

Re-sharpening instruction of VITECH

11/2003 KANEFUSA co.

The flow of work (Recommended process)

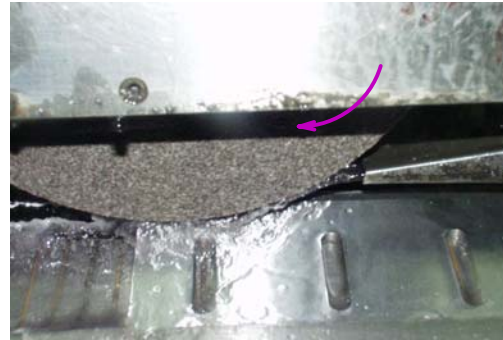
- ① Backing steel of bevel → ② Make carbide edge dull → ③ Rough grinding of carbide →
- ④ Finish grinding and lapping of carbide

① Grinding of the backing steel of the bevel

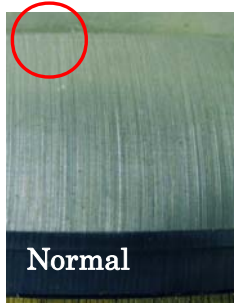
1. Recommended condition

Grinding part	Backing steel	
Angle	19~20°	
Wheel spec.	WA46KV (Noritake)	
Wheel shape	Straight	Cup
Wheel size	305×32×127	255×125×205
Motor power	3.7kw	7.5kw
RPM	1,700~1,800rpm	
Feeding speed	20.0~23.0 m/min	10.0~12.0m/min
Depth of cut	0.005mm	0.02~0.03mm

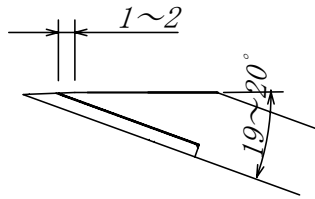
2. Apply abundant coolant to grinding position.
(Straight wheel)



3. The backing steel and carbide shouldn't be ground at the same time. Mirror finish shouldn't be applied and the WA wheel shouldn't contact the carbide.



4. Proceed the next step with leaving 1-2mm of unground area.



5. Don't discolor the grinding surface.



※ Grind the backing steel of bevel of knife at every time or every two times.

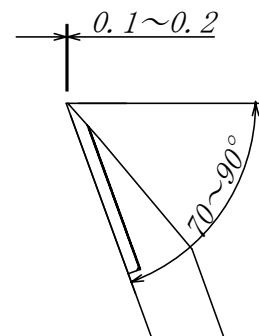
② Make the carbide edge dull.

It can solve the problem of the bending, chipping or cracking of carbide during the rough grinding.

1. Recommended condition

Grinding part	Dull bevel of carbide
Angle	70~90°
Wheel spec.	D D107 Resin C75 (Asahi Dia co.)
Wheel shape	Cup
Wheel size	125D×10W×6X
Motor power	3.7kw
RPM	3,500~3,600rpm
Feeding speed	5.0~7.0m/min
Depth of cut	≒0.05mm

2. Grind until the rand of the edge will be 0.1-0.2mm.



③Rough grinding of carbide • ④Finish grinding and lapping of carbide

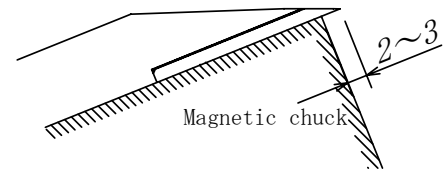
1. Recommended condition

Grinding part	③Rough grinding	④Finish grinding
Angle	22°	23°
Wheel spec.	D D107 Resin C75 (Asahi Dia co.)	D M16 Resin C75 (Asahi Dia co.)
Wheel shape	Cup	
Wheel size	125D×10W×6X	125D×5W×3X
Motor power	3.7kw	
RPM	3,500~3,600rpm	
Feeding speed	5.0~7.0m/min	3.0m/min
Depth of cut	0.01~0.015mm	0.005~0.01mm
Finishing ^{※1}	1 traverse (Speed: 3.0~4.0m/min)	
Direction	Down cut ^{※2}	Up cut

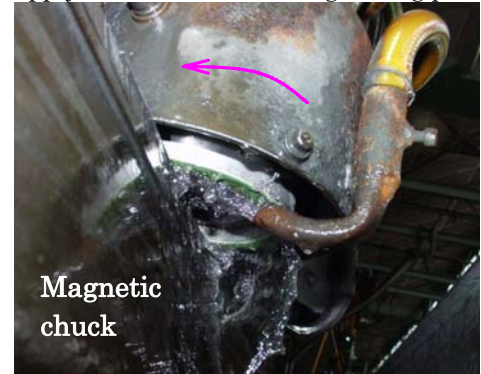
※1 Finish grinding is to make a flat surface with zero grinding just before the lapping of carbide. This operation must be applied after dressing the wheel.

※2 Down cut means the wheel moves from the heel to edge of knife.

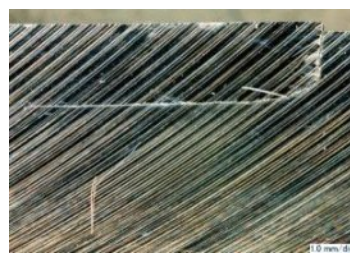
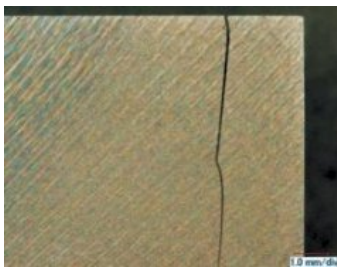
2. Set the knife at 2-3mm out of the magnetic chuck.



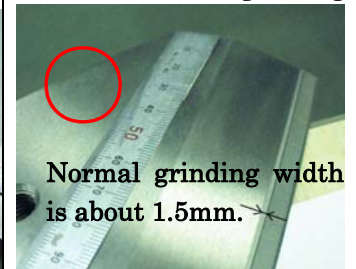
3. Apply abundant coolant to grinding position.



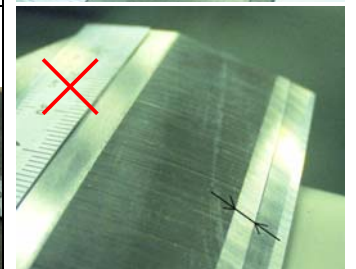
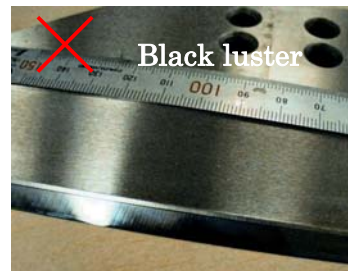
4. Grinding should start on the knife. Over loading causes cracks.



6.No combination grinding



5. Don't discolor the grinding surface. White shiny surface shows the grinding wheel keeps cutting ability.



Large grinding width is about 4.0mm.

※ When large chippings come out, it may increase the possibility of causing cracks if the grinding conditions such as depth of cut or feeding speed are changed. Apply the grinding of backing steel on the bevel then carbide portion one by one under the normal grinding conditions repeatedly. In this case, to make the carbide edge dull is necessary to avoid cracking.

The other notes

- ① "VITECH" knife is designed not to cause knife bending. However, if the user requests to straighten the knife, please send it back to us.
- ② Organic solvent such as thinner, methylene chloride should not be used to remove hot melt.
- ③ Do not apply surface treatment with high temperature over 80 degrees.
- ④ Apply for cutting papers only.