
2025
SMACNA ANNUAL CONVENTION
Maui, Hawaii
OCTOBER 26-29

Advanced Welding Automation for Construction

On todays agenda:

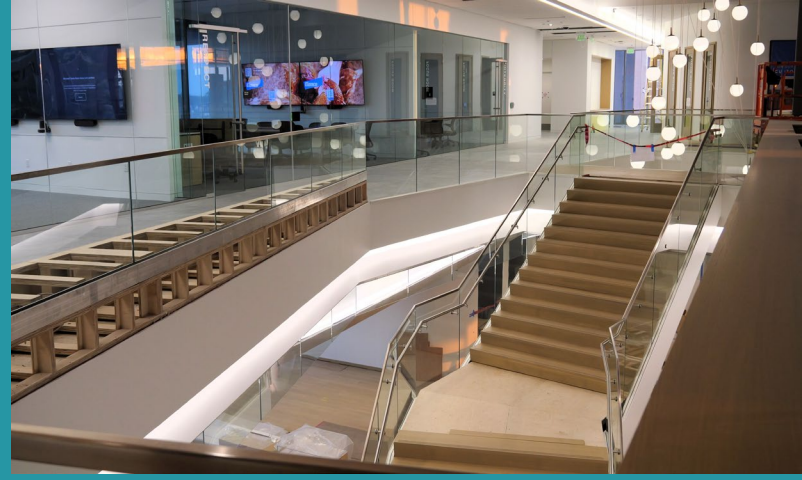
- Why does automation matter
- How have systems changed?
- What processes are available?
- Can my team program it?
- How can I locate my parts?
- What about quality?
- What is next?

About me

LUKE BLAND
Director of Specialty Metals

Chairman of SMACNA
Architectural Metals Committee

Poynter



Why Should we be Interested in Automation

INDUSTRY CHALLENGES

Labor shortages, production demands, quality expectations, and the need for safety and ergonomics.

PUSH INDUSTRY FORWARD

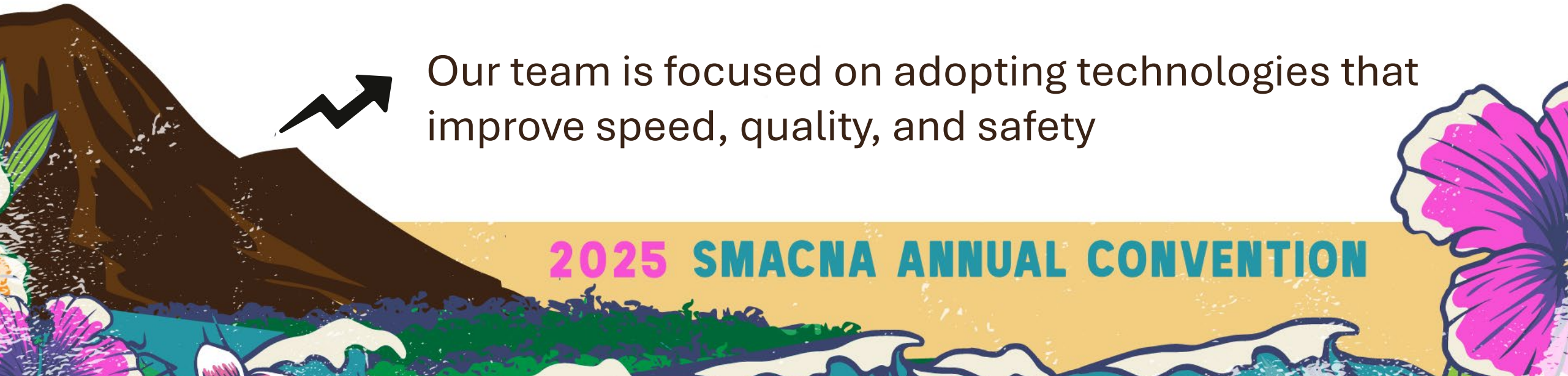
We need to stay committed to staying competitive, protecting our workforce, and exceeding customer expectations.

How Poynter Is Keeping Up with Innovation

- 5 handheld laser welders to our shop
- 3 Faro Tracer laser projectors
- 1 new laser tube cutting machine

We’re actively exploring collaborative robot (cobot) welding systems

Our team is focused on adopting technologies that improve speed, quality, and safety



Introducing Sam Noland

Sam Noland
Automation Process Specialist

Miller

- Sam is a leader in advanced welding automation and process improvement, partnering with Poynter and industry leaders to drive innovation.

Why does automation matter?

I can't find qualified welders.

Management says we need to look at automation.

We have to do more with the space we have.

I need more production.

Field repair and rework is a problem.

I'm struggling to stay competative.

Welding is my bottleneck.

Repair is expensive.

Customers expect a consistent aesthetic.

Quality is inconsistent.

Comfort and safety has become and issue.

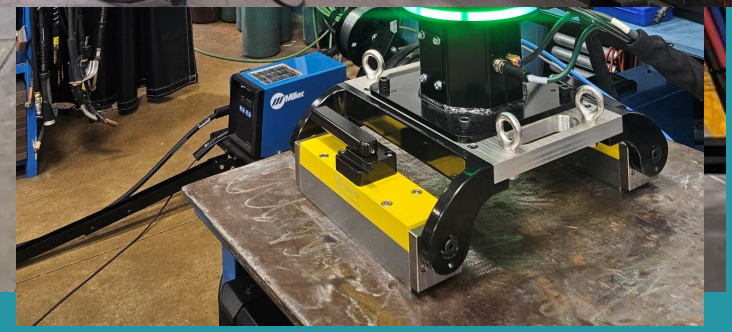
We need to:
Do More...
Do Better...
Win More Business...

How have systems changed?

Mechanized System

Robotic Systems

Collaborative Systems



What processes are available?

- GMAW (-P) (MIG)– Continuous waveform development and enhancement both precision and high deposition fields
- GTAW (TIG) – Greater focus on control of the waveform and heat
- LAW (Laser) – Emerging tech focused on speed but affordability is becoming more critical
- RSW (Spot) – Waveform and material improvements with a focus on quality and aluminum
- SAW (Sub-Arc) – Race to the highest fill and productivity

Can my team program it?

Traditional Method	Emerging Tech Focus
• Need a dedicated person or people • Often need engineering involvement • Weeks of training and classes • Need some computer skills or knowledge	• Path Generation • Collaborative methods • Point and click tools • Offline programming • Simplified pendant programming

How can I locate my parts?

I can bring to the parts to the automation

- Tooling design houses
- Tooling design software
- Modular tooling tables and components
- “Smart” tooling

I need to bring the automation to the parts

- Modular automation systems
- Built in adjustment tools
- Magnets for robots
- Flexible system designs
- Multi-process system designs

What about quality?

- Camera monitoring
- Weld data capture
- Automated testing

What’s next?

- Computing power improving
- Communication speeding up
- Cost of equipment reducing
- More data
- AI, AI, AI

Please take a moment to complete the session survey provided to you.