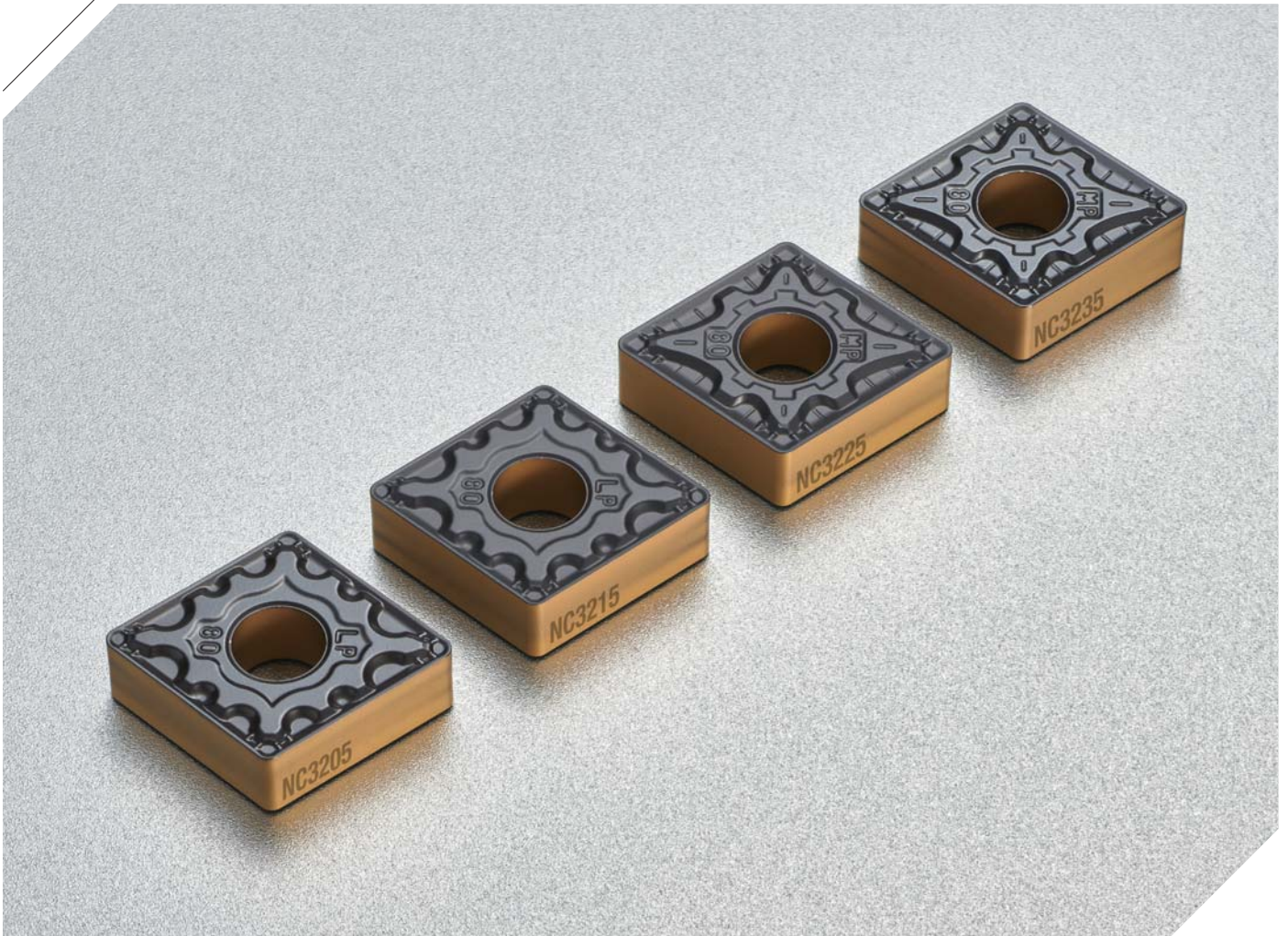


NC3200 *Turning Inserts*

재종: ^{New}NC3205, ^{New}NC3215, NC3225, NC3235

- 강 터닝 가공용 CVD 인서트 시리즈
- 고생산성과 공구 수명 안정성을 향상시킨 New CVD 코팅



NC3200 Turning Inserts

최근 자동차 및 일반 부품 가공 업체에서는 부품 품질 향상을 위해 고정밀, 고품위 절삭 및 높은 생산성과 안정적인 수명을 발휘하는 제품을 요구하고 있습니다.

KORLOY는 강 터닝 가공에서 마모와 치핑, 그리고 파손 문제를 해결하여 잦은 인서트 교체를 줄이고 안정적인 가공품질과 높은 생산성을 제공하는 강 터닝용 CVD 재종 인서트 시리즈를 출시했습니다.

NC3205는 고속 터닝 가공에서 New CVD 코팅 기술에 의해 생산성을 탁월하게 높일 수 있으며 잦은 공구 교체와 수명 편차를 감소시켰습니다.

NC3235는 강단속 가공이나 잦은 공구 파손이 발생하는 가공에서 안정성과 윤활성이 우수한 New CVD 코팅 기술로 생산성과 수명 안정성이 향상되었습니다.

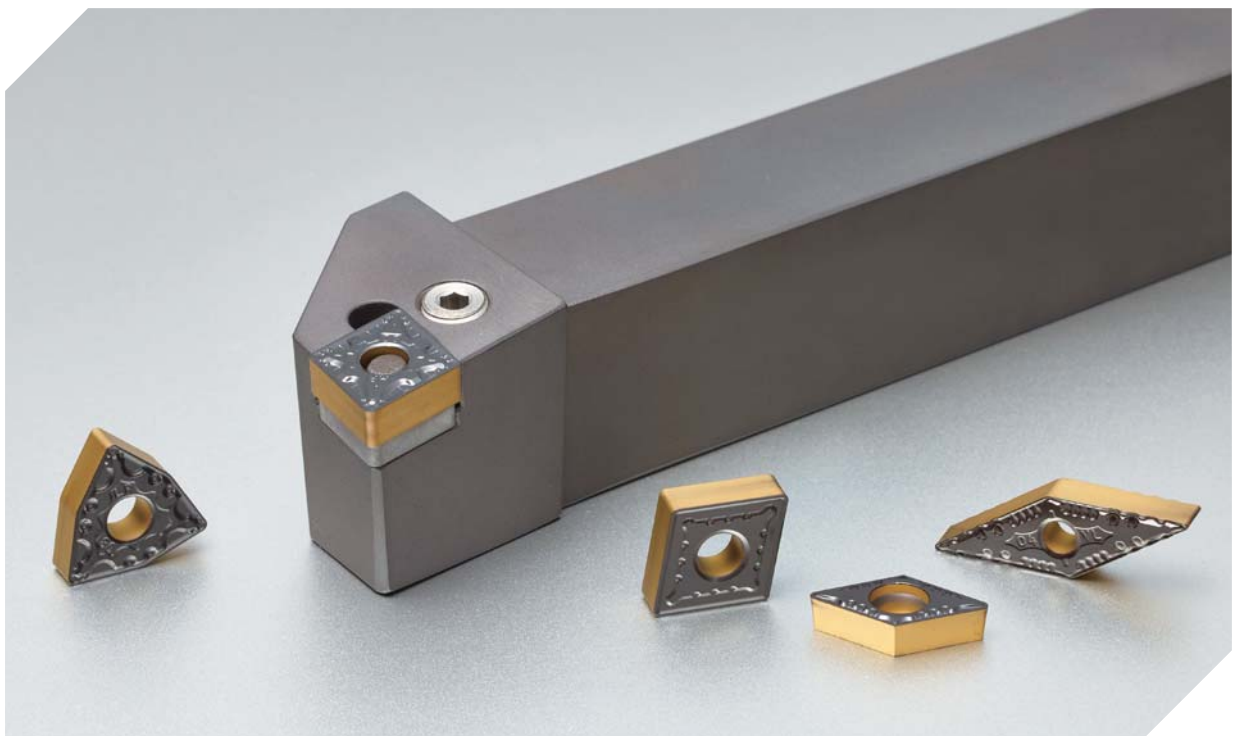
강 터닝 범용 재종인 NC3215, NC3225와 더불어 NC3205, NC3235의 출시로 완성된 KORLOY 강 터닝의 라인업은 고객의 다양한 요구를 만족시키는 솔루션을 제공합니다.

» **강의 고생산성 가공에 최적화된 재종**
- 내열성과 내마모성이 우수한 New CVD 코팅

» **공구 수명 향상으로 안정적인 수명**
- 윤활성과 내치핑성이 향상

» **강의 연속, 단속 가공에 최적화**
- 재종별 전용 모재 적용

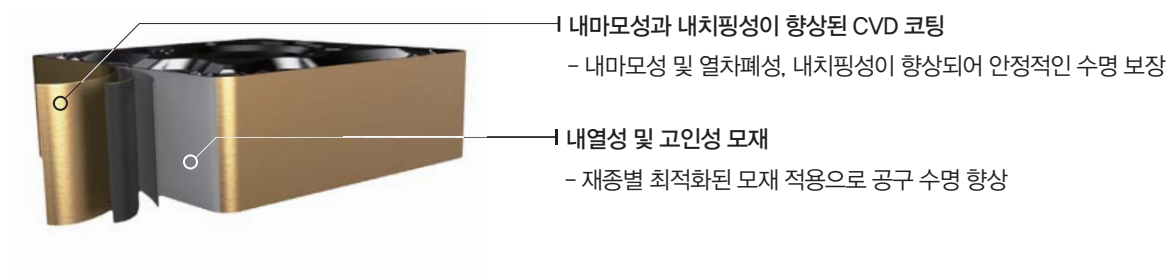
» **고품위 절삭 가공조건에서 최적화된 라인업**
- NC3205, NC3215, NC3225, NC3235



특징

- 고생산성과 공구 수명 안정성을 향상시킨 New CVD 코팅 적용
- 가공영역에 최적화된 모재 적용(P05, P15, P25, P35)

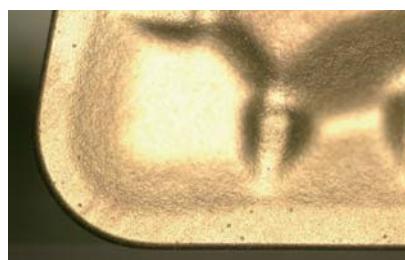
New CVD 코팅과 안정성이 향상된 모재



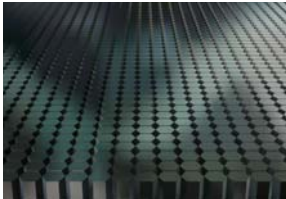
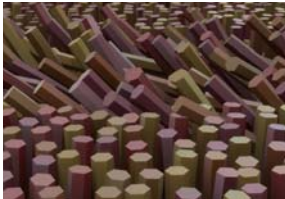
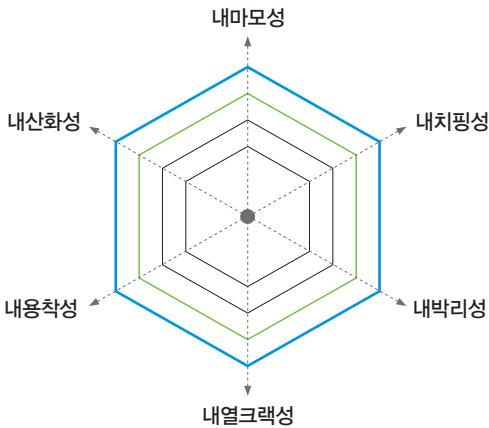
표면조도가 우수한 윤활 코팅 적용



[NC3205, NC3235]

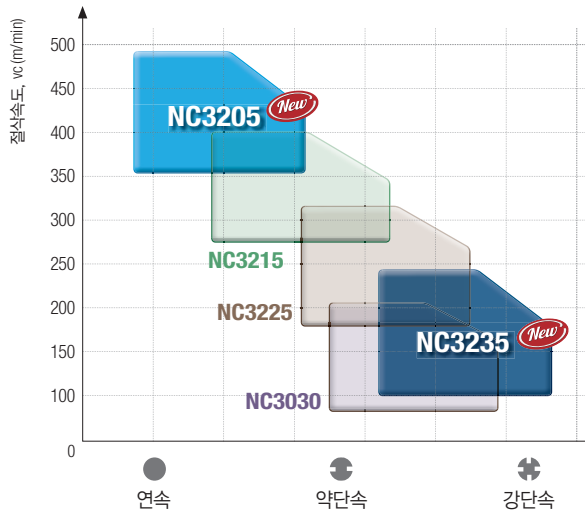


[기존]

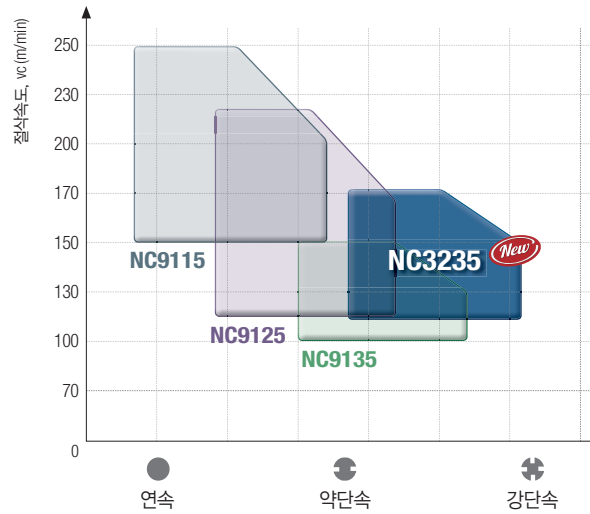
배향성 제어 기술	기존 및 상용 코팅 기술	코팅 기술 비교표
		— 배향성 제어 기술 — 상용 코팅 기술 
• New CVD 코팅 기술로 결정 배향성 및 수명, 마모 안정성 향상	• 결정 배향성의 랜덤 생성 • 내마모성 및 가공 안정성 한계 존재	

적용영역

P 강



M 스테인리스강

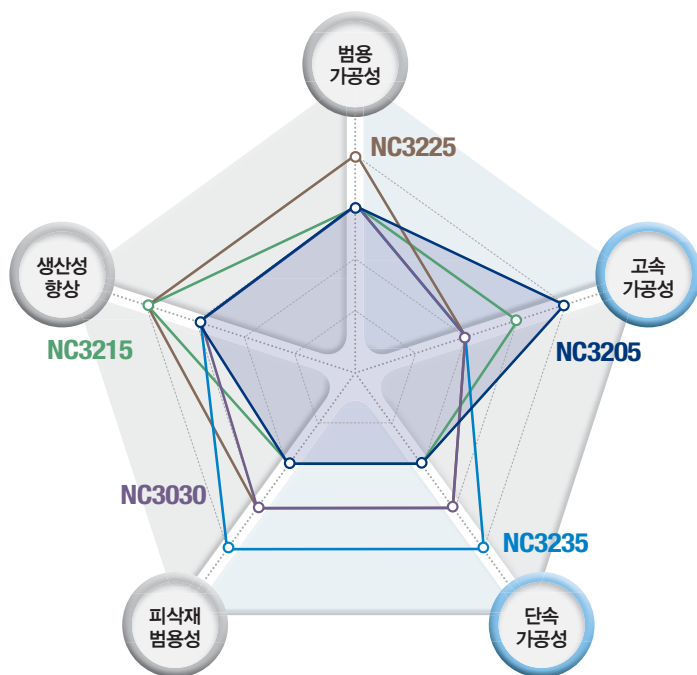


추천절삭조건

※ CNMG120408 형번 기준

		피삭재		비절삭저항 (N/mm ²)	브리넬경도 (HB)	추천절삭조건					
ISO	피삭재 소재	KS	ISO (DIN)			NC3205	NC3215	NC3225	NC3030	NC3235	
						vc (m/min)					
P	탄소강	SM15C SM25C	C25	1500	125	330	300	270	190	210	
						370	340	310	230	250	
						410	380	350	270	290	
		SM35C SM45C	C35	1600	150	310	280	250	170	190	
						350	320	290	210	230	
						390	360	330	250	270	
		SM55C	C55	1700	229	290	260	230	150	170	
						330	300	270	190	210	
						370	340	310	230	250	
	저합금강	SCM440(H)	42CrMo4	1700	180	260	240	200	120	140	
						300	270	240	160	180	
						340	310	280	200	220	
		SCM445(H)	-	2050	350	240	210	180	100	120	
						280	250	220	140	160	
						320	290	260	180	200	
		고합금강 (합금공구강)	STD11	(X100CrMoV5 1)	1950	200	220	190	160	80	100
							260	230	200	120	140
							300	270	240	160	180
	STD61		X40CrMoV5-1	3000	352	220	190	160	80	100	
						255	225	195	115	135	
						290	260	230	150	170	
	고탄소 크롬강 (베어링강)	STB2	B1	1950	201	260	230	200	120	140	
						300	270	240	160	180	
						340	310	280	200	220	
M	페라이트/ 마르텐사이트계	STS430 STS410	X6Cr17 X12Cr13	1800	≤ 200	-	-	-	100	120	
						-	-	-	125	145	
						-	-	-	150	170	
	오스테나이트계	STS304 STS316	X5CrNi18-9 X5CrNiMo17-12-2	2000	≤ 187	-	-	-	100	120	
						-	-	-	125	145	
						-	-	-	150	170	
	오스테나이트 - 페라이트계 (듀플렉스)	F51 F60 F53	(X2CrNiMoN22-5-3) (X2CrNiMoCuN25-6-3) (X2CrNiMoN 25-7-4)	2200	≤ 310	-	-	-	50	70	
						-	-	-	70	90	
						-	-	-	70	90	
	석출경화계	STS630	X5CrNiCuNb16-4	2800	≤ 350	-	-	-	30	50	
						-	-	-	65	85	
						-	-	-	100	120	

재종 선택 가이드



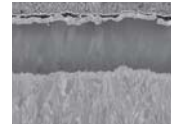
NC3205 *New*

- 고속, 연속 가공성 우수
- 내마모성 우수



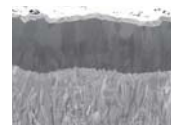
NC3215

- 중고속, 약단속 가공성 우수
- 내마모성 및 내열성 우수



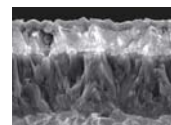
NC3225

- 중속, 중단속 가공성 우수
- 1st 추천 재종



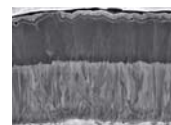
NC3030

- 중저속, 중단속 가공성 우수
- 내치핑성 우수



NC3235 *New*

- 중저속, 강단속 가공성 우수
- 내치핑성 및 내파손성 우수



재종	범용 가공성	고속 가공성	단속 가공성	피삭재 범용성	생산성 향상
NC3205 <i>New</i>	★★★	★★★★★	★★	★★	★★★
NC3215	★★★	★★★★	★★	★★	★★★★★
NC3225	★★★★★	★★	★★★★	★★★	★★★★★
NC3030	★★★	★★	★★★★	★★★	★★★★
NC3235 <i>New</i>	★★★	★★	★★★★★	★★★★★	★★★

[CVD 코팅 재종의 특징]

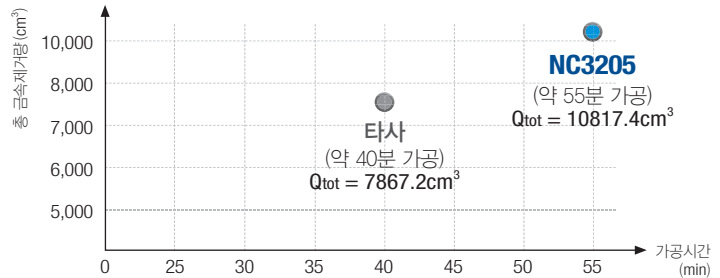
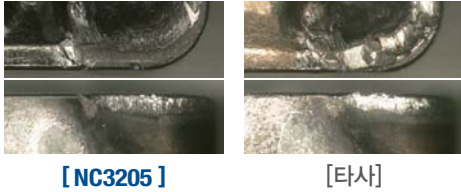
재종	ISO	특징
NC3205 <i>New</i>	P01 ~ P15	고속, 연속 가공 조건에서 내마모성/내변형성 강화 재종
NC3215	P05 ~ P25	중고속, 약단속 가공 조건에서 내마모성/내열성 강화 재종
NC3225	P15 ~ P35	중속, 중단속 가공 조건에서 내치핑성/내마모성 강화 범용 재종
NC3030	P20 ~ P40	중저속, 중단속 가공 조건에서 내치핑성 강화 재종
NC3235 <i>New</i>	P25 ~ P45	중저속, 강단속 가공 조건에서 내파손성/내치핑성 강화 재종

[CVD 코팅 선정기준]

피삭재	절삭형태	재종	추천절삭속도 (m/min)	ISO	적용범위
P 강	연속 절삭	NC3205 <i>New</i>	330 (220 ~ 440)	P01	NC3205 <i>New</i>
		NC3215	295 (170 ~ 420)	P10	
	단속 절삭	NC3225	260 (150 ~ 370)	P20	NC3215 → NC3225 → NC3030 → NC3235 <i>New</i>
		NC3030	205 (120 ~ 290)	P30	
		NC3235 <i>New</i>	225 (100 ~ 320)	P40	

내마모성

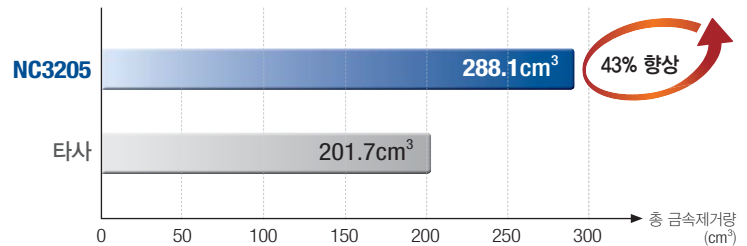
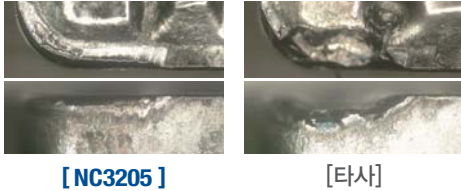
피삭재	합금강(SCM440, HB180)
절삭조건	vc (m/min) = 330, fn (mm/rev) = 0.3, ap (mm) = 1.5, 습식(wet)
공구	인서트 CNMG120408-MP (NC3205) 홀더 PCLNL2525-M12N



• 금속제거율 Q (cm³/min) : 196.7

내치핑성

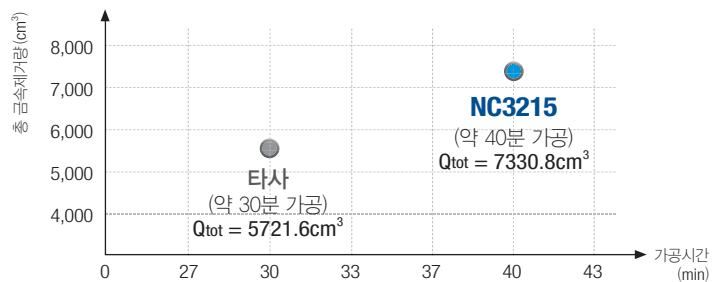
피삭재	크롬합금강(SCr420H, HB260)
절삭조건	vc (m/min) = 250, fn (mm/rev) = 0.2, ap (mm) = 2.0, 건식(dry)
공구	인서트 CNMG120408-MP (NC3205) 홀더 PCLNL2525-M12N



• 금속제거율 Q (cm³/min) : 209.1 • 가공시간 (min) : 1.38

내마모성

피삭재	합금강(SCM440, HB180)
절삭조건	vc (m/min) = 300, fn (mm/rev) = 0.3, ap (mm) = 2.0, 습식(wet)
공구	인서트 CNMG120408-MP (NC3215) 홀더 PCLNL2525-M12N

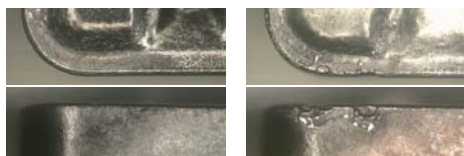


• 금속제거율 Q (cm³/min) : 178.8

성능평가

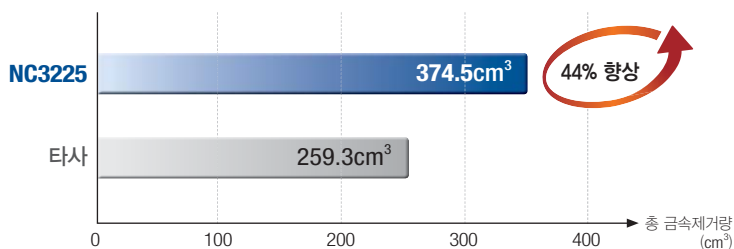
내치핑성

피삭재	크롬합금강(SCR420H, HB260)
절삭조건	vc (m/min) = 300, fn (mm/rev) = 0.2, ap (mm) = 1.5, 습식(wet)
공구	인서트 CNMG120408-MP (NC3225) 홀더 PCLNL2525-M12N



[NC3225]

[타사]



• 금속제거율 Q (cm³/min): 250.9 • 가공시간(min): 1.49

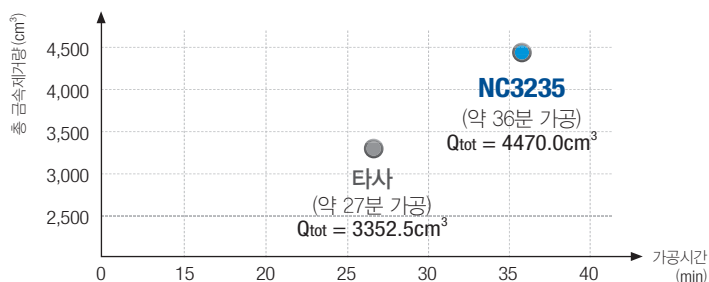
내마모성

피삭재	탄소강(SM45C, 160HB)
절삭조건	vc (m/min) = 250, fn (mm/rev) = 0.25, ap (mm) = 2.0, 습식(wet)
공구	인서트 CNMG120408-MP (NC3235) 홀더 PCLNL2525-M12N



[NC3235]

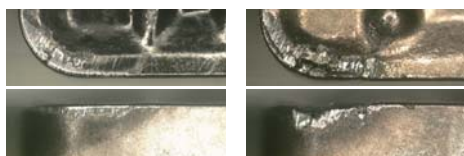
[타사]



• 금속제거율 Q (cm³/min): 124.2

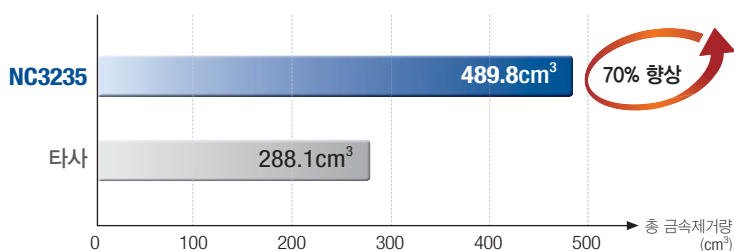
내치핑성

피삭재	크롬합금강(SCR420H, HB260)
절삭조건	vc (m/min) = 200, fn (mm/rev) = 0.2, ap (mm) = 1.5, 습식(wet)
공구	인서트 CNMG120408-MP (NC3235) 홀더 PCLNL2525-M12N



[NC3235]

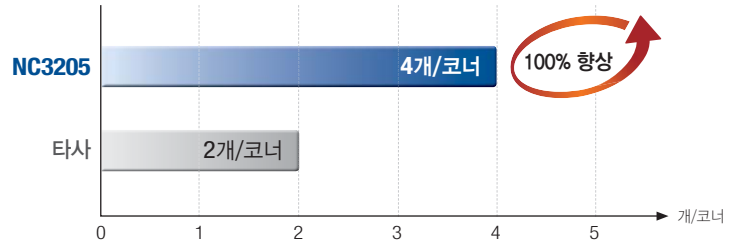
[타사]



• 금속제거율 Q (cm³/min): 167.3 • 가공시간(min): 2.9

합금강(SCM440)

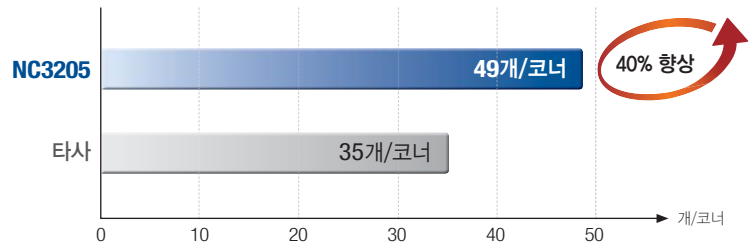
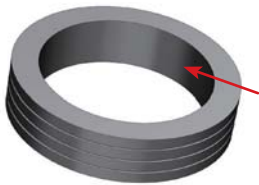
피삭재 용도	중장비 부품
절삭 조건	vc(m/min) = 350, fn(mm/rev) = 0.35, ap(mm) = 0.3, 습식(wet)
공구	인서트 CNMG190608-HM (NC3205) 홀더 PCBNR3232-P19



- 내열성 및 내마모성이 우수한 소재 영향으로 열이 많이 발생하는 고속 가공에서 성능이 우수
- 타사 P05 대비 NC3205 수명 100% 향상

탄소강(SM48C)

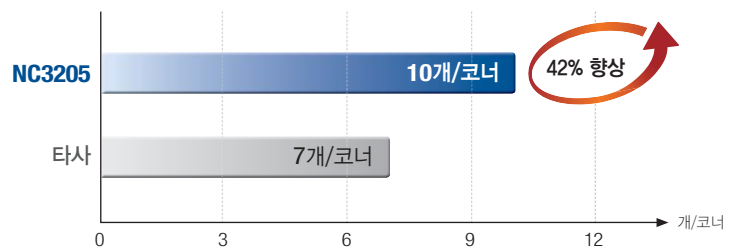
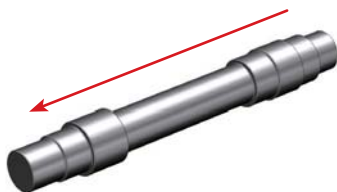
피삭재 용도	자동차 부품(Ring gear)
절삭 조건	vc(m/min) = 300, fn(mm/rev) = 0.25, ap(mm) = 0.8, 습식(wet)
공구	인서트 SNMG120412-LP (NC3205) 홀더 PSKNL2525-M12



- 내산화성, 내마모성 및 윤활성이 향상되어 고경도, 고속 가공에서 성능이 우수
- 타사 P05 대비 NC3205 수명 40% 향상

탄소강(SM45C)

피삭재 용도	열차차축(Axle)
절삭 조건	vc(m/min) = 400, fn(mm/rev) = 0.55, ap(mm) = 0.5, 습식(wet)
공구	인서트 DNMG150612-MP (NC3205) 홀더 PDJNL2525-M15

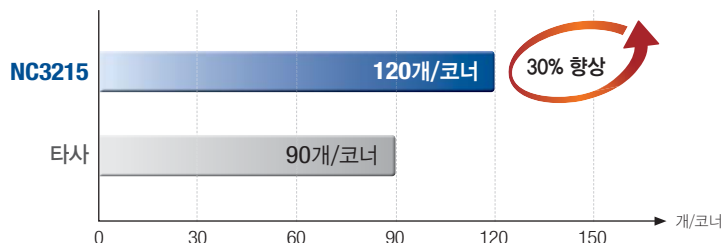
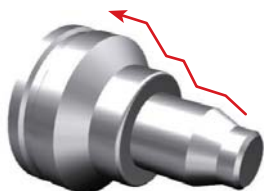


- 우수한 코팅 안정성으로 다양한 형상에서도 안정적인 수명
- 타사 P05 대비 NC3205 수명 42% 향상

절삭평가 사례

탄소강 (SM45C)

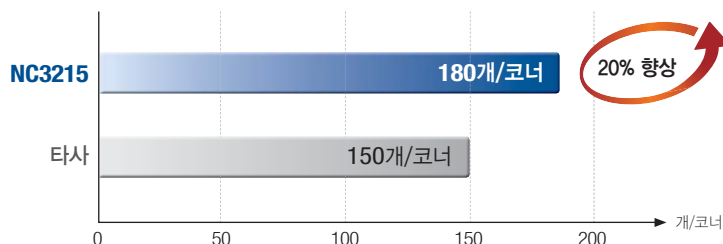
피삭재 용도	조향장치 부품 (BJ case)
절삭조건	vc(m/min) = 200~250, fn(mm/rev) = 0.25~0.35, ap(mm) = 1.0~2.0, 습식(wet)
공구	인서트 DNMG150612-LP (NC3215) 홀더 PDJNL2525-M15



- 인선 공간 확보된 LP적용으로 칩 배출이 원활하여 내마모성 향상
- NC3215 적용으로 고속에서 수명 안정성 확보

탄소강 (SM20C)

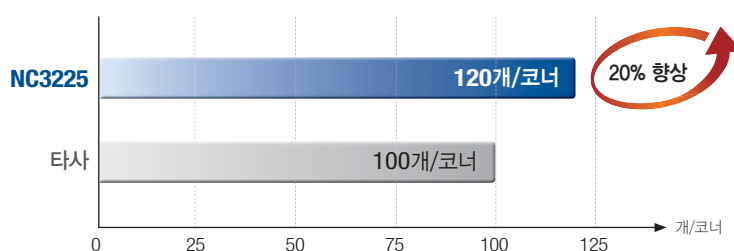
피삭재 용도	연료계 부품 (Nipple)
절삭조건	vc(m/min) = 250~380, fn(mm/rev) = 0.2~0.3, ap(mm) = 1.5~2.0, 습식(wet)
공구	인서트 CNMG120408-MP (NC3215) 홀더 PCLNL2525-M12N



- 다양한 절삭조건과 가공형태에도 안정적인 칩 배출과 수명 보장
- 타사 P15 대비 NC3215 수명 20% 향상

탄소강 (SM50C)

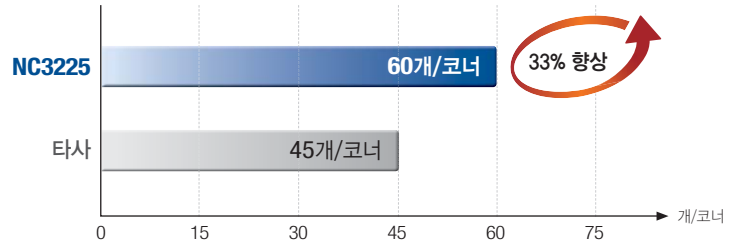
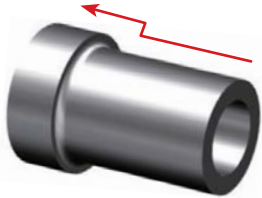
피삭재 용도	제동장치 부품 (Under disk)
절삭조건	vc(m/min) = 150, fn(mm/rev) = 0.2, ap(mm) = 1.5, 습식(wet)
공구	인서트 CNMG120412-LP (NC3225) 홀더 PCLNL2525-M12N



- 단속 구간과 연속 구간의 복합 가공에서 수명 안정성 향상
- 타사 P25 대비 NC3225 수명 20% 향상

합금강 (SNCM439)

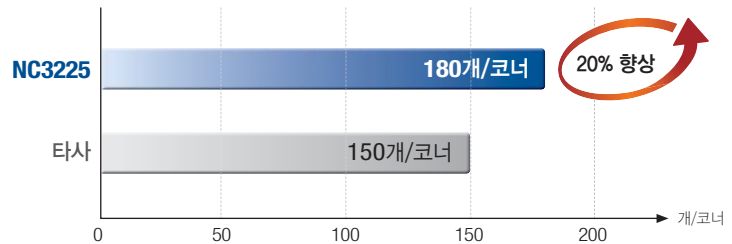
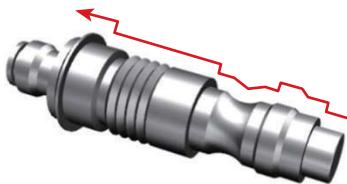
피삭재 용도	엔진계 부품 (Cylinder block part)
절삭 조건	vc(m/min) = 100, fn(mm/rev) = 0.15, ap(mm) = 3.0, 습식(wet)
공구	인서트 CNMG120408-MP (NC3225) 홀더 PCLNL2525-M12N



- 고절입(3.0mm) 외피 가공 시 MP의 원활한 칩 배출로 안정적 수명
- New CVD 적용으로 타사 P25 대비 NC3225 수명 33% 향상

탄소강 (SM40C)

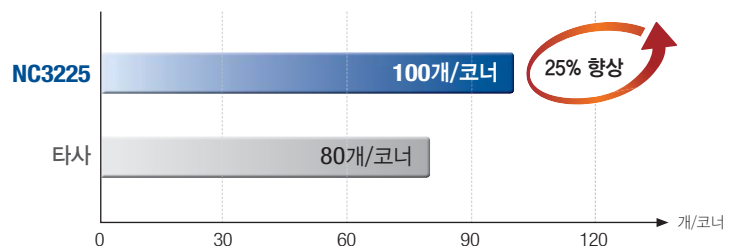
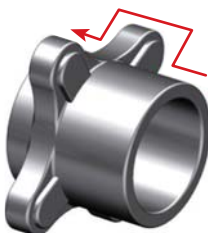
피삭재 용도	조향장치 부품 (Input shaft)
절삭 조건	vc(m/min) = 170, fn(mm/rev) = 0.30, ap(mm) = 2.7~3.0, 습식(wet)
공구	인서트 DNMG150408-MP (NC3225) 홀더 PDJNL2525-M15



- 고절입, 고이송에서 강 전용 코팅 효과에 의해 인서트의 소성변형이나 마모없이 가공
- 타사 P25 대비 NC3225 수명 20% 향상

탄소강 (SM45C)

피삭재 용도	조향장치 부품 (Wheel bearing)
절삭 조건	vc(m/min) = 230, fn(mm/rev) = 0.30, ap(mm) = 0.5~1.5, 습식(wet)
공구	인서트 CNMG120408-MP (NC3225) 홀더 PCLNL2525-M12N

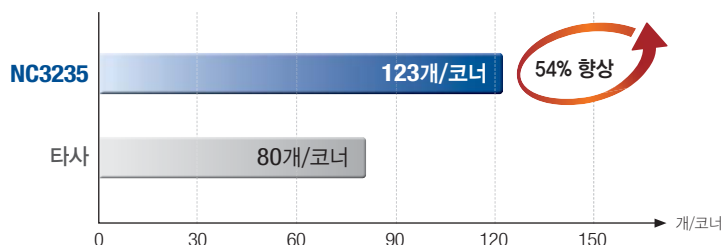
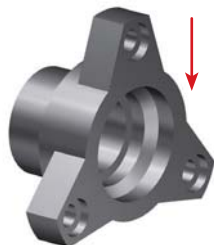


- New CVD 코팅에 의해 안정적인 마모와 일정한 수명 구현
- 향상된 수명에 의해 인서트 교체 횟수 감소하여 생산성 향상

절삭평가 사례

탄소강 (SM45C)

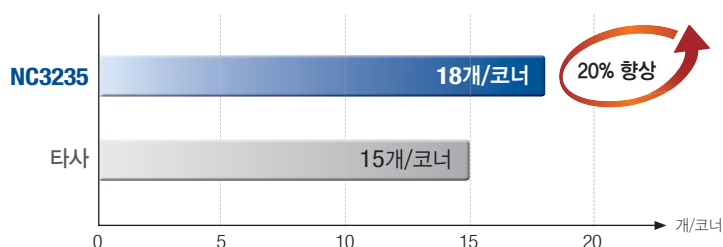
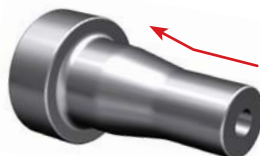
피삭재 용도	피니언 플랜지 (Pinion flange)
절삭조건	vc(m/min) = 319, fn(mm/rev) = 0.25, ap(mm) = 2.1, 건식(dry)
공구	인서트: SNMG120412-HM (NC3235) 홀더: PSKNL2525-M12



- 강단속 조건에서도 고인성 모재 적용으로 인서트의 파손 없이 안정된 가공
- New CVD 코팅 적용으로 고속에서 수명 안정성 확보

합금강 (SCM440)

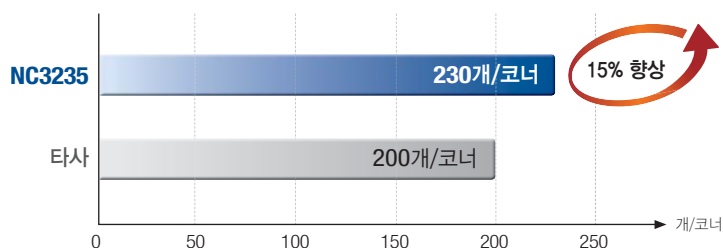
피삭재 용도	아웃풋 샤프트 (Output shaft)
절삭조건	vc(m/min) = 230, fn(mm/rev) = 0.35, ap(mm) = 3.0, 습식(wet)
공구	인서트: CNMG120408-GR (NC3235) 홀더: PCLNL2525-M12N



- 고절입, 고이송에서 New CVD 코팅에 의해 인서트의 소성변형이나 마모없이 가공
- 윤활성이 향상된 코팅 적용으로 칩 배출 원활

크롬합금강 (SCr420)

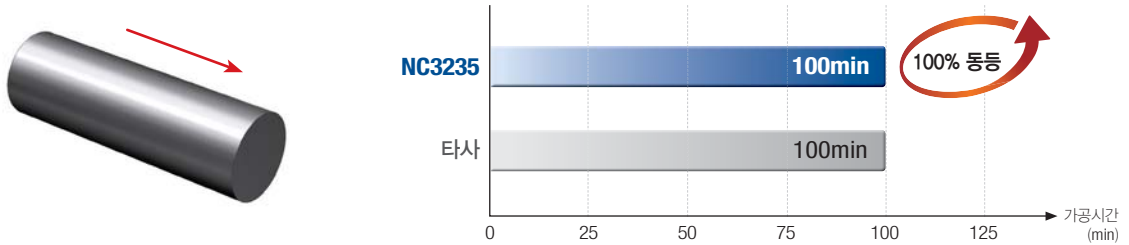
피삭재 용도	허브 U/D 브레이크 (Hub U/D brake)
절삭조건	vc(m/min) = 300, fn(mm/rev) = 0.25, ap(mm) = 1.0, 습식(wet)
공구	인서트: CNMG090408-CP (NC3235) 홀더: PCLNL2020-K09



- New CVD 코팅에 의해 안정적인 마모 및 일정한 수명으로 가공 가능
- 증가된 수명에 의해 인서트 교체 횟수 감소하여 생산성 향상

듀플렉스 스테인리스강 (F55)

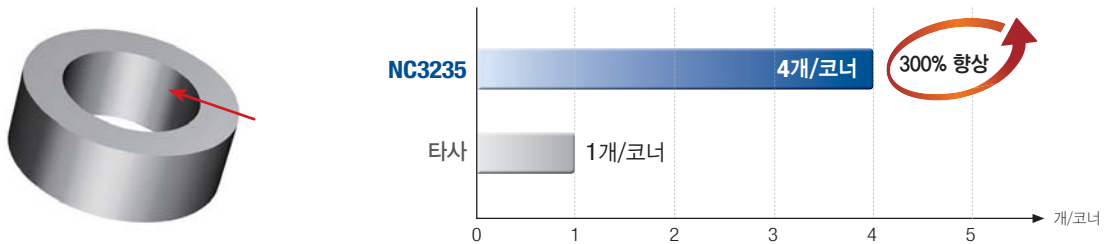
피삭재 용도	실린더 (Cylinder)
절삭 조건	vc (m/min) = 40, fn (mm/rev) = 0.75, ap (mm) = 15.0, 건식(dry)
공구	인서트 SNMM250924-GH (NC3235) 홀더 PSBNR5050-T25-6



- M계열 피삭재의 고이송, 고절입 가공에서 고인성 모재가 적용된 NC3235 사용으로 내파손성 및 공구 수명 향상
- 다양한 난삭재에 대한 우수한 가공성 및 안정적인 수명 보장

내열합금강 (Inconel625)

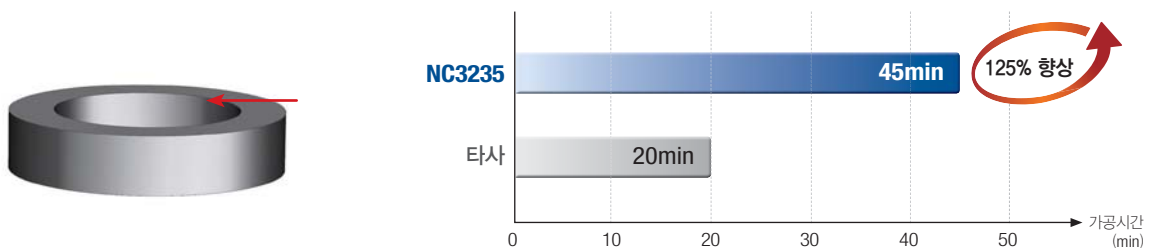
피삭재 용도	발전기 부품
절삭 조건	vc (m/min) = 40, fn (mm/rev) = 0.4, ap (mm) = 6.0, 습식(wet)
공구	인서트 CNMG190616-GR (NC3235) 홀더 PCBNR3232-P19



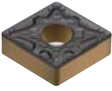
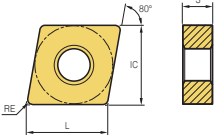
- M계열 피삭재의 저속, 황삭 가공에서 내용착성 및 노치마모 저항성 개선
- 표면조도가 개선된 New CVD 적용

듀플렉스 스테인리스강 (F51)

피삭재 용도	발전기 부품
절삭 조건	vc (m/min) = 50, fn (mm/rev) = 0.45, ap (mm) = 10.0, 습식(wet)
공구	인서트 CNMG190616-GS (NC3235) 홀더 PCBNR3232-P19

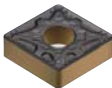
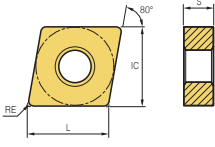
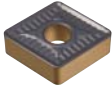
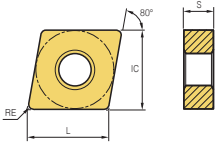
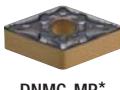
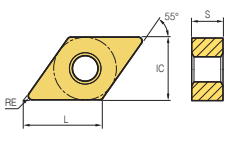


- M계열 피삭재의 많은 피삭량 가공에서도 긴 수명을 보장
- 고인성 모재 적용

형상	형번	코팅				치수 (mm)				절삭조건		형상도면
		NC3205	NC3215	NC3225	NC3030	IC	RE	S	L	이송, fn (mm/rev)	절입, ap (mm)	
 CNMG-MP*	CNMG 120404-B25			●	●	12.7	0.397	4.76	12.8959	0.35 (0.70~0.20)	4.00 (1.50~8.00)	
	120408-B25		●	●	●	12.7	0.794	4.76	12.8959	0.35 (0.70~0.25)	4.00 (1.30~8.00)	
	120412-B25		●	●	●	12.7	1.191	4.76	12.8959	0.38 (0.75~0.25)	4.00 (1.80~8.00)	
	160608-B25		●	●	●	15.875	0.794	6.35	16.1199	0.53 (0.75~0.30)	5.85 (1.70~10.00)	
	160612-B25		●	●		15.875	1.191	6.35	16.1199	0.55 (0.80~0.30)	5.90 (1.80~10.00)	
	160616-B25		●	●		15.875	1.588	6.35	16.1199	0.75 (1.00~0.50)	3.00 (1.00~5.00)	
	190604-B25				●	19.08	0.397	6.35	19.344	0.23 (0.45~0.20)	4.00 (3.00~8.00)	
	190608-B25		●	●	●	19.05	0.794	6.35	19.344	0.42 (0.60~0.23)	3.25 (1.50~5.00)	
	190612-B25		●	●	●	19.05	1.191	6.35	19.344	0.43 (0.60~0.25)	3.50 (2.00~5.00)	
	190616-B25		●	●		19.05	1.588	6.35	19.344	0.43 (0.60~0.25)	4.25 (2.00~6.50)	
	120408-GR		●	●	●	12.7	0.794	4.76	12.8959	0.33 (0.50~0.15)	2.90 (0.80~5.00)	
	120412-GR			●	●	12.7	1.191	4.76	12.8959	0.42 (0.55~0.28)	3.00 (1.00~5.00)	
	160608-GR		●	●	●	15.875	0.794	6.35	16.1199	0.30 (0.50~0.15)	3.50 (0.80~7.00)	
	160612-GR		●	●	●	15.875	1.191	6.35	16.1199	0.30 (0.55~0.15)	3.50 (0.80~7.00)	
	160616-GR		●	●	●	15.875	1.588	6.35	16.1199	0.30 (0.60~0.13)	4.00 (1.80~8.00)	
	190608-GR				●	19.05	0.794	6.35	19.344	0.60 (0.70~0.20)	7.80 (1.70~10.00)	
	190612-GR		●	●	●	19.05	1.191	6.35	19.344	0.35 (0.50~0.20)	4.00 (1.00~7.00)	
	190616-GR		●	●	●	19.05	1.588	6.35	19.344	0.38 (0.50~0.25)	4.15 (1.30~7.00)	
	250924-GR				●	25.4	2.381	9.52	25.792	0.70 (1.00~0.40)	8.60 (2.30~15.00)	
	120404-HM			●	●	12.7	0.397	4.76	12.8959	0.15 (0.30~0.07)	0.75 (0.50~1.50)	
	120408-HM			●	●	12.7	0.794	4.76	12.8959	0.25 (0.50~0.10)	2.50 (1.00~5.00)	
	120412-HM		●			12.7	1.191	4.76	12.8959	0.18 (0.30~0.05)	2.40 (0.80~4.00)	
	090308-LP			●		9.525	0.794	3.18	9.6719	0.25 (0.35~0.15)	1.15 (0.30~2.00)	
	120404-LP		●	●		12.7	0.397	4.76	12.8959	0.30 (0.45~0.15)	1.25 (0.50~2.00)	
	120408-LP		●	●		12.7	0.794	4.76	12.8959	0.35 (0.50~0.20)	1.25 (0.50~2.00)	
	120412-LP		●	●		12.7	1.191	4.76	12.8959	0.23 (0.35~0.10)	0.85 (0.20~1.50)	
	120408-LW		●	●		12.7	0.794	4.76	12.8959	0.23 (0.35~0.10)	0.85 (0.20~1.50)	
	120412-LW			●		12.7	1.191	4.76	12.8959	0.15 (0.30~0.10)	0.40 (0.30~1.50)	
	090304-MP		●	●		9.525	0.397	3.18	9.6719	0.24 (0.40~0.08)	2.40 (0.80~4.00)	
	090308-MP		●	●		9.525	0.794	3.18	9.6719	0.25 (0.55~0.12)	2.40 (0.80~4.00)	
	120404-MP	●	●	●		12.7	0.397	4.76	12.8959	0.15 (0.30~0.05)	2.50 (0.90~5.00)	
	120408-MP	●	●	●	●	12.7	0.794	4.76	12.8959	0.25 (0.50~0.10)	2.50 (1.00~5.00)	
	120412-MP	●	●	●		12.7	1.191	4.76	12.8959	0.30 (0.60~0.13)	2.50 (1.30~5.00)	
	120416-MP	●	●	●		12.7	1.588	4.76	12.8959	0.25 (0.40~0.15)	2.00 (0.50~4.00)	
	160608-MP		●	●		15.875	0.794	6.35	16.1199	0.25 (0.40~0.15)	2.00 (0.50~4.00)	
	160612-MP		●	●		15.875	1.191	6.35	16.1199	0.25 (0.40~0.10)	2.20 (0.40~4.00)	
	160616-MP		●	●		15.875	1.588	6.35	16.1199	0.30 (0.45~0.15)	2.50 (0.50~4.50)	
	120404-VB		●	●		12.7	0.397	4.76	12.8959	0.25 (0.35~0.15)	1.15 (0.30~2.00)	
	120408-VB	●	●	●		12.7	0.794	4.76	12.8959	0.30 (0.45~0.15)	1.25 (0.50~2.00)	
	120412-VB		●	●		12.7	1.191	4.76	12.8959	0.35 (0.50~0.20)	1.25 (0.50~2.00)	
	120404-VC	●	●	●		12.7	0.397	4.76	12.8959	0.23 (0.35~0.10)	1.15 (0.30~2.00)	
	120408-VC	●	●	●		12.7	0.794	4.76	12.8959	0.25 (0.40~0.10)	1.50 (0.50~2.50)	
	120412-VC		●	●		12.7	1.191	4.76	12.8959	0.29 (0.45~0.13)	1.90 (0.80~3.00)	
	090304-VF			●		9.525	0.397	3.18	9.6719	0.38 (0.60~0.15)	3.00 (1.00~5.00)	
	120408-VL	●	●	●		12.7	0.794	4.76	12.8959	0.23 (0.35~0.10)	0.85 (0.20~1.50)	
	120412-VL		●			12.7	1.191	4.76	12.8959	0.23 (0.35~0.10)	0.85 (0.20~1.50)	
	090308-VM				●	9.525	0.794	3.18	9.6719	0.28 (0.40~0.10)	2.25 (1.00~3.50)	
	120404-VM				●	12.7	0.397	4.76	12.8959	0.28 (0.42~0.10)	2.50 (1.00~5.00)	

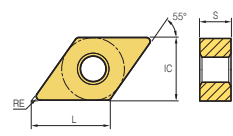
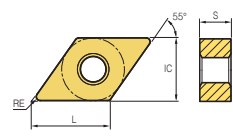
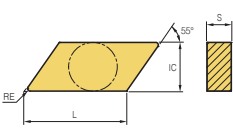
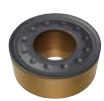
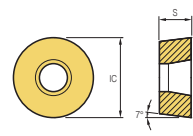
*: 대표 형상 이미지

●: 재고 관리 형번

형상	형번	코팅					치수 (mm)				절삭조건		형상도면
		NC3205	NC3215	NC3225	NC3030	NC3235	IC	RE	S	L	이송, fn (mm/rev)	절입, ap (mm)	
 CNMG-MP*	120408-VM			●	●		12.7	0.794	4.76	12.8959	0.45 (0.70~0.20)	3.50 (1.00~6.00)	
	120412-VM				●		12.7	1.191	4.76	12.8959	0.30 (0.60~0.13)	2.50 (1.30~5.00)	
	190608-VM				●		19.05	0.794	6.35	19.344	0.32 (0.62~0.13)	3.35 (1.30~6.70)	
	120404-VP2			●			12.7	0.397	4.76	12.8959	0.44 (0.60~0.27)	4.25 (2.00~6.50)	
	190612-VR		●	●			19.05	1.191	6.35	19.344	0.44 (0.60~0.27)	4.25 (2.00~6.50)	
	190616-VR		●	●			19.05	1.588	6.35	19.344	0.43 (0.60~0.25)	5.50 (3.00~8.00)	
	120408-VW		●					12.7	0.794	4.76	12.8959	0.45 (0.60~0.30)	
 CNMM-HV*	CNMM 120408-GH			●	●		12.7	0.794	4.76	12.8959	0.47 (0.70~0.23)	5.50 (3.00~8.00)	
	120412-GH			●	●		12.7	1.191	4.76	12.8959	0.20 (0.50~0.10)	3.30 (1.00~6.60)	
	160612-GH				●		15.875	1.191	6.35	16.1199	0.45 (0.90~0.30)	5.00 (2.50~8.00)	
	190612-GH		●		●		19.05	1.191	6.35	19.344	0.53 (0.70~0.35)	6.00 (2.00~10.00)	
	190616-GH		●		●	●	19.05	1.588	6.35	19.344	0.55 (0.75~0.35)	6.10 (2.20~10.00)	
	190624-GH		●				19.05	2.381	6.35	19.344	0.33 (0.50~0.15)	2.25 (0.50~4.00)	
	250924-GH		●		●	●	25.4	2.381	9.52	25.792	0.50 (0.70~0.30)	5.25 (2.50~8.00)	
	190612-GR				●		19.05	1.191	6.35	19.344	0.35 (0.50~0.20)	4.00 (1.00~7.00)	
	250924-HG					●	25.4	2.381	9.52	25.792	0.68 (0.90~0.45)	5.50 (3.00~8.00)	
	190612-HL					●	19.05	1.191	6.35	19.344	0.50 (0.70~0.30)	5.50 (3.00~8.00)	
	250924-HV					●	25.4	2.381	9.52	25.792	0.88 (1.20~0.55)	6.50 (4.00~9.00)	
	190612-VH		●				19.05	1.191	6.35	19.344	0.80 (1.00~0.60)	9.50 (6.00~13.00)	
	190616-VH		●				19.05	1.588	6.35	19.344	0.85 (1.10~0.60)	9.50 (6.00~13.00)	
	190624-VH		●				19.05	2.381	6.35	19.344	1.10 (1.60~0.60)	10.0 (7.00~13.00)	
	250924-VH		●				25.4	2.381	9.52	25.792	1.18 (1.60~0.75)	12.0 (7.00~17.00)	
	190612-VT		●		●		19.05	1.191	6.35	19.344	0.88 (1.20~0.55)	8.50 (5.00~12.00)	
	190616-VT		●				19.05	1.588	6.35	19.344	0.88 (1.20~0.55)	8.50 (5.00~12.00)	
	190624-VT		●				19.05	2.381	6.35	19.344	0.58 (0.85~0.30)	6.50 (3.00~10.00)	
	250924-VT		●				25.4	2.381	9.52	25.792	0.95 (1.40~0.50)	9.50 (4.00~15.00)	
 DNMG-MP*	DNMG 150408-B25			●			12.7	0.794	4.76	15.5083	0.85 (1.10~0.60)	7.50 (5.00~10.00)	
	150604-B25		●	●	●		12.7	0.397	6.35	15.5083	1.05 (1.40~0.70)	10.5 (6.00~15.00)	
	150608-B25		●	●	●		12.7	0.794	6.35	15.5083	1.05 (1.40~0.70)	10.5 (6.00~15.00)	
	150612-B25		●	●			12.7	1.191	6.35	15.5083	0.31 (0.45~0.17)	2.50 (1.00~4.00)	
	150408-GR		●		●		12.7	0.794	4.76	15.5083	0.36 (0.55~0.17)	2.75 (1.50~4.00)	
	150608-GR			●	●	●	12.7	0.794	6.35	15.5083	0.40 (0.55~0.25)	2.75 (1.50~4.00)	
	150612-GR			●	●		12.7	1.191	6.35	15.508	0.36 (0.55~0.17)	2.75 (1.50~4.00)	
	110404-HM				●		9.525	0.397	4.76	11.6279	0.25 (0.50~0.10)	2.00 (1.00~4.00)	
	150404-HM				●		12.7	0.397	4.76	15.5083	0.36 (0.55~0.17)	2.75 (1.50~4.00)	
	150604-HM					●	12.7	0.397	6.35	15.5083	0.36 (0.55~0.17)	2.75 (1.50~4.00)	
	150608-HM			●	●		12.7	0.794	6.35	15.5083	0.40 (0.55~0.25)	2.75 (1.50~4.00)	
	150612-HM				●		12.7	1.191	6.35	15.5083	0.30 (0.60~0.13)	2.50 (1.30~5.00)	
	150612-HR		●				12.7	1.191	6.35	15.5083	0.25 (0.50~0.20)	2.50 (1.00~7.00)	
	150616-HR		●				12.7	1.588	6.35	15.5083	0.35 (0.50~0.20)	4.00 (1.00~7.00)	
	110404-LP		●	●			9.525	0.397	4.76	11.6279	0.35 (0.70~0.25)	3.00 (1.30~7.00)	
	150404-LP		●	●			12.7	0.397	4.76	15.5083	0.15 (0.30~0.05)	2.00 (0.90~4.00)	
	150408-LP		●	●			12.7	0.794	4.76	15.5083	0.25 (0.50~0.10)	2.50 (1.00~5.00)	
	150412-LP		●				12.7	1.191	4.76	15.508	0.35 (0.70~0.25)	3.50 (1.30~7.00)	
	150604-LP		●	●			12.7	0.397	6.35	15.5083	0.40 (0.65~0.25)	4.00 (1.80~8.00)	
	150608-LP		●	●			12.7	0.794	6.35	15.5083	0.19 (0.30~0.07)	0.90 (0.30~1.50)	
150612-LP		●	●			12.7	1.191	6.35	15.5083	0.23 (0.35~0.10)	1.15 (0.30~2.00)		
150608-LW		●				12.7	0.794	6.35	15.5083	0.25 (0.40~0.10)	1.50 (0.50~2.50)		

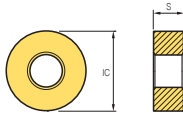
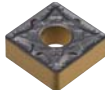
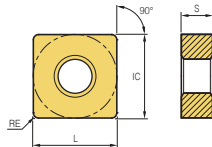
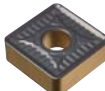
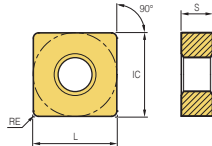
* : 대표 형상 이미지

● : 재고 관리 형번

형상	형번	코팅					치수 (mm)				절삭조건		형상도면
		NC3205	NC3215	NC3225	NC3030	NC3235	IC	RE	S	L	이송, fn (mm/rev)	절입, ap (mm)	
 DNMG-MP*	DNMG 110404-MP		●	●			9.525	0.397	4.76	11.6279	0.29 (0.45~0.13)	1.90 (0.80~3.00)	
	110408-MP		●	●			9.525	0.794	4.76	11.6279	0.25 (0.40~0.10)	1.50 (0.50~2.50)	
	150404-MP		●	●			12.7	0.397	4.76	15.5083	0.25 (0.40~0.10)	1.50 (0.50~2.50)	
	150408-MP	●	●	●			12.7	0.794	4.76	15.5083	0.29 (0.45~0.13)	1.90 (0.80~3.00)	
	150412-MP	●	●	●			12.7	1.191	4.76	15.508	0.33 (0.50~0.15)	2.60 (0.70~4.50)	
	150604-MP	●	●	●	●		12.7	0.397	6.35	15.5083	0.15 (0.30~0.05)	1.75 (0.90~3.50)	
	150608-MP	●	●	●	●		12.7	0.794	6.35	15.5083	0.25 (0.40~0.15)	2.00 (0.50~4.00)	
	150612-MP	●	●	●			12.7	1.191	6.35	15.5083	0.25 (0.40~0.10)	2.20 (0.40~4.00)	
	150404-VB		●	●			12.7	0.397	4.76	15.5083	0.30 (0.45~0.15)	2.50 (0.50~4.50)	
	150408-VB		●	●			12.7	0.794	4.76	15.5083	0.33 (0.50~0.15)	2.90 (0.80~5.00)	
	150412-VB		●	●			12.7	1.191	4.76	15.508	0.25 (0.40~0.10)	2.20 (0.40~4.00)	
	150604-VB		●	●			12.7	0.397	6.35	15.5083	0.30 (0.45~0.15)	2.50 (0.50~4.50)	
	150608-VB	●	●	●			12.7	0.794	6.35	15.5083	0.33 (0.50~0.15)	2.90 (0.80~5.00)	
	150612-VB				●		12.7	1.191	6.35	15.5083	0.23 (0.35~0.10)	1.15 (0.30~2.00)	
	150404-VC		●				12.7	0.397	4.76	15.5083	0.30 (0.45~0.15)	1.25 (0.50~2.00)	
	150408-VC		●	●			12.7	0.794	4.76	15.5083	0.30 (0.45~0.15)	1.25 (0.50~2.00)	
	150412-VC		●	●			12.7	1.191	4.76	15.508	0.23 (0.35~0.10)	1.15 (0.30~2.00)	
	150604-VC		●	●			12.7	0.397	6.35	15.5083	0.30 (0.45~0.15)	1.25 (0.50~2.00)	
	150608-VC		●	●			12.7	0.794	6.35	15.5083	0.35 (0.50~0.20)	1.50 (0.50~2.50)	
	150612-VC		●	●			12.7	1.191	6.35	15.5083	0.18 (0.35~0.10)	1.00 (0.30~2.00)	
	150404-VL			●			12.7	0.397	4.76	15.5083	0.15 (0.25~0.05)	0.80 (0.10~1.50)	
	150408-VL			●	●		12.7	0.794	4.76	15.5083	0.18 (0.30~0.05)	0.85 (0.20~1.50)	
	150604-VL	●					12.7	0.397	6.35	15.5083	0.15 (0.25~0.05)	0.80 (0.10~1.50)	
	150608-VL	●	●	●			12.7	0.794	6.35	15.5083	0.18 (0.30~0.05)	0.85 (0.20~1.50)	
150408-VM				●		12.7	0.794	4.76	15.5083	0.25 (0.50~0.10)	2.50 (1.00~5.00)		
150604-VM				●		12.7	0.397	6.35	15.5083	0.15 (0.30~0.05)	2.50 (0.90~5.00)		
150608-VM				●	●	12.7	0.794	6.35	15.5083	0.25 (0.50~0.10)	2.50 (1.00~5.00)		
150608-VP2				●		12.7	0.794	6.35	15.5083	0.18 (0.35~0.05)	1.50 (0.10~3.00)		
	DNMX 150604L-SH		●	●			12.7	0.397	6.35	15.5083	0.23 (0.30~0.15)	2.50 (1.00~4.00)	
	150604R-SH		●	●			12.7	0.397	6.35	15.5083	0.23 (0.30~0.15)	2.50 (1.00~4.00)	
	150608L-SH		●	●			12.7	0.794	6.35	15.5083	0.33 (0.50~0.15)	3.25 (1.50~5.00)	
	150608R-SH		●	●			12.7	0.794	6.35	15.5083	0.33 (0.50~0.15)	3.25 (1.50~5.00)	
 KNUX-11*	KNUX 160405L-11		●	●	●	●	-	0.5	4.76	19.7155	0.28 (0.35~0.20)	3.50 (1.00~6.00)	
	160405R-11		●	●	●	●	-	0.5	4.76	19.7155	0.28 (0.35~0.20)	3.50 (1.00~6.00)	
	160410L-11		●	●	●		-	1	4.76	19.7155	0.45 (0.60~0.30)	3.75 (1.50~6.00)	
	160410R-11		●	●	●		-	1	4.76	19.7155	0.45 (0.60~0.30)	3.75 (1.50~6.00)	
	160405R-12		●	●	●		-	0.5	4.76	19.7155	0.30 (0.35~0.25)	3.75 (1.50~6.00)	
	160410L-12		●			●	-	1	4.76	19.7155	0.55 (0.70~0.40)	3.75 (1.50~6.00)	
	160410R-12		●	●	●		-	1	4.76	19.7155	0.55 (0.70~0.40)	3.75 (1.50~6.00)	
	RCMX 1003M0			●	●		10	-	3.97	-	0.38 (0.50~0.25)	2.75 (1.50~4.00)	
	1204M0			●	●	●	12	-	4.76	-	0.45 (0.60~0.30)	3.75 (2.50~5.00)	
	1606M0			●	●		16	-	6.35	-	0.55 (0.70~0.40)	5.00 (3.00~7.00)	
	2006M0				●		20	-	6.35	-	0.69 (0.90~0.48)	6.25 (3.50~9.00)	
	2507M0				●		25	-	7.94	-	0.88 (1.20~0.55)	8.00 (4.00~12.00)	
	3209M0				●		32	-	9.52	-	1.08 (1.05~0.65)	10.0 (5.00~15.00)	

*: 대표 형상 이미지

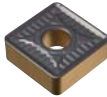
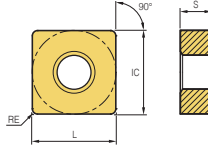
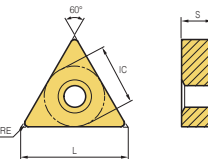
●: 재고 관리 형번

형상	형번	코팅					치수 (mm)				절삭조건		형상도면	
		NC3205	NC3215	NC3225	NC3030	NC3235	IC	RE	S	L	이송, fn (mm/rev)	절입, ap (mm)		
	RNMG	120400-B25				●	12.7	-	4.76	-	0.66 (1.20~0.12)	3.00 (1.20~4.80)		
		150600-B25				●	15.875	-	6.35	-	0.80 (1.50~0.10)	3.50 (1.40~5.50)		
		250900-B25				●	25.4	-	9.52	-	1.50 (1.50~0.25)	5.00 (2.50~10.00)		
 SNMG-MP*	SNMG	120404-B25				● ●	12.7	0.397	4.76	12.7	0.31 (0.45~0.17)	2.25 (1.00~3.50)		
		120408-B25		●	●	● ●	12.7	0.794	4.76	12.7	0.42 (0.60~0.23)	3.25 (1.50~5.00)		
		120412-B25		●	●	●	12.7	1.191	4.76	12.7	0.43 (0.60~0.25)	3.50 (2.00~5.00)		
		120416-B25		●	●	●	12.7	1.588	4.76	12.7	0.53 (0.70~0.35)	3.75 (2.50~5.00)		
		150608-B25					●	15.875	0.794	6.35	15.875	0.43 (0.60~0.25)		3.75 (1.50~6.00)
		150616-B25					●	15.875	1.600	6.35	15.875	0.53 (0.70~0.35)		4.00 (2.00~6.00)
		190608-B25		●	●	●		19.05	0.794	6.35	19.05	0.43 (0.60~0.25)		5.50 (3.00~8.00)
		190612-B25		●	●	●		19.05	1.191	6.35	19.05	0.45 (0.60~0.30)		5.50 (3.00~8.00)
		190616-B25		●	●	●		19.05	1.588	6.35	19.05	0.53 (0.70~0.35)		5.50 (3.00~8.00)
		250724-B25		●				25.4	2.381	7.94	25.4	0.75 (1.00~0.50)		8.50 (5.00~12.0)
		120408-GR					● ●	12.7	0.794	4.76	12.7	0.35 (0.50~0.20)		4.00 (1.00~7.00)
		120412-GR					●	12.7	1.191	4.76	12.7	0.25 (0.50~0.20)		3.00 (1.00~7.00)
		150608-GR					●	15.875	0.794	6.35	15.875	0.35 (0.60~0.25)		5.30 (1.00~7.00)
		150612-GR		●	●	●		15.875	1.191	6.35	15.875	0.52 (0.75~0.29)		4.20 (1.40~7.00)
		190608-GR					●	19.05	0.794	6.35	19.05	0.73 (0.80~0.30)		7.10 (1.70~9.00)
		190612-GR					● ● ●	19.05	1.191	6.35	19.05	0.55 (0.80~0.30)		5.35 (1.70~9.00)
		190616-GR		●	●	●	●	19.05	1.588	6.35	19.05	0.55 (0.80~0.30)		5.35 (1.70~9.00)
		250724-GR					●	25.4	2.381	7.94	25.4	1.10 (0.45~1.20)		11.00 (2.6~14.00)
		250924-GR					●	25.4	2.381	9.52	25.4	1.10 (0.45~1.20)		11.00 (2.6~14.00)
		120408-HM		●			●	12.7	0.794	4.76	12.7	0.25 (0.50~0.10)		2.50 (1.00~5.00)
		120412-HM		●			●	12.7	1.191	4.76	12.7	0.34 (0.50~0.18)		3.00 (1.00~5.00)
		120404-LP					●	12.7	0.397	4.76	12.7	0.23 (0.35~0.10)		1.15 (0.30~2.00)
		120408-LP			●	●		12.7	0.794	4.76	12.7	0.25 (0.40~0.10)		1.50 (0.50~2.50)
		120412-LP			●	●		12.7	1.191	4.76	12.7	0.25 (0.45~0.13)		1.50 (0.80~3.00)
		090304-MP		●	●			9.525	0.397	3.18	9.525	0.15 (0.30~0.05)		1.50 (0.90~3.00)
		090308-MP		●	●			9.525	0.794	3.18	9.525	0.23 (0.45~0.10)		1.75 (1.00~3.50)
		120404-MP					●	12.7	0.397	4.76	12.7	0.25 (0.40~0.10)		2.20 (0.40~4.00)
		120408-MP	●	●	●		●	12.7	0.794	4.76	12.7	0.30 (0.45~0.15)		2.50 (0.50~4.50)
		120412-MP	●	●	●			12.7	1.191	4.76	12.7	0.33 (0.50~0.15)		2.90 (0.80~5.00)
		120416-MP		●	●			12.7	1.588	4.76	12.7	0.30 (0.55~0.28)		2.00 (1.00~5.00)
		120404-VB		●				12.7	0.397	4.76	12.7	0.21 (0.36~0.06)		1.50 (0.50~3.00)
		120408-VB		●	●			12.7	0.794	4.76	12.7	0.21 (0.36~0.06)		1.50 (0.50~3.00)
		120408-VC				●		12.7	0.794	4.76	12.7	0.28 (0.40~0.15)		2.00 (0.50~3.50)
		190612-VR		●	●			19.05	1.191	6.35	19.05	0.53 (0.70~0.35)		6.00 (2.00~10.00)
		190616-VR		●	●			19.05	1.588	6.35	19.05	0.55 (0.75~0.35)		6.10 (2.20~10.00)
		120408-VP2			●			12.7	0.794	4.76	12.7	0.23 (0.45~0.10)		2.25 (0.50~4.50)
 SNMM-HV*	SNMM	120408-GH				●	12.7	1.191	4.76	12.7	0.30 (0.60~0.25)	7.00 (2.50~8.00)		
		120412-GH				● ●	12.7	1.191	4.76	12.7	0.35 (0.30~0.60)	4.00 (2.50~8.00)		
		150612-GH				●	15.875	1.191	6.35	15.875	0.67 (0.70~0.30)	7.00 (2.50~8.00)		
		190612-GH		●	●	● ●	19.05	1.191	6.35	19.05	0.50 (0.70~0.30)	5.25 (2.50~8.00)		
		190616-GH		●	●		19.05	1.588	6.35	19.05	0.73 (1.00~0.45)	6.50 (4.00~9.00)		
		190624-GH		●		●	19.05	2.381	6.35	19.05	0.88 (1.20~0.55)	6.50 (4.00~9.00)		

* : 대표 형상 이미지

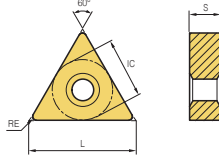
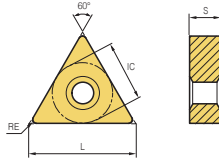
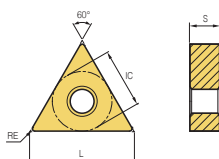
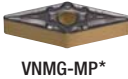
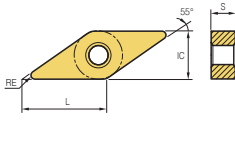
● : 재고 관리 형번

 재고관리 형번

형상	형번	코팅					치수 (mm)				절삭조건		형상도면
		NC3205	NC3215	NC3225	NC3030	NC3235	IC	RE	S	L	이송, fn (mm/rev)	절입, ap (mm)	
 SNMM-HV*	SNMM 250724-GH		●		●		25.4	2.381	7.94	25.4	0.88 (1.20~0.55)	8.50 (5.00~12.00)	
	250924-GH		●		●		25.4	2.381	9.52	25.4	0.88 (1.20~0.55)	8.50 (5.00~12.00)	
	120412-GR				●		12.7	1.191	4.76	12.7	0.25 (0.50~0.20)	3.00 (1.00~7.00)	
	190612-GR				●		19.05	1.588	6.35	19.05	0.55 (0.80~0.30)	5.35 (1.70~9.00)	
	250924-HG					●	25.4	2.381	9.52	25.4	0.80 (1.20~0.40)	8.25 (3.50~13.00)	
	250924-HV					●	25.4	2.381	9.52	25.4	0.95 (1.40~0.50)	9.50 (4.00~15.00)	
	190616-VH		●				19.05	1.588	6.35	19.05	0.80 (1.10~0.50)	7.50 (5.00~10.00)	
	190624-VH		●				19.05	2.381	6.35	19.05	0.90 (1.20~0.60)	9.00 (6.00~12.00)	
	250924-VH		●				25.4	2.381	9.52	25.4	1.05 (1.40~0.70)	10.5 (6.00~15.00)	
	190612-VT		●				19.05	1.191	6.35	19.05	0.80 (1.00~0.60)	9.50 (6.00~13.00)	
	190616-VT		●				19.05	1.588	6.35	19.05	0.85 (1.10~0.60)	9.50 (6.00~13.00)	
	190624-VT		●				19.05	2.381	6.35	19.05	1.10 (1.60~0.60)	1.00 (7.00~13.00)	
	250724-VT		●		●		25.4	2.381	7.94	25.4	1.18 (1.60~0.75)	11.0 (7.00~15.00)	
	250924-VT		●		●		25.4	2.381	9.52	25.4	1.18 (1.60~0.75)	12.0 (7.00~17.00)	
 TNMG-MP*	TNMG 160404-B25		●	●	●		9.525	0.397	4.76	16.498	0.31 (0.45~0.17)	2.75 (2.00~3.50)	
	160408-B25		●	●	●		9.525	0.794	4.76	16.498	0.36 (0.55~0.17)	2.75 (2.00~3.50)	
	160412-B25			●			9.525	1.191	4.76	16.498	0.40 (0.55~0.25)	2.75 (2.00~3.50)	
	220404-B25		●	●	●		12.7	0.397	4.76	21.997	0.31 (0.45~0.17)	3.25 (1.50~5.00)	
	220408-B25		●	●	●		12.7	0.794	4.76	21.997	0.36 (0.55~0.17)	3.50 (2.00~5.00)	
	220412-B25		●	●	●		12.7	1.191	4.76	21.997	0.40 (0.55~0.25)	3.50 (2.00~5.00)	
	220416-B25			●			12.7	1.588	4.76	21.997	0.45 (0.60~0.30)	3.50 (2.00~5.00)	
	270608-B25				●		15.875	0.794	6.35	27.496	0.35 (0.50~0.15)	5.00 (3.00~7.00)	
	270612-B25				●		15.875	1.191	6.35	27.496	0.40 (0.55~0.25)	5.00 (3.00~7.00)	
	330716-B25		●	●			19.05	1.588	7.94	32.996	0.60 (0.80~0.40)	6.00 (3.00~9.00)	
	160408-GR			●	●		9.525	0.794	4.76	16.498	0.35 (0.50~0.20)	4.00 (1.00~7.00)	
	160412-GR			●			9.525	1.191	4.76	16.498	0.39 (0.54~0.23)	4.60 (1.20~8.00)	
	220408-GR			●	●		12.7	0.794	4.76	21.997	0.42 (0.61~0.22)	4.45 (1.10~7.80)	
	220412-GR		●	●	●		12.7	1.191	4.76	21.997	0.53 (0.78~0.28)	4.50 (1.20~7.80)	
	220416-GR			●			12.7	1.588	4.76	21.997	0.55 (0.80~0.30)	5.00 (1.20~8.00)	
	270608-GR				●		15.875	0.794	6.35	27.496	0.71 (0.85~0.31)	6.20 (7.80~1.50)	
	270612-GR			●	●		15.875	1.191	6.35	27.496	0.71 (0.75~0.31)	6.20 (1.50~7.80)	
	270616-GR			●			15.875	1.588	6.35	27.496	0.75 (0.85~0.35)	6.20 (1.50~7.80)	
	330924-GR				●		19.05	2.381	9.52	32.996	0.93 (1.00~0.40)	7.30 (2.00~9.00)	
	160404-HM			●	●		9.525	0.397	4.76	16.498	0.15 (0.30~0.05)	2.00 (0.90~4.00)	
	160408-HM		●	●	●		9.525	0.794	4.76	16.498	0.25 (0.50~0.10)	2.50 (1.00~4.00)	
	220404-HM			●			12.7	0.397	4.76	21.997	0.15 (0.30~0.05)	3.30 (0.90~6.60)	
	220408-HM			●	●		12.7	0.794	4.76	21.997	0.25 (0.50~0.10)	3.30 (1.00~6.60)	
	160404-LP		●	●			9.525	0.397	4.76	16.498	0.23 (0.35~0.10)	1.15 (0.30~2.00)	
	160408-LP		●	●			9.525	0.794	4.76	16.498	0.25 (0.40~0.10)	1.50 (0.50~2.50)	
	160412-LP		●	●			9.525	1.191	4.76	16.498	0.20 (0.45~0.13)	1.50 (0.45~0.80)	
	110308-MP				●		6.35	0.794	3.18	10.999	0.23 (0.42~0.15)	1.20 (0.50~3.50)	
	160404-MP	●	●	●			9.525	0.397	4.76	16.498	0.25 (0.40~0.10)	1.95 (0.40~3.50)	
	160408-MP	●	●	●			9.525	0.794	4.76	16.498	0.30 (0.45~0.15)	2.25 (0.50~4.00)	
	160412-MP	●	●	●			9.525	1.191	4.76	16.498	0.33 (0.50~0.15)	2.65 (0.80~4.50)	
	220404-MP		●	●			12.7	0.397	4.76	21.997	0.20 (0.35~0.10)	3.00 (0.40~5.00)	
	220408-MP		●	●			12.7	0.794	4.76	21.997	0.25 (0.50~0.10)	3.30 (1.00~6.60)	
	220412-MP		●	●			12.7	1.191	4.76	21.997	0.30 (0.50~0.15)	3.50 (0.80~6.00)	
	220416-MP		●	●			12.7	1.588	4.76	21.997	0.43 (0.60~0.25)	4.65 (1.30~8.00)	

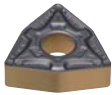
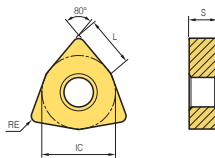
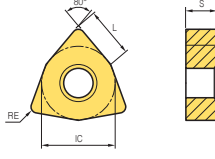
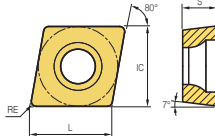
*: 대표 형상 이미지

●: 재고 관리 형번

형상	형번	코팅					치수 (mm)				절삭조건		형상도면	
		NC3205	NC3215	NC3225	NC3030	NC3235	IC	RE	S	L	이송, fn (mm/rev)	절입, ap (mm)		
 TNMG-MP*	TNMG	160404-VB		●	●		9.525	0.397	4.76	16.498	0.20 (0.35~0.10)	1.00 (0.30~1.50)		
		160408-VB		●	●		9.525	0.794	4.76	16.498	0.30 (0.45~0.15)	3.75 (0.50~7.00)		
		160412-VB			●		9.525	1.191	4.76	16.498	0.33 (0.45~0.20)	1.65 (0.80~2.50)		
		160404-VC		●	●		9.525	0.397	4.76	16.498	0.23 (0.35~0.10)	1.15 (0.30~2.00)		
		160408-VC	●	●	●		9.525	0.794	4.76	16.498	0.28 (0.40~0.15)	1.75 (0.50~3.00)		
		160412-VC		●	●		9.525	1.191	4.76	16.498	0.30 (0.45~0.15)	1.75 (0.50~3.00)		
		220408-VC		●	●		12.7	0.794	4.76	21.997	0.28 (0.40~0.15)	1.75 (0.50~3.00)		
		160408-VF		●			9.525	0.794	4.76	16.498	0.25 (0.40~0.10)	1.00 (0.50~1.50)		
		160404-VL		●			9.525	0.397	4.76	16.498	0.15 (0.30~0.07)	0.75 (0.50~1.50)		
		160408-VL		●	●		9.525	0.794	4.76	16.498	0.18 (0.35~0.10)	0.75 (0.50~1.50)		
		160412-VL		●			9.525	1.191	4.76	16.498	0.21 (0.55~0.13)	0.85 (0.60~1.70)		
		160404-VM				●	9.525	0.397	4.76	16.498	0.15 (0.30~0.05)	1.75 (0.90~3.50)		
		160408-VM		●	●	●	9.525	0.794	4.76	16.498	0.30 (0.50~0.10)	3.00 (1.00~5.00)		
		160412-VM		●			9.525	1.191	4.76	16.498	0.37 (0.60~0.13)	3.15 (1.30~5.00)		
	TNMM	220612-GH			●		12.7	1.191	6.35	21.997	0.47 (0.50~0.20)	6.00 (1.00~8.00)		
 TNMX-SH*	TNMX	160404L			●	●	9.525	0.397	4.76	16.498	0.28 (0.30~0.12)	3.00 (1.00~3.50)		
		160404R			●	●	9.525	0.397	4.76	16.498	0.28 (0.30~0.12)	3.00 (1.00~3.50)		
		160408L				●	9.525	0.794	4.76	16.498	0.33 (0.35~0.15)	3.13 (1.30~3.40)		
		160408R			●	●	9.525	0.794	4.76	16.498	0.33 (0.35~0.15)	3.13 (1.30~3.40)		
		160404L-SH		●	●		9.525	0.397	4.76	16.498	0.21 (0.30~0.12)	2.25 (1.00~3.50)		
		160404R-SH		●	●		9.525	0.397	4.76	16.498	0.21 (0.30~0.12)	2.25 (1.00~3.50)		
		160408L-SH		●	●		9.525	0.794	4.76	16.498	0.30 (0.45~0.15)	2.50 (1.00~4.00)		
		160408R-SH		●	●		9.525	0.794	4.76	16.498	0.30 (0.45~0.15)	2.50 (1.00~4.00)		
 VNMG-MP*	VNMG	160404-HM				●	9.525	0.397	4.76	16.606	0.15 (0.30~0.15)	1.75 (0.90~3.50)		
		160408-HM				●	●	9.525	0.794	4.76	16.606	0.25 (0.50~0.10)		2.00 (1.00~4.00)
		160412-HM				●		9.525	1.191	4.76	16.606	0.25 (0.50~0.20)		2.00 (1.50~4.00)
		160404-LP		●	●			9.525	0.397	4.76	16.606	0.20 (0.35~0.10)		0.50 (0.30~1.50)
		160408-LP		●	●			9.525	0.794	4.76	16.606	0.20 (0.40~0.10)		0.80 (0.50~2.00)
		160412-LP		●				9.525	1.191	4.76	16.606	0.20 (0.45~0.13)		1.20 (0.80~2.50)
		160404-MP	●	●	●			9.525	0.397	4.76	16.606	0.25 (0.40~0.10)		1.95 (0.40~3.50)
		160408-MP	●	●	●			9.525	0.794	4.76	16.606	0.30 (0.45~0.15)		2.25 (0.50~4.00)
		160412-MP		●	●			9.525	1.191	4.76	16.606	0.30 (0.50~0.15)		1.50 (0.80~4.50)
		160404-VB	●	●	●			9.525	0.397	4.76	16.606	0.23 (0.35~0.10)		0.90 (0.30~1.50)
		160408-VB	●	●	●			9.525	0.794	4.76	16.606	0.30 (0.45~0.15)		1.25 (0.50~2.00)
		160412-VB		●	●			9.525	1.191	4.76	16.606	0.33 (0.45~0.20)		1.65 (0.80~2.50)
		160404-VC		●	●			9.525	0.397	4.76	16.606	0.23 (0.35~0.10)		1.15 (0.30~2.00)
		160408-VC		●	●			9.525	0.794	4.76	16.606	2.08 (4.00~0.15)		1.75 (0.50~3.00)
		160412-VC		●	●			9.525	1.191	4.76	16.606	0.28 (0.40~0.15)		1.90 (0.80~3.00)
		160408-VF			●			9.525	0.794	4.76	16.606	0.25 (0.40~0.10)		1.00 (0.50~1.50)
		160404-VL	●	●	●			9.525	0.397	4.76	16.606	0.13 (0.20~0.05)		0.55 (0.10~1.00)
		160408-VL	●	●	●			9.525	0.794	4.76	16.606	0.18 (0.25~0.10)		0.85 (0.20~1.50)
		160412-VL	●	●				9.525	1.191	4.76	16.606	0.23 (0.30~0.15)		1.25 (0.50~2.00)
		160404-VM				●		9.525	0.397	4.76	16.606	0.15 (0.30~0.15)		1.75 (0.90~3.50)
		160408-VM				●	●	9.525	0.794	4.76	16.606	0.30 (0.50~0.10)		2.50 (1.00~4.00)

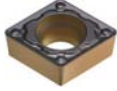
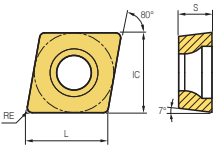
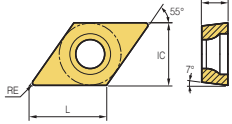
* : 대표 형상 이미지

● : 재고 관리 형번

형상	형번	코팅					치수 (mm)				절삭조건		형상도면
		NC3205	NC3215	NC3225	NC3030	NC3235	IC	RE	S	L	이송, fn (mm/rev)	절입, ap (mm)	
 WNMG-MP*	WNMG 080404-B25			●			12.7	0.397	4.76	8.687	0.31 (0.45~0.17)	3.00 (1.00~5.00)	
	080408-B25		●	●	●		12.7	0.794	4.76	8.687	0.42 (0.60~0.23)	3.25 (1.50~5.00)	
	080412-B25		●	●			12.7	1.191	4.76	8.687	0.43 (0.60~0.25)	3.50 (2.00~5.00)	
	080408-GR			●	●		12.7	0.794	4.76	8.687	0.25 (0.50~0.20)	3.50 (1.00~7.00)	
	080412-GR		●	●	●		12.7	1.191	4.76	8.687	0.38 (0.50~0.25)	4.15 (1.30~7.00)	
	060408-HM				●		9.525	0.794	4.76	6.515	0.25 (0.50~0.10)	1.75 (1.00~3.50)	
	080404-HM				●		12.7	0.397	4.76	8.687	0.25 (0.50~0.10)	1.75 (1.00~3.50)	
	080408-HM		●	●	●		12.7	0.794	4.76	8.687	0.25 (0.50~0.10)	2.50 (1.00~5.00)	
	080416-HR		●				12.7	1.588	4.76	8.687	0.51 (0.70~0.32)	4.40 (1.80~7.00)	
	060408-LP		●	●			9.525	0.794	4.76	6.515	0.25 (0.50~0.10)	1.75 (1.00~3.50)	
	080404-LP		●	●			12.7	0.397	4.76	8.687	0.23 (0.35~0.10)	1.15 (0.30~2.00)	
	080408-LP		●	●			12.7	0.794	4.76	8.687	0.25 (0.40~0.10)	1.50 (0.50~2.50)	
	080412-LP		●	●			12.7	1.191	4.76	8.687	0.29 (0.45~0.13)	1.90 (0.80~3.00)	
	060404-MP		●	●			9.525	0.397	4.76	6.515	0.20 (0.40~0.10)	2.00 (0.50~3.00)	
	060408-MP		●	●			9.525	0.794	4.76	6.515	0.25 (0.45~0.15)	2.00 (0.50~3.00)	
	080404-MP	●	●	●			12.7	0.397	4.76	8.687	0.30 (0.45~0.15)	2.50 (0.50~4.50)	
	080408-MP	●	●	●	●		12.7	0.794	4.76	8.687	0.30 (0.45~0.15)	2.50 (0.50~4.50)	
	080412-MP	●	●	●			12.7	1.191	4.76	8.687	0.33 (0.50~0.15)	2.90 (0.80~5.00)	
	080416-MP	●	●	●			12.7	1.588	4.76	8.687	0.37 (0.55~0.18)	2.55 (0.10~5.00)	
	080404-VB		●	●			12.7	0.397	4.76	8.687	0.23 (0.35~0.10)	0.90 (0.30~1.50)	
	080408-VB		●	●			12.7	0.794	4.76	8.687	0.30 (0.45~0.15)	1.25 (0.50~2.00)	
	080412-VB		●				12.7	1.191	4.76	8.687	0.32 (0.45~0.18)	1.65 (0.80~2.50)	
	080408-VC	●	●				12.7	0.794	4.76	8.687	0.20 (0.45~0.12)	2.00 (0.50~3.50)	
	080408-VC	●	●	●			12.7	0.794	4.76	8.687	0.30 (0.45~0.15)	2.33 (0.15~4.50)	
	080412-VC		●	●			12.7	1.191	4.76	8.687	0.30 (0.45~0.15)	2.33 (0.15~4.50)	
	080408-VL			●			12.7	0.794	4.76	8.687	0.18 (0.35~0.10)	0.75 (0.20~1.50)	
	060408-VM			●			9.525	0.794	4.76	6.515	0.25 (0.50~0.10)	2.00 (1.00~4.00)	
	080408-VM			●	●		12.7	0.794	4.76	8.687	0.25 (0.50~0.10)	2.50 (1.00~5.00)	
	080408-VP2			●			12.7	0.794	4.76	8.687	0.25 (0.50~0.10)	2.50 (1.00~5.00)	
	WNMM 100608-B25				●		15.875	0.794	6.35	10.859	0.43 (0.60~0.25)	3.80 (2.50~6.00)	
 CCMT-MP*	CCMT 060202-C25		●	●	●		6.35	0.198	2.38	6.448	0.08 (0.12~0.03)	1.20 (0.40~2.00)	
	060204-C25		●	●	●	●	6.35	0.397	2.38	6.448	0.10 (0.15~0.05)	1.45 (0.60~2.30)	
	060208-C25		●	●	●		6.35	0.794	2.38	6.448	0.14 (0.20~0.07)	1.55 (0.80~2.30)	
	09T304-C25		●	●	●	●	9.525	0.397	3.97	9.6719	0.17 (0.25~0.08)	1.90 (0.80~3.00)	
	09T308-C25		●	●	●	●	9.525	0.794	3.97	9.6719	0.20 (0.30~0.10)	2.00 (1.00~3.00)	
	120404-C25		●	●	●		12.7	0.397	4.76	12.8959	0.21 (0.32~0.10)	1.90 (0.80~3.00)	
	120408-C25		●	●	●	●	12.7	0.794	4.76	12.8959	0.24 (0.36~0.12)	2.35 (1.20~3.50)	
	120412-C25		●	●			12.7	1.191	4.76	12.8959	0.28 (0.40~0.15)	2.45 (1.40~3.50)	
	060202-FP		●				6.35	0.198	2.38	6.448	0.03 (0.10~0.01)	0.20 (0.05~0.80)	
	060204-FP		●	●			6.35	0.397	2.38	6.448	0.05 (0.10~0.01)	0.25 (0.10~0.90)	
	09T302-FP		●				9.525	0.198	3.97	9.6719	0.03 (0.10~0.01)	0.25 (0.05~1.00)	
	09T304-FP		●	●			9.525	0.397	3.97	9.6719	0.05 (0.10~0.01)	0.40 (0.10~1.00)	

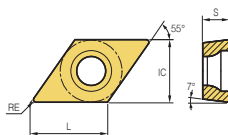
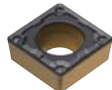
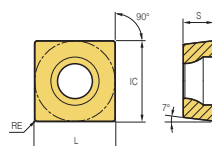
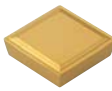
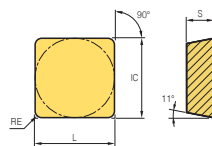
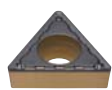
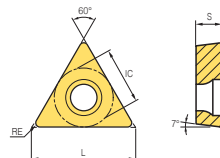
*: 대표 형상 이미지

●: 재고 관리 형번

형상	형번	코팅					치수 (mm)				절삭조건		형상도면
		NC3205	NC3215	NC3225	NC3030	NC3235	IC	RE	S	L	이송, fn (mm/rev)	절입, ap (mm)	
 CCMT-MP*	CCMT 09T308-FP	●	●				9.525	0.794	3.97	9.6719	0.07 (0.12~0.04)	0.40 (0.10~1.00)	
	060204-HMP			●			6.35	0.397	2.38	6.448	0.12 (0.17~0.06)	1.30 (0.20~2.40)	
	060208-HMP			●			6.35	0.794	2.38	6.448	0.21 (0.23~0.08)	0.87 (0.40~2.40)	
	09T304-HMP			●			9.525	0.397	3.97	9.6719	0.16 (0.23~0.08)	1.65 (0.30~3.00)	
	09T308-HMP			●			9.525	0.794	3.97	9.6719	0.18 (0.30~0.10)	1.85 (0.50~3.00)	
	120404-HMP		●	●			12.7	0.397	4.76	12.8959	0.24 (0.27~0.09)	2.60 (0.30~3.60)	
	120408-HMP			●			12.7	0.794	4.76	12.8959	0.28 (0.29~0.10)	2.73 (0.50~3.60)	
	060202-MP	●	●				6.35	0.198	2.38	6.448	0.08 (0.12~0.04)	0.85 (0.20~1.50)	
	060204-MP	●	●	●			6.35	0.397	2.38	6.448	0.10 (0.15~0.05)	0.90 (0.30~1.50)	
	060208-MP	●					6.35	0.794	2.38	6.448	0.11 (0.15~0.07)	1.25 (0.50~2.00)	
	09T302-MP		●	●			9.525	0.198	3.97	9.6719	0.11 (0.15~0.07)	1.15 (0.30~2.00)	
	09T304-MP	●	●	●	●		9.525	0.397	3.97	9.6719	0.17 (0.25~0.08)	1.50 (0.50~2.50)	
	09T308-MP	●	●	●	●		9.525	0.794	3.97	9.6719	0.20 (0.30~0.10)	1.50 (0.50~2.50)	
	120404-MP			●			12.7	0.397	4.76	12.8959	0.20 (0.30~0.10)	2.00 (0.50~3.50)	
	120408-MP			●			12.7	0.794	4.76	12.8959	0.18 (0.35~0.15)	1.75 (0.80~3.50)	
	060202-VF			●			6.35	0.198	2.38	6.448	0.13 (0.20~0.05)	0.65 (0.30~1.00)	
	060204-VF			●			6.35	0.397	2.38	6.448	0.18 (0.25~0.10)	0.65 (0.30~1.00)	
	09T302-VF			●			9.525	0.198	3.97	9.6719	0.10 (0.16~0.04)	1.15 (0.80~1.50)	
	09T304-VF			●			9.525	0.397	3.97	9.6719	0.13 (0.20~0.05)	0.90 (0.30~1.50)	
	09T308-VF			●			9.525	0.794	3.97	9.6719	0.18 (0.25~0.10)	0.90 (0.30~1.50)	
	120404-VF			●			12.7	0.397	4.76	12.8959	0.15 (0.22~0.07)	1.05 (0.10~2.00)	
	060204-VL	●	●	●			6.35	0.397	2.38	6.448	0.07 (0.10~0.04)	0.49 (0.08~0.90)	
	060208-VL	●	●	●			6.35	0.794	2.38	6.448	0.09 (0.12~0.06)	0.55 (0.10~1.00)	
	09T304-VL		●	●			9.525	0.397	3.97	9.6719	0.08 (0.10~0.05)	0.55 (0.10~1.00)	
	09T308-VL		●	●			9.525	0.794	3.97	9.6719	0.12 (0.15~0.08)	0.55 (0.10~1.00)	
 DCMT-MP*	DCMT 070202-C25			●			6.35	0.198	2.38	7.7519	0.09 (0.15~0.03)	1.15 (0.30~2.00)	
	070204-C25	●	●	●	●		6.35	0.397	2.38	7.7519	0.13 (0.20~0.05)	1.50 (0.50~2.50)	
	070208-C25	●	●	●			6.35	0.794	2.38	7.7519	0.16 (0.25~0.06)	1.65 (0.80~2.50)	
	11T302-C25	●	●				9.525	0.198	3.97	11.6279	0.15 (0.25~0.04)	1.50 (0.50~2.50)	
	11T304-C25	●	●	●	●		9.525	0.397	3.97	11.6279	0.19 (0.30~0.08)	1.90 (0.80~3.00)	
	11T308-C25	●	●	●	●		9.525	0.794	3.97	11.6279	0.20 (0.30~0.10)	2.00 (1.00~3.00)	
	070202-FP	●					6.35	0.198	2.38	7.7519	0.03 (0.10~0.01)	0.20 (0.05~0.80)	
	070204-FP	●	●				6.35	0.397	2.38	7.7519	0.05 (0.10~0.01)	0.25 (0.10~0.90)	
	11T302-FP	●					9.525	0.198	3.97	11.6279	0.03 (0.10~0.01)	0.25 (0.05~1.00)	
	11T304-FP	●	●				9.525	0.397	3.97	11.6279	0.05 (0.10~0.01)	0.40 (0.10~1.00)	
	11T308-FP	●	●				9.525	0.794	3.97	11.6279	0.07 (0.12~0.04)	0.40 (0.10~1.00)	
	070202-HMP			●			6.35	0.198	2.38	7.7519	0.08 (0.12~0.03)	0.80 (0.10~1.50)	
	070204-HMP			●			6.35	0.397	2.38	7.7519	0.12 (0.17~0.06)	1.30 (0.20~2.40)	
	070208-HMP			●			6.35	0.794	2.38	7.7519	0.21 (0.23~0.08)	0.87 (0.40~2.40)	
	11T302-HMP			●			9.525	0.198	3.97	11.6279	0.11 (0.22~0.04)	1.00 (0.10~2.00)	
	11T304-HMP		●	●			9.525	0.397	3.97	11.6279	0.16 (0.23~0.08)	1.65 (0.30~3.00)	
	11T308-HMP			●			9.525	0.794	3.97	11.6279	0.20 (0.30~0.10)	1.75 (0.50~3.00)	
	070202-MP	●	●				6.35	0.198	2.38	7.7519	0.08 (0.12~0.04)	0.96 (0.12~1.80)	
	070204-MP	●	●	●			6.35	0.397	2.38	7.7519	0.10 (0.15~0.05)	1.05 (0.30~1.80)	
	070208-MP		●	●			6.35	0.794	2.38	7.7519	0.15 (0.22~0.08)	1.05 (0.30~1.80)	
	11T302-MP		●	●			9.525	0.198	3.97	11.6279	0.10 (0.15~0.04)	1.15 (0.30~2.00)	
	11T304-MP	●	●	●	●		9.525	0.397	3.97	11.6279	0.14 (0.20~0.08)	1.40 (0.50~2.30)	

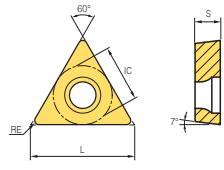
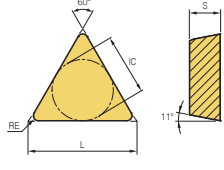
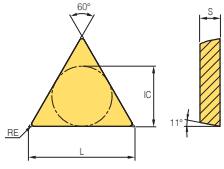
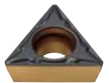
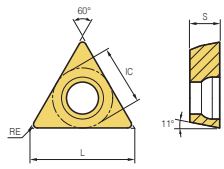
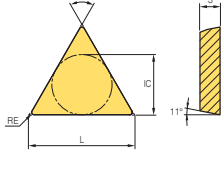
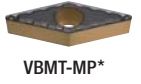
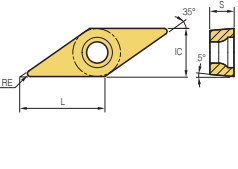
* : 대표 형상 이미지

● : 재고 관리 형번

형상	형번	코팅					치수 (mm)				절삭조건		형상도면
		NC3205	NC3215	NC3225	NC3030	NC3235	IC	RE	S	L	이송, fn (mm/rev)	절입, ap (mm)	
 DCMT-MP*	DCMT	11T308-MP	●	●	●		9.525	0.794	3.97	11.6279	0.20 (0.30~0.10)	1.40 (0.50~2.30)	
		070202-VF			●		6.35	0.198	2.38	7.7519	0.07 (0.10~0.03)	0.53 (0.06~1.00)	
		070204-VF			●		6.35	0.397	2.38	7.7519	0.13 (0.20~0.05)	0.75 (0.30~1.20)	
		11T302-VF			●		9.525	0.198	3.97	11.6279	0.10 (0.15~0.04)	0.79 (0.08~1.50)	
		11T304-VF			●		9.525	0.397	3.97	11.6279	0.13 (0.20~0.05)	0.90 (0.30~1.50)	
		070204-VL		●	●		6.35	0.397	2.38	7.7519	0.18 (0.25~0.10)	0.90 (0.30~1.50)	
		070208-VL		●	●		6.35	0.794	2.38	7.7519	0.20 (0.40~0.05)	2.00 (0.10~4.00)	
		11T304-VL	●	●	●		9.525	0.397	3.97	11.6279	0.08 (0.10~0.05)	0.55 (0.10~1.00)	
		11T308-VL	●	●	●		9.525	0.794	3.97	11.6279	0.12 (0.15~0.08)	0.55 (0.10~1.00)	
 SCMT-MP*	SCMT	09T304-FP		●			9.525	0.397	3.97	9.6719	0.05 (0.10~0.01)	0.40 (0.10~1.00)	
		09T308-FP		●	●		9.525	0.794	3.97	9.6719	0.07 (0.12~0.04)	0.40 (0.10~1.00)	
		060204-C25				●	6.35	0.397	2.38	6.35	0.15 (0.20~0.06)	1.45 (0.40~2.50)	
		09T304-C25		●	●	●	9.525	0.397	3.97	9.6719	0.17 (0.25~0.08)	1.80 (0.60~3.00)	
		09T308-C25		●	●	●	9.525	0.794	3.97	9.6719	0.20 (0.30~0.10)	2.00 (1.00~3.00)	
		120404-C25		●	●		12.7	0.397	4.76	12.8959	0.20 (0.30~0.10)	2.30 (0.80~3.80)	
		120408-C25		●	●	●	12.7	0.794	4.76	12.8959	0.25 (0.38~0.12)	2.50 (1.20~3.80)	
		09T304-HMP				●	9.525	0.397	3.97	9.6719	0.12 (0.23~0.08)	1.50 (0.30~3.00)	
		09T308-HMP				●	9.525	0.794	3.97	9.6719	0.18 (0.30~0.10)	1.75 (0.50~3.00)	
		120408-HMP				●	12.7	0.794	4.76	12.8959	0.20 (0.36~0.12)	1.80 (0.60~3.60)	
		09T304-MP		●	●		9.525	0.397	3.97	9.6719	0.15 (0.25~0.05)	1.55 (0.30~2.80)	
		09T308-MP	●	●	●		9.525	0.794	3.97	9.6719	0.20 (0.30~0.10)	1.65 (0.50~2.80)	
		120404-MP		●	●		12.7	0.397	4.76	12.8959	0.20 (0.30~0.10)	1.65 (0.50~2.80)	
		120408-MP		●	●		12.7	0.794	4.76	12.8959	0.18 (0.35~0.15)	1.80 (0.80~3.50)	
		09T308-VL			●		9.525	0.794	3.97	9.6719	0.12 (0.15~0.08)	0.55 (0.10~1.00)	
 SPMR-F*	SPMR	120304-F			●	●	12.7	0.397	3.18	12.7	0.23 (0.25~0.10)	1.67 (0.50~2.00)	
		090308-M			●	●	9.525	0.794	3.18	9.525	0.25 (0.40~0.10)	2.25 (1.00~3.50)	
		120308-M			●	●	12.7	0.794	3.18	12.7	0.25 (0.40~0.10)	2.75 (1.00~3.50)	
		120312-M				●	12.7	1.191	3.18	12.7	0.30 (0.40~0.20)	2.75 (1.50~4.00)	
 TCMT-MP*	TCMT	110202-FP	●				6.35	0.198	2.38	10.999	0.03 (0.10~0.01)	0.20 (0.05~0.80)	
		110204-FP	●				6.35	0.397	2.38	10.999	0.05 (0.10~0.01)	0.25 (0.10~0.90)	
		090204-C25	●	●	●		5.56	0.397	2.38	9.63	0.12 (0.18~0.06)	1.45 (0.40~2.50)	
		090208-C25	●	●			5.56	0.794	2.38	9.63	0.17 (0.25~0.08)	1.65 (0.80~2.50)	
		110202-C25			●		6.35	0.198	2.38	10.999	0.08 (0.12~0.04)	1.20 (0.40~2.00)	
		110204-C25	●	●	●	●	6.35	0.397	2.38	10.999	0.13 (0.20~0.06)	1.55 (0.60~2.50)	
		110208-C25	●	●	●		6.35	0.794	2.38	10.999	0.17 (0.25~0.08)	1.65 (0.80~2.50)	
		16T304-C25	●	●	●	●	9.525	0.397	3.97	16.498	0.18 (0.28~0.08)	1.90 (0.80~3.00)	
		16T308-C25	●	●	●	●	9.525	0.794	3.97	16.498	0.20 (0.30~0.10)	2.00 (1.00~3.00)	
		110204-HMP			●	●	6.35	0.397	2.38	10.999	0.13 (0.19~0.06)	1.35 (0.20~2.50)	
		110204-HMP				●	6.35	0.397	2.38	10.999	0.13 (0.19~0.06)	1.35 (0.20~2.50)	
		16T304-HMP				●	9.525	0.397	3.97	16.498	0.13 (0.23~0.08)	1.50 (0.30~3.00)	
		16T308-HMP				●	9.525	0.794	3.97	16.498	0.13 (0.23~0.08)	1.50 (0.30~3.00)	
		090204-MP	●				5.56	0.397	2.38	9.63	0.12 (0.18~0.05)	0.55 (0.10~1.00)	
		110202-MP		●	●		6.35	0.198	2.38	10.999	0.08 (0.12~0.03)	0.85 (0.20~1.50)	
		110204-MP	●	●	●		6.35	0.397	2.38	10.999	0.10 (0.15~0.05)	0.85 (0.20~1.50)	
		110208-MP		●	●		6.35	0.794	2.38	10.999	0.19 (0.28~0.10)	1.13 (0.25~2.00)	

*: 대표 형상 이미지

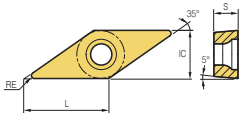
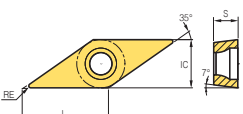
●: 재고 관리 형번

형상	형번	코팅				치수 (mm)				절삭조건		형상도면
		NC3205	NC3215	NC3225	NC3030	IC	RE	S	L	이송, fn (mm/rev)	절입, ap (mm)	
 TCMT-MP*	TCMT 16T304-MP	●	●	●		9.525	0.397	3.97	16.498	0.14 (0.20~0.08)	1.40 (0.30~2.50)	
	16T308-MP	●	●	●		9.525	0.794	3.97	16.498	0.20 (0.30~0.10)	1.50 (0.50~2.50)	
	16T312-MP		●	●		9.525	1.191	3.97	16.498	0.30 (0.40~0.20)	1.50 (0.50~2.50)	
	16T304-VF			●		9.525	0.397	3.97	16.498	0.13 (0.20~0.05)	0.90 (0.30~1.50)	
	16T304-VL		●			9.525	0.397	3.97	16.498	0.13 (0.20~0.05)	0.90 (0.30~1.50)	
	16T308-VL	●	●	●		9.525	0.794	3.97	16.498	0.13 (0.20~0.05)	0.90 (0.30~1.50)	
 TPGN	TPGN 110304				●	6.35	0.397	3.18	10.999	0.14 (0.20~0.07)	1.85 (0.70~3.00)	
	110308				●	6.35	0.794	3.18	10.999	0.18 (0.25~0.10)	1.85 (1.00~3.00)	
	160304			●	●	9.525	0.397	3.18	16.498	0.14 (0.20~0.07)	3.00 (1.00~5.00)	
	160308			●	●	9.525	0.794	3.18	16.498	0.18 (0.25~0.10)	3.00 (1.00~5.00)	
	220404				●	12.7	0.397	4.76	21.997	0.14 (0.20~0.07)	4.25 (1.50~7.00)	
	220408				●	12.7	0.794	4.76	21.997	0.18 (0.25~0.10)	4.25 (1.50~7.00)	
	220412				●	12.7	1.191	4.76	21.997	0.23 (0.30~0.15)	4.25 (1.50~7.00)	
 TPMR-F*	TPMR 110304-F			●	●	6.35	0.397	3.18	10.999	0.17 (0.20~0.05)	1.20 (0.30~1.50)	
	160304-F			●	●	9.525	0.397	3.18	16.498	0.17 (0.25~0.08)	1.25 (0.50~2.00)	
	110308-M				●	6.35	0.794	3.18	10.999	0.15 (0.25~0.05)	0.90 (0.30~1.50)	
	160304-M				●	9.525	0.397	3.18	16.498	0.18 (0.25~0.10)	2.50 (1.00~5.00)	
	160308-M			●	●	9.525	0.794	3.18	16.498	0.20 (0.30~0.13)	2.80 (1.00~5.00)	
	160312-M				●	9.525	1.191	3.18	16.498	0.23 (0.35~0.15)	3.00 (1.00~5.00)	
	220408-M				●	12.7	0.794	4.76	21.997	0.15 (0.30~0.13)	3.50 (7.00~1.50)	
 TPMT-VL*	TPMT 090202-FP		●			5.56	0.198	3.18	9.63	0.03 (0.06~0.01)	0.16 (0.04~0.50)	
	090204-FP		●	●		5.56	0.397	3.18	9.63	0.04 (0.08~0.01)	0.18 (0.05~0.60)	
	110302-FP		●			6.35	0.198	3.18	10.999	0.03 (0.10~0.01)	0.20 (0.05~0.80)	
	110304-FP		●	●		6.35	0.397	3.18	10.999	0.05 (0.10~0.01)	0.25 (0.10~0.90)	
	110308-FP		●	●		6.35	0.794	3.18	10.999	0.06 (0.10~0.01)	0.25 (0.10~0.90)	
	160404-FP		●			9.525	0.397	4.76	16.498	0.05 (0.10~0.01)	0.40 (0.10~1.00)	
	160408-FP		●			9.525	0.794	4.76	16.498	0.07 (0.12~0.04)	0.40 (0.10~1.00)	
	110304-MP		●	●		6.35	0.397	3.18	10.999	0.10 (0.20~0.05)	0.50 (0.10~1.00)	
	110308-MP		●	●		6.35	0.794	3.18	10.999	0.14 (0.20~0.08)	1.40 (0.30~2.50)	
	160404-MP		●	●		9.525	0.397	4.76	16.498	0.10 (0.20~0.05)	1.15 (0.30~2.00)	
	160408-MP		●	●		9.525	0.794	4.76	16.498	0.25 (0.45~0.15)	1.50 (0.50~4.00)	
	110304-VF			●		6.35	0.397	3.18	10.999	0.13 (0.20~0.05)	0.90 (0.30~1.50)	
	110308-VF			●		6.35	0.794	3.18	10.999	0.18 (0.25~0.10)	0.90 (0.30~1.50)	
	110304-VL		●			6.35	0.397	3.18	10.999	0.10 (0.15~0.05)	0.70 (0.10~1.30)	
 TPUN	TPUN 160304				●	9.525	0.397	3.18	16.498	0.20 (0.30~0.10)	3.00 (1.00~5.00)	
	160308				●	9.525	0.794	3.18	16.498	0.28 (0.40~0.15)	3.00 (1.00~5.00)	
	220408				●	12.7	0.794	4.76	21.997	0.28 (0.40~0.15)	4.25 (1.50~7.00)	
 VBMT-MP*	VBMT 160404				●	9.525	0.397	4.76	16.606	0.10 (0.20~0.07)	1.35 (0.20~2.70)	
	160408			●	●	9.525	0.794	4.76	16.606	0.20 (0.25~0.15)	1.35 (0.70~2.00)	
	110302-FP		●			6.35	0.198	3.18	11.071	0.03 (0.10~0.01)	0.20 (0.05~0.80)	
	110304-FP		●			6.35	0.397	3.18	11.071	0.05 (0.10~0.01)	0.25 (0.10~0.90)	
	110308-FP		●			6.35	0.794	3.18	11.071	0.06 (0.10~0.01)	0.25 (0.10~0.90)	
	160404-FP		●	●		9.525	0.397	4.76	16.606	0.05 (0.10~0.01)	0.40 (0.10~1.00)	
	160408-FP		●	●		9.525	0.794	4.76	16.606	0.07 (0.12~0.04)	0.40 (0.10~1.00)	

* : 대표 형상 이미지

● : 재고 관리 형번

재고관리 형번

형상	형번	코팅					치수 (mm)				절삭조건		형상도면
		NC3205	NC3215	NC3225	NC3030	NC3235	IC	RE	S	L	이송, fn (mm/rev)	절입, ap (mm)	
 VBMT-MP*	VBMT 160404-HMP				●		9.525	0.397	4.76	16.606	0.14 (0.20~0.07)	1.45 (0.20~2.70)	
	160408-HMP				●	●	9.525	0.794	4.76	16.606	0.31 (0.33~0.13)	2.13 (0.60~2.60)	
	110304-MP	●	●	●			6.35	0.397	3.18	11.071	0.10 (0.15~0.05)	0.85 (0.20~1.50)	
	110308-MP	●	●	●			6.35	0.794	3.18	11.071	0.19 (0.28~0.10)	1.15 (0.30~2.00)	
	160404-MP	●	●	●		●	9.525	0.397	4.76	16.606	0.14 (0.20~0.08)	1.15 (0.30~2.00)	
	160408-MP	●	●	●			9.525	0.794	4.76	16.606	0.18 (0.25~0.10)	1.40 (0.50~2.30)	
	160412-MP		●	●			9.525	1.191	4.76	16.606	0.23 (0.35~0.10)	1.40 (0.50~2.30)	
	160404-VB			●			9.525	0.397	4.76	16.606	0.14 (0.20~0.08)	0.85 (0.20~1.50)	
	160408-VB			●			9.525	0.794	4.76	16.606	0.17 (0.23~0.10)	1.00 (0.50~1.50)	
	160404-VF			●			9.525	0.397	4.76	16.606	0.13 (0.20~0.05)	0.65 (0.30~1.00)	
	160404-VL	●	●	●			9.525	0.397	4.76	16.606	0.13 (0.20~0.05)	0.90 (0.30~1.50)	
	160408-VL	●	●	●			9.525	0.794	4.76	16.606	0.15 (0.20~0.10)	0.90 (0.30~1.50)	
 VCMT-MP*	VCMT 080202-FP		●				4.76	0.198	2.38	8.299	0.03 (0.10~0.01)	0.20 (0.05~0.80)	
	080204-FP		●				4.76	0.397	2.38	8.299	0.05 (0.10~0.01)	0.25 (0.10~0.90)	
	080208-FP		●				4.76	0.794	2.38	8.299	0.06 (0.10~0.01)	0.25 (0.10~0.90)	
	160404-FP		●				9.525	0.397	4.76	16.606	0.05 (0.10~0.01)	0.40 (0.10~1.00)	
	160408-FP		●	●			9.525	0.794	4.76	16.606	0.07 (0.12~0.04)	0.40 (0.10~1.00)	
	160404-HMP				●		9.525	0.397	4.76	16.606	0.14 (0.20~0.07)	1.45 (0.20~2.70)	
	160408-HMP				●		9.525	0.794	4.76	16.606	0.31 (0.33~0.13)	2.13 (0.60~2.60)	
	080202-MP	●	●				4.76	0.198	2.38	8.299	0.08 (0.15~0.03)	0.55 (0.10~1.00)	
	080204-MP	●	●				4.76	0.397	2.38	8.299	0.11 (0.18~0.03)	0.55 (0.10~1.00)	
	160404-MP	●	●				9.525	0.397	4.76	16.606	0.13 (0.18~0.08)	1.15 (0.30~2.00)	
	160408-MP	●	●				9.525	0.794	4.76	16.606	0.17 (0.23~0.10)	1.40 (0.50~2.30)	
	110304-VF			●			6.35	0.397	3.18	11.071	0.11 (0.18~0.03)	0.68 (0.15~1.20)	
	160404-VF			●			9.525	0.397	4.76	16.606	0.12 (0.20~0.04)	0.83 (0.15~1.50)	
	080202-VL	●	●				4.76	0.198	2.38	8.299	0.13 (0.20~0.05)	0.65 (0.30~1.00)	
	080204-VL	●	●				4.76	0.397	2.38	8.299	0.18 (0.25~0.10)	0.65 (0.30~1.00)	
	160404-VL	●	●				9.525	0.397	4.76	16.606	0.13 (0.20~0.05)	0.90 (0.30~1.50)	
	160408-VL	●	●				9.525	0.794	4.76	16.606	0.13 (0.20~0.05)	0.90 (0.30~1.50)	

*: 대표 형상 이미지

●: 재고 관리 형번

⚠️ 안전한 사용을 위하여

- 날끝을 직접 손으로 만지면 상처를 입을 수 있으므로 보호장갑 등의 보호구를 사용 바랍니다.
- 잘못된 사용방법이나 사용조건이 부적절할 경우 공구 파손 또는 비산의 위험이 있으므로 안전커버나 보호 안경 등의 보호구를 사용해 주십시오.
- 가공물이 움직이지 않도록 단단히 고정하여 주십시오.
- 극심한 부하나 과도한 마모로 공구가 파손되어 상처를 입을 수 있으므로 공구 교환 주기를 빨리하십시오.
- 절삭 가공 시 배출되는 칩(Chip)은 매우 날카롭고 뜨거워 상처나 화상을 입을 수 있으므로 보호구를 사용하여 주시고 칩 제거 시에는 기계를 멈추고 보호 장갑을 착용한 후 갈고리 등 전용 공구를 사용 바랍니다.
- 비수용성 절삭유를 사용 시 화재가 발생할 수 있으므로 방화 대책을 세워 주십시오.
- 고속절삭 시 원심력에 의해 부품이나 인서트가 탈락될 수 있으므로 안전보호구를 사용해 주십시오.



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