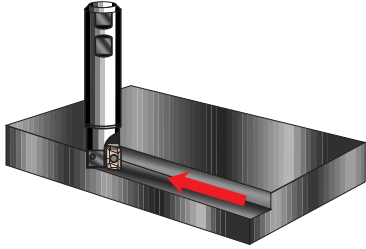


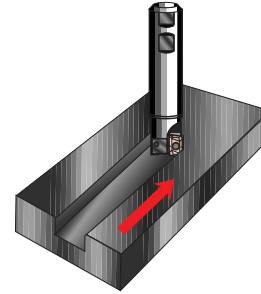
Wave Mill Series Indexable End Mills

WMM End Mills

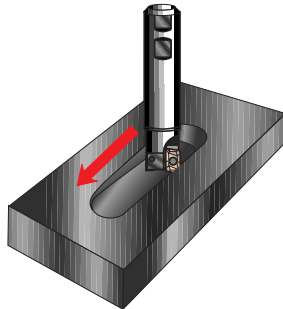
Wave Multi-function End Mills



Shoulder milling

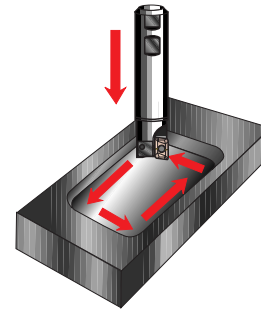


Slotting

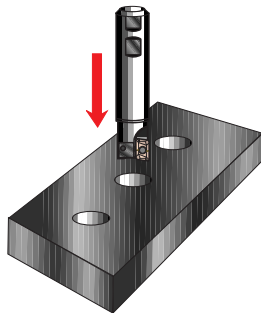


Ramping

Max. depth=effective depth of cut
Ramp degree=0~30°

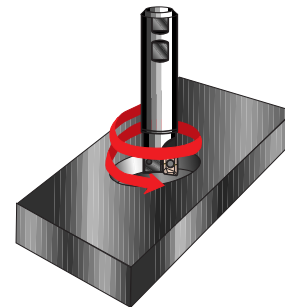


Pocketing



Drilling

Always use step feed (.020"-.040") when drilling. It is recommended that the drill depth is $\leq 0.6D$.



Helical boring
Boring-expanding

- a hole of 1.2-1.8 diameter without prepared hole
- Helical angle=0° to 30°

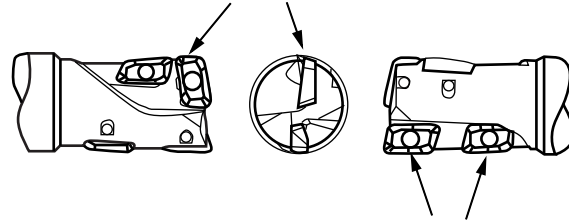
Wave Mill Series Indexable End Mills

WMM End Mills

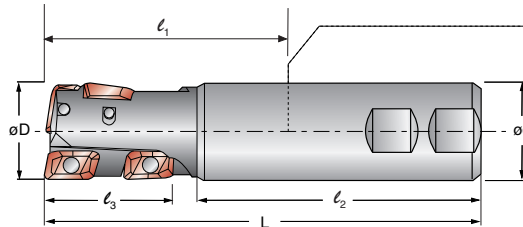
Features and Benefits

- Multifunctional cutter efficiently performs the cutting operations of several tools.
- Excellent for ramping, helical cutting, pocketing, and drilling.
- Inserts interchangeable with those used on the WEM and WRM cutters.
- Strong high rake inserts provide smooth cutting action.

Center insert overlaps cutter center line to produce plunge cutting capabilities



Staggered peripheral inserts lower cutting force during shoulder milling and slotting



WMM End Mills

| Catalog Number | "D" dia. | "d" dia. | L | l ₁ | l ₂ | l ₃ Max. D.O.C. | Total # of Inserts | Insert |
|----------------|----------|----------|-------|----------------|----------------|-------------------------------|-----------------------|--------|
| WMM10100M | 1.000 | 1.000 | 4.000 | 1.7394 | 2.281 | 1.050 | 4 | AP T10 |
| WMM10125M | 1.250 | 1.250 | 5.000 | 2.7394 | 2.281 | 1.390 | 5 | AP T10 |
| WMM16150M | 1.500 | 1.250 | 5.000 | 2.7394 | 2.281 | 1.540 | 4 | AP T16 |

Note: The effective number of flutes is one (1), during feed rate calculations

Inserts

| Sumitomo Cat. No. | Figure 1 | | | | Figure 2 | | | | | Figure |
|----------------------|----------|--------|----------|--------|---------------------|-------|-------|--------|-------------|--------|
| | Coated | | Uncoated | | Dimensions (Inches) | | | | | |
| | ACZ310 | ACZ330 | ACZ350 | DL1000 | L | W | T | R | Facet Width | |
| APET103504PDER | • | • | • | • | 0.394 | 0.250 | 0.138 | 0.016 | 0.0315 | 1 |
| APET103504PDFR-J | • | • | • | • | | | | 0.0315 | | |
| APET160504PDFR-J | • | • | • | • | | | | 0.0827 | | |
| APET160508PDER | • | • | • | • | 0.630 | 0.375 | 0.218 | 0.031 | 0.071 | |
| APET160508PDFR-J | • | • | • | • | | | | 0.071 | | |
| APMT103504PDER | • | • | • | • | 0.394 | 0.250 | 0.138 | 0.016 | N/A | 2 |
| APMT103504PDFR-H | • | • | • | • | | | | 0.031 | | |
| APMT103508PDER | • | • | • | • | | | | 0.047 | | |
| APMT103508PDFR-H | • | • | • | • | | | | 0.071 | | |
| APMT160508PDER | • | • | • | • | 0.630 | 0.375 | 0.218 | 0.031 | N/A | 2 |
| APMT160508PDFR-H | • | • | • | • | | | | 0.047 | | |
| APMT160512PDER | • | • | • | • | | | | 0.063 | | |
| APMT160512PDFR-H | • | • | • | • | | | | 0.125 | | |

"J" denotes inserts with a polished face.

"H" denotes inserts with heavy edge preparation.

Hardware

| Catalog Number | Screw | Wrench |
|----------------|------------|--------|
| WMM10□□□M | BFTX02506N | TRD08 |
| WMM16□□□M | BFTX03584 | TRD15 |

Torque specifications for BFTX02506N insert screw=10-14 inch/lbs.

Torque specifications for BFTX03584 insert screw=27-31 inch/lbs.

**See pages 92-93
For recommended running
parameters**