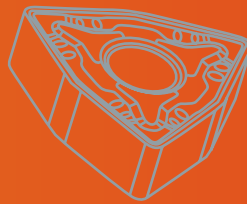




K·CERA

Cutting Tools 2019-2020



TIGER

터닝 / TURNING

그루빙 / GROOVING

나사 / THREADING

밀링 / MILLING

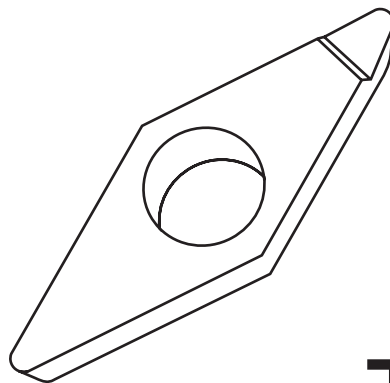
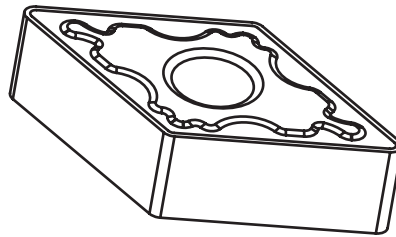
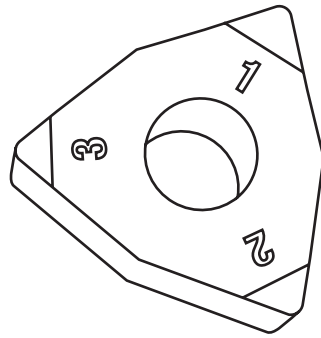
인덱서블 드릴/ DRILLING

엔드밀 / ENDMILLS

솔리드 드릴/ DRILLS

부품 / SPARE PARTS

색인표 / INDEX



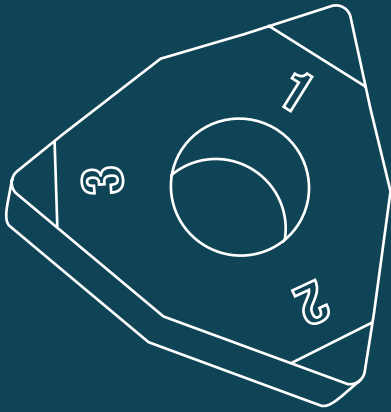
TURNING/ 터닝

인서트 carbide /5

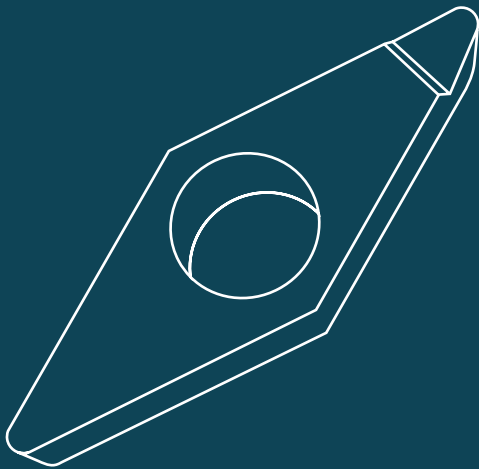
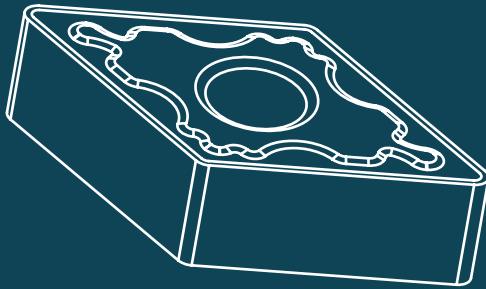
PCBN /75

PCD diamond /95

터닝 홀더 holders /111



TURNING / carbide
터닝 / 인서트



C

1

N

2

M

3

G

4

12

5

04

6

08

7

1 Geometry/ 인서트 형상

C	
D	
K	
S	
T	
V	
W	

2 Clearance Angle 주절인 여유각

B	
C	
P	
N	

3 Tolerance/ 공차

	IC	T
G	±0.025	±0.13
M	±0.05 ±0.15	±0.13
U	±0.08 ±0.25	±0.13

4 Shape/ 단면형상

A	
G	
M	
T	
X	Special

5 Shape/ 인선길이

C	06 09 12 16 19 25	
D	07 11 15	
K	16	
S	09 12 15 19 25	
T	09 11 16 22	
V	11 16 22	
W	06 08	

6 Thickness 인선높이(메트릭)

02	2.38
03	3.18
T3	3.97
04	4.76
06	6.35
09	9.52

7 Corner Radius 노즈(nose) "r" 크기(메트릭)

02	0.20
04	0.40
08	0.80
12	1.20
16	1.60
24	2.40

U	M
8	9

T	C	5	2	20	P
Cera Tiger	10	11	12	13	14

8	C/B Series C/B 종류	9	C/B Type 칩브레이커
U	Finish / 정삭	UF,UF1	Negative type 네가티브 타입
	Medium / 중삭	UM,UM1,UMC,MM	
	Rough / 황삭	UR,UR1,RB25,RH25	
	Finish / 정삭	UF,MF1	Positive type 포지티브 타입
	Medium / 중삭	UM,UM2,MM1,TQ	
	Rough / 황삭	UR,UR2	
M	Finish / 정삭	MF,MF2,MF3	Negative type 네가티브 타입
	Medium / 중삭	MM,MM2,MM3,MM4,UM1	
	Rough / 황삭	MR,MS,UR1	
	Finish / 정삭	MF,MF1,MF2	Positive type 포지티브 타입
	Medium / 중삭	GM, MM1,MM3,MM5,TQ	
	Rough / 황삭	UR2	
K	Medium / 중삭	MM1,UM1	Negative type 네가티브 타입
	Rough / 황삭	Non(Box type), UR1	
A	Universal / 범용	AU	Normal 일반
		AUP	Premium 프리미엄

10	Coating & Material 코팅 & 소재
C	CVD Coated Carbide / CVD 코팅 인서트
P	PVD Coated Carbide / PVD 코팅 인서트
T	Cermet / 써멧
U	Uncoated Carbide / 초경

11	Workpiece Material 피삭재별 구분
4	Cast Iron 주철
5	Steel 강
6	Stainless Steel 스테인레스 스틸
0	Universal 범용

12	Machining 가공영역별 구분
1,2	Turning 터닝
0	Universal 범용
5	Grooving 그루빙
	Drilling 드릴링

13	ISO Grade ISO 정도
05	
10	
15	
20	
25	
30	
35	
40	
45	

14	Grade 프리미엄 재종
P	Premium 프리미엄
non	Normal 일반

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

SPARE PARTS

INDEX

Grades / 재종

	ISO DIN 513	K					P					M					N				
																					
		K01	K10	K20	K30	K40	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	N01	N10	N20	N30	N40
터닝	CARBIDE CVD	TC4105					TC5110							TC6115							
		TC4115D					TC5210							TC6125							
		TC4215					TC5120														
							TC5220														
		TC4315					TC5230														
그라운드	CARBIDE PVD											TP0005P									
												TP0005HP									
							TP0005HP					TP0105P									
												TP0010P									
												TP0015P									
나사	CARBIDE PVD													TP0115P							
														TP0025							
밀링	CARBIDE UNCOATED																TU4005				
인테셔널 드릴	CERMET	TT5115					TT5115					TT5115									
		TTP5115					TTP5115					TTP5115									

CVD Turning Grades / 터닝 재종

Material 피삭재	Grade 재종	ISO 범위	Color 색깔	Operation 적용
P	TC5110	P10~P20	YELLOW 	● CVD코팅(Coated) - MT-TiCN + α -Al ₂ O ₃ + TiN
	TC5210	P10~P20	YELLOW - BLACK 	● CVD코팅(Coated) - MT-TiCN + α -Al ₂ O ₃ + TiN + post blasting treatment ● 내마모성과 인성이 우수한 전용모재와 내열성, 내소성변형이 우수한 알파알루미나(α -Al ₂ O ₃)박막의 조합으로 고속가공에 최적화 (Optimization for high speed machining due to combining the substrate of superior wear resistance and toughness with the coating of excellent thermal crack/plastic deformation)
	TC5120	P10~P20	YELLOW 	● CVD코팅(Coated) - MT-TiCN + α -Al ₂ O ₃ + TiN
	TC5220	P10~P20	YELLOW - BLACK 	● CVD코팅(Coated) - MT-TiCN + α -Al ₂ O ₃ + TiN + post blasting treatment ● 강의 중, 고속 가공용 (Medium to high speed machining of steel) ● 고인성모재와 내용착성, 내치핑성이 향상된 코팅 적용으로 범용 가공의 제 1차 추천가공 (First recommended grade for general machining with the use of high toughness substrate and coating layer with improved welding/chipping resistance)
M	TC5230	P30~P40	YELLOW - BLACK 	● CVD코팅(Coated) - MT-TiCN + α -Al ₂ O ₃ + TiN + post blasting treatment ● 강의 중, 저속 가공용 (Medium to low speed machining of steel)
	TC6115	M10-M20	COPPER 	● CVD코팅(Coated) - MT-TiCN + α -Al ₂ O ₃ ● 스테인레스강의 고속 가공용 (high speed machining of stainless steel)
K	TC6125	M20-M30	BLACK 	● CVD코팅(Coated) - MT-TiCN + α -Al ₂ O ₃ ● 스테인레스강의 고속 가공용 (high speed machining of stainless steel)
	TC4105	K05~K10	BLACK 	● CVD코팅(Coated) - MT-TiCN + α -Al ₂ O ₃ ● 주철의 고속/연속 가공용 (high speed machining of cast iron & continuous condition)
	TC4315	K10~K15	YELLOW - BLACK 	● CVD코팅(Coated) - MT-TiCN + α -Al ₂ O ₃ + TiN ● 주철의 중고속 가공용 (Medium speed machining of cast iron)
	TC4215	K10~K15	BLACK 	● CVD코팅(Coated) - MT-TiCN + α -Al ₂ O ₃ ● 주철의 중고속 가공용 (Medium speed machining of cast iron)
	TC4115D	K10~K15	BLACK 	● CVD코팅(Coated) - MT-TiCN + α -Al ₂ O ₃ ● 주철 범용가공 1차 추천, 주철의 중고속 가공용 (Medium speed machining of cast iron)

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

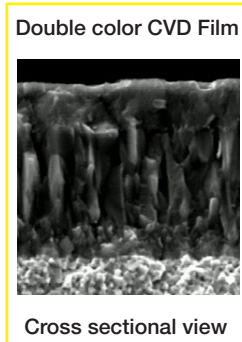
DRILLS

SPARE PARTS

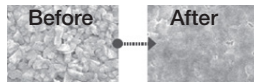
INDEX

더블칼라 재종 분석

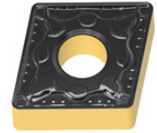
[DOUBLE COLOR TC5210(20,30,40) CVD COATING MECHANISM]



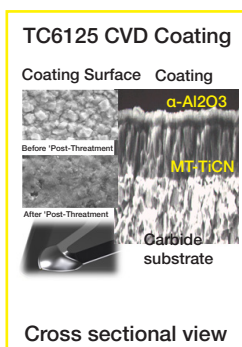
1. 미세 주상 조직 (New Coating with fine grain columnar structure)
 - 상면 블랙 + 옆면 노랑 코팅 (Only Side-TiN(Yellow) coating layer with lubrication.)
 - 강화된 α -Al₂O₃ layer 코팅 박막 (Excellent Hardness through improved α -Al₂O₃ layer)
 - 치핑 방지 결합층 구조 (Bonding layer for anti chipping)
 - 미세 주상 조직의 MT-TiCN (MT-TiCN with fine grain columnar structure.)
2. 미세 모재 사용 Substrate with fine-finished surface
 - 강력한 모재 경도 Exclusive material with hardness
3. 전/후처리 공정 (Pre / Post - Treatment & Removing TiN layer on top side of insert)



소성변형 & 크레이터마모 & 치핑 & 열변형 방지 (Prevent Crater wear, Thermal Stability, Chipping, Plastic deformation)



TC6125 재종분석 [TC6125 CVD COATING MECHANISM]



코팅 박막 특징 (Features of film)

- Special MT-TiCN
- Micro-grain α -Alumina

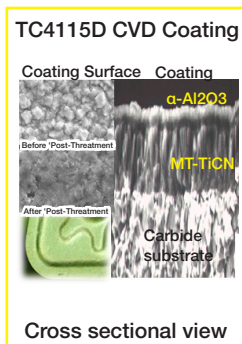
전 / 후 처리(Special Treatment for Coating)

- 전처리 (Pre-treatment)
 - 코팅 밀착력 강화 (Enhance Film Adhesion)
 - 박리저항성 증가 (Enhance Peeling Resistance)
 - 후처리 (Post-treatment)
 - 부드러운 표면(Smooth & glossy Surface of Insert)
 - 두꺼운 코팅으로 긴수명 보장
- Lasting long tool life without Chipping & Built-up-edge

모재 특징 (Features of substrate)

- 고인성 모재 사용으로 고속 가공
- M20~30 carbide for high speed cutting of stainless steel

TC4115D,TC4215 재종분석[TC4115D & TC4215 CVD COATING MECHANISM]



코팅 박막 특징 (Features of film)

- Special MT-TiCN
- Micro-grain α -Alumina

전 / 후 처리 공정 (Special Treatment for Coating)

- 전처리 (Pre-treatment)
 - 코팅 밀착력 강화 (Enhance Film Adhesion)
 - 박리저항성 증가(Enhance Peeling Resistance)
 - 후처리 (Post-treatment)
 - 부드러운 표면(Smooth & glossy Surface of Insert)
 - 두꺼운 코팅으로 긴수명 보장
- Lasting long tool life without Chipping & Built-up-edge

모재 특징 (Features of substrate)

낮은 코발트 함량으로 내마모성 증가 Hard micro-grain carbide with reducing cobalt

PVD Turning Grades PVD 터닝 재종

Material 피삭재	Grade 재종	ISO 범위	Color 색깔	Operation 적용
M	TP0005P	M10~M15	COPPER 구리빛	● PVD Salina 코팅(Cotated) - TiAlSiN coating (3-5μm) ● 미립모재 사용으로 내충격성 강화, 높은 온도에서 견딜수 있는 내열성 및 내산 화성이 우수한 코팅 박막 - Good wear resistance + Extremely heat & oxidation -resistance - Reinforced shock resistance due to high Cobalt
				
	TP0005HP	M10~M15	COPPER 구리빛	● PVD Salina 코팅(Coated) - AlCrN + AlCrSiN coating (3-5μm) ● sinter Hip 기술 적용으로 모재 성장 억제(2μm), 내충격성 강화 및 내열성, 내 산화성이 우수한 코팅 박막 - Reinforced shock resistance + Extremely heat & oxidation -resistance due to Sinter-hip technology
				
	TP0105P	M10~M15	BLACK 블랙	● PVD new Balzers 코팅(Cotated) - ALTiN coating (3-5μm) ● 미립모재 사용으로 내충격성 강화, 높은 온도에서 견딜수 있는 내열성 및 내산 화성이 우수한 코팅 박막 - Reinforced shock resistance + Extremely heat & oxidation -resistance due to the micro substrate
				
	TP0010P	M15~M20	COPPER 구리빛	● PVD Salina 코팅(Cotated) - TiAlSiN coating (3-5μm) ● 미립모재 사용으로 내충격성 강화, 높은 온도에서 견딜수 있는 내열성 및 내산 화성이 우수한 코팅 박막 - Good wear resistance + Extremely heat & oxidation -resistance - Reinforced shock resistance due to high Cobalt
				
	TP0015P	M20~M30	COPPER 구리빛	● PVD Salina 코팅(Cotated) - TiAlSiN coating (3-5μm) ● 미립모재 사용으로 내충격성 강화, 높은 온도에서 견딜수 있는 내열성 및 내산 화성이 우수한 코팅 박막 - Good wear resistance + Extremely heat & oxidation -resistance - Reinforced shock resistance due to high Cobalt
				
	TP0115P	M20~M30	BLACK 블랙	● PVD new Balzers 코팅(Cotated) - ALTiN coating (3-5μm) ● 강의 헤비절삭 가공용 (Heavy duty machining of steel) ● 스테인레스강의 중,고속 가공용 (Medium to high speed machining of stainless steel)
				
	TP0025	M25~M35	YELLOW 노랑	● PVD 코팅(Cotated) - Tin + TiAlN coating (3-5μm) ● 보편적인 스테인레스 스틸용. 인성이 풍부한 재종으로 내충격성 강화 - General stainless steel grade, Reinforced shock resistance
				

Uncoated Carbide Grades 초경 재종

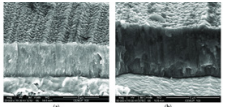
Material 피삭재	Grade 재종	ISO 범위	Color 색깔	Operation 적용
N	TU4005	N05-N35	Silver 은색	● 경면 처리 (비코팅), Polishing (UnCotated) ● AL 가공용 재종, 경면 처리를 통해 윤착 방지 (prevent built-up edge for Aluminum)
				

Cermet Carbide Grades 써멧재종

Material 피삭재	Grade 재종	ISO 범위	Color 색깔	Operation 적용
UNI	TT5115	P10-P15	SILVER 은색	● Non coated, for continuous machining of cold / hot forged steel - 비코팅, 냉간단조, 열간단조, 저절입, 연속조건 용
				
	TTP5115	P10-P15	YELLOW 노랑	● Coated, Lubricant coating layer improves chip flow and reduce cutting force 코팅써멧, 윤활성 우수하여 칩처리 개선, 부하 방지
				

SALINA PVD 코팅 재종분석(SALINA PVD TP0005(15)P COATING MECHANISM)

PVD Coating FILM



TiAlN Coating TiAlSiN Coating

Effect of coating treatment



Cross sectional view

코팅 박막 특징 (Features of film)

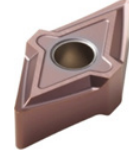
- TiAlSiN film coated (3-5 μ m)
- 내인성 증가 (Increased Toughness) + 내열성 & 내산화성 강화 (Extremely heat & oxidation -resistance)

모재 특징 (Features of substrate)

- 미립 모재 사용 (Micro-grain carbide (Under 3 μ m))
- 코발트 비율 증가로 내충격성 강화 Reinforced shock resistance due to high Cobalt

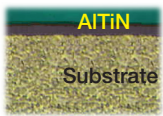
적용 피삭재 (Available workpiece)

- 스테인레스 스틸/Stainless steel (AISI 300, 400 / X,Z-□ Cr, Ni)
- 내열강 합금강 (High temp. alloy)

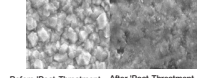


TP0105P 재종분석(New balzers PVD TP0105(15)P COATING MECHANISM)

PVD Coating FILM



Effect of coating treatment



Cross sectional view

코팅 박막 특징 (Features of film)

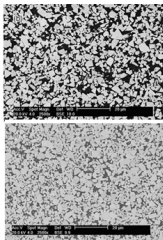
- AlTiN 코팅 박막 적용 (Enhanced AlTiN film coated (3-5 μ m))
- 내인성 증가 (Good wear resistance) + 내열성 & 내산화성 강화 (Extremely heat & oxidation -resistance)

전 / 후 처리(Special Treatment for Coating)

	Photo After Test	Adehesion Index
TP0115P		48/100
Swe S Maker		27/100
Jap K Maker		9/100
Kor T Maker		24/100

TP0005HP재종분석 (NEW PVD TP0005HP COATING MECHANISM)

TP0005HP Substrate



Sinter Hip EFFECT !!

코팅 박막 특징 (Features of film)

- 신규 박막 적용 ,AlCrN + AlCrSiN film coated (3-5 μ m)
- 내인성 증가 (Good wear resistance) + 내열성 & 내산화성 강화 (Extremely heat & oxidation -resistance)

모재 특징 (Features of substrate)

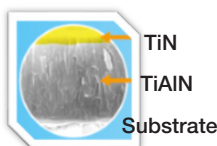
- 신테히처리, Sinter-Hip Micro-grain carbide (Under 2 μ m)
- 용착 및 소성 변형 방지 Prevent Plastic deformation & Built-up edge

적용 피삭재 (Available workpiece)

- Stainless steel AISI 300, 400 / X,Z-□ Cr, Ni
- 난삭재 (인코넬, 티타늄 합금등) Pre-hardened steel

범용 TP0025재종분석(UNIVERSAL PVD TP0025 COATING MECHANISM)

TP0025 Substrate



Structure of Coating

코팅 박막 특징 (Features of film)

- TiN + TiAlN film coated (3-5 μ m)
- 내마모성 증가 Good wear resistance + 윤활성 강화로 파손 방지 Reduce the friction due to adding TiN coating

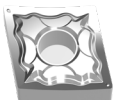
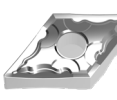
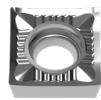
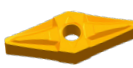
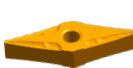
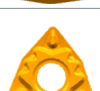
모재 특징 (Features of substrate)

- 미립 모재 사용 Micro-grain carbide (Under 3 μ m)
- 내충격성 강화 Reinforced shock resistance due to high Cobalt

적용 피삭재 (Available workpiece)

- 스테인레스 스틸/Stainless steel (AISI 300, 400 / X,Z-□ Cr, Ni)
- 내열강 합금강 (High temp. alloy)

Chipbreakers Selection / 칩브레이커 영역 (Negative / 네가티브)

	CN □□	DN □□	SN □□	TN □□	VN □□	WN □□
MA FLAT	25 	33 	40 	48 		61 
MG BOX	25 	33 	40 	48 	58 	61 
A3				48 		
AU	25 	33 	40 	48 	58 	61 
HA			40 			
GH				49 		61 
MF	25 	33 	41 	49 	58 	61 
MF2	25 	33 		49 	58 	61 
MF3	26 	34 	41 	49 	58 	61 
MF4	26 	34 		49 		62 
MM	26 	34 	41 	49 	58 	62 
MM2	26 	34 	41 	50 	59 	62 
MM3	26 					62 
MM4	27 					

TURNING

GROOVING

THREADING

MILLING

DRILLING

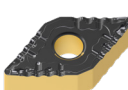
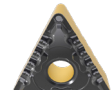
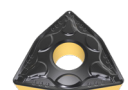
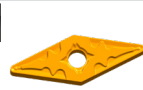
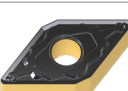
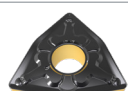
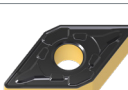
ENDMILLS

DRILLS

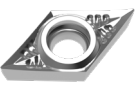
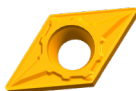
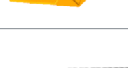
SPARE PARTS

INDEX

Chipbreakers Selection / 칩브레이커 영역 (Negative / 네가티브)

	CN □□	DN □□	SN □□	TN □□	VN □□	WN □□
MR	27 	34 	41 	50 		62 
MS	27 	35 	42 	50 	59 	62 
RB-25	27 		42 			
RH-25	27 		42 			
TQ				50 		63 
UF	28 	35 	42 	50 	59 	63 
UF1	28 	35 	43 	50 		63 
UM	28 	35 	43 	51 	59 	63 
UM1	28 	35 	43 	51 	59 	63 
UMC	29 	36 	43 	51 	60 	63 
UR	29 	36 	44 	52 		64 
UR1	29 	36 	44 	52 	60 	64 
Z						64 
L-R		33 		48 		

Chipbreakers Selection / 칩브레이커 영역(Positive / 포지티브)

	CC □□	DC □□	SC □□	TC □□	VB □□	VC □□
AU	22 	30 		45 	54 	56 
AU2C						56 
AUP						56 
GM	22 	30 		45 	54 	
MF	22 	30 			54 	
MF1	22 	31 		45 		56 
MF2	22 					
MM					54 	
MM1	23 	31 		45 	54 	56 
MM3	23 	31 			55 	
MM4					55 	
MM5	23 	31 		46 		
MR		31 				
SF		30 				

TURNING

GROOVING

THREADING

MILLING

DRILLING

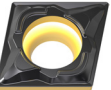
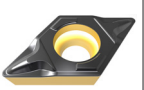
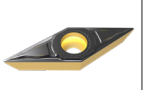
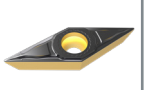
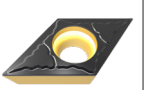
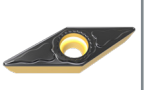
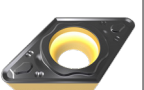
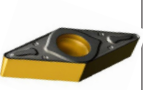
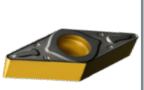
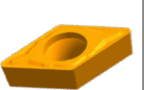
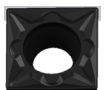
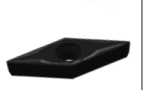
ENDMILLS

DRILLS

SPARE PARTS

INDEX

Chipbreakers Selection / 칩브레이커 영역 (Positive / 포지티브)

	CC □ □	DC □ □	SC □ □	TC □ □	VB □ □	VC □ □
SF-OK		30 				57 
SL		30 				
TQ	23 					
UF	23 	31 		46 	55 	57 
UM	24 	32 	39 	46 	55 	57 
UM2	24 	32 		47 		
UR	24 	32 	39 	47 	55 	57 
UR2	24 	32 	39 	47 	55 	

Machining Examples 가공 사례

P	탄소강(Carbon Steel / S45C)	
■ 피삭재 (Workpiece)	허브 (Hub)	
■ 절삭조건 (Cutting Conditions)	Vc (m/min)= 250	fn (mm/rev)= 0.2
	ap (mm)= 1,5	Wet
■ 형번 (Designation)	제품 (Insert)	CNMG120408-UM TC5210
	홀더 (Tool Holder)	TCLNR2525-M12
■ 결과 (Test result)		
Bar chart showing pps/corner for TC5210 (120) and competitor (80). The chart has two bars: a blue bar for TC5210 and a gray bar for the competitor. The y-axis is labeled 'pps/corner'.		
Cross-section diagram of a turned part showing a square profile with rounded corners.		

P	합금강 (Alloy Steel / SCM440)	
■ 피삭재 (Workpiece)	자동차부품(Automobile Part)	
■ 절삭조건 (Cutting Conditions)	Vc (m/min)= 250	fn (mm/rev)= 0.2
	ap (mm)= 1,5	Wet
■ 형번 (Designation)	제품 (Insert)	CNMG120408-UMC TC5220
	홀더 (Tool Holder)	TCLNR2525-M12
■ 결과 (Test result)		
Bar chart showing pps/corner for TC5220 (60) and competitor (40). The chart has two bars: a blue bar for TC5220 and a gray bar for the competitor. The y-axis is labeled 'pps/corner'.		
Cross-section diagram of a turned part showing a square profile with rounded corners.		

M	스테인레스 스틸 (SUS316L)	
■ 피삭재 (Workpiece)	밸브 (Valve)	
■ 절삭조건 (Cutting Conditions)	Vc (m/min)= 120	fn (mm/rev)= 0.2
	ap (mm)= 1,5	Wet
■ 형번 (Designation)	제품 (Insert)	CNMG120408-MM TP0115P
	홀더 (Tool Holder)	TCLNR2525-M12
■ 결과 (Test result)		
Bar chart showing pps/corner for TP0115P (30) and competitor (20). The chart has two bars: a blue bar for TP0115P and a gray bar for the competitor. The y-axis is labeled 'pps/corner'.		
Cross-section diagram of a turned part showing a square profile with rounded corners.		

K	회주철 (Gray Cast Iron / FC25)	
■ 피삭재 (Workpiece)	디스크 (Disk)	
■ 절삭조건 (Cutting Conditions)	Vc (m/min)= 350	fn (mm/rev)= 0.25
	ap (mm)= 1,5	Wet
■ 형번 (Designation)	제품 (Insert)	CNMA120408 TC4115D
	홀더 (Tool Holder)	TCLNR2525-M12
■ 결과 (Test result)		
Bar chart showing pps/corner for TC4115D (15) and competitor (11). The chart has two bars: a blue bar for TC4115D and a gray bar for the competitor. The y-axis is labeled 'pps/corner'.		
Cross-section diagram of a turned part showing a square profile with rounded corners.		

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

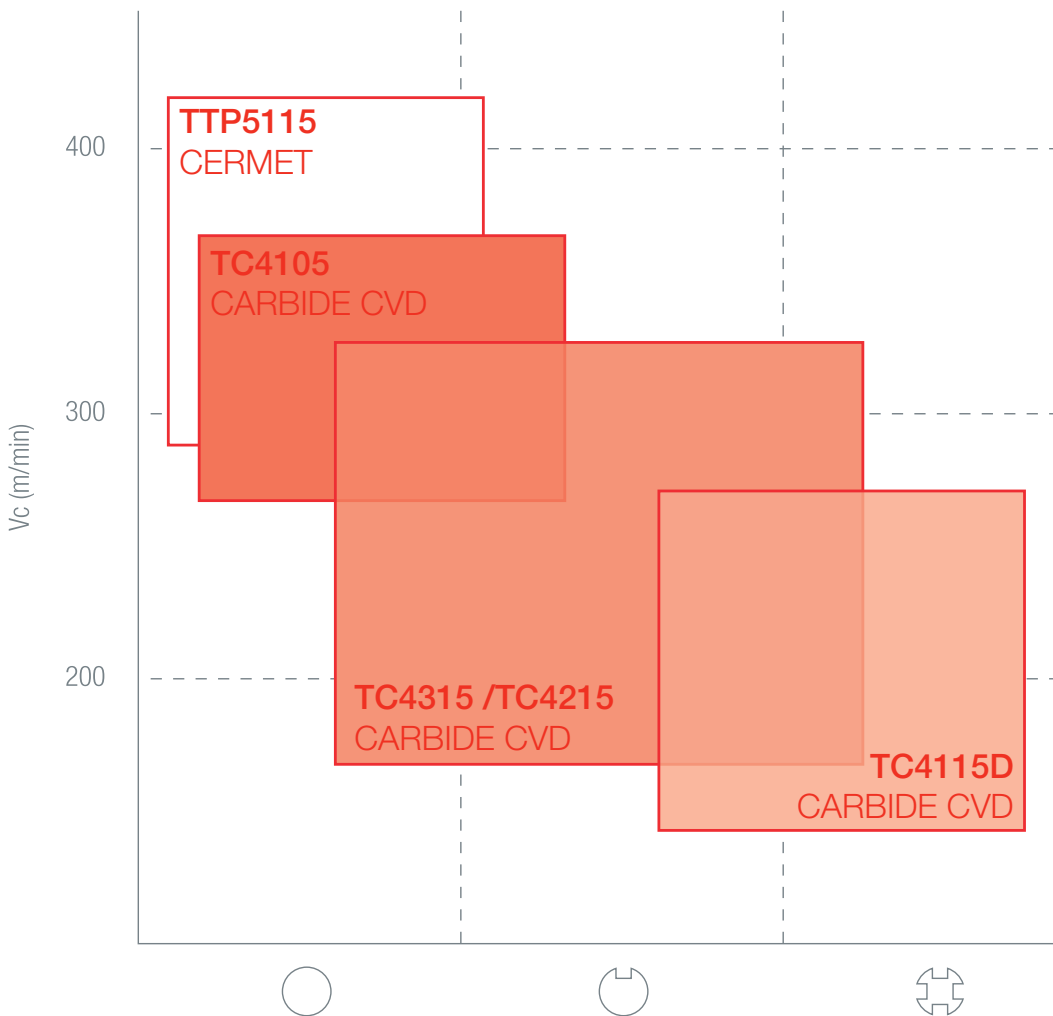
SPARE PARTS

INDEX

RANGE / 적용 영역

ISO **K** 주철

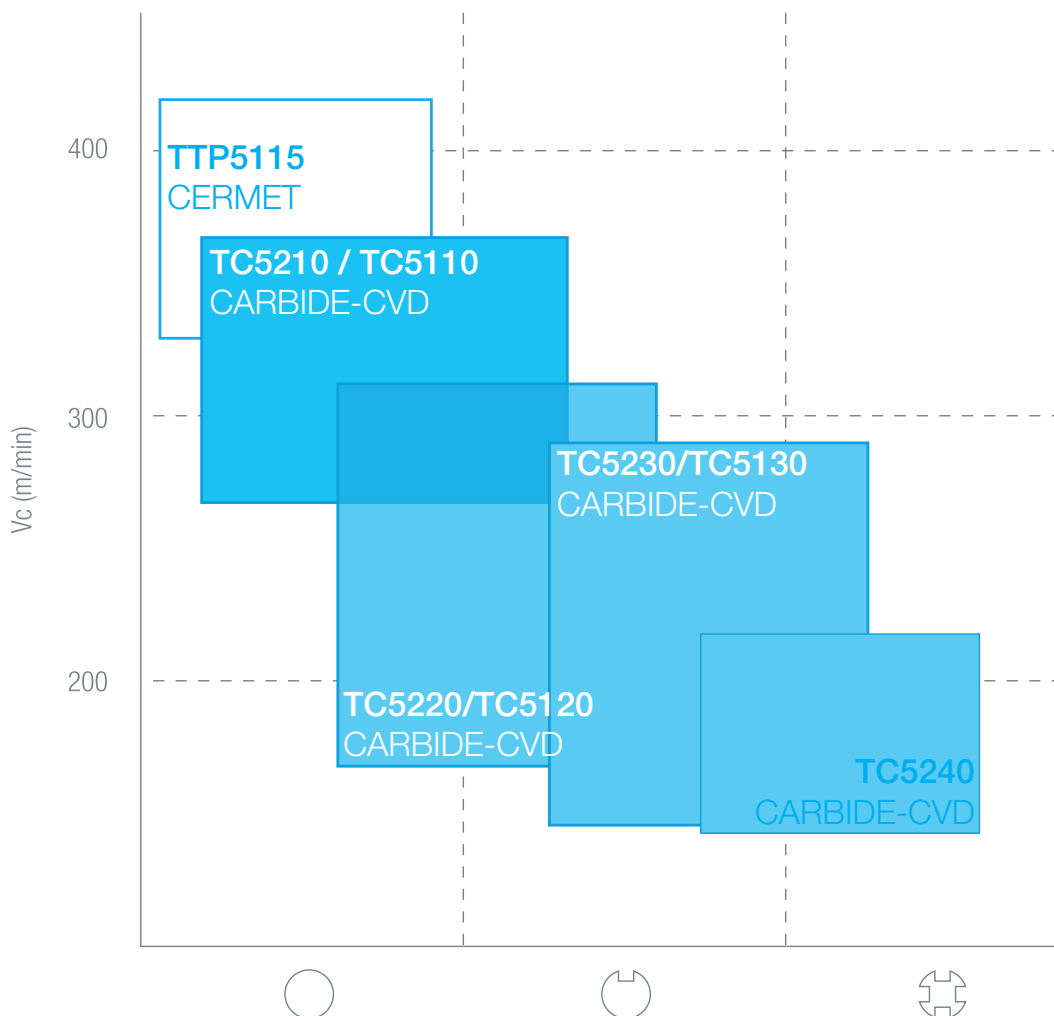
Grades / 재종



TURNING 터닝

RANGE / 적용 영역 ISO **P** 강용

Grades / 재종



TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

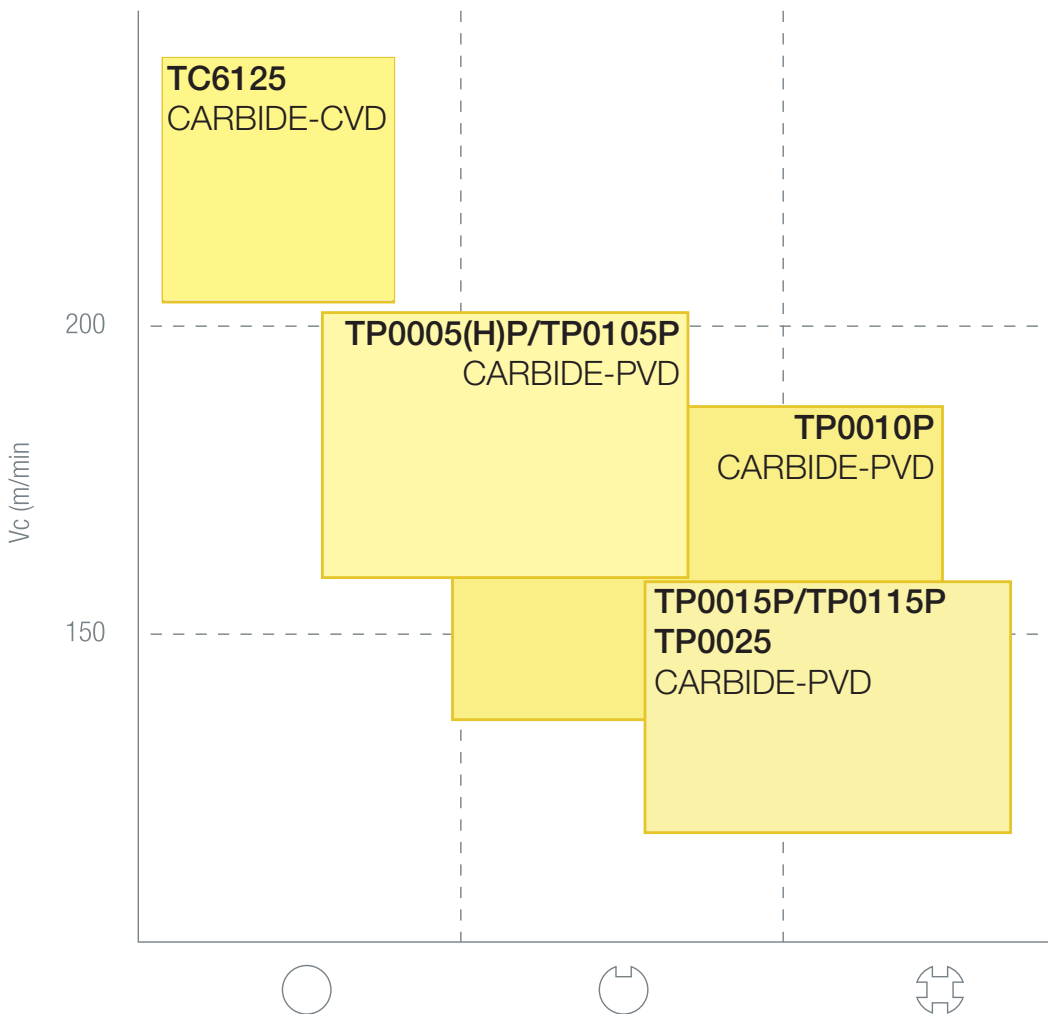
SPARE PARTS

INDEX

Range / 적용 영역

ISO **M** 스테인레스용

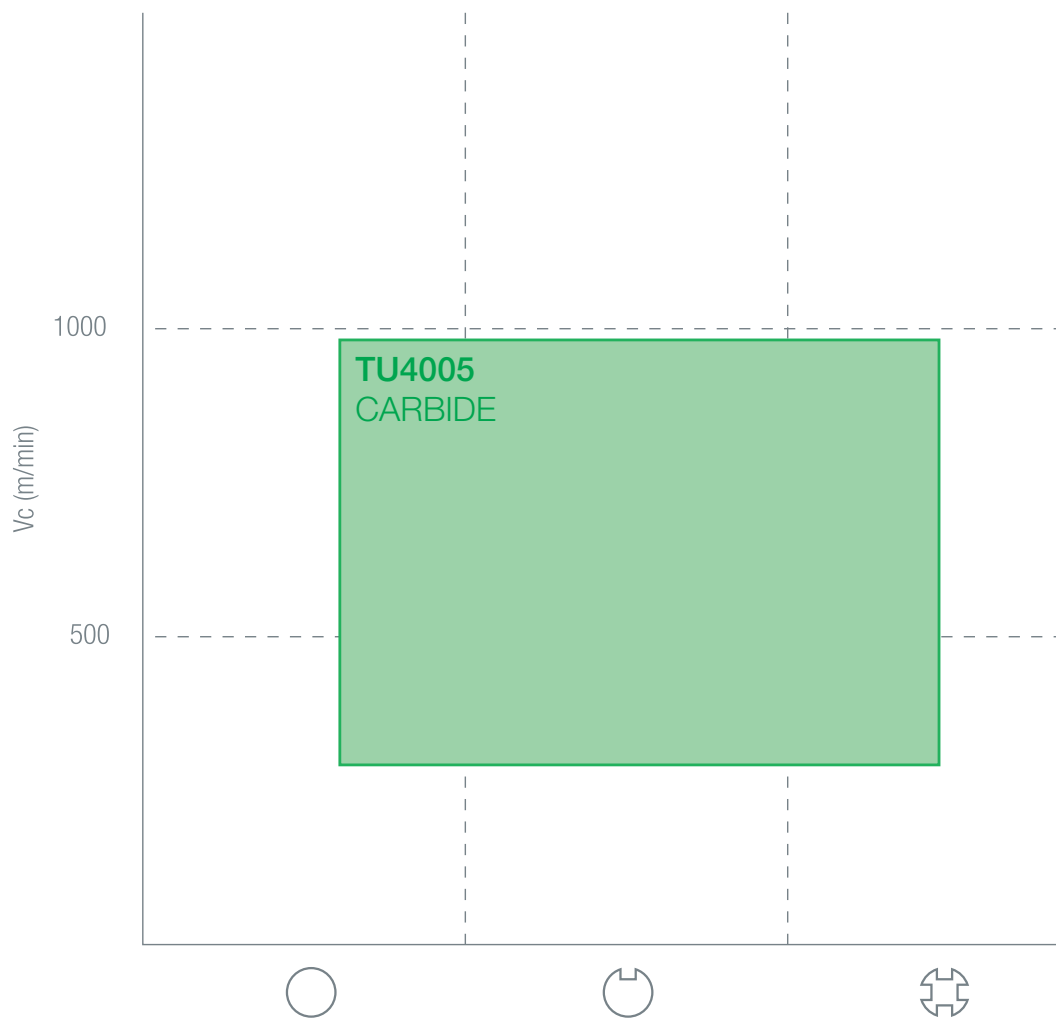
Grades / 재종



TURNING 터닝

Range / 적용 영역 ISO **N** 비철금속용

Grades / 재종



TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

SPARE PARTS

INDEX

터닝

그루브

나사

미립

인테셔널 드릴

엔드밀

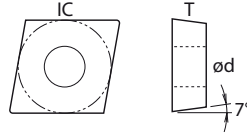
슬리드 드릴

파공

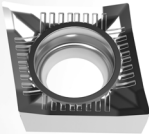
색인표

POSITIVE 7°
with hole

CC□□



CC □□	0602 □□	09T3 □□	1204 □□
IC	6,35	9,525	12,7
T	2,38	3,97	4,76
Ød	2,80	4,40	5,50
Holder	120	120	120

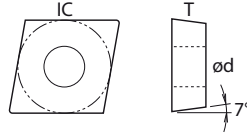
DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅						CERMET 세멧 (비코 팅,코팅)		CARBIDE 초경			
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005
		CCGT060202-AU																				●
		CCGT060204-AU																				●
		CCGT060208-AU																				●
		CCGT09T302-AU																				●
		CCGT09T304-AU																				●
		CCGT09T308-AU																				●
		CCGT120402-AU																				●
		CCGT120404-AU																				●
		CCGT120408-AU																				●
		CCMT060204-GM																				
		CCMT09T304-GM														●	●					
		CCMT09T308-GM														●	●					
		CCMT060202-MF															●					
		CCMT060204-MF															●					
		CCMT09T302-MF															●					
		CCMT060202-MF1	●		●									●	●	●						
		CCMT060204-MF1	●		●										●	●		●				
		CCMT09T302-MF1	●		●										●	●						
		CCMT09T304-MF1											●	●	●			●				
		CCMT060204-MF2												●	●							
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finishing medium roughing

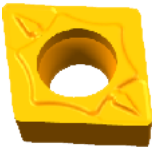
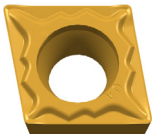
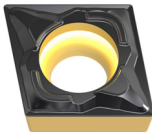
Vc ● fn ● ap 70

POSITIVE 7°
with hole

CC□□



CC □□	0602 □□	09T3 □□	1204 □□
IC	6,35	9,525	12,7
T	2,38	3,97	4,76
Ød	2,80	4,40	5,50
Holder	120	120	120

DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅							CERMET 세멧 (비코팅, 코팅)		CARBIDE 초경	
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115
		CCMT060204-MM1	●		●				●					●	●	●		●			
		CCMT060208-MM1	●		●			●	●					●	●	●		●			
		CCMT09T302-MM1			●										●	●					
		CCMT09T304-MM1	●		●			●	●	●		●		●	●	●		●			
		CCMT09T308-MM1	●		●			●	●	●		●		●	●	●		●			
		CCMT120404-MM1	●		●				●						●	●	●		●		
		CCMT120408-MM1	●		●				●						●	●	●		●		
		CCMT120412-MM1	●		●				●												
		CCMT060208-MM3													●	●					
		CCMT09T304-MM3													●			●			
		CCMT060204-MM5															●				
		CCMT060208-MM5																●			
		CCMT09T302-MM5																●			
		CCMT09T304-MM5																●			
		CCMT09T308-MM5																●			
		CCMT120404-MM5																●			
		CCMT120408-MM5																●			
		CCMT120412-MM5																●			
		CCMT060204-TQ	●		●									●	●	●					
		CCMT09T304-TQ	●		●										●	●					
		CCMT060202-UF		●		●	●														
		CCMT060204-UF		●		●	●														
		CCMT060208-UF		●		●	●														
		CCMT09T302-UF		●		●	●														



finishing



medium



roughing

Vc ● fn ● ap

70

터닝

그루브

나사

밀링

인테셔널 드릴

엔드밀

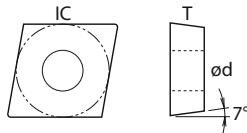
슬리드 드릴

파공

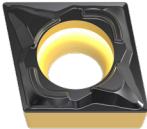
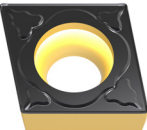
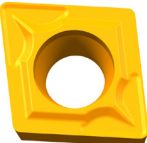
색인표

POSITIVE 7°
with hole

CC□□



CC □□	0602 □□	09T3 □□	1204 □□
IC	6,35	9,525	12,7
T	2,38	3,97	4,76
Ød	2,80	4,40	5,50
Holder	120	120	120

DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅							CERMET 세멧 (비코팅, 코팅)		CARBIDE 초경		
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005
		CCMT09T304-UF		●		●	●															
		CCMT120404-UF		●		●	●															
		CCMT120408-UF		●		●	●															
		CCMT060204-UM		●		●	●															
		CCMT060208-UM		●		●	●															
		CCMT09T302-UM		●		●	●															
		CCMT09T304-UM		●		●	●															
		CCMT09T308-UM		●		●	●															
		CCMT120404-UM		●		●	●															
		CCMT120408-UM		●		●	●															
		CCMT120412-UM		●		●	●															
		CCMT060204-UM2	●		●										●	●						
		CCMT060208-UM2	●		●											●	●					
		CCMT09T304-UM2	●		●											●	●					
		CCMT09T308-UM2	●		●											●	●					
		CCMT120404-UM2	●		●											●	●					
		CCMT120408-UM2	●		●											●	●		●			
		CCMT060208-UR				●	●															
		CCMT09T308-UR		●		●	●															
		CCMT120408-UR		●		●	●															
		CCMT120412-UR				●	●															
		CCMT060208-UR2	●		●				●						●							
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finishing



medium



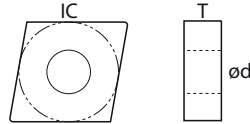
roughing

Vc ● fn ● ap

70

NEGATIVE
with hole

CN□□



CN □□	1204 □□	1606 □□	1906 □□
IC	12,7	15,875	12,7
T	4,76	6,35	4,76
ød	5,16	6,35	5,50
Holder	125	125	125

DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅							CERMET 세멧 (비코팅, 코팅)		CARBIDE 초경		
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005
		CNMA120404					●	●	●	●												
		CNMA120408						●	●	●	●											
		CNMA120412						●	●	●	●											
		CNMA160608						●	●	●	●											
		CNMA160612						●	●	●	●											
		CNMA160616						●	●	●	●											
		CNMG120404					●	●	●	●												
		CNMG120408						●	●	●	●											
		CNMG120412						●	●	●	●											
		CNMG120416						●	●	●	●											
		CNMG160608						●	●	●	●											
		CNMG160612						●	●	●	●											
		CNMG160616						●	●	●	●											
		CNMG190608						●	●	●	●											
		CNMG190612						●	●	●	●											
		CNMG190616						●	●	●	●											
		CNMG120404-AU																			●	
		CNMG120408-AU																			●	
		CNMG090308-MF															●					
		CNMG120404-MF																●				
		CNMG120408-MF																●				
		CNMG090308-MF2												●								
		CNMG120404-MF2									●			●	●							
		CNMG120408-MF2												●								



finishing



medium



roughing

Vc ● fn ● ap

66

터닝

그루브

나사

밀링

인테셔널 드릴

엔드밀

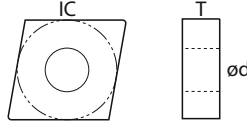
슬리드 드릴

파공

색인표

NEGATIVE
with hole

CN□□



CN □□	0904 □□	1204 □□	1606 □□
IC	9,525	12,7	15,875
T	4,76	4,76	6,35
Ød	3,81	5,16	6,35
Holder	125	125	125

DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅							CERMET 세멧 (비코팅, 코팅)		CARBIDE 초경	
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115
		CNMG090308-MF3													●	●					
		CNMG120408-MF3									●				●	●					
		CNMG120412-MF3													●	●					
		CNMG160612-MF3													●	●					
		CNMG120404-MF4								●		●		●	●						
		CNMG090408-MM															●				
		CNMG090412-MM																●			
		CNMG120404-MM	●	●	●	●	●								●	●	●				
		CNMG120408-MM	●	●	●	●	●								●	●	●				
		CNMG120412-MM		●		●	●										●				
		CNMG160608-MM		●		●	●										●				
		CNMG160612-MM															●				
		CNMG160616-MM															●				
		CNMG190608-MM															●				
		CNMG190612-MM															●				
		CNMG120404-MM2	●		●					●				●	●		●				
		CNMG120408-MM2	●		●						●				●	●					
		CNMG120404-MM3												●			●				
		CNMG120408-MM3													●			●			



finishing



medium



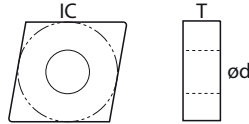
roughing

Vc ● fn ● ap

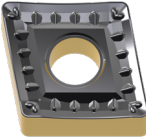
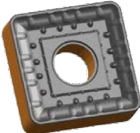
66

NEGATIVE
with hole

CN□□



CN □□	1204 □□	1606 □□	1906 □□
IC	12,7	15,875	12,7
T	4,76	6,35	4,76
Ød	5,16	6,35	5,50
Holder	125	125	125

DESCRIPTION 형번			CARBIDE-CVD CVD코팅											CARBIDE-PVD PVD코팅						CERMET 세멧 (비코 팅,코팅)		CARBIDE 초경	
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005	
		CNMG120408-MM4										●		●	●								
		CNMG120412-MM4											●		●	●							
		CNMG120408-MR															●						
		CNMG120412-MR																●					
		CNMG160616-MR																●					
		CNMG160624-MR																●					
		CNMG190612-MR																●					
		CNMG190616-MR																●					
		CNMG120404-MS													●	●		●					
		CNMM190612-RB25				●	●																
		CNMM190616-RB25				●	●																
		CNMM190624-RB25				●	●																
		CNMM250724-RB25				●	●																
		CNMM250924-RB25				●	●																
		CNMM190612-RH25				●	●																
		CNMM190616-RH25				●	●																
		CNMM190624-RH25				●	●																
		CNMM250724-RH25				●	●																
		CNMM250924-RH25				●	●																



finishing



medium



roughing

Vc ● fn ● ap

66

터닝

그루브

나사

밀링

인테셔널 드릴

엔드밀

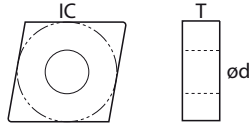
슬리드 드릴

파공

색인표

NEGATIVE
with hole

CN□□



CN □□	0904 □□	1204 □□	1606 □□
IC	9,525	12,7	15,875
T	4,76	4,76	6,35
Ød	3,81	5,16	6,35
Holder	125	125	125

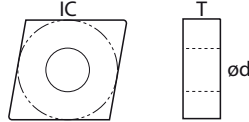
DESCRIPTION 형번			CARBIDE-CVD CVD코팅										CARBIDE-PVD PVD코팅						CERMET 세멧 (비코팅,코팅)		CARBIDE 초경	
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005
		CNMG090304-UF		●		●	●															
		CNMG090308-UF		●		●	●															
		CNMG120404-UF		●		●	●															
		CNMG120408-UF		●		●	●															
		CNMG120412-UF				●	●															
		CNMG090408-UF1			●																	
		CNMG120404-UF1	●		●																	
		CNMG120408-UF1	●		●																	
		CNMG090304-UM		●		●	●															
		CNMG090308-UM		●		●	●															
		CNMG120404-UM		●		●	●															
		CNMG120408-UM		●		●	●															
		CNMG120412-UM		●		●	●															
		CNMG160608-UM		●		●	●															
		CNMG160612-UM		●		●	●															
		CNMG160616-UM		●		●	●															
		CNMG190608-UM		●		●	●															
		CNMG190612-UM		●		●	●															
		CNMG190616-UM		●		●	●															
		CNMG090408-UM1			●																	
		CNMG090412-UM1			●																	
		CNMG120404-UM1	●		●			●						●	●	●						
		CNMG120408-UM1	●		●			●							●	●						
		CNMG120412-UM1	●		●																	
		CNMG160608-UM1						●														
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finishing medium roughing

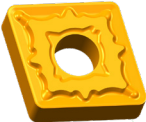
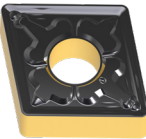
Vc ● fn ● ap 66

NEGATIVE
with hole

CN□□



CN □□	1204 □□	1606 □□	1906 □□
IC	12,7	15,875	12,7
T	4,76	6,35	4,76
Ød	5,16	6,35	5,50
Holder	125	125	125

DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅								CERMET 세멧 (비코팅, 코팅)		CARBIDE 조경	
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005
		CNMG190608-UM1			●										●							
		CNMG190612-UM1			●											●						
		CNMG190616-UM1			●																	
		CNMG120404-UMC	●	●	●	●	●															
		CNMG120408-UMC	●	●	●	●	●															
		CNMG120412-UMC	●	●	●	●	●															
		CNMG160608-UMC	●	●	●	●	●															
		CNMG120408-UR		●		●	●															
		CNMG120412-UR		●		●	●															
		CNMG120416-UR				●	●															
		CNMG160612-UR		●		●	●															
		CNMG160608-UR				●	●															
		CNMG160612-UR		●		●	●															
		CNMG160616-UR		●		●	●															
		CNMG160624-UR		●		●	●															
		CNMG190612-UR		●		●	●															
CNMG190616-UR				●	●																	
		CNMG120408-UR1	●		●			●							●							
		CNMG120412-UR1			●			●	●													
		CNMG160612-UR1	●		●			●								●						
		CNMG160616-UR1	●		●			●														
		CNMG160624-UR1			●																	
		CNMG190612-UR1	●		●			●														
		CNMG190616-UR1	●		●			●								●						
		CNMG190624-UR1			●																	



finishing



medium



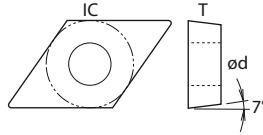
roughing

Vc ● fn ● ap

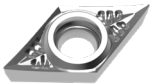
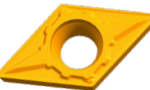
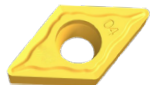
66

POSITIVE 7°
with hole

DC□□



DC□□	0702□□	11T3□□
IC	6,35	9,525
T	2,38	3,97
Ød	2,80	4,40
Holder	133	133

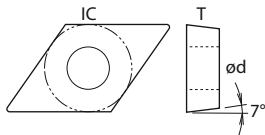
DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅						CERMET 세멧 (비코 팅,코팅)		CARBIDE 초경			
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005
		DCGT070202-AU																				●
		DCGT070204-AU																				●
		DCGT070208-AU																				●
		DCGT11T302-AU																				●
		DCGT11T304-AU																				●
		DCGT11T308-AU																				●
		DCGT11T312-AU																				●
		DCGT11T302-SF																				
		DCGT11T304-SF																				
		DCGT11T302-SF-OK									●			●								
		DCGT11T304-SF-OK										●			●							
		DCGT11T302-SL																				
		DCGT11T304-SL																				
		DCMT11T304-GM												●	●							
		DCMT11T308-GM													●	●						
		DCMT070202-MF															●					
		DCMT070204-MF																●				
		DCMT11T302-MF																●				
		DCMT11T304-MF																●				

finishing medium roughing

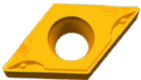
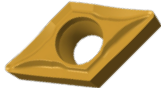
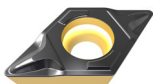
Vc ● fn ● ap 70

POSITIVE 7°
with hole

DC□□



DC□□	0702□□	11T3□□
IC	6,35	9,525
T	2,38	3,97
ød	2,80	4,40
Holder	133	133

DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅							CERMET 세멧 (비코 팅,코팅)		CARBIDE 초경	
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115
		DCMT070202-MF1			●										●	●					
		DCMT070204-MF1			●											●	●				
		DCMT11T302-MF1			●											●					
		DCMT11T304-MF1	●		●											●	●				
		DCMT070204-MM1	●		●										●	●					
		DCMT070208-MM1	●		●										●	●					
		DCMT11T304-MM1	●		●				●						●	●		●			
		DCMT11T308-MM1	●		●			●	●						●	●		●			
		DCMT11T304-MM3													●			●			
		DCMT070204-MM5															●				
		DCMT070208-MM5															●				
		DCMT11T302-MM5															●				
		DCMT11T304-MM5															●				
		DCMT11T308-MM5															●				
		DCMT11T304-MR															●				
		DCMT11T308-MR															●				
		DCMT070202-UF		●		●	●														
		DCMT070204-UF		●		●	●														
		DCMT11T302-UF		●		●	●														
		DCMT11T304-UF		●		●	●														
		DCMT11T308-UF		●		●	●														



finishing



medium



roughing

Vc ● fn ● ap

70

터닝

그루브

나사

미립

인테서블 드릴

엔드밀

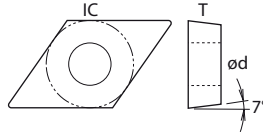
슬리드 드릴

파공

색인표

POSITIVE 7°
with hole

DC□□



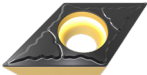
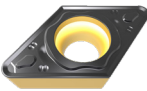
DC□□ 0702□□ 11T3□□

IC 6,35 9,525

T 2,38 3,97

Ød 2,80 4,40

Holder 133 133

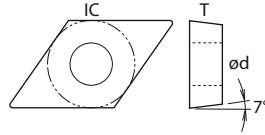
DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅							CERMET 세멧 (비코 팅,코팅)		CARBIDE 초경	
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115
		DCMT070204-UM		●		●	●														
		DCMT070208-UM		●		●	●														
		DCMT11T302-UM		●		●	●														
		DCMT11T304-UM		●		●	●														
		DCMT11T308-UM		●		●	●														
		DCMT11T312-UM		●		●	●														
		DCMT11T304-UM2	●		●										●	●					
		DCMT11T308-UM2	●		●										●	●					
		DCMT11T304-UR				●	●														
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finishing medium roughing

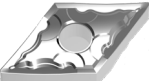
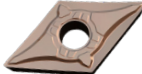
Vc ● fn ● ap 70

NEGATIVE
with hole

DN□□



DN □□	1104 □□	1504 □□	1506 □□
IC	9,525	12,7	12,7
T	4,76	4,76	6,35
Ød	3,81	5,16	5,16
Holder	142	142	142

DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅						CERMET 세멧 (비코팅, 코팅)		CARBIDE 초경			
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005
		DNMA150608					●	●	●	●												
		DNMA150612					●	●	●	●												
		DNMA150616					●	●	●	●												
		DNMG110408					●	●	●	●												
		DNMG150404					●	●	●	●												
		DNMG150408					●	●	●	●												
		DNMG150412					●	●	●	●												
		DNMG150604					●	●	●	●												
		DNMG150608					●	●	●	●												
		DNMG150612					●	●	●	●												
		DNMG150616					●	●	●	●												
		DNMX150604L	●		●									●								
		DNMX150604R	●		●									●								
		DNMX150608L	●		●									●								
		DNMX150608R	●		●									●								
		DNMG150404-AU																			●	
		DNMG150408-AU																			●	
		DNMG150604-AU																			●	
		DNMG150608-AU																			●	
		DNMG150604-MF															●					
		DNMG150608-MF															●					
		DNMG110404-MF2												●								
		DNMG150404-MF2	●		●							●		●								
		DNMG150408-MF2																				



finishing



medium



roughing

Vc ● fn ● ap

66

터닝

그루브

나사

밀링

인테셔널 드릴

엔드밀

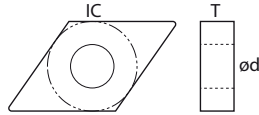
슬리드 드릴

파공

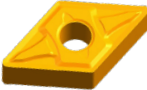
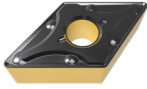
색인표

NEGATIVE
with hole

DN□□



DN □□	1104 □□	1504 □□	1506 □□
IC	9,525	12,7	12,7
T	4,76	4,76	6,35
Ød	3,81	5,16	5,16
Holder	142	142	142

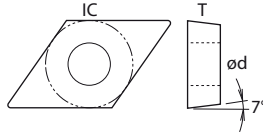
DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅							CERMET 세멧 (비코 팅,코팅)		CARBIDE 초경		
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005
		DNMG150408-MF3									●				●	●						
		DNMG150608-MF3										●				●	●					
		DNMG150604-MF4													●	●						
		DNMG150608-MF4														●	●					
		DNMG110404-MM															●					
		DNMG110408-MM		●		●	●											●				
		DNMG150404-MM		●		●	●											●				
		DNMG150408-MM																●				
		DNMG150412-MM																●				
		DNMG150604-MM		●		●	●											●				
		DNMG150608-MM		●		●	●											●				
		DNMG150612-MM																●				
		DNMG110404-MM2	●		●										●							
		DNMG110408-MM2	●		●											●	●					
		DNMG150404-MM2										●				●	●					
		DNMG150408-MM2										●				●	●					
		DNMG150604-MM2	●		●											●	●					
		DNMG150608-MM2	●		●											●	●		●			
		DNMG150612-MM2														●	●					
		DNMG150412-MR															●					
		DNMG150608-MR																●				
		DNMG150612-MR																●				



66

NEGATIVE
with hole

DN□□



DN □□	1104 □□	1504 □□	1506 □□
IC	9,525	12,7	12,7
T	4,76	4,76	6,35
Ød	3,81	5,16	5,16
Holder	142	142	142

DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅								CERMET 세멧 (비코팅, 코팅)		CARBIDE 조경
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115
		DNMG150604-MS													●	●					
		DNMG150608-MS														●	●				
		DNMG150404-UF		●		●	●														
		DNMG150408-UF		●		●	●														
		DNMG150604-UF		●		●	●														
		DNMG150608-UF		●		●	●														
		DNMG150612-UF		●		●	●														
		DNMG150404-UF1	●		●																
		DNMG150408-UF1	●		●																
		DNMG150604-UF1	●		●																
		DNMG150608-UF1	●		●																
		DNMG110404-UM		●		●	●														
		DNMG110408-UM		●		●	●								●	●					
		DNMG150404-UM		●		●	●		●		●										
		DNMG150408-UM		●		●	●		●		●		●					●			
		DNMG150412-UM		●		●	●		●												
		DNMG150604-UM		●		●	●		●												
		DNMG150608-UM		●		●	●		●												
		DNMG150612-UM		●		●	●														
		DNMG110404-UM1	●					●													
		DNMG110408-UM1	●		●																
		DNMG110412-UM1	●		●																
		DNMG150404-UM1	●		●																



finishing



medium



roughing

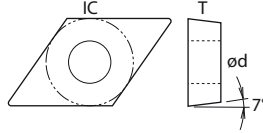
Vc ● fn ● ap

66

NEGATIVE with hole

DN□□

55



DN □□	1104 □□	1504 □□	1506 □□
IC	9,525	12,7	12,7
T	4,76	4,76	6,35
Ød	3,81	5,16	5,16
 Holder 			

[illegible]

finishing



medium



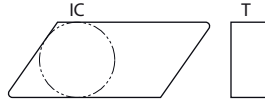
roughing

Vc • fn • ap

66

NEGATIVE
without hole

KN□□



KN□□ 1604□□

IC 9,525

T 4,76



TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

SPARE
PARTS

INDEX

DESCRIPTION
형번CARBIDE-CVD
CVD코팅CARBIDE-PVD
PVD코팅CERMET
세멧 (비코
팅,코팅)CARBIDE
초경

TC5110

TC5210

TC5120

TC5220

TC5230

TC4105

TC4115D

TC4215

TC4315

TC6125

TP0005P

TP0105P

TP0010P

TP0015P

TP0115P

TP0025

TP0005HP

TT5115

TTP5115

TU4005

KNUX160405L11

KNUX160405R11

KNUX160410L11

KNUX160410R11

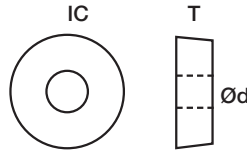
finishing
 medium
 roughing

Vc ● fn ● ap 66

POSITIVE 7°
with hole

RC□□

360



RC □□	0602 □□	0803 □□	10T3 □□
IC	6,0	8,0	10,0
T	2,36	3,18	3,18
Ød	2,80	3,35	3,60
 Holder 			

[illegible]

finishing



medium



roughing

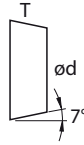
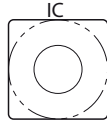
Vc • fn • ap

70

**POSITIVE 7°
with hole**

SC ☐ ☐

90



SC □□	09T3 □□	1204 □□
IC	9,525	12,7
T	3,97	4,76
Ød	4,40	5,16
	154	154

TURNING

[illegible]

finishing



medium



roughing

Vc • fn • ap

70

터닝

그루브

나사

밀링

인테서블 드릴

엔드밀

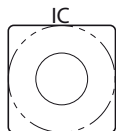
솔리드 드릴

바분

색인표

NEGATIVE
with hole

SN□□



SN □□	1204□□	1206□□	1506□□
IC	12,7	12,7	15,875
T	4,76	6,35	6,35
ød	5,16	5,16	6,35
Holder	156	156	156

DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅						CERMET 세멧 (비코 팅,코팅)		CARBIDE 초경			
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005
		SNMA120408					●	●	●	●												
		SNMA120412					●	●	●	●												
		SNMA120416					●	●	●	●												
		SNMA150608					●	●	●	●												
		SNMA150612					●	●	●	●												
		SNMA190608					●	●	●	●												
		SNMA190612					●	●	●	●												
		SNMG120404					●	●	●	●												
		SNMG120408					●	●	●	●												
		SNMG120412					●	●	●	●												
		SNMG120416					●	●	●	●												
		SNMG150608					●	●	●	●												
		SNMG150612					●	●	●	●												
		SNMG190608					●	●	●	●												
		SNMG190612					●	●	●	●												
		SNMG190616					●	●	●	●												
		SNMG190624					●	●	●	●												
		SNMG120404-AU																			●	
		SNMG120408-AU																			●	
		SNMG120404-HA												●	●							



finishing



medium



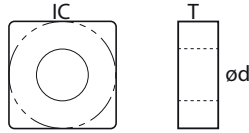
roughing

Vc ● fn ● ap

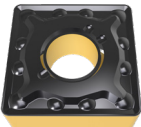
66

NEGATIVE
with hole

SN □□



SN □□	1906 □□	2507 □□	2509 □□
IC	19,05	25,4	25,4
T	6,35	7,94	9,52
Ød	7,93	9,12	9,12
Holder	156	156	156

DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅						CERMET 세멧 (비크 팅,코팅)		CARBIDE 초경				
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005	
		SNMG120408-MF															●						
		SNMG120408-MF3									●				●	●							
		SNMG120404-MM															●						
		SNMG120408-MM																●					
		SNMG120412-MM																●					
		SNMG150608-MM																●					
		SNMG150612-MM																●					
		SNMG190608-MM																●					
		SNMG190612-MM																●					
		SNMG190616-MM																●					
		SNMG120404-MM2									●				●								
		SNMG120408-MM2										●	●	●	●	●		●					
		SNMG120412-MM2												●	●	●							
		SNMG150608-MM2													●								
		SNMG120408-MR															●						
		SNMG120412-MR															●						
		SNMG150612-MR															●						
		SNMG190612-MR															●						
		SNMG190616-MR															●						



finishing



medium



roughing

Vc ● fn ● ap

66

터닝

그루브

나사

밀링

인테셔널 드릴

엔드밀

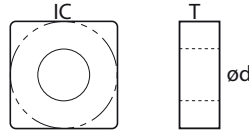
슬리드 드릴

파공

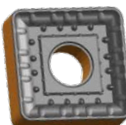
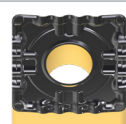
색인표

NEGATIVE
with hole

SN□□



SN □□	1204□□	1206 □□	1506 □□
IC	12,7	12,7	15,875
T	4,76	6,35	6,35
Ød	5,16	5,16	6,35
Holder	156	156	156

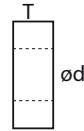
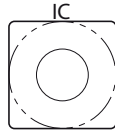
DESCRIPTION 형번			CARBIDE-CVD CVD코팅										CARBIDE-PVD PVD코팅						CERMET 세멧 (비코팅, 코팅)		CARBIDE 초경	
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005
		SNMG120404-MS														●	●					
		SNMG120408-MS														●	●	●				
		SNMM150612-RB25					●	●														
		SNMM150616-RB25					●	●														
		SNMM190612-RB25					●	●														
		SNMM190616-RB25					●	●														
		SNMM190624-RB25					●	●														
		SNMM250724-RB25					●	●														
		SNMM250732-RB25					●	●														
		SNMM250924-RB25					●	●														
		SNMM150612-RH25					●	●														
		SNMM150616-RH25					●	●														
		SNMM190612-RH25					●	●														
		SNMM190616-RH25					●	●														
		SNMM190624-RH25					●	●														
		SNMM250724-RH25					●	●														
		SNMM250732-RH25					●	●														
		SNMM250924-RH25					●	●														
		SNMG120404-UF		●		●	●															
		SNMG120408-UF		●		●	●															
		SNMG120412-UF		●		●	●															

 finishing  medium  roughing

Vc ● fn ● ap  66

NEGATIVE
with hole

SN □□



SN □□	1906 □□	2507 □□	2509 □□
IC	19,05	25,4	25,4
T	6,35	7,94	9,52
Ød	7,93	9,12	9,12
Holder	156	156	156

DESCRIPTION 형번			CARBIDE-CVD CVD코팅										CARBIDE-PVD PVD코팅						CERMET 세멧 (비코 팅,코팅)	CARBI- DE 초경	
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115
		SNMG120408-UF1	●		●																
		SNMG090304-UM		●		●	●														
		SNMG120404-UM		●		●	●														
		SNMG120408-UM		●		●	●														
		SNMG120412-UM		●		●	●														
		SNMG150608-UM		●		●	●														
		SNMG150612-UM		●		●	●														
		SNMG190608-UM		●		●	●														
		SNMG190612-UM		●		●	●														
		SNMG190616-UM		●		●	●														
		SNMG120404-UM1	●		●				●												
		SNMG120408-UM1	●		●				●						●			●			
		SNMG120412-UM1	●		●				●						●			●			
		SNMG150608-UM1	●		●																
		SNMG150612-UM1	●		●																
		SNMG190608-UM1	●		●																
		SNMG190612-UM1			●											●					
		SNMG120408-UMC														●	●				
		SNMG120412-UMC		●		●	●								●	●					



finishing



medium



roughing

Vc • fn • ap

66

터닝

그루브

나사

미립

인테셔널 드릴

엔드밀

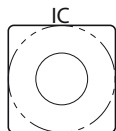
슬리드 드릴

파공

색인표

NEGATIVE
with hole

SN□□



SN □□	1204□□	1206 □□	1506 □□
IC	12,7	12,7	15,875
T	4,76	6,35	6,35
Ød	5,16	5,16	6,35
Holder	156	156	156

DESCRIPTION
형번

CARBIDE-CVD
CVD코팅

CARBIDE-PVD
PVD코팅

CERMET
세멧 (비코
팅,코팅)

CARBIDE
초경

TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TPP5115	TU4005
--------	--------	--------	--------	--------	--------	---------	--------	--------	--------	---------	---------	---------	---------	---------	--------	----------	--------	---------	--------



SNMG120408-UR		●		●	●														
SNMG120412-UR		●		●	●														
SNMG150608-UR		●		●	●														
SNMG150612-UR				●	●														
SNMG190608-UR		●		●	●														
SNMG190608-UR		●		●	●														
SNMG190612-UR		●		●	●														
SNMG190616-UR				●	●														
SNMG190624-UR				●	●														
SNMG120408-UR1	●		●			●													
SNMG120412-UR1	●		●			●													
SNMG150612-UR1			●			●													
SNMG190612-UR1	●		●			●							●						
SNMG190616-UR1	●		●			●													
SNMG190624-UR1			●																



finishing



medium



roughing

Vc ● fn ● ap



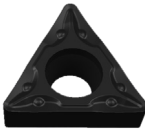
66

POSITIVE 7°
with hole

TC □□



TC □□	0902□□	1102□□	16T3□□
IC	5,56	6,35	9,525
T	2,38	2,38	3,97
Ød	2,50	2,80	4,40
Holder	163	163	163

DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅						CERMET 세멧 (비코팅, 코팅)	CARBIDE 초경				
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005
		TCGT090202-AU																				●
		TCGT090204-AU																				●
		TCGT090208-AU																				●
		TCGT110202-AU																				●
		TCGT110204-AU																				●
		TCGT110208-AU																				●
		TCGT16T302-AU																				●
		TCGT16T304-AU																				●
		TCGT16T308-AU																				●
		TCMT16T304-GM													●							
		TCMT16T308-GM														●						
		TCMT090204-MF1													●							
		TCMT110202-MF1			●											●						
		TCMT110204-MF1	●		●								●	●	●	●						
		TCMT16T304-MF1	●		●										●	●						
		TCMT090204-MM1	●		●										●	●						
		TCMT090208-MM1	●		●										●	●						
		TCMT110204-MM1	●		●				●						●	●						
		TCMT110208-MM1	●		●									●	●	●						
		TCMT16T304-MM1	●		●			●	●		●				●	●						
		TCMT16T308-MM1	●		●				●						●	●						



finishing



medium



roughing

Vc ● fn ● ap

70

POSITIVE 7°
with hole

TC □□



TC □□	0902□□	1102□□	16T3□□
IC	5,56	6,35	9,525
T	2,38	2,38	3,97
Ød	2,50	2,80	4,40
Holder	163	163	163

DESCRIPTION
형번

CARBIDE-CVD
CVD코팅

CARBIDE-PVD
PVD코팅

CERMET
세멧 (비코
팅, 코팅)

CARBIDE
초경

TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TT5115	TU4005
TCMT090204-MM5															●				
TCMT110204-MM5															●				
TCMT110208-MM5															●				
TCMT16T304-MM5															●				
TCMT16T308-MM5															●				
TCMT16T312-MM5															●				
TCMT090204-UF	●		●	●															
TCMT110204-UF	●		●	●															
TCMT110208-UF	●		●	●															
TCMT16T304-UF	●		●	●															
TCMT16T308-UF	●		●	●															
TCMT090204-UM	●		●	●															
TCMT090208-UM	●		●	●															
TCMT110204-UM	●		●	●															
TCMT110208-UM	●		●	●															
TCMT110304-UM	●		●	●															
TCMT110308-UM	●		●	●															
TCMT16T304-UM	●		●	●															
TCMT16T308-UM	●		●	●															
TCMT16T312-UM	●		●	●															
TCMT220408-UM			●	●															



finishing



medium



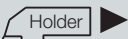
roughing

Vc ● fn ● ap

70

**POSITIVE 7°
with hole**

TC ☐ ☐

TC □□	0902 □□	1102 □□	16T3 □□
IC	5,56	6,35	9,525
T	2,38	2,38	3,97
Ød	2,50	2,80	4,40
			

[illegible]

finishing



medium



roughing

Vc • fn • ap



70

터닝

그루브

나사

밀링

인테셔널 드릴

엔드밀

슬리드 드릴

파공

색인표

NEGATIVE
with hole

TN □□



TN □□	1604□□	2204□□	2706□□
IC	9,525	12,7	15,875
T	4,76	4,76	6,35
ød	3,81	5,16	6,35
Holder	170	170	170

DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅							CERMET 세멧 (비코팅, 코팅)		CARBIDE 초경		
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005
		TNMA160408					●	●	●	●												
		TNMA160412						●	●	●	●											
		TNMA160416						●	●	●	●											
		TNMA220408						●	●	●	●											
		TNMA220412						●	●	●	●											
		TNMA220416						●	●	●	●											
		TNMG160404					●	●	●	●												
		TNMG160408						●	●	●	●											
		TNMG160412						●	●	●	●											
		TNMG160416						●	●	●	●											
		TNMG220408						●	●	●	●											
		TNMG220412						●	●	●	●											
		TNMG220416						●	●	●	●											
		TNMG270612							●		●											
TNMG270616							●		●													
		TNMG160404L	●	●	●	●	●							●	●	●	●	●				
		TNMG160404R	●	●	●	●	●							●	●	●	●	●				
		TNMG160408L	●	●	●	●	●							●	●	●	●	●				
		TNMG160408R	●	●	●	●	●							●	●	●	●	●				
		TNMG160404L-A3				●	●							●	●		●					
		TNMG160404R-A3				●	●								●	●		●				
		TNMG160408L-A3				●	●								●	●		●				
		TNMG160408R-A3				●	●								●	●		●				
		TNMG160404-AU																			●	
		TNMG160408-AU																			●	
		TNMG220404-AU																			●	
		TNMG220408-AU																			●	



finishing



medium



roughing

Vc ● fn ● ap

66

NEGATIVE
with hole

TN □□



TN □□	1604□□	2204□□	2706□□
IC	9,525	12,7	15,875
T	4,76	4,76	6,35
Ød	3,81	5,16	6,35
Holder	170	170	170

DESCRIPTION 형번			CARBIDE-CVD CVD코팅										CARBIDE-PVD PVD코팅						CERMET 세멧 (비코 팅,코팅)		CARBIDE 초경	
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005
		TNMG160408-GH							●		●											
		TNMG220412-GH							●		●											
		TNMG220416-GH							●	●	●											
		TNMG160404-MF															●					
		TNMG160408-MF															●					
		TNMG160404-MF2	●		●									●	●	●		●				
		TNMG160408-MF2													●							
		TNMG160408-MF3	●		●						●			●	●							
		TNMG160412-MF3													●							
		TNMG160404-MF4													●	●		●				
		TNMG160404-MM	●	●	●	●	●				●				●	●	●	●				
		TNMG160408-MM	●	●	●	●	●							●	●	●	●	●				
		TNMG160412-MM		●		●	●											●				
		TNMG160416-MM																●				
		TNMG220404-MM																●				
		TNMG220408-MM																●				
		TNMG220412-MM																●				



finishing



medium



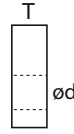
roughing

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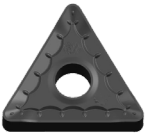
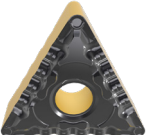
66

NEGATIVE
with hole

TN □□



TN □□	1604 □□	2204 □□	2706 □□
IC	9,525	12,7	15,875
T	4,76	4,76	6,35
ød	3,81	5,16	6,35
Holder	170	170	170

DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅							CERMET 세멧 (비코팅, 코팅)		CARBIDE 초경	
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115
		TNMG160404-MM2	●		●								●	●	●		●				
		TNMG160408-MM2	●		●							●			●	●		●			
		TNMG220404-MM2											●	●	●			●			
		TNMG220408-MM2			●										●	●					
		TNMG220412-MM2														●					
		TNMG160412-MR														●					
		TNMG220412-MR														●					
		TNMG160404-MS									●	●	●	●							
		TNMG160408-MS										●	●	●	●	●					
		TNMG160404-TQ	●												●	●					
		TNMG160408-TQ			●										●	●					
		TNMG160404-UF		●		●	●														
		TNMG160408-UF		●		●	●														
		TNMG160412-UF		●		●	●														
		TNMG220404-UF		●		●	●														
		TNMG220408-UF		●		●	●														
		TNMG160404-UF1	●		●								●	●			●				
		TNMG160408-UF1			●										●	●					

finishing medium roughing

Vc ● fn ● ap 66

NEGATIVE
with hole

TN □□



TN □□	1604□□	2204□□	2706□□
IC	9,525	12,7	15,875
T	4,76	4,76	6,35
ød	3,81	5,16	6,35
Holder	170	170	170

DESCRIPTION 형번			CARBIDE-CVD CVD코팅											CARBIDE-PVD PVD코팅						CERMET 세멧 (비코 팅,코팅)		CARBIDE 초경	
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005	
		TNMG160404-UM		●		●	●																
		TNMG160408-UM		●		●	●																
		TNMG160412-UM		●		●	●																
		TNMG220404-UM		●		●	●																
		TNMG220408-UM		●		●	●																
		TNMG220412-UM		●		●	●																
		TNMG160404-UM1	●		●							●		●		●		●					
		TNMG160408-UM1	●		●				●						●				●				
		TNMG160412-UM1	●		●										●								
		TNMG160416-UM1	●		●											●							
		TNMG220404-UM1	●		●																		
		TNMG220408-UM1	●		●				●							●							
		TNMG220412-UM1			●																		
		TNMG160404-UMC	●	●	●	●	●		●	●													
		TNMG160408-UMC	●	●	●	●	●		●	●													
		TNMG160412-UMC	●	●	●	●	●		●	●													
		TNMG220404-UMC		●		●	●																
		TNMG220408-UMC		●		●	●																
		TNMG220412-UMC		●		●	●																



finishing



medium



roughing

Vc • fn • ap

66

NEGATIVE with hole

TN 00

60



TN □□	1604 □□	2204 □□	2706 □□
IC	9,525	12,7	15,875
T	4,76	4,76	6,35
Ød	3,81	5,16	6,35
 Holder			

[illegible]

finishing



medium



roughing

Vc • fn • ap

66

POSITIVE 11°
with hole

TP □□



TP □ □	0802 □ □	0902 □ □	1103 □ □
IC	4,76	5,56	6,35
T	2,38	2,38	3,18
Ød	2,30	3,00	3,40
 Holder	169	169	169

[illegible]

finishing



medium



roughing

Vc • fn • ap



70

터닝

그루브

나사

미립

인테서블 드릴

엔드밀

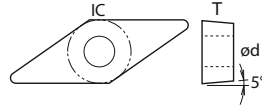
슬리드 드릴

파공

색인표

POSITIVE 5°
with hole

VB □□



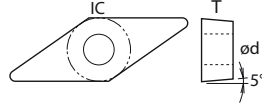
VB □□	1103□□	1604□□
IC	6,35	9,525
T	3,18	4,76
Ød	2,80	4,40
Holder	175	175

DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅						CERMET 세멧 (비코 팅,코팅)		CARBIDE 초경			
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005
 		VBGT110302-AU																				●
		VBGT110304-AU																				●
		VBGT160402-AU																				●
		VBGT160404-AU																				●
		VBGT160408-AU																				●
		VBGT160412-AU																				●
 		VBMT160404															●					
		VBMT160408															●					
 		VBMT160404-GM													●	●						
 		VBMT110302-MF															●					
		VBMT160404-MF															●					
		VBMT160408-MF															●					
 		VBMT110304-MM															●					
 		VBMT110304-MM1													●							
		VBMT160404-MM1	●		●										●	●						
		VBMT160408-MM1	●		●			●						●	●							
		VBMT160412-MM1												●	●							



POSITIVE 5°
with hole

VB □□



VB □□	1103□□	1604□□
IC	6,35	9,525
T	3,18	4,76
Ød	2,80	4,40
Holder	175	175

DESCRIPTION 형번			CARBIDE-CVD CVD코팅										CARBIDE-PVD PVD코팅					CERMET 세멧 (비코 팅,코팅)		CARBIDE 초경		
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005
		VBMT160404-MM3														●						
		VBMT160404-MM4									●											
		VBMT110302-UF	●		●	●																
		VBMT160402-UF	●		●	●																
		VBMT160404-UF	●		●	●																
		VBMT160408-UF	●		●	●																
		VBMT110304-UM	●		●	●																
		VBMT160404-UM	●		●	●																
		VBMT160408-UM	●		●	●																
		VBMT160412-UM	●		●	●																
		VBMT160408-UR			●	●																
		VBMT160412-UR			●	●																
		VBMT160408-UR2						●							●							
		VBMT160412-UR2						●							●							



finishing



medium



roughing

Vc ● fn ● ap

70

터닝

그루비

나사

미립

인테셔널 드릴

엔드밀

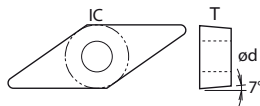
슬리드 드릴

파공

색인표

POSITIVE 7°
with hole

VC□□



VC□□	1103□□	1604□□	2205□□
IC	6,35	9,525	12,70
T	3,18	4,76	5,56
Ød	2,80	4,40	5,60
Holder	181	181	181

DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅						CERMET 세멧 (비코 팅,코팅)		CARBIDE 초경				
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005	
		VCGT110302-AU																				●	
		VCGT110304-AU																				●	
		VCGT160402-AU																				●	
		VCGT160404-AU																				●	
		VCGT160408-AU																				●	
		VCGT160412-AU																					●
		VCGT220516-AU2C																				●	
		VCGT110302-AUP																				●	
		VCGT110304-AUP																				●	
		VCGT220530E-AUP																					●
		VCMT110302-MF1													●								
		VCMT110304-MF1	●													●							
		VCMT160402-MF1			●											●							
		VCMT160404-MF1	●		●											●							
		VCMT160408-MF1			●											●							
		VCMT110304-MM1			●										●								
		VCMT160404-MM1	●		●			●							●	●							
		VCMT160408-MM1	●		●			●							●	●							



finishing



medium

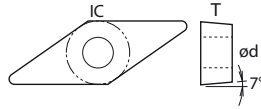


roughing

Vc ● fn ● ap

70

**POSITIVE 7°
with hole**

VC ☐ ☐

VC	1103	1604	2205
IC	6,35	9,525	12,70
T	3,18	4,76	5,56
Ød	2,80	4,40	5,60
 Holder	 181	 181	 181

[illegible]

finishing



medium



roughing

Vc • fn • ap

70

터닝

그루비

나사

밀링

인테서블 드릴

엔드밀

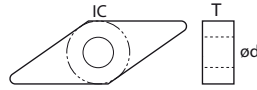
슬리드 드릴

바분

색인표

NEGATIVE
with hole

VN □□



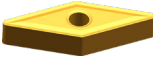
VN □□ 1604 □□

IC 9,525

T 4,76

ød 3,81

Holder 183

DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅							CERMET 세멧 (비코 팅, 코팅)		CARBIDE 초경		
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005
 		VNMG160404															●					
		VNMG160408															●					
		VNMG160412															●					
 		VNMG160404-AU																			●	
		VNMG160408-AU																			●	
 		VNMG160404-MF															●					
		VNMG160408-MF															●					
 		VNMG160404-MF2									●			●	●							
 		VNMG160408-MF3												●	●							
 		VNMG160404-MM	●	●	●	●	●		●				●	●	●	●	●					



finishing



medium



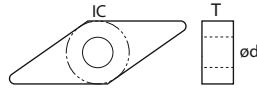
roughing

Vc • fn • ap

66

NEGATIVE
with hole

VN □□



VN □□	1604 □□
IC	9,525
T	4,76
Ød	3,81
Holder	183

DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅						CERMET 세멧 (비코 팅,코팅)		CARBIDE 초경				
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005	
		VNMG160408-MM		●		●	●										●						
		VNMG160412-MM		●		●	●											●					
		VNMG160404-MM2	●		●									●	●	●							
		VNMG160408-MM2	●		●									●	●	●							
		VNMG160404-MS													●								
		VNMG160408-MS													●	●							
		VNMG160404-UF		●		●	●																
		VNMG160408-UF		●		●	●																
		VNMG160404-UM		●		●	●																
		VNMG160408-UM		●		●	●																
		VNMG160412-UM		●		●	●																
		VNMG160404-UM1	●		●			●							●	●							
		VNMG160408-UM1	●		●									●	●			●					
		VNMG160412-UM1			●			●						●									



finishing



medium



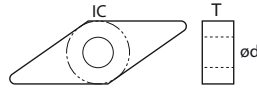
roughing

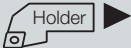
Vc ● fn ● ap

66

NEGATIVE with hole

VN 00



VN □ □	1604 □ □
IC	9,525
T	4,76
Ød	3,81
	

[illegible]

finishing



medium



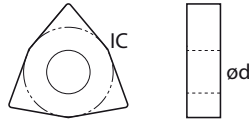
roughing

Vc • fn • ap

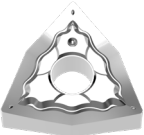
66

NEGATIVE
with hole

WN□□



WN □ □	0604 □ □	0804 □ □
IC	9,525	12,7
T	4,76	4,76
Ød	3,81	5,16
Holder	186	186

DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅						CERMET 세멧 (비코팅,코팅)		CARBIDE 조경				
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005	
		WNMA080408					●	●	●	●													
		WNMA080412					●	●	●	●													
		WNMA080416					●	●	●	●													
		WNMG080404					●	●	●	●													
		WNMG080408					●	●	●	●													
		WNMG080412					●	●	●	●													
		WNMG080404-AU																				●	
		WNMG080408-AU																				●	
		WNMG080408-GH					●	●	●	●													
		WNMG080412-GH					●	●	●	●													
		WNMG080404-MF															●						
		WNMG080408-MF																●					
		WNMG080404-MF2													●	●							
		WNMG060408-MF3	●												●								
		WNMG080408-MF3										●			●	●		●					
		WNMG080412-MF3													●	●							



finishing



medium



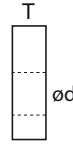
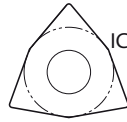
roughing

Vc • fn • ap

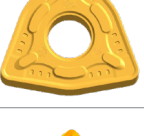
66

NEGATIVE
with hole

WN□□



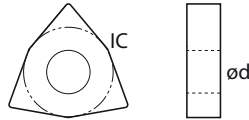
WN □□	0604□□	0804□□
IC	9,525	12,7
T	4,76	4,76
ød	3,81	5,16
Holder	186	186

DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅							CERMET 세멧 (비코 팅,코팅)		CARBIDE 초경		
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005
		WNMG060408-MF4													●							
		WNMG080404-MF4														●		●				
		WNMG080408-MF4														●	●					
		WNMG060404-MM															●					
		WNMG060408-MM															●					
		WNMG080404-MM	●	●	●	●	●									●	●	●				
		WNMG080408-MM	●	●	●	●	●									●	●	●				
		WNMG080412-MM		●		●	●										●					
		WNMG060408-MM2													●							
		WNMG060412-MM2												●	●	●						
		WNMG080404-MM2	●		●										●	●		●				
		WNMG080408-MM2	●		●						●			●	●	●		●				
		WNMG080404-MM3													●							
		WNMG080408-MM3													●	●		●				
		WNMG080412-MR														●						
		WNMG080404-MS											●	●	●	●						
		WNMG080408-MS										●	●	●	●	●						
		WNMG080412-MS													●	●		●				

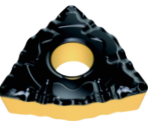
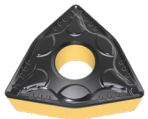
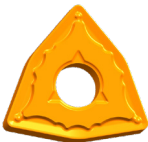
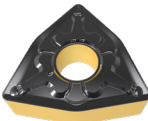


NEGATIVE
with hole

WN□□



WN □ □	0604 □ □	0804 □ □
IC	9,525	12,7
T	4,76	4,76
Ød	3,81	5,16
Holder	186	186

DESCRIPTION 형번			CARBIDE-CVD CVD코팅								CARBIDE-PVD PVD코팅						CERMET 세멧 (비코 팅,코팅)		CARBIDE 초경					
			TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005		
		WNMG080404-TQ	●		●																			
															●	●								
		WNMG060404-UF		●		●	●																	
		WNMG060408-UF		●		●	●																	
		WNMG080404-UF		●		●	●																	
		WNMG080408-UF		●		●	●																	
		WNMG080412-UF		●		●	●																	
		WNMG060404-UF1			●																			
		WNMG080404-UF1	●		●									●	●			●						
		WNMG080408-UF1	●		●																			
		WNMG060404-UM		●		●	●																	
		WNMG060408-UM		●		●	●																	
		WNMG060412-UM		●		●	●																	
		WNMG080404-UM		●		●	●																	
		WNMG080408-UM		●		●	●																	
		WNMG080412-UM		●		●	●																	
		WNMG060408-UM1	●		●																			
		WNMG080404-UM1	●		●			●						●	●									
		WNMG080408-UM1	●		●			●				●	●	●	●	●		●						
		WNMG080412-UM1	●		●			●							●	●								
		WNMG080404-UMC	●	●	●	●	●																	
		WNMG080408-UMC	●	●	●	●	●																	
		WNMG080412-UMC	●	●	●	●	●																	



finishing



medium



roughing

Vc ● fn ● ap

66

터닝

그루브

나사

밀링

인테서블 드릴

엔드밀

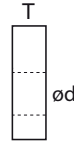
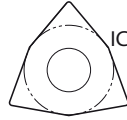
슬리드 드릴

파공

색인표

NEGATIVE
with hole

WN□□



WN □□ 0604□□ 0804□□

IC 9,525 12,7

T 4,76 4,76

ød 3,81 5,16

Holder ▶ 186 186

DESCRIPTION
형번

CARBIDE-CVD
CVD코팅

CARBIDE-PVD
PVD코팅

CERMET
세멧 (비코
팅,코팅)

CARBIDE
조경

TC5110	TC5210	TC5120	TC5220	TC5230	TC4105	TC4115D	TC4215	TC4315	TC6125	TP0005P	TP0105P	TP0010P	TP0015P	TP0115P	TP0025	TP0005HP	TT5115	TTP5115	TU4005
WNMG060408-UR	•		•	•															
WNMG060412-UR	•		•	•															
WNMG080408-UR	•		•	•															
WNMG080412-UR	•		•	•															
WNMG080408-UR1	•		•	•	•	•							•						
WNMG080412-UR1	•		•	•		•	•						•						
WNMG080408-Z						•	•												
WNMG080412-Z						•	•												



finishing



medium



roughing

Vc • fn • ap ▶

66

TURNING 터닝

Cutting Parameters Vc(m/min) / 절삭 조건 (속력)

FC	회주철 GRAY CAST IRON
FCD	덕타일 DUCTILE CAST IRON
S15C	저탄소강 LOW CARBON AND FREE
S30C	탄소강 MEDIUM CARBON
S45C	고탄소강 HIGH CARBON STEEL
SCM	합금강 ALLOY STEEL

SUS400	마르텐사이트 MARTENSITIC AND FERRITIC STAINLESS STEEL
SUS300	오스테나이트 AUSTENITIC STAINLESS STEEL
AL	알루미늄합금 ALUMINIUM ALLOYS
HAL	강화알루미늄합금 ALUMINIUM ALLOYS AGED AND HARDENED
NB	황동 BRASS
CU	청동, 구리 BRONZE AND ELECTROLYTIC COPPER

MATERIAL 피삭재		CARBIDE-CVD / CVD 재종								
		TC5210 TC5110	TC5220 TC5120	TC5230 TC5130	TC5240	TC4105	TC4115D	TC4215	TC4315	TC6125
K	FC					250~450	200~360	200~360	200~360	
	FCD					180~300	150~280	150~280	150~280	
P	S15C	250~350	200~320	200~320	200~320					
	S30C	220~300	180~260	180~260	180~260					
	S45C	200~280	160~250	160~250	160~250					
	SCM	180~250	150~220	150~220	150~220					
M	SUS400									160~260
	SUS300									140~220

MATERIAL 피삭재		CARBIDE-PVD / PVD 재종				CERMET 써메트	CARBIDE 재종	
		TP0005P TP0005HP TP0105P	TP0105P	TP0015P TP0115P	TP0025	TT5115 TTP5115	TU4005 TU4005P	
K	FC					250~400		
	FCD					180~300		
P	S15C					280~380		
	S30C					240~330		
	S45C					220~300		
	SCM					200~280		
M	SUS400	120~220	100~150	100~150	100~150	180~250		
	SUS300	100~180	80~120	80~120	80~120	160~220		
N	AL						600~1500	
	HAL						300~700	
	NB						250~400	
	CU						150~250	

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

SPARE
PARTS

INDEX

negative / 네가티브



Cutting Parameters a_p (mm) & f_n (mm/rev) / 절삭 조건 (절입량 & 피드)

NEGATIVE INSERT SIZE		CN □ □	-	1204..	1606..	1906..	2507.. 2509..
		DN □ □	1104..	1504.. 1506..	-	-	-
		SN □ □	0903..	1204..	-	1906..	2507.. 2509..
		TN □ □	-	1604..	2204..	-	-
		VN □ □	-	1604..	-	-	-
		WN □ □	0604..	0804..	-	-	-

Chip Breaker Form	Corner Radius	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
MA FLAT	R02										
	R04	0.5-2.5	0.1-0.3	1.0-4.0	0.1-0.5	2.0-6.0	0.15-0.7	2.0-7.0	0.15-0.7		
	R08	0.5-3.0	0.1-0.35	1.5-5.0	0.15-0.6	2.0-7.0	0.2-0.75	2.0-7.0	0.2-0.75		
	R12	0.5-3.5	0.1-0.4	1.5-5.0	0.15-0.6	2.0-7.0	0.2-0.75	2.0-7.0	0.2-0.75	8.00-16.0	0.45-1.00
	R16 / R24									8.00-18.0	0.50-1.10
MG BOX	R02										
	R04	0.5-2.5	0.1-0.3	1.0-4.0	0.1-0.5	2.0-6.0	0.15-0.7	2.0-7.0	0.15-0.7	8.00-16.0	0.45-0.89
	R08	0.5-3.0	0.1-0.35	1.5-5.0	0.15-0.6	2.0-7.0	0.2-0.75	2.0-7.0	0.2-0.75		
	R12	0.5-3.5	0.1-0.4	1.5-5.0	0.15-0.6	2.0-7.0	0.2-0.75	2.0-7.0	0.2-0.75		
	R16 / R24									8.00-18.0	0.50-1.10
A3	R02										
	R04			0.8-3.5	0.1-0.4						
	R08			0.8-3.5	0.1-0.4						
	R12										
	R16 / R24										
AU	R02										
	R04			0.5-4.0	0.1-0.35						
	R08			0.5-4.0	0.1-0.35						
	R12										
	R16 / R24										
HA	R02										
	R04			0.5-2.0	0.05-0.25						
	R08			0.5-3.5	0.1-0.35						
	R12										
	R16 / R24										
GH	R02										
	R04										
	R08			1.5-5.0	0.2-0.5						
	R12			2.0-5.0	0.2-0.5	2.0-8.0	0.3-0.6				
	R16 / R24					2.0-10.0	0.3-0.7			1.80-10.00	0.30-0.80
MF	R02										
	R04	0.3-1.5	0.1-0.3	0.5-2.0	0.1-0.4						
	R08	0.5-2.0	0.1-0.35	0.5-3.0	0.15-0.45						
	R12	0.5-2.5	0.1-0.4	1.0-3.5	0.15-0.45						
	R16 / R24										

negative / 네가티브

Cutting Parameters a_p (mm) & f_n (mm/rev) / 절삭 조건 (절입량 & 피드)

NEGATIVE INSERT SIZE		CN □ □	-	1204..	1606..	1906..	2507.. 2509..
		DN □ □	1104..	1504.. 1506..	-	-	-
		SN □ □	0903..	1204..	-	1906..	2507.. 2509..
		TN □ □	-	1604..	2204..	-	-
		VN □ □	-	1604..	-	-	-
		WN □ □	0604..	0804..	-	-	-

Chip Breaker Form	Corner Radius	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
MF2	R02										
	R04	0.3-1.5	0.1-0.3	0.5-2.0	0.1-0.4						
	R08	0.5-2.0	0.1-0.35	0.5-3.0	0.15-0.45						
	R12	0.5-2.5	0.1-0.4	1.0-3.5	0.15-0.45					8.00-16.0	0.45-1.00
	R16 / R24									8.00-18.0	0.50-1.10
MF3	R02										
	R04			0.5-2.0	0.1-0.4					8.00-16.0	0.45-0.89
	R08			0.5-3.0	0.15-0.45						
	R12			1.0-3.5	0.15-0.45						
	R16 / R24									8.00-18.0	0.50-1.10
MF4	R02										
	R04	0.3-1.5	0.1-0.3	0.5-2.0	0.1-0.4						
	R08	0.5-2.0	0.1-0.35	0.5-3.0	0.15-0.45						
	R12	0.5-2.5	0.1-0.4	1.0-3.5	0.15-0.45						
	R16 / R24										
MM	R02										
	R04	0.5-2.5	0.1-0.3	1.0-4.0	0.1-0.5	2.0-6.0	0.15-0.7	2.0-7.0	0.15-0.7		
	R08	0.5-3.0	0.1-0.35	1.5-5.0	0.15-0.6	2.0-7.0	0.2-0.75	2.0-7.0	0.2-0.75		
	R12	0.5-3.5	0.1-0.4	1.5-5.0	0.15-0.6	2.0-7.0	0.2-0.75	2.0-7.0	0.2-0.75		
	R16 / R24										
MM2	R02										
	R04			1.0-4.0	0.1-0.5	2.0-6.0	0.15-0.7	2.0-7.0	0.15-0.7		
	R08			1.5-5.0	0.15-0.6	2.0-7.0	0.2-0.75	2.0-7.0	0.2-0.75		
	R12			1.5-5.0	0.15-0.6	2.0-7.0	0.2-0.75	2.0-7.0	0.2-0.75		
	R16 / R24										
MM3	R02										
	R04			1.0-4.0	0.1-0.5						
	R08			1.5-5.0	0.15-0.6						
	R12			1.5-5.0	0.15-0.6						
	R16 / R24									1.80-10.00	0.30-0.80
MM4	R02										
	R04			1.0-4.0	0.1-0.5						
	R08			1.5-5.0	0.15-0.6						
	R12			1.5-5.0	0.15-0.6						
	R16 / R24										

negative / 네가티브



Cutting Parameters a_p (mm) & f_n (mm/rev) / 절삭 조건 (절입량 & 피드)

NEGATIVE INSERT SIZE		CN □ □	-	1204..	1606..	1906..	2507.. 2509..
		DN □ □	1104..	1504.. 1506..	-	-	-
		SN □ □	0903..	1204..	-	1906..	2507.. 2509..
		TN □ □	-	1604..	2204..	-	-
		VN □ □	-	1604..	-	-	-
		WN □ □	0604..	0804..	-	-	-

Chip Breaker Form	Corner Radius	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
MR	R02										
	R04			0.8-5.0	0.15-0.3	1.0-7.0	0.2-0.4	1.3-8.0	0.2-0.5		
	R08			1.3-6.0	0.15-0.4	1.5-8.0	0.2-0.5	1.5-9.0	0.23-0.6		
	R12			1.5-6.5	0.15-0.45	2.0-9.0	0.22-0.5	2.0-10.0	0.25-0.7		
	R16 / R24			1.7-7.0	0.15-0.45	2.5-10.0	0.25-0.6	2.2-10.0	0.25-0.8		
MS	R02										
	R04			0.8-5.0	0.15-0.3	1.0-7.0	0.2-0.4				
	R08			1.3-6.0	0.15-0.4	1.5-8.0	0.2-0.5				
	R12			1.5-6.5	0.15-0.45	2.0-9.0	0.22-0.5				
	R16 / R24										
RB-25	R02										
	R04			0.8-5.0	0.15-0.3	1.0-7.0	0.2-0.4	1.3-8.0	0.2-0.5		
	R08			1.3-6.0	0.15-0.4	1.5-8.0	0.2-0.5	1.5-9.0	0.23-0.6		
	R12			1.5-6.5	0.15-0.45	2.0-9.0	0.22-0.5	2.0-10.0	0.25-0.7		
	R16 / R24			1.7-7.0	0.15-0.45	2.5-10.0	0.25-0.6	2.2-10.0	0.25-0.8		
RH-25	R02										
	R04			0.8-5.0	0.15-0.3	1.0-7.0	0.2-0.4	1.3-8.0	0.2-0.5		
	R08			1.3-6.0	0.15-0.4	1.5-8.0	0.2-0.5	1.5-9.0	0.23-0.6		
	R12			1.5-6.5	0.15-0.45	2.0-9.0	0.22-0.5	2.0-10.0	0.25-0.7		
	R16 / R24			1.7-7.0	0.15-0.45	2.5-10.0	0.25-0.6	2.2-10.0	0.25-0.8		
TQ	R02										
	R04			1.0-4.0	0.1-0.5						
	R08			1.5-5.0	0.15-0.6						
	R12			1.5-5.0	0.15-0.6						
	R16 / R24										
UF	R02										
	R04	0.3-1.5	0.1-0.3	0.5-2.0	0.1-0.4						
	R08	0.5-2.0	0.1-0.35	0.5-3.0	0.15-0.45						
	R12	0.5-2.5	0.1-0.4	1.0-3.5	0.15-0.45						
	R16 / R24										
UF1	R02										
	R04	0.3-1.5	0.1-0.3	0.5-2.0	0.1-0.4						
	R08	0.5-2.0	0.1-0.35	0.5-3.0	0.15-0.45						
	R12										
	R16 / R24										

negative / 네가티브

Cutting Parameters a_p (mm) & f_n (mm/rev) / 절삭 조건 (절입량 & 피드)

NEGATIVE INSERT SIZE		CN□□	-	1204..	1606..	1906..	2507.. 2509..
		DN□□	1104..	1504.. 1506..	-	-	-
		SN□□	0903..	1204..	-	1906..	2507.. 2509..
		TN□□	-	1604..	2204..	-	-
		VN□□	-	1604..	-	-	-
		WN□□	0604..	0804..	-	-	-

Chip Breaker Form	Corner Radius	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
UM	R02										
	R04	0.5-2.5	0.1-0.3	1.0-4.0	0.1-0.5	2.0-6.0	0.15-0.7	2.0-7.0	0.15-0.7		
	R08	0.5-3.0	0.1-0.35	1.5-5.0	0.15-0.6	2.0-7.0	0.2-0.75	2.0-7.0	0.2-0.75		
	R12	0.5-3.5	0.1-0.4	1.5-5.0	0.15-0.6	2.0-7.0	0.2-0.75	2.0-7.0	0.2-0.75		
	R16 / R24										
UM1	R02										
	R04	0.5-2.5	0.1-0.3	1.0-4.0	0.1-0.5	2.0-6.0	0.15-0.7	2.0-7.0	0.15-0.7		
	R08	0.5-3.0	0.1-0.35	1.5-5.0	0.15-0.6	2.0-7.0	0.2-0.75	2.0-7.0	0.2-0.75		
	R12	0.5-3.5	0.1-0.4	1.5-5.0	0.15-0.6	2.0-7.0	0.2-0.75	2.0-7.0	0.2-0.75		
	R16 / R24	1.0-4.0	0.12-0.45	1.7-6.0	0.17-0.65	2.3-7.5	0.23-0.8	2.3-7.5	0.23-0.8		
UMC	R02										
	R04	0.5-2.5	0.1-0.3	1.0-4.0	0.1-0.5	2.0-6.0	0.15-0.7				
	R08	0.5-3.0	0.1-0.35	1.5-5.0	0.15-0.6	2.0-7.0	0.2-0.75				
	R12	0.5-3.5	0.1-0.4	1.5-5.0	0.15-0.6	2.0-7.0	0.2-0.75				
	R16 / R24									5.00-17.0	0.45-0.90
UR	R02										
	R04			0.8-5.0	0.15-0.3	1.0-7.0	0.2-0.4	1.3-8.0	0.2-0.5		
	R08			1.3-6.0	0.15-0.4	1.5-8.0	0.2-0.5	1.5-9.0	0.23-0.6		
	R12			1.5-6.5	0.15-0.45	2.0-9.0	0.22-0.5	2.0-10.0	0.25-0.7		
	R16 / R24			1.7-7.0	0.15-0.45	2.5-10.0	0.25-0.6	2.2-10.0	0.25-0.8		
UR1	R02										
	R04			0.8-5.0	0.15-0.3	1.0-7.0	0.2-0.4	1.3-8.0	0.2-0.5		
	R08			1.3-6.0	0.15-0.4	1.5-8.0	0.2-0.5	1.5-9.0	0.23-0.6		
	R12			1.5-6.5	0.15-0.45	2.0-9.0	0.22-0.5	2.0-10.0	0.25-0.7		
	R16 / R24			1.7-7.0	0.15-0.45	2.5-10.0	0.25-0.6	2.2-10.0	0.25-0.8		
Z	R02										
	R04										
	R08			0.1-0.35	1.5-5.0						
	R12			0.1-0.4	1.5-5.0						
	R16 / R24										
L-R	R02										
	R04			1.0-3.5	0.15-0.3						
	R08			1.2-4.0	0.15-0.4						
	R12										
	R16 / R24										

positive / 포지티브



Cutting Parameters a_p (mm) & f_n (mm/rev) / 절삭 조건 (절입량 & 피드)

POSITIVE INSERT SIZE		CC / CP □□	0602..	09T3.. 0903..	1204..	-	-
		DC □□	0702..	11T3..	..	-	-
		SC / SP □□	-	09T3..	1204..	-	-
		TC / TP □□	0902..	1102..	16T3..	2204..	-
		VB / VC □□	-	1103..	1604..	2205..	-
		WB □□	0601..	-	-	-	-

Chip Breaker Form	Corner Radius	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
AU	R02	0.05-2.5	0.01-0.12	0.05-3.0	0.02-0.2	0.05-3.5	0.02-0.3				
	R04	0.07-2.8	0.01-0.15	0.07-3.3	0.03-0.25	0.07-3.8	0.03-0.35				
	R08	0.1-3.0	0.03-0.2	0.1-3.5	0.05-0.3	0.1-4.5	0.05-0.4				
	R12										
	R16 / R24										
AU2C	R02										
	R04										
	R08										
	R12										
	R16 / R24							0.1-7.0	0.08-1.0		
AUP	R02			0.05-3.0	0.02-0.2						
	R04			0.07-3.3	0.03-0.25						
	R08			0.1-3.5	0.05-0.3						
	R12										
	R16 / R24							0.1-7.0	0.08-1.0		
GM	R02										
	R04					0.15-2.7	0.07-0.2				
	R08					0.18-3.5	0.1-0.23				
	R12					0.2-3.7	0.12-0.25				
	R16 / R24										
MF	R02	0.06-1.0	0.03-0.1	0.08-1.5	0.04-0.15	0.13-2.5	0.07-0.2				
	R04	0.08-1.3	0.05-0.15	0.1-2.0	0.07-0.2	0.15-3.0	0.1-0.23				
	R08	0.1-1.8	0.15-0.2	0.13-2.5	0.1-0.25	0.15-3.3	0.13-0.28				
	R12	0.12-2.3	0.18-0.25	0.15-3.0	0.12-0.3	0.17-3.5	0.15-0.35				
	R16 / R24										
MF1	R02	0.06-1.0	0.03-0.1	0.08-1.5	0.04-0.15	0.13-2.5	0.07-0.2				
	R04	0.08-1.3	0.05-0.15	0.1-2.0	0.07-0.2	0.15-3.0	0.1-0.23				
	R08	0.1-1.8	0.15-0.2	0.13-2.5	0.1-0.25	0.15-3.3	0.13-0.28				
	R12	0.12-2.3	0.18-0.25	0.15-3.0	0.12-0.3	0.17-3.5	0.15-0.35				
	R16 / R24										
MF2	R02	0.06-1.0	0.03-0.1	0.08-1.5	0.04-0.15	0.13-2.5	0.07-0.2				
	R04	0.08-1.3	0.05-0.15	0.1-2.0	0.07-0.2	0.15-3.0	0.1-0.23				
	R08	0.1-1.8	0.15-0.2	0.13-2.5	0.1-0.25	0.15-3.3	0.13-0.28				
	R12	0.12-2.3	0.18-0.25	0.15-3.0	0.12-0.3	0.17-3.5	0.15-0.35				
	R16 / R24										

positive / 포지티브

Cutting Parameters a_p (mm) & f_n (mm/rev) / 절삭 조건 (절입량 & 피드)

POSITIVE INSERT SIZE		CC / CP □□	0602..	09T3.. 0903..	1204..	-	-
		DC □□	0702..	11T3..	..	-	-
		SC / SP □□	-	09T3..	1204..	-	-
		TC / TP □□	0902..	1102..	16T3..	2204..	-
		VB / VC □□	-	1103..	1604..	2205..	-
		WB □□	0601..	-	-	-	-

Chip Breaker Form	Corner Radius	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
MM1	R02	0.1-1.5	0.03-0.12	0.1-2.0	0.07-0.22	0.3-3.0	0.09-0.27				
	R04	0.2-2.0	0.06-0.2	0.15-2.5	0.1-0.28	0.5-3.3	0.1-0.3				
	R08	0.25-2.5	0.1-0.25	0.15-3.0	0.15-0.34	1.0-3.5	0.15-0.35				
	R12	0.25-2.8	0.1-0.3	0.2-3.5	0.2-0.35	1.0-3.5	0.15-0.4				
	R16 / R24										
MM3	R02			0.1-2.0	0.07-0.22						
	R04			0.15-2.5	0.1-0.28						
	R08			0.15-3.0	0.15-0.34						
	R12										
	R16 / R24										
MM4	R02					0.3-3.0	0.09-0.27				
	R04					0.5-3.3	0.1-0.3				
	R08					1.0-3.5	0.15-0.35				
	R12										
	R16 / R24										
MM5	R02	0.1-1.5	0.03-0.12	0.1-2.0	0.07-0.22	0.3-3.0	0.09-0.27				
	R04	0.2-2.0	0.06-0.2	0.15-2.5	0.1-0.28	0.5-3.3	0.1-0.3				
	R08	0.25-2.5	0.1-0.25	0.15-3.0	0.15-0.34	1.0-3.5	0.15-0.35				
	R12	0.25-2.8	0.1-0.3	0.2-3.5	0.2-0.35	1.0-3.5	0.15-0.4				
	R16 / R24										
SF	R02			0.06-1.0	0.03-0.13						
	R04			0.06-1.5	0.05-0.15						
	R08										
	R12										
	R16 / R24										
SF-OK	R02			0.06-1.0	0.03-0.13						
	R04			0.06-1.5	0.05-0.15						
	R08										
	R12										
	R16 / R24										
TQ	R02	0.06-1.0	0.03-0.1	0.08-1.5	0.04-0.15						
	R04	0.08-1.3	0.05-0.15	0.1-2.0	0.07-0.2						
	R08	0.1-1.8	0.15-0.2	0.13-2.5	0.1-0.25						
	R12	0.12-2.3	0.18-0.25	0.15-3.0	0.12-0.3						
	R16 / R24										

positive / 포지티브



Cutting Parameters a_p (mm) & f_n (mm/rev) / 절삭 조건 (절입량 & 피드)

POSITIVE INSERT SIZE		CC / CP □□	0602..	09T3.. 0903..	1204..	-	-
		DC □□	0702..	11T3..	..	-	-
		SC / SP □□	-	09T3..	1204..	-	-
		TC / TP □□	0902..	1102..	16T3..	2204..	-
		VB / VC □□	-	1103..	1604..	2205..	-
		WB □□	0601..	-	-	-	-

Chip Breaker Form	Corner Radius	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)	a_p (mm)	f_n (mm/rev)
UF	R02	0.06-1.0	0.03-0.1	0.08-1.5	0.04-0.15	0.13-2.5	0.07-0.2				
	R04	0.08-1.3	0.05-0.15	0.1-2.0	0.07-0.2	0.15-3.0	0.1-0.23				
	R08	0.1-1.8	0.15-0.2	0.13-2.5	0.1-0.25	0.15-3.3	0.13-0.28				
	R12	0.12-2.3	0.18-0.25	0.15-3.0	0.12-0.3	0.17-3.5	0.15-0.35				
	R16 / R24										
UM	R02	0.1-1.5	0.03-0.12	0.1-2.0	0.07-0.22	0.3-3.0	0.09-0.27				
	R04	0.2-2.0	0.06-0.2	0.15-2.5	0.1-0.28	0.5-3.3	0.1-0.3				
	R08	0.25-2.5	0.1-0.25	0.15-3.0	0.15-0.34	1.0-3.5	0.15-0.35				
	R12	0.25-2.8	0.1-0.3	0.2-3.5	0.2-0.35	1.0-3.5	0.15-0.4				
	R16 / R24										
UM2	R02	0.1-1.5	0.03-0.12	0.1-2.0	0.07-0.22	0.3-3.0	0.09-0.27				
	R04	0.2-2.0	0.06-0.2	0.15-2.5	0.1-0.28	0.5-3.3	0.1-0.3				
	R08	0.25-2.5	0.1-0.25	0.15-3.0	0.15-0.34	1.0-3.5	0.15-0.35				
	R12	0.25-2.8	0.1-0.3	0.2-3.5	0.2-0.35	1.0-3.5	0.15-0.4				
	R16 / R24										
UR	R02	0.1-1.5	0.03-0.12	0.1-2.0	0.07-0.22						
	R04	0.2-2.0	0.06-0.2	0.15-2.5	0.1-0.28						
	R08	0.25-2.5	0.1-0.25	0.15-3.0	0.15-0.34						
	R12	0.25-2.8	0.1-0.3	0.2-3.5	0.2-0.35						
	R16 / R24										
UR2	R02	0.1-1.5	0.03-0.12	0.1-2.0	0.07-0.22						
	R04	0.2-2.0	0.06-0.2	0.15-2.5	0.1-0.28						
	R08	0.25-2.5	0.1-0.25	0.15-3.0	0.15-0.34						
	R12	0.25-2.8	0.1-0.3	0.2-3.5	0.2-0.35						
	R16 / R24										

TURNING 터닝

TURNING CVD Comparison table (터닝 CVD 재종 비교표)

MATERIAL 피삭재	K-CERA	ISCAR	SECO	TEAGUTEC	KYOCERA	SANDVIK	KENAMETAL	MITSUBISHI	WALTER	KORLOY
P	TC5210		TP0500	TT8105	CA5505	GC4305	KCP05(B)	UE6105	WPP10S	NC3010
	TC5110	IC8150	TP0501	TT8110	CA510	GC4205		UE6110	WKP13S	
			TP1500	TT8115	CA515	GC4315	KCP10(B)	MY5015		NC3215
	TC5220		TP2500	TT8120	CA525	GC4215		MC6025	WPP20S	NC3220
	TC5120	IC8250	TP2501	LC025P	CA5525	GC4325	KCP25(B)	UE6020	WKP23S	NC3225
			T350M	TT8125		GC4225				
	TC5230	IC8350	TP3500	TT5100	CA530	GC4235	KCP30(B)	UE6035	WPP30S	NC3030
				TT8135	CA5535				WKP33S	NC500H
M	TC5240		TGP45	TT7100			KCP40(B)			NC5330
	TC6125	IC6015	TM2000	TT9215	CA6515	GC2015	KCM15(M)	MC7015	WAM10	NC9020
			TM4000	TT9225	CA6525	GC2025	KCM25(B)	US7020	WAM20	NC9025
K								US735	WAM30	
	TC4105	IC5005	TK1001	TT7005	CA4505	GC3205	KCK05(B)	MC5005	WKK10S	NC6205
					CA4010	GC3210		UC5105		
	TC4215			TT7310						NC6210
	TC4115D	IC5015	TK2001	TT7015	CA4515	GC3215	KCK15(B)	MC5015	WKK20S	NC6215
	TC4315		TGK1500		CA4115	GC3225		UC5115		

TURNING Cermet Coated(터닝 코팅 써메트 재종 비교표)

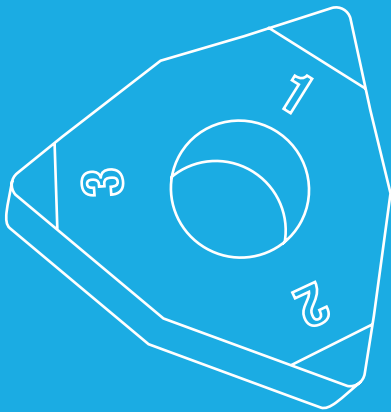
MATERIAL 피삭재	K-CERA	ISCAR	SECO	TEAGUTEC	KYOCERA	SANDVIK	KENAMETAL	MITSUBISHI	WALTER	KORLOY
UNI										
	TT5115	IC20N	C15M	CT3000	TN60	CT525	KT125	NX2525		CC1500
		IC520N					HT5	NX3035		CN1500

TURNING Cermet Coated(터닝 코팅 써메트 재종 비교표)

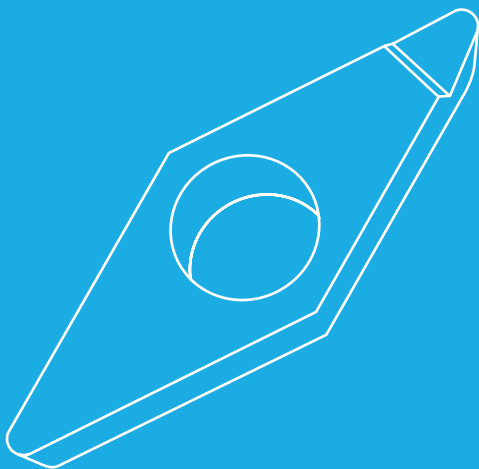
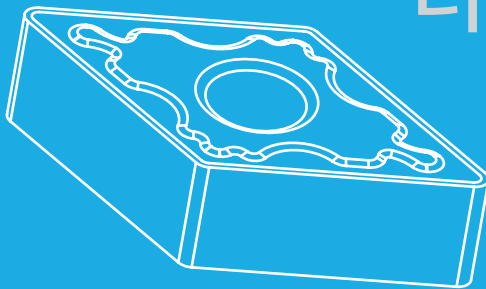
MATERIAL 피삭재	K-CERA	ISCAR	SECO	TEAGUTEC	KYOCERA	SANDVIK	KENAMETAL	MITSUBISHI	WALTER	KORLOY
UNI										
	TTP5115			PV3010	PV7020	GC1525		UP35N	WTA43	CC115

TURNING PVD Comparison table(터닝 PVD 재종 비교표)

MATERIAL 피삭재	K-CERA	ISCAR	SECO	TEAGUTEC	KYOCERA	SANDVIK	KENAMETAL	MITSUBISHI	WALTER	KORLOY
P	TP0005(H)P	IC507	CP200		PR1005					
	TP0105P	IC808			PR915		KU10T			PC8110
	TP0010P		CP250		PR1115		KU25T			PC230
					PR930					
	TP0015P	IC3028		TT5030		GC1025		VP15TF	WTA43	PC5300
	TP0115P	IC908			PR1025			VP20MF	WTA41	PC8115
		IC830			PR630	GC4125				
M	TP0025		CP500		PR660					PC3545
	TP0005(H)P	IC808	CP200			GC1005		MP9005		
	TP0105P	IC907			PR915	GC1105	KC5010	VP10RT	WSM10S	PC8110
	TP0010P		CP250				KC5510		WSM20S	PC8115
					PR930	GC1020				
	TP0015P	IC3028					KC5025	VP15TF	WSM30S	PC5300
	TP0115P	IC830		TT5030	PR1125	GC1025	KC5525	VP20MF	WSM40S	
K					PR630	GC4125				PC9030
	TP0025		CP500	TT8020	PR660	GC2035				PC5400
	TP4505	IC810	CP200							
S		IC908	CP250	TT5030						
	TP0025	IC228	CP500							PC5300
	TP0005(H)P	IC808	TS2000					VP05RT	WSM10	PC8105
	TP0105P	IC907			PR915	GC1105				
	TP6505P		CP500				KC5010	VP10RT	WSM20	PC8110
										PC8115
S	TP6015	IC328	TS2500	TT5030	PR660	GC1025		VP15TF	WSM30	
	TP6025				PR1325	GC2035	KC5025			PC5300
	TP6035									PC5400



TURNING / PCBN 터닝 / PCBN 인서트



C

1

C

2

G

3

W

4

12

5

04

6

08

7

1 Geometry/인서트 형상

C		80
D		55
R		360
S		90
T		60
V		35
W		80

2 Clearance Angle 주절인 여유각

B		5°
C		7°
P		11°
N		0°

3 Tolerance/공차

G	±0.025	±0.13
M	±0.05 ±0.15	±0.13
U	±0.08 ±0.25	±0.13

4 Shape/단면형상

A	
G	
M	
W	
X	Special

5 Shape/인선길이(mm)

C	06 09 12 16 19 25	
D	07 11 15	
R	06 09 12 15 19 25	
S	09 12 15 19 25	
T	09 11 16 22	
V	11 16 22	
W	06 08	

6 Thickness (mm) 인선높이(메트릭)

02	2.38
03	3.18
T3	3.97
04	4.76
06	6.35
07	7.94
09	9.52
10	10.00

7 Corner Radius 노즈(nose) "r" 크기(메트릭)

02	0.20 mm
04	0.40 mm
08	0.80 mm
12	1.20 mm
16	1.60 mm
24	2.40 mm



8	Number of Edges 코너수
1C	1 Corner
2C	2 Corners
3C	3 Corners
4C	4 Corners
6C	6 Corners
8C	8 Corners
FF	Full Face
SO	Solid PcBN

9	Coating / Non-Coating 코팅 / 비코팅
BC	비코팅(non-coating)
SC	코팅(coating)

10	Application 적용영역
1 □□	Hardened Steel/ 열처리강
2 □□	Cast Iron/ 주철
3 □□	Super Alloy/ 고합금강
4 □□	Universal/ 범용

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

SPARE PARTS

INDEX

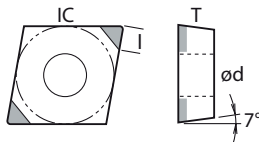
Grades/ 재종

ISO DIN 513	K					H					S				
															
	K01	K10	K20	K30	K40	P01	P10	P20	P30	P40	S01	S10	S20	S30	S40
PCBN	BC250					BC150					BC350				
	SC250					BC170									
						SC150									
	BC420					BC420									

COATED

CC ☐ ☐

80



CC □□	0602 □□	09T3 □□	1204 □□
IC	6,35	9,525	12,7
T	2,38	3,97	4,76
Ød	2,80	4,40	5,50
 Holder			

[illegible]

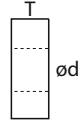
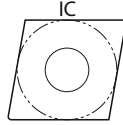
Vc • fn • ap

94

NEGATIVE with hole

CN□□

80



ød

CN ☐ ☐

1204 □□

IC

12,7

T

4,76

Ød

5,16



Holder

125

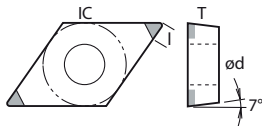
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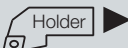
Vc • fn • ap

94

DC□□

55



DC □□	0702 □□	11T3 □□
IC	6,35	9,525
T	2,38	3,97
Ød	2,80	4,40
	133	133

[illegible]

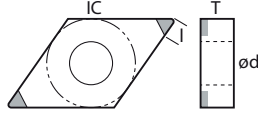
Vc • fn • ap

94

NEGATIVE with hole

DN□□

55

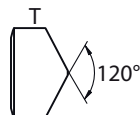


DN □□	1504 □□	1506 □□
IC	12,7	12,7
T	4,76	6,35
Ød	5,16	5,16
 Holder		

[illegible]

RC□□

360



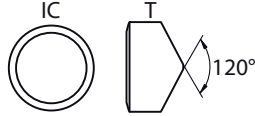
RC □□	0603 □□	0903 □□	1204 □□
IC	6,35	9,525	12,7
T	3,18	3,18	4,76
Ød	-	-	-
 Holder			

[illegible]

**POSITIVE 7°
without hole**

RC□□

360



RC □□	0603 □□	0903 □□	1204 □□
IC	6,35	9,525	12,7
T	3,18	3,18	4,76
Ød	-	-	-
 Holder 			

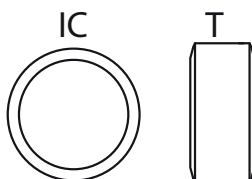
[illegible]

Vc • fn • ap

94

RN ☐ ☐

360



RN □□	0603 □□	0903 □□	1204 □□
IC	6,35	9,525	12,70
T	3,18	3,18	4,76
Ød	-	-	-

[illegible]

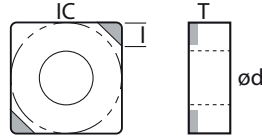
Vc • fn • ap

94

NEGATIVE with hole

SN 

90

SN 1204

IC	12,7
----	------

T	4,76
---	------

Ød	5,16
----	------

Holder ▶ 156

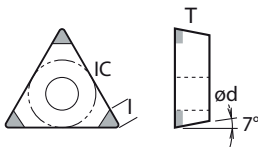
[illegible]

Vc • fn • ap

94

TC ☐ ☐

60



TC □□	0902□□	1102□□	16T3□□
IC	5,56	6,35	9,525
T	2,38	2,38	3,97
Ød	2,50	2,80	4,40
 Holder			

[illegible]

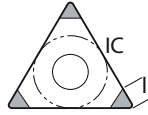
Vc • fn • ap

94

NEGATIVE with hole

TN 00

60



TN 1604

IC	9,525
----	-------

T	4,76
---	------

Ød	3,81
----	------

Holder ▶ 170

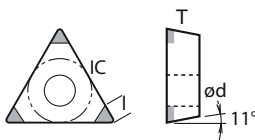
[illegible]

Vc • fn • ap

94

TP 00

60



TP □□	0802□□	0902□□	1103□□
IC	4,76	5,56	6,35
T	2,38	2,38	3,18
Ød	2,30	3,00	3,40
 Holder			

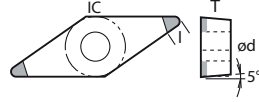
[illegible]

Vc • fn • ap

94

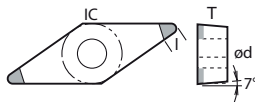
POSITIVE 5°
with hole

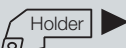
VB □□



VB □□	1103 □□	1604 □□
IC	6,35	9,525
T	3,18	4,76
Ød	2,80	4,40
 Holder	175	175

[illegible]

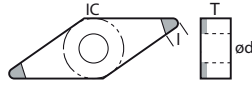
VC ☐ ☐

VC□□	1103□□	1604□□
IC	6,35	9,525
T	3,18	4,76
Ød	2,80	4,40
	181	181

[illegible]

NEGATIVE with hole

VN 00

VN 1604

IC	9,525
----	-------

T	4,76
---	------

Ød	3,81
----	------

Holder ▶ 183

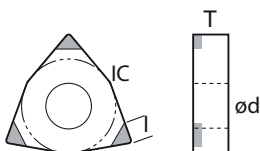
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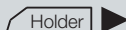
Vc • fn • ap

94

WN 00

80



WN □□	0604 □□	0804 □□
IC	9,525	12,7
T	4,76	4,76
Ød	3,81	5,16
		

[illegible]

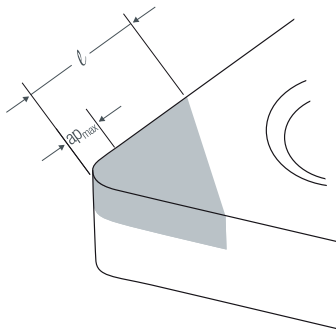
Vc • fn • ap

94

Cutting Parameters / 절삭 조건

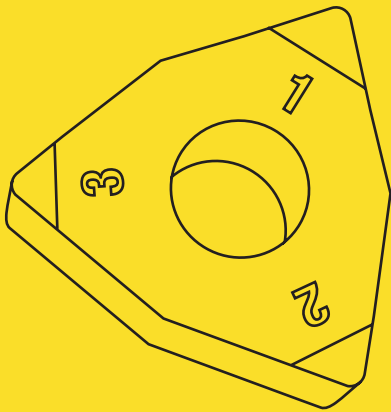
FC	회주철 GREY CAST IRON
FCD	덕타일 NODULAR CAST IRON
WMC	백심가단주철 WHITE CAST IRON
KS	소결품 SINTERED MATERIAL

STR	내열강 HARDENED STEEL
CS	표면경화강 CASE HARDENED STEEL
KM	베어링강 BEARING STEEL
HRSA	난삭재 SUPER ALLOYS (Ni Based)



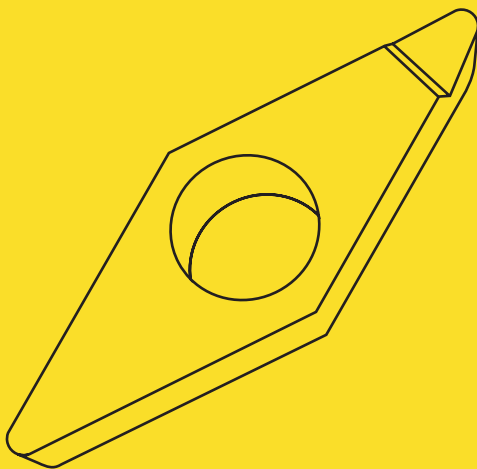
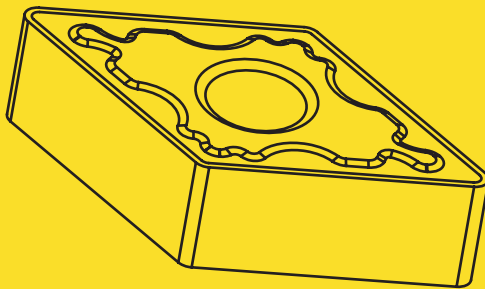
$$ap_{\max} < 20 \sim 30\% \ l$$

MATERIAL 피삭재		ap (mm)	fn (mm/ rev)	CUTTING CONDITION		PCBN						
						BC150	BC170	SC150	BC250	SC250	BC350	BC420
H	STR	0,05~0,25	0,05~0,20	○	●	120~250	100~230	100~200				100~220
				⊕	⊗			80~180				80~180
	CS	0,05~0,25	0,08~0,25	○	●			100~180				100~200
				⊕	⊗			80~160				80~160
	KM	0,05~0,25	0,05~0,20	○	●	120~220	100~200	100~180				100~200
				⊕	⊗			80~150				90~150
K	FC	0,10~0,50	0,10~0,30	○	●					400~1000		400~1200
				⊕	⊗					400~800		400~1000
	FCD	0,10~0,30	0,05~0,20	○	●				250~400			250~500
				⊕	⊗				150~300			200~400
	WMC	0,10~0,30	0,10~0,30	○	●					60~100		60~120
				⊕	⊗					50~80		50~100
S	KS	0,05~0,20	0,05~0,25	○	●				160~250	160~250		160~280
				⊕	⊗							120~220
S	HRSA	0,05~0,20	0,10~0,20	○	●						120~300	



TURNING / diamond

터닝 / 다이아몬드
PCD



D

C

G

W

11

T3

04

1

2

3

4

5

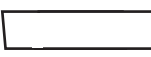
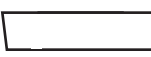
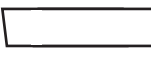
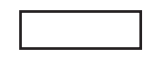
6

7

1 Geometry/ 인서트 형상

C		80
D		55
R		360
S		90
T		60
V		35
W		80

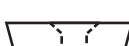
2 Clearance Angle 주절인 여유각

B		5°
C		7°
P		11°
N		0°

3 Tolerance/공차

		
G	±0.025	±0.13
M	±0.05 ±0.15	±0.13
U	±0.08 ±0.25	±0.13

4 Shape/단면형상

A	
G	
M	
W	
X	Special

5 Shape인선길이(mm)

C	06 09 12 16 19 25	
D	07 11 15	
R	06 09 12 15 19 25	
S	09 12 15 19 25	
T	09 11 16 22	
V	11 16 22	
W	06 08	

6 Thickness (mm) 인선높이(메트릭)

02	2.38
03	3.18
T3	3.97
04	4.76
06	6.35
07	7.94
09	9.52
10	10.00

7 Corner Radius 노즈(nose) "r" 크기(메트릭)

02	0.20 mm
04	0.40 mm
08	0.80 mm
12	1.20 mm
16	1.60 mm
24	2.40 mm



8	Number of Edges 코너수
1C	1 Corner
2C	2 Corners
3C	3 Corners
FE	Full Edge

9	Grade 재종
PC	PCD

10	Application 적용영역
1 □□ 3 □□	Non - Ferrous Metal 비철금속

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

SPARE PARTS

INDEX

Grades / 재종

ISO
DIN 513

N



N01

N10

N20

N30

N40

PC100

PC150

PC200

PC300

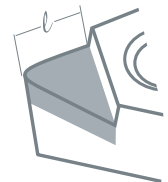
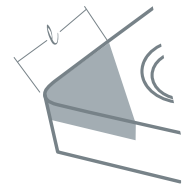
PCD

CUTTING EDGE STYLE

인선 형상

POSITIVE INSERTS

포지티브 인서트



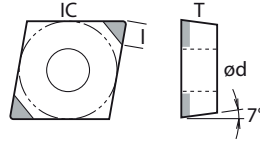
NEGATIVE INSERTS

네가티브 인서트



POSITIVE 7°
with hole

CC□□



CC□□	0602□□	09T3□□	1204□□
IC	6,35	9,525	12,7
T	2,38	3,97	4,76
Ød	2,80	4,40	5,50
Holder	120	120	120

DESCRIPTION 형번		EDGE 코너수		PCD					
				PC100	PC150	PC200	PC300		
	CCGT060202	1C			•	•	•		
	CCGT060204	1C		•	•	•	•		
	CCGT060208	1C		•	•		•		
	CCGT09T302	1C			•	•	•		
	CCGT09T304	1C		•	•	•	•		
	CCGT09T308	1C		•	•		•		
	CCGT120404	1C			•	•	•		
	CCGT120408	1C		•	•		•		
	CCGT09T302	2C			•	•	•		
	CCGT09T304	2C		•	•	•	•		
	CCGT09T308	2C		•	•		•		
	CCGT120404	2C			•	•	•		
	CCGT120408	2C		•	•		•		
	CCGW060202	1C			•	•	•		
	CCGW060204	1C		•	•	•	•		
	CCGW060208	1C		•	•		•		
	CCGW09T302	1C			•	•	•		
	CCGW09T304	1C		•	•	•	•		
	CCGW09T308	1C		•	•		•		
	CCGW120404	1C			•	•	•		
	CCGW120408	1C		•	•		•		
	CCGW09T302	2C			•	•	•		
	CCGW09T304	2C		•	•	•	•		
	CCGW09T308	2C		•	•		•		
	CCGW120404	2C			•	•	•		
	CCGW120408	2C		•	•		•		
	CCGX060204R/L	FE			•		•		
	CCGX09T304R/L	FE			•		•		

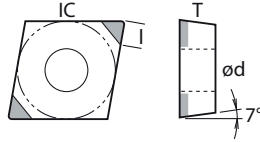
Vc • fn • ap

109

NEGATIVE with hole

CN□□

80



CN ☐ ☐

1204 □□

IC

12,7

T

4,76

Ød

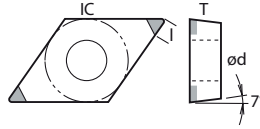
5,16

Holder

125

[illegible]

DC□□



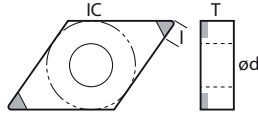
DC □□	0702 □□	11T3 □□
IC	6,35	9,525
T	2,38	3,97
Ød	2,80	4,40
 Holder	 133	 133

[illegible]

NEGATIVE with hole

DN

55

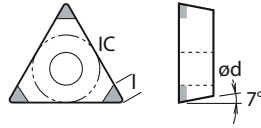


DN □□	1504 □□	1506 □□
IC	12,7	12,7
T	4,76	6,35
Ød	5,16	5,16
 Holder 		

[illegible]

POSITIVE 7°
with hole

TC □□



TC □□	0902□□	1102□□	16T3□□
IC	5,56	6,35	9,525
T	2,38	2,38	3,97
Ød	2,50	2,80	4,40
Holder	163	163	163

DESCRIPTION 형번		EDGE 코너수		PCD					
				PC100	PC150	PC200	PC300		
	TCGT090202	1C			•	•	•		
	TCGT090204	1C		•	•	•	•		
	TCGT110202	1C			•	•	•		
	TCGT110204	1C		•	•	•	•		
	TCGT110208	1C		•	•		•		
	TCGT16T304	1C		•	•	•	•		
	TCGT16T308	1C		•	•		•		
	TCGT16T304	3C		•	•	•	•		
	TCGT16T308	3C		•	•		•		
	TCGW090202	1C			•	•	•		
	TCGW090204	1C		•	•	•	•		
	TCGW110202	1C			•	•	•		
	TCGW110204	1C		•	•	•	•		
	TCGW110208	1C		•	•		•		
	TCGW16T304	1C		•	•	•	•		
	TCGW16T308	1C		•	•		•		
	TCGW16T304	3C		•	•	•	•		
	TCGW16T308	3C		•	•		•		
	TCGX090204R/L	FE			•		•		
	TCGX110204R/L	FE			•		•		
	TCGX16T304R/L	FE			•		•		

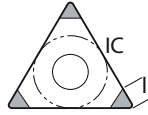
Vc • fn • ap

109

NEGATIVE with hole

TN 00

60



TN 1604

IC	9,525
----	-------

T	4,76
---	------

Ød	3,81
----	------

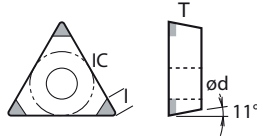
Holder ▶ 170

[illegible]

Vc ● fn ● ap

109

TP □□



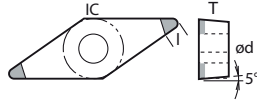
TP □ □	0802 □ □	0902 □ □	1103 □ □
IC	4,76	5,56	6,35
T	2,38	2,38	3,18
Ød	2,30	3,00	3,40
 Holder	169	169	169

[illegible]

109

POSITIVE 5°
with hole

VB □□

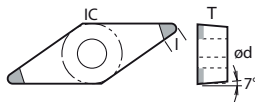


VB □□	1103 □□	1604 □□
IC	6,35	9,525
T	3,18	4,76
Ød	2,80	4,40
 Holder	175	175

[illegible]

POSITIVE 7°
with hole

VC □□



VC□□	1103□□	1604□□
IC	6,35	9,525
T	3,18	4,76
Ød	2,80	4,40
Holder	181	181

DESCRIPTION 형번		EDGE 코너수		PCD					
				PC100	PC150	PC200	PC300		
	VCGT110302	1C			●	●	●		
	VCGT110304	1C		●	●	●	●		
	VCGT160402	1C			●	●	●		
	VCGT160404	1C		●	●	●	●		
	VCGT160408	1C		●	●		●		
	VCGT110302	2C			●	●	●		
	VCGT110304	2C		●	●	●	●		
	VCGT160402	2C			●	●	●		
	VCGT160404	2C		●	●	●	●		
	VCGT160408	2C		●	●		●		
	VCGW110302	1C			●	●	●		
	VCGW110304	1C		●	●	●	●		
	VCGW160402	1C			●	●	●		
	VCGW160404	1C		●	●	●	●		
	VCGW160408	1C		●	●		●		
	VCGW110302	2C			●	●	●		
	VCGW110304	2C		●	●	●	●		
	VCGW160402	2C			●	●	●		
	VCGW160404	2C		●	●	●	●		
	VCGW160408	2C		●	●		●		
	VCGX110304R/L	FE			●		●		
	VCGX160404R/L	FE			●		●		
					●		●		

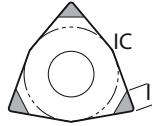
Vc ● fn ● ap

109

NEGATIVE with hole

WN 00

80



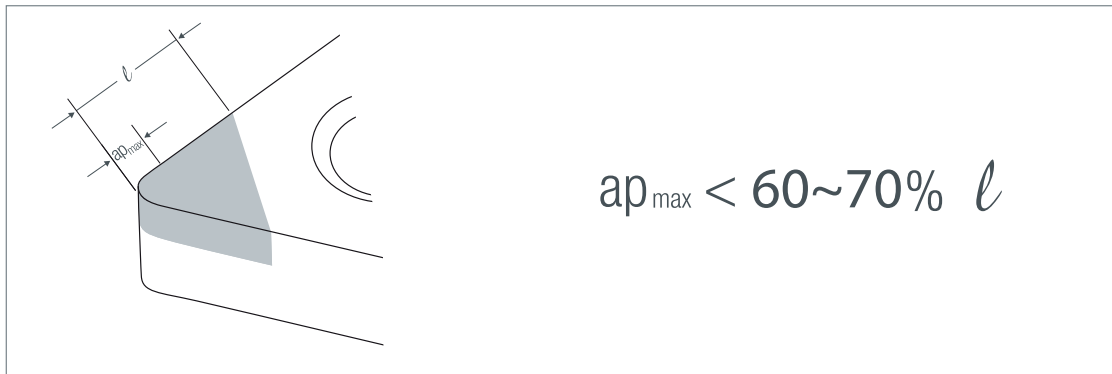
WN □ □	0604 □ □	0804 □ □
IC	9,525	12,7
T	4,76	4,76
Ød	3,81	5,16
		

[illegible]

Cutting Parameters / 절삭 조건

AL	알루미늄합금 ALUMINIUM ALLOYS
NS	알루미늄합금 ALUMINIUM ALLOYS (Si≤15%)
HAL	강화알루미늄합금 AL ALLOYS AGED AND HARDENED
NB	황동 BRASS

CU	청동, 구리 BRONZE AND ELECTROLYTIC COPPER
C	흑연 GRAPHITE
STR	내열강 HARD METAL (Co≤16%)
HRSA	탄삭재 TITANIUM ALLOYS



MATERIAL 피삭재		ap (mm)	fn (mm/ rev)	CUTTING CONDITION			PCD						
							PC100	PC150	PC200	PC300			
N	AL	0,10~1,00	0,08~0,25	○	⊞	☹		600~2500		600~2500			
		1,00~2,50	0,15~0,50	○	⊞	☹		600~1600		600~1600			
	NS	0,10~1,00	0,05~0,20	○	⊞	☹			500~1800				
		1,00~2,50	0,08~0,35	○	⊞	☹			500~1200				
	HAL	0,10~1,00	0,05~0,35	○	⊞	☹			400~1000				
		1,00~2,50	0,08~0,35	○	⊞	☹			400~800				
	NB	0,10~1,00	0,10~0,30	○	⊞	☹	400~1200	400~1200		400~1200			
		1,00~2,50	0,15~0,25	○	⊞	☹	400~1000	400~1000		400~1000			
	CU	0,10~1,00	0,10~0,30	○	⊞	☹	300~800	300~800		300~800			
		1,00~2,50	0,15~0,25	○	⊞	☹	300~500	300~500		300~500			
	C	0,10~1,00	0,08~0,25	○	⊞	☹		300~800	300~800	300~800			
		1,00~2,50	0,15~0,50	○	⊞	☹		300~600	300~600	300~600			
H	STR	0,10~0,50	0,08~0,25	○		☹			10~40				
S	HRSA	0,10~1,00	0,05~0,20	○	⊞	☹	100~200	100~200	100~220	100~200			
		1,00~2,50	0,08~0,20	○	⊞	☹	100~150	100~150	100~220	100~150			

터닝
윤곽 그라인딩
나사
윤곽
클린드링 인테리얼 드릴
엔드밀
클린드링 스퀘어
파본
색인표



P	C	L	N	R	25	25	M	12
1	2	3	4	5	6	7	8	9

1 Clamping System
클램핑 방식

C	
M	
P	
S	
T	

2 Geometry
인서트 형상

C		80
D		55
K		55
S		90
T		60
V		35
W		80

3 Lead Angle
홀더 형상

A		P	
B		R	
D		S	
F		V	
G			
J			
K			
L			
N			

4 Clearance Angle
인서트 여유각

B		5°
C		7°
P		11°
N		0°

5 Direction 승수

L	
N	
R	

6 Shank
샹크 높이 / 폭

(H)		(B)
-----	--	-----

8 Total Length
홀더 길이

H	100
K	125
M	150
P	170
S	250

9 Edge Length
인선 길이

C	06 09 12 16 19 25	
D	07 11 15	
K	16	
S	09 12 15 19 25	
T	09 11 16 22	
V	11 16 22	
W	06 08	



S	16	K	-	S	C	L	C	R	-	06
1	2	3		4	5	6	7	8		9

1	Type of Bar 샹크 재종	2	Shank Diameter 샹크 직경	3	Total Length 공구 길이	4	Clamping System 클램핑 방식
A	Steel + Coolant	...				M	
C	Carbide			E	70	P	
S	Steel			F	80	S	
A	스틸 + 오일홀			H	100	T	
C	초경샹크			K	125		
S	스틸샹크			M	150		
				Q	170		
				R	200		
				S	250		
				T	300		
				U	350		
				V	400		
5	Insert shape & size 인서트 형상 & 사이즈	6	Lead Angle 공구 형상	7	Clearance Angle 인서트 여유각	8	Direction 승수
C	06 09 12 16 19 25	A	90°	B	5°	L	
D	07 11 15	F	90°	C	7°	R	
K	16	J	93°	P	11°		
S	09 12 15 19 25	K	75°	N	0°		
T	09 11 16 22	L	95° 95°				
V	11 16 22	Q	107.5°				
W	06 08	U	93°				
		Z	93°				

터너

윤슬비

나사

윤슬

클램핑 시스템

엔드미

클램핑 시스템

파본

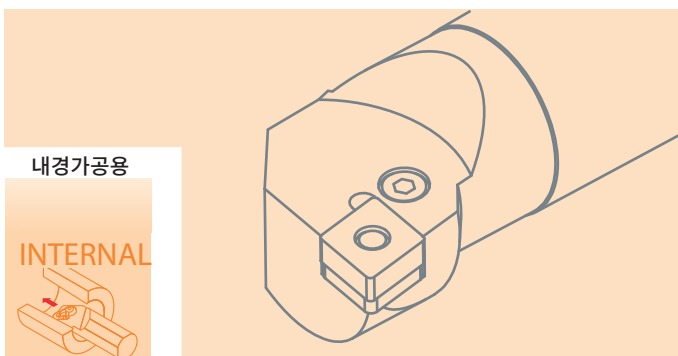
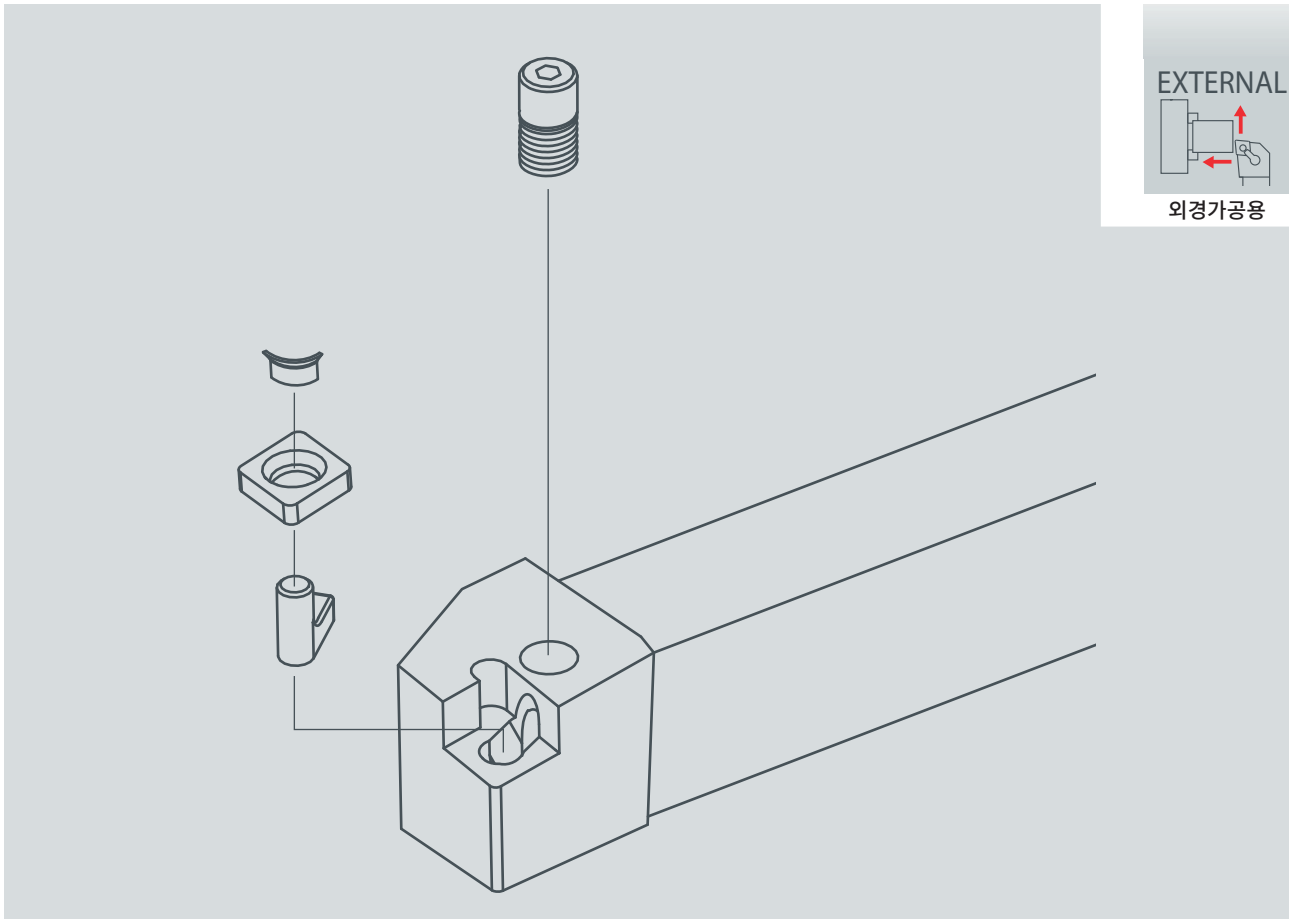
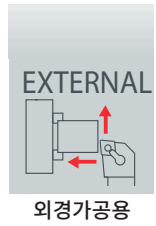
표인표

LEVER LOCK CLAMPING SYSTEM (NEGATIVE) 레버 락 클램핑 시스템 (네가티브)

Easy to use - Excellent chip ejection

P

레버락 시스템

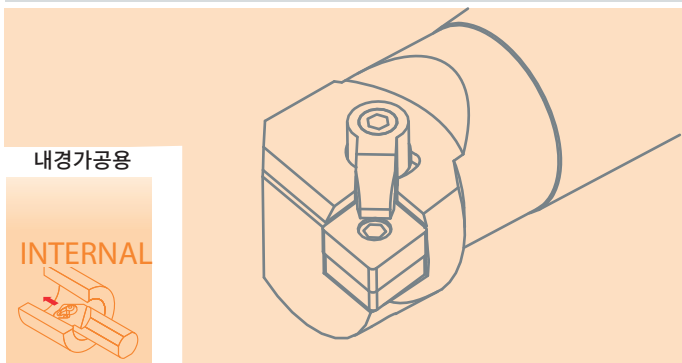
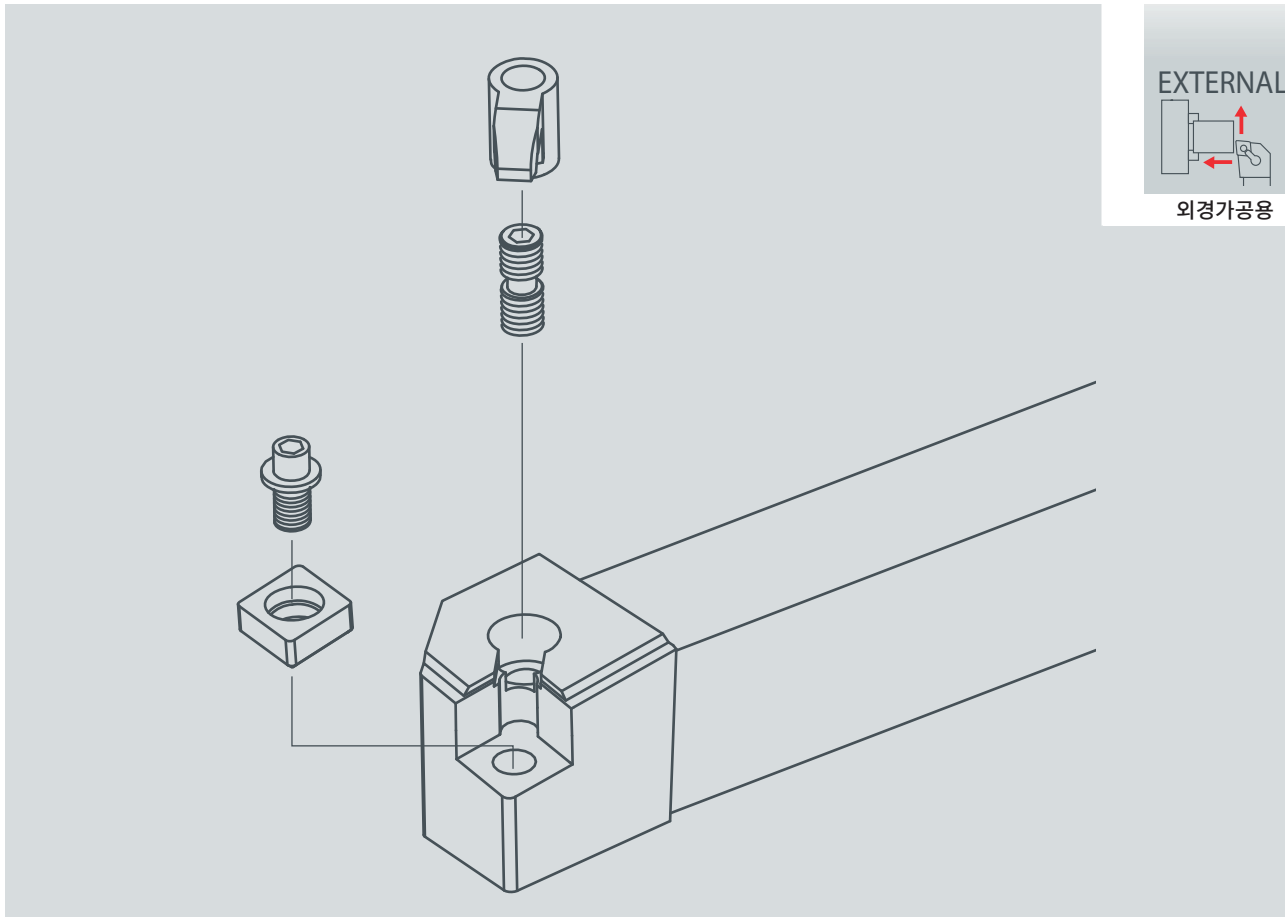
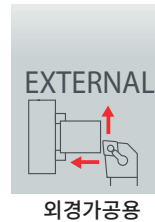


MULTI CLAMPING SYSTEM (NEGATIVE) 멀티 클램핑 시스템(네가티브)

High Clamping Strength - First choice for ceramic inserts

M

멀티 클램프 시스템



TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

SPARE PARTS

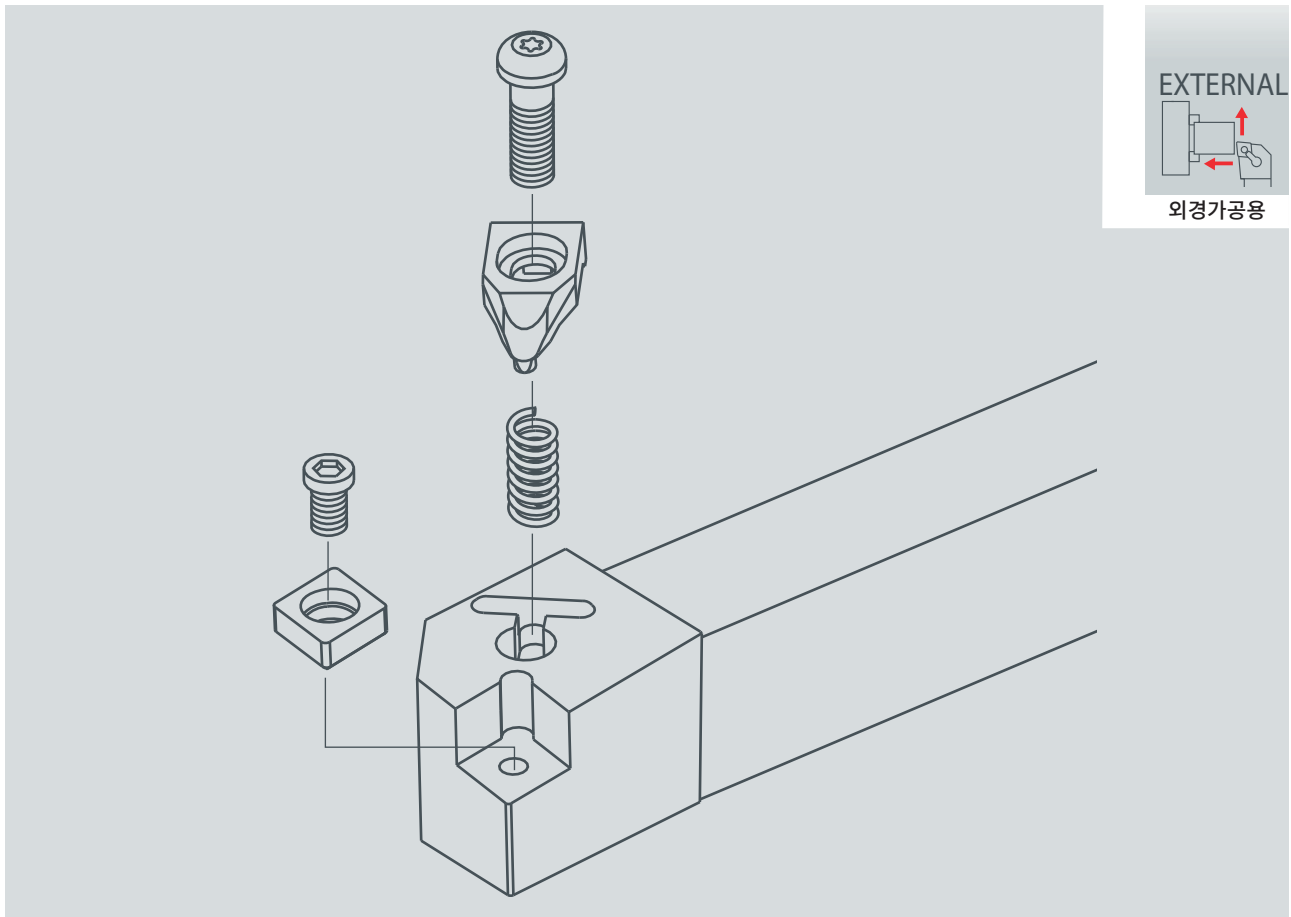
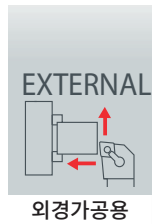
INDEX

DOUBLE CLAMPING SYSTEM (NEGATIVE) 더블 클램핑 시스템(네가티브)

Fast Clamping - Ideal for short chip materials

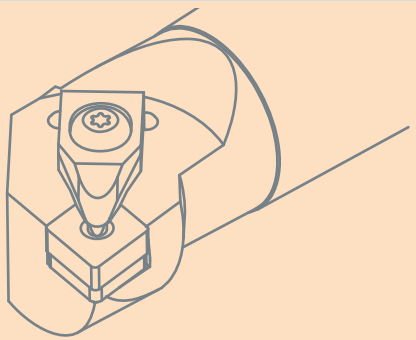


더블 클램프 시스템



내경가공용

INTERNAL



TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

SPARE
PARTS

INDEX



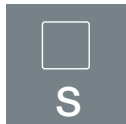
EXTERNAL HOLDER GUIDE / 외경홀더 가이드



SCAC	SCLC	SCMC	PCBN	PCLN	PCMN	TCLN	TCMN	TCZN
CC□□ 120	CC□□ 121	CC□□ 122	CN□□ 125	CN□□ 126	CN□□ 127	CN□□ 128	CN□□ 129	CN□□ 130



SDHC	SDJC	SDNC	PDJN	PDNN	TDHN	TDJN	TDNN
DC□□ 133	DC□□ 134	DC□□ 135	DN□□ 142	DN□□ 143	DN□□ 143	DN□□ 144	DN□□ 145



SSDC	SSSC	PSBN	PSDN	PSKN	PSSN	TSDN	TSKN	TSSN
SC□□ 154	SC□□ 155	SN□□ 157	SN□□ 158	SN□□ 159	SN□□ 160	SN□□ 160	SN□□ 161	SN□□ 161



STFC	STGC	STJC	MTEN	MTJN	TTEN	TTJN
TC□□ 163	TC□□ 164	TC□□ 165	TN□□ 170	TN□□ 171	TN□□ 171	TN□□ 172



SVHB	SVJB	SVVB	SVZB	SVHC	SVJC	TVHN	TVJN	TVVN
VB□□ 175	VB□□ 176	VB□□ 177	VB□□ 178	VC□□ 181	VC□□ 181	VN□□ 183	VN□□ 183	VN□□ 184



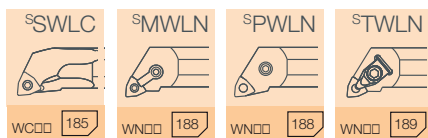
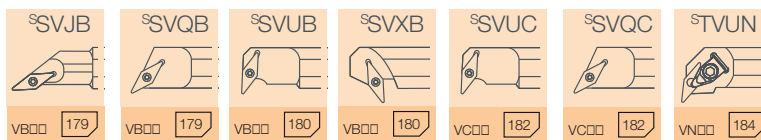
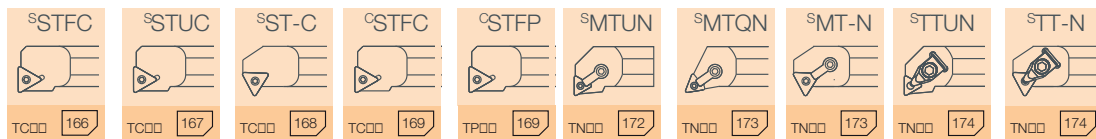
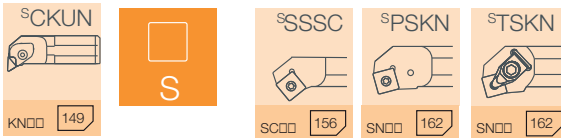
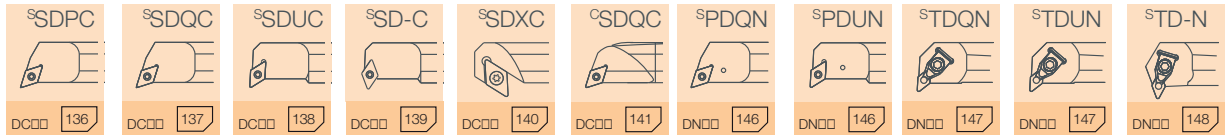
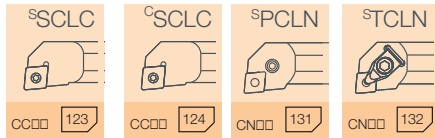
MWDN	MWLN	PWLN	TWLN	OTHERS	CKJN	SRDC	SRGC	SRHC
WN□□ 186	WN□□ 186	WN□□ 187	WN□□ 187		KN□□ 149	RC□□ 151	RC□□ 152	RC□□ 153



CDJN	CSDN	CSSN	CTJN	CRDC
DN□□ 142	SN□□ 156	SN□□ 157	TN□□ 170	RC□□ 150



INTERNAL HOLDER GUIDE / 내경홀더 가이드



TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

SPARE PARTS

INDEX

SCAC

POSITIVE 7 (인서트 여유각 7도)
with Hole (스크류온 타입)

CC



EXTERNAL



외경가공용

[illegible]

적용인서트

22

PCBN

79

다이아몬드

99

SCLC

**POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)**

CC

[illegible]

carbide

22

PCBN

79

diamond

99

SCMCN

POSITIVE 7 (인서트 여유각 7도)
with Hole (스크류온 타입)

CC□□



EXTERNAL

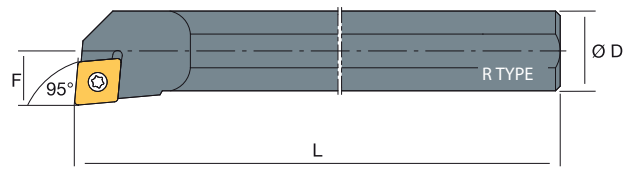
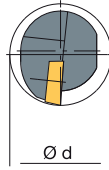
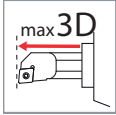


외경가공용

[illegible]

^sSCLCPOSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)

CC□□



내경가공용

CC □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수										
				R	L	ØD	Ød	L	F							
CC □ □ 0602	S06H	SCLCR/L	06	●	●	06	>08	100	4.5		ST-SC0257	ST-WRT08				
	S08H		06	●	●	08	>11	100	06		ST-SC0257	ST-WRT08				
	S10M		06	●	●	10	>13	125	07		ST-SC0257	ST-WRT08				
	S10M		06	●	●	10	>13	150	07		ST-SC0257	ST-WRT08				
	S12M		06	●	●	12	>16	125	09		ST-SC0257	ST-WRT08				
	S16M		06	●	●	16	>13	150	09		ST-SC0257	ST-WRT08				
CC □ □ 09T3	S12K	SCLCR/L	09	●	●	12	>16	125	09		ST-SC3511	ST-WRT15				
	S16P		09	●	●	16	>21	170	11		ST-SC3511	ST-WRT15				
	S20R		09	●	●	20	>25	200	13		ST-SC3511	ST-WRT15				
	S25S		09	●	●	25	>32	250	17		ST-SC3511	ST-WRT15				
	S32T		09	●	●	32	>40	300	22		ST-SC3514	ST-WRT15	ST-SHCC09	ST-SC5011		
	S32T	SCLCR/L	12	●	●	32	>40	300	22		ST-SC0416	ST-WRT15	ST-SHCC12	ST-SC6011		
	S40T		12	●	●	40	>50	350	27		ST-SC0416	ST-WRT15	ST-SHCC12	ST-SC6011		

carbide

22

PCBN

79

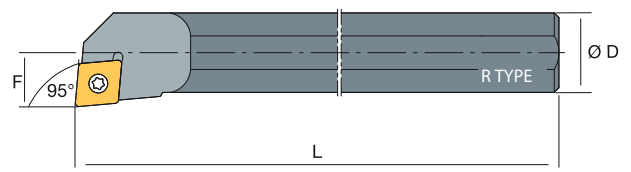
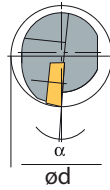
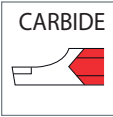
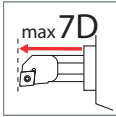
diamond

99

C SCLC

POSITIVE 7 (인서트 여유각 7도)
with Hole (스크류온 타입)

CC□□



CC □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	ØD	Ød	L	F						
CC □ □0301	C04G	SCLCR/L	03	●	●	04	5	90	3.8	ST-SC01635	ST-WRT06				
	C05H		03	●	●	05	6	100	4.4	ST-SC01635	ST-WRT06				
CC □ □0401	C06J	SCLCR/L	04	●	●	06	7	110	5.4	ST-SC0235	ST-WRT06				
CC □ □0602	C08L	SCLCR/L	06	●	●	08	10	140	07	ST-SC02545	ST-WRT08				
	C10N		06	●	●	10	12	160	09	ST-SC02545	ST-WRT08				
	C12Q		06	●	●	12	14	180	11	ST-SC02545	ST-WRT08				
CC □ □09T3	C12Q	SCLCR/L	09	●	●	12	16	180	11	ST-SC0407	ST-WRT15				
	C16X		09	●	●	16	18	220	15	ST-SC0407	ST-WRT15				
	C20S		09	●	●	20	22	250	19	ST-SC0407	ST-WRT15				
	C25T		09	●	●	25	27	300	24	ST-SC0407	ST-WRT15				

적용인서트

22

PCBN

79

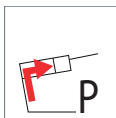
다이아몬드

99

PCLN

LEVER LOCK (레버락 타입)

CN ☐ ☐

[illegible]

적용인서트

25

PCBN

80

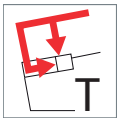
다이아몬드

100

TCLN

DOUBLE CLAMP
(더블클램프 타입)

CN ☐ ☐

[illegible]

적용인서트

25

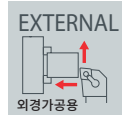
PCBN

80

다이아몬드

100

CN ☐ ☐

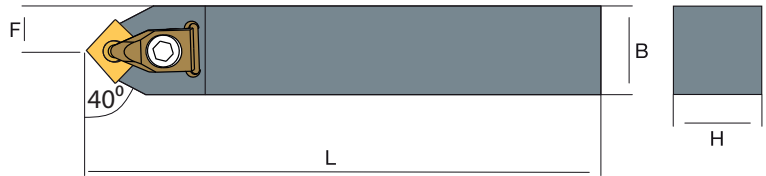
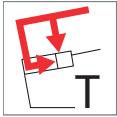


100

TCZNN

DOUBLE CLAMP (더블클램프 타입)

CN ☐ ☐

[illegible]

적용인서트

25

PCBN

80

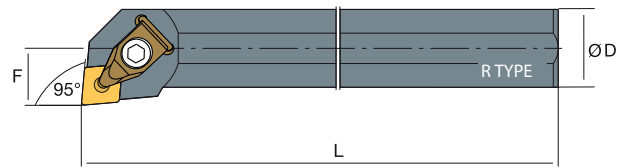
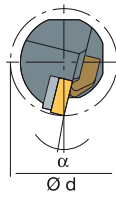
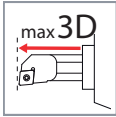
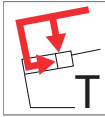
다이아몬드

100

STCLN

DOUBLE CLAMP (더블클램프 타입)

CN ☐ ☐



적용인서트

25

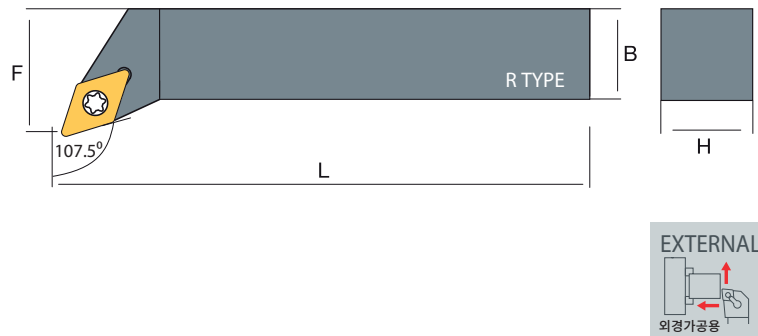
PCBN

80

다이아몬드

100

POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입) DC□□

TURNING

carbide

30

PCBN

81

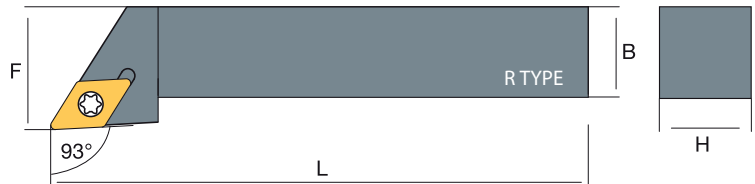
diamond

101

SDJC

POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)

DC



EXTERNAL



외경가공용

적용인서트

30

PCBN

81

다이아몬드

101

SDNCN

**POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)**

DC



carbide

30

PCBN

81

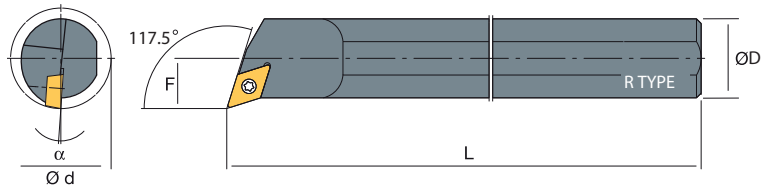
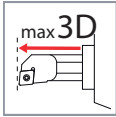
diamond

101

^sSDPC

POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)

DC



INTERNAL



내경가공용

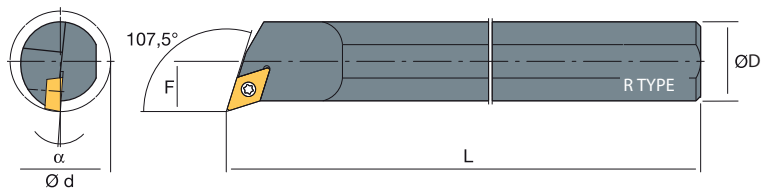
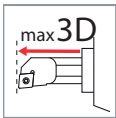
[illegible]

적용인서트 ▶ 30

PCBN 81

다이아몬드 ▶ 101

DC



INTERNAL



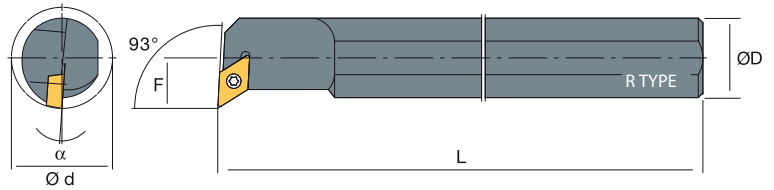
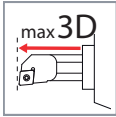
내경가공용

101

sSDUC

POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)

DC



INTERNAL



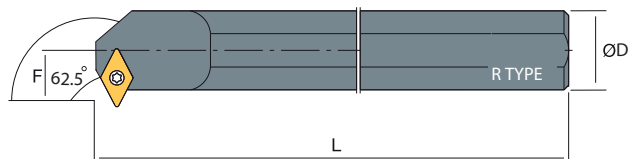
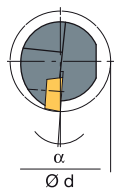
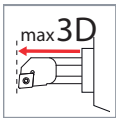
내경가공용

적용인서트 ▶ 30

PCBN 81

다이아몬드 ▶ 101

DC



30

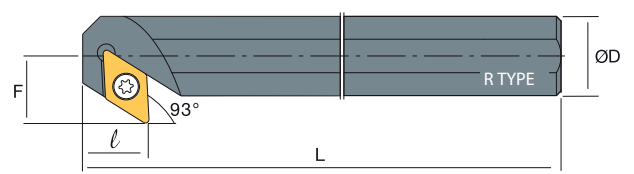
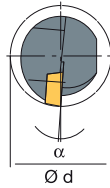
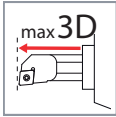
81

101

sSDXC

POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)

DC



INTERNAL



내경가공용

적용인서트

30

PCBN

81

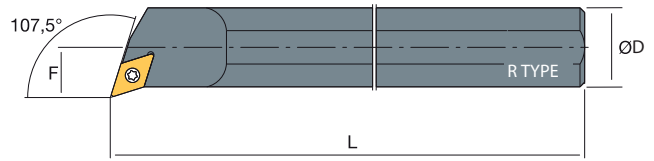
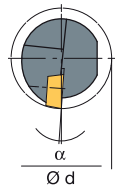
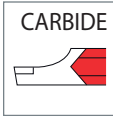
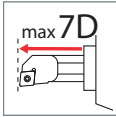
다이아몬드

101

CSDQC

**POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)**

DC



carbide

30

PCBN

81

diamond

101

터너

그라운드

나사

임핀

클램프
인서트

레버락

속리드너

파스

표인표

CDJN

CLAMP ON
(클램프 온 타입)

DN□□



DN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	H	B	L	F						
DN□N1507	CDJNR/L	2525	M15	●	●	25	25	150	32	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR01	ST-SC630	ST-WR0030
		3232	P15	●	●	32	32	170	40	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR01	ST-SC630	ST-WR0030

PDJN

LEVER LOCK (레버락 타입)

DN□□



DN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	H	B	L	F						
DN□□1506	PDJNR/L	2020	K15	●	●	20	20	125	25	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030	
		2525	M15	●	●	25	25	150	32	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030	
		3232	P15	●	●	32	32	170	40	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030	
		4040	S15	●	●	40	40	250	50	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030	

적용인서트

33

PCBN

82

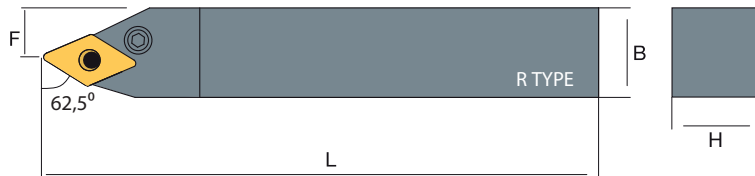
다이아몬드

102

PDNNN

LEVER LOCK (레버락 타입)

DN □ □

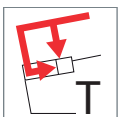


DN □ □	DESCRIPTION 형번				STOCK 재고	DIMENSIONS 치수								
						H	B	L	F					
DN □ □1506	PDNNN	2020	K15	●		20	20	125	25	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
		2525	M15	●		25	25	150	32	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
		3232	P15	●		32	32	170	40	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
		4040	S15	●		40	40	250	50	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030

TDHN

DOUBLE CLAMP
(더블클램프 타입)

DN □ □



DN □ □	DESCRIPTION 형번				STOCK 재고	DIMENSIONS 치수								
						R	L	H	B	L	F			
DN □ □1504	TDHNR/L	2525	M1504	●	●	25	25	150	32	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630
		3232	P1504	●	●	32	32	170	40	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630
DN □ □1506	TDHNR/L	2020	K15	●	●	20	20	125	25	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630
		2525	M15	●	●	25	25	150	32	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630
		3232	P15	●	●	32	32	170	40	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630

carbide

33

PCBN

82

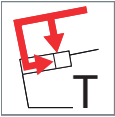
diamond

102

TDJN

DOUBLE CLAMP (더블클램프 타입)

DN ☐ ☐



DN ☐ ☐

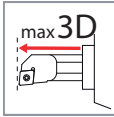
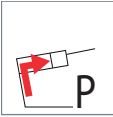


102

^SPDQN

LEVER LOCK (레버락 타입)

DN □ □

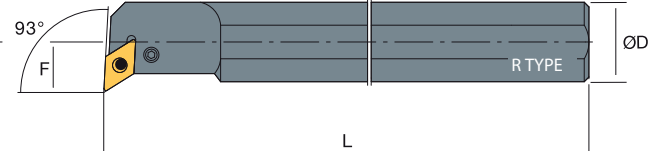
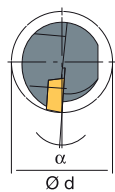
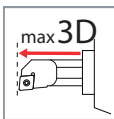


DN □ □	DESCRIPTION 형번		STOCK 재고		DIMENSIONS 치수									
			R	L	ØD	Ød	L	F						
DN □ □1506	S25S	PDQNR/L	15	●	●	25	40	250	17	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
	S32T		15	●	●	32	40	300	22	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
	S40U		15	●	●	40	50	350	27	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
	S50V		15	●	●	50	63	400	35	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030

^SPDUN

LEVER LOCK (레버락 타입)

DN □ □



DN □ □	DESCRIPTION 형번		STOCK 재고		DIMENSIONS 치수									
			R	L	ØD	Ød	L	F						
DN □ □1506	S32T	PDUNR/L	15	●	●	32	40	300	22	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
	S40U		15	●	●	40	50	350	27	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
	S50V		15	●	●	50	63	400	35	ST-SHDN15	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030

적용인서트

33

PCBN

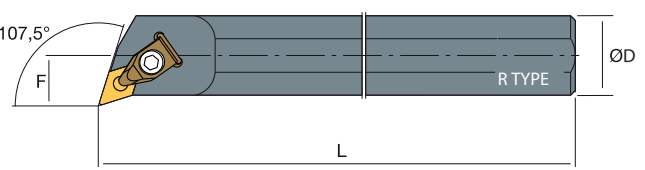
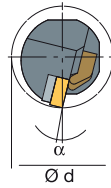
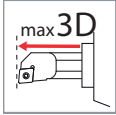
82

다이아몬드

102

^sTDQNDOUBLE CLAMP
(더블클램프 타입)

DN □ □



TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

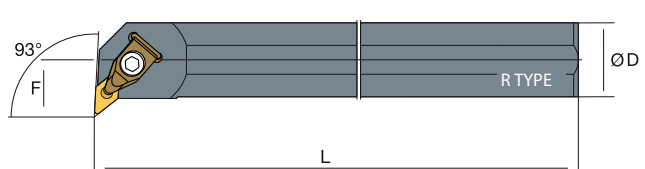
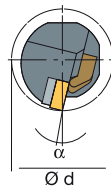
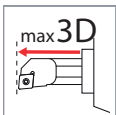
SPARE PARTS

INDEX

DN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	ØD	Ød	L	F						
DN □ □1104	S25S	TDQNR/L	11	●	●	25	32	250	17	ST-SHDN11	ST-SC0410	ST-CS002	ST-SPR04	ST-SC523	ST-WR0030
	S32T		11	●	●	32	40	300	22	ST-SHDN11	ST-SC0410	ST-CS002	ST-SPR04	ST-SC523	ST-WR0030
DN □ □1506	S25S	TDQNR/L	15	●	●	25	32	250	17	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S32T		15	●	●	32	40	300	22	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S40U		15	●	●	40	50	350	27	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S50V		15	●	●	50	63	400	35	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030

^sTDUNDOUBLE CLAMP
(더블클램프 타입)

DN □ □



DN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	ØD	Ød	L	F						
DN □ □1104	S25S	TDUNR/L	11	●	●	25	32	250	17	ST-SHDN11	ST-SC0410	ST-CS002	ST-SPR04	ST-SC523	ST-WR0030
	S32T		11	●	●	32	40	300	22	ST-SHDN11	ST-SC0410	ST-CS002	ST-SPR04	ST-SC523	ST-WR0030
DN □ □1506	S25S	TDUNR/L	15	●	●	25	32	250	17	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S32T		15	●	●	32	40	300	22	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S40U		15	●	●	40	50	350	27	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S50V		15	●	●	50	63	400	35	ST-SHDN15	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030

carbide

33

PCBN

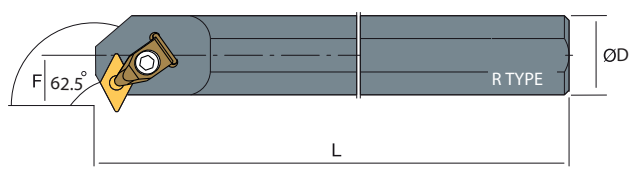
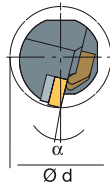
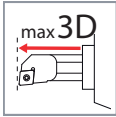
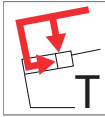
82

diamond

102

sTD-N

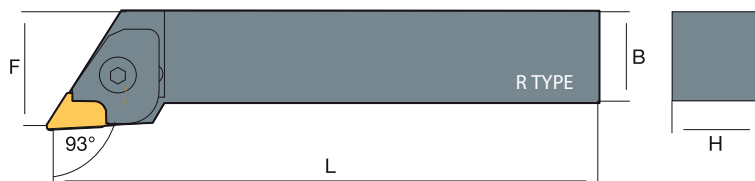
DOUBLE CLAMP (더블클램프 타입)

DN [illegible]

CKJN

CLAMP ON (클램프 온 타입)

KN □ □

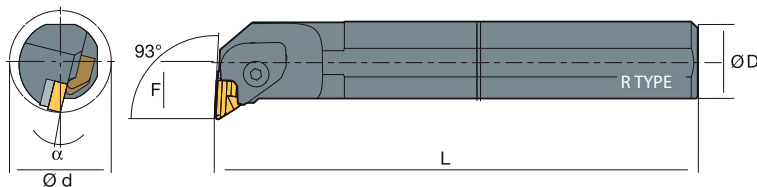
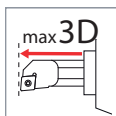


KN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	H	B	L	F						
KN□N1604	CKJNR/L	2020	K16	●	●	25	25	125		ST-SHKN16	ST-SC0310	ST-CS011	-	ST-SC630	ST-WR0050
		2525	M16	●	●	25	25	150		ST-SHKN16	ST-SC0310	ST-CS011	-	ST-SC630	ST-WR0050
		3232	P16	●	●	32	32	170		ST-SHKN16	ST-SC0310	ST-CS011	-	ST-SC630	ST-WR0050
		4040	S16	●	●	40	40	250		ST-SHKN16	ST-SC0310	ST-CS011	-	ST-SC630	ST-WR0050

^sCKUN

CLAMP ON (클램프 온 타입)

KN □ □



KN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	ØD	Ød	L	F						
KN□□1604	S25S	CKUNR/L	16	●	●	25	34	250	17	ST-SHKN16	ST-SC0310	ST-CS011	-	ST-SC630	ST-WR0050
	S28S		16	●	●	28	38	250	17	ST-SHKN16	ST-SC0310	ST-CS011	-	ST-SC630	ST-WR0050
	S32T		16	●	●	32	40	300	22	ST-SHKN16	ST-SC0310	ST-CS011	-	ST-SC630	ST-WR0050
	S40U		16	●	●	40	50	350	27	ST-SHKN16	ST-SC0310	ST-CS011	-	ST-SC630	ST-WR0050
	S50V		16	●	●	50	63	400	35	ST-SHKN16	ST-SC0310	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030

carbide

37

CRDCN

CLAMP ON (클램프 온 타입)

RC□□



RC □□	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	H	B	L	F						
RCGX0606	CRDCN	2020	K06	●	●	20	20	125	10	ST-SHRC06	ST-SCRC6	ST-CSRC6	-	ST-SCRC6	ST-WR0040
		2525	M06	●	●	25	25	150	12.5	ST-SHRC06	ST-SCRC6	ST-CSRC6	-	ST-SCRC6	ST-WR0040
		3232	P06	●	●	32	32	170	16	ST-SHRC06	ST-SCRC6	ST-CSRC6	-	ST-SCRC6	ST-WR0040
		4040	S06	●	●	40	40	250	20	ST-SHRC06	ST-SCRC6	ST-CSRC6	-	ST-SCRC6	ST-WR0040
RCGX0907	CRDCN	2020	K09	●	●	20	20	125	10	ST-SHRC06	ST-SCRC9	ST-CSRC9	-	ST-SCRC9	ST-WR0040
		2525	M09	●	●	25	25	150	12.5	ST-SHRC06	ST-SCRC9	ST-CSRC9	-	ST-SCRC9	ST-WR0040
		3232	P09	●	●	32	32	170	16	ST-SHRC06	ST-SCRC9	ST-CSRC9	-	ST-SCRC9	ST-WR0040
		4040	S09	●	●	40	40	250	20	ST-SHRC06	ST-SCRC9	ST-CSRC9	-	ST-SCRC9	ST-WR0040
RCGX1207	CRDCN	2020	K12	●	●	20	20	125	10	ST-SHRC06	ST-SCR12	ST-CSR12	-	ST-SCR12	ST-WR0040
		2525	M12	●	●	25	25	150	12.5	ST-SHRC06	ST-SCR12	ST-CSR12	-	ST-SCR12	ST-WR0040
		3232	P12	●	●	32	32	170	16	ST-SHRC06	ST-SCR12	ST-CSR12	-	ST-SCR12	ST-WR0040
		4040	S12	●	●	40	40	250	20	ST-SHRC06	ST-SCR12	ST-CSR12	-	ST-SCR12	ST-WR0040
RCGX1510	CRDCN	2020	K15	●	●	20	20	125	10	ST-SHRC06	ST-SCR15	ST-CSR15	-	ST-SCR15	ST-WR0040
		2525	M15	●	●	25	25	150	12.5	ST-SHRC06	ST-SCR15	ST-CSR15	-	ST-SCR15	ST-WR0040
		3232	P15	●	●	32	32	170	16	ST-SHRC06	ST-SCR15	ST-CSR15	-	ST-SCR15	ST-WR0040
		4040	S15	●	●	40	40	250	20	ST-SHRC06	ST-SCR15	ST-CSR15	-	ST-SCR15	ST-WR0040
RCGX1910	CRDCN	2020	K19	●	●	20	20	125	10	ST-SHRC06	ST-SCR19	ST-CSR19	-	ST-SCR19	ST-WR0040
		2525	M19	●	●	25	25	150	12.5	ST-SHRC06	ST-SCR19	ST-CSR19	-	ST-SCR19	ST-WR0040
		3232	P19	●	●	32	32	170	16	ST-SHRC06	ST-SCR19	ST-CSR19	-	ST-SCR19	ST-WR0040
		4040	S19	●	●	40	40	250	20	ST-SHRC06	ST-SCR19	ST-CSR19	-	ST-SCR19	ST-WR0040
RCGX2512	CRDCN	2020	K25	●	●	20	20	125	10	ST-SHRC06	ST-SCR25	ST-CSR25	-	ST-SCR25	ST-WR0040
		2525	M25	●	●	25	25	150	12.5	ST-SHRC06	ST-SCR25	ST-CSR25	-	ST-SCR25	ST-WR0040
		3232	P25	●	●	32	32	170	16	ST-SHRC06	ST-SCR25	ST-CSR25	-	ST-SCR25	ST-WR0040
		4040	S25	●	●	40	40	250	20	ST-SHRC06	ST-SCR25	ST-CSR25	-	ST-SCR25	ST-WR0040

적용인서트

38

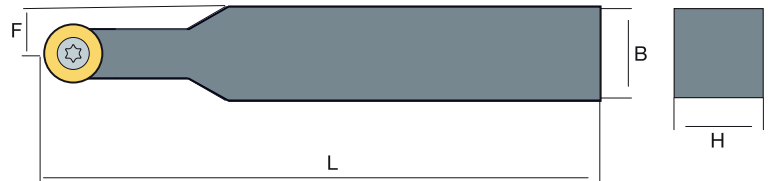
PCBN

83

SRDCN

POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)

RC□□



RC □ □	DESCRIPTION 형번				STOCK 재고	DIMENSIONS 치수									
						H	B	L	F						
RC □ □ 0602	SRDCN	1616	H06	●		16	16	100	8	ST-SC2507	ST-WRT08	-	-		
		2020	K06	●		20	20	125	10	ST-SC2507	ST-WRT08	-	-		
		2525	M06	●		25	25	150	12.5	ST-SC2507	ST-WRT08	-	-		
RC □ □ 0803	SRDCN	1616	H08	●		16	16	100	8	ST-SC3009	ST-WRT08	-	-		
		2020	K08	●		20	20	125	10	ST-SC3009	ST-WRT08	-	-		
		2525	M08	●		25	25	150	12.5	ST-SC3009	ST-WRT08	-	-		
		3232	P08	●		32	32	170	16	ST-SC3009	ST-WRT08	-	-		
RC □ □ 1003	SRDCN	1616	H10	●		16	16	100	8	ST-SC3511	ST-WRT15	-	-		
		2020	K10	●		20	20	125	10	ST-SC3511	ST-WRT15	-	-		
		2525	M10	●		25	25	150	12.5	ST-SC3511	ST-WRT15	-	-		
		3232	P10	●		32	32	170	16	ST-SC3511	ST-WRT15	-	-		
RC □ □ 1204	SRDCN	2020	K12	●		20	20	125	10	ST-SC3511	ST-WRT15	-	-		
		2525	M12	●		25	25	150	12.5	ST-SC3511	ST-WRT15	-	-		
		3232	P12	●		32	32	170	16	ST-SC3511	ST-WRT15	-	-		
RC □ □ 1605	SRDCN	2525	M16	●		25	25	150	12.5	ST-SC0512	ST-WRT20	-	-		
		3232	P16	●		32	32	170	16	ST-SC0512	ST-WRT20	-	-		
RC □ □ 2006	SRDCN	2525	M20	●		25	25	150	12.5	ST-SC0616	ST-WRT20	-	-		
		3232	P20	●		32	32	170	16	ST-SC0616	ST-WRT20	-	-		
		4040	S20	●		40	40	250	20	ST-SC3514	ST-WRT20	-	-		

carbide

38

PCBN

83

SRGC

POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)

RC□□



RC □ □	DESCRIPTION 형번				STOCK 재고		DIMENSIONS 치수							
					R	L	H	B	L	F				
RC□□0602	SRGCR/L	1616	H06	●	●	16	16	100	20	ST-SC2507	ST-WRT08	-	-	
		2020	K06	●	●	20	20	125	25	ST-SC2507	ST-WRT08	-	-	
		2525	M06	●	●	25	25	150	32	ST-SC2507	ST-WRT08	-	-	
RC□□0803	SRGCR/L	1616	H08	●	●	16	16	100	20	ST-SC3009	ST-WRT08	-	-	
		2020	K08	●	●	20	20	125	25	ST-SC3009	ST-WRT08	-	-	
		2525	M08	●	●	25	25	150	32	ST-SC3009	ST-WRT08	-	-	
		3232	P08	●	●	32	32	170	40	ST-SC3009	ST-WRT08	-	-	
RC□□1003	SRGCR/L	1616	H10	●	●	16	16	100	20	ST-SC3511	ST-WRT15	-	-	
		2020	K10	●	●	20	20	125	25	ST-SC3511	ST-WRT15	-	-	
		2525	M10	●	●	25	25	150	32	ST-SC3511	ST-WRT15	-	-	
		3232	P10	●	●	32	32	170	40	ST-SC3511	ST-WRT15	-	-	
RC□□1204	SRGCR/L	2020	K12	●	●	20	20	125	25	ST-SC3511	ST-WRT15	-	-	
		2525	M12	●	●	25	25	150	32	ST-SC3511	ST-WRT15	-	-	
		3232	P12	●	●	32	32	170	40	ST-SC3511	ST-WRT15	-	-	
RC□□1605	SRGCR/L	2525	M16	●	●	25	25	150	32	ST-SC0512	ST-WRT20	-	-	
		3232	P16	●	●	32	32	170	40	ST-SC0512	ST-WRT20	-	-	
RC□□2006	SRGCR/L	2525	M20	●	●	25	25	150	32	ST-SC0616	ST-WRT20	-	-	
		3232	P20	●	●	32	32	170	40	ST-SC0616	ST-WRT20	-	-	

적용인서트

38

PCBN

83

SRHC

**POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)**

RC□□

[illegible]

carbide

38

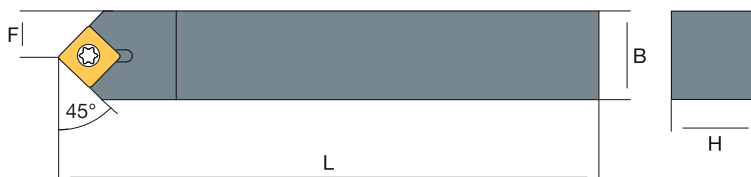
PCBN

83

SSDCN

POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)

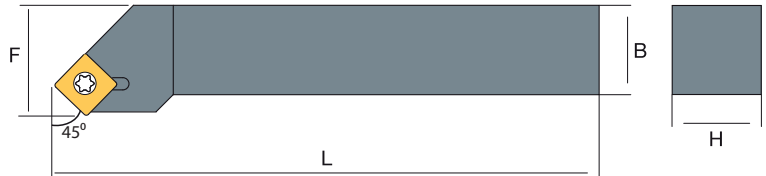
SC

[illegible]

SSSC

POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)

SC

[illegible]

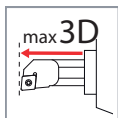
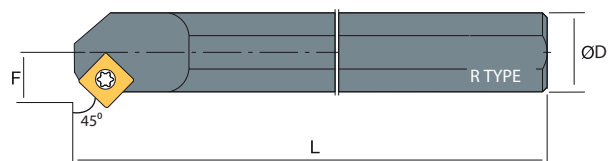
carbide

39

^sSSSC

POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)

SC□□

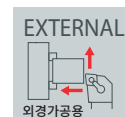
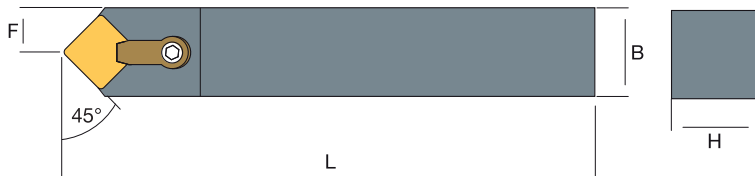


SC □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	ØD	Ød	L	F						
SC □ □09T3	S16P	SSSCR/L	09	●	●	16	>21	170	11	ST-SC3511	ST-WRT15	-	-		
	S20R		09	●	●	20	>25	200	13	ST-SC3511	ST-WRT15	-	-		
	S25S		09	●	●	25	>32	250	17	ST-SC3514	ST-WRT15	ST-SHSC09	ST-SC5011		
SC □ □1204	S32T	SSSCR/L	12	●	●	32	>40	300	22	ST-SC4016	ST-WRT20	ST-SHSC12	ST-SC6011		
	S40T		12	●	●	40	>50	350	27	ST-SC4016	ST-WRT20	ST-SHSC12	ST-SC6011		

CSDNN

CLAMP ON (클램프 온 타입)

SN□□



SN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
						H	B	L	F						
SN □ □1207	CSDNN	2525	M12	●		25	25	150	32	ST-SHSN12	ST-SC0410	ST-CS010	ST-SR001	ST-SC630	ST-WR0030
		3232	P12	●		32	32	170	40	ST-SHSN12	ST-SC0410	ST-CS010	ST-SR001	ST-SC630	ST-WR0030

적용인서트

40

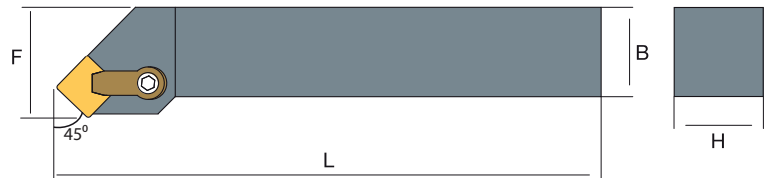
PCBN

86

CSSN

CLAMP ON (클램프 온 타입)

SN □□



TURNING

GROOVING

THREADING

MILLING

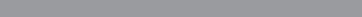
DRILLING

ENDMILLS

DRILLS

SPARE PARTS

INDEX

SN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	H	B	L	F						
SN □ N1207	CSSNN	2525	M12	●	●	25	25	150	32	ST-SHSN12	ST-SC0410	ST-CS010	ST-SR001	ST-SC630	ST-WR0030
		3232	P12	●	●	32	32	170	40	ST-SHSN12	ST-SC0410	ST-CS010	ST-SR001	ST-SC630	ST-WR0030

PSBN

LEVER LOCK (레버락 타입)

SN □□



SN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
						R	L	H	B						
SN □ □ 1204	PSBNR/L	2020	K12	●	●	20	20	125	17	ST-SHSN12	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030	
		2525	M12	●	●	25	25	150	22	ST-SHSN12	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030	
		3232	P12	●	●	32	32	170	27	ST-SHSN12	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030	
SN □ □ 1504	PSBNR/L	2525	M15	●	●	25	25	150	22	ST-SHSN15	ST-SPR002	ST-LV002	ST-SC822	ST-WR0050	
		3232	P15	●	●	32	32	170	27	ST-SHSN15	ST-SPR002	ST-LV002	ST-SC822	ST-WR0050	
SN □ □ 1906	PSBNR/L	3232	P19	●	●	32	32	170	27	ST-SHSN19	ST-SPR003	ST-LV003	ST-SC1025	ST-WR0060	
		4040	S19	●	●	40	40	250	35	ST-SHSN19	ST-SPR003	ST-LV003	ST-SC1025	ST-WR0060	

carbide

40

PCBN

86

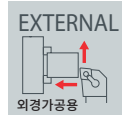
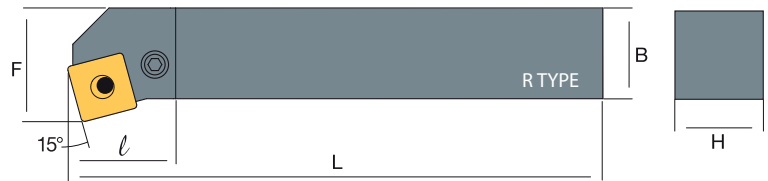
PSDNN

LEVER LOCK (레버락 타입)

SN

[illegible]

PSKN

SN ☐ ☐[illegible]

40

86

터너

그라운드

나사

임핀

드릴 클리너
인테그리티

에드먼

슬리드
속리드

파인

표인표

PSSN

LEVER LOCK (레버락 타입)

SN □□

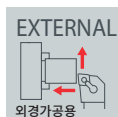
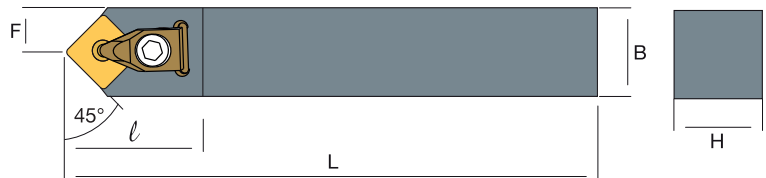
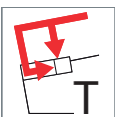


SN □□	DESCRIPTION 형번				STOCK 재고		DIMENSIONS 치수								
SN □□1204	PSSNR/L	2020	K12	●	●	20	20	125	25		ST-SHSN12	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
		2525	M12	●	●	25	25	150	32		ST-SHSN12	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
		3232	P12	●	●	32	32	170	40		ST-SHSN12	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
SN □□1504	PSSNR/L	3232	P15	●	●	32	32	170	40		ST-SHSN15	ST-SPR002	ST-LV002	ST-SC822	ST-WR0050
SN □□1906	PSSNR/L	3232	P19	●	●	32	32	170	40		ST-SHSN19	ST-SPR003	ST-LV003	ST-SC1025	ST-WR0060
		4040	S19	●	●	40	40	250	50		ST-SHSN19	ST-SPR003	ST-LV003	ST-SC1025	ST-WR0060

TSDNN

DOUBLE CLAMP
(더블클램프 타입)

SN □□



SN □□	DESCRIPTION 형번				STOCK 재고	DIMENSIONS 치수									
SN □□1204	TSDNN	2020	K12	●		20	20	125	10		ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630
		2525	M12	●		25	25	150	12.5		ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630
		3232	P12	●		32	32	170	16		ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630
SN □□1504	TSDNN	2525	M15	●		25	25	150	12.5		ST-SHSN15	ST-SC6169	ST-CS003	-	ST-SC6307
		3232	P15	●		32	32	170	16		ST-SHSN15	ST-SC6169	ST-CS003	-	ST-SC6307
		4040	S15	●		40	40	250	20		ST-SHSN15	ST-SC6169	ST-CS003	-	ST-SC6307

적용인서트

40

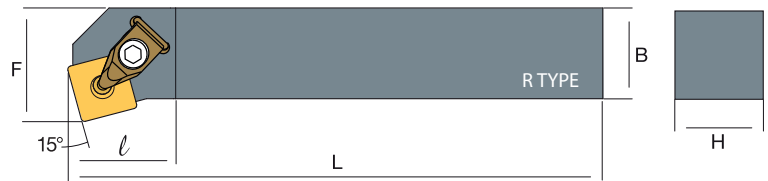
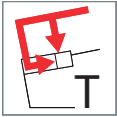
PCBN

86

TSKN

DOUBLE CLAMP
(더블클램프 타입)

SN □□

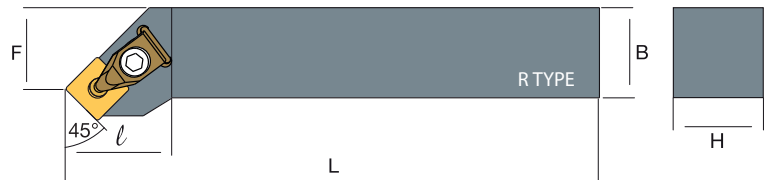
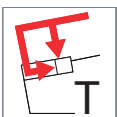
EXTERNAL
외경가공용

SN □□	DESCRIPTION 형번				STOCK 재고		DIMENSIONS 치수								
SN □□1204	TSKNR/L	2020	K12	●	●	20	20	125	25	ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
		2525	M12	●	●	25	25	150	32	ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
		3232	P12	●	●	32	32	170	40	ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
SN □□1504	TSKNR/L	2525	M15	●	●	25	25	150	32	ST-SHSN15	ST-SC0616	ST-CS003	-	ST-SC6307	ST-WR0040
		3232	P15	●	●	32	32	170	40	ST-SHSN15	ST-SC0616	ST-CS003	-	ST-SC6307	ST-WR0040

TSSN

DOUBLE CLAMP
(더블클램프 타입)

SN □□

EXTERNAL
외경가공용

SN □□	DESCRIPTION 형번				STOCK 재고		DIMENSIONS 치수								
SN □□1204	TSSNR/L	2020	K12	●	●	20	20	125	25	ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
		2525	M12	●	●	25	25	150	32	ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
		3232	P12	●	●	32	32	170	40	ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
SN □□1504	TSSNR/L	2525	M15	●	●	25	25	150	32	ST-SHSN15	ST-SC6169	ST-CS003	-	ST-SC6307	ST-WR0040
		3232	P15	●	●	32	32	170	40	ST-SHSN15	ST-SC6169	ST-CS003	-	ST-SC6307	ST-WR0040
		4040	S15	●	●	40	40	250	50	ST-SHSN15	ST-SC6169	ST-CS003	-	ST-SC6307	ST-WR0040

carbide

40

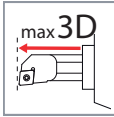
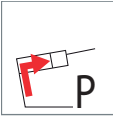
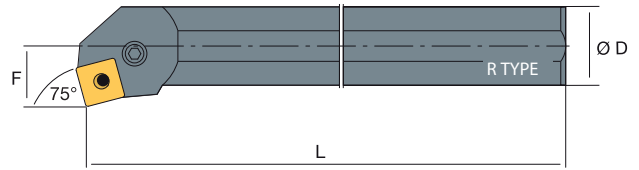
PCBN

86

^sPSKN

LEVER LOCK (레버락 타입)

SN □□

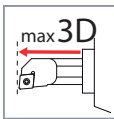
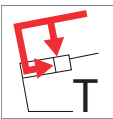
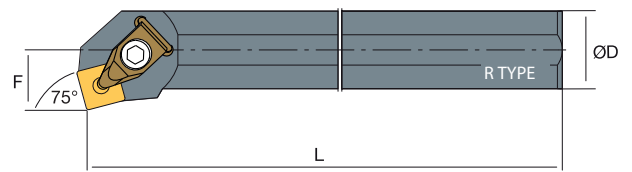
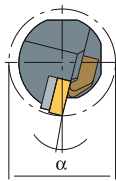


SN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수								
				R	L	ØD	Ød	L	F					
SN □ □ 1204	S25S	PSKNR/L	12	●	●	25	32	250	17	ST-SHSN12	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
	S32T		12	●	●	32	40	300	22	ST-SHSN12	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
	S40U		12	●	●	40	50	350	27	ST-SHSN12	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
SN □ □ 1506	S32T	PSKNR/L	15	●	●	32	40	300	22	ST-SHSN15	ST-SPR002	ST-LV002	ST-SC822	ST-WR0050
	S40U		15	●	●	40	50	350	27	ST-SHSN15	ST-SPR002	ST-LV002	ST-SC822	ST-WR0050
	S50V		15	●	●	50	63	400	35	ST-SHSN15	ST-SPR002	ST-LV002	ST-SC822	ST-WR0050

^sTSKN

DOUBLE CLAMP
(더블클램프 타입)

SN □□



SN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수				 ← 		 ←  ←  ← 			
				R	L	ØD	Ød	L	F						
SN □ □ 1204	S25S	DSKNR/L	12	●	●	25	32	250	17	ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC523	ST-WR0030
	S32T		12	●	●	32	44	300	22	ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S40U		12	●	●	40	52	350	27	ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S50V		12	●	●	50	67	400	35	ST-SHSN12	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
SN □ □ 1506	S32T	DSKNR/L	15	●	●	32	44	300	22	ST-SHSN15	ST-SC0616	ST-CS003	-	ST-SC6307	ST-WR0040
	S40U		15	●	●	40	52	350	27	ST-SHSN15	ST-SC0616	ST-CS003	-	ST-SC6307	ST-WR0040
	S50V		15	●	●	50	67	400	35	ST-SHSN15	ST-SC0616	ST-CS003	-	ST-SC6307	ST-WR0040

적용인서트

40

PCBN

86

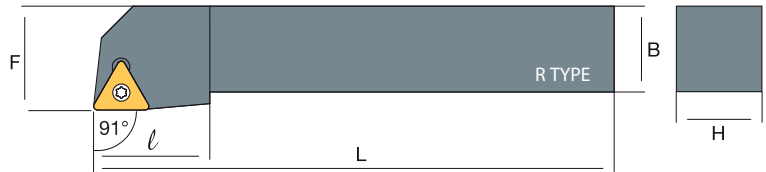


103

STGC

POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)

TC□□

[illegible]

적용인서트 ▶ 45

PCBN

87

다이아몬드 ▶ 103

103

STJC

POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)

TC□□

[illegible]

carbide

45

PCBN

87

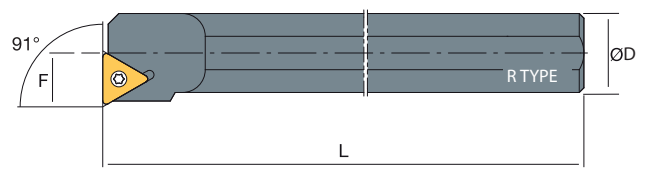
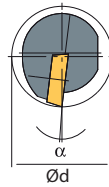
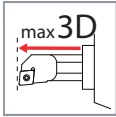
diamond

103

^sSTFC

POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)

TC



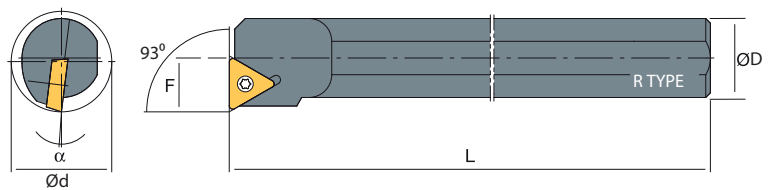
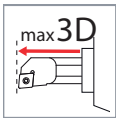
INTERNAL



내경가공용

[illegible]

TC□□

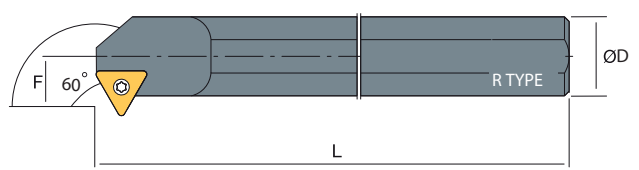
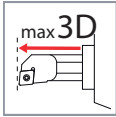


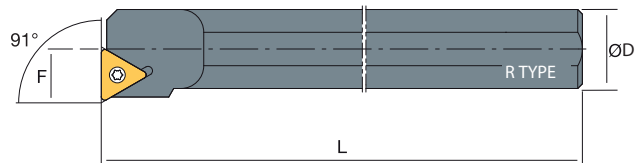
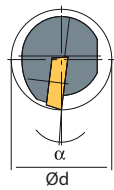
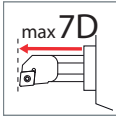
103

^sST-C

POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)

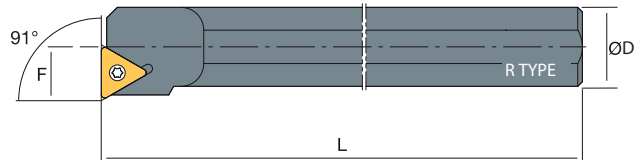
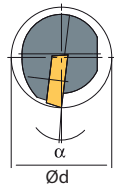
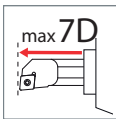
TC

[illegible]

C_{STFC}POSITIVE 7(인서트 여유각 7도) **TC□□**
with Hole (스크류온 타입)

내경가공용

TC □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수								
				R	L	ØD	Ød	L	F					
TC □ □ 1102	C10L	STFCR/L	11	●	●	10	>12	160	09	ST-SC02555	ST-WRT08	-	-	
	C12Q		11	●	●	12	>16	180	11	ST-SC02555	ST-WRT08	-	-	
	C16X		11	●	●	16	>20	220	15	ST-SC02555	ST-WRT08	-	-	
	C20S		11	●	●	20	>25	250	19	ST-SC02555	ST-WRT08	-	-	
	C25T		11	●	●	25	>32	300	24	ST-SC02555	ST-WRT08	-	-	

C_{STFP}POSITIVE 11(인서트 여유각 11도) **TP□□**
with Hole (스크류온 타입)

내경가공용

TP □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수								
				R	L	ØD	Ød	L	F					
TP □ □ 0804	C08L	STFPR/L	08	●	●	08	>10	140	04	ST-SC02245	ST-WRT06	-	-	
TP □ □ 1103	C10N	STFPR/L	11	●	●	10	>12	160	09	ST-SC02555	ST-WRT08	-	-	
	C12Q		11	●	●	12	>16	180	11	ST-SC0352	ST-WRT08	-	-	
	C16X		11	●	●	16	>20	220	15	ST-SC0352	ST-WRT08	-	-	
	C20S		11	●	●	20	>25	250	19	ST-SC0352	ST-WRT08	-	-	
	C25T		11	●	●	25	>32	300	24	ST-SC0352	ST-WRT08	-	-	

carbide

53

PCBN

89

diamond

105

CTJN

CLAMP ON (클램프 온 타입)

TN □□

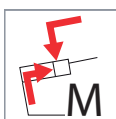


TN □□	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	H	B	L	F						
TN□N1607	CTJNR/L	2525	M16	●	●	25	25	150	32	ST-SHTN16	ST-SC0410	ST-CS013	ST-SPR001	ST-SC630	ST-WR0030
		3232	P16	●	●	32	32	170	40	ST-SHTN16	ST-SC0410	ST-CS013	ST-SPR001	ST-SC630	ST-WR0030

MTENN

Multi Lock (멀티락 타입)

TN □□



TN □□	DESCRIPTION 형번			STOCK 재고	DIMENSIONS 치수									
					H	B	L	F						
TN□□1604	MTENN	2020	K16	●	20	20	125	10	ST-SHTN16	ST-SP001	ST-CS006	ST-SC630	ST-WR0030	
		2525	M16	●	25	25	150	12.5	ST-SHTN16	ST-SP001	ST-CS006	ST-SC630	ST-WR0030	
		3232	P16	●	32	32	170	16	ST-SHTN16	ST-SP001	ST-CS006	ST-SC630	ST-WR0030	
TN□□2204	MTENN	2525	M22	●	25	25	150	12.5	ST-SHTN22	ST-SP001	ST-CS006	ST-SC630	ST-WR0030	
		3232	P22	●	32	32	170	16	ST-SHTN22	ST-SP001	ST-CS006	ST-SC630	ST-WR0030	
		4040	S22	●	40	40	250	20	ST-SHTN22	ST-SP001	ST-CS006	ST-SC630	ST-WR0030	

적용인서트

48

PCBN

88

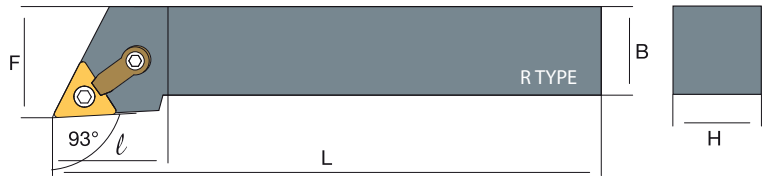
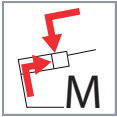
다이아몬드

104

MTJN

Multi Lock (멀티락 타입)

TN □ □

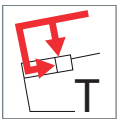


TN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	H	B	L	F						
TN □ □1604	MTJNR/L	2020	K16	●	●	20	20	125	10	ST-SHTN16	ST-SP001	ST-CS006	ST-SC630	ST-WR0030	
		2525	M16	●	●	25	25	150	12.5	ST-SHTN16	ST-SP001	ST-CS006	ST-SC630	ST-WR0030	
		3232	P16	●	●	32	32	170	16	ST-SHTN16	ST-SP001	ST-CS006	ST-SC630	ST-WR0030	
TN □ □2204	MTJNR/L	2525	M22	●	●	25	25	150	12.5	ST-SHTN22	ST-SP001	ST-CS006	ST-SC630	ST-WR0030	
		3232	P22	●	●	32	32	170	16	ST-SHTN22	ST-SP001	ST-CS006	ST-SC630	ST-WR0030	
		4040	S22	●	●	40	40	250	20	ST-SHTN22	ST-SP001	ST-CS006	ST-SC630	ST-WR0030	

TTENN

DOUBLE CLAMP
(더블클램프 타입)

TN □ □



TN □ □	DESCRIPTION 형번			STOCK 재고	DIMENSIONS 치수									
					H	B	L	F						
TN □ □1604	TTENN	2020	K16	●	20	20	125	10	ST-SHTN16	ST-SC0410	ST-CS002	ST-SPR04	ST-SC525	ST-WR0030
		2525	M16	●	25	25	150	12.5	ST-SHTN16	ST-SC0410	ST-CS002	ST-SPR04	ST-SC525	ST-WR0030
		3232	P16	●	32	32	170	16	ST-SHTN16	ST-SC0410	ST-CS002	ST-SPR04	ST-SC525	ST-WR0030
TN □ □2204	TTENN	2525	M22	●	25	25	150	12.5	ST-SHTN22	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
		3232	P22	●	32	32	170	16	ST-SHTN22	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
		4040	S22	●	40	40	250	20	ST-SHTN22	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030

carbide

48

PCBN

88

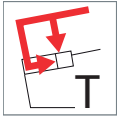
diamond

104

TTJN

DOUBLE CLAMP
(더블클램프 타입)

TN □□

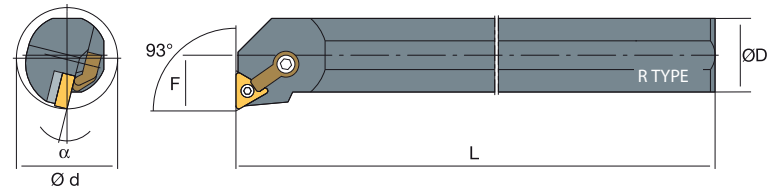
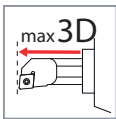
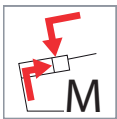


TN □□	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	H	B	L	F						
TN □□1604	TTJNR/L	2020	K16	●	●	20	20	125	25	ST-SHTN16	ST-SC0410	ST-CS002	ST-SPR04	ST-SC525	ST-WR0030
		2525	M16	●	●	25	25	150	32	ST-SHTN16	ST-SC0410	ST-CS002	ST-SPR04	ST-SC525	ST-WR0030
		3232	P16	●	●	32	32	170	40	ST-SHTN16	ST-SC0410	ST-CS002	ST-SPR04	ST-SC525	ST-WR0030
TN □□2204	TTJNR/L	2525	M22	●	●	25	25	150	32	ST-SHTN22	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
		3232	P22	●	●	32	32	170	40	ST-SHTN22	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
		4040	S22	●	●	40	40	250	50	ST-SHTN22	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030

SMTUN

Multi Lock (멀티락 타입)

TN □□



TN □□	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	ØD	Ød	L	F						
TN □□1604	S20R	MTUNR/L	16	●	●	20	25	200	13	-	-	ST-LV002	ST-SC523	ST-WR0030	
	S25S	MTUNR/L	16	●	●	25	32	250	17	ST-SHTN16	ST-SP001	ST-LV001	ST-SC630	ST-WR0030	
	S32T		16	●	●	32	40	300	22	ST-SHTN16	ST-SP001	ST-LV001	ST-SC630	ST-WR0030	
	S40U		16	●	●	40	50	350	27	ST-SHTN16	ST-SP001	ST-LV001	ST-SC630	ST-WR0030	
TN □□2204	S32T	MTUNR/L	22	●	●	32	40	300	22	ST-SHTN22	ST-SP001	ST-LV001	ST-SC630	ST-WR0030	
	S40U		22	●	●	40	50	350	27	ST-SHTN22	ST-SP001	ST-LV001	ST-SC630	ST-WR0030	
	S50V		22	●	●	50	63	400	35	ST-SHTN22	ST-SP001	ST-LV001	ST-SC630	ST-WR0030	

적용인서트

48

PCBN

88

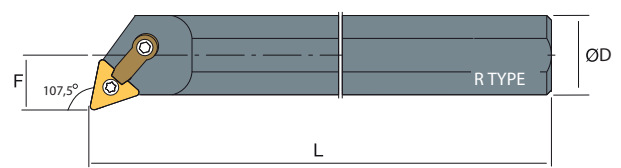
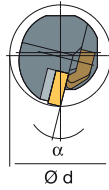
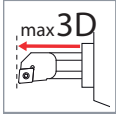
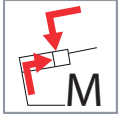
다이아몬드

104

^SMTQN

Multi Lock (멀티락 타입)

TN □ □



TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

SPARE PARTS

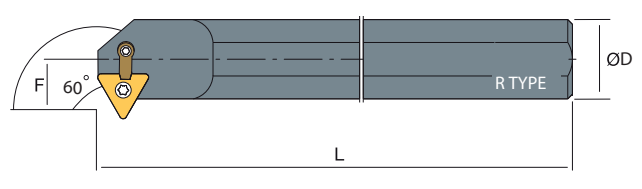
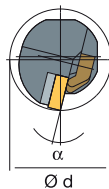
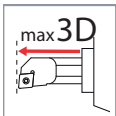
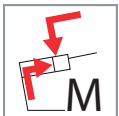
INDEX

TN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	ØD	Ød	L	F						
TN □ □1604	S20R	MTQNR/L	16	●	●	20	25	200	13	-	-	ST-LV002	ST-SC523	ST-WR0030	
	S25S		16	●	●	25	32	250	17	ST-SHTN16	ST-SP001	ST-LV001	ST-SC630	ST-WR0030	
	S32T		16	●	●	32	40	300	22	ST-SHTN16	ST-SP001	ST-LV001	ST-SC630	ST-WR0030	
	S40U		16	●	●	40	50	350	27	ST-SHTN16	ST-SP001	ST-LV001	ST-SC630	ST-WR0030	
TN □ □2204	S32T	MTQNR/L	22	●	●	32	40	300	22	ST-SHTN22	ST-SP001	ST-LV001	ST-SC630	ST-WR0030	
	S40U		22	●	●	40	50	350	27	ST-SHTN22	ST-SP001	ST-LV001	ST-SC630	ST-WR0030	
	S50V		22	●	●	50	63	400	35	ST-SHTN22	ST-SP001	ST-LV001	ST-SC630	ST-WR0030	

^SMT-N

Multi Lock (멀티락 타입)

TN □ □



TN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	ØD	Ød	L	F						
TN □ □1604	S25S	MT-NR/L	16	●	●	25	32	250	17	ST-SHTN16	ST-SP001	ST-LV001	ST-SC630	ST-WR0030	
	S32T		16	●	●	32	40	300	22	ST-SHTN16	ST-SP001	ST-LV001	ST-SC630	ST-WR0030	
	S40U		16	●	●	40	50	350	27	ST-SHTN16	ST-SP001	ST-LV001	ST-SC630	ST-WR0030	
TN □ □2204	S32T	MT-NR/L	22	●	●	32	40	300	22	ST-SHTN22	ST-SP001	ST-LV001	ST-SC630	ST-WR0030	
	S40U		22	●	●	40	50	350	27	ST-SHTN22	ST-SP001	ST-LV001	ST-SC630	ST-WR0030	
	S50V		22	●	●	50	63	400	35	ST-SHTN22	ST-SP001	ST-LV001	ST-SC630	ST-WR0030	

carbide

48

PCBN

88

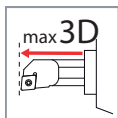
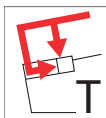
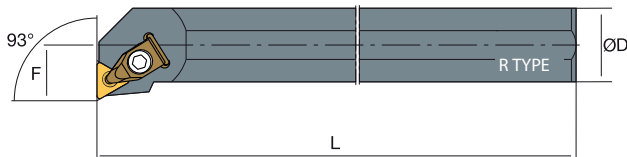
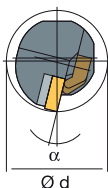
diamond

104

STTUN

DOUBLE CLAMP
(더블클램프 타입)

TN □□

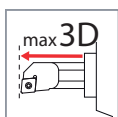
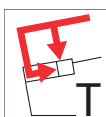
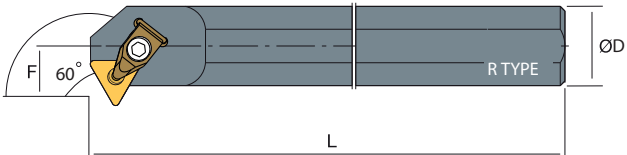
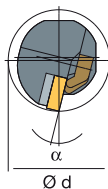


TN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
										R	L	ØD	Ød	L	F
TN □ □1604	S25S	TTUNR/L	16	●	●	25	32	250	17	ST-SHTN16	ST-SC0410	ST-CS002	ST-SPR04	ST-SC523	ST-WR0030
	S32T		16	●	●	32	40	300	22	ST-SHTN16	ST-SC0410	ST-CS002	ST-SPR04	ST-SC523	ST-WR0030
TN □ □2204	S32T	TTUNR/L	22	●	●	32	40	300	22	ST-SHTN22	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S40U		22	●	●	40	50	350	27	ST-SHTN22	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030
	S40V		22	●	●	50	53	400	35	ST-SHTN22	ST-SC0616	ST-CS001	ST-SPR04	ST-SC630	ST-WR0030

STT-N

DOUBLE CLAMP
(더블클램프 타입)

TN □□



TN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	ØD	Ød	L	F						
TN □ □ 1604	S25S	TT-NR/L	16	●	●	25	32	250	17	ST-SHTN16	ST-SC0410	ST-CS002	ST-SPR04	ST-SC523	ST-WR0030
	S32T		16	●	●	32	40	300	22	ST-SHTN16	ST-SC0410	ST-CS002	ST-SPR04	ST-SC523	ST-WR0030

적용인서트

48

PCBN

88

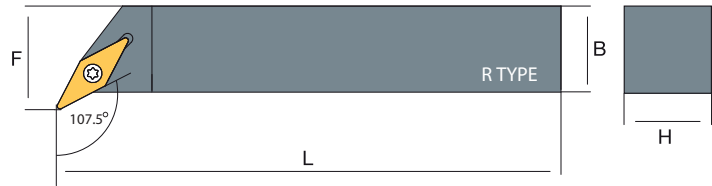
다이아몬드

104

SVHB

POSITIVE 5(인서트 여유각 5도)
with Hole (스크류온 타입)

VB

[illegible]

carbide

54

PCBN

90

diamond

106

SVJB

POSITIVE 5(인서트 여유각 5도)
with Hole (스크류온 타입)

VB

[illegible]

적용인서트

54

PCBN

90

다이아몬드

106

SVBN

**POSITIVE 5(인서트 여유각 5도)
with Hole (스크류온 타입)**

VB□□

[illegible]

carbide

54

PCBN

90

diamond

106

SVZB

POSITIVE 5(인서트 여유각 5도)
with Hole (스크류온 타입)

VB



EXTERNAL



외경가공용

[illegible]

적용인서트

54

PCBN

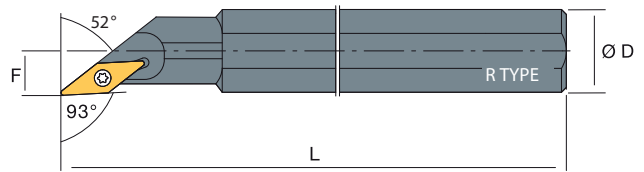
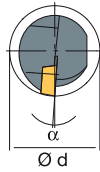
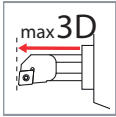
90

다이아몬드

106

^sSVJB

POSITIVE 5(인서트 여유각 5도) with Hole (스크류온 타입) **VB□□**

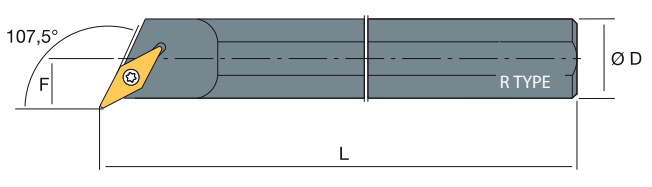
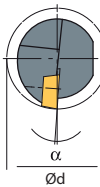
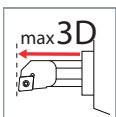


INTERNAL
내경가공용

VB □ □	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치수										
				R	L	ØD	Ød	L	F					
VB □ □ 1604	S25S	SVJBR/L	16	●	●	25	32	250	17	ST-SC0416	ST-WRT15	ST-SHVB	ST-SC5011	
	S32T		16	●	●	32	40	300	22	ST-SC3514	ST-WRT15	ST-SHVB	ST-SC5011	
	S40U		16	●	●	40	50	350	27	ST-SC3514	ST-WRT15	ST-SHVB	ST-SC5011	

^sSVQB

POSITIVE 5(인서트 여유각 5도) with Hole (스크류온 타입) **VB□□**



INTERNAL
내경가공용

VB □ □	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치수										
				R	L	ØD	Ød	L	F					
VB □ 1103	S16P	SVQBR/L	11	●	●	16	21	170	11	ST-SC0257	ST-WRT08	-	-	
	S20R		11	●	●	20	25	200	13	ST-SC0257	ST-WRT08	-	-	
VB □ □ 1604	S25S	SVQBR/L	16	●	●	25	32	250	17	ST-SC0416	ST-WRT15	ST-SHVB	ST-SC5011	
	S32T		16	●	●	32	40	300	22	ST-SC3514	ST-WRT15	ST-SHVB	ST-SC5011	
	S40U		16	●	●	40	50	350	27	ST-SC3514	ST-WRT15	ST-SHVB	ST-SC5011	

carbide

54

PCBN

90

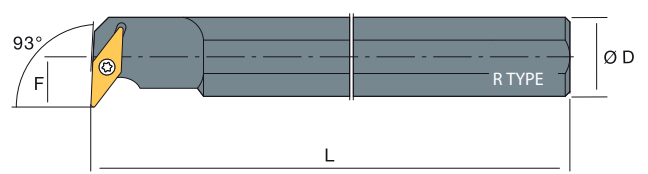
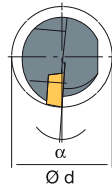
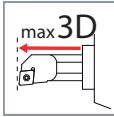
diamond

106

^sSVUB

POSITIVE 5(인서트 여유각 5도)
with Hole (스크류온 타입)

VB□□

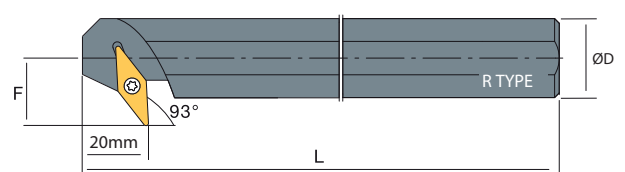
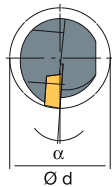
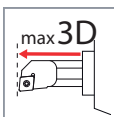


VB □ □	DESCRIPTION 형번		STOCK 재고		DIMENSIONS 치수									
			R	L	ØD	Ød	L	F						
VB□1103	S16P	SVUBR/L	11	●	●	16	21	170	11	ST-SC0257	ST-WRT08	-	-	
	S20R		11	●	●	20	25	200	13	ST-SC0257	ST-WRT08	-	-	
VB□□1604	S25S	SVUBR/L	16	●	●	25	32	250	17	ST-SC0416	ST-WRT15	ST-SHVB	ST-SC5011	
	S32T		16	●	●	32	40	300	22	ST-SC3514	ST-WRT15	ST-SHVB	ST-SC5011	
	S40U		16	●	●	40	50	350	27	ST-SC3514	ST-WRT15	ST-SHVB	ST-SC5011	

^sSVXB

POSITIVE 5(인서트 여유각 5도)
with Hole (스크류온 타입)

VB□□



VB □ □	DESCRIPTION 형번		STOCK 재고		DIMENSIONS 치수									
			R	L	ØD	Ød	L	F						
VB□1103	S16P	SVXBR/L	11	●	●	16	21	170	11	ST-SC0257	ST-WRT08	-	-	
	S20R		11	●	●	20	25	200	13	ST-SC0257	ST-WRT08	-	-	
VB□□1604	S25S	SVXBR/L	16	●	●	25	32	250	17	ST-SC0416	ST-WRT15	ST-SHVB	ST-SC5011	
	S32T		16	●	●	32	40	300	22	ST-SC3514	ST-WRT15	ST-SHVB	ST-SC5011	
	S40U		16	●	●	40	50	350	27	ST-SC3514	ST-WRT15	ST-SHVB	ST-SC5011	

적용인서트

54

PCBN

90

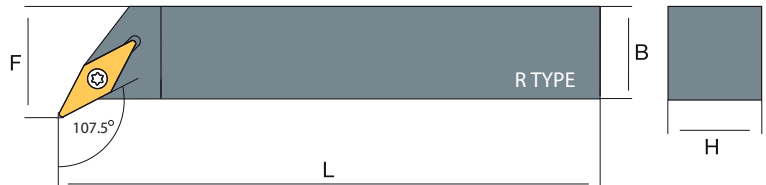
다이아몬드

106

SVHC

POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)

VC□□

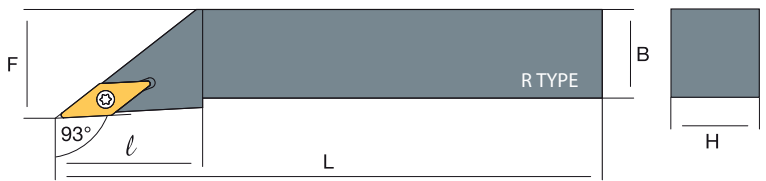


VC □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	H	B	L	F						
VC □ □1103	SVHCR/L	1616	H11	●	●	16	16	100	20	ST-SC0257	ST-WRT08	-	-		
		2020	K11	●	●	20	20	125	25	ST-SC0257	ST-WRT08	-	-		
VC □ □1604	SVHCR/L	2020	K16	●	●	25	25	150	32	ST-SC0257	ST-WRT15	-	-		
		2525	M16	●	●	16	16	100	20	ST-SC3514	ST-WRT15	ST-SHVC	ST-SC5011		
		3232	P16	●	●	20	20	125	25	ST-SC3514	ST-WRT15	ST-SHVC	ST-SC5011		

SVJC

POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)

VC□□



VC □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	H	B	L	F						
VC □ □1103	SVJCR/L	1616	H11	●	●	16	16	100	20	ST-SC0257	ST-WRT08	-	-		
		2020	K11	●	●	20	20	125	25	ST-SC0257	ST-WRT08	-	-		
VC □ □1604	SVJCR/L	2020	K16	●	●	25	25	150	32	ST-SC0257	ST-WRT15	-	-		
		2525	M16	●	●	16	16	100	20	ST-SC3514	ST-WRT15	ST-SHVC	ST-SC5011		
		3232	P16	●	●	20	20	125	25	ST-SC3514	ST-WRT15	ST-SHVC	ST-SC5011		

carbide

56

PCBN

91

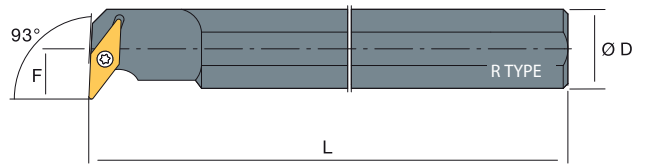
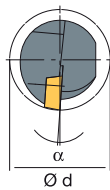
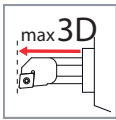
diamond

107

^sSVUC

POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)

VC□□

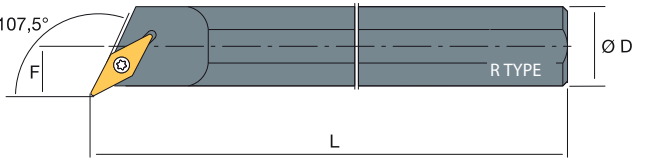
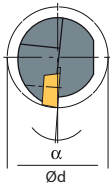
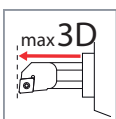


VC □ □	DESCRIPTION 형번		STOCK 재고		DIMENSIONS 치수									
			R	L	ØD	Ød	L	F						
VC □ 1103	S16P	SVUCR/L	11	●	●	16	21	170	11	ST-SC0257	ST-WRT08	-	-	
	S20R		11	●	●	20	25	200	13	ST-SC0257	ST-WRT08	-	-	
VC □ □1604	S25S	SVUCR/L	16	●	●	25	32	250	17	ST-SC0416	ST-WRT15	ST-SHVC	ST-SC5011	
	S32T		16	●	●	32	40	300	22	ST-SC3514	ST-WRT15	ST-SHVC	ST-SC5011	
	S40U		16	●	●	40	50	350	27	ST-SC3514	ST-WRT15	ST-SHVC	ST-SC5011	

^sSVQC

POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)

VC□□



VC □ □	DESCRIPTION 형번		STOCK 재고		DIMENSIONS 치수									
			R	L	ØD	Ød	L	F						
VC □ 1103	S16P	SVQCR/L	11	●	●	16	21	170	11	ST-SC0257	ST-WRT08	-	-	
	S20R		11	●	●	20	25	200	13	ST-SC0257	ST-WRT08	-	-	
VC □ □1604	S25S	SVQCR/L	16	●	●	25	32	250	17	ST-SC0416	ST-WRT15	ST-SHVC	ST-SC5011	
	S32T		16	●	●	32	40	300	22	ST-SC3514	ST-WRT15	ST-SHVC	ST-SC5011	
	S40U		16	●	●	40	50	350	27	ST-SC3514	ST-WRT15	ST-SHVC	ST-SC5011	

적용인서트

56

PCBN

91

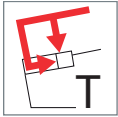
다이아몬드

107

TVHN

DOUBLE CLAMP
(더블클램프 타입)

VN □□

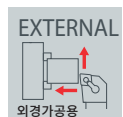
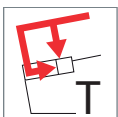


VN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	H	B	L	F						
VN □ □ 1604	TVHNR/L	2020	K16	●	●	20	20	125	25	ST-SHVN16	ST-SC0410	ST-CS005	ST-SPR04	ST-SC630	ST-WR0030
		2525	M16	●	●	25	25	150	32	ST-SHVN16	ST-SC0410	ST-CS005	ST-SPR04	ST-SC630	ST-WR0030
		3232	P16	●	●	32	32	170	40	ST-SHVN16	ST-SC0410	ST-CS005	ST-SPR04	ST-SC630	ST-WR0030

TVJN

DOUBLE CLAMP
(더블클램프 타입)

VN □□



VN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	H	B	L	F						
VN □ □ 1604	TVJNR/L	2020	K16	●	●	20	20	125	25	ST-SHVN16	ST-SC0410	ST-CS005	ST-SPR04	ST-SC630	ST-WR0030
		2525	M16	●	●	25	25	150	32	ST-SHVN16	ST-SC0410	ST-CS005	ST-SPR04	ST-SC630	ST-WR0030
		3232	P16	●	●	32	32	170	40	ST-SHVN16	ST-SC0410	ST-CS005	ST-SPR04	ST-SC630	ST-WR0030
		4040	P16	●	●	40	40	250	50	ST-SHVN16	ST-SC0410	ST-CS005	ST-SPR04	ST-SC630	ST-WR0030

carbide

58

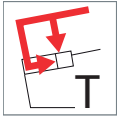
PCBN

92

TWNN

DOUBLE CLAMP
(더블클램프 타입)

VN □□

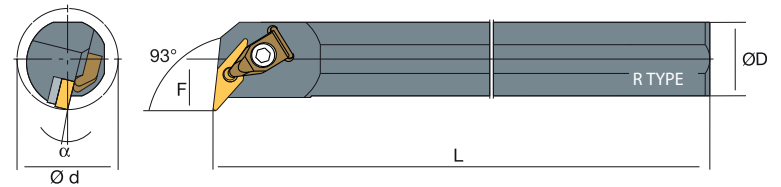
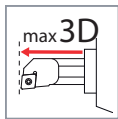
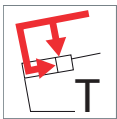


VN □ □	DESCRIPTION 형번			STOCK 재고	DIMENSIONS 치수									
					H	B	L	F						
VN □ □ 1604	TVVNN	2020	K16	●	20	20	125	25	ST-SHVN16	ST-SC0410	ST-CS005	ST-SPR04	ST-SC630	ST-WR0030
		2525	M16	●	25	25	150	32	ST-SHVN16	ST-SC0410	ST-CS005	ST-SPR04	ST-SC630	ST-WR0030
		3232	P16	●	32	32	170	40	ST-SHVN16	ST-SC0410	ST-CS005	ST-SPR04	ST-SC630	ST-WR0030
		4040	P16	●	40	40	250	50	ST-SHVN16	ST-SC0410	ST-CS005	ST-SPR04	ST-SC630	ST-WR0030

STVUN

DOUBLE CLAMP
(더블클램프 타입)

VN □□



VN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	ØD	Ød	L	F						
VN □ □ 1604	S25S	TVUNR/L	16	●	●	25	32	250	17	ST-SHTN16	ST-SC0410	ST-CS005	ST-SPR04	ST-SC630	ST-WR0030
	S32T		16	●	●	32	40	300	22	ST-SHTN16	ST-SC0410	ST-CS005	ST-SPR04	ST-SC630	ST-WR0030
	S40U		16	●	●	50	50	400	27	ST-SHTN22	ST-SC0410	ST-CS005	ST-SPR04	ST-SC630	ST-WR0030

적용인서트

58

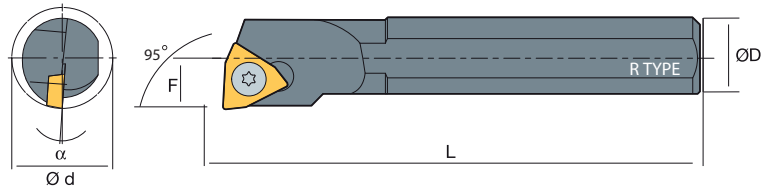
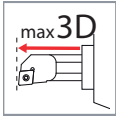
PCBN

92

^sSWLC

**POSITIVE 7(인서트 여유각 7도)
with Hole (스크류온 타입)**

WC□□

[illegible]

MWDN

Multi Lock (멀티락 타입)

WN□□

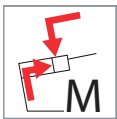


WN□□	DESCRIPTION 형번				STOCK 재고		DIMENSIONS 치수							
WN□□0604	MWDNR/L	1616	H06	●	●	16	16	100	08	-	-	ST-CS009	ST-SM525	ST-WR0030
		2020	K06	●	●	20	20	125	10	-	-	ST-CS009	ST-SM525	ST-WR0030
		2525	M06	●	●	25	25	150	12.5	-	-	ST-CS009	ST-SM525	ST-WR0030
WN□□0804	MWDNR/L	2020	K08	●	●	20	20	125	10	ST-SHWN08	ST-SC0410	ST-CS008	ST-SM630	ST-WR0030
		2525	M08	●	●	25	25	150	12.5	ST-SHWN08	ST-SC0410	ST-CS008	ST-SM630	ST-WR0030
		3232	P08	●	●	32	32	170	16	ST-SHWN08	ST-SC0410	ST-CS008	ST-SM630	ST-WR0030

MWLN

Multi Lock (멀티락 타입)

WN□□



WN□□	DESCRIPTION 형번				STOCK 재고		DIMENSIONS 치수							
WN□□0604	MWLNRL/L	1616	H06	●	●	16	16	100	20	-	-	ST-CS009	ST-SC525	ST-WR0030
		2020	K06	●	●	20	20	125	25	-	-	ST-CS009	ST-SC525	ST-WR0030
		2525	M06	●	●	25	25	150	32	-	-	ST-CS009	ST-SC525	ST-WR0030
WN□□0804	MWLNRL/L	2020	K08	●	●	20	20	125	25	ST-SHWN08	ST-SCV3506	ST-CS008	ST-SC630	ST-WR0030
		2525	M08	●	●	25	25	150	32	ST-SHWN08	ST-SCV3506	ST-CS008	ST-SC630	ST-WR0030
		3232	P08	●	●	32	32	170	40	ST-SHWN08	ST-SCV3506	ST-CS008	ST-SC630	ST-WR0030

적용인서트

61

PCBN

93

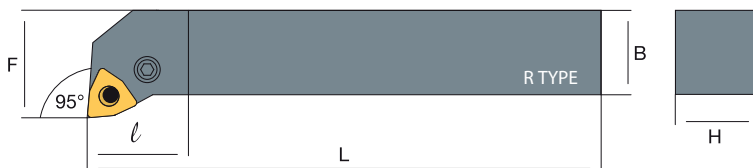
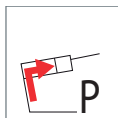
다이아몬드

108

PWLN

LEVER LOCK (레버락 타입)

WN□□

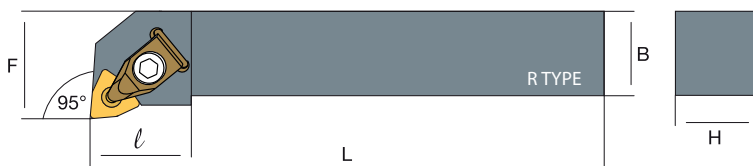
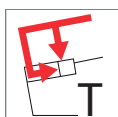


WN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수								
				R	L	H	B	L	F					
WN□□0804	PWLN/R/L	2020	K08	●	●	20	20	125	25	ST-SHWN08	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
		2525	M08	●	●	25	25	150	32	ST-SHWN08	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
		3232	P08	●	●	32	32	170	40	ST-SHWN08	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030
		4040	S08	●	●	40	40	250	50	ST-SHWN08	ST-SPR001	ST-LV001	ST-SC820	ST-WR0030

TWLN

DOUBLE CLAMP
(더블클램프 타입)

WN□□



VN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수								
				R	L	H	B	L	F					
WN□□0604	TWLN/R/L	1616	H06	●	●	16	16	100	20	-	-	ST-CS002	ST-SPR04	ST-SC523
		2020	K06	●	●	20	20	125	25	-	-	ST-CS002	ST-SPR04	ST-SC523
		2525	M06	●	●	25	25	150	32	-	-	ST-CS002	ST-SPR04	ST-SC523
WN□□0804	TWLN/R/L	2020	K08	●	●	20	20	125	25	-	-	ST-CS001	ST-SPR04	ST-SC523
		2525	M08	●	●	25	25	150	32	ST-SHWN08	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630
		3232	P08	●	●	32	32	170	40	ST-SHWN08	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630
		4040	S08	●	●	40	40	250	50	ST-SHWN08	ST-SC0410	ST-CS001	ST-SPR04	ST-SC630

carbide

61

PCBN

93

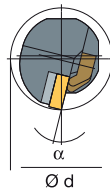
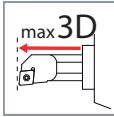
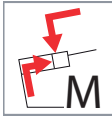
diamond

108

^SMWLN

Multi Lock (멀티락 타입)

WN□□

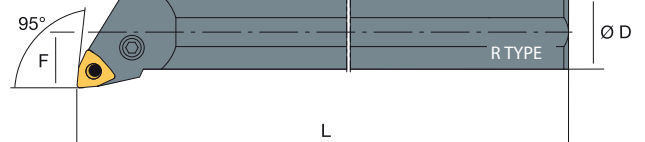
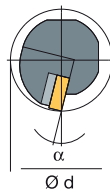
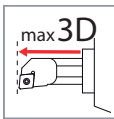


WN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수				 ← 		 ← 			
				R	L	ØD	Ød	L	F						
WN □ □0604	S25S	MWLN/R/L	06	●	●	16	21	170	11			ST-CS009	ST-SM525	ST-WR0030	
	S32T		06	●	●	20	25	200	13			ST-CS009	ST-SM525	ST-WR0030	
	S40U		06	●	●	25	32	350	17			ST-CS009	ST-SM525	ST-WR0030	
WN □ □0804	S25S	MWLN/R/L	08	●	●	25	32	250	17	ST-SHWN08	ST-SCV0410	ST-CS008	ST-SM630	ST-WR0030	
	S32T		08	●	●	32	40	300	22	ST-SHWN08	ST-SCV0410	ST-CS008	ST-SM630	ST-WR0030	
	S40U		08	●	●	40	50	350	27	ST-SHWN08	ST-SCV0410	ST-CS008	ST-SM630	ST-WR0030	
	S50V		08	●	●	50	63	400	35	ST-SHWN08	ST-SCV0410	ST-CS008	ST-SM630	ST-WR0030	

^SPWLN

LEVER LOCK (레버락 타입)

WN□□



WN □ □	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수									
				R	L	ØD	Ød	L	F						
WN □ □0804	S25S	PWLN/R/L	08	●	●	25	32	250	17	ST-SHWN08	ST-SCV0410	ST-CS001	ST-SM630	ST-WR0030	
	S32T		08	●	●	32	40	300	22	ST-SHWN08	ST-SCV0410	ST-CS001	ST-SM630	ST-WR0030	
	S40U		08	●	●	40	50	350	27	ST-SHWN08	ST-SCV0410	ST-CS001	ST-SM630	ST-WR0030	
	S50V		08	●	●	50	63	400	35	ST-SHWN08	ST-SCV0410	ST-CS001	ST-SM630	ST-WR0030	

적용인서트

61

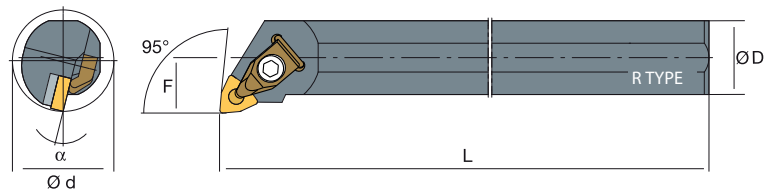
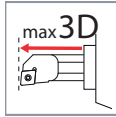
PCBN

93

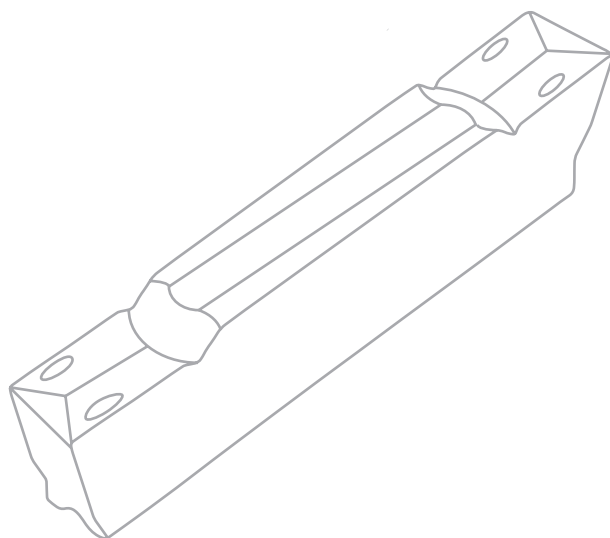
다이아몬드

108

WN



108

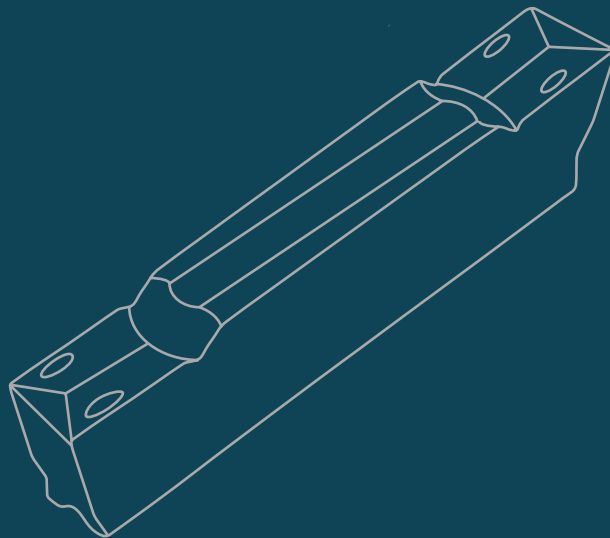


GROOVING/

인서트 carbide /193
홀더 / 보링바 holders /205

GROOVING / carbide

그루빙 / 인서트



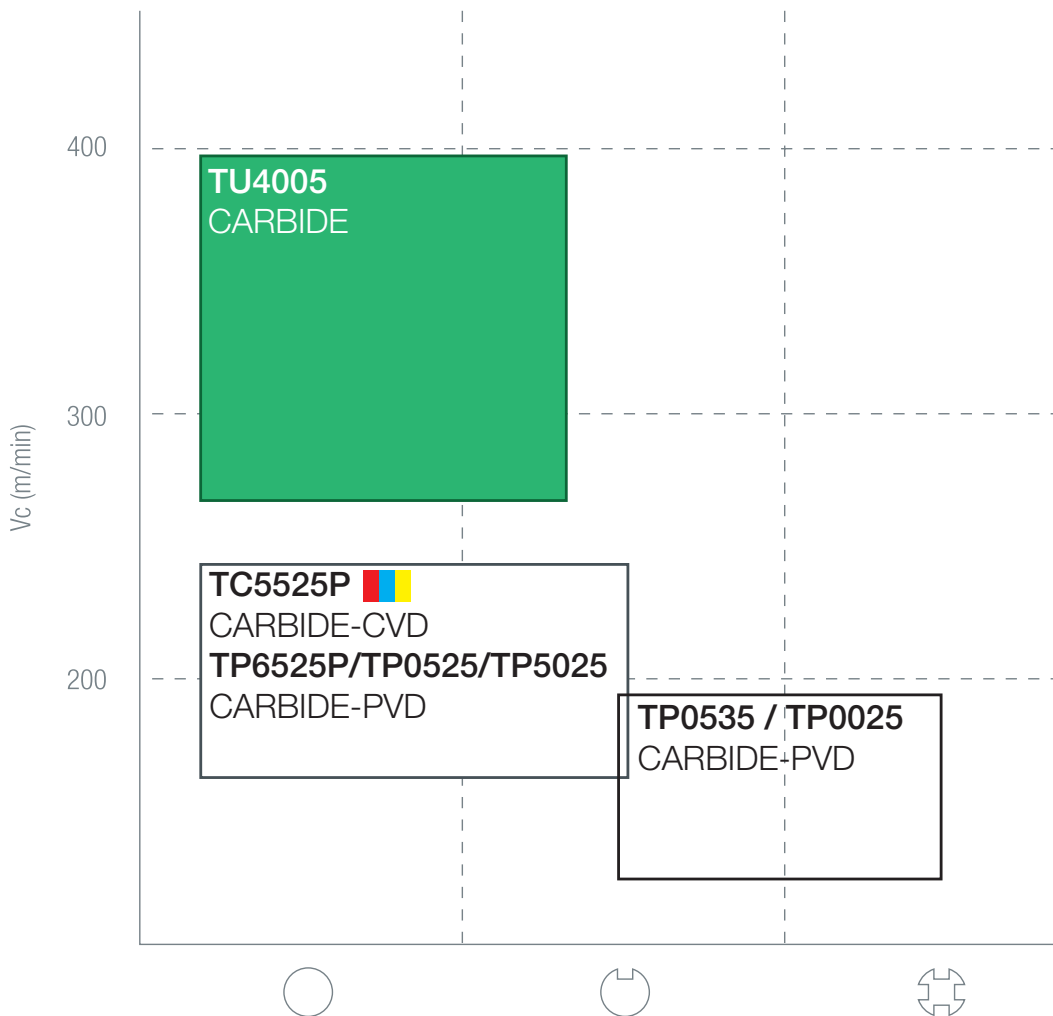
Grade / 재종

ISO DIN 513	K					P					M					N				
																				
	K01	K10	K20	K30	K40	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	N01	N10	N20	N30	N40
CARBIDE CVD 코팅	TC5525P					TC5525P														
CARBIDE PVD PVD 코팅	TP4505					TP5025					TP0525									
						TP0525					TP0525									
						TP6525P					TP6525P									
						TP0535					TP0535									
CARBIDE UNCOATED 초경																TU4005				

GROOVING 그루빙

Range / 재종 테이블 ISO **P** **M** **K**

Grades / 재종



TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

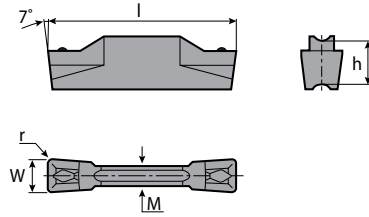
DRILLS

SPARE PARTS

INDEX

MGMN-C

PARTING & GROOVING
절단 & 그루빙



DESCRIPTION
형번

DIMENSIONS
형번

CARBIDE 재종

TC5135

TP0525

TP0535

TP6525P

TP4505

W

r

l

M

h

α



MGMN150-C

MGMN200-C

MGMN250-C

MGMN300-C

MGMN400-C

MGMN500-C

MGMN600-C

1.5

0.15

16.0

1.2

3.5

2.0

0.2

16.0

1.2

3.5

-

2.5

0.2

18.5

2.0

3.85

-

3.0

0.4

21.0

2.35

4.8

-

4.0

0.4

21.0

3.3

4.8

-

5.0

0.8

26.0

4.1

5.8

-

6.0

0.8

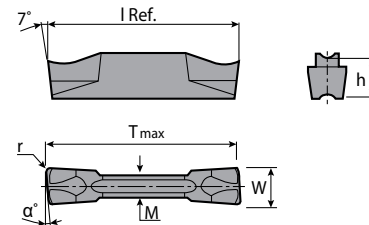
26.0

5.0

5.8

MGMR-J

PARTING & GROOVING
절단 & 그루빙



DESCRIPTION
형번

DIMENSIONS
형번

CARBIDE 재종

TC5135

TP0525

TP0535

TP6525P

TP4505

W

r

l

M

h

α



MGMR200J-15D

MGMR300J-15D

2.0

0.2

16.0

1.2

3.5

15

3.0

0.4

21.0

2.35

4.8

15

Vc • fn

203

GROOVING 그루빙

TURNING

GROOVING

THREADING

MILLING

DRILLING

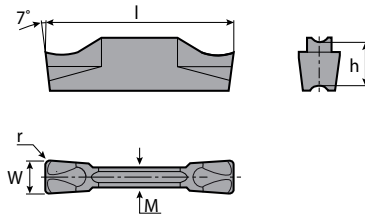
ENDMILLS

DRILLS

SPARE PARTS

INDEX

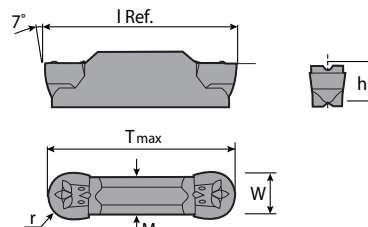
MGMN-J

PARTING & GROOVING
절단 & 그루빙

DESCRIPTION 형번		DIMENSIONS 형번						CARBIDE 재종				
								TC5135	TC0525	TP0535	TP6525P	TP4505
	MGMN150-J	1.5	0.15	16.0	1.2	3.5	-	●	●	●	●	
	MGMN200-J	2.0	0.2	16.0	1.2	3.5	-	●	●	●	●	
	MGMN250-J	2.5	0.2	18.5	2.0	3.85	-	●	●	●	●	
	MGMN300-J	3.0	0.4	21.0	2.35	4.8	-	●	●	●	●	
	MGMN400-J	4.0	0.4	21.0	3.3	4.8	-	●	●	●	●	
	MGMN500-J	5.0	0.8	26.0	4.1	5.8	-	●	●	●	●	
	MGMN600-J	6.0	0.8	26.0	5.0	5.8	-	●	●	●	●	

MRMN-MTK

PROFILING / 프로파일



DESCRIPTION 형번		DIMENSIONS 형번						CARBIDE 재종				
								TC5135	TP0525	TP0535	TP6525P	TP4505
	MRMN200-MTK	2.0	1.0	16.0	1.5	3.5	-	●	●	●	●	
	MRMN300-MTK	3.0	1.5	21.0	2.35	4.8	-	●	●	●	●	
	MRMN400-MTK	4.0	2.0	21.0	3.3	4.8	-	●	●	●	●	
	MRMN500-MTK	5.0	2.5	26.0	4.1	5.8	-	●	●	●	●	
	MRMN600-MTK	6.0	3.0	26.0	5.0	5.8	-	●	●	●	●	

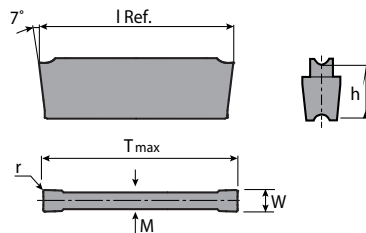
Vc ● fn



203

SDGN

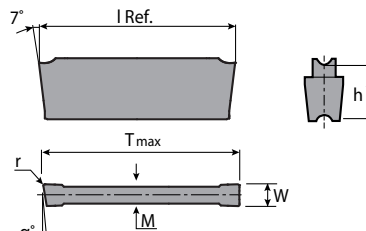
PARTING & GROOVING
절단 & 그루빙



DESCRIPTION 형번		DIMENSIONS 형번						CARBIDE 재종				
								TC5525P	TP0525	TP0535	TP6525P	TP4505
W	r	I	M	h	α							
	SDGN2002Z	2	0.2	21	1.7	4.5	-	●	●	●	●	●
	SDGN2202J	2.2	0.2	19.8	2.2	4.5	-	●	●	●	●	●
	SDGN3002Z	3	0.2	21	2.4	4.5	-	●	●	●	●	●
	SDGN3102C	3.1	0.2	20.1	2.4	4.5	-	●	●	●	●	●
	SDGN3102Z	3.1	0.2	20.1	2.4	4.5	-	●	●	●	●	●

SDGR

PARTING / 절단

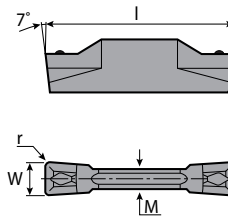


DESCRIPTION 형번		DIMENSIONS 형번						CARBIDE 재종				
								TC5525P	TP0525	TP0535	TP6525P	TP4505
W	r	I	M	h	α							
	SDGR2200JS-15D	2.2	0.2	19.8	1.9	4.5	15	●	●	●	●	●
	SDGR2202J-6D	2.2	0.2	19.8	1.9	4.5	6	●	●	●	●	●

GROOVING 그루빙

TG-C

PARTING & GROOVING
절단 & 그루빙



HOLDERS

206

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

SPARE PARTS

INDEX

DESCRIPTION
형번

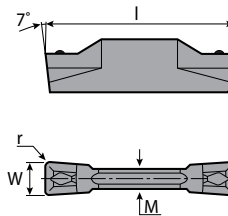
DIMENSIONS
형번

CARBIDE 재종

	DESCRIPTION 형번	DIMENSIONS 형번						CARBIDE 재종				
		W	r	l	M	h	α	TC5525P	TP0525	TP0535	TP6525P	TP4505
	TG200C-02	2.0	0.2	20.0	1.70	4.70	-	●	●	●	●	●
	TG300C-02	3.0	0.2	20.0	2.40	4.70	-	●	●	●	●	●
	TG400C-03	4.0	0.3	20.0	3.0	4.70	-	●	●	●	●	●
	TG500C-03	5.0	0.3	25.0	4.0	5.20	-	●	●	●	●	●

TG-J

PARTING & GROOVING
절단 & 그루빙



HOLDERS

206

DESCRIPTION
형번

DIMENSIONS
형번

CARBIDE 재종

	DESCRIPTION 형번	DIMENSIONS 형번						CARBIDE 재종				
		W	r	l	M	h	α	TC5525P	TP0525	TP0535	TP6525P	TP4505
	TG200J-02	2.0	0.2	20.0	1.70	4.70	-	●	●	●	●	●
	TG300J-02	3.0	0.2	20.0	2.40	4.70	-	●	●	●	●	●
	TG400J-03	4.0	0.3	20.0	3.0	4.70	-	●	●	●	●	●

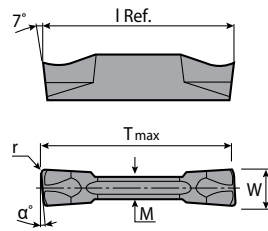
Vc ● fn



203

TG-J-R

PARTING 절단



206

DESCRIPTION
형번

DIMENSIONS
형번

CARBIDE 재종

TC5525P

TP0525

TP0535

TP6525P

TP4505

W

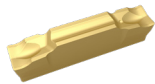
r

I

M

h

α



TG200-J-R-15D

TG200-J-R-6D

TG300-J-R-6D

TG400-J-R-6D

TG400-J-R-4D

TG500-J-R-4D

2.0

0.2

20.0

1.70

4.70

15

2.0

0.2

20.0

1.70

4.70

6

3.0

0.2

20.0

2.40

4.70

6

4.0

0.2

20.0

2.40

4.70

6

4.0

0.3

20.0

3.00

4.70

4

5.0

0.3

25.0

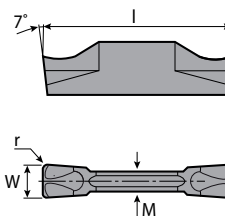
4.00

5.20

4

TG-T

GROOVING & TURNING
그루빙 & 터닝



206

DESCRIPTION
형번

DIMENSIONS
형번

CARBIDE 재종

TC5525P

TP0525

TP0535

TP6525P

TP4505

W

r

I

M

h

α



TG300T-04

TG400T-04

TG500T-04

3.0

0.4

20.0

2.20

4.70

-

4.0

0.4

20.0

3.00

4.70

-

5.0

0.4

25.0

4.00

5.20

-

Vc • fn



203

GROOVING 그루빙

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

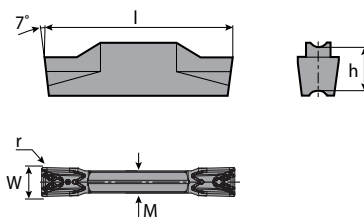
DRILLS

SPARE PARTS

INDEX

TGDM

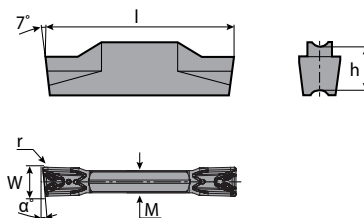
PARTING & GROOVING
절단 & 그루빙



DESCRIPTION 형번		DIMENSIONS 형번						CARBIDE 재종				
								TC5525P	TP0525	TP0535	TP6525P	TP4505
	TGDM200	2.00	0.2	20	1.5	4.3	-	●	●	●	●	
	TGDM300	3.00	0.3	20	2.3	4.3	-	●	●	●	●	
	TGDM400	4.00	0.3	20	3.3	4.3	-	●	●	●	●	

TGDR

PARTING 절단



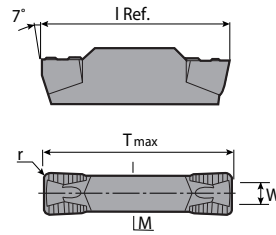
DESCRIPTION 형번		DIMENSIONS 형번						CARBIDE 재종				
								TC5525P	TP0525	TP0535	TP6525	TP4505
	TGDR200-15D	2.00	0.2	20	1.5	4.3	15	●	●	●	●	
	TGDR300-15D	3.00	0.3	20	2.3	4.3	15	●	●	●	●	

Vc ● fn



203

GRIP

PARTING & GROOVING
절단 & 그루빙DESCRIPTION
형번DIMENSIONS
형번

CARBIDE 재종

TC5525P

TP0525

TP0535

TP6525P

TP4505

W

r

l

M

h

 α 

GRIP300-M-TI

3.0

0.2

16.0

2.3

4.4

-

●

●

●

●

●

GRIP400-F-TI

4.0

0.4

19.0

2.8

4.9

-

●

●

●

●

●

GRIP500-M-TI

5.0

0.5

19.0

3.4

5.4

-

●

●

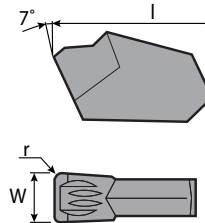
●

●

●

SP-TK

PARTING 절단



HOLDERS

207

DESCRIPTION
형번DIMENSIONS
형번

CARBIDE 재종

TC5135

TP0525

TP0535

TP6525P

TP4505

W

r

l

M

h

 α 

SP200-TK

2.2

9.3

0.2

-

-

-

●

●

●

●

●

SP300-TK

3.1

3.2

0.2

-

-

-

●

●

●

●

●

SP400-TK

4.1

11.3

0.25

-

-

-

●

●

●

●

●

SP500-TK

5.1

11.4

0.3

-

-

-

●

●

●

●

●

SP600-TK

6.4

11.4

0.35

-

-

-

●

●

●

●

●

Vc ● fn

203

GROOVING 그루빙

Cutting Parameters Vc(m/min) 절삭조건 fn(mm/rev)

FC	GREY CAST IRON 회주철
FCD	NODULAR CAST IRON 덕타일
S15C	LOW CARBON AND FREE CUTTING STEEL 저탄소강
S30C	MEDIUM CARBON STEEL 탄소강
S45C	HIGH CARBON STEEL 고탄소강
SCM	ALLOY STEEL 합금강

SUS400	마르텐사이트 & 페라이트 스테인레스 (MARTENSITIC AND FERRITIC STAINLESS STEEL)
SUS300	오스테나이트 스테인레스 (AUSTENITIC STAINLESS STEEL)
AL	알루미늄합금 (ALUMINIUM ALLOYS)
HAL	강화알루미늄합금 (AL ALLOYS AGED AND HARDENED)
NB	황동 BRASS
NC	BRONZE AND ELECTROLYTIC COPPER

MATERIAL 피삭재		CARBIDE-CVD	CARBIDE-PVD / PVD 재종				CARBIDE
		TC5525P	TP0525	TP0535	TP6525P	TU4005	
K	FC	250~450	200~360	200~360			
	FCD	180~300	150~280	150~280			
P	S15C	250~350	200~320	200~320			
	S30C	220~300	180~260	180~260			
	S45C	200~280	160~250	160~250			
	SCM	180~250	150~220	150~220			
M	SUS400	160~260	160~260	160~260	160~260		
	SUS300	140~220	140~220	140~220	140~220		
N	AL					600~1500	
	HAL					300~700	
	NB					250~400	
	NC					150~250	

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

SPARE PARTS

INDEX

Cutting Parameters 절삭조건 $f_n(\text{mm/rev})$

FC	GREY CAST IRON 회주철
FCD	NODULAR CAST IRON 덕타일
S15C	LOW CARBON AND FREE CUTTING STEEL 저탄소강
S30C	MEDIUM CARBON STEEL 탄소강
S45C	HIGH CARBON STEEL 고탄소강
SCM	ALLOY STEEL 합금강

SUS400	마르텐사이트 & 페라이트 스테인레스 (MARTENSITIC AND FERRITIC STAINLESS STEEL)
SUS300	오스테나이트 스테인레스 (AUSTENITIC STAINLESS STEEL)
AL	알루미늄합금 (ALUMINIUM ALLOYS)
HAL	강화알루미늄합금 (AL ALLOYS AGED AND HARDENED)
NB	황동 BRASS
NC	BRONZE AND ELECTROLYTIC COPPER

Parting-off 절단

MATERIAL 피삭재		CUTTING WIDTH 절삭폭(mm)				
		2 mm	3 mm	4 mm	5 mm	6 mm
K	FC	0.05~0.12	0.10~0.25	0.10~0.30	0.10~0.35	0.10~0.40
	FCD	0.05~0.10	0.10~0.20	0.10~0.25	0.10~0.30	0.10~0.35
P	S15C	0.02~0.15	0.03~0.20	0.08~0.30	0.10~0.40	0.12~0.50
	S30C	0.02~0.15	0.03~0.20	0.08~0.30	0.10~0.40	0.12~0.50
	S45C	0.02~0.15	0.03~0.20	0.08~0.30	0.10~0.40	0.12~0.50
	SCM	0.02~0.15	0.03~0.20	0.08~0.30	0.10~0.40	0.12~0.50
M	SUS400	0.02~0.10	0.03~0.15	0.08~0.25	0.10~0.35	0.12~0.40
	SUS300	0.02~0.08	0.03~0.13	0.08~0.20	0.10~0.30	0.12~0.35
N	AL	0.05~0.10	0.05~0.20	0.05~0.25	0.05~0.30	0.05~0.35
	HAL	0.05~0.10	0.05~0.20	0.05~0.25	0.05~0.30	0.05~0.35
	NB	0.05~0.10	0.05~0.20	0.05~0.25	0.05~0.30	0.05~0.35
	NC	0.05~0.10	0.05~0.20	0.05~0.25	0.05~0.30	0.05~0.35

Facing 단면그루빙

MATERIAL 피삭재		CUTTING WIDTH 절삭폭(mm)		
		3 mm	4 mm	5 mm
K	FC	0.05~0.10	0.05~0.12	0.05~0.15
	FCD	0.05~0.10	0.05~0.12	0.05~0.15
P	S15C	0.05~0.10	0.05~0.12	0.05~0.15
	S30C	0.05~0.10	0.05~0.12	0.05~0.15
	S45C	0.05~0.10	0.05~0.12	0.05~0.15
	SCM	0.05~0.10	0.05~0.12	0.05~0.15
M	SUS400	0.05~0.10	0.05~0.12	0.05~0.15
	SUS300	0.05~0.10	0.05~0.12	0.05~0.15
N	AL	0.05~0.15	0.08~0.15	0.08~0.15
	HAL	0.05~0.15	0.08~0.15	0.08~0.15
	NB	0.05~0.15	0.08~0.15	0.08~0.15
	NC	0.05~0.15	0.08~0.15	0.08~0.15

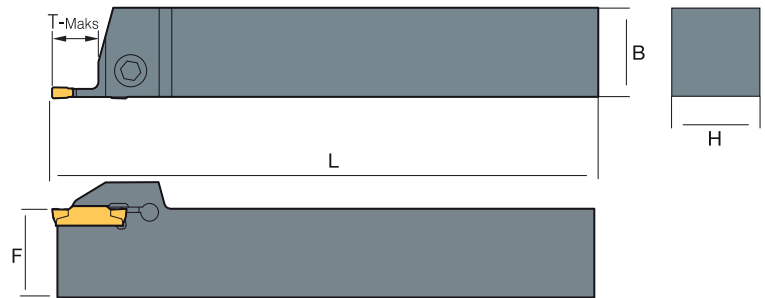
Grooving, Groove Turning 그루빙, 그루빙터닝

MATERIAL 피삭재		CUTTING WIDTH 절삭폭(mm)					
		0.5 ~ 1.0 mm	1.0 ~ 2.0 mm	2.0 ~ 3.0 mm	3.0 ~ 4.0 mm	4.0 ~ 5.0 mm	6.0 ~ 8.0 mm
K	FC	0.03~0.07	0.04~0.08	0.05~0.08	0.05~0.10	0.05~0.10	0.05~0.12
	FCD	0.03~0.07	0.04~0.08	0.05~0.08	0.05~0.10	0.05~0.10	0.05~0.12
P	S15C	0.03~0.08	0.04~0.09	0.05~0.10	0.05~0.12	0.05~0.15	0.05~0.20
	S30C	0.03~0.08	0.04~0.09	0.05~0.10	0.05~0.12	0.05~0.15	0.05~0.20
	S45C	0.03~0.07	0.04~0.08	0.05~0.08	0.05~0.10	0.05~0.12	0.05~0.15
	SCM	0.03~0.07	0.04~0.08	0.05~0.08	0.05~0.10	0.05~0.12	0.05~0.15
M	SUS400	0.03~0.08	0.04~0.09	0.05~0.10	0.05~0.12	0.05~0.12	0.05~0.15
	SUS300	0.03~0.08	0.04~0.09	0.05~0.10	0.05~0.12	0.05~0.12	0.05~0.15
N	AL	0.05~0.12	0.05~0.15	0.05~0.15	0.08~0.15	0.08~0.15	0.10~0.20
	HAL	0.05~0.12	0.05~0.15	0.05~0.15	0.08~0.15	0.08~0.15	0.10~0.20
	NB	0.05~0.12	0.05~0.15	0.05~0.15	0.08~0.15	0.08~0.15	0.10~0.20
	NC	0.05~0.12	0.05~0.15	0.05~0.15	0.08~0.15	0.08~0.15	0.10~0.20

TGER/L

screw on

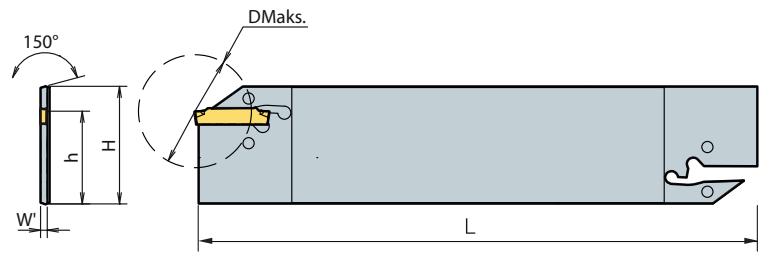
TG□

[illegible]

적용인서트

199

SPPB

SP ☐[illegible]

carbide

202

타입

그루빙

나사

음립

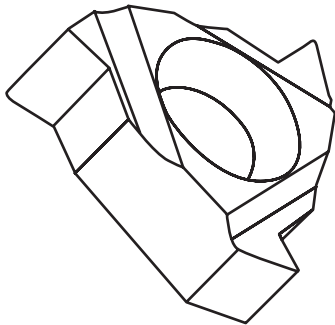
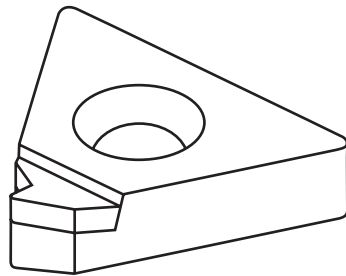
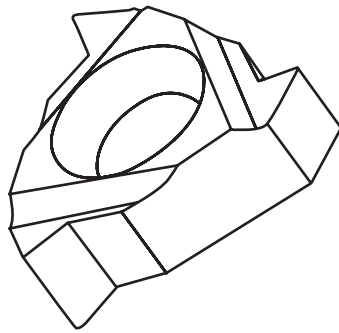
인테그럴 드릴

에드지

속리드 드릴

파본

색인표

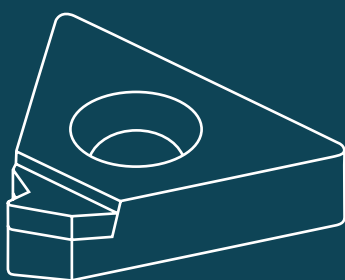


나사 THREADING/

인서트 carbide /211
홀더 / 보링바 holders /225

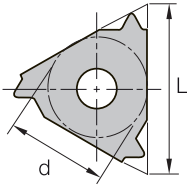


THREADING / carbide
나사 / 인서트



16	E	R	M
1	2	3	4

1 Insert Size (d) 인서트 사이즈

08	4.76mm	
11	6.35mm	
16	9.525mm	
22	12.70mm	
27	15.875mm	

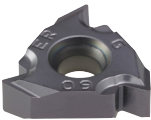
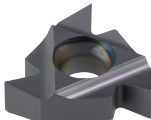
2 Insert Type 용도

E	External
I	Internal

3 Hand of Insert 승수

R	Right
L	Left

4 Chip Breaker 칩브레이커

M	 Chip Breaker Type 칩브레이커 타입
Non	 Regular Type 연삭 타입

5* Pitch (Full Profile) 정피치

0.35~6.0	mm
3~72	TPI

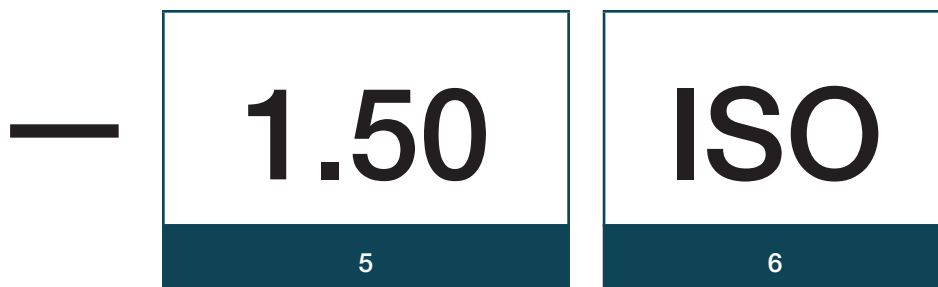
* Should use only one table based on profile type

5* Pitch (Partial Profile) 프리피치

A	0.50~1.50
AG	0.50~3.00
G	1.75~3.00
N	3.50~5.00
Q	5.50~6.00

* Should use only one table based on profile type

THREADING 나사



6 Thread Standard 나사 구분

60	Partial Profile 60°
55	Partial Profile 55°
STACME	Stub ACME
UN	American UN
W	Whitworth for BSW, BSP
BSPT	British Standard Pipe Thread
ABUT	American Buttress
BBUT	British Buttress

SAGE	Metric Buttress DIN513
BUT	API Buttress Casing
APIRD	API Round Casing & Tubing
EL	Extreme Line Casing
NPT	NPT
NPTF	NPTF
NPS	NPS
PG	Pg DIN 40430

API	API
ISO	ISO Metric
UNJ	UNJ
MJ	ISO 5855
TR	Trapez DIN103
ACME	ACME
RD	Round DIN405

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

SPARE PARTS

INDEX

GRADES 재종

ISO DIN 513	P					M					K					N				
																				
	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	K01	K10	K20	K30	K40	N01	N10	N20	N30	N40
CARBIDE CVD																				
CARBIDE PVD																				
CARBIDE UNCOATED																				
CERMET UNCOATED																				

TP5025

TP0025

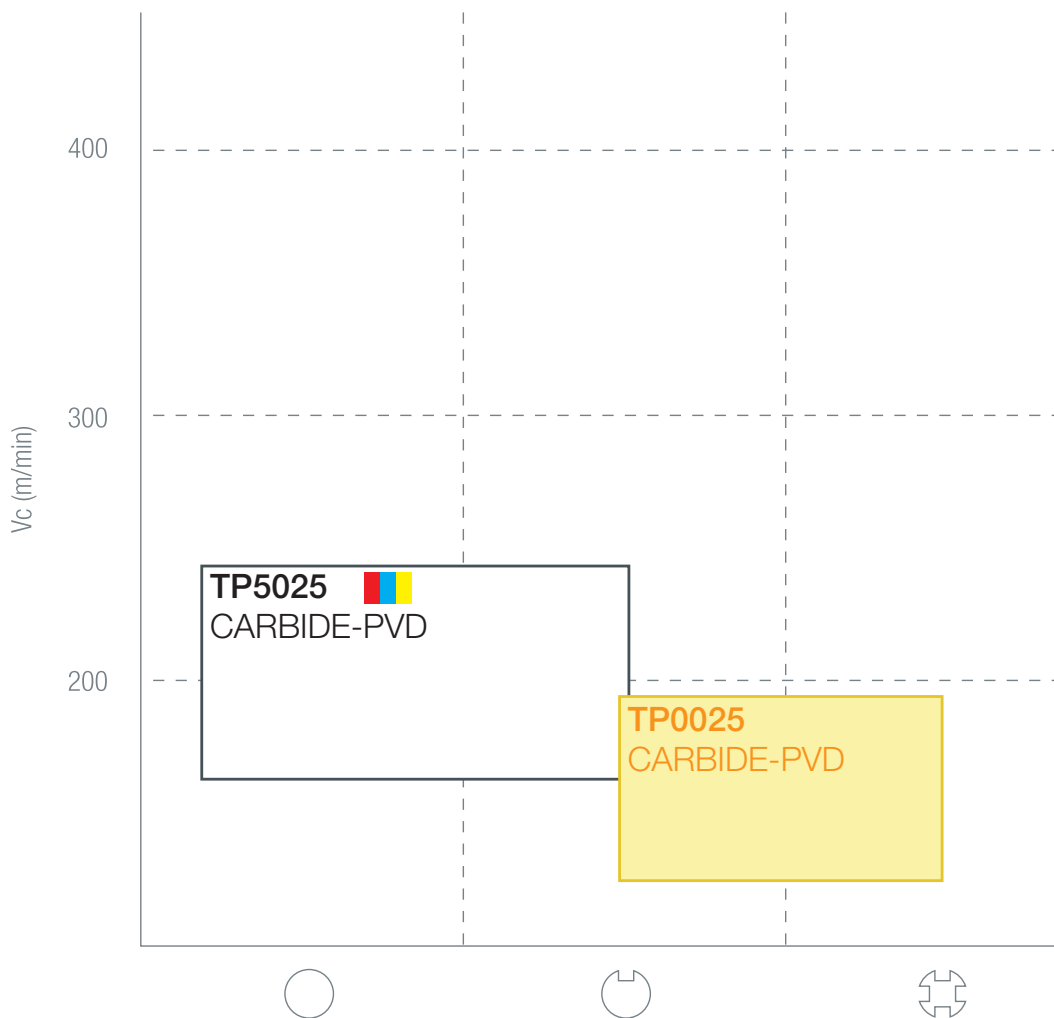
TP5025

TP0025

THREADING 나사

Range / 재종 테이블 ISO **P** **M** **K**

Grades 재종



TURNING

GROOVING

THREADING

MILLING

DRILLING

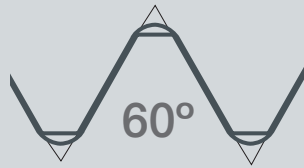
ENDMILLS

DRILLS

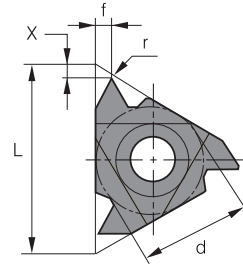
SPARE PARTS

INDEX

□□ER



EXTERNAL PARTIAL PROFILE



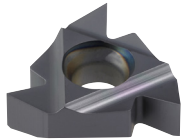
DESCRIPTION
형번

DIMENSIONS
치수

CARBIDE 재종

TP0025

TP5025



11ER-A60

0.5~1.5

48-16

6.35

11

0.05

0.8

0.9

16ER-A60

0.5~1.5

48-16

9.525

16

0.05

0.8

0.9

16ER-G60

1.75~3.0

14-8

9.525

16

0.27

1.2

1.7

16ER-AG60

0.5~3.0

48-8

9.525

16

0.08

1.2

1.7

22ER-N60

3.5~5.0

7-5

12.7

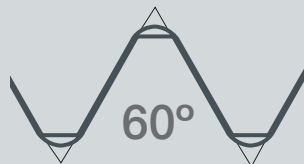
22

0.53

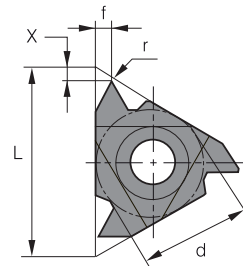
1.7

2.5

□□IR



INTERNAL PARTIAL PROFILE



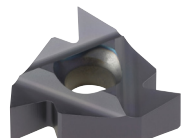
DESCRIPTION
형번

DIMENSIONS
치수

CARBIDE 재종

TP0025

TP5025



11IR-A60

0.5~1.5

48-16

6.35

11

0.05

0.8

0.9

16IR-A60

0.5~1.5

48-16

9.525

16

0.05

0.8

0.9

16IR-G60

1.75~3.0

14-8

9.525

16

0.27

1.2

1.7

16IR-AG60

0.5~3.0

48-8

9.525

16

0.08

1.2

1.7

22IR-N60

3.5~5.0

7-5

12.7

22

0.53

1.7

2.5

THREADING 나사

TURNING

GROOVING

THREADING

MILLING

DRILLING

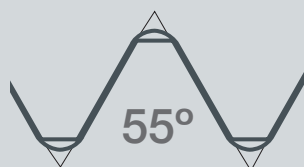
ENDMILLS

DRILLS

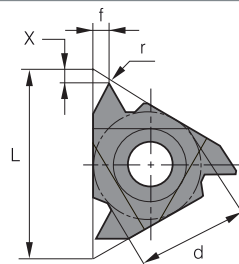
SPARE PARTS

INDEX

11ER

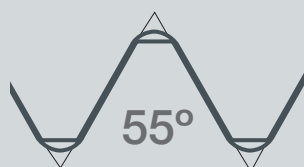


EXTERNAL PARTIAL PROFILE

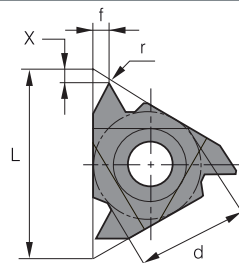


DESCRIPTION 형번		DIMENSIONS 치수							CARBIDE 재종		
									TP0025	TP5025	
	11ER-A55	0.5~1.5	48-16	6.35	11	0.05	0.8	0.9	●	●	
	16ER-A55	0.5~1.5	48-16	9.525	16	0.05	0.8	0.9	●	●	
	16ER-G55	1.75~3.0	14-8	9.525	16	0.27	1.2	1.7	●	●	
	16ER-AG55	0.5~3.0	48-8	9.525	16	0.08	1.2	1.7	●	●	
	22ER-N55	3.5~5.0	7-5	12.7	22	0.53	1.7	2.5	●	●	

11IR



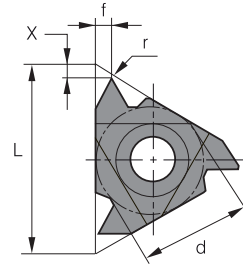
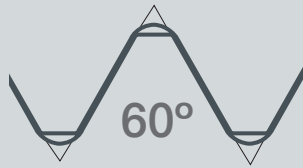
INTERNAL PARTIAL PROFILE



DESCRIPTION 형번		DIMENSIONS 치수							CARBIDE 재종		
									TP0025	TP5025	
	11IR-A55	0.5~1.5	48-16	6.35	11	0.05	0.8	0.9	●	●	
	16IR-A55	0.5~1.5	48-16	9.525	16	0.05	0.8	0.9	●	●	
	16IR-G55	1.75~3.0	14-8	9.525	16	0.27	1.2	1.7	●	●	
	16IR-AG55	0.5~3.0	48-8	9.525	16	0.08	1.2	1.7	●	●	
	22IR-N55	3.5~5.0	7-5	12.7	22	0.53	1.7	2.5	●	●	

11ER

EXTERNAL METRIC



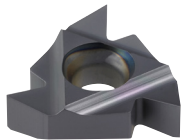
DESCRIPTION
형번

DIMENSIONS
치수

CARBIDE 재종

TP0025

TP5025



d

l

hmin

x

f

11ER-1.00ISO

1.00

6.35

11

0.61

0.7

0.7

11ER-1.25ISO

1.25

6.35

11

0.61

0.7

0.7

11ER-1.50ISO

1.50

6.35

11

0.92

0.8

1.0

16ER-0.50ISO

0.50

9.525

16

0.46

0.6

0.6

16ER-0.75ISO

0.75

9.525

16

0.46

0.6

0.6

16ER-1.00ISO

1.00

9.525

16

0.61

0.7

0.7

16ER-1.25ISO

1.25

9.525

16

0.77

0.8

0.9

16ER-1.50ISO

1.50

9.525

16

0.92

0.8

1.0

16ER-1.75ISO

1.75

9.525

16

1.07

0.9

1.2

16ER-2.00ISO

2.00

9.525

16

1.23

1.0

1.3

16ER-2.25ISO

2.25

9.525

16

1.53

1.1

1.5

16ER-2.50ISO

2.50

9.525

16

1.53

1.1

1.5

16ER-3.00ISO

3.00

9.525

16

1.84

1.2

1.6

22ER-3.50ISO

3.50

12.7

22

2.15

1.6

2.3

22ER-4.00ISO

4.00

12.7

22

2.45

1.6

2.3

22ER-4.50ISO

4.50

12.7

22

2.78

1.7

2.4

22ER-5.00ISO

5.00

12.7

22

3.07

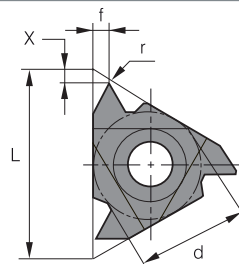
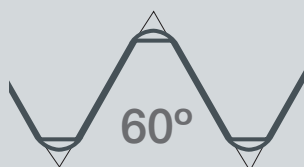
1.7

2.5

THREADING 나사

IR

INTERNAL METRIC



TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

SPARE PARTS

INDEX

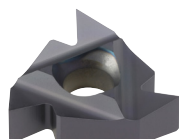
DESCRIPTION
형번

DIMENSIONS
치수

CARBIDE 재종

TP0025

TP5025



11IR-1.00ISO

1.00

6.35

11

0.61

0.7

0.7

●

●

11IR-1.25ISO

1.25

6.35

11

0.61

0.7

0.7

●

●

11IR-1.50ISO

1.50

6.35

11

0.92

0.8

1.0

●

●

16IR-0.50ISO

0.50

9.525

16

0.46

0.6

0.6

●

●

16IR-0.75ISO

0.75

9.525

16

0.46

0.6

0.6

●

●

16IR-1.00ISO

1.00

9.525

16

0.61

0.7

0.7

●

●

16IR-1.25ISO

1.25

9.525

16

0.77

0.8

0.9

●

●

16IR-1.50ISO

1.50

9.525

16

0.92

0.8

1.0

●

●

16IR-1.75ISO

1.75

9.525

16

1.07

0.9

1.2

●

●

16IR-2.00ISO

2.00

9.525

16

1.23

1.0

1.3

●

●

16ER-2.25ISO

2.25

9.525

16

1.53

1.1

1.5

●

●

16IR-2.50ISO

2.50

9.525

16

1.53

1.1

1.5

●

●

16IR-3.00ISO

3.00

9.525

16

1.84

1.2

1.6

●

●

22IR-3.50ISO

3.50

12.7

22

2.15

1.6

2.3

●

●

22IR-4.00ISO

4.00

12.7

22

2.45

1.6

2.3

●

●

22IR-4.50ISO

4.50

12.7

22

2.78

1.7

2.4

●

●

22IR-5.00ISO

5.00

12.7

22

3.07

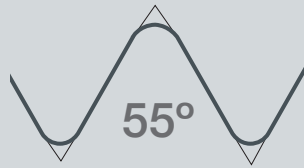
1.7

2.5

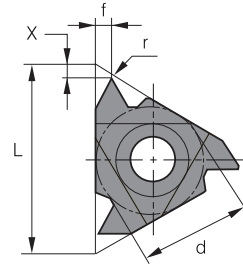
●

●

□□ER



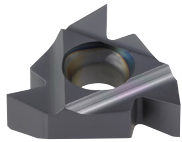
EXTERNAL WHITWORTH

DESCRIPTION
형번DIMENSIONS
치수

CARBIDE 재종

TP0025

TP5025



16ER-11W

16ER-14W

16ER-19W



11

14

19

9,52

9,52

9,52

16

16

16

1,48

1,16

0,86

1,1

1

0,8

1,5

1,2

1

●

●

●

●

●

●

●

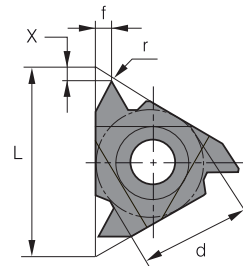
●

●

□□IR



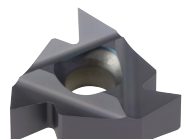
INTERNAL WHITWORTH

DESCRIPTION
형번DIMENSIONS
치수

CARBIDE 재종

TP0025

TP5025



16IR-11W

16IR-14W

16IR-16W



11

14

16

9,52

9,52

9,52

16

16

16

1,48

1,16

0,86

1,1

1

0,8

1,5

1,2

1

●

●

●

●

●

●

●

●

●

THREADING 나사

TURNING

GROOVING

THREADING

MILLING

DRILLING

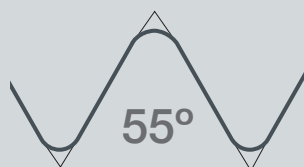
ENDMILLS

DRILLS

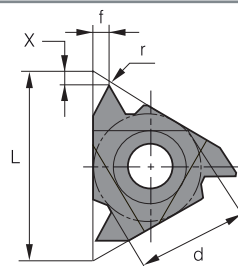
SPARE PARTS

INDEX

16ER

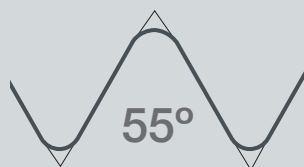


EXTERNAL BSPT

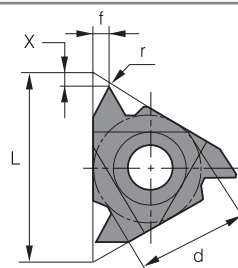


DESCRIPTION 형번		DIMENSIONS 치수							CARBIDE 재종		
									TP0025	TP5025	
				d	l	hmin	x	f			
	16ER-11BSPT		11	9,52	16	1,48	1,1	1,5		●	●
	16ER-14BSPT		14	9,52	16	1,16	1	1,2		●	●
	16ER-19BSPT		19	9,52	16	0,86	0,8	0,9		●	●

16IR

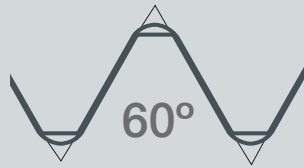


INTERNAL BSPT

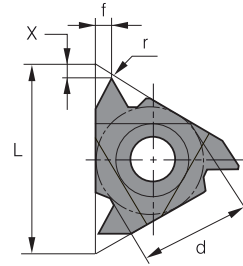


DESCRIPTION 형번		DIMENSIONS 치수							CARBIDE 재종		
									TP0025	TP5025	
				d	l	hmin	x	f			
	16IR-11BSPT		11	9,52	16	1,48	1,1	1,5		●	●
	16IR-14BSPT		14	9,52	16	1,16	1	1,2		●	●

16ER



EXTERNAL UN



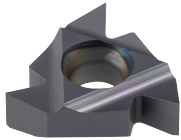
DESCRIPTION
형번

DIMENSIONS
치수

CARBIDE 재종

TP0025

TP5025



16ER-12UN

16ER-14UN

16ER-18UN

16ER-20UN

16ER-24UN



12

9,52

16

1,1

1,4

9,52

14

9,52

16

1,0

1,2

9,52

18

9,52

16

0,87

0,8

1

20

9,52

16

0,78

0,8

0,9

24

9,52

16

0,65

0,7

0,8

THREADING 나사

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

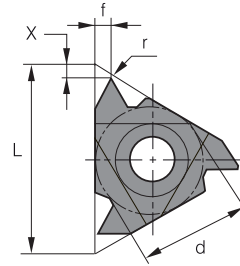
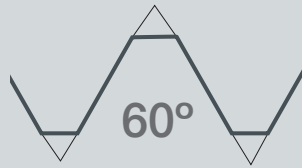
DRILLS

SPARE PARTS

INDEX

11ER

EXTERNAL NPT



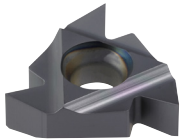
DESCRIPTION
형번

DIMENSIONS
치수

CARBIDE 재종

TP0025

TP5025



11ER-14NPT

16ER-14NPT

16ER-18NPT

16ER-27NPT

14

6,35

11

1,33

0,8

1

16

9,52

16

1,01

0,8

1

18

9,52

16

1,01

0,8

1

27

9,52

16

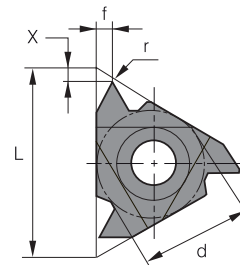
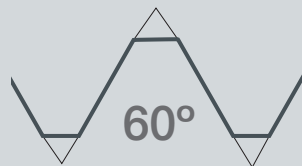
0,66

0,7

0,8

11IR

INTERNAL NPT



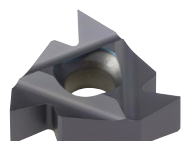
DESCRIPTION
형번

DIMENSIONS
치수

CARBIDE 재종

TP0025

TP5025



11IR-14NPT

16IR-11,5NPT

16IR-14NPT

14

6,35

11

1,33

0,8

1

16

9,52

16

1,01

0,8

1

14

9,52

16

1,33

0,9

1,2

타입

유니
그라운드

나사

미립

리드
인테리얼 드릴

리드
에드지

리드
속리드 드릴

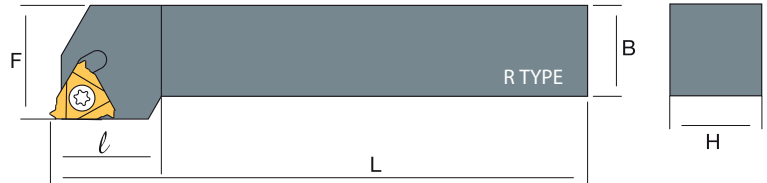
파
공

표
인표

MTER /L

screw on

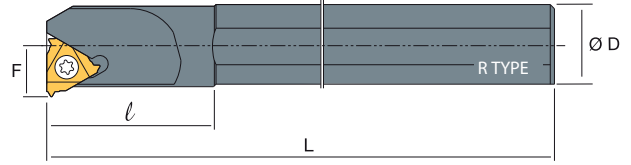
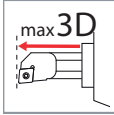
ER

[illegible]

MTIR/L

screw on

IR



TURNING

GROOVING

THREADING

MILLING

DRILLING

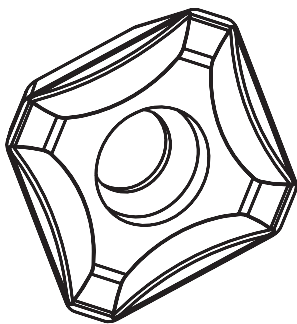
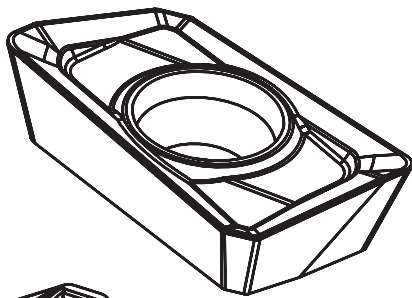
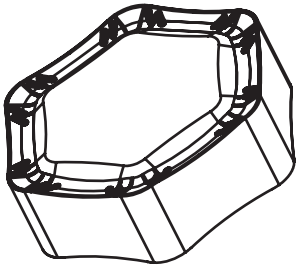
ENDMILLS

DRILLS

SPARE PARTS

INDEX

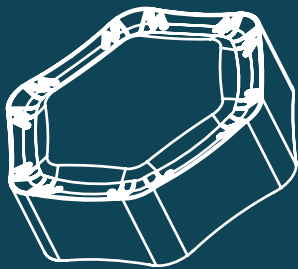
	DESCRIPTION 형번			STOCK 재고		DIMENSIONS 치수				R			L	
				R	L	D	d	L	F	L				
08IR-□□	MTIR/L	S16M	08	●	●	16	7,8	150	5,3	-	-	-	ST-SC0226	ST-WRT07
11IR-□□	MTIR/L	S10K	11	●	●	10	12	125	7,4	-	-	-	ST-SC0257	ST-WRT08
		S12K	11	●	●	12	16	125	8,4	-	-	-	ST-SC0257	ST-WRT08
		S16M	11	●	●	16	12	150	7,4	-	-	-	ST-SC0257	ST-WRT08
16ER-□□	MTIR/L	S16M	16	●	●	16	16	150	10,2	-	-	-	ST-SC3511	ST-WRT15
		S16P	16	●	●	16	19	150	11,7	-	-	-	ST-SC3511	ST-WRT15
		S20P	16	●	●	20	24	170	13,7	-	-	-	ST-SC3511	ST-WRT15
		S25R	16	●	●	25	29	200	16,2	ST-SHEI16	ST-SC5011	ST-WR0030	ST-SC3514	ST-WRT15
		S32S	16	●	●	32	36	250	19,7	ST-SHEI16	ST-SC5011	ST-WR0030	ST-SC3514	ST-WRT15
		S40T	16	●	●	40	44	300	23,7	ST-SHEI16	ST-SC5011	ST-WR0030	ST-SC3514	ST-WRT15
22ER-□□	MTIR/L	S20P	22	●	●	20	24	170	14	ST-SHEI22	ST-SC6011	ST-WR0040	ST-SC0411	ST-WRT15
		S25R	22	●	●	25	29	200	18,1	ST-SHEI22	ST-SC6011	ST-WR0040	ST-SC0411	ST-WRT15
		S32S	22	●	●	32	38	250	21,6	ST-SHEI22	ST-SC6011	ST-WR0040	ST-SC0411	ST-WRT15
		S40T	22	●	●	40	46	300	25,6	ST-SHEI22	ST-SC6011	ST-WR0040	ST-SC0411	ST-WRT15



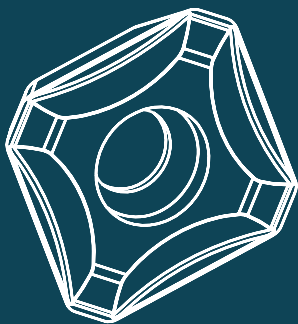
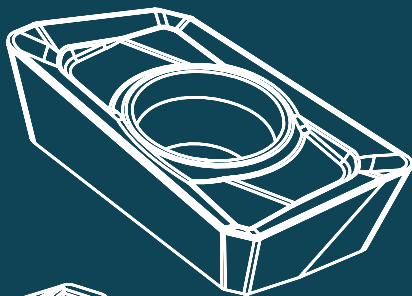
MILLING/밀링

carbide 인서트/231

holders 홀더/251



MILLING / carbide
밀링 / 인서트



Grades 재종

	ISO DIN 513	K					P					M					N				
																					
		K01	K10	K20	K30	K40	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	N01	N10	N20	N30	N40
CARBIDE CVD		TC6540P					TC6540P					TC6540P									
CARBIDE PVD		TP4505					TP5025 TP0525 TP6515P TP5020P TP0535					TP0015P TP0115P TP0025 TP0030P									
CARBIDE UNCOATED																	TU4005				
CERMET UNCOATED		TT5115 TTP5115					TT5115 TTP5115					TT5115 TTP5115									

PVD CVD Milling Grades / 밀링 코팅 재종

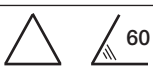
MATERIAL	GRADE	ISO	Color	Operation
	재종	범위	색깔	적용
M	TC6540P	M05-M15 P15-P25 K15-K25	YELLOW	● CVD코팅(Coated) - MT-TiCN + α-Al₂O₃ + TiN + post blasting treatment ● 강, 주철, 스테인레스의 중, 고속 가공용 (Medium to high speed machining for all material)
				
	TP0015P	M10-M20	COPPER	● PVD코팅(Coated) - TiAlSiN, Premium grade ● 뛰어난 내충격성의 미립모재 사용으로 스테인레스강의 범용 선삭가공에 탁월한 효과 (As adapting micro grained substrate which has great impact resistance, Excellent in the universal machining of stainless steel) ● 내열 및 내산화성이 뛰어난 Salina 코팅 적용으로 금형 고속 밀링 가공에 추천 (As adapting Salina coating which has excellent resistance for thermal & oxidation, Recommend high speed milling in mould)
				
	TP0115P	M10-M20	BLACK	● PVD코팅(Coated) - AlTiN, Premium grade ● 뛰어난 내충격성의 미립모재 사용으로 스테인레스강의 범용 선삭가공에 탁월한 효과 (As adapting micro grained substrate which has great impact resistance, Excellent in the universal machining of stainless steel) ● 뛰어난 발저스 코팅 밀착력으로 금형 고속 밀링 가공에 추천 (As adapting Balzers coating which has excellent adhesion, Recommend high speed milling in mould)
				
P	TP0025	M20-M30	YELLOW	● PVD코팅(Coated) - TiN + TiAlN ● 스테인레스강, 난삭재와 합금강, 주철 등의 모든 피삭재에 연속 & 단속의 밀링 가공 모두 사용가능 (Superior universal turning & milling grade to cover all kinds of work piece like stainless steel and alloy steel, casting iron both continuous & interrupted cutting condition)
				
	TP0030P	M25-M40	COPPER	● PVD코팅(Coated) - TiAlSiN, Premium grade ● 스테인레스강, 난삭재와 합금강, 주철 등의 모든 피삭재에 연속 & 단속의 터닝, 밀링 가공 모두 사용가능 (Superior universal turning & milling grade to cover all kinds of work piece like stainless steel, HRSA and alloy steel, casting iron both continuous & interrupted cutting condition)
				
	TP5025	P15-P35	BLACK	● PVD코팅(Coated) - Advanced TiAlN ● 고경도 내산화성을 지닌 향상된 PVD박막 적용으로 모든 밀링 공정에서 강력하고 파워풀한 성능 보장 (Powerful milling grade due to the coating with high hardness and oxidation resistance at all kinds of milling)
				
	TP0525	P15-P35	BLACK	● PVD코팅(Coated) - Advanced AlTiN ● 내마모성과 인성이 우수한 전용 모재와 고경도 내산화성, 내치핑성 코팅 적용으로 그루빙, 드릴링에 최적화 (Optimization for grooving and drilling due to combining the substrate of superior wear resistance and toughness with the coating of excellent oxidation/chipping resistance)
				
	TP0535	P15-P35	BLACK	● PVD코팅(Coated) - Advanced AlTiN ● 내마모성과 인성이 우수한 전용 모재와 고경도 내산화성, 내치핑성 코팅 적용으로 단속이 있는 그루빙, 드릴링에 최적화 (Optimization for the interrupted grooving and drilling due to combining the substrate of superior wear resistance and toughness with the coating of excellent oxidation/chipping resistance)
				

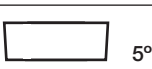
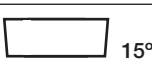
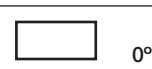
Uncoated Carbide Grade / 초경 재종

MATERIAL	GRADE	ISO	Color	Operation
N	TU4005	N05-N35	Silver	● 초미립 모재사용으로 내마모성 및 내치핑성 향상 (Increased wear & chipping resistance as using a ultra fine substrate) ● 마이크로 블라스팅 & 버핑표면 처리된 샤프 인선은 비철 가공시 탁월한 수명 보장 (Excellent tool life with special surface treatment & and sharp cutting edge of AU chip breaker)
				

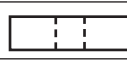
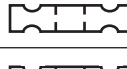
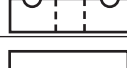
S P K N 12 03 08 ED S R - FG

1 2 3 4 5 6 7 8 9 10

1	Geometry/ 인서트 형상
A	
R	
S	
T	

2	Clearance Angle 주절인 여유각
B	 5°
C	 7°
D	 15°
E	 20°
P	 11°
N	 0°

3	Tolerance/ 공차
	 
E	±0.025 ±0.025
G	±0.025 ±0.13
K	±0.05 ±0.025 ±0.15
M	±0.05 ±0.13 ±0.15
U	±0.08 ±0.13 ±0.25

4	Shape/ 단면형상
A	
G	
M	
N	
R	
T	
X	Special

5	Shape/ 인선길이
A	09 10 11 12 17 
R	05 06 08 10 12 
S	12 15 19 
T	16 22 

6	Thickness 인선높이(메트릭)
02	2.38
03	3.18
T3	3.97
04	4.76
06	6.35
09	9.52

7	Corner Radius 노즈(nose) "r" 크기(메트릭)
02	0.20
04	0.40
08	0.80
12	1.20
16	1.60
24	2.40

7	'E' Parallel Land 절입각	"D" Relief Angle 와이퍼 여유각
A	45°	A 3°
D	60°	B 5°
E	75°	C 7°
F	85°	D 15°
P	90°	E 20°
		F 25°
		N 0°
		P 11°

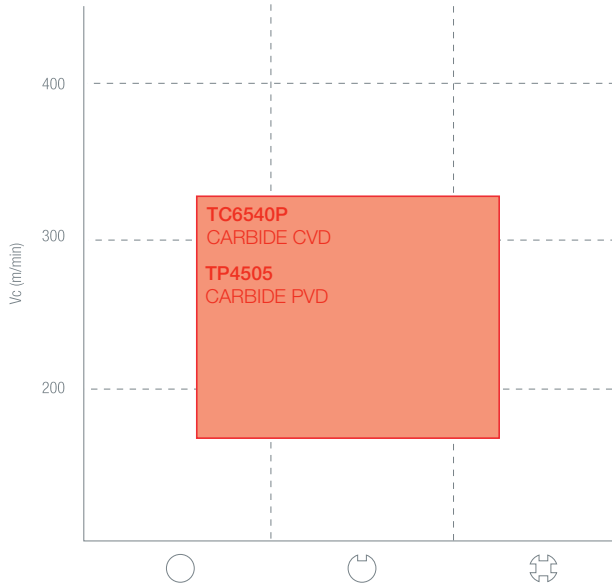
8	Edge Preparation 인선 처리
F	Sharp
E	Honing
T	Negaland
S	N/L + Honing

9	Hand / 승수
R	Right hand / 우승수
L	Left hand / 좌승수
N	Neutral

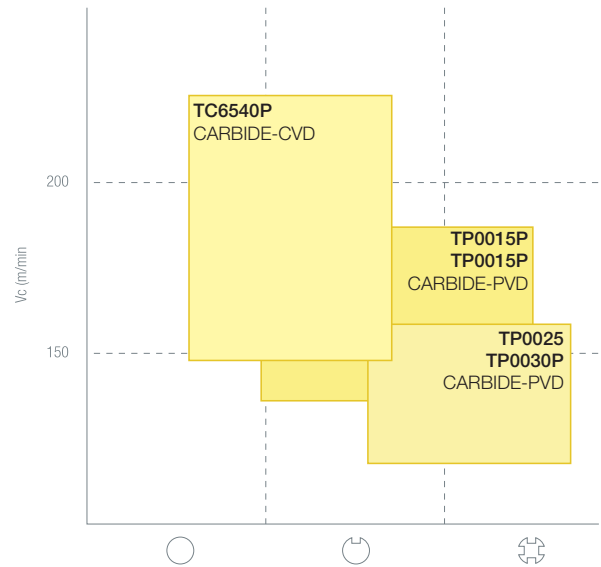
10	Series of C/B / 칩브레이커
FG	Light
FG2	Medium Rough

밀링 / MILLING

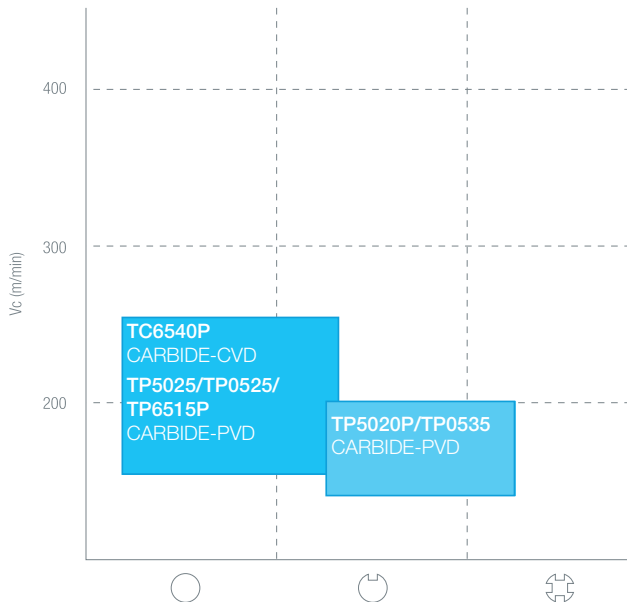
RANGE / 적용영역 ISO **K** 주철



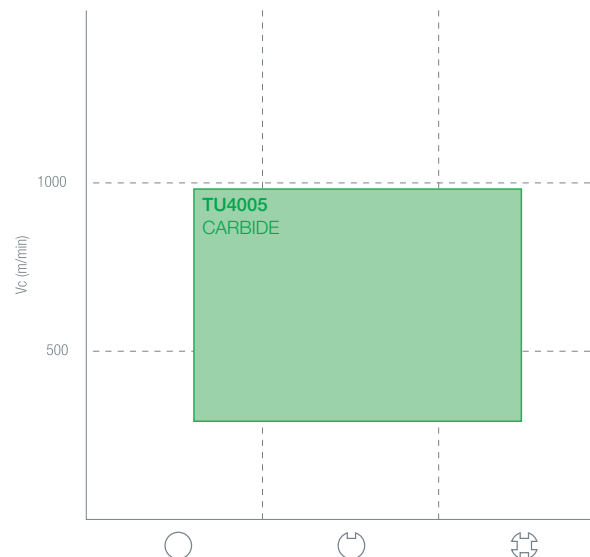
RANGE / 적용영역 ISO **M** 스테인레스



RANGE / 적용영역 ISO **P** 강용



RANGE / 적용영역 ISO **N** 비철금속



TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

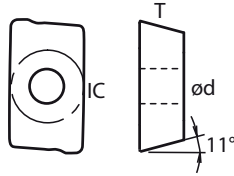
DRILLS

SPARE PARTS

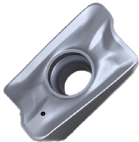
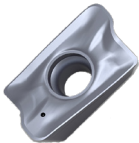
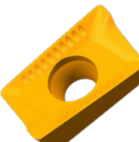
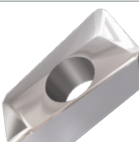
INDEX

POSITIVE 11°
with hole (포지티브11°)

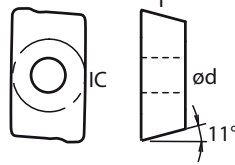
AP □□



AP □□	09T3□□	1035□□	1135□□	1604□□	1705□□
IC	9,80	6,35	6,35	9,525	10,7
T	3,80	3,50	3,50	4,76	5,56
ød	2,80	2,80	2,80	4,50	4,20
Holder	-	252	-	258	-

DESCRIPTION 형번		CARBIDE-PVD PVD코팅										CVD코팅	CERMET 세멧		CARBIDE 초경	
		TP6515P	TP5020P	TP5025	TP0525	TP0535	TP4505	TP0015P	TP0115P	TP0025	TP0030P	TC6540P	TC5135	TT5115	TTP5115	TU4005
	APKT09T308R-TEM	●	●									●				
	APKT1705PER-TEM	●	●									●				
	APKT170516R-TEM	●	●									●				
	APKT1705PER-AU															●
	APKT100308PDSR-30				●	●	●									
	APKT1003PDR			●						●						
	APKT1035PDSR							●	●		●					
	APKT113504-G2															●
	APKT113504PDFR-G2															●
	APKT1604PDER-G2															●
	APKT1604PDFR-G2															●
	APKT11T304-GM			●						●						
	APKT11T308-GM			●						●						
	APKT160408-GM			●						●						
	APKT11T308-ZM							●	●		●					
	APKT160408-ZM							●	●		●					

POSITIVE 11°
with hole (포지티브11°)

AP ☐ ☐

AP □□	09T3 □□	1035 □□	1135 □□	1604 □□	1705 □□
IC	9,80	6,35	6,35	9,525	10,7
T	3,80	3,50	3,50	4,76	5,56
Ød	2,80	2,80	2,80	4,50	4,20
 Holder					

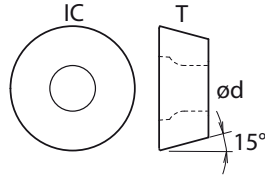
[illegible]

Vc • fn • ap

247

POSITIVE 7°
with hole 포지티브 7°

RC□□

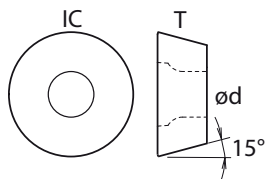


RC □□	0602 □□	0803 □□	10T3 □□	1204 □□	1606 □□
IC	6,00	8,00	10,0	12,0	16,0
T	2,38	3,18	3,97	4,76	6,35
Ød	2,80	3,80	4,40	5,00	5,00
					

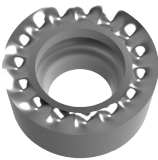
[illegible]

POSITIVE 15°
with hole 포지티브 15°

RD□□

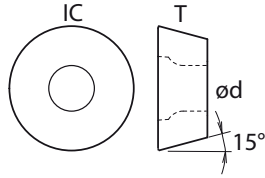


RD □□	050X□□	0802□□	1003□□	12T3□□	1604□□
IC	5,00	8,00	10,0	12,0	16,0
T	1,47	2,38	3,18	3,97	4,76
Ød	2,20	2,80	3,80	4,40	5,00
Holder	263	263	263	263	263

DESCRIPTION 형번		CARBIDE-PVD PVD코팅										CVD코팅		CERMET 세멧		CARBIDE 초경	
		TP6515P	TP5020P	TP5025	TP0525	TP0535	TP4505	TP0015P	TP0115P	TP0025	TP0030P	TC6540P	TC5135	TT5115	TTP5115	TU4005	
	RDGT050XMO-AUP															●	
	RDGT0702MO-AUP															●	
	RDGT1003MO-AUP															●	
	RDGT1204MO-AUP															●	
	RDHX1003MOT				●				●								
	RDHX12T3MOT				●				●								
	RDKT10T3MOW			●						●							
	RDKT1204MO			●						●							
	RDKT1204MOA			●						●							
	RDKT1204MOT			●						●							
	RDKT1204MOW			●						●							
	RDKT1604MO			●						●							
	RDKT1604MOW			●						●							
	RDKT1605MOW			●						●							
	RDKW0802MO		●		●												
	RDKW0803MO							●			●						
	RDKW10T3MO		●					●			●						
	RDKW12T3MO		●		●	●		●			●						
	RDKW1604MO			●	●	●		●		●	●						
	RDMT0802MOTN		●	●	●					●							
	RDMT10T3MOTN		●	●	●					●							
	RDMT1204MOTN		●	●	●					●							
	RDMT1604MOTN			●						●							

POSITIVE 15°
with hole 포지티브 15°

RD□□

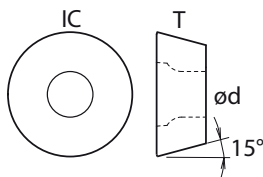


RD □□	0501□□	0802□□	1003□□	12T3□□	1604□□
IC	5,00	8,00	10,0	12,0	16,0
T	1,51	2,38	3,18	3,97	4,76
Ød	2,20	2,80	3,80	4,40	5,00
					

[illegible]

POSITIVE 11°
with hole 포지티브 11°

RP □□



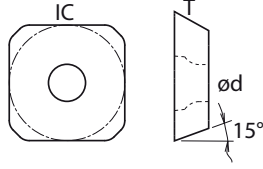
RP □□	0802□□	1003□□	12T3□□	1604□□	2006□□
IC	8,00	10,0	12,0	16,0	20,0
T	2,38	3,18	3,97	4,76	6,35
Ød	2,80	3,80	4,40	5,00	6,35
Holder	-	-	-	-	-

DESCRIPTION 형번		CARBIDE-PVD PVD코팅										CVD코팅		CERMET 세멧		CARBIDE 초경	
		TP6515P	TP5020P	TP5025	TP0525	TP0535	TP4505	TP0015P	TP0115P	TP0025	TP0030P	TC6540P	TC5135	TT5115	TTP5115	TU4005	
	RPGT0803MO-AUP															●	
	RPGT1003MO-AUP															●	
	RPGT1204MO-AUP															●	
	RPKT10T3MOF							●	●								
	RPKT1204MOF							●	●		●						
	RPKT1204MO-JS							●	●		●						
 	RPMT08T2MO							●	●		●						
	RPMT08T2MOE-JS		●	●	●					●							
	RPMT10T3MOE-JS		●	●	●				●	●							
	RPMT10T3MOE-MV	●															
	RPMT1204MO			●					●	●	●						
	RPMT1204MOE-JS		●	●	●					●							
	RPMT1204MOE-MV	●															
	RPMT1606MOE-JS			●						●							
	RPMW0802MO			●				●	●	●	●						
	RPMW08T2MO			●						●							
	RPMW0803MOT		●		●												
	RPMW1003MOT		●		●			●	●		●						
	RPMW10T3MO		●	●	●					●							
	RPMW1204MO		●	●	●	●				●							
	RPMW1204MOT		●		●	●		●	●		●						
	RPMW1606MO			●						●							
	RPMW2006MOTN			●						●							

Vc ● fn ● ap

247

POSITIVE 15°
포지티브 15°

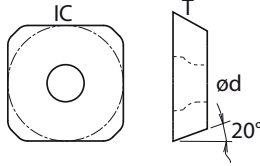
SD ☐ ☐

SD □□	09T3□□	1203□□	1204□□	1205□□	1504□□
IC	9,525	12,7	12,7	12,7	15,875
T	3,97	3,18	4,76	5,56	4,76
Ød	4,00	-	4,40	4,40	-
					

[illegible]

POSITIVE 20°
포지티브 20°

SE □□



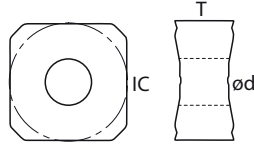
SE □□	1203 □□	12T3 □□	1504 □□
IC	12,7	13,4	15,875
T	3,18	3,97	4,76
Ød	-	4,10	-
			

[illegible]

Vc • fn • ap

247

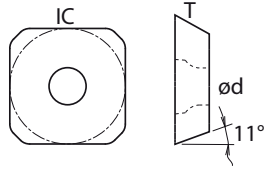
NEGATIVE
네가티브

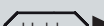
SN ☐ ☐

SN □□	1205 □□	1507 □□	1907 □□
IC	12,7	15,875	12,7
T	6,20	7,94	7,94
Ød	6,10	5,56	6,40
			

[illegible]

POSITIVE 11°
포지티브 11°

SP ☐ ☐

SP □□	0903□□	1203□□	1204□□	1504□□
IC	9,525	12,7	12,7	15,875
T	3,18	3,18	4,76	4,76
Ød	4,40	-	5,50	-
				

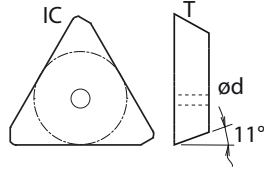
[illegible]

Vc • fn • ap

247

POSITIVE 11°
포지티브 11°

TP □□



TP □□	1603 □□	2204 □□
IC	9,525	12,7
T	3,18	4,76
Ød	-	-
		

[illegible]

Vc • fn • ap

247

밀링 / MILLING

Cutting Parameters Vc(m/min) / 절삭 조건 (속력)

FC	회주철 GRAY CAST IRON
FCD	덕타일 DUCTILE CAST IRON
S15C	저탄소강 LOW CARBON AND FREE
S30C	탄소강 MEDIUM CARBON
S45C	고탄소강 HIGH CARBON STEEL
SCM	합금강 ALLOY STEEL

SUS400	마르텐사이트 MARTENSITIC AND FERRITIC STAINLESS STEEL
SUS300	오스테나이트 AUSTENITIC STAINLESS STEEL
AL	알루미늄합금 ALUMINIUM ALLOYS
HAL	강화알루미늄합금 ALUMINIUM ALLOYS AGED AND HARDENED
NB	황동 BRASS
CU	청동, 구리 BRONZE AND ELECTROLYTIC COPPER

MATERIAL 피삭재		CARBIDE-CVD CVD 코팅	CARBIDE-PVD PVD 코팅					CARBIDE 초경	
		TC6540P	TP4505	TP5025 TP0525 TP6515P	TP5020P TP0535	TP0015P TP0115P	TP0025 TP0030P	TJ4005	
K	FC	200~350	180~330						
	FCD	180~280	180~260						
P	S15C	180~300		180~300	160~280				
	S30C	180~300		180~300	160~280				
	S45C	160~260		160~260	140~240				
	SCM	160~260		160~260	140~240				
M	SUS400	100~180				100~170	100~150		
	SUS300	100~180				100~170	100~150		
N	AL							300~600	
	HAL							200~500	
	NB							200~500	
	CU							200~500	

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

SPARE PARTS

INDEX

Cutting Parameters ap (mm) & fn (mm/rev) / 절삭 조건 (절입량 & 이송량)

AP □ □	1035	1135	1204	1604	1705
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Material 피삭재	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	0.5~7.0	0.05~0.5	0.5~7.0	0.05~0.5	0.5~9.0	0.05~0.5	0.5~13.0	0.05~0.5	0.5~15.0	0.05~0.5
P	0.5~7.0	0.05~0.5	0.5~7.0	0.05~0.5	0.5~9.0	0.05~0.5	0.5~13.0	0.05~0.5	0.5~15.0	0.05~0.5
M	0.5~5.0	0.05~0.5	0.5~5.0	0.05~0.5	0.5~6.0	0.05~0.5	0.5~9.0	0.05~0.5	0.5~11.0	0.05~0.5
N	0.5~7.0	0.05~0.4	0.5~7.0	0.08~0.4	0.5~9.0	0.1~0.4	0.5~13.0	0.1~0.4	0.5~15.0	0.1~0.4

RC/ RP	08T2	10T3	1204	1606	2006
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Material 피삭재	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	0.5~3.0	0.1~0.3	0.5~4.0	0.1~0.4	0.5~5.0	0.1~0.5	0.5~7.0	0.1~0.6	0.7~9.0	0.1~0.7
P	0.5~3.0	0.1~0.3	0.5~4.0	0.1~0.4	0.5~5.0	0.1~0.5	0.5~7.0	0.1~0.6	0.7~9.0	0.1~0.7
M	0.3~2.5	0.08~0.25	0.3~4.0	0.08~0.3	0.5~5.0	0.08~0.35	0.5~7.0	0.08~0.4	0.5~7.0	0.08~0.6
N										

RD	0501	0802	1003	12T3	1604
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Material 피삭재	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	0.2~2.0	0.05~0.25	0.2~3.0	0.1~0.3	0.5~4.0	0.1~0.4	0.5~5.0	0.1~0.5	0.5~7.0	0.1~0.6
P	0.2~2.0	0.05~0.25	0.2~3.0	0.1~0.3	0.5~4.0	0.1~0.4	0.5~5.0	0.1~0.5	0.5~7.0	0.1~0.6
M	0.2~2.0	0.03~0.2	0.2~3.0	0.08~0.25	0.3~4.0	0.08~0.3	0.5~5.0	0.08~0.35	0.5~7.0	0.08~0.4
N										

SNMX	1205	-	-	-	-
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Material 피삭재	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	1.0~5.0	0.1~0.35								
P	1.0~5.0	0.1~0.35								
M	1.0~5.0	0.1~0.35								
N										

Cutting Parameters ap (mm) & fn (mm/rev)

SDKN	1203	1504	-	-	-
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Material 피삭재	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	1.0-5.0	0.05-0.3	1.0-7.0	0.05-0.3						
P	1.0-5.0	0.05-0.3	1.0-7.0	0.05-0.3						
M	1.0-5.0	0.05-0.3	1.0-7.0	0.05-0.3						
N										

TPKN	1603	2204	-	-	-
------	------	------	---	---	---

Material 피삭재	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	1.0-12.0	0.05-0.3	1.0-15.0	0.05-0.3						
P	1.0-12.0	0.05-0.3	1.0-15.0	0.05-0.3						
M	1.0-12.0	0.05-0.3	1.0-15.0	0.05-0.3						
N										

SPKN	1203	1504	-	-	-
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Material 피삭재	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)	ap (mm)	fn (mm/rev)
K	1.0-8.0	0.05-0.3	1.0-10.0	0.05-0.3						
P	1.0-8.0	0.05-0.3	1.0-10.0	0.05-0.3						
M	1.0-8.0	0.05-0.3	1.0-10.0	0.05-0.3						
N										

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

SPARE
PARTS

INDEX

MILLING PVD Comparison table (밀링 PVD 재종 비교표)

MATERIAL 피삭재	K-CERA	ISCAR	SECO	TEAGUTEC	KYOCERA	SANDVIK	KENAMETAL	MITSUBISHI	WALTER	KORLOY
P	TP0005(H)P									PC2005
	TP0105P					P20A				PC2010
	TP0010P					GC1010		AP20M		PC2015
								MP6120	WKP25	
	TP0015P									
	TP0115P							VP15TF		
	TP5015P	IC903	MP3000	TT7070			KC522M			PC3500
	TP5020P	IC908		TT7080	PR730	GC1025	KCU20M	UP20M	WKP35	
	TP5025	IC950	F25M	TT7030		GC1030				
	TP0525									
	TP0025		F30M		PR830		KC935M			PC5300
M	TP0535	IC928	F40M	TT8020	PR660	GC1030	KC7140	VP30RT	WKP35	PC5400
	TP0030P									
	TP6505P	IC903			PR730		KC5510			
	TP6515P						KC7020			
	TP0015P					GC1125	KC522M	MP7130		
	TP0525					GC1025	KC725M			
	TP6525P									
		IC900	F25M							
S	TP0025	IC250	F30M	TT9030	PR1025	GC2030	KC735M		WQM35	PC5300
	TP0535	IC928	F40M	TT9080	PR660	GC1030	KC722	KC7140	WSM35S	PC5400
		IC328		TT8020					WSP45	PC3545
	TP0015P									
	TP0525					GC1025		VP15TF		
	TP6525P	IC328	F40M	TT9030	PR620	GC1040	KC510M	VP30RT		
	TP0025	IC408	MS2050	TT9080	PR660	S40T	KCU30M	MP9130	WSM35S	PC5300
	TP0535			TT8020	PR1535				WSM45S	PC5400

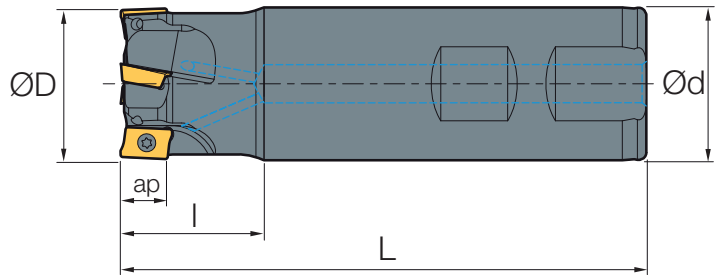
MILLING / cutter

밀링 커터



MSAP

AP□□10



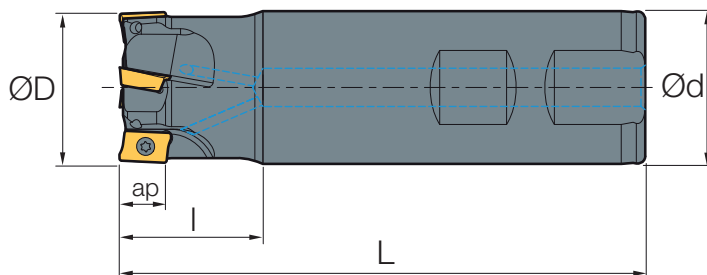
AP□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치수									
				D	L	l	d	Z	ap				
AP□□10	MSAP	12-120-10-12-1T	●	12	120	30	12	1T	10	ST-SC0256	ST-WRT08		
		12-120-10-16-1T	●	12	120	30	16	1T	10	ST-SC0256	ST-WRT08		
		14-120-10-16-1T	●	14	120	30	16	1T	10	ST-SC0256	ST-WRT08		
		16-120-10-16-2T	●	16	120	30	16	2T	10	ST-SC0256	ST-WRT08		
		16-120-10-16-2T-C	●	16	120	30	16	2T	10	ST-SC0256	ST-WRT08		
		16-150-10-16-2T	●	16	150	40	16	2T	10	ST-SC0256	ST-WRT08		
		16-150-10-16-2T-C	●	16	150	40	16	2T	10	ST-SC0256	ST-WRT08		
		16-200-10-16-2T	●	16	200	50	16	2T	10	ST-SC0256	ST-WRT08		
		18-120-10-16-2T	●	18	120	30	16	2T	10	ST-SC0256	ST-WRT08		
		18-150-10-16-2T	●	18	150	40	16	2T	10	ST-SC0256	ST-WRT08		
		18-200-10-16-2T	●	18	200	50	16	2T	10	ST-SC0256	ST-WRT08		
		20-120-10-20-3T	●	20	120	30	20	3T	10	ST-SC0256	ST-WRT08		
		20-120-10-20-3T-C	●	20	120	30	20	3T	10	ST-SC0256	ST-WRT08		
		20-150-10-20-3T	●	20	150	40	20	3T	10	ST-SC0256	ST-WRT08		
		20-200-10-20-3T	●	20	200	50	20	3T	10	ST-SC0256	ST-WRT08		
		22-120-10-20-3T	●	22	120	30	20	3T	10	ST-SC0256	ST-WRT08		
		22-150-10-20-3T	●	22	150	40	20	3T	10	ST-SC0256	ST-WRT08		
		22-200-10-20-3T	●	22	200	50	20	3T	10	ST-SC0256	ST-WRT08		
		23-120-10-20-3T	●	23	120	30	20	3T	10	ST-SC0256	ST-WRT08		
		24-120-10-20-3T	●	24	120	30	20	3T	10	ST-SC0256	ST-WRT08		
		24-150-10-20-3T	●	24	150	40	20	3T	10	ST-SC0256	ST-WRT08		

적용인서트

236

MSAP

AP□□10



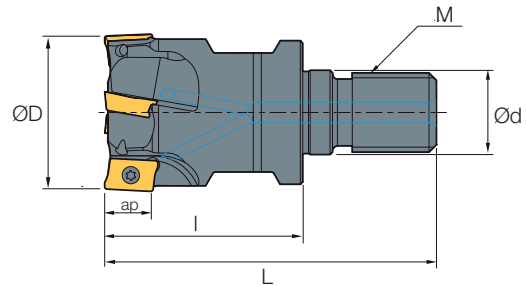
AP□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치수									
				D	L	I	d	Z	ap				
AP□□10	MSAP	24-200-10-20-3T	●	24	200	50	20	3T	10	ST-SC0256	ST-WRT08		
		25-120-10-25-3T	●	25	120	30	25	3T	10	ST-SC0256	ST-WRT08		
		25-120-10-25-3T-C	●	25	120	30	25	3T	10	ST-SC0256	ST-WRT08		
		25-150-10-25-3T	●	25	150	40	25	3T	10	ST-SC0256	ST-WRT08		
		25-200-10-25-3T	●	25	200	50	25	3T	10	ST-SC0256	ST-WRT08		
		25-250-10-25-3T	●	25	250	50	25	3T	10	ST-SC0256	ST-WRT08		
		26-120-10-25-3T	●	26	120	30	25	3T	10	ST-SC0256	ST-WRT08		
		26-120-10-25-3T-C	●	26	120	30	25	3T	10	ST-SC0256	ST-WRT08		
		26-150-10-25-3T	●	26	150	40	25	3T	10	ST-SC0256	ST-WRT08		
		26-200-10-25-3T	●	26	200	50	25	3T	10	ST-SC0256	ST-WRT08		
		30-120-10-25-4T	●	30	120	30	25	4T	10	ST-SC0256	ST-WRT08		
		30-150-10-25-4T	●	30	150	40	25	4T	10	ST-SC0256	ST-WRT08		
		32-120-10-25-4T	●	32	120	30	25	4T	10	ST-SC0256	ST-WRT08		
		32-120-10-32-4T	●	32	120	30	32	4T	10	ST-SC0256	ST-WRT08		
		32-120-10-32-4T-C	●	32	120	30	32	4T	10	ST-SC0256	ST-WRT08		
		32-150-10-25-4T	●	32	150	40	25	4T	10	ST-SC0256	ST-WRT08		
		32-150-10-32-4T	●	32	150	40	32	4T	10	ST-SC0256	ST-WRT08		
		32-300-10-32-4T	●	32	300	50	32	4T	10	ST-SC0256	ST-WRT08		
		35-120-10-32-5T	●	35	120	30	32	5T	10	ST-SC0256	ST-WRT08		
		40-120-10-32-5T	●	40	120	30	32	5T	10	ST-SC0256	ST-WRT08		
		40-150-10-32-5T	●	40	150	40	32	5T	10	ST-SC0256	ST-WRT08		

carbide

236

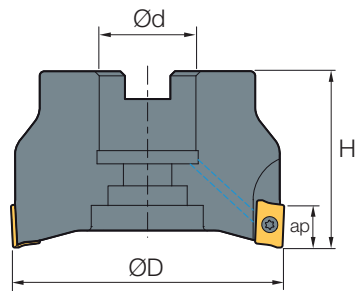
MMAP

AP $\square\square$ 10

[illegible]

MFAP

AP $\square\square$ 10

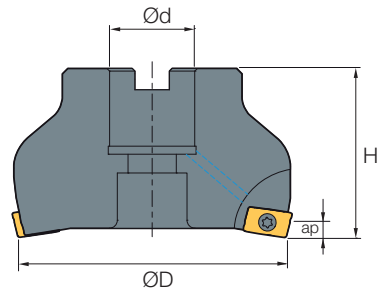
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carbide

236

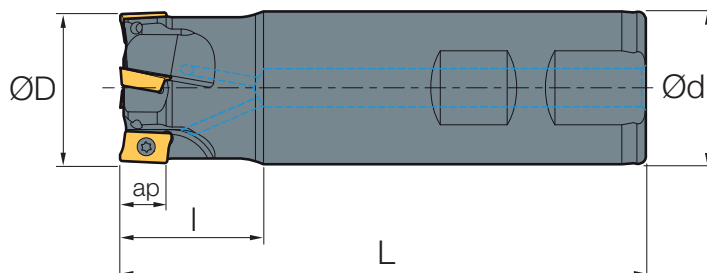
MFAP

AP $\square\square$ 10

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MSAP

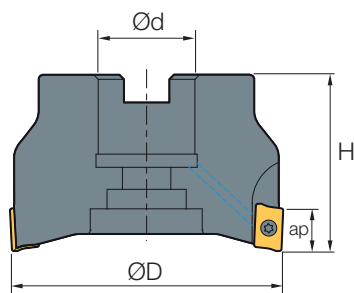
AP□□12



AP□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치 수									
				D	L	I	d	Z	ap				
AP□□12	MSAP	20-150-12-20-2T	●	20	150	30	20	2T	12	ST-SC0256	ST-WRT08		
		20-200-12-20-2T	●	20	200	40	20	2T	12	ST-SC0256	ST-WRT08		
		25-150-12-25-3T	●	25	150	30	25	3T	12	ST-SC0256	ST-WRT08		
		25-200-12-25-3T	●	25	200	40	25	3T	12	ST-SC0256	ST-WRT08		
		32-150-12-32-4T	●	32	150	30	32	4T	12	ST-SC0256	ST-WRT08		
		32-200-12-25-3T	●	32	200	40	25	3T	12	ST-SC0256	ST-WRT08		
		40-200-12-40-5T	●	40	200	40	40	5T	12	ST-SC0256	ST-WRT08		

MFAP

AP□□12



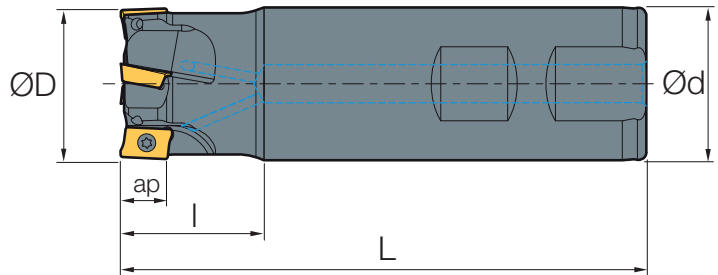
AP□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치 수								
				D	H	d	Z	ap				
AP□□12	MFAP	90050R-12-6T	●	50	40	22	6T	12	ST-SC0257	ST-WRT08		
		90063R-12-7T	●	63	40	22	7T	12	ST-SC0257	ST-WRT08		
		90080R-12-8T	●	80	50	27	8T	12	ST-SC0257	ST-WRT08		

carbide

236

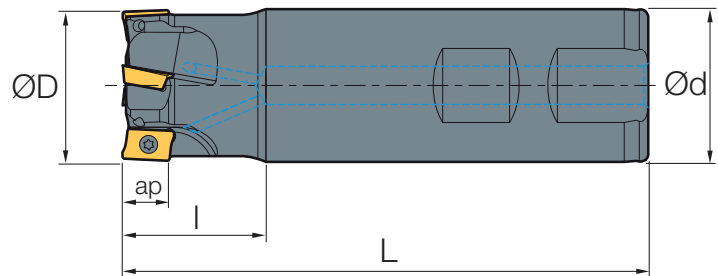
MSAP

AP 16

[illegible]

MSAP

AP $\square\square$ 16

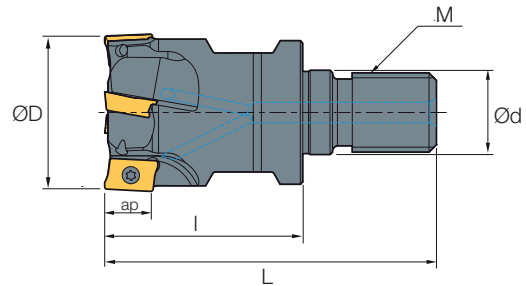
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carbide

236

MMAP

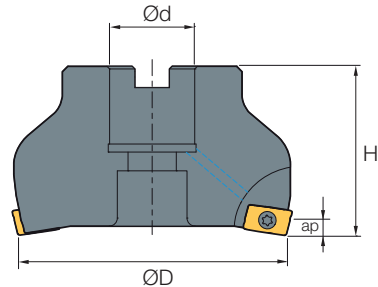
AP□□16



AP□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치수							 			
				D	L	I	d	Z	ap	M				
AP□□16	MMAP	25-M12-16-2T-C	●	25	60	43	12	2T	16	12	ST-SC0257	ST-WRT08		
		32-M16-16-3T-C	●	32	60	43	16	3T	16	16	ST-SC0257	ST-WRT08		
		40-M16-16-4T-C	●	40	60	43	16	4T	16	16	ST-SC0257	ST-WRT08		
		42-M16-16-4T-C	●	42	60	43	16	4T	16	16	ST-SC0257	ST-WRT08		

MFAP

AP□□16

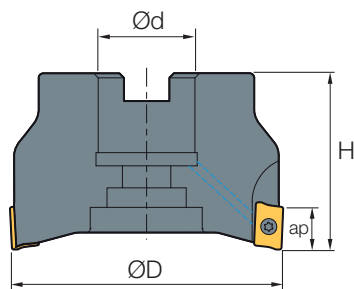


AP□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치수					 			
				D	H	d	ap	Z				
AP□□16	MFAP	75063R-16-4T	●	63	40	22	16	4T	ST-SC0257	ST-WRT08		
		75063R-16-4T-C	●	63	40	22	16	4T	ST-SC0257	ST-WRT08		
		75080R-16-6T	●	80	40	27	16	6T	ST-SC0257	ST-WRT08		
		75080R-16-6T-C	●	80	40	27	16	6T				
		75100R-16-7T	●	100	50	32	16	7T				
		75100R-16-7T-C	●	100	50	32	16	7T				

적용인서트

236

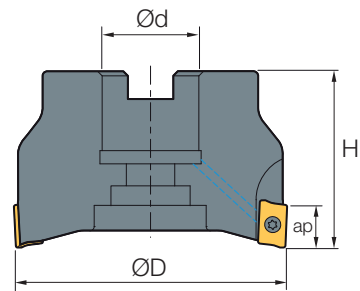
AP 16

[illegible]

236

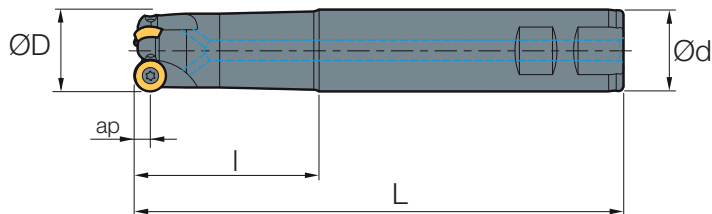
MFAP

AP $\square\square$ 17

[illegible]

MSRD

RD□□

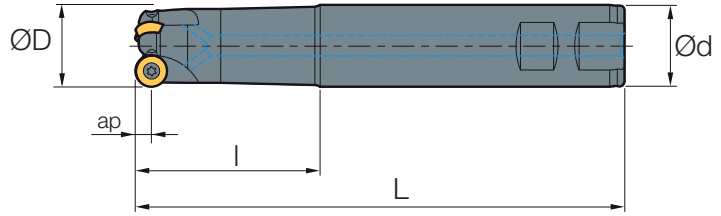


RD□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치수									
				D	L	l	d	Z	ap				
RD□□08	MSRD	16-120-08-16-2T	●	16	120	55	20	2T	08	ST-SC0256	ST-WRT08		
		16-160-08-16-2T	●	16	160	55	25	2T	08	ST-SC0256	ST-WRT08		
		20-120-08-20-2T	●	20	120	55	25	2T	08	ST-SC0256	ST-WRT08		
		20-160-08-20-2T	●	20	160	55	25	2T	08	ST-SC0256	ST-WRT08		
		20-200-08-20-2T	●	20	200	55	25	2T	08	ST-SC0256	ST-WRT08		
		25-120-08-25-3T	●	25	120	55	25	3T	08	ST-SC0256	ST-WRT08		
		25-160-08-25-3T	●	25	160	55	25	3T	08	ST-SC0256	ST-WRT08		
		25-200-08-25-3T	●	25	200	55	25	3T	08	ST-SC0256	ST-WRT08		
		32-120-08-32-4T	●	32	120	55	25	4T	08	ST-SC0256	ST-WRT08		
		32-160-08-32-4T	●	32	160	55	25	4T	08	ST-SC0256	ST-WRT08		
		32-200-08-32-4T	●	32	200	55	25	4T	08	ST-SC0256	ST-WRT08		
RD□□10	MSRD	20-120-10-20-2T	●	20	120	55	20	2T	10	ST-SC3508	ST-WRT15		
		20-160-10-20-2T	●	20	160	55	20	2T	10	ST-SC3508	ST-WRT15		
		20-200-10-20-2T	●	20	200	55	20	2T	10	ST-SC3508	ST-WRT15		
		25-120-10-25-2T	●	25	120	55	25	2T	10	ST-SC3508	ST-WRT15		
		25-160-10-25-2T	●	25	160	55	25	2T	10	ST-SC3508	ST-WRT15		
		25-200-10-25-2T	●	25	200	55	25	2T	10	ST-SC3508	ST-WRT15		
		32-120-10-32-3T	●	32	120	55	32	3T	10	ST-SC3508	ST-WRT15		
		32-160-10-32-3T	●	32	160	55	32	3T	10	ST-SC3508	ST-WRT15		
		32-200-10-32-3T	●	32	200	55	32	3T	10	ST-SC3508	ST-WRT15		
		40-120-10-32-4T	●	40	120	55	32	4T	10	ST-SC3508	ST-WRT15		
		40-160-10-32-4T	●	40	160	55	32	4T	10	ST-SC3508	ST-WRT15		
		40-200-10-32-4T	●	40	200	55	32	4T	10	ST-SC3508	ST-WRT15		

carbide

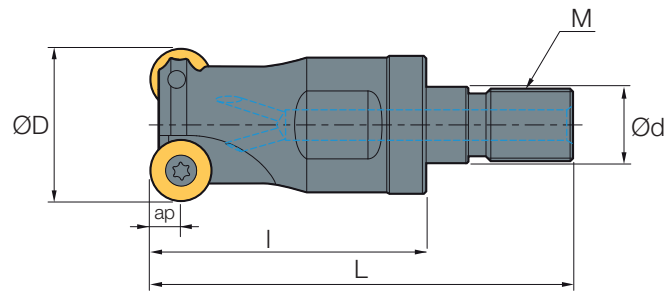
239

MSRD

RD ☐ ☐[illegible]

MMRD

RD□□



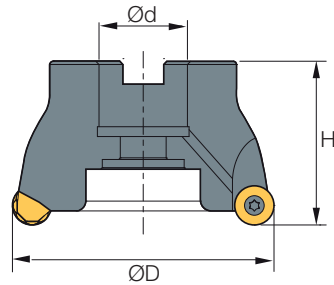
RD□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치수							 ← 			
				D	L	I	d	Z	ap	M				
RD□□08	MMRD	16-M08-08-2T-C	●	16	52	23	13	2T	4	08	ST-SC0256	ST-WRT08		
		20-M10-08-3T-C	●	20	52	30	18	3T	4	10	ST-SC0256	ST-WRT08		
		25-M12-08-4T-C	●	25	52	35	21	4T	4	12	ST-SC0256	ST-WRT08		
RD□□10	MMRD	20-M10-10-2T-C	●	20	52	30	18	2T	5	10	ST-SC3508	ST-WRT15		
		25-M12-10-3T-C	●	25	52	35	21	3T	5	12	ST-SC3508	ST-WRT15		
		30-M16-10-3T-C	●	30	64	43	29	3T	5	16	ST-SC3508	ST-WRT15		
		32-M16-10-4T-C	●	32	64	43	29	4T	5	16	ST-SC3508	ST-WRT15		
		35-M16-10-4T-C	●	35	64	43	29	4T	5	16	ST-SC3508	ST-WRT15		
		40-M16-10-4T-C	●	40	67	43	29	4T	5	16	ST-SC3508	ST-WRT15		
		42-M16-10-5T-C	●	42	67	43	29	4T	5	16	ST-SC3508	ST-WRT15		
RD□□12	MMRD	24-M12-12-2T-C	●	24	52	35	21	2T	6	12	ST-SC3508	ST-WRT15		
		25-M12-12-2T-C	●	25	52	35	21	2T	6	12	ST-SC3508	ST-WRT15		
		32-M16-12-3T-C	●	32	64	43	29	3T	6	16	ST-SC3508	ST-WRT15		
		35-M16-12-3T-C	●	35	64	43	29	3T	6	16	ST-SC3508	ST-WRT15		
		40-M16-12-4T-C	●	40	67	43	29	4T	6	16	ST-SC3508	ST-WRT15		
		42-M16-12-4T-C	●	42	67	43	29	4T	6	16	ST-SC3508	ST-WRT15		

carbide

239

MFRD

RD□□

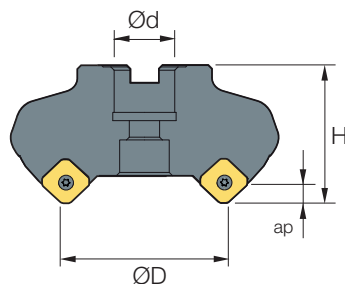


RD□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치수								
				D	H	d	ap	Z				
RD□□10	MFRD	040R-10-4T	●	40	40	16	5	4T	ST-SC3509	ST-WRT15		
		040R-10-4T-C	●	40	40	16	5	4T	ST-SC3509	ST-WRT15		
		050R-10-5T	●	50	50	22	5	5T	ST-SC3509	ST-WRT15		
		050R-10-5T-C	●	50	50	22	5	5T	ST-SC3509	ST-WRT15		
		063R-10-6T	●	63	50	27	5	6T	ST-SC3509	ST-WRT15		
		063R-10-6T-C	●	63	50	27	5	6T	ST-SC3509	ST-WRT15		
		080R-10-7T	●	80	50	27	5	7T	ST-SC3509	ST-WRT15		
		080R-10-7T-C	●	80	50	27	5	7T	ST-SC3509	ST-WRT15		
		100R-10-8T	●	100	50	32	5	8T	ST-SC3509	ST-WRT15		
		100R-10-8T-C	●	100	50	32	5	8T	ST-SC3509	ST-WRT15		
		125R-10-9T	●	125	63	40	5	9T	ST-SC3509	ST-WRT15		
RD□□12	MFRD	040R-12-4T	●	40	40	16	6	4T	ST-SC3509	ST-WRT15		
		040R-12-4T-C	●	40	40	16	6	4T	ST-SC3509	ST-WRT15		
		050R-12-5T	●	50	50	22	6	5T	ST-SC3509	ST-WRT15		
		050R-12-5T-C	●	50	50	22	6	5T	ST-SC3509	ST-WRT15		
		063R-12-6T	●	63	50	27	6	6T	ST-SC3509	ST-WRT15		
		063R-12-6T-C	●	63	50	27	6	6T	ST-SC3509	ST-WRT15		
		080R-12-7T	●	80	50	27	6	7T	ST-SC3509	ST-WRT15		
		080R-12-7T-C	●	80	50	27	6	7T	ST-SC3509	ST-WRT15		
		100R-12-8T	●	100	50	32	6	8T	ST-SC3509	ST-WRT15		
		100R-12-8T-C	●	125	50	32	6	8T	ST-SC3509	ST-WRT15		
		125R-12-9T	●	125	63	40	6	9T	ST-SC3509	ST-WRT15		

적용인서트

239

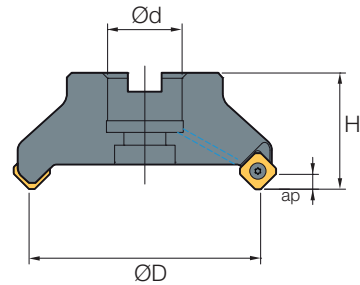
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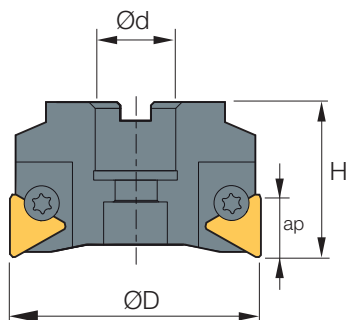
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243

MFSN

SN□□ 12

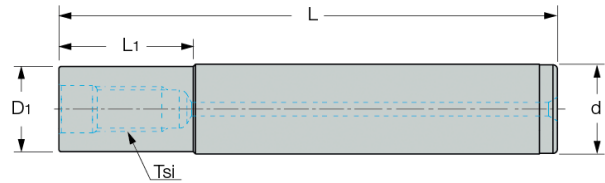
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TP ☐ ☐[illegible]

246

MAT

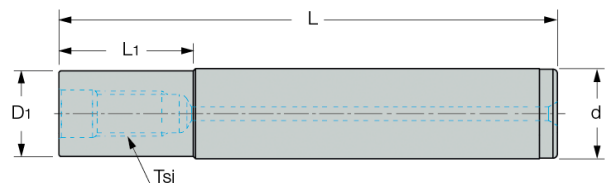
Steel Shaft



	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치 수								
			D	d	L	I	M				
	MAT	M10-120-S18/20	●	18	20	120	60	10			
		M10-170-S18/20	●	18	20	170	90	10			
		M16-160-S24/25	●	24	25	160	80	16			
		M16-200-S24/25	●	24	25	200	100	16			
		M16-250-S24/25	●	24	25	250	150	16			
		M16-160-S31/32	●	31	32	160	80	16			
		M16-200-S31/32	●	31	32	200	100	16			
		M16-250-S31/32	●	31	32	250	150	16			

MFT

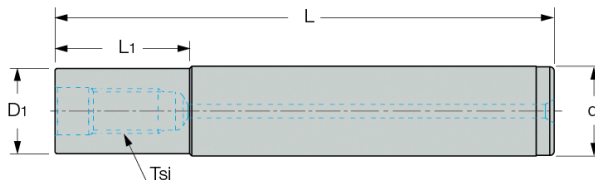
Carbide Shaft



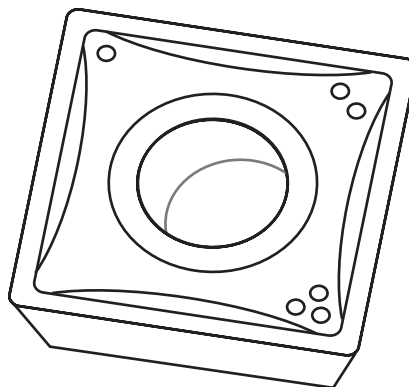
	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치 수								
			D	d	L	I	M				
	MFT	08-08-100-M4	●	8	8	100	-	M4			
		10-10-080-M5	●	10	10	80	-	M5			
		10-10-100-M5	●	10	10	100	-	M5			
		10-10-100-M6	●	10	10	100	-	M6			
		10-10-150-M5	●	10	10	150	-	M5			
		12-12-100-M6	●	12	12	100	-	M6			
		12-12-150-M6	●	12	12	150	-	M6			
		12-12-200-M6	●	12	12	200	-	M6			

MFT

Carbide Shaft



□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치 수								
	MFT			D	d	L	I	M				
		16-15-100-M8	●	16	15	100	50	M8				
		16-15-150-M8	●	16	15	150	50	M8				
		16-15-200-M8	●	16	15	200	50	M8				
		17-16-100-M8	●	16	16	100	-	M8				
		17-16-150-M8	●	16	16	150	-	M8				
		17-16-200-M8	●	16	16	200	-	M8				
		17-16-250-M8	●	16	16	250	-	M8				
		17-16-300-M8	●	16	16	300	-	M8				
		20-19-150-M10	●	20	19	150	50	M10				
		20-19-250-M10	●	20	19	250	100	M10				
		21-20-100-M10	●	20	20	100	-	M10				
		21-20-150-M10	●	20	20	150	-	M10				
		21-20-200-M10	●	20	20	200	-	M10				
		21-20-250-M10	●	20	20	250	-	M10				
		21-20-300-M10	●	20	20	300	-	M10				
		25-24-150-M12	●	25	24	150	50	M12				
		25-24-200-M12	●	25	24	200	50	M12				
		25-24-250-M12	●	25	24	250	100	M12				
		25-24-300-M12	●	25	24	300	100	M12				
		26-25-150-M12	●	25	25	150	-	M12				
		26-25-200-M12	●	25	25	200	-	M12				
		26-25-250-M12	●	25	25	250	-	M12				
		26-25-300-M12	●	25	25	300	-	M12				
		35-32-150-M16	●	35	32	150	50	M16				
		35-32-200-M16	●	35	32	200	50	M16				
		35-32-250-M16	●	35	32	250	100	M16				
		35-32-300-M16	●	35	32	300	100	M16				
		35-32-350-M16	●	35	32	350	150	M16				
		35-32-400-M16	●	35	32	400	200	M16				

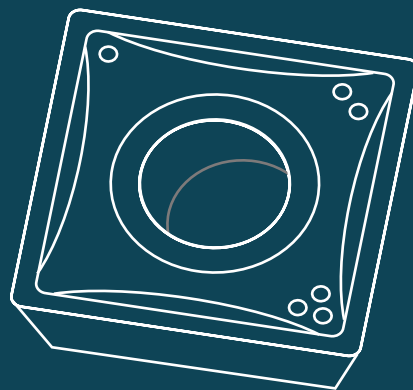


DRILLING/ 드릴링

carbide 인서트/275

holders 홀더 /279

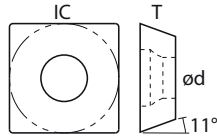
DRILLING / carbide 드릴링 / 인서트



Grades 재종

ISO DIN 513	K					P					M					N				
	K01	K10	K20	K30	K40	P01	P10	P20	P30	P40	M01	M10	M20	M30	M40	N01	N10	N20	N30	N40
CARBIDE CVD																				
CARBIDE PVD								TP5025					TP0015P							
								TP0525					TP0115P							
								TP0535					TP0025							
													TP0535							
CARBIDE UNCOATED																				
CERMET UNCOATED																				

SP □□

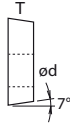


SP	0502	0602	07T3	0904	1104	1405
IC	5,00	6,00	7,94	9,80	11,50	14,30
T	2,38	2,38	3,97	4,30	4,76	5,56
Ød	2,25	2,61	2,85	4,05	4,45	5,75

[illegible]

POSITIVE 7°
with hole

WC□□



WC□□	0302□□	0402□□	0503□□	06T3□□	0804□□	
IC	5,56	6,35	7,94	9,525	12,70	
T	2,38	2,38	3,18	3,97	4,76	
Ød	TT	2,50	2,80	3,40	4,40	5,50
	TK	2,80	3,00	3,40	3,80	4,40
	TK1	2,80	3,00	3,40	3,80	4,40

[illegible]

DRILLING / holders

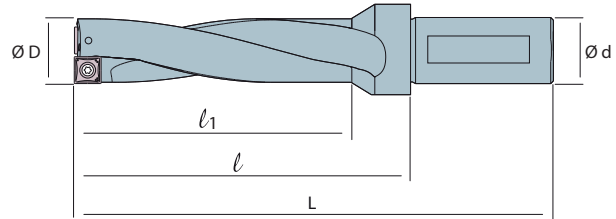
드릴링 홀더



SPID / T-DRILL

2xD

SP □□

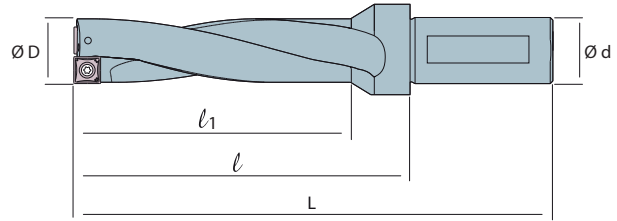


SP□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치수								
				ØD	Ød	L	I	L ₁				
SPMG0502	SPID	125-2D-S20-SP05	●	12.5	20	107	37	44	ST-SC0206	ST-WRT06		
		130-2D-S20-SP05	●	13	20	107	39	44	ST-SC0206	ST-WRT06		
		135-2D-S20-SP05	●	13.5	20	110	40.5	46	ST-SC0206	ST-WRT06		
		140-2D-S20-SP05	●	14	20	110	42	46	ST-SC0206	ST-WRT06		
		145-2D-S20-SP05	●	14.5	20	113	43.5	49	ST-SC0206	ST-WRT06		
		150-2D-S20-SP05	●	15	20	113	45	49	ST-SC0206	ST-WRT06		
SPMG0602	SPID	155-2D-S20-SP06	●	15.5	20	124	46.5	52	ST-SC0226	ST-WRT07		
		160-2D-S25-SP06	●	16	25	124	48	52	ST-SC0226	ST-WRT07		
		165-2D-S25-SP06	●	16.5	25	127	49.5	54	ST-SC0226	ST-WRT07		
		170-2D-S25-SP06	●	17	25	127	51	54	ST-SC0226	ST-WRT07		
		175-2D-S25-SP06	●	17.5	25	130	52.5	57	ST-SC0226	ST-WRT07		
		180-2D-S25-SP06	●	18	25	130	54	57	ST-SC0226	ST-WRT07		
		185-2D-S25-SP06	●	18.5	25	134	55.5	59	ST-SC0226	ST-WRT07		
		190-2D-S25-SP06	●	19	25	134	57	59	ST-SC0226	ST-WRT07		
		195-2D-S25-SP06	●	19.5	25	139	58.5	63	ST-SC0226	ST-WRT07		
		200-2D-S25-SP06	●	20	25	139	60	63	ST-SC0226	ST-WRT07		
		205-2D-S25-SP06	●	20.5	25	142	61.5	65	ST-SC0226	ST-WRT07		
		210-2D-S25-SP06	●	21	25	142	63	65	ST-SC0226	ST-WRT07		
		215-2D-S25-SP06	●	21.5	25	145	64.5	67	ST-SC0257	ST-WRT07		
SPMG07T3	SPID	220-2D-S25-SP07	●	22	25	145	66	67	ST-SC0257	ST-WRT08		
		225-2D-S25-SP07	●	22.5	25	150	67.5	71	ST-SC0257	ST-WRT08		
		230-2D-S25-SP07	●	23	25	150	69	71	ST-SC0257	ST-WRT08		
		235-2D-S25-SP07	●	23.5	25	154	70.5	74	ST-SC0257	ST-WRT08		
		240-2D-S25-SP07	●	24	25	158	72	74	ST-SC0257	ST-WRT08		
		245-2D-S25-SP07	●	24.5	25	158	73.5	77	ST-SC0257	ST-WRT08		
		250-2D-S25-SP07	●	25	25	161	75	77	ST-SC0257	ST-WRT08		
		255-2D-S25-SP07	●	25.5	25	161	76.5	79	ST-SC0257	ST-WRT08		
		260-2D-S25-SP07	●	26	25	164	78	79	ST-SC0257	ST-WRT08		

SPID / T-DRILL

2xD

SP □□



SP□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치수								
				ØD	Ød	L	I	l ₁				
SPMG07T3	SPID	265-2D-S25-SP07	●	26.5	25	137	53	81	ST-SC0257	ST-WRT08		
		270-2D-S25-SP07	●	27	25	137	54	81	ST-SC0257	ST-WRT08		
		275-2D-S25-SP07	●	27.5	25	140	55	84	ST-SC0257	ST-WRT08		
SPMG0904	SPID	280-2D-S25-SP09	●	28	25	140	56	84	ST-SC3511	ST-WRT15		
		285-2D-S25-SP09	●	28.5	25	142	57	86	ST-SC3511	ST-WRT15		
		290-2D-S25-SP09	●	29	25	142	58	86	ST-SC3511	ST-WRT15		
		295-2D-S25-SP09	●	29.5	25	147	59	91	ST-SC3511	ST-WRT15		
		300-2D-S32-SP09	●	30	32	151	60	91	ST-SC3511	ST-WRT15		
		310-2D-S32-SP09	●	31	32	154	62	94	ST-SC3511	ST-WRT15		
		320-2D-S32-SP09	●	32	32	156	64	96	ST-SC3511	ST-WRT15		
		330-2D-S32-SP09	●	33	32	159	66	99	ST-SC3511	ST-WRT15		
SPMG1104	SPID	340-2D-S32-SP11	●	34	32	161	68	101	ST-SC0411	ST-WRT15		
		350-2D-S32-SP11	●	35	32	164	70	104	ST-SC0411	ST-WRT15		
		360-2D-S32-SP11	●	36	32	167	72	107	ST-SC0411	ST-WRT15		
		370-2D-S32-SP11	●	37	32	170	74	110	ST-SC0411	ST-WRT15		
		380-2D-S32-SP11	●	38	32	173	76	113	ST-SC0411	ST-WRT15		
		390-2D-S32-SP11	●	39	32	175	78	115	ST-SC0411	ST-WRT15		
		400-2D-S32-SP11	●	40	32	178	80	118	ST-SC0411	ST-WRT15		
		410-2D-S32-SP11	●	41	32	181	82	121	ST-SC0411	ST-WRT15		
SPMG1405	SPID	420-2D-S32-SP14	●	42	32	183	84	123	ST-SC0511	ST-WRT20		
		430-2D-S32-SP14	●	43	32	186	86	126	ST-SC0511	ST-WRT20		
		440-2D-S32-SP14	●	44	32	188	88	128	ST-SC0511	ST-WRT20		
		450-2D-S40-SP14	●	45	40	202	90	132	ST-SC0511	ST-WRT20		
		460-2D-S40-SP14	●	46	40	205	92	135	ST-SC0511	ST-WRT20		
		470-2D-S40-SP14	●	47	40	207	94	137	ST-SC0511	ST-WRT20		
		480-2D-S40-SP14	●	48	40	210	96	140	ST-SC0511	ST-WRT20		
		490-2D-S40-SP14	●	49	40	212	98	142	ST-SC0511	ST-WRT20		
		500-2D-S40-SP14	●	50	40	215	140	145	ST-SC0511	ST-WRT20		

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

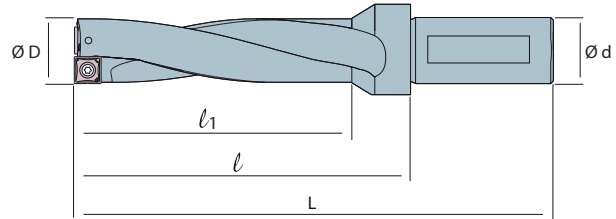
SPARE PARTS

INDEX

SPID / T-DRILL

3xD

SP □□

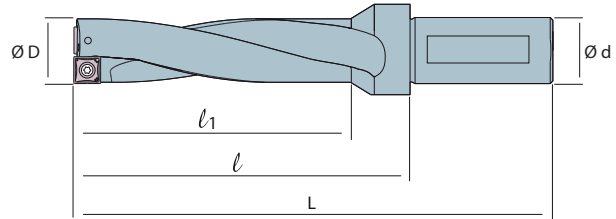


SP□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치 수								
				ØD	Ød	L	I	l ₁				
SPMG0502	SPID	125-3D-S20-SP05	●	12.5	20	94	25	57	ST-SC0206	ST-WRT06		
		130-3D-S20-SP05	●	13	20	94	26	57	ST-SC0206	ST-WRT06		
		135-3D-S20-SP05	●	13.5	20	96	27	60	ST-SC0206	ST-WRT06		
		140-3D-S20-SP05	●	14	20	96	28	60	ST-SC0206	ST-WRT06		
		145-3D-S20-SP05	●	14.5	20	99	29	63	ST-SC0206	ST-WRT06		
		150-3D-S20-SP05	●	15	20	99	30	63	ST-SC0206	ST-WRT06		
SPMG0602	SPID	155-3D-S20-SP06	●	15.5	20	102	31	68	ST-SC0226	ST-WRT07		
		160-3D-S25-SP06	●	16	25	108	32	68	ST-SC0226	ST-WRT07		
		165-3D-S25-SP06	●	16.5	25	110	33	71	ST-SC0226	ST-WRT07		
		170-3D-S25-SP06	●	17	25	110	34	71	ST-SC0226	ST-WRT07		
		175-3D-S25-SP06	●	17.5	25	113	35	75	ST-SC0226	ST-WRT07		
		180-3D-S25-SP06	●	18	25	113	36	75	ST-SC0226	ST-WRT07		
		185-3D-S25-SP06	●	18.5	25	115	37	78	ST-SC0226	ST-WRT07		
		190-3D-S25-SP06	●	19	25	115	38	78	ST-SC0226	ST-WRT07		
		195-3D-S25-SP06	●	19.5	25	119	39	83	ST-SC0226	ST-WRT07		
		200-3D-S25-SP06	●	20	25	119	40	83	ST-SC0226	ST-WRT07		
		205-3D-S25-SP06	●	20.5	25	121	41	86	ST-SC0226	ST-WRT07		
		210-3D-S25-SP06	●	21	25	121	42	86	ST-SC0226	ST-WRT07		
		215-3D-S25-SP06	●	21.5	25	125	43	89	ST-SC0257	ST-WRT07		
		220-3D-S25-SP07	●	22	25	123	44	89	ST-SC0257	ST-WRT08		
SPMG07T3		225-3D-S25-SP07	●	22.5	25	127	45	94	ST-SC0257	ST-WRT08		
		230-3D-S25-SP07	●	23	25	127	46	94	ST-SC0257	ST-WRT08		
		235-3D-S25-SP07	●	23.5	25	130	47	98	ST-SC0257	ST-WRT08		
		240-3D-S25-SP07	●	24	25	130	48	98	ST-SC0257	ST-WRT08		
		245-3D-S25-SP07	●	24.5	25	133	49	102	ST-SC0257	ST-WRT08		
		250-3D-S25-SP07	●	25	25	133	50	102	ST-SC0257	ST-WRT08		
		255-3D-S25-SP07	●	25.5	25	135	51	105	ST-SC0257	ST-WRT08		
		260-3D-S25-SP07	●	26	25	135	52	105	ST-SC0257	ST-WRT08		

SPID / T-DRILL

3xD

SP □□



SP□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치수								
				ØD	Ød	L	l	l ₁				
SPMG07T3	SPID	265-3D-S25-SP07	●	26.5	25	164	79.5	108	ST-SC0257	ST-WRT08		
		270-3D-S25-SP07	●	27	25	164	81	108	ST-SC0257	ST-WRT08		
		275-3D-S25-SP07	●	27.5	25	168	82.5	112	ST-SC0257	ST-WRT08		
SPMG0904	SPID	280-3D-S25-SP09	●	28	25	168	84	112	ST-SC3511	ST-WRT15		
		285-3D-S25-SP09	●	28.5	25	171	85.5	115	ST-SC3511	ST-WRT15		
		290-3D-S25-SP09	●	29	25	171	87	115	ST-SC3511	ST-WRT15		
		295-3D-S25-SP09	●	29.5	25	177	88.5	121	ST-SC3511	ST-WRT15		
		300-3D-S32-SP09	●	30	32	181	90	121	ST-SC3511	ST-WRT15		
		310-3D-S32-SP09	●	31	32	185	93	125	ST-SC3511	ST-WRT15		
		320-3D-S32-SP09	●	32	32	188	96	128	ST-SC3511	ST-WRT15		
		330-3D-S32-SP09	●	33	32	192	99	132	ST-SC3511	ST-WRT15		
SPMG1104	SPID	340-3D-S32-SP11	●	34	32	195	102	135	ST-SC0411	ST-WRT15		
		350-3D-S32-SP11	●	35	32	199	105	139	ST-SC0411	ST-WRT15		
		360-3D-S32-SP11	●	36	32	203	108	143	ST-SC0411	ST-WRT15		
		370-3D-S32-SP11	●	37	32	207	111	147	ST-SC0411	ST-WRT15		
		380-3D-S32-SP11	●	38	32	211	114	151	ST-SC0411	ST-WRT15		
		390-3D-S32-SP11	●	39	32	214	117	154	ST-SC0411	ST-WRT15		
		400-3D-S32-SP11	●	40	32	218	120	158	ST-SC0411	ST-WRT15		
		410-3D-S32-SP11	●	41	32	222	123	162	ST-SC0411	ST-WRT15		
SPMG1405	SPID	420-3D-S32-SP14	●	42	32	225	126	165	ST-SC0511	ST-WRT20		
		430-3D-S32-SP14	●	43	32	229	129	169	ST-SC0511	ST-WRT20		
		440-3D-S32-SP14	●	44	32	232	132	172	ST-SC0511	ST-WRT20		
		450-3D-S40-SP14	●	45	40	247	135	177	ST-SC0511	ST-WRT20		
		460-3D-S40-SP14	●	46	40	251	138	181	ST-SC0511	ST-WRT20		
		470-3D-S40-SP14	●	47	40	254	141	184	ST-SC0511	ST-WRT20		
		480-3D-S40-SP14	●	48	40	258	144	188	ST-SC0511	ST-WRT20		
		490-3D-S40-SP14	●	49	40	261	147	191	ST-SC0511	ST-WRT20		
		500-3D-S40-SP14	●	50	40	265	150	195	ST-SC0511	ST-WRT20		
		510-3D-S40-SP14	●	51	40	268	153	198	ST-SC0511	ST-WRT20		
		520-3D-S40-SP14	●	52	40	271	156	201	ST-SC0511	ST-WRT20		
		530-3D-S40-SP14	●	53	40	274	159	204	ST-SC0511	ST-WRT20		
		540-3D-S40-SP14	●	54	40	277	162	207	ST-SC0511	ST-WRT20		

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

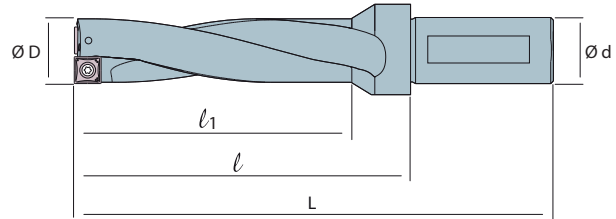
SPARE PARTS

INDEX

SPID / T-DRILL

4xD

SP □□

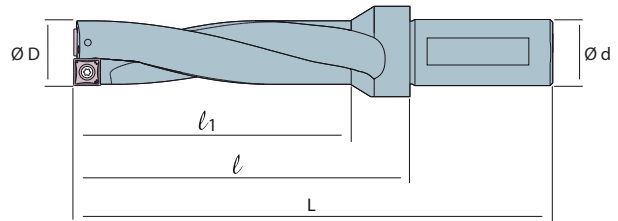


SP□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치 수								
				∅D	∅d	L	I	I ₁				
SPMG0502	SPID	125-4D-S20-SP05	●	12.5	20	120	52	70	ST-SC0206	ST-WRT06		
		130-4D-S20-SP05	●	13	20	120	52	70	ST-SC0206	ST-WRT06		
		135-4D-S20-SP05	●	13.5	20	120	52	70	ST-SC0206	ST-WRT06		
		140-4D-S20-SP05	●	14	20	124	56	76	ST-SC0206	ST-WRT06		
		145-4D-S20-SP05	●	14.5	20	124	56	76	ST-SC0206	ST-WRT06		
		150-4D-S20-SP05	●	15	20	128	60	80	ST-SC0206	ST-WRT06		
SPMG0602	SPID	155-4D-S20-SP06	●	15.5	20	128	60	80	ST-SC0226	ST-WRT07		
		160-4D-S25-SP06	●	16	25	140	64	84	ST-SC0226	ST-WRT07		
		165-4D-S25-SP06	●	16.5	25	140	64	84	ST-SC0226	ST-WRT07		
		170-4D-S25-SP06	●	17	25	144	68	88	ST-SC0226	ST-WRT07		
		175-4D-S25-SP06	●	17.5	25	144	68	88	ST-SC0226	ST-WRT07		
		180-4D-S25-SP06	●	18	25	149	72	92	ST-SC0226	ST-WRT07		
		185-4D-S25-SP06	●	18.5	25	149	72	92	ST-SC0226	ST-WRT07		
		190-4D-S25-SP06	●	19	25	153	76	97	ST-SC0226	ST-WRT07		
		950-4D-S25-SP06	●	19.5	25	153	76	97	ST-SC0226	ST-WRT07		
		200-4D-S25-SP06	●	20	25	159	80	103	ST-SC0226	ST-WRT07		
		205-4D-S25-SP06	●	20.5	25	159	80	103	ST-SC0226	ST-WRT07		
		210-4D-S25-SP06	●	21	25	163	84	107	ST-SC0226	ST-WRT07		
		215-4D-S25-SP06	●	21.5	25	163	84	107	ST-SC0226	ST-WRT07		
	SPMG07T3	SPID	220-4D-S25-SP07	●	22	25	167	88	111	ST-SC0257	ST-WRT08	
		225-4D-S25-SP07	●	22.5	25	167	88	111	ST-SC0257	ST-WRT08		
		230-4D-S25-SP07	●	23	25	173	92	117	ST-SC0257	ST-WRT08		
		235-4D-S25-SP07	●	23.5	25	173	92	117	ST-SC0257	ST-WRT08		
		240-4D-S25-SP07	●	24	25	178	96	122	ST-SC0257	ST-WRT08		
		245-4D-S25-SP07	●	24.5	25	178	96	122	ST-SC0257	ST-WRT08		
		250-4D-S25-SP07	●	25	25	183	100	127	ST-SC0257	ST-WRT08		
		255-4D-S25-SP07	●	25.5	25	183	100	127	ST-SC0257	ST-WRT08		
		260-4D-S25-SP07	●	26	25	187	104	131	ST-SC0257	ST-WRT08		
		265-4D-S25-SP07	●	26.5	25	187	104	131	ST-SC0257	ST-WRT08		
		270-4D-S25-SP07	●	27	25	191	108	135	ST-SC0257	ST-WRT08		
		275-4D-S25-SP07	●	27.5	25	191	108	135	ST-SC0257	ST-WRT08		

SPID / T-DRILL

4xD

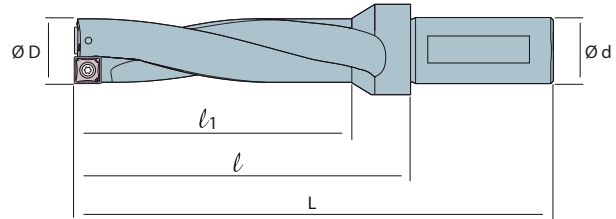
SP ☐ ☐

[illegible]

SPID / T-DRILL

5xD

SP □□

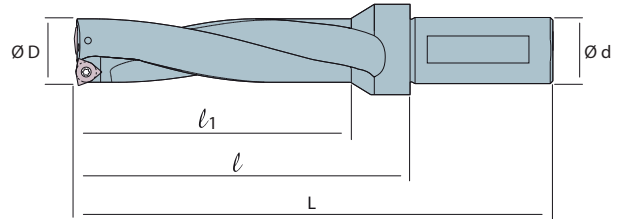


SP□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치 수								
				ØD	Ød	L	l	l ₁				
SPMG0502	SPID	130-5D-S20-SP05	●	13	20	135	65	85	ST-SC0206	ST-WRT06		
		140-5D-S20-SP05	●	14	20	140	70	90	ST-SC0206	ST-WRT06		
		150-5D-S20-SP05	●	15	20	145	75	95	ST-SC0206	ST-WRT06		
SPMG0602	SPID	160-5D-S25-SP06	●	16	25	156	80	100	ST-SC0226	ST-WRT07		
		170-5D-S25-SP06	●	17	25	161	85	105	ST-SC0226	ST-WRT07		
		180-5D-S25-SP06	●	18	25	167	90	111	ST-SC0226	ST-WRT07		
		190-5D-S25-SP06	●	19	25	172	95	116	ST-SC0226	ST-WRT07		
		200-5D-S25-SP06	●	20	25	179	100	123	ST-SC0226	ST-WRT07		
		210-5D-S25-SP06	●	21	25	184	105	128	ST-SC0226	ST-WRT07		
SPMG07T3	SPID	220-5D-S25-SP07	●	22	25	189	110	133	ST-SC0257	ST-WRT08		
		230-5D-S25-SP07	●	23	25	193	115	137	ST-SC0257	ST-WRT08		
		240-5D-S25-SP07	●	24	25	198	120	142	ST-SC0257	ST-WRT08		
		250-5D-S25-SP07	●	25	25	203	125	147	ST-SC0257	ST-WRT08		
		260-5D-S25-SP07	●	26	25	207	130	151	ST-SC0257	ST-WRT08		
		270-5D-S25-SP07	●	27	25	212	135	156	ST-SC0257	ST-WRT08		
SPMG0904	SPID	280-5D-S25-SP09	●	28	25	218	140	162	ST-SC3511	ST-WRT15		
		290-5D-S25-SP09	●	29	25	222	145	166	ST-SC3511	ST-WRT15		
		300-5D-S32-SP09	●	30	32	227	150	171	ST-SC3511	ST-WRT15		
		310-5D-S32-SP09		31	32	245	155	185	ST-SC3511	ST-WRT15		
		320-5D-S32-SP09		32	32	250	160	190	ST-SC3511	ST-WRT15		
		330-5D-S32-SP09		33	32	255	165	195	ST-SC3511	ST-WRT15		
SPMG1104	SPID	340-5D-S32-SP11		34	32	260	170	200	ST-SC0411	ST-WRT15		
		350-5D-S32-SP11		35	32	265	175	205	ST-SC0411	ST-WRT15		
		360-5D-S32-SP11		36	32	270	180	210	ST-SC0411	ST-WRT15		
		370-5D-S32-SP11		37	32	275	185	215	ST-SC0411	ST-WRT15		
		380-5D-S32-SP11		38	32	280	190	220	ST-SC0411	ST-WRT15		
		390-5D-S32-SP11		39	32	285	195	225	ST-SC0411	ST-WRT15		
		400-5D-S32-SP11		40	32	290	200	230	ST-SC0411	ST-WRT15		

WUD / U-DRILL

2xD

WC□□



WC□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치수								
				ØD	Ød	L	l	l ₁				
WCGX030208	WUD	160-2D-S25-WC03	●	16	25	108	32	52	ST-SC0257	ST-WRT08		
		165-2D-S25-WC03	●	16.5	25	110	33	54	ST-SC0257	ST-WRT08		
		170-2D-S25-WC03	●	17	25	110	34	54	ST-SC0257	ST-WRT08		
		175-2D-S25-WC03	●	17.5	25	113	35	57	ST-SC0257	ST-WRT08		
		180-2D-S25-WC03	●	18	25	113	36	57	ST-SC0257	ST-WRT08		
		185-2D-S25-WC03	●	18.5	25	115	37	59	ST-SC0257	ST-WRT08		
		190-2D-S25-WC03	●	19	25	115	38	59	ST-SC0257	ST-WRT08		
		195-2D-S25-WC03	●	19.5	25	119	39	63	ST-SC0257	ST-WRT08		
WCGX040208	WUD	200-2D-S25-WC04	●	20	25	119	40	63	ST-SC0257	ST-WRT08		
		205-2D-S25-WC04	●	20.5	25	121	41	65	ST-SC0257	ST-WRT08		
		210-2D-S25-WC04	●	21	25	121	42	65	ST-SC0257	ST-WRT08		
		215-2D-S25-WC04	●	21.5	25	123	43	67	ST-SC0257	ST-WRT08		
		220-2D-S25-WC04	●	22	25	123	44	67	ST-SC0257	ST-WRT08		
		225-2D-S25-WC04	●	22.5	25	127	45	71	ST-SC0257	ST-WRT08		
		230-2D-S25-WC04	●	23	25	127	46	71	ST-SC0257	ST-WRT08		
		235-2D-S25-WC04	●	23.5	25	130	47	74	ST-SC0257	ST-WRT08		
WCGX050308	WUD	240-2D-S25-WC05	●	24	25	130	48	74	ST-SC0309	ST-WRT15		
		245-2D-S25-WC05	●	24.5	25	133	49	77	ST-SC0309	ST-WRT15		
		250-2D-S25-WC05	●	25	25	133	50	77	ST-SC0309	ST-WRT15		
		255-2D-S25-WC05	●	25.5	25	135	51	79	ST-SC0309	ST-WRT15		
		260-2D-S25-WC05	●	26	25	135	52	79	ST-SC0309	ST-WRT15		
		265-2D-S25-WC05	●	26.5	25	137	53	81	ST-SC0309	ST-WRT15		
		270-2D-S25-WC05	●	27	25	137	54	81	ST-SC0309	ST-WRT15		
		275-2D-S25-WC05	●	27.5	25	140	55	84	ST-SC0309	ST-WRT15		
		280-2D-S25-WC05	●	28	25	140	56	84	ST-SC0309	ST-WRT15		
		285-2D-S25-WC05	●	28.5	25	142	57	86	ST-SC0309	ST-WRT15		
		290-2D-S25-WC05	●	29	25	142	58	86	ST-SC0309	ST-WRT15		
		295-2D-S25-WC05	●	29.5	25	151	59	91	ST-SC0309	ST-WRT15		
WCGX06T308	WUD	300-2D-S32-WC06	●	30	32	151	60	91	ST-SC3511	ST-WRT15		
		310-2D-S32-WC06	●	31	32	154	62	94	ST-SC3511	ST-WRT15		

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

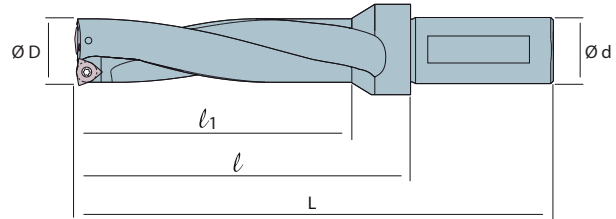
SPARE PARTS

INDEX

WUD / U-DRILL

2xD

WC□□

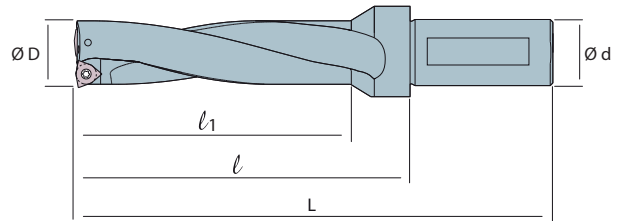


WC□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치 수								
				ØD	Ød	L	l	l ₁				
WCGX06T308	WUD	320-2D-S32-WC06	●	32	32	156	64	96	ST-SC3511	ST-WRT15		
		330-2D-S32-WC06	●	33	32	159	66	99	ST-SC3511	ST-WRT15		
		340-2D-S32-WC06	●	34	32	161	68	101	ST-SC3511	ST-WRT15		
		350-2D-S32-WC06	●	35	32	164	70	104	ST-SC3511	ST-WRT15		
		360-2D-S32-WC06	●	36	32	167	72	107	ST-SC3511	ST-WRT15		
		370-2D-S32-WC06	●	37	32	170	74	110	ST-SC3511	ST-WRT15		
		380-2D-S32-WC06	●	38	32	173	76	113	ST-SC0411	ST-WRT15		
		390-2D-S32-WC06	●	39	32	175	78	115	ST-SC3511	ST-WRT15		
		400-2D-S32-WC06	●	40	32	178	80	118	ST-SC3511	ST-WRT15		
		410-2D-S32-WC06	●	41	32	181	82	121	ST-SC3511	ST-WRT15		
		420-2D-S32-WC06	●	42	32	183	84	123	ST-SC3511	ST-WRT15		
		420-2D-S32-WC06	●	43	32	186	86	126	ST-SC3511	ST-WRT15		
WCGX080412	WUD	450-2D-S40-WC08	●	45	40	202	90	132	ST-SC0411	ST-WRT15		
		460-2D-S40-WC08	●	46	40	205	92	135	ST-SC0411	ST-WRT15		
		470-2D-S40-WC08	●	47	40	207	94	137	ST-SC0411	ST-WRT15		
		480-2D-S40-WC08	●	48	40	210	96	140	ST-SC0411	ST-WRT15		
		490-2D-S40-WC08	●	49	40	212	98	142	ST-SC0411	ST-WRT15		
		500-2D-S40-WC08	●	50	40	215	100	145	ST-SC0411	ST-WRT15		
		510-2D-S40-WC08	●	51	40	217	102	147	ST-SC0411	ST-WRT15		
		520-2D-S40-WC08	●	52	40	220	104	150	ST-SC0411	ST-WRT15		
		530-2D-S40-WC08	●	53	40	222	106	152	ST-SC0411	ST-WRT15		
		540-2D-S40-WC08	●	54	40	225	108	155	ST-SC0411	ST-WRT15		
		550-2D-S40-WC08	●	55	40	227	110	157	ST-SC0411	ST-WRT15		
		560-2D-S40-WC08	●	56	40	230	112	160	ST-SC0411	ST-WRT15		
		570-2D-S40-WC08	●	57	40	232	114	162	ST-SC0411	ST-WRT15		
		580-2D-S40-WC08	●	58	40	235	116	165	ST-SC0411	ST-WRT15		
		590-2D-S40-WC08	●	59	40	237	118	167	ST-SC0411	ST-WRT15		
		600-2D-S40-WC08	●	60	40	240	120	170	ST-SC0411	ST-WRT15		

WUD / U-DRILL

3xD

WC□□



WC□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치수					 			
				ØD	Ød	L	I	l ₁				
WCGX030208	WUD	160-3D-S25-WC03	●	16	25	108	32	68	ST-SC0257	ST-WRT08		
		165-3D-S25-WC03	●	16.5	25	110	33	71	ST-SC0257	ST-WRT08		
		170-3D-S25-WC03	●	17	25	110	34	71	ST-SC0257	ST-WRT08		
		175-3D-S25-WC03	●	17.5	25	113	35	75	ST-SC0257	ST-WRT08		
		180-3D-S25-WC03	●	18	25	113	36	75	ST-SC0257	ST-WRT08		
		185-3D-S25-WC03	●	18.5	25	115	37	78	ST-SC0257	ST-WRT08		
		190-3D-S25-WC03	●	19	25	115	38	78	ST-SC0257	ST-WRT08		
		195-3D-S25-WC03	●	19.5	25	119	39	83	ST-SC0257	ST-WRT08		
WCGX040208	WUD	200-3D-S25-WC04	●	20	25	119	40	83	ST-SC0257	ST-WRT08		
		205-3D-S25-WC04	●	20.5	25	121	41	86	ST-SC0257	ST-WRT08		
		210-3D-S25-WC04	●	21	25	121	42	86	ST-SC0257	ST-WRT08		
		215-3D-S25-WC04	●	21.5	25	123	43	89	ST-SC0257	ST-WRT08		
		220-3D-S25-WC04	●	22	25	123	44	89	ST-SC0257	ST-WRT08		
		225-3D-S25-WC04	●	22.5	25	127	45	94	ST-SC0257	ST-WRT08		
		230-3D-S25-WC04	●	23	25	127	46	94	ST-SC0257	ST-WRT08		
		235-3D-S25-WC04	●	23.5	25	130	47	98	ST-SC0309	ST-WRT15		
WCGX050308	WUD	240-3D-S25-WC05	●	24	25	130	48	98	ST-SC0309	ST-WRT15		
		245-3D-S25-WC05	●	24.5	25	133	49	102	ST-SC0309	ST-WRT15		
		250-3D-S25-WC05	●	25	25	133	50	102	ST-SC0309	ST-WRT15		
		255-3D-S25-WC05	●	25.5	25	135	51	105	ST-SC0309	ST-WRT15		
		260-3D-S25-WC05	●	26	25	135	52	105	ST-SC0309	ST-WRT15		
		265-3D-S25-WC05	●	26.5	25	137	79.5	108	ST-SC0309	ST-WRT15		
		270-3D-S25-WC05	●	27	25	137	81	108	ST-SC0309	ST-WRT15		
		275-3D-S25-WC05	●	27.5	25	140	82.5	112	ST-SC0309	ST-WRT15		
		280-3D-S25-WC05	●	28	25	140	84	112	ST-SC0309	ST-WRT15		
		285-3D-S25-WC05	●	28.5	25	142	85.5	115	ST-SC0309	ST-WRT15		
		290-3D-S25-WC05	●	29	25	142	87	115	ST-SC0309	ST-WRT15		
		295-3D-S25-WC05	●	29.5	25	151	88.5	121	ST-SC3511	ST-WRT08		
WCGX06T308	WUD	300-3D-S32-WC06	●	30	32	151	90	121	ST-SC3511	ST-WRT15		

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

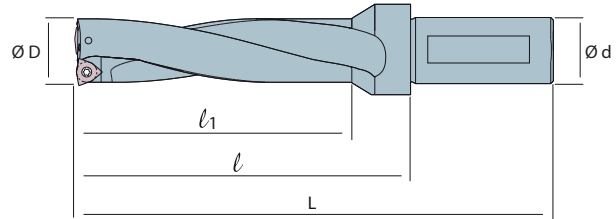
SPARE PARTS

INDEX

WUD / U-DRILL

3xD

WC□□

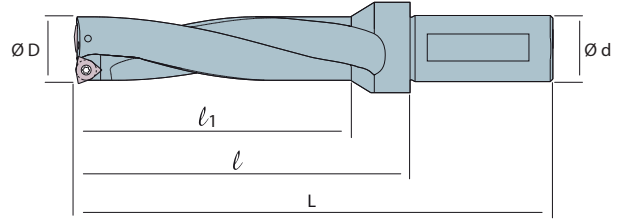


WC□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치수								
				ØD	Ød	L	I	L ₁				
WCGX06T308	WUD	310-3D-S32-WC06	●	31	32	154	93	125	ST-SC3511	ST-WRT15		
		320-3D-S32-WC06	●	32	32	156	96	128	ST-SC3511	ST-WRT15		
		330-3D-S32-WC06	●	33	32	159	99	132	ST-SC3511	ST-WRT15		
		340-3D-S32-WC06	●	34	32	161	102	135	ST-SC3511	ST-WRT15		
		350-3D-S32-WC06	●	35	32	164	105	139	ST-SC3511	ST-WRT15		
		360-3D-S32-WC06	●	36	32	167	108	143	ST-SC3511	ST-WRT15		
		370-3D-S32-WC06	●	37	32	170	111	147	ST-SC3511	ST-WRT15		
		380-3D-S32-WC06	●	38	32	173	114	151	ST-SC0411	ST-WRT15		
		390-3D-S32-WC06	●	39	32	175	117	154	ST-SC3511	ST-WRT15		
		400-3D-S32-WC06	●	40	32	178	120	158	ST-SC3511	ST-WRT15		
		410-3D-S32-WC06	●	41	32	181	123	162	ST-SC3511	ST-WRT15		
		420-3D-S32-WC06	●	42	32	183	126	165	ST-SC3511	ST-WRT15		
		430-3D-S32-WC06	●	43	32	186	129	169	ST-SC3511	ST-WRT15		
		440-3D-S32-WC06	●	44	32	188	132	172	ST-SC3511	ST-WRT15		
WCGX080412	WUD	450-3D-S40-WC08	●	45	40	202	135	177	ST-SC0411	ST-WRT15		
		460-3D-S40-WC08	●	46	40	205	138	181	ST-SC0411	ST-WRT15		
		470-3D-S40-WC08	●	47	40	207	141	184	ST-SC0411	ST-WRT15		
		480-3D-S40-WC08	●	48	40	210	144	188	ST-SC0411	ST-WRT15		
		490-3D-S40-WC08	●	49	40	212	147	191	ST-SC0411	ST-WRT15		
		500-3D-S40-WC08	●	50	40	215	150	195	ST-SC0411	ST-WRT15		
		510-3D-S40-WC08	●	51	40	217	153	198	ST-SC0411	ST-WRT15		
		520-3D-S40-WC08	●	52	40	220	156	201	ST-SC0411	ST-WRT15		
		530-3D-S40-WC08	●	53	40	222	159	204	ST-SC0411	ST-WRT15		
		540-3D-S40-WC08	●	54	40	225	162	207	ST-SC0411	ST-WRT15		
		550-3D-S40-WC08	●	55	40	227	165	210	ST-SC0411	ST-WRT15		
		560-3D-S40-WC08	●	56	40	230	168	213	ST-SC0411	ST-WRT15		
		570-3D-S40-WC08	●	57	40	232	171	216	ST-SC0411	ST-WRT15		
		580-3D-S40-WC08	●	58	40	235	174	219	ST-SC0411	ST-WRT15		
		590-3D-S40-WC08	●	59	40	237	177	222	ST-SC0411	ST-WRT15		
		600-3D-S40-WC08	●	60	40	240	180	225	ST-SC0411	ST-WRT15		

WUD / U-DRILL

4xD

WC□□



TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

SPARE PARTS

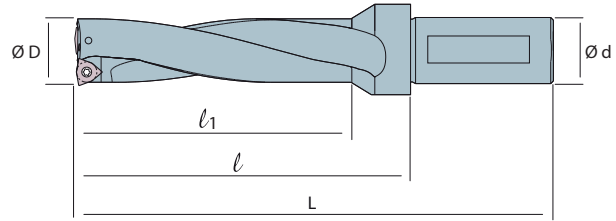
INDEX

WC□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치 수							
				ØD	Ød	L	l	l ₁			
WCGX030208	WUD	160-4D-S25-WC03	●	16	25	140	64	84	ST-SC0257	ST-WRT08	
		165-4D-S25-WC03	●	16.5	25	140	64	84	ST-SC0257	ST-WRT08	
		170-4D-S25-WC03	●	17	25	144	68	88	ST-SC0257	ST-WRT08	
		175-4D-S25-WC03	●	17.5	25	144	68	88	ST-SC0257	ST-WRT08	
		180-4D-S25-WC03	●	18	25	149	72	92	ST-SC0257	ST-WRT08	
		185-4D-S25-WC03	●	18.5	25	149	72	92	ST-SC0257	ST-WRT08	
		190-4D-S25-WC03	●	19	25	153	76	97	ST-SC0257	ST-WRT08	
		195-4D-S25-WC03	●	19.5	25	153	76	97	ST-SC0257	ST-WRT08	
WCGX040208	WUD	200-4D-S25-WC04	●	20	25	159	80	103	ST-SC0257	ST-WRT08	
		205-4D-S25-WC04	●	20.5	25	159	80	103	ST-SC0257	ST-WRT08	
		210-4D-S25-WC04	●	21	25	163	84	107	ST-SC0257	ST-WRT08	
		215-4D-S25-WC04	●	21.5	25	163	84	107	ST-SC0257	ST-WRT08	
		220-4D-S25-WC04	●	22	25	167	88	111	ST-SC0257	ST-WRT08	
		225-4D-S25-WC04	●	22.5	25	167	88	111	ST-SC0257	ST-WRT08	
		230-4D-S25-WC04	●	23	25	173	92	117	ST-SC0257	ST-WRT08	
		235-4D-S25-WC04	●	23.5	25	173	92	117	ST-SC0309	ST-WRT08	
WCGX050308	WUD	240-4D-S25-WC05	●	24	25	178	96	122	ST-SC0309	ST-WRT08	
		245-4D-S25-WC05	●	24.5	25	178	96	122	ST-SC0309	ST-WRT08	
		250-4D-S25-WC05	●	25	25	183	100	127	ST-SC0309	ST-WRT08	
		255-4D-S25-WC05	●	25.5	25	183	100	127	ST-SC0309	ST-WRT08	
		260-4D-S25-WC05	●	26	25	187	104	131	ST-SC0309	ST-WRT08	
		265-4D-S25-WC05	●	26.5	25	187	104	131	ST-SC0309	ST-WRT08	
		270-4D-S25-WC05	●	27	25	191	108	135	ST-SC0309	ST-WRT08	
		275-4D-S25-WC05	●	27.5	25	191	108	135	ST-SC0309	ST-WRT08	
		280-4D-S25-WC05	●	28	25	196	112	140	ST-SC0309	ST-WRT08	
		285-4D-S25-WC05	●	28.5	25	196	112	140	ST-SC0309	ST-WRT08	
		290-4D-S25-WC05	●	29	25	200	116	144	ST-SC0309	ST-WRT08	
		295-4D-S25-WC05	●	29.5	25	200	116	144	ST-SC0309	ST-WRT08	

WUD / U-DRILL

4xD

WC□□

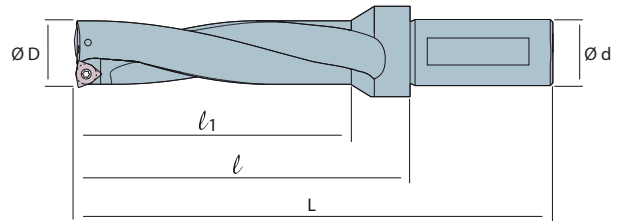


WC□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치수								
				ØD	Ød	L	I	L ₁				
WCGX06T308	WUD	300-4D-S32-WC06	●	30	32	211	120	151	ST-SC3511	ST-WRT15		
		310-4D-S32-WC06	●	31	32	216	124	156	ST-SC3511	ST-WRT15		
		320-4D-S32-WC06	●	32	32	220	128	160	ST-SC3511	ST-WRT15		
		330-4D-S32-WC06	●	33	32	225	132	165	ST-SC3511	ST-WRT15		
		335-4D-S32-WC06	●	33.5	32	227	134	167	ST-SC3511	ST-WRT15		
		340-4D-S32-WC06	●	34	32	229	136	169	ST-SC3511	ST-WRT15		
		350-4D-S32-WC06	●	35	32	234	140	174	ST-SC3511	ST-WRT15		
		360-4D-S32-WC06	●	36	32	239	144	179	ST-SC3511	ST-WRT15		
		370-4D-S32-WC06	●	37	32	244	148	184	ST-SC3511	ST-WRT15		
		380-4D-S32-WC06	●	38	32	251	152	189	ST-SC3511	ST-WRT15		
		385-4D-S32-WC06	●	38.5	32	253	154	191	ST-SC3511	ST-WRT15		
		390-4D-S32-WC06	●	39	32	258	156	193	ST-SC3511	ST-WRT15		
		400-4D-S32-WC06	●	40	32	263	160	198	ST-SC3511	ST-WRT15		
		410-4D-S32-WC06	●	41	32	267	164	203	ST-SC3511	ST-WRT15		
WCGX080412	WUD	420-4D-S32-WC08	●	42	32	272	168	207	ST-SC3511	ST-WRT15		
		430-4D-S32-WC08	●	43	32	276	172	212	ST-SC3511	ST-WRT15		
		440-4D-S32-WC08	●	44	32	292	176	216	ST-SC0411	ST-WRT15		
		450-4D-S32-WC08	●	45	32	297	180	222	ST-SC0411	ST-WRT20		
		460-4D-S32-WC08	●	46	32	301	184	227	ST-SC0411	ST-WRT20		
		470-4D-S32-WC08	●	47	32	306	188	231	ST-SC0411	ST-WRT20		
		480-4D-S32-WC08	●	48	32	310	192	236	ST-SC0411	ST-WRT20		
		490-4D-S32-WC08	●	49	32	315	196	240	ST-SC0411	ST-WRT20		
		500-4D-S32-WC08	●	50	32	310	200	245	ST-SC0411	ST-WRT20		

WUD / U-DRILL

5xD

WC□□



WC□□	DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치 수								
				ØD	Ød	L	l	l ₁				
WCGX030208	WUD	160-5D-S25-WC03	●	16	25	156	80	100	ST-SC0257	ST-WRT08		
		170-5D-S25-WC03	●	17	25	161	85	105	ST-SC0257	ST-WRT08		
		180-5D-S25-WC03	●	18	25	167	90	111	ST-SC0257	ST-WRT08		
		190-5D-S25-WC03	●	19	25	172	95	116	ST-SC0257	ST-WRT08		
WCGX040208	WUD	200-5D-S25-WC04	●	20	25	179	100	123	ST-SC0257	ST-WRT08		
		210-5D-S25-WC04	●	21	25	184	105	128	ST-SC0257	ST-WRT08		
		220-5D-S25-WC04	●	22	25	189	110	133	ST-SC0257	ST-WRT08		
		230-5D-S25-WC04	●	23	25	193	115	137	ST-SC0257	ST-WRT08		
WCGX050308	WUD	240-5D-S25-WC05	●	24	25	198	120	142	ST-SC0309	ST-WRT08		
		250-5D-S25-WC05	●	25	25	203	125	147	ST-SC0309	ST-WRT08		
		260-5D-S25-WC05	●	26	25	207	130	151	ST-SC0309	ST-WRT08		
		270-5D-S25-WC05	●	27	25	212	135	156	ST-SC0309	ST-WRT08		
		280-5D-S25-WC05	●	28	25	218	140	162	ST-SC0309	ST-WRT08		
		290-5D-S25-WC05	●	29	25	222	145	166	ST-SC0309	ST-WRT08		
WCGX06T308	WUD	300-5D-S32-WC06		30	32	227	150	171	ST-SC3511	ST-WRT15		
		310-5D-S32-WC06		31	32	245	155	185	ST-SC3511	ST-WRT15		
		320-5D-S32-WC06		32	32	250	160	190	ST-SC3511	ST-WRT15		
		330-5D-S32-WC06		33	32	255	165	195	ST-SC3511	ST-WRT15		
		340-5D-S32-WC06		34	32	260	170	200	ST-SC3511	ST-WRT15		
		350-5D-S32-WC06		35	32	265	175	205	ST-SC3511	ST-WRT15		
		360-5D-S32-WC06		36	32	270	180	210	ST-SC3511	ST-WRT15		
		370-5D-S32-WC06		37	32	275	185	215	ST-SC3511	ST-WRT15		
		380-5D-S32-WC06		38	32	280	190	220	ST-SC3511	ST-WRT15		
		390-5D-S32-WC06		39	32	285	195	225	ST-SC3511	ST-WRT15		
		400-5D-S32-WC06		40	32	290	200	230	ST-SC3511	ST-WRT15		

TURNING

GROOVING

THREADING

MILLING

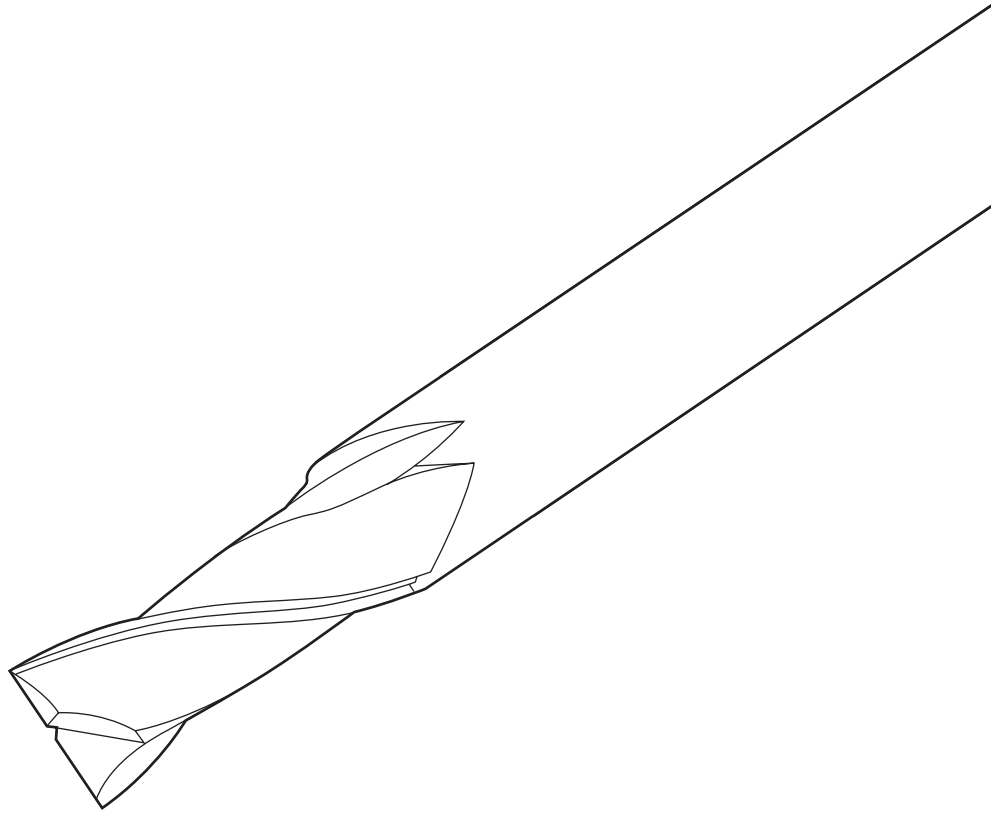
DRILLING

ENDMILLS

DRILLS

SPARE PARTS

INDEX



ENDMILLS/ 엔드밀

carbide 초경 /297

ENDMILLS / carbide
엔드밀 / 초경



R

D6

d6

I20

L75

1

2

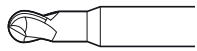
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4

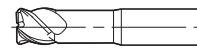
5

1 Type (타입)

B (볼)



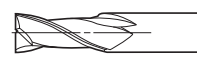
R (레디우스)



S (플랫)



ALU
(비철금속용)



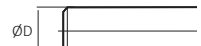
2 Cutting Dia. (가공경)

...



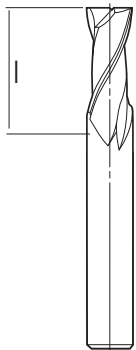
3 Shaft Dia. (샤프크경)

...



4 Flute Length(mm) (플루트길이)

...



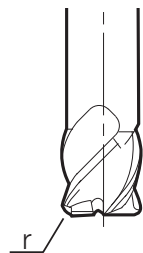
5 Overall Length(mm) (전장)

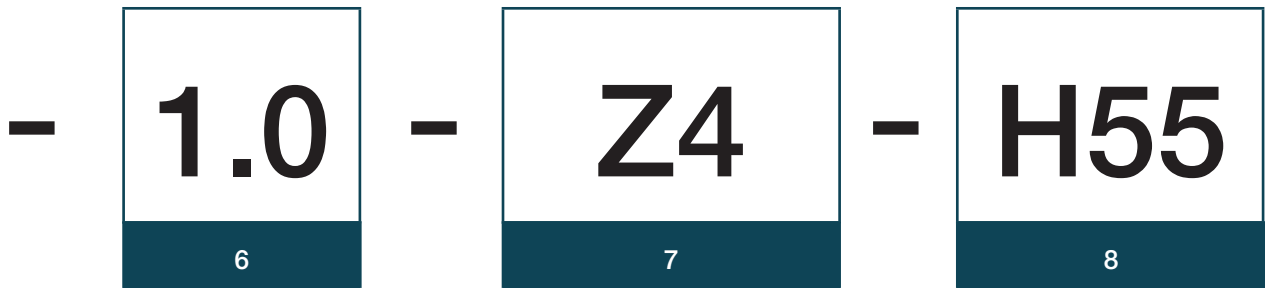
...



6 Radius (레디우스)

R..





7	No. of flute (플루트 수)
2	
3	
4	
6	

8	Application (재종)
H45	General HRC45 (범용)
H55	Hardened HRC55 (금형강용)
H68	Free hardened HRC68 (열처리된 고경도강)

Endmill Grades / 재종

MATERIAL (ISO범위)	GRADE (재종)	Color (색깔)	Operation (적용)
P/M/K	H45 (범용)	DARK GRAY (짙은 회색)	General milling for steel up to 45HRC 범용 HRC 45 이하
			Ultra fine substrate, PVD coating 초미립소재, TiAlN PVD코팅
	H55 (금형강용)	COPPER (구리)	High cutting on hardened steel up to 55HRC 금형강용 HRC 55 이하
			Ultra fine substrate, PVD coating 초미립소재, TiSiN PVD 코팅
	H68 (고경도강)	DARK BLUE (짙은 파랑)	High cutting on hardened steel up to 68HRC 고경도강용 HRC 68 이하
			Ultra fine substrate, PVD coating 초미립소재, nACo PVD 코팅
N	Non Coated H55 (비철금속용)	Silver (은색)	General milling for aluminum and brass 비철금속용 (알루미늄, 구리외)
			Ultra fine substrate, Uncoated 초미립 초경 소재

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

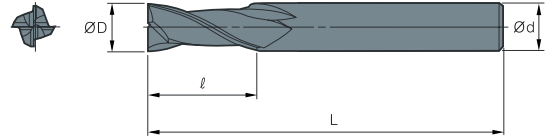
DRILLS

SPARE PARTS

INDEX

Square (플랫 타입)

UP TO HRC45 (HRC 45이하)

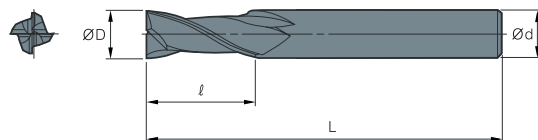


	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치 수				
			ØD	Ød	l	L	r
	S-D1xd4xl3xL50xZ4 H45	●	1	4	3	50	-
	S-D1xd6xl3xL50xZ4 H45	●	1	6	3	50	-
	S-D1,5xd4xl4xL50xZ4 H45	●	1,5	4	4	50	-
	S-D1,5xd6xl4xL50xZ4 H45	●	1,5	6	4	50	-
	S-D2xd4xl6xL50xZ4 H45	●	2	4	6	50	-
	S-D2xd6xl6xL50xZ4 H45	●	2	6	6	50	-
	S-D2,5xd4xl8xL50xZ4 H45	●	2,5	4	8	50	-
	S-D2,5xd6xl8xL50xZ4 H45	●	2,5	6	8	50	-
	S-D3xd3xl8xL50xZ4 H45	●	3	3	8	50	-
	S-D3xd4xl8xL50xZ4 H45	●	3	4	8	50	-
	S-D3xd6xl8xL50xZ4 H45	●	3	6	8	50	-
	S-D3,5xd4xl11xL50xZ4 H45	●	3,5	4	11	50	-
	S-D3,5xd6xl11xL50xZ4 H45	●	3,5	6	11	50	-
	S-D4xd4xl11xL50xZ4 H45	●	4	4	11	50	-
	S-D4xd6xl11xL50xZ4 H45	●	4	6	11	50	-
	S-D4xd4xl20xL75xZ4 H45	●	4	4	20	75	-
	S-D4xd4xl20xL100xZ4 H45	●	4	4	20	100	-
	S-D5xd5xl13xL50xZ4 H45	●	5	5	13	50	-
	S-D5xd6xl13xL50xZ4 H45	●	5	6	13	50	-
	S-D5xd5xl20xL75xZ4 H45	●	5	5	20	75	-
	S-D5xd5xl20xL100xZ4 H45	●	5	5	20	100	-
	S-D6xd6xl15xL50xZ4 H45	●	6	6	15	50	-
	S-D6xd6xl20xL75xZ4 H45	●	6	6	20	75	-

ENDMILLS 엔드밀

Square (플랫 타입)

UP TO HRC45 (HRC 45이하)



	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치수				
			ØD	Ød	l	L	r
	S-D6xd6xl25xL100xZ4 H45	●	6	6	25	100	-
	S-D6xd6xl40xL150xZ4 H45	●	6	6	40	150	-
	S-D7xd8xl20xL60xZ4 H45	●	7	8	20	60	-
	S-D8xd8xl20xL60xZ4 H45	●	8	8	20	60	-
	S-D8xd8xl25xL75xZ4 H45	●	8	8	25	75	-
	S-D8xd8xl40xL100xZ4 H45	●	8	8	40	100	-
	S-D8xd8xl40xL150xZ4 H45	●	8	8	40	150	-
	S-D9xd10xl25xL75xZ4 H45	●	9	10	25	75	-
	S-D10xd10xl25xL75xZ4 H45	●	10	10	25	75	-
	S-D10xd10xl40xL100xZ4 H45	●	10	10	40	100	-
	S-D10xd10xl50xL150xZ4 H45	●	10	10	50	150	-
	S-D12xd12xl30xL75xZ4 H45	●	12	12	30	75	-
	S-D12xd12xl45xL100xZ4 H45	●	12	12	45	100	-
	S-D12xd12xl50xL150xZ4 H45	●	12	12	50	150	-
	S-D14xd14xl40xL80xZ4 H45	●	14	14	40	80	-
	S-D14xd14xl50xL100xZ4 H45	●	14	14	50	100	-
	S-D14xd14xl50xL150xZ4 H45	●	14	14	50	150	-
	S-D16xd16xl45xL100xZ4 H45	●	16	16	45	100	-
	S-D16xd16xl50xL150xZ4 H45	●	16	16	50	150	-
	S-D18xd18xl45xL100xZ4 H45	●	18	18	45	100	-
	S-D18xd18xl50xL150xZ4 H45	●	18	18	50	150	-
	S-D20xd20xl45xL100xZ4 H45	●	20	20	45	100	-
	S-D20xd20xl75xL150xZ4 H45	●	20	20	75	150	-

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

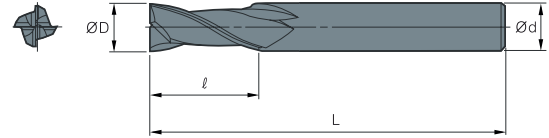
DRILLS

SPARE PARTS

INDEX

Square (플랫 타입)

UP TO HRC55 (HRC 55이하)

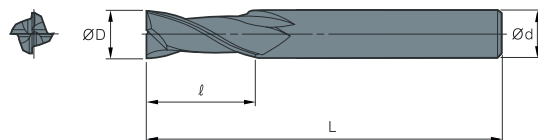


	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치 수				
			ØD	Ød	l	L	r
	S-D1xd4xl3xL50xZ4 H55	●	1	4	3	50	-
	S-D1xd6xl3xL50xZ4 H55	●	1	6	3	50	-
	S-D1,5xd4xl4xL50xZ4 H55	●	1,5	4	4	50	-
	S-D1,5xd6xl4xL50xZ4 H55	●	1,5	6	4	50	-
	S-D2xd4xl6xL50xZ4 H55	●	2	4	6	50	-
	S-D2xd6xl6xL50xZ4 H55	●	2	6	6	50	-
	S-D2,5xd4xl8xL50xZ4 H55	●	2,5	4	8	50	-
	S-D2,5xd6xl8xL50xZ4 H55	●	2,5	6	8	50	-
	S-D3xd3xl8xL50xZ4 H55	●	3	3	8	50	-
	S-D3xd4xl8xL50xZ4 H55	●	3	4	8	50	-
	S-D3xd6xl8xL50xZ4 H55	●	3	6	8	50	-
	S-D3,5xd4xl11xL50xZ4 H55	●	3,5	4	11	50	-
	S-D3,5xd6xl11xL50xZ4 H55	●	3,5	6	11	50	-
	S-D4xd4xl11xL50xZ4 H55	●	4	4	11	50	-
	S-D4xd6xl11xL50xZ4 H55	●	4	6	11	50	-
	S-D4xd4xl20xL75xZ4 H55	●	4	4	20	75	-
	S-D4xd4xl20xL100xZ4 H55	●	4	4	20	100	-
	S-D5xd5xl13xL50xZ4 H55	●	5	5	13	50	-
	S-D5xd6xl13xL50xZ4 H55	●	5	6	13	50	-
	S-D5xd5xl20xL75xZ4 H55	●	5	5	20	75	-
	S-D5xd5xl20xL100xZ4 H55	●	5	5	20	100	-
	S-D6xd6xl15xL50xZ4 H55	●	6	6	15	50	-
	S-D6xd6xl20xL75xZ4 H55	●	6	6	20	75	-

ENDMILLS 엔드밀

Square (플랫 타입)

UP TO HRC55 (HRC 55이하)



	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치수				
			ØD	Ød	l	L	r
	S-D6xd6xl25xL100xZ4 H55	●	6	6	25	100	-
	S-D6xd6xl40xL150xZ4 H55	●	6	6	40	150	-
	S-D7xd8xl20xL60xZ4 H55	●	7	8	20	60	-
	S-D8xd8xl20xL60xZ4 H55	●	8	8	20	60	-
	S-D8xd8xl25xL75xZ4 H55	●	8	8	25	75	-
	S-D8xd8xl40xL100xZ4 H55	●	8	8	40	100	-
	S-D8xd8xl40xL150xZ4 H55	●	8	8	40	150	-
	S-D9xd10xl25xL75xZ4 H55	●	9	10	25	75	-
	S-D10xd10xl25xL75xZ4 H55	●	10	10	25	75	-
	S-D10xd10xl40xL100xZ4 H55	●	10	10	40	100	-
	S-D10xd10xl50xL150xZ4 H55	●	10	10	50	150	-
	S-D12xd12xl30xL75xZ4 H55	●	12	12	30	75	-
	S-D12xd12xl45xL100xZ4 H55	●	12	12	45	100	-
	S-D12xd12xl50xL150xZ4 H55	●	12	12	50	150	-
	S-D14xd14xl40xL80xZ4 H55	●	14	14	40	80	-
	S-D14xd14xl50xL100xZ4 H55	●	14	14	50	100	-
	S-D14xd14xl50xL150xZ4 H55	●	14	14	50	150	-
	S-D16xd16xl45xL100xZ4 H55	●	16	16	45	100	-
	S-D16xd16xl50xL150xZ4 H55	●	16	16	50	150	-
	S-D18xd18xl45xL100xZ4 H55	●	18	18	45	100	-
	S-D18xd18xl50xL150xZ4 H55	●	18	18	50	150	-
	S-D20xd20xl45xL100xZ4 H55	●	20	20	45	100	-
	S-D20xd20xl75xL150xZ4 H55	●	20	20	75	150	-

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

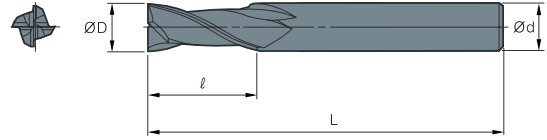
DRILLS

SPARE PARTS

INDEX

Square (플랫 타입)

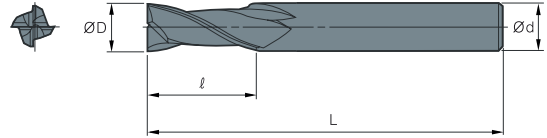
UP TO HRC68 (HRC 68이하)



	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치수				
			ØD	Ød	l	L	r
	S-D1xd4xl3xL50xZ4 H68	●	1	4	3	50	-
	S-D1xd6xl3xL50xZ4 H68	●	1	6	3	50	-
	S-D1,5xd4xl4xL50xZ4 H68	●	1,5	4	4	50	-
	S-D1,5xd6xl4xL50xZ4 H68	●	1,5	6	4	50	-
	S-D2xd4xl6xL50xZ4 H68	●	2	4	6	50	-
	S-D2xd6xl6xL50xZ4 H68	●	2	6	6	50	-
	S-D2,5xd4xl8xL50xZ4 H68	●	2,5	4	8	50	-
	S-D2,5xd6xl8xL50xZ4 H68	●	2,5	6	8	50	-
	S-D3xd3xl8xL50xZ4 H68	●	3	3	8	50	-
	S-D3xd4xl8xL50xZ4 H68	●	3	4	8	50	-
	S-D3xd6xl8xL50xZ4 H68	●	3	6	8	50	-
	S-D3,5xd4xl11xL50xZ4 H68	●	3,5	4	11	50	-
	S-D3,5xd6xl11xL50xZ4 H68	●	3,5	6	11	50	-
	S-D4xd4xl11xL50xZ4 H68	●	4	4	11	50	-
	S-D4xd6xl11xL50xZ4 H68	●	4	6	11	50	-
	S-D4xd4xl20xL75xZ4 H68	●	4	4	20	75	-
	S-D4xd4xl20xL100xZ4 H68	●	4	4	20	100	-
	S-D5xd5xl13xL50xZ4 H68	●	5	5	13	50	-
	S-D5xd6xl13xL50xZ4 H68	●	5	6	13	50	-
	S-D5xd5xl20xL75xZ4 H68	●	5	5	20	75	-
	S-D5xd5xl20xL100xZ4 H68	●	5	5	20	100	-
	S-D6xd6xl15xL50xZ4 H68	●	6	6	15	50	-
	S-D6xd6xl20xL75xZ4 H68	●	6	6	20	75	-

Square (플랫 타입)

UP TO HRC68 (HRC 68이하)



DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치수				
		ØD	Ød	l	L	r
S-D6xd6xl25xL100xZ4 H68	●	6	6	25	100	-
S-D6xd6xl40xL150xZ4 H68	●	6	6	40	150	-
S-D7xd8xl20xL60xZ4 H68	●	7	8	20	60	-
S-D8xd8xl20xL60xZ4 H68	●	8	8	20	60	-
S-D8xd8xl25xL75xZ4 H68	●	8	8	25	75	-
S-D8xd8xl40xL100xZ4 H68	●	8	8	40	100	-
S-D8xd8xl40xL150xZ4 H68	●	8	8	40	150	-
S-D9xd10xl25xL75xZ4 H68	●	9	10	25	75	-
S-D10xd10xl25xL75xZ4 H68	●	10	10	25	75	-
S-D10xd10xl40xL100xZ4 H68	●	10	10	40	100	-
S-D10xd10xl50xL150xZ4 H68	●	10	10	50	150	-
S-D12xd12xl30xL75xZ4 H68	●	12	12	30	75	-
S-D12xd12xl45xL100xZ4 H68	●	12	12	45	100	-
S-D12xd12xl50xL150xZ4 H68	●	12	12	50	150	-
S-D14xd14xl40xL80xZ4 H68	●	14	14	40	80	-
S-D14xd14xl50xL100xZ4 H68	●	14	14	50	100	-
S-D14xd14xl50xL150xZ4 H68	●	14	14	50	150	-
S-D16xd16xl45xL100xZ4 H68	●	16	16	45	100	-
S-D16xd16xl50xL150xZ4 H68	●	16	16	50	150	-
S-D18xd18xl45xL100xZ4 H68	●	18	18	45	100	-
S-D18xd18xl50xL150xZ4 H68	●	18	18	50	150	-
S-D20xd20xl45xL100xZ4 H68	●	20	20	45	100	-
S-D20xd20xl75xL150xZ4 H68	●	20	20	75	150	-

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

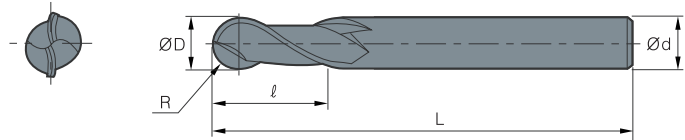
DRILLS

SPARE PARTS

INDEX

Ball (볼타입)

UP TO HRC45 (HRC 45이하)

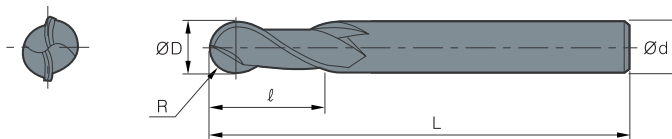


	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치 수				
			ØD	Ød	l	L	r
	B-D1xd4xl3xL50xZ2 H45	●	1	4	3	50	-
	B-D1xd6xl3xL50xZ2 H45	●	1	6	3	50	-
	B-D1,5xd4xl4xL50xZ2 H45	●	1,5	4	4	50	-
	B-D1,5xd6xl4xL50xZ2 H45	●	1,5	6	4	50	-
	B-D2xd4xl6xL50xZ2 H45	●	2	4	6	50	-
	B-D2xd6xl6xL50xZ2 H45	●	2	6	6	50	-
	B-D2,5xd4xl8xL50xZ2 H45	●	2,5	4	8	50	-
	B-D2,5xd6xl8xL50xZ2 H45	●	2,5	6	8	50	-
	B-D3xd3xl8xL50xZ2 H45	●	3	3	8	50	-
	B-D3xd4xl8xL50xZ2 H45	●	3	4	8	50	-
	B-D3xd6xl8xL50xZ2 H45	●	3	6	8	50	-
	B-D3,5xd4xl11xL50xZ2 H45	●	3,5	4	11	50	-
	B-D3,5xd6xl11xL50xZ2 H45	●	3,5	6	11	50	-
	B-D4xd4xl11xL50xZ2 H45	●	4	4	11	50	-
	B-D4xd6xl11xL50xZ2 H45	●	4	6	11	50	-
	B-D4xd4xl20xL75xZ2 H45	●	4	4	20	75	-
	B-D4xd4xl20xL100xZ2 H45	●	4	4	20	100	-
	B-D5xd5xl13xL50xZ2 H45	●	5	5	13	50	-
	B-D5xd6xl13xL50xZ2 H45	●	5	6	13	50	-
	B-D5xd5xl20xL75xZ2 H45	●	5	5	20	75	-
	B-D5xd5xl20xL100xZ2 H45	●	5	5	20	100	-
	B-D6xd6xl15xL50xZ2 H45	●	6	6	15	50	-
	B-D6xd6xl20xL75xZ2 H45	●	6	6	20	75	-

ENDMILLS 엔드밀

Ball (볼타입)

UP TO HRC45 (HRc 45이하)



	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치수				
			ØD	Ød	l	L	r
	B-D6xd6xl25xL100xZ2 H45	●	6	6	25	100	-
	B-D6xd6xl40xL150xZ2 H45	●	6	6	40	150	-
	B-D7xd8xl20xL60xZ2 H45	●	7	8	20	60	-
	B-D8xd8xl20xL60xZ2 H45	●	8	8	20	60	-
	B-D8xd8xl25xL75xZ2 H45	●	8	8	25	75	-
	B-D8xd8xl40xL150xZ2 H45	●	8	8	40	150	-
	B-D9xd10xl25xL75xZ2 H45	●	9	10	25	75	-
	B-D10xd10xl25xL75xZ2 H45	●	10	10	25	75	-
	B-D10xd10xl40xL100xZ2 H45	●	10	10	40	100	-
	B-D10xd10xl50xL150xZ2 H45	●	10	10	50	150	-
	B-D12xd12xl30xL75xZ2 H45	●	12	12	30	75	-
	B-D12xd12xl45xL100xZ2 H45	●	12	12	45	100	-
	B-D12xd12xl50xL150xZ2 H45	●	12	12	50	150	-
	B-D14xd14xl40xL80xZ2 H45	●	14	14	40	80	-
	B-D14xd14xl50xL100xZ2 H45	●	14	14	50	100	-
	B-D14xd14xl50xL150xZ2 H45	●	14	14	50	150	-
	B-D16xd16xl45xL100xZ2 H45	●	16	16	45	100	-
	B-D16xd16xl50xL150xZ2 H45	●	16	16	50	150	-
	B-D18xd18xl45xL100xZ2 H45	●	18	18	45	100	-
	B-D18xd18xl50xL150xZ2 H45	●	18	18	50	150	-
	B-D20xd20xl45xL100xZ2 H45	●	20	20	45	100	-
	B-D20xd20xl75xL150xZ2 H45	●	20	20	75	150	-

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

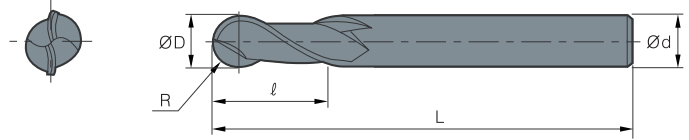
DRILLS

SPARE PARTS

INDEX

Ball (볼타입)

UP TO HRC55 (HRC 55이하)

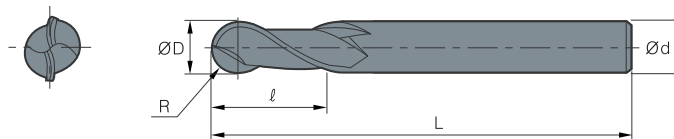


	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치 수				
			ØD	Ød	l	L	r
	B-D1xd4xl3xL50xZ2 H55	●	1	4	3	50	-
	B-D1xd6xl3xL50xZ2 H55	●	1	6	3	50	-
	B-D1,5xd4xl4xL50xZ2 H55	●	1,5	4	4	50	-
	B-D1,5xd6xl4xL50xZ2 H55	●	1,5	6	4	50	-
	B-D2xd4xl6xL50xZ2 H55	●	2	4	6	50	-
	B-D2xd6xl6xL50xZ2 H55	●	2	6	6	50	-
	B-D2,5xd4xl8xL50xZ2 H55	●	2,5	4	8	50	-
	B-D2,5xd6xl8xL50xZ2 H55	●	2,5	6	8	50	-
	B-D3xd3xl8xL50xZ2 H55	●	3	3	8	50	-
	B-D3xd4xl8xL50xZ2 H55	●	3	4	8	50	-
	B-D3xd6xl8xL50xZ2 H55	●	3	6	8	50	-
	B-D3,5xd4xl11xL50xZ2 H55	●	3,5	4	11	50	-
	B-D3,5xd6xl11xL50xZ2 H55	●	3,5	6	11	50	-
	B-D4xd4xl11xL50xZ2 H55	●	4	4	11	50	-
	B-D4xd6xl11xL50xZ2 H55	●	4	6	11	50	-
	B-D4xd4xl20xL75xZ2 H55	●	4	4	20	75	-
	B-D4xd4xl20xL100xZ2 H55	●	4	4	20	100	-
	B-D5xd5xl13xL50xZ2 H55	●	5	5	13	50	-
	B-D5xd6xl13xL50xZ2 H55	●	5	6	13	50	-
	B-D5xd5xl20xL75xZ2 H55	●	5	5	20	75	-
	B-D5xd5xl20xL100xZ2 H55	●	5	5	20	100	-
	B-D6xd6xl15xL50xZ2 H55	●	6	6	15	50	-
	B-D6xd6xl20xL75xZ2 H55	●	6	6	20	75	-

ENDMILLS 엔드밀

Ball (볼타입)

UP TO HRC55 (HRC 55이하)



	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치수				
			ØD	Ød	l	L	r
	B-D6xd6xl25xL100xZ2 H55	●	6	6	25	100	-
	B-D6xd6xl40xL150xZ2 H55	●	6	6	40	150	-
	B-D7xd8xl20xL60xZ2 H55	●	7	8	20	60	-
	B-D8xd8xl20xL60xZ2 H55	●	8	8	20	60	-
	B-D8xd8xl25xL75xZ2 H55	●	8	8	25	75	-
	B-D8xd8xl40xL150xZ2 H55	●	8	8	40	150	-
	B-D9xd10xl25xL75xZ2 H55	●	9	10	25	75	-
	B-D10xd10xl25xL75xZ2 H55	●	10	10	25	75	-
	B-D10xd10xl40xL100xZ2 H55	●	10	10	40	100	-
	B-D10xd10xl50xL150xZ2 H55	●	10	10	50	150	-
	B-D12xd12xl30xL75xZ2 H55	●	12	12	30	75	-
	B-D12xd12xl45xL100xZ2 H55	●	12	12	45	100	-
	B-D12xd12xl50xL150xZ2 H55	●	12	12	50	150	-
	B-D14xd14xl40xL80xZ2 H55	●	14	14	40	80	-
	B-D14xd14xl50xL100xZ2 H55	●	14	14	50	100	-
	B-D14xd14xl50xL150xZ2 H55	●	14	14	50	150	-
	B-D16xd16xl45xL100xZ2 H55	●	16	16	45	100	-
	B-D16xd16xl50xL150xZ2 H55	●	16	16	50	150	-
	B-D18xd18xl45xL100xZ2 H55	●	18	18	45	100	-
	B-D18xd18xl50xL150xZ2 H55	●	18	18	50	150	-
	B-D20xd20xl45xL100xZ2 H55	●	20	20	45	100	-
	B-D20xd20xl75xL150xZ2 H55	●	20	20	75	150	-

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

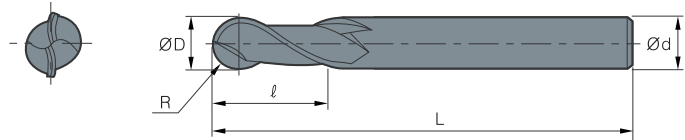
DRILLS

SPARE PARTS

INDEX

Ball (볼타입)

UP TO HRC68 (HRC 68이하)

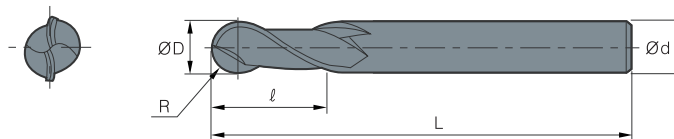


	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치 수				
			ØD	Ød	l	L	r
	B-D1xd4xl3xL50xZ2 H68	●	1	4	3	50	-
	B-D1xd6xl3xL50xZ2 H68	●	1	6	3	50	-
	B-D1,5xd4xl4xL50xZ2 H68	●	1,5	4	4	50	-
	B-D1,5xd6xl4xL50xZ2 H68	●	1,5	6	4	50	-
	B-D2xd4xl6xL50xZ2 H68	●	2	4	6	50	-
	B-D2xd6xl6xL50xZ2 H68	●	2	6	6	50	-
	B-D2,5xd4xl8xL50xZ2 H68	●	2,5	4	8	50	-
	B-D2,5xd6xl8xL50xZ2 H68	●	2,5	6	8	50	-
	B-D3xd3xl8xL50xZ2 H68	●	3	3	8	50	-
	B-D3xd4xl8xL50xZ2 H68	●	3	4	8	50	-
	B-D3xd6xl8xL50xZ2 H68	●	3	6	8	50	-
	B-D3,5xd4xl11xL50xZ2 H68	●	3,5	4	11	50	-
	B-D3,5xd6xl11xL50xZ2 H68	●	3,5	6	11	50	-
	B-D4xd4xl11xL50xZ2 H68	●	4	4	11	50	-
	B-D4xd6xl11xL50xZ2 H68	●	4	6	11	50	-
	B-D4xd4xl20xL75xZ2 H68	●	4	4	20	75	-
	B-D4xd4xl20xL100xZ2 H68	●	4	4	20	100	-
	B-D5xd5xl13xL50xZ2 H68	●	5	5	13	50	-
	B-D5xd6xl13xL50xZ2 H68	●	5	6	13	50	-
	B-D5xd5xl20xL75xZ2 H68	●	5	5	20	75	-
	B-D5xd5xl20xL100xZ2 H68	●	5	5	20	100	-
	B-D6xd6xl15xL50xZ2 H68	●	6	6	15	50	-
	B-D6xd6xl20xL75xZ2 H68	●	6	6	20	75	-

ENDMILLS 엔드밀

Ball (볼타입)

UP TO HRC68 (HRc 68이하)



	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치수				
			ØD	Ød	l	L	r
	B-D6xd6xL25xZ2 H68	●	6	6	25	100	-
	B-D6xd6xL40xZ2 H68	●	6	6	40	150	-
	B-D7xd8xL20xZ2 H68	●	7	8	20	60	-
	B-D8xd8xL20xZ2 H68	●	8	8	20	60	-
	B-D8xd8xL25xZ2 H68	●	8	8	25	75	-
	B-D8xd8xL40xZ2 H68	●	8	8	40	150	-
	B-D9xd10xL25xZ2 H68	●	9	10	25	75	-
	B-D10xd10xL25xZ2 H68	●	10	10	25	75	-
	B-D10xd10xL40xZ2 H68	●	10	10	40	100	-
	B-D10xd10xL50xZ2 H68	●	10	10	50	150	-
	B-D12xd12xL30xZ2 H68	●	12	12	30	75	-
	B-D12xd12xL45xZ2 H68	●	12	12	45	100	-
	B-D12xd12xL50xZ2 H68	●	12	12	50	150	-
	B-D14xd14xL40xZ2 H68	●	14	14	40	80	-
	B-D14xd14xL50xZ2 H68	●	14	14	50	100	-
	B-D14xd14xL50xZ2 H68	●	14	14	50	150	-
	B-D16xd16xL45xZ2 H68	●	16	16	45	100	-
	B-D16xd16xL50xZ2 H68	●	16	16	50	150	-
	B-D18xd18xL45xZ2 H68	●	18	18	45	100	-
	B-D18xd18xL50xZ2 H68	●	18	18	50	150	-
	B-D20xd20xL45xZ2 H68	●	20	20	45	100	-
	B-D20xd20xL75xZ2 H68	●	20	20	75	150	-

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

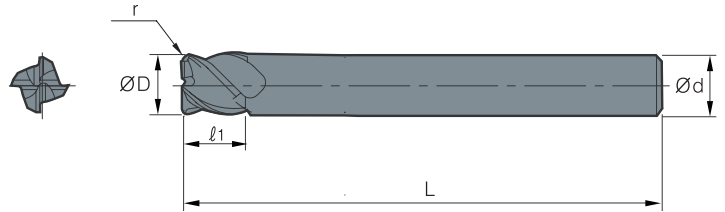
DRILLS

SPARE PARTS

INDEX

Radius(레디우스 타입)

UP TO HRC45 (HRC 45이하)

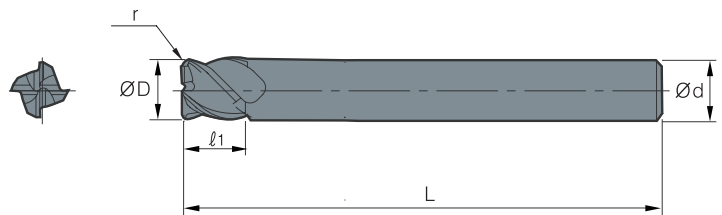


	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치수				
			ØD	Ød	l	L	r
	R-D2xd4xl6xL50-R0.5xZ4 H45	●	2	4	6	50	0.5
	R-D2xd6xl6xL50-R0.5xZ4 H45	●	2	6	6	50	0.5
	R-D3xd3xl8xL50-R0.5xZ4 H45	●	3	3	8	50	0.5
	R-D3xd3xl8xL50-R1.0xZ4 H45	●	3	3	8	50	1.0
	R-D3xd4xl8xL50-R0.5xZ4 H45	●	3	4	8	50	0.5
	R-D3xd4xl8xL50-R1.0xZ4 H45	●	3	4	8	50	1.0
	R-D3xd6xl8xL50-R0.5xZ4 H45	●	3	6	8	50	0.5
	R-D3xd6xl8xL50-R1.0xZ4 H45	●	3	6	8	50	1.0
	R-D4xd4xl11xL50-R0.5xZ4 H45	●	4	4	11	50	0.5
	R-D4xd4xl11xL50-R1.0xZ4 H45	●	4	4	11	50	1.0
	R-D4xd6xl11xL50-R0.5xZ4 H45	●	4	6	11	50	0.5
	R-D4xd6xl11xL50-R1.0xZ4 H45	●	4	6	11	50	1.0
	R-D4xd4xl11xL75-R0.5xZ4 H45	●	4	4	11	75	0.5
	R-D4xd4xl11xL75-R1.0xZ4 H45	●	4	4	11	75	1.0
	R-D4xd4xl11xL100-R0.5xZ4 H45	●	4	4	11	100	0.5
	R-D4xd4xl11xL100-R1.0xZ4 H45	●	4	4	11	100	1.0
	R-D5xd5xl13xL50-R0.5xZ4 H45	●	5	5	13	50	0.5
	R-D5xd5xl13xL50-R1.0xZ4 H45	●	5	5	13	50	1.0
	R-D5xd6xl13xL50-R0.5xZ4 H45	●	5	6	13	50	0.5
	R-D5xd6xl13xL50-R1.0xZ4 H45	●	5	6	13	50	1.0
	R-D5xd5xl13xL75-R0.5xZ4 H45	●	5	5	13	75	0.5
	R-D5xd5xl13xL75-R1.0xZ4 H45	●	5	5	13	75	1.0
	R-D5xd5xl13xL100-R1.0xZ4 H45	●	5	5	13	100	0.5
	R-D5xd5xl13xL100-R1.0xZ4 H45	●	5	5	13	100	1.0
	R-D6xd6xl15xL50-R0.5xZ4 H45	●	6	6	15	50	0.5

ENDMILLS 엔드밀

Radius(레디우스 타입)

UP TO HRC45 (HRc 45이하)



	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치수				
			ØD	Ød	l	L	r
	R-D6xd6xl15xL50-R1.0xZ4 H45	●	6	6	15	50	1.0
	R-D6xd6xl15xL75-R0.5xZ4 H45	●	6	6	15	75	0.5
	R-D6xd6xl15xL75-R1.0xZ4 H45	●	6	6	15	75	1.0
	R-D6xd6xl15xL100-R1.0xZ4 H45	●	6	6	15	100	0.5
	R-D6xd6xl15xL100-R1.0xZ4 H45	●	6	6	15	100	1.0
	R-D6xd6xl40xL150-R0.5xZ4 H45	●	6	6	40	150	0.5
	R-D6xd6xl40xL150-R1.0xZ4 H45	●	6	6	40	150	1.0
	R-D7xd8xl20xL60-R0.5xZ4 H45	●	7	8	20	60	0.5
	R-D7xd8xl20xL60-R1.0xZ4 H45	●	7	8	20	60	1.0
	R-D8xd8xl20xL60-R0.5xZ4 H45	●	8	8	20	60	0.5
	R-D8xd8xl20xL60-R1.0xZ4 H45	●	8	8	20	60	1.0
	R-D8xd8xl20xL75-R1.0xZ4 H45	●	8	8	20	75	0.5
	R-D8xd8xl20xL75-R1.0xZ4 H45	●	8	8	20	75	1.0
	R-D8xd8xl20xL100-R0.5xZ4 H45	●	8	8	20	100	0.5
	R-D8xd8xl20xL100-R1.0xZ4 H45	●	8	8	20	100	1.0
	R-D8xd8xl40xL150-R0.5xZ4 H45	●	8	8	40	150	0.5
	R-D8xd8xl40xL150-R1.0xZ4 H45	●	8	8	40	150	1.0
	R-D9xd10xl25xL75-R0.5xZ4 H45	●	9	10	25	75	0.5
	R-D9xd10xl25xL75-R1.0xZ4 H45	●	9	10	25	75	1.0
	R-D10xd10xl25xL75-R0.5xZ4 H45	●	10	10	25	75	0.5
	R-D10xd10xl25xL75-R1.0xZ4 H45	●	10	10	25	75	1.0
	R-D10xd10xl40xL100-R0.5xZ4 H45	●	10	10	40	100	0.5
	R-D10xd10xl40xL100-R1.0xZ4 H45	●	10	10	40	100	1.0
	R-D10xd10xl50xL150-R0.5xZ4 H45	●	10	10	50	150	0.5
	R-D10xd10xl50xL150-R1.0xZ4 H45	●	10	10	50	150	1.0

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

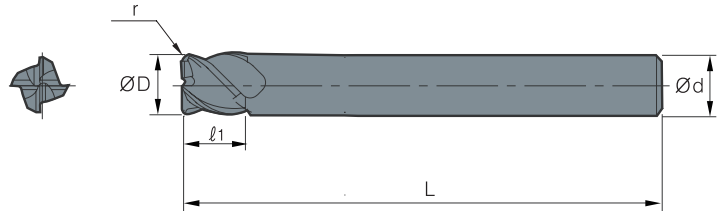
DRILLS

SPARE PARTS

INDEX

Radius(레디우스 타입)

UP TO HRC45 (HRC 45이하)

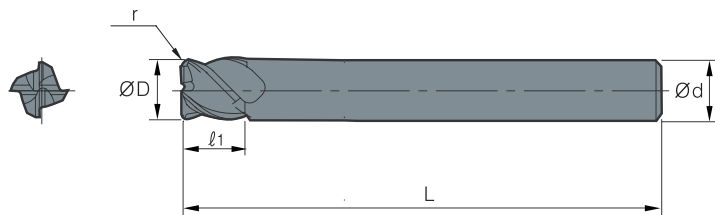


	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치수				
			ØD	Ød	l	L	r
	R-D12xd12x30xL75-R0.5xZ4 H45	●	12	12	30	75	0.5
	R-D12xd12x30xL75-R1.0xZ4 H45	●	12	12	30	75	1.0
	R-D12xd12x45xL100-R0.5xZ4 H45	●	12	12	45	100	0.5
	R-D12xd12x45xL100-R1.0xZ4 H45	●	12	12	45	100	1.0
	R-D12xd12x50xL150-R0.5xZ4 H45	●	12	12	50	150	0.5
	R-D12xd12x50xL150-R1.0xZ4 H45	●	12	12	50	150	1.0
	R-D14xd14x40xL80-R0.5xZ4 H45	●	14	14	40	80	0.5
	R-D14xd14x40xL80-R1.0xZ4 H45	●	14	14	40	80	1.0
	R-D14xd14x50xL100-R0.5xZ4 H45	●	14	14	50	100	0.5
	R-D14xd14x50xL100-R1.0xZ4 H45	●	14	14	50	100	1.0
	R-D14xd14x50xL150-R0.5xZ4 H45	●	14	14	50	150	0.5
	R-D14xd14x50xL150-R1.0xZ4 H45	●	14	14	50	150	1.0
	R-D16xd16x45xL100-R0.5xZ4 H45	●	16	16	45	100	0.5
	R-D16xd16x45xL100-R1.0xZ4 H45	●	16	16	45	100	1.0
	R-D16xd16x50xL150-R0.5xZ4 H45	●	16	16	50	150	0.5
	R-D16xd16x50xL150-R1.0xZ4 H45	●	16	16	50	150	1.0
	R-D18xd18x45xL100-R0.5xZ4 H45	●	18	18	45	100	0.5
	R-D18xd18x45xL100-R1.0xZ4 H45	●	18	18	45	100	1.0
	R-D18xd18x50xL150-R0.5xZ4 H45	●	18	18	50	150	0.5
	R-D18xd18x50xL150-R1.0xZ4 H45	●	18	18	50	150	1.0
	R-D20xd20x45xL100-R0.5xZ4 H45	●	20	20	45	100	0.5
	R-D20xd20x45xL100-R1.0xZ4 H45	●	20	20	45	100	1.0
	R-D20xd20x75xL150-R0.5xZ4 H45	●	20	20	75	150	0.5
	R-D20xd20x75xL150-R1.0xZ4 H45	●	20	20	75	150	1.0

ENDMILLS 엔드밀

Radius(레디우스 타입)

UP TO HRC55 (HRc 55이하)



	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치수				
			ØD	Ød	l	L	r
	R-D2xd4xl6xL50-R0.5xZ4 H55	●	2	4	6	50	0.5
	R-D2xd6xl6xL50-R0.5xZ4 H55	●	2	6	6	50	0.5
	R-D3xd3xl8xL50-R0.5xZ4 H55	●	3	3	8	50	0.5
	R-D3xd3xl8xL50-R1.0xZ4 H55	●	3	3	8	50	1.0
	R-D3xd4xl8xL50-R0.5xZ4 H55	●	3	4	8	50	0.5
	R-D3xd4xl8xL50-R1.0xZ4 H55	●	3	4	8	50	1.0
	R-D3xd6xl8xL50-R0.5xZ4 H55	●	3	6	8	50	0.5
	R-D3xd6xl8xL50-R1.0xZ4 H55	●	3	6	8	50	1.0
	R-D4xd4xl11xL50-R0.5xZ4 H55	●	4	4	11	50	0.5
	R-D4xd4xl11xL50-R1.0xZ4 H55	●	4	4	11	50	1.0
	R-D4xd6xl11xL50-R0.5xZ4 H55	●	4	6	11	50	0.5
	R-D4xd6xl11xL50-R1.0xZ4 H55	●	4	6	11	50	1.0
	R-D4xd4xl20xL75-R0.5xZ4 H55	●	4	4	20	75	0.5
	R-D4xd4xl20xL75-R1.0xZ4 H55	●	4	4	20	75	1.0
	R-D4xd4xl20xL100-R0.5xZ4 H55	●	4	4	20	100	0.5
	R-D4xd4xl20xL100-R1.0xZ4 H55	●	4	4	20	100	1.0
	R-D5xd5xl13xL50-R0.5xZ4 H55	●	5	5	13	50	0.5
	R-D5xd5xl13xL50-R1.0xZ4 H55	●	5	5	13	50	1.0
	R-D5xd6xl13xL50-R0.5xZ4 H55	●	5	6	13	50	0.5
	R-D5xd6xl13xL50-R1.0xZ4 H55	●	5	6	13	50	1.0
	R-D5xd5xl20xL75-R0.5xZ4 H55	●	5	5	20	75	0.5
	R-D5xd5xl20xL75-R1.0xZ4 H55	●	5	5	20	75	1.0
	R-D5xd5xl20xL100-R0.5xZ4 H55	●	5	5	20	100	0.5
	R-D5xd5xl20xL100-R1.0xZ4 H55	●	5	5	20	100	1.0
	R-D6xd6xl15xL50-R0.5xZ4 H55	●	6	6	15	50	0.5

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

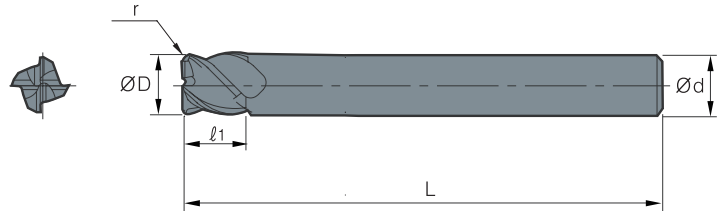
DRILLS

SPARE
PARTS

INDEX

Radius(레디우스 타입)

UP TO HRC55 (HRC 55이하)

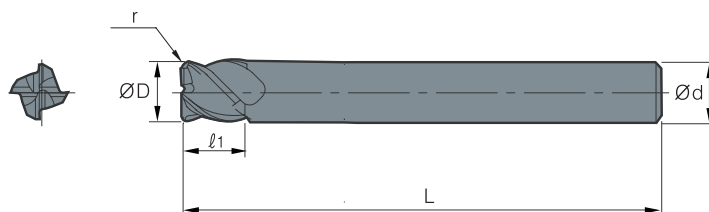


	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치수				
			ØD	Ød	l	L	r
	R-D6xd6x15xL50-R1.0xZ4 H55	●	6	6	15	50	1.0
	R-D6xd6x20xL75-R0.5xZ4 H55	●	6	6	20	75	0.5
	R-D6xd6x20xL75-R1.0xZ4 H55	●	6	6	20	75	1.0
	R-D6xd6x25xL100-R0.5xZ4 H55	●	6	6	25	100	0.5
	R-D6xd6x25xL100-R1.0xZ4 H55	●	6	6	25	100	1.0
	R-D6xd6x40xL150-R0.5xZ4 H55	●	6	6	40	150	0.5
	R-D6xd6x40xL150-R1.0xZ4 H55	●	6	6	40	150	1.0
	R-D7xd8x20xL60-R0.5xZ4 H55	●	7	8	20	60	0.5
	R-D7xd8x20xL60-R1.0xZ4 H55	●	7	8	20	60	1.0
	R-D8xd8x20xL60-R0.5xZ4 H55	●	8	8	20	60	0.5
	R-D8xd8x20xL60-R1.0xZ4 H55	●	8	8	20	60	1.0
	R-D8xd8x25xL75-R0.5xZ4 H55	●	8	8	25	75	0.5
	R-D8xd8x25xL75-R1.0xZ4 H55	●	8	8	25	75	1.0
	R-D8xd8x40xL100-R0.5xZ4 H55	●	8	8	40	100	0.5
	R-D8xd8x40xL100-R1.0xZ4 H55	●	8	8	40	100	1.0
	R-D8xd8x40xL150-R0.5xZ4 H55	●	8	8	40	150	0.5
	R-D8xd8x40xL150-R1.0xZ4 H55	●	8	8	40	150	1.0
	R-D9xd10x25xL75-R0.5xZ4 H55	●	9	10	25	75	0.5
	R-D9xd10x25xL75-R1.0xZ4 H55	●	9	10	25	75	1.0
	R-D10xd10x25xL75-R0.5xZ4 H55	●	10	10	25	75	0.5
	R-D10xd10x25xL75-R1.0xZ4 H55	●	10	10	25	75	1.0
	R-D10xd10x40xL100-R0.5xZ4 H55	●	10	10	40	100	0.5
	R-D10xd10x40xL100-R1.0xZ4 H55	●	10	10	40	100	1.0
	R-D10xd10x50xL150-R0.5xZ4 H55	●	10	10	50	150	0.5
	R-D10xd10x50xL150-R1.0xZ4 H55	●	10	10	50	150	1.0

ENDMILLS 엔드밀

Radius(레디우스 타입)

UP TO HRC55 (HRC 55이하)



	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치수				
			ØD	Ød	l	L	r
	R-D12xd12xl30xL75-R0.5xZ4 H55	●	12	12	30	75	0.5
	R-D12xd12xl30xL75-R1.0xZ4 H55	●	12	12	30	75	1.0
	R-D12xd12xl45xL100-R1.0xZ4 H55	●	12	12	45	100	0.5
	R-D12xd12xl45xL100-R1.0xZ4 H55	●	12	12	45	100	1.0
	R-D12xd12xl50xL150-R0.5xZ4 H55	●	12	12	50	150	0.5
	R-D12xd12xl50xL150-R1.0xZ4 H55	●	12	12	50	150	1.0
	R-D14xd14xl40xL80-R0.5xZ4 H55	●	14	14	40	80	0.5
	R-D14xd14xl40xL80-R1.0xZ4 H55	●	14	14	40	80	1.0
	R-D14xd14xl50xL100-R0.5xZ4 H55	●	14	14	50	100	0.5
	R-D14xd14xl50xL100-R1.0xZ4 H55	●	14	14	50	100	1.0
	R-D14xd14xl50xL150-R0.5xZ4 H55	●	14	14	50	150	0.5
	R-D14xd14xl50xL150-R1.0xZ4 H55	●	14	14	50	150	1.0
	R-D16xd16xl45xL100-R0.5xZ4 H55	●	16	16	45	100	0.5
	R-D16xd16xl45xL100-R1.0xZ4 H55	●	16	16	45	100	1.0
	R-D16xd16xl50xL150-R0.5xZ4 H55	●	16	16	50	150	0.5
	R-D16xd16xl50xL150-R1.0xZ4 H55	●	16	16	50	150	1.0
	R-D18xd18xl45xL100-R0.5xZ4 H55	●	18	18	45	100	0.5
	R-D18xd18xl45xL100-R1.0xZ4 H55	●	18	18	45	100	1.0
	R-D18xd18xl50xL150-R0.5xZ4 H55	●	18	18	50	150	0.5
	R-D18xd18xl50xL150-R1.0xZ4 H55	●	18	18	50	150	1.0
	R-D20xd20xl45xL100-R0.5xZ4 H55	●	20	20	45	100	0.5
	R-D20xd20xl45xL100-R1.0xZ4 H55	●	20	20	45	100	1.0
	R-D20xd20xl75xL150-R0.5xZ4 H55	●	20	20	75	150	0.5
	R-D20xd20xl75xL150-R1.0xZ4 H55	●	20	20	75	150	1.0

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

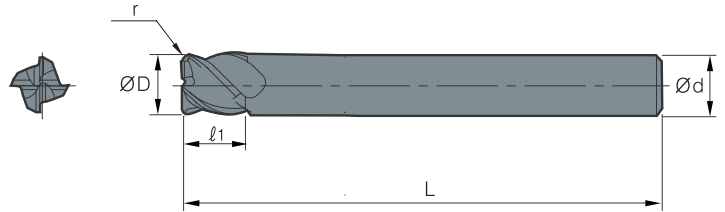
DRILLS

SPARE PARTS

INDEX

Radius(레디우스 타입)

UP TO HRC68 (HRC 68이하)

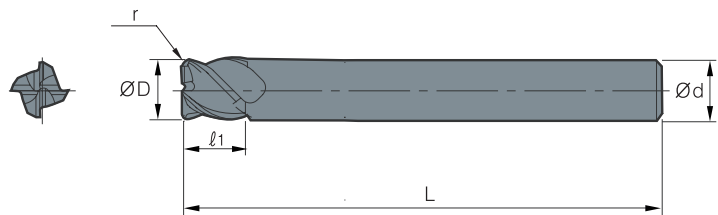


	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치수				
			ØD	Ød	l	L	r
	R-D2xd4xl6xL50-R0.5xZ4 H68	●	2	4	6	50	0.5
	R-D2xd6xl6xL50-R0.5xZ4 H68	●	2	6	6	50	0.5
	R-D3xd3xl8xL50-R0.5xZ4 H68	●	3	3	8	50	0.5
	R-D3xd3xl8xL50-R1.0xZ4 H68	●	3	3	8	50	1.0
	R-D3xd4xl8xL50-R0.5xZ4 H68	●	3	4	8	50	0.5
	R-D3xd4xl8xL50-R1.0xZ4 H68	●	3	4	8	50	1.0
	R-D3xd6xl8xL50-R0.5xZ4 H68	●	3	6	8	50	0.5
	R-D3xd6xl8xL50-R1.0xZ4 H68	●	3	6	8	50	1.0
	R-D4xd4xl11xL50-R0.5xZ4 H68	●	4	4	11	50	0.5
	R-D4xd4xl11xL50-R1.0xZ4 H68	●	4	4	11	50	1.0
	R-D4xd6xl11xL50-R0.5xZ4 H68	●	4	6	11	50	0.5
	R-D4xd6xl11xL50-R1.0xZ4 H68	●	4	6	11	50	1.0
	R-D4xd4xl20xL75-R0.5xZ4 H68	●	4	4	20	75	0.5
	R-D4xd4xl20xL75-R1.0xZ4 H68	●	4	4	20	75	1.0
	R-D4xd4xl20xL100-R0.5xZ4 H68	●	4	4	20	100	0.5
	R-D4xd4xl20xL100-R1.0xZ4 H68	●	4	4	20	100	1.0
	R-D5xd5xl13xL50-R0.5xZ4 H68	●	5	5	13	50	0.5
	R-D5xd5xl13xL50-R1.0xZ4 H68	●	5	5	13	50	1.0
	R-D5xd6xl13xL50-R0.5xZ4 H68	●	5	6	13	50	0.5
	R-D5xd6xl13xL50-R1.0xZ4 H68	●	5	6	13	50	1.0
	R-D5xd5xl20xL75-R0.5xZ4 H68	●	5	5	20	75	0.5
	R-D5xd5xl20xL75-R1.0xZ4 H68	●	5	5	20	75	1.0
	R-D5xd5xl20xL100-R0.5xZ4 H68	●	5	5	20	100	0.5
	R-D5xd5xl20xL100-R1.0xZ4 H68	●	5	5	20	100	1.0
	R-D6xd6xl15xL50-R0.5xZ4 H68	●	6	6	15	50	0.5

ENDMILLS 엔드밀

Radius(레디우스 타입)

UP TO HRC68 (HRc 68이하)



	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치수				
			ØD	Ød	l	L	r
	R-D6xd6x115xL50-R1.0xZ4 H68	●	6	6	15	50	1.0
	R-D6xd6x120xL75-R0.5xZ4 H68	●	6	6	20	75	0.5
	R-D6xd6x120xL75-R1.0xZ4 H68	●	6	6	20	75	1.0
	R-D6xd6x125xL100-R0.5xZ4 H68	●	6	6	25	100	0.5
	R-D6xd6x125xL100-R1.0xZ4 H68	●	6	6	25	100	1.0
	R-D6xd6x140xL150-R0.5xZ4 H68	●	6	6	40	150	0.5
	R-D6xd6x140xL150-R1.0xZ4 H68	●	6	6	40	150	1.0
	R-D7xd8x120xL60-R0.5xZ4 H68	●	7	8	20	60	0.5
	R-D7xd8x120xL60-R1.0xZ4 H68	●	7	8	20	60	1.0
	R-D8xd8x120xL60-R0.5xZ4 H68	●	8	8	20	60	0.5
	R-D8xd8x120xL60-R1.0xZ4 H68	●	8	8	20	60	1.0
	R-D8xd8x125xL75-R0.5xZ4 H68	●	8	8	25	75	0.5
	R-D8xd8x125xL75-R1.0xZ4 H68	●	8	8	25	75	1.0
	R-D8xd8x140xL100-R0.5xZ4 H68	●	8	8	40	100	0.5
	R-D8xd8x140xL100-R1.0xZ4 H68	●	8	8	40	100	1.0
	R-D8xd8x140xL150-R0.5xZ4 H68	●	8	8	40	150	0.5
	R-D8xd8x140xL150-R1.0xZ4 H68	●	8	8	40	150	1.0
	R-D9xd10x125xL75-R0.5xZ4 H68	●	9	10	25	75	0.5
	R-D9xd10x125xL75-R1.0xZ4 H68	●	9	10	25	75	1.0
	R-D10xd10x125xL75-R0.5xZ4 H68	●	10	10	25	75	0.5
	R-D10xd10x125xL75-R1.0xZ4 H68	●	10	10	25	75	1.0
	R-D10xd10x140xL100-R0.5xZ4 H68	●	10	10	40	100	0.5
	R-D10xd10x140xL100-R1.0xZ4 H68	●	10	10	40	100	1.0
	R-D10xd10x150xL150-R0.5xZ4 H68	●	10	10	50	150	0.5
	R-D10xd10x150xL150-R1.0xZ4 H68	●	10	10	50	150	1.0

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

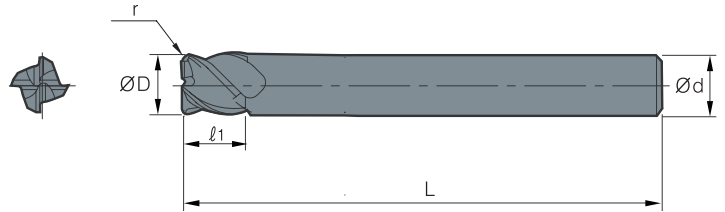
DRILLS

SPARE
PARTS

INDEX

Radius(레디우스 타입)

UP TO HRC68 (HRC 68이하)

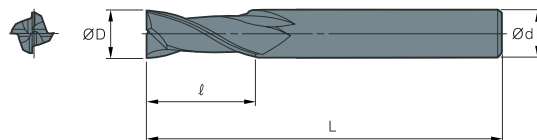


	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치수				
			ØD	Ød	l	L	r
	R-D12xd12x30xL75-R0.5xZ4 H68	●	12	12	30	75	0.5
	R-D12xd12x30xL75-R1.0xZ4 H68	●	12	12	30	75	1.0
	R-D12xd12x45xL100-R0.5xZ4 H68	●	12	12	45	100	0.5
	R-D12xd12x45xL100-R1.0xZ4 H68	●	12	12	45	100	1.0
	R-D12xd12x50xL150-R0.5xZ4 H68	●	12	12	50	150	0.5
	R-D12xd12x50xL150-R1.0xZ4 H68	●	12	12	50	150	1.0
	R-D14xd14x40xL80-R0.5xZ4 H68	●	14	14	40	80	0.5
	R-D14xd14x40xL80-R1.0xZ4 H68	●	14	14	40	80	1.0
	R-D14xd14x50xL100-R0.5xZ4 H68	●	14	14	50	100	0.5
	R-D14xd14x50xL100-R1.0xZ4 H68	●	14	14	50	100	1.0
	R-D14xd14x50xL150-R0.5xZ4 H68	●	14	14	50	150	0.5
	R-D14xd14x50xL150-R1.0xZ4 H68	●	14	14	50	150	1.0
	R-D16xd16x45xL100-R0.5xZ4 H68	●	16	16	45	100	0.5
	R-D16xd16x45xL100-R1.0xZ4 H68	●	16	16	45	100	1.0
	R-D16xd16x50xL150-R0.5xZ4 H68	●	16	16	50	150	0.5
	R-D16xd16x50xL150-R1.0xZ4 H68	●	16	16	50	150	1.0
	R-D18xd18x45xL100-R0.5xZ4 H68	●	18	18	45	100	0.5
	R-D18xd18x45xL100-R1.0xZ4 H68	●	18	18	45	100	1.0
	R-D18xd18x50xL150-R0.5xZ4 H68	●	18	18	50	150	0.5
	R-D18xd18x50xL150-R1.0xZ4 H68	●	18	18	50	150	1.0
	R-D20xd20x45xL100-R0.5xZ4 H68	●	20	20	45	100	0.5
	R-D20xd20x45xL100-R1.0xZ4 H68	●	20	20	45	100	1.0
	R-D20xd20x75xL150-R0.5xZ4 H68	●	20	20	75	150	0.5
	R-D20xd20x75xL150-R1.0xZ4 H68	●	20	20	75	150	1.0

ENDMILLS 엔드밀

Square (플랫 타입)

2Z / 2날

Uncoated Carbide
(비코팅 초경)

	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치수				
			ØD	Ød	l	L	r
	SAL-D1xd4xl3xL50xZ2 H45	●	1	4	3	50	-
	SAL-D1xd6xl3xL50xZ2 H45	●	1	6	3	50	-
	SAL-D2xd4xl6xL50xZ2 H45	●	2	4	6	50	-
	SAL-D2xd6xl6xL50xZ2 H45	●	2	6	6	50	-
	SAL-D3xd3xl8xL50xZ2 H45	●	3	3	8	50	-
	SAL-D3xd4xl8xL50xZ2 H45	●	3	4	8	50	-
	SAL-D3xd6xl8xL50xZ2 H45	●	3	6	8	50	-
	SAL-D4xd4xl11xL50xZ2 H45	●	4	4	11	50	-
	SAL-D4xd6xl11xL50xZ2 H45	●	4	6	11	50	-
	SAL-D4xd4xl20xL75xZ2 H45	●	4	4	20	75	-
	SAL-D4xd4xl20xL100xZ2 H45	●	4	4	20	100	-
	SAL-D5xd5xl13xL50xZ2 H45	●	5	5	13	50	-
	SAL-D5xd6xl13xL50xZ2 H45	●	5	6	13	50	-
	SAL-D5xd5xl20xL75xZ2 H45	●	5	5	20	75	-
	SAL-D5xd5xl20xL100xZ2 H45	●	5	5	20	100	-
	SAL-D6xd6xl15xL50xZ2 H45	●	6	6	15	50	-
	SAL-D6xd6xl20xL75xZ2 H45	●	6	6	20	75	-

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

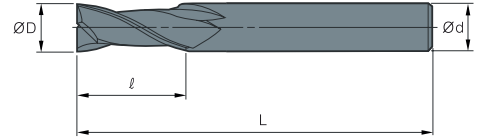
SPARE PARTS

INDEX

Square (플랫 타입)

2Z / 2날

Uncoated Carbide
(비코팅 초경)

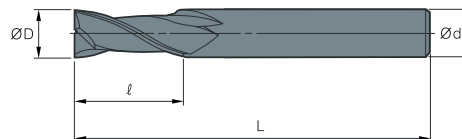


	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치 수				
			ØD	Ød	l	L	r
	SAL-D6xd6xl25xL100xZ2 H45	●	6	6	25	100	-
	SAL-D6xd6xl40xL150xZ2 H45	●	6	6	40	150	-
	SAL-D8xd8xl20xL60xZ2 H45	●	8	8	20	60	-
	SAL-D8xd8xl25xL75xZ2 H45	●	8	8	25	75	-
	SAL-D8xd8xl40xL100xZ2 H45	●	8	8	40	100	-
	SAL-D8xd8xl40xL150xZ2 H45	●	8	8	40	150	-
	SAL-D10xd10xl25xL75xZ2 H45	●	10	10	25	75	-
	SAL-D10xd10xl40xL100xZ2 H45	●	10	10	40	100	-
	SAL-D12xd12xl30xL75xZ2 H45	●	12	12	30	75	-
	SAL-D12xd12xl45xL100xZ2 H45	●	12	12	45	100	-
	SAL-D12xd12xl50xL150xZ2 H45	●	12	12	50	150	-
	SAL-D14xd14xl40xL80xZ2 H45	●	14	14	40	80	-
	SAL-D14xd14xl50xL100xZ2 H45	●	14	14	50	100	-
	SAL-D16xd16xl45xL100xZ2 H45	●	16	16	45	100	-
	SAL-D18xd18xl45xL100xZ2 H45	●	18	18	45	100	-
	SAL-D20xd20xl45xL100xZ2 H45	●	20	20	45	100	-
	SAL-D20xd20xl75xL150xZ2 H45	●	20	20	75	150	-

ENDMILLS 엔드밀

Square (플랫 타입)

3Z / 3날

Uncoated Carbide
(비코팅 초경)

	DESCRIPTION 형번	STOCK 재고	DIMENSIONS 치수				
			ØD	Ød	l	L	r
	SAL-D1xd4xl3xL50xZ3 H45	●	1	4	3	50	-
	SAL-D1xd6xl3xL50xZ3 H45	●	1	6	3	50	-
	SAL-D2xd4xl6xL50xZ3 H45	●	2	4	6	50	-
	SAL-D2xd6xl6xL50xZ3 H45	●	2	6	6	50	-
	SAL-D3xd3xl8xL50xZ3 H45	●	3	3	8	50	-
	SAL-D3xd4xl8xL50xZ3 H45	●	3	4	8	50	-
	SAL-D3xd6xl8xL50xZ3 H45	●	3	6	8	50	-
	SAL-D4xd4xl11xL50xZ3 H45	●	4	4	11	50	-
	SAL-D4xd6xl11xL50xZ3 H45	●	4	6	11	50	-
	SAL-D4xd4xl20xL75xZ3 H45	●	4	4	20	75	-
	SAL-D4xd4xl20xL100xZ3 H45	●	4	4	20	100	-
	SAL-D5xd5xl13xL50xZ3 H45	●	5	5	13	50	-
	SAL-D5xd6xl13xL50xZ3 H45	●	5	6	13	50	-
	SAL-D5xd5xl20xL75xZ3 H45	●	5	5	20	75	-
	SAL-D5xd5xl20xL100xZ3 H45	●	5	5	20	100	-
	SAL-D6xd6xl15xL50xZ3 H45	●	6	6	15	50	-
	SAL-D6xd6xl20xL75xZ3 H45	●	6	6	20	75	-

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

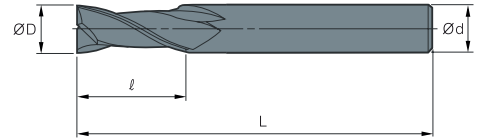
SPARE PARTS

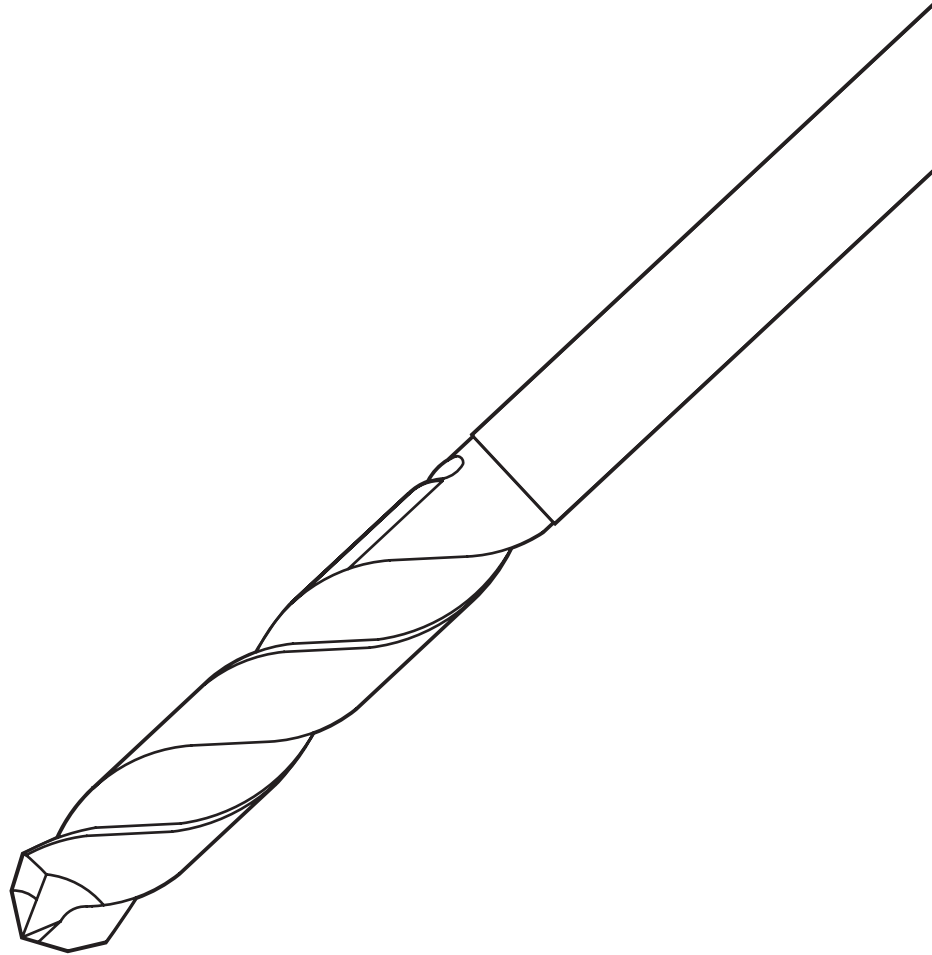
INDEX

Square (플랫 타입)

3Z / 3날

Uncoated Carbide (비코팅 초경)

[illegible]

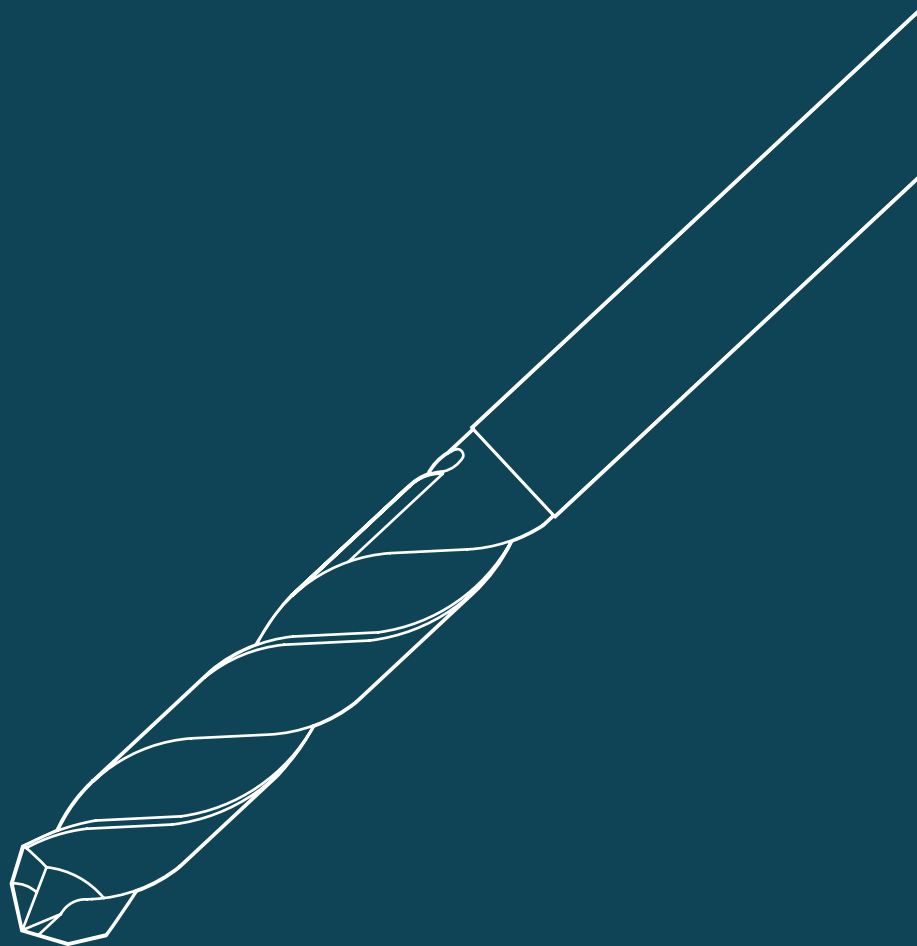


DRILLS/ 초경코팅드릴

초경코팅드릴 carbide /327

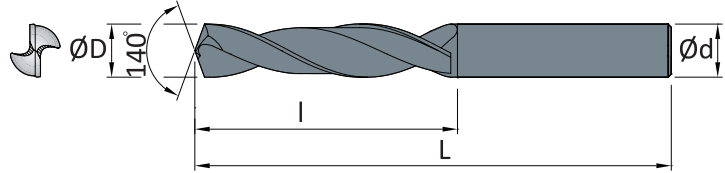
DRILLS / carbide

초경코팅드릴 / 초경코팅드릴



DSD

3XD

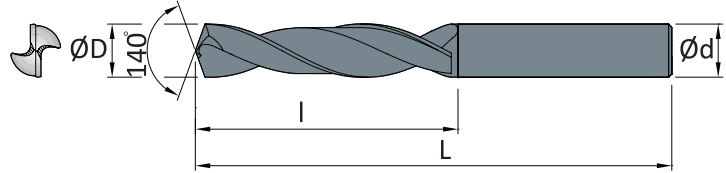


DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치 수			
			ØD	I	L	Ød
DSD	2010-35-3	●	1.0	7	35	3
	2011-35-3	●	1.1	7	35	3
	2012-35-3	●	1.2	8	35	3
	2013-35-3	●	1.3	8	35	3
	2014-35-3	●	1.4	9	35	3
	2015-40-3	●	1.5	9	40	3
	2016-40-3	●	1.6	10	40	3
	2017-40-3	●	1.7	10	40	3
	2018-40-3	●	1.8	11	40	3
	2019-40-3	●	1.9	11	40	3
	2020-45-3	●	2.0	13	45	3
	2021-45-3	●	2.1	13	45	3
	2022-45-3	●	2.2	13	45	3
	2023-45-3	●	2.3	13	45	3
	2024-45-3	●	2.4	15	45	3
	2025-50-3	●	2.5	15	50	3
	2026-50-3	●	2.6	15	50	3
	2027-50-3	●	2.7	17	50	3
	2028-50-3	●	2.8	17	50	3
	2029-50-3	●	2.9	17	50	3
	2030-62-6	●	3.0	20	62	6
	2031-62-6	●	3.1	20	62	6
	2032-62-6	●	3.2	20	62	6
	2033-62-6	●	3.3	20	62	6
	2034-62-6	●	3.4	20	62	6
	2035-62-6	●	3.5	20	62	6

DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치 수			
			ØD	I	L	ød
DSD	2036-62-6	●	3.6	20	62	6
	2037-62-6	●	3.7	20	62	6
	2038-66-6	●	3.8	24	66	6
	2039-66-6	●	3.9	24	66	6
	2040-66-6	●	4.0	24	66	6
	2041-66-6	●	4.1	24	66	6
	2042-66-6	●	4.2	24	66	6
	2043-66-6	●	4.3	24	66	6
	2044-66-6	●	4.4	24	66	6
	2045-66-6	●	4.5	24	66	6
	2046-66-6	●	4.6	24	66	6
	2047-66-6	●	4.7	24	66	6
	2048-66-6	●	4.8	28	66	6
	2049-66-6	●	4.9	28	66	6
	2050-66-6	●	5.0	28	66	6
	2051-66-6	●	5.1	28	66	6
	2052-66-6	●	5.2	28	66	6
	2053-66-6	●	5.3	28	66	6
	2054-66-6	●	5.4	28	66	6
	2055-66-6	●	5.5	28	66	6
	2056-66-6	●	5.6	28	66	6
	2057-66-6	●	5.7	28	66	6
	2058-66-6	●	5.8	28	66	6
	2059-66-6	●	5.9	28	66	6
	2060-66-6	●	6.0	28	66	6
	2061-79-8	●	6.1	34	79	8

DSD

3XD



DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치 수			
			∅D	I	L	∅d
DSD	2062-79-8	●	6.2	34	79	8
	2063-79-8	●	6.3	34	79	8
	2064-79-8	●	6.4	34	79	8
	2065-79-8	●	6.5	34	79	8
	2066-79-8	●	6.6	34	79	8
	2067-79-8	●	6.7	34	79	8
	2068-79-8	●	6.8	34	79	8
	2069-79-8	●	6.9	34	79	8
	2070-79-8	●	7.0	34	79	8
	2071-79-8	●	7.1	41	79	8
	2072-79-8	●	7.2	41	79	8
	2073-79-8	●	7.3	41	79	8
	2074-79-8	●	7.4	41	79	8
	2075-79-8	●	7.5	41	79	8
	2076-79-8	●	7.6	41	79	8
	2077-79-8	●	7.7	41	79	8
	2078-79-8	●	7.8	41	79	8
	2079-79-8	●	7.9	41	79	8
	2080-79-8	●	8.0	41	79	8
	2081-89-10	●	8.1	47	89	10
	2082-89-10	●	8.2	47	89	10
	2083-89-10	●	8.3	47	89	10
	2084-89-10	●	8.4	47	89	10
	2085-89-10	●	8.5	47	89	10
	2086-89-10	●	8.6	47	89	10
	2087-89-10	●	8.7	47	89	10

DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치 수			
			øD	I	L	ød
DSD	2088-89-10	●	8.8	47	89	10
	2089-89-10	●	8.9	47	89	10
	2090-89-10	●	9.0	47	89	10
	2091-89-10	●	9.1	47	89	10
	2092-89-10	●	9.2	47	89	10
	2093-89-10	●	9.3	47	89	10
	2094-89-10	●	9.4	47	89	10
	2095-89-10	●	9.5	47	89	10
	2096-89-10	●	9.6	47	89	10
	2097-89-10	●	9.7	47	89	10
	2098-89-10	●	9.8	47	89	10
	2099-89-10	●	9.9	47	89	10
	2100-89-10	●	10.0	47	89	10
	2101-102-12	●	10.1	55	102	12
	2102-102-12	●	10.2	55	102	12
	2103-102-12	●	10.3	55	102	12
	2104-102-12	●	10.4	55	102	12
	2105-102-12	●	10.5	55	102	12
	2106-102-12	●	10.6	55	102	12
	2107-102-12	●	10.7	55	102	12
	2108-102-12	●	10.8	55	102	12
	2109-102-12	●	10.9	55	102	12
	2110-102-12	●	11.0	55	102	12
	2111-102-12	●	11.1	55	102	12
	2112-102-12	●	11.2	55	102	12
	2113-102-12	●	11.3	55	102	12

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

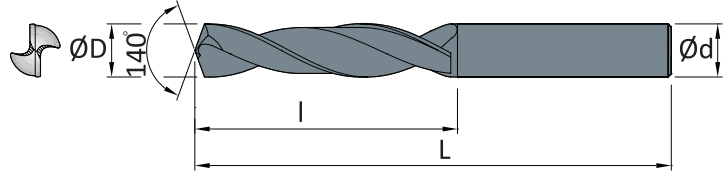
DRILLS

SPARE PARTS

INDEX

DSD

3XD

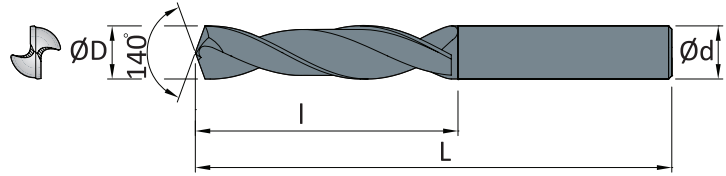


DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치 수			
			∅D	I	L	∅d
DSD	2114-102-12	●	11.4	55	102	12
	2115-102-12	●	11.5	55	102	12
	2116-102-12	●	11.6	55	102	12
	2117-102-12	●	11.7	55	102	12
	2118-102-12	●	11.8	55	102	12
	2119-102-12	●	11.9	55	102	12
	2120-102-12	●	12.0	55	102	12
	2121-107-14	●	12.1	60	107	14
	2122-107-14	●	12.2	60	107	14
	2123-107-14	●	12.3	60	107	14
	2124-107-14	●	12.4	60	107	14
	2125-107-14	●	12.5	60	107	14
	2126-107-14	●	12.6	60	107	14
	2127-107-14	●	12.7	60	107	14
	2128-107-14	●	12.8	60	107	14
	2129-107-14	●	12.9	60	107	14
	2130-107-14	●	13.0	60	107	14
	2131-107-14	●	13.1	60	107	14
	2132-107-14	●	13.2	60	107	14
	2133-107-14	●	13.3	60	107	14
	2134-107-14	●	13.4	60	107	14
	2135-107-14	●	13.5	60	107	14
	2140-107-14	●	14.0	60	107	14
	2145-115-16	●	14.5	65	115	16
	2150-115-16	●	15.0	65	115	16
	2155-115-16	●	15.5	65	115	16

[illegible]

DLD

5XD



DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치 수			
			ØD	I	L	Ød
DLD	2010-38-3	●	1.0	9	38	3
	2011-38-3	●	1.1	9	38	3
	2012-38-3	●	1.2	11	38	3
	2013-38-3	●	1.3	11	38	3
	2014-38-3	●	1.4	12	38	3
	2015-45-3	●	1.5	12	45	3
	2016-45-3	●	1.6	14	45	3
	2017-45-3	●	1.7	14	45	3
	2018-45-3	●	1.8	16	45	3
	2019-45-3	●	1.9	16	45	3
	2020-50-3	●	2.0	18	50	3
	2021-50-3	●	2.1	18	50	3
	2022-52-3	●	2.2	20	52	3
	2023-52-3	●	2.3	20	52	3
	2024-52-3	●	2.4	22	52	3
	2025-56-3	●	2.5	22	56	3
	2026-56-3	●	2.6	22	56	3
	2027-56-3	●	2.7	23	56	3
	2028-56-3	●	2.8	23	56	3
	2029-56-3	●	2.9	23	56	3
	2030-66-6	●	3.0	28	66	6
	2031-66-6	●	3.1	28	66	6
	2032-66-6	●	3.2	28	66	6
	2033-66-6	●	3.3	28	66	6
	2034-66-6	●	3.4	28	66	6
	2035-66-6	●	3.5	28	66	6

DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치 수			
			øD	I	L	ød
DLD	2036-74-6	●	3.6	36	74	6
	2037-74-6	●	3.7	36	74	6
	2038-74-6	●	3.8	36	74	6
	2039-74-6	●	3.9	36	74	6
	2040-74-6	●	4.0	36	74	6
	2041-74-6	●	4.1	36	74	6
	2042-74-6	●	4.2	36	74	6
	2043-74-6	●	4.3	36	74	6
	2044-74-6	●	4.4	36	74	6
	2045-74-6	●	4.5	36	74	6
	2046-74-6	●	4.6	36	74	6
	2047-74-6	●	4.7	36	74	6
	2048-82-6	●	4.8	44	82	6
	2049-82-6	●	4.9	44	82	6
	2050-82-6	●	5.0	44	82	6
	2051-82-6	●	5.1	44	82	6
	2052-82-6	●	5.2	44	82	6
	2053-82-6	●	5.3	44	82	6
	2054-82-6	●	5.4	44	82	6
	2055-82-6	●	5.5	44	82	6
	2056-82-6	●	5.6	44	82	6
	2057-82-6	●	5.7	44	82	6
	2058-82-6	●	5.8	44	82	6
	2059-82-6	●	5.9	44	82	6
	2060-82-6	●	6.0	44	82	6
	2061-91-8	●	6.1	53	91	8

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

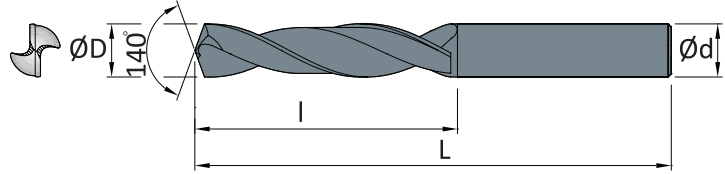
DRILLS

SPARE
PARTS

INDEX

DLD

5XD

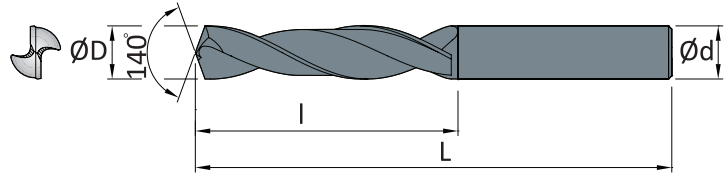


DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치 수			
			∅D	I	L	∅d
DLD	2062-91-8	●	6.2	53	91	8
	2063-91-8	●	6.3	53	91	8
	2064-91-8	●	6.4	53	91	8
	2065-91-8	●	6.5	53	91	8
	2066-91-8	●	6.6	53	91	8
	2067-91-8	●	6.7	53	91	8
	2068-91-8	●	6.8	53	91	8
	2069-91-8	●	6.9	53	91	8
	2070-91-8	●	7.0	53	91	8
	2071-91-8	●	7.1	53	91	8
	2072-91-8	●	7.2	53	91	8
	2073-91-8	●	7.3	53	91	8
	2074-91-8	●	7.4	53	91	8
	2075-91-8	●	7.5	53	91	8
	2076-91-8	●	7.6	53	91	8
	2077-91-8	●	7.7	53	91	8
	2078-91-8	●	7.8	53	91	8
	2079-91-8	●	7.9	53	91	8
	2080-91-8	●	8.0	53	91	8
	2081-103-10	●	8.1	61	103	10
	2082-103-10	●	8.2	61	103	10
	2083-103-10	●	8.3	61	103	10
	2084-103-10	●	8.4	61	103	10
	2085-103-10	●	8.5	61	103	10
	2086-103-10	●	8.6	61	103	10
	2087-103-10	●	8.7	61	103	10

DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치 수			
			ØD	I	L	ød
DLD	2088-103-10	●	8.8	61	103	10
	2089-103-10	●	8.9	61	103	10
	2090-103-10	●	9.0	61	103	10
	2091-103-10	●	9.1	61	103	10
	2092-103-10	●	9.2	61	103	10
	2093-103-10	●	9.3	61	103	10
	2094-103-10	●	9.4	61	103	10
	2095-103-10	●	9.5	61	103	10
	2096-103-10	●	9.6	61	103	10
	2097-103-10	●	9.7	61	103	10
	2098-103-10	●	9.8	61	103	10
	2099-103-10	●	9.9	61	103	10
	2100-103-10	●	10.0	61	103	10
	2101-118-12	●	10.1	71	118	12
	2102-118-12	●	10.2	71	118	12
	2103-118-12	●	10.3	71	118	12
	2104-118-12	●	10.4	71	118	12
	2105-118-12	●	10.5	71	118	12
	2106-118-12	●	10.6	71	118	12
	2107-118-12	●	10.7	71	118	12
	2108-118-12	●	10.8	71	118	12
	2109-118-12	●	10.9	71	118	12
	2110-118-12	●	11.0	71	118	12
	2111-118-12	●	11.1	71	118	12
	2112-118-12	●	11.2	71	118	12
	2113-118-12	●	11.3	71	118	12

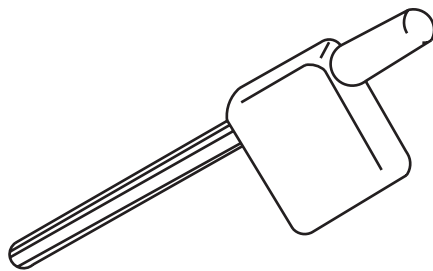
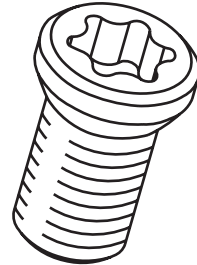
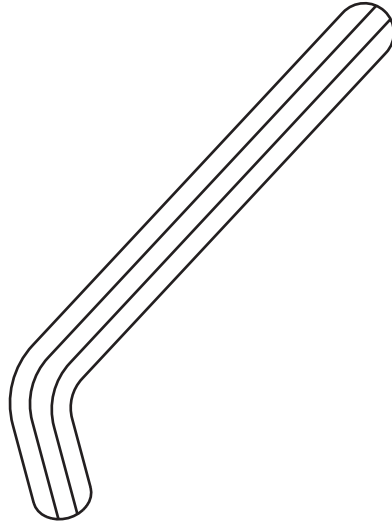
DLD

5XD



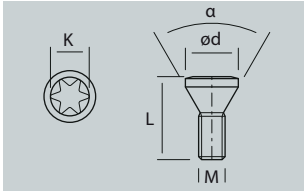
DESCRIPTION 형번		STOCK 재고	DIMENSIONS 치 수			
			∅D	I	L	∅d
DLD	2114-118-12	●	11.4	71	118	12
	2115-118-12	●	11.5	71	118	12
	2116-118-12	●	11.6	71	118	12
	2117-118-12	●	11.7	71	118	12
	2118-118-12	●	11.8	71	118	12
	2119-118-12	●	11.9	71	118	12
	2120-118-12	●	12.0	71	118	12
	2121-124-14	●	12.1	77	124	14
	2122-124-14	●	12.2	77	124	14
	2123-124-14	●	12.3	77	124	14
	2124-124-14	●	12.4	77	124	14
	2125-124-14	●	12.5	77	124	14
	2126-124-14	●	12.6	77	124	14
	2127-124-14	●	12.7	77	124	14
	2128-124-14	●	12.8	77	124	14
	2129-124-14	●	12.9	77	124	14
	2130-124-14	●	13.0	77	124	14
	2131-124-14	●	13.1	77	124	14
	2132-124-14	●	13.2	77	124	14
	2133-124-14	●	13.3	77	124	14
	2134-124-14	●	13.4	77	124	14
	2135-124-14	●	13.5	77	124	14
	2140-124-14	●	14.0	77	124	14
	2145-133-16	●	14.5	83	133	16
	2150-133-16	●	15.0	83	133	16
	2155-133-16	●	15.5	83	133	16

[illegible]



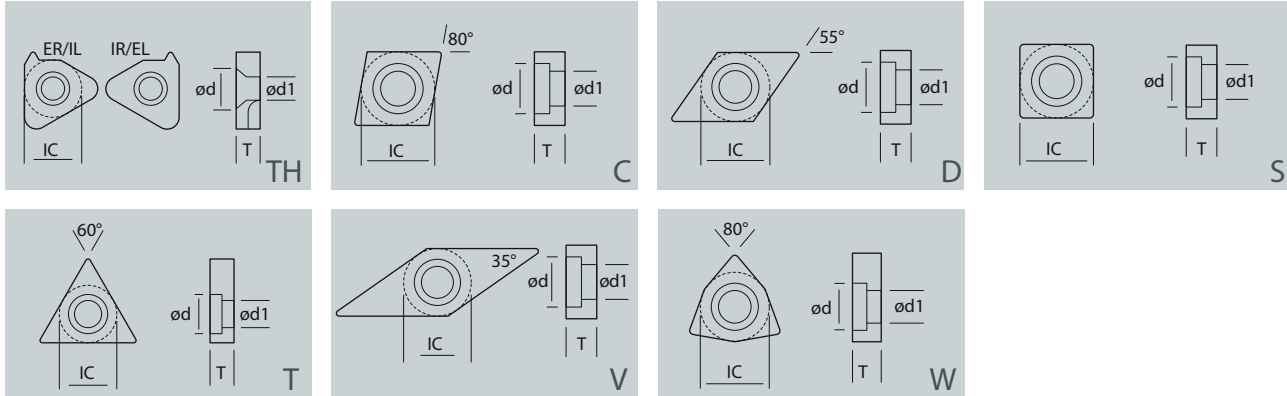
SPARE PARTS/ 부품

INSERTS CLAMPING SCREW / 인서트 스크류



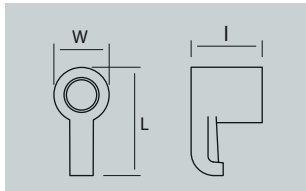
DESCRIPTION 형 번	d	M	L	α	K	TORQUE (Nm)
ST-SC1804	2.60	M1.8 x 0.40	4.00	60°	T6	0.50
ST-SC0206	2.70	M2.0 x 0.40	6.00	60°	T6	0.50
ST-SC0226	3.10	M2.2 x 0.45	6.00	60°	T7	0.80
ST-SC0257	3.10	M2.5 x 0.45	7.00	60°	T7	0.80
ST-SC0309	4.30	M3.0 x 0.50	9.00	90°	T10	1.40
ST-SC3511	5.30	M3.5 x 0.60	11.0	60°	T15	3.50
ST-SC3514	5.30	M3.5 x 0.60	14.0	60°	T15	3.50
ST-SC3507	5.30	M3.5 x 0.60	7.00	60°	T15	3.50
ST-SC0411	5.50	M4.0 x 0.70	11.0	60°	T15	3.50
ST-SC0416	5.50	M4.0 x 0.70	16.0	60°	T15	3.50
ST-SC0415	5.50	M4.0 x 0.70	15.0	60°	T15	3.50
ST-SC4516	6.20	M4.5 x 0.75	16.0	60°	T15	3.50
ST-SC0513	7.00	M5.0 x 0.80	13.0	60°	T20	4.50
ST-SC0511	7.00	M5.0 x 0.80	11.0	60°	T20	4.50
ST-SC0512	7.00	M5.0 x 0.80	12.0	60°	T20	4.50
ST-SC0616	8.00	M6.0 x 1.00	16.0	60°	T20	4.50
ST-SC0523	7.00	M5.0 x 0.80	23.0	60°	T20	4.50
ST-SC0525	7.00	M5.0 x 0.80	25.0	60°	T20	4.50
ST-SC0630	8.00	M6.0 x 1.00	30.0	60°	T20	4.50
ST-SC6307	8.00	M6.0 x 1.00	30.0	90°	T20	4.50
ST-SC0830	9.50	M8.0 x 1.25	30.0	60°	T20	5.50
ST-SC6301	8.00	M6.0 x 1.00	30.0	90°	T20	4.50
ST-SC420	5.50	M4.0 x 0.70	20.0	60°	T15	3.50
ST-SC512	7.00	M5.0 x 0.80	12.0	60°	T20	4.50
ST-SC625	8.00	M6.0 x 1.00	25.0	60°	T20	4.50
ST-SC8301	9.50	M8.0 x 1.25	30.0	90°	T20	5.50
ST-SC610	8.00	M6.0 x 1.00	10.0	90°	T20	4.50
ST-SC810	9.50	M8.0 x 1.25	10.0	60°	T20	5.50

SHIM / 심



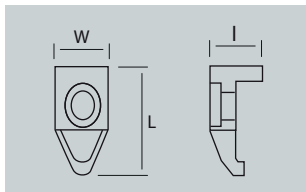
DESCRIPTION 형번	IC	T	ϕd	$\phi d1$	INSERT	DRAWING 그림
ST-SHDN11	8.50	3.20	6.60	5.20	DC□□11, DN□□11	ref. D
ST-SHDN15	12.50	3.20	8.40	6.70	DN□□1506	ref. D
ST-SHCN12	12.50	3.20	8.40	6.70	CN□□12	ref. C
ST-SHCN16	15.50	4.80	10.80	9.70	CN□□16	ref. C
ST-SHCN19	18.70	4.80	13.10	11.20	CN□□19	ref. C
ST-SHWN08	12.20	4.80	8.00	7.30	WN□□08	ref. W
ST-SHSN12	12.30	4.80	8.00	7.30	SN□□12	ref. S
ST-SHSN19	18.70	4.80	13.10	11.20	SN□□19	ref. S
ST-SHTN16	9.30	3.20	6.60	5.80	TN□□16	ref. T
ST-SHTN22	18.70	4.80	8.00	7.30	TN□□22	ref. T
ST-SHVN16	9.20	3.20	6.60	5.80	VN□□16	ref. V
ST-SHDC11	8.50	3.20	6.60	5.20	DC□□11	ref. D
ST-SHSC09	12.20	4.80	8.00	7.30	SC□□09	ref. S
ST-SHSC12	11.40	3.90	8.40	6.70	SC□□12	ref. S
ST-SHCC09	8.50	3.20	6.60	5.20	CC□□09	ref. C
ST-SHCC12	11.40	3.90	8.40	6.70	CC□□12	ref. C
ST-SHVB16	8.20	3.20	6.60	5.40	VB□□16	ref. V
ST-SHTC16	9.10	3.20	6.60	4.50	TC□□16	ref. T
ST-SHVC16	8.20	3.20	6.60	5.40	VC□□16	ref. V
ST-SHKNR/L	11.40	3.20	6.60	7.30	KN□□16	ref. K
ST-SHEI16	9.50	3.20	6.00	4.20	16ER/16IR	ref. TH
ST-SHEI22	18.70	4.80	8.00	7.30	22ER/22IR	ref. TH

CLAMPS (M-STYLE CLAMPING) / 멀티락 홀더 클램프



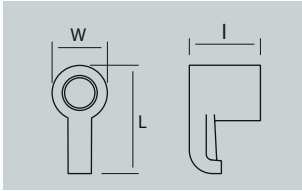
DESCRIPTION 형 번	W	L	I			
ST-CS006	9.40	18.20	13.50			
ST-CS007	7.90	16.90	7.90			
ST-CS008	7.75	14.90	10.95			
ST-CS009	9.40	18.20	13.50			

CLAMPS (D-STYLE CLAMPING) / 클램프 온 시스템 클램프



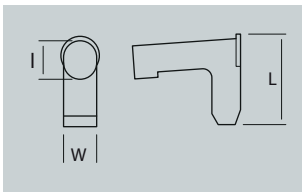
DESCRIPTION 형 번	Ød	M	L			
ST-CS001	9.70	M6x1	24.00			
ST-CS002	9.70	M6x1	24.00			
ST-CS003	9.70	M6x1	24.00			
ST-CS004	9.70	M6x1	24.00			
ST-CS004	9.70	M6x1	24.00			

CLAMPS (C-STYLE CLAMPING) / 클램프 온 시스템 클램프



DESCRIPTION 형 번	W	L	I			
ST-CS010	9.40	18.20	13.50			
ST-CS011	7.90	16.90	7.90			
ST-CS012	9.40	18.20	13.50			
ST-CS013	7.90	16.90	7.90			

LEVER (P-STYLE CLAMPING) / 레버



DESCRIPTION 형 번	W	L	I			
ST-LV001	4.75	13.60	4.45			
ST-LV002	4.60	14.50	5.00			
ST-LV003	4.70	14.80	5.10			

TURNING

GROOVING

THREADING

MILLING

DRILLING

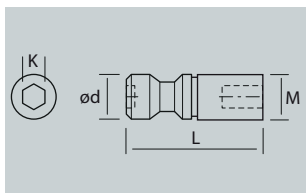
ENDMILLS

DRILLS

SPARE PARTS

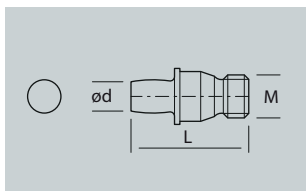
INDEX

LEVER LOCKING SYSTEM (P-STYLE CLAMPING) / 레버 스크류



DESCRIPTION 형 번	d	M	L	K		
ST-SC820	8.00	M8.0 x 1.00	20.0	HEXA 3		
ST-SC822	8.00	M8.0 x 1.00	22.0	HEXA 3		
ST-SC1020	10.00	M10.0 x 1.25	20.0	HEXA 4		
ST-SC1022	10.00	M10.0 x 1.25	22.0	HEXA 4		

ECCENTIRIC LOCK PIN (M-STYLE CLAMPING) / 멀티락 심핀



DESCRIPTION 형 번	M	L	I			
ST-SP001	5.00	17.7	5.00			
ST-SP002	6.00	21.8	6.20			
ST-SP003	4.50	14.0	3.70			

DESCRIPTION		
08IR-A55	■ THREADING CARBIDE	226
08IR-A60	■ THREADING CARBIDE	216
11ER-ISO	■ THREADING CARBIDE	218
11ER-NPT	■ THREADING CARBIDE	223
11ER-A55	■ THREADING CARBIDE	217
11ER-A60	■ THREADING CARBIDE	216
11IR-ISO	■ THREADING CARBIDE	219
11IR-NPT	■ THREADING CARBIDE	223
11IR-A55	■ THREADING CARBIDE	217
11IR-A60	■ THREADING CARBIDE	216
16ER-ISO	■ THREADING CARBIDE	218
16ER-BSPT	■ THREADING CARBIDE	221
16ER-NPT	■ THREADING CARBIDE	223
16ER-UN	■ THREADING CARBIDE	222
16ER-W	■ THREADING CARBIDE	220
16ER-A55	■ THREADING CARBIDE	217
16ER-A60	■ THREADING CARBIDE	216
16ER-AG55	■ THREADING CARBIDE	217
16ER-AG60	■ THREADING CARBIDE	216
16ER-G55	■ THREADING CARBIDE	217
16ER-G60	■ THREADING CARBIDE	216
16ERM-AG55	■ THREADING CARBIDE	217
16ERM-AG60	■ THREADING CARBIDE	216
16IR-ISO	■ THREADING CARBIDE	219
16IR-BSPT	■ THREADING CARBIDE	221
16IR-NPT	■ THREADING CARBIDE	223
16IR-W	■ THREADING CARBIDE	220
16IR-A55	■ THREADING CARBIDE	217
16IR-A60	■ THREADING CARBIDE	216
16IR-AG55	■ THREADING CARBIDE	217
16IR-AG60	■ THREADING CARBIDE	216
16IR-G55	■ THREADING CARBIDE	217
16IR-G60	■ THREADING CARBIDE	216
16IRM-AG60	■ THREADING CARBIDE	217
22ER-ISO	■ THREADING CARBIDE	218
22ER-N55	■ THREADING CARBIDE	217
22ER-N60	■ THREADING CARBIDE	216
22IR-ISO	■ THREADING CARBIDE	219
22IR-N55	■ THREADING CARBIDE	217
22IR-N60	■ THREADING CARBIDE	216
27ER-Q55	■ THREADING CARBIDE	217
APKT-AU	■ MILLING CARBIDE	236
APKT-GM	■ MILLING CARBIDE	236
APKT-PDER-G2	■ MILLING CARBIDE	236
APKT-PDFR-G2	■ MILLING CARBIDE	236
APKT-PDR	■ MILLING CARBIDE	236
APKT-PDSR	■ MILLING CARBIDE	236
APKT-TEM	■ MILLING CARBIDE	236
APKT-ZM	■ MILLING CARBIDE	236
APMT-PDER-H2-M2	■ MILLING CARBIDE	237

DESCRIPTION		
B-D-H45	■ ENDMILLS CARBIDE	306
B-D-H55	■ ENDMILLS CARBIDE	308
B-D-H68	■ ENDMILLS CARBIDE	310
C-SCLCR/L 03	■ TURNING HOLDERS	124
C-SCLCR/L 04	■ TURNING HOLDERS	124
C-SCLCR/L 06	■ TURNING HOLDERS	124
C-SCLCR/L 09	■ TURNING HOLDERS	124
C-SDQCR/L 07	■ TURNING HOLDERS	141
C-SDQCR/L 11	■ TURNING HOLDERS	141
C-STFCR/L 11	■ TURNING HOLDERS	169
C-STFPR/L 08	■ TURNING HOLDERS	169
C-STFPR/L 11	■ TURNING HOLDERS	169
CCGT-1C	■ TURNING DIAMOND	99
CCGT-2C	■ TURNING DIAMOND	99
CCGT-AU	■ TURNING carbide	22
CCGW-1C	■ TURNING PCBN	79
CCGW-1C	■ TURNING DIAMOND	99
CCGW-2C	■ TURNING PCBN	79
CCGW-2C	■ TURNING DIAMOND	99
CCGX-FE	■ TURNING DIAMOND	99
CCMT-GM	■ TURNING carbide	22
CCMT-MF	■ TURNING carbide	22
CCMT-MF1	■ TURNING carbide	22
CCMT-MF2	■ TURNING carbide	22
CCMT-MM1	■ TURNING carbide	23
CCMT-MM3	■ TURNING carbide	23
CCMT-MM5	■ TURNING carbide	23
CCMT-TQ	■ TURNING carbide	23
CCMT-UF	■ TURNING carbide	23
CCMT-UM	■ TURNING carbide	24
CCMT-UM2	■ TURNING carbide	24
CCMT-UR	■ TURNING carbide	24
CCMT-UR2	■ TURNING carbide	24
CDJNR/L-15	■ TURNING HOLDERS	142
CKJNR/L-16	■ TURNING HOLDERS	149
CNGA-1C	■ TURNING PCBN	80
CNGA-1C	■ TURNING DIAMOND	100
CNGA-2C	■ TURNING PCBN	80
CNGA-2C	■ TURNING DIAMOND	100
CNGA-4C	■ TURNING PCBN	80
CNMA	■ TURNING carbide	25
CNMG	■ TURNING carbide	25
CNMG-AU	■ TURNING carbide	25
CNMG-MF	■ TURNING carbide	25
CNMG-MF2	■ TURNING carbide	25
CNMG-MF3	■ TURNING carbide	26
CNMG-MF4	■ TURNING carbide	26
CNMG-MM	■ TURNING carbide	26
CNMG-MM2	■ TURNING carbide	26
CNMG-MM3	■ TURNING carbide	26

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

SPARE PARTS

INDEX

색인표

유턴
유날드
사너
일립
릴드 릴서버지
릴드
릴드 그리틀
파본
표인표

DESCRIPTION			
CNMG-111111MM4	■	TURNING carbide	27
CNMG-111111MR	■	TURNING carbide	27
CNMG-111111MS	■	TURNING carbide	27
CNMG-111111UF	■	TURNING carbide	28
CNMG-111111UF1	■	TURNING carbide	28
CNMG-111111UM	■	TURNING carbide	28
CNMG-111111UM1	■	TURNING carbide	28
CNMG-111111UMC	■	TURNING carbide	29
CNMG-111111UR	■	TURNING carbide	29
CNMG-111111UR1	■	TURNING carbide	29
CNMG-111111UR1	■	TURNING carbide	29
CNMM-111111RB25	■	TURNING carbide	27
CNMM-111111RH25	■	TURNING carbide	27
CRDCN-11111106	■	TURNING HOLDERS	150
CRDCN-11111109	■	TURNING HOLDERS	150
CRDCN-11111112	■	TURNING HOLDERS	150
CRDCN-11111115	■	TURNING HOLDERS	150
CRDCN-11111119	■	TURNING HOLDERS	150
CRDCN-11111125	■	TURNING HOLDERS	150
CSDNN-11111112	■	TURNING HOLDERS	156
CSSNN-11111112	■	TURNING HOLDERS	157
CTJNR/L-11111116	■	TURNING HOLDERS	170
DCGT-1111111C	■	TURNING DIAMOND	101
DCGT-1111112C	■	TURNING DIAMOND	101
DCGT-111111AU	■	TURNING carbide	30
DCGT-111111SF	■	TURNING carbide	30
DCGT-111111SF-OK	■	TURNING carbide	30
DCGT-111111SL	■	TURNING carbide	30
DCGW-1111111C	■	TURNING PCBN	81
DCGW-1111112C	■	TURNING PCBN	81
DCGX-111111FE	■	TURNING DIAMOND	101
DCMT-111111GM	■	TURNING carbide	30
DCMT-111111MF	■	TURNING carbide	30
DCMT-111111MF1	■	TURNING carbide	31
DCMT-111111MM1	■	TURNING carbide	31
DCMT-111111MM3	■	TURNING carbide	31
DCMT-111111MM5	■	TURNING carbide	31
DCMT-111111MR	■	TURNING carbide	31
DCMT-111111UF	■	TURNING carbide	31
DCMT-111111UM	■	TURNING carbide	32
DCMT-111111UM2	■	TURNING carbide	32
DCMT-111111UR	■	TURNING carbide	32
DCMT-111111UR2	■	TURNING carbide	32
DLD-11111111	■	DRILLS CARBIDE	331
DLD-11111111	■	DRILLS CARBIDE	332
DLD-11111111	■	DRILLS CARBIDE	333
DNGA-1111111C	■	TURNING PCBN	82
DNGA-1111111C	■	TURNING DIAMOND	102
DNGA-1111112C	■	TURNING PCBN	82
DNGA-1111112C	■	TURNING DIAMOND	102

DESCRIPTION			
DNGA-1111114C	■	TURNING PCBN	82
DNMA-11111111	■	TURNING carbide	33
DNMG-11111111	■	TURNING carbide	33
DNMG-111111AU	■	TURNING carbide	33
DNMG-111111MF	■	TURNING carbide	33
DNMG-111111MF2	■	TURNING carbide	33
DNMG-111111MF3	■	TURNING carbide	34
DNMG-111111MF4	■	TURNING carbide	34
DNMG-111111MM	■	TURNING carbide	34
DNMG-111111MM2	■	TURNING carbide	34
DNMG-111111MR	■	TURNING carbide	34
DNMG-111111MS	■	TURNING carbide	35
DNMG-111111UF	■	TURNING carbide	35
DNMG-111111UF1	■	TURNING carbide	35
DNMG-111111UM	■	TURNING carbide	35
DNMG-111111UM1	■	TURNING carbide	35
DNMG-111111UMC	■	TURNING carbide	36
DNMG-111111UR	■	TURNING carbide	36
DNMG-111111UR1	■	TURNING carbide	36
DNMX-111111L/R	■	TURNING carbide	33
DSD-11111111	■	DRILLS CARBIDE	328
DSD-11111111	■	DRILLS CARBIDE	329
DSD-11111111	■	DRILLS CARBIDE	330
KNUX-111111L/R	■	TURNING carbide	37
MAT-11111111/11	■	MILLING CUTTER	270
MFAP75-111111-10-11	■	MILLING CUTTER	256
MFAP75-111111-10-11-C	■	MILLING CUTTER	256
MFAP75-111111-16-11	■	MILLING CUTTER	260
MFAP75-111111-16-11-C	■	MILLING CUTTER	260
MFAP90-111111-10-11	■	MILLING CUTTER	255
MFAP90-111111-10-11-C	■	MILLING CUTTER	255
MFAP90-111111-12-11	■	MILLING CUTTER	257
MFAP90-111111-16-11	■	MILLING CUTTER	261
MFAP90-111111-16-11-C	■	MILLING CUTTER	261
MFAP90-111111-17-11-C	■	MILLING CUTTER	262
MFRD-111111-10-11	■	MILLING CUTTER	266
MFRD-111111-10-11-C	■	MILLING CUTTER	266
MFRD-111111-12-11	■	MILLING CUTTER	266
MFRD-111111-12-11-C	■	MILLING CUTTER	266
MFSE45-11111111	■	MILLING CUTTER	267
MFSE45-11111111-C	■	MILLING CUTTER	267
MFSN45-11111111	■	MILLING CUTTER	268
MFSN45-11111111-C	■	MILLING CUTTER	268
MFT-111111111111	■	MILLING CUTTER	270
MFT-111111111111	■	MILLING CUTTER	271
MFTP90-111111-16-11	■	MILLING CUTTER	269
MFTP90-111111-22-11	■	MILLING CUTTER	269
MGMN-C-1111	■	GROOVING CARBIDE	196
MGMN-J-1111	■	GROOVING CARBIDE	196
MGMR-J-1111	■	GROOVING CARBIDE	196

DESCRIPTION		
MMAP□□□□□-10-□□	■ MILLING CUTTER	254
MMAP□□□□□-10-□□-C	■ MILLING CUTTER	254
MMAP□□□□□-16-□□-C	■ MILLING CUTTER	260
MMRD□□□□□-08-□□-C	■ MILLING CUTTER	335
MMRD□□□□□-10-□□-C	■ MILLING CUTTER	265
MMRD□□□□□-12-□□-C	■ MILLING CUTTER	265
MRMN-MTK□□□	■ GROOVING CARBIDE	197
MSAP□□□□□-10-□□-□□	■ MILLING CUTTER	252
MSAP□□□□□-10-□□-□□	■ MILLING CUTTER	253
MSAP□□□□□-10-□□□□-C	■ MILLING CUTTER	252
MSAP□□□□□-10-□□□□-C	■ MILLING CUTTER	253
MSAP□□□□□-12-□□-□□	■ MILLING CUTTER	257
MSAP□□□□□-16-□□-□□	■ MILLING CUTTER	258
MSAP□□□□□-16-□□-□□	■ MILLING CUTTER	258
MSRD□□□□□-08-□□-□□	■ MILLING CUTTER	263
MSRD□□□□□-10-□□-□□	■ MILLING CUTTER	263
MSRD□□□□□-12-□□-□□	■ MILLING CUTTER	264
MTENN□□□□□16	■ TURNING HOLDERS	170
MTENN□□□□□22	■ TURNING HOLDERS	170
MTER/L□□□□□11	■ THREADING HOLDERS	226
MTER/L□□□□□16	■ THREADING HOLDERS	226
MTER/L□□□□□22	■ THREADING HOLDERS	226
MTIR/L□□□□□11	■ THREADING HOLDERS	227
MTIR/L□□□□□16	■ THREADING HOLDERS	227
MTIR/L□□□□□22	■ THREADING HOLDERS	227
MTJNR/L□□□□□16	■ TURNING HOLDERS	171
MTJNR/L□□□□□22	■ TURNING HOLDERS	171
MWDNR/L□□□□□06	■ TURNING HOLDERS	186
MWDNR/L□□□□□08	■ TURNING HOLDERS	186
MWLN/L□□□□□06	■ TURNING HOLDERS	186
MWLN/L□□□□□08	■ TURNING HOLDERS	186
PCBNR/L□□□□□12	■ TURNING HOLDERS	125
PCBNR/L□□□□□16	■ TURNING HOLDERS	125
PCBNR/L□□□□□19	■ TURNING HOLDERS	125
PCLNR/L□□□□□12	■ TURNING HOLDERS	126
PCLNR/L□□□□□16	■ TURNING HOLDERS	126
PCLNR/L□□□□□19	■ TURNING HOLDERS	126
PCMNN□□□□□12	■ TURNING HOLDERS	127
PCMNN□□□□□16	■ TURNING HOLDERS	127
PCMNN□□□□□19	■ TURNING HOLDERS	127
PDJNR/L□□□□□15	■ TURNING HOLDERS	142
PDNN□□□□□15	■ TURNING HOLDERS	142
PSBNR/L□□□□□12	■ TURNING HOLDERS	157
PSBNR/L□□□□□15	■ TURNING HOLDERS	157
PSBNR/L□□□□□19	■ TURNING HOLDERS	157
PSDNN□□□□□12	■ TURNING HOLDERS	158
PSDNN□□□□□15	■ TURNING HOLDERS	158
PSDNN□□□□□19	■ TURNING HOLDERS	158
PSKNR/L□□□□□12	■ TURNING HOLDERS	159
PSKNR/L□□□□□15	■ TURNING HOLDERS	159

DESCRIPTION		
PSKNR/L□□□□□19	■ TURNING HOLDERS	159
PSSNR/L□□□□□12	■ TURNING HOLDERS	160
PSSNR/L□□□□□15	■ TURNING HOLDERS	160
PSSNR/L□□□□□19	■ TURNING HOLDERS	160
PWLN/L□□□□□06	■ TURNING HOLDERS	187
PWLN/L□□□□□08	■ TURNING HOLDERS	187
RCGT□□□□□AUP	■ TURNING carbide	38
RCGT□□□□□AUP	■ MILLING CARBIDE	238
RCGX□□□□□FF	■ TURNING PCBN	83
RCGX□□□□□SO	■ TURNING PCBN	84
RCKT□□□□□MO	■ MILLING CARBIDE	238
RCMT□□□□□MO	■ MILLING CARBIDE	238
RCMT□□□□□MOTN	■ MILLING CARBIDE	238
RCMX□□□□□MO	■ TURNING carbide	38
R-D□□□□□□□□H45	■ ENDMILLS CARBIDE	312
R-D□□□□□□□□H55	■ ENDMILLS CARBIDE	315
R-D□□□□□□□□H68	■ ENDMILLS CARBIDE	318
RDGT□□□□□AUP	■ MILLING CARBIDE	239
RDHX□□□□□MOT	■ MILLING CARBIDE	239
RDKT□□□□□MO	■ MILLING CARBIDE	239
RDKT□□□□□MOW	■ MILLING CARBIDE	239
RDKW□□□□□MO	■ MILLING CARBIDE	239
RDKW□□□□□MO	■ MILLING CARBIDE	239
RDMT□□□□□MOTN	■ MILLING CARBIDE	239
RDMX□□□□□MOT	■ MILLING CARBIDE	240
RNGN□□□□□SO	■ TURNING PCBN	85
RPGT□□□□□MO-AUP	■ MILLING CARBIDE	241
RPKT□□□□□MOF	■ MILLING CARBIDE	241
RPKT□□□□□MO-JS	■ MILLING CARBIDE	241
RPMT□□□□□MO	■ MILLING CARBIDE	241
RPMT□□□□□MOE	■ MILLING CARBIDE	241
RPMW□□□□□MO	■ MILLING CARBIDE	241
RPMW□□□□□MOT	■ MILLING CARBIDE	241
RPMW□□□□□MOTN	■ MILLING CARBIDE	241
S□□□□SCLCR/L 06	■ TURNING HOLDERS	123
S□□□□SCLCR/L 06	■ TURNING HOLDERS	123
S□□□□STFCR/L 06	■ TURNING HOLDERS	166
S□□□□SWLCR/L 16	■ TURNING HOLDERS	185
S□□□□CKUNR/L 16	■ TURNING HOLDERS	149
S□□□□MT-NR/L 16	■ TURNING HOLDERS	173
S□□□□MT-NR/L 22	■ TURNING HOLDERS	173
S□□□□MTQNR/L 16	■ TURNING HOLDERS	173
S□□□□MTQNR/L 22	■ TURNING HOLDERS	173
S□□□□MTUNR/L 16	■ TURNING HOLDERS	172
S□□□□MTUNR/L 22	■ TURNING HOLDERS	172
S□□□□MWLN/L 06	■ TURNING HOLDERS	188
S□□□□MWLN/L 08	■ TURNING HOLDERS	188
S□□□□PCLNR/L 12	■ TURNING HOLDERS	131
S□□□□PCLNR/L 16	■ TURNING HOLDERS	131
S□□□□PCLNR/L 19	■ TURNING HOLDERS	131

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

SPARE PARTS

INDEX

색인표

유턴
유날그
사거
유립
월드 클리어
에드
월드 그라
복합
표인표

DESCRIPTION		
S□□PDQNR/L 15	■ TURNING HOLDERS	146
S□□PDUNR/L 15	■ TURNING HOLDERS	146
S□□PSKNR/L 12	■ TURNING HOLDERS	162
S□□PSKNR/L 15	■ TURNING HOLDERS	162
S□□PWLNR/L 08	■ TURNING HOLDERS	188
S□□SCLCR/L 06	■ TURNING HOLDERS	123
S□□SCLCR/L 09	■ TURNING HOLDERS	123
S□□SCLCR/L 12	■ TURNING HOLDERS	123
S□□SD-CR/L 07	■ TURNING HOLDERS	139
S□□SD-CR/L 11	■ TURNING HOLDERS	139
S□□SDPCR/L 07	■ TURNING HOLDERS	136
S□□SDPCR/L 11	■ TURNING HOLDERS	136
S□□SDQCR/L 07	■ TURNING HOLDERS	137
S□□SDQCR/L 11	■ TURNING HOLDERS	137
S□□SDUCR/L 07	■ TURNING HOLDERS	138
S□□SDUCR/L 11	■ TURNING HOLDERS	138
S□□SDXCR/L 07	■ TURNING HOLDERS	140
S□□SDXCR/L 11	■ TURNING HOLDERS	140
S□□SSSCR/L 09	■ TURNING HOLDERS	156
S□□SSSCR/L 12	■ TURNING HOLDERS	156
S□□ST-CR/L 09	■ TURNING HOLDERS	168
S□□ST-CR/L 11	■ TURNING HOLDERS	168
S□□ST-CR/L 16	■ TURNING HOLDERS	168
S□□STFCR/L 09	■ TURNING HOLDERS	166
S□□STFCR/L 11	■ TURNING HOLDERS	166
S□□STFCR/L 16	■ TURNING HOLDERS	166
S□□STUCR/L 09	■ TURNING HOLDERS	167
S□□STUCR/L 11	■ TURNING HOLDERS	167
S□□STUCR/L 16	■ TURNING HOLDERS	167
S□□SVJBR/L 16	■ TURNING HOLDERS	179
S□□SVQBR/L 11	■ TURNING HOLDERS	179
S□□SVQBR/L 16	■ TURNING HOLDERS	179
S□□SVQCR/L 11	■ TURNING HOLDERS	182
S□□SVQCR/L 16	■ TURNING HOLDERS	182
S□□SVUBR/L 11	■ TURNING HOLDERS	180
S□□SVUBR/L 16	■ TURNING HOLDERS	180
S□□SVUCR/L 11	■ TURNING HOLDERS	182
S□□SVUCR/L 16	■ TURNING HOLDERS	182
S□□SVXBR/L 11	■ TURNING HOLDERS	180
S□□SVXBR/L 16	■ TURNING HOLDERS	180
S□□TCLNR/L 12	■ TURNING HOLDERS	132
S□□TCLNR/L 16	■ TURNING HOLDERS	132
S□□TCLNR/L 19	■ TURNING HOLDERS	132
S□□TD-NR/L 11	■ TURNING HOLDERS	148
S□□TD-NR/L 15	■ TURNING HOLDERS	148
S□□TDQNR/L 11	■ TURNING HOLDERS	147
S□□TDQNR/L 15	■ TURNING HOLDERS	147
S□□TDUNR/L 11	■ TURNING HOLDERS	147
S□□TDUNR/L 15	■ TURNING HOLDERS	147
S□□TSKNR/L 12	■ TURNING HOLDERS	162

DESCRIPTION		
S□□TSKNR/L 15	■ TURNING HOLDERS	162
S□□TTNR/L 16	■ TURNING HOLDERS	174
S□□TTUNR/L 16	■ TURNING HOLDERS	174
S□□TTUNR/L 22	■ TURNING HOLDERS	174
S□□TVUNR/L 16	■ TURNING HOLDERS	184
S□□TWLNR/L 06	■ TURNING HOLDERS	189
S□□TWLNR/L 08	■ TURNING HOLDERS	189
SAL-2Z□□□□□□□□H45	■ ENDMILLS CARBIDE	321
SAL-3Z□□□□□□□□H45	■ ENDMILLS CARBIDE	323
SCACR/L□□□□06	■ TURNING HOLDERS	120
SCACR/L□□□□09	■ TURNING HOLDERS	120
SCACR/L□□□□12	■ TURNING HOLDERS	120
SCLCR/L□□□□06	■ TURNING HOLDERS	121
SCLCR/L□□□□09	■ TURNING HOLDERS	121
SCLCR/L□□□□12	■ TURNING HOLDERS	121
SCMCN□□□□06	■ TURNING HOLDERS	122
SCMCN□□□□09	■ TURNING HOLDERS	122
SCMCN□□□□12	■ TURNING HOLDERS	122
SCMT□□□□UM	■ TURNING carbide	39
SCMT□□□□UR	■ TURNING carbide	39
SCMT□□□□UR2	■ TURNING carbide	39
S-D□□□□□□□□H45	■ ENDMILLS CARBIDE	300
S-D□□□□□□□□H55	■ ENDMILLS CARBIDE	302
S-D□□□□□□□□H68	■ ENDMILLS CARBIDE	304
SDGN□□□□	■ GROOVING CARBIDE	198
SDGR□□□□	■ GROOVING CARBIDE	198
SDHCR/L□□□□07	■ TURNING HOLDERS	133
SDHCR/L□□□□11	■ TURNING HOLDERS	133
SDJCR/L□□□□07	■ TURNING HOLDERS	134
SDJCR/L□□□□11	■ TURNING HOLDERS	134
SDKN□□□□FG-FG2	■ MILLING CARBIDE	242
SDMT□□□□GM	■ MILLING CARBIDE	242
SDMT□□□□SM	■ MILLING CARBIDE	242
SDNCN□□□□07	■ TURNING HOLDERS	135
SDNCN□□□□11	■ TURNING HOLDERS	135
SEET□□□□FM	■ MILLING CARBIDE	243
SEET□□□□SM	■ MILLING CARBIDE	243
SEKN□□□□FG	■ MILLING CARBIDE	243
SEKN□□□□FG2	■ MILLING CARBIDE	243
SNGA□□□□1C	■ TURNING PCBN	86
SNGA□□□□2C	■ TURNING PCBN	86
SNGA□□□□4C	■ TURNING PCBN	86
SNGA□□□□8C	■ TURNING PCBN	86
SNHQ□□□□	■ MILLING CARBIDE	244
SNHQ□□□□MM	■ MILLING CARBIDE	244
SNHQ□□□□S	■ MILLING CARBIDE	244
SNMA□□□□	■ TURNING carbide	40
SNMG□□□□	■ TURNING carbide	40
SNMG□□□□AU	■ TURNING carbide	40
SNMG□□□□HA	■ TURNING carbide	40

DESCRIPTION		
SNMG-0000MF	■ TURNING carbide	41
SNMG-0000MF3	■ TURNING carbide	41
SNMG-0000MM	■ TURNING carbide	41
SNMG-0000MM2	■ TURNING carbide	41
SNMG-0000MR	■ TURNING carbide	41
SNMG-0000MS	■ TURNING carbide	42
SNMG-0000UF	■ TURNING carbide	42
SNMG-0000UF1	■ TURNING carbide	43
SNMG-0000UM	■ TURNING carbide	43
SNMG-0000UM1	■ TURNING carbide	43
SNMG-0000UMC	■ TURNING carbide	43
SNMG-0000UR	■ TURNING carbide	44
SNMG-0000UR1	■ TURNING carbide	44
SNMM-0000RB25	■ TURNING carbide	42
SNMM-0000RH25	■ TURNING carbide	42
SNMX-0000ANN	■ MILLING CARBIDE	244
SPID-000-05	■ DRILLING HOLDERS	280
SPID-000-05	■ DRILLING HOLDERS	282
SPID-000-05	■ DRILLING HOLDERS	284
SPID-000-05	■ DRILLING HOLDERS	286
SPID-000-06	■ DRILLING HOLDERS	280
SPID-000-06	■ DRILLING HOLDERS	282
SPID-000-06	■ DRILLING HOLDERS	284
SPID-000-06	■ DRILLING HOLDERS	286
SPID-000-07	■ DRILLING HOLDERS	280
SPID-000-07	■ DRILLING HOLDERS	281
SPID-000-07	■ DRILLING HOLDERS	282
SPID-000-07	■ DRILLING HOLDERS	283
SPID-000-07	■ DRILLING HOLDERS	284
SPID-000-07	■ DRILLING HOLDERS	286
SPID-000-09	■ DRILLING HOLDERS	281
SPID-000-09	■ DRILLING HOLDERS	283
SPID-000-09	■ DRILLING HOLDERS	285
SPID-000-09	■ DRILLING HOLDERS	286
SPID-000-11	■ DRILLING HOLDERS	281
SPID-000-11	■ DRILLING HOLDERS	283
SPID-000-11	■ DRILLING HOLDERS	285
SPID-000-11	■ DRILLING HOLDERS	286
SPID-000-14	■ DRILLING HOLDERS	281
SPID-000-14	■ DRILLING HOLDERS	283
SPID-000-14	■ DRILLING HOLDERS	285
SPKN-0000EDSL-FG	■ MILLING CARBIDE	245
SPKN-0000EDSL-FG2	■ MILLING CARBIDE	245
SPMG-00000-TT	■ DRILLING CARBIDE	277
SPMT-0000M	■ MILLING CARBIDE	245
SPPB-00000	■ GROOVING HOLDERS	207
SP-TK-000	■ GROOVING CARBIDE	202
SPUN-0000	■ MILLING CARBIDE	245
SRDCN-000006	■ TURNING HOLDERS	151
SRDCN-000008	■ TURNING HOLDERS	151

DESCRIPTION		
SRDCN-000010	■ TURNING HOLDERS	151
SRDCN-000012	■ TURNING HOLDERS	151
SRDCN-000016	■ TURNING HOLDERS	151
SRDCN-000020	■ TURNING HOLDERS	151
SRGCR/L-000006	■ TURNING HOLDERS	152
SRGCR/L-000008	■ TURNING HOLDERS	152
SRGCR/L-000010	■ TURNING HOLDERS	152
SRGCR/L-000012	■ TURNING HOLDERS	152
SRGCR/L-000016	■ TURNING HOLDERS	152
SRGCR/L-000020	■ TURNING HOLDERS	152
SRHCR/L-000010	■ TURNING HOLDERS	153
SRHCR/L-000012	■ TURNING HOLDERS	153
SRHCR/L-000016	■ TURNING HOLDERS	153
SSDCN-000009	■ TURNING HOLDERS	154
SSDCN-000012	■ TURNING HOLDERS	154
SSSCR/L-000009	■ TURNING HOLDERS	155
SSSCR/L-000012	■ TURNING HOLDERS	155
STFCR/L-000009	■ TURNING HOLDERS	163
STFCR/L-000011	■ TURNING HOLDERS	163
STFCR/L-000016	■ TURNING HOLDERS	163
STGCR/L-000009	■ TURNING HOLDERS	164
STGCR/L-000011	■ TURNING HOLDERS	164
STGCR/L-000016	■ TURNING HOLDERS	164
STJCR/L-000009	■ TURNING HOLDERS	165
STJCR/L-000011	■ TURNING HOLDERS	165
STJCR/L-000016	■ TURNING HOLDERS	165
SVHBR/L-000011	■ TURNING HOLDERS	175
SVHBR/L-000016	■ TURNING HOLDERS	175
SVHCR/L-000011	■ TURNING HOLDERS	181
SVHCR/L-000016	■ TURNING HOLDERS	181
SVJBR/L-000011	■ TURNING HOLDERS	176
SVJBR/L-000016	■ TURNING HOLDERS	176
SVJCR/L-000011	■ TURNING HOLDERS	181
SVJCR/L-000016	■ TURNING HOLDERS	181
SVBN-000011	■ TURNING HOLDERS	177
SVBN-000016	■ TURNING HOLDERS	177
SVZBR/L-000011	■ TURNING HOLDERS	178
SVZBR/L-000016	■ TURNING HOLDERS	178
TCGT-000001C	■ TURNING DIAMOND	103
TCGT-000003C	■ TURNING DIAMOND	103
TCGT-00000AU	■ TURNING carbide	45
TCGW-000001C	■ TURNING PCBN	87
TCGW-000001C	■ TURNING DIAMOND	103
TCGW-000003C	■ TURNING PCBN	87
TCGW-000003C	■ TURNING DIAMOND	103
TCGX-00000FE	■ TURNING DIAMOND	103
TCLNR/L-000012	■ TURNING HOLDERS	128
TCLNR/L-000016	■ TURNING HOLDERS	128
TCLNR/L-000019	■ TURNING HOLDERS	128
TCMNN-000012	■ TURNING HOLDERS	129

TURNING

GROOVING

THREADING

MILLING

DRILLING

ENDMILLS

DRILLS

SPARE
PARTS

INDEX

색인표

DESCRIPTION			
TNMG $\square\square\square\square$ UF	■	TURNING CARBIDE	50
TNMG $\square\square\square\square$ UF1	■	TURNING CARBIDE	50
TNMG $\square\square\square\square$ UM	■	TURNING CARBIDE	51
TNMG $\square\square\square\square$ UM1	■	TURNING CARBIDE	51
TNMG $\square\square\square\square$ UMC	■	TURNING CARBIDE	51
TNMG $\square\square\square\square$ UR	■	TURNING CARBIDE	52
TNMG $\square\square\square\square$ UR1	■	TURNING CARBIDE	52
TPGT $\square\square\square\square$ 1C	■	TURNING DIAMOND	105
TPGW $\square\square\square\square$ 1C	■	TURNING PCBN	89
TPGW $\square\square\square\square$ 3C	■	TURNING PCBN	89
TPKN $\square\square\square$ PDTR-FG	■	MILLING CARBIDE	246
TPMR $\square\square\square\square$	■	TURNING CARBIDE	53
TPMR $\square\square\square\square$ D3	■	MILLING CARBIDE	246
TPMT $\square\square\square\square$ TQ	■	TURNING CARBIDE	53
TPUN $\square\square\square\square$	■	MILLING CARBIDE	246
TPUN $\square\square\square\square$	■	TURNING CARBIDE	53
TSDNN $\square\square\square\square$ 12	■	TURNING HOLDERS	160
TSDNN $\square\square\square\square$ 15	■	TURNING HOLDERS	160
TSKNR/L $\square\square\square\square$ 12	■	TURNING HOLDERS	161
TSKNR/L $\square\square\square\square$ 15	■	TURNING HOLDERS	161
TSSNR/L $\square\square\square\square$ 12	■	TURNING HOLDERS	161
TSSNR/L $\square\square\square\square$ 15	■	TURNING HOLDERS	161
TTENN $\square\square\square\square$ 16	■	TURNING HOLDERS	171
TTENN $\square\square\square\square$ 22	■	TURNING HOLDERS	171
TTJNR/L $\square\square\square\square$ 16	■	TURNING HOLDERS	172
TTJNR/L $\square\square\square\square$ 22	■	TURNING HOLDERS	172
TVHNR/L $\square\square\square\square$ 16	■	TURNING HOLDERS	183
TVJNR/L $\square\square\square\square$ 16	■	TURNING HOLDERS	183
TVVNN $\square\square\square\square$ 16	■	TURNING HOLDERS	184
TWLNRL $\square\square\square\square$ 06	■	TURNING HOLDERS	187
TWLNRL $\square\square\square\square$ 08	■	TURNING HOLDERS	187
VBGT $\square\square\square\square$ 1C	■	TURNING DIAMOND	106
VBGT $\square\square\square\square$ 2C	■	TURNING DIAMOND	106
VBGT $\square\square\square\square$ AU	■	TURNING CARBIDE	54
VBGW $\square\square\square\square$ 1C	■	TURNING PCBN	90
VBGW $\square\square\square\square$ 1C	■	TURNING DIAMOND	106
VBGW $\square\square\square\square$ 2C	■	TURNING PCBN	90
VBGW $\square\square\square\square$ 2C	■	TURNING DIAMOND	106
VBMT $\square\square\square\square$	■	TURNING CARBIDE	54
VBMT $\square\square\square\square$ GM	■	TURNING CARBIDE	54
VBMT $\square\square\square\square$ MF	■	TURNING CARBIDE	54
VBMT $\square\square\square\square$ MM	■	TURNING CARBIDE	54
VBMT $\square\square\square\square$ MM1	■	TURNING CARBIDE	54
VBMT $\square\square\square\square$ MM3	■	TURNING CARBIDE	55
VBMT $\square\square\square\square$ MM4	■	TURNING CARBIDE	55
VBMT $\square\square\square\square$ UF	■	TURNING CARBIDE	55
VBMT $\square\square\square\square$ UM	■	TURNING CARBIDE	55
VBMT $\square\square\square\square$ UR	■	TURNING CARBIDE	55
VBMT $\square\square\square\square$ UR2	■	TURNING CARBIDE	55
VCGT $\square\square\square\square$ 1C	■	TURNING DIAMOND	107

DESCRIPTION			
VCGT $\square\square\square\square$ 2C	■	TURNING DIAMOND	107
VCGT $\square\square\square\square$ AU	■	TURNING carbide	56
VCGT $\square\square\square\square$ AU2C	■	TURNING carbide	56
VCGT $\square\square\square\square$ AUP	■	TURNING carbide	56
VCGW $\square\square\square\square$ 1C	■	TURNING PCBN	91
VCGW $\square\square\square\square$ 1C	■	TURNING DIAMOND	107
VCGW $\square\square\square\square$ 2C	■	TURNING PCBN	91
VCGW $\square\square\square\square$ 2C	■	TURNING DIAMOND	107
VCGX $\square\square\square\square$ FE	■	TURNING DIAMOND	107
VCGX $\square\square\square\square$ SF-OK	■	TURNING carbide	57
VCMT $\square\square\square\square$ MF1	■	TURNING carbide	56
VCMT $\square\square\square\square$ MM1	■	TURNING carbide	56
VCMT $\square\square\square\square$ UF	■	TURNING carbide	57
VCMT $\square\square\square\square$ UM	■	TURNING carbide	57
VCMT $\square\square\square\square$ UR	■	TURNING carbide	57
VNGA $\square\square\square\square$ 1C	■	TURNING PCBN	92
VNGA $\square\square\square\square$ 2C	■	TURNING PCBN	92
VNGA $\square\square\square\square$ 4C	■	TURNING PCBN	92
VNMG $\square\square\square\square$	■	TURNING carbide	58
VNMG $\square\square\square\square$ AU	■	TURNING carbide	58
VNMG $\square\square\square\square$ MF	■	TURNING carbide	58
VNMG $\square\square\square\square$ MF2	■	TURNING carbide	58
VNMG $\square\square\square\square$ MF3	■	TURNING carbide	58
VNMG $\square\square\square\square$ MM	■	TURNING carbide	58
VNMG $\square\square\square\square$ MM2	■	TURNING carbide	59
VNMG $\square\square\square\square$ MS	■	TURNING carbide	59
VNMG $\square\square\square\square$ UF	■	TURNING carbide	59
VNMG $\square\square\square\square$ UM	■	TURNING carbide	59
VNMG $\square\square\square\square$ UM1	■	TURNING carbide	59
VNMG $\square\square\square\square$ UMC	■	TURNING carbide	60
VNMG $\square\square\square\square$ UR1	■	TURNING carbide	60
WCMX $\square\square\square\square$ -TK	■	DRILLING CARBIDE	278
WNGA $\square\square\square\square$ 1C	■	TURNING PCBN	93
WNGA $\square\square\square\square$ 1C	■	TURNING DIAMOND	108
WNGA $\square\square\square\square$ 3C	■	TURNING PCBN	93
WNGA $\square\square\square\square$ 3C	■	TURNING DIAMOND	108
WNGA $\square\square\square\square$ 6C	■	TURNING PCBN	93
WNGA $\square\square\square\square$ 6C	■	TURNING DIAMOND	108
WNMA $\square\square\square\square$	■	TURNING carbide	61
WNMG $\square\square\square\square$	■	TURNING carbide	61
WNMG $\square\square\square\square$ AU	■	TURNING carbide	61
WNMG $\square\square\square\square$ GH	■	TURNING carbide	61
WNMG $\square\square\square\square$ MF	■	TURNING carbide	61
WNMG $\square\square\square\square$ MF2	■	TURNING carbide	61
WNMG $\square\square\square\square$ MF3	■	TURNING carbide	61
WNMG $\square\square\square\square$ MF4	■	TURNING carbide	62
WNMG $\square\square\square\square$ MM	■	TURNING carbide	62
WNMG $\square\square\square\square$ MM2	■	TURNING carbide	62
WNMG $\square\square\square\square$ MM3	■	TURNING carbide	62
WNMG $\square\square\square\square$ MR	■	TURNING carbide	62

[illegible]

INDEX



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