

DCCC SERIES - A RIGID, RELIABLE TOOL FOR HIGH PERFORMANCE MILLING

Mitsubishi Materials has re-developed its DCCC series of high performance indexable insert end mills with the intention of achieving maximum material removal rates when conducting deep shoulder milling and slotting.

This indexable insert, deep shoulder milling tool is ideal for rough machining at high material removal rates. To ensure the DCCC series outperforms competitor's products, Mitsubishi has placed flute design, rigidity, cutting performance and the subsequent swarf evacuation at the core of the DCCC's features.

These features reduce vibration and noise that historically result from heavy duty cutting. To maximise the results, one flute will utilise the CCMX type insert with an 80 degree corner whilst the opposite flute will implement Mitsubishi's ZCMX type insert with its 100 degree corner geometry.



Long cutting edge type



Short cutting edge type



Irregular helix



Furthermore, the combination of innovative flute geometry and insert designation plus the rigid tool body design have proven to improve tool life, surface finishes and swarf evacuation. The chip removal is also enhanced by an extended tool body clearance that reduces the potential for chip jamming, which are particularly commonplace when rough machining deep slots and pockets.

The straight shank end mills are available in 25, 32 and 40mm diameters. The smaller 25 and 32mm tools are designed with two flutes whereas the larger 40mm cutter has three flutes. Regardless of the number of flutes, Mitsubishi Materials have extensively researched and developed them to create a unique, uneven flute geometry.

To further optimise the performance of the DCCC Series, each of the tool bodies are available in standard and long cutting lengths.

The versatility of the DCCC Series is epitomised by the cutter's ability to machine mild steel, carbon, alloy and high alloy steels, stainless steels and cast iron. This diversity is credited to the M class inserts that are available in a range of coated and uncoated carbide grades that maximise tool life and consistency.