

## Two Machines for the Price of One

*A machining job shop doubles output with a dual-pallet Mazak Nexus 510C*

Logan, Utah's Reed's Precision Machining (RPM) is a successful, small-town job shop that offers its customers a wide variety of machining and metalworking services, including milling, turning, punch press, precision welding, production sawing, and assembly.

Founded in 1968 by Reed Bindrup as a manual machining service, the company was purchased in 1992 by Reed's three sons, Shawn, Brian and Dave, and his son-in-law, Ned Miller. Today, under the guidance of the four partners, the company has grown to occupy more than 30,000 square feet of floor space and keeps 30 skilled employees busy producing parts for its customers.

"We're a family owned and operated business," says partner Shawn Bindrup. "Our father still works here as a machinist, and our mother still runs the front office, so everything that goes out our door reflects on a family reputation that has taken thirty years to build. As a result, we are very careful about the kind of people we hire, and the kinds of equipment we purchase. Our customers rely on us to keep our promises and we do everything possible to do so. Quality parts shipped on time at reasonable prices has helped us to grow steadily for the life of RPM. We have never experienced a downturn."

### One Machine, Double Productivity

When a major customer asked RPM to take on significantly more work, the partners realized they couldn't handle the increased production with their existing equipment, so they went looking for an answer.

“Specifically, we wanted to find a machine that would give us the output of two machines, but because of budget constraints, we also needed to get the most bang for the buck,” says partner Brian Bindrup.

“We had some experience using manual pallet changers, so we knew that for the kind of productivity we needed we would need an automated pallet system,” says partner Ned Miller. “We finally settled on looking at two systems, a Mazak Nexus 510C and one other.”

“Actually, we compared a number of good machines before we made our decision,” adds Dave Bindrup, “but in the end we went with the Mazak 510C.”

“Both machines are high-quality systems,” says Shawn Bindrup, “but when we finally got down to comparing the two machines feature for feature, the Nexus won hands down. By buying the Nexus 510C loaded with all the options available, we still saved \$45,000 over the other machine. We believe we got the best machine possible for the kind of money we had to spend.”

### **The Nexus 510C Advantage**

For RPM the Nexus 510C with built-in dual pallets was feature rich for the price. In fact, to their surprise, the partners found that a wide range of features that typically were options on other machines were included as standard on the Nexus 510C.

“There are a lot of things about the Nexus that really help us,” says Shawn Bindrup, “but the biggest productivity gainer for us is the two-pallet changer, which is designed specifically for the Nexus and is an integral part of the machine. We wanted two machines for the price of one and we got it. With the pallet changer we’re able to run the Nexus from five o’clock in the morning until seven or eight at night with virtually no loss of spindle on time. The Nexus also cuts faster than any of our other machines. We’ve gained at least 20% cycle-time productivity with the Nexus.”

“The Nexus is designed to help you contour and make your parts better,” says Shawn Bindrup. “Through-the-tool coolant was just one of them.”

“We got a high-speed software package with 2D and 3D programs on the Nexus,” says Shawn Bindrup. “To add those options to the other machine the price difference would have been even greater. We also got a synchronized tapping option, coolant-through-spindle, air blast, a high-pressure

coolant system, augers, a chip conveyor, all standard on the Mazak and all of which would have significantly added to the price of the other machine.”

### **PC-based Controller**

“One of the best things about the Nexus is the fact that it has a Windows-based PC controller,” says Ned Miller. “Mazak has designed the system with separate units of PC and CNC, so if Windows crashes, it won’t crash the machine. The machine just keeps going.”

“We often had to drip feed programs to our other machines,” Dave Bindrup reports, “but because Mazak has integrated a PC in the controller, we’re able to load in programs as large as one gigabyte without problems. I believe this is more than any other machine maker.”

With the Mazatrol controller the Nexus can be programmed at the machine for quick operations when necessary or convenient, but it also can be programmed offline.

“Mostly we use an offline CAD/CAM package to program the machine,” adds Dave Bindrup. “In our case we use Mastercam and download our g-code via EIA to the Nexus. The controller has never even hiccupped. It works perfectly.”

### **Network Component**

One real advantage of the Mazak 510C’s controller set up is that the machine can be tied into the company’s PC network and will show up on Windows Explorer as just another computer system.

“This feature is very useful and convenient for us,” says Shawn Bindrup. “The Nexus acts as another computer system on our network and, because of the machine’s PCMCIA interface, we don’t have to use an RS232 hook up to access the machine. We can find the machine on our network and use Windows Explorer to drag and drop programs into the machine. That’s very convenient.”

According to the partners, company founder Reed Bindrup had no intention of building the company into a machine-shop giant.

“Our father had a philosophy of trying to keep the business as small as he could,” says Brian Bindrup. “He wanted to keep it as a family business, making enough money to support his family. He didn’t want to have a lot of employees, but he wanted a good, steady business with no debt.”

“Of course, when we bought him out we had to change things some,” adds Shawn Bindrup. “Now we have to support the thirty families of our employees, as well as our own families. Because of that, we knew we had to do something different.”

The thing that the partners did differently was to push the business to grow beyond their own personal capabilities, which meant adding employees.

“We want to keep the business small and family oriented,” adds Dave Bindrup, “but we don’t want to think small when it comes to production. We want to produce as much as we can with what we have.”

“That means we have to stay with the most advanced, highly productive equipment we can afford,” Brian Bindrup says.

“So far, for us, that means Mazak,” Ned Miller adds.

“We believe that Mazak is probably the leader in machine tool technology,” says Shawn Bindrup. “We visited their Kentucky facility and, frankly, it blew us away. They’re doing truly amazing things there. Personally, I think other companies are chasing their technology, which is why we will stay with Mazak in the future. We’ve had our Nexus for about a two months now and we keep finding ways to get more and more production out of it.”



**Caption:**

Reed’s Precision Machining purchased a Nexus 510C vertical machining center with a two-pallet system to meet increased production demands from one of its major customers. The company runs its Nexus from 5 a.m. to 8 p.m. with virtually no spindle down time.



**Caption:** RPM partner Shawn Bindrup (left) and CNC operator Justin Bassett discuss the most efficient set up on the Nexus 510C dual-pallet system. Note the wide open, easy access to the pallets from both sides of the machine. RPM has made major productivity gains since installing the Nexus.



**Caption:** CNC operator Justin Bassett checks set up on the Reed Precision Machining's Nexus 510C dual-pallet system. Note the wide open, easy access to the pallets from both sides of the machine. RPM has made major productivity gains since installing the Nexus.