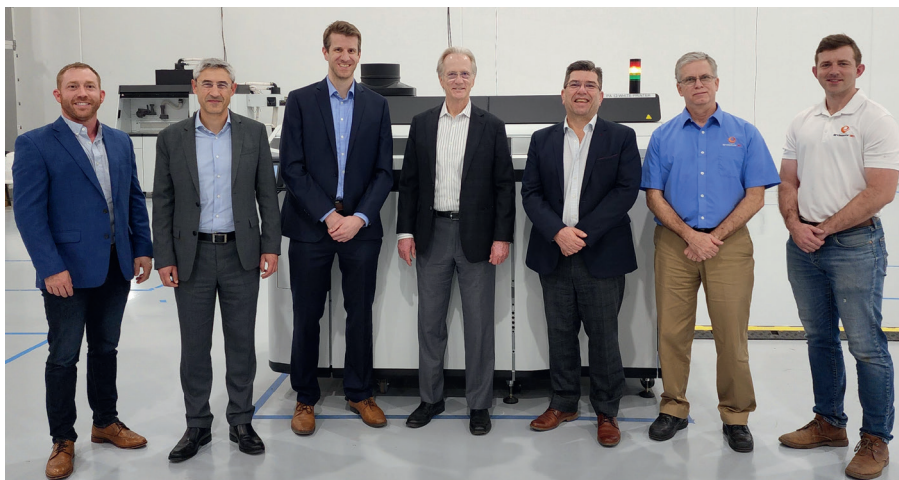


FUTURE ↑ ENDEAVORS

WORDS: LAURA GRIFFITHS



SHOWN:
ENDEAVOR 3D AND HP TEAMS
WITH HP JET FUSION 5420W

Across the road from the hotel where the Additive Manufacturing Users Group Conference is taking place in Chicago, two manufacturing technology providers convene to tell the story of how they met at the event just one year earlier.

Like the hundreds of attendees across the way who are sharing their own AM stories over copious coffees, perhaps imparting nuggets of wisdom that will help propel someone, maybe even a future collaborator, forward, the conversation between Wayne Davey, HP's Global Head of Sales and Go-to-Market, 3D Printing Solutions, and Phil Arnold, CEO at Endeavor 3D takes a similar path.

"We saw a common understanding of strategy on both parts, on where we saw the industry going," Davey recalls of that meeting, "and Phil's deep interest and desire to help companies accelerate adoption and scale manufacturing with additive."

The pair have been working together for some time as part of HP's Digital Manufacturing Network, a network of service providers that have been evaluated

and qualified to provide production 3D printing capabilities with HP's flagship Multi Jet Fusion technology. In March, that partnership was elevated as HP invited Endeavor 3D to join a short list of HP Digital Manufacturing Partners, certifying the company as a top tier provider of Multi Jet Fusion part quality and manufacturing expertise.

"That really creates a foundation for us to leverage the innovation of the technology," Davey continued. "The clear capabilities and assets, the depth of integrity of what Endeavor 3D stands for and its mission in the marketplace."

Established in 2020 by a team with over two decades of experience in standards-driven manufacturing environments, Endeavor 3D has one big ambition: to change the world of manufacturing. According to Arnold, additive is the way.

"I think there's little question, looking ahead with the changes in technology availability, quickness to market, value

"Within that is the future of manufacturing. No question"

add, onshoring, all of these different attributes of additive manufacturing – broadly speaking because there are subsets of technologies – within that is the future of manufacturing. No question."

Endeavor 3D operates out of a 65,000-square-foot facility in Douglasville, Georgia that's kitted out with a fleet of Multi Jet Fusion systems, in-house testing equipment and quality control systems. When HP launched its Jet Fusion 5420W back in November, for the 3D printing of white parts, Endeavor3D was first in line.

"The amount of innovation R&D that took to make that possible is just remarkable for an entire industry, and we get to be part of that collectively with HP," Arnold said.

Arnold's optimism for HP's technology and the partnership the two have struck is palpable. The CEO believes this latest system will deliver not just new color opportunities, thanks to HP's partnership with finishing and dyeing expert DyeMansion, but also applications that can now be achieved more economically.

Whether it's major brands like L'Oreal and General Motors ▶

adopting its technology for end-use, high-volume applications or HP using the technology internally to democratize its own supply chains, the proliferation of HP's technology in the marketplace is hard to ignore. In November last year, the same week Endeavor 3D became the first Jet Fusion 5420W customer, HP reportedly hit a milestone of 170 million 3D printed parts.

"Of course, everybody knows HP," Arnold said on choosing to work with the company. "As far as the depth of knowledge that they offered, integrity, service, long-term orientation, leadership team, all of those areas were very much above anyone else that we experienced. And we were pretty thorough in our investigation, given that we're fortunate to be a private company and we have the liberty of defining ourselves and looking to the future."

One of the defining building blocks around the formation of Endeavor 3D was to be legacy free. The company exclusively uses HP additive technologies today with plenty of room for growth and expansion. "Our goal is to be scalable," Arnold confirms. Additive is an industry Endeavor 3D "chose to enter." Fundamentally, it describes itself as an end-to-end service provider led by a highly experienced team with decades of manufacturing skill and knowledge.

"We tend to be very technically oriented as a company, QC laboratory-oriented, there's much greater depth of knowledge too," Arnold explained. "If we look at bringing a long term message to potential users, it's that you may have been using a traditional method of manufacturing for a lot of years [but] we are now gathering the data and the capability of proving that additive can deliver those same benefits and characteristics but with a wide range of other benefits as well."

That assurance comes in handy when demonstrating to new customers that additive is the right tool. For some, the lightbulb goes on straight away as the impact of intelligent design and part consolidation shines through, but Endeavor 3D is keen, confident even, to show like for like part comparisons, to scan, to conduct comparative measurement assessments, compare smoothness, to ensure the customer is fully educated on the process and its capabilities.

SHOWN:
HP JET FUSION 5420W



"We never pretended we knew everything. We never will know everything."

"I think that's where actions speak louder than words and that's what we intend to do," Arnold said. "And with HP's help and their deep technical capability, we can take that message and make it stronger."

It's why if you go to Endeavor 3D's website today, there's no 'quick upload' button or automated ordering process, you have to start a conversation.

"If it's easy, we're probably not the company to work with," Arnold said. "We want the hard, the difficult, technical, demanding, where our degree of differentiation through expertise, QC and deliverable approach, and deep internal knowledge makes a difference. And that's also typically how you create long-term relationships."

Long-term customer relationships are important. Sure, they've had plenty of those calls from new customers who have found themselves in a supply chain bind. The 'I need this part now,' 'I don't care how much it costs,' 'How quickly can you get it to me?' calls. That long-term collaboration is also true of its partnership with HP but it's also very complementary.

"We never pretended that we knew everything, we never will know everything," Arnold said. "But in that regard, HP has a tremendous amount of synergistic information and guidance. And I think that real fundamental aspect with trust and visioning to the long term for an industry, I think we very much agree on."

While Arnold can't talk openly about specific customer examples, the demand for polymer printing from the automotive industry and medical device manufacturers is high. But Endeavor 3D is also exploring metals. Could an installation of HP Metal Jet, which has already been adopted by companies like John Deere and General Motors, be on the cards soon?

"We are definitely looking at the metal side," Arnold said. "We think it's an important complement to what we're doing on the polymer side. Stay tuned."

For now, Arnold is just excited about the possibilities.

"It doesn't take very much to be totally enthusiastic when you see what has been done over time with additive. I had a personal interest for a long time. I was just lucky enough to be able to bring together, from a factory two leaders who I've had the privilege of working with, and prior companies for decades, and HP and others into an industry, at a rather opportune time, to make this come together. We're happy, excited, and motivated."