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VOGEL COMMUNICATION GROUP

Maximising potential of lathes and reducing set-up times

Quick-change Tooling – American-based Anthony Machine, Inc. in San Antonio has served a variety of industries, including the oil and gas, mining, transportation and power generation sectors, since 1946. Having accumulated precision machining experience over seven decades, there is actually little this job shop cannot handle.

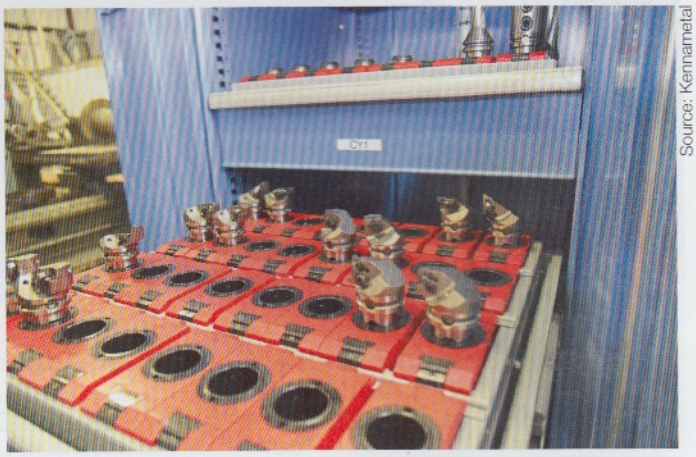
However, after the company purchased a pair of NLX 3000 1250 universal turning centres from DMG Mori – the shop's first Y-axis, live-tool lathes – Anthony's manufacturing team was challenged with making the most of the new investment, which is where Kennametal (KM) was of help.

KM sales engineer Mark Davis explained to Anthony that the best way to reduce set-up times and maximise the new machines' potential would be to equip them with KM's Turret Adapted Clamping Units (Tacu) and KM quick-change toolholders. "The Tacu system supports everything from KM32 up to KM63," Davis said and added that the company offers blocks for both static and driven tools, and can tool-up lathes from companies including Okuma, Haas, Mazak, Doosan, and DMG Mori – most of the major machine tool builders. This makes it both easy and cost-effective for customers to equip more than 80 models of CNC turning centres with a fast, flexible and accurate quick-change toolholding system, the company noted.

Over the years, Anthony notes that it has built a number of KM-equipped custom toolholders for deep boring and other machining operations on its CNC lathes and machining centres as well as on several of the shop's manual turret lathes to overcome limitations with available tool positions.

KM has also helped the company to achieve tolerances and surface finishes that many others couldn't reach with conventional tooling, thereby winning new clients. Anthony explained that, compared to the traditional wedge and screw-style blocks that come as standard on most machines, the KM-equipped Tacu units are both faster and more accurate, routinely holding tolerances of up to 0.0005 inches (0.013 mm). Furthermore, the part size does not change from one clamping to the next. The turret is also less crowded and everything is easily accessible without the chatter and deflection that one has with straight shank tools and set-screw type boring bar holders.

kennametal.com



Source: Kennametal

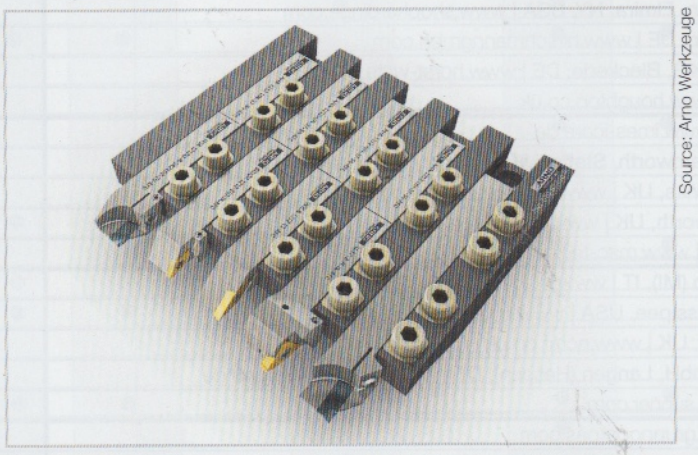
Anthony Machine equipped their new Y-axis lathes from DMG Mori with quick-change tooling from Kennametal.

Patent-pending slides for the Star

Linear Slides – Arno Werkzeuge has just presented its new AWL linear slide for the Star sliding headstock lathes. The patent-pending, tool-holding system for turning or grooving tools has an integrated adjustable coolant supply for high-pressure cooling of up to 130 bar. Together with the AFC quick-change system, users can increase productivity during long turning because set-up and non-productive times are significantly reduced, Arno notes.

"After Citizen, our new AWL linear slides are now also available for CNC sliding headstock lathes from Star Micronics," Arno's Technical Manager, Werner Meditz, says. The AWL tool-holding system is now available for the SR 20R II, III and IV Star series. It has two independent cooling channels that can be opened or closed in a targeted manner and, thanks to various connection options, fit several machine types. Depending on the machine and design, the slide can accommodate between two to six tools. Each chamber has an integrated coolant supply to enable tools with and without internal cooling to be used simultaneously.

The design of the linear slide with integrated cooling eliminates time-consuming connections of external and cost-intensive tubing. In addition, interference contours in the machining room are eliminated. The company says users can increase tool life by over 25% with the targeted high-pressure cooling of up to 130 bar and provide stable wedge-clamping of the clamping fixtures during machining.



Source: Arno Werkzeuge

The company has just presented the AWL linear slide for the Star CNC long lathes.

The tools can be loosened and fastened in just a few simple steps. When unscrewing, an integrated lock nut lifts the clamping wedge slightly. This allows the tool to be removed and inserted quickly and easily. Arco noted that tools from other manufacturers can also be changed into the linear slide, which is an advantage of the AWL linear slide.

An advantage for users is when they combine the AWL linear slide with Arno's AFC quick-change system. To change the tool, only the front part of the two-part carrier has to be removed and reloaded with another carrier with a new tool. In many cases, this eliminates the need for recalibration. With the AWL linear slide and the AFC quick-change system, the manufacturer underlines its claim to increase productivity in user production with customer-oriented solutions.

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