



Powder application case study

Vulcan Industries, Moody, AL

Performance by design



Looking at ROI a year after installation: A powder coating case study

Our only regret? Not investing in a new powder system sooner, says Vulcan Industries President.

As the President and General Manager of Vulcan Industries, William Hutson is proud of the growth his company has seen. But when adding hours wasn't enough to flex to capacity anymore, Hutson and his team knew it was time to meet their growth needs through a capital investment in a new powder coating system.

The Challenge

For nearly 70 years, Vulcan Industries has proudly provided merchandising display solutions to a diverse customer base of retailers and brand marketers. With a customized approach, Vulcan produces a wide variety of colorful in-store displays made of many different materials. That customization requires as many as seven color changes across two shifts, necessitating a lot of overtime on Vulcan's powder line.

Combined with impressive growth in their business, Hutson decided their powder needs couldn't be met by adding overtime any longer. It was time to upgrade their powder coating equipment.

"We realized that this exponential growth was starting to drive a lot of capital needs, powder production being one of them. Our production capacity reached a breaking point where we needed a more efficient solution to start to increase output" states Hutson.

The customization Vulcan offers customers drove several of the common goals the team had for their powder equipment update:

- Reduce powder film build to the ideal thickness
- Speed up color change time
- Increase their 90 percent reclaim efficiency
- Eliminate hourly booth cleanups



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Vulcan's legacy equipment no longer met the team's powder coating needs. In 2015 they set out to find a solution that would increase production capacity.

The Solution

Hutson and his team set out to FABTECH to find a solution to their powder coating needs.

Vulcan visited multiple system suppliers at the show to see what options were out there that might suit their needs. Nordson was one of these suppliers.

"We visited many powder booth suppliers but something stuck out with Nordson, they took our requests seriously. From day one, Nordson's attentiveness and customer service was unmatched by any other supplier" states Hutson.

Once he started working with Nordson, Hutson says everything went very smooth. "It's a once in a career purchase. You're not buying a new paint system every two years. But the way Nordson approached from the beginning and followed up quickly, it was a very easy process."

Based on Vulcan's goals, the Nordson team identified the ColorMax® 2 Fast Color Change Powder Coating Hybrid Spray Booth as an ideal solution. Vulcan sent their product to the experts at Nordson's customer labs where they conducted thorough testing on a similar configuration to see if Nordson equipment could meet or exceed their goals.

With both automatic and manual guns, the system offered the right layout and fast color change benefit the Vulcan team was looking for so they could ramp up their customer production output.

The Benefits

Hutson and his team at Vulcan were able to decrease the amount of manual work they were doing as soon as the system was installed. They also began to see an immediate impact from their new ColorMax® 2 powder spray system. The benefits were clear:

- Decreased powder film thickness to the appropriate mils
- Increased powder reclaim efficiency from 90 to 95 percent
- Decreased hours-per-day runtime by 20 percent
- Increased line speed from 17 FPM to 20 or more FPM

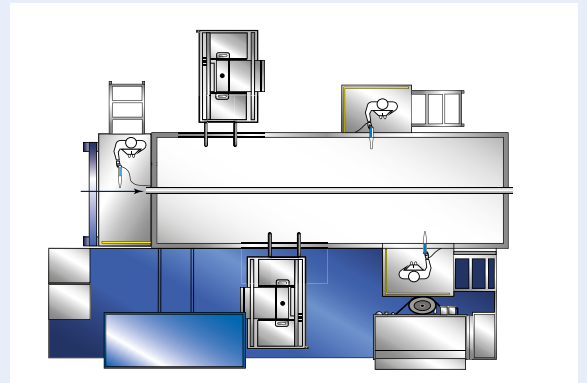
Outfitted with easy-to-clean, steel twin cyclones, the ColorMax 2 offered the quick, contamination-free color change Vulcan was looking for. Its Encore® powder feed center allows maximum powder usage and minimal powder loss.

Hutson and his team at Vulcan spent a lot of time finding the right powder coating equipment for their operation, but in the end, they feel they made the right choice.

"It's more than solved our problem, capacity-wise, and we received some other really significant benefits from the system that we didn't fully count on seeing," says Hutson. "We're saving so much on paint that the system is nearly paying for itself."



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The ColorMax 2 hybrid system would allow Vulcan several manual station configurations in addition to the automatic applicators.

Additionally, after realizing just how much paint wasn't being reclaimed, Hutson's team became aware of where that paint was going.

"Our facility is much cleaner – noticeably cleaner. So environmentally we're better off, cost-wise we're better off, and capacity-wise, we're better off," Hutson shares happily.

Next up for the team focused on continuous improvement at Vulcan? They kept their old booth around in case they ever needed it in an emergency. Never having used it, they're ready to get rid of it and use that space to create a first-in, first-out inventory storage system for their powder. Since they're using much less paint and have reduced their paint inventory on-hand by about 25 percent, they'll implement a system that will keep that paint fresh.

The Bottom Line

Nordson is one of the world's largest and most experienced leaders in powder coating application technology. Nordson offers an expansive product line – from relatively simple manual systems to sophisticated, programmable, automated systems – and expertise and ongoing support that is unmatched in the industry.

"We are very pleased with our decision to partner with Nordson. With their unmatched customer service, we feel confident that Nordson will continue to make powder coating easy for our operations. The benefits we see are very clear, we couldn't be happier" states Hutson.

So, with increased production and instant savings, this merchandising display manufacturer will continue to grow thanks to the powder experts at Nordson.

Now that's *Performance by design*.



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