

Milling

## **HARVI™ I TE from Kennametal - Your New Best Friend**

Brought To You by Kennametal | Jan 02, 2020

*Four-flute, solid carbide end mill delivers superior performance for steel, stainless steel, high-temperature alloys, and cast iron.*

Kennametal announced the latest addition to its best-selling **HARVI line** of high-performance solid end milling tools, the HARVI I TE four-flute solid carbide end mill.

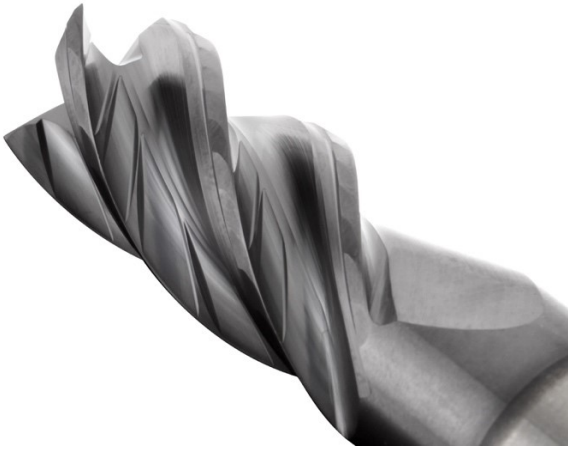


Much of the machining magic happens right here, with the innovative twisted end face of HARVI I TE – increasing corner stability, enabling soft cutting action even at the highest ramping angles.

With a radical new design, the HARVI I TE delivers outstanding performance in a broad range of materials, including steel, stainless steel, high-temperature alloys and cast iron – with tool life to match. And thanks to significantly reduced cutting forces, this game-changing tool can be used on any machining center or mill-turn center in the shop.

“The HARVI I TE consistently outperformed competing four-flute end mills in both wet and dry machining tests on a variety of materials and applications, with unprecedented tool life in many cases,” said Bernd Fiedler, Manager, Solid End Milling. “It performs exceptionally well on heavy roughing and finishing cuts alike – from deep cavities and full width slots to shoulder and dynamic milling.”

Kennametal engineers designed the HARVI I TE to address four key problems that plague more than 90% of all milling applications: chip evacuation, tool deflection, corner stability, and breakage due to radial cutting forces. The result is a tool that’s durable and versatile enough to tackle the lion’s share of milling applications.



Innovative chip gashes within the flutes reduce cutting forces and support efficient chip evacuation.

Consider chip evacuation. The HARVI I TE has an innovative flute design that helps curl and break chips into manageable pieces, while a series of chip gashes within the flute lift those chips up and away from the workpiece. Both serve to promote coolant flow, eliminate chip re-cutting, and improve tool life. A twisted end face and unique gashing further promote chip evacuation but are also responsible for the HARVI I TE's awesome ramping and plunging capabilities.

Tool deflection is reduced thanks to the tool's parabolic core, as well as an eccentric, faceted relief along the entire flute length that significantly lowers cutting friction. This relief also increases edge strength, making the tool a versatile solution.



Anti-Vibration-Anti-Friction Technology- AVF.  
A precision faceted eccentric relief for excellent cutting conditions in multiple materials.

Together with a variable helix angle and asymmetric flutes, it dampens vibration before it can negatively affect machining operations.

"The HARVI I TE improves process stability, surface quality and chip evacuation," said Fiedler. "Most importantly, it maintains these benefits even at increased feeds, speeds, and depths of cut – delivering maximum metal removal, tool life and productivity."

***To learn more about Kennametal's line of HARVI™ solid carbide end mills and how to select the right end mill for your job, go to [MSCDirect.com](https://www.mscdirect.com).***