Tool for roughing and finishing in an expanded mill series

Milling

Tool manufacturer Inovatools says its new VHMHPC roughing/finishing milling cutter from the Fightmax Inox series has a special geometry and chip clearance. Its defined cutting edge ability in combination with its micro-geometry coupled with the high-performance coating enables the new milling cutter to optimally fulfill special cutting requirements. Whether cutting diverse materials like Nirosta, chromium steel, VA steel, rust-free steel or nickel-chromium steel, Inovatools notes that specific characteristics depending on the chromium, nickel, titanium and molybdenum share content in the tool will make the difference in the tool's cutting ability.
The tool basically has to contend with its edge zone hardening and the material's high level of toughness. Since their materials are poor thermal conductors, rapid chip clearance is particularly important. In addition, the tool should be designed so that the chips that tend to bond and stick to it are removed reliably. This is where Inox tools meet machining requirements, the company explains.

According to lnovatools, Fightmax delivers up to 41 % longer service life
in the wear test compared to a comparable tool in the market.

According to Inovatools, Fightmax Inox is manufactured using a balanced mixing ratio of special ultra-fine grain carbide. The four-edged HPC power package has an unevenly split and unevenly twisted geometry with highly polished chip space. This gives the tool the necessary performance, ensures quiet, vibration-free concentricity and guarantees quick and reliable chip removal, Inovatools claims.

This is supported by the smooth, high-performance coating, Duocon, which also gives Fightmax Inox the necessary stability in cutting. The VHM-HPC roughing/finishing milling cutter is available in short and long versions with diameters from 6 mm to 20mm.

The new milling cutter is particularly resilient thanks to its specific micro-geometry and its defined cutting-edge rounding, which allows for the Fightmax Inox to be have high edge stability when performing HPC milling.

This makes it suitable for special cutting requirements and also ensures long service life, even at high feed rates and cutting speeds. It has also been optimised for the unique cutting conditions of rust-free materials. Finally, Fightmax is said to deliver up to 41% longer service life than comparable tools.

inovatools.eu

Flexibility, quality and savings with wire EDM solution

EDM GF Machining Solutions says its Agie-Charmilles Cut P series wire-cutting electrical discharge machine can do everything from producing very light surgical tools to machining a six-tonne die-casting mould. The Cut P machine series, according to GF, has been designed for demanding high-speed machining. It has an Intelligent Power Generator that enables precision-parts and mould-and-die manufacturers to increase their cutting performance by 20%.

The Cut P series has Automatic Slug Management as well as tooling and automation solutions, which are said to optimise machine uptime. Also, running costs are minimised thanks to functions such as Automatic Slug Weiding, Automation Slug Management, Eco machining, an improved econowatt function, automation readiness and ergonomics which contribute to reduced time-to-market products and faster production at lower costs, GF says.

As the Cut P series can vary its performance, be it micro-machining or macro-machining, it helps manufacturers expand their business scope. The machine can achieve thermo-stabilisation and machining repeatability of down to 2 µm and finer surface finishes down to Ra 0.08 µm. Advanced taper accuracy below ten seconds with straightness, sharp contours and no lines is an easy job for the Agie-Charmilles Cut P series' Expert systems, GF notes. Its collision protection system prevents costly machine maintenance and ensures accuracy and reliability as well.

The Agie-Charmilles Cut P wire EDM machine can be used in most critical applications in electronic components, automotive and medtech.

The Cut P series is also equipped with Smart and connected solutions. One example is the RFID chip, which is integrated into wires and filters and eliminates error risks. They facilitate the quick replacement of consumables, avert breakdowns, minimise stock and ensure process traceability, while System 3R's Work-Shop-Manager and Cell-Manager software takes process administration and surveying to the next level: E-Tracking digitises process monitoring and traceability, and GF's R-Connect suite of modular digital services keeps manufacturers connected to their machines at all times. The Cut P series increases tooling life, reduces scrapped parts and allows manufacturers to work fully automatically.