



CUSTOMER SUCCESS STORY

How TFS Saved This Company 68% From Day 1!



Shown With Fluid Filter

MEDUSA™ 30:1 High-Pressure Pump
Engineered for Efficiency and Control



VIPER™ air-assisted airless spray gun
High-efficiency spraying with exceptional control and consistency.

How a Tennessee Door Manufacturer Unlocked Automation by Cutting Paint Use 68%

A prominent door manufacturer in Tennessee originally reached out to **Total Finishing Solutions (TFS)** for a very different reason. They weren't looking to save paint — they were exploring robotic finishing and wanted to know if the investment would pencil out.

Like many manufacturers, they assumed their coating costs were simply the cost of doing business.

What they didn't realize was how much material they were losing every day.

Before recommending automation, TFS proposed a **Liquid Level Transfer Efficiency Test** — a way to measure exactly how much coating was being used to finish their doors under real production conditions.

To eliminate variables, the customer provided 20 identical mandrels — same size, same material, same manufacturer. TFS then performed a true side-by-side comparison between the plant's existing finishing system and a TFS liquid application system.

The test was conducted using a calibrated milliliter yardstick. A starting paint level was recorded, then 10 doors were sprayed (both sides) at a fixed flow rate of 16 ounces per minute and a wet film target of 4.5 to 5.0 mils. After spraying, the remaining paint level was measured.

This process was first completed using the customer's current air spray guns and double-diaphragm pumps. Once that data was captured, the exact same test was repeated using TFS spray equipment, with every variable held constant.



Original System

This is the customer's original finishing setup — air-atomized spray guns fed by double-diaphragm pumps, producing excessive overspray, material pulsation, and hidden paint waste that was limiting their ability to invest in automation.



New TFS System

This is the upgraded Total Finishing Solutions system, powered by Medusa™ piston pumps and Viper™ air-assisted airless spray guns, delivering smooth material flow, dramatically higher transfer efficiency, and the 68% paint savings that made automation financially possible.

The results stunned everyone involved.

Under identical production conditions, the TFS system used 68% less coating to achieve the same film build and finish quality.

That discovery changed everything.

The savings uncovered in the test were so significant that the customer realized they could now easily afford the robotic automation they had originally been evaluating — funded largely by the reduction in wasted paint.

The efficiency gains came from eliminating the biggest sources of liquid loss: overspray from air spray guns, pulsation from diaphragm pumps, and inconsistent atomization that forces operators to apply excess material. With smoother fluid delivery and high-transfer-efficiency spray guns, more coating went onto the doors instead of into the booth air and exhaust filters.

With hard data in hand, the customer moved forward with a full system upgrade, installing 50 Medusa™ 30:1 piston pumps and 50 Viper™ air-assisted airless spray guns across their finishing operation.

What started as a robotics inquiry turned into a complete finishing transformation — driven by measurable, proven paint savings.

And that's the power of a TFS audit.

Many manufacturers don't realize how much coating they're wasting because no one has ever measured it. That's why Total Finishing Solutions offers free liquid efficiency audits, giving customers real numbers, real comparisons, and real opportunities to fund the next level of automation.

If cutting paint by 68% unlocked robotics for this Tennessee door manufacturer, imagine what it could do for your operation.

Make Total Finishing Solutions your go-to finishing partner — and let us show you what your system is really capable of.



Inside a 50 MEDUSA™ Pump Installation

Nothing beats seeing it in action. Watch the video to experience the scale, precision, and impact of this install. Big installs. Real results.

Call Us at [\(844\)898-1082](tel:8448981082) and Visit Us at TotalFinishing.com

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