

Job shop gains efficiencies making punch retainers in-house

Situation

Williams Tooling & Mfg. (WTM), a job shop based in Dorr, Mich., makes assemblies and parts for top-tier auto parts suppliers serving the giant automakers of the world that impose demanding deadlines to bring new cars, trucks, SUVs, and commercial vehicles to the consumer market.

“The biggest challenge in our shop is that whenever we start a project, there’s a due date,” said Jerry Williams, owner and president. “Getting stuff done on time is always the biggest challenge that we face. Even when circumstances out of our control hold up the project, the due date never changes.”

The highly competitive auto industry often launches new vehicle makes and models at the same time, which places added pressure on the job shops and suppliers that work within this industry. Highly efficient production is critical.

Ball-lock tooling, including punches and dies, is essential for many of these types of applications. The dies usually are unique to specific applications and thus require special retainers, which makes them expensive and time-consuming to produce.

“There are special retainers we can buy for our punches when we have multiple holes that are close together and we need close tolerances, but it can take between three and four weeks for tooling manufacturers to make the retainers,” Williams said. “We just don’t have that kind of time to wait when it comes to meeting our customers’ deadlines.”

Resolution

To overcome this problem, the company found the HP Accu-Lock® retainer insert from Wilson Tool International®. It allows manufacturers to modify existing retainers or manufacture new ones in-house.

“The ... product has actually eliminated

our need for the special retainers,” Williams said. “Now we can manufacture the retainers here in our shop and then buy the inserts. We just pop them in, and we’re ready to go in a matter of days, not weeks.”

The insert helps simplify the use of special retainers by eliminating the need for complicated jigs, inspection fixtures, and specialized knowledge to machine ball holes into the punch plate. Punches are held in place with a straight-line machined hole that can be created in-house, eliminating the ball hole.

“We can turn around a retainer in a few days or even hours, right in our own die shop,” Williams said. “That is a huge benefit for us. Timing is everything for us in this business.”

With the opportunity to manufacture retainers in-house, the company experienced additional benefits, including more design flexibility.

“We can basically create designs in the best way that suits our needs,” Williams

said. “We aren’t limited when we need punches in close proximity. For example, if we needed punches an inch apart, we probably couldn’t get them any closer than 1½ inch with a standard retainer. But since the [retainer insert] allows us to modify our retainers to suit our needs, we can design the part to get the punches closer together.”

While time is by far the largest benefit WTM has gained by using the retainer inserts, the cost savings realized through more efficient operations aren’t lost on Williams.

“The retainer inserts are a huge time and cost savings for us,” he said. “I haven’t compared the numbers, but when we’re turning three- or four-week lead times into days or even hours, you don’t need to compare the numbers to know you’re saving money.”

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