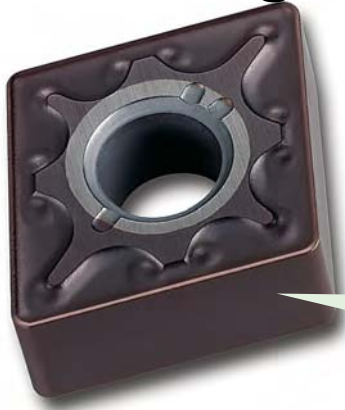


Expanded
Inserts

MIRACLE Coating

VP15TF Insert

Excellent performance grade for interrupted machining in low-medium cutting speed.



● Integrating the carbide technology and coating technology!!



Miracle coating

- High adhesion strength to the substrate improves stable tool life.
- Due to the excellent heat resistance and oxidation resistance, the VP15TF prevents a failure of tool life even when machining hardened workpiece.

TF15 micrograin cemented carbide

- Due to the cemented carbide with high wear resistance and fracture resistance, the VP15TF realized stable machining operation.

Turning Inserts

● Negative Inserts (With hole)

Breaker	Order Number	Stock
MA Breaker	CNMG120404-MA	●
	120408-MA	●
	120412-MA	●
	DNMG150404-MA	●
	150408-MA	●
	150604-MA	●
	150608-MA	●
	SNMG120408-MA	●
	TNMG160404-MA	●
	160408-MA	●
	WNMG080404-MA	●
	080408-MA	●
080412-MA	●	
Standard Breaker	CNMG120408	●
	120412	●
	DNMG150408	●
	150412	●
	150608	●
	150612	●
	SNMG120408	●
	TNMG160404	●
	160408	●
	VNMG160404	●
	160408	●
	WNMG080408	●
080412	●	

●: Inventory maintained.

● 7° Positive Inserts (With hole)

Breaker	Order Number	Stock
Standard Breaker	CCMT060204	●
	060208	●
	09T304	●
	09T308	●
	120404	●
	120408	●
	DCMT070204	●
	11T304	●
	11T308	●
	TCMT110202	●
	110204	●
	110208	●
	16T304	●
	16T308	●
	VCMT110304	●
	160404	●
160408	●	

● 11° Positive Inserts (With hole)

Breaker	Order Number	Stock
Without Breaker	NEW TPGX080204	●
	NEW 110304	●

Recommended cutting conditions

	Work Material	Hardness	Cutting Speed (m/min)
P	Mild Steel	≤180HB	130 (90-160)
	Carbon Steel Alloy Steel	180-280HB	100 (70-120)

	Work Material	Hardness	Cutting Speed (m/min)
M	Stainless Steel	≤200HB	100 (70-120)

Rotating Tool Inserts

Cutter Type	Order Number	Stock
SE445	SEEN1203AFEN1	●
LSE445	SEER1203AFEN-JS	●
SE545	SEEN1504AFEN1	●
SE415	SEEN1203EFER1	●
SE515	SEEN1504EFER1	●
NSE300	TEEN1603PEER1	●
NSE400	TEEN2204PEER1	●
DCCC	NEW CCMX09T308EN-A	●
	NEW ZCMX09T308ER-A	●
OCTACUT	NEW OEMX1705ETR1	●
	NEW OEMX1705ETR1-JS	●
SG20	NEW RGEN2004M0EN	●
CESP	NEW SPMW090304	●
	NEW 090308	●
CFSP	NEW 120304	●
CGSP	NEW 120308	●

Cutter Type	Order Number	Stock
CBJP	NEW JPMT060204-E	●
CBMP	NEW MPMT090308	●
(ISO)	NEW TPMN160304	●
	NEW 160308	●
	NEW 220408	●
	NEW 220412	●
(ISO/Corner Angle 15°)	NEW TPKN1603PPR	●
	NEW 2204PDR	●
(ISO)	NEW SDKN1203AEN	●
(ISO)	NEW SPMN120304	●
	NEW 120308	●
	NEW 120312	●
(ISO/Corner Angle 15°)	NEW SPKN1203EDR	●
	NEW 1504EDR	●

●: Inventory maintained.

Recommended cutting conditions

Work Material	Hardness	Cutting Speed (m/min)
P Mild Steel	≤180HB	180 (100–250)
	Carbon Steel Alloy Steel	180 (100–250)
M Stainless Steel	≤200HB	150 (100–200)
K Cast Iron	Tensile Strength ≤450MPa	160 (100–220)

Work Material	Hardness	Cutting Speed (m/min)
S Heat Resistant Alloy	—45HRC	30 (20–40)
	Titanium Alloy	40 (30–60)
H Hardened steel	40–55HRC	80 (50–100)

Note) These cutting conditions are a guide to
Please make adjustments according to the machining conditions.

In case of face cutter processing, end mill side processing, it is possible to raise by about 30 % from the median, too.
In case of end mill ditch processing and seat processing, use first after lowering by about 20 % from the median.

For Your Safety

- Don't handle inserts and chips without gloves. ● Please machine within the recommended application range and exchange expired tools with new ones in advance of breakage. ● Please use safety covers and wear safety glasses. ● When using compounded cutting oils, please take fire precautions. ● When attaching inserts or spare parts, please use only the correct wrench or spanner. ● When using rotating tools, please make a trial run to check run-out, vibration and abnormal sounds etc.

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(Tools specifications subject to change without notice.)