

Cutting Tool News

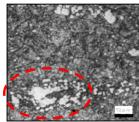
MACH11 HOB

This dissolution HSS provides excellent resistance against, heat, wear, and chipping.

Characteristics

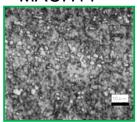
- 1. The fine particle with uniform placement enhances the chipping resistance.
- 2.Strengthening of substrate binding with salt heat treatment performs the resistance against chipping and wear.
- 3. The optimum heat treatment conditions leads the resistance against heat and wear.

Dissolution HSS



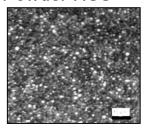
Forming coarse carbide particles over 10µm attracts severe chipping when the particles drop off.

MACH11



Forming the finest carbide particles uniformly as 10 µm or less

Powder HSS



The finest carbide particles as (3 µm or less) are uniformly formed and excellent in chipping resistance however it has lower wear resistance than Dissolution HSS.

Cutting result

Result 1 / Recoat use

[Part dimensions]

m2.25 PA17.5° 23° LH NT46 SCM415

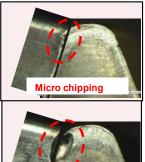
(Hob dimensions) Φ75×150L

3starts 16flutes

[Cutting condition]

Cut speed 300m/min Axial feed 2.4mm/rev Cut length 40m (Non shift) Climb, Dry cut

MACH7/SuperDryIII





MACH11/SuperDrylll





Result 2 / Non Recoat use

[Part dimensions]

m2.25 PA17.5° 23° LH NT52 SCM415 [Hob dimensions] $\Phi75 \times 150L$

3starts 16flutes

[Cutting condition]

Cut speed 150m/min Axial feed 2.4mm/rev Cut length 50m (Non shift) Climb, Dry cut





NIDEC MACHINE TOOL CORPORATION