

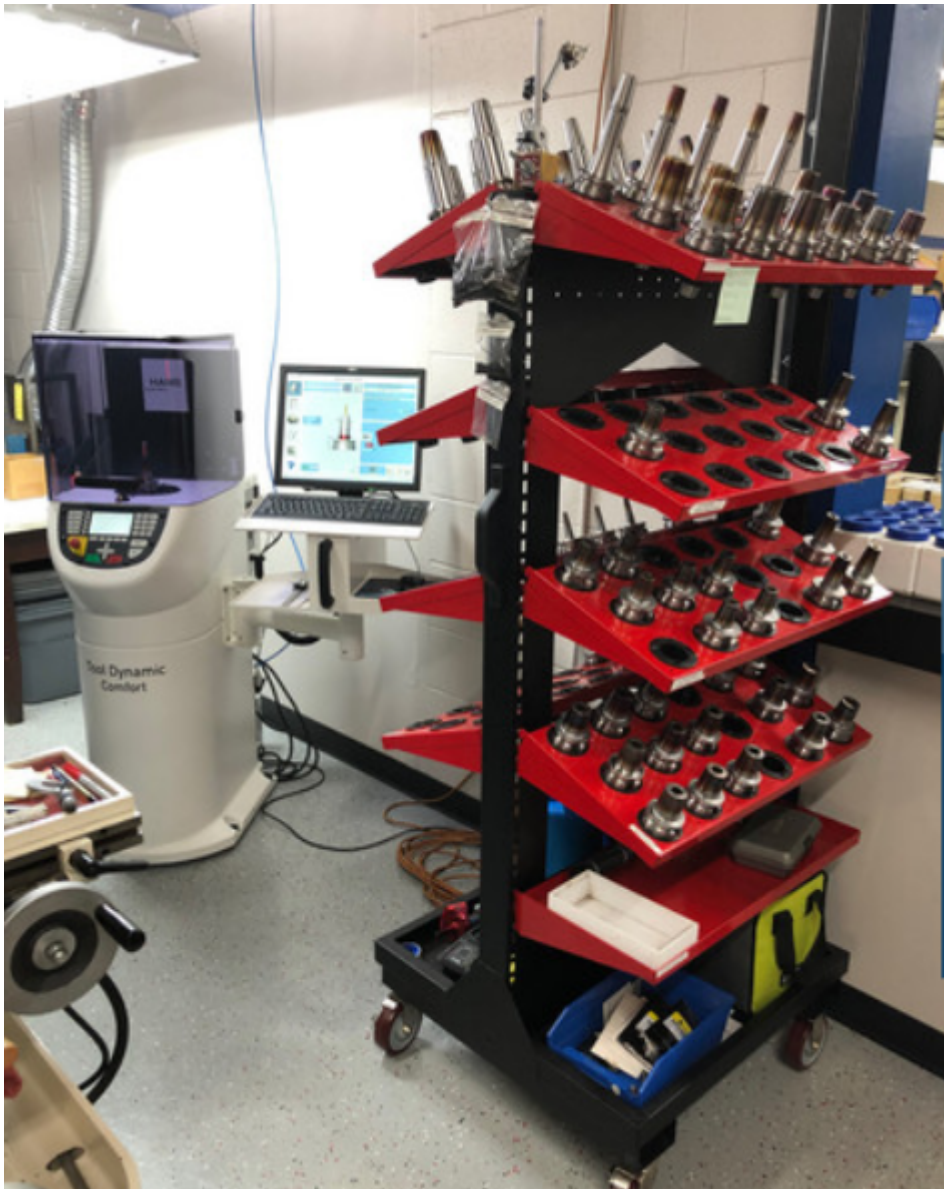
Case Study: Enhancing Raym-Co's New Investments: Why It Was Necessary to Implement Shrink Fit Technology

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Raym-Co, located in Farmington, Conn., is a job shop with a 37,000 square foot facility with approximately 60 CNC machines. The company prides itself in being a small run job shop serving primarily the medical and semi-conductor fields but, after nearly 40 years in operation, the company decided to re-invent themselves and purchase all new and high quality machines.

HAIMER Helps Make Raym-Co Go Further

Going from low quality, 30 year old machines to brand new, top-of-the-line machines was a huge investment for Raym-Co. As soon as the machines were installed, the company put them to work and the team was excited to see how well this equipment worked. After completing a few projects on the new CNC machines, Vice President of Raym-Co, Brandon Artibani, examined how efficient his new productions were running. Unfortunately, he discovered something concerning. "We definitely saw an increase in the ability to hold tolerances and a decrease in cycle time," Brandon explains. "But not as much as we had hoped."



He explained the situation to Jim Roberts, Sales Engineer at Lindco, who is Brandon's main point of contact in regards to tooling. After hearing Brandon's concerns, Jim suggested he try HAIMER shrink fit tool holders in his production. Brandon was a little hesitant at first because he had never heard of HAIMER before and the price point was higher than what he was used to spending on tool holders. "I just couldn't justify spending more on a holder upfront," Brandon explained. "It seemed irresponsible to spend that much just to have someone slam it into a vice." But after much discussion, Brandon decided to consider it more and set up a meeting with Jim at Raym-Co's facility. Jim brought some sample tool holders to test in the new CNC machines and almost immediately Brandon noticed the difference in the rigidity of the holder.

As soon as Brandon witnessed firsthand the benefits the HAIMER shrink fit system could provide, Jim collaborated with Mike O'Connor, Regional Sales Manager at HAIMER, to create a proposal for Brandon. Mike recommended Raym-Co invest in the HAIMER Power Clamp Economic Plus NG with adjustable coil and 15 tool holders to start. "It was at a certain price point that I was comfortable taking the next step," Brandon explained.

Nearly Instantaneous Benefits

When the machine and tool holders arrived, Mike went over to Raym-Co to personally train and set up the equipment properly. "Mike is phenomenal and an excellent representation of the HAIMER

company," stated Brandon. After installation, Mike left them to their own devices and almost instantly, Brandon noticed the difference between the new shrink fit holders and the old low quality tool holders. With the old equipment, Raym-Co was cutting aluminum, on average, 60 to 100 inches per minute but with the new tool holders, they were cutting 1,000 inches per minute. "50% of that increase was due to the new CNC machines but the other 50% was because of the shrink fit system," Brandon explains. "Without the holders, we cannot do that." Brandon quickly learned that holding tolerances was now effortless. Raym-Co was now running at ± 0.005 mm on location and on the hole size, without having to try. "A lot of that has to do with the fact that the holder runs so true that everything falls in right off the bat," explained Brandon.

From Roughing to Finishing

When Raym-Co first invested in the HAIMER shrink fit system, the original application they were planning to use the new tool holders was for roughing. Brandon told his engineers to use only one HAIMER Power Shrink Chuck for each roughing job, due to how much Brandon spent on the initial investment. But then, they were starting to run tighter working and required more Standard Shrink Fit Holders. "We found that the tolerances were holding in place and tool life was significantly increased," described Brandon.

Using shrink fit holders is the fastest and most consistent method of cutting tool clamping. In five to 10 seconds, a tool holder's cutting tool is changed and it is repeatable the exact same way from operator to operator. This leads to the most consistent set-up which then translates to a consistent part production and reliable tool life. On average, Raym-Co saw a 40% increase in tool life but there were some jobs that they saw a 200-300% increase. "Now it is our main tool holder," said Brandon. "From roughing to finishing, as long as it is an end mill, it goes into shrink fit."

Don't Have to Bother Checking Runout

The HAIMER Power Clamp Economic Plus NG can shrink solid carbide and HSS end mills from $\varnothing 3 - 32$ mm. Normally, it comes with one base holder but Mike suggested they purchase an additional base. "We decided to purchase the extra base so we could have one tool holder heating while another one was cooling and that made a huge difference," said Brandon. The high performance coil, contact cooling and additional base of the Power Clamp Economic Plus NG guarantees simultaneous shrinking and cooling in record time. Heating a tool holder takes only 10 seconds while cooling only takes 30-60 seconds. Raym-Co noticed that it did take 10 extra seconds to use the shrink fit system compared to inserting the tool into a collet chuck but, as Brandon explains, "We gain the time back because we don't have to check the runout and play around with the tool trying to get it to run true every time." Brandon even stated that he has never had one of the HAIMER tool holders runout.

A True Brand Ambassador

"I would highly, *highly* recommend the HAIMER product to anybody who is looking into shrink fit," Brandon said. Brandon has truly become a brand ambassador for HAIMER. Whenever he hears a small shop considering shrink fit, he invites them to the shop and watch Raym-Co use this equipment. "At the end of the day, it is very simple to use," Brandon explains. "It may be scary at first but once you learn how to use it, it is very easy and safe to use." He has actually convinced a few machinists to take the plunge with HAIMER shrink fit technology.

Brandon speaks very highly of the service he has received over the past four years from HAIMER. "The customer service that I have seen has been second to none," Brandon said. "It is the best that I have ever experienced in all of my applications." He also actively shares how HAIMER products have

impacted his productions and company. "The amount of time taken off every single job and the ability to trust the HAIMER equipment at the levels I can now, it is worth every penny, if not more," Brandon explains. "My return on investment was probably more instant than anything else I have purchased for the company."

In addition to shrink fit, Raym-Co acquired a new balancing machine from HAIMER in March 2020. However, due to COVID-19, Brandon has not been able to use it to its full potential. "I can't wait to see what kind of benefits this brings as well."

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