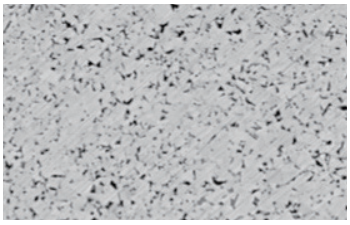
Uncoated carbide grades

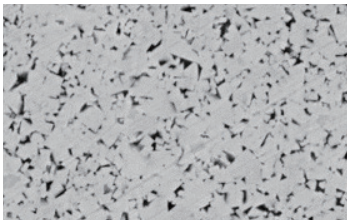
Uncoated carbide grades for turning application of titanium

H01



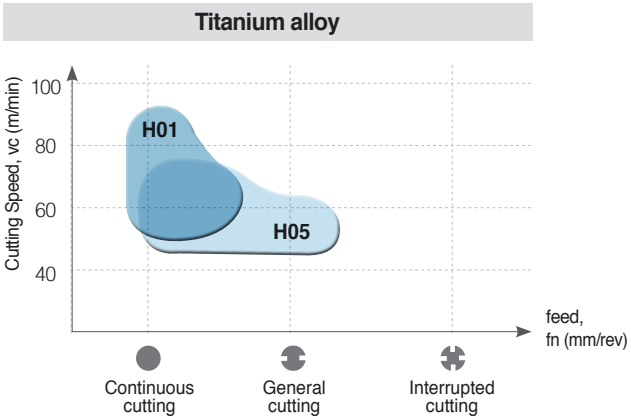
- Increased wear resistance and chipping resistance with the use of ultra fine substrate
- Improved welding resistance and chipping resistance with the use of special surface treatment and sharp cutting edge of VP chip breaker
- Excellent tool life when finishing titanium alloy at high speed

H05



- The 1st recommended grade for machining titanium alloy in a variety of cutting conditions
- Improved welding resistance and chipping resistance with the use of special surface treatment and sharp cutting edge of VP chip breaker
- Ideal for medium cutting of titanium alloy

Grades line up



Selection system of uncoated carbide grades

Workpiece		Recommended grade	Recommended cutting speed (m/min)	ISO	Application range
P	Steel	ST10	110 (70 ~ 140)	P10	ST10
		ST20	80 (50 ~110)	P20	ST20
		ST30A	70 (40 ~ 90)	P30	ST30A
M	Stainless steel	U20	70 (40 ~ 90)	M25	U20
K	Cast iron	H01	105 (60 ~ 140)	K01	H01
		H05	105 (60 ~ 140)	K10	H05
		G10	90 (50 ~ 120)	K20	G10
N	Aluminum alloy	H01	600 (450 ~ 750)	N10	H01
	Copper alloys	H05	425 (320 ~ 530)	N20	H05
S	Titanium alloy	H01	55 (40 ~ 70)	S01	H01
		H05	50 (35 ~ 65)	S10	H05
H	High hardness steel	H01	80 (55 ~ 105)	H10	H01

Main composition and application range

Workpiece	Composition	Features	Workpiece
P	WC-TiC-TaC-Co	Heat resistance, excellent plastic deformation resistance	Carbon steel, Alloy steel, Stainless steel
M	WC-TiC-TaC-Co	General tools stable heat resistance with strength	Carbon steel, Alloy steel, Stainless steel, Cast steel
K	WC-Co	High strength and superior wear resistance	Cast iron, Non-ferrous metal, Plastic, etc
S	WC-Co	Excellent wear resistance and chipping resistance	Titanium alloy