

***"As our business grew, the paint line became a bottleneck – we needed an upgrade!"***

**THE COMPANY**

American Products is a major regional supplier of precision custom metal stamping and fabrication. They also provide powder coating, product development, assembly, and packing services from their two Missouri locations.

**THE CHALLENGE**

After a series of downsizing and new ownership issues, American Products was left with a mixture of equipment that was aging and inefficient. The powder booth was so cumbersome to clean, that it took three hours to do a color change. American Products needed an upgrade!

**THE SOLUTION**

After looking at various competitors' solutions, American Products chose a new 12,000 cfm VortechPlus™ booth from ITW Gema. They completed their upgrade with OptiGun-2AX™ automatic powder guns, OptiFlow™ pumps, OptiTronic Plus™ control units, a Chameleon™ Color Management System, an AutoTracker™ Programmable Logic Control (PLC), gun movers, and light curtain part recognition.

**THE SAVINGS**

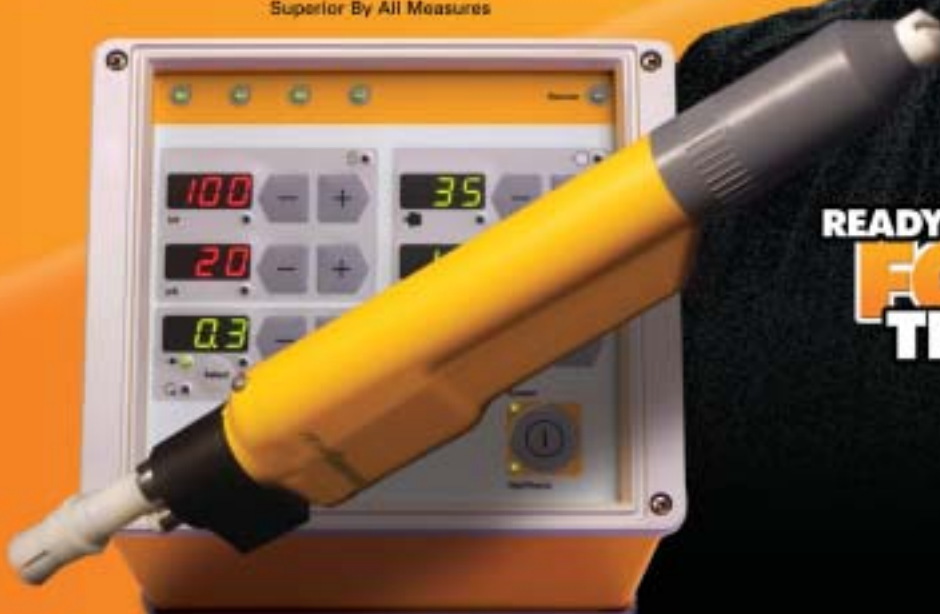
"We went from a three-hour color change to twenty minutes with one operator," stated Steve Smith, "Our powder recovery rate is at least 95%, we're saving \$20,000 a month in labor and scrap for reworks, and we've reduced our powder usage by about 30%. I wish we would have done this a long time ago!" American Products calculated a **payback of 14 months**; however, according to Steve Smith, the figure is really much lower due to the realization of savings in areas not included in the original payback formula.

*"We wanted the fastest color change money can buy and ITW Gema had the solution."*

**Steve Smith, American Products**

**ITW Gema**

Superior By All Measures



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FOLLOW  
THE LEADERS**

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American Products**

**Call 800-628-0601 and  
ask for Debra or visit [www.itwgema.com/upgrade](http://www.itwgema.com/upgrade)  
for a free assessment of your  
powder coating operation.**

# American Products Raises the Bar on Efficiency With VortechPlus™ and OptiSystem™.

**"We should have bought this system a long time ago!"**

Following the reorganization of their operation, American Products was left with a conglomeration of used powder coating equipment. They needed to be more productive, so they turned to ITW Gema for a solution.

A case study from American Products

**American Products is proud to be one of the first companies in North America to own one of the new VortechPlus™ powder coating booths from ITW Gema. Coupled with OptiSystem™ automatic powder coating equipment, their combined results have led to phenomenal financial savings and an increase in new business.**

## Company Background

The company that would eventually come to be known as "American Products," got its start in 1994. After a series of ownership and name changes, the assets of the company were purchased by local management in Strafford, Missouri. American now has approximately 200 employees in four facilities and is a major regional supplier of precision metal stamping and fabrications. From concept to prototype, American provides quality solutions and is ISO 9001 certified.

## Existing Equipment and Challenges

As the company was sold, bought, merged, and reorganized, American ended up with a mixture of used bits and pieces of powder coating equipment. They needed to draw in new business and create a profitable organization by operating efficiently and saving money.

To keep up with increased customer demand, American knew they had to achieve quick color change and would only settle for the most effective system money can buy.

In addition to quick color change, American was also looking for the following results in their upgrade:

- Increased powder utilization
- Improved film build
- Reduced scrap and rework costs



## Equipment Installed

The management at American decided that nothing less than a complete upgrade of their powder system would be acceptable. They really did their homework, looking at other businesses' powder coating systems and performing lab trials. In the end, their research led them to the conclusion that a 12,000 cfm VortechPlus™ powder booth from ITW Gema was the correct solution.

The VortechPlus was designed for today's XTreme™ Color Change Environment, where multiple color changes daily require quick changeover solutions. A key feature of the VortechPlus is the integrated multi-cyclone recovery system, which eliminates the need for ductwork and reduces floor space requirements. "I really like the cyclones,"

Steve Smith remarked, "Our recovery is much better than anticipated."

Also included in the upgrade was an OptiSystem™, including ten OptiGun-2AX™ automatic powder guns, OptiFlow™ pumps, and OptiTronic Plus™ control units. The OptiTronics communicate with American's AutoTracker™ Programmable Logic Control (PLC) to enable automatic on/off triggering and in/out movement of the guns on the new reciprocators. American's system also contains light curtain part recognition, which reads the part profile, sends the information to the PLC and enables the PLC to automatically select the correct gun triggering program for the application. This feature reduces wasted powder and ensures accurate, repeatable results and a consistently high quality finish.



## Savings

In the first two months of 2005, American's scrap powder went from an average of 5,166 lbs. per month to only 100 lbs. per month. At the same time, they increased the amount of square footage covered by more than 250%.

Before the upgrade, it took American up to three hours to complete a color change. With the new system from ITW Gema, American now completes color changeovers in 20 minutes or less with one operator. In the past, they simply could not afford the setup time to reclaim, so they had no choice but to spray-to-waste. "I threw away over \$125,000 worth of powder last year." Steve Smith stated, "Now I'm reclaiming and saving a lot of money on powder - and it just keeps getting better and better!"

They would have had to hire more people and add a shift to keep up with production using their old system. Instead, they have been able to increase line speed, shut down one conveyor, and move five people off the paint line, utilizing them elsewhere within the organization.

Other results of the upgrade included:

- Powder utilization is now 95% or more
- Mil thickness was reduced by 50%
- Up to \$20,000 per month savings in combined scrap and labor for reworks

## Future Outlook

The upgrade to powder coating equipment from ITW Gema has helped American Products produce a much higher quality finish and become more profitable. This has led to an increase in business and potential for future growth. "ITW Gema did the best job of any vendor as far as installation and service," claims Steve Smith, "And we will definitely go with them again for any future upgrades."

