthermalsystems. com

Stolle EMS Group

Unit 3B Barnfield Way Altham Business Park Altham, Accrington Lancashire, BB5 5WJ, UK Tel: +44 1282-858-930 stollemachinery.com



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