

DUSTY JOBS

QUARTERLY

ISSUE VIII

DECEMBER 2018

FABTECH 2018

INTRODUCING RHINO DRUM

PLASMA CUTTING & HEXAVALENT CHROMIUM

GOOD LUCK WITH THAT
A FRIENDLY LITTLE CARD GAME

CHILI COOK-OFF 2018

THE INTERVIEW WITH
**TROY
BEILSTEIN**



THE IMPERIAL SYSTEMS STORY

"I grew up in a family-owned and operated sheet metal shop. My granddad, a loving and driven man, had me slagging parts and sorting hardware by age seven. I spent every minute of every summer in and around the shop...."

JEREMIAH WANN,
OWNER AND PRESIDENT OF IMPERIAL SYSTEMS



Hear the whole story at

www.imperialsystemsinc.com/about-imperial-systems/



A LETTER FROM THE DIRECTOR OF SALES & MARKETING

Several years ago I had the pleasure of visiting VIR (Virginia International Raceway) in Alton, VA. This is a historic road course originally developed in the 1950s and resurrected in 2000. I was visiting a friend who was CART racing at the time and he invited us to come watch him race. Upon arrival, we were asked if we were interested in a ride around the course. "Sure!" we exclaimed, and then proceeded to pile into a Ford Econoline van with a professional driver behind the wheel. While the spin around the track was fun and even at times exhilarating as this driver pushed the large van to its limits, I couldn't help but to think that with the right vehicle this trial spin could have been a lot more effective, and fun.

You might now be thinking, "That's nice, but what in the world does this story have to do with Imperial Systems?" Let me explain. I came on board as Director of Sales and Marketing for Imperial Systems about seven months ago. Over the years I have worked for a couple of medium size companies and

one fairly large international organization approaching \$1 billion on total sales. This large company had many great people and great products but, like most large companies, if you wanted to get something done it required a lot of planning, consensus from many, and copious amounts of time. In other words, it was like trying to handle a road race track in a full-size van.

Imperial Systems has been a refreshing and fun change for me. Like the other companies I have worked with, we have great people, great products and great ideas. The difference is that we have clear, concise and quick discussions and brain storming sessions with ideas that get engineered, tested, and manufactured in a fraction of the time it takes in most companies. I have been a part of this experience for our newest product, The Rhino Drum, along with all of the current improvements we are making to our cartridge line, our flagship CMAXX collector, our BRF Medium Pressure unit, and many others to come. I also witnessed this in our approach to Fabtech in the way in which we created a plan and implemented that plan, which lead to a very successful trade show eliciting many viable leads.

At Imperial Systems there is an awareness that we are on that race track and we are surrounded by competitors who want to be first at the finish line. The difference is that we not only have the right drivers but also the right vehicle to ensure we finish first and best. Drivers, start your engines!! <<

-Tomm Frungillo,
Director of Sales & Marketing



3 Fabtech 2018
Take a look at this years Fabtech trade show in Atlanta.

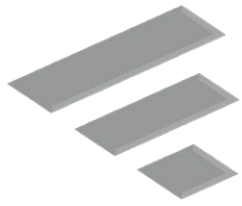
5 Introducing Rhino Drum
Imperial Systems latest new product is an innovation for the customer.

7 Plasma Cutting & Hexavalent Chromium
This infographic examines the dangers of plasma cutting without the proper equipment.

9 Good Luck With That
Charlie ponders the value of change and teaches us a card game.

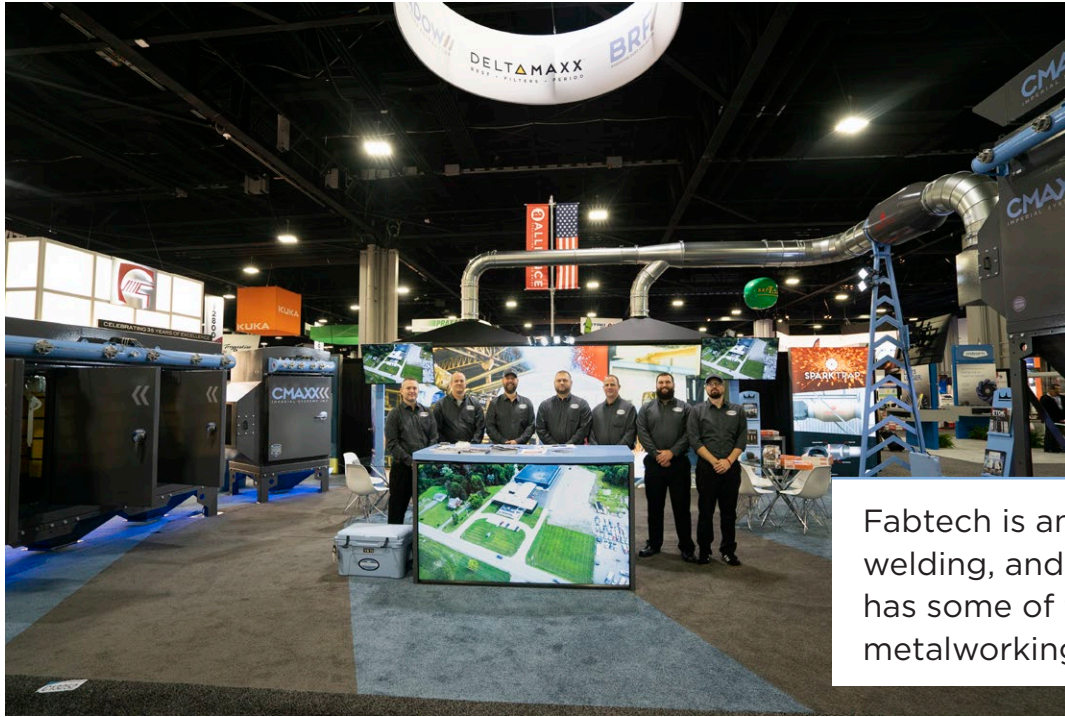
11 Chili Cook-Off
Who was the winner of this years chili cook off? Turn to page 11 to find out!

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Troy talks about his time with Imperial as well as his time spent with Trail Life.



FABTECH

2018 | Atlanta, Georgia



Fabtech is an annual metal forming, welding, and fabricating convention. It has some of the biggest names in the metalworking industry.



In November, 14 members of the Imperial Systems team and representatives from across the country travelled to Atlanta for FABTECH 2018. As one of the biggest fabrication trade shows in the country, FABTECH is always an opportunity for us to put the CMAXX and other products on display. It's also a great opportunity to network and meet others in the industry, including potential new representatives and customers.

"This year was our best turnout ever," says Justin Badger, Imperial Systems Sales Manager. Not only did the Imperial Systems booth draw attention with its three CMAXX collectors and other equipment on display, but four other companies also had CMAXX collectors in their own booths. AKS Cutting Systems, Koike, Dynatorch, and Plasma Automation each displayed a CMAXX on their own equipment at the show.

Imperial Systems staff and representatives had the opportunity to meet and talk to many potential customers over three very busy days. The Imperial Systems booth looks better every year as the marketing team works with the sales team to draw attention to our products. This year, an exciting new product was the Rhino Drum, an explosion-tested drum kit recently added to the company lineup.



This was the first year for the Imperial Systems booth to display three CMAXX collectors, and the first time four other manufacturers had their own CMAXX collectors on display with their own equipment. FABTECH is a chance every year for Imperial Systems to demonstrate our growth as a major player in the dust and fume collection market.

"It's an exhausting couple of days, but it's completely worth it," a sales representative says. "It's amazing how many people come by the booth and want to check out the CMAXX. They want to open the doors, try out the lift rails, check out the filters. They're always really impressed with the quality." With more people visiting the booth this year than ever before, more people got to appreciate our products and meet our staff in person. <<



Imperial Systems introduces

RHINO DRUM

EXPLOSION TESTED DRUM KIT



If your dust is combustible, you've probably been told that your system needs an NFPA approved airlock. Airlocks are expensive and complicated pieces of equipment. Now Imperial Systems is offering a simpler and more efficient solution: the Rhino Drum.

The Rhino Drum is a third party tested and NFPA approved product that takes the place of an airlock for passive explosion isolation. In explosion testing, the Rhino Drum handled up to 7 psi. It meets the NFPA 69 and 654 Standards as a passive explosion isolation device, so if a deflagration occurs, it won't escape outside the drum.



A standard airlock requires a motor, starter, wiring, and wipers. It also requires maintenance on all these parts. The Rhino Drum requires no motor or wiring and is virtually maintenance free, with no moving parts. It is far less expensive than an airlock as well as saving time on parts and labor. The simplistic design eliminates many of the possible problems, including injuries, that can happen with an airlock.

The Rhino Drum uses a metal collar to replace connection materials like flex hose, which can melt in an explosion. The twist and lock design has been developed with customers in mind, making barrel changeout easier and quicker. The Rhino Drum is also tool-free.

The Rhino Drum features a drum dolly, heavy duty drum, optional grounding wire, tool-free sliding coupler, and slide gate featuring an improved aluminum handle. One major advantage of the slide gate is

that it allows drum changeout without shutting down the dust collector. By simply closing the slide gate, the dust collector can continue to operate normally while the drum is replaced.

The changeout process does not require any tools, and the entire process can be

completed by one person (depending on the weight of the full drum).

The Rhino Drum is just one of the many innovations developed by Imperial Systems to provide customers with the best products and make dust collection easier and safer. <<

Follow these steps to complete the changeout process:

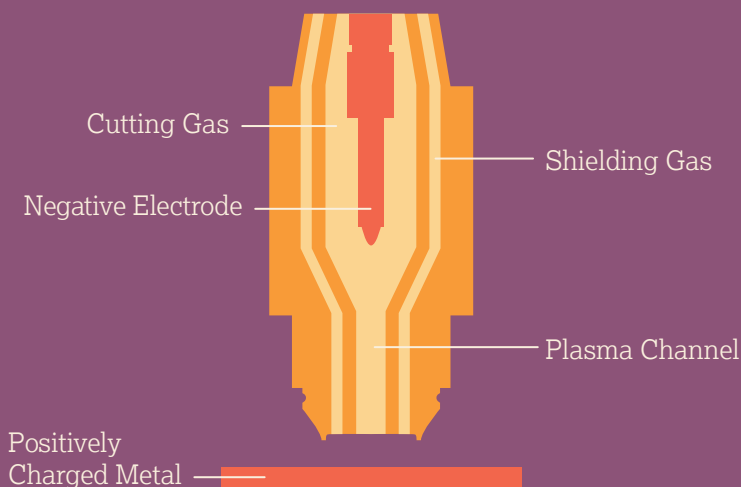
1. Close the slide gate (if needed)
2. Loosen the t-handles
3. Detach the bonding wire
4. Unsnap and twist off the lid
5. Roll the barrel out
6. Return the barrel and replace the lid and bonding wire
7. Tighten t-handles and open slide gate (if closed)



PLASMA CUTTING & HE

Plasma cutting has become common in the industry today. It is ideal for applications requiring precision cuts. What many people do not understand are the dangers that can rise from a plasma table.

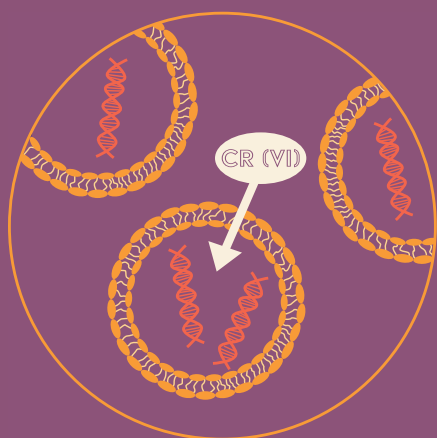
HOW DOES IT WORK?



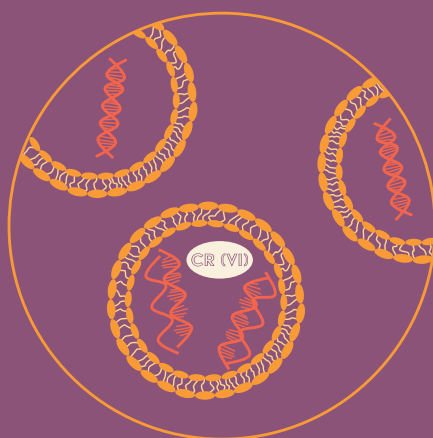
An electric arc is sent through a restricted opening, heating the gas to an extreme temperature. This energy breaks apart gas molecules and creates plasma. When loose electrons collide they release enough energy to cut through the metal.

Many metals are covered by a surface layer of anti-corrosive chromium. This chromium keeps stainless steel strong and makes it more resistant to corrosion. It is not dangerous to humans. However, hot work such as plasma cutting changes the nature of the chromium. When that much heat is applied to chromium, it oxidizes and converts the chromium to a hexavalent state. Hexavalent chromium, or Cr (VI), can be extremely dangerous.

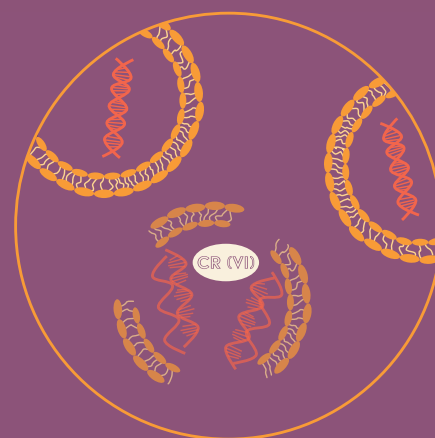
WHY IS HEXAVALENT CHROMIUM DANGEROUS?



Cr (VI) enters the body through inhalation or by direct skin contact. Because it is water soluble, it can easily pass through cell membranes.



Inside the cells, Cr (VI) attacks the DNA, proteins, and membrane lipids, breaking them down.



This disrupts cellular integrity and functions, shutting down the cell.

Once the hexavalent chromium begins to break down cells, it can cause a variety of health problems including respiratory issues, eye irritation, skin effects, and cancer.

HEXAVALENT CHROMIUM

IS PPE (**PERSONAL PROTECTIVE EQUIPMENT**) ENOUGH?

1 ELIMINATION The best line of defense when dealing with a workplace hazard is to eliminate the source. While this may work in some cases, hexavalent chromium can only be eliminated if plasma cutting is also done away with. Plasma tables are too crucial to most operations for this to take place.

2 ENGINEERING CONTROLS The next best option for dealing with hexavalent chromium is to put engineering controls in place that will get rid of as much of the hazard as possible. These controls can include exhaust fans, fume hoods, and paint booths.

3 ADMINISTRATIVE CONTROLS Administrative controls deal with any sort of practices put in place in order to work safer. This may mean training all employees working with Cr (VI) how to work in a way that is better for their health.

4 ADMINISTRATIVE CONTROLS PPE is the least preferred method of protection. This puts health and safety into the hand of each individual employee. So, any employee that does not like or forgets to wear equipment is put at risk.

BREATHE BETTER. WORK SAFER.



The Imperial Systems CMAXX Laser is the perfect engineering control for this type of application. It is designed specifically to take on tough laser, plasma, and thermal applications. This modular system connects directly to the cutting table, using minimal ductwork. Additionally, it comes completely wired from the factory, making it as easy as plugging it in and pushing start.

- Factory Pre-wired
- Tool-free filter access
- 3/16" and 10 gauge carbon steel construction
- DeltaMAXX filters
- Includes control panel
- Built-in spark trap
- Fan silencer
- Optional integrated HEPA filter
- Easy clean-out dust drawers

good Luck With that

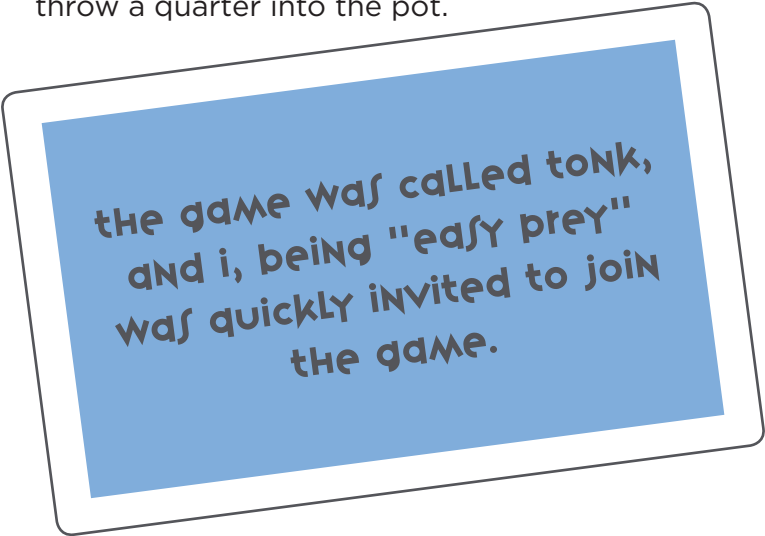
A friendly Little card game

charlie Miller

Recently one of our young associates came into the office and found a small pile of quarters, dimes and nickels laying on his desk and asked where it came from. Another associate claimed responsibility as payback for a debt he owed from the previous day, to which the first replied, "I hate change!" That verbal sparring between a couple work buddies reminded me of a time not too long ago and some good lunchtime camaraderie with co-worker's past.

When I began my career as a young draftsman, I was under the tutorship of a Man-Named-Earl. Every day at noon Earl would take his brown bag lunch off to the break room and meet up with several other co-workers for a

friendly little card game. The game was called Tonk, and I, being "easy prey" was quickly invited to join the game. Tonk is a simple card game. At the beginning of each round the players all throw a quarter into the pot.



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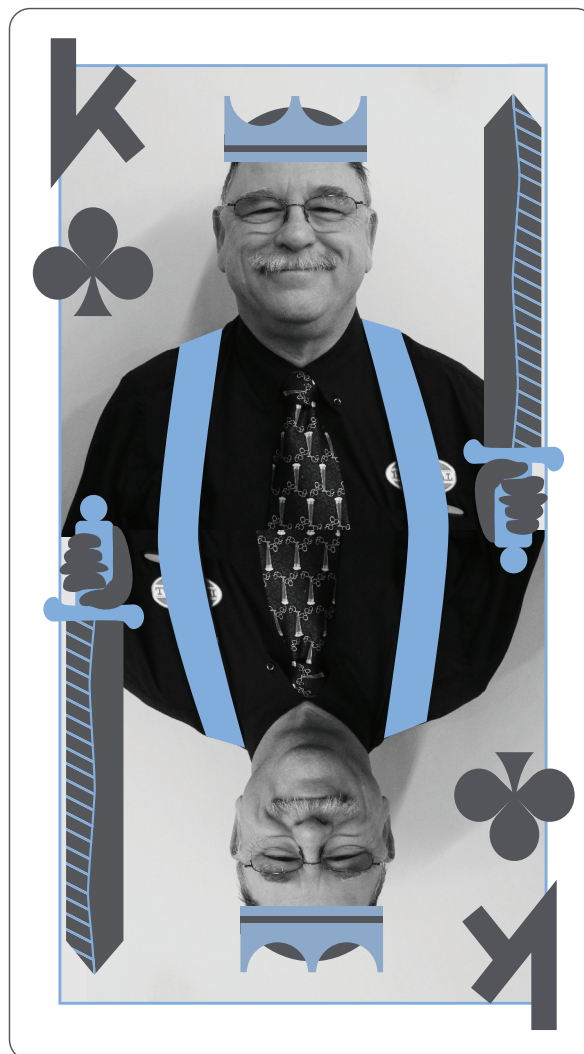
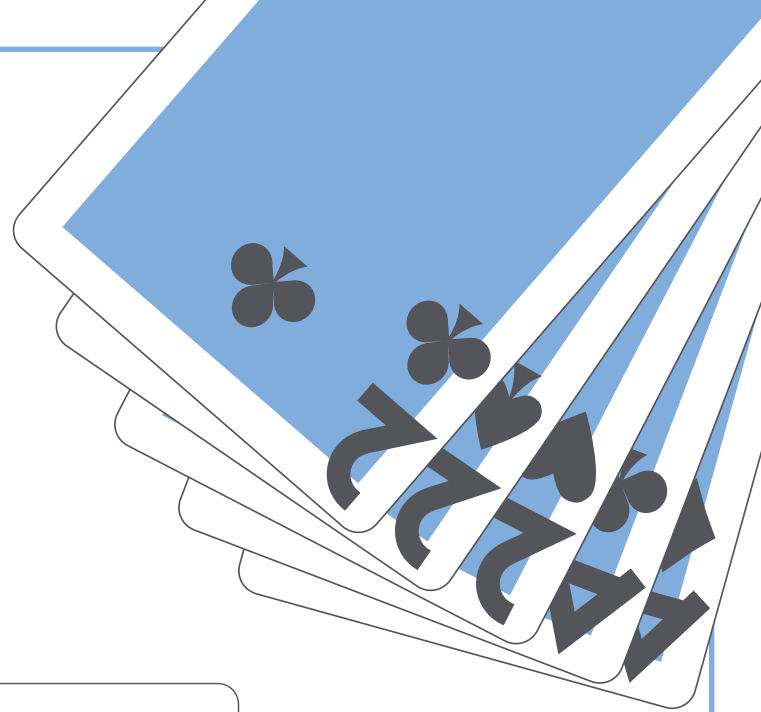
The deal is a five-card hand and the object is to use up your cards to go out first. You used your cards by either creating runs of three or more cards in the same suit, or three or more cards of the same face value. You could lay your runs down on the table or hold them in your hand. If cards were laid on the table other players could possibly play out on your down cards and win the pot before you. A card played on down cards also prevents the player from going out with the low hand. There are three ways to win the pot.

- You can play out first
- You can be dealt Five 10-point cards. 50-points is an automatic winner.
- Or you can gamble that you have been dealt the lowest hand at the table and throw down on your turn. The trouble being, if someone has a hand with an equal or lower point value, instead of collecting the pot you had to pay the pot double.

By the end of lunch there would be a lot of change on the table, usually stacked in front of one or two of the better players. Some of the regular players even keep jars of quarters at their desk to display their winnings, and at least one of the engineers kept a daily log tally of his game winnings (keeping track for the IRS no doubt). Depending on how many were playing, a big winner could rake in as much as five or six dollars in change during lunch. That was worth a little bit more in 1980 then it is worth today.

One of the usual winners of the card games

was Earl, and he took great pleasure in “fleecing” young “Newbies” like me. When I first began to play, a lot of my pocket change, and some of my folding money, was routinely divided among my senior colleagues. But over time I learned the strategies to winning. I learned when it was best to hold them, and what could be laid down without fear of being played upon. One game coup is playing out concealed which is referred to as a Tonk. That hand pays the winner double from all the other players. To Tonk, the hand is held until all the cards can be laid down as a winner which means at least a six-card spread. My favorite memory of the game is the first time I took a ‘double” from Earl. He had already laid down a small three card run but held the fourth run card in his hand to prevent his down cards from being played on. He was holding only two cards; a 6 and a 3. On



his next turn he was going to declare a low hand win with a total of nine points. It was risky, but usually a sure win as everyone else was still holding 5 cards. He didn't know I was dealt 2-aces and 3-duces and planned on declaring the low hand had Earl not laid his 3-card run down before my play. I was not sure my 8 points was lower than his two held cards, so I held my hand and let it go by. When Earl put down his nine points to take the win, I slapped my hand down on his and said “Gotcha!” His shocked chagrin turned into a big smile as he said, “I taught you well Kid”.

I personally do not have a dislike for change. You can give me all of it you want too. And if you think I am not going to stoop over and pick up that miscellaneous penny found on the floor, well Good Luck with that. <<



2018 was another great year for the Imperial Systems Annual Chili Cook-Off. There were a total of twelve chilis to try in varying heats ranging from mild to hot. After a taste (or two) of all the chilis, taste testers were able to cast their votes for their three favorite chilis.



chili
cook-off
2018



With names like "Better than Ian's", "Much Better than Ian's", and "Much, Much Better than Ian's", the competition was on. Chilis were served with cheese, sour cream, and corn chips to make for the ultimate chili experience.

Everyone was eager to see if Carl would be able to defend his title and hang on to the trophy for another year. It was a close call, with a three way tie for second place, but Justin Ferrainola claimed the trophy with his "Texas Ten Pepper Chili". Will Carl and his chili make a comeback next year? <<



THE INTERVIEW WITH TROY BELLSTEIN



Troy has been a draftsman and engineer at Imperial Systems for more than eleven years. When not at work, he dedicates most of this time to Trail Life USA where he is a Trail Master and mentor. While he doesn't have time for many other hobbies, he does make a great brisket. He firmly believes in the power of a good meal to bring people together as a team, a tradition the engineering department here at Imperial Systems continue to share.



Q: How long have you been here?

Since August 2007. Eleven and a half years.

Q: Did you start here as an engineer?

I responded to an ad for a draftsman. It was while they were still at the building in Grove City, and I saw it and didn't think much of it. Then a little while later one of my friends showed me a big two-page spread in the Sharon Herald about the new building in Jackson Center. So when they were hiring again, I jumped on it.

Q: How did you get your start as an engineer?

I worked as an electrical draftsman in Sharpsville at first, and I was working on getting my degree. It took a while. By the time I graduated, I would have been sitting at commencement next to the guy that was going to marry my daughter. I took an AUTOCAD course and I basically helped teach the course because I knew so much about it. I got back into 3D drawing and got the 3D bug again.

Q: So when did you officially become an engineer here?

Well, one day I got business cards that said "design engineer" on them, so I figured it was official.

Q: Outside of work, you dedicate a lot of time to the Boy Scouts, right?

It's actually Trail Life. We started out as Boy Scout troops, and I started working with them around 2001. Around 2014 some of us started to see some changes with the Boy Scouts, and some more changes coming down the pipe, that we didn't feel like they were in line with our goals.

Q: How did Trail Life get started? What makes it special?

It was formed at a conference in Nashville in 2014. I was really excited about the idea. I sat at my computer and clicked the button until registration opened. We were the first troop to register. It's a faith-based organization that raises boys to be good Christian men and lead their families and churches. It's all about men teaching boys how to be men.

Q: What made you so excited about the idea of Trail Life?

I saw a real need for boys to have men to look up to. We need boys that can grow up to be leaders and be active in their community and their church. They need to be able to set a good example for their own kids. I still have respect for the Boy Scouts. My son was a Boy Scout until he got distracted by the fumes... you know, perfume and exhaust fumes.



Q: Does your family have a history with scouting?

My father was an assistant Scout Master and committee member. He started as a Boy Scout from 1944 until the Korean War. He says the Boy Scouts saved his life many times while he was in Korea, using the skills he learned there. This has always been something I've been really involved in, and it's important to me.

Q: What age group do you work with?

I work mostly with boys in 6th, 7th, and 8th grade. I'm the Trail Master for that group. I'm involved with all the groups. When we have the awards banquets, I make brisket for everyone. In February I'm going to be bringing the boys in to talk to everyone who works here, marketing, sales, engineering, fabrication... we have vocational

badges where the boys have to learn about the job and find out more about it. It's important for them to learn what a job is really like so they'll know if they're going to like it.

Q: What else do you do when you're not working with Trail Life?

I don't really have a lot of time for much else, with the 800 hours I spend away and the few hundred more hours I spend preparing. One trip we wanted to give the boys a chance to shoot guns, so I went and got my NRA instructor and my Range Safety Officer qualifications. My nephews played sports for Lakeview and at Edinboro, so if I couldn't go to the games I listened to them on the radio. My wife took all the Lakeview sports photos until just recently.

Q: You said you love your job working here.

One thing I really like, we started when I worked at Packard Electric. I had a gas grill and one of the other guys had one too, and we worked afternoons, so we all got together and cooked

for everyone. It really bonded us like family. The afternoon crew went from worst productivity to best.

Q: And you guys still do that here.

We get together and grill or smoke food once a week. We even have our own smoker now. It really helps a group bond, work together better. You get to talk about problems and come up with solutions. It brings us together as a team.

Q: It's great to hear someone say they love their job.

That's why the vocational badges are important to me for the boys. I want them to know the details about a job so when they do go out and get jobs, they can do something they love too. <<



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Baghouse Dust Collector
& Abort Gate
Woodworking Application

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