

DIE CASTING • AUTOMATION • LABOR SAVINGS • RELIABILITY

LABOR SAVINGS LEADS TO FAST ROI



THE OPPORTUNITY:

Nearly 20 years ago, Ultra-Met was introducing a new line of parts and was looking for a machine to efficiently finish and polish its inserts without chipping or damaging them. Carbide parts can chip easily because, despite being very hard, they are very brittle.

One of Ultra-Met's customers had an ALMCO machine and their setup was similar to what Ultra-Met wanted to do. When Ultra-Met officials saw the quality of the products coming out of the machine, they decided to purchase an ALMCO Model S2-36 Spindle Deburring machine. "The only machine available was in the ALMCO lab, so we bought it. We got 18 years of use out of basically a used machine," says Manufacturing Engineer Dan Morrow. After they retired the original machine, officials wanted a machine with increased automation.

Ultra-met
carbide technologies

ABOUT THE CLIENT

Industry:
Metal Fabricator

Location:
Urbana, Ohio

Founded in 1965, Ultra-Met is best known for manufacturing press-to-size carbide inserts and premium-quality blanks for toolmakers and fabricators. The company is the leading independent American manufacturer of custom-molded tungsten carbide products for customers in several key markets, including Aerospace, Automotive, Oil and Gas, Mining and Woodworking.

THE SOLUTION:

Ultra-Met looked at three other automation companies, but **ALMCO offered the most cost-effective solution:** A newer model of the same machine that was automated with a robotic cell. **“ALMCO came in with an idea similar to what I was already thinking – without completely redesigning our whole process,”** adds Morrow. “They tested and created an automated work zone for us, a system where robots do what people did.” The final equipment solution was a dual Spindle finishing machine with custom robotics, dual wash system and 4-stage sediment tank to match Ultra-Mets application.

THE RESULTS:

Ultra-Met employees already knew the process, so training time was significantly reduced, and they know the results will be uniform when they set it up in the program.

“We load parts into a stacker system with 32 trays and pick up finished parts on the other end. Then we can perform laser marking, or package and ship them,” says Morrow. “Robots replace approximately four people, who were reassigned in our plant. We went from an all-manual process to almost fully automated.”

According to Morrow, **“The new ALMCO S2-36 spindle deburring machine has improved efficiency by 40 percent for a full shift,** and cut the number of people doing the job from 5 or 6, to 2 or 3 without layoffs.” The machine also is ergonomically much easier to operate, and Ultra-Met didn’t need to expand their workforce despite growing their business, a very important benefit when labor is scarce.

“We planned a 2-year return on investment, but we hit it the first year . ALMCO is easy to work with and there’s never been a machine like this before,” adds Morrow. “They helped a lot in development and were as interested in going into the next generation machine as we were. I enjoyed working with everyone there.”

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