

HEIMATEC'S LIVE TOOL SPEED INCREASER RESULTS IN NINE TIMES MORE COST SAVINGS

Minnesota CNC shop, Kurt Machining, uses Heimatec speed increaser to increase Revolutions per minute(Rpm) and feed rate to significantly reduce cycle time on aluminium engraving application.

urt Machining (Minneapolis, Minnesota) specialises in providing precision CNC machined parts, using state-of-the-art technologies and up to 5-axis machining. Since 1952, they have been liaising with customers from a variety of high-quality markets, providing them with components and welded assemblies. Industries such as aerospace, defence, semiconductor, energy, automotive just to name a few. As a flexible machining partner, Kurt produces parts ranging from micron-sized semiconductor components to 2000 lb. workpieces for the defence sector.

Reducing Machining Cost Per Part

In a recent project, where 5000 pieces of 6060 aluminium were to be engraved on a Hwacheon horizontal turning centre, Kurt Engineering Manager, Shawn Eisenshank, had concerns over the cycle times. He turned to his local tooling distributor, Abrasive Specialists, Inc. (ASI) and their tooling partner, Platinum Tooling, for suggestions. Platinum Tooling Technologies, Inc. is the exclusive North American importer of Heimatec live tools and angle heads. Hence, Leigh Kinnan of ASI worked with the local Platinum Tooling representative, Cody Papenfus, to test run a Heimatec speed increaser, with the goal of increasing Rpm on the machine and decrease part cycle time.

After performing the calculations in consultation with Preben Hansen, president of Platinum Tooling, it was determined that significant savings could be realised upon using Heimatec's speed increaser. Detailing the application, ASI demonstrated that using a 1:3 speeder increased the spindle Rpm to its sufficient speed, that when coupled with the nearly tripled increase in the



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feed rate on the machine, would produce a significant improvement to the machining cycle.

Calculating the reduction in machining cost per part and factoring in the cost of the speed increaser, it was determined that the use of the Heimatec product would result in nine times more cost saving for the customer, in the first year of usage on this engraved aluminium component. As Shawn Eisenshank notes, "This is one of those classic scenarios, where a theory has been proven out in practice. As evident from the results ASI and Platinum Tooling proposed in their test calculations." Cody Papenfus adds, "We say we put our expertise to work and, in this case, that's exactly what happened. The

speed increaser performed as expected, the customer got the results promised and it was a win-win, for all. We serve our customers for the long haul and successes like these prove our point."

High-Speed Spindles

High-speed spindles from Heimatec
Germany permits a gear ratio of 1:4 at
24,000 Rpm and are always applied if the
average speed of a turning machine is too slow
for processing. Heimatec even supplies solutions
for torque increases or speed reductions also. The
sales and technical representatives of heimatec shared
"Apart from the standard cases day in and out, those
customised solutions challenges us in all areas such as
designing, improving throughout internal test scenarios,
discussions in multiple languages with the technical
experts and operators on both sides to create the needed
solution, sourcing parts in time and putting all together
in a functional and rigid, long time customised solution

for our clients and partners. This is the way, it creates a bond with our client that is beyond a customer relationship but as a friend."

Heimatec has newly added in their product family of speed increasers, radial and axial live tool versions, straight or offset, for Citizen CINCOM L-Series and M-Series (especially for the new M532 turret version) and Nakamura, CMZ, Miyano, SPINNER and HAAS machines, which are now available too. All of them

are characterised by the fact that they achieve speeds of up to 48,000 rpm with a gear ratio of 1:4. Therefore, it is evident that heimatec offers the best

possible rigidity, bearing technology and precision.

Detailed information about high-speed tools from heimatec can be found here: https://heimatec.com/ high-speed-1to4



