

# 7leaders Multipurpose End Mills

## Outstanding Anti-Vibration Under High Speed Machining

### Unequal Flutes, Variable Helix Geometry



#### Big Capacity Slot

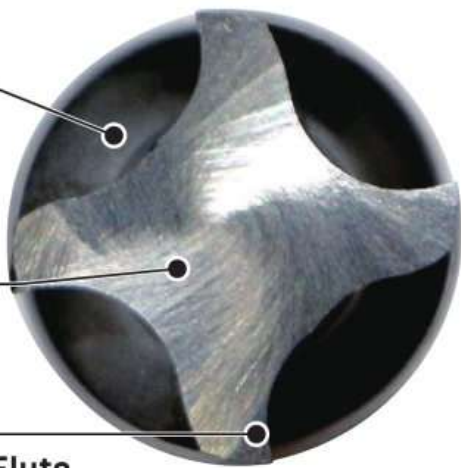
Achieve high efficiency of chip removal

#### High Rigidity

Secure working stability

#### Sharp Cutting Flute

Efficiently reduce cutting force



## HIGH Performance

Efficient Chip Removal

Tool	E140HX $\phi 12$
Work Piece	S50C (about 20HRC)
Milling Method	Slotting
RPM	3180 rev/min
Cutting Speed	120 m/min
Feed	900 mm/min
Feed	0.07 mm/tooth
Milling Depth	Ap: 24 mm Ae: 12 mm

#### Cutting Chips



#### 2XD Slotting



Unequal flutes and variable helix can greatly suppress vibration.

Additionally, special design of chip slot perfectly increases the capacity for chip removal and achieve stable slotting machining.

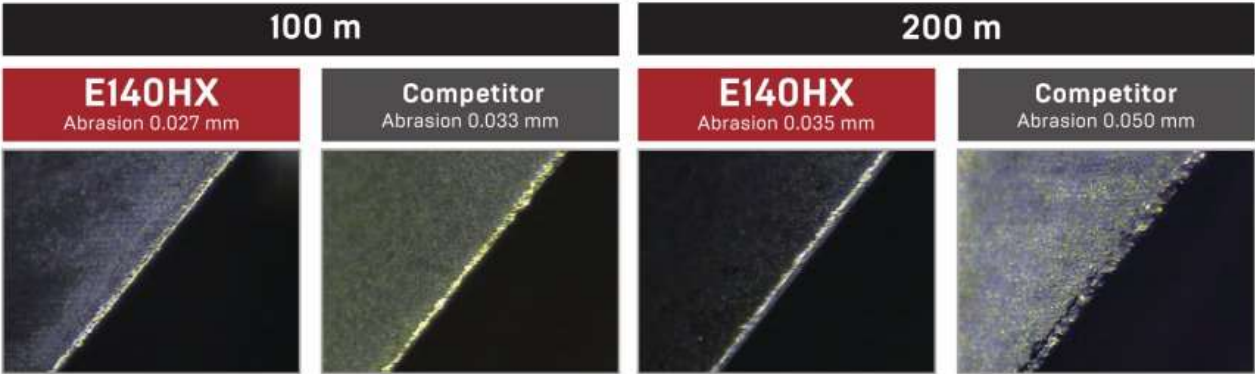
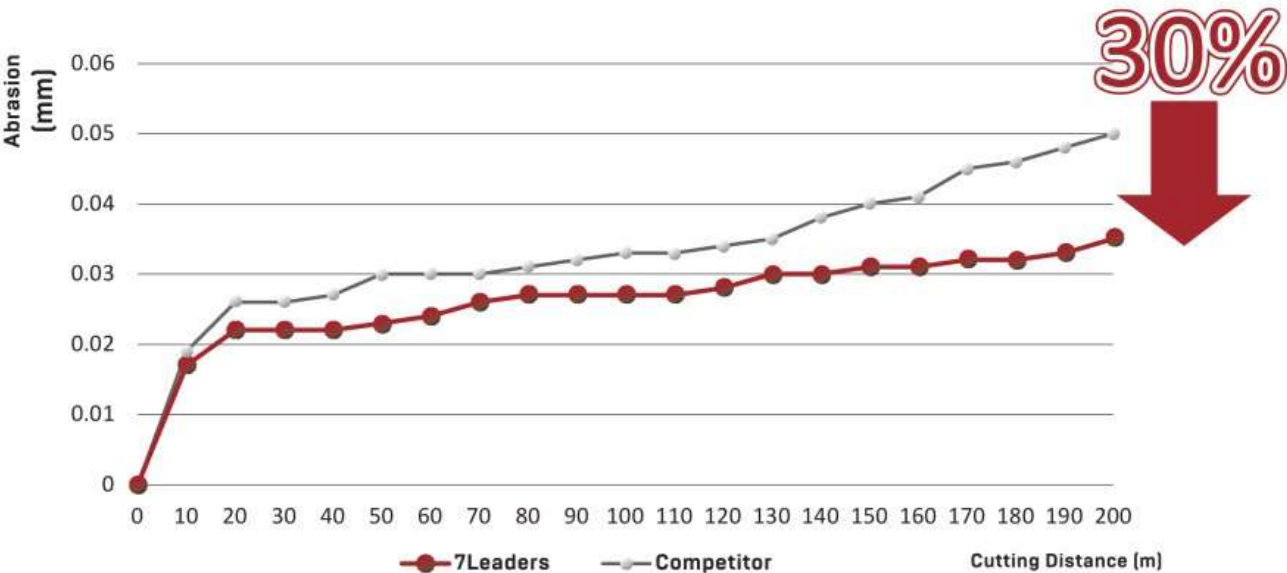
Coolant

air cooling

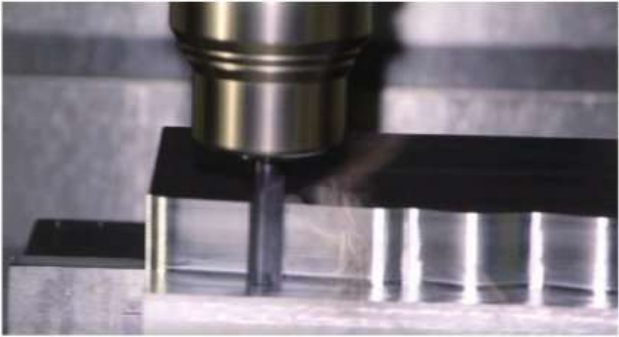
A5

**HIGH**  
Wear Resistance

Longer Cutting Life Time



Tool	E140HX $\phi$ 10
Work Piece	S50C (about 20HRC)
Milling Method	Side Milling
RPM	3650 rev/min
Cutting Speed	114 m/min
Feed	770 mm/min
Feed	0.052 mm/tooth



With the same test condition, the abrasion rate of E140HX from 7Leaders is 30% lower than the competitor brand.

By comparing the pictures of the cutting edge, E140HX reliably shows excellent wear resistance.

Milling Depth	Ap: 20 mm Ae: 1 mm
Coolant	air cooling

EL40HA reliably shows excellent wear resistance.



A6