

Abrasives Key To High CPK Honing

High productivity with high process capability (Cpk) sometimes seems elusive in production honing, but the problem can often be traced to inconsistent abrasives, according to Julian Hooper Managing Director of Sunnen UK.

"The most common problems, such as variable abrasive life, fluctuating cost per honed part, inability to meet Cpk targets and surface finish, are often due to small, but critical, variations in the abrasives. Customers who track their honing costs and part quality quickly realize that both often improve when they switch to Sunnen abrasives."

This is a primary reason Sunnen has been manufacturing honing abrasives for much of the company's 90+ years, Hooper adds. "Over decades, our manufacturing process has been so perfected that many customers resume use of Genuine Sunnen Abrasives after trying other options. In fact, customers with non-Sunnen machines often specify our stones."

Sunnen employs more than 100 people in its abrasive R&D and manufacturing operations. Hooper says the company manufactures its own conventional and bonded superabrasives, as well as diamond-plated Single Stroke Honing® tools. "We offer the industry's widest range of honing abrasives from aluminum oxide and silicon carbide to diamond and superabrasives. These are matched with similarly wide range of bond types, grain sizes and stone configurations," he adds. "Most important, Sunnen has developed proprietary manufacturing steps to ensure our abrasive consistency is second to none."

Sunnen also manufactures precision tooling, including its exclusive in-process expanding,



diamond-plated mandrels. As a service to customers, the company supplies tooling and abrasives for most other brands of honing machines too.

"Even where customers think they have seen everything in conventional abrasives, we continue to roll out new products, such as our 60-grit premium red aluminum-oxide abrasive that cuts material 25 to 50 percent faster than other conventional abrasives," says Hooper. "Likewise, our bonded diamond and CBN superabrasives are setting production records honing exotic materials as easily as ordinary hardened steel."

With many possible ways to hone a part, Hooper stresses that Sunnen's honing lab is often the best place to determine which abrasive, coolant and honing technique will produce the most cost-effective results. "Customers who visit our lab are amazed at what they learn from our machinists and metrology experts," Hooper says. "When you consult Sunnen, you tap into decades of knowledge developed in a research facility dedicated entirely to the study and advancement of honing technology. It's often the first stop for customers on the route to a better process."

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