

Schaller Takes Progressive Die Stamping to New Limits

When it comes to large, difficult, progressive parts, the Schaller Corporation loves the challenge.

Development and executive personnel from Schaller approached a "Big Three" automaker with a simple proposition -- 'show us your most difficult parts.'

"There was one part in particular we looked at," said Vice President Rich Schaller. "It was previously being made from three pieces, then welded with a water seal added. They were having all sorts of dimensional quality problems and warranty problems. The part looked like a big extrusion to us, so we took it back and developed a way to produce the part as one piece in a single progressive die.

"We showed our customer how we could produce the part, save them money, decrease quality issues and decrease warranty issues," Schaller continued. "It was a win-win situation."

The only problem was finding a press big enough.

Schaller contacted The

Minster Machine Company, and work began on the world's largest two-point eccentric shaft press -- the E2-1600.



Schaller's attractive corporate headquarters located just north of Detroit, Michigan.

"We didn't have the capacity in our current presses to produce the part without involving secondary operations," Schaller said. "And because our mind set is high volume and giving the customer the best bang for their buck, we wanted to go full progression.

"We went out and built a plant and purchased a machine, which was a big risk on our part," Schaller added. "I don't think we would have taken the risk if we didn't have confidence in our tool house, Schaller Tool and Die; and our press manufacturer, Minster, being able to deliver what they said they could deliver."

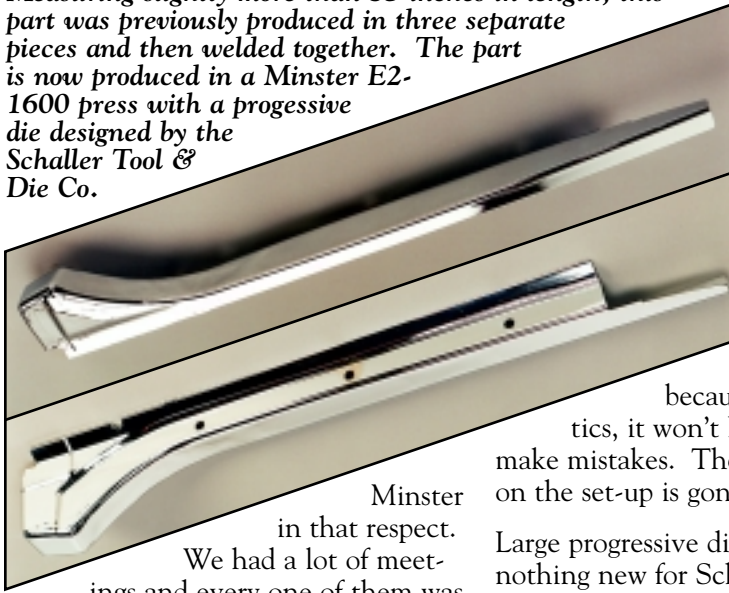
From conception to completion Schaller was pleased with the way the press came together at Minster.

"I was impressed with Minster throughout the design and build of the press," Schaller said. "The E2-1600 is the largest press of its kind in the world. It's a big piece of equipment, and to have it come together with no major glitches is pretty incredible. I have to hand it to



A Minster material handling line including is totally integrated with the E2-1600 press by Minster's Production Management Control.

Measuring slightly more than 35 inches in length, this part was previously produced in three separate pieces and then welded together. The part is now produced in a Minster E2-1600 press with a progressive die designed by the Schaller Tool & Die Co.



Minster in that respect. We had a lot of meetings and every one of them was very productive, and we were always making headway.”

Housed in a brand new manufacturing facility, the E2-1600 began producing parts in October of 1998, and has proved to be a valuable asset for Schaller.

“We bought that press to do a job that no one else could tool or produce,” Schaller said. “Now we have several more jobs going into the E2-1600 because that’s where we want to take our business. That’s where we think our niche is -- extremely difficult large stampings.”

Contributing to the success of the E2-1600 project was a complete Minster material handling line purchased with the press, along with Minster’s integrated Production Management Control.

“Minster’s material handling line has exceeded our expectations,” said Schaller’s Production Foremen Scott Payton, “and the Production Management Control has made life a lot easier.”

“With our new Minster press line, when you run a job, all the information goes into the memory. Then when you have to run that job again, you touch the job number on the screen and you’re ready to go. You don’t have to mess around adjusting this or adjusting that,” Payton added. “Everything goes right back to where it was when you pulled that job out.

The Production Management Control saves a lot of time and it definitely helps on the quality of the part.”

“It’s also very user friendly,” he added. “The operators catch on well, and

because of the diagnostics, it won’t let the operators make mistakes. The second guessing on the set-up is gone.”

Large progressive die stamping is nothing new for Schaller. The Detroit-area company purchased the very first Minster E2-1000 ton in 1985 and have since added two more E2-1000’s.

Schaller’s Machine Repair Foreman Robert Monkevich said he’s been very impressed with the performance of the Minster presses over the years.

“We’ve got 15-year-old Minster presses that are just as accurate and just as tight now as they were the day they came in here,” Monkevich said. “I think if we would have had problems with the other presses, we would have looked somewhere else for the 1600 ton, but why go to a different place if you’re with a winner. We expected that press to perform well and it does,

because all the Minster presses we’ve ever had do.”

“Quality, reliability, uptime... with Minster it’s almost a given now. We expect that,” Rich Schaller added. “It’s almost a foregone conclusion that when you turn the key the car will start, and that when you buy a Minster you get quality.”

And Schaller is also pleased with the way Minster has responded to its customers’ service needs.

“Minster has added more people and the response time is very good. Now they have two guys stationed in Michigan,” he said. “Sometimes getting service on short notice is tough, but if we’re in a jam Minster will get an engineer, someone off their floor or someone on the phone to talk you through it.”

“What I appreciate is the extra advice we get,” Monkevich added. “When we have questions about anything, the people at Minster realize that stampers don’t have the depth of understanding when it comes to the engineering of the presses. They’re willing to help us with the process, not just the product.”

A premier tool and die builder since 1945, the Schaller Group also offers prototyping as well as high volume stamping of large difficult-to-produce parts.



Three Minster E2-1000 ton presses perform some of the big jobs at Schaller.