



## **KM Quick-change Tooling Now Iso Standard**

*Now the Kennametal system is being recognized by the International Organization for Standardization (ISO) as a new ISO standard – ISO 26622.*

**Dec. 17, 2008** - [PRLog](#) -- LATROBE, PENNSYLVANIA – For the past 20-plus years, the KM™ quick-change tooling system from Kennametal has been providing manufacturers a cost-effective method for reducing set-up time and increasing productivity. Now the Kennametal system is being recognized by the International Organization for Standardization (ISO) as a new ISO standard – ISO 26622.

ISO standards are vital to modern society because they mandate such desirable characteristics as safety, quality, interchangeability, environmental friendliness, reliability, efficiency, and economy for products and services from screw threads (ISO 68-1) to quality management systems (ISO 9001). ISO is the world's largest developer and publisher of international standards, comprising a network of the national standards institutes of 157 countries, one member per country, with a Central Secretariat in Geneva, Switzerland, that coordinates the system.

Technical committees made up of experts from the industrial, technical, and business sectors develop ISO standards. Government agency representatives, testing laboratories, consumer associations, and academic institutions also serve on ISO technical committees. To be accepted for development, a proposed work item must receive the majority support of the participating members of the ISO technical committee, which, among other criteria, verifies the global relevance of the proposed item. This means it indeed responds to an international need and will eventually be suitable for implementation on as broad a basis as possible worldwide.

### **Automate the Manual**

Why is quick-change tooling important and why should it be standardized? Quick-change tooling consists of two basic components: the clamping unit and the cutting head. The clamping unit mounts to the machine tool and is the receptacle for the interchangeable cutting unit. When a tool change is necessary, an operator simply releases the locking system, replaces the cutting unit, and locks it into position. Machine downtime is a matter of seconds.

“Being modular, quick-change tooling like the Kennametal KM system is central to an effective machining strategy because it allows manufacturers to automate tool-changing, a process that has always been considered manual-only,” says Curtis Rellick, global product manager for tooling systems, Kennametal. “Quick-change tooling addresses demands for higher quality, lower costs, and improved on-time deliveries, which are only getting stronger. When they lock a KM system into their machine tools, Kennametal customers around the world are assured it meets ISO standards for dimensions and tolerances”

Consequently, the new ISO 26622: 2008 is divided into two parts. ISO 26622-1 specifies the dimensions and designations of tapered shanks; ISO 26622-2 does the same for tapered receivers.

### **Repeatable and Accurate**

The rigidity and stiffness of the KM joint is achieved through a combination of unique design elements

incorporated in both the shank of the tool and the clamping mechanism. The KM joint was developed as a system to obtain maximum benefit from the space utilized. Moreover, the taper and face contact feature of the KM system provides a radial and axial repeatability of +/- 0.0001" (+/- 2.5 um) for a specific cutting unit in a specific clamping unit. This means the first part machined is a good part.

KM Quick-Change systems can be used on multi-tasking, turning, rotating, and transfer machines in manual, semiautomatic, or fully automatic mode. Fully automatic quick-change systems take advantage of a machine tool's tool storage and tool-handling capabilities and have a locking mechanism activated by a signal from the machine's control. Combined with other automation systems such as part loading and unloading and tool management software, automatic quick-change systems can dramatically improve machine utilization levels.

Users can convert machines to KM Quick-Change by replacing the conventional tooling with square shank, round-shank, VDI, or builder-specific tool blocks utilizing KM clamping units. The increase in productivity, which can be maximized when using an overall machine utilization improvement strategy can pay back the investment in quick-change tooling in a matter of months.

Kennametal KM units figure prominently in the Kennametal Machine Utilization Strategy, Rellick adds, the goal of which is to maximize machine utility, increase productivity, and profit potential. It makes tool kitting, tool pre-gauging, and tool maintenance more efficient. Additionally, the KM Quick-Change System reduces machine downtime by reducing setup time, insert-changing time, and improves the overall quality of the entire manufacturing process. The bottom line is a marked improvement in machine and cutting tool utilization.

Kennametal Inc. is a leading global supplier of tooling, engineering services, and advanced materials consumed in production processes. The company improves customers' competitiveness by providing superior economic returns through the delivery of application knowledge and advanced technology to master the toughest of materials application demands. Companies producing everything from airframes to mining equipment, from medical implants to oil wells and from turbochargers to motorcycle parts recognize Kennametal for extraordinary contributions to their value chains. Customers buy approximately \$2.4 billion annually of Kennametal products and services -- delivered by our 14,000 talented employees in over 60 countries -- with 50 percent of these revenues coming from outside North America.

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Kennametal supplies tooling, engineered components and advanced materials. Our products use complex metallurgy and materials science in tungsten carbide, high-speed steels, and ceramics.

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