

IMX - A WORLD FIRST* IN TOOLING – CARBIDE HEAD AND CARBIDE HOLDER EXCHANGEABLE HEAD END MILLS – SERIES EXPANSION

The iMX series is a revolutionary end mill system that combines the advantages of both solid carbide and indexable end mills. Huge performance advantages and savings can be gained especially when long overhang applications are required. The high cost of extra long solid carbide end mills is negated by using exchangeable heads. The number of different geometries available has risen from 5 to 12, and now includes a type suitable for aluminium and also 3 types with through coolant capability to ensure a huge range of applications are covered.

The world first* feature of the carbide head and carbide holder enables security and rigidity close to that of a solid type end mill. This is made possible because the taper and end clamping faces of the head and the holder, are both solid carbide, only the threaded part is composed of steel. Benefits of this secure and accurate clamping method when compared to the usual steel to carbide method are greater efficiency from increased cutting parameters, improved accuracy and the all important factor of reliability.

Other tools with a carbide head to a carbide clamping section are usually constructed with a part carbide section brazed to a steel shank. This method has inherent weaknesses at the joint when compared to a solid carbide shank.



The iMX exchangeable series of end mills has obvious advantages for reducing inventory levels and tool change times. Additionally they are capable of high performance over a wide variety of applications. The primary application area is the machining of titanium alloys and heat resistant alloys such as Inconel. Furthermore, high performance milling of stainless steels, carbon and alloy steels and hardened steels is also a standard area of application. Each head type has irregular helix flutes for vibration control and the 4 flute corner radius type incorporates through coolant holes.

This wide variety of applications is made possible not just by the strong and reliable clamping system, but by the new Smart Miracle coated carbide grade EP7020. The super fine, super hard carbide substrate has a newly developed (Al, Cr) N Smart Miracle coating that can deliver substantially better wear resistance. The surface of the coating has also been given a smoothening treatment, resulting in better machined surfaces, reduced cutting resistance and improved chip discharge. This next generation Smart Miracle coating delivers class leading performance and tool life especially when machining stainless steels and other difficult-to-cut materials.

*According to our research