

# The Paint Rag

Episode XIV- Q1 2026



## Whats New in the World of Finishing!

If there's one thing I've learned in the finishing industry, it's this: the shops that win are the ones that never stop improving their process.

Every year coatings get more expensive, labor gets harder to find, and production demands keep going up. That's just the reality of manufacturing today. The good news is that finishing technology keeps improving too — and when the right equipment and processes are applied correctly, the gains can be dramatic.

We recently ran a transfer efficiency test for a manufacturer who originally contacted us about robotics. Before jumping straight to automation, we suggested measuring their existing finishing process first. The results surprised everyone. By upgrading their application equipment and fluid delivery system, they were able to reduce coating consumption by **68%** while achieving the same finish quality. That kind of improvement changes the economics of an entire finishing operation.

That's what excites me most about this industry right now. There are so many opportunities to make finishing operations smarter, cleaner, and more efficient. Sometimes it's automation. Sometimes it's better application technology.

Sometimes it's something as simple as improving drying workflow or eliminating waste in the process.

At Total Finishing, our job is to help manufacturers figure out where those opportunities are and turn them into real results.

In this issue you'll see several examples of that in action — from production drying solutions like **TOTALrack™**, to laser surface preparation technology, to a fully integrated powder coating system designed for structural manufacturing. You'll also meet more of the people behind the scenes at TFS who help make these projects possible.

The finishing world keeps moving forward, and we're excited to be right in the middle of it.

*Ty T. Crowder*

Ty T. Crowder  
President of Total Finishing Solutions

## Product Innovations



### LIQUID PRODUCTION INNOVATION

#### TOTALrack™ for Drying

Drying is one of the most overlooked — yet most critical — steps in the finishing process. When cabinet doors or painted parts don't have proper airflow and staging space, production slows down and finish quality can suffer.

That's why we're excited to highlight the **TOTALrack™** for Drying Cabinet Door & Paint Drying Rack, available through Total Finishing Supplies

Now available in **26-shelf** and **50-shelf** configurations, TOTALrack™ gives shops flexibility to scale drying capacity based on production needs.

Built specifically for professional finishing shops, **TOTALrack™** is designed to maximize drying



### POWDER PRODUCTION INNOVATION

#### Laser Cleaning That Works as Hard as You Do

Surface preparation is changing fast, and laser cleaning is quickly becoming a go-to solution for shops looking to reduce waste, improve efficiency, and eliminate blasting media. Total Finishing offers two powerful options designed to fit a range of applications: the **TFS-2000 Continuous Wave Laser Cleaning Machine** and the **TFS-300W Pulsed Laser Cleaning Machine**.

The **TFS-2000** is built for demanding industrial environments. With 2000 watts of continuous wave power, this system delivers aggressive, high-speed cleaning for rust, coatings, oil, and surface contaminants. Its wide scan capability and steady beam allow operators to quickly clean larger surfaces, making it ideal for fabrication shops, heavy equipment maintenance, structural steel

capacity while protecting freshly sprayed surfaces.

### Designed for Real Production

Whether you're spraying cabinet doors, panels, or components, **TOTALrack™** helps:

- Increase vertical drying capacity without taking up additional floor space
- Promote consistent airflow for even paint drying
- Reduce part handling and minimize surface damage
- Keep staging organized between spray, flash, and cure
- Improve overall shop workflow

### Built to Work — and Built to Last

Proudly Made in the USA, **TOTALrack™** features heavy-duty construction engineered for daily production use. It's not a light-duty storage rack — it's a purpose-built drying solution designed for industrial environments.

In high-volume finishing operations, small workflow improvements make a big impact. With the **TOTALrack™**, shops can eliminate bottlenecks, protect finish quality, and keep parts moving efficiently through the process.

If drying has been slowing you down, it might be time to rethink your rack system.

For more information, visit [TotalFinishingSUPPLIES.com](http://TotalFinishingSUPPLIES.com)



cleaning, and production environments where throughput matters.

For applications requiring more control and precision, the **TFS-300W Pulsed Laser Cleaning Machine** offers a highly targeted cleaning solution. Pulsed laser technology releases energy in short bursts, allowing contaminants to be removed while minimizing heat transfer to the base material. This makes it ideal for mold cleaning, weld seam preparation, restoration work, and delicate substrates where preserving the surface finish is critical.

Unlike traditional blasting methods, laser cleaning is a non-contact process that removes contaminants without damaging the underlying material. It eliminates abrasive media, reduces secondary waste, and significantly lowers consumable costs — creating a cleaner, more efficient surface preparation process.

### Key Benefits:

- **TFS-2000**: 2000W continuous wave power for fast, aggressive industrial cleaning
- **TFS-300W**: Pulsed laser technology for precision and controlled surface treatment
- Non-abrasive process that protects substrate integrity
- No blasting media, chemicals, or secondary waste
- Lower operating costs with minimal consumables
- Consistent, repeatable cleaning performance

From fabrication shops to maintenance departments and restoration work, TFS laser cleaning systems provide a modern, efficient solution for surface preparation and coating removal.

For more information, visit [TotalFinishingSUPPLIES.com](http://TotalFinishingSUPPLIES.com)

# Vendor Spotlight



## Vendor Spotlight: HERO MAKE INNOVATION

At Total Finishing Solutions, our goal has always been simple: bring the most effective, forward-thinking finishing technology to the manufacturers we serve. That commitment is strengthened through strategic partnerships — and one partnership we're proud to highlight is with **HERO Make Innovation**.

HERO Make Innovation has built its reputation on precision engineering, dependable performance, and practical innovation. In an industry where consistency and efficiency directly impact profitability, their equipment is designed with real-world production in mind. From advanced application systems to automation-ready solutions, Hero Make focuses on delivering measurable improvements in transfer efficiency, finish quality, and operational reliability.

What makes this partnership such a natural fit is our shared philosophy. Both HERO Make Innovation and Total Finishing Solutions believe that technology should simplify operations — not complicate them. Equipment should integrate seamlessly into existing workflows, reduce waste, and help manufacturers scale without unnecessary downtime or steep learning curves.

Through our collaboration, we are able to provide customers with:

- High-performance application equipment engineered for consistent film build
- Automation-compatible systems that support future growth
- Durable, production-ready designs built for long service life
- Expert integration and hands-on support from evaluation through installation

HERO Make's innovation, paired with TFS's application expertise and field experience, gives our customers more than just equipment. It gives them confidence — confidence that their finishing process will be efficient, repeatable, and built for long-term success.

As finishing operations continue to evolve, having the right partners matters. We're excited about what this collaboration means for our customers and look forward to delivering even more performance-driven solutions together.

If you'd like to learn more about HERO Make Innovation equipment or how it can enhance your finishing operation, our team is ready to help.

Visit [totalfinishingsupplies.com](https://totalfinishingsupplies.com) to explore the full line of HERO machines and bring world-class Inaction engineering to your shop.

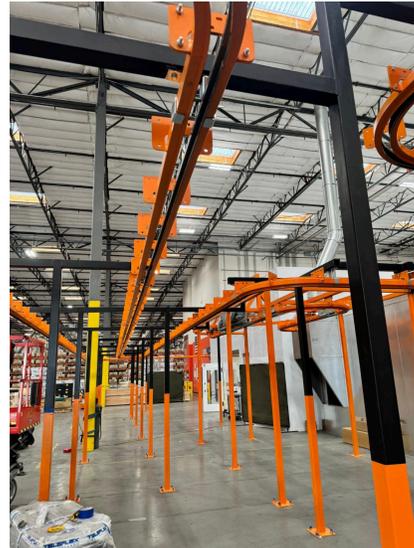
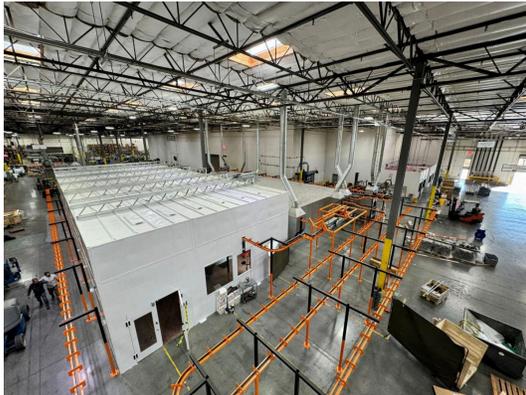


Check Out HERO in Action!

# Total Finishing Systems

**NEW BUILD BY TOTAL FINISHING SYSTEMS**

**A COMPLETE POWDER COATING SYSTEM DESIGNED FOR  
PERFORMANCE, EFFICIENCY, AND GROWTH**





## Inside a Fully Integrated Powder Coating System Built for Structural Manufacturing

Total Finishing Systems recently completed a fully integrated powder coating system for a major structural hardware manufacturer. This was not a minor upgrade or partial retrofit — it was a complete finishing solution designed to support long-term production growth, environmental compliance, and highly repeatable coating performance.

At the front end of the system, we supplied a four-stage 304 stainless steel power washer built with double-welded construction. Surface preparation is critical in powder coating, especially for structural components, and this system was engineered for long-term durability and consistent cleaning performance. The washer includes a heated stage, canister filtration, an oil removal system, a reverse osmosis system with a holding tank, and a zero-discharge water treatment system. This combination allows the facility to maintain tight control over water quality while eliminating discharge concerns. The result is a closed-loop system that supports both coating performance and environmental responsibility.

After cleaning, parts move into a combination convection dry-off and cure oven. The oven was designed as a dual-purpose solution to maximize available floor space while maintaining uniform heat distribution. Whether removing moisture prior to coating or bringing parts to full cure temperature, the oven delivers consistent thermal performance across a range of structural components.

For powder application, the system includes two 8,000 CFM stainless steel production cartridge booths. Each booth features its own color module, along with an additional spare color module to support faster changeovers and minimize production downtime. The booths are equipped with UV and IR detection systems to provide both process visibility and safety assurance. Airflow throughout the booths was carefully engineered to maintain proper containment and recovery efficiency while supporting high production throughput.

Application equipment includes two Wagner powder packages with eight automatic guns, automatic height and gap trigger control, and four vertical movers with manual in-and-out positioning. Two 200-pound feed hopper systems were included to support sustained production runs. To maintain flexibility, each booth also includes two manual applicators, allowing operators to fine-tune coverage on complex parts without sacrificing automated efficiency.

Material handling throughout the system is managed by an enclosed track conveyor. The powder application area is housed within a fully enclosed environmental room with HVAC to stabilize temperature and airflow conditions. Maintaining consistent

environmental conditions in the application area plays a major role in achieving repeatable finish quality.

The entire line is controlled through a PLC-based platform, giving operators centralized control, built-in safety interlocks, and long-term operational visibility. The system was designed for reliability, scalability, and ease of operation.

In addition to supplying the equipment, our scope included full system engineering, project management, installation support, permit coordination, documentation packages, operator training, and startup production supervision. Our team remained involved from initial design through live production to ensure the system performed exactly as engineered.

This installation positions the manufacturer with a modern, environmentally responsible, high-throughput powder coating line built to support their production demands for years to come. It reflects exactly what we focus on at Total Finishing Systems — engineered finishing solutions that are practical, durable, and designed for real manufacturing environments.

Visit [TotalFinishingSystems.com](https://www.TotalFinishingSystems.com)

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Come explore our latest finishing systems, automation solutions, and industry innovations — at Booth 332!

Click the button below to register for free!

For all your systems needs, visit [TotalFinishingSystems.com](http://TotalFinishingSystems.com).

FREE REGISTRATION

## Tech Tips by Tony

### When Your Pump Needs Attention

Proper pump maintenance is critical to keep your finishing system running efficiently. While most pump manufacturers recommend **annual prevention maintenance**, there are several warning signs that your pump's **fluid section (lower)** may need rebuilding sooner.

#### Common signs your pump may need service:

- **Paint materials in the wet cup**- A heavy buildup can indicate worn packings or seals.
- **Single- stroking pump**- This can typically be confirmed with a stall test.
- **Loss of pressure** during operation.
- **Reduced suction** or difficulty pulling paint material.
- **Excessive wear on the piston changeover.**

When it comes time to rebuild the lower section, most pump manufacturers offer **two rebuild options**:

#### Seal Kit

- Includes most or all **seals and packings** needed for the pump

#### Service Kit

- Includes **seals and packings**, plus **hard wear components** such as:
  - Upper and lower balls
  - Seats
  - Springs for self- adjusting packing pumps

#### Tony's Recommendation

- Always opt for a **Service Kit** when rebuilding your pump.
- If you're already disassembling the pump to replace **hard wear components at the same time.**
- Hard parts like **balls and seats can fall out of specification over time**, even shortly after seal replacement.
- Replacing everything at once helps **prevent unexpected downtime and repeat repairs.**

**Bottom line:** When servicing your pump, it's better to **err on the side of caution and complete a full rebuild** rather than risk additional failures down the road.

For more information, please visit [TotalFinishingSUPPLIES.com](http://TotalFinishingSUPPLIES.com)

Stay tuned for more [Tech Tips by Tony!](#)



## News and Events



**The Test That Uncovered 68% Paint Savings!**

A door manufacturer in Tennessee originally contacted Total Finishing Solutions to explore robotic finishing. Before recommending automation, TFS suggested performing a Liquid Level Transfer Efficiency Test to measure exactly how much coating was being used during production.

Using 20 identical door mandrels, TFS conducted a controlled side-by-side comparison between the customer's existing finishing system and a TFS liquid application system. Both systems sprayed the same doors at the same flow rate and film build, ensuring accurate results.

The results were eye-opening.

The TFS system used 68% less coating while delivering the same finish quality.

The improvement came from eliminating major sources of material loss, including overspray from air spray guns, pulsation from diaphragm pumps, and inconsistent atomization. By upgrading to MEDUSA™ piston pumps and VIPER™ air-assisted airless spray guns, the manufacturer dramatically increased transfer efficiency and reduced wasted coating.

The savings were so significant that the customer was able to move forward with robotic automation, largely funded by the reduction in paint waste.

What began as a robotics inquiry ultimately turned into a full finishing transformation — proving the value of measuring efficiency before making major production investments.

## Meet the TFS Family

### WESLEY CARDENAS | MANUFACTURING MANAGER

You may know **Total Finishing**, but do you know the people behind the scenes? Meet Wesley, the Manufacturing Manager at **Total Finishing Systems**. Get to know the man behind the mission in this month's Q&A!

**Q: How long have you been with Total Finishing Systems?**

**WESLEY:** I have been with Total Finishing Systems since September of 2021. During that time, I've had the opportunity to work with a great team and gain a strong understanding of the finishing systems we design and support.

**Q: What does a typical day at TFS look like for you?**

**WESLEY:** A typical day for me involves me working with my team to make sure projects are moving



smoothly. This could include meeting with our engineer department, manufacturing department, and ensuring all our materials are being delivered per our timeline.

**Q: Do you have any hobbies?**

**WESLEY:** Outside of work, I enjoy off-roading, working on vehicles, snow skiing and boating

**Q: What kind of interesting things would you like our customers to know about you?**

**WESLEY:** I'm someone who really enjoys solving problems and figuring out the best solution for each situation. I take pride in being reliable and making sure customers feel supported throughout their project.

**Q: Can you give customers an idea of how you help them and what they can expect from you?**

**WESLEY:** Customers can expect clear communication, reliability, and someone who is committed to helping find the best possible solution. My goal is always to make the process as smooth as possible and ensure customers have a great experience working with our team.

**Q: What is your personal Motto or favorite quote?**

**WESLEY:** "Keep moving forward". I believe that no matter the challenge, progress comes from staying focused, learning from obstacles, and continuing to improve.



# TFS Featured YouTube Video

## Teach it once. Perfect it forever. Robotic finishing made simple.

COME WITH ME IF YOU WANT TO SPRAY!



### Simple, Repeatable Robotic Finishing

See how approachable automation has become with the **Epistolio MRK 6 robot** and **Operator Repeat Programming**—the most user-friendly programming method in the finishing industry. In this demonstration, the MRK 6 sprays a 3D cabinet door using the **AUTO VIPER® Air-Assisted Airless Spray Gun**, achieving uniform coverage and high finish quality with very little operator effort.

Instead of coding or navigating complicated interfaces, the operator simply guides the robot arm through the spray path, presses record, and the system repeats the motion with precision every cycle. The video highlights real-time path teaching, efficient material application, and why more finishing operations are moving toward robotic spraying. By combining **Epistolio robotics** with the **AUTO VIPER®**, shops gain consistent film build, reduced waste, repeatable results, and a practical entry point into automation—without needing a robotics specialist.

For more information visit [TotalFinishing.com](https://TotalFinishing.com).

## The Fun Stuff

**Q:** Why did the coating refuse to quit it's job?

**A:** Because it was *fully committed to the finish* 😊

## The Total Finishing Family

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