and, ultimately, help our brothers and sisters out there to maintain a modicum of health," Wright said. "Hopefully, we can get them on this product faster, and they're not waiting around and getting worse before they get on an ICU type ventilator. Our goal is to help them out a little bit earlier and save lives."

Wright's statement that ATron was blessed to have received a license to manufacture the ventilator was echoed by Berkenstock, who said one of the company's core values is about people.

"We believe that people are incredibly important," Berkenstock said. "When it comes to a project like this, where we have the ability to impact not just hundreds, but, potentially, hundreds of thousands of lives, we look at it as something that we can fit into our daily activity, and it feels good for the soul. It feels good for what we do as an organization because one of the most important things here is the people that we work with, the people we interact with.

"But it also expands much further past that with our customers, our suppliers, and then the people that we serve in the greater community at large," Berkenstock continued. "So, to have something like that on our plate—Steve said we were blessed with it and I think it really speaks to that—is the reason why a lot of people get out of bed in the morning. Because here, you can make a difference. And this project is a huge difference, especially right now."

Berkenstock noted that the VITAL ventilator project is different from other projects in business that tend to focus heavily on the bottom line. For an American company to be awarded a project to build a ventilator in the U.S., where it will impact the lives of people during a pandemic, is a much different thing, he said. It's different not just for a company or an organization, but

for the country and the community, as well.

"Outside of everything else that we see in the world right now, we're seeing people who are coming together in communities, people who are coming together to work for a common good and a common cause," he said. "It's American companies backing each other, doing the things that are necessary, in much the same way that we saw not too long ago, in other periods of challenge and turmoil."

## Precision Machining Company Is All In on Ventilator Parts

Back in mid-March, Smith & Richardson, Inc., got calls from two existing customers, saying that they needed ventilator parts fast. Although Smith & Richardson had about a six-week backlog at the time, the company was able to juggle its schedule so that it could ramp up and start producing the parts. Today, the company is still producing the ventilator parts, with no end in sight.

"We've made about 90,000 of each of those parts—and still counting—because we continue to get orders for ventilator components. Those are not going away yet," said Smith & Richardson President Rich Hoster, in an interview.

The orders are for eight parts that eventually end up in ventilators manufactured by the OEMs Vyaire Medical and Nihon Kohden OrangeMed, Incorporated. Smith & Richardson does not supply the parts directly to either of the OEMs. "We supply to a ventilator valve manufacturer in Michigan—two different ones—and they supply both Vyaire and OrangeMed with a ventilator valve for their product," Hoster said.

On some of the ventilator parts, Smith & Richardson provides Swiss CNC machining. On other parts, including some that are



about two-and-a-half inches in diameter, it uses fixed headstock lathes. All of the company's CNC Swiss lathes, as well as its fixed headstock lathes, are relatively new and enable the company to produce tight tolerance parts to very exacting tolerances, Hoster said.

For now, Hoster expects to continue supplying the ventilator parts for the foreseeable future, as long as the need exists in the United States and elsewhere.

"Right now, we're being told it's not going to end in the near future," he said. "We're still exporting a lot of ventilators to other countries, and nobody wants to give up the equipment here because if it is needed again in the future, we don't want to be caught short-handed and scrambling again. I'm being told we're continuing to build stockpiles of ventilators throughout the world."

Smith & Richardson, Inc. (https://www.smithandrichardson.com/), a contract manufacturing company in Geneva, Illinois, provides precision machined parts and components for the medical, aerospace and defense, and information technology industries. For the medical industry in particular, the company has also provided machining of components for medical gauges, as well as parts for fluid and air delivery systems.

"We produce very small-diameter to large-diameter parts to very precision tolerances, and we do it in difficult-to-machine materials," Hoster said. "We are very capable of machining exotic metals. We're also capable of meeting very demanding needs of customers when it comes tolerances, deliveries, and turning on a dime—making what they need, when they need it."

Hoster said Smith & Richardson has four engineers on staff

to help develop manufacturing processes for customers' parts. Its engineers also help make it easier to work with customers' engineers to understand what they need.

"We always like to work with the customers' engineering departments because the more you understand about how they inspect the parts, the more you can mimic how they're going to inspect them," Hoster said. "We can make sure we're talking apples-to-apples, and no matter what the print says, we're getting them exactly what they want."

## Metal Casting Company Making Parts for Diagnostic Equipment

At Graphicast, Inc., a custom metal casting company in Jaffrey, New Hampshire, customers that need parts for COVID-related production are moved to priority level in scheduling.

Since April, Graphicast has been making parts for a medical manufacturer that builds equipment used to analyze saliva-based COVID-19 tests. The components are for a pipette dispensing robot that is part of the auto-sampling diagnostic equipment. The company is also producing parts for a Massachusetts-based manufacturer of diagnostic blood analyzers, said Graphicast Sales and Operations Director Kirk Barrett, in a phone interview.

"We're just a nice little happy company here in the southwest corner of New Hampshire, and we have this little process that not many people know about," Barrett said in a phone interview. "It's a great economic fit for people who are doing small-volume production. If they're making 10,000 or less of something, this is certainly a process that they should look at."

Graphicast is accustomed to meeting the challenges of manu-

