Innovate

Kennametal Introduces the eBore™ Fine Boring System

Brought To You by Kennametal | Sep 01, 2020

Digital-ready boring tools enable precision adjustment as easy as 1, 2, 3.

Kennametal has introduced a new line of digital-ready fine boring tools that make precision adjustment easy, enabling more productive, predictable and accurate boring. The eBore Fine Boring System consists of cutting units to cover a diameter range from 6 to 1020mm (0.236" to 40.157") and an optional digital display that makes precision adjustments as simple as turning a screw—and costly mistakes a thing of the past.

"For many workpieces, the boring operation is often the final step, and a simple mistake can lead to scrapped parts. The Kennametal eBore fine boring system does away with the traditional 'count the graduations' approach to boring and reduces costly mistakes," said Global Product Manager Marcus Paul. "We've found there's tremendous operator acceptance due to its simplicity and ease of use. And because the same eBore digital device can be used across multiple types of tools and on various machines, it's easy on the tooling budget as well."

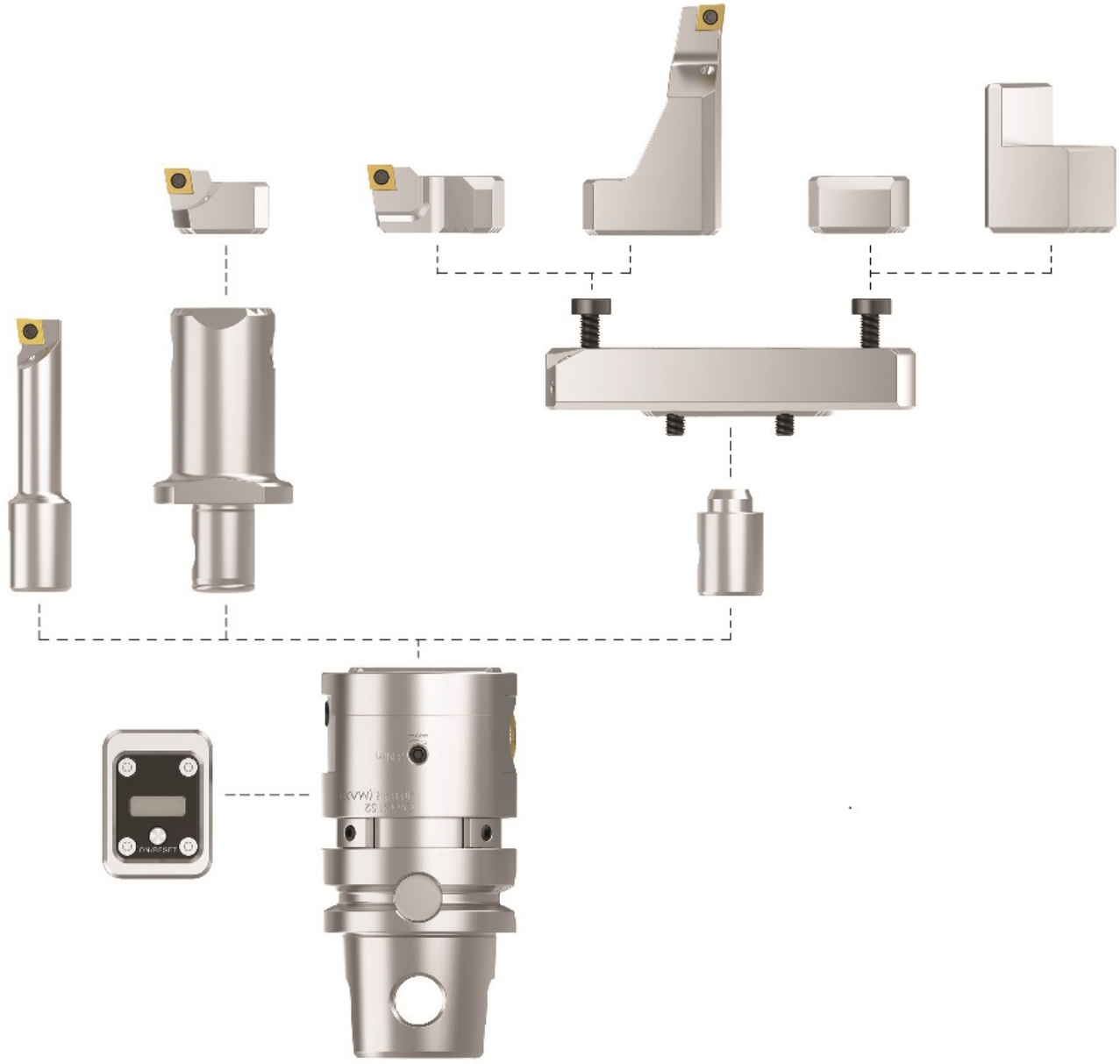
Offering no-mistake adjustments and accuracy to within 2 microns, Kennametal's eBore digital device is an optional—though extremely useful—part of the Kennametal Digital Boring System

Ease-of-use

With Kennametal's digital eBore digital device, dialing in a tight bore and losing count of how far the adjustment screw was turned is a thing of the past. With an adjustment accuracy of 0.002mm (0.00008"), the chip and coolant-resistant device contains a glass scale that keeps track of boring bar movement. Simply snap it in place, turn the boring head's adjustment screw by the desired amount, and the tool is ready for the next boring operation.

With eBore, there is no need to remove the boring head from the spindle for adjustment nor to count graduations or take notes. Concerns over backlash and movement due to overtightening of the boring head's locking screw are a thing of the past, as are endless test cuts and "sneaking up on the bore". The result is less scrap, less downtime, and faster setups. The device shuts off automatically after 30 seconds and provides more than 5,000 adjustments between battery changes. And if you forget to remove the boring head before turning on the spindle, a ball-and-spring clamping mechanism releases

the display automatically at 500 RPM, preventing potential injuries.

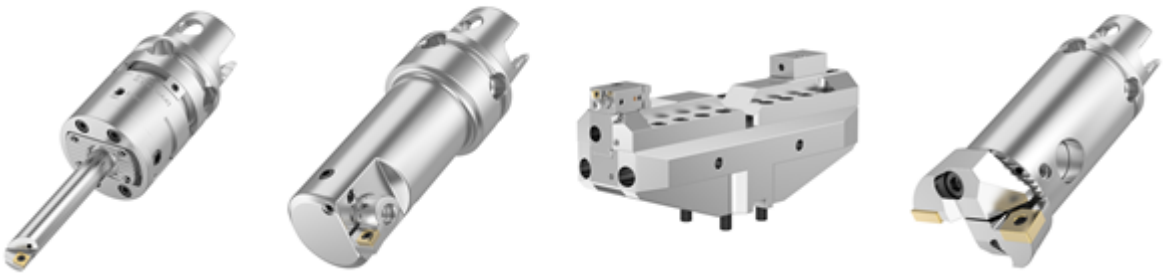


eBore Universal: one head, multiple configurations, large diameter and boring depth range. The eBore digital display allows precision adjustment on the spindle, reducing setup time and idle time.

Boring small and very large diameters

The eBore product line consists of four types of tools. All of them feature through-the-tool coolant, covering the following diameter range:

- eBore Universal Tool – 6-152mm (0.236”-5.984”)
- eBore Fine Boring Tool – 20-205mm (0.787”-8.071”)
- eBore Bridge Finishing Tool – 200-1020mm (7.874”-40.157”)
- eBore Twin Cutter Roughing Tool – 19.5-1020mm (7.677”-40.157")



eBore Tool types from left to right: eBore Universal, eBore Fine Boring, eBore Bridge Tool. eBore Twin Cutter.

Built on simplicity, the eBore system comes with Kennametal's KM quick-change interface and can be easily adapted to HSK, PSC, KM4X and steep taper spindles.