

Select-Arc, Inc.: offering top quality stainless

Select-Arc, Inc. raises its standard of excellence with its new flagship facility in Troy, Ohio. Throughout the company's distinguished history, they have established themselves as a leading competitor in the tubular welding electrode market. The family-run business began operations in 1996 with one definitive goal—to set the standard of excellence in tubular welding electrodes in North America by providing superior, high-quality products and outstanding customer service. Their unprecedented growth and success can be attributed to customers' recognition of the dependable products and the attentive support they provide. President Dale Stager is well-known in the industry for manufacturing welding electrodes with superior performance and delivering unrivaled customer service.

Stainless Steel World Americas had the pleasure of speaking with Select-Arc's Special Projects Lead, Zack Stager, about the company's new facility, its dedication to its customers, and exceptional new stainless products.

By **Stephanie Matas**

From the beginning

Dale Stager, the company's founder, was born and raised in Troy, Ohio a town synonymous with welding, and he has devoted his life to shaping the industry. As a teenager in the 1950s, Dale worked at Hobart, manufacturing stick electrodes and the earliest cored electrodes. Later he left Hobart and co-founded cored electrode manufacturer, Tri-Mark. The quality and reputation of Tri-Mark products were so profound that Hobart, Dale's former employer, purchased Tri-Mark in 1986. From 1986 to 1996 Dale was the VP of Filler Metals at Hobart; then in 1996 he left to start Select-Arc to prove to the industry, his customers, and himself that he could, once again, set the standard of excellence in tubular welding electrodes. In a few short years, Select-Arc solidified its strong customer base with exceptional product offerings. The company is always striving to improve and, as a result, has expanded its research, manufacturing, design, and support capabilities numerous times over the last two decades. But as Zack explained, with three generations at the helm it's still a family-run company, just on a very large scale.

Recent milestones

In 2016, Select-Arc celebrated its 20th anniversary and throughout this time, President Dale Stager has earned a reputation for being highly-respected in the welding industry through his dedicated efforts spanning his 60+ year career. Dale's most recent focus has been the development of a new line of stainless tubular products that will be available next month—January 2018. To support this effort, Select-Arc created a world-class R&D and stainless manufacturing facility in Troy, Ohio.

State-of-the-art facilities

This 80,000-square-foot flagship facility in Troy, Ohio produces all the new flux-cored and solid stainless steel products. To achieve this goal of creating the best stainless steel electrodes in the world, Select-Arc has made significant investments in the latest equipment and technologies. The company's production facility is environmentally controlled in every area (including mixing, drawing, and packaging) so the company doesn't have to worry about excess moisture in the air negatively affecting the products. The flux mixes, raw materials, and electrodes are subjected to a consistent environment every hour of every day. As Zack explained, "This helps the product be the best it can be by reducing moisture in our plant. After all, excess moisture is a big negative in the welding industry because it can cause a lot of problems in the finished weld."

The facility is also fully equipped with a metallurgical lab, robotics lab, weld lab, and even a training facility. Dale tripled the size of his research, development, and engineering department and gave them a single task—to develop the best line of flux cored stainless products in the world. The research and development team spent nearly two years scrupulously formulating the SelectAlloy Stainless Series. Under management's critical eye, they shelved hundreds of formulations until they were absolutely certain these were the best products on the market. All these factors contribute to making great quality stainless steel solid and cored electrodes for the global welding industry.

Quality assurance

The company's quality assurance protocols out-match their competitors. When they receive incoming rod from the mill,



Select-Arc's stainless facility in Troy, Ohio.

Select-Arc's quality system is ISO 9001 certified.

they cut the head and the tail of that coil and shoot chemistry on it to verify it is exactly what it says it is. Select-Arc verifies each and every coil's chemistry, every single time. This prevents any mix-ups in the manufacturing process.

Every product is tested by a knowledgeable welding technician and analyzed on a spectrometer to verify the specific chemistry of that product. Select-Arc provides each customer, free of charge, the unique chemistry for every product that they'll receive. "Testing is so important in the stainless world; customers need to be able to trust that what they received is what they ordered," Zack commented. "We buy steel ourselves and recognize the benefits of receiving actual chemistry vs typical. That's why we wanted to make it easier on our customers by providing actual chemistry free of charge," said Zack.

Select-Arc's Plant Manager, Keven Stager oversees extensive process controls, ensuring accurate and consistent fill percentages, smooth electrode surfaces, and drawing lubricants that promote good feeding characteristics. Thermal treatments provide the proper cleanliness and columnar strength to all products.

Other companies make welding electrodes as just a portion of their business therefore their focus is spread across multiple products. Welding electrodes are all that Select-Arc produces, so it strives to make sure that this one product is the absolute best, it can be.

Product offerings

Select-Arc is very mindful of the quality assurance of all its products in order to assure they are the best. Select-Arc's new SelectAlloy Stainless Series of flux cored,

metal cored, and solid stainless steel welding electrodes were developed using the highest quality standards in the United States. Rigorous design and development of formulations, strict process controls, and enhanced quality systems and procedures have positioned Select-Arc products on par and ahead of its competitors. For decades, the stainless electrode market has been dominated by a Japanese manufacturer and the challenge for Select-Arc was to ensure the quality throughout each spool is maintained while also matching, and even exceeding, competitor's product performance. Select-Arc is also proud to label the new SelectAlloy line of tubular products, "Made in America."

Chemical analysis equipment inspects the composition of all incoming and finished materials, documenting the exact properties of each product for the customer consumption. Process controls were enhanced to verify the tensile strengths of the electrodes in both the drawing and finished states. Also, brand new, state-of-

"We've done things for customers that even shocked me. We've had an instance where a customer called on a Friday from South America with a problem, and if they didn't get it fixed, their production might be shut down on Monday. We had one of our technical experts put two spools of product under his arm and get on a flight the next morning to hand-deliver the spools to assure their production wouldn't be shut down."

— Zack Stager



products and exceptional customer service



Testing procedures

Select-Arc prides themselves on the best quality products in the world, paired with the highest level of service and testing standards. Right now, they test every single drum of solid product they send out and a spool from every tubular lot. “We don’t just have anybody test welding these products—only welders with years of experience and critical eyes,” Zack said.

Select-Arc sets “the standard of excellence in tubular welding electrodes,” but Zack believes the proof is in the quality of the product. The company’s tagline is Select-Arc’s promise and creed to their customers, “Where others may overshadow us in size; Select-Arc overshadows them in quality. This starts with our products and extends to our customer service.”

Customer service

Select-Arc matches its favourable products with its incredible dedication to its customers. If any customers have an issue with a product, or an issue surrounding its use, they will send a technical application expert out to fix the issue at no additional cost to the customer.

Management and competition

Select-Arc is a family business at heart. “We’re not sitting at the top watching everyone else take care of things. We’re out at the machines every day, getting our hands dirty and watching over the welders’ shoulders every time we test a new product. Our family is as involved as possible in the development process of these new products,” said Zack. Every member of the team is, “an extension of our family. That’s the way we look at it here.” Like all manufacturers, Select-Arc strives to create the best product, but has not forgotten its core values. The company’s hands-on dedication to quality is what drives its continued success. They believe this is what greatly differentiates Select-Arc from competitors.

When asked why should customers choose Select-Arc over another company, Zack concluded by stating, “The answer is simple—we offer quality products at competitive prices and service the heck out of our customers.”

the-art drawing equipment, for both solid and cored electrodes have been installed, to produce a consistent, high quality electrode. The moisture content and rehydration tendencies of all the raw materials were catalogued and the best ones selected for the products.

As a result of the company’s tireless efforts, the SelectAlloy Stainless Steel Series successfully matches or exceeds its competitor’s molten slag behavior, slag appearance, slag removal, bead geometry, bead coloration and appearance, arc characteristics, and spatter levels in every way.

Select-Arc has already seen an incredibly positive response from its customers who purchase their solid stainless products. Zack said since there are no formulations in solid electrodes the secret is in the processing. “Processing is where my grandfather Dale really shines—anyone can manufacture electrodes; it’s all about how it welds; that’s where others fall short,” maintained Zack.

Select-Arc also offers a complete line of carbon steel, low alloy, hard surfacing, nickel and stainless electrodes. Select-Arc’s products are widely available from hundreds of distributors across the globe.



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– Zack Stager

Products under the SelectAlloy brand

All Position Grades

- Selectalloy 308-AP
- Selectalloy 308L-AP
- Selectalloy 309L-AP
- Selectalloy 309LMo-AP
- Selectalloy 316L-AP

Flat & Horizontal Grades

- SelectAlloy 308H
- SelectAlloy 309L
- SelectAlloy 309LMo
- SelectAlloy 312
- SelectAlloy 316
- SelectAlloy 316L
- SelectAlloy 317L
- SelectAlloy 347
- SelectAlloy 2209
- SelectAlloy 2594

Metal Cored Grades

- SelectAlloy 16-8-2-C
- SelectAlloy 307-C
- SelectAlloy 307EU-C
- SelectAlloy 308L-C
- SelectAlloy 308LSi-C
- SelectAlloy 309L-C

- SelectAlloy 309LCR-C
- SelectAlloy 309LSi-C
- SelectAlloy 310G-C
- SelectAlloy 312-C
- SelectAlloy 316L-C
- SelectAlloy 316LSi-C
- SelectAlloy 317L-C
- SelectAlloy 347-C

Other Available Grades

- SelectAlloy 16-8-2-AP
- SelectAlloy 307-AP
- SelectAlloy 308H-AP
- SelectAlloy 308L-AP CRYO
- SelectAlloy 309H-AP
- SelectAlloy 309LCb-AP
- SelectAlloy 312-AP
- SelectAlloy 316H-AP
- SelectAlloy 316L-AP CRYO
- SelectAlloy 317L-AP
- SelectAlloy 347-AP
- SelectAlloy 2209-AP
- SelectAlloy 2553-AP
- SelectAlloy 2594-AP
- SelectAlloy 308L CRYO
- SelectAlloy 316L CRYO



SelectAlloy 308L

► Select-Arc, Inc. at a glance

Company name:	Select-Arc, Inc.
Locations:	Flagship: Troy, Ohio—80,000 square feet, Fort Laramie, Ohio—165,000 square feet, 175 employees
Year established:	1996
Products:	Stainless, Nickel, Carbon Steel, Low Alloy and Hard Surfacing Electrodes
Industries:	Petrochemical, Railcar, Automotive, Structural, Military, Shipbuilding, etc.
Website:	www.select-arc.com
Email:	sales@select-arc.com