

Geo X End Mills

Geo X-Mill



Features:

- **Unique Flute Geometry Resulting in Fast Groove Milling and Excellent Chip Evacuation**
- **Tough Micro Grain Carbide and TiAlN Coating Equals Longer Tool Life**
- **Multifunctional End Mill for High Speed Roughing and Precise Side Milling**

Work Materials:

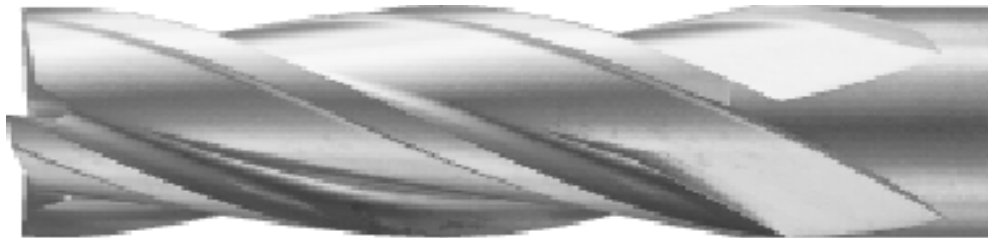
- **Carbon Steels, Alloy Steels, Pre-Hardened Steels, Stainless Steels, Nickel Alloys, Titanium Alloys, Cast Irons**

Feature of Geo X Mill

Geometry of Geo X Mill



Geo X Mill Design



Conventional End Mill Design

Difference of Flute Geometry

X 's-Mill *Geo*

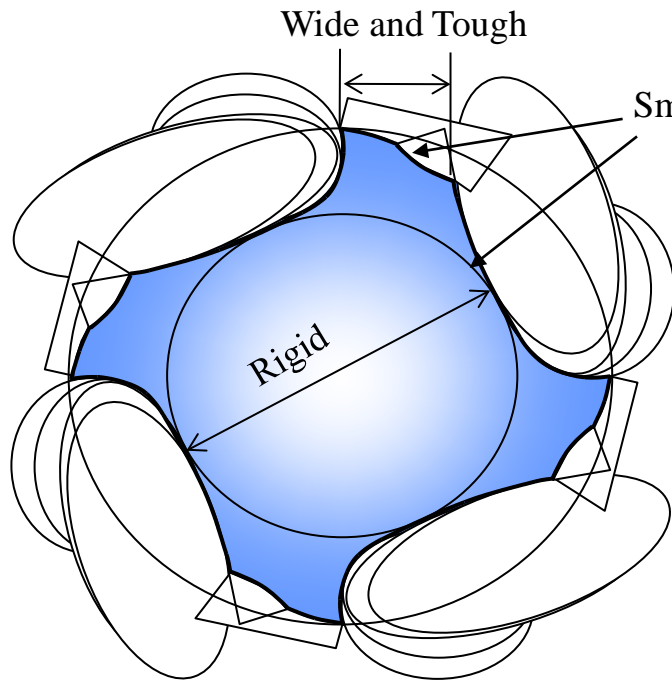


Brand C

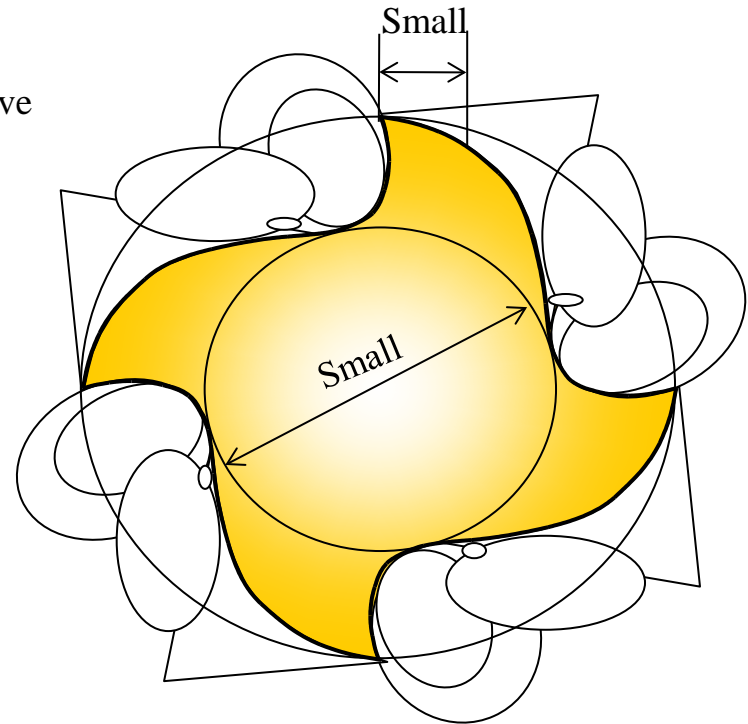


Feature of Geo X Mill

Cross Section of X's Mill Geo



Geo X Mill

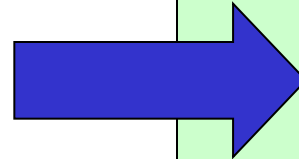


Conventional

Background of X's-Mill Geo's Development

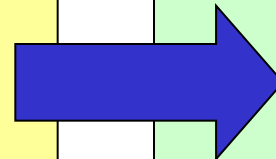
Futures Required for End Mills

HSC·HFC Requires High RPM Machining Center



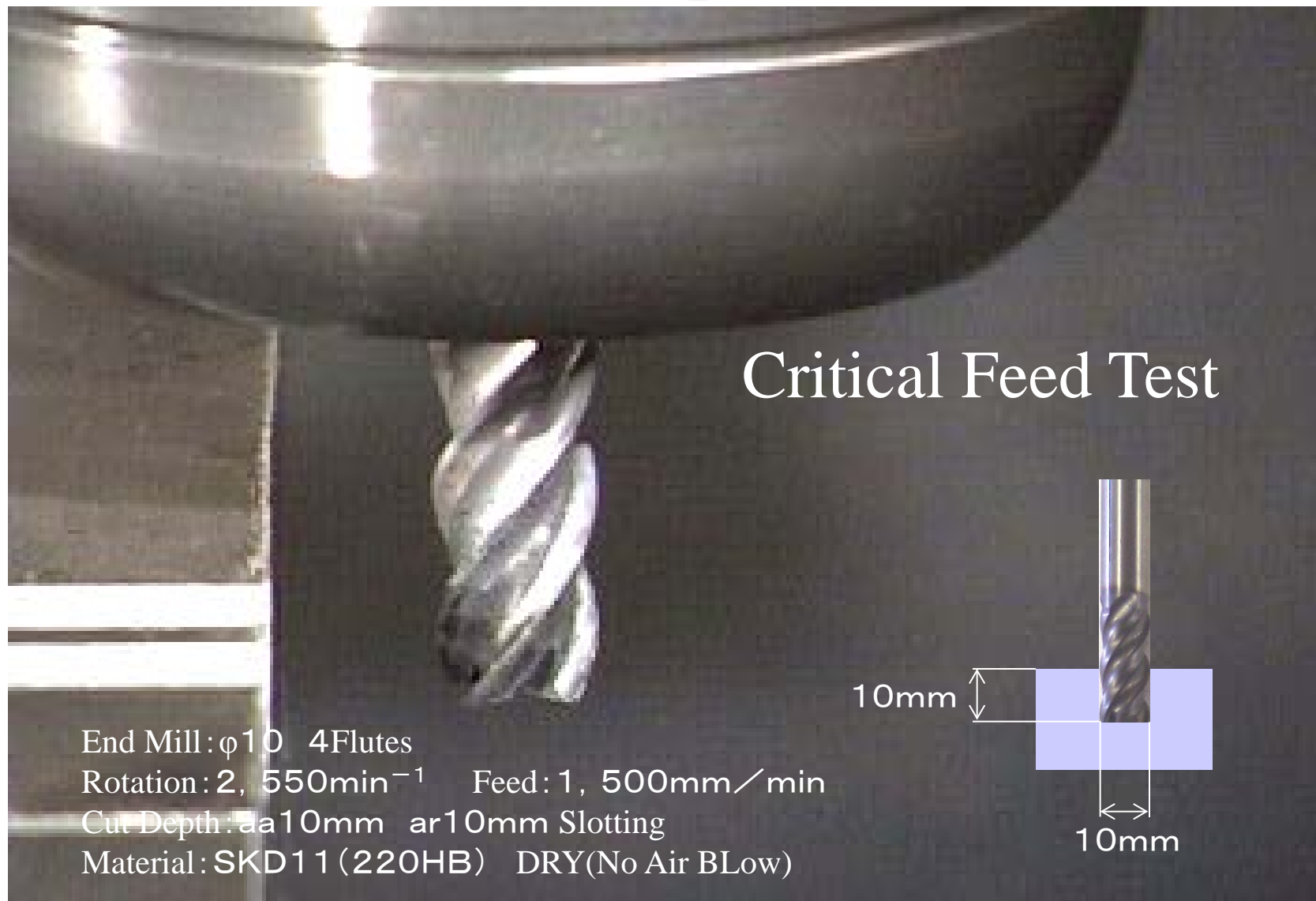
High Efficient Machining by Conventional Machines

- Cost down
- Short Life Cycle of Products (PC, Mobile Phone)
- Flexible Manufacturing due to Various User Needs
- Short Delivery Time of Mold & Die



Flexibility Multipurpose

Example



Chip Shape



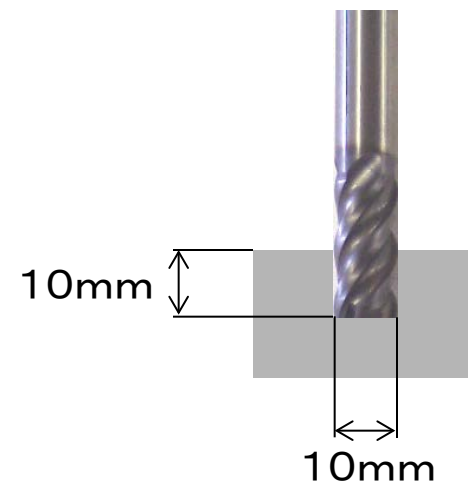
10mm

End Mill: $\phi 10$ 4Flutes

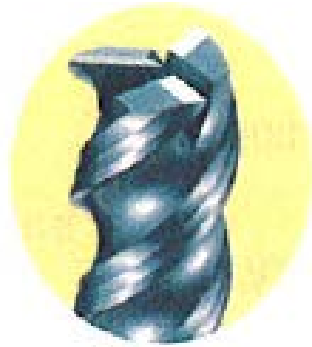
Rotation: 2, 550min^{-1} Feed: 1, $500\text{mm}/\text{min}$

Cut Depth: $a_a 10\text{mm}$ $a_r 10\text{mm}$ Slotting

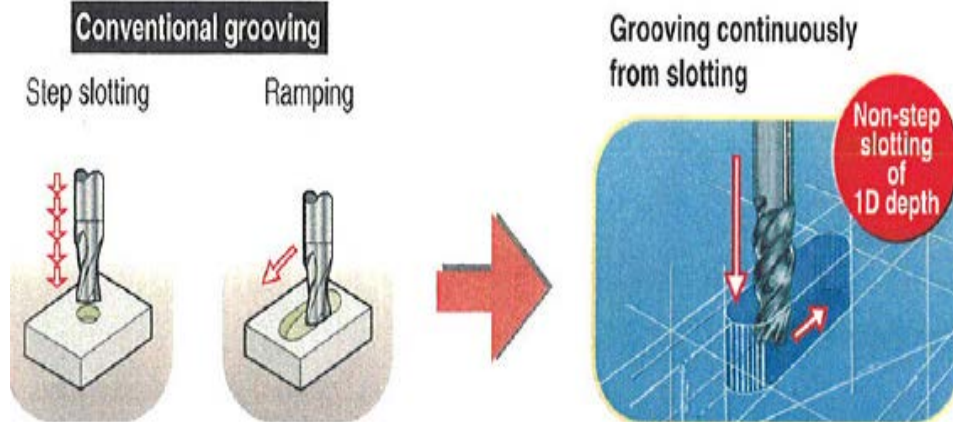
Material: SKD11 (220HB) DRY (No Air BLow)



X'-Mill Geo Slot



Shape



Features:

- **3- 4 Times Faster Grooving than Conventional End Mill**
- **Unique Design of End Teeth Provide Excellent Chip FLOW**
- **Well Balanced 3-Flutes make Efficient Slotting Possible**
- **Non-Step Slotting of 1D Depth Possible**

Work Materials:

- **Carbon Steels, Alloy Steels, Pre-Hardened Steels, Hardened Steels, Stainless Steel, Nickel Alloys, Titanium Alloys, Cast Irons**

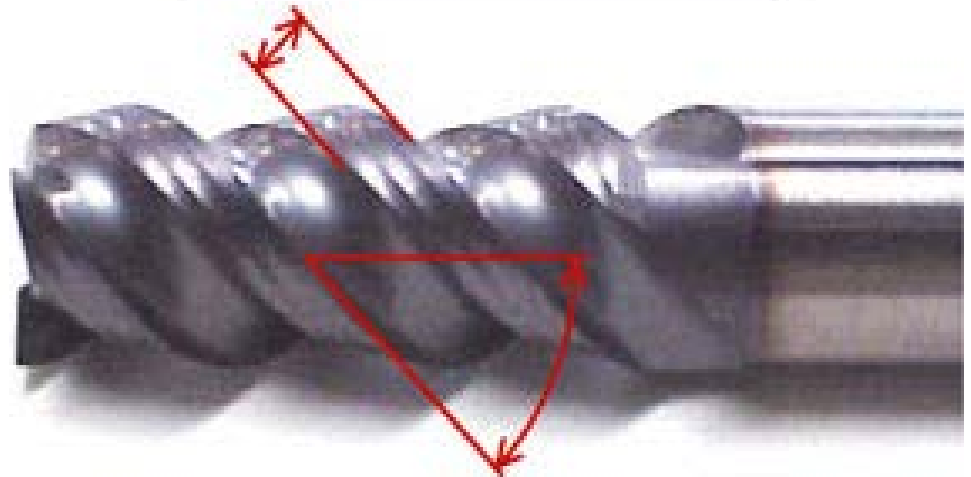
X'-Mill Geo Slot Geometry

Gash for good chip discharge



3 flutes for drilling

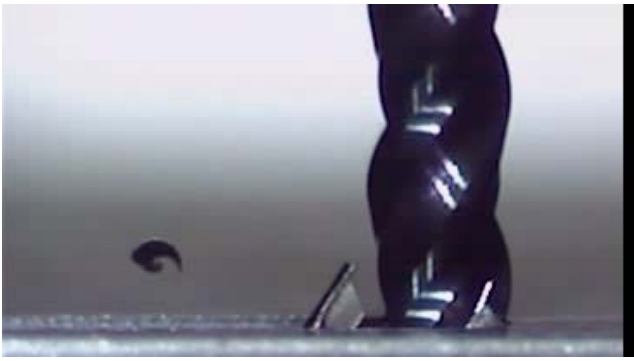
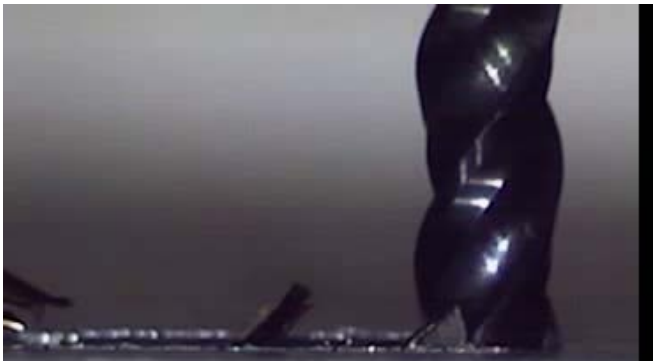


Wide land width



High helix for sharpness & good chip discharge

Smooth Chip Evacuation

(Material: Carbon Steel-Thin Plate)

	New	After 120 Grooves
Geo Mill Slot		
Competitor B		

Geo Mill Slot Chip Evacuation Good Even After 120 Grooves Milling

Thank You