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DYC TOOLS

Vol. 9





Since established at 1995, DYC CO., LTD. has been manufacturing a various cutting tools. DYC tools will contribute to increase the productivity in the customer's production line and to produce a good quality products.

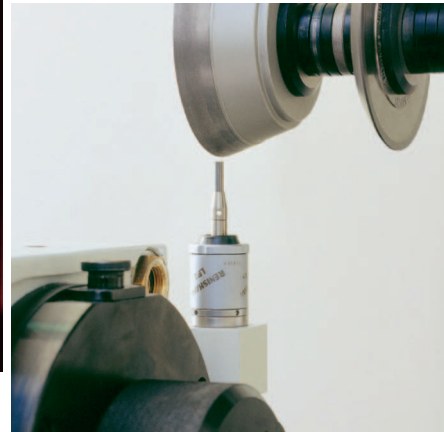
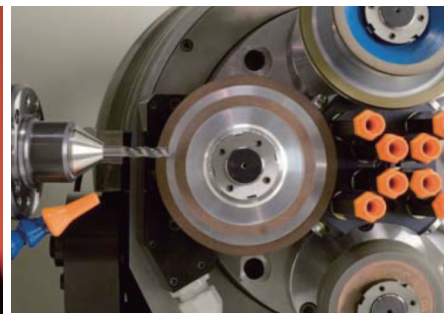
DYC has been mainly producing reamers, Countersinks, End Mills, Drills, Counterbores, Milling Cutter, and Inside Deburring Tools as well as Aerospace assembling tools using the material of HSS, HSS-PM and Carbide. DYC has been developing new cutting tools continuously in the DYC R&D lab to cope with the customer's various requests. As well as to providing a high quality product for the customer, DYC has applied a tight QA system during the manufacturing.

DYC definitely promise that DYC products will help to increase the efficiency of the customer productivity with a competitive price. DYC continuously make a greater effort in response to the customers' needs.

1995년에 설립된 (주)디와이씨는 다양한 초경 및 HSS(High Speed Steel) 공구를 생산하고 있습니다. 다양한 산업 제품군에서 (주)디와이씨 절삭공구는 고객의 생산성 향상과 비용절감이 도움이 되도록 노력을 하고 있습니다.

(주)디와이씨는 초경 및 HSS 재질의 엔드밀, 드릴, 카운터싱크, 카운터보어, 리머, 디버링툴, 항공용 톨 및 스페셜 절삭공구 등 다양한 공구를 생산하고 있습니다. 또한, 기업부설연구소를 통해 고객의 Needs(니즈)에 부응하기 위해 끊임없이 신제품 연구개발, 생산성 증대, 제품수명 연장 등 품질개선에 매진하고 있습니다.

빠르게 변화하는 다양한 산업사회에 부응하고, 고객의 요구 사항이 반영된 경쟁력 있는 가격의 다양한 초경 및 HSS(High Speed Steel) 절삭공구 제품들을 생산하여 고객들의 생산성 향상과 원가절감을 할 수 있도록 (주)디와이씨는 최선을 다하도록 하겠습니다.





DYC Co., Ltd. has been producing the high quality cutting tools applied to the latest trend cutting designs using a sophisticated CNC machines such as 'Strausak U-Grind' CNC 5 Axles Tool Grinding Machine and 'TTB' Evolution CNC Grinding Center with Swiss Technology and 'SAACKE' CNC Tools Grinding Center with German Technology.

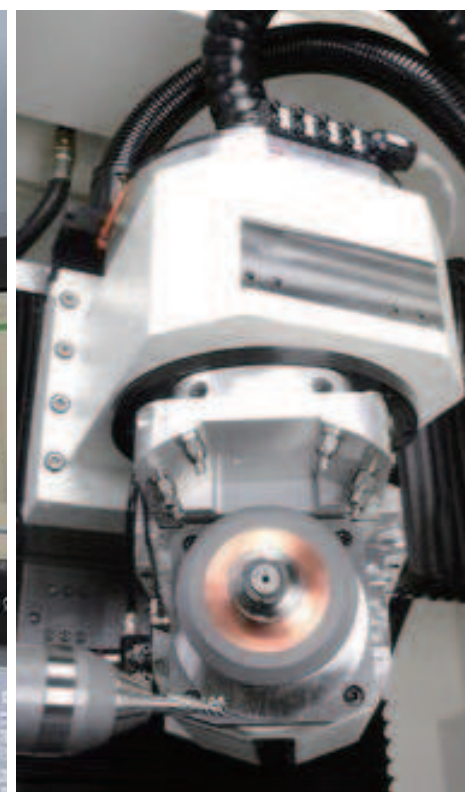
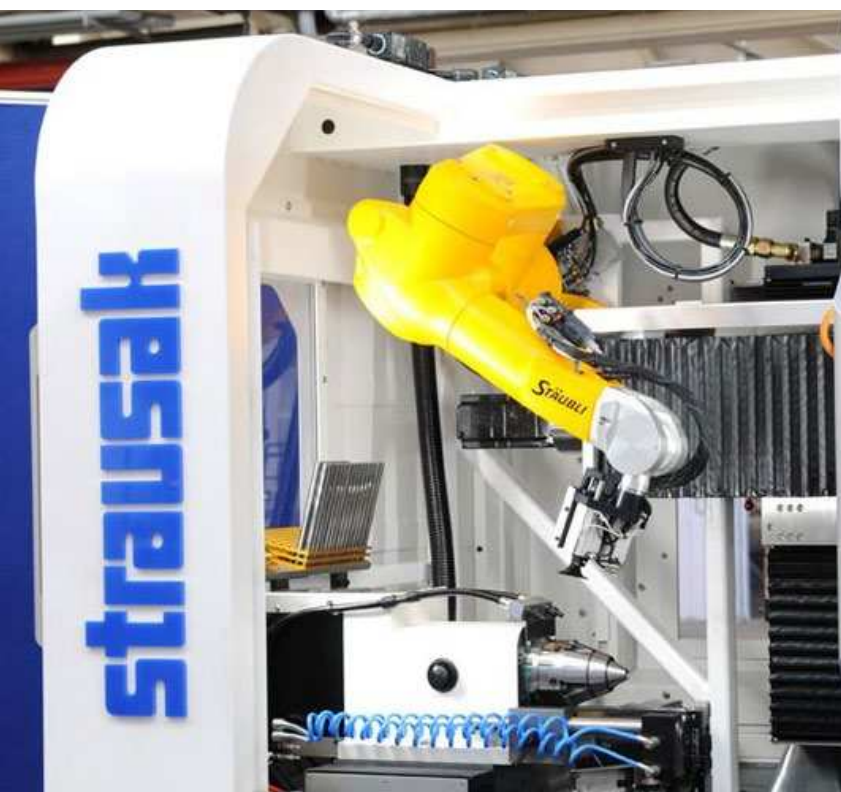
As well as, with Germany 'ZOLLER' >>Genius 3<< measuring machine embodied 1 micron precision measuring technology, DYC Co., Ltd. has been performing to inspect a small diameter cutting tools designed the unique and precise geometry.

DYC Co., Ltd. is well-known to produce various carbide and HSS cutting tools with high quality, ultra-precision and high performance. So, it is able to perform for DYC cutting tools manufactured by a unique geometry and a high durability cutting-edge design to apply the cutting process of materials from general steels to hardened steels.

(주)디와이씨는 세계 최고 품질을 자랑하는 스위스 Strausak사의 'U-Grind' 5축 CNC 공구 연삭기 및 'TTB' Evolution CNC Grinding Center와 독일의 'SAACKE' CNC Tools Grinding Center를 사용하여 최신 경향의 절삭 설계를 적용한 제품을 생산하고 있습니다.

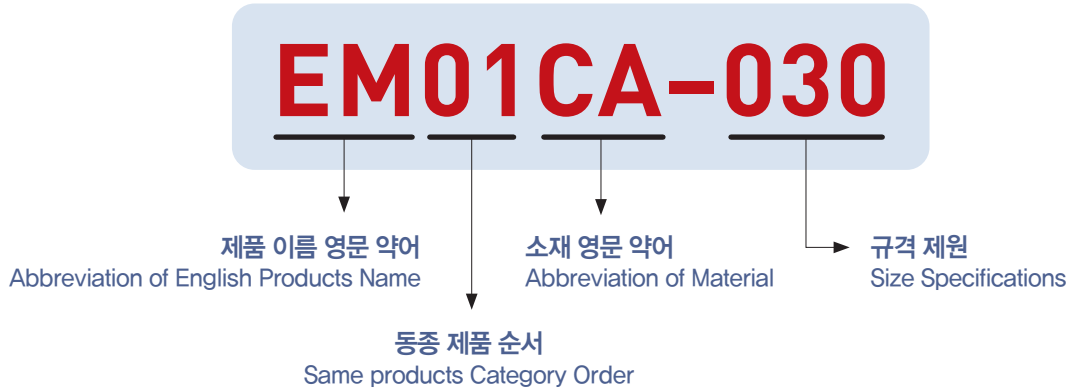
또한 1 마이크로미터의 초정밀 측정기술을 가진 독일의 금속 절삭공구 측정 장비인 'ZOLLER' >>Genius 3<< 측정 장비를 이용하여 소구경 절삭공구의 독특하고 정교한 형상(Geometry) 검사를 수행하고 있습니다.

(주)디와이씨는 고품질, 고정도, 높은 절삭력을 가진 다양한 초경과 하이스 제품을 생산하는 것으로 유명합니다. 높은 내구성과 특수한 형상(Geometry)로 제작된 (주)디와이씨의 절삭공구는 일반적인 경도뿐만 아니라 고경도 재질 등을 대상으로 깊고 넓은 범위의 절삭 가공을 가능하게 합니다.



Item No. Configuration

아이템 번호 구성




















1. Lists of Abbreviation of English Name

제품 이름	Product Name	Abbreviation	제품 이름	Product Name	Abbreviation
엔드밀	End Mill	EM	사이드밀링 커터	Side Milling Cutter	SD
드릴	Drill	DR	메탈 소	Metal Saw	MS
센터드릴	Center Drill	CD	슬로팅 커터	Slotting Cutter	SC
엔씨드릴	NC Spotting Drill	NC	나이프 커터	Knife Cutter	KN
스텝드릴	Step Drill	SD	앵글 커터	Angle Cutter	AC
빠리롯트 드릴	Pilot Drill	PD	코너라운드 커터	Corner Rounding Cutter	CR
테리퍼 드릴	Taper Drill	TD	브로치 커터	Broach Cutter	BR
카운터싱크	Coutersink	CS	브로치커터 아버	Broach Cutter Arbor	ARBLM
카운터보어	Couterbore	CB	브로치커터 핀	Broach Cutter Pin	PIN
티커터	Woodruff Keyseat Cutter (T-Cutter)	TC	리머	Reamer	RM
티슬롯 커터	T-Slot Cutter	TS	디버링툴	Inside Deburring Tool	DT
티앵글 커터	Dovetail Cutter (T-Angle Cutter)	TA	디버링툴 블레이드	Deburring Tool Blade	BL

















2. List if Abbreviation Material











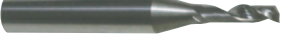




재료	Material	Abbreviation (약어)
초경	Carbide	CA
하이스	HSS(SKH51, M2)	H1
코발트 하이스	HSS-Co 5%(SKH55, M35)	H5
	HSS-Co 8%(SKH59, M42)	H9
분말하이스	HSS-PM(PM-HSS)	PM

INDEX _ End Mills















MATERIAL (소재)	SERIES (사리즈)	PRODUCT DETAILS (제품사양)	Item No. (제품번호)	PHOTO (제품사진)	PAGE
Solid Carbide	P-STL	Solid Carbide 4F Multi Function End Mills 초경 4날 다기능 엔드밀	EM50CA		22
		Solid Carbide 4F Unequal Division & Unequal Lead End Mills 초경 4날 부등분할 & 부등리드 엔드밀	EM25CA		23
		Solid Carbide 4F Unequal Division & Unequal Lead End Mills for 3D 초경 4날 부등분할 & 부등리드 3D엔드밀	EM26CA		24
		Solid Carbide 4F Unequal Division & Unequal Lead End Mills for 4D 초경 4날 부등분할 & 부등리드 4D 엔드밀	EM27CA		25
		Solid Carbide 4F Unequal Division & Unequal Lead End Mills for 5D 초경 4날 부등분할 & 부등리드 5D 엔드밀	EM28CA		26
		Solid Carbide 4F 45° Helix End Mills 초경 4날 45° 헬릭스 엔드밀	EM45CA		27
		Solid Carbide 4F Corner Radius End Mills 초경 4날 코너 레디우스 엔드밀	EM34CA		28
		Solid Carbide 4F Corner Radius End Mills with Long Neck 초경 4날 코너 레디우스 롱넥 엔드밀	EM35CA		30
		Solid Carbide 4F Roughing End Mills 초경 4날 라핑 엔드밀	EM38CA		32
		Solid Carbide 4F Roughing & Finishing End Mills 초경 4날 황 · 정삭용 엔드밀	EM09CA		33
		Solid Carbide 3F Unequal Division & Unequal Lead End Mills 초경 3날 부등분할 & 부등리드 엔드밀	EM29CA		34
		Solid Carbide 4F End Mills 초경 4날 엔드밀	EM01CA		35
		Solid Carbide 4F End Mills for 3D 초경 4날 3D 엔드밀	EM41CA		36
		Solid Carbide 4F Econo End Mills 초경 범용 4날 엔드밀	EM02CA		37
		Solid Carbide 2F End Mills 초경 2날 엔드밀	EM03CA		38
		Solid Carbide 2F End Mills for 3D 초경 2날 3D 엔드밀	EM42CA		39
		Solid Carbide 2F Econo End Mills 초경 범용 2날 엔드밀	EM04CA		40















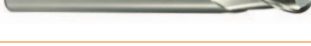


INDEX _ End Mills

MATERIAL (소재)	SERIES (시리즈)	PRODUCT DETAILS (제품사양)	Item No. (제품번호)	PHOTO (제품사진)	PAGE	
Solid Carbide	P-STL	Solid Carbide 2F Ball End Mills 초경 2날 볼 엔드밀	EM05CA		41	
		Solid Carbide 2F Negative Ball End Mills 초경 2날 네가티브 볼 엔드밀	EM30CA		42	
		Solid Carbide 2F Econo Ball End Mills 초경 범용 2날 볼 엔드밀	EM06CA		43	
	N-ALU	Solid Carbide 1F End Mills for Aluminum 초경 1날 알루미늄용 엔드밀	EM21CA		44	
		Solid Carbide 1F Down Cut End Mills for Aluminum 초경 1날 알루미늄용 역 엔드밀	EM31CA		45	
		Solid Carbide 2F End Mills for Al, Cu 초경 2날 알루미늄용 엔드밀	EM07CA		46	
		Solid Carbide 3F End Mills for Al, Cu 초경 3날 알루미늄용 엔드밀	EM08CA		47	
		Solid Carbide 3F Unequal Division & Unequal Lead Corner Radius End Mills for Aluminum 초경 3날 부등분할 부등리드 코너 레디우스 알루미늄용 엔드밀	EM62CA		49	
		Solid Carbide 3F Corner Radius End Mills for Aluminium - 4D 초경 3날 알루미늄 가공용 코너 레디우스 엔드밀 - 4D	EM65CA		50	
		Solid Carbide 3F Ball End Mills for Aluminium 초경 3날 알루미늄 가공용 볼 엔드밀	EM66CA		51	
		Solid Carbide 2F Ball End Mills for Aluminum 초경 2날 알루미늄용 볼 엔드밀	EM32CA		52	
		Solid Carbide 3F Unequal Division & Unequal Lead Roughing End Mills for Aluminum 초경 3날 부등분할 부등리드 알루미늄용 라핑 엔드밀	EM33CA		53	
		Solid Carbide 3F Wave End Mills for Aluminum 초경 3날 웨이브 알루미늄용 엔드밀	EM10CA		54	
		Solid Carbide 3F Wave Roughing End Mills for Aluminum 초경 3날 웨이브 라핑 알루미늄용 엔드밀	EM11CA		55	
		H-HSTL	Solid Carbide 2F Ball Nose End mills with Taper Long Neck 초경 2날 고경도용 테이퍼 롱넥 볼 엔드밀	EM48CA		56
			Solid Carbide 4F Unequal Division & Unequal Lead Corner Radius End Mills with Long Neck 초경 4날 부등분할 부등리드 고경도용 테이퍼 롱넥 코너 레디우스 엔드밀	EM49CA		58

MATERIAL (소재)	SERIES (사리즈)	PRODUCT DETAILS (제품사양)	Item No. (제품번호)	PHOTO (제품사진)	PAGE
Solid Carbide	H- HSTL	Solid Carbide 4F Unequal Division & Unequal Lead Corner Radius End Mills with Taper Long Neck 초경 4날 부등분할 부등리드 고경도용 테이퍼 롱넥 코너 레디우스 엔드밀	EM51CA		59
		Solid Carbide 4 & 6 Flutes Hi Helix End Mills for Hardened Materials 초경 4날 & 6날 고경도용 하이헬릭스 엔드밀	EM52CA		62
		Solid Carbide 4F Corner Radius End Mills for Hardened Materials 초경 4날 고경도용 코너 레디우스 엔드밀	EM53CA		63
		Solid Carbide 6F Corner Radius End Mills for Hardened Materials 초경 6날 고경도용 코너 레디우스 엔드밀	EM54CA		64
		Solid Carbide 4F Unequal Division Ball End Mills for Hardened Materials 초경 4날 부등분할 고경도용 볼 엔드밀	EM55CA		65
		Solid Carbide 4F End Mills for Hardened Materials 고경도용 초경 4날 엔드밀	EM12CA		66
		Solid Carbide 2F End Mills for Hardened Materials 고경도용 초경 2날 엔드밀	EM13CA		67
		Solid Carbide 2F Ball End Mills for Hardened Materials 고경도용 초경 2날 볼 엔드밀	EM14CA		68
		Solid Carbide 45° Helix 4F End Mills for Hardened Materials - Standard 고경도용 4날 45° 헬릭스 엔드밀 - 표준형	EM39CA		69
	Solid Carbide 45° Helix 4F End Mills for Hardened Materials - Long Type 고경도용 4날 45° 헬릭스 엔드밀 - 롱형	EM44CA		70	
	N- NFRS	Solid Carbide 1F End Mills for Acrylic 아크릴용 초경 1날 엔드밀	EM15CA		71
		Solid Carbide 1F Down Cut End Mills for Acrylic 아크릴용 초경 1날 역 엔드밀	EM16CA		72
		Solid Carbide 1F Straight End Mills for Acrylic 아크릴용 초경 1날 직선 엔드밀	EM17CA		73
		Solid Carbide 2F Straight End Mills for Acrylic 아크릴용 초경 2날 직선 엔드밀	EM18CA		74
		Solid Carbide 1F End Mills for Rubber 고무가공용 초경 1날 엔드밀	EM19CA		75

INDEX _ End Mills

MATERIAL (소재)	SERIES (시리즈)	PRODUCT DETAILS (제품사양)	Item No. (제품번호)	PHOTO (제품사진)	PAGE	
Solid Carbide	N-NFRS	Solid Carbide 1F End Mills for PVC, MC, Bakelite 수지가공용 초경 1날 엔드밀	EM20CA		76	
		Solid Carbide 2F End Mills for Epoxy, Bakelite 액폭시/베크라이트용 초경 2날 엔드밀	EM22CA		77	
		Solid Carbide 1F Grooving & Chamfering End Mills 초경 1날 조각 & 각도 엔드밀	EM23CA		78	
		Solid Carbide 2F Grooving & Chamfering End Mills 초경 2날 조각 & 각도 엔드밀	EM24CA		79	
		Solid Carbide 2F 90° Centering End Mills 초경 2날 90° 센터링 엔드밀	CE01CA		80	
	M-SUS	M-SUS	Solid Carbide 3F Unequal Division & Unequal Lead with Dual Flute End Mills for SUS 초경 3날 부등분할 부등리드 SUS용 이중플루트 엔드밀	EM40CA		81
			Solid Carbide 4F Unequal Division Corner Radius End Mills for SUS - Regular 초경 4날 SUS용 부등분할 코너 레디우스 엔드밀	EM46CA		82
			Solid Carbide 4F Unequal Division Corner Radius End Mills with Long Neck for SUS 초경 4날 SUS용 부등분할 코너 레디우스 롱넥 엔드밀	EM47CA		84
			Solid Carbide High Helix 4F Unequal Division & Unequal Lead Fine Pitch Roughing End Mills - Standard 초경 4날 하이 헬릭스 부등분할 & 부등리드 파인피치 라핑 엔드밀 - 표준형	EM43CA		86
			Solid Carbide High Helix 4F Unequal Division & Unequal Lead Fine Pitch Roughing End Mills - Long Type 초경 4날 하이 헬릭스 부등분할 & 부등리드 파인피치 라핑 엔드밀 - 롱형	EM36CA		87
			Solid Carbide Low Helix 4F Unequal Division & Unequal Lead Fine Pitch Roughing End Mills 초경 4날 로우 헬릭스 부등분할 & 부등리드 파인피치 라핑 엔드밀	EM37CA		88
			Solid Carbide 4F Corner Radius End Mills for Titanium 초경 4날 티타늄 가공용 코너 레디우스 엔드밀	EM63CA		89
			Solid Carbide 5F Corner Radius End Mills For Nickel based Alloys 초경 5날 인코넬 가공용 코너 레디우스 엔드밀	EM64CA		90
			P-THDM	P-THDM	Solid Carbide 4F Thread Mill 초경 4날 쓰레드밀	EM56CA
Solid Carbide 4F Drill Thread Mill 초경 4날 드릴 쓰레드밀	EM57CA				92	

MATERIAL (소재)	SERIES (사리즈)	PRODUCT DETAILS (제품사양)	Item No. (제품번호)	PHOTO (제품사진)	PAGE	
Solid Carbide	P-BBAR	Solid Carbide Precision Hole Bite for Lathe 초경 정밀 내측 홀 절삭 바이트	EM58CA		93	
		Solid Carbide Helical Precision Hole Bite 초경 정밀 헬리컬 내측 홀 절삭 바이트	EM59CA		95	
		Solid Carbide 60° Precision Inner Hole Thread Bite 초경 60° 정밀 내측 나사 절삭 바이트	EM60CA		96	
		Solid Carbide Precision Inside Grooving Bite 초경 내경 홈 절삭 바이트	EM61CA		97	
HSS (High Speed Steel)	M42 (SKH59)	HSS-Co 8% 4F End Mills 하이스 4날 엔드밀 SKH59	EM01H9		128	
		HSS-Co 8% 4F Long End Mills 하이스 4날 롱 엔드밀 SKH59	EM02H9		129	
		HSS-Co 8% 2F End Mills 하이스 2날 엔드밀 SKH59	EM03H9		130	
		HSS-Co 8% 2F Long End Mills 하이스 2날 롱 엔드밀 SKH59	EM04H9		131	
		HSS-Co 8% 2F Ball End Mills 하이스 2날 볼 엔드밀 SKH59	EM05H9		132	
		HSS-Co 8% 4F~6F Roughing End Mills 하이스 4날~6날 황삭용 엔드밀 SKH59	EM06H9		133	
	HSS-PM	HSS-PM	HSS-PM 4F Unequal Division & Unequal Lead End Mills 분말하이스 4날 부등분할 & 부등리드 엔드밀 HSS-PM	EM18PM		134
			HSS-PM 4F End Mills 분말하이스 4날 엔드밀 HSS-PM	EM07PM		135
			HSS-PM 4F Long End Mills 분말하이스 4날 롱 엔드밀 HSS-PM	EM08PM		136
			HSS-PM 2F End Mills 분말하이스 2날 엔드밀 HSS-PM	EM09PM		137
			HSS-PM 2F Ball End Mills 분말하이스 2날 볼 엔드밀 HSS-PM	EM10PM		138
			HSS-PM 4F Unequal Division & Unequal Lead Fine Pitch Roughing End Mills 분말하이스 4날 부등분할 & 부등리드 파인 피치 라핑 엔드밀 HSS-PM	EM17PM		139
			HSS-PM 4F Unequal Division Fine Pitch Roughing End Mills 분말하이스 4날 부등분할 파인 피치 라핑 엔드밀 HSS-PM	EM16PM		140

INDEX_ End Mills

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	M42 (SKH59)	HSS-Co 8% 4F Taper End Mills 하이스 4날 테이퍼 엔드밀 SKH59	EM12H9		142
		HSS-Co 8% 1F End Mills for Aluminum 하이스 1날 알루미늄용 엔드밀 SKH59	EM15H9		143
		HSS-Co 8% 2F End Mills for Aluminum 하이스 2날 알루미늄용 엔드밀 SKH59	EM13H9		144
		HSS-Co 8% 3F End Mills for Aluminum 하이스 3날 알루미늄용 엔드밀 SKH59	EM14H9		145
		HSS-Co 8% 90° 2F Centering End Mills 하이스 90° 2날 센터링 엔드밀, SKH59	CE01H9		146











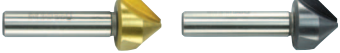
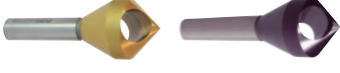

INDEX _ Drills








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		Solid Carbide 2F Flat Drill 초경 2날 플랫 드릴	DR03CA		158	
		Solid Carbide 2F Drills with Oil Hole Stub Type 초경 2날 강용 오일홀 드릴 - 스텐브형	DR04CA		160	
		Solid Carbide 2F Drills with Oil Hole Jobber Type 초경 2날 강용 오일홀 드릴 - 자버형	DR05CA		162	
		Solid Carbide 2F Drills for Aluminum 초경 2날 알루미늄 가공용 드릴	DR06CA		164	
	CENTER	Solid Carbide 2F S-Point Centerdrills - 60° Type 초경 2날 에스포인트 센터드릴 - 60° 형	SP01CA		166	
		Solid Carbide 2F S-Point Centerdrills - 90° Type 초경 2날 에스포인트 센터드릴 - 90° 형	SP02CA		167	
		Carbide Center Drills A Type (60°) 초경센터드릴 A형 (60°)	CD01CA		168	
		Carbide Center Drills A Type (90°) 초경센터드릴 A형 (90°)	CD02CA		169	
	SPOT	Carbide Pilot Drills - Oil Flow 초경 빠이롯트 드릴 (내부급유)	PD01CA		170	
		Carbide 90° NC Spotting Drills 초경 90° 엔씨 드릴	NC01CA		171	
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	STEP	Carbide 90° Step Drills 초경 90° 스텝 드릴	SD01CA		174	
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			HSS-PM Drills - Jobber Type 분말하이스 드릴 자버형, HSS-PM	DR02PM		182
			HSS-PM Power Long Drill 분말 하이스 파워 롱 드릴, HSS-PM	DR03PM		184
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MATERIAL (소재)	SERIES (사리즈)	PRODUCT DETAILS (제품사양)	Item No. (제품번호)	PHOTO (제품사진)	PAGE	
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		HSS-Co 8% 2F S-Point Centerdrills - 90° Type 하이스 2날 에스포인트 센터드릴 - 90° 형 SKH59	SP02H9		189	
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		HSS Center Drills A Type (60°) 하이스 센터드릴 A형 (60°), SKH51	CD01H1		191	
		HSS-PM Center Drills A Type (60°) 분말하이스 센터드릴 A형 (60°), HSS-PM	CD01PM		192	
		HSS-Co 8% Center Drills A Type (90°) 하이스 센터드릴 A형 (90°), SKH59 • Products	CD02H9		193	
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		HSS-Co 5% 120° NC Spotting Drills 하이스 120° 엔씨 드릴, SKH55	NC02H5		201	
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		STEP	HSS-Co 5% 90° Step Drills 하이스 90° 스텝 드릴, SKH55	SD01H5		203
			HSS-Co 5% 180° Step Drills 하이스 180° 스텝 드릴, SKH55	SD02H5		204
			HSS-Co 5% Step Drills for Tap 하이스 탭용 스텝 드릴, SKH55	SD03H5		205
			HSS-Co 5% Step Drills for Long Reach 하이스 롱형 스텝 드릴, SKH55	SD04H5		206











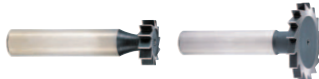



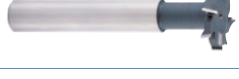


MATERIAL (소재)	SERIES (시리즈)	PRODUCT DETAILS (제품사양)	Item No. (제품번호)	PHOTO (제품사진)	PAGE
HSS (High Speed Steel)	TAPER	HSS Taper Drills 하이스 테이퍼 드릴, SKH51	TD01H1		207
		HSS Taper[1:50] Pin Drills with Straight Shank 하이스 날 테이퍼 핀 드릴 직선샤홅크, SKH51	TD02H1		208
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Solid Carbide	CHAMFER	Solid Carbide 3F Posi Chamfering Cutters - 90° Type 초경 3날 면취 컷터 - 포지티브 90° 형	CT01CA		214	
		Solid Carbide 3F Nega Chamfering Cutters - 90° Type 초경 3날 면취 컷터 - 네가티브 90° 형	CT02CA		215	
		Solid Carbide 5F Multi Chamfer Cutter - 90° Type 초경 5날 다용도 면취 컷터 - 90° 형	CT03CA		216	
		Solid Carbide 1F Sharp Chamfer Cutter - 90° Type 초경 외날 정밀 면취 컷터 - 90° 형	CT04CA		217	
		Solid Carbide 1F S-Point Chamfer Cutter - 90° Type 초경 외날 정밀 에스포인트 면취 컷터 - 90° 형	CT05CA		218	
	SINK	Solid Carbide 3F Unequal Division & Unequal Lead Countersinks 초경 3날 부등분할 부등리드 카운터싱크	CS05CA		219	
		Carbide 1F & 90° Countersinks with TiN 초경 1F & 90° 카운터싱크, TiN	CS01CA		220	
		Carbide 3F & 90° Countersinks with TiN 초경 3F & 90° 카운터싱크, TiN	CS02CA		221	
		Carbide Hole & 90° Countersinks with TiN 초경 홀 & 90° 카운터싱크, TiN	CS03CA		222	
		Carbide 90° Countersink For Fiber composite & Superalloys 섬유복합재 & 초합금용 초경 90° 카운터싱크	CS04CA		223	
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	HSS (High Speed Steel)	SINK	HSS-Co 8% 1F & 90° Countersinks 하이스 1날 & 90° 카운터싱크, SKH59	CS01H9		228
			HSS-Co 5% 1F & 90° Countersinks 하이스 1날 & 90° 카운터싱크, SKH55	CS01H5		229
			HSS-Co 8% 3F & 90° Countersinks 하이스 3날 & 90° 카운터싱크, SKH59	CS02H9		230
			HSS-Co 5% 3F & 90° Countersinks 하이스 3날 & 90° 카운터싱크, SKH55	CS02H5		231
HSS-Co 8% Hole & 90° Countersinks 하이스 홀 & 90° 카운터싱크, SKH59			CS03H9		232	
HSS-Co 8% 3F Unequal Division & Unequal Lead Countersinks 하이스 3날 & 90° 부등분할 부등리드 카운터싱크, SKH59			CS08H9		233	
HSS-PM 3F & 90° Countersinks 분말 하이스 3날 & 90° 카운터싱크, HSS-PM			CS04PM		234	














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		HSS-Co 8% 3F & 60° Countersinks 하이스 3날 & 60° 카운터싱크, SKH59	CS06H9		236	
		HSS-Co 8% Hole & 60° Countersinks 하이스 홀 & 60° 카운터싱크, SKH59	CS07H9		237	
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		HSS-Co 5% 3F & 90° Combining Countersinks 하이스 3날 & 90° 결합형 카운터싱크, SKH55	CS09H5		239	
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		HSS-Co 5% 3F & 90° Countersinks for Helix 하이스 3날 & 90° 헬릭스 카운터싱크, SKH55	CS10H5		241	
		HSS-Co 5% 3F & 90° Countersinks for Screw & Tapping Hole 하이스 3날 & 90° 탭핑홀 카운터싱크, SKH55	CS11H5		242	
		BORE	HSS Counterbores with Straight Shank 하이스 카운터보어 직선 샹크, SKH51	CB01H1		243
			HSS Counterbores with Morse Taper Shank 하이스 카운터보어 MT 샹크, SKH51	CB02H1		244







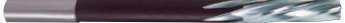



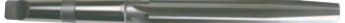

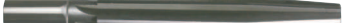
INDEX _ Cutters

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		Solid Carbide 90° Double Angle Mini Chamfer Cutter (Long Reach Type) 초경 90° 더블 앵글 미니 챔퍼 컷터 롱형	AC02CA		249
		Solid Carbide 45° Dovetail Mini Chamfer Cutter 초경 45° 더브테일 미니 챔퍼 컷터	TA03CA		250
	SHANK	Carbide Woodruff Keyseat Cutters T-Cutter 초경 티 컷터	TC01CA		251
		Carbide 60° Dovetail Cutters T-Angle 초경 60° 티앵글 컷터	TA01CA		252
		Carbide 45° Dovetail Cutters T-Angle 초경 45° 티앵글 컷터	TA02CA		253
	SAW	Carbide Side Milling Cutters 초경 사이드 밀링 컷터	SM01CA		254
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		Carbide Slotting Cutters 초경 슬로팅 컷터	SC01CA		258
	SHANK	Carbide Corner Rounding Cutters 초경 코너라운드 컷터	CR01CA		259
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		HSS 60° Dovetail Cutters T-Angle Cutter 하이스 60° 티앵글 컷터, SKH51	TA01H1		263
		HSS 45° Dovetail Cutters T-Angle Cutter 하이스 45° 티앵글 컷터, SKH51	TA02H1		264
		HSS Straight Teeth T-Slot Cutters 하이스 직선날 티슬롯 컷터, SKH51	TS01H1		265
		HSS Stagger Teeth T-Slot Cutters 하이스 엇갈림날 티슬롯 컷터, SKH51	TS02H1		266
		HSS Helical Roughing T-Slot Cutters 하이스 헬리컬 라핑 티슬롯 컷터, SKH51	TS03H1		267
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		HSS Number Slotting Cutters 하이스 넘버 커터, SKH51	SC02H1		273
		HSS Knife Cutters 하이스 지관 커터, SKH51	KN01H1		274
		HSS Single Angle Cutters 하이스 싱글 앵글 커터, SKH51	AC01H1		275
		HSS Double Angle Cutters 하이스 더블 앵글 커터, SKH51	AC02H1		276
	M35 (SKH55)	HSS-Co 5% Corner Rounding Cutters 하이스 코너라운드 커터, SKH55	CR01H5		277
		HSS-Co 5% Broach Cutters with TiN 하이스 브로치 커터, SKH55	BR01H5		278
	ACC	Accessory for Broach Cutters 브로치 컷터용 각종 약세서리	PIN-001-ST		280

INDEX _ Reamers


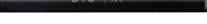










MATERIAL (소재)	SERIES (시리즈)	PRODUCT DETAILS (제품사양)	Item No. (제품번호)	PHOTO (제품사진)	PAGE	
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	12HE	Carbide 12° Helix Chucking Reamers - Straight Shank 초경 12° 헬릭스 칩킹리머, 직선샙크	RM02CA		286	
		Carbide 12° Helix Chucking Reamers - Morse Taper Shank 초경 12° 헬릭스 칩킹리머, MT 샙크	RM03CA		288	
	45HE	Carbide 45° Helix Chucking Reamers - Straight Shank 초경 45° 헬릭스 칩킹리머, 직선샙크	RM04CA		289	
		Carbide 45° Helix Chucking Reamers - Morse Taper Shank 초경 45° 헬릭스 칩킹리머, MT 샙크	RM05CA		291	
	60HE	Carbide 60° Helix Chucking Reamers - Straight Shank 초경 60° 헬릭스 칩킹리머, 직선샙크	RM06CA		292	
		Carbide 60° Helix Chucking Reamers - Morse Taper Shank 초경 60° 헬릭스 칩킹리머, MT 샙크	RM07CA		293	
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			HSS-Co 5% 12° Helix Chucking Reamers - Morse Taper Shank 하이스 12° 헬릭스 칩킹리머 MT샙크, SKH55	RM02H5		298
			HSS-Co 5% 45° Helix Chucking Reamers - Straight Shank 하이스 45° 헬릭스 칩킹리머 직선샙크, SKH55	RM03H5		299
HSS-Co 5% 45° Helix Chucking Reamers - Morse Taper Shank 하이스 45° 헬릭스 칩킹리머 MT샙크, SKH55			RM04H5		301	
HSS-Co 5% 60° Helix Chucking Reamers - Straight Shank 하이스 60° 헬릭스 칩킹리머 직선샙크, SKH55			RM05H5		302	
HSS-Co 5% 60° Helix Chucking Reamers - Morse Taper Shank 하이스 60° 헬릭스 칩킹리머 MT샙크, SKH55			RM06H5		303	

MATERIAL (소재)	SERIES (시리즈)	PRODUCT DETAILS (제품사양)	Item No. (제품번호)	PHOTO (제품사진)	PAGE
HSS (High Speed Steel)	M35 (SKH55)	HSS-Co 5% 12° Helix Power Long Chucking Reamers - Straight Shank 하이스 12° 헬릭스 파워롱 척킹 리머 직선 샹크, SKH55	RM23H5		304
		HSS-Co 5% 12° Helix Extra Long Chucking Reamers - Morse Taper Shank 하이스 12° 롱 헬릭스 척킹리머 MT샹크, SKH55	RM12H5		306
		HSS-Co 5% 45° Helix Extra Long Chucking Reamers - Straight & Morse Taper Shank 하이스 45° 헬릭스 롱 척킹리머 직선 & MT샹크, SKH55	RM13H5		307
		HSS-Co 5% 12° Helix Chucking Reamers for Mold - Straight & Morse Taper Shank 하이스 12° 헬릭스 금형용 척킹리머 직선 & MT샹크, SKH55	RM08H5 RM09H5		308
		HSS-Co 5% 45° Helix Chucking Reamers for Mold - Straight & Morse Taper Shank 하이스 45° 헬릭스 금형용 척킹리머 직선 & MT샹크, SKH55	RM10H5 RM11H5		309
	HSS -PM	HSS-PM 12° Helix Chucking Reamers - Straight Shank 분말하이스 12° 헬릭스 척킹리머 직선샹크, HSS-PM	RM07PM		310
	M35 (SKH55)	HSS-Co 5% 12° Helix Inch Chucking Reamers - Straight Shank 하이스 12° 헬릭스 인치 척킹리머 직선샹크, SKH55	RM14H5		311
	M2 (SKH51)	HSS Straight Hand Reamers - Straight Shank 하이스 직선날 핸드리머 직선 샹크, SKH51	RM15H1		312
		HSS 12° Helix Hand Reamers - Straight Shank 하이스 12° 헬릭스 핸드리머 직선샹크, SKH51	RM16H1		314
		HSS Straight Machine Reamers - Morse Taper Shank 하이스 직선날 머신리머 MT샹크, SKH51	RM17H1		316
		HSS Straight Bridge Reamers - Morse Taper Shank 하이스 직선날 브릿지 리머 MT 샹크, SKH51	RM18H1		317
		HSS 25° Helix Bridge Reamers - Morse Taper Shank 하이스 25° 헬릭스 브릿지 리머 MT 샹크, SKH51	RM19H1		318
		HSS Straight Bridge Reamers - Straight Shank 하이스 직선날 브릿지 리머 직선 샹크, SKH51	RM20H1		319

INDEX _ Reamers

MATERIAL (소재)	SERIES (시리즈)	PRODUCT DETAILS (제품사양)	Item No. (제품번호)	PHOTO (제품사진)	PAGE
HSS (High Speed Steel)	M2 (SKH51)	HSS Straight Taper Pin Reamer(1:50) - Hand Uses 하이스 직선날 테이퍼 핀 리머(1:50) 핸드용, SKH51	RM21H1		320
	M35 (SKH55)	HSS 45° Helix Taper Pin Reamer(1:50) - Machine Uses 하이스 45° 헬릭스 테이퍼 핀 리머(1:50) 머신용, SKH55	RM22H5		321

INDEX _ Tooling & Aerospace Special Tools

PRODUCT DETAILS (제품사양)	Item No. (제품번호)	PHOTO (제품사진)	PAGE
Inside Deburring Tools - A Type 내부 면취 공구 - A형	DT01A		326
Inside Deburring Tools - B Type 내부 면취 공구 - B형	DT02B		
Inside Deburring Tools - C Type 내부 면취 공구 - C형	DT03C		
Inside Deburring Tools Blade - HSS with TiN 내부 면취 공구 블레이드 - SKH51	BL01H1		327
Inside Deburring Tools Blade - Carbide with TiALN 내부 면취 공구 블레이드 - 초경	BL01CA		
Accu Center - Standard Type & Bearing Type 아큐센터 일반형 & 베어링 형	ACCT		328
Marking Center - Standard Type & Long Type 마킹센터 일반형 & 롱형	MKCT		
Countersink and Nutplate Drill			330
Counterbore and reverse spotfacers			331
Tapered Drill Reamers			332
Double margin drills			333
Pilot reamer with Straight shanks and threaded shanks			334

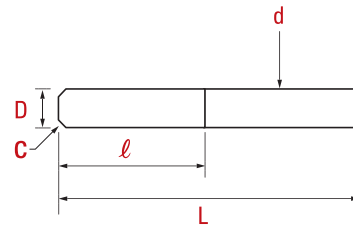
DYC BEST TOTAL TOOLS

CARBIDE End Mills



Solid Carbide 4F Multi Function End Mills

초경 4날 다기능
엔드밀



Item no. 제품코드	D 외경	FL 날기장	L 전장	d 샹크	C 코너
EM50CA-010	1.0	3	50	4.0	-
EM50CA-020	2.0	6	50	4.0	-
EM50CA-030	3.0	9	50	6.0	-
EM50CA-040	4.0	12	50	6.0	0.04
EM50CA-050	5.0	15	50	6.0	0.05
EM50CA-060	6.0	18	50	6.0	0.06
EM50CA-080	8.0	24	65	8.0	0.08
EM50CA-100	10.0	30	75	10.0	0.10
EM50CA-120	12.0	36	80	12.0	0.12
EM50CA-160	16.0	48	100	16.0	0.16
EM50CA-200	20.0	60	120	20.0	0.20

Tolerance (허용공차)		
D	d	L
0~0.03	h6	±1

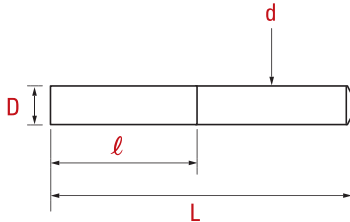
특기사항

- 하나의 엔드밀로 드릴(Drilling), 경사(Ramping), 홈(Slotting), 측면(Side Milling) 가공이 가능함
- 탁월한 공구 강성으로 절삭 저항이 감소하고 표면 조도가 향상됨
- 크롬 계열 코팅 적용으로 절삭 능력 향상

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 4F Unequal Division & Unequal Lead End Mills

초경 4날
부등분할 & 부등리드
엔드밀



Item no. 제품코드	D 외경	l 날장	L 전장	d 샹크
EM25CA-010	1.0	3	50	4
EM25CA-015	1.5	5	50	4
EM25CA-020	2.0	6	50	4
EM25CA-025	2.5	8	50	4
EM25CA-030	3.0	8	50	6
EM25CA-040	4.0	11	50	6
EM25CA-050	5.0	13	50	6
EM25CA-060	6.0	16	50	6
EM25CA-070	7.0	20	60	8
EM25CA-080	8.0	20	60	8
EM25CA-090	9.0	22	72	10
EM25CA-100	10.0	22	72	10
EM25CA-110	11.0	26	75	12
EM25CA-120	12.0	26	75	12
EM25CA-160	16.0	38	100	16
EM25CA-200	20.0	38	100	20

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

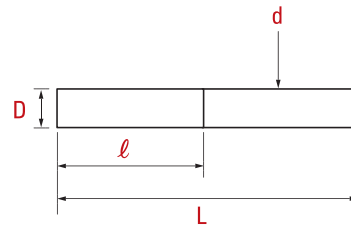
특기사항

- 날부 형상 : 부등분할(Unequal Division)+부등리드(Unequal Lead)
- 진동의 최소화로 고이송 및 강력 절삭이 가능
- 일반강부터 합금강 및 프리하든강까지 다양한 피삭재에 적용 가능

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 4F Unequal Division & Unequal Lead End Mills for 3D

초경 4날
부등분할 & 부등리드
3D 엔드밀



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 상크
EM26CA-3D010	1.0	3	50	4
EM26CA-3D015	1.5	4.5	50	4
EM26CA-3D020	2.0	6	50	4
EM26CA-3D025	2.5	7.5	50	4
EM26CA-3D030	3.0	9	50	6
EM26CA-3D035	3.5	10.5	50	6
EM26CA-3D040	4.0	12	50	6
EM26CA-3D045	4.5	13.5	50	6
EM26CA-3D050	5.0	15	50	6
EM26CA-3D055	5.5	16.5	50	6
EM26CA-3D060	6.0	18	50	6
EM26CA-3D080	8.0	24	65	8
EM26CA-3D100	10.0	30	75	10
EM26CA-3D120	12.0	36	80	12
EM26CA-3D160	16.0	48	100	16
EM26CA-3D200	20.0	60	120	20

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

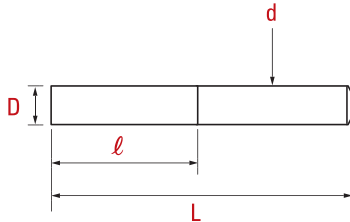
특기사항

- 날부 형상 : 부등분할(Unequal Division)+부등리드(Unequal Lead)
- 진동의 최소화로 고이송 및 강력 절삭이 가능
- 일반강부터 합금강 및 프리하든강까지 다양한 피삭재에 적용 가능

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 4F Unequal Division & Unequal Lead End Mills for 4D

초경 4날
부등분할 & 부등리드
4D 엔드밀



Item no. 제품코드	D 외경	l 날장	L 전장	d 샤희크
EM27CA-4D010	1.0	4	50	4
EM27CA-4D015	1.5	6	50	4
EM27CA-4D020	2.0	8	50	4
EM27CA-4D025	2.5	10	50	4
EM27CA-4D030	3.0	12	50	6
EM27CA-4D035	3.5	14	50	6
EM27CA-4D040	4.0	16	55	6
EM27CA-4D045	4.5	18	55	6
EM27CA-4D050	5.0	20	60	6
EM27CA-4D055	5.5	22	65	6
EM27CA-4D060	6.0	24	65	6
EM27CA-4D080	8.0	32	90	8
EM27CA-4D100	10.0	40	100	10
EM27CA-4D120	12.0	48	110	12
EM27CA-4D160	16.0	64	160	16
EM27CA-4D200	20.0	80	200	20

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

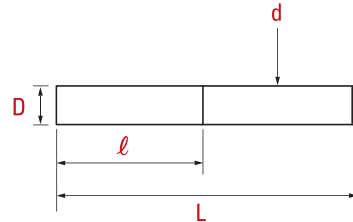
특기사항

- 날부 형상 : 부등분할(Unequal Division)+부등리드(Unequal Lead)
- 진동의 최소화로 고이송 및 강력 절삭이 가능
- 일반강부터 합금강 및 프리하든강까지 다양한 피삭재에 적용 가능

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 4F Unequal Division & Unequal Lead End Mills for 5D

초경 4날
부등분할 & 부등리드
5D 엔드밀



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
EM28CA-5D010	1.0	5	50	4
EM28CA-5D015	1.5	7.5	50	4
EM28CA-5D020	2.0	10	50	4
EM28CA-5D025	2.5	12.5	50	4
EM28CA-5D030	3.0	15	55	6
EM28CA-5D035	3.5	17.5	60	6
EM28CA-5D040	4.0	20	60	6
EM28CA-5D045	4.5	22.5	65	6
EM28CA-5D050	5.0	25	65	6
EM28CA-5D055	5.5	27.5	75	6
EM28CA-5D060	6.0	30	75	6
EM28CA-5D080	8.0	40	90	8
EM28CA-5D100	10.0	50	100	10
EM28CA-5D120	12.0	60	110	12
EM28CA-5D160	16.0	80	160	16
EM28CA-5D200	20.0	100	200	20

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

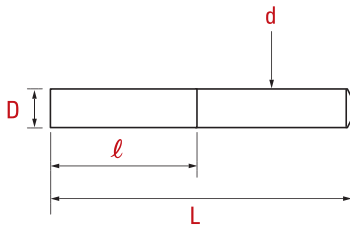
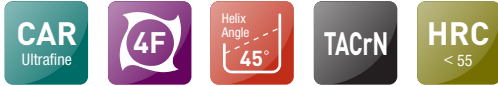
특기사항

- 날부 형상 : 부등분할(Unequal Division)+부등리드(Unequal Lead)
- 진동의 최소화로 고이송 및 강력 절삭이 가능
- 일반강부터 합금강 및 프리하든강까지 다양한 피삭재에 적용 가능

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 4F 45° Helix End Mills

초경 4날 45°
헬릭스 엔드밀



Item no. 제품코드	D 외경	FL 날기장	L 전장	d 샤희크
EM45CA-030	3.0	8	50	6.0
EM45CA-040	4.0	11	50	6.0
EM45CA-050	5.0	14	50	6.0
EM45CA-060	6.0	16	50	6.0
EM45CA-080	8.0	20	60	8.0
EM45CA-100	10.0	30	75	10.0
EM45CA-120	12.0	35	80	12.0
EM45CA-160	16.0	40	100	16.0
EM45CA-200	20.0	45	110	20.0

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

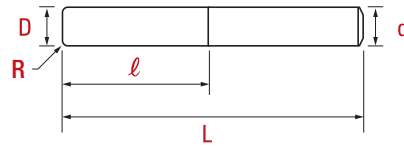
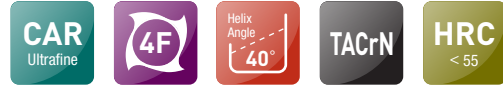
Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

특기사항

- Hi Helix 적용으로 절삭 능력 향상
- 탁월한 공구 강성으로 절삭 저항이 감소하고 표면 조도가 향상됨
- 크롬 계열 코팅 적용으로 절삭 능력 향상

Solid Carbide 4F Corner Radius End Mills

초경 4날
코너 레디우스
엔드밀



Item no. 제품코드	D 외경	R 코너	ℓ 날장	L 전장	d 샙크
EM34CA-030306	3	0.3	6	50	4
EM34CA-030309		0.3	9	50	4
EM34CA-030506		0.5	6	50	4
EM34CA-030509		0.5	9	50	4
EM34CA-040308	4	0.3	8	50	6
EM34CA-040312		0.3	12	50	6
EM34CA-040508		0.5	8	50	6
EM34CA-040512		0.5	12	50	6
EM34CA-050310	5	0.3	10	50	6
EM34CA-050315		0.3	15	50	6
EM34CA-050510		0.5	10	50	6
EM34CA-050515		0.5	15	50	6
EM34CA-060512	6	0.5	12	50	6
EM34CA-060518		0.5	18	50	6
EM34CA-061012		1.0	12	50	6
EM34CA-061018		1.0	18	50	6
EM34CA-061512		1.5	12	50	6
EM34CA-061518		1.5	18	50	6

Item no. 제품코드	D 외경	R 코너	ℓ 날장	L 전장	d 샙크
EM34CA-062012	6	2.0	12	50	6
EM34CA-062018		2.0	18	50	6
EM34CA-080516	8	0.5	16	65	8
EM34CA-080524		0.5	24	65	8
EM34CA-081016		1.0	16	65	8
EM34CA-081024		1.0	24	65	8
EM34CA-081516		1.5	16	65	8
EM34CA-081524		1.5	24	65	8
EM34CA-082016	10	2.0	16	65	8
EM34CA-082024		2.0	24	65	8
EM34CA-100520		0.5	20	75	10
EM34CA-100530		0.5	30	75	10
EM34CA-101020	10	1.0	20	75	10
EM34CA-101030		1.0	30	75	10
EM34CA-101520		1.5	20	75	10
EM34CA-101530		1.5	30	75	10
EM34CA-102020		2.0	20	75	10
EM34CA-102030		2.0	30	75	10

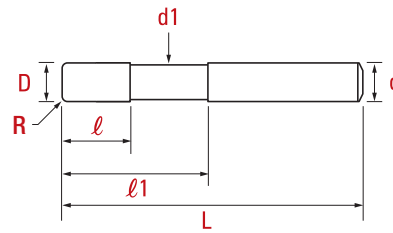
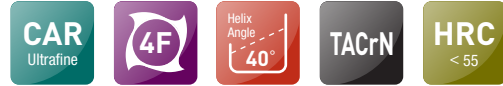
Item no. 제품코드	D 외경	R 코너	ℓ 날장	L 전장	d 샤크
EM34CA-120524	12	0.5	24	80	12
EM34CA-120536		0.5	36	80	12
EM34CA-121024		1.0	24	80	12
EM34CA-121036		1.0	36	80	12
EM34CA-121524		1.5	24	80	12
EM34CA-121536		1.5	36	80	12
EM34CA-122024		2.0	24	80	12
EM34CA-122036		2.0	36	80	12
EM34CA-123024		3.0	24	80	12
EM34CA-123036		3.0	36	80	12
EM34CA-161048	16	1.0	48	100	16
EM34CA-161548		1.5	48	100	16
EM34CA-162048		2.0	48	100	16
EM34CA-163048		3.0	48	100	16
EM34CA-164048		4.0	48	100	16
EM34CA-201060	20	1.0	60	120	20
EM34CA-202060		2.0	60	120	20
EM34CA-203060		3.0	60	120	20
EM34CA-204060		4.0	60	120	20

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

Solid Carbide 4F Corner Radius End Mills with Long Neck

초경 4날 코너
레디우스 롱넥
엔드밀



Item no. 제품코드	D 외경	R 코너	l 날장	l1 목기장	d1 목경	L 전장	d 상크
EM35CA-030306	3	0.3	3	6	2.9	50	4
EM35CA-030309		0.3	3	9	2.9	50	4
EM35CA-030506		0.5	3	6	2.9	50	4
EM35CA-030509		0.5	3	9	2.9	50	4
EM35CA-040308	4	0.3	4	8	3.9	50	6
EM35CA-040312		0.3	4	12	3.9	50	6
EM35CA-040508		0.5	4	8	3.9	50	6
EM35CA-040512		0.5	4	12	3.9	50	6
EM35CA-050310	5	0.3	5	10	4.9	50	6
EM35CA-050315		0.3	5	15	4.9	50	6
EM35CA-050510		0.5	5	10	4.9	50	6
EM35CA-050515		0.5	5	15	4.9	50	6
EM35CA-060512	6	0.5	6	12	5.9	50	6
EM35CA-060518		0.5	6	18	5.9	50	6
EM35CA-061012		1.0	6	12	5.9	50	6
EM35CA-061018		1.0	6	18	5.9	50	6
EM35CA-061512		1.5	6	12	5.9	50	6
EM35CA-061518		1.5	6	18	5.9	50	6
EM35CA-062012		2.0	6	12	5.9	50	6
EM35CA-062018		2.0	6	18	5.9	50	6

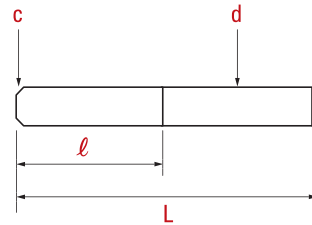
Item no. 제품코드	D 외경	R 코너	\varnothing 날장	$\varnothing 1$ 목기장	d1 목경	L 전장	d 샤크
EM35CA-080516	8	0.5	8	16	7.9	65	8
EM35CA-080524		0.5	8	24	7.9	65	8
EM35CA-081016		1.0	8	16	7.9	65	8
EM35CA-081024		1.0	8	24	7.9	65	8
EM35CA-081516		1.5	8	16	7.9	65	8
EM35CA-081524		1.5	8	24	7.9	65	8
EM35CA-082016		2.0	8	16	7.9	65	8
EM35CA-082024		2.0	8	24	7.9	65	8
EM35CA-100520	10	0.5	10	20	9.8	75	10
EM35CA-100530		0.5	10	30	9.8	75	10
EM35CA-101020		1.0	10	20	9.8	75	10
EM35CA-101030		1.0	10	30	9.8	75	10
EM35CA-101520		1.5	10	20	9.8	75	10
EM35CA-101530		1.5	10	30	9.8	75	10
EM35CA-102020		2.0	10	20	9.8	75	10
EM35CA-102030		2.0	10	30	9.8	75	10
EM35CA-120524	12	0.5	12	24	11.7	80	12
EM35CA-120536		0.5	12	36	11.7	80	12
EM35CA-121024		1.0	12	24	11.7	80	12
EM35CA-121036		1.0	12	36	11.7	80	12
EM35CA-121524		1.5	12	24	11.7	80	12
EM35CA-121536		1.5	12	36	11.7	80	12
EM35CA-122024		2.0	12	24	11.7	80	12
EM35CA-122036		2.0	12	36	11.7	80	12
EM35CA-123024	16	3.0	12	24	11.7	80	12
EM35CA-123036		3.0	12	36	11.7	80	12
EM35CA-161048		1.0	16	48	15.5	100	16
EM35CA-161548		1.5	16	48	15.5	100	16
EM35CA-162048		2.0	16	48	15.5	100	16
EM35CA-163048		3.0	16	48	15.5	100	16
EM35CA-164048		4.0	16	48	15.5	100	16
EM35CA-201060		20	1.0	20	60	19.5	120
EM35CA-202060	2.0		20	60	19.5	120	20
EM35CA-203060	3.0		20	60	19.5	120	20
EM35CA-204060	4.0		20	60	19.5	120	20

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

Solid Carbide 4F Roughing End Mills

초경 4F
라핑 엔드밀



Item no. 제품코드	D 외경	l 날장	L 전장	d 상크	C 코너
EM38CA-050	5.0	13	50	6	0.3
EM38CA-060	6.0	16	50	6	0.3
EM38CA-080	8.0	20	60	8	0.3
EM38CA-100	10.0	25	75	10	0.3
EM38CA-120	12.0	30	80	12	0.4
EM38CA-140	14.0	35	100	16	0.6
EM38CA-160	16.0	40	100	16	0.6
EM38CA-180	18.0	40	110	20	0.6
EM38CA-200	20.0	45	110	20	0.6

Tolerance (허용공차)		
D	d	L
0~-0.05	h6	±1

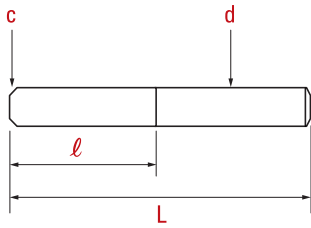
특기사항

- 인선부에 비대칭의 라핑 형상 적용으로 마모를 적게함
- 일반강부터 특수강 및 합금강까지 다양한 피삭재의 강한 중절삭을 용이하게 함

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 4F Roughing & Finishing End Mills

초경 4날
황 · 정삭용
엔드밀



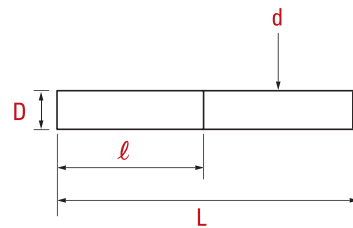
Item no. 제품코드	D 외경	ℓ 날장	L 전장	C 코너	d 샙크
EM09CA-060	6.0	14	52	0.3	6
EM09CA-070	7.0	18	63	0.3	8
EM09CA-080	8.0	18	63	0.3	8
EM09CA-090	9.0	22	80	0.3	10
EM09CA-100	10.0	22	80	0.4	10
EM09CA-110	11.0	26	80	0.4	12
EM09CA-120	12.0	26	80	0.5	12
EM09CA-140	14.0	30	80	0.6	14
EM09CA-160	16.0	34	105	0.6	16
EM09CA-180	18.0	38	105	0.6	18
EM09CA-200	20.0	42	105	0.6	20

Tolerance (허용공차)		
D	d	L
0~-0.05	h6	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 3F Unequal Division & Unequal Lead End Mills

초경 3날
부등분할 & 부등리드
엔드밀



Item no. 제품코드	D 외경	l 날장	L 전장	d 상크
EM29CA-010	1.0	3	50	4
EM29CA-015	1.5	5	50	4
EM29CA-020	2.0	6	50	4
EM29CA-025	2.5	8	50	4
EM29CA-030	3.0	8	50	6
EM29CA-040	4.0	11	50	6
EM29CA-050	5.0	13	50	6
EM29CA-060	6.0	16	50	6
EM29CA-080	8.0	20	60	8
EM29CA-100	10.0	22	72	10
EM29CA-120	12.0	26	75	12
EM29CA-160	16.0	38	100	16
EM29CA-200	20.0	38	100	20

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

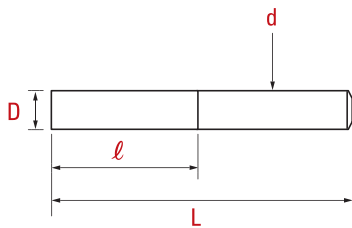
특기사항

- 날부 형상 : 부등분할(Unequal Division)+부등리드(Unequal Lead)
- 진동의 최소화로 고이송 및 강력 절삭이 가능

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 4F End Mills

초경 4날 엔드밀



Item no. 제품코드	D 외경	l 날장	L 전장	d 샙크
EM01CA-010	1.0	2.5	45	6
EM01CA-015	1.5	4	45	6
EM01CA-020	2.0	6	45	6
EM01CA-025	2.5	8	45	6
EM01CA-030	3.0	8	50	6
EM01CA-035	3.5	10	50	6
EM01CA-040	4.0	12	50	6
EM01CA-045	4.5	12	50	6
EM01CA-050	5.0	14	50	6
EM01CA-055	5.5	15	50	6
EM01CA-060	6.0	15	50	6
EM01CA-065	6.5	18	60	8
EM01CA-070	7.0	18	60	8
EM01CA-075	7.5	18	60	8
EM01CA-080	8.0	20	60	8
EM01CA-085	8.5	22	70	10
EM01CA-090	9.0	22	70	10
EM01CA-095	9.5	22	70	10

Item no. 제품코드	D 외경	l 날장	L 전장	d 샙크
EM01CA-100	10.0	24	70	10
EM01CA-105	10.5	24	75	12
EM01CA-110	11.0	25	75	12
EM01CA-115	11.5	25	75	12
EM01CA-120	12.0	28	75	12
EM01CA-130	13.0	28	85	12
EM01CA-140	14.0	28	85	14
EM01CA-150	15.0	28	90	16
EM01CA-160	16.0	32	90	16
EM01CA-180	18.0	32	100	18
EM01CA-190	19.0	38	100	20
EM01CA-200	20.0	38	100	20

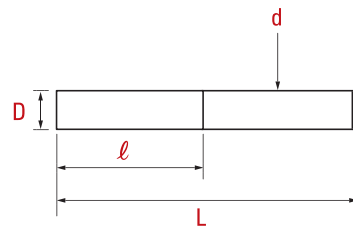
• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)

D	d	L
0~-0.03	h6	±1

Solid Carbide 4F End Mills for 3D

초경 4날 3D 엔드밀



Item no. 제품코드	D 외경	l 날장	L 전장	d 상크
EM41CA-020	2.0	6	45	4
EM41CA-025	2.5	7.5	45	4
EM41CA-030	3.0	9	45	6
EM41CA-035	3.5	10.5	45	6
EM41CA-040	4.0	12	50	6
EM41CA-045	4.5	13.5	50	6
EM41CA-050	5.0	15	50	6
EM41CA-055	5.5	16.5	60	6
EM41CA-060	6.0	18	60	6
EM41CA-065	6.5	19.5	60	8
EM41CA-070	7.0	21	60	8
EM41CA-075	7.5	22.5	70	8
EM41CA-080	8.0	24	70	8
EM41CA-085	8.5	25.5	70	10
EM41CA-090	9.0	27	75	10
EM41CA-095	9.5	28.5	75	10
EM41CA-100	10.0	30	80	10
EM41CA-105	10.5	31.5	80	12

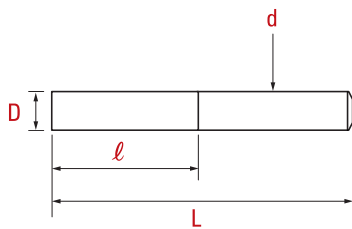
Item no. 제품코드	D 외경	l 날장	L 전장	d 상크
EM41CA-110	11.0	33	80	12
EM41CA-115	11.5	34.5	80	12
EM41CA-120	12.0	36	90	12
EM41CA-140	14.0	42	95	16
EM41CA-160	16.0	48	110	16
EM41CA-180	18.0	54	120	20
EM41CA-200	20.0	60	120	20

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

Solid Carbide 4F Econo End Mills

초경 범용 4날 엔드밀



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샹크
EM02CA-020	2.0	6	40	6
EM02CA-025	2.5	8	40	6
EM02CA-030	3.0	8	45	6
EM02CA-035	3.5	10	45	6
EM02CA-040	4.0	11	45	6
EM02CA-045	4.5	11	45	6
EM02CA-050	5.0	13	50	6
EM02CA-055	5.5	13	50	6
EM02CA-060	6.0	13	50	6
EM02CA-065	6.5	16	60	8
EM02CA-070	7.0	16	60	8
EM02CA-075	7.5	16	60	8
EM02CA-080	8.0	19	60	8
EM02CA-085	8.5	19	70	10
EM02CA-090	9.0	19	70	10
EM02CA-095	9.5	19	70	10
EM02CA-100	10.0	22	70	10
EM02CA-105	10.5	22	75	12

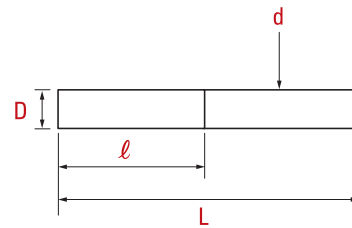
Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샹크
EM02CA-110	11.0	22	75	12
EM02CA-115	11.5	22	75	12
EM02CA-120	12.0	26	75	12

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

Solid Carbide 2F End Mills

초경 2날 엔드밀



Item no. 제품코드	D 외경	l 날장	L 전장	d 상크
EM03CA-010	1.0	2.5	45	6
EM03CA-015	1.5	4	45	6
EM03CA-020	2.0	6	45	6
EM03CA-025	2.5	8	45	6
EM03CA-030	3.0	8	50	6
EM03CA-035	3.5	10	50	6
EM03CA-040	4.0	12	50	6
EM03CA-045	4.5	12	50	6
EM03CA-050	5.0	14	50	6
EM03CA-055	5.5	15	50	6
EM03CA-060	6.0	15	50	6
EM03CA-065	6.5	18	60	8
EM03CA-070	7.0	18	60	8
EM03CA-075	7.5	18	60	8
EM03CA-080	8.0	20	60	8
EM03CA-085	8.5	20	70	10
EM03CA-090	9.0	22	70	10
EM03CA-095	9.5	22	70	10

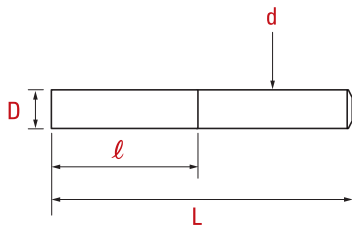
Item no. 제품코드	D 외경	l 날장	L 전장	d 상크
EM03CA-100	10.0	23	70	10
EM03CA-105	10.5	23	75	12
EM03CA-110	11.0	24	75	12
EM03CA-115	11.5	24	75	12
EM03CA-120	12.0	26	75	12
EM03CA-130	13.0	26	85	12
EM03CA-140	14.0	26	85	14
EM03CA-150	15.0	26	90	16
EM03CA-160	16.0	32	100	16
EM03CA-180	18.0	32	100	18
EM03CA-190	19.0	32	100	20
EM03CA-200	20.0	38	100	20

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

Solid Carbide 2F End Mills for 3D

초경 2날 3D 엔드밀



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤프크
EM42CA-020	2.0	6	45	4
EM42CA-025	2.5	7.5	45	4
EM42CA-030	3.0	9	45	6
EM42CA-035	3.5	10.5	45	6
EM42CA-040	4.0	12	50	6
EM42CA-045	4.5	13.5	50	6
EM42CA-050	5.0	15	50	6
EM42CA-055	5.5	16.5	60	6
EM42CA-060	6.0	18	60	6
EM42CA-065	6.5	19.5	60	8
EM42CA-070	7.0	21	60	8
EM42CA-075	7.5	22.5	70	8
EM42CA-080	8.0	24	70	8
EM42CA-085	8.5	25.5	70	10
EM42CA-090	9.0	27	75	10
EM42CA-095	9.5	28.5	75	10
EM42CA-100	10.0	30	80	10
EM42CA-105	10.5	31.5	80	12

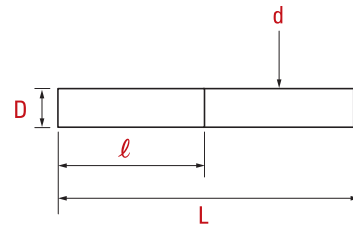
Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤프크
EM42CA-110	11.0	33	80	12
EM42CA-115	11.5	34.5	80	12
EM42CA-120	12.0	36	90	12
EM42CA-140	14.0	42	95	16
EM42CA-160	16.0	48	110	16
EM42CA-180	18.0	54	120	20
EM42CA-200	20.0	60	120	20

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

Solid Carbide 2F Econo End Mills

초경 범용 2날 엔드밀



Item no. 제품코드	D 외경	l 날장	L 전장	d 상크
EM04CA-020	2.0	6	40	6
EM04CA-025	2.5	8	40	6
EM04CA-030	3.0	8	45	6
EM04CA-035	3.5	10	45	6
EM04CA-040	4.0	11	45	6
EM04CA-045	4.5	11	45	6
EM04CA-050	5.0	13	50	6
EM04CA-055	5.5	13	50	6
EM04CA-060	6.0	13	50	6
EM04CA-065	6.5	16	60	8
EM04CA-070	7.0	16	60	8
EM04CA-075	7.5	16	60	8
EM04CA-080	8.0	19	60	8
EM04CA-085	8.5	19	70	10
EM04CA-090	9.0	19	70	10
EM04CA-095	9.5	19	70	10
EM04CA-100	10.0	22	70	10
EM04CA-105	10.5	22	75	12

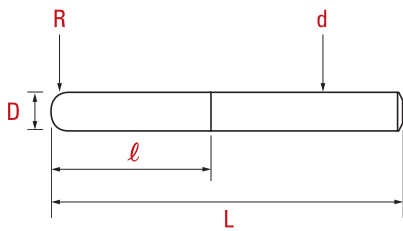
Item no. 제품코드	D 외경	l 날장	L 전장	d 상크
EM04CA-110	11.0	22	75	12
EM04CA-115	11.5	22	75	12
EM04CA-120	12.0	26	75	12

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

Solid Carbide 2F Ball End Mills

초경 2날 볼 엔드밀



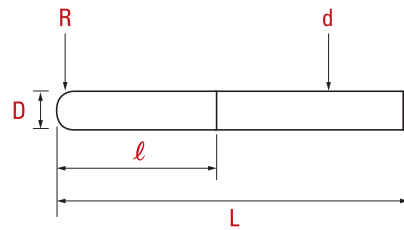
Item no. 제품코드	RXD 규격	ℓ 날장	L 전장	d 샤희크
EM05CA-010	R0.5XΦ1.0	2.5	50	6
EM05CA-015	R0.75XΦ1.5	4	50	6
EM05CA-020	R1.0XΦ2.0	5	50	6
EM05CA-030	R1.5XΦ3.0	8	60	6
EM05CA-040	R2.0XΦ4.0	8	70	6
EM05CA-050	R2.5XΦ5.0	10	80	6
EM05CA-060	R3.0XΦ6.0	12	90	6
EM05CA-070	R3.5XΦ7.0	14	90	8
EM05CA-080	R4.0XΦ8.0	14	100	8
EM05CA-090	R4.5XΦ9.0	18	100	10
EM05CA-100	R5.0XΦ10.0	18	100	10
EM05CA-120	R6.0XΦ12.0	22	105	12
EM05CA-140	R7.0XΦ14.0	26	105	14
EM05CA-160	R8.0XΦ16.0	30	140	16
EM05CA-180	R9.0XΦ18.0	34	140	18
EM05CA-200	R10.0XΦ20.0	50	160	20

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 2F Negative Ball End Mills

초경 2날 네카티브 볼 엔드밀



Item no. 제품코드	RXD 규격	ℓ 날장	L 전장	d 샤홅크
EM30CA-010	R0.5XΦ1.0	2.5	50	6
EM30CA-015	R0.75XΦ1.5	4	50	6
EM30CA-020	R1.0XΦ2.0	5	50	6
EM30CA-030	R1.5XΦ3.0	8	60	6
EM30CA-040	R2.0XΦ4.0	8	70	6
EM30CA-050	R2.5XΦ5.0	10	80	6
EM30CA-060	R3.0XΦ6.0	12	90	6
EM30CA-070	R3.5XΦ7.0	14	90	8
EM30CA-080	R4.0XΦ8.0	14	100	8
EM30CA-090	R4.5XΦ9.0	18	100	10
EM30CA-100	R5.0XΦ10.0	18	100	10
EM30CA-120	R6.0XΦ12.0	22	105	12

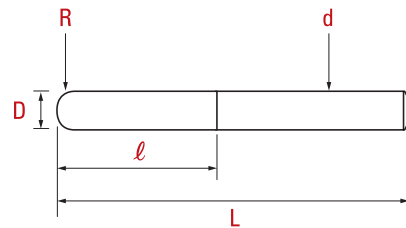
Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

• 볼 가공부의 파손 방지를 위한 특수설계적용

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 2F Econo Ball End Mills

초경 범용 2날 볼 엔드밀



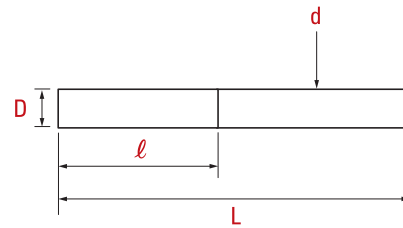
Item no. 제품코드	RXD 규격	ℓ 날장	L 전장	d 샤프크
EM06CA-020	R1.0XΦ2.0	5	50	6
EM06CA-030	R1.5XΦ3.0	8	60	6
EM06CA-040	R2.0XΦ4.0	8	65	6
EM06CA-050	R2.5XΦ5.0	12	70	6
EM06CA-060	R3.0XΦ6.0	12	80	6
EM06CA-070	R3.5XΦ7.0	12	80	8
EM06CA-080	R4.0XΦ8.0	14	90	8
EM06CA-090	R4.5XΦ9.0	18	100	10
EM06CA-100	R5.0XΦ10.0	18	100	10
EM06CA-120	R6.0XΦ12.0	22	103	12

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 1F End Mills for Aluminum

초경 1날
알루미늄용
엔드밀



Item no. 제품코드	D 규격	ℓ 날장	L 전장	d 상크
EM21CA-01003	1.0	3	45	6
EM21CA-01506	1.5	6	45	6
EM21CA-02003	2.0	3.5	45	6
EM21CA-02006	2.0	6	45	6
EM21CA-02012	2.0	12	45	6
EM21CA-02507	2.5	7	45	6
EM21CA-03007	3.0	7	45	6
EM21CA-03012	3.0	12	45	6
EM21CA-04012	4.0	12	45	6
EM21CA-05007	5.0	7	45	6
EM21CA-05012	5.0	12	45	6
EM21CA-05017	5.0	17	53	6
EM21CA-06012	6.0	12	45	6
EM21CA-06017	6.0	17	53	6
EM21CA-06022	6.0	22	53	6
EM21CA-06032	6.0	32	63	6
EM21CA-08023	8.0	23	53	8
EM21CA-08032	8.0	32	63	8
EM21CA-10023	10.0	23	63	10

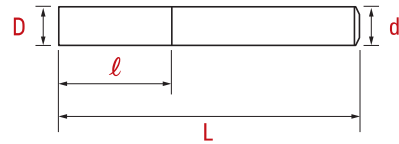
Item no. 제품코드	D 규격	ℓ 날장	L 전장	d 상크
EM21CA-10032	10.0	32	75	10
EM21CA-12026	12.0	26	75	12
EM21CA-12035	12.0	35	80	12

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

Solid Carbide 1F Down Cut End Mills for Aluminum

초경 1날
알루미늄용
역 엔드밀



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 상크
EM31CA-0206	2	6	45	6
EM31CA-0307	3	7	45	6
EM31CA-0312		12	45	6
EM31CA-0412	4	12	45	6
EM31CA-0416		16	53	6
EM31CA-0522	5	22	53	6
EM31CA-0627	6	27	63	6
EM31CA-0832	8	32	63	8

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)

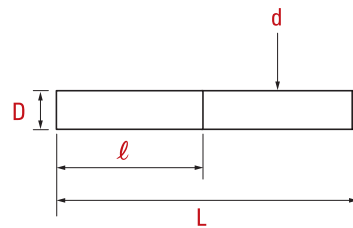
D	d	L
0~-0.03	h6	±1

특기사항

- 박판가공을 위한 좌헬리컬(Left Helical) 우컷팅(Right Cutting) 제품

Solid Carbide 2F End Mills for Al, Cu

초경 2날 알루미늄용 엔드밀



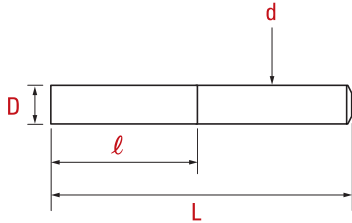
Item no. 제품코드	D 외경	l 날장	L 전장	d 샤크
EM07CA-020	2.0	8	45	6
EM07CA-025	2.5	8	45	6
EM07CA-030	3.0	12	50	6
EM07CA-040	4.0	12	50	6
EM07CA-050	5.0	16	57	6
EM07CA-060	6.0	16	57	6
EM07CA-070	7.0	20	63	8
EM07CA-080	8.0	20	63	8
EM07CA-090	9.0	25	70	10
EM07CA-100	10.0	25	70	10
EM07CA-110	11.0	30	80	12
EM07CA-120	12.0	32	80	12
EM07CA-140	14.0	35	85	14
EM07CA-160	16.0	40	90	16

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 3F End Mills for Al, Cu

초경 3날 알루미늄용 엔드밀



Item no. 제품코드	D 외경	l 날장	L 전장	d 샥크
EM08CA-03001	3.0	12	50	6
EM08CA-03002		15	50	6
EM08CA-03003		20	62	6
EM08CA-03004		25	62	6
EM08CA-03005		30	70	6
EM08CA-03501	3.5	12	50	6
EM08CA-04001	4.0	14	50	6
EM08CA-04002		20	62	6
EM08CA-04003		25	62	6
EM08CA-04004		30	70	6
EM08CA-04005		35	70	6
EM08CA-04501	4.5	14	50	6
EM08CA-05001	5.0	16	57	6
EM08CA-05002		20	57	6
EM08CA-05003		25	62	6
EM08CA-05004		30	70	6
EM08CA-05005		35	70	6
EM08CA-05006		40	75	6
EM08CA-05501	5.5	16	57	6
EM08CA-06001	6.0	16	57	6
EM08CA-06002		20	57	6
EM08CA-06003		25	62	6
EM08CA-06004		30	70	6
EM08CA-06005		35	80	6

Item no. 제품코드	D 외경	l 날장	L 전장	d 샥크
EM08CA-06006	6.0	40	80	6
EM08CA-06007		45	80	6
EM08CA-06501	6.5	18	57	8
EM08CA-07001	7.0	20	63	8
EM08CA-07002		35	80	8
EM08CA-07003		40	80	8
EM08CA-08001	8.0	20	63	8
EM08CA-08002		25	63	8
EM08CA-08003		30	70	8
EM08CA-08004		35	80	8
EM08CA-08005		40	90	8
EM08CA-08006		50	100	8
EM08CA-08007	9.0	60	110	8
EM08CA-09001		25	70	10
EM08CA-09002		35	80	10
EM08CA-09003		45	90	10
EM08CA-09004	10.0	60	105	10
EM08CA-10001		25	70	10
EM08CA-10002		30	80	10
EM08CA-10003		35	80	10
EM08CA-10004		40	90	10
EM08CA-10005		45	100	10
EM08CA-10006		50	110	10
EM08CA-10007	60	110	10	

Carbide End Mills

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 상크
EM08CA-11001	11.0	30	80	12
EM08CA-11002		60	110	12
EM08CA-12001	12.0	32	80	12
EM08CA-12002		40	90	12
EM08CA-12003		45	100	12
EM08CA-12004		50	100	12
EM08CA-12005		60	110	12
EM08CA-12006		70	120	12
EM08CA-12007		75	130	12
EM08CA-14001	14.0	35	85	14
EM08CA-14002		50	110	14
EM08CA-14003		60	110	14
EM08CA-15001	15.0	40	90	16
EM08CA-16001	16.0	40	90	16
EM08CA-16002		45	90	16
EM08CA-16003		50	110	16
EM08CA-16004		60	110	16
EM08CA-16005		65	125	16
EM08CA-16006		70	130	16
EM08CA-16007		80	130	16
EM08CA-16008		90	150	16
EM08CA-16009		100	160	16
EM08CA-16010		110	170	16
EM08CA-16011		120	180	16
EM08CA-16012		130	190	16
EM08CA-16013		150	210	16
EM08CA-16014	160	220	16	
EM08CA-16015	170	230	16	
EM08CA-16016	180	250	16	
EM08CA-18001	18.0	45	100	18
EM08CA-18002		50	110	18
EM08CA-18003		55	110	18
EM08CA-18004		65	120	18
EM08CA-20001	20.0	35	80	20
EM08CA-20002		47	100	20
EM08CA-20003		60	110	20

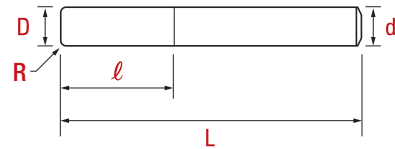
Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 상크	
EM08CA-20004	20.0	65	120	20	
EM08CA-20005		70	130	20	
EM08CA-20006		80	140	20	
EM08CA-20007		90	150	20	
EM08CA-20008		100	160	20	
EM08CA-20009		110	170	20	
EM08CA-20010		120	180	20	
EM08CA-20011		130	190	20	
EM08CA-20012		150	210	20	
EM08CA-20013		160	220	20	
EM08CA-20014		170	240	20	
EM08CA-20015		180	250	20	
EM08CA-25001		25.0	35	85	25
EM08CA-25002			55	100	25
EM08CA-25003	60		110	25	
EM08CA-25004	70		135	25	
EM08CA-25005	80		145	25	
EM08CA-25006	85		150	25	
EM08CA-25007	90		160	25	
EM08CA-25008	100		170	25	
EM08CA-25009	110		180	25	
EM08CA-25010	120		200	25	
EM08CA-25011	130		210	25	
EM08CA-25012	150		240	25	
EM08CA-25013	160		250	25	

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

Solid Carbide 3F Unequal Division & Unequal Lead Corner Radius End Mills for Aluminum

초경 3날 부등분할
부등리드 코너 레디우스
알루미늄용 엔드밀



Item no. 제품코드	D 외경	R 코너	ℓ 날장	L 전장	d 상크
EM62CA-0101	1	0.1	3	50	6
EM62CA-0201	2	0.1	6	50	6
EM62CA-0302	3	0.2	12	55	6
EM62CA-0402	4	0.2	14	55	6
EM62CA-0502	5	0.2	16	55	8
EM62CA-0603	6	0.3	18	60	8
EM62CA-0803	8	0.3	23	65	10
EM62CA-1003	10	0.3	28	70	10
EM62CA-1205	12	0.5	33	80	12
EM62CA-1605	16	0.5	43	100	16
EM62CA-2005	20	0.5	48	110	20

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)

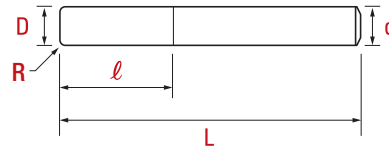
D	d	L
0~-0.03	h6	±1

특기사항

- 날부형상 : 부등분할(Unequal Division) + 부등리드(Unequal Lead)
- 가공바닥면 조도개선을 위한 특수설계적용
- Flute 경면가공(Mirror Face)으로 가공면 조도향상 및 내마모 증대

Solid Carbide 3F Corner Radius End Mills for Aluminium - 4D

초경 3날
알루미늄 가공용
코너 레디우스 엔드밀 - 4D



Item no. 제품코드	D 외경	R 코너	ℓ 날장	L 전장	d 상크
EM65CA-060	6	0.5	24	75	6
EM65CA-080	8	0.5	32	80	8
EM65CA-100	10	1.0	40	100	10
EM65CA-120	12	1.0	48	110	12
EM65CA-160	16	1.5	64	125	16
EM65CA-200	20	2.0	80	150	20

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

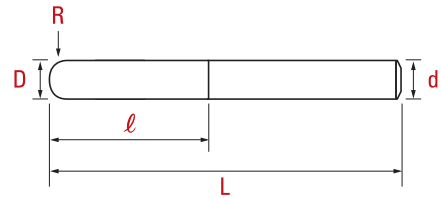
특기사항

- 날부형상 : 부등분할(Unequal Division) + 부등리드(Unequal Lead)
- 가공바닥면 조도개선을 위한 특수설계적용
- Flute 경면가공(Mirror Face)으로 가공면 조도향상 및 내마모 증대

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 3F Ball End Mills for Aluminium

초경 3날 알루미늄
가공용 볼 엔드밀



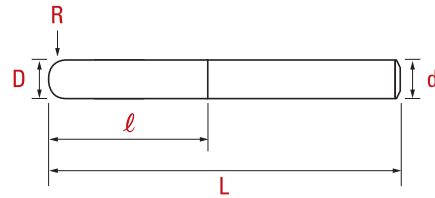
Item no. 제품코드	D 외경	R 코너	l 날장	L 전장	d 상크
EM66CA-010	1	0.50	1.5	50	4
EM66CA-015	1.5	0.75	2.5	50	4
EM66CA-020	2	1.00	3	50	4
EM66CA-030	3	1.50	4.5	60	6
EM66CA-040-4	4	2.00	6	70	4
EM66CA-040	4	2.00	6	70	6
EM66CA-050	5	2.50	8	80	6
EM66CA-060	6	3.00	10	80	6
EM66CA-080	8	4.00	12	90	8
EM66CA-080-L	8	4.00	12	120	8
EM66CA-100	10	5.00	15	100	10
EM66CA-120	12	6.00	18	110	12

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 2F Ball End Mills for Aluminum

초경 2날 알루미늄용
볼 엔드밀



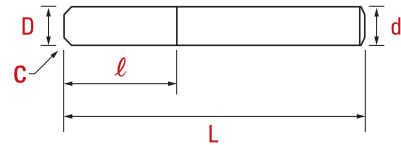
Item no. 제품코드	RXD 규격	ℓ 날장	L 전장	d 샤크
EM32CA-010	R0.5XΦ1.0	2.5	60	6
EM32CA-015	R0.75XΦ1.5	4	60	6
EM32CA-020	R1.0XΦ2.0	5	60	6
EM32CA-030	R1.5XΦ3.0	8	70	6
EM32CA-040	R2.0XΦ4.0	8	80	6
EM32CA-050	R2.5XΦ5.0	10	90	6
EM32CA-060	R3.0XΦ6.0	12	90	6
EM32CA-080	R4.0XΦ8.0	14	100	8
EM32CA-100	R5.0XΦ10.0	18	100	10
EM32CA-120	R6.0XΦ12.0	22	110	12
EM32CA-160	R8.0XΦ16.0	30	140	16
EM32CA-200	R10.0XΦ20.0	38	160	20

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 3F Unequal Division & Unequal Lead Roughing End Mills for Aluminum

초경 3날
부등분할 부등리드
알루미늄용 라핑 엔드밀



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샙크	C 코너
EM33CA-040	4	12	60	6	0.4
EM33CA-050	5	16	60	6	0.4
EM33CA-060	6	16	60	6	0.5
EM33CA-070	7	20	65	8	0.5
EM33CA-080	8	20	65	8	0.5
EM33CA-090	9	25	75	10	0.5
EM33CA-100	10	25	75	10	0.5
EM33CA-120	12	30	80	12	0.5
EM33CA-160	16	42	100	16	0.6
EM33CA-200	20	48	100	20	0.6

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

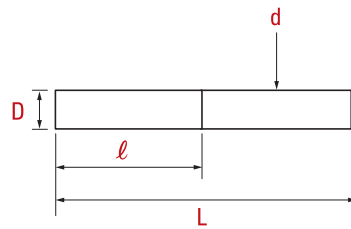
Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

특기사항

- 날부형상 : 부등분할(Unequal Division) + 부등리드(Unequal Lead)
- 저진동 및 강력절삭 가능

Solid Carbide 3F Wave End Mills for Aluminum

초경 3날 웨이브
알루미늄용 엔드밀



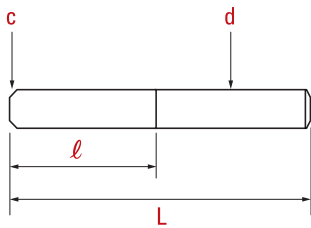
Item no. 제품코드	D 외경	l 날장	L 전장	d 상크
EM10CA-060	6.0	18	63	6
EM10CA-070	7.0	23	63	8
EM10CA-080	8.0	23	63	8
EM10CA-090	9.0	30	80	10
EM10CA-100	10.0	30	80	10
EM10CA-110	11.0	32	80	12
EM10CA-120	12.0	32	80	12
EM10CA-140	14.0	32	80	14
EM10CA-160	16.0	48	105	16
EM10CA-180	18.0	48	105	18
EM10CA-200	20.0	50	105	20
EM10CA-250	25.0	50	105	25

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 3F Wave Roughing End Mills for Aluminum

초경 3날 웨이브 라핑
알루미늄용 엔드밀



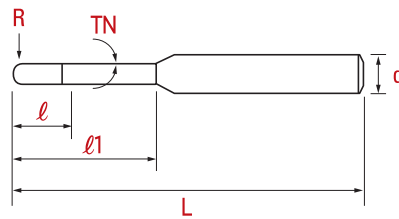
Item no. 제품코드	D 규격	ℓ 날장	L 전장	C 코너	d 샙크
EM11CA-060	6.0	18	63	0.3	6
EM11CA-070	7.0	23	63	0.3	8
EM11CA-080	8.0	23	63	0.3	8
EM11CA-090	9.0	30	80	0.3	10
EM11CA-100	10.0	30	80	0.3	10
EM11CA-110	11.0	32	80	0.5	12
EM11CA-120	12.0	32	80	0.5	12
EM11CA-140	14.0	32	80	0.5	14
EM11CA-160	16.0	48	105	0.5	16
EM11CA-180	18.0	48	105	0.5	18
EM11CA-200	20.0	50	105	0.5	20
EM11CA-250	25.0	50	105	0.5	25

Tolerance (허용공차)		
D	d	L
0~-0.05	h6	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 2F Ball Nose End mills with Taper Long Neck

초경 2날 고경도용
테이퍼 롱넥 볼
엔드밀



Item no. 제품코드	R 외경	TN 목경사	l 날장	l1 목기장	L 전장	d 상크
EM48CA-020-10080-6	1	1°	3	10	80	6
EM48CA-020-15080-6		1°	3	15	80	6
EM48CA-020-20080-6		1°	3	20	80	6
EM48CA-020-25080-6		1°	3	25	80	6
EM48CA-030-20-080-6	1.5	1°	4	20	80	6
EM48CA-030-30-080-6		1°	4	30	80	6
EM48CA-030-40-080-6		1°	4	40	80	6
EM48CA-030-50-080-6		1°	4	50	80	6
EM48CA-030-70-120-6		1°	4	70	120	6
EM48CA-030-80-120-6	2	1°	4	80	120	6
EM48CA-040-20-080-6		1°	6	20	80	6
EM48CA-040-30-080-6		1°	6	30	80	6
EM48CA-040-40-080-6		1°	6	40	80	6
EM48CA-040-40-100-6		1°	6	40	100	6
EM48CA-040-50-080-6		1°	6	50	80	6
EM48CA-040-50-100-6		1°	6	50	100	6
EM48CA-040-50-100-8		1°	6	50	100	8
EM48CA-040-60-100-6	1°	6	60	100	6	

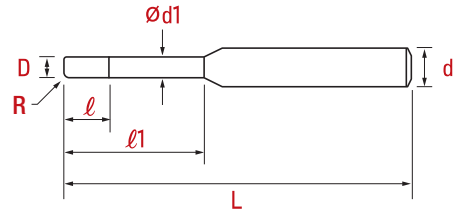
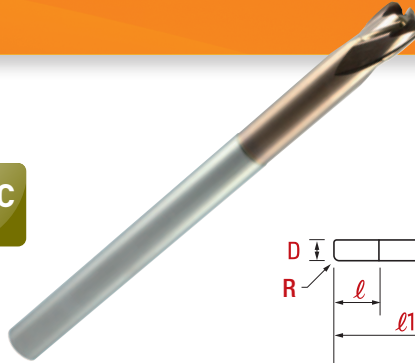
Item no. 제품코드	R 외경	TN 목경사	ℓ 날장	ℓ1 목기장	L 전장	d 상크
EM48CA-040-60-120-6	2	1°	6	60	120	6
EM48CA-040-60-100-8		1°	6	60	100	8
EM48CA-040-70-120-8		1°	6	70	120	8
EM48CA-040-80-120-8		1°	6	80	120	8
EM48CA-050-30-080-6	2.5	1°	7	30	80	6
EM48CA-050-40-080-6		1°	7	40	80	6
EM48CA-050-40-100-6		1°	7	40	100	6
EM48CA-050-40-120-6		1°	7	40	120	6
EM48CA-050-40-100-8		1°	7	40	100	8
EM48CA-050-50-100-8		1°	7	50	100	8
EM48CA-050-60-100-8		1°	7	60	100	8
EM48CA-050-70-120-8		1°	7	70	120	8
EM48CA-050-80-120-8	1°	7	80	120	8	
EM48CA-060-30-100-8	3	1°	8	30	100	8
EM48CA-060-40-100-8		1°	8	40	100	8
EM48CA-060-50-100-8		1°	8	50	100	8
EM48CA-060-60-100-8		1°	8	60	100	8
EM48CA-060-60-120-8		1°	8	60	120	8

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

Solid Carbide 4F Unequal Division & Unequal Lead Corner Radius End Mills with Long Neck

초경 4날 부등분할
부등리드 고경도용
테이퍼 롱넥 코너
레디우스 엔드밀



Item no. 제품코드	D 외경	R 코너	ℓ 날장	ℓ1 목기장	Φd1 목경	L 전장	d 샤홅크
EM49CA-020-050-10	2	0.5	2	10	1.94	60	6
EM49CA-020-050-15		0.5	2	15	1.94	60	6
EM49CA-020-050-20		0.5	2	20	1.94	60	6
EM49CA-020-050-25		0.5	2	25	1.94	80	6
EM49CA-020-050-30		0.5	2	30	1.94	80	6
EM49CA-025-050-15	2.5	0.5	2.5	15	2.4	80	6
EM49CA-025-050-20		0.5	2.5	20	2.4	80	6
EM49CA-025-050-25		0.5	2.5	25	2.4	80	6
EM49CA-025-050-30		0.5	2.5	30	2.4	80	6
EM49CA-030-050-20	3	0.5	3	20	2.85	80	6
EM49CA-030-050-25		0.5	3	25	2.85	80	6
EM49CA-030-050-30		0.5	3	30	2.85	80	6
EM49CA-030-050-35		0.5	3	35	2.85	80	6
EM49CA-030-075-10		0.75	3	10	2.85	80	6
EM49CA-040-050-20	4	0.5	4	20	3.8	80	6
EM49CA-040-050-25		0.5	4	25	3.8	80	6
EM49CA-040-050-30		0.5	4	30	3.8	80	6
EM49CA-040-050-35		0.5	4	35	3.8	80	6
EM49CA-040-050-40		0.5	4	40	3.8	80	6

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

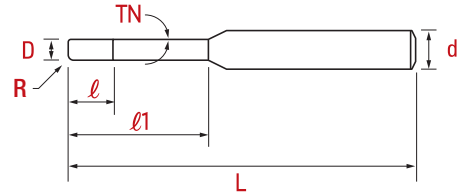
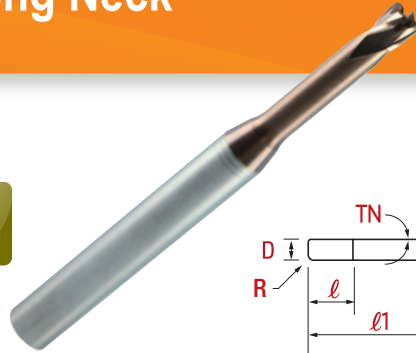
Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

특기사항

• 날부형상 : 부등분할(Unequal Division) + 부등리드(Unequal Lead)

Solid Carbide 4F Unequal Division & Unequal Lead Corner Radius End Mills with Taper Long Neck

초경 4날 부등분할
부등리드 고경도용
테이퍼 롱넥 코너
레디우스 엔드밀



Item no. 제품코드	D 외경	R 코너	TN 목경사	l 날장	l1 목기장	L 전장	d 샤프크
EM51CA-010-020-1005	1	0.2	30'	1	10	60	4
EM51CA-010-020-1010		0.2	1°	1	10	60	4
EM51CA-010-020-1015		0.2	1° 30'	1	10	60	4
EM51CA-010-020-1205		0.2	30'	1	12	60	4
EM51CA-010-020-1210		0.2	1°	1	12	60	4
EM51CA-010-020-1215		0.2	1° 30'	1	12	60	4
EM51CA-010-020-1405		0.2	30'	1	14	60	4
EM51CA-010-020-1410		0.2	1°	1	14	60	4
EM51CA-010-020-1415		0.2	1° 30'	1	14	60	4
EM51CA-010-020-1605		0.2	30'	1	16	60	4
EM51CA-010-020-1610		0.2	1°	1	16	60	4
EM51CA-010-020-1615		0.2	1° 30'	1	16	60	4
EM51CA-015-030-1005	1.5	0.3	30'	1.5	10	60	4
EM51CA-015-030-1010		0.3	1°	1.5	10	60	4
EM51CA-015-030-1015		0.3	1° 30'	1.5	10	60	4
EM51CA-015-030-1505		0.3	30'	1.5	15	60	4
EM51CA-015-030-1510		0.3	1°	1.5	15	60	4
EM51CA-015-030-1515		0.3	1° 30'	1.5	15	60	4
EM51CA-015-030-2005		0.3	30'	1.5	20	60	4
EM51CA-015-030-2010		0.3	1°	1.5	20	60	4
EM51CA-015-030-2015		0.3	1° 30'	1.5	20	60	4
EM51CA-015-030-2505		0.3	30'	1.5	25	60	4
EM51CA-015-030-2510		0.3	1°	1.5	25	60	4
EM51CA-015-030-2515		0.3	1° 30'	1.5	25	60	4
EM51CA-020-050-1505	2	0.5	30'	2	15	60	6
EM51CA-020-050-1510		0.5	1°	2	15	60	6
EM51CA-020-050-1515		0.5	1° 30'	2	15	60	6

Carbide End Mills

Item no. 제품코드	D 외경	R 코너	TN 목경사	ℓ 날장	ℓ1 목기장	L 전장	d 상크	
EM51CA-020-050-2005	2	0.5	30'	2	20	60	6	
EM51CA-020-050-2010		0.5	1°	2	20	60	6	
EM51CA-020-050-2015		0.5	1° 30'	2	20	60	6	
EM51CA-020-050-2505		0.5	30'	2	25	80	6	
EM51CA-020-050-2510		0.5	1°	2	25	80	6	
EM51CA-020-050-2515		0.5	1° 30'	2	25	80	6	
EM51CA-020-050-3005		0.5	30'	2	30	80	6	
EM51CA-020-050-3010		0.5	1°	2	30	80	6	
EM51CA-020-050-3015		0.5	1° 30'	2	30	80	6	
EM51CA-020-050-3505		0.5	30'	2	35	80	6	
EM51CA-020-050-3510		0.5	1°	2	35	80	6	
EM51CA-020-050-3515		0.5	1° 30'	2	35	80	6	
EM51CA-020-050-4005		0.5	30'	2	40	80	6	
EM51CA-020-050-4010		0.5	1°	2	40	80	6	
EM51CA-020-050-4015		0.5	1° 30'	2	40	80	6	
EM51CA-030-050-1505		3	0.5	30'	3	15	80	6
EM51CA-030-050-1510			0.5	1°	3	15	80	6
EM51CA-030-050-1515			0.5	1° 30'	3	15	80	6
EM51CA-030-050-2005	0.5		1°	3	20	80	6	
EM51CA-030-050-2010	0.5		1° 30'	3	20	80	6	
EM51CA-030-050-2505	0.5		30'	3	25	80	6	
EM51CA-030-050-2510	0.5		1°	3	25	80	6	
EM51CA-030-050-2515	0.5		1° 30'	3	25	80	6	
EM51CA-030-050-3005	0.5		30'	3	30	80	6	
EM51CA-030-050-3010	0.5		1°	3	30	80	6	
EM51CA-030-050-3015	0.5		1° 30'	3	30	80	6	
EM51CA-030-050-3505	0.5		30'	3	35	80	6	
EM51CA-030-050-3510	0.5		1°	3	35	80	6	
EM51CA-030-050-3515	0.5		1° 30'	3	35	80	6	
EM51CA-030-050-4005	0.5		30'	3	40	80	6	
EM51CA-030-050-4010	0.5		1°	3	40	80	6	
EM51CA-030-050-4015	0.5		1° 30'	3	40	80	6	
EM51CA-030-050-4505	0.5		30'	3	45	80	6	
EM51CA-030-050-4510	0.5	1°	3	45	80	6		
EM51CA-030-050-4515	0.5	1° 30'	3	45	80	6		
EM51CA-030-075-2010	3	0.75	1°	3	20	80	6	
EM51CA-030-075-3010		0.75	1°	3	30	80	6	
EM51CA-030-075-4010		0.75	1°	3	40	80	6	
EM51CA-040-050-2005	4	0.5	30'	4	20	80	6	
EM51CA-040-050-2010		0.5	1°	4	20	80	6	
EM51CA-040-050-2015		0.5	1° 30'	4	20	80	6	
EM51CA-040-050-2505		0.5	30'	4	25	80	6	
EM51CA-040-050-2510		0.5	1°	4	25	80	6	
EM51CA-040-050-2515		0.5	1° 30'	4	25	80	6	

Item no. 제품코드	D 외경	R 코너	TN 목경사	ℓ 날장	ℓ1 목기장	L 전장	d 상크	
EM51CA-040-050-3005	4	0.5	30'	4	30	80	6	
EM51CA-040-050-3010		0.5	1°	4	30	80	6	
EM51CA-040-050-3015		0.5	1° 30'	4	30	80	6	
EM51CA-040-050-3505		0.5	30'	4	35	80	6	
EM51CA-040-050-3510		0.5	1°	4	35	80	6	
EM51CA-040-050-3515		0.5	1° 30'	4	35	80	6	
EM51CA-040-050-4005		0.5	30'	4	40	80	6	
EM51CA-040-050-4010		0.5	1°	4	40	80	6	
EM51CA-040-050-4015		0.5	1° 30'	4	40	80	6	
EM51CA-040-050-4505		0.5	30'	4	45	80	6	
EM51CA-040-050-4510		0.5	1°	4	45	80	6	
EM51CA-040-050-4515		0.5	1° 30'	4	45	80	6	
EM51CA-040-050-5005		0.5	30'	4	50	80	6	
EM51CA-040-050-5010		0.5	1°	4	50	80	6	
EM51CA-040-050-5015		0.5	1° 30'	4	50	80	6	
EM51CA-040-100-2010		1	1°	4	20	80	6	
EM51CA-040-100-3010		1	1°	4	30	80	6	
EM51CA-040-100-4010		1	1°	4	40	80	6	
EM51CA-040-100-5010		1	1°	4	50	80	6	
EM51CA-040-100-5010-8		1	1°	4	50	100	8	
EM51CA-040-100-6010		1	1°	4	60	120	6	
EM51CA-040-100-6010-8		1	1°	4	60	100	8	
EM51CA-040-100-7010		1	1°	4	70	120	8	
EM51CA-040-100-8010		1	1°	4	80	120	8	
EM51CA-050-120-2010		5	1.2	1°	5	20	80	6
EM51CA-050-120-3010			1.2	1°	5	30	80	6
EM51CA-050-120-4010			1.2	1°	5	40	80	6
EM51CA-050-120-4010-2			1.2	1°	5	40	120	6
EM51CA-050-120-4010-8			1.2	1°	5	40	100	8
EM51CA-050-120-5010			1.2	1°	5	50	100	8
EM51CA-050-120-6010			1.2	1°	5	60	100	8
EM51CA-050-120-7010			1.2	1°	5	70	120	8
EM51CA-050-120-8010			1.2	1°	5	80	120	8
EM51CA-060-150-4010	6	1.5	1°	6	40	100	8	
EM51CA-060-150-5010		1.5	1°	6	50	100	8	
EM51CA-060-150-6010		1.5	1°	6	60	100	8	
EM51CA-060-150-6010-2		1.5	1°	6	60	120	8	

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

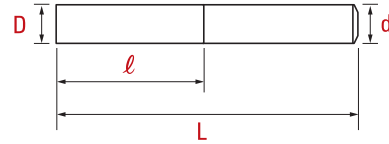
Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

특기사항

• 날부형상 : 부등분할(Unequal Division) + 부등리드(Unequal Lead)

Solid Carbide 4 & 6 Flutes Hi Helix End Mills for Hardened Materials

초경 4날 & 6날 고경도용
하이헬릭스 엔드밀



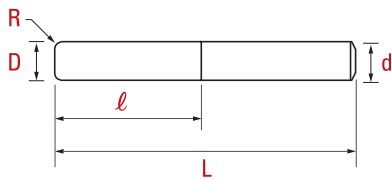
Item no. 제품코드	D 외경	l 날장	L 전장	d 상크	No. of Flute 날수
EM52CA-010	1	3.5	60	6	4
EM52CA-020	2	7	60	6	4
EM52CA-030	3	10	60	6	4
EM52CA-040	4	12	60	6	4
EM52CA-050	5	15	60	6	4
EM52CA-060	6	15	60	6	6
EM52CA-070	7	20	75	8	6
EM52CA-080	8	20	75	8	6
EM52CA-090	9	25	80	10	6
EM52CA-100	10	25	80	10	6
EM52CA-120	12	30	100	12	6
EM52CA-140	14	35	105	16	6
EM52CA-160	16	38	105	16	6
EM52CA-180	18	42	110	20	6
EM52CA-200	20	42	110	20	6

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 4F Corner Radius End Mills for Hardened Materials

초경 4날 고정도용 코너
레디우스 엔드밀



Item no. 제품코드	D 외경	R 코너	ℓ 날장	L 전장	d 샤희크
EM53CA-0302	3	0.2	10	60	6
EM53CA-0305		0.5	10	60	6
EM53CA-0402	4	0.2	12	60	6
EM53CA-0405		0.5	12	60	6
EM53CA-0410	5	1.0	12	60	6
EM53CA-0502		0.2	15	60	6
EM53CA-0505	6	0.5	15	60	6
EM53CA-0510		1.0	15	60	6
EM53CA-0603	6	0.3	15	60	6
EM53CA-0605		0.5	15	60	6
EM53CA-0610	8	1.0	15	60	6
EM53CA-0615		1.5	15	60	6
EM53CA-0803	8	0.3	20	75	8
EM53CA-0805		0.5	20	75	8
EM53CA-0810	10	1.0	20	75	8
EM53CA-0815		1.5	20	75	8
EM53CA-0820	10	2.0	20	75	8
EM53CA-1003		0.3	24	80	10
EM53CA-1005	10	0.5	24	80	10
EM53CA-1010		1.0	24	80	10
EM53CA-1015	1.5	24	80	10	

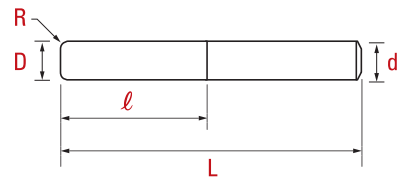
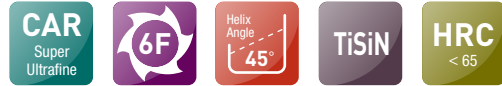
Item no. 제품코드	D 외경	R 코너	ℓ 날장	L 전장	d 샤희크
EM53CA-1020	10	2.0	24	80	10
EM53CA-1205	12	0.5	28	100	12
EM53CA-1210		1.0	28	100	12
EM53CA-1215	12	1.5	28	100	12
EM53CA-1220		2.0	28	100	12
EM53CA-1230	16	3.0	28	100	12
EM53CA-1610		1.0	32	105	16
EM53CA-1615	16	1.5	32	105	16
EM53CA-1620		2.0	32	105	16
EM53CA-1630	20	3.0	32	105	16
EM53CA-2010		1.0	38	110	20
EM53CA-2015	20	1.5	38	110	20
EM53CA-2020		2.0	38	110	20
EM53CA-2030	3.0	38	110	20	

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

Solid Carbide 6F Corner Radius End Mills for Hardened Materials

초경 6날 고경도용
코너 레디우스 엔드밀



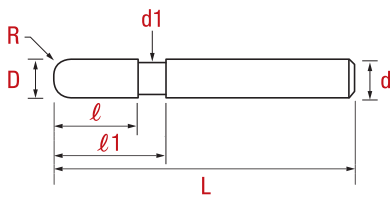
Item no. 제품코드	D 외경	R 코너	ℓ 날장	L 전장	d 샹크
EM54CA-0603	6	0.3	15	60	6
EM54CA-0605		0.5	15	60	6
EM54CA-0610		1.0	15	60	6
EM54CA-0803	8	0.3	20	75	8
EM54CA-0805		0.5	20	75	8
EM54CA-0810		1.0	20	75	8
EM54CA-1005	10	0.5	26	80	10
EM54CA-1010		1.0	26	80	10
EM54CA-1015		1.5	26	80	10
EM54CA-1020		2.0	26	80	10
EM54CA-1205	12	0.5	30	100	12
EM54CA-1210		1.0	30	100	12
EM54CA-1215		1.5	30	100	12
EM54CA-1220		2.0	30	100	12
EM54CA-1610	16	1.0	38	105	16
EM54CA-1620		2.0	38	105	16
EM54CA-2010	20	1.0	42	110	20
EM54CA-2020		2.0	42	110	20
EM54CA-2030		3.0	42	110	20

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 4F Unequal Division Ball End Mills for Hardened Materials

초경 4날
부등분할 고경도용
볼 엔드밀



Item no. 제품코드	R 반경	D 외경	ℓ 날기장	ℓ1 목기장	d1 목경	L 전장	d 샤크	No. of Flute 날수
EM55CA-01004	0.5	1	1.5	3	0.95	50	4	4
EM55CA-01006			1.5	3	0.95	50	6	4
EM55CA-01504	0.75	1.5	2.5	4.5	1.4	50	4	4
EM55CA-01506			2.5	4.5	1.4	50	6	4
EM55CA-02004	1	2	3	6	1.9	50	4	4
EM55CA-02006			3	6	1.9	50	6	4
EM55CA-02504	1.25	2.5	4	7.5	2.4	50	4	4
EM55CA-02506			4	7.5	2.4	50	6	4
EM55CA-03004	1.5	3	4.5	9	2.9	70	4	4
EM55CA-03006			4.5	9	2.9	70	6	4
EM55CA-04004	2	4	6	12	3.9	70	4	4
EM55CA-04006			6	12	3.9	70	6	4
EM55CA-05006	2.5	5	7.5	15	4.7	80	6	4
EM55CA-06006	3.0	6	9	18	5.7	90	6	4
EM55CA-08008	4.0	8	12	24	7.6	100	8	4
EM55CA-10010	5.0	10	15	30	9.5	100	10	4
EM55CA-12012	6.0	12	18	36	11.5	110	12	4

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

특기사항

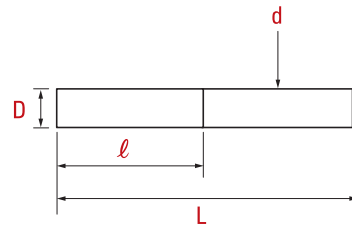
• 날부형상 : 부등분할(Unequal Division)

Tolerance (허용공차)

D	d	L
0~-0.03	h6	±1

Solid Carbide 4F End Mills for Hardened Materials

고경도용 초경 4날 엔드밀



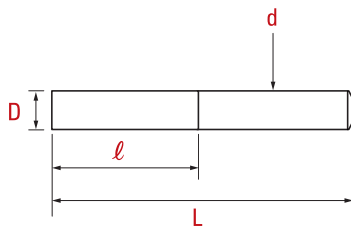
Item no. 제품코드	D 규격	ℓ 날장	L 전장	d 상크
EM12CA-010	1.0	2.5	50	6
EM12CA-015	1.5	4	50	6
EM12CA-020	2.0	6	50	6
EM12CA-025	2.5	7	50	6
EM12CA-030	3.0	8	60	6
EM12CA-035	3.5	9	60	6
EM12CA-040	4.0	10	60	6
EM12CA-050	5.0	13	60	6
EM12CA-060	6.0	15	60	6
EM12CA-070	7.0	18	65	8
EM12CA-080	8.0	19	65	8
EM12CA-090	9.0	22	70	10
EM12CA-100	10.0	25	70	10
EM12CA-110	11.0	28	80	12
EM12CA-120	12.0	30	80	12

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 2F End Mills for Hardened Materials

고경도용 초경 2날 엔드밀



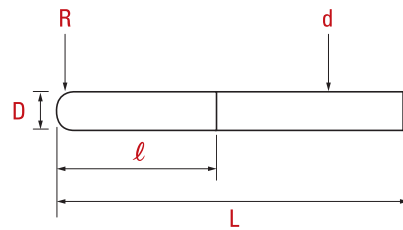
Item no. 제품코드	D 규격	l 날장	L 전장	d 상크
EM13CA-010	1.0	2.5	50	6
EM13CA-015	1.5	4	50	6
EM13CA-020	2.0	6	50	6
EM13CA-025	2.5	7	50	6
EM13CA-030	3.0	8	60	6
EM13CA-035	3.5	9	60	6
EM13CA-040	4.0	10	60	6
EM13CA-050	5.0	13	60	6
EM13CA-060	6.0	15	60	6
EM13CA-070	7.0	18	65	8
EM13CA-080	8.0	19	65	8
EM13CA-090	9.0	22	70	10
EM13CA-100	10.0	25	70	10
EM13CA-110	11.0	28	80	12
EM13CA-120	12.0	30	80	12

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 2F Ball End Mills for Hardened Materials

고경도용 초경 2날
볼 엔드밀



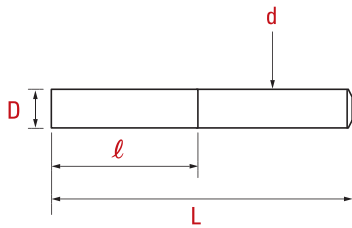
Item no. 제품코드	RxD 규격	ℓ 날장	L 전장	d 샤크
EM14CA-010	R0.5×Φ1.0	2.5	50	6
EM14CA-015	R0.75×Φ1.5	4	50	6
EM14CA-020	R1.0×Φ2.0	5	50	6
EM14CA-030	R1.5×Φ3.0	8	60	6
EM14CA-040	R2.0×Φ4.0	8	70	6
EM14CA-050	R2.5×Φ5.0	10	80	6
EM14CA-060	R3.0×Φ6.0	12	90	6
EM14CA-070	R3.5×Φ7.0	14	90	8
EM14CA-080	R4.0×Φ8.0	14	100	8
EM14CA-090	R4.5×Φ9.0	18	100	10
EM14CA-100	R5.0×Φ10.0	18	100	10
EM14CA-120	R6.0×Φ12.0	22	110	12

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 45° Helix 4F End Mills for Hardened Materials - Standard

고경도용 4날
45° 헬릭스 엔드밀
- 표준형



Item no. 제품코드	D 규격	l 날장	L 전장	d 샤푼크
EM39CA-033	3.0	8	50	3
EM39CA-030	3.0	8	50	6
EM39CA-044	4.0	11	50	4
EM39CA-040	4.0	11	50	6
EM39CA-050	5.0	14	50	6
EM39CA-060	6.0	16	50	6
EM39CA-080	8.0	20	60	8
EM39CA-100	10.0	30	75	10
EM39CA-120	12.0	30	80	12
EM39CA-160	16.0	40	110	16
EM39CA-200	20.0	45	110	20

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

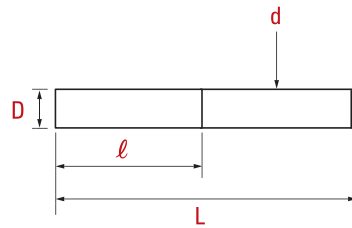
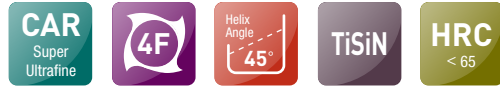
특기사항

- 탁월한 공구 강성으로 절삭 저항이 감소하고 표면 조도가 향상됨
- 고경도용 특수 코팅 적용으로 내마모성 및 내열성이 우수함
- 합금강부터 고경도강(HRc 65이하)까지 광범위한 피삭재에 적용 가능

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 45° Helix 4F End Mills for Hardened Materials - Long Type

고경도용 4날
45° 헬릭스 엔드밀
- 롱형



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤프크
EM44CA-030	3.0	12	50	6.0
EM44CA-040	4.0	16	50	6.0
EM44CA-050	5.0	20	55	6.0
EM44CA-060	6.0	30	65	6.0
EM44CA-080	8.0	30	65	8.0
EM44CA-100	10.0	40	82	10.0
EM44CA-120	12.0	40	82	12.0
EM44CA-160	16.0	60	110	16.0
EM44CA-200	20.0	60	110	20.0

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

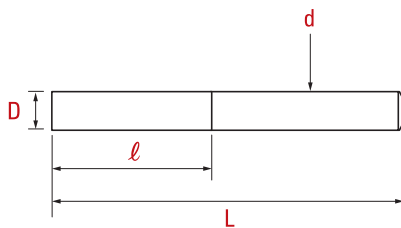
특기사항

- 탁월한 공구 강성으로 절삭 저항이 감소하고 표면 조도가 향상됨
- 고경도용 특수 코팅 적용으로 내마모성 및 내열성이 우수함
- 합금강부터 고경도강(HRC 65이하)까지 광범위한 피삭재에 적용 가능

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 1F End Mills for Acrylic

아크릴용 초경 1날 엔드밀



Item no. 제품코드	D 규격	ℓ 날장	L 전장	d 샙크
EM15CA-01002	1.0	2	45	6
EM15CA-01003	1.0	3	45	6
EM15CA-01506	1.5	6	45	6
EM15CA-02035	2.0	3.5	45	6
EM15CA-02007	2.0	7	45	6
EM15CA-02507	2.5	7	45	6
EM15CA-02512	2.5	12	45	6
EM15CA-03007	3.0	7	45	6
EM15CA-03012	3.0	12	45	6
EM15CA-03017	3.0	17	53	6
EM15CA-04007	4.0	7	45	6
EM15CA-04012	4.0	12	45	6
EM15CA-04017	4.0	17	53	6
EM15CA-04023	4.0	23	53	6

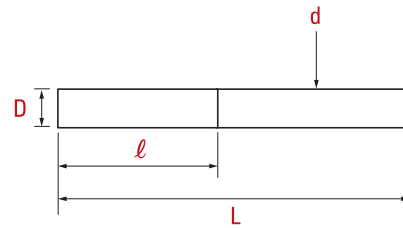
Item no. 제품코드	D 규격	ℓ 날장	L 전장	d 샙크
EM15CA-05012	5.0	12	45	6
EM15CA-05017	5.0	17	53	6
EM15CA-05025	5.0	25	53	6
EM15CA-05028	5.0	28	63	6
EM15CA-06012	6.0	12	45	6
EM15CA-06017	6.0	17	53	6
EM15CA-06022	6.0	22	53	6
EM15CA-06027	6.0	27	63	6
EM15CA-06032	6.0	32	63	6
EM15CA-08023	8.0	23	53	8
EM15CA-08027	8.0	27	63	8
EM15CA-08032	8.0	32	63	8
EM15CA-10022	10.0	22	53	10
EM15CA-10032	10.0	32	63	10

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

Solid Carbide 1F Down Cut End Mills for Acrylic

아크릴용
초경 1날 역 엔드밀



Item no. 제품코드	D 규격	l 날장	L 전장	d 샤희크
EM16CA-02003	2.0	3.5	45	6
EM16CA-02007	2.0	7	45	6
EM16CA-02012	2.0	12	45	6
EM16CA-03007	3.0	7	45	6
EM16CA-03012	3.0	12	45	6
EM16CA-03017	3.0	17	53	6
EM16CA-03023	3.0	23	53	6
EM16CA-04012	4.0	12	45	6
EM16CA-04017	4.0	17	53	6
EM16CA-04023	4.0	23	53	6
EM16CA-05017	5.0	17	53	6
EM16CA-05025	5.0	25	53	6

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

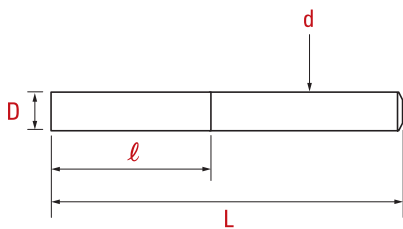
특기사항

- 날부형상 : 좌헬리컬(Left Helical) + 우컷팅(Right Cutting)

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 1F Straight End Mills for Acrylic

아크릴용 초경 1날 직선 엔드밀



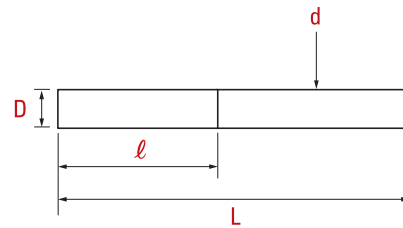
Item no. 제품코드	D 규격	l 날장	L 전장	d 샤희크
EM17CA-01003	1.0	3	45	6
EM17CA-02007	2.0	7	45	6
EM17CA-02012	2.0	12	45	6
EM17CA-03012	3.0	12	45	6
EM17CA-03017	3.0	17	53	6
EM17CA-04012	4.0	12	45	6
EM17CA-04023	4.0	23	53	6
EM17CA-05017	5.0	17	53	6
EM17CA-06022	6.0	22	53	6

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 2F Straight End Mills for Acrylic

아크릴용 초경 2날 직선 엔드밀



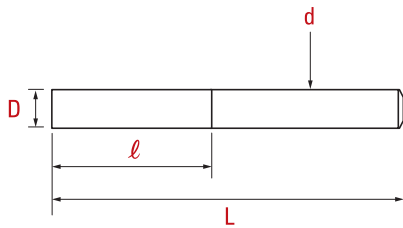
Item no. 제품코드	D 규격	ℓ 날장	L 전장	d 상크
EM18CA-01003	1.0	3	45	6
EM18CA-02007	2.0	7	45	6
EM18CA-02012	2.0	12	45	6
EM18CA-03012	3.0	12	45	6
EM18CA-03017	3.0	17	53	6
EM18CA-04012	4.0	12	45	6
EM18CA-04023	4.0	23	53	6
EM18CA-05017	5.0	17	53	6
EM18CA-06022	6.0	22	53	6

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 1F End Mills for Rubber

고무가공용 초경 1날 엔드밀



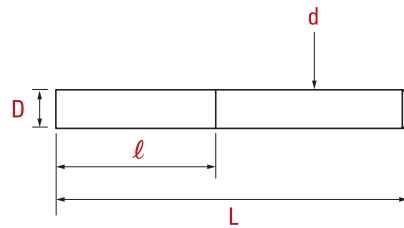
Item no. 제품코드	D 규격	ℓ 날장	L 전장	d 샹크
EM19CA-02012	2.0	12	45	6
EM19CA-02015	2.0	15	45	6
EM19CA-03025	3.0	25	53	6
EM19CA-03035	3.0	35	63	6
EM19CA-04035	4.0	35	63	6
EM19CA-04045	4.0	45	80	6
EM19CA-04055	4.0	55	80	6
EM19CA-05055	5.0	55	80	6
EM19CA-06055	6.0	55	80	6

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 1F End Mills for PVC, MC, Bakelite

수지가공용
초경 1날 엔드밀



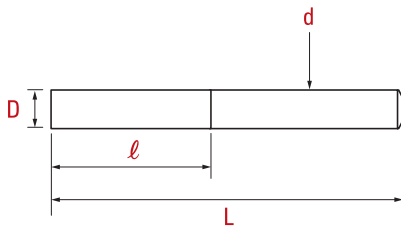
Item no. 제품코드	D 규격	l 날장	L 전장	d 샤크
EM20CA-03012	3.0	12	45	6
EM20CA-04012	4.0	12	45	6
EM20CA-05017	5.0	17	53	6
EM20CA-06022	6.0	22	53	6
EM20CA-06032	6.0	32	63	6
EM20CA-08023	8.0	22	53	8
EM20CA-08032	8.0	32	63	8
EM20CA-10022	10.0	22	63	10
EM20CA-10032	10.0	32	63	10

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 2F End Mills for Epoxy, Bakelite

에폭시/베크라이트용
초경 2날 엔드밀



Item no. 제품코드	D 규격	l 날장	L 전장	d 샙크
EM22CA-01003	1.0	3	45	6
EM22CA-01006	1.0	6	45	6
EM22CA-02007	2.0	7	45	6
EM22CA-02012	2.0	12	45	6
EM22CA-02017	2.0	17	53	6
EM22CA-02022	2.0	22	53	6
EM22CA-03007	3.0	7	45	6
EM22CA-03012	3.0	12	45	6
EM22CA-03017	3.0	17	53	6
EM22CA-03022	3.0	22	53	6
EM22CA-04012	4.0	12	45	6
EM22CA-04017	4.0	17	53	6
EM22CA-04022	4.0	22	53	6
EM22CA-05017	5.0	17	53	6
EM22CA-05022	5.0	22	53	6
EM22CA-06017	6.0	17	53	6

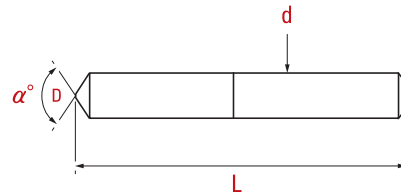
Item no. 제품코드	D 규격	l 날장	L 전장	d 샙크
EM22CA-06022	6.0	22	53	6
EM22CA-06027	6.0	27	63	6
EM22CA-06032	6.0	32	63	6
EM22CA-08022	8.0	22	53	8
EM22CA-08032	8.0	32	63	8
EM22CA-10032	10.0	32	63	10
EM22CA-10045	10.0	45	80	10
EM22CA-10065	10.0	65	110	10
EM22CA-10085	10.0	85	130	10
EM22CA-12105	12.0	105	160	12

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

Solid Carbide 1F Grooving & Chamfering End Mills

초경 1날 조각 & 각도 엔드밀



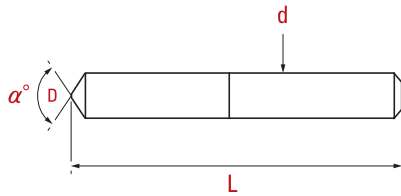
Item no. 제품코드	D 규격	α° 각도	L 전장	d 상크
EM23CA-0260004	0.2	60°	45	4
EM23CA-0290004	0.2	90°	45	4
EM23CA-0212004	0.2	120°	45	4
EM23CA-0260006	0.2	60°	45	6
EM23CA-0290006	0.2	90°	45	6
EM23CA-0212006	0.2	120°	45	6
EM23CA-0260008	0.2	60°	53	8
EM23CA-0290008	0.2	90°	53	8
EM23CA-0212008	0.2	120°	53	8
EM23CA-0260010	0.2	60°	53	10
EM23CA-0290010	0.2	90°	53	10
EM23CA-0212010	0.2	120°	53	10

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 2F Grooving & Chamfering End Mills

초경 2날 조각 &
각도 엔드밀



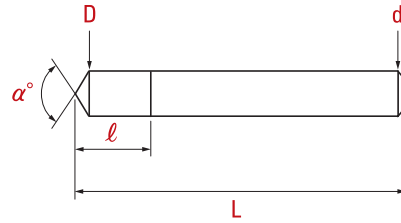
Item no. 제품코드	D 규격	α° 각도	L 전장	d 샤홁크
EM24CA-026004	0.2	60°	45	4
EM24CA-029004	0.2	90°	45	4
EM24CA-021204	0.2	120°	45	4
EM24CA-026006	0.2	60°	45	6
EM24CA-029006	0.2	90°	45	6
EM24CA-021206	0.2	120°	45	6
EM24CA-026008	0.2	60°	53	8
EM24CA-029008	0.2	90°	53	8
EM24CA-021208	0.2	120°	53	8
EM24CA-026010	0.2	60°	53	10
EM24CA-029010	0.2	90°	53	10
EM24CA-021210	0.2	120°	53	10

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 2F 90° Centering End Mills

초경 2날 90°
센터링 엔드밀



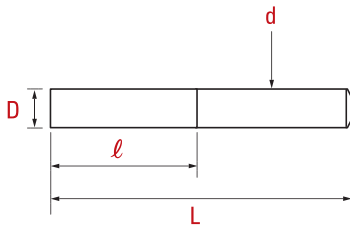
Item no. 제품코드	D 외경	l 날장	L 전장	d 상크
CE01CA-030	3.0	6	53	3
CE01CA-040	4.0	8	53	4
CE01CA-050	5.0	10	53	5
CE01CA-060	6.0	12	63	6
CE01CA-080	8.0	16	63	8
CE01CA-100	10.0	18	70	10
CE01CA-120	12.0	20	70	12
CE01CA-160	16.0	26	80	16
CE01CA-200	20.0	32	100	20

Tolerance (허용공차)		
D	Angle(α)	L
0~-0.03	$\pm 1^\circ$	± 1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiAlN is added after the item no. ex) Item no. - TiAlN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiAlN이 추가됩니다. ex) Item no. - TiAlN

Solid Carbide 3F Unequal Division & Unequal Lead with Dual Flute End Mills for SUS

초경 3날
부등분할 부등리드 SUS용
이중플루트 엔드밀



Item no. 제품코드	D 외경	l 날장	L 전장	d 샤희크
EM40CA-020	2.0	6	50	6
EM40CA-030	3.0	8	55	6
EM40CA-040	4.0	10	55	6
EM40CA-050	5.0	13	55	6
EM40CA-060	6.0	15	60	6
EM40CA-080	8.0	20	70	8
EM40CA-100	10.0	25	75	10
EM40CA-120	12.0	30	80	12
EM40CA-160	16.0	42	100	16
EM40CA-200	20.0	48	100	20

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

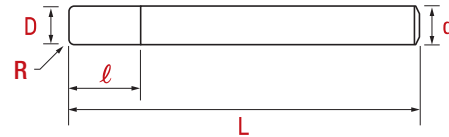
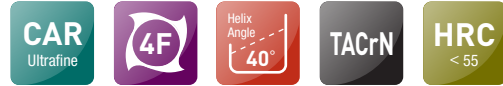
Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

특기사항

- 날부형상 : 부등분할(Unequal Division) + 부등리드(Unequal Lead)
- 이중 플루트 가공으로 칩배출이 원활함
- 탁월한 공구 강성으로 절삭 저항이 감소하고 표면 조도가 향상됨
- 합금강, SUS계열, 티타늄, 니켈강 등 광범위한 피삭재에 적용 가능

Solid Carbide 4F Unequal Division Corner Radius End Mills for SUS - Regular

초경 4날 SUS용
부등분할 코너 레디우스
엔드밀



Item no. 제품코드	D 외경	R 코너	ℓ 날장	L 전장	d 상크	NT 날수
EM46CA-0101025	1	0.1	2.5	55	6	4
EM46CA-0201050	2	0.1	5.0	55	6	4
EM46CA-0202050		0.2	5.0	55	6	4
EM46CA-0302075	3	0.2	7.5	55	6	4
EM46CA-0305075		0.5	7.5	55	6	4
EM46CA-0402100	4	0.2	10.0	55	6	4
EM46CA-0405100		0.5	10.0	55	6	4
EM46CA-0410100		1.0	10.0	55	6	4
EM46CA-0502125	5	0.2	12.5	55	6	4
EM46CA-0505125		0.5	12.5	55	6	4
EM46CA-0510125		1.0	12.5	55	6	4
EM46CA-0603150	6	0.3	15.0	55	6	4
EM46CA-0605150		0.5	15.0	55	6	4
EM46CA-0610150		1.0	15.0	55	6	4
EM46CA-0615150		1.5	15.0	55	6	4
EM46CA-0703175	7	0.3	17.5	65	8	4
EM46CA-0705175		0.5	17.5	65	8	4
EM46CA-0710175		1.0	17.5	65	8	4

Item no. 제품코드	D 외경	R 코너	ℓ 날장	L 전장	d 샤크	NT 날수
EM46CA-0803200	8	0.3	20.0	65	8	4
EM46CA-0805200		0.5	20.0	65	8	4
EM46CA-0810200		1.0	20.0	65	8	4
EM46CA-0815200		1.5	20.0	65	8	4
EM46CA-0820200		2.0	20.0	65	8	4
EM46CA-0903225	9	0.3	22.5	75	10	4
EM46CA-0905225		0.5	22.5	75	10	4
EM46CA-0910225		1.0	22.5	75	10	4
EM46CA-1003250	10	0.3	25.0	75	10	4
EM46CA-1005250		0.5	25.0	75	10	4
EM46CA-1010250		1.0	25.0	75	10	4
EM46CA-1015250		1.5	25.0	75	10	4
EM46CA-1020250		2.0	25.0	75	10	4
EM46CA-1103275	11	0.3	27.5	82	12	4
EM46CA-1105275		0.5	27.5	82	12	4
EM46CA-1110275		1.0	27.5	82	12	4
EM46CA-1203300	12	0.3	30.0	82	12	4
EM46CA-1205300		0.5	30.0	82	12	4
EM46CA-1210300		1.0	30.0	82	12	4
EM46CA-1215300		1.5	30.0	82	12	4
EM46CA-1220300		2.0	30.0	82	12	4
EM46CA-1225300		2.5	30.0	82	12	4
EM46CA-1230300	3.0	30.0	82	12	4	
EM46CA-1605425	16	0.5	42.5	105	16	4
EM46CA-1610425		1.0	42.5	105	16	4
EM46CA-1615425		1.5	42.5	105	16	4
EM46CA-1620425		2.0	42.5	105	16	4
EM46CA-1630425		3.0	42.5	105	16	4
EM46CA-2005500	20	0.5	50.0	110	20	4
EM46CA-2010500		1.0	50.0	110	20	4
EM46CA-2015500		1.5	50.0	110	20	4
EM46CA-2020500		2.0	50.0	110	20	4
EM46CA-2030500		3.0	50.0	110	20	4
EM46CA-2050500		5.0	50.0	110	20	4

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

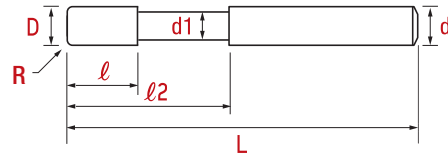
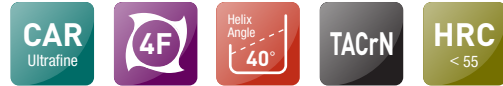
Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

특기사항

- 날부형상 : 부등분할(Unequal Division)

Solid Carbide 4F Unequal Division Corner Radius End Mills with Long Neck for SUS

초경 4날 SUS용
부등분할 코너 레디우스
롱넥 엔드밀



Item no. 제품코드	D 외경	R 코너	l 날장	l2 목기장	d1 목경	L 전장	d 상크	NT 날수
EM47CA-0101005	1	0.1	1.5	5.0	0.96	65	6	4
EM47CA-0201010	2	0.1	3.0	10.0	1.92	65	6	4
EM47CA-0202010		0.2	3.0	10.0	1.92	65	6	4
EM47CA-0302015	3	0.2	4.5	15.0	2.88	65	6	4
EM47CA-0305015		0.5	4.5	15.0	2.88	65	6	4
EM47CA-0402020	4	0.2	6.0	20.0	3.7	65	6	4
EM47CA-0405020		0.5	6.0	20.0	3.7	65	6	4
EM47CA-0410020		1.0	6.0	20.0	3.7	65	6	4
EM47CA-0502025	5	0.2	7.5	25.0	4.6	65	6	4
EM47CA-0505025		0.5	7.5	25.0	4.6	65	6	4
EM47CA-0510025		1.0	7.5	25.0	4.6	65	6	4
EM47CA-0603030	6	0.3	9.0	30.0	5.5	65	6	4
EM47CA-0605030		0.5	9.0	30.0	5.5	65	6	4
EM47CA-0610030		1.0	9.0	30.0	5.5	65	6	4
EM47CA-0615030		1.5	9.0	30.0	5.5	65	6	4
EM47CA-0803040	8	0.3	12.0	40.0	7.3	80	8	4
EM47CA-0805040		0.5	12.0	40.0	7.3	80	8	4
EM47CA-0810040		1.0	12.0	40.0	7.3	80	8	4

Item no. 제품코드	D 외경	R 코너	ℓ 날장	$\ell 2$ 목기장	d1 목경	L 전장	d 상크	NT 날수
EM47CA-0815040	8	1.5	12.0	40.0	7.3	80	8	4
EM47CA-0820040		2.0	12.0	40.0	7.3	80	8	4
EM47CA-1003050	10	0.3	15.0	50.0	9.1	95	10	4
EM47CA-1005050		0.5	15.0	50.0	9.1	95	10	4
EM47CA-1010050		1.0	15.0	50.0	9.1	95	10	4
EM47CA-1015050		1.5	15.0	50.0	9.1	95	10	4
EM47CA-1020050		2.0	15.0	50.0	9.1	95	10	4
EM47CA-1203060		12	0.3	18.0	60.0	11.0	110	12
EM47CA-1205060	0.5		18.0	60.0	11.0	110	12	4
EM47CA-1210060	1.0		18.0	60.0	11.0	110	12	4
EM47CA-1215060	1.5		18.0	60.0	11.0	110	12	4
EM47CA-1220060	2.0		18.0	60.0	11.0	110	12	4
EM47CA-1225060	2.5		18.0	60.0	11.0	110	12	4
EM47CA-1230060	3.0		18.0	60.0	11.0	110	12	4
EM47CA-1605080	16	0.5	24.0	80.0	14.5	140	16	4
EM47CA-0610080		1.0	24.0	80.0	14.5	140	16	4
EM47CA-1615080		1.5	24.0	80.0	14.5	140	16	4
EM47CA-1620080		2.0	24.0	80.0	14.5	140	16	4
EM47CA-1630080		3.0	24.0	80.0	14.5	140	16	4
EM47CA-2005100	20	0.5	30.0	100.0	18.2	160	20	4
EM47CA-2010100		1.0	30.0	100.0	18.2	160	20	4
EM47CA-2015100		1.5	30.0	100.0	18.2	160	20	4
EM47CA-2020100		2.0	30.0	100.0	18.2	160	20	4
EM47CA-2030100		3.0	30.0	100.0	18.2	160	20	4
EM47CA-2050100		5.0	30.0	100.0	18.2	160	20	4

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

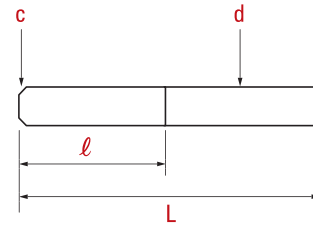
Tolerance (허용공차)		
D	d	L
0~0.03	h6	±1

특기사항

• 날부형상 : 부등분할(Unequal Division)

Solid Carbide High Helix 4F Unequal Division & Unequal Lead Fine Pitch Roughing End Mills - Standard

초경 4날 하이 헬릭스
부등분할 & 부등리드
파인피치 라핑 엔드밀
- 표준형



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 상크	C 면취부
EM43CA-050	5.0	13	57	6	0.3
EM43CA-060	6.0	13	57	6	0.5
EM43CA-080	8.0	19	63	8	0.5
EM43CA-100	10.0	22	72	10	0.5
EM43CA-120	12.0	26	82	12	0.5
EM43CA-140	14.0	26	82	16	0.6
EM43CA-160	16.0	32	92	16	0.6
EM43CA-180	18.0	32	92	20	0.6
EM43CA-200	20.0	38	104	20	0.6

Tolerance (허용공차)		
D	d	L
0~-0.05	h6	±1

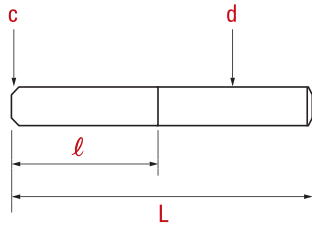
특기사항

- 날부 형상 : 부등분할(Unequal Division)+부등리드(Unequal Lead)
- 가공성 증대 / 가공 시 떨림 제로 / 가공 시간 단축
- 인선 외주부의 비대칭 라핑(Serration) 형상이 절삭 저항 감소 시킴
- 공구 마모가 적고 수명이 길다.

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide High Helix 4F Unequal Division & Unequal Lead Fine Pitch Roughing End Mills - Long Type

초경 4날 하이 헬릭스
부등분할 & 부등리드
파인피치 라핑 엔드밀
- 롱형



Item no. 제품코드	D 외경	l 날장	L 전장	d 샤크	C 면취부
EM36CA-050	5.0	19	63	6	0.3
EM36CA-060	6.0	19	63	6	0.5
EM36CA-080	8.0	28	72	8	0.5
EM36CA-100	10.0	34	82	10	0.5
EM36CA-120	12.0	40	97	12	0.5
EM36CA-140	14.0	40	97	16	0.6
EM36CA-160	16.0	48	108	16	0.6
EM36CA-180	18.0	48	108	20	0.6
EM36CA-200	20.0	56	122	20	0.6

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

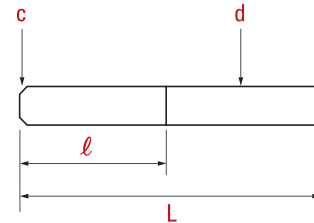
Tolerance (허용공차)		
D	d	L
0~-0.05	h6	±1

특기사항

- 날부 형상 : 부등분할(Unequal Division)+부등리드(Unequal Lead)
- 가공성 증대 / 가공 시 떨림 제로 / 가공 시간 단축
- 인선 외주부의 비대칭 라핑(Serration) 형상이 절삭 저항 감소 시킴
- 공구 마모가 적고 수명이 길다.

Solid Carbide Low Helix 4F Unequal Division & Unequal Lead Fine Pitch Roughing End Mills

초경 4날 로우 헬릭스
부등분할 & 부등리드
파인피치 라핑 엔드밀



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 상크	C 면취부
EM37CA-050	5.0	13	60	6	0.3
EM37CA-060	6.0	13	60	6	0.5
EM37CA-080	8.0	19	80	8	0.5
EM37CA-100	10.0	22	80	10	0.5
EM37CA-120	12.0	26	80	12	0.5
EM37CA-140	14.0	26	85	16	0.6
EM37CA-160	16.0	32	100	16	0.6
EM37CA-180	18.0	32	100	20	0.6
EM37CA-200	20.0	38	105	20	0.6

Tolerance (허용공차)		
D	d	L
0~-0.05	h6	±1

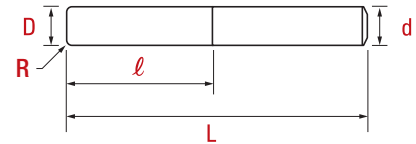
특기사항

- 날부 형상 : 부등분할(Unequal Division)+부등리드(Unequal Lead)
- 가공성 증대 / 가공 시 떨림 감소 / 가공 시간 단축
- 인선 외주부의 비대칭 라핑(Serration) 형상이 절삭 저항 감소 시킴
- 공구 마모가 적고 수명이 길다.
- 불안정 클램핑이나 축방향 가공 시 쓸림 방지

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 4F Corner Radius End Mills for Titanium

초경 4날 티타늄 가공용
코너 레디우스 엔드밀



Item no. 제품코드	D 외경	R 코너	ℓ 날기장	L 전장	d 상크
EM63CA-0302	3	0.2	10	55	6
EM63CA-0305		0.5	10	55	6
EM63CA-0403	4	0.3	12	55	6
EM63CA-0408		0.8	12	55	6
EM63CA-0503	5	0.3	15	55	6
EM63CA-0508		0.8	15	55	6
EM63CA-0603	6	0.3	19	65	6
EM63CA-0608		0.8	19	65	6
EM63CA-0615	8	1.5	19	65	6
EM63CA-0803		0.3	22	65	8
EM63CA-0808	0.8	22	65	8	
EM63CA-1008	10	0.8	24	75	10
EM63CA-1010		1.0	24	75	10
EM63CA-1015		1.5	24	75	10
EM63CA-1020		2.0	24	75	10
EM63CA-1203	12	0.3	32	80	12
EM63CA-1208		0.8	32	80	12
EM63CA-1210		1.0	32	80	12

Item no. 제품코드	D 외경	R 코너	ℓ 날기장	L 전장	d 상크
EM63CA-1215	12	1.5	32	80	12
EM63CA-1220		2.0	32	80	12
EM63CA-1230		3.0	32	80	12
EM63CA-1608	16	0.8	36	100	16
EM63CA-1615		1.5	36	100	16
EM63CA-1620		2.0	36	100	16
EM63CA-1630	20	3.0	36	100	16
EM63CA-2008		0.8	40	110	20
EM63CA-2015		1.5	40	110	20
EM63CA-2020	2.0	40	110	20	
EM63CA-2030	3.0	40	110	20	

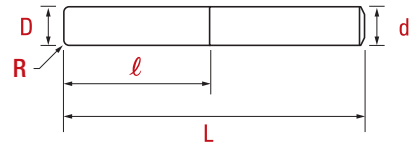
Tolerance (허용공차)

D	d	L
0~-0.03	h6	±1

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 5F Corner Radius End Mills For Nickel based Alloys

초경 5날 인코넬 가공용
코너 레디우스 엔드밀



Item no. 제품코드	D 외경	R 코너	ℓ 날기장	L 전장	d 상크
EM64CA-0603	6	0.3	16	65	6
EM64CA-0608		0.8	16	65	6
EM64CA-0615		1.5	16	65	6
EM64CA-0803	8	0.3	19	65	8
EM64CA-0808		0.8	19	65	8
EM64CA-0815		1.5	19	65	8
EM64CA-1003	10	0.3	22	75	10
EM64CA-1008		0.8	22	75	10
EM64CA-1015		1.5	22	75	10
EM64CA-1203	12	0.3	30	80	12
EM64CA-1208		0.8	30	80	12
EM64CA-1215		1.5	30	80	12
EM64CA-1220		2.0	30	80	12
EM64CA-1230		3.0	30	80	12
EM64CA-1608	16	0.8	35	100	16
EM64CA-1615		1.5	35	100	16
EM64CA-1620		2.0	35	100	16
EM64CA-1630		3.0	35	100	16

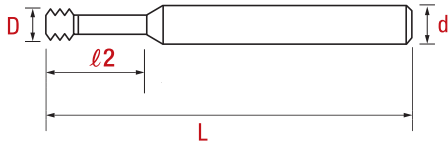
Item no. 제품코드	D 외경	R 코너	ℓ 날기장	L 전장	d 상크
EM64CA-2008	20	0.8	40	110	20
EM64CA-2015		1.5	40	110	20
EM64CA-2020		2.0	40	110	20
EM64CA-2030		3.0	40	110	20

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 4F Thread Mill

초경 4날 스레드밀

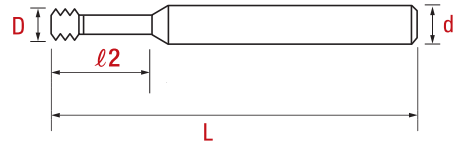


Item no. 제품코드	Thread Dia 나사경	Pitch 피치	D 외경	l2 목기장	L 전장	d 상크	No. of Flute 날수
EM56CA-20-M3	M3	0.5	2.4	6	50	6	4
EM56CA-20-M4	M4	0.7	3.1	8	50	6	4
EM56CA-20-M5	M5	0.8	3.8	10	50	6	4
EM56CA-20-M6	M6	1.0	4.6	12	50	6	4
EM56CA-20-M8	M8	1.25	6.2	16	70	10	4
EM56CA-20-M10	M10	1.5	7.5	20	70	10	4
EM56CA-20-M12	M12	1.75	9	24	80	10	4
EM56CA-25-M3	M3	0.5	2.4	7.5	50	6	4
EM56CA-25-M4	M4	0.7	3.1	10	50	6	4
EM56CA-25-M5	M5	0.8	3.8	12.5	50	6	4
EM56CA-25-M6	M6	1.0	4.6	15	50	6	4
EM56CA-25-M8	M8	1.25	6.2	20	70	10	4
EM56CA-25-M10	M10	1.5	7.5	25	70	10	4
EM56CA-25-M12	M12	1.75	9	30	80	10	4

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 4F Drill Thread Mill

초경 4날 드릴
쓰레드밀

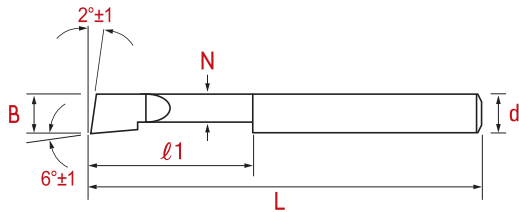


Item no. 제품코드	Thread Dia 나사경	Pitch 피치	D 외경	l2 목기장	L 전장	d 상크	No. of Flute 날수
EM57CA-20-M3	M3	0.5	2.4	6	50	6	4
EM57CA-20-M4	M4	0.7	3.1	8	50	6	4
EM57CA-20-M5	M5	0.8	3.8	10	50	6	4
EM57CA-20-M6	M6	1	4.6	12	50	6	4
EM57CA-20-M8	M8	1.25	6.2	16	70	10	4
EM57CA-20-M10	M10	1.5	7.5	20	70	10	4
EM57CA-20-M12	M12	1.75	9	24	80	10	4
EM57CA-25-M3	M3	0.5	2.4	7.5	50	6	4
EM57CA-25-M4	M4	0.7	3.1	10	50	6	4
EM57CA-25-M5	M5	0.8	3.8	12.5	50	6	4
EM57CA-25-M6	M6	1	4.6	15	50	6	4
EM57CA-25-M8	M8	1.25	6.2	20	70	10	4
EM57CA-25-M10	M10	1.5	7.5	25	70	10	4
EM57CA-25-M12	M12	1.75	9	30	80	10	4

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide Precision Hole Bite for Lathe

초경 정밀 내측 홀
절삭 바이트



Item no. 제품코드	B 최소 가공경	ℓ1 목기장	N 편심경	d 샤크	L 전장
EM58CA-0104		4			
EM58CA-0106	Φ1	6	0.75		
EM58CA-0108		8			
EM58CA-0204		4			
EM58CA-0206		6			
EM58CA-0208	Φ2	8	1.50		
EM58CA-0210		10			
EM58CA-0213		13			
EM58CA-0308		8		4	50
EM58CA-0310		10			
EM58CA-0313	Φ3	13	2.25		
EM58CA-0315		15			
EM58CA-0320		20			
EM58CA-0408		8			
EM58CA-0410	Φ4	10	3.00		
EM58CA-0415		15			

Item no. 제품코드	B 최소 가공경	ℓ1 목기장	N 편심경	d 샤크	L 전장
EM58CA-0420		20			
EM58CA-0425	Φ4	25	3.00	4	50
EM58CA-0510		10			
EM58CA-0515		15			
EM58CA-0520	Φ5	20	3.75		
EM58CA-0525		25			
EM58CA-0528		28			
EM58CA-0610		10			
EM58CA-0615		15		6	60
EM58CA-0620		20			
EM58CA-0625	Φ6	25	4.50		
EM58CA-0630		30			
EM58CA-0635		35			
EM58CA-0638		38			
EM58CA-0715		15			
EM58CA-0720	Φ7	20	5.25	8	65

➤ Carbide End Mills

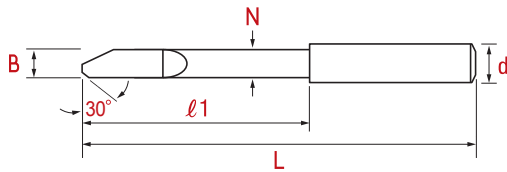
Item no. 제품코드	B 최소 가공경	ℓ1 목기장	N 편심경	d 상크	L 전장
EM58CA-0725	Φ7	25	5.25		
EM58CA-0732		32			
EM58CA-0738		38			
EM58CA-0746		46			
EM58CA-0813	Φ8	13	6.00	8	65
EM58CA-0820		20			
EM58CA-0825		25			
EM58CA-0832		32			
EM58CA-0838		38			
EM58CA-0846		46			
EM58CA-0850		50			
EM58CA-0913	Φ9	13	6.75	10	75
EM58CA-0920		20			
EM58CA-0925		25			
EM58CA-0932		32			
EM58CA-0938		38			
EM58CA-0946		46			
EM58CA-0950		50			

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
B	d	L
0~-0.13	h6	±1

Solid Carbide Helical Precision Hole Bite

초경 정밀 헬리컬 내측 홀
절삭 바이트



Item no. 제품코드	B 최소 가공경	l1 목기장	N 편심경	d 샤크	L 전장		
EM59CA-070060	Φ0.70	3	0.60	3	40		
EM59CA-080070	Φ0.80	4	0.70				
EM59CA-090075	Φ0.90	5	0.75				
EM59CA-100085	Φ1.00	6	0.85				
EM59CA-125110	Φ1.25	8	1.10				
EM59CA-150125	Φ1.50	9	1.25				
EM59CA-175150	Φ1.75	10	1.50				
EM59CA-200170	Φ2.00	12	1.70				
EM59CA-225190	Φ2.25	12	1.90				
EM59CA-250220	Φ2.50	14	2.20				
EM59CA-275240	Φ2.75	14	2.40				
EM59CA-300250	Φ3.00	16	2.50			4	50
EM59CA-350300	Φ3.50	20	3.00				

Item no. 제품코드	B 최소 가공경	l1 목기장	N 편심경	d 샤크	L 전장
EM59CA-400325	Φ4.00	25	3.25	6	60
EM59CA-450375	Φ4.50	30	3.75		
EM59CA-550425	Φ5.50	35	4.25		
EM59CA-550475	Φ5.50	35	4.75	8	65
EM59CA-600525	Φ6.00	45	5.25		
EM59CA-700575	Φ7.00	45	5.75		

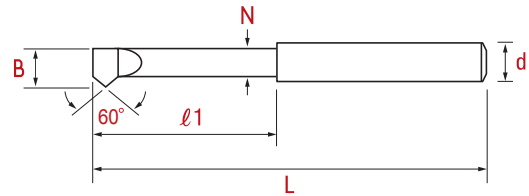
Tolerance (허용공차)

B	d	L
0~-0.13	h6	±1

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 60° Precision Inner Hole Thread Bite

초경 60° 정밀
내측 나사
절삭 바이트



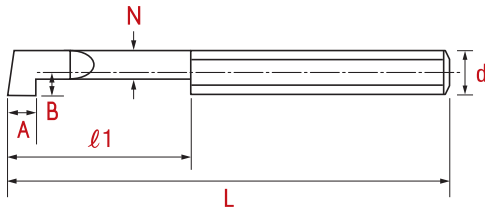
Item no. 제품코드	B 최소 가공경	l1 목기장	N 편심경	d 상크	L 전장
EM60CA-04613	Φ4.6	13	3.40	6	60
EM60CA-04625		25			
EM60CA-05115	Φ5.1	15	3.80	8	65
EM60CA-05128		28			
EM60CA-05815	Φ5.8	15	4.30	10	70
EM60CA-05825		25			
EM60CA-05838		38			
EM60CA-07420	Φ7.4	20	5.50	12	75
EM60CA-07432		32			
EM60CA-07446		46			
EM60CA-09620	Φ9.6	20	7.20	14	80
EM60CA-09632		32			
EM60CA-09646		46			
EM60CA-11420	Φ11.4	20	8.20	16	85
EM60CA-11432		32			
EM60CA-11450		50			

Tolerance (허용공차)		
D	d	L
0~-0.13	h6	±1

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide Precision Inside Grooving Bite

초경 내경 홈
절삭 바이트



Item no. 제품코드	A (mm)	B 최소 가공경	l1 목기장	N 편심경	d 상크	L 전장
EM61CA-05015	0.50	6	15	1.25	6	60
EM61CA-08020	0.80	8	20	2.50	8	65
EM61CA-10010	1.00	10	10	2.75	10	75
EM61CA-13010	1.30		10			
EM61CA-16010	1.60		10			
EM61CA-18010	1.80		10			
EM61CA-20010	2.00	20	10			
EM61CA-20020	2.00		20			

Tolerance (허용공차)		
D	d	L
0~-0.13	h6	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

EM01CA - Solid Carbide 4F End Mills, for 3D

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRC30		HRC30 ~ HRC45				HRC45 ~ HRC55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
2.0	11,500	280	7,500	170	6,300	140	5,000	50
3.0	8,900	320	5,500	200	4,600	170	3,350	60
4.0	7,500	570	4,600	350	3,900	280	3,000	60
5.0	6,300	600	3,800	360	3,150	300	2,300	70
6.0	5,500	660	3,350	410	3,850	330	2,000	80
8.0	4,200	710	2,500	380	2,100	350	1,650	110
10.0	3,300	610	2,000	300	1,700	300	1,350	90
12.0	2,700	520	1,700	250	1,350	240	1,150	80
16.0	2,200	410	1,350	200	1,100	200	900	60
20.0	1,650	320	1,050	160	850	150	680	40
Depth of Cut			ap≤1.0D ae≤0.05D					

RPM = rev./min. Feed = min/rev.

EM02CA - Solid Carbide 4F Econo End Mills

Work materials	Carbon Steels		Cast Iron		Stainless Steels		Non-Ferrous Steel	
Hardness	~ HRC30							
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
2.0	4,800	210	6,500	450	8,000	200	12,000	720
3.0	3,200	240	4,200	450	5,300	200	8,000	720
4.0	2,400	240	3,200	450	4,000	200	6,000	720
5.0	1,900	240	2,500	450	3,200	200	4,800	720
6.0	1,600	240	2,100	540	2,600	200	4,000	780
8.0	1,200	240	1,600	570	2,000	200	3,000	780
10.0	950	240	1,300	600	1,600	200	2,400	780
12.0	800	240	1,000	630	1,300	200	2,000	780
Depth of Cut			ap≤1.5D ae≤0.1D					

RPM = rev./min. Feed = min/rev.

EM03CA - Solid Carbide 2F End Mills, for 3D

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRC30		HRC30 ~ HRC45				HRC45 ~ HRC55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
2.0	9,300	190	6,000	120	5,000	90	4,000	35
3.0	7,000	210	4,500	140	3,700	120	2,700	40
4.0	6,000	300	3,700	180	3,100	150	2,350	40
5.0	5,000	320	3,000	190	2,500	160	1,850	50
6.0	4,500	350	2,700	220	2,300	180	1,600	55
8.0	3,300	380	2,000	200	1,700	180	1,350	75
10.0	2,600	330	1,600	160	1,350	160	1,100	60
12.0	2,200	280	1,350	130	1,100	130	950	55
16.0	1,750	220	1,100	110	850	110	700	40
20.0	1,350	170	850	80	650	80	550	30
Depth of Cut	ap≤0.5D						ap≤0.05D	

RPM = rev./min. Feed = min/rev.

EM04CA - Solid Carbide 2F Econo End Mills

Work materials	Carbon Steels		Cast Iron		Stainless Steels		Non-Ferrous Steel	
Hardness	~ HRC30							
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
2.0	4,800	70	6,500	150	8,000	65	12,000	240
3.0	3,200	80	4,200	150	5,300	65	8,000	240
4.0	2,400	80	3,200	150	4,000	65	6,000	240
5.0	1,900	80	2,500	150	3,200	65	4,800	240
6.0	1,600	80	2,100	180	2,600	65	4,000	260
8.0	1,200	80	1,600	190	2,000	65	3,000	260
10.0	950	80	1,300	200	1,600	65	2,400	260
12.0	800	80	1,000	210	1,300	65	2,000	260
Depth of Cut	ap = 1.0D							

RPM = rev./min. Feed = min/rev.

EM05CA - Solid Carbide 2F Ball End Mills

Work materials	Carbon Steels		Prehardened Steels		Hardened Steels	
Hardness	~ HRc30		HRc30 ~ HRc45		HRc45 ~ HRc55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
R1.0	14,500	750	10,500	490	4,700	150
R1.5	13,000	680	10,000	460	4,500	150
R2.0	10,500	740	8,500	530	4,200	180
R2.5	9,150	820	7,300	580	3,700	180
R3.0	8,500	1,020	6,900	830	3,200	190
R4.0	7,150	1,290	5,800	920	2,500	220
R5.0	6,400	1,530	5,100	1,020	2,050	225
R6.0	5,850	1,750	4,650	1,110	1,750	245
R8.0	4,800	1,720	3,800	1,060	1,350	245
R10.0	4,150	1,660	3,300	1,040	1,100	250
Depth of Cut	D≤6 : ap≤0.2D D>6 : ap=0.3D ae=0.2				D≤6 : ap≤0.2D D>6 : ap=0.3D ae=0.1D	

RPM = rev./min. Feed = min/rev.

EM06CA - Solid Carbide 2F Econo Ball End Mills

Work materials	Carbon Steels		Cast Steels		Aluminum alloys	
Hardness	~ HRc30					
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
R2.0	5,200	90	7,300	150	21,500	280
R3.0	3,500	100	4,900	160	14,300	280
R4.0	2,600	100	2,600	200	10,900	280
R5.0	2,100	105	2,900	230	8,800	330
R6.0	1,700	100	2,400	250	7,260	330
Depth of Cut	ap≤0.3D ae≤0.7D					

RPM = rev./min. Feed = min/rev.

EM07CA - Solid Carbide 45° Helix 2F End Mills for AL, Cu

Work materials	Aluminum, Cooper							
Diameter	Slotting				Side Cutting			
	RPM	Feed	Ve	Fz	RPM	Feed	Ve	Fz
3.0	10,000	700	95	0.035	10,000	900	95	0.045
4.0	10,000	900	125	0.045	10,000	1,100	125	0.055
5.0	10,000	1,000	155	0.050	10,000	1,300	155	0.065
6.0	10,000	1,200	190	0.060	10,000	1,500	190	0.075
8.0	8,000	1,400	200	0.088	8,000	1,800	200	0.113
10.0	8,000	1,700	250	0.106	8,000	2,100	250	0.131
12.0	8,000	2,100	300	0.131	8,000	2,600	300	0.163
14.0	6,000	1,800	265	0.150	6,000	2,200	265	0.183
16.0	6,000	1,900	300	0.158	6,000	2,400	300	0.200
Depth of Cut	ap≤0.5D						D≤10 : ap≤0.25D D>12 : ap=0.5D	

RPM = rev./min. Feed = min/rev.

EM08CA - Solid Carbide 45° Helix 3F End Mills for AL, Cu

Work materials	Aluminum, Cooper							
Diameter	Slotting				Side Cutting			
	RPM	Feed	Ve	Fz	RPM	Feed	Ve	Fz
3.0	7,000	350	65	0.017	7,000	455	65	0.022
4.0	7,000	440	90	0.021	7,000	545	90	0.026
5.0	7,000	505	110	0.024	7,000	650	110	0.031
6.0	7,000	605	130	0.029	7,000	755	130	0.036
8.0	5,600	700	140	0.042	5,600	860	140	0.051
9.0	5,600	800	160	0.048	5,600	900	160	0.054
10.0	5,600	855	175	0.051	5,600	1,050	175	0.063
12.0	5,600	1,050	210	0.063	5,600	880	210	0.053
16.0	4,200	945	210	0.075	4,200	1,210	210	0.096
20.0	2,800	805	175	0.096	2,800	955	175	0.114
Depth of Cut	ap≤0.2D						ap=1.5D~2.5D ae=0.15D	

RPM = rev./min. Feed = min/rev.

EM09CA - Solid Carbide 4F Roughing & Finishing End Mills

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRC30		HRc30 ~ HRc45				HRc45 ~ HRc55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
6.0	7,900	150	5,830	110	3,700	90	3,600	50
8.0	5,500	140	3,980	100	2,780	70	2,000	50
10.0	3,800	120	2,860	90	1,910	60	1,280	40
12.0	3,180	120	2,380	90	1,590	60	930	35
Depth of Cut	ap≤1.0D				ap≤0.5D		ap≤0.2D	

RPM = rev./min. Feed = min/rev.

EM10CA - Solid Carbide 3F Wave End Mills for Aluminum

Work materials	Aluminum			
Diameter	Slotting		Side Cutting	
	RPM	Feed	RPM	Feed
6.0	13,000	1,120	13,000	1,400
8.0	10,400	1,300	10,400	1,600
10.0	10,400	1,560	10,400	1,950
12.0	10,400	1,950	10,400	1,640
14.0	7,800	1,670	7,800	2,050
16.0	7,800	1,750	7,800	2,200
18.0	5,200	1,300	5,200	1,700
20.0	5,200	1,450	5,200	1,780
Depth of Cut	ap≤0.2D		ap≤1.5D ae≤0.1D	

RPM = rev./min. Feed = min/rev.

EM11CA - Solid Carbide 3F Wave Roughing End Mills for Aluminum

Work materials	Aluminum, Cooper			
Diameter	Slotting		Side Cutting	
	RPM	Feed	RPM	Feed
6.0	7,400	560	10,500	800
8.0	5,600	490	8,000	700
10.0	4,500	525	6,500	750
12.0	3,700	560	5,500	800
16.0	2,800	560	4,000	800
20.0	2,200	560	3,200	800
Depth of Cut	ap≤1.5D		ap≤1.5D ae≤0.5D	

RPM = rev./min. Feed = min/rev.

EM12CA - Solid Carbide 4 Flute End Mills for Hardened Materials - Side Cutting

Work materials	Hardened Steels							
	HRC40 ~ HRC50		HRC50 ~ HRC55		HRC55 ~ HRC60		HRC60 ~ HRC65	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
2.0	26,000	1,250	17,500	840	14,500	520	11,000	320
3.0	17,500	1,250	11,500	840	9,500	520	7,500	320
4.0	13,000	1,300	8,800	880	7,200	540	5,600	335
5.0	12,500	1,500	8,300	1,000	6,400	580	5,100	370
6.0	10,350	1,400	6,900	950	5,300	560	4,200	350
8.0	7,800	1,350	5,200	900	4,000	520	3,200	330
10.0	6,150	1,260	4,100	840	3,200	480	2,550	310
12.0	5,250	1,260	3,500	840	3,650	480	2,100	300
Depth of Cut	ap≤1.0D ae≤0.03D							

RPM = rev./min. Feed = min/rev.

EM13CA - Solid Carbide 2F End Mills for Hardened Materials - Slotting

Work materials	Hardened Steels							
	HRC40 ~ HRC50		HRC50 ~ HRC55		HRC55 ~ HRC60		HRC60 ~ HRC65	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
2.0	26,000	680	17,500	420	14,500	260	11,000	160
3.0	17,300	680	11,500	420	9,500	260	7,500	160
4.0	13,200	700	8,800	440	7,200	270	5,600	170
5.0	12,500	805	8,300	500	6,400	285	5,100	180
6.0	10,350	770	6,900	480	5,300	280	4,200	180
8.0	7,800	720	5,200	445	4,000	255	3,200	165
10.0	6,150	680	4,100	415	3,200	240	2,550	155
12.0	5,250	680	3,500	415	2,650	240	2,100	155
Depth of Cut	ap≤0.05D							

RPM = rev./min. Feed = min/rev.

EM13CA - Solid Carbide 2F End Mills for Hardened Materials - Side Milling

Work materials	Hardened Steels							
Hardness	HRc40 ~ HRc50		HRc50 ~ HRc55		HRc55 ~ HRc60		HRc60 ~ HRc65	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
2.0	26,000	970	17,500	600	14,500	370	11,000	230
3.0	17,500	970	11,500	600	9,500	370	7,500	230
4.0	13,000	1,000	8,800	625	7,200	385	5,600	240
5.0	12,500	1,150	8,300	710	6,400	410	5,100	260
6.0	10,350	1,100	6,900	690	5,300	400	4,200	255
8.0	7,800	1,030	5,200	635	4,000	365	3,200	235
10.0	6,150	970	4,100	590	3,200	340	2,550	220
12.0	5,250	970	3,500	590	2,650	340	2,100	220
Depth of Cut	$ap \leq 1.0D$ $ae \leq 0.03D$							

RPM = rev./min. Feed = min/rev.

EM14CA - Solid Carbide 2F Ball End Mills for Hardened Materials

Work materials	Hardened Steels							
Hardness	HRc40 ~ HRc50		HRc50 ~ HRc55		HRc55 ~ HRc60		HRc60 ~ HRc65	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
R1.0	47,500	4,800	40,000	4,000	35,000	3,150	32,000	2,800
R1.5	31,500	5,300	26,500	4,000	23,500	3,150	21,000	2,800
R2.0	24,000	5,300	20,000	4,000	17,500	3,150	16,000	2,800
R2.5	17,500	4,900	15,000	3,750	13,500	3,050	11,500	2,550
R3.0	13,500	4,100	11,000	3,100	10,000	2,500	8,800	2,150
R4.0	10,700	3,500	9,000	2,700	8,000	2,150	7,000	1,850
R5.0	8,900	3,100	7,500	2,400	6,600	1,900	5,800	1,650
R6.0	6,700	2,500	5,600	1,900	5,000	1,550	4,400	1,250
Depth of Cut	$ap \leq 0.02D$ $ae \leq 0.05D$							

RPM = rev./min. Feed = min/rev.

EM15CA - Solid Carbide 1F End Mills for Acrylic, Rubber, MC, Bakelite, Epoxy & Aluminum

Work materials	Acrylic				Aluminum			
Diameter	RPM	Feed	Ve	Fz	RPM	Feed	Ve	Fz
2.0	32,000	2,200	200	0.069	23,000	1,500	145	0.065
3.0	25,000	2,400	235	0.096	18,000	1,700	170	0.094
4.0	20,000	2,400	250	0.120	15,000	1,800	190	0.120
5.0	15,000	2,200	235	0.147	12,000	1,800	190	0.150
6.0	13,500	2,300	255	0.170	10,000	1,800	190	0.180
8.0	10,000	2,400	250	0.240	7,800	1,900	195	0.244
10.0	8,000	2,400	250	0.300	8,000	2,000	190	0.333
Depth of Cut	ap≤1.5D							

RPM = rev./min. Feed = min/rev.

EM23CA - Solid Carbide 1F, 2F Grooving & Chamfering End Mills

Work materials	Carbon Steels		Prehardened Steels	
Hardness	~HRC30		HRC30 ~ HRC45	
Diameter	RPM	Feed	RPM	Feed
4.0	3,000	60	1,800	35
6.0	2,000	45	1,200	26
8.0	1,500	40	900	23
10.0	1,150	34	750	20
Depth of Cut	ap≤0.05D			

RPM = rev./min. Feed = min/rev.

EM25CA - Solid Carbide 4F Unequal Division & Unequal Lead End Mills , for 3D, for 4D, for 5D - Slotting

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRC30		HRC30 ~ HRC45				HRC45 ~ HRC55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
3.0	8,550	680	7,850	520	7,450	460	7,200	440
4.0	6,400	775	5,900	520	5,550	515	5,400	495
5.0	5,100	755	4,700	545	4,450	545	4,300	535
6.0	4,250	635	3,950	575	3,700	570	3,600	545
8.0	3,200	550	2,950	550	2,800	525	2,700	510
10.0	2,550	540	2,350	480	2,250	475	2,150	455
12.0	2,150	475	1,950	460	1,850	440	1,800	435
16.0	1,600	430	1,500	370	1,400	370	1,350	365
20.0	1,300	380	1,200	355	1,100	330	1,100	330
Depth of Cut	ap≤1.0D				ap≤0.5D		ap≤0.2D	

RPM = rev./min. Feed = min/rev.

EM25CA - Solid Carbide 4F Unequal Division & Unequal Lead End Mills , for 3D, for 4D, for 5D - Side Milling

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRC30		HRC30 ~ HRC45				HRC45 ~ HRC55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
3.0	9,550	840	8,100	625	7,650	615	7,400	545
4.0	7,550	985	6,400	680	6,050	710	5,850	630
5.0	6,150	1,050	5,250	725	4,950	775	4,800	670
6.0	5,250	1,200	4,450	890	4,200	835	4,050	695
8.0	3,950	1,100	3,350	815	3,150	810	3,050	675
10.0	3,200	1,050	2,700	725	2,550	715	2,450	635
12.0	2,650	1,000	2,250	720	2,100	675	2,050	605
16.0	2,000	940	1,700	635	1,600	555	1,550	505
20.0	1,600	755	1,350	590	1,250	515	1,250	460
Depth of Cut	ap≤0.5D ae≤0.2D				ap≤1.5D ae≤0.1D		ap≤1.5D ae≤0.1D	

RPM = rev./min. Feed = min/rev.

EM29CA - Solid Carbide 3F Unequal Division & Unequal Lead End Mills - Slotting

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRC30		HRC30 ~ HRC45				HRC45 ~ HRC55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
3.0	8,550	680	7,850	520	7,450	460	7,200	440
4.0	6,400	775	5,900	520	5,550	515	5,400	495
5.0	5,100	755	4,700	545	4,450	545	4,300	535
6.0	4,250	635	3,950	575	3,700	570	3,600	545
8.0	3,200	550	2,950	550	2,800	525	2,700	510
10.0	2,550	540	2,350	480	2,250	475	2,150	455
12.0	2,150	475	1,950	460	1,850	440	1,800	435
16.0	1,600	430	1,500	370	1,400	370	1,350	365
20.0	1,300	380	1,200	355	1,100	330	1,100	330
Depth of Cut	ap≤1.0D				ap≤0.5D		ap≤0.2D	

RPM = rev./min. Feed = min/rev.

EM29CA - Solid Carbide 3F Unequal Division & Unequal Lead End Mills - Side Milling

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRC30		HRC30 ~ HRC45				HRC45 ~ HRC55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
3.0	9,550	672	8,100	500	7,650	492	7,400	436
4.0	7,550	788	6,400	544	6,050	568	5,850	504
5.0	6,150	839	5,250	579	4,950	619	4,800	535
6.0	5,250	961	4,450	713	4,200	669	4,050	556
8.0	3,950	879	3,350	651	3,150	647	3,050	539
10.0	3,200	841	2,700	581	2,550	573	2,450	509
12.0	2,650	801	2,250	576	2,100	540	2,050	484
16.0	2,000	753	1,700	508	1,600	444	1,550	404
20.0	1,600	604	1,350	472	1,250	412	1,250	368
Depth of Cut	ap≤0.5D ae≤0.2D				ap≤1.5D ae≤0.1D		ap≤1.5D ae≤0.05D	

RPM = rev./min. Feed = min/rev.

EM32CA - Solid Carbide 2F Ball End Mills for Aluminum - Side Milling

Work materials	Aluminum		Cooper	
Diameter	RPM	Feed	RPM	Feed
R2.0	15,800	1,550	11,500	1,100
R3.0	10,500	1,600	7,900	1,100
R4.0	7,900	1,900	5,800	1,450
R5.0	6,350	1,750	4,750	1,300
R6.0	5,300	1,650	3,900	1,200
R8.0	3,900	1,500	2,900	1,100
R10.0	3,200	1,300	2,300	1,000
Depth of Cut	ap≤0.1D ae≤0.2D		ap≤1.5D ae≤0.3D	

RPM = rev./min. Feed = min/rev.

EM33CA - Solid Carbide 3F Unequal Division & Unequal Lead Roughing End Mills for Aluminum

Work materials	Aluminum			
Diameter	Slotting		Side Milling	
	RPM	Feed	RPM	Feed
4.0	15,000	7,000	20,000	9,000
5.0	12,000	6,000	16,000	8,000
6.0	10,500	5,300	13,500	6,800
8.0	8,000	4,000	10,500	5,300
10.0	6,500	3,500	8,500	4,300
12.0	5,250	2,500	6,800	3,400
16.0	4,200	2,100	5,400	2,700
20.0	3,500	1,750	4,300	2,150
Depth of Cut	ap≤1.5D		ap≤1.5D ae≤0.5D	

RPM = rev./min. Feed = min/rev.

EM34CA - Solid Carbide 4F Corner Radius End Mills- Slotting

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRC30		HRC30 ~ HRC45				HRC45 ~ HRC55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
3.0	5,900	350	3,800	90	3,150	55	2,000	30
4.0	4,450	400	2,850	100	2,350	70	1,550	35
6.0	2,950	345	1,900	110	1,550	70	1,050	35
8.0	2,200	360	1,400	115	1,150	75	795	35
10.0	1,750	325	1,100	115	955	75	635	35
12.0	1,450	300	955	110	795	75	530	35
16.0	1,100	245	715	85	595	65	395	25
20.0	890	205	570	75	475	55	315	25
Depth of Cut	ap≤0.5D				ap≤0.05D			

RPM = rev./min. Feed = min/rev.

EM34CA - Solid Carbide 4F Corner Radius End Mills- Side Milling

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRC30		HRC30 ~ HRC45				HRc45 ~ HRc55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
3.0	19,100	1,500	15,900	1,250	10,600	830	8,500	510
4.0	14,300	1,600	12,000	1,350	8,000	900	6,400	510
6.0	9,500	1,500	8,000	1,250	5,300	830	4,200	510
8.0	7,200	1,400	6,000	1,150	4,000	770	3,200	510
10.0	5,700	1,400	4,800	1,150	3,200	770	2,600	520
12.0	4,800	1,400	4,000	1,150	2,700	750	2,100	505
16.0	3,600	1,400	3,000	1,150	2,000	770	1,600	505
20.0	2,900	1,300	2,400	1,050	1,600	705	1,300	520
Depth of Cut	D<6 : ap≤1.5D / ae : 0.02D D≤6 : ap=1.5D / ae : 0.05D				D<6 : ap≤1.0D / ae : 0.01D D≤6 : ap=1.0D / ae : 0.02D			

RPM = rev./min. Feed = min/rev.

EM35CA - Solid Carbide 4F Corner Radius End Mills with Long Neck- Slotting

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRC30		HRC30 ~ HRC45				HRc45 ~ HRc55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
3.0	5,900	350	3,800	90	3,150	55	2,000	30
4.0	4,450	400	2,850	100	2,350	70	1,550	35
6.0	2,950	3,450	1,900	110	1,600	90	1,050	35
8.0	2,200	360	1,400	115	1,200	95	795	35
10.0	1,750	325	1,100	115	955	95	635	35
12.0	1,450	300	955	110	800	95	530	35
16.0	1,100	335	720	120	600	95	400	40
20.0	870	280	570	120	480	80	320	40
Depth of Cut	ap≤0.5D				ap≤0.05D			

RPM = rev./min. Feed = min/rev.

EM35CA - Solid Carbide 4F Corner Radius End Mills with Long Neck - Side Milling

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRc30		HRc30 ~ HRc45				HRc45 ~ HRc55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
3.0	5,900	470	3,800	120	3,400	80	2,000	70
4.0	4,450	530	2,850	135	2,650	100	1,550	50
6.0	3,550	220	2,200	175	2,100	130	1,250	50
8.0	2,650	4,450	1,650	185	1,600	140	955	55
10.0	2,100	310	1,300	165	1,300	135	760	55
12.0	1,750	285	1,100	145	1,000	125	635	45
16.0	1,300	310	840	170	800	135	477	55
20.0	1,050	310	670	170	640	135	382	55
Depth of Cut	ap≤1.0D / ae : 0.1D				ap≤1.0D / ae : 0.05D			

RPM = rev./min. Feed = min/rev.

EM38CA - Solid Carbide 4F Roughing End Mills - Slotting

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRc30		HRc30 ~ HRc45				HRc45 ~ HRc55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
6.0	15,600	2,320	12,400	840	8,400	570	3,400	260
8.0	11,600	2,320	9,200	840	6,300	570	2,400	240
10.0	9,200	2,320	7,600	840	5,100	570	2,000	290
12.0	8,000	2,400	6,000	800	4,200	570	1,680	260
16.0	6,000	2,400	4,800	750	3,300	510	1,200	160
20.0	4,800	2,150	3,500	550	2,400	360	1,000	150
Depth of Cut	ap≤1.5D ae≤0.3D				ap≤1.0D ae≤0.05D			

RPM = rev./min. Feed = min/rev.

EM39CA/EM44CA - Solid Carbide 45° Helix 4F End Mills for Hardened Materials, Standard, Long Type - Slotting

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRC30		HRc30 ~ HRc45				HRc45 ~ HRc55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
4.0	4,800	450	4,800	500	5,100	320	4,000	130
6.0	3,200	500	3,200	540	3,400	340	2,700	170
8.0	2,400	520	2,400	600	2,600	320	2,000	170
10.0	1,900	480	1,900	520	2,000	290	1,600	160
12.0	1,600	420	1,600	480	1,800	240	1,300	135
16.0	1,200	370	1,200	420	1,300	220	1,000	120
20.0	1,000	360	1,000	420	1,000	210	800	105
Depth of Cut	ap≤1.0D				ap≤0.5D		ap≤0.2D	

RPM = rev./min. Feed = min/rev.

EM39CA/EM44CA - Solid Carbide 45° Helix 4F End Mills for Hardened Materials, Standard, Long Type - Side Milling

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRC30		HRc30 ~ HRc45				HRc45 ~ HRc55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
4.0	7,200	740	7,100	820	7,200	690	5,600	450
6.0	4,800	860	4,800	980	4,700	770	3,700	520
8.0	3,600	930	3,500	1,050	3,600	770	2,800	570
10.0	2,900	870	2,900	950	2,900	670	2,200	510
12.0	2,400	810	2,400	900	2,500	580	1,900	500
16.0	1,800	650	1,800	720	1,800	450	1,400	400
20.0	1,400	550	1,400	600	1,500	420	1,100	300
Depth of Cut					ap≤1.5D ae≤0.1D			

RPM = rev./min. Feed = min/rev.

EM40CA - Solid Carbide 3F Unequal Division & Unequal Lead with Dual Flute End Mills for SUS - Slotting

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels	
Hardness	~ HRC30		HRC30 ~ HRC45			
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
3.0	9,600	690	8,500	510	7,400	470
4.0	7,200	720	6,400	510	5,600	490
6.0	4,800	900	4,200	670	3,700	370
8.0	3,600	720	3,200	640	2,800	370
10.0	2,900	700	2,500	550	2,200	350
12.0	2,400	670	2,100	550	1,900	330
16.0	1,790	600	1,620	440	1,450	310
20.0	1,450	530	1,300	420	1,140	290
Depth of Cut	ap≤1.0D				D≤6 : ap≤0.5D D>6 : ap=1.0D	

RPM = rev./min. Feed = min/rev.

EM40CA - Solid Carbide 3F Unequal Division & Unequal Lead with Dual Flute End Mills for SUS - Side Milling

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels	
Hardness	~ HRC30		HRC30 ~ HRC45			
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
3.0	12,700	1,070	10,600	760	8,000	480
4.0	9,600	1,150	8,000	800	6,000	530
6.0	6,400	1,540	5,300	1,060	4,200	640
8.0	4,800	1,540	4,000	1,040	3,200	610
10.0	3,800	1,370	3,200	900	2,500	580
12.0	3,200	1,280	2,700	760	2,100	530
16.0	2,420	1,210	2,040	680	1,600	440
20.0	1,940	970	1,620	630	1,250	410
Depth of Cut	ap≤1.5D ae≤0.2D					

RPM = rev./min. Feed = min/rev.

EM43CA/EM36CA/EM37CA - Solid Carbide 4F Roughing End Mills Standard, Long Type, Low Helix - Slotting

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRC30		HRC30 ~ HRC45				HRC45 ~ HRC55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
6.0	5,800	580	4,210	320	3,200	210	3,700	250
8.0	4,370	650	3,170	350	2,400	250	2,800	290
10.0	3,500	690	2,540	380	1,900	270	2,220	310
12.0	2,920	640	2,110	350	1,590	240	1,850	290
16.0	2,200	630	1,600	340	1,200	240	1,400	280
20.0	1,750	600	1,270	320	950	220	1,110	270
Depth of Cut	ap≤1.0D (Max : 13mm)							

RPM = rev./min. Feed = min/rev.

EM43CA/EM36CA/EM37CA - Solid Carbide 4F Roughing End Mills Standard, Long Type, Low Helix - Side Milling

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRC30		HRC30 ~ HRC45				HRC45 ~ HRC55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
6.0	6,300	710	4,750	400	3,700	290	4,250	320
8.0	4,750	1,000	3,550	600	2,800	450	3,170	500
10.0	3,850	1,050	2,870	620	2,220	450	2,550	500
12.0	3,200	990	2,400	570	1,870	400	2,110	450
16.0	2,400	950	1,790	540	1,400	390	1,900	450
20.0	1,910	850	1,420	490	1,100	350	1,280	410
Depth of Cut	ap≤1.5D ae≤0.3D						ap≤1.0D ae≤0.05D	

RPM = rev./min. Feed = min/rev.

EM45CA - Solid Carbide 4F 45° Helix End Mills - Side Milling

Work materials	Carbon Steels		Prehardened Steels		Hardened Steels	
Hardness	~HRc35		~ HRc45		HRc45 ~ HRc55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
3.0	15,750	810	12,600	580	8,280	380
4.0	12,150	830	9,540	600	6,340	400
6.0	9,450	900	7,470	640	4,950	440
8.0	7,110	860	5,620	620	3,780	410
10.0	5,580	800	4,410	570	2,930	380
12.0	4,770	800	3,780	570	2,520	380
16.0	3,600	810	2,900	570	2,000	400
20.0	3,000	810	2,300	570	1,600	400
Depth of Cut	ap≤1.0D / ae : 0.03D					

RPM = rev./min. Feed = min/rev.

EM46CA - Solid Carbide 4F Unequal Division Corner Radius End Mills for SUS- Slotting

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Titanium alloy	
Hardness	~ HRc30		HRc30 ~ HRc45					
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
3.0	9,500	500	6,400	270	5,800	180	3,700	80
4.0	7,200	580	4,800	310	4,400	210	2,800	90
6.0	4,800	720	3,200	380	2,900	260	1,900	110
8.0	3,600	720	2,400	380	2,200	260	1,400	110
10.0	2,900	730	1,900	380	1,800	270	1,100	110
12.0	2,400	650	1,600	350	1,500	240	900	100
16.0	1,800	610	1,200	330	1,100	220	700	100
20.0	1,400	560	1,000	320	900	220	600	100
Depth of Cut	ap≤1.0D				ap≤0.5D			

RPM = rev./min. Feed = min/rev.

EM46CA - Solid Carbide 4F Unequal Division Corner Radius End Mills for SUS- Side Milling

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Titanium alloy	
Hardness	~ HRc30		HRc30 ~ HRc45					
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
3.0	10,600	860	7,400	400	6,400	350	4,200	170
4.0	8,000	910	5,600	430	4,800	360	3,200	180
6.0	5,300	950	3,700	440	3,200	380	2,100	190
8.0	4,000	960	2,800	450	2,400	380	1,600	190
10.0	3,200	960	2,200	440	1,900	380	1,300	200
12.0	2,700	870	1,900	410	1,600	350	1,100	180
16.0	2,000	820	1,400	380	1,200	330	800	160
20.0	1,600	770	1,100	350	1,000	320	600	140
Depth of Cut	ap≤1.0D / ae : 0.5D				ap≤1.0D / ae : 0.1D			

RPM = rev./min. Feed = min/rev.

EM47CA - Solid Carbide 4F Unequal Division Corner Radius End Mills with Long Neck for SUS- Slotting

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Titanium alloy	
Hardness	~ HRC30		HRC30 ~ HRC45					
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
3.0	8,500	450	5,300	220	4,800	150	3,200	70
4.0	6,400	510	4,000	260	3,600	170	2,400	80
6.0	4,200	630	2,700	320	2,400	220	1,600	100
8.0	3,200	640	2,000	320	1,800	220	1,200	100
10.0	2,500	630	1,600	320	1,400	210	1,000	100
12.0	2,100	570	1,300	280	1,200	190	800	90
16.0	1,600	540	1,000	270	900	180	600	80
20.0	1,300	520	800	260	700	170	500	80
Depth of Cut	ap≤0.5D				ap≤0.25D			

RPM = rev./min. Feed = min/rev.

EM47CA - Solid Carbide 4F Unequal Division Corner Radius End Mills with Long Neck for SUS- Side Milling

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Titanium alloy	
Hardness	~ HRC30		HRC30 ~ HRC45					
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
3.0	9,500	770	6,400	350	5,300	290	4,200	170
4.0	7,200	820	4,800	360	4,000	300	3,200	180
6.0	4,800	860	3,200	380	2,700	320	2,100	190
8.0	3,600	860	2,400	380	2,000	320	1,600	190
10.0	2,900	870	1,900	380	1,600	320	1,300	200
12.0	2,400	780	1,600	350	1,300	280	1,100	180
16.0	1,800	730	1,200	330	1,000	270	800	160
20.0	1,400	670	1,000	320	800	260	600	140
Depth of Cut	ap≤0.5D				ap≤0.25D			

RPM = rev./min. Feed = min/rev.

EM48CA - Solid Carbide 2F Ball Nose End Mills with Taper Long Neck

Work materials			Depth of Cut		Carbon Steel Alloy Steel Prehardened Steel		Hardened Steel (HRC45 ~ HRC55)	
R	TN	l1	ap	ae	RPM	Feed	RPM	Feed
1	1°	10	0.06	0.2	18000	570	10000	260
1	1°	15	0.06					
1	1°	20	0.05					
1	1°	25	0.05					
1.5	1°	20	0.12	0.5	16000	620	8000	230
1.5	1°	30	0.12					
1.5	1°	40	0.10					
1.5	1°	50	0.10					
1.5	1°	70	0.08					
1.5	1°	80	0.08					
2	1°	20	0.20	0.8	14000	670	6000	200
2	1°	30	0.15					
2	1°	40	0.15					
2	1°	40	0.15					
2	1°	50	0.12					
2	1°	50	0.12					
2	1°	50	0.12					
2	1°	60	0.10					
2	1°	60	0.10					
2	1°	60	0.10					
2	1°	70	0.08					
2	1°	80	0.06					
2.5	1°	30	0.33	1.0	12000	750	5500	210
2.5	1°	40	0.30					
2.5	1°	40	0.27					
2.5	1°	40	0.24					
2.5	1°	40	0.21					
2.5	1°	50	0.18					
2.5	1°	60	0.15					
2.5	1°	70	0.13					
2.5	1°	80	0.10					
3	1°	30	0.50	1.2	10000	840	5000	220
3	1°	40	0.40					
3	1°	50	0.30					
3	1°	60	0.22					
3	1°	60	0.22					

RPM = rev./min. Feed = min/rev.

EM49CA - Solid Carbide 4F Unequal Division & Unequal Lead Corner Radius End Mills with Long Neck

Work materials		Carbon Steels				Prehardened Steels				Hardened Steels				Hardened Steels			
Hardness		~ HRC30				HRC30 ~ HRC45				HRC45 ~ HRC55				HRC55 ~ HRC62			
ΦD	CR	RPM	Feed	ap	ae	RPM	Feed	ap	ae	RPM	Feed	ap	ae	RPM	Feed	ap	ae
2	0.5	33,000	10,000	0.08	0.80	27,000	8,400	0.05	0.80	24,000	7,500	0.04	0.80	16,000	3,000	0.03	0.80
2	0.5	33,000	10,000	0.08	0.80	27,000	8,400	0.05	0.80	24,000	7,500	0.04	0.80	16,000	3,000	0.03	0.80
2	0.5	33,000	10,000	0.08	0.80	27,000	8,400	0.05	0.80	24,000	7,500	0.04	0.80	16,000	3,000	0.03	0.80
2	0.5	33,000	10,000	0.08	0.80	27,000	8,400	0.05	0.80	24,000	7,500	0.04	0.80	16,000	3,000	0.03	0.80
2	0.5	33,000	10,000	0.08	0.80	27,000	8,400	0.05	0.80	24,000	7,500	0.04	0.80	16,000	3,000	0.03	0.80
2.5	0.5	27,000	10,500	0.1	1.25	22,000	8,700	0.06	1.25	20,000	8,000	0.05	1.25	13,000	3,150	0.04	1.25
2.5	0.5	27,000	10,500	0.1	1.25	22,000	8,700	0.06	1.25	20,000	8,000	0.05	1.25	13,000	3,150	0.04	1.25
2.5	0.5	27,000	10,500	0.1	1.25	22,000	8,700	0.06	1.25	20,000	8,000	0.05	1.25	13,000	3,150	0.04	1.25
2.5	0.5	27,000	10,500	0.1	1.25	22,000	8,700	0.06	1.25	20,000	8,000	0.05	1.25	13,000	3,150	0.04	1.25
3	0.5	22,000	11,000	0.12	1.70	18,000	9,000	0.08	1.70	16,000	8,500	0.06	1.70	11,000	3,300	0.05	1.70
3	0.5	22,000	11,000	0.12	1.70	18,000	9,000	0.08	1.70	16,000	8,500	0.06	1.70	11,000	3,300	0.05	1.70
3	0.5	22,000	11,000	0.12	1.70	18,000	9,000	0.08	1.70	16,000	8,500	0.06	1.70	11,000	3,300	0.05	1.70
3	0.5	22,000	11,000	0.12	1.70	18,000	9,000	0.08	1.70	16,000	8,500	0.06	1.70	11,000	3,300	0.05	1.70
3	0.75	22,000	11,000	0.12	1.20	18,000	9,000	0.08	1.20	16,000	8,500	0.06	1.20	11,000	3,300	0.05	1.20
4	0.5	17,000	12,000	0.15	2.50	14,000	9,500	0.12	2.50	12,000	8,800	0.08	2.50	8,000	3,500	0.07	2.50
4	0.5	17,000	12,000	0.15	2.50	14,000	9,500	0.12	2.50	12,000	8,800	0.08	2.50	8,000	3,500	0.07	2.50
4	0.5	17,000	12,000	0.15	2.50	14,000	9,500	0.12	2.50	12,000	8,800	0.08	2.50	8,000	3,500	0.07	2.50
4	0.5	17,000	12,000	0.15	2.50	14,000	9,500	0.12	2.50	12,000	8,800	0.08	2.50	8,000	3,500	0.07	2.50
4	0.5	17,000	12,000	0.15	2.50	14,000	9,500	0.12	2.50	12,000	8,800	0.08	2.50	8,000	3,500	0.07	2.50

RPM = rev./min. Feed = min/rev.

EM50CA - Solid Carbide 4F Multi Function End Mills - Slotting

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRC30		HRC30 ~ HRC45				HRC45 ~ HRC55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
3.0	9,500	500	6,400	270	5,800	180	2,100	26
4.0	7,200	580	4,800	310	4,400	210	1,600	31
6.0	4,800	720	3,200	380	2,900	260	1,100	40
8.0	3,600	720	2,400	380	2,200	260	800	38
10.0	2,900	730	1,900	380	1,800	270	600	36
12.0	2,400	650	1,600	350	1,500	240	500	32
16.0	1,800	610	1,200	310	1,100	220	400	33
20.0	1,400	560	1,000	320	900	220	300	29
Depth of Cut	ap≤1.0D				ap≤0.5D		ap≤0.2D	

RPM = rev./min. Feed = min/rev.

EM51CA - Solid Carbide 4F Unequal Division & Unequal Lead Corner Radius End Mills with Taper Long Neck

Work materials			Carbon Steels				Prehardened Steels				Hardened Steels				Hardened Steels			
Hardness			~ HRc30				HRc30 ~ HRc45				HRc45 ~ HRc55				HRc55 ~ HRc62			
ΦD	CR	l1	RPM	Feed	ap	ae	RPM	Feed	ap	ae	RPM	Feed	ap	ae	RPM	Feed	ap	ae
1	0.2	10	24,000	2,700	0.015	0.45	2,000	1,900	0.01	0.45	16,000	1,500	0.008	0.45	12,000	700	0.006	0.45
1	0.2	10	24,000	2,700	0.015	0.45	2,000	1,900	0.01	0.45	16,000	1,500	0.008	0.45	12,000	700	0.006	0.45
1	0.2	10	24,000	2,700	0.015	0.45	2,000	1,900	0.01	0.45	16,000	1,500	0.008	0.45	12,000	700	0.006	0.45
1	0.2	12	20,000	19,000	0.14	0.45	17,000	1,300	0.009	0.45	14,000	1,000	0.007	0.45	11,000	550	0.004	0.45
1	0.2	12	20,000	19,000	0.14	0.45	17,000	1,300	0.009	0.45	14,000	1,000	0.007	0.45	11,000	550	0.004	0.45
1	0.2	12	20,000	19,000	0.14	0.45	17,000	1,300	0.009	0.45	14,000	1,000	0.007	0.45	11,000	550	0.004	0.45
1	0.2	14	16,000	1,200	0.013	0.45	14,000	700	0.008	0.45	12,000	500	0.007	0.45	10,000	400	0.003	0.45
1	0.2	14	16,000	1,200	0.013	0.45	14,000	700	0.008	0.45	12,000	500	0.007	0.45	10,000	400	0.003	0.45
1	0.2	14	16,000	1,200	0.013	0.45	14,000	700	0.008	0.45	12,000	500	0.007	0.45	10,000	400	0.003	0.45
1	0.2	16	14,000	1,000	0.01	0.45	12,000	600	0.006	0.45	10,000	400	0.005	0.45	9,000	300	0.002	0.45
1	0.2	16	14,000	1,000	0.01	0.45	12,000	600	0.006	0.45	10,000	400	0.005	0.45	9,000	300	0.002	0.45
1	0.2	16	14,000	1,000	0.01	0.45	12,000	600	0.006	0.45	10,000	400	0.005	0.45	9,000	300	0.002	0.45
1.5	0.3	10	27,000	5,700	0.05	0.65	22,000	4,000	0.035	0.65	18,000	3,000	0.03	0.65	14,000	1,400	0.014	0.65
1.5	0.3	10	27,000	5,700	0.05	0.65	22,000	4,000	0.035	0.65	18,000	3,000	0.03	0.65	14,000	1,400	0.014	0.65
1.5	0.3	10	27,000	5,700	0.05	0.65	22,000	4,000	0.035	0.65	18,000	3,000	0.03	0.65	14,000	1,400	0.014	0.65
1.5	0.3	15	22,000	3,200	0.03	0.65	18,000	2,300	0.025	0.65	15,000	1,700	0.018	0.65	11,000	1,000	0.009	0.65
1.5	0.3	15	22,000	3,200	0.03	0.65	18,000	2,300	0.025	0.65	15,000	1,700	0.018	0.65	11,000	1,000	0.009	0.65
1.5	0.3	15	22,000	3,200	0.03	0.65	18,000	2,300	0.025	0.65	15,000	1,700	0.018	0.65	11,000	1,000	0.009	0.65
1.5	0.3	20	16,000	1,400	0.02	0.65	14,000	1,200	0.016	0.65	13,000	1,000	0.012	0.65	9,000	700	0.007	0.65
1.5	0.3	20	16,000	1,400	0.02	0.65	14,000	1,200	0.016	0.65	13,000	1,000	0.012	0.65	9,000	700	0.007	0.65
1.5	0.3	20	16,000	1,400	0.02	0.65	14,000	1,200	0.016	0.65	13,000	1,000	0.012	0.65	9,000	700	0.007	0.65
1.5	0.3	25	14,500	1,150	0.015	0.65	12,500	950	0.012	0.65	11,500	800	0.009	0.65	8,250	550	0.005	0.65
1.5	0.3	25	14,500	1,150	0.015	0.65	12,500	950	0.012	0.65	11,500	800	0.009	0.65	8,250	550	0.005	0.65
1.5	0.3	25	14,500	1,150	0.015	0.65	12,500	950	0.012	0.65	11,500	800	0.009	0.65	8,250	550	0.005	0.65
2	0.5	15	20,000	7,000	0.05	0.75	17,000	5,000	0.04	0.75	13,000	3,200	0.03	0.75	10,000	1,800	0.016	0.75
2	0.5	15	20,000	7,000	0.05	0.75	17,000	5,000	0.04	0.75	13,000	3,200	0.03	0.75	10,000	1,800	0.016	0.75
2	0.5	15	20,000	7,000	0.05	0.75	17,000	5,000	0.04	0.75	13,000	3,200	0.03	0.75	10,000	1,800	0.016	0.75
2	0.5	20	20,000	3,600	0.04	0.75	17,000	2,600	0.03	0.75	13,000	1,800	0.025	0.75	10,000	900	0.012	0.75
2	0.5	20	20,000	3,600	0.04	0.75	17,000	2,600	0.03	0.75	13,000	1,800	0.025	0.75	10,000	900	0.012	0.75
2	0.5	20	20,000	3,600	0.04	0.75	17,000	2,600	0.03	0.75	13,000	1,800	0.025	0.75	10,000	900	0.012	0.75
2	0.5	25	16,000	1,800	0.03	0.75	14,000	1,400	0.025	0.75	12,000	1,100	0.02	0.75	9,000	720	0.01	0.75
2	0.5	25	16,000	1,800	0.03	0.75	14,000	1,400	0.025	0.75	12,000	1,100	0.02	0.75	9,000	720	0.01	0.75
2	0.5	25	16,000	1,800	0.03	0.75	14,000	1,400	0.025	0.75	12,000	1,100	0.02	0.75	9,000	720	0.01	0.75
2	0.5	30	16,000	1,400	0.025	0.75	14,000	1,200	0.02	0.75	12,000	900	0.016	0.75	9,000	650	0.008	0.75

RPM = rev./min. Feed = min/rev.

Work materials			Carbon Steels				Prehardened Steels				Hardened Steels				Hardened Steels			
Hardness			~ HRC30				HRC30 ~ HRC45				HRC45 ~ HRC55				HRC55 ~ HRC62			
ΦD	CR	l1	RPM	Feed	ap	ae	RPM	Feed	ap	ae	RPM	Feed	ap	ae	RPM	Feed	ap	ae
2	0.5	30	16,000	1,400	0.025	0.75	14,000	1,200	0.02	0.75	12,000	900	0.016	0.75	9,000	650	0.008	0.75
2	0.5	30	16,000	1,400	0.025	0.75	14,000	1,200	0.02	0.75	12,000	900	0.016	0.75	9,000	650	0.008	0.75
2	0.5	35	13,000	1,100	0.02	0.75	11,000	800	0.018	0.75	10,000	700	0.014	0.75	7,000	500	0.007	0.75
2	0.5	35	13,000	1,100	0.02	0.75	11,000	800	0.018	0.75	10,000	700	0.014	0.75	7,000	500	0.007	0.75
2	0.5	35	13,000	1,100	0.02	0.75	11,000	800	0.018	0.75	10,000	700	0.014	0.75	7,000	500	0.007	0.75
2	0.5	40	13,000	1,000	0.02	0.75	11,000	700	0.015	0.75	10,000	600	0.012	0.75	7,000	400	0.006	0.75
2	0.5	40	13,000	1,000	0.02	0.75	11,000	700	0.015	0.75	10,000	600	0.012	0.75	7,000	400	0.006	0.75
2	0.5	40	13,000	1,000	0.02	0.75	11,000	700	0.015	0.75	10,000	600	0.012	0.75	7,000	400	0.006	0.75
3	0.5	15	13,000	7,200	0.19	1.6	11,000	5,100	0.15	1.6	8,700	4,000	0.11	1.6	6,500	1,800	0.06	1.6
3	0.5	15	13,000	7,200	0.19	1.6	11,000	5,100	0.15	1.6	8,700	4,000	0.11	1.6	6,500	1,800	0.06	1.6
3	0.5	15	13,000	7,200	0.19	1.6	11,000	5,100	0.15	1.6	8,700	4,000	0.11	1.6	6,500	1,800	0.06	1.6
3	0.5	20	13,000	7,200	0.19	1.6	11,000	5,100	0.15	1.6	8,700	4,000	0.11	1.6	6,500	1,800	0.06	1.6
3	0.5	20	13,000	7,200	0.19	1.6	11,000	5,100	0.15	1.6	8,700	4,000	0.11	1.6	6,500	1,800	0.06	1.6
3	0.5	25	13,000	7,200	0.19	1.6	11,000	5,100	0.15	1.6	8,700	4,000	0.11	1.6	6,500	1,800	0.06	1.6
3	0.5	25	13,000	7,200	0.19	1.6	11,000	5,100	0.15	1.6	8,700	4,000	0.11	1.6	6,500	1,800	0.06	1.6
3	0.5	25	13,000	7,200	0.19	1.6	11,000	5,100	0.15	1.6	8,700	4,000	0.11	1.6	6,500	1,800	0.06	1.6
3	0.5	30	13,000	5,700	0.12	1.6	11,000	4,000	0.09	1.6	8,700	3,000	0.07	1.6	6,500	1,400	0.04	1.6
3	0.5	30	13,000	5,700	0.12	1.6	11,000	4,000	0.09	1.6	8,700	3,000	0.07	1.6	6,500	1,400	0.04	1.6
3	0.5	30	13,000	5,700	0.12	1.6	11,000	4,000	0.09	1.6	8,700	3,000	0.07	1.6	6,500	1,400	0.04	1.6
3	0.5	35	12,000	4,600	0.1	1.6	10,000	3,300	0.07	1.6	8,000	2,500	0.06	1.6	6,000	1,200	0.032	1.6
3	0.5	35	12,000	4,600	0.1	1.6	10,000	3,300	0.07	1.6	8,000	2,500	0.06	1.6	6,000	1,200	0.032	1.6
3	0.5	35	12,000	4,600	0.1	1.6	10,000	3,300	0.07	1.6	8,000	2,500	0.06	1.6	6,000	1,200	0.032	1.6
3	0.5	40	11,000	3,600	0.08	1.6	9,100	2,600	0.06	1.6	7,400	2,000	0.05	1.6	5,500	1,000	0.025	1.6
3	0.5	40	11,000	3,600	0.08	1.6	9,100	2,600	0.06	1.6	7,400	2,000	0.05	1.6	5,500	1,000	0.025	1.6
3	0.5	40	11,000	3,600	0.08	1.6	9,100	2,600	0.06	1.6	7,400	2,000	0.05	1.6	5,500	1,000	0.025	1.6
3	0.5	45	9,500	3,100	0.07	1.6	7,800	2,200	0.05	1.6	5,800	1,700	0.04	1.6	5,000	900	0.02	1.6
3	0.5	45	9,500	3,100	0.07	1.6	7,800	2,200	0.05	1.6	5,800	1,700	0.04	1.6	5,000	900	0.02	1.6
3	0.5	45	9,500	3,100	0.07	1.6	7,800	2,200	0.05	1.6	5,800	1,700	0.04	1.6	5,000	900	0.02	1.6
3	0.75	20	13,000	7,200	0.19	1.1	11,000	5,100	0.15	1.1	8,700	4,000	0.11	1.1	6,500	1,800	0.06	1.1
3	0.75	30	13,000	5,700	0.12	1.1	11,000	4,000	0.09	1.1	8,700	3,000	0.07	1.1	6,500	1,400	0.04	1.1
3	0.75	40	11,000	3,600	0.08	1.1	9,100	2,600	0.06	1.1	7,400	2,000	0.05	1.1	5,500	1,000	0.025	1.1
4	0.5	20	10,000	9,900	0.24	2.5	8,300	7,000	0.19	2.5	6,700	5,600	0.14	2.5	5,000	2,500	0.07	2.5
4	0.5	20	10,000	9,900	0.24	2.5	8,300	7,000	0.19	2.5	6,700	5,600	0.14	2.5	5,000	2,500	0.07	2.5
4	0.5	20	10,000	9,900	0.24	2.5	8,300	7,000	0.19	2.5	6,700	5,600	0.14	2.5	5,000	2,500	0.07	2.5
4	0.5	25	10,000	9,900	0.24	2.5	8,300	7,000	0.19	2.5	6,700	5,600	0.14	2.5	5,000	2,500	0.07	2.5
4	0.5	25	10,000	9,900	0.24	2.5	8,300	7,000	0.19	2.5	6,700	5,600	0.14	2.5	5,000	2,500	0.07	2.5
4	0.5	25	10,000	9,900	0.24	2.5	8,300	7,000	0.19	2.5	6,700	5,600	0.14	2.5	5,000	2,500	0.07	2.5

RPM = rev./min. Feed = min/rev.

Work materials			Carbon Steels				Prehardened Steels				Hardened Steels				Hardened Steels			
Hardness			~ HRC30				HRC30 ~ HRC45				HRC45 ~ HRC55				HRC55 ~ HRC62			
ΦD	CR	l1	RPM	Feed	ap	ae	RPM	Feed	ap	ae	RPM	Feed	ap	ae	RPM	Feed	ap	ae
4	0.5	30	10,000	9,900	0.24	2.5	8,300	7,000	0.19	2.5	6,700	5,600	0.14	2.5	5,000	2,500	0.07	2.5
4	0.5	30	10,000	9,900	0.24	2.5	8,300	7,000	0.19	2.5	6,700	5,600	0.14	2.5	5,000	2,500	0.07	2.5
4	0.5	30	10,000	9,900	0.24	2.5	8,300	7,000	0.19	2.5	6,700	5,600	0.14	2.5	5,000	2,500	0.07	2.5
4	0.5	35	10,000	9,900	0.15	2.5	8,300	7,000	0.12	2.5	6,700	5,600	0.09	2.5	5,000	2,500	0.04	2.5
4	0.5	35	10,000	9,900	0.15	2.5	8,300	7,000	0.12	2.5	6,700	5,600	0.09	2.5	5,000	2,500	0.04	2.5
4	0.5	35	10,000	9,900	0.15	2.5	8,300	7,000	0.12	2.5	6,700	5,600	0.09	2.5	5,000	2,500	0.04	2.5
4	0.5	40	10,000	9,900	0.15	2.5	8,300	7,000	0.12	2.5	6,700	5,600	0.09	2.5	5,000	2,500	0.04	2.5
4	0.5	40	10,000	9,900	0.15	2.5	8,300	7,000	0.12	2.5	6,700	5,600	0.09	2.5	5,000	2,500	0.04	2.5
4	0.5	40	10,000	9,900	0.15	2.5	8,300	7,000	0.12	2.5	6,700	5,600	0.09	2.5	5,000	2,500	0.04	2.5
4	0.5	45	10,000	9,900	0.15	2.5	8,300	7,000	0.12	2.5	6,700	5,600	0.09	2.5	5,000	2,500	0.04	2.5
4	0.5	45	10,000	9,900	0.15	2.5	8,300	7,000	0.12	2.5	6,700	5,600	0.09	2.5	5,000	2,500	0.04	2.5
4	0.5	45	10,000	9,900	0.15	2.5	8,300	7,000	0.12	2.5	6,700	5,600	0.09	2.5	5,000	2,500	0.04	2.5
4	0.5	50	8,100	6,300	0.14	2.5	6,700	4,420	0.11	2.5	5,400	3,500	0.08	2.5	4,000	1,600	0.04	2.5
4	0.5	50	8,100	6,300	0.14	2.5	6,700	4,420	0.11	2.5	5,400	3,500	0.08	2.5	4,000	1,600	0.04	2.5
4	0.5	50	8,100	6,300	0.14	2.5	6,700	4,420	0.11	2.5	5,400	3,500	0.08	2.5	4,000	1,600	0.04	2.5
4	1	20	10,000	9,900	0.24	1.5	8,300	7,000	0.19	1.5	6,700	5,600	0.14	1.5	5,000	2,500	0.07	1.5
4	1	30	10,000	9,900	0.24	1.5	8,300	7,000	0.19	1.5	6,700	5,600	0.14	1.5	5,000	2,500	0.07	1.5
4	1	40	10,000	9,900	0.15	1.5	8,300	7,000	0.12	1.5	6,700	5,600	0.09	1.5	5,000	2,500	0.04	1.5
4	1	50	8,100	6,300	0.14	1.5	6,700	4,420	0.11	1.5	5,400	3,500	0.08	1.5	4,000	1,600	0.04	1.5
4	1	50	8,100	6,300	0.14	1.5	6,700	4,420	0.11	1.5	5,400	3,500	0.08	1.5	4,000	1,600	0.04	1.5
4	1	60	8,100	6,300	0.14	1.5	6,700	4,420	0.11	1.5	5,400	3,500	0.08	1.5	4,000	1,600	0.04	1.5
4	1	60	8,100	6,300	0.14	1.5	6,700	4,420	0.11	1.5	5,400	3,500	0.08	1.5	4,000	1,600	0.04	1.5
4	1	70	8,100	6,300	0.14	1.5	6,700	4,420	0.11	1.5	5,400	3,500	0.08	1.5	4,000	1,600	0.04	1.5
4	1	80	8,100	6,300	0.14	1.5	6,700	4,420	0.11	1.5	5,400	3,500	0.08	1.5	4,000	1,600	0.04	1.5
5	1.2	20	7,900	10,000	0.32	1.85	6,900	7,300	0.25	1.85	5,600	5,800	0.19	1.85	4,150	2,600	0.09	1.85
5	1.2	30	7,900	10,000	0.32	1.85	6,900	7,300	0.25	1.85	5,600	5,800	0.19	1.85	4,150	2,600	0.09	1.85
5	1.2	40	7,900	10,000	0.32	1.85	6,900	7,300	0.25	1.85	5,600	5,800	0.19	1.85	4,150	2,600	0.09	1.85
5	1.2	40	7,900	10,000	0.32	1.85	6,900	7,300	0.25	1.85	5,600	5,800	0.19	1.85	4,150	2,600	0.09	1.85
5	1.2	40	7,900	10,000	0.32	1.85	6,900	7,300	0.25	1.85	5,600	5,800	0.19	1.85	4,150	2,600	0.09	1.85
5	1.2	50	6,650	7,500	0.23	1.85	5,600	5,310	0.15	1.85	4,500	4,250	0.16	1.85	2,150	1,900	0.05	1.85
5	1.2	60	6,650	7,500	0.23	1.85	5,600	5,310	0.15	1.85	4,500	4,250	0.16	1.85	2,150	1,900	0.05	1.85
5	1.2	70	6,650	7,500	0.23	1.85	5,600	5,310	0.15	1.85	4,500	4,250	0.16	1.85	2,150	1,900	0.05	1.85
5	1.2	80	6,650	7,500	0.23	1.85	5,600	5,310	0.15	1.85	4,500	4,250	0.16	1.85	2,150	1,900	0.05	1.85
6	1.5	40	6,600	11,000	0.4	2	5,500	7,600	0.32	2	4,500	6,100	0.24	2	3,300	2,700	0.12	2
6	1.5	50	6,600	11,000	0.4	2	5,500	7,600	0.32	2	4,500	6,100	0.24	2	3,300	2,700	0.12	2
6	1.5	60	6,600	11,000	0.25	2	5,500	7,600	0.2	2	4,500	6,100	0.15	2	3,300	2,700	0.08	2
6	1.5	60	5,400	8,700	0.23	2	4,400	6,200	0.18	2	3,600	5,000	0.14	2	2,700	2,200	0.07	2

RPM = rev./min. Feed = min/rev.

EM52CA - Solid Carbide 4F & 6F Hi Helix End Mills for Hardened Materials - Side Milling

Work materials	Carbon Steels				Hardened Steels			
	~ HRc35		HRc35 ~ HRc45		HRc45 ~ HRc55		HRc55 ~ HRc65	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
3.0	13,000	1,530	11,000	810	8,000	520	6,400	380
4.0	1,000	1,680	8,000	840	6,000	550	4,800	400
6.0	6,400	2,420	5,300	1,250	4,200	870	3,200	600
8.0	4,800	2,420	4,000	1,260	3,200	890	2,400	600
10.0	3,800	2,300	3,200	1,210	2,500	830	1,900	570
12.0	3,200	2,150	2,700	1,130	2,100	780	1,600	540
16.0	2,400	2,070	2,000	1,080	1,600	760	1,200	520
20.0	1,900	1,920	1,600	1,010	1,300	720	1,000	500
Depth of Cut	ap≤1.0D ae≤0.1D				ap≤1.0D ae≤0.06D		ap≤1.0D ae≤0.04D	

RPM = rev./min. Feed = min/rev.

EM53CA - Solid Carbide 4F Corner Radius End Mills for Hardened Materials - Slotting

Work materials	Carbon Steels		Prehardened Steels		Hardened Steels	
	~ HRc35		HRc35 ~ HRc45		HRc45 ~ HRc55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
4.0	4,800	500	4,400	410	4,000	280
6.0	3,200	550	2,900	450	2,700	310
8.0	2,400	590	2,200	480	2,000	330
10.0	1,900	520	1,800	440	1,600	290
12.0	1,600	0	1,500	400	1,300	260
16.0	1,200	410	1,100	340	1,000	230
20.0	1,000	420	900	330	800	200
Depth of Cut	ap≤0.5D				ap≤0.2D	

RPM = rev./min. Feed = min/rev.

EM53CA - Solid Carbide 4F Corner Radius End Mills for Hardened Materials - Side Milling

Work materials	Carbon Steels		Prehardened Steels		Hardened Steels	
Hardness	~ HRc35		HRc35 ~ HRc45		HRc45 ~ HRc55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
4.0	7,200	830	6,400	660	5,600	500
6.0	4,800	970	4,200	750	3,700	580
8.0	3,600	1,040	3,200	820	2,800	630
10.0	2,900	960	2,500	740	2,200	570
12.0	2,400	900	2,100	700	1,900	550
16.0	1,800	730	1,600	570	1,400	440
20.0	1,400	600	1,300	500	1,100	320
Depth of Cut	ap≤1.0D ae≤0.1D		ap≤1.0D ae≤0.06D		ap≤1.0D ae≤0.04D	

RPM = rev./min. Feed = min/rev.

EM54CA - Solid Carbide 6F Corner Radius End Mills for Hardened Materials - Side Milling

Work materials	Carbon Steels		Hardened Steels						
Hardness	~ HRc35		HRc35 ~ HRc45		HRc45 ~ HRc55		HRc55 ~ HRc65		
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	
6.0	6,400	2,420	5,300	1,250	4,200	870	3,200	600	
8.0	4,800	2,420	4,000	1,260	3,200	890	2,400	600	
10.0	3,800	2,300	3,200	1,210	2,500	830	1,900	570	
12.0	3,200	2,150	2,700	1,130	2,100	780	1,600	540	
16.0	2,400	2,070	2,000	1,080	1,600	760	1,200	520	
20.0	1,900	1,920	1,600	1,010	1,300	720	1,000	500	
Depth of Cut	ap≤1.0D ae≤0.1D			ap≤1.0D ae≤0.06D			ap≤1.0D ae≤0.04D		

RPM = rev./min. Feed = min/rev.

EM55CA - Solid Carbide 4F Unequal Division Ball End Mills for Hardened Materials

Work materials	Hardened Steels											
Hardness	HRc45 ~ HRc55				HRc55 ~ HRc62				HRc62 ~ HRc66			
Diameter	RPM	Feed	ap	ae	RPM	Feed	ap	ae	RPM	Feed	ap	ae
R1.0	23,900	2,390	2.00	0.04	19,900	1,590	2.00	0.03	15,900	950	2.00	0.02
R2.0	11,900	2,260	4.00	0.08	10,000	1,520	4.00	0.06	8,000	910	4.00	0.04
R3.0	8,000	2,330	6.00	0.12	6,600	1,540	6.00	0.09	5,300	930	6.00	0.06
R4.0	6,000	2,400	8.00	0.16	5,000	1,600	8.00	0.12	4,000	960	8.00	0.08
R5.0	4,800	2,400	10.00	0.20	4,000	1,600	10.00	0.15	3,200	960	10.00	0.10
R6.0	4,000	2,280	12.00	0.24	3,300	1,500	12.00	0.18	2,700	920	12.00	0.12
Depth of Cut	ap≤1.0D											

RPM = rev./min. Feed = min/rev.

EM56CA - Solid Carbide 4F THREAD MILL

Materials	Carbon Steels		Tool Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRc25		HRc25 ~ HRc35		HRc35 ~ HRc45				HRc45 ~ HRc55	
Cutting speed(Vc)	80		75		65		70		55	
Tool Dia	RPM(N)	Feed(fz)	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
2.4	10620	0.02	9960	0.02	8630	0.02	9290	0.02	7300	0.01
3.1	8220	0.02	7710	0.02	6680	0.02	7200	0.02	5660	0.01
3.8	6710	0.02	6290	0.02	5450	0.02	5870	0.02	4610	0.01
4.6	5540	0.02	5200	0.02	4510	0.03	4850	0.02	3810	0.02
6.2	4110	0.02	3860	0.03	3340	0.04	3600	0.02	2830	0.03
7.5	3400	0.02	3190	0.03	2770	0.04	2980	0.02	2340	0.03
9.0	2840	0.03	2660	0.04	2310	0.05	2480	0.03	1950	0.04

RPM = rev./min. Feed = min/rev.

EM57CA - Solid Carbide 4F DRILL THREAD MILL

Materials	Carbon Steels		Tool Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRc25		HRc25 ~ HRc35		HRc35 ~ HRc45				HRc45 ~ HRc55	
Cutting speed(Vc)	80		75		65		70		55	
Tool Dia	RPM(N)	Feed(fz)	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
2.4	10620	0.01	9960	0.01	8630	0.01	9290	0.01	7300	0.01
3.1	8220	0.01	7710	0.01	6680	0.01	7200	0.01	5660	0.01
3.8	6710	0.01	6290	0.01	5450	0.01	5870	0.01	4610	0.01
4.6	5540	0.01	5200	0.01	4510	0.02	4850	0.01	3810	0.01
6.2	4110	0.01	3860	0.02	3340	0.03	3600	0.01	2830	0.02
7.5	3400	0.01	3190	0.02	2770	0.03	2980	0.01	2340	0.02
9.0	2840	0.02	2660	0.03	2310	0.03	2480	0.02	1950	0.03

RPM = rev./min. Feed = min/rev.

EM58CA - Solid Carbide Precision Hole Bite for Lathe

Materials	Steels(<500 N/mm ²)		Steels(500~800 N/mm ²)		Steels(800~1000 N/mm ²)		Aluminum Steel	
Cutting speed(Vc)	83		62		62		122	
Tool Dia	N(rev/min)	F(mm/rev)	N(rev/min)	F(mm/rev)	N(rev/min)	F(mm/rev)	N(rev/min)	F(mm/rev)
1.0	7,750	0.01-0.02	6,250	0.01-0.02	5,750	0.01-0.02	9,000	0.01-0.03
2.0	7,500	0.01-0.02	6,000	0.01-0.02	5,500	0.01-0.02	8,750	0.02-0.03
3.0	7,250	0.01-0.03	5,750	0.01-0.02	5,250	0.01-0.02	8,500	0.02-0.04
4.0	7,000	0.02-0.04	5,500	0.02-0.03	5,000	0.02-0.03	8,250	0.02-0.05
6.0	6,000	0.02-0.05	4,500	0.02-0.04	4,250	0.02-0.04	8,000	0.02-0.06
8.0	5,000	0.02-0.06	4,000	0.02-0.05	3,500	0.02-0.05	7,750	0.02-0.07

RPM = rev./min. Feed = min/rev.

EM62CA - Solid Carbide 45° Helix 3F Unequal Division & Unequal Lead Corner Radius End Mills for Aluminum

Work materials	Aluminum, Cooper			
Diameter	Slotting		Side Cutting	
	RPM	Feed	RPM	Feed
3.0	10,000	350	10,000	650
4.0	10,000	630	10,000	780
5.0	10,000	720	10,000	930
6.0	10,000	865	10,000	1,080
8.0	8,000	1,000	8,000	1,230
10.0	8,000	1,220	8,000	1,500
12.0	8,000	1,500	8,000	1,260
16.0	6,000	1,350	6,000	1,730
20.0	4,000	1,150	4,000	1,365
Depth of Cut	ap≤0.2D		ap≤2.5D ae≤0.15D	

RPM = rev./min. Feed = min/rev.

EM63CA - Solid Carbide 4F Corner Radius End Mills for Titanium- Slotting

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Titanium alloy	
Hardness	~ HRC25		HRc30 ~ HRc35					
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
6.0	4,800	870	2,940	390	2,100	350	2,170	295
8.0	3,900	890	1,240	400	1,670	352	1,700	295
10.0	3,200	880	1,960	395	1,400	295	1,450	290
12.0	2,400	875	1,450	370	1,050	295	1,100	280
16.0	1,920	760	1,200	365	830	290	870	245
20.0	1,600	750	980	355	690	280	730	220
Depth of Cut	ap≤1.0D				ap≤0.6D			

RPM = rev./min. Feed = min/rev.

EM63CA - Solid Carbide 4F Corner Radius End Mills for Titanium - Side Milling

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Titanium alloy	
Hardness	~ HRC25		HRC30 ~ HRC35					
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
6.0	6,150	1,050	3,780	465	2,750	450	2,750	360
8.0	4,900	1,100	3,100	475	2,210	470	2,210	390
10.0	4,130	1,070	2,500	470	1,840	430	1,840	350
12.0	3,100	1,030	1,900	455	1,380	400	1,380	330
16.0	2,480	950	1,550	450	1,100	350	1,100	310
20.0	2,100	920	1,250	390	930	320	930	300
Depth of Cut	ap≤1.3D ae : 0.5D				ap≤1.2D ae : 0.4D			

RPM = rev./min. Feed = min/rev.

EM64CA - Solid Carbide 5F Corner Radius End Mills For Nickel based Alloys

Work materials	Nickel based Alloys			
Diameter	Side Milling		Slotting	
	RPM	Feed	RPM	Feed
6.0	2,100	250	1,300	165
8.0	1,600	230	1,000	155
10.0	1,400	230	900	145
12.0	1,100	220	700	135
16.0	800	210	500	120
20.0	650	200	400	110
Depth of Cut	ap≤0.5D ae≤0.3D		ap≤0.5D	

RPM = rev./min. Feed = min/rev.

EM65CA - Solid Carbide 3F Corner Radius End Mills for Aluminum(4D) - Slotting

Work materials	Aluminum		Copper		Plastic	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
6.0	23,300	5,300	12,800	1,950	24,000	7,300
8.0	18,500	5,000	10,300	2,350	19,500	7,250
10.0	14,000	4,800	7,650	2,850	14,500	8,230
12.0	11,500	5,300	6,400	2,450	12,000	9,150
16.0	8,700	4,350	4,800	2,050	9,000	7,500
20.0	7,000	3,950	3,840	1,750	7,200	6,570
Depth of Cut	ap≤1.0D / ae : 1.0D					

RPM = rev./min. Feed = min/rev.

EM65CA - Solid Carbide 3F Corner Radius End Mills for Aluminum(4D) - Side Milling

Work materials	Aluminum		Copper		Plastic	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
6.0	29,000	6,650	16,700	2,550	29,800	9,050
8.0	23,300	6,300	13,500	2,100	23,800	9,630
10.0	17,500	6,000	10,500	1,700	17,900	10,200
12.0	14,500	6,650	8,400	3,200	14,500	11,350
16.0	11,000	5,500	6,250	2,600	11,200	9,350
20.0	8,750	4,950	5,050	2,300	8,950	8,150
Depth of Cut	ap≤1.5D / ae : 0.5D					

RPM = rev./min. Feed = min/rev.

EM66CA - Solid Carbide 3F Ball End Mills for Al - Side Milling

Work materials	Aluminum & Cooper			
Diameter	RPM	Feed	ap	ae
R1.0	25,000	2,800	0.15	0.50
R2.0	15,500	3,350	0.30	1.00
R3.0	10,500	3,350	0.50	1.70
R4.0	7,600	3,200	0.70	2.30
R5.0	6,200	3,200	0.90	2.80
R6.0	5,100	3,200	1.10	3.30

RPM = rev./min. Feed = min/rev.

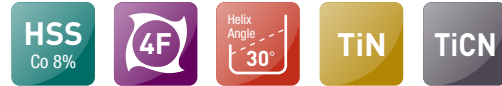
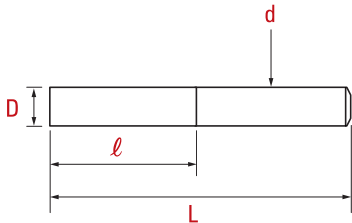
DYC BEST TOTAL TOOLS

HSS End Mills



HSS-Co 8% 4F End Mills

하이스 4날
엔드밀
SKH59



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샙크
EM01H9-010	1.0	2.5	55	6
EM01H9-015	1.5	4	55	6
EM01H9-020	2.0	6	55	6
EM01H9-025	2.5	7	55	6
EM01H9-030	3.0	10	55	6
EM01H9-035	3.5	12	60	6
EM01H9-040	4.0	12	60	6
EM01H9-045	4.5	15	65	6
EM01H9-050	5.0	15	65	6
EM01H9-055	5.5	15	65	6
EM01H9-060	6.0	15	65	6
EM01H9-065	6.5	20	75	8
EM01H9-070	7.0	20	75	8
EM01H9-075	7.5	20	75	8
EM01H9-080	8.0	20	75	8
EM01H9-085	8.5	25	80	10
EM01H9-090	9.0	25	80	10
EM01H9-095	9.5	25	80	10
EM01H9-100	10.0	26	80	10
EM01H9-105	10.5	30	90	12
EM01H9-110	11.0	30	90	12
EM01H9-115	11.5	30	90	12
EM01H9-120	12.0	31	90	12
EM01H9-125	12.5	35	95	12
EM01H9-130	13.0	35	95	12
EM01H9-140	14.0	35	100	16
EM01H9-150	15.0	40	105	16
EM01H9-160	16.0	40	105	16
EM01H9-170	17.0	40	105	16
EM01H9-180	18.0	40	105	16
EM01H9-190	19.0	45	115	20

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샙크
EM01H9-200	20.0	45	115	20
EM01H9-210	21.0	45	115	20
EM01H9-220	22.0	45	115	20
EM01H9-240	24.0	50	125	25
EM01H9-250	25.0	50	125	25
EM01H9-260	26.0	50	125	25
EM01H9-280	28.0	55	125	25
EM01H9-300	30.0	55	125	25
EM01H9-320	32.0	60	145	32
EM01H9-340	34.0	60	145	32
EM01H9-350	35.0	60	145	32
EM01H9-360	36.0	65	150	32
EM01H9-380	38.0	65	150	32
EM01H9-400	40.0	65	150	32
EM01H9-420	42.0	70	160	42
EM01H9-440	44.0	70	160	42
EM01H9-450	45.0	70	160	42
EM01H9-460	46.0	75	160	42
EM01H9-480	48.0	75	165	42
EM01H9-500	50.0	75	165	42

• Products except for the above standard items will be produced by the special order.

• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

• For the coating products item number, TiN or TiCN is added after the item no.
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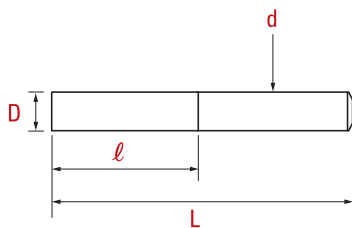
Tolerance (허용공차)

D	d	L
≤ 20 0~+0.03	h6	±1
≤ 50 0~+0.04		

HSS-Co 8%

4F Long End Mills

하이스 4날
롱 엔드밀
SKH59



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샹크
EM02H9-030	3.0	15	60	6
EM02H9-040	4.0	20	70	6
EM02H9-050	5.0	25	75	6
EM02H9-060	6.0	25	75	6
EM02H9-070	7.0	35	90	8
EM02H9-080	8.0	35	90	8
EM02H9-090	9.0	45	100	10
EM02H9-100	10.0	45	100	10
EM02H9-110	11.0	55	115	12
EM02H9-120	12.0	55	115	12
EM02H9-130	13.0	55	115	12
EM02H9-140	14.0	55	120	16
EM02H9-150	15.0	65	130	16
EM02H9-160	16.0	65	130	16
EM02H9-170	17.0	65	130	16
EM02H9-180	18.0	65	130	16
EM02H9-190	19.0	75	145	20
EM02H9-200	20.0	75	145	20

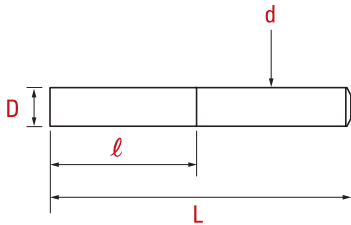
Tolerance (허용공차)		
D	d	L
≦ 20 0~+0.03	h6	±1
≧ 50 0~+0.04		

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HSS-Co 8% 2F End Mills

하이스 2날
엔드밀
SKH59



Item no. 제품코드	D 외경	l 날장	L 전장	d 샙크
EM03H9-010	1.0	2.5	55	6
EM03H9-015	1.5	4	55	6
EM03H9-020	2.0	6	55	6
EM03H9-025	2.5	7	55	6
EM03H9-030	3.0	10	55	6
EM03H9-035	3.5	12	60	6
EM03H9-040	4.0	12	60	6
EM03H9-045	4.5	15	65	6
EM03H9-050	5.0	15	65	6
EM03H9-055	5.5	15	65	6
EM03H9-060	6.0	15	65	6
EM03H9-065	6.5	20	75	8
EM03H9-070	7.0	20	75	8
EM03H9-075	7.5	20	75	8
EM03H9-080	8.0	20	75	8
EM03H9-085	8.5	25	80	10
EM03H9-090	9.0	25	80	10
EM03H9-095	9.5	25	80	10
EM03H9-100	10.0	26	80	10
EM03H9-105	10.5	30	90	12
EM03H9-110	11.0	30	90	12
EM03H9-115	11.5	30	90	12
EM03H9-120	12.0	31	90	12
EM03H9-125	12.5	35	95	12
EM03H9-130	13.0	35	95	12
EM03H9-140	14.0	35	100	16
EM03H9-150	15.0	40	105	16
EM03H9-160	16.0	40	105	16
EM03H9-170	17.0	40	105	16
EM03H9-180	18.0	40	105	16
EM03H9-190	19.0	45	115	20
EM03H9-200	20.0	45	115	20
EM03H9-210	21.0	45	115	20

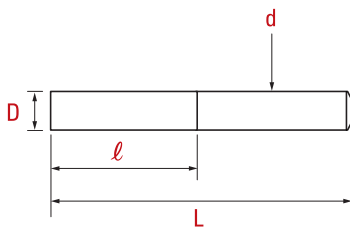
Item no. 제품코드	D 외경	l 날장	L 전장	d 샙크
EM03H9-220	22.0	45	115	20
EM03H9-240	24.0	50	125	25
EM03H9-250	25.0	50	125	25
EM03H9-260	26.0	50	125	25
EM03H9-280	28.0	55	125	25
EM03H9-300	30.0	55	125	25
EM03H9-320	32.0	60	145	32
EM03H9-340	34.0	60	145	32
EM03H9-350	35.0	60	145	32
EM03H9-360	36.0	65	150	32
EM03H9-380	38.0	65	150	32
EM03H9-400	40.0	65	150	32
EM03H9-420	42.0	70	160	42
EM03H9-440	44.0	70	160	42
EM03H9-450	45.0	70	160	42
EM03H9-460	46.0	75	160	42
EM03H9-480	48.0	75	165	42
EM03H9-500	50.0	75	165	42

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Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

HSS-Co 8% 2F Long End Mills

하이스 2날
롱 엔드밀
SKH59



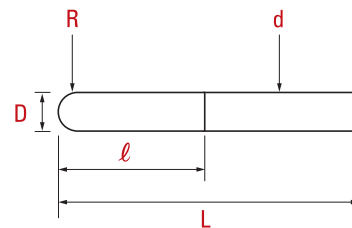
Item no. 제품코드	D 외경	l 날장	L 전장	d 상크
EM04H9-030	3.0	15	60	6
EM04H9-040	4.0	20	70	6
EM04H9-050	5.0	25	75	6
EM04H9-060	6.0	25	75	6
EM04H9-070	7.0	35	90	8
EM04H9-080	8.0	35	90	8
EM04H9-090	9.0	45	100	10
EM04H9-100	10.0	45	100	10
EM04H9-110	11.0	55	115	12
EM04H9-120	12.0	55	115	12
EM04H9-130	13.0	55	115	12
EM04H9-140	14.0	55	120	16
EM04H9-150	15.0	65	130	16
EM04H9-160	16.0	65	130	16
EM04H9-170	17.0	65	130	16
EM04H9-180	18.0	65	130	16
EM04H9-190	19.0	75	145	20
EM04H9-200	20.0	75	145	20

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

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HSS-Co 8% 2F Ball End Mills

하이스 2날
볼 엔드밀
SKH59



Item no. 제품코드	R 반경	ℓ 날장	L 전장	d 샤크
EM05H9-005	R 0.5	2.5	50	6
EM05H9-007	R 0.75	4	50	6
EM05H9-010	R 1.0	6	50	6
EM05H9-012	R 1.25	8	60	6
EM05H9-015	R 1.5	8	60	6
EM05H9-020	R 2.0	8	70	6
EM05H9-025	R 2.5	10	80	6
EM05H9-030	R 3.0	12	90	6
EM05H9-035	R 3.5	14	90	8
EM05H9-040	R 4.0	14	100	8
EM05H9-045	R 4.5	18	100	10
EM05H9-050	R 5.0	18	100	10
EM05H9-055	R 5.5	22	100	12
EM05H9-060	R 6.0	22	110	12
EM05H9-065	R 6.5	26	110	12
EM05H9-070	R 7.0	26	110	12
EM05H9-075	R 7.5	30	110	12
EM05H9-080	R 8.0	30	140	16
EM05H9-085	R 8.5	34	140	16
EM05H9-090	R 9.0	34	140	16
EM05H9-095	R 9.5	38	140	16
EM05H9-100	R 10.0	38	160	20
EM05H9-105	R 10.5	45	170	20
EM05H9-110	R 11.0	45	170	20

Item no. 제품코드	R 반경	ℓ 날장	L 전장	d 샤크
EM05H9-115	R 11.5	50	180	20
EM05H9-120	R 12.0	60	180	25
EM05H9-125	R 12.5	50	180	25
EM05H9-130	R 13.0	50	180	25
EM05H9-135	R 13.5	50	180	25
EM05H9-140	R 14.0	50	180	25
EM05H9-150	R 15.0	55	180	25
EM05H9-160	R 16.0	60	180	32
EM05H9-175	R 17.5	60	180	32
EM05H9-200	R 20.0	65	200	32
EM05H9-250	R 25.0	75	210	42

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

• For the coating products item number, TiN or TiCN is added after the item no.

ex) Item no. - TiN or Item no. - TiCN

• 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.

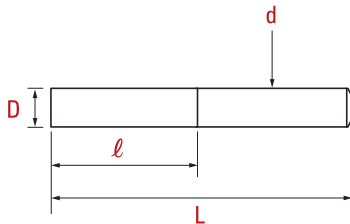
ex) Item no. - TiN or Item no. - TiCN

Tolerance (허용공차)

D	d	L
0~-0.03	h6	±1

HSS-Co 8% 4F~6F Roughing End Mills

하이스 4날~6날
항삭용 엔드밀
SKH59



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
EM06H9-060	6.0	15	60	6
EM06H9-070	7.0	20	65	8
EM06H9-080	8.0	20	65	8
EM06H9-090	9.0	25	75	10
EM06H9-100	10.0	25	75	10
EM06H9-110	11.0	30	80	12
EM06H9-120	12.0	30	80	12
EM06H9-130	13.0	35	90	12
EM06H9-140	14.0	35	90	12
EM06H9-150	15.0	40	95	12
EM06H9-160	16.0	40	95	16
EM06H9-170	17.0	40	95	16
EM06H9-180	18.0	40	105	16
EM06H9-190	19.0	45	110	16
EM06H9-200	20.0	45	110	20
EM06H9-210	21.0	45	110	20
EM06H9-220	22.0	45	110	20
EM06H9-230	23.0	45	110	20
EM06H9-240	24.0	50	120	25
EM06H9-250	25.0	50	120	25
EM06H9-260	26.0	50	120	25
EM06H9-270	27.0	55	125	25
EM06H9-280	28.0	55	125	25
EM06H9-300	30.0	55	125	25

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
EM06H9-320	32.0	60	145	32
EM06H9-340	34.0	60	145	32
EM06H9-350	35.0	60	145	32
EM06H9-360	36.0	60	145	32
EM06H9-380	38.0	65	150	32
EM06H9-400	40.0	65	150	32
EM06H9-420	42.0	65	155	42
EM06H9-440	44.0	65	155	42
EM06H9-450	45.0	70	160	42
EM06H9-460	46.0	70	160	42
EM06H9-500	50.0	70	160	42

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

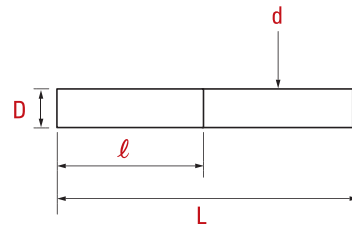
• For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
• 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN or Item no. - TiCN

Tolerance (허용공차)

D	d	L
±0.1	h6	±1

HSS-PM 4F Unequal Division & Unequal Lead End Mills

분말하이스 4날
부등분할 & 부등리드
엔드밀 HSS-PM



Item no. 제품코드	D 외경	l 날장	L 전장	d 샤희
EM18PM-030	3.0	9	60	6
EM18PM-040	4.0	12	60	6
EM18PM-050	5.0	15	60	6
EM18PM-060	6.0	18	60	8
EM18PM-070	7.0	21	60	10
EM18PM-080	8.0	24	80	10
EM18PM-090	9.0	27	85	10
EM18PM-100	10.0	30	85	10
EM18PM-120	12.0	36	90	12
EM18PM-140	14.0	42	100	16
EM18PM-160	16.0	48	120	16
EM18PM-180	18.0	54	120	20
EM18PM-200	20.0	60	130	20

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- This product is only supplied with TiAlN coating.
- 이 제품은 오직 TiAlN 코팅 제품만 제공됩니다.

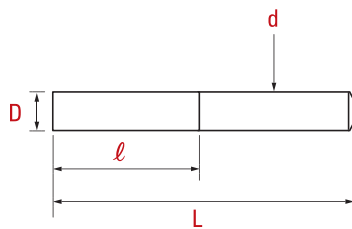
Tolerance (허용공차)		
D	d	L
0 ~ -0.03	h6	±1

특기사항

- 날부 형상 : 부등분할(Unequal Division)+부등리드(Unequal Lead)
- 진동의 최소화로 고이송 및 강력 절삭이 가능
- 일반강부터 합금강 및 프리하든강까지 다양한 피삭재에 적용 가능

HSS-PM 4F End Mills

분말하이스 4날
엔드밀
HSS-PM



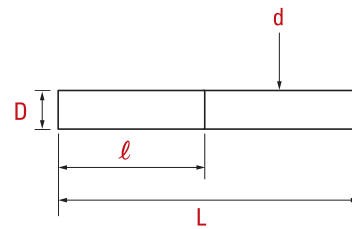
Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샹크
EM07PM-010	1.0	2.5	55	6
EM07PM-020	2.0	6	55	6
EM07PM-030	3.0	10	55	6
EM07PM-040	4.0	12	60	8
EM07PM-050	5.0	15	65	8
EM07PM-060	6.0	15	65	8
EM07PM-070	7.0	20	75	10
EM07PM-080	8.0	20	75	10
EM07PM-090	9.0	25	80	10
EM07PM-100	10.0	25	80	10
EM07PM-120	12.0	30	90	12
EM07PM-130	13.0	35	95	12
EM07PM-140	14.0	35	95	12
EM07PM-150	15.0	40	105	16
EM07PM-160	16.0	40	105	16
EM07PM-180	18.0	40	105	16
EM07PM-200	20.0	45	115	20

Tolerance (허용공차)		
D	d	L
0 ~ +0.03	h6	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

HSS-PM 4F Long End Mills

분말하이스 4날
롱 엔드밀
HSS-PM



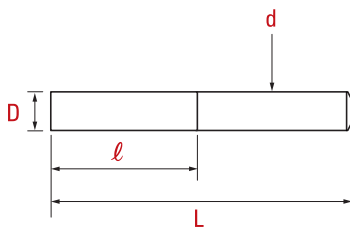
Item no. 제품코드	D 외경	l 날장	L 전장	d 상크
EM08PM-030	3.0	15	60	6
EM08PM-040	4.0	20	70	8
EM08PM-050	5.0	25	75	8
EM08PM-060	6.0	25	75	8
EM08PM-070	7.0	35	90	10
EM08PM-080	8.0	35	90	10
EM08PM-090	9.0	45	90	10
EM08PM-100	10.0	45	100	10
EM08PM-120	12.0	55	115	12
EM08PM-140	14.0	55	120	16
EM08PM-160	16.0	65	130	16
EM08PM-180	18.0	65	130	16
EM08PM-200	20.0	75	145	20

Tolerance (허용공차)		
D	d	L
0~+0.03	h6	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

HSS-PM 2F End Mills

분말하이스 2날
엔드밀
HSS-PM



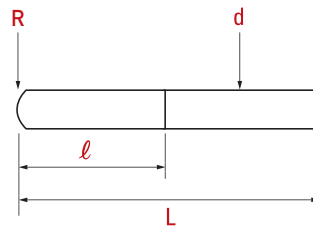
Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샹크
EM09PM-010	1.0	2.5	55	6
EM09PM-020	2.0	6	55	6
EM09PM-030	3.0	10	55	6
EM09PM-040	4.0	12	60	8
EM09PM-050	5.0	15	65	8
EM09PM-060	6.0	15	65	8
EM09PM-070	7.0	20	75	10
EM09PM-080	8.0	20	75	10
EM09PM-090	9.0	25	80	10
EM09PM-100	10.0	25	80	10
EM09PM-120	12.0	30	90	12
EM09PM-130	13.0	35	95	12
EM09PM-140	14.0	35	95	12
EM09PM-150	15.0	40	105	16
EM09PM-160	16.0	40	105	16
EM09PM-180	18.0	40	105	16
EM09PM-200	20.0	45	115	20

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

HSS-PM 2F Ball End Mills

분말하이스
2날 볼 엔드밀
HSS-PM



Item no. 제품코드	R 반경	ℓ 날장	L 전장	d 상크
EM10PM-005	R0.5	2.5	50	6
EM10PM-010	R 1.0	5	50	6
EM10PM-015	R 1.5	8	60	6
EM10PM-020	R 2.0	8	70	6
EM10PM-025	R 2.5	10	80	6
EM10PM-030	R 3.0	12	90	6
EM10PM-035	R 3.5	14	90	8
EM10PM-040	R 4.0	14	100	8
EM10PM-045	R 4.5	18	100	10
EM10PM-050	R 5.0	18	100	10
EM10PM-060	R 6.0	22	110	12
EM10PM-070	R 7.0	26	110	12
EM10PM-080	R 8.0	30	140	16
EM10PM-090	R 9.0	34	140	16
EM10PM-100	R 10.0	38	160	20

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

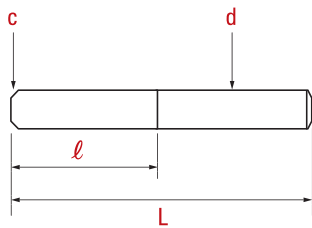
- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

HSS-PM

4F Unequal Division & Unequal Lead

Fine Pitch Roughing End Mills

분말하이스 4날
부등분할 & 부등리드
파인 피치 라핑 엔드밀
HSS-PM



Item no. 제품코드	D 외경	l 날장	L 전장	d 상크	C 면취부
EM17PM-060	6.0	13	80	6	0.5
EM17PM-070	7.0	16	80	10	0.5
EM17PM-080	8.0	19	85	10	0.5
EM17PM-090	9.0	19	95	10	0.5
EM17PM-100	10.0	22	100	10	0.5
EM17PM-120	12.0	26	110	12	0.6
EM17PM-140	14.0	26	110	12	0.6
EM17PM-160	16.0	32	125	16	0.6
EM17PM-180	18.0	32	125	16	0.6
EM17PM-200	20.0	38	140	20	0.6

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- This product is only supplied with TiAlN coating.
- 이 제품은 오직 TiAlN 코팅 제품만 제공됩니다.

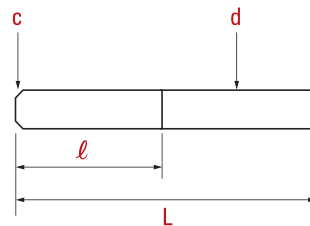
Tolerance (허용공차)		
D	d	L
≤ 12 : 0~-0.05	h6	±1
≤ 20 : 0~-0.10		

특기사항

- 날부 형상 : 부등분할(Unequal Division)+부등리드(Unequal Lead)
- 가공성 증대 / 가공 시 떨림 제로 / 가공 시간 단축
- 인선 외주부의 비대칭 라핑(Serration) 형상이 절삭 저항 감소 시킴
- 공구 마모가 적고 수명이 길다.
- 불안정 클램핑이나 축방향 가공 시 슬림 방지

HSS-PM 4F Unequal Division Fine Pitch Roughing End Mills

분말하이스 4날
부등분할
파인 피치 라핑 엔드밀
HSS-PM



Item no. 제품코드	D 외경	l 날장	L 전장	d 샤홅크	C 면취부
EM16PM-060	6.0	20	60	6	0.5
EM16PM-070	7.0	20	70	10	0.5
EM16PM-080	8.0	25	75	10	0.5
EM16PM-090	9.0	30	75	10	0.5
EM16PM-100	10.0	35	85	10	0.5
EM16PM-120	12.0	40	100	12	0.6
EM16PM-140	14.0	40	100	12	0.6
EM16PM-160	16.0	50	110	16	0.6
EM16PM-180	18.0	50	110	16	0.6
EM16PM-200	20.0	60	125	20	0.6

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- This product is only supplied with TiAlN coating.
- 이 제품은 오직 TiAlN 코팅 제품만 제공됩니다.

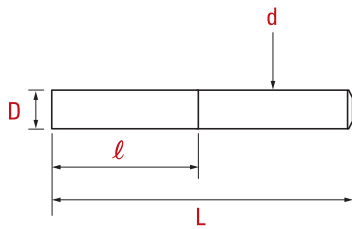
특기사항

- 날부 형상 : 부등분할(Unequal Division)
- 절삭날의 바닥면 가공이 용이하도록 센터컷 형상 적용함

Tolerance (허용공차)		
D	d	L
±0.1	h6	±1

HSS-PM 4F Roughing End Mills

분말하이스 4날
황삭용 엔드밀
HSS-PM



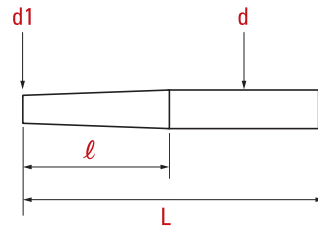
Item no. 제품코드	D 외경	l 날장	L 전장	d 샹크
EM11PM-060	6.0	20	60	6
EM11PM-070	7.0	20	70	10
EM11PM-080	8.0	25	75	10
EM11PM-090	9.0	30	75	10
EM11PM-100	10.0	35	85	10
EM11PM-120	12.0	40	100	12
EM11PM-140	14.0	40	100	16
EM11PM-160	16.0	50	110	16
EM11PM-180	18.0	50	110	20
EM11PM-200	20.0	60	125	20

Tolerance (허용공차)		
D	d	L
±0.1	h6	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

HSS-Co 8% 4F Taper End Mills

하이스 4날
테이퍼 엔드밀
SKH59



Item no. 제품코드	D 규격	d1 소경	d2 대경	d 상크경	ℓ 날장	L 전장
EM12H9-001	0°10'	9.82	10	10	30	80
EM12H9-002	0°20'	9.65	10	10	30	80
EM12H9-003	0°30'	9.47	10	10	30	80
EM12H9-004	0°40'	9.3	10	10	30	80
EM12H9-005	0°50'	9.12	10	10	30	80
EM12H9-010	1°	8.95	10	10	30	80
EM12H9-011	1°10'	8.78	10	10	30	80
EM12H9-012	1°20'	8.6	10	10	30	80
EM12H9-013	1°30'	8.42	10	10	30	80
EM12H9-014	1°40'	8.25	10	10	30	80
EM12H9-015	1°50'	8.07	10	10	30	80
EM12H9-020	2°	7.9	10	10	30	80
EM12H9-021	2°10'	7.72	10	10	30	80
EM12H9-022	2°20'	7.55	10	10	30	80
EM12H9-023	2°30'	7.38	10	10	30	80
EM12H9-024	2°40'	7.2	10	10	30	80
EM12H9-025	2°50'	7.03	10	10	30	80

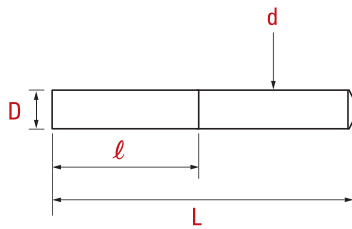
Item no. 제품코드	D 규격	d1 소경	d2 대경	d 상크경	ℓ 날장	L 전장
EM12H9-030	3°	8.33	12	12	35	90
EM12H9-033	3°30'	7.71	12	12	35	90
EM12H9-040	4°	10.4	16	16	40	100
EM12H9-043	4°30'	9.7	16	16	40	100
EM12H9-050	5°	9	16	16	40	100
EM12H9-060	6°	9.69	16	16	30	100
EM12H9-070	7°	8.63	16	16	30	100
EM12H9-080	8°	7.56	16	16	25	100
EM12H9-090	9°	8.08	16	16	25	100
EM12H9-100	10°	7.18	16	16	25	100

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)			
L	d1	d	ℓ
±1	js12	h8	±1

HSS-Co 8% 1F End Mills for Aluminum

하이스 1날
알루미늄용 엔드밀
SKH59



Item no. 제품코드	D 외경	l 날장	L 전장	d 샤희크
EM15H9-030	3	12	60	8
EM15H9-040	4	12	60	8
EM15H9-050	5	14	60	8
EM15H9-060	6	14	60	8
EM15H9-070	7	14	60	8
EM15H9-080	8	14	80	8
EM15H9-090	9	14	80	8
EM15H9-100	10	14	80	8

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

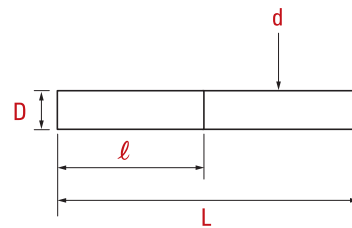
Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

특기사항

- 재질 : M42(SKH59)
- 헬릭스 각도(Helix Angle) : 30°

HSS-Co 8% 2F End Mills for Aluminum

하이스 2날
알루미늄용 엔드밀
SKH59



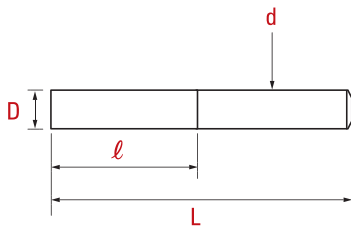
Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 상크
EM13H9-010	1.0	3	49	6
EM13H9-020	2.0	7	51	6
EM13H9-030	3.0	8	52	6
EM13H9-040	4.0	11	55	6
EM13H9-050	5.0	13	57	6
EM13H9-060	6.0	13	57	6
EM13H9-080	8.0	19	69	10
EM13H9-100	10.0	22	72	10
EM13H9-120	12.0	26	83	12
EM13H9-140	14.0	26	83	12
EM13H9-160	16.0	32	92	16
EM13H9-180	18.0	32	92	16
EM13H9-200	20.0	38	104	20

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

HSS-Co 8% 3F End Mills for Aluminum

하이스 3날
알루미늄용 엔드밀
SKH59



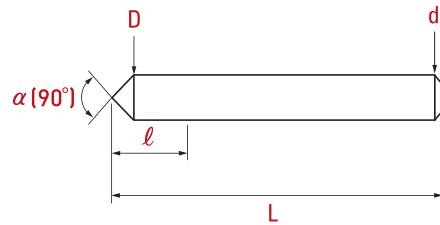
Item no. 제품코드	D 외경	l 날장	L 전장	d 샤희크
EM14H9-020	2.0	7	51	6
EM14H9-030	3.0	8	52	6
EM14H9-040	4.0	11	55	6
EM14H9-050	5.0	13	57	6
EM14H9-060	6.0	13	57	6
EM14H9-070	7.0	16	66	10
EM14H9-080	8.0	19	69	10
EM14H9-090	9.0	19	69	10
EM14H9-100	10.0	22	72	10
EM14H9-110	11.0	22	76	12
EM14H9-120	12.0	26	83	12
EM14H9-130	13.0	26	83	12
EM14H9-140	14.0	26	83	12
EM14H9-150	15.0	26	87	12
EM14H9-160	16.0	32	92	16
EM14H9-180	18.0	32	92	16
EM14H9-200	20.0	38	104	20

Tolerance (허용공차)		
D	d	L
0~-0.03	h6	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

HSS-Co 8% 90° 2F Centering End Mills

하이스 90°
2날 센터링 엔드밀, SKH59



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 상크
CE01H9-030	3.0	6	50	4
CE01H9-040	4.0	8	55	5
CE01H9-050	5.0	10	60	6
CE01H9-060	6.0	12	65	6
CE01H9-080	8.0	16	80	8
CE01H9-100	10.0	18	90	10
CE01H9-120	12.0	20	100	12
CE01H9-140	14.0	23	115	14
CE01H9-160	16.0	26	115	16
CE01H9-200	20.0	32	130	20

Tolerance (허용공차)		
D	Angle(α)	L
0~-0.03	±1°	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

EM01H9 - HSS-Co8% 4F End Mills

Work materials	Carbon Steels		Alloy Steel		Tool Steels	
Hardness	~HRc18		HRc20 ~ HRc29		HRc20 ~ HRc29	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
8.0	1,250	125	900	70	600	60
12.0	800	160	600	100	450	70
16.0	600	150	450	95	300	65
20.0	450	150	400	110	210	65
25.0	400	145	300	75	190	50
32.0	300	120	230	65	150	45
Depth of Cut	ap=0.5D					

RPM = rev./min. Feed = min/rev.

EM03H9 - HSS-Co8% 2F End Mills

Work materials	Carbon Steels		Alloy Steel		Tool Steels	
Hardness	~HRc18		HRc20 ~ HRc29		HRc20 ~ HRc29	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
8.0	1,250	100	900	70	600	45
12.0	800	90	600	80	450	50
16.0	600	90	450	70	300	45
20.0	450	85	400	70	210	45
25.0	400	75	300	60	190	35
32.0	300	55	230	45	150	30
Depth of Cut	ap=0.5D ae=0.1D					

RPM = rev./min. Feed = min/rev.

EM05H9 - HSS-Co8% 2F Ball End Mills

Work materials	Carbon Steels		Alloy Steel		Tool Steels	
Hardness	~HRc20		HRc20 ~ HRc29		HRc20 ~ HRc29	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
R2.0	2,400	80	1,400	35	1,000	25
R3.0	1,700	90	1,000	45	700	25
R4.0	1,200	105	700	50	500	30
R5.0	1,000	120	560	60	400	35
R6.0	800	105	450	55	320	35
R8.0	600	100	350	55	250	35
R10.0	500	85	300	50	200	35
Depth of Cut	ap=0.3D ae=0.7D					

RPM = rev./min. Feed = min/rev.

EM06H9 - HSS-Co8% 4F Roughing End Mills

Work materials	Carbon Steels		Alloy Steel		Tool Steels	
Hardness	~HRc18		HRc20 ~ HRc29		HRc20 ~ HRc29	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
8.0	1,100	75	900	65	560	35
12.0	800	140	630	110	400	70
16.0	560	140	450	110	280	70
20.0	450	140	400	110	220	70
25.0	400	170	310	140	180	85
32.0	280	160	220	130	140	85
Depth of Cut	ap=1.5D ae=0.1D					

RPM = rev./min. Feed = min/rev.

EM07PM - HSS-PM 4F End Mills

Work materials	Carbon Steels		Alloy Steel		Tool Steels	
Hardness	~HRc18		HRc20 ~ HRc29		HRc20 ~ HRc29	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
6.0	2,850	320	2,150	250	1,310	150
8.0	2,100	350	1,650	270	990	160
10.0	1,650	390	1,330	280	780	175
12.0	1,400	360	1,050	270	650	158
16.0	1,050	315	820	245	495	140
20.0	850	265	650	215	395	116
Depth of Cut	ap=1.5D ae=0.5D					

RPM = rev./min. Feed = min/rev.

EM09PM - HSS-PM 2F End Mills

Work materials	Carbon Steels		Alloy Steel		Tool Steels	
Hardness	~HRc18		HRc20 ~ HRc29		HRc20 ~ HRc29	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
6.0	2,400	160	1,900	145	1,050	72
8.0	1,800	180	1,440	150	820	76
10.0	1,450	198	1,200	165	650	88
12.0	1,200	180	950	160	550	75
16.0	900	165	720	130	410	70
20.0	650	120	580	115	325	58
Depth of Cut	ap=0.5D					

RPM = rev./min. Feed = min/rev.

EM10PM - HSS-PM 2F Ball End Mills

Work materials	Carbon Steels		Alloy Steel		Tool Steels	
Hardness	~HRc20		HRc20 ~ HRc29		HRc20 ~ HRc29	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
R3.0	2,750	240	1,900	130	985	65
R4.0	2,150	265	1,450	150	720	65
R5.0	1,690	290	1,200	165	580	76
R6.0	1,450	260	980	152	480	65
R8.0	1,050	245	720	133	360	60
R10.0	850	205	578	113	287	53
Depth of Cut			ap=0.2D ae=0.5D			

RPM = rev./min. Feed = min/rev.

EM11PM - HSS-PM 4F Roughing End Mills

Work materials	Carbon Steels		Alloy Steel		Tool Steels	
Hardness	~HRc18		HRc20 ~ HRc29		HRc20 ~ HRc29	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
8.0	2,150	160	1,600	110	1,300	95
12.0	1,850	200	1,300	145	1,050	105
16.0	1,400	280	1,000	165	860	145
20.0	1,160	285	860	195	700	160
25.0	900	295	628	200	525	156
32.0	730	295	510	195	420	150
Depth of Cut			ap=1.5D ae=0.5D			

RPM = rev./min. Feed = min/rev.

EM13H9 - HSS-Co 8% 2F End Mills for Aluminum - Slotting

Work materials	Aluminum	
Hardness	Aluminum Alloy	
Diameter	RPM	Feed
6.0	7,000	700
8.0	6,000	850
10.0	5,000	1,200
12.0	5,000	1,200
16.0	3,500	1,240
20.0	2,300	1,300
Depth of Cut	ap=0.5D	

RPM = rev./min. Feed = min/rev.

EM13H9 - HSS-Co 8% 2F End Mills for Aluminum - Side Milling

Work materials	Aluminum	
Hardness	Aluminum Alloy	
Diameter	RPM	Feed
6.0	7,000	900
8.0	6,000	1,000
10.0	5,000	1,500
12.0	5,000	1,500
16.0	3,500	1,600
20.0	2,300	1,700
Depth of Cut	ap=0.5D ae=0.1D	

RPM = rev./min. Feed = min/rev.

EM15H9 - HSS-Co 8% 1F End Mills for Aluminum

Work materials	Aluminum	
Hardness	Aluminum Alloy	
Diameter	RPM	Feed
3.0	20,000	1,100
4.0	18,000	950
5.0	14,000	750
6.0	11,000	600
8.0	8,500	450
10.0	7,000	380
Depth of Cut	ap=0.5D	

RPM = rev./min. Feed = min/rev.

EM16PM - HSS-PM 4F Unequal Division Fine Pitch Roughing End Mills

Work materials	Carbon Steels		Alloy Steel		Tool Steels	
Hardness	~HRc20		HRc20 ~ HRc29		HRc20 ~ HRc29	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
6.0	2,100	155	1,500	100	1,250	90
8.0	1,800	200	1,300	140	1,000	110
10.0	1,400	275	1,000	170	850	140
12.0	1,150	290	850	200	700	155
16.0	900	290	625	200	520	155
20.0	720	290	500	200	420	155
Depth of Cut	ap=1.5D ae=0.5D					

RPM = rev./min. Feed = min/rev.

EM17PM - HSS-PM 4F Unequal Division & Unequal Lead Roughing End Mills - Slotting

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRc30		HRc30 ~ HRc45		Stainless Steels		HRc45 ~ HRc50	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
6.0	2,650	160	2,100	110	1,320	60	1,850	90
8.0	1,980	190	1,580	140	990	80	1,400	110
10.0	1,590	210	1,270	150	800	80	1,100	120
12.0	1,320	210	1,050	160	650	90	920	120
16.0	990	250	800	190	500	110	150	500
20.0	800	270	650	210	400	110	160	400
Depth of Cut	ap=1.0D (MAX : 20mm)							

RPM = rev./min. Feed = min/rev.

EM17PM - HSS-PM 4F Unequal Division & Unequal Lead Roughing End Mills - Side Milling

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRc30		HRc30 ~ HRc45				HRc45 ~ HRc50	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
6.0	3,400	300	2,600	210	1,850	130	2,380	170
8.0	2,600	340	1,980	240	1,390	150	1,790	180
10.0	2,100	390	1,580	270	1,110	170	1,420	210
12.0	1,750	420	1,320	290	920	180	1,180	220
16.0	1,300	490	990	320	700	210	900	270
20.0	1,050	510	800	350	550	230	720	280
Depth of Cut	ap=1.5D ae=0.5D							

RPM = rev./min. Feed = min/rev.

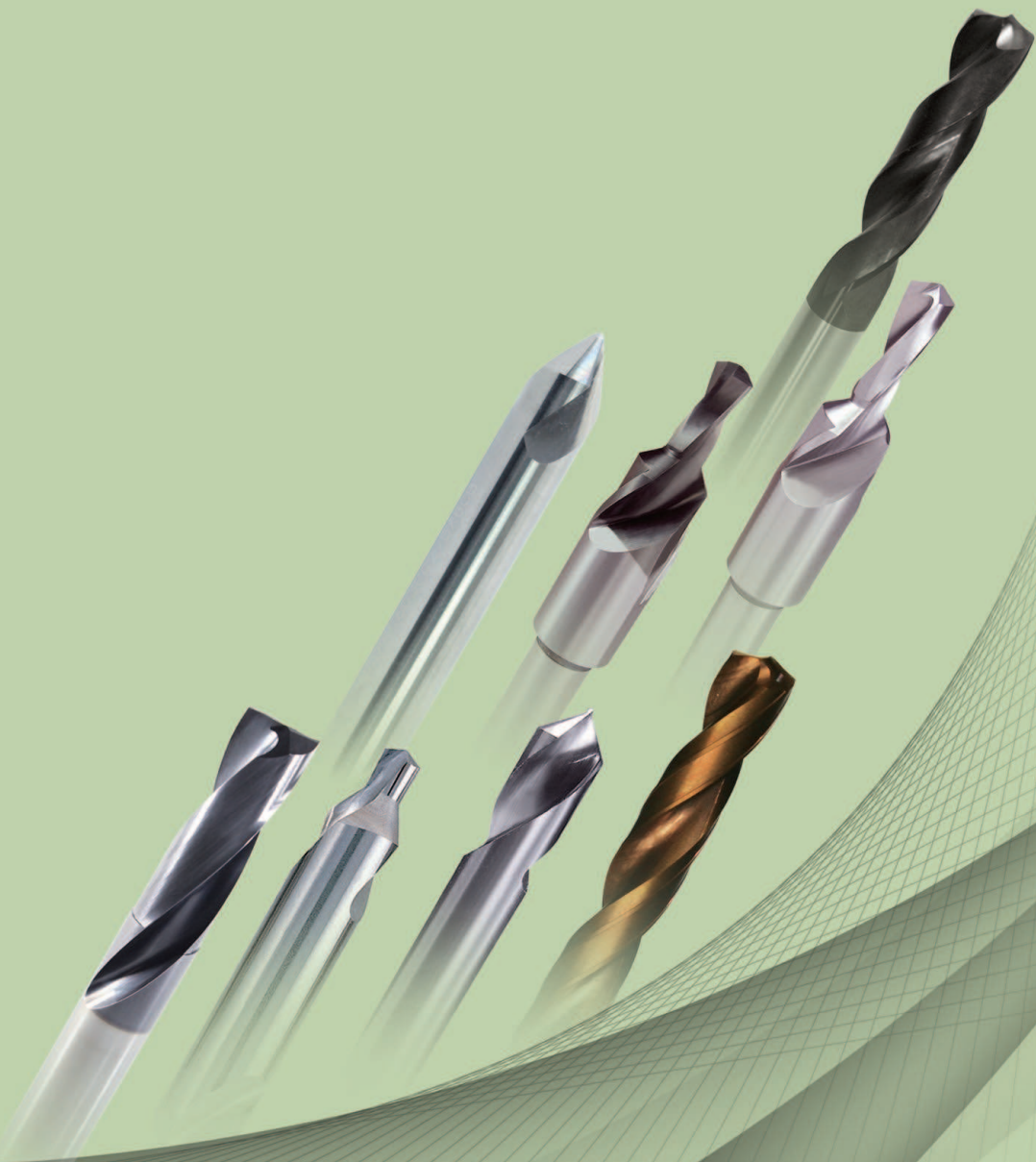
EM18PM - HSS-PM 4F Unequal Division & Unequal Lead End Mills

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels	
Hardness	~ HRc30		HRc30 ~ HRc45				HRc45 ~ HRc50	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
6.0	3,400	300	2,600	210	1,850	130	2,380	170
8.0	2,600	340	1,980	240	1,390	150	1,790	180
10.0	2,100	390	1,580	270	1,110	170	1,420	210
12.0	1,750	420	1,320	290	920	180	1,180	220
16.0	1,300	490	990	320	700	210	900	270
20.0	1,050	510	800	350	550	230	720	280
Depth of Cut	ap=1.5D ae=0.5D							

RPM = rev./min. Feed = min/rev.

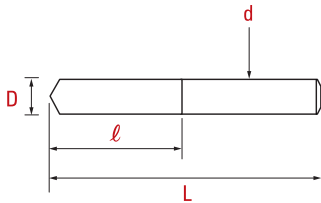
DYC BEST TOTAL TOOLS

CARBIDE Drills



Solid Carbide 2F Drills with Spiral Point

초경 강용
나선 포인트 드릴



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 상크
DR01CA-030	3.0	20	55	4
DR01CA-031	3.1	20	55	4
DR01CA-032	3.2	20	55	4
DR01CA-033	3.3	20	55	4
DR01CA-034	3.4	20	55	4
DR01CA-035	3.5	20	55	4
DR01CA-036	3.6	25	55	4
DR01CA-037	3.7	25	55	4
DR01CA-038	3.8	25	55	4
DR01CA-039	3.9	25	55	4
DR01CA-040	4.0	25	55	4
DR01CA-041	4.1	25	55	4
DR01CA-042	4.2	32	62	5
DR01CA-043	4.3	32	62	5
DR01CA-044	4.4	32	62	5
DR01CA-045	4.5	32	62	5
DR01CA-046	4.6	32	62	5
DR01CA-047	4.7	32	62	5
DR01CA-048	4.8	32	62	5
DR01CA-049	4.9	32	62	5
DR01CA-050	5.0	32	62	5
DR01CA-051	5.1	32	62	5
DR01CA-052	5.2	36	66	6
DR01CA-053	5.3	36	66	6
DR01CA-054	5.4	36	66	6

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 상크
DR01CA-055	5.5	36	66	6
DR01CA-056	5.6	36	66	6
DR01CA-057	5.7	36	66	6
DR01CA-058	5.8	36	66	6
DR01CA-059	5.9	36	66	6
DR01CA-060	6.0	36	66	6
DR01CA-061	6.1	36	66	6
DR01CA-062	6.2	42	74	7
DR01CA-063	6.3	42	74	7
DR01CA-064	6.4	42	74	7
DR01CA-065	6.5	42	74	7
DR01CA-066	6.6	42	74	7
DR01CA-067	6.7	42	74	7
DR01CA-068	6.8	42	74	7
DR01CA-069	6.9	42	74	7
DR01CA-070	7.0	42	74	7
DR01CA-071	7.1	42	74	7
DR01CA-072	7.2	46	79	8
DR01CA-073	7.3	46	79	8
DR01CA-074	7.4	46	79	8
DR01CA-075	7.5	46	79	8
DR01CA-076	7.6	46	79	8
DR01CA-077	7.7	46	79	8
DR01CA-078	7.8	46	79	8
DR01CA-079	7.9	46	79	8

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
DR01CA-080	8.0	46	79	8
DR01CA-081	8.1	46	79	8
DR01CA-082	8.2	50	84	9
DR01CA-083	8.3	50	84	9
DR01CA-084	8.4	50	84	9
DR01CA-085	8.5	50	84	9
DR01CA-086	8.6	50	84	9
DR01CA-087	8.7	50	84	9
DR01CA-088	8.8	50	84	9
DR01CA-089	8.9	50	84	9
DR01CA-090	9.0	50	84	9
DR01CA-091	9.1	50	84	9
DR01CA-092	9.2	53	89	10
DR01CA-093	9.3	53	89	10
DR01CA-094	9.4	53	89	10
DR01CA-095	9.5	53	89	10
DR01CA-096	9.6	53	89	10
DR01CA-097	9.7	53	89	10
DR01CA-098	9.8	53	89	10
DR01CA-099	9.9	53	89	10
DR01CA-100	10.0	53	89	10
DR01CA-101	10.1	53	89	10
DR01CA-102	10.2	55	95	11
DR01CA-103	10.3	55	95	11
DR01CA-104	10.4	55	95	11
DR01CA-105	10.5	55	95	11
DR01CA-106	10.6	55	95	11
DR01CA-107	10.7	55	95	11
DR01CA-108	10.8	55	95	11
DR01CA-109	10.9	55	95	11
DR01CA-110	11.0	55	95	11
DR01CA-111	11.1	55	95	11
DR01CA-112	11.2	62	102	12
DR01CA-113	11.3	62	102	12
DR01CA-114	11.4	62	102	12
DR01CA-115	11.5	62	102	12

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
DR01CA-116	11.6	62	102	12
DR01CA-117	11.7	62	102	12
DR01CA-118	11.8	62	102	12
DR01CA-119	11.9	62	102	12
DR01CA-120	12.0	62	102	12
DR01CA-121	12.1	62	102	12
DR01CA-122	12.2	62	102	13
DR01CA-123	12.3	62	102	13
DR01CA-124	12.4	62	102	13
DR01CA-125	12.5	62	102	13
DR01CA-126	12.6	62	102	13
DR01CA-127	12.7	62	102	13
DR01CA-128	12.8	62	102	13
DR01CA-129	12.9	62	102	13
DR01CA-130	13.0	62	102	13
DR01CA-135	13.5	64	107	14
DR01CA-140	14.0	64	107	14
DR01CA-145	14.5	67	111	15
DR01CA-150	15.0	67	111	15
DR01CA-155	15.5	69	115	16
DR01CA-160	16.0	69	115	16
DR01CA-165	16.5	71	119	17
DR01CA-170	17.0	71	119	17
DR01CA-175	17.5	74	123	18
DR01CA-180	18.0	74	123	18
DR01CA-185	18.5	76	127	19
DR01CA-190	19.0	76	127	19
DR01CA-195	19.5	80	131	20
DR01CA-200	20.0	80	131	20

• Products except for the above standard items will be produced by the special order.

• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

• This product is only supplied with TiALN coating.

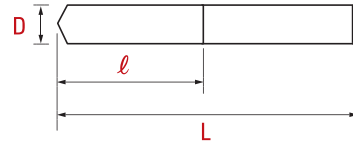
• 이 제품은 오직 TiALN 코팅 제품만 제공됩니다.

Tolerance (허용공차)

D	d	L
h7	h6	±1

Solid Carbide 2F Drills - Regular Type

초경 드릴
일반형



Item no. 제품코드	D 외경	ℓ 날장	L 전장
DR02CA-020	2.0	20	45
DR02CA-021	2.1	20	45
DR02CA-022	2.2	20	45
DR02CA-023	2.3	20	45
DR02CA-024	2.4	20	45
DR02CA-025	2.5	22	45
DR02CA-026	2.6	22	45
DR02CA-027	2.7	22	45
DR02CA-028	2.8	22	45
DR02CA-029	2.9	22	45
DR02CA-030	3.0	25	50
DR02CA-031	3.1	25	50
DR02CA-032	3.2	25	50
DR02CA-033	3.3	28	50
DR02CA-034	3.4	28	50
DR02CA-035	3.5	28	50
DR02CA-036	3.6	30	55
DR02CA-037	3.7	30	55
DR02CA-038	3.8	30	55
DR02CA-039	3.9	30	55

Item no. 제품코드	D 외경	ℓ 날장	L 전장
DR02CA-040	4.0	30	55
DR02CA-041	4.1	34	60
DR02CA-042	4.2	34	60
DR02CA-043	4.3	34	60
DR02CA-044	4.4	34	60
DR02CA-045	4.5	34	60
DR02CA-046	4.6	38	65
DR02CA-047	4.7	38	65
DR02CA-048	4.8	38	65
DR02CA-049	4.9	38	65
DR02CA-050	5.0	38	65
DR02CA-051	5.1	38	65
DR02CA-052	5.2	38	65
DR02CA-053	5.3	38	65
DR02CA-054	5.4	38	65
DR02CA-055	5.5	38	65
DR02CA-056	5.6	40	75
DR02CA-057	5.7	40	75
DR02CA-058	5.8	40	75
DR02CA-059	5.9	40	75

Item no. 제품코드	D 외경	ℓ 날장	L 전장
DR02CA-060	6.0	40	75
DR02CA-061	6.1	40	75
DR02CA-062	6.2	40	75
DR02CA-063	6.3	40	75
DR02CA-064	6.4	40	75
DR02CA-065	6.5	40	75
DR02CA-066	6.6	46	80
DR02CA-067	6.7	46	80
DR02CA-068	6.8	46	80
DR02CA-069	6.9	46	80
DR02CA-070	7.0	46	80
DR02CA-071	7.1	46	80
DR02CA-072	7.2	46	80
DR02CA-073	7.3	46	80
DR02CA-074	7.4	46	80
DR02CA-075	7.5	46	80
DR02CA-076	7.6	46	80
DR02CA-077	7.7	46	80
DR02CA-078	7.8	46	80
DR02CA-079	7.9	46	80
DR02CA-080	8.0	50	85
DR02CA-081	8.1	50	85
DR02CA-082	8.2	50	85
DR02CA-083	8.3	50	85
DR02CA-084	8.4	50	85
DR02CA-085	8.5	50	85
DR02CA-086	8.6	50	85
DR02CA-087	8.7	50	85
DR02CA-088	8.8	50	85
DR02CA-089	8.9	50	85
DR02CA-090	9.0	50	85
DR02CA-091	9.1	50	85
DR02CA-092	9.2	50	85
DR02CA-093	9.3	50	85
DR02CA-094	9.4	50	85
DR02CA-095	9.5	50	85
DR02CA-096	9.6	50	85
DR02CA-097	9.7	50	85
DR02CA-098	9.8	50	85
DR02CA-099	9.9	50	85
DR02CA-100	10.0	50	100

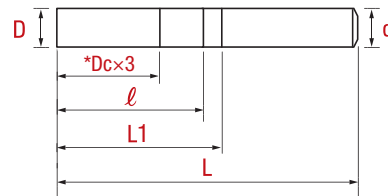
Item no. 제품코드	D 외경	ℓ 날장	L 전장
DR02CA-101	10.1	50	100
DR02CA-102	10.2	50	100
DR02CA-103	10.3	50	100
DR02CA-104	10.4	50	100
DR02CA-105	10.5	60	115
DR02CA-106	10.6	60	115
DR02CA-107	10.7	60	115
DR02CA-108	10.8	60	115
DR02CA-109	10.9	60	115
DR02CA-110	11.0	60	115
DR02CA-111	11.1	60	115
DR02CA-112	11.2	60	115
DR02CA-113	11.3	60	115
DR02CA-114	11.4	65	115
DR02CA-115	11.5	65	120
DR02CA-116	11.6	65	120
DR02CA-117	11.7	65	120
DR02CA-118	11.8	65	120
DR02CA-119	11.9	65	120
DR02CA-120	12.0	65	120
DR02CA-121	12.1	65	120
DR02CA-122	12.2	65	120
DR02CA-123	12.3	65	120
DR02CA-124	12.4	65	120
DR02CA-125	12.5	65	125
DR02CA-126	12.6	65	125
DR02CA-127	12.7	65	125
DR02CA-128	12.8	65	125
DR02CA-129	12.9	65	125
DR02CA-130	13.0	65	125
DR02CA-135	13.5	65	125
DR02CA-140	14.0	65	125

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	L
h8	h6	±1

Solid Carbide 2F Flat Drill

초경 2날 플랫 드릴



*인선기장

Item no. 제품코드	D 외경	ℓ 날기장	L1 목기장	L 전장	d 샤크
DR03CA-030	3.0	20	21.5	55	4
DR03CA-031	3.1	20	21.5	55	4
DR03CA-032	3.2	20	21.5	55	4
DR03CA-033	3.3	20	21.5	55	4
DR03CA-034	3.4	20	21.5	55	4
DR03CA-035	3.5	20	21.5	55	4
DR03CA-036	3.6	25	25	55	4
DR03CA-037	3.7	25	25	55	4
DR03CA-038	3.8	25	25	55	4
DR03CA-039	3.9	25	25	55	4
DR03CA-040	4.0	25	25	55	4
DR03CA-041	4.1	25	25	55	4
DR03CA-042	4.2	26.5	32	65	5
DR03CA-043	4.3	26.5	32	65	5
DR03CA-044	4.4	26.5	32	65	5
DR03CA-045	4.5	26.5	32	65	5
DR03CA-046	4.6	26.5	32	65	5

*인선기장

Item no. 제품코드	D 외경	ℓ 날기장	L1 목기장	L 전장	d 샤크
DR03CA-047	4.7	30.5	32	65	5
DR03CA-048	4.8	30.5	32	65	5
DR03CA-049	4.9	30.5	32	65	5
DR03CA-050	5.0	30.5	32	65	5
DR03CA-051	5.1	30.5	32	65	5
DR03CA-052	5.2	33	36	65	6
DR03CA-053	5.3	33	36	65	6
DR03CA-054	5.4	33	36	65	6
DR03CA-055	5.5	33	36	65	6
DR03CA-056	5.6	33	36	65	6
DR03CA-057	5.7	35	36	65	6
DR03CA-058	5.8	35	36	65	6
DR03CA-059	5.9	35	36	65	6
DR03CA-060	6.0	35	36	65	6
DR03CA-061	6.1	35	36	65	6
DR03CA-062	6.2	37	42	75	7
DR03CA-063	6.3	37	42	75	7

*인선기장

Item no. 제품코드	D 외경	ℓ 날기장	L1 목기장	L 전장	d 샤크
DR03CA-064	6.4	37	42	75	7
DR03CA-065	6.5	37	42	75	7
DR03CA-066	6.6	37	42	75	7
DR03CA-067	6.7	38	42	75	7
DR03CA-068	6.8	38	42	75	7
DR03CA-069	6.9	38	42	75	7
DR03CA-070	7.0	38	42	75	7
DR03CA-071	7.1	38	42	75	7
DR03CA-072	7.2	40	46	80	8
DR03CA-073	7.3	40	46	80	8
DR03CA-074	7.4	40	46	80	8
DR03CA-075	7.5	40	46	80	8
DR03CA-076	7.6	40	46	80	8
DR03CA-077	7.7	42	46	80	8
DR03CA-078	7.8	42	46	80	8
DR03CA-079	7.9	42	46	80	8
DR03CA-080	8.0	42	46	80	8
DR03CA-081	8.1	42	46	80	8
DR03CA-082	8.2	45	50	85	9
DR03CA-083	8.3	45	50	85	9
DR03CA-084	8.4	45	50	85	9
DR03CA-085	8.5	45	50	85	9
DR03CA-086	8.6	45	50	85	9
DR03CA-087	8.7	47	50	85	9
DR03CA-088	8.8	47	50	85	9
DR03CA-089	8.9	47	50	85	9
DR03CA-090	9.0	47	50	85	9
DR03CA-091	9.1	47	50	85	9
DR03CA-092	9.2	49	53	90	10
DR03CA-093	9.3	49	53	90	10
DR03CA-094	9.4	49	53	90	10
DR03CA-095	9.5	49	53	90	10
DR03CA-096	9.6	49	53	90	10
DR03CA-097	9.7	49	53	90	10
DR03CA-098	9.8	49	53	90	10
DR03CA-099	9.9	49	53	90	10
DR03CA-100	10.0	49	53	90	10

*인선기장

Item no. 제품코드	D 외경	ℓ 날기장	L1 목기장	L 전장	d 샤크
DR03CA-101	10.1	49	53	90	10
DR03CA-102	10.2	51	55	95	11
DR03CA-103	10.3	51	55	95	11
DR03CA-104	10.4	51	55	95	11
DR03CA-105	10.5	51	55	95	11
DR03CA-106	10.6	51	55	95	11
DR03CA-107	10.7	53	55	95	11
DR03CA-108	10.8	53	55	95	11
DR03CA-109	10.9	53	55	95	11
DR03CA-110	11.0	53	55	95	11
DR03CA-111	11.1	53	55	95	11
DR03CA-112	11.2	55	62	105	12
DR03CA-113	11.3	55	62	105	12
DR03CA-114	11.4	55	62	105	12
DR03CA-115	11.5	55	62	105	12
DR03CA-116	11.6	55	62	105	12
DR03CA-117	11.7	57	62	105	12
DR03CA-118	11.8	57	62	105	12
DR03CA-119	11.9	57	62	105	12
DR03CA-120	12.0	57	62	105	12
DR03CA-121	12.1	57	62	105	12
DR03CA-122	12.2	60	62	110	13
DR03CA-123	12.3	60	62	110	13
DR03CA-124	12.4	60	62	110	13
DR03CA-125	12.5	60	62	110	13
DR03CA-126	12.6	60	62	110	13
DR03CA-127	12.7	62	63	110	13
DR03CA-128	12.8	62	63	110	13
DR03CA-129	12.9	62	63	110	13
DR03CA-130	13.0	62	63	110	13

• Products except for the above standard items will be produced by the special order.

• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

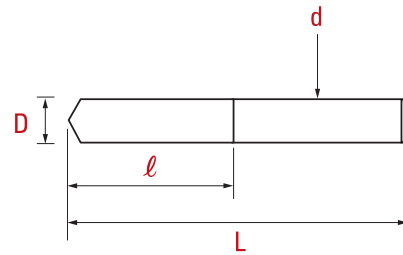
• This product is only supplied with TiALN coating.

• 이 제품은 오직 TiALN 코팅 제품만 제공됩니다.

Tolerance (허용공차)		
D	d	L
h7	h6	±1

Solid Carbide 2F Drills with Oil Hole - Stub Type

초경 2날 강용
오일홀 드릴
스터브형



Item no. 제품코드	D 외경	l 날장	L 전장	d 상크
DR04CA-020	2.0	20	55	3
DR04CA-021	2.1	20	55	3
DR04CA-022	2.2	20	55	3
DR04CA-023	2.3	20	55	3
DR04CA-024	2.4	20	55	3
DR04CA-025	2.5	20	55	3
DR04CA-026	2.6	20	55	3
DR04CA-027	2.7	20	55	3
DR04CA-028	2.8	20	55	3
DR04CA-029	2.9	20	55	3
DR04CA-030	3.0	20	55	3
DR04CA-031	3.1	20	62	4
DR04CA-032	3.2	20	62	4
DR04CA-033	3.3	20	62	4
DR04CA-034	3.4	20	62	4
DR04CA-035	3.5	20	62	4
DR04CA-036	3.6	20	62	4
DR04CA-037	3.7	20	62	4
DR04CA-038	3.8	24	62	4
DR04CA-039	3.9	24	62	4

Item no. 제품코드	D 외경	l 날장	L 전장	d 상크
DR04CA-040	4.0	24	62	4
DR04CA-041	4.1	24	66	5
DR04CA-042	4.2	24	66	5
DR04CA-043	4.3	24	66	5
DR04CA-044	4.4	24	66	5
DR04CA-045	4.5	24	66	5
DR04CA-046	4.6	24	66	5
DR04CA-047	4.7	24	66	5
DR04CA-048	4.8	28	66	5
DR04CA-049	4.9	28	66	5
DR04CA-050	5.0	28	66	5
DR04CA-051	5.1	28	66	6
DR04CA-052	5.2	28	66	6
DR04CA-053	5.3	28	66	6
DR04CA-054	5.4	28	66	6
DR04CA-055	5.5	28	66	6
DR04CA-056	5.6	28	66	6
DR04CA-057	5.7	28	66	6
DR04CA-058	5.8	28	66	6
DR04CA-059	5.9	28	66	6

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
DR04CA-060	6.0	28	66	6
DR04CA-061	6.1	34	79	7
DR04CA-062	6.2	34	79	7
DR04CA-063	6.3	34	79	7
DR04CA-064	6.4	34	79	7
DR04CA-065	6.5	34	79	7
DR04CA-066	6.6	34	79	7
DR04CA-067	6.7	34	79	7
DR04CA-068	6.8	34	79	7
DR04CA-069	6.9	34	79	7
DR04CA-070	7.0	34	79	7
DR04CA-071	7.1	41	79	8
DR04CA-072	7.2	41	79	8
DR04CA-073	7.3	41	79	8
DR04CA-074	7.4	41	79	8
DR04CA-075	7.5	41	79	8
DR04CA-076	7.6	41	79	8
DR04CA-077	7.7	41	79	8
DR04CA-078	7.8	41	79	8
DR04CA-079	7.9	41	79	8
DR04CA-080	8.0	41	79	8
DR04CA-081	8.1	47	89	9
DR04CA-082	8.2	47	89	9
DR04CA-083	8.3	47	89	9
DR04CA-084	8.4	47	89	9
DR04CA-085	8.5	47	89	9
DR04CA-086	8.6	47	89	9
DR04CA-087	8.7	47	89	9
DR04CA-088	8.8	47	89	9
DR04CA-089	8.9	47	89	9
DR04CA-090	9.0	47	89	9
DR04CA-091	9.1	47	89	10
DR04CA-092	9.2	47	89	10
DR04CA-093	9.3	47	89	10
DR04CA-094	9.4	47	89	10
DR04CA-095	9.5	47	89	10
DR04CA-096	9.6	47	89	10
DR04CA-097	9.7	47	89	10
DR04CA-098	9.8	47	89	10
DR04CA-099	9.9	47	89	10
DR04CA-100	10.0	47	89	10
DR04CA-101	10.1	55	102	11
DR04CA-102	10.2	55	102	11

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
DR04CA-103	10.3	55	102	11
DR04CA-104	10.4	55	102	11
DR04CA-105	10.5	55	102	11
DR04CA-106	10.6	55	102	11
DR04CA-107	10.7	55	102	11
DR04CA-108	10.8	55	102	11
DR04CA-109	10.9	55	102	11
DR04CA-110	11.0	55	102	11
DR04CA-111	11.1	55	102	12
DR04CA-112	11.2	55	102	12
DR04CA-113	11.3	55	102	12
DR04CA-114	11.4	55	102	12
DR04CA-115	11.5	55	102	12
DR04CA-116	11.6	55	102	12
DR04CA-117	11.7	55	102	12
DR04CA-118	11.8	55	102	12
DR04CA-119	11.9	55	102	12
DR04CA-120	12.0	55	102	12
DR04CA-125	12.5	60	107	14
DR04CA-130	13.0	60	107	14
DR04CA-135	13.5	60	107	14
DR04CA-140	14.0	60	107	14
DR04CA-145	14.5	65	115	16
DR04CA-150	15.0	65	115	16
DR04CA-155	15.5	65	115	16
DR04CA-160	16.0	65	115	16
DR04CA-165	16.5	73	123	18
DR04CA-170	17.0	73	123	18
DR04CA-175	17.5	73	123	18
DR04CA-180	18.0	73	123	18
DR04CA-185	18.5	79	131	20
DR04CA-190	19.0	79	131	20
DR04CA-195	19.5	79	131	20
DR04CA-200	20.0	79	131	20

• Products except for the above standard items will be produced by the special order.

• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

• This product is only supplied with TiALN coating.

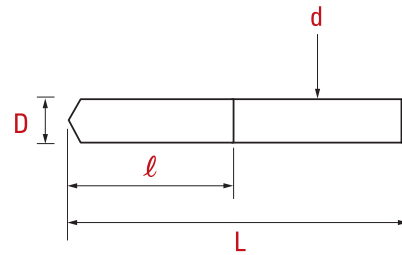
• 이 제품은 오직 TiALN 코팅 제품만 제공됩니다.

Tolerance (허용공차)

D	d	L
h7	h6	±1

Solid Carbide 2F Drills with Oil Hole - Jobber Type

초경 2날 강용
오일홀 드릴
자버형



Item no. 제품코드	D 외경	l 날장	L 전장	d 상크
DR05CA-020	2.0	21	66	3
DR05CA-021	2.1	21	66	3
DR05CA-022	2.2	21	66	3
DR05CA-023	2.3	21	66	3
DR05CA-024	2.4	21	66	3
DR05CA-025	2.5	21	66	3
DR05CA-026	2.6	21	66	3
DR05CA-027	2.7	21	66	3
DR05CA-028	2.8	21	66	3
DR05CA-029	2.9	21	66	3
DR05CA-030	3.0	28	66	3
DR05CA-031	3.1	28	66	4
DR05CA-032	3.2	28	66	4
DR05CA-033	3.3	28	66	4
DR05CA-034	3.4	28	66	4
DR05CA-035	3.5	28	66	4
DR05CA-036	3.6	28	66	4
DR05CA-037	3.7	28	66	4
DR05CA-038	3.8	36	74	4
DR05CA-039	3.9	36	74	4

Item no. 제품코드	D 외경	l 날장	L 전장	d 상크
DR05CA-040	4.0	36	74	4
DR05CA-041	4.1	36	74	5
DR05CA-042	4.2	36	74	5
DR05CA-043	4.3	36	74	5
DR05CA-044	4.4	36	74	5
DR05CA-045	4.5	36	74	5
DR05CA-046	4.6	36	74	5
DR05CA-047	4.7	36	74	5
DR05CA-048	4.8	44	82	5
DR05CA-049	4.9	44	82	5
DR05CA-050	5.0	44	82	5
DR05CA-051	5.1	44	82	6
DR05CA-052	5.2	44	82	6
DR05CA-053	5.3	44	82	6
DR05CA-054	5.4	44	82	6
DR05CA-055	5.5	44	82	6
DR05CA-056	5.6	44	82	6
DR05CA-057	5.7	44	82	6
DR05CA-058	5.8	44	82	6
DR05CA-059	5.9	44	82	6

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
DR05CA-060	6.0	44	82	6
DR05CA-061	6.1	53	91	7
DR05CA-062	6.2	53	91	7
DR05CA-063	6.3	53	91	7
DR05CA-064	6.4	53	91	7
DR05CA-065	6.5	53	91	7
DR05CA-066	6.6	53	91	7
DR05CA-067	6.7	53	91	7
DR05CA-068	6.8	53	91	7
DR05CA-069	6.9	53	91	7
DR05CA-070	7.0	53	91	7
DR05CA-071	7.1	53	91	8
DR05CA-072	7.2	53	91	8
DR05CA-073	7.3	53	91	8
DR05CA-074	7.4	53	91	8
DR05CA-075	7.5	53	91	8
DR05CA-076	7.6	53	91	8
DR05CA-077	7.7	53	91	8
DR05CA-078	7.8	53	91	8
DR05CA-079	7.9	53	91	8
DR05CA-080	8.0	53	91	8
DR05CA-081	8.1	61	103	9
DR05CA-082	8.2	61	103	9
DR05CA-083	8.3	61	103	9
DR05CA-084	8.4	61	103	9
DR05CA-085	8.5	61	103	9
DR05CA-086	8.6	61	103	9
DR05CA-087	8.7	61	103	9
DR05CA-088	8.8	61	103	9
DR05CA-089	8.9	61	103	9
DR05CA-090	9.0	61	103	9
DR05CA-091	9.1	61	103	10
DR05CA-092	9.2	61	103	10
DR05CA-093	9.3	61	103	10
DR05CA-094	9.4	61	103	10
DR05CA-095	9.5	61	103	10
DR05CA-096	9.6	61	103	10
DR05CA-097	9.7	61	103	10
DR05CA-098	9.8	61	103	10
DR05CA-099	9.9	61	103	10
DR05CA-100	10.0	61	103	10
DR05CA-101	10.1	71	118	11
DR05CA-102	10.2	71	118	11

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
DR05CA-103	10.3	71	118	11
DR05CA-104	10.4	71	118	11
DR05CA-105	10.5	71	118	11
DR05CA-106	10.6	71	118	11
DR05CA-107	10.7	71	118	11
DR05CA-108	10.8	71	118	11
DR05CA-109	10.9	71	118	11
DR05CA-110	11.0	71	118	11
DR05CA-111	11.1	71	118	12
DR05CA-112	11.2	71	118	12
DR05CA-113	11.3	71	118	12
DR05CA-114	11.4	71	118	12
DR05CA-115	11.5	71	118	12
DR05CA-116	11.6	71	118	12
DR05CA-117	11.7	71	118	12
DR05CA-118	11.8	71	118	12
DR05CA-119	11.9	71	118	12
DR05CA-120	12.0	71	118	12
DR05CA-125	12.5	77	124	14
DR05CA-130	13.0	77	124	14
DR05CA-135	13.5	77	124	14
DR05CA-140	14.0	77	124	14
DR05CA-145	14.5	83	133	16
DR05CA-150	15.0	83	133	16
DR05CA-155	15.5	83	133	16
DR05CA-160	16.0	83	133	16
DR05CA-165	16.5	93	143	18
DR05CA-170	17.0	93	143	18
DR05CA-175	17.5	93	143	18
DR05CA-180	18.0	93	143	18
DR05CA-185	18.5	101	153	20
DR05CA-190	19.0	101	153	20
DR05CA-195	19.5	101	153	20
DR05CA-200	20.0	101	153	20

• Products except for the above standard items will be produced by the special order.

• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

• This product is only supplied with TiALN coating.

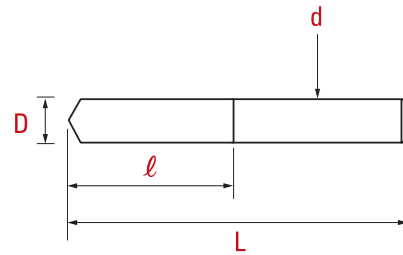
• 이 제품은 오직 TiALN 코팅 제품만 제공됩니다.

Tolerance (허용공차)

D	d	L
h7	h6	±1

Solid Carbide 2F Drills for Aluminum

초경 2날 알루미늄
가공용 드릴



Item no. 제품코드	D 외경	ℓ 날기장	L 전장	d 샙크
DR06CA-020	2.0	15	50	3.0
DR06CA-021	2.1	15	50	3.0
DR06CA-022	2.2	16	50	3.0
DR06CA-023	2.3	16	50	3.0
DR06CA-024	2.4	17	50	3.0
DR06CA-025	2.5	17	50	3.0
DR06CA-026	2.6	17	50	3.0
DR06CA-027	2.7	19	50	3.0
DR06CA-028	2.8	19	50	3.0
DR06CA-029	2.9	19	50	3.0
DR06CA-030	3.0	19	50	3.0
DR06CA-031	3.1	21	55	4.0
DR06CA-032	3.2	21	55	4.0
DR06CA-033	3.3	21	55	4.0
DR06CA-034	3.4	24	55	4.0
DR06CA-035	3.5	24	55	4.0
DR06CA-036	3.6	24	60	4.0
DR06CA-037	3.7	24	60	4.0

Item no. 제품코드	D 외경	ℓ 날기장	L 전장	d 샙크
DR06CA-038	3.8	27	60	4.0
DR06CA-039	3.9	27	60	4.0
DR06CA-040	4.0	27	60	4.0
DR06CA-041	4.1	27	70	6.0
DR06CA-042	4.2	27	70	6.0
DR06CA-043	4.3	31	70	6.0
DR06CA-044	4.4	31	70	6.0
DR06CA-045	4.5	31	70	6.0
DR06CA-046	4.6	31	75	6.0
DR06CA-047	4.7	31	75	6.0
DR06CA-048	4.8	33	75	6.0
DR06CA-049	4.9	33	75	6.0
DR06CA-050	5.0	38	75	6.0
DR06CA-052	5.1	38	80	6.0
DR06CA-053	5.2	38	80	6.0
DR06CA-054	5.3	38	80	6.0
DR06CA-055	5.4	38	80	6.0
DR06CA-056	5.5	38	80	6.0

Item no. 제품코드	D 외경	ℓ 날기장	L 전장	d 상크
DR06CA-057	5.6	41	80	6.0
DR06CA-058	5.7	41	80	6.0
DR06CA-059	5.8	41	80	6.0
DR06CA-060	5.9	41	80	6.0
DR06CA-061	6.0	41	80	6.0
DR06CA-062	6.1	41	80	8.0
DR06CA-063	6.2	41	80	8.0
DR06CA-064	6.3	41	80	8.0
DR06CA-065	6.4	41	80	8.0
DR06CA-066	6.5	41	80	8.0
DR06CA-067	6.6	43	82	8.0
DR06CA-068	6.7	43	82	8.0
DR06CA-069	6.8	43	82	8.0
DR06CA-070	6.9	43	82	8.0
DR06CA-071	7.0	43	82	8.0
DR06CA-072	7.1	45	90	8.0
DR06CA-073	7.2	45	90	8.0
DR06CA-074	7.3	45	90	8.0
DR06CA-075	7.4	45	90	8.0
DR06CA-076	7.5	45	90	8.0
DR06CA-077	7.6	48	90	8.0
DR06CA-078	7.7	48	90	8.0
DR06CA-079	7.8	48	90	8.0
DR06CA-080	7.9	48	90	8.0
DR06CA-081	8.0	48	90	8.0
DR06CA-082	8.1	53	105	10.0
DR06CA-083	8.2	53	105	10.0
DR06CA-084	8.3	53	105	10.0
DR06CA-085	8.4	53	105	10.0
DR06CA-086	8.5	53	105	10.0
DR06CA-087	8.6	55	105	10.0
DR06CA-088	8.7	55	105	10.0
DR06CA-089	8.8	55	105	10.0
DR06CA-090	8.9	55	105	10.0
DR06CA-091	9.0	55	105	10.0
DR06CA-092	9.1	58	110	10.0
DR06CA-093	9.2	58	110	10.0
DR06CA-094	9.3	58	110	10.0

Item no. 제품코드	D 외경	ℓ 날기장	L 전장	d 상크
DR06CA-095	9.4	58	110	10.0
DR06CA-096	9.5	58	110	10.0
DR06CA-097	9.6	60	110	10.0
DR06CA-098	9.7	60	110	10.0
DR06CA-099	9.8	60	110	10.0
DR06CA-100	9.9	60	110	10.0
DR06CA-101	10.0	60	110	10.0
DR06CA-102	10.1	66	120	12.0
DR06CA-103	10.2	66	120	12.0
DR06CA-104	10.3	66	120	12.0
DR06CA-105	10.4	66	120	12.0
DR06CA-106	10.5	66	120	12.0
DR06CA-107	10.6	68	120	12.0
DR06CA-108	10.7	68	120	12.0
DR06CA-109	10.8	68	120	12.0
DR06CA-110	10.9	68	120	12.0
DR06CA-111	11.0	68	120	12.0
DR06CA-112	11.1	71	130	12.0
DR06CA-113	11.2	71	130	12.0
DR06CA-114	11.3	71	130	12.0
DR06CA-115	11.4	71	130	12.0
DR06CA-116	11.5	71	130	12.0
DR06CA-117	11.6	73	130	12.0
DR06CA-118	11.7	73	130	12.0
DR06CA-119	11.8	73	130	12.0
DR06CA-120	11.9	73	130	12.0
DR06CA-121	12.0	73	130	12.0
DR06CA-140	14.0	80	150	16.0
DR06CA-160	16.0	85	150	16.0
DR06CA-180	18.0	90	160	18.0
DR06CA-200	20.0	110	200	20.0

• Products except for the above standard items will be produced by the special order.

• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

• This product is only supplied with TiAlN coating.

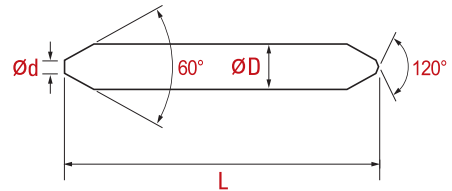
• 이 제품은 오직 TiAlN 코팅 제품만 제공됩니다.

Tolerance (허용공차)

D	d	L
h7	h6	±1

Solid Carbide 2F S-Point Centerdrills - 60° Type

초경 2날
에스포인트 센터드릴
- 60° 형



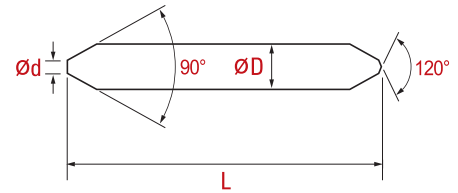
Item no. 제품코드	Ød 최소 면취경	° 선단 각도	ØD 샙크	L 전장
SP01CA-01003	1.0	120° + 60°	3	40
SP01CA-01504	1.5		4	40
SP01CA-02006	2.0		6	50
SP01CA-02508	2.5		8	60
SP01CA-03010	3.0		10	70
SP01CA-04012	4.0		12	80
SP01CA-05016	5.0		16	100
SP01CA-06020	6.0		20	120

Tolerance (허용공차)	
D	L
h7	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

Solid Carbide 2F S-Point Centerdrills - 90° Type

초경 2날
에스포인트 센터드릴
- 90° 형



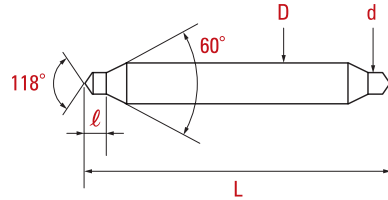
Item no. 제품코드	φd 최소 면취경	° 선단 각도	φD 샙크	L 전장
SP02CA-01003	1.0	120° + 90°	3	40
SP02CA-01504	1.5		4	40
SP02CA-02006	2.0		6	50
SP02CA-02508	2.5		8	60
SP02CA-03010	3.0		10	70
SP02CA-04012	4.0		12	80
SP02CA-05016	5.0		16	100
SP02CA-06020	6.0		20	120

Tolerance (허용공차)	
D	L
h7	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN0이 추가됩니다. ex) Item no. - TiALN

Carbide Center Drills A Type (60°)

초경센터드릴
A형 (60°)



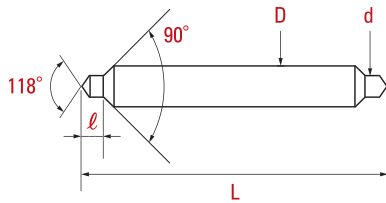
Item no. 제품코드	DXR 규격	L 전장	ℓ 축기장
CD01CA-0104	1.0X4.0	35	1.0-1.5
CD01CA-0155	1.5X5.0	40	1.5-2.5
CD01CA-0206	2.0X6.0	45	2.0-3.0
CD01CA-0256	2.5X6.0	50	2.5-3.6
CD01CA-0306	3.0X6.0	50	3.0-4.0
CD01CA-0408	4.0X8.0	58	4.5-5.5
CD01CA-0410	4.0X10.0	65	4.5-5.5
CD01CA-0510	5.0X10.0	65	5.5-6.5
CD01CA-0612	6.0X12.0	79	6.5-7.5

Tolerance (허용공차)		
D	d	L
h7	k12	±2

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

Carbide Center Drills A Type (90°)

초경센터드릴
A형 (90°)



Item no. 제품코드	DXR 규격	L 전장	l 촉기장
CD02CA-0104	1.0X4.0	35	1.0-1.5
CD02CA-0155	1.5X5.0	40	1.5-2.5
CD02CA-0206	2.0X6.0	45	2.0-3.0
CD02CA-0256	2.5X6.0	50	2.5-3.6
CD02CA-0306	3.0X6.0	50	3.0-4.0
CD02CA-0408	4.0X8.0	58	4.5-5.5
CD02CA-0410	4.0X10.0	65	4.5-5.5
CD02CA-0510	5.0X10.0	65	5.5-6.5
CD02CA-0612	6.0X12.0	79	6.5-7.5

Tolerance (허용공차)		
D	d	L
h7	k12	±2

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiAlN is added after the item no. ex) Item no. - TiAlN
- 코팅 제품의 아이템 번호는 item no. 뒤에 TiAlN이 추가됩니다. ex) Item no. - TiAlN

Carbide Pilot Drills - Oil Flow

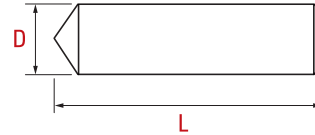
초경 바이로트 드릴
(내부급유)



Carbide
NON



Carbide
TiALN



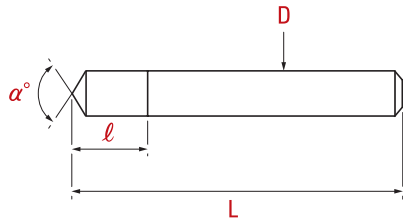
Item no. 제품코드	D 외경	L 전장
PD01CA-060	6.0	30
PD01CA-080	8.0	35
PD01CA-100	10.0	35
PD01CA-120	12.0	38
PD01CA-160	16.0	45
PD01CA-200	20.0	45

Tolerance (허용공차)	
D	L
h8	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

Carbide 90° NC Spotting Drills

초경 90°
엔씨 드릴



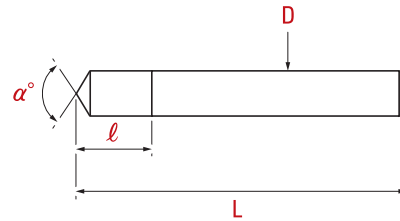
Item no. 제품코드	D 외경	l 날장	L 전장	α° 각도
NC01CA-020	2.0	8	40	90°
NC01CA-030	3.0	10	45	
NC01CA-040	4.0	12	45	
NC01CA-050	5.0	15	50	
NC01CA-060	6.0	18	50	
NC01CA-080	8.0	23	60	
NC01CA-100	10.0	24	70	
NC01CA-120	12.0	24	70	
NC01CA-160	16.0(Brazed)	26	80	
NC01CA-200	20.0(Brazed)	35	100	
NC01CA-250	25.0(Brazed)	40	120	

Tolerance (허용공차)			
D	Angle(α)	L	l
h8	$\pm 1^\circ$	± 1	± 1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

Carbide 120° NC Spotting Drills

초경 120°
엔씨 드릴



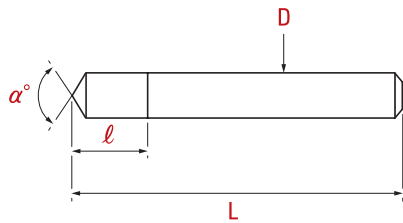
Item no. 제품코드	D 외경	l 날장	L 전장	α° 각도
NC02CA-020	2.0	8	40	120°
NC02CA-030	3.0	10	45	
NC02CA-040	4.0	12	45	
NC02CA-050	5.0	15	50	
NC02CA-060	6.0	18	50	
NC02CA-080	8.0	23	60	
NC02CA-100	10.0	24	70	
NC02CA-120	12.0	24	70	
NC02CA-160	16.0(Brazed)	26	80	
NC02CA-200	20.0(Brazed)	35	100	
NC02CA-250	25.0(Brazed)	40	120	

Tolerance (허용공차)			
D	Angle(α)	L	l
h8	±1°	±1	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TIALN이 추가됩니다. ex) Item no. - TiALN

Carbide 90° Long NC Spotting Drills

초경 90°
롱 엔씨 드릴



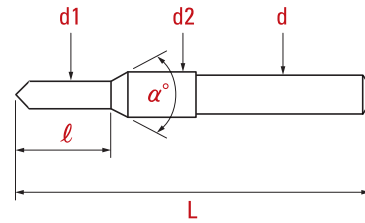
Item no. 제품코드	D 외경	l 날장	L 전장	α° 각도
NC03CA-030	3.0	10	100	90°
NC03CA-040	4.0	12	100	
NC03CA-050	5.0	15	120	
NC03CA-060	6.0	18	140	
NC03CA-080	8.0(Brazed)	23	140	
NC03CA-100	10.0(Brazed)	24	170	
NC03CA-120	12.0(Brazed)	24	170	
NC03CA-160	16.0(Brazed)	26	200	
NC03CA-200	20.0(Brazed)	35	200	

Tolerance (허용공차)			
D	Angle(α)	L	l
h8	$\pm 1^\circ$	± 1	± 1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

Carbide 90° Step Drills

초경 90°
스텝 드릴



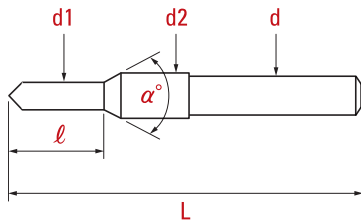
Item no. 제품코드	D 외경	d1 소경	d2 대경	d 상크경	l 소경장	L 전장	Remarks 비고
SD01CA-90030	M 3	3.2	6.5	6	9	45	Solid Carbide
SD01CA-90040	M 4	4.3	8.6	8	11	50	
SD01CA-90050	M 5	5.3	10.4	10	13	55	
SD01CA-90060	M 6	6.4	12.4	12	15	63	
SD01CA-90080	M 8	8.4	16.4	12	19	100	Top Solid Carbide
SD01CA-90100	M 10	10.5	20.4	12	23	110	

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

Tolerance (허용공차)			
d1	d2	d	Angle(α)
h8	h9	h8	$\pm 1^\circ$

Carbide 180° Step Drills

초경 180°
스텝 드릴



Item no. 제품코드	D 외경	d1 소경	d2 대경	d 상크경	l 소경장	L 전장	Remarks 비고
SD02CA-18030	M 3	3.4	6	6	9	45	Solid Carbide
SD02CA-18040	M 4	4.5	8	8	11	50	
SD02CA-18050	M 5	5.5	10	10	13	55	
SD02CA-18060	M 6	6.6	11	11	15	63	
SD02CA-18080	M 8	9	15	12	19	100	Top Solid Carbide
SD02CA-18100	M 10	11	18	12	23	110	
SD02CA-18120	M 12	14	20	12	28	110	

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- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

Tolerance (허용공차)			
d1	d2	d	Angle(α)
h8	h9	h8	$\pm 1^\circ$

DR01CA - Solid Carbide 2F Drills

Work materials	Soft Cast Iron		Hard Cast Iron		Non-Alloy Steels		Alloy Steels		Stainless Steels	
Strength	<HB240, GG25		<HB300, GG40		<700 N/mm ²		<1000 N/mm ²		HRc45 ~ HRc55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
3.0	10,500	0.06	7,600	0.06	7,800	0.05	5,700	0.05	4,000	0.04
4.0	7,800	0.07	5,700	0.07	5,800	0.06	4,300	0.06	3,000	0.05
5.0	6,200	0.08	4,500	0.08	4,700	0.07	3,500	0.07	2,400	0.06
6.0	5,200	0.09	3,800	0.09	3,900	0.08	2,800	0.08	2,000	0.07
7.0	4,500	0.10	3,300	0.10	3,300	0.09	2,500	0.09	1,700	0.08
8.0	3,900	0.12	2,800	0.12	2,900	0.10	2,100	0.10	1,500	0.09
9.0	3,500	0.14	2,500	0.14	2,600	0.11	1,900	0.11	1,300	0.10
10.0	3,100	0.16	2,300	0.16	2,300	0.12	1,700	0.12	1,200	0.11
11.0	2,800	0.18	2,100	0.18	2,100	0.13	1,600	0.13	1,100	0.12
12.0	2,600	0.20	1,900	0.20	1,900	0.14	1,400	0.14	1,000	0.13
13.0	2,400	0.20	1,700	0.20	1,800	0.16	1,300	0.16	950	0.13

RPM = rev./min. Feed = min/rev.

DR02CA - Solid Carbide 2F Regular Drills

Work materials	Aluminum		Cast Iron		Prehardened Steels	
Hardness	<HB240, GG25		<HB300, GG40		<700 N/mm ²	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
3.0	11,000	330.00	5,500	110.00	4,500	45.00
4.0	9,000	360.00	4,400	110.00	3,600	50.00
6.0	6,670	400.00	3,220	110.00	2,630	65.00
8.0	4,350	348.00	2,050	102.00	1,650	66.00
10.0	3,600	360.00	1,700	94.00	1,380	69.00
12.0	2,850	340.00	1,350	81.00	1,125	67.00

RPM = rev./min. Feed = min/rev.

DR03CA - Solid Carbide 2F Flat Drills

Work materials	Carbon steel		Alloy Steel		Hardened Steels		Aluminum Alloy	
Strength	<200HB		~ HRc30		~ HRc40			
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
3.0	7,950	420	6,900	360	3,700	170	17,000	1,020
4.0	5,950	420	5,150	360	2,800	170	12,500	1,020
6.0	4,000	420	3,450	360	1,800	170	8,500	1,020
8.0	3,000	420	2,600	360	1,400	170	6,350	1,020
10.0	2,400	420	2,050	360	1,100	170	5,100	1,020
12.0	2,000	420	1,700	360	950	170	4,250	1,020

RPM = rev./min. Feed = min/rev.

CD01CA - Solid Carbide CenterDrills

Work materials	Aluminum			Carbon Steel			Alloy Steels			Hardened Steels			Stainless Steels		
	Diameter	Cutting speed	RPM	Feed	Cutting speed	RPM	Feed	Cutting speed	RPM	Feed	Cutting speed	RPM	Feed	Cutting speed	RPM
1.0×4.0	150	12,000	0.07	50	4,000	0.05	40	3,200	0.04	25	2,000	0.04	30	2,400	0.05
1.5×5.0	150	9,500	0.08	50	3,200	0.07	40	2,500	0.05	25	1,600	0.05	30	1,900	0.07
2.0×6.0	150	8,000	0.10	50	2,700	0.08	40	2,100	0.07	25	1,300	0.07	30	1,600	0.08
3.0×8.0	150	6,000	0.13	50	2,000	0.11	40	1,600	0.10	25	990	0.10	30	1,200	0.11
5.0×10.0	150	4,800	0.19	50	1,600	0.14	40	1,300	0.13	25	800	0.13	30	950	0.14
6.0×12.0	150	4,000	0.20	50	1,300	0.19	40	1,100	0.14	25	660	0.14	30	800	0.16

RPM = rev./min. Feed = min/rev.

NC01CA - Solid Carbide NC Spotting Drills

Work materials	Aluminum		Carbon Steel		Alloy Steels		Hardened Steels		Stainless Steels	
	Cutting speed		Cutting speed		Cutting speed		Cutting speed		Cutting speed	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
6.0	8,800	0.11	3,800	0.09	2,850	0.08	1,950	0.07	2,000	0.07
8.0	6,600	0.15	2,850	0.12	2,150	0.10	1,450	0.09	1,500	0.09
10.0	5,300	0.19	2,300	0.16	1,700	0.12	1,200	0.11	1,200	0.11
12.0	4,450	0.23	1,900	0.20	1,450	0.14	980	0.13	1,000	0.13
16.0	3,300	0.27	1,450	0.24	1,100	0.17	735	0.17	755	0.17
20.0	2,650	0.31	1,150	0.28	850	0.19	590	0.20	590	0.20

RPM = rev./min. Feed = min/rev.

SP01CA/SP02CA - Solid Carbide 2F SP Centerdrills (60° & 90°)

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels		Aluminum alloy	
	Hardness		Hardness				Hardness			
Shank Diameter	55		50		30		25		150	
Shank Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
6	2,900	260	2,700	240	1,600	145	1,300	970	8,000	1,800
8	2,200	250	2,000	230	1,200	135	990	90	6,000	1,550
10	1,800	250	1,600	225	950	135	800	92	4,800	1,450
12	1,500	240	1,300	210	800	125	660	92	4,000	1,400

RPM = rev./min. Feed = min/rev.

DR04CA, DR05CA - Solid Carbide 2F Drills with Oil Hole Series

Work materials	Soft Cast Iron		Hard Cast Iron		Non-Alloy Steels		Alloy Steels		Stainless Steels	
Strength	<HB240, GG25		<HB300, GG40		<700 N/mm ²		<1000 N/mm ²		HRC45 ~ HRC55	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
3.0	24,000	0.15	15,500	0.15	14,500	0.15	13,100	0.15	5,780	0.10
4.0	18,000	0.16	11,500	0.16	10,500	0.16	9,900	0.16	4,300	0.10
5.0	14,500	0.17	9,000	0.17	9,080	0.17	7,750	0.17	3,450	0.11
6.0	11,500	0.19	7,600	0.19	7,200	0.19	6,500	0.19	2,890	0.12
7.0	10,500	0.20	6,500	0.20	6,200	0.20	5,500	0.20	2,450	0.13
8.0	8,900	0.22	5,700	0.22	5,400	0.22	4,800	0.22	2,150	0.15
9.0	7,900	0.25	5,200	0.25	4,800	0.25	4,350	0.25	1,900	0.16
10.0	7,300	0.28	5,600	0.28	4,300	0.28	3,850	0.28	1,710	0.19
12.0	5,900	0.30	3,800	0.30	3,550	0.30	3,250	0.30	1,450	0.22
14.0	5,200	0.33	3,300	0.33	3,100	0.33	2,750	0.33	1,210	0.25
16.0	4,200	0.36	2,800	0.36	2,700	0.36	2,450	0.36	1,100	0.27

RPM = rev./min. Feed = min/rev.

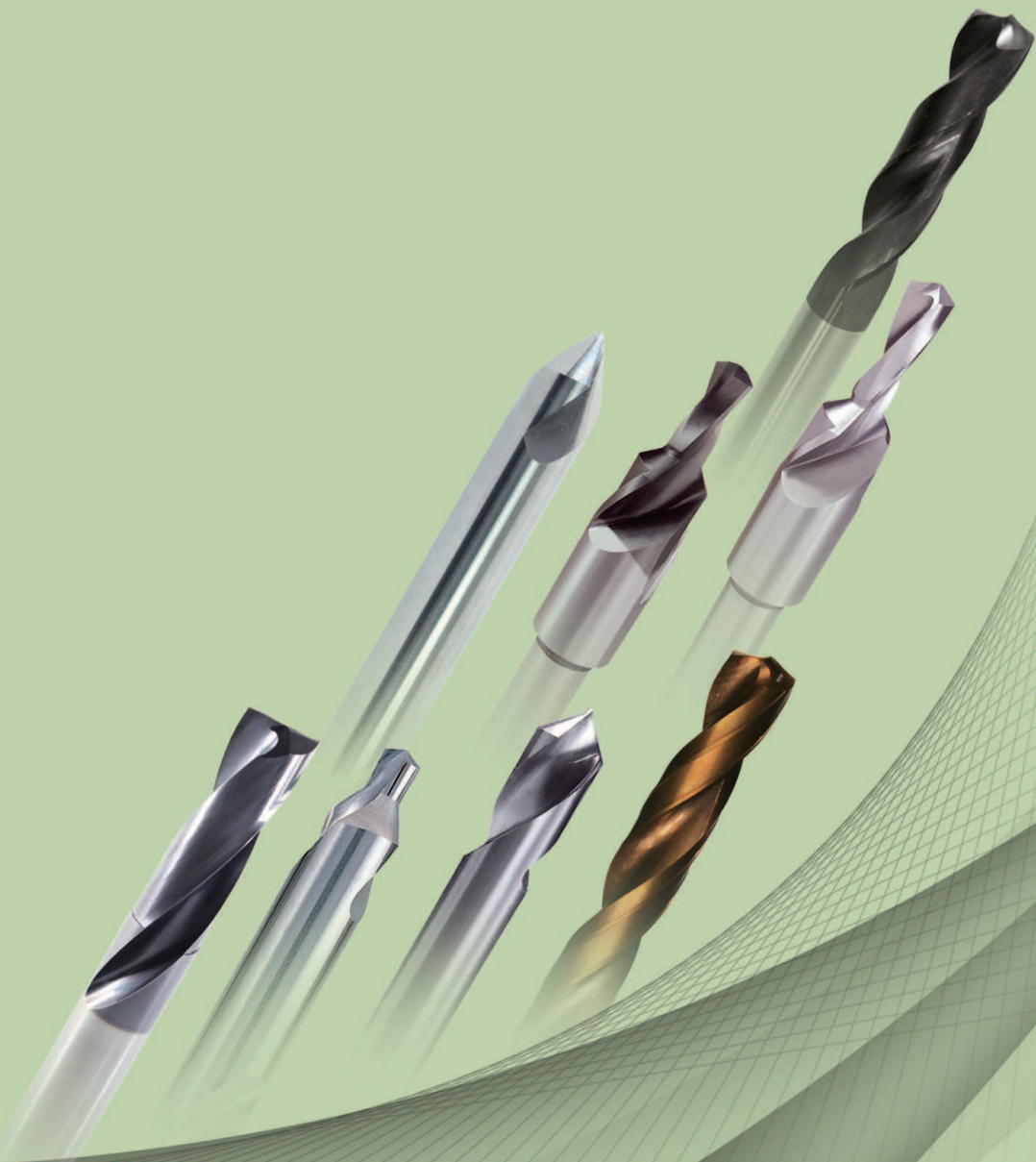
DR06CA - Solid Carbide 2F Drills for Aluminum(Silver Coating)

Work materials	Aluminum		Aluminum Alloy		Copper	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed
2.0	34,000	1,250	7,600	1,050	7,800	580
3.0	22,500	1,250	5,700	1,050	5,800	580
6.0	13,500	1,250	4,500	1,050	4,700	580
8.0	8,500	1,250	3,800	1,050	3,900	580
10.0	6,800	1,250	3,300	1,050	3,300	580
12.0	5,600	1,250	2,800	1,050	2,900	580

RPM = rev./min. Feed = min/rev.

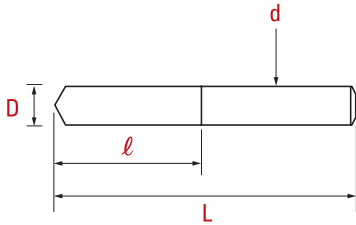
DYC BEST TOTAL TOOLS

HSS Drills



HSS-PM Drills - Stub Type

분말하이스 드릴
스터브형, HSS-PM



Item no. 제품코드	D 외경	l 날장	L 전장	d 샹크
DR01PM-020	2.0	12	44	3
DR01PM-021	2.1	12	44	3
DR01PM-022	2.2	13	45	3
DR01PM-023	2.3	13	45	3
DR01PM-024	2.4	14	46	3
DR01PM-025	2.5	14	46	3
DR01PM-026	2.6	14	46	3
DR01PM-027	2.7	16	48	3
DR01PM-028	2.8	16	48	3
DR01PM-029	2.9	16	48	3
DR01PM-030	3.0	16	48	3
DR01PM-031	3.1	18	50	4
DR01PM-032	3.2	18	50	4
DR01PM-033	3.3	18	50	4
DR01PM-034	3.4	20	52	4
DR01PM-035	3.5	20	52	4
DR01PM-036	3.6	20	52	4
DR01PM-037	3.7	20	52	4
DR01PM-038	3.8	22	54	4
DR01PM-039	3.9	22	54	4
DR01PM-040	4.0	22	54	4
DR01PM-041	4.1	22	66	6
DR01PM-042	4.2	22	66	6
DR01PM-043	4.3	24	68	6

Item no. 제품코드	D 외경	l 날장	L 전장	d 샹크
DR01PM-044	4.4	24	68	6
DR01PM-045	4.5	24	68	6
DR01PM-046	4.6	24	68	6
DR01PM-047	4.7	24	68	6
DR01PM-048	4.8	26	70	6
DR01PM-049	4.9	26	70	6
DR01PM-050	5.0	26	70	6
DR01PM-051	5.1	26	70	6
DR01PM-052	5.2	26	70	6
DR01PM-053	5.3	26	70	6
DR01PM-054	5.4	28	72	6
DR01PM-055	5.5	28	72	6
DR01PM-056	5.6	28	72	6
DR01PM-057	5.7	28	72	6
DR01PM-058	5.8	28	72	6
DR01PM-059	5.9	28	72	6
DR01PM-060	6.0	28	72	6
DR01PM-061	6.1	31	75	8
DR01PM-062	6.2	31	75	8
DR01PM-063	6.3	31	75	8
DR01PM-064	6.4	31	75	8
DR01PM-065	6.5	31	75	8
DR01PM-066	6.6	31	75	8
DR01PM-067	6.7	31	75	8

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
DR01PM-068	6.8	34	78	8
DR01PM-069	6.9	34	78	8
DR01PM-070	7.0	34	78	8
DR01PM-071	7.1	34	78	8
DR01PM-072	7.2	34	78	8
DR01PM-073	7.3	34	78	8
DR01PM-074	7.4	34	78	8
DR01PM-075	7.5	34	78	8
DR01PM-076	7.6	37	81	8
DR01PM-077	7.7	37	81	8
DR01PM-078	7.8	37	81	8
DR01PM-079	7.9	37	81	8
DR01PM-080	8.0	37	81	8
DR01PM-081	8.1	37	87	10
DR01PM-082	8.2	37	87	10
DR01PM-083	8.3	37	87	10
DR01PM-084	8.4	37	87	10
DR01PM-085	8.5	37	87	10
DR01PM-086	8.6	40	90	10
DR01PM-087	8.7	40	90	10
DR01PM-088	8.8	40	90	10
DR01PM-089	8.9	40	90	10
DR01PM-090	9.0	40	90	10
DR01PM-091	9.1	40	90	10
DR01PM-092	9.2	40	90	10
DR01PM-093	9.3	40	90	10
DR01PM-094	9.4	40	90	10
DR01PM-095	9.5	40	90	10
DR01PM-096	9.6	43	93	10
DR01PM-097	9.7	43	93	10
DR01PM-098	9.8	43	93	10
DR01PM-099	9.9	43	93	10
DR01PM-100	10.0	43	93	10
DR01PM-101	10.1	43	100	12
DR01PM-102	10.2	43	100	12

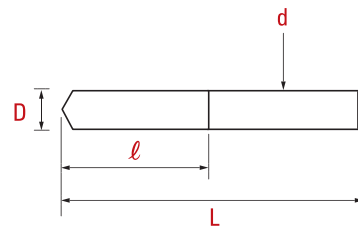
Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
DR01PM-103	10.3	43	100	12
DR01PM-104	10.4	43	100	12
DR01PM-105	10.5	43	100	12
DR01PM-106	10.6	43	100	12
DR01PM-107	10.7	47	104	12
DR01PM-108	10.8	47	104	12
DR01PM-109	10.9	47	104	12
DR01PM-110	11.0	47	104	12
DR01PM-111	11.1	47	104	12
DR01PM-112	11.2	47	104	12
DR01PM-113	11.3	47	104	12
DR01PM-114	11.4	47	104	12
DR01PM-115	11.5	47	104	12
DR01PM-116	11.6	47	104	12
DR01PM-117	11.7	47	104	12
DR01PM-118	11.8	47	104	12
DR01PM-119	11.9	51	108	12
DR01PM-120	12.0	51	108	12
DR01PM-121	12.1	51	108	12
DR01PM-122	12.2	51	108	12
DR01PM-123	12.3	51	108	12
DR01PM-124	12.4	51	108	12
DR01PM-125	12.5	51	108	12
DR01PM-126	12.6	51	108	12
DR01PM-127	12.7	51	108	12
DR01PM-128	12.8	51	108	12
DR01PM-129	12.9	51	108	12
DR01PM-130	13.0	51	108	12

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- This product is only supplied with TiALN coating.
- 이 제품은 오직 TiALN 코팅 제품만 제공됩니다.

Tolerance (허용공차)		
D	d	L
h8	h7	±1

HSS-PM Drills - Jobber Type

분말하이스 드릴
자버형, HSS-PM



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샙크
DR02PM-020	2.0	24	56	3
DR02PM-021	2.1	24	56	3
DR02PM-022	2.2	25	56	3
DR02PM-023	2.3	25	56	3
DR02PM-024	2.4	30	61	3
DR02PM-025	2.5	30	61	3
DR02PM-026	2.6	30	61	3
DR02PM-027	2.7	33	64	3
DR02PM-028	2.8	33	64	3
DR02PM-029	2.9	33	64	3
DR02PM-030	3.0	33	64	3
DR02PM-031	3.1	36	68	4
DR02PM-032	3.2	36	68	4
DR02PM-033	3.3	36	68	4
DR02PM-034	3.4	39	71	4
DR02PM-035	3.5	39	71	4
DR02PM-036	3.6	39	71	4
DR02PM-037	3.7	39	71	4
DR02PM-038	3.8	43	75	4
DR02PM-039	3.9	43	75	4
DR02PM-040	4.0	43	75	4

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샙크
DR02PM-041	4.1	43	85	6
DR02PM-042	4.2	43	85	6
DR02PM-043	4.3	47	89	6
DR02PM-044	4.4	47	89	6
DR02PM-045	4.5	47	89	6
DR02PM-046	4.6	47	89	6
DR02PM-047	4.7	47	89	6
DR02PM-048	4.8	52	94	6
DR02PM-049	4.9	52	94	6
DR02PM-050	5.0	52	94	6
DR02PM-051	5.1	52	94	6
DR02PM-052	5.2	52	94	6
DR02PM-053	5.3	52	94	6
DR02PM-054	5.4	57	99	6
DR02PM-055	5.5	57	99	6
DR02PM-056	5.6	57	99	6
DR02PM-057	5.7	57	99	6
DR02PM-058	5.8	57	99	6
DR02PM-059	5.9	57	99	6
DR02PM-060	6.0	57	99	6
DR02PM-061	6.1	63	107	8

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
DR02PM-062	6.2	63	107	8
DR02PM-063	6.3	63	107	8
DR02PM-064	6.4	63	107	8
DR02PM-065	6.5	63	107	8
DR02PM-066	6.6	63	107	8
DR02PM-067	6.7	63	107	8
DR02PM-068	6.8	69	113	8
DR02PM-069	6.9	69	113	8
DR02PM-070	7.0	69	113	8
DR02PM-071	7.1	69	113	8
DR02PM-072	7.2	69	113	8
DR02PM-073	7.3	69	113	8
DR02PM-074	7.4	69	113	8
DR02PM-075	7.5	69	113	8
DR02PM-076	7.6	75	119	8
DR02PM-077	7.7	75	119	8
DR02PM-078	7.8	75	119	8
DR02PM-079	7.9	75	119	8
DR02PM-080	8.0	75	119	8
DR02PM-081	8.1	75	125	10
DR02PM-082	8.2	75	125	10
DR02PM-083	8.3	75	125	10
DR02PM-084	8.4	75	125	10
DR02PM-085	8.5	75	125	10
DR02PM-086	8.6	81	131	10
DR02PM-087	8.7	81	131	10
DR02PM-088	8.8	81	131	10
DR02PM-089	8.9	81	131	10
DR02PM-090	9.0	81	131	10
DR02PM-091	9.1	81	131	10
DR02PM-092	9.2	81	131	10
DR02PM-093	9.3	81	131	10
DR02PM-094	9.4	81	131	10
DR02PM-095	9.5	81	131	10
DR02PM-096	9.6	87	137	10
DR02PM-097	9.7	87	137	10
DR02PM-098	9.8	87	137	10
DR02PM-099	9.9	87	137	10
DR02PM-100	10.0	87	137	10
DR02PM-101	10.1	87	144	12
DR02PM-102	10.2	87	144	12

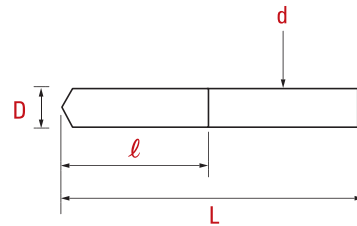
Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
DR02PM-103	10.3	87	144	12
DR02PM-104	10.4	87	144	12
DR02PM-105	10.5	87	144	12
DR02PM-106	10.6	87	144	12
DR02PM-107	10.7	94	151	12
DR02PM-108	10.8	94	151	12
DR02PM-109	10.9	94	151	12
DR02PM-110	11.0	94	151	12
DR02PM-111	11.1	94	151	12
DR02PM-112	11.2	94	151	12
DR02PM-113	11.3	94	151	12
DR02PM-114	11.4	94	151	12
DR02PM-115	11.5	94	151	12
DR02PM-116	11.6	94	151	12
DR02PM-117	11.7	94	151	12
DR02PM-118	11.8	94	151	12
DR02PM-119	11.9	101	158	12
DR02PM-120	12.0	101	158	12
DR02PM-121	12.1	101	158	12
DR02PM-122	12.2	101	158	12
DR02PM-123	12.3	101	158	12
DR02PM-124	12.4	101	158	12
DR02PM-125	12.5	101	158	12
DR02PM-126	12.6	101	158	12
DR02PM-127	12.7	101	158	12
DR02PM-128	12.8	101	158	12
DR02PM-129	12.9	101	158	12
DR02PM-130	13.0	101	158	12

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- This product is only supplied with TiALN coating.
- 이 제품은 오직 TiALN 코팅 제품만 제공됩니다.

Tolerance (허용공차)		
D	d	L
h8	h7	±1

HSS-PM Power Long Drill

분말 하이스
파워 롱 드릴, HSS-PM



Item no. 제품코드	L 전장	
	100L	
	D 외경	ℓ 날장
DR03PM-10020	2.0	75
DR03PM-10025	2.5	75
DR03PM-10030	3.0	75
DR03PM-10035	3.5	75
DR03PM-10040	4.0	75
DR03PM-10045	4.5	75
DR03PM-10050	5.0	75
DR03PM-10055	5.5	75

Item no. 제품코드	L 전장	
	150L	
	D 외경	ℓ 날장
DR03PM-15020	2.0	100
DR03PM-15025	2.5	100
DR03PM-15030	3.0	100
DR03PM-15035	3.5	100
DR03PM-15040	4.0	100
DR03PM-15045	4.5	100
DR03PM-15050	5.0	100
DR03PM-15055	5.5	100
DR03PM-15060	6.0	100
DR03PM-15065	6.5	100
DR03PM-15070	7.0	100
DR03PM-15075	7.5	100
DR03PM-15080	8.0	100
DR03PM-15085	8.5	100
DR03PM-15090	9.0	100

특기사항

- 넓은 플루트 가공으로 칩 배출이 원활함
- 일반강부터 합금강 및 SUS까지 다양한 피삭재에 사용 가능함

Tolerance (허용공차)		
D	d	L
h8	h7	±1

Item no. 제품코드	L 전장	
	200L	
	D 외경	ℓ 날장
DR03PM-20020	2.0	150
DR03PM-20025	2.5	150
DR03PM-20030	3.0	150
DR03PM-20035	3.5	150
DR03PM-20040	4.0	150
DR03PM-20045	4.5	150
DR03PM-20050	5.0	150
DR03PM-20055	5.5	150
DR03PM-20060	6.0	150
DR03PM-20065	6.5	150
DR03PM-20070	7.0	150

Item no. 제품코드	L 전장	
	200L	
	D 외경	ℓ 날장
DR03PM-20075	7.5	150
DR03PM-20080	8.0	150
DR03PM-20085	8.5	150
DR03PM-20090	9.0	150
DR03PM-20095	9.5	150
DR03PM-20100	10.0	150
DR03PM-20105	10.5	150
DR03PM-20110	11.0	150
DR03PM-20115	11.5	150
DR03PM-20120	12.0	150

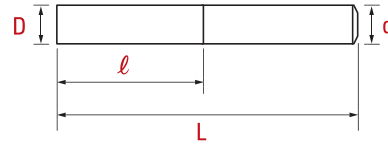
Item no. 제품코드	L 전장	
	250L	
	D 외경	ℓ 날장
DR03PM-25040	4.0	200
DR03PM-25045	4.5	200
DR03PM-25050	5.0	200
DR03PM-25055	5.5	200
DR03PM-25060	6.0	200
DR03PM-25065	6.5	200
DR03PM-25070	7.0	200
DR03PM-25075	7.5	200
DR03PM-25080	8.0	200
DR03PM-25085	8.5	200
DR03PM-25090	9.0	200
DR03PM-25095	9.5	200
DR03PM-25100	10.0	200
DR03PM-25105	10.5	200
DR03PM-25110	11.0	200
DR03PM-25115	11.5	200
DR03PM-25120	12.0	200
DR03PM-25125	12.5	200

Item no. 제품코드	L 전장		
	300L		
	D 외경	ℓ 날장	
DR03PM-30055	5.5	33,500	200
DR03PM-30060	6.0	34,500	200
DR03PM-30065	6.5	37,000	200
DR03PM-30070	7.0	39,500	200
DR03PM-30075	7.5	42,000	200
DR03PM-30080	8.0	45,000	200
DR03PM-30085	8.5	47,000	200
DR03PM-30090	9.0	49,000	200
DR03PM-30095	9.5	52,000	200
DR03PM-30100	10.0	56,000	200
DR03PM-30105	10.5	61,000	200
DR03PM-30110	11.0	66,000	200
DR03PM-30115	11.5	71,000	200
DR03PM-30120	12.0	76,000	200
DR03PM-30125	12.5	81,000	200
DR03PM-30130	13.0	90,000	200

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

HSS-PM 2F Flat Drill

분말 하이스
2날 플랫 드릴



Item no. 제품코드	D 규격	ℓ 날장	L 전장	d 샙크
DR04PM-020	2.0	8	50	4
DR04PM-021	2.1	8	50	4
DR04PM-022	2.2	8	50	4
DR04PM-023	2.3	8	50	4
DR04PM-024	2.4	8	50	4
DR04PM-025	2.5	10	50	4
DR04PM-026	2.6	10	50	4
DR04PM-027	2.7	10	50	4
DR04PM-028	2.8	10	50	4
DR04PM-029	2.9	10	50	4
DR04PM-030	3.0	12	50	4
DR04PM-031	3.1	12	50	4
DR04PM-032	3.2	12	50	4
DR04PM-033	3.3	12	50	4
DR04PM-034	3.4	12	50	4
DR04PM-035	3.5	14	50	4
DR04PM-036	3.6	14	50	4
DR04PM-037	3.7	14	50	4
DR04PM-038	3.8	14	50	4
DR04PM-039	3.9	14	50	4
DR04PM-040	4.0	16	50	4

Item no. 제품코드	D 규격	ℓ 날장	L 전장	d 샙크
DR04PM-041	4.1	16	50	6
DR04PM-042	4.2	16	50	6
DR04PM-043	4.3	16	50	6
DR04PM-044	4.4	16	50	6
DR04PM-045	4.5	18	50	6
DR04PM-046	4.6	18	50	6
DR04PM-047	4.7	18	50	6
DR04PM-048	4.8	20	60	6
DR04PM-049	4.9	20	60	6
DR04PM-050	5.0	20	60	6
DR04PM-051	5.1	20	60	6
DR04PM-052	5.2	20	60	6
DR04PM-053	5.3	20	60	6
DR04PM-054	5.4	20	60	6
DR04PM-055	5.5	22	60	6
DR04PM-056	5.6	22	60	6
DR04PM-057	5.7	22	60	6
DR04PM-058	5.8	22	60	6
DR04PM-059	5.9	22	60	6
DR04PM-060	6.0	22	60	6
DR04PM-061	6.1	24	70	8

Item no. 제품코드	D 규격	ℓ 날장	L 전장	d 샙크
DR04PM-062	6.2	24	70	8
DR04PM-063	6.3	24	70	8
DR04PM-064	6.4	24	70	8
DR04PM-065	6.5	28	70	8
DR04PM-066	6.6	28	70	8
DR04PM-067	6.7	28	70	8
DR04PM-068	6.8	28	70	8
DR04PM-069	6.9	28	70	8
DR04PM-070	7.0	28	70	8
DR04PM-071	7.1	28	70	8
DR04PM-072	7.2	28	70	8
DR04PM-073	7.3	28	70	8
DR04PM-074	7.4	28	70	8
DR04PM-075	7.5	28	70	8
DR04PM-076	7.6	28	70	8
DR04PM-077	7.7	28	70	8
DR04PM-078	7.8	28	70	8
DR04PM-079	7.9	28	70	8
DR04PM-080	8.0	28	70	8
DR04PM-081	8.1	28	80	10
DR04PM-082	8.2	28	80	10
DR04PM-083	8.3	28	80	10
DR04PM-084	8.4	28	80	10
DR04PM-085	8.5	28	80	10
DR04PM-086	8.6	28	80	10
DR04PM-087	8.7	28	80	10
DR04PM-088	8.8	28	80	10
DR04PM-089	8.9	28	80	10
DR04PM-090	9.0	30	80	10
DR04PM-091	9.1	30	80	10
DR04PM-092	9.2	30	80	10
DR04PM-093	9.3	30	80	10
DR04PM-094	9.4	30	80	10
DR04PM-095	9.5	32	80	10
DR04PM-096	9.6	32	80	10
DR04PM-097	9.7	32	80	10
DR04PM-098	9.8	32	80	10
DR04PM-099	9.9	32	80	10
DR04PM-100	10.0	32	80	10
DR04PM-101	10.1	33	90	12
DR04PM-102	10.2	33	90	12

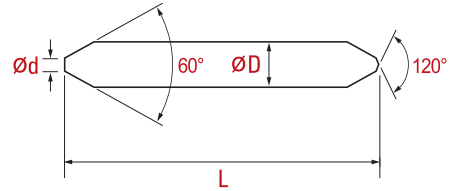
Item no. 제품코드	D 규격	ℓ 날장	L 전장	d 샙크
DR04PM-103	10.3	33	90	12
DR04PM-104	10.4	33	90	12
DR04PM-105	10.5	33	90	12
DR04PM-106	10.6	33	90	12
DR04PM-107	10.7	33	90	12
DR04PM-108	10.8	33	90	12
DR04PM-109	10.9	33	90	12
DR04PM-110	11.0	35	90	12
DR04PM-111	11.1	35	90	12
DR04PM-112	11.2	35	90	12
DR04PM-113	11.3	35	90	12
DR04PM-114	11.4	35	90	12
DR04PM-115	11.5	38	90	12
DR04PM-116	11.6	38	90	12
DR04PM-117	11.7	38	90	12
DR04PM-118	11.8	38	90	12
DR04PM-119	11.9	38	90	12
DR04PM-120	12.0	38	90	12
DR04PM-125	12.5	40	100	14
DR04PM-130	13.0	40	100	14
DR04PM-135	13.5	40	100	14
DR04PM-140	14.0	40	100	14
DR04PM-145	14.5	40	105	16
DR04PM-150	15.0	40	105	16
DR04PM-155	15.5	42	110	16
DR04PM-160	16.0	42	110	16
DR04PM-165	16.5	42	115	18
DR04PM-170	17.0	42	115	18
DR04PM-175	17.5	42	115	18
DR04PM-180	18.0	42	115	18
DR04PM-185	18.5	42	115	20
DR04PM-190	19.0	42	115	20
DR04PM-195	19.5	42	125	20
DR04PM-200	20.0	42	125	20

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- This product is only supplied with TiALN coating.
- 이 제품은 오직 TiALN 코팅 제품만 제공됩니다.

Tolerance (허용공차)		
D	d	L
h8	h7	±1

HSS-Co 8% 2F S-Point Centerdrills - 60° Type

하이스 2날
에스포인트 센터드릴
- 60° 형 SKH59



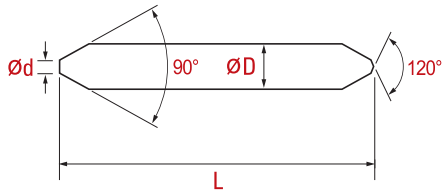
Item no. 제품코드	ϕd 최소 면취경	° 선단 각도	ϕD 상크	L 전장
SP01H9-01004	1.0	120° + 60°	4	40
SP01H9-01504	1.5		4	40
SP01H9-02006	2.0		6	50
SP01H9-02508	2.5		8	60
SP01H9-03010	3.0		10	70
SP01H9-04012	4.0		12	80
SP01H9-05016	5.0		16	100
SP01H9-06020	6.0		20	120

Tolerance (허용공차)	
D	L
h8	±1

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- For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

HSS-Co 8% 2F S-Point Centerdrills - 90° Type

하이스 2날
에스포인트 센터드릴
- 90° 형 SKH59



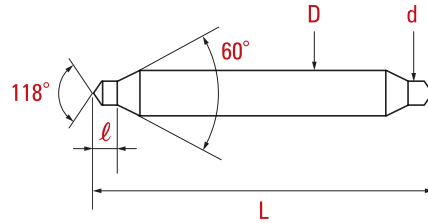
Item no. 제품코드	Φd 최소 면취경	° 선단 각도	ΦD 샙크	L 전장
SP02H9-01004	1.0	120° + 90°	4	40
SP02H9-01504	1.5		4	40
SP02H9-02006	2.0		6	50
SP02H9-02508	2.5		8	60
SP02H9-03010	3.0		10	70
SP02H9-04012	4.0		12	80
SP02H9-05016	5.0		16	100
SP02H9-06020	6.0		20	120

Tolerance (허용공차)	
D	L
h8	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

HSS-Co 8% Center Drills A Type (60°)

하이스 센터드릴
A형 (60°), SKH59



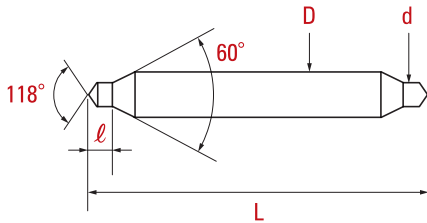
Item no. 제품코드	dXD 규격	L 전장	l 축기장
CD01H9-0105	1.0X5.0	40	1.0-1.5
CD01H9-0156	1.5X6.0	40	2.0-2.5
CD01H9-0206	2.0X6.0	45	2.0-3.0
CD01H9-0256	2.5X6.0	50	2.5-3.5
CD01H9-0257	2.5X7.7	55	2.5-3.5
CD01H9-0307	3.0X7.7	55	3.0-4.0
CD01H9-0308	3.0X8.0	55	3.0-4.0
CD01H9-0408	4.0X8.0	55	4.5-5.5
CD01H9-0410	4.0X10.0	65	4.5-5.5
CD01H9-0510	5.0X10.0	65	5.5-6.5
CD01H9-0511	5.0X11.0	78	5.5-6.5
CD01H9-0612	6.0X12.0	78	6.5-7.5
CD01H9-0617	6.0X12.7	78	6.5-7.5
CD01H9-0816	8.0X16.0	90	8.0-9.0
CD01H9-1020	10.0X20.0	100	10.0-11.0

Tolerance (허용공차)		
D	d	L
h9	k12	±2

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- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

HSS Center Drills A Type (60°)

하이스 센터드릴
A형 (60°), SKH51



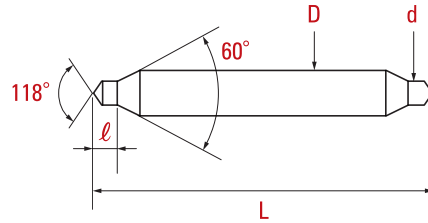
Item no. 제품코드	dXD 규격	L 전장	ℓ 촉기장
CD01H1-0105	1.0X5.0	40	1.0-1.5
CD01H1-0156	1.5X6.0	40	2.0-2.5
CD01H1-0206	2.0X6.0	45	2.0-3.0
CD01H1-0256	2.5X6.0	50	2.5-3.5
CD01H1-0257	2.5X7.7	55	2.5-3.5
CD01H1-0307	3.0X7.7	55	3.0-4.0
CD01H1-0308	3.0X8.0	55	3.0-4.0
CD01H1-0408	4.0X8.0	55	4.5-5.5
CD01H1-0410	4.0X10.0	65	4.5-5.5
CD01H1-0510	5.0X10.0	65	5.5-6.5
CD01H1-0511	5.0X11.0	78	5.5-6.5
CD01H1-0612	6.0X12.7	78	6.5-7.5

Tolerance (허용공차)		
D	d	L
h9	k12	±2

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

HSS-PM Center Drills A Type (60°)

분말하이스 센터드릴
A형 (60°), HSS-PM



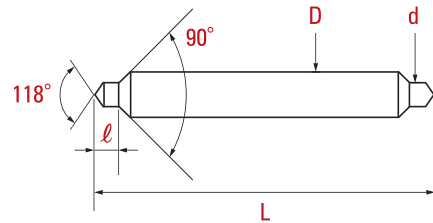
Item no. 제품코드	dXD 규격	L 전장	ℓ 축기장
CD01PM-0105	1.0×5.0	40	1.0 - 1.5
CD01PM-0156	1.5×6.0	40	2.0 - 2.5
CD01PM-0206	2.0×6.0	45	2.0 - 3.0
CD01PM-0256	2.5×6.0	50	2.5 - 3.5
CD01PM-0308	3.0×8.0	55	3.0 - 4.0
CD01PM-0408	4.0×8.0	55	4.5 - 5.5
CD01PM-0410	4.0×10.0	65	4.5 - 5.5
CD01PM-0510	5.0×10.0	65	5.5 - 6.5
CD01PM-0511	5.0×11.0	78	5.5 - 6.5
CD01PM-0612	6.0×12.0	78	6.5 - 7.5

Tolerance (허용공차)		
D	d	L
h9	k12	±2

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

HSS-Co 8% Center Drills A Type (90°)

하이스 센터드릴
A형 (90°), SKH59



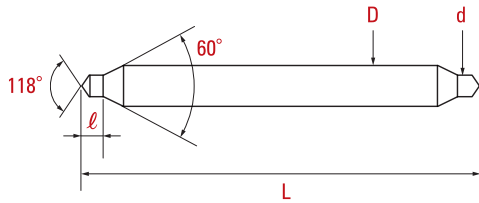
Item no. 제품코드	dXD 규격	L 전장	ℓ 축기장
CD02H9-0105	1.0X5.0	40	1.0-1.5
CD02H9-0156	1.5X6.0	40	2.0-2.5
CD02H9-0206	2.0X6.0	45	2.0-3.0
CD02H9-0256	2.5X6.0	50	2.5-3.5
CD02H9-0308	3.0X8.0	55	3.0-4.0
CD02H9-0408	4.0X8.0	55	4.5-5.5
CD02H9-0410	4.0X10.0	65	4.5-5.5
CD02H9-0510	5.0X10.0	65	5.5-6.5
CD02H9-0511	5.0X11.0	78	5.5-6.5
CD02H9-0612	6.0X12.0	78	6.5-7.5

Tolerance (허용공차)		
D	d	L
h9	k12	±2

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

HSS-Co 8% Long Center Drills A Type (60°/100L)

하이스 롱 센터드릴
A형 (60°/100L), SKH59



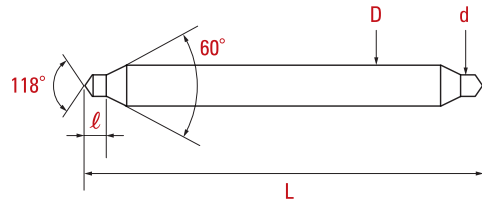
Item no. 제품코드	dXD 규격	L 전장	ℓ 축기장
CD03H9-2060	2.0X6.0	100	2.0-3.0
CD03H9-2560	2.5X6.0		2.5-3.5
CD03H9-3080	3.0X8.0		3.0-4.0
CD03H9-4080	4.0X8.0		4.5-5.5
CD03H9-4010	4.0X10.0		4.5-5.5
CD03H9-5010	5.0X10.0		5.5-6.5
CD03H9-4012	4.0X12.0		4.5-5.5
CD03H9-5012	5.0X12.0		5.5-6.5
CD03H9-6012	6.0X12.0		6.5-7.5

Tolerance (허용공차)		
D	d	L
h9	k12	±2

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

HSS-Co 8% Long Center Drills A Type (60°/120L)

하이스 롱 센터드릴
A형 (60°/120L), SKH59



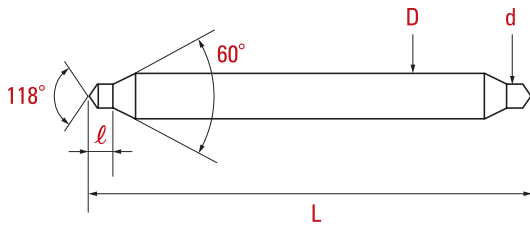
Item no. 제품코드	dXD 규격	L 전장	ℓ 축기장
CD04H9-2060	2.0X6.0	120	2.0-3.0
CD04H9-2560	2.5X6.0		2.5-3.5
CD04H9-3080	3.0X8.0		3.0-4.0
CD04H9-4080	4.0X8.0		4.5-5.5
CD04H9-4010	4.0X10.0		4.5-5.5
CD04H9-5010	5.0X10.0		4.5-5.5
CD04H9-4012	4.0X12.0		5.5-6.5
CD04H9-5012	5.0X12.0		5.5-6.5
CD04H9-6012	6.0X12.0		6.5-7.5

Tolerance (허용공차)		
D	d	L
h9	k12	±2

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

HSS-Co 8% Long Center Drills A Type (60°/150L)

하이스 롱 센터드릴
A형 (60°/150L), SKH59



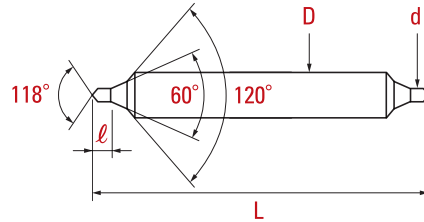
Item no. 제품코드	dXD 규격	L 전장	ℓ 촉기장
CD05H9-2060	2.0X6.0	150	2.0-3.0
CD05H9-2560	2.5X6.0		2.5-3.5
CD05H9-3080	3.0X8.0		3.0-4.0
CD05H9-4080	4.0X8.0		4.5-5.5
CD05H9-4010	4.0X10.0		4.5-5.5
CD05H9-5010	5.0X10.0		4.5-5.5
CD05H9-4012	4.0X12.0		4.5-5.5
CD05H9-5012	5.0X12.0		5.5-6.5
CD05H9-6012	6.0X12.0		5.5-6.5

Tolerance (허용공차)		
D	d	L
h9	k12	±2

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

HSS-Co 5% Center Drills B Type (60° & 120°)

하이스 센터드릴
B형 (60° & 120°), SKH55



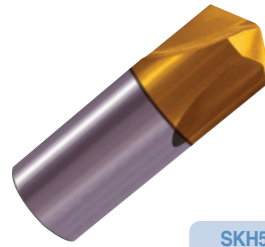
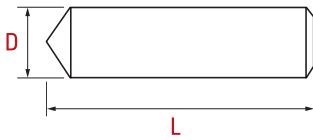
Item no. 제품코드	dXD 규격	L 전장	ℓ 축기장
CD06H5-0102	1.0X2.5X6.0	45	1.0-1.5
CD06H5-0154	1.5X4.0X8.0	50	1.5-2.5
CD06H5-0204	2.0X4.0X6.0	45	2.0-3.0
CD06H5-0205	2.0X5.0X10.0	55	2.0-3.0
CD06H5-0255	2.5X5.5X8.0	50	2.5-3.5
CD06H5-0256	2.5X6.5X12.0	60	2.5-3.5
CD06H5-0307	3.0X7.0X10.0	55	3.0-4.0
CD06H5-0308	3.0X8.0X14.0	65	3.0-4.0
CD06H5-0409	4.0X9.0X12.0	63	4.5-5.5
CD06H5-0410	4.0X10.0X18.0	76	4.5-5.5
CD06H5-0510	5.0X10.0X14.0	69	5.5-6.5
CD06H5-0512	5.0X12.5X20.0	80	5.5-6.5
CD06H5-0612	6.0X12.0X18.0	77	6.5-7.5
CD06H5-0615	6.0X15.0X25.0	100	6.5-7.5

Tolerance (허용공차)		
D	d	L
h8	k12	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

HSS-Co 8% Pilot Drills

하이스 바이로트 드릴, SKH59



SKH59
TiN



SKH59
TiCN

Item no. 제품코드	D 외경	L 전장
PD01H9-060	6.0	30
PD01H9-080	8.0	35
PD01H9-100	10.0	35
PD01H9-120	12.0	38
PD01H9-160	16.0	45

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

Tolerance (허용공차)	
D	L
h8	±1

HSS-Co 8% Oil Hole Pilot Drills

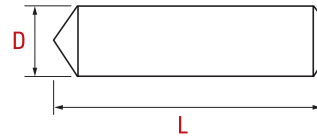
하이스 내부금유형
빠이롯트 드릴, SKH59



SKH59
TiN



SKH59
TiCN



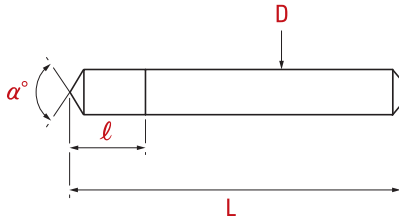
Item no. 제품코드	D 외경	L 전장
PD02H9-080	8.0	35
PD02H9-100	10.0	35
PD02H9-120	12.0	38
PD02H9-160	16.0	45
PD02H9-200	20.0	45
PD02H9-250	25.0	48
PD02H9-300	30.0	53

Tolerance (허용공차)	
D	L
h8	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

HSS-Co 5% 90° NC Spotting Drills

하이스 90°
엔씨 드릴, SKH55



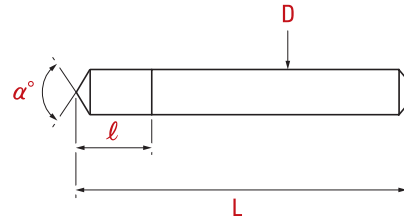
Item no. 제품코드	D 외경	l 날장	L 전장	α° 각도
NC01H5-90020	2.0	8	48	90°
NC01H5-90030	3.0	10	50	
NC01H5-90040	4.0	12	55	
NC01H5-90050	5.0	15	60	
NC01H5-90060	6.0	20	65	
NC01H5-90080	8.0	25	80	
NC01H5-90100	10.0	25	90	
NC01H5-90120	12.0	30	100	
NC01H5-90140	14.0	35	115	
NC01H5-90160	16.0	35	115	
NC01H5-90180	18.0	40	130	
NC01H5-90200	20.0	40	130	
NC01H5-90250	25.0	42	135	

Tolerance (허용공차)			
D	Angle(α)	L	l
h8	±1°	±1	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

HSS-Co 5% 120° NC Spotting Drills

하이스 120°
엔씨 드릴, SKH55



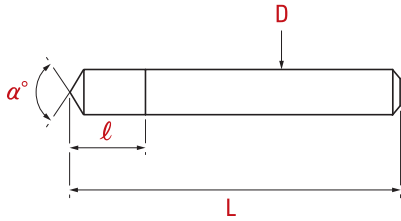
Item no. 제품코드	D 외경	l 날장	L 전장	α° 각도
NC02H5-12020	2.0	8	48	120°
NC02H5-12030	3.0	10	50	
NC02H5-12040	4.0	12	55	
NC02H5-12050	5.0	15	60	
NC02H5-12060	6.0	20	65	
NC02H5-12080	8.0	25	80	
NC02H5-12100	10.0	25	90	
NC02H5-12120	12.0	30	100	
NC02H5-12140	14.0	35	115	
NC02H5-12160	16.0	35	115	
NC02H5-12180	18.0	40	130	
NC02H5-12200	20.0	40	130	
NC02H5-12250	25.0	42	135	

Tolerance (허용공차)			
D	Angle(α)	L	l
h8	$\pm 1^\circ$	± 1	± 1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

HSS-Co 5% 90° Long NC Spotting Drills

하이스 90°
롱 엔씨 드릴, SKH55



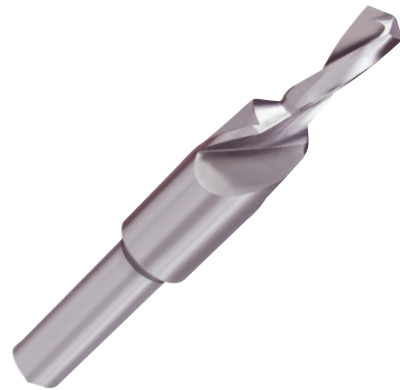
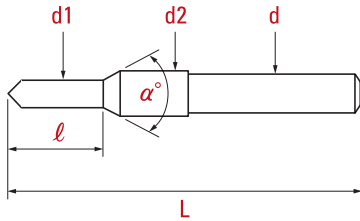
Item no. 제품코드	D 외경	l 날장	L 전장	α° 각도
NC03H5-030	3.0	10	80	90°
NC03H5-040	4.0	12	100	
NC03H5-050	5.0	15	120	
NC03H5-060	6.0	20	140	
NC03H5-080	8.0	25	140	
NC03H5-100	10.0	25	170	
NC03H5-120	12.0	30	170	
NC03H5-160	16.0	35	200	
NC03H5-200	20.0	40	200	

Tolerance (허용공차)			
D	Angle(α)	L	l
h8	±1°	±1	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
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- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

HSS-Co 5% 90° Step Drills

하이스 90°
스텝 드릴, SKH55



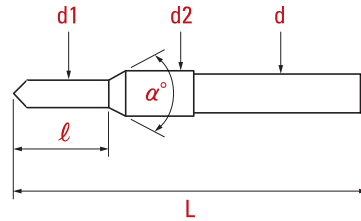
Item no. 제품코드	D 외경	d1 소경	d2 대경	d 샤프크경	l 날장	L 전장
SD01H5-020	M2	2.2	4.6	4	6	45
SD01H5-025	M2.5	2.7	5.7	5	7	45
SD01H5-030	M3	3.2	6.5	6	9	45
SD01H5-035	M3.5	3.7	7.6	7	10	50
SD01H5-040	M4	4.3	8.6	8	11	50
SD01H5-050	M5	5.3	10.4	10	13	55
SD01H5-060	M6	6.4	12.4	10	15	63
SD01H5-080	M8	8.4	16.4	12	19	100
SD01H5-100	M10	10.5	20.4	12	23	110
SD01H5-120	M12	13	25	12	28	120

Tolerance (허용공차)			
d1	d2	d	Angle(α)
h8	h9	h8	$\pm 1^\circ$

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

HSS-Co 5% 180° Step Drills

하이스 180°
스텝 드릴, SKH55



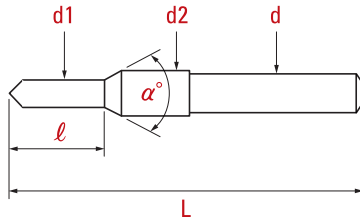
Item no. 제품코드	D 외경	d1 소경	d2 대경	d 상크경	ℓ 날장	L 전장
SD02H5-020	M2	2.4	4	4	6	45
SD02H5-025	M2.5	2.9	5	5	7	45
SD02H5-030	M3	3.4	6	6	9	45
SD02H5-040	M4	4.5	8	8	11	50
SD02H5-050	M5	5.5	10	10	13	55
SD02H5-060	M6	6.6	11	11	15	63
SD02H5-080	M8	9	15	12	19	100
SD02H5-100	M10	11	18	12	23	110
SD02H5-120	M12	14	20	12	28	110
SD02H5-140	M14	16	24	12	34	120

Tolerance (허용공차)			
d1	d2	d	Angle(α)
h8	h9	h8	±1°

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

HSS-Co 5% Step Drills for Tap

하이스 텡용
스텝 드릴, SKH55



For Screw

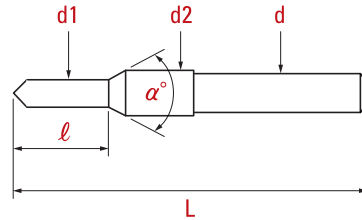
Item no. 제품코드	D 외경	d1 소경	d2 대경	d 상크경	l 날장	L 전장
SD03H5-030	M3	2.5	3.4	3	8	52
SD03H5-040	M4	3.3	4.5	4	11	58
SD03H5-050	M5	4.2	5.5	5	13	66
SD03H5-060	M6	5	6.6	6	16	70
SD03H5-080	M8	6.8	9	9	20	84
SD03H5-100	M10	8.5	11	11	24	95
SD03H5-120	M12	10.2	14	12	29	107
SD03H5-140	M14	12	16	12	32	115
SD03H5-160	M16	14	18	12	34	135

Tolerance (허용공차)			
d1	d2	d	Angle(α)
h8	h9	h8	$\pm 1^\circ$

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

HSS-Co 5% Step Drills for Long Reach

하이스 롱형
스텝 드릴, SKH55



For Long Type

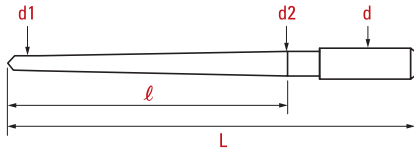
Item no. 제품코드	D 외경	d1 소경	d2 대경	d 상크경	ℓ 날장	L 전장
SD04H5-040	M4	4.3	8.6	8	30	110
SD04H5-050	M5	5.3	10.4	10	30	110
SD04H5-060	M6	6.4	12.4	12	30	110
SD04H5-080	M8	8.4	16.4	12	30	110
SD04H5-100	M10	10.5	20.4	12	30	110

Tolerance (허용공차)			
d1	d2	d	Angle(α)
h8	h9	h8	±1°

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

HSS Taper Drills

하이스
테이퍼 드릴, SKH51



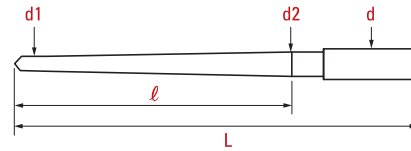
Item no. 제품코드	d1Xd2 규격	d1 소경	d2 대경	ℓ 날장	L 전장	α° 각도
TD01H1-1604	1.6X4.0	1.6	4	45	85	1°30'
TD01H1-2404	2.4X4.0	2.4	4	45	85	1°
TD01H1-2105	2.1X5.0	2.1	5	55	90	1°30'
TD01H1-3050	3.0X5.0	3.0	5	55	90	1°
TD01H1-2606	2.6X6.0	2.6	6	65	100	1°30'
TD01H1-3706	3.7X6.0	3.7	6	65	100	1°
TD01H1-2708	2.7X8.0	2.7	8	75	115	2°
TD01H1-4008	4.0X8.0	4.0	8	75	115	1°30'
TD01H1-4010	4.0X10.0	4.0	10	85	135	2°
TD01H1-5510	5.5X10.0	5.5	10	85	135	1°30'
TD01H1-3212	3.2X12.0	3.2	12	100	155	2°30'
TD01H1-5012	5.0X12.0	5.0	12	100	155	2°
TD01H1-5010	5.0X10.0	5.0	10	140	200	1°
TD01H1-4612	4.6X12.0	4.6	12	140	200	1°30'

Tolerance (허용공차)		
d	d1	ℓ
h9	±0.05	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

HSS Taper[1:50] Pin Drills with Straight Shank

하이스 날 테이퍼 핀 드릴
직선샤크, SKH51



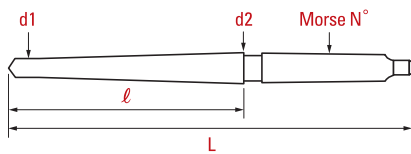
Item no. 제품코드	∅ 규격	d1 소경	d2 대경	d 샤크경	ℓ 날장	L 전장
TD02H1-030	3.0	2.9	4.1	4	62	100
TD02H1-040	4.0	3.9	5.3	5	74	115
TD02H1-050	5.0	4.9	6.6	6	88	135
TD02H1-060	6.0	5.9	7.8	7	100	150
TD02H1-080	8.0	7.9	10.6	10	146	205
TD02H1-100	10.0	9.9	13.1	12	168	230
TD02H1-120	12.0	11.9	15.5	14	192	260
TD02H1-130	13.0	12.9	16.7	16	202	275
TD02H1-140	14.0	13.9	18.4	16	241	320
TD02H1-160	16.0	15.9	20.4	20	241	320
TD02H1-200	20.0	19.9	25.1	25	282	370

Tolerance (허용공차)		
d	d1	ℓ
h9	±0.05	±1

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

HSS Taper[1:50] Pin Drills with Morse Taper Shank

하이스 날 테이퍼 핀 드릴
MT샤크, SKH51



Item no. 제품코드	Ø 규격	d1 소경	d2 대경	ℓ 날장	L 전장	Morse N°
TD03H1-050	5.0	4.9	6.6	88	165	MT1
TD03H1-060	6.0	5.9	7.8	100	175	
TD03H1-080	8.0	7.9	10.6	146	220	
TD03H1-100	10.0	9.9	13.1	168	245	
TD03H1-120	12.0	11.9	15.5	192	285	MT2
TD03H1-130	13.0	12.9	16.7	202	290	
TD03H1-140	14.0	13.9	18.4	241	330	
TD03H1-160	16.0	15.9	20.4	241	330	MT3
TD03H1-200	20.0	19.9	25.1	282	390	
TD03H1-250	25.0	24.9	30.8	319	430	

Tolerance (허용공차)		
d	d1	ℓ
h9	±0.05	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

DR01PM/DR02PM - HSS-PM 2F Drills(Stub & Jabbor)

Work materials	Aluminum		Cast Iron		Carbon Steel		Alloy Steels Pre-hardened Steels		Hardened Steels (HRC30~45)		Stainless Steels	
	Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	RPM
2.0	10,500	0.17	6,500	0.08	5,800	0.06	4,700	0.05	2,600	0.04	3,100	0.08
3.0	10,500	0.27	4,900	0.14	4,300	0.12	3,500	0.09	1,800	0.05	2,100	0.09
4.0	8,000	0.33	3,600	0.18	3,200	0.15	3,600	0.13	1,300	0.07	1,600	0.11
5.0	6,500	0.39	3,900	0.21	2,600	0.18	2,100	0.16	1,100	0.09	1,200	0.17
6.0	5,200	0.46	3,400	0.25	2,100	0.20	1,700	0.18	900	0.10	1,100	0.19
8.0	4,200	0.51	1,800	0.29	1,600	0.24	1,300	0.20	650	0.14	800	0.26
10.0	3,400	0.61	1,500	0.32	1,300	0.27	1,000	0.24	550	0.17	630	0.33
12.0	2,700	0.73	1,200	0.36	1,100	0.29	850	0.26	450	0.20	530	0.39

RPM = rev./min. Feed = min/rev.

DR04PM - HSS-PM 2F Flat Drills

Work materials	Aluminum		Cast Iron		Carbon Steel		Stainless Steels		Hardened Steels (HRC30~45)	
	Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	RPM
3.0	5,840	175	2,440	73	1,800	54	1,710	51	1,380	41
4.0	4,360	152	1,830	65	1,350	47	1,280	44	1,035	36
6.0	2,910	131	1,220	55	902	41	850	41	688	31
8.0	2,180	110	910	46	675	34	640	32	517	26
10.0	1,750	105	730	44	540	32	510	33	414	24
12.0	1,460	100	610	43	450	31	427	30	345	24

RPM = rev./min. Feed = min/rev.

CD01H9 - HSS Co8% CenterDrills

Work materials	Aluminum		Carbon Steel		Alloy Steels		Prehardened Steels		Stainless Steels	
	Shank Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	RPM
6.0	3,520	0.19	1,170	0.08	1,030	0.08	540	0.08	460	0.08
8.0	2,640	0.22	880	0.11	790	0.11	400	0.11	350	0.11
10.0	2,100	0.25	700	0.12	630	0.12	320	0.12	290	0.12
12.0	1,760	0.28	590	0.14	530	0.14	260	0.14	240	0.14

RPM = rev./min. Feed = min/rev.

NC01H5 - HSS Co5% NC Spotting Drills

Work materials	Aluminum		Carbon Steel		Alloy Steels		Hardened Steels		Stainless Steels	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
3.0	7,000	0.14	2,500	0.06	2,100	0.06	1,050	0.06	940	0.06
4.0	5,300	0.15	1,800	0.07	1,600	0.07	800	0.07	700	0.07
5.0	4,400	0.17	1,500	0.08	1,300	0.08	650	0.08	580	0.08
6.0	3,500	0.19	1,100	0.09	1,000	0.09	550	0.09	460	0.09
8.0	2,600	0.22	900	0.11	800	0.11	400	0.11	350	0.11
10.0	2,100	0.25	700	0.12	650	0.12	320	0.12	290	0.12
12.0	1,750	0.28	600	0.14	550	0.14	250	0.14	240	0.14
16.0	1,300	0.33	450	0.20	400	0.20	200	0.20	180	0.20
20.0	1,050	0.45	350	0.24	320	0.24	150	0.24	140	0.24

RPM = rev./min. Feed = min/rev.

SP01H9/SP02H9 - HSS-Co 8% 2F SP Centerdrills (60° & 90°)

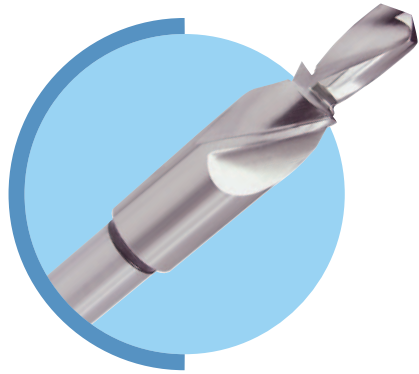
Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels		Aluminum alloy	
Hardness	~ HRC30		HRC30 ~ HRC45				HRc45 ~ HRc55			
Cutting speed	28		25		15		12		80	
Shank Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
6	1,500	135	1,300	115	800	72	640	48	4,200	940
8	1,100	125	990	115	600	69	480	43	3,200	840
10	890	125	800	110	480	67	380	43	2,500	750
12	740	115	660	105	400	64	320	44	2,100	730

RPM = rev./min. Feed = min/rev.

TD01H1 - HSS Taper[1:50] Pin Drills with Straight Shank

Work materials	Aluminum		Carbon Steel		Alloy Steels		Prehardened Steels	
No.	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
4.0	1,290	64.00	905	22.00	776	15.00	647	8.00
6.0	880	47.00	616	16.00	528	11.00	440	6.00
8.0	650	33.00	455	11.00	390	8.00	325	4.00
10.0	527	28.00	369	9.00	316	6.00	263	3.50
12.0	444	25.00	310	9.00	266	6.00	222	3.50
16.0	335	19.00	234	7.00	201	5.00	167	2.50
20.0	272	17.00	190	6.00	163	4.00	136	2.00

RPM = rev./min. Feed = min/rev.



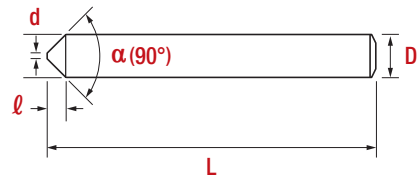
DYC BEST TOTAL TOOLS

CARBIDE Countersinks



Solid Carbide 3F Posi Chamfering Cutters - 90° Type

초경 3날 면취 컷터
- 포지티브 90° 형



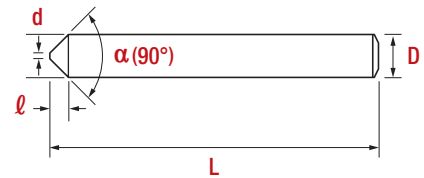
Item no. 제품코드	Φd 최소 가공경	ℓ 날장	D 상크	L 전장
CT01CA-01025P	1	2.5	6	50
CT01CA-01035P	1	3.5	8	60
CT01CA-02040P	2	4.0	10	70
CT01CA-02050P	2	5.0	12	75
CT01CA-02070P	2	7.0	16	80

Tolerance (허용공차)		
D	α	L
h6	±1°	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 3F Nega Chamfering Cutters - 90° Type

초경 3날 면취 컷터
- 네가티브 90° 형



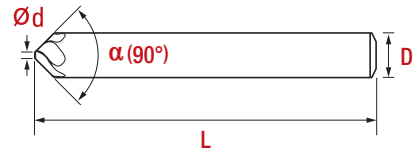
Item no. 제품코드	φd 최소 가공경	ℓ 날장	D 상크	L 전장
CT02CA-01025N	1	2.5	6	50
CT02CA-01035N	1	3.5	8	60
CT02CA-02040N	2	4.0	10	70
CT02CA-02050N	2	5.0	12	75
CT02CA-02070N	2	7.0	16	80

Tolerance (허용공차)		
D	α	L
h6	±1°	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Solid Carbide 5F Multi Chamfer Cutter - 90° Type

초경 5날 다용도 면취 컷터
- 90° 형



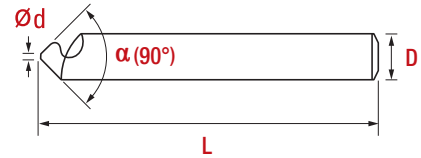
Item no. 제품코드	φd 최소 가공경	α 선단 각도	φD 상크	L 전장
CT03CA-00803	0.8	90°	3	40
CT03CA-01004	1.0		4	40
CT03CA-01506	1.5		6	50
CT03CA-02008	2.0		8	60
CT03CA-02510	2.5		10	70
CT03CA-03012	3.0		12	75
CT03CA-04016	4.0		16	80

Tolerance (허용공차)		
D	α	L
h6	±1°	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

Solid Carbide 1F Sharp Chamfer Cutter - 90° Type

초경 외날 정밀 면취 컷터
- 90° 형



Item no. 제품코드	Ød 최소 가공경	α 선단 각도	ΦD 샙크	L 전장
CT04CA-00803	0.8	90°	3	40
CT04CA-01004	1.0		4	40
CT04CA-01506	1.5		6	50
CT04CA-02008	2.0		8	60
CT04CA-02510	2.5		10	70
CT04CA-03012	3.0		12	75
CT04CA-04016	4.0		16	80

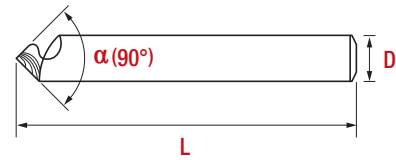
Tolerance (허용공차)		
D	α	L
h6	±1°	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

- For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

Solid Carbide 1F S-Point Chamfer Cutter - 90° Type

초경 외날
정밀 에스포인트 면취 컷터
- 90° 형



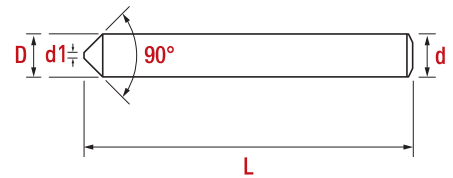
Item no. 제품코드	α 선단 각도	D 상크	L 전장
CT05CA-03040	90°	3	40
CT05CA-04040		4	40
CT05CA-06050		6	50
CT05CA-08060		8	60
CT05CA-10070		10	70
CT05CA-12075		12	75
CT05CA-16080		16	80

Tolerance (허용공차)		
D	α	L
h6	$\pm 1^\circ$	± 1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

Solid Carbide 3F Unequal Division & Unequal Lead Countersinks

초경 3날
부등분할 부등리드
카운터싱크



Item no. 제품코드	D 외경	L 전장	d 상크	d1 소경
CS05CA-060	6.0	50	6	1.5
CS05CA-080	8.0	60	8	2.0
CS05CA-100	10.0	70	10	2.5
CS05CA-120	12.0	75	12	2.8
CS05CA-160	16.0	80	16	3.2
CS05CA-200	20.0	90	20	3.5

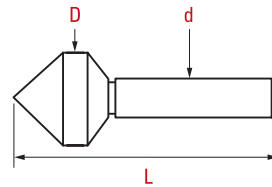
Tolerance (허용공차)			
D	Angle	d	L
±0.5	±0.5°	h6	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

- 1) 부등 분할(Unequal Division) & 부등 리드(Unequal Lead)
- 2) 릴리프 연마(Relief grinding) 컷팅날(Cutting edges)
- 3) 높은 표면 경도(High surface hardness)와 내열온도(Anti-thermal)를 갖는 TACrN Coating 적용
- 4) 초미립자(Super micron) 초경(Carbide) 소재 사용
- 5) 탁월한 가공면(Improved cutting surface)
- 6) 공구 수명 연장(Long tool life)
- 7) 안정적(Stable)이고 낮은 진동(Low Chattering)의 절삭 가공(Cutting)
- 8) 축(Axial) 방향 부하(Forces) 30% 감소(down)
- 9) 방사(Radial) 방향 부하(Forces) 20% 감소(down)
- 10) 고이송(Fast feed) 및 절삭 부하 감소(Reduced cutting forces)로 생산성 향상(High productivity)

Carbide 1F & 90° Countersinks with TiN

초경 1F & 90°
카운터싱크, TiN



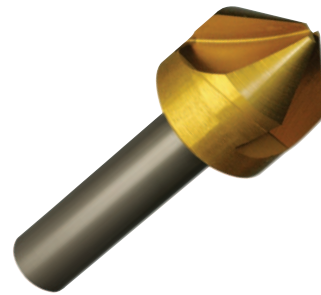
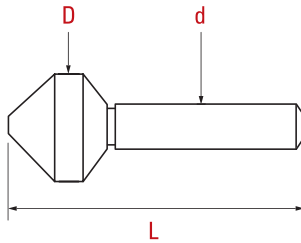
Item no. 제품코드	D 외경	L 전장	d 상크	Cutting Range 가공범위	α° 각도
CS01CA-010	10.0	48	6	2.0-9.0	90°
CS01CA-015	15.0	54	8	2.0-14.0	90°
CS01CA-020	20.0	59	10	2.0-19.0	90°
CS01CA-025	25.0	69	12	3.0-24.0	90°
CS01CA-030	30.0	77	12	4.0-29.0	90°

Tolerance (허용공차)			
D	Angle	d	L
±1	±1	h9	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Carbide 3F & 90° Countersinks with TiN

초경 3F & 90°
카운터싱크, TiN



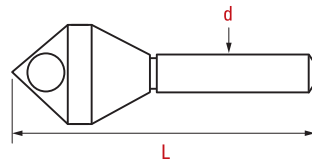
Item no. 제품코드	D 외경	L 전장	d 상크	Cutting Range 가공범위	α° 각도
CS02CA-010	10.0	47	6	2.0-9.0	90°
CS02CA-015	15.0	53	8	3.0-14.0	90°
CS02CA-020	20.0	57	10	4.0-19.0	90°
CS02CA-025	25.0	67	12	5.0-24.0	90°
CS02CA-030	30.0	75	12	6.0-29.0	90°

Tolerance (허용공차)			
D	Angle	d	L
±1	±1	h9	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Carbide Hole & 90° Countersinks with TiN

초경 홀 & 90°
카운터싱크, TiN



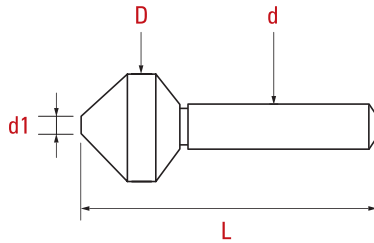
Item no. 제품코드	D 외경	L 전장	d 상크	Cutting Range 가공범위	α° 각도
CS03CA-010	10.0	45	6	4.0-8.0	90°
CS03CA-015	15.0	55	8	5.0-12.0	90°
CS03CA-020	20.0	70	10	8.0-15.0	90°
CS03CA-025	25.0	75	12	10.0-20.0	90°
CS03CA-030	30.0	85	12	12.0-25.0	90°

Tolerance (허용공차)			
D	Angle	d	L
±1	±1	h9	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Carbide 90° Countersink For Fiber composite & Superalloys

섬유복합재 &
초합금용 초경 90°
카운터싱크



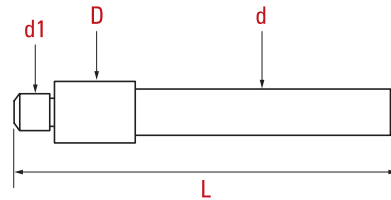
Item no. 제품코드	D 외경	d1 소경	L 전장	d 샙크	Screw Type 나사규격	No. of Flute 날수	Cutting Range 가공범위
CS04CA-104	10.4	4	46	8	M5	4	4.1-9.4
CS04CA-124	12.4	4	56	8	M6	5	4.1-11.4
CS04CA-165	16.5	4.5	60	10	M8	5	4.6-15.5
CS04CA-205	20.5	5	63	10	M10	5	5.1-19.5
CS04CA-250	25.0	5.5	67	10	M12	5	5.6-24.0
CS04CA-310	31.0	6	71	12	M16	5	6.1-30.0

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- This product is only supplied with TiCN coating.
- 이 제품은 오직 TiCN 코팅 제품만 제공됩니다.

Tolerance (허용공차)				
D	d1	Angle	d	L
±0.05	±0.05	±1	h7	±1

Carbide Counterbores with Straight Shank

초경 카운터보어,
직선샤크



Item no. 제품코드	Designation 규격	L 전장	d1 Pilot 직경	D 인선직경	d 샤크	No. of Flute 날수	Remarks 비고
CB01CA-030	M 3	41	3.2	6.5	5	4	Solid Carbide
CB01CA-040	M 4	46	4.3	8	6	4	
CB01CA-050	M 5	51	5.3	9.5	6	4	
CB01CA-060	M 6	58	6.4	11	8	4	
CB01CA-080	M 8	67	8.4	14	10	4	
CB01CA-100	M 10	74	10.5	17.5	12	4	Tip Brazed
CB01CA-120	M 12	83	13	20	12	4	
CB01CA-140	M 14	90	15	24	12	4	
CB01CA-160	M 16	100	17	27	16	4	
CB01CA-180	M 18	104	19	29	16	4	
CB01CA-200	M 20	109	21	31	18	4	

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d1	L
k12	e8	±1

CT01CA/CT02CA - Solid Carbide 3F P-Chamfering Cutters (90°)

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels		Aluminum alloy	
Hardness	~ HRc30		HRc30 ~ HRc45				HRc45 ~ HRc55			
Cutting speed	50		30		35		20		150	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
6	2,600	160	1,580	95	2,100	255	1,150	70	10,000	1,200
8	2,000	120	1,200	70	1,600	190	900	60	7,500	1,000
10	1,600	95	950	55	1,250	155	700	55	6,000	810
12	1,300	90	790	50	1,050	125	580	50	5,000	680

RPM = rev./min. Feed = min/rev.

CT03CA - Solid Carbide 5F Multi Chamfering Cutters (90°)

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels		Aluminum alloy	
Hardness	~ HRc30		HRc30 ~ HRc45				HRc45 ~ HRc55			
Cutting speed	55		45		35		20		150	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
6	2,800	420	2,600	390	1,600	240	1,300	160	8,000	2,720
8	2,200	410	2,000	380	1,200	220	990	145	6,000	2,400
10	1,800	390	1,600	360	950	210	800	150	4,800	2,210
12	1,450	370	1,250	325	800	205	660	150	4,000	2,100

RPM = rev./min. Feed = min/rev.

CT04CA - Solid Carbide 1F Sharp Chamfering Cutters (90°)

Work materials	Aluminum alloy	
Hardness		
Cutting speed	150	
Diameter	RPM	Feed
6	8,000	480
8	6,000	420
10	4,800	380
12	4,000	360

RPM = rev./min. Feed = min/rev.

Solid Carbide 3F Unequal Division & Unequal Lead Countersinks

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels		Aluminum alloy	
Cutting speed	55		40		35		30		180	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
6	3,030	0.17	1,820	0.11	1,520	0.11	1,350	0.06	7,580	0.17
8	2,300	0.22	1,370	0.14	1,150	0.14	1,015	0.09	5,750	0.22
10	1,840	0.27	1,100	0.18	920	0.18	810	0.11	4,590	0.27
12	1,540	0.32	930	0.22	780	0.22	690	0.13	3,850	0.32
16	1,150	0.38	690	0.25	570	0.27	505	0.17	2,890	0.40

RPM = rev./min. Feed = min/rev.

CT04CA - Solid Carbide 1F SP Chamfering Cutters (90°)

Work materials		Aluminum alloy		
Cutting speed		150		
Diameter	RPM	Feed		
		Spotting	Grooving	
6	8,000	240	320	
8	6,000	240	300	
10	4,800	220	260	
12	4,000	220	280	

RPM = rev./min. Feed = min/rev.

CS01CA/CS03CA - Solid Carbide 1F, 3F & Hole Countersinks with TiN (90°)

Materials	1 Flute				3 Flutes				Hole			
	Cutting Speed (m/min)	Feed(mm/min.)			Cutting Speed (m/min)	Feed(mm/min.)			Cutting Speed (m/min)	Feed(mm/min.)		
		Ø ≤ 10	Ø ≤ 20	Ø ≤ 30		Ø ≤ 10	Ø ≤ 20	Ø ≤ 30		Ø ≤ 10	Ø ≤ 20	Ø ≤ 30
Steels(<500 N/mm²)	60-100	330.00	165.00	110.00	40-80	250.00	125.00	85.00	60-100	330.00	165.00	110.00
Steels(500~800 N/mm²)	42-72	121.00	110.00	75.00	30-60	170.00	85.00	60.00	42-72	121.00	110.00	75.00
Steels(800~1000 N/mm²)	28-48	120.00	70.00	50.00	20-40	100.00	60.00	40.00	28-48	120.00	70.00	50.00
Steels(1000~1300 N/mm²)	28-48	120.00	70.00	50.00	20-40	100.00	60.00	40.00	28-48	120.00	70.00	50.00
Stainless Steels	15-17	50.00	25.00	20.00	10-12	30.00	16.00	10.00	15-17	50.00	25.00	20.00
Cast Iron	50-90	250.00	150.00	100.00	40-80	250.00	150.00	100.00	50-90	250.00	150.00	100.00
Aluminum	50-110	350.00	230.00	200.00	40-100	350.00	230.00	200.00	50-110	350.00	230.00	200.00

RPM = rev./min. Feed = min/rev.

CB01CA - Solid Carbide Counterbore

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels		Aluminum alloy	
Hardness	~ HRC30		HRc30 ~ HRc45				HRc45 ~ HRc55			
Cutting speed	20		16		16		12		26	
No.	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
M5	670	60	535	48	510	46	402	37	887	83
M6	580	52	463	41	440	38	347	32	767	72
M8	453	40	364	33	345	31	273	25	602	56
M10	364	33	290	26	280	25	218	20	482	45
M12	318	29	254	23	241	21	191	18	421	39

RPM = rev./min. Feed = min/rev.

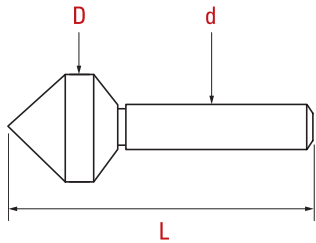
DYC BEST TOTAL TOOLS

HSS Countersinks



HSS-Co 8% 1F & 90° Countersinks

하이스 1날 & 90° 카운터싱크, SKH59



Item no. 제품코드	D 외경	L 전장	d 상크경	Cutting Range 가공범위	α° 각도
CS01H9-010	10.0	50	6	2-9	90°
CS01H9-015	15.0	55	8	2-14	90°
CS01H9-020	20.0	60	10	2-19	90°
CS01H9-025	25.0	70	12	3-24	90°
CS01H9-030	30.0	75	12	6-29	90°
CS01H9-035	35.0	80	12	7-34	90°
CS01H9-040	40.0	85	12	8-39	90°
CS01H9-045	45.0	87	12	9-44	90°
CS01H9-050	50.0	90	12	12-49	90°

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

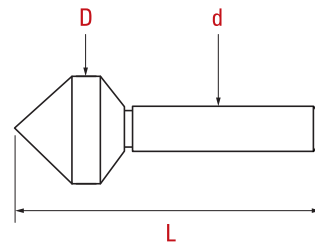
Tolerance (허용공차)			
D	Angle	d	L
±1	±1	h9	±1

HSS-Co 5% 1F & 90° Countersinks

하이스 1날 & 90°
카운터싱크, SKH55



Item no. 제품코드	D 외경	L 전장	d 상크경	Cutting Range 가공범위	α° 각도
CS01H5-010	10.0	50	6	2-9	90°
CS01H5-015	15.0	55	8	2-14	90°
CS01H5-020	20.0	60	10	2-19	90°
CS01H5-025	25.0	68	12	3-24	90°
CS01H5-030	30.0	79	12	4-29	90°
CS01H5-035	35.0	85	12	5-34	90°
CS01H5-040	40.0	90	12	6-39	90°
CS01H5-045	45.0	95	16	7-44	90°
CS01H5-050	50.0	100	16	8-49	90°



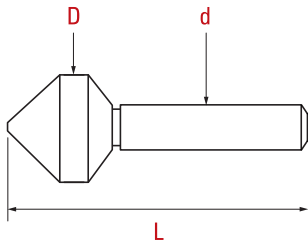
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ex) Item no. - TiN 또는 Item no. - TiCN

Tolerance (허용공차)

D	Angle	d	L
±1	±1	h9	±1

HSS-Co 8% 3F & 90° Countersinks

하이스 3날 & 90°
카운터싱크, SKH59



Item no. 제품코드	D 외경	L 전장	d 샤희경	Cutting Range 가공범위	α° 각도
CS02H9-010	10.0	50	6	3-9	90°
CS02H9-015	15.0	55	8	3-14	90°
CS02H9-020	20.0	60	10	4-19	90°
CS02H9-025	25.0	70	12	5-24	90°
CS02H9-030	30.0	75	12	6-29	90°
CS02H9-035	35.0	80	12	7-34	90°
CS02H9-040	40.0	85	12	8-39	90°
CS02H9-045	45.0	87	12	9-44	90°
CS02H9-050	50.0	90	12	12-49	90°

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- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
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ex) Item no. - TiN 또는 Item no. - TiCN

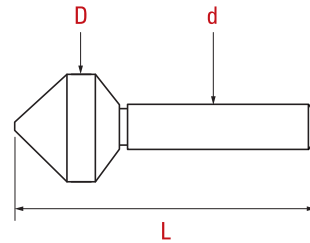
Tolerance (허용공차)			
D	Angle	d	L
±1	±1	h9	±1

HSS-Co 5% 3F & 90° Countersinks

하이스 3날 & 90°
카운터싱크, SKH55



Item no. 제품코드	D 외경	L 전장	d 상크경	Cutting Range 가공범위	α° 각도
CS02H5-010	10.0	50	6	3-9	90°
CS02H5-015	15.0	55	8	3-14	90°
CS02H5-020	20.0	60	10	4-19	90°
CS02H5-025	25.0	68	12	5-24	90°
CS02H5-030	30.0	79	12	6-29	90°
CS02H5-035	35.0	85	12	7-34	90°
CS02H5-040	40.0	90	12	8-39	90°
CS02H5-045	45.0	95	16	9-44	90°
CS02H5-050	50.0	100	16	12-49	90°



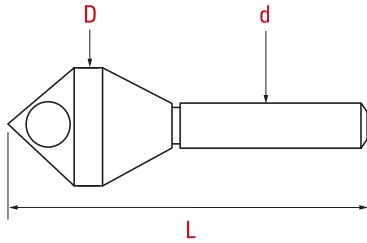
- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
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ex) Item no. - TiN 또는 Item no. - TiCN

Tolerance (허용공차)

D	Angle	d	L
±1	±1	h9	±1

HSS-Co 8% Hole & 90° Countersinks

하이스 홀 & 90° 카운터싱크, SKH59



Item no. 제품코드	D 외경	L 전장	d 상크경	Cutting Range 가공범위	α° 각도
CS03H9-010	10.0	6	50	3-9	90°
CS03H9-015	15.0	8	60	5-12	90°
CS03H9-020	20.0	10	65	8-15	90°
CS03H9-025	25.0	12	74	10-20	90°
CS03H9-030	30.0	12	85	12-25	90°
CS03H9-035	35.0	16	95	14-30	90°
CS03H9-040	40.0	16	105	16-35	90°
CS03H9-045	45.0	16	120	18-40	90°
CS03H9-050	50.0	16	130	20-45	90°

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

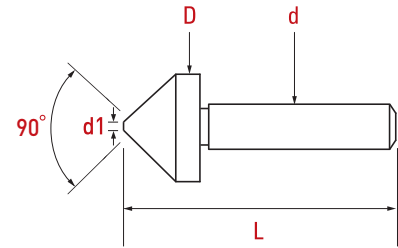
Tolerance (허용공차)			
D	Angle	d	L
±1	±1	h9	±1

HSS-Co 8% 3F Unequal Division & Unequal Lead Countersinks

하이스 3날 & 90°
부등분할 부등리드
카운터싱크, SKH59



Item no. 제품코드	D 외경	L 전장	d 상크경	d1 소경
CS08H9-063	6.3	45	5	1.5
CS08H9-083	8.3	50	6	2.0
CS08H9-104	10.4	50	6	2.5
CS08H9-125	12.4	56	8	2.8
CS08H9-165	16.5	60	10	3.2
CS08H9-205	20.5	63	10	3.5
CS08H9-250	25.0	68	10	3.8



• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

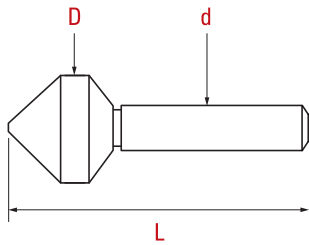
- 1) 부등 분할(Unequal Division) & 부등 리드(Unequal Lead)
- 2) 릴리프 연마(Relief grinding) 커팅날(Cutting edges)
- 3) 높은 표면 경도(High surface hardness)와 내열온도(Anti-thermal)를 갖는 Alcrona Coating 적용
- 4) 다양한 재종의 공작물(Universal used materials)에 적용 가능한 M42(HSS-Co 8%) 소재 사용
- 5) 탁월한 가공면(Improved cutting surface)
- 6) 공구 수명 연장(Long tool life)
- 7) 안정적(Stable)이고 낮은 진동(Low Chattering)의 절삭 가공(Cutting)
- 8) 축 방향(Axial) 부하(Forces) 40% 감소(down)
- 9) 방사(Radial) 방향 부하(Forces) 30% 감소(down)
- 10) 고이송(Fast feed) 및 절삭 부하 감소(Reduced cutting forces)로 생산성 향상(High productivity)

Tolerance (허용공차)

D	Angle	d	L
±0.5	±0.5°	h8	±1

HSS-PM 3F & 90° Countersinks

분말 하이스 3날 & 90°
카운터싱크, HSS-PM



Item no. 제품코드	D 외경	ℓ 소경	L 전장	d 상크경	Cutting Range 가공범위	α° 각도
CS04PM-060	6.0	1.5	45	5	1.6-5.0	90°
CS04PM-080	8.0	2.0	50	6	2.1-7.0	90°
CS04PM-100	10.0	2.5	50	6	2.6-9.0	90°
CS04PM-120	12.0	2.8	52	8	2.9-11.0	90°
CS04PM-150	15.0	3.2	55	10	3.3-14.0	90°
CS04PM-160	16.0	3.2	58	10	3.3-15.0	90°
CS04PM-200	20.0	3.5	60	10	3.6-19.0	90°
CS04PM-250	25.0	3.8	65	10	3.9-24.0	90°
CS04PM-300	30.0	4.2	70	12	4.3-29.0	90°

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- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

Tolerance (허용공차)			
D	Angle	d	L
±0.5	±1	h6	±1

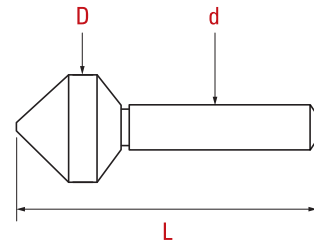
HSS-Co 8% 1F & 60° Countersinks

하이스 1날 & 60°
카운터싱크, SKH59



Item no. 제품코드	D 외경	L 전장	d 상크경	Cutting Range 가공범위	α° 각도
CS05H9-1F010	10.0	50	6	3-9	60°
CS05H9-1F015	15.0	60	8	3-14	60°
CS05H9-1F020	20.0	65	10	4-19	60°
CS05H9-1F025	25.0	75	12	5-24	60°
CS05H9-1F030	30.0	85	12	6-29	60°
CS05H9-1F035	35.0	90	12	7-34	60°
CS05H9-1F040	40.0	95	12	8-39	60°
CS05H9-1F045	45.0	100	12	9-44	60°
CS05H9-1F050	50.0	105	12	12- 49	60°

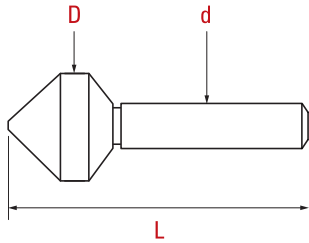
- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- This product is only supplied with TiCN coating.
- 이 제품은 오직 TiCN 코팅 제품만 제공됩니다.



Tolerance (허용공차)			
D	Angle	d	L
±1	±1	h9	±1

HSS-Co 8% 3F & 60° Countersinks

하이스 3날 & 60°
카운터싱크, SKH59



Item no. 제품코드	D 외경	L 전장	d 샤프크경	Cutting Range 가공범위	α° 각도
CS06H9-3F010	10.0	50	6	3-9	60°
CS06H9-3F015	15.0	60	8	3-14	60°
CS06H9-3F020	20.0	65	10	4-19	60°
CS06H9-3F025	25.0	75	12	5-24	60°
CS06H9-3F030	30.0	85	12	6-29	60°
CS06H9-3F035	35.0	90	12	7-34	60°
CS06H9-3F040	40.0	95	12	8-39	60°
CS06H9-3F045	45.0	100	12	9-44	60°
CS06H9-3F050	50.0	105	12	12-49	60°

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- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- This product is only supplied with TiCN coating.
- 이 제품은 오직 TiCN 코팅 제품만 제공됩니다.

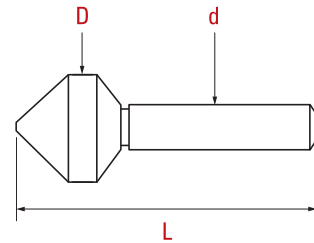
Tolerance (허용공차)			
D	Angle	d	L
±1	±1	h9	±1

HSS-Co 8% Hole & 60° Countersinks

하이스 홀 & 60°
카운터싱크, SKH59



Item no. 제품코드	D 외경	L 전장	d 상크경	Cutting Range 가공범위	α° 각도
CS07H9-H010	10.0	50	6	4-8	60°
CS07H9-H015	15.0	60	8	5-12	60°
CS07H9-H020	20.0	75	10	8-15	60°
CS07H9-H025	25.0	85	12	10-20	60°
CS07H9-H030	30.0	94	12	12-25	60°
CS07H9-H035	35.0	115	16	14-30	60°
CS07H9-H040	40.0	125	16	16-35	60°
CS07H9-H045	45.0	140	16	18-40	60°
CS07H9-H050	50.0	150	16	20-45	60°



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- This product is only supplied with TiCN coating.
- 이 제품은 오직 TiCN 코팅 제품만 제공됩니다.

Tolerance (허용공차)			
D	Angle	d	L
±1	±1	h9	±1

HSS-Co 5% 1F & 90° Combining Countersinks

하이스 1날 & 90°
결합형 카운터싱크, SKH55



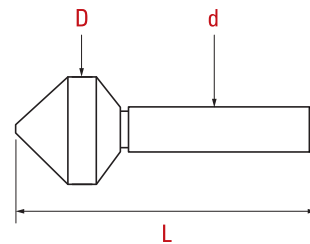
Countersink Head

Item no. 제품코드	D 외경	α° 각도
CS08H5-020	20.0	90°
CS08H5-025	25.0	
CS08H5-030	30.0	
CS08H5-035	35.0	
CS08H5-040	40.0	
CS08H5-045	45.0	
CS08H5-050	50.0	
CS08H5-060	60.0	



Shank

Item no. 제품코드	Shank Type (샹크타입)	Item no. 제품코드	Shank Type (샹크타입)
	Straight		MT
CS08H5-M8	M8	CS08H5-M1	MT1
CS08H5-M12	M12	CS08H5-M2	MT2
CS08H5-M16	M16	CS08H5-M3	MT3



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- This product is only supplied with TiCN coating.
- 이 제품은 오직 TiCN 코팅 제품만 제공됩니다.

Tolerance (허용공차)			
D	Angle	d	L
±1	±1	h9	±1

HSS-Co 5% 3F & 90° Combining Countersinks

하이스 3날 & 90° 결합형
카운터싱크, SKH55



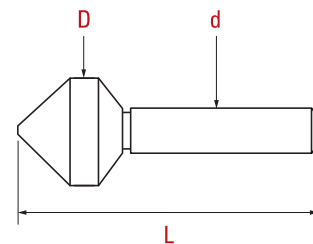
Countersink Head

Item no. 제품코드	D 외경	α° 각도
CS09H5-020	20.0	90°
CS09H5-025	25.0	
CS09H5-030	30.0	
CS09H5-035	35.0	
CS09H5-040	40.0	
CS09H5-045	45.0	
CS09H5-050	50.0	
CS09H5-060	60.0	



Shank

Item no. 제품코드	Shank Type (샹크타입)	Item no. 제품코드	Shank Type (샹크타입)
	Straight		MT
CS08H5-M8	M8	CS08H5-M1	MT1
CS08H5-M12	M12	CS08H5-M2	MT2
CS08H5-M16	M16	CS08H5-M3	MT3



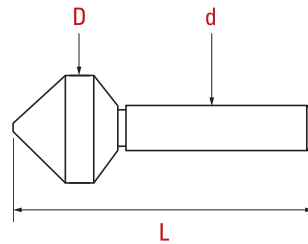
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- This product is only supplied with TiCN coating.
- 이 제품은 오직 TiCN 코팅 제품만 제공됩니다.

Tolerance (허용공차)

D	Angle	d	L
±1	±1	h9	±1

HSS Econo Countersinks- 1F, 3F, Hole & 90°(SKH55)

하이스 보급형
카운터싱크 1날, 3날,
홀형 90°(55종)



HSS-Co5%(SKH55)_1Flute

Item no. 제품코드	D 직경	L 전장	d 상크경	Cutting Range 가공범위	α° 각도
CS12H5-010	10	40	6	2-9	90°
CS12H5-015	15	45	8	2-14	
CS12H5-020	20	68	12	2-19	
CS12H5-025	25	80	12	3-24	
CS12H5-030	30	97	12	4-29	
CS12H5-035	35	99	12	5-34	
CS12H5-040	40	102	12	6-39	
CS12H5-045	45	112	12	7-44	
CS12H5-050	50	115	12	8-49	

HSS-Co5%(SKH55)_3Flute

Item no. 제품코드	D 직경	L 전장	d 상크경	Cutting Range 가공범위	α° 각도
CS13H5-010	10	40	6	3-9	90°
CS13H5-015	15	45	8	3-14	
CS13H5-020	20	65	12	4-19	
CS13H5-025	25	75	12	5-24	
CS13H5-030	30	97	12	6-29	
CS13H5-035	35	99	12	7-34	
CS13H5-040	40	102	12	8-39	
CS13H5-045	45	112	12	9-44	
CS13H5-050	50	115	12	12-49	

HSS-Co5%(SKH55)_Hole

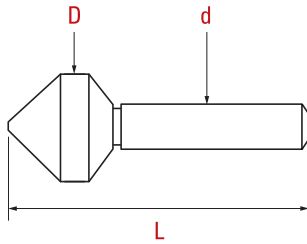
Item no. 제품코드	D 직경	L 전장	d 상크경	Cutting Range 가공범위	α° 각도
CS14H5-010	10	45	6	4-8	90°
CS14H5-015	15	50	8	5-12	
CS14H5-020	20	89	12	8-15	
CS14H5-025	25	95	12	10-20	
CS14H5-030	30	116	12	12-25	
CS14H5-035	35	121	12	14-30	
CS14H5-040	40	126	12	16-35	
CS14H5-045	45	143	12	18-40	
CS14H5-050	50	150	12	20-45	

Tolerance (허용공차)			
D	Angle	d	L
±1	±1	h9	±1

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HSS-Co 5% 3F & 90° Countersinks for Helix

하이스 3날 & 90° 헬릭스
카운터싱크, SKH55



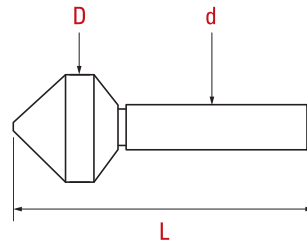
Item no. 제품코드	D 직경	L 전장	d 상크경	Cutting Range 가공범위	α° 각도
CS10H5-H010	10.0	50	6	3.0-9.0	90°
CS10H5-H015	15.0	55	8	3.5-14.0	90°
CS10H5-H020	20.0	60	10	3.5-19.0	90°
CS10H5-H025	25.0	68	12	4.0-24.0	90°
CS10H5-H030	30.0	79	12	4.5-29.0	90°

Tolerance (허용공차)			
D	Angle	d	L
±1	±1	h9	±1

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- 이 제품은 오직 TiCN 코팅 제품만 제공됩니다.

HSS-Co 5% 3F & 90° Countersinks for Screw & Tapping Hole

하이스 3날 & 90° 탭핑홀
카운터싱크, SKH55



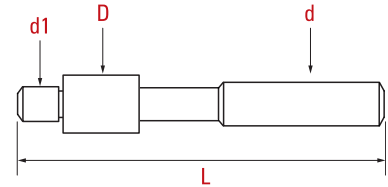
Item no. 제품코드	D 직경	L 전장	d 상크경	Cutting Range 가공범위	α° 각도
CS11H5-S010	6.2	45	5	1.0-5.2	90°
CS11H5-S082	8.2	45	6	1.0-7.2	
CS11H5-S102	10.2	50	6	1.5-9.2	
CS11H5-S122	12.2	55	6	2.0-11.2	
CS11H5-S162	16.2	60	8	3.5-15.2	
CS11H5-S212	21.2	60	10	4.0-20.2	

Tolerance (허용공차)			
D	Angle	d	L
±1	±1	h9	±1

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- This product is only supplied with TiN coating.
- 이 제품은 오직 TiN 코팅 제품만 제공됩니다.

HSS Counterbores with Straight Shank

하이스 카운터보어
직선 샹크, SKH51



Item no. 제품코드	Designation 규격	L 전장	d1 Pilot 직경	D 인선 직경	No. of Flute 날수	d 샹크
CB01H1-003	M 3	65	3.2	6.5	4	6
CB01H1-004	M 4	75	4.3	8		8
CB01H1-005	M 5	85	5.3	9.5		10
CB01H1-006	M 6	90	6.4	11		12
CB01H1-007	M 7	90	7.4	12.5		
CB01H1-008	M 8	100	8.4	14		
CB01H1-009	M 9	100	9.4	16		
CB01H1-010	M 10	110	10.5	17.5		16
CB01H1-011	M 11	110	11.5	18		
CB01H1-012	M 12	120	13	20		20
CB01H1-013	M 13	130	14	22		
CB01H1-014	M 14	140	15	24		
CB01H1-015	M 15	140	16	25.5		
CB01H1-016	M 16	140	17	27		
CB01H1-017	M 17	140	18	28		
CB01H1-018	M 18	140	19	29		
CB01H1-019	M 19	140	20	30		
CB01H1-020	M 20	150	21	31		

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• For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN

• 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

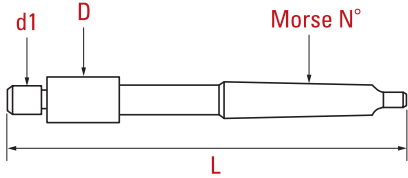


Tolerance (허용공차)

D	d1	d	L
k12	e8	h8	±1

HSS Counterbores with Morse Taper Shank

하이스 카운터보어
MT 샹크, SKH51



Item no. 제품코드	Designation 규격	L 전장	d1 Pilot 직경	D 인선 직경	No. of Flute 날수	d 샹크
CB02H1-010	M 10	150	10.5	17.5	4	MT2
CB02H1-012	M 12	150	13	20		
CB02H1-013	M 13	160	14	22		
CB02H1-014	M 14	160	15	24		
CB02H1-016	M 16	190	17	27		
CB02H1-018	M 18	190	19	29		MT3
CB02H1-020	M 20	190	21	31		
CB02H1-022	M 22	205	23	35		
CB02H1-024	M 24	205	25	39		
CB02H1-027	M 27	240	30	43		
CB02H1-030	M 30	240	33	48		

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- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

Tolerance (허용공차)		
D	d1	L
k12	e8	±1

CS01H9/CS02H9/CS03H9 - HSS Co8% Countersinks (90°)

Materials	1 Flute				3 Flutes				Hole			
	Cutting Speed (m/min)	Feed(mm/min.)			Cutting Speed (m/min)	Feed(mm/min.)			Cutting Speed (m/min)	Feed(mm/min.)		
		∅ ≤ 10	∅ ≤ 20	∅ ≤ 30		∅ ≤ 10	∅ ≤ 20	∅ ≤ 30		∅ ≤ 10	∅ ≤ 20	∅ ≤ 30
Steels(<500 N/mm ²)	35-45	165.00	85.00	55.00	17-22	85.00	45.00	30.00	35-45	165.00	85.00	55.00
Steels(500~800 N/mm ²)	20-30	11.00	55.00	35.00	10-15	60.00	30.00	20.00	20-30	110.00	55.00	35.00
Steels(800~1000 N/mm ²)	16-20	55.00	35.00	25.00	8-12	35.00	25.00	15.00	16-20	55.00	35.00	25.00
Stainless Steels					4-6	30.00	16.00	10.00				
Cast Iron	20-40	125.00	75.00	50.00	20-40	125.00	75.00	50.00	20-40	125.00	75.00	50.00
Aluminum	50-60	255.00	180.00	150.00	50-60	255.00	180.00	150.00	50-60	255.00	180.00	150.00
Plastic	50-100	450.00	350.00	300.00	35-70	400.00	300.00	250.00	50-100	450.00	350.00	300.00

RPM = rev./min. Feed = min/rev.

CS01H5/CS02H5 - HSS Co5% Countersinks

Materials	1 Flute				3 Flutes				Hole			
	Cutting Speed (m/min)	Feed(mm/min.)			Cutting Speed (m/min)	Feed(mm/min.)			Cutting Speed (m/min)	Feed(mm/min.)		
		∅ ≤ 10	∅ ≤ 20	∅ ≤ 30		∅ ≤ 10	∅ ≤ 20	∅ ≤ 30		∅ ≤ 10	∅ ≤ 20	∅ ≤ 30
Steels(<500 N/mm ²)	35-45	0.20	0.22	0.24	17-22	0.30	0.32	0.36	35-45	0.20	0.22	0.24
Steels(500~800 N/mm ²)	20-30	0.14	0.17	0.20	10-15	0.28	0.30	0.31	20-30	0.14	0.17	0.20
Steels(800~1000 N/mm ²)	15-20	0.11	0.12	0.14	8-12	0.24	0.26	0.28	15-20	0.11	0.12	0.14
Steels(1000~1300 N/mm ²)	12-15	0.10	0.12	0.15	6-8	0.20	0.20	0.22	12-15	0.10	0.12	0.15
Stainless Steels	6-8	0.07	0.08	0.09	4-6	0.08	0.09	0.10	6-8	0.07	0.08	0.09
Cast Iron	20-40	0.15	0.24	0.28	15-25	0.13	0.19	0.24	20-40	0.15	0.24	0.28
Aluminum	50-60	0.22	0.25	0.27	35-45	0.27	0.30	0.35	50-60	0.22	0.25	0.27
Cooper	20-30	0.22	0.25	0.27	41927	0.29	0.30	0.31	20-30	0.22	0.25	0.27
Plastic	20-100	0.50	0.60	0.65	35-70	0.40	0.45	0.50	50-100	0.50	0.60	0.65

RPM = rev./min. Feed = min/rev.

CB01H1 - HSS Counterbore

Materials	Cutting Speed (m/min)	Carbon Steels, Alloy Steels			
		<500 N/mm ²	<HRc20	HRc20 ~ HRc35	HRc35 ~ HRc40
			500~800 N/mm ²	800~1100 N/mm ²	1100~1300 N/mm ²
Diameter	RPM	RPM	RPM	RPM	RPM
M3(6.5mm)	2,100	590	480	380	320
M4(8.0mm)	1,700	470	380	300	250
M5(9.5mm)	1,200	380	320	260	170
M6(11.0mm)	1,100	300	240	190	160
M8(14.0mm)	840	240	195	155	130
M10(17.5mm)	670	190	165	120	80
M12(20.0mm)	550	160	125	95	70

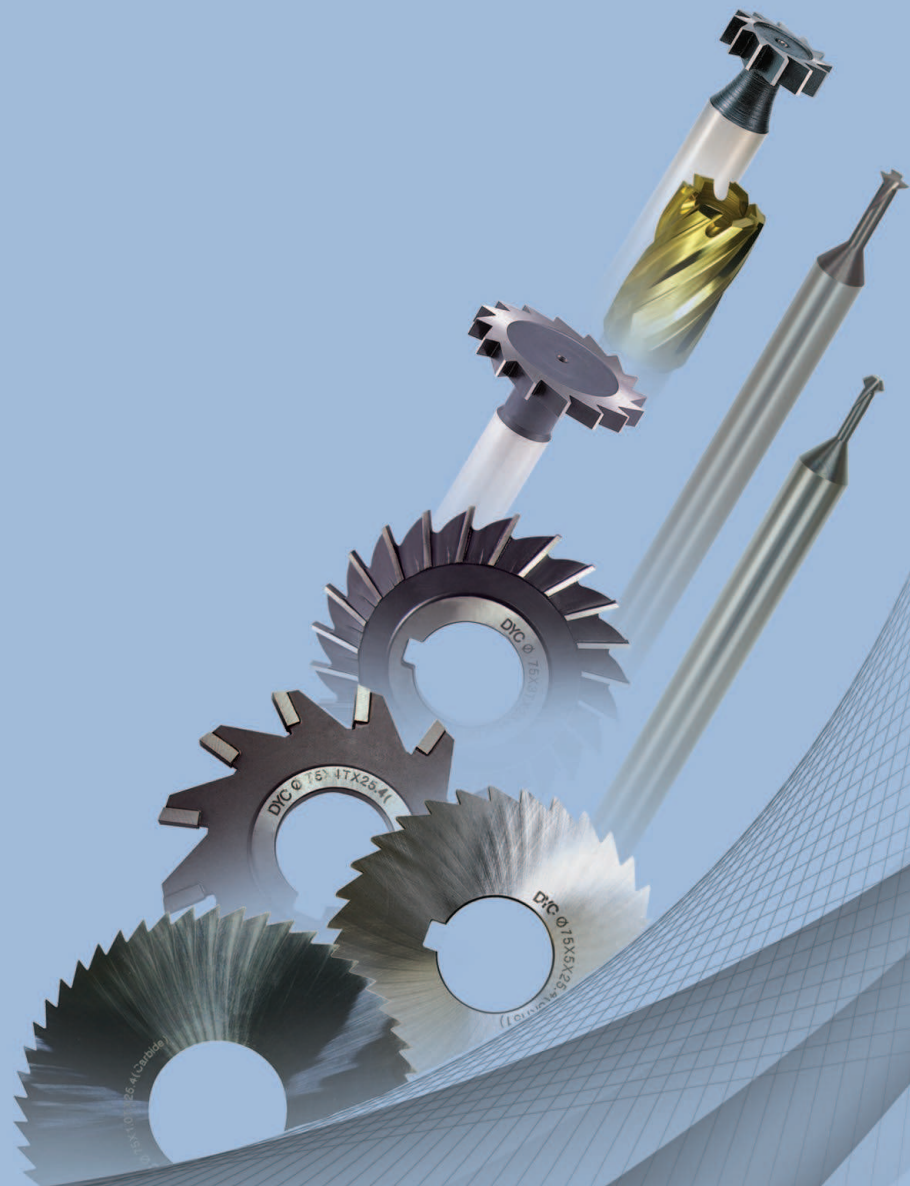
RPM = rev./min. Feed = min/rev.

HSS-Co 8% 3F Unequal Division & Unequal Lead Countersinks

Work materials	Carbon Steels		Prehardened Steels		Stainless Steels		Hardened Steels		Aluminum alloy	
Cutting speed	26		40		18		16		114	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
6.3	1,328	0.06	1,970	0.06	905	0.06	807	0.06	5,760	0.06
8.3	995	0.08	1,490	0.08	690	0.08	610	0.08	4,370	0.08
10.4	792	0.10	1,190	0.10	550	0.10	487	0.09	3,485	0.09
12.4	665	0.12	1,000	0.12	460	0.11	407	0.11	2,920	0.11
16.5	500	0.16	750	0.16	345	0.15	307	0.15	2,200	0.15
20.5	402	0.19	600	0.20	276	0.19	247	0.19	1,770	0.19

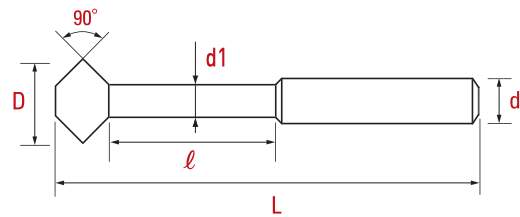
DYC BEST TOTAL TOOLS

CARBIDE Cutters



Solid Carbide 90° Double Angle Mini Chamfer Cutter

초경 90°
더블 앵글
미니 챔퍼 컷터



Item no. 제품코드	D 외경	d1 목경	l 목기장	d 상크	L 전장
AC01CA-015	1.5	0.9	4	3	45
AC01CA-020	2.0	1.2	5	3	45
AC01CA-025	2.5	1.5	6.5	3	45
AC01CA-030	3.0	1.8	7.5	3	45
AC01CA-035	3.5	2.1	8.5	4	53
AC01CA-040	4.0	2.4	10	4	53
AC01CA-045	4.5	2.5	11.5	5	53
AC01CA-050	5.0	2.8	12.5	5	53
AC01CA-055	5.5	3.1	13.5	6	53
AC01CA-060	6.0	3.2	15	6	53

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- This product is only supplied with TiALN coating.
- 이 제품은 오직 TiALN 코팅 제품만 제공됩니다.

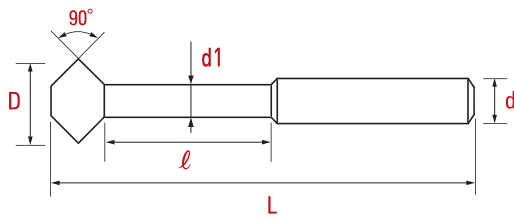
특기사항

- 두 개의 경사면으로 내부 및 외부의 면취 가공, 오링 홈 가공, 그루빙 등을 모두 밀링 가공할 수 있는 최적의 절삭 공구
- 헬릭스 형태로 제작된 플루트는 가공을 보다 용이하게 함
- 양쪽 경사면의 릴리프(Relief) 연마로 가공시 피삭재의 조도가 향상됨

Tolerance (허용공차)		
D	d	L
0~-0.02	h6	±1

Solid Carbide 90° Double Angle Mini Chamfer Cutter (Long Reach Type)

초경 90°
더블 앵글
미니 챔퍼 컷터
롱형



Item no. 제품코드	D 외경	d1 목경	ℓ 목기장	d 상크	L 전장
AC02CA-030	3.0	1.8	12	3	45
AC02CA-035	3.5	2.1	14	4	53
AC02CA-040	4.0	2.4	16	4	53
AC02CA-045	4.5	2.5	18	5	53
AC02CA-050	5.0	2.8	20	5	53
AC02CA-055	5.5	3.1	22	6	65
AC02CA-060	6.0	3.2	24	6	65
AC02CA-080	8.0	4.8	28	8	65
AC02CA-100	10.0	6.4	35	10	80
AC02CA-120	12.0	7.8	42	12	80

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- This product is only supplied with TiAlN coating.
- 이 제품은 오직 TiAlN 코팅 제품만 제공됩니다.

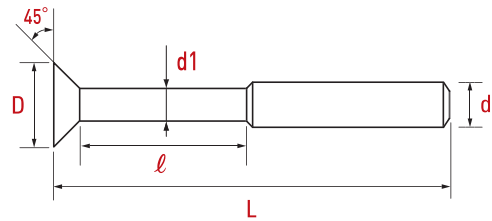
특기사항

- 두 개의 경사면으로 내부 및 외부의 면취 가공, 오링 홈 가공, 그루빙 등을 모두 밀링 가공할 수 있는 최적의 절삭 공구
- 헬릭스 형태로 제작된 플루트는 가공을 보다 용이하게 함
- 양쪽 경사면의 릴리프(Relief) 연마로 가공시 피삭재의 조도가 향상됨

Tolerance (허용공차)		
D	d	L
0~-0.02	h6	±1

Solid Carbide 45° Dovetail Mini Chamfer Cutter

초경 45°
더브테일
미니 챔퍼 컷터



Item no. 제품코드	D 외경	d1 목경	l 목기장	d 샹크	L 전장
TA03CA-015	1.5	0.9	4.5	3	45
TA03CA-020	2.0	1.2	6	3	45
TA03CA-025	2.5	1.5	7.5	3	45
TA03CA-030	3.0	1.8	12	3	45
TA03CA-035	3.5	2.1	14	4	53
TA03CA-040	4.0	2.4	16	4	53
TA03CA-045	4.5	2.5	18	5	53
TA03CA-050	5.0	2.8	20	5	53
TA03CA-055	5.5	3.1	22	6	65
TA03CA-060	6.0	3.2	24	6	65

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- This product is only supplied with TiALN coating.
- 이 제품은 오직 TiALN 코팅 제품만 제공됩니다.

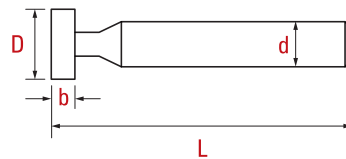
특기사항

- 빛각 형태로 형성된 플루트는 가공을 보다 용이하게 함
- 경사면의 릴리프(Relief) 연마로 가공시 피삭재의 조도가 향상됨

Tolerance (허용공차)		
D	d	L
0~-0.02	h6	±1

Carbide Woodruff Keyseat Cutters T-Cutter

초경
티 컷터



Item no. 제품코드	D 외경	No. of Flute 날수	Neck Dia 목경	d 상크경	L 전장	Remarks 비고
TC01CA-010	10.0	6	5	10	46	Solid
TC01CA-012	12.0	6	6	12	54	
TC01CA-015	15.0	6	8	12	65	Tip Brazed
TC01CA-016	16.0	6	8	12	65	
TC01CA-018	18.0	6	10	16	70	
TC01CA-020	20.0	6	12	16	70	
TC01CA-022	22.0	6	12	16	72	
TC01CA-025	25.0	6	14	16	78	
TC01CA-030	30.0	8	16	20	82	
TC01CA-035	35.0	8	16	20	90	
TC01CA-040	40.0	8	18	20	100	
TC01CA-045	45.0	10	22	25	105	
TC01CA-050	50.0	10	22	25	110	

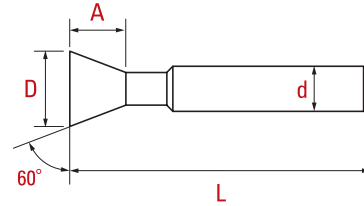
- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- The thickness sizes(b) of standard items are 1T, 2T, 3T, 4T, 5T, 6T, 8T, 10T and 12T.
- 표준품 두께 사이즈(b)는 1T, 2T, 3T, 4T, 5T, 6T, 8T, 10T, 12T 입니다.

Tolerance (허용공차)

b	d	L
e8	h8	±1

Carbide 60° Dovetail Cutters T-Angle

초경 60°
티앵글 컷터



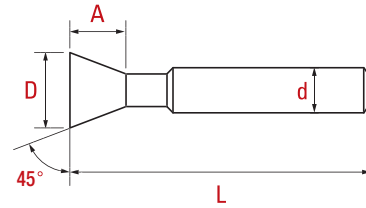
Item no. 제품코드	D 외경	A 날높이	No. of Flute 날수	d 상크경	L 전장	α° 각도
TA01CA-010	10.0	4.5	4	10	50	60°(Solid)
TA01CA-012	12.0	5.5	4	12	52	
TA01CA-014	14.0	6.0	4	12	55	
TA01CA-015	15.0	6.8	4	12	58	
TA01CA-016	16.0	7.2	4	12	58	
TA01CA-018	18.0	8.0	4	12	60	
TA01CA-020	20.0	10	4	12	75	60°(Brazed)
TA01CA-025	25.0	12	4	16	75	
TA01CA-030	30.0	12	6	16	85	
TA01CA-035	35.0	15	6	20	85	
TA01CA-040	40.0	20	6	20	95	
TA01CA-045	45.0	20	6	25	95	
TA01CA-050	50.0	20	6	25	105	
TA01CA-060	60.0	30	8	32	105	
TA01CA-070	70.0	32	8	32	125	
TA01CA-080	80.0	35	8	32	125	

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	L
js16	h8	±1

Carbide 45° Dovetail Cutters T-Angle

초경 45°
티앵글 컷터



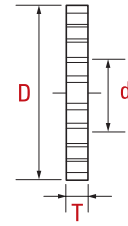
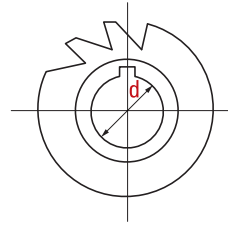
Item no. 제품코드	D 외경	A 날높이	No. of Flute 날수	d 상크경	L 전장	α° 각도
TA02CA-010	10.0	2.5	4	10	50	45°(Solid)
TA02CA-012	12.0	3.5	4	12	52	
TA02CA-014	14.0	4.0	4	12	55	
TA02CA-015	15.0	4.5	4	12	58	
TA02CA-016	16.0	5.0	4	12	58	
TA02CA-018	18.0	5.0	4	12	60	
TA02CA-020	20.0	5	4	12	75	45°(Brazed)
TA02CA-025	25.0	5	4	12	75	
TA02CA-030	30.0	6.5	4	16	85	
TA02CA-035	35.0	7.5	4	16	85	
TA02CA-040	40.0	10	6	20	95	
TA02CA-045	45.0	11.5	6	20	95	
TA02CA-050	50.0	13	6	25	105	
TA02CA-060	60.0	16	8	25	105	
TA02CA-070	70.0	17	8	32	125	
TA02CA-080	80.0	18	8	32	125	

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	L
js16	h8	±1

Carbide Side Milling Cutters

초경 사이드 밀링 컷터



Item no. 제품코드	D(외경)		
	75mm		
	T 두께	No. of Flute 날수	d 내경
SM01CA -030-75	3.0	12EA	Ø25.4
SM01CA -040-75	4.0		
SM01CA -050-75	5.0		
SM01CA -060-75	6.0		
SM01CA -070-75	7.0		
SM01CA -080-75	8.0		
SM01CA -090-75	9.0		
SM01CA -100-75	10.0		
SM01CA -110-75	11.0		
SM01CA -120-75	12.0		
SM01CA -130-75	13.0		
SM01CA -140-75	14.0		
SM01CA -150-75	15.0		
SM01CA -160-75	16.0		
SM01CA -170-75	17.0		
SM01CA -180-75	18.0		
SM01CA -200-75	20.0		
SM01CA -220-75	22.0		
SM01CA -240-75	24.0		

Item no. 제품코드	D(외경)		
	100mm		
	T 두께	No. of Flute 날수	d 내경
SM01CA -030-100	3.0	14EA	Ø25.4
SM01CA -040-100	4.0		
SM01CA -050-100	5.0		
SM01CA -060-100	6.0		
SM01CA -070-100	7.0		
SM01CA -080-100	8.0		
SM01CA -090-100	9.0		
SM01CA -100-100	10.0		
SM01CA -110-100	11.0		
SM01CA -120-100	12.0		
SM01CA -130-100	13.0		
SM01CA -140-100	14.0		
SM01CA -150-100	15.0		
SM01CA -160-100	16.0		
SM01CA -170-100	17.0		
SM01CA -180-100	18.0		
SM01CA -200-100	20.0		
SM01CA -220-100	22.0		
SM01CA -240-100	24.0		

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Item no. 제품코드	D(외경)		
	125mm		
	T 두께	No. of Flute 날수	d 내경
SM01CA -030-125	3.0	16EA	Ø25.4
SM01CA -040-125	4.0		
SM01CA -050-125	5.0		
SM01CA -060-125	6.0		
SM01CA -070-125	7.0		
SM01CA -080-125	8.0		
SM01CA -090-125	9.0		
SM01CA -100-125	10.0		
SM01CA -110-125	11.0		
SM01CA -120-125	12.0		
SM01CA -130-125	13.0		
SM01CA -140-125	14.0		
SM01CA -150-125	15.0		
SM01CA -160-125	16.0		
SM01CA -170-125	17.0		
SM01CA -180-125	18.0		
SM01CA -200-125	20.0		
SM01CA -220-125	22.0		
SM01CA -240-125	24.0		

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Item no. 제품코드	D(외경)		
	150mm		
	T 두께	No. of Flute 날수	d 내경
SM01CA -030-150	3.0	18EA	Ø25.4
SM01CA -040-150	4.0		
SM01CA -050-150	5.0		
SM01CA -060-150	6.0		
SM01CA -070-150	7.0		
SM01CA -080-150	8.0		
SM01CA -090-150	9.0		
SM01CA -100-150	10.0		
SM01CA -110-150	11.0		
SM01CA -120-150	12.0		
SM01CA -130-150	13.0		
SM01CA -140-150	14.0		
SM01CA -150-150	15.0		
SM01CA -160-150	16.0		
SM01CA -170-150	17.0		
SM01CA -180-150	18.0		
SM01CA -200-150	20.0		
SM01CA -220-150	22.0		
SM01CA -240-150	24.0		

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

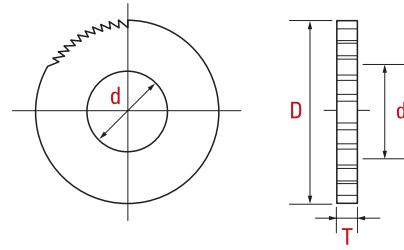
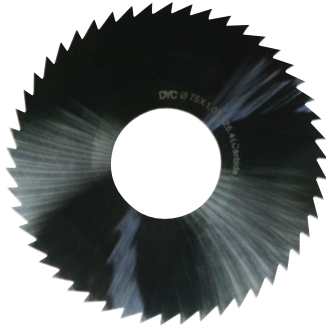
Item no. 제품코드	D(외경)		
	200mm		
	T 두께	No. of Flute 날수	d 내경
SM01CA -050-200	5.0	24EA	Ø25.4
SM01CA -060-200	6.0		
SM01CA -070-200	7.0		
SM01CA -080-200	8.0		
SM01CA -090-200	9.0		
SM01CA -100-200	10.0		
SM01CA -110-200	11.0		
SM01CA -120-200	12.0		
SM01CA -130-200	13.0		
SM01CA -140-200	14.0		
SM01CA -150-200	15.0		
SM01CA -160-200	16.0		
SM01CA -170-200	17.0		
SM01CA -180-200	18.0		
SM01CA -200-200	20.0		
SM01CA -220-200	22.0		
SM01CA -240-200	24.0		

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	T
js16	H7	k11

Carbide Metal Slitting Saws

초경 메탈쏘



Item no. 제품코드	D(외경)		
	50mm		
	T 두께	No. of Flute 날수	d 내경
MS01CA -003-50	0.3	34EA	Ø12.7
MS01CA -005-50	0.5		
MS01CA -008-50	0.8		
MS01CA -010-50	1.0		
MS01CA -012-50	1.2	32EA	
MS01CA -015-50	1.5		
MS01CA -020-50	2.0		
MS01CA -025-50	2.5		
MS01CA -030-50	3.0		
MS01CA -035-50	3.5		
MS01CA -040-50	4.0	34EA	
MS01CA -045-50	4.5		
MS01CA -050-50	5.0		

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Item no. 제품코드	D(외경)		
	60mm		
	T 두께	No. of Flute 날수	d 내경
MS01CA -003-60	0.3	42EA	Ø15.8
MS01CA -005-60	0.5		
MS01CA -008-60	0.8		
MS01CA -010-60	1.0		
MS01CA -012-60	1.2	38EA	
MS01CA -015-60	1.5		
MS01CA -020-60	2.0		
MS01CA -025-60	2.5		
MS01CA -030-60	3.0		
MS01CA -035-60	3.5		
MS01CA -040-60	4.0	34EA	
MS01CA -045-60	4.5		
MS01CA -050-60	5.0		

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Item no. 제품코드	D(외경)		
	75mm		
	T 두께	No. of Flute 날수	d 내경
MS01CA -003-75	0.3	50EA/ 72EA	Ø25.4
MS01CA -005-75	0.5		
MS01CA -008-75	0.8		
MS01CA -010-75	1.0		
MS01CA -012-75	1.2		
MS01CA -015-75	1.5	46EA/ 72EA	
MS01CA -020-75	2.0		
MS01CA -025-75	2.5		
MS01CA -030-75	3.0		
MS01CA -035-75	3.5		
MS01CA -040-75	4.0	38EA/ 72EA	
MS01CA -045-75	4.5		
MS01CA -050-75	5.0		

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Item no. 제품코드	D(외경)		
	100mm		
	T 두께	No. of Flute 날수	d 내경
MS01CA -003-100	0.3	62EA/ 90EA	Ø25.4
MS01CA -005-100	0.5		
MS01CA -008-100	0.8		
MS01CA -010-100	1.0		
MS01CA -012-100	1.2		
MS01CA -015-100	1.5	50EA/ 90EA	
MS01CA -020-100	2.0		
MS01CA -025-100	2.5		
MS01CA -030-100	3.0		
MS01CA -035-100	3.5		
MS01CA -040-100	4.0	42EA/ 90EA	
MS01CA -045-100	4.5		
MS01CA -050-100	5.0		

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

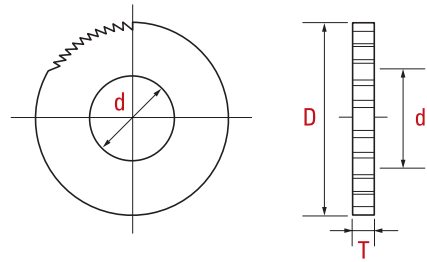
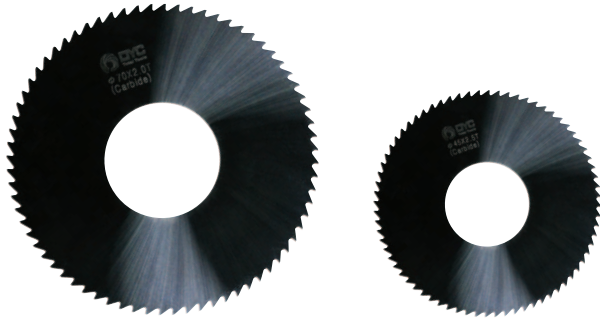
Item no. 제품코드	D(외경)		
	125mm		
	T 두께	No. of Flute 날수	d 내경
MS01CA -008-125	0.8	74EA/ 110EA	Ø25.4
MS01CA -010-125	1.0		
MS01CA -012-125	1.2		
MS01CA -015-125	1.5	56EA/ 110EA	
MS01CA -020-125	2.0		
MS01CA -025-125	2.5		
MS01CA -030-125	3.0	46EA/ 110EA	
MS01CA -035-125	3.5		
MS01CA -040-125	4.0		
MS01CA -045-125	4.5		
MS01CA -050-125	5.0		

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	T
js16	H7	k11

Carbide Slotting Cutters

초경 슬로팅 컷터



Item no. 제품코드	D(외경)		
	Ø45		
	T 두께	No. of Flute 날수	d 내경
SC01CA-003-45	0.3	90EA	Ø12.7
SC01CA-005-45	0.5		
SC01CA-008-45	0.8		
SC01CA-010-45	1.0		
SC01CA-012-45	1.2		
SC01CA-015-45	1.5		
SC01CA-020-45	2.0		
SC01CA-025-45	2.5		
SC01CA-030-45	3.0		
	-		

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Item no. 제품코드	D(외경)		
	Ø70		
	T 두께	No. of Flute 날수	d 내경
SC01CA-003-70	0.3	72EA	Ø25.4
SC01CA-005-70	0.5		
SC01CA-008-70	0.8		
SC01CA-010-70	1.0		
SC01CA-012-70	1.2		
SC01CA-015-70	1.5		
SC01CA-020-70	2.0		
SC01CA-025-70	2.5		
SC01CA-030-70	3.0		
SC01CA-035-70	3.5		

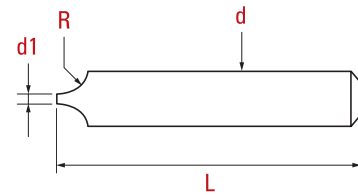
• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)

D	d	T
js16	H7	k11

Carbide Corner Rounding Cutters

초경 코너라운드링 컷터



Item no. 제품코드	R 규격	d1 소경	d2 대경	d 상크	L 전장	Remarks 비고
CR01CA-005	0.5	1	2.1	4	45	Solid
CR01CA-010	1.0	3.9	6	6	53	
CR01CA-015	1.5	2.9	6	6	53	
CR01CA-020	2.0	1.9	6	6	53	
CR01CA-025	2.5	3	8	8	53	
CR01CA-030	3.0	2.2	8	8	53	
CR01CA-035	3.5	2.9	10	10	53	
CR01CA-040	4.0	2.2	10	10	53	
CR01CA-045	4.5	2.9	12	12	65	
CR01CA-050	5.0	1.8	12	12	65	
CR01CA-060	6.0	8	20	12	100	Tip Brazed
CR01CA-080	8.0	8	25	16	100	
CR01CA-100	10.0	8	30	20	110	
CR01CA-120	12.0	8.9	33	20	120	

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)			
R	d1	d	L
±0.02	±0.1	h8	±1

AC01CA - Solid Carbide Mini Chamfer Cutters

Materials	Carbon Steels	Tool Steels	Prehardened Steels	Stainless Steels	Hardened Steels
Hardness	~ HRC25	HRC25 ~ HRC35	HRC35 ~ HRC45		HRC45 ~ HRC55
Cutting speed(Vc)	60 ~ 90	50 ~ 80	40 ~ 80	70 ~ 90	20 ~ 40
Tool Dia	Feed(mm/t)	Feed(mm/t)	Feed(mm/t)	Feed(mm/t)	Feed(mm/t)
3.0	0.06	0.05	0.07	0.05	0.04
4.0	0.08	0.05	0.09	0.05	0.04
5.0	0.09	0.06	0.11	0.06	0.05
6.0	0.10	0.07	0.13	0.07	0.06
8.0	0.12	0.07	0.17	0.07	0.06

RPM = rev./min. Feed = min/rev.

TC01CA, TA01CA, TA02CA - Solid & Tipped Carbide Cutters

Materials	Carbon Steels		Alloy steel		Cast Iron		Stainless Steel		Aluminum Alloys	
Cutting speed	350		300		300		255		1,200	
외경	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
10.0	3,396	104	2,911	89	2,911	89	2,474	75	11,643	355
20.0	1,698	52	1,455	44	1,455	44	1,237	38	5,822	177
30.0	1,132	46	970	39	970	39	825	34	3,881	158
40.0	849	35	728	30	728	30	619	25	2,911	118
50.0	679	35	582	30	582	30	495	25	2,329	118

RPM = rev./min. Feed = min/rev.

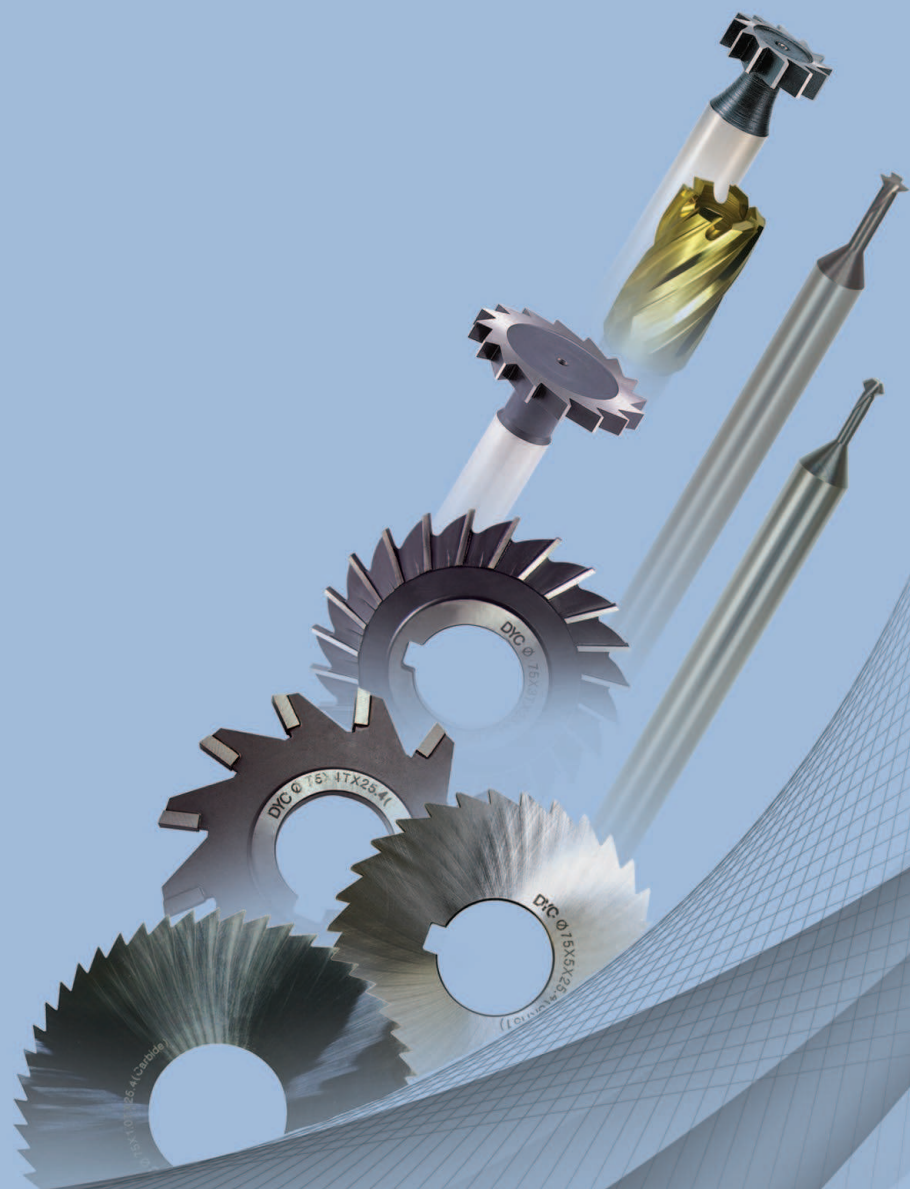
CR01CA - Solid & Tipped Carbide Corner Rounding Cutters

Materials	Carbon Steels		Cast Iron		Prehardened Steel		Aluminum Alloys	
Cutting speed	16		13		11		23	
외경	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
R2	510	37	413	30	350	18	715	72
R4	230	30	188	19	160	14	325	59
R6	181	30	148	24	125	14	256	58
R8	155	30	125	24	105	14	217	57
R10	121	28	99	23	84	14	170	55

RPM = rev./min. Feed = min/rev.

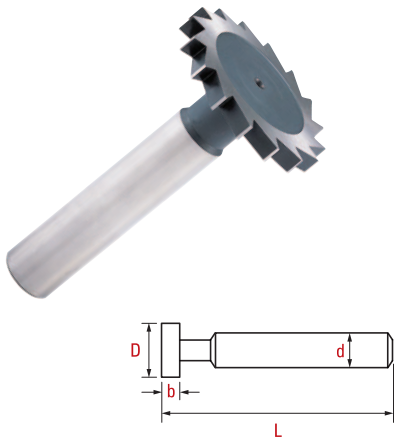
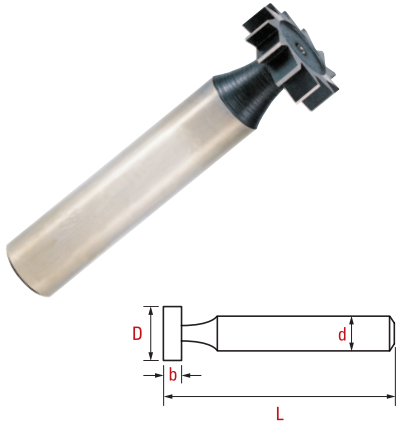
DYC BEST TOTAL TOOLS

HSS Cutters



HSS Woodruff Keyseat Cutters T-Cutter

하이스 티 컷터, SKH51



Item no. 제품코드	D 외경	No. of Flute 날수	d 샙크	L 전장
TC01H1-010	10.0	8	10	50
TC01H1-012	12.0	8	12	52
TC01H1-013	13.0	8	12	55
TC01H1-014	14.0	8	12	55
TC01H1-015	15.0	8	12	58
TC01H1-016	16.0	10	12	58
TC01H1-018	18.0	10	12	60
TC01H1-019	19.0	10	12	60
TC01H1-020	20.0	10	12	60
TC01H1-022	22.0	10	12	60
TC01H1-024	24.0	12	12	60
TC01H1-025	25.0	12	12	62
TC01H1-026	26.0	12	12	62
TC01H1-028	28.0	12	12	65
TC01H1-030	30.0	12	12	65
TC01H1-032	32.0	14	12	65
TC01H1-035	35.0	14	12	67
TC01H1-038	38.0	14	12	70
TC01H1-040	40.0	14	12	72
TC01H1-045	45.0	14	16	76
TC01H1-050	50.0	16	16	85
TC01H1-060	60.0	18	16	95

Tolerance (허용공차)		
b	d	L
e8	h8	±1

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

• The thickness sizes(b) of standard items are 1T, 2T, 2.5T, 3T, 4T, 5T, 6T, 7T, 8T, 9T, 10T and 12T.

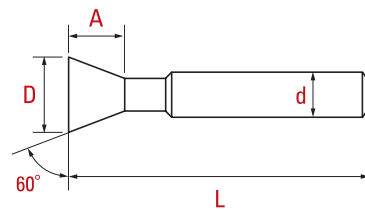
• 표준품 두께 사이즈(b)는 1T, 2T, 2.5T, 3T, 4T, 5T, 6T, 7T, 8T, 9T, 10T, 12T 입니다.

HSS 60° Dovetail Cutters T-Angle Cutter

하이스 60° 티앵글 컷터, SKH51

HSS

Item no. 제품코드	D 외경	A 날높이	No. of Flute 날수	d 상크	L 전장
TA01H1-010	10.0	4.5	8	10	50
TA01H1-012	12.0	5.5	8	12	52
TA01H1-013	13.0	5.5	8	12	55
TA01H1-014	14.0	6.0	8	12	55
TA01H1-015	15.0	6.8	8	12	58
TA01H1-016	16.0	7.2	8	12	58
TA01H1-018	18.0	8.0	8	12	60
TA01H1-020	20.0	8.0	8	12	65
TA01H1-022	22.0	9.0	10	12	67
TA01H1-024	24.0	10.0	10	12	70
TA01H1-025	25.0	11.5	10	12	70
TA01H1-028	28.0	12.0	10	16	73
TA01H1-030	30.0	12.5	10	16	75
TA01H1-032	32.0	14.0	12	16	75
TA01H1-035	35.0	15.2	12	16	80
TA01H1-038	38.0	16.0	14	20	83
TA01H1-040	40.0	17.0	14	20	85
TA01H1-045	45.0	22.0	14	20	90
TA01H1-050	50.0	24.0	16	25	93
TA01H1-060	60.0	29.0	18	25	110
TA01H1-070	70.0	32.0	20	32	120
TA01H1-080	80.0	35.0	22	32	130



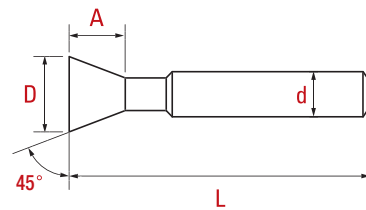
Tolerance (허용공차)

D	d	L
js16	h8	±1

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

HSS 45° Dovetail Cutters T-Angle Cutter

하이스 45° 티앵글 컷터,
SKH51



Item no. 제품코드	D 외경	A 날높이	No. of Flute 날수	d 샹크	L 전장
TA02H1-010	10.0	2.5	8	10	50
TA02H1-012	12.0	3.5	8	12	52
TA02H1-013	13.0	3.5	8	12	55
TA02H1-014	14.0	4.0	8	12	55
TA02H1-015	15.0	4.5	10	12	58
TA02H1-016	16.0	5.0	10	12	58
TA02H1-018	18.0	5.0	10	12	60
TA02H1-020	20.0	6.0	10	12	65
TA02H1-022	22.0	6.0	10	12	67
TA02H1-024	24.0	6.0	12	12	70
TA02H1-025	25.0	6.5	12	12	70
TA02H1-028	28.0	7.0	12	16	73
TA02H1-030	30.0	8.0	12	16	75
TA02H1-032	32.0	9.0	14	16	75
TA02H1-035	35.0	10.0	14	16	80
TA02H1-038	38.0	10.5	14	20	83

Item no. 제품코드	D 외경	A 날높이	No. of Flute 날수	d 샹크	L 전장
TA02H1-040	40.0	11.0	14	20	85
TA02H1-045	45.0	12.5	16	20	90
TA02H1-050	50.0	13.0	16	25	93
TA02H1-060	60.0	15.0	18	25	110
TA02H1-070	70.0	17.0	20	32	120
TA02H1-080	80.0	18.0	22	32	130

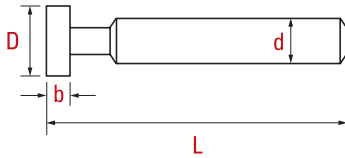
• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
b	d	L
js16	h8	±1

HSS Straight Teeth T-Slot Cutters

하이스 직선날 티슬롯 컷터,
SKH51

HSS



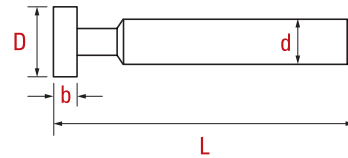
Item no. 제품코드	D 외경	No. of Flute 날수	Neck Dia 목경	d 상크	L 전장
TS01H1-012	12.0	8	5	10	60
TS01H1-015	15.0	8	7	12	65
TS01H1-016	16.0	8	8	12	65
TS01H1-018	18.0	8	8	12	70
TS01H1-020	20.0	8	9	12	70
TS01H1-022	22.0	10	9	12	72
TS01H1-024	24.0	10	10	12	78
TS01H1-025	25.0	10	10	12	78
TS01H1-026	26.0	10	10.5	12	78
TS01H1-028	28.0	10	12.5	16	80
TS01H1-030	30.0	12	13	16	82
TS01H1-035	35.0	12	17.5	20	90
TS01H1-038	38.0	12	17.5	20	92
TS01H1-040	40.0	12	18	20	100
TS01H1-045	45.0	14	22	25	105
TS01H1-050	50.0	14	22	25	110

Tolerance (허용공차)			
D	b	d	L
d11	d11	h8	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- The thickness sizes(b) of standard items are 3T, 4T, 5T, 6T, 7T, 8T, 10T and 12T.
- 표준품 두께 사이즈(b)는 3T, 4T, 5T, 6T, 7T, 8T, 10T, 12T 입니다.

HSS Stagger Teeth T-Slot Cutters

하이스 엇갈림날 티슬롯 컷터,
SKH51



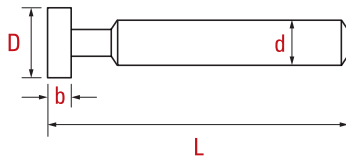
Item no. 제품코드	D 외경	No. of Flute 날수	Neck Dia 목경	d 상크	L 전장
TS02H1-015	15.0	8	7	12	65
TS02H1-016	16.0	8	8	12	65
TS02H1-018	18.0	8	8	12	70
TS02H1-020	20.0	8	9	12	70
TS02H1-022	22.0	8	9	12	72
TS02H1-024	24.0	8	10	12	78
TS02H1-025	25.0	8	10	12	78
TS02H1-026	26.0	8	10.5	12	78
TS02H1-028	28.0	8	12.5	16	80
TS02H1-030	30.0	8	13	16	82
TS02H1-035	35.0	8	17.5	20	90
TS02H1-038	38.0	10	17.5	20	92
TS02H1-040	40.0	10	18	20	100
TS02H1-045	45.0	12	22	25	105
TS02H1-050	50.0	12	22	25	110

Tolerance (허용공차)			
D	b	d	L
d11	d11	h8	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- The thickness sizes(b) of standard items are 3T, 4T, 5T, 6T, 7T, 8T, 10T and 12T.
- 표준품 두께 사이즈(b)는 3T, 4T, 5T, 6T, 7T, 8T, 10T, 12T 입니다.

HSS Helical Roughing T-Slot Cutters

하이스 헬리컬 라핑
티슬롯 컷터, SKH51



Item no. 제품코드	D 외경	b 두께	No. of Flute 날수	Neck Dia 목경	Neck Length 목기장	d 상크	L 전장
TS03H1-110	11.0	3.5	4	4	10	10	54
TS03H1-125	12.5	6	4	5	11	10	57
TS03H1-160	16.0	8	4	7	14	10	61
TS03H1-180	18.0	8	4	8	17	12	70
TS03H1-210	21.0	9	5	10	20	12	74
TS03H1-250	25.0	11	5	12	23	16	82
TS03H1-320	32.0	14	6	15	28	16	89
TS03H1-400	40.0	18	6	19	34	25	108
TS03H1-500	50.0	22	6	25	42	32	124
TS03H1-600	60.0	28	8	30	50	32	139

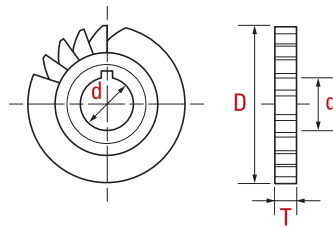
- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- This product is only supplied with TiN coating.
- 이 제품은 오직 TiN 코팅 제품만 제공됩니다.

Tolerance (허용공차)

D	b	d	L
d11	d11	h8	±1

HSS Side Milling Cutters

하이스 사이드 밀링 컷터,
SKH51



Item no. 제품코드	D(외경)		
	75mm		
	T 두께	No. of Flute 날수	d 내경
SM01H1-020-75	2.0	32EA	Ø25.4
SM01H1-025-75	2.5		
SM01H1-030-75	3.0		
SM01H1-035-75	3.5		
SM01H1-040-75	4.0		
SM01H1-045-75	4.5		
SM01H1-050-75	5.0		
SM01H1-060-75	6.0		
SM01H1-070-75	7.0		
SM01H1-080-75	8.0		
SM01H1-090-75	9.0		
SM01H1-100-75	10.0		
SM01H1-110-75	11.0		
SM01H1-120-75	12.0		
SM01H1-130-75	13.0		
SM01H1-140-75	14.0		
SM01H1-150-75	15.0		
SM01H1-160-75	16.0		
SM01H1-170-75	17.0		
SM01H1-180-75	18.0		
SM01H1-190-75	19.0		
SM01H1-200-75	20.0		

Item no. 제품코드	D(외경)		
	100mm		
	T 두께	No. of Flute 날수	d 내경
SM01H1-020-100	2.0	36EA	Ø25.4
SM01H1-025-100	2.5		
SM01H1-030-100	3.0		
SM01H1-035-100	3.5		
SM01H1-040-100	4.0		
SM01H1-045-100	4.5		
SM01H1-050-100	5.0		
SM01H1-060-100	6.0		
SM01H1-070-100	7.0		
SM01H1-080-100	8.0		
SM01H1-090-100	9.0		
SM01H1-100-100	10.0		
SM01H1-110-100	11.0		
SM01H1-120-100	12.0		
SM01H1-130-100	13.0		
SM01H1-140-100	14.0		
SM01H1-150-100	15.0		
SM01H1-160-100	16.0		
SM01H1-170-100	17.0		
SM01H1-180-100	18.0		
SM01H1-190-100	19.0		
SM01H1-200-100	20.0		

Item no. 제품코드	D(외경)		
	125mm		
	T 두께	No. of Flute 날수	d 내경
SM01H1-020-125	2.0	40EA	Ø25.4
SM01H1-025-125	2.5	32EA	
SM01H1-030-125	3.0		
SM01H1-035-125	3.5		
SM01H1-040-125	4.0		
SM01H1-045-125	4.5		
SM01H1-050-125	5.0	28EA	
SM01H1-060-125	6.0		
SM01H1-070-125	7.0		
SM01H1-080-125	8.0		
SM01H1-090-125	9.0		
SM01H1-100-125	10.0		
SM01H1-110-125	11.0		
SM01H1-120-125	12.0		
SM01H1-130-125	13.0		
SM01H1-140-125	14.0		
SM01H1-150-125	15.0		
SM01H1-160-125	16.0		
SM01H1-170-125	17.0		
SM01H1-180-125	18.0		
SM01H1-190-125	19.0		
SM01H1-200-125	20.0		

Item no. 제품코드	D(외경)		
	150mm		
	T 두께	No. of Flute 날수	d 내경
SM01H1-020-150	2.0	44EA	Ø25.4
SM01H1-025-150	2.5	36EA	
SM01H1-030-150	3.0		
SM01H1-035-150	3.5		
SM01H1-040-150	4.0		
SM01H1-045-150	4.5		
SM01H1-050-150	5.0	32EA	
SM01H1-060-150	6.0		
SM01H1-070-150	7.0		
SM01H1-080-150	8.0		
SM01H1-090-150	9.0		
SM01H1-100-150	10.0		
SM01H1-110-150	11.0		
SM01H1-120-150	12.0		
SM01H1-130-150	13.0		
SM01H1-140-150	14.0		
SM01H1-150-150	15.0		
SM01H1-160-150	16.0		
SM01H1-170-150	17.0		
SM01H1-180-150	18.0		
SM01H1-190-150	19.0		
SM01H1-200-150	20.0		

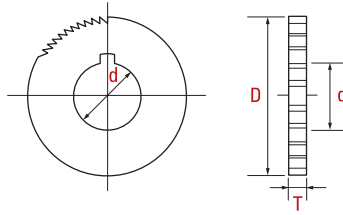
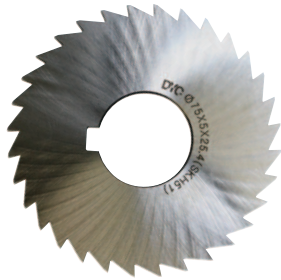
Item no. 제품코드	D(외경)		
	200mm		
	T 두께	No. of Flute 날수	d 내경
SM01H1-030-200	3.0	40EA	Ø25.4
SM01H1-035-200	3.5	32EA	
SM01H1-040-200	4.0		
SM01H1-045-200	4.5		
SM01H1-050-200	5.0		
SM01H1-060-200	6.0		
SM01H1-070-200	7.0	28EA	
SM01H1-080-200	8.0		
SM01H1-090-200	9.0		
SM01H1-100-200	10.0		
SM01H1-110-200	11.0		
SM01H1-120-200	12.0		
SM01H1-130-200	13.0		
SM01H1-140-200	14.0		
SM01H1-150-200	15.0		
SM01H1-160-200	16.0		
SM01H1-170-200	17.0		
SM01H1-180-200	18.0		
SM01H1-190-200	19.0		
SM01H1-200-200	20.0		

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	T
js16	H7	k8

HSS Metal Slitting Saws

하이스 메탈쏘,
SKH51



Item no. 제품코드	D(외경)		
	50mm		
	T 두께	No. of Flute 날수	d 내경
MS01H1 -005-50	0.5	34EA	Ø12.7
MS01H1 -080-50	0.8		
MS01H1 -100-50	1.0		
MS01H1 -120-50	1.2		
MS01H1 -150-50	1.5		
MS01H1 -200-50	2.0	32EA	
MS01H1 -250-50	2.5		
MS01H1 -300-50	3.0		
MS01H1 -350-50	3.5		
MS01H1 -400-50	4.0		
MS01H1 -450-50	4.5		
MS01H1 -500-50	5.0		

Item no. 제품코드	D(외경)		
	60mm		
	T 두께	No. of Flute 날수	d 내경
MS01H1 -005-60	0.5	48EA	Ø15.8
MS01H1 -080-60	0.8		
MS01H1 -100-60	1.0		
MS01H1 -120-60	1.2	40EA	
MS01H1 -150-60	1.5		
MS01H1 -200-60	2.0		
MS01H1 -250-60	2.5	32EA	
MS01H1 -300-60	3.0		
MS01H1 -350-60	3.5		
MS01H1 -400-60	4.0		
MS01H1 -450-60	4.5		
MS01H1 -500-60	5.0		
MS01H1 -550-60	5.5	24EA	
MS01H1 -600-60	6.0		

Tolerance (허용공차)		
D	d	T
js16	H7	k11

Item no. 제품코드	D(외경)		
	75mm		
	T 두께	No. of Flute 날수	d 내경
MS01H1 -005-75	0.5	64EA	Ø25.4
MS01H1 -080-75	0.8		
MS01H1 -100-75	1.0		
MS01H1 -120-75	1.2	48EA	
MS01H1 -150-75	1.5		
MS01H1 -200-75	2.0		
MS01H1 -250-75	2.5	40EA	
MS01H1 -300-75	3.0		
MS01H1 -350-75	3.5		
MS01H1 -400-75	4.0	32EA	
MS01H1 -450-75	4.5		
MS01H1 -500-75	5.0		
MS01H1 -550-75	5.5		
MS01H1 -600-75	6.0		

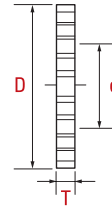
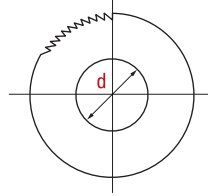
Item no. 제품코드	D(외경)		
	100mm		
	T 두께	No. of Flute 날수	d 내경
MS01H1 -005-100	0.5	80EA	Ø25.4
MS01H1 -080-100	0.8		
MS01H1 -100-100	1.0		
MS01H1 -120-100	1.2	64EA	
MS01H1 -150-100	1.5		
MS01H1 -200-100	2.0		
MS01H1 -250-100	2.5	48EA	
MS01H1 -300-100	3.0		
MS01H1 -350-100	3.5		
MS01H1 -400-100	4.0	40EA	
MS01H1 -450-100	4.5		
MS01H1 -500-100	5.0		
MS01H1 -550-100	5.5		
MS01H1 -600-100	6.0		

Item no. 제품코드	D(외경)		
	125mm		
	T 두께	No. of Flute 날수	d 내경
MS01H1 -005-125	0.5	80EA	Ø25.4
MS01H1 -080-125	0.8		
MS01H1 -100-125	1.0		
MS01H1 -120-125	1.2	64EA	
MS01H1 -150-125	1.5		
MS01H1 -200-125	2.0		
MS01H1 -250-125	2.5	48EA	
MS01H1 -300-125	3.0		
MS01H1 -350-125	3.5		
MS01H1 -400-125	4.0	40EA	
MS01H1 -450-125	4.5		
MS01H1 -500-125	5.0		
MS01H1 -550-125	5.5		
MS01H1 -600-125	6.0		

Item no. 제품코드	D(외경)		
	150mm		
	T 두께	No. of Flute 날수	d 내경
-		80EA	Ø25.4
MS01H1 -080-150	0.8		
MS01H1 -100-150	1.0		
MS01H1 -120-150	1.2	64EA	
MS01H1 -150-150	1.5		
MS01H1 -200-150	2.0		
MS01H1 -250-150	2.5	48EA	
MS01H1 -300-150	3.0		
MS01H1 -350-150	3.5		
MS01H1 -400-150	4.0	40EA	
MS01H1 -450-150	4.5		
MS01H1 -500-150	5.0		
MS01H1 -550-150	5.5		
MS01H1 -600-150	6.0		

HSS Slotting Cutters

하이스 슬롯팅 커터,
SKH51



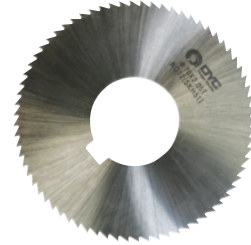
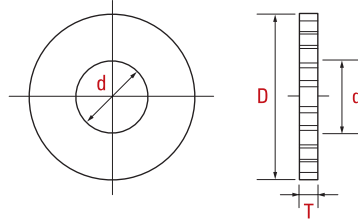
Item no. 제품코드	D (외경)		
	Ø45		
	T 두께	No. of Flute 날수	d 내경
SC01H1-002	0.2	90EA	Ø15.8
SC01H1-003	0.3		
SC01H1-004	0.4		
SC01H1-005	0.5		
SC01H1-006	0.6		
SC01H1-007	0.7		
SC01H1-008	0.8		
SC01H1-009	0.9		
SC01H1-010	1.0		
SC01H1-012	1.2		
SC01H1-015	1.5		
SC01H1-020	2.0		
SC01H1-025	2.5		
SC01H1-030	3.0		

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	T
js16	H7	k11

HSS Number Slotting Cutters

하이스 넘버 커터,
SKH51



Item no. 제품코드	D (외경)			
	Ø70			
	T (두께)		No. of Flute 날수	d 내경
	No.	mm		
SC02H1-010	#1	7.35	72EA	Ø25.4
SC02H1-020	#2	6.54		
SC02H1-030	#3	5.83		
SC02H1-040	#4	5.19		
SC02H1-050	#5	4.62		
SC02H1-060	#6	4.12		
SC02H1-070	#7	3.66		
SC02H1-080	#8	3.26		
SC02H1-090	#9	2.91		
SC02H1-100	#10	2.59		
SC02H1-110	#11	2.30		
SC02H1-120	#12	2.05		
SC02H1-130	#13	1.83		
SC02H1-140	#14	1.63		
SC02H1-150	#15	1.45		

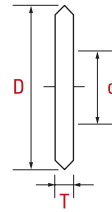
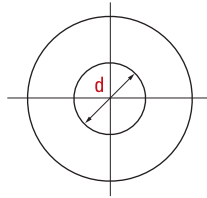
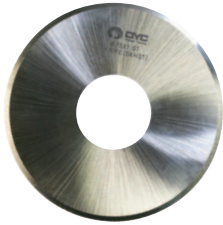
Item no. 제품코드	D (외경)			
	Ø70			
	T (두께)		No. of Flute 날수	d 내경
	No.	mm		
SC02H1-160	#16	1.29	72EA	Ø25.4
SC02H1-170	#17	1.15		
SC02H1-180	#18	1.02		
SC02H1-190	#19	0.91		
SC02H1-200	#20	0.81		
SC02H1-210	#21	0.72		
SC02H1-220	#22	0.64		
SC02H1-230	#23	0.57		
SC02H1-240	#24	0.51		
SC02H1-250	#25	0.45		
SC02H1-260	#26	0.40		
SC02H1-270	#27	0.36		
SC02H1-280	#28	0.32		
SC02H1-290	#29	0.29		
SC02H1-300	#30	0.25		

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 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	T
js16	H7	k11

HSS Knife Cutters

하이스 지관 커터,
SKH51



Item no. 제품코드	D (외경)		
	Ø75		
	T 두께	Shape of Flute 날형상	d 내경
KN01H1-010-75	1.0	SA	Ø25.4
KN01H1-012-75	1.2		
KN01H1-015-75	1.5		
KN01H1-020-75	2.0		
KN01H1-025-75	2.5		
KN01H1-030-75	3.0		
KN01H1-035-75	3.5		
KN01H1-040-75	4.0		

Item no. 제품코드	D (외경)		
	Ø100		
	T 두께	Shape of Flute 날형상	d 내경
KN01H1-010-100	1.0	SA	Ø25.4
KN01H1-012-100	1.2		
KN01H1-015-100	1.5		
KN01H1-020-100	2.0		
KN01H1-025-100	2.5		
KN01H1-030-100	3.0		
KN01H1-035-100	3.5		
KN01H1-040-100	4.0		

Item no. 제품코드	D (외경)		
	Ø125		
	T 두께	Shape of Flute 날형상	d 내경
KN01H1-010-125	1.0	SA	Ø25.4
KN01H1-012-125	1.2		
KN01H1-015-125	1.5		
KN01H1-020-125	2.0		
KN01H1-025-125	2.5		
KN01H1-030-125	3.0		
KN01H1-035-125	3.5		
KN01H1-040-125	4.0		

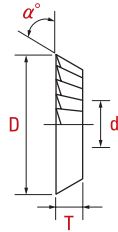
Item no. 제품코드	D (외경)		
	Ø150		
	T 두께	Shape of Flute 날형상	d 내경
KN01H1-010-150	1.0	SA	Ø25.4
KN01H1-012-150	1.2		
KN01H1-015-150	1.5		
KN01H1-020-150	2.0		
KN01H1-025-150	2.5		
KN01H1-030-150	3.0		
KN01H1-035-150	3.5		
KN01H1-040-150	4.0		

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 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	T
js16	H7	k11

HSS Single Angle Cutters

하이스 싱글 앵글 커터,
SKH51



Item no. 제품코드	D (외경)	
	Ø75	
	α° 각도	T 두께
AC01H1-410-75	45°	10.0
AC01H1-412-75		12.0
AC01H1-414-75		14.0
AC01H1-416-75		16.0
AC01H1-418-75		18.0
AC01H1-420-75		20.0
AC01H1-610-75	60°	10.0
AC01H1-612-75		12.0
AC01H1-614-75		14.0
AC01H1-616-75		16.0
AC01H1-618-75		18.0
AC01H1-620-75		20.0

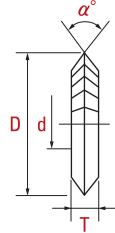
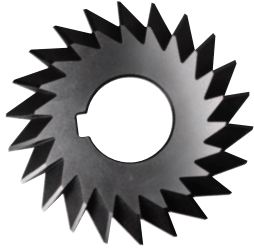
Item no. 제품코드	D (외경)	
	Ø100	
	α° 각도	T 두께
AC01H1-410-100	45°	10.0
AC01H1-412-100		12.0
AC01H1-414-100		14.0
AC01H1-416-100		16.0
AC01H1-418-100		18.0
AC01H1-420-100		20.0
AC01H1-610-100	60°	10.0
AC01H1-612-100		12.0
AC01H1-614-100		14.0
AC01H1-616-100		16.0
AC01H1-618-100		18.0
AC01H1-620-100		20.0

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	l
js16	H7	±1

HSS Double Angle Cutters

하이스 더블 앵글 커터,
SKH51



Item no. 제품코드	D (외경)	
	Ø75	
	α° 각도	T 두께
AC02H1-410-75	45°	10.0
AC02H1-412-75		12.0
AC02H1-414-75		14.0
AC02H1-416-75		16.0
AC02H1-418-75		18.0
AC02H1-420-75		20.0
AC02H1-610-75	60°	10.0
AC02H1-612-75		12.0
AC02H1-614-75		14.0
AC02H1-616-75		16.0
AC02H1-618-75		18.0
AC02H1-620-75		20.0
AC02H1-910-75	90°	10.0
AC02H1-912-75		12.0
AC02H1-914-75		14.0
AC02H1-916-75		16.0
AC02H1-918-75		18.0
AC02H1-920-75		20.0

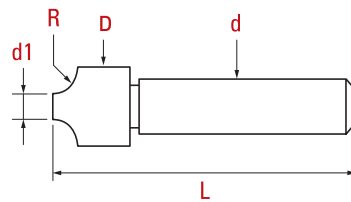
Item no. 제품코드	D (외경)	
	Ø100	
	α° 각도	T 두께
AC02H1-410-100	45°	10.0
AC02H1-412-100		12.0
AC02H1-414-100		14.0
AC02H1-416-100		16.0
AC02H1-418-100		18.0
AC02H1-420-100		20.0
AC02H1-610-100	60°	10.0
AC02H1-612-100		12.0
AC02H1-614-100		14.0
AC02H1-616-100		16.0
AC02H1-618-100		18.0
AC02H1-620-100		20.0
AC02H1-910-100	90°	10.0
AC02H1-912-100		12.0
AC02H1-914-100		14.0
AC02H1-916-100		16.0
AC02H1-918-100		18.0
AC02H1-920-100		20.0

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	T
js16	H7	k11

HSS-Co 5% Corner Rounding Cutters

하이스 코너라운드링 커터,
SKH55



Item no. 제품코드	R 규격	d1 소경	D 대경	d 샙크	L 전장
CR01H5-010	1.0	6	8	10	60
CR01H5-015	1.5	6	9	10	60
CR01H5-020	2.0	6	10	10	60
CR01H5-025	2.5	6	11	10	60
CR01H5-030	3.0	6	12	12	60
CR01H5-035	3.5	6	13	12	60
CR01H5-040	4.0	6	14	12	60
CR01H5-045	4.5	6	15	12	60
CR01H5-050	5.0	6	16	12	60
CR01H5-060	6.0	8	20	16	67
CR01H5-070	7.0	8	22	16	71
CR01H5-080	8.0	8	24	16	71
CR01H5-090	9.0	8	26	25	85
CR01H5-100	10.0	8	28	25	85
CR01H5-110	11.0	10	32	25	90
CR01H5-120	12.0	10	34	25	90
CR01H5-130	13.0	16	42	25	100

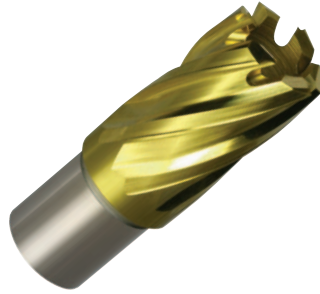
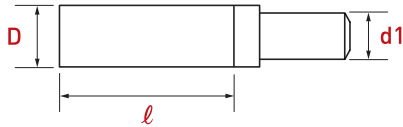
Item no. 제품코드	R 규격	d1 소경	D 대경	d 샙크	L 전장
CR01H5-140	14.0	16	44	25	100
CR01H5-150	15.0	16	46	25	100
CR01H5-160	16.0	16	48	25	100
CR01H5-180	18.0	16	52	32	112
CR01H5-200	20.0	16	56	32	112

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	d	L
js16	h7	±1

HSS-Co 5% Broach Cutters with TiN

하이스 브로치 커터,
SKH55



Item no. 제품코드	D 외경	Flute Length 날기장
BR01H5-110-33	11.0	33 mm
BR01H5-120-33	12.0	
BR01H5-130--33	13.0	
BR01H5-140-33	14.0	
BR01H5-150-33	15.0	
BR01H5-160-33	16.0	
BR01H5-170-33	17.0	
BR01H5-175-33	17.5	
BR01H5-180-33	18.0	
BR01H5-190-33	19.0	
BR01H5-200-33	20.0	
BR01H5-210-33	21.0	
BR01H5-215-33	21.5	
BR01H5-220-33	22.0	
BR01H5-225-33	22.5	
BR01H5-230-33	23.0	
BR01H5-235-33	23.5	
BR01H5-240-33	24.0	
BR01H5-245-33	24.5	
BR01H5-250-33	25.0	
BR01H5-255-33	25.5	
BR01H5-260-33	26.0	
BR01H5-265-33	26.5	
BR01H5-270-33	27.0	
BR01H5-280-33	28.0	
BR01H5-290-33	29.0	
BR01H5-300-33	30.0	
BR01H5-310-33	31.0	
BR01H5-320-33	32.0	

Item no. 제품코드	D 외경	Flute Length 날기장
BR01H5-330-33	33.0	33 mm
BR01H5-340-33	34.0	
BR01H5-350-33	35.0	
BR01H5-360-33	36.0	
BR01H5-370-33	37.0	
BR01H5-380-33	38.0	
BR01H5-390-33	39.0	
BR01H5-400-33	40.0	
BR01H5-410-33	41.0	
BR01H5-420-33	42.0	
BR01H5-430-33	43.0	
BR01H5-440-33	44.0	
BR01H5-450-33	45.0	
BR01H5-460-33	46.0	
BR01H5-470-33	47.0	
BR01H5-480-33	48.0	
BR01H5-490-33	49.0	
BR01H5-500-33	50.0	
BR01H5-510-33	51.0	
BR01H5-520-33	52.0	
BR01H5-530-33	53.0	
BR01H5-540-33	54.0	
BR01H5-550-33	55.0	
BR01H5-560-33	56.0	
BR01H5-570-33	57.0	
BR01H5-580-33	58.0	
BR01H5-590-33	59.0	
BR01H5-600-33	60.0	

Item no. 제품코드	D 외경	Flute Length 날기장
BR01H5-120-53	12.0	53 mm
BR01H5-130-53	13.0	
BR01H5-140-53	14.0	
BR01H5-150-53	15.0	
BR01H5-160-53	16.0	
BR01H5-170-53	17.0	
BR01H5-175-53	17.5	
BR01H5-180-53	18.0	
BR01H5-190-53	19.0	
BR01H5-200-53	20.0	
BR01H5-210-53	21.0	
BR01H5-215-53	21.5	
BR01H5-220-53	22.0	
BR01H5-225-53	22.5	
BR01H5-230-53	23.0	
BR01H5-235-53	23.5	
BR01H5-240-53	24.0	
BR01H5-245-53	24.5	
BR01H5-250-53	25.0	
BR01H5-255-53	25.5	
BR01H5-260-53	26.0	
BR01H5-265-53	26.5	
BR01H5-270-53	27.0	
BR01H5-280-53	28.0	
BR01H5-290-53	29.0	
BR01H5-300-53	30.0	
BR01H5-310-53	31.0	
BR01H5-320-53	32.0	
BR01H5-330-53	33.0	
BR01H5-340-53	34.0	
BR01H5-350-53	35.0	
BR01H5-360-53	36.0	
BR01H5-370-53	37.0	
BR01H5-380-53	38.0	
BR01H5-390-53	39.0	
BR01H5-400-53	40.0	
BR01H5-410-53	41.0	
BR01H5-420-53	42.0	

Item no. 제품코드	D 외경	Flute Length 날기장
BR01H5-430-53	43.0	53 mm
BR01H5-440-53	44.0	
BR01H5-450-53	45.0	
BR01H5-460-53	46.0	
BR01H5-470-53	47.0	
BR01H5-480-53	48.0	
BR01H5-490-53	49.0	
BR01H5-500-53	50.0	
BR01H5-510-53	51.0	
BR01H5-520-53	52.0	
BR01H5-530-53	53.0	
BR01H5-540-53	54.0	
BR01H5-550-53	55.0	
BR01H5-560-53	56.0	
BR01H5-570-53	57.0	
BR01H5-580-53	58.0	
BR01H5-590-53	59.0	
BR01H5-600-53	60.0	

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- This product is only supplied with TiN coating.
- 이 제품은 오직 TiN 코팅 제품만 제공됩니다.

Tolerance (허용공차)		
D	d1	l
0~-0.03	Ø19.05	±1

Accessory for Broach Cutters

브로치 컷터용
각종 약세서리



Arbor – Inner Coolant(내부급유)

Item no. 제품코드	Purpose 종류	Type 구분	Designation 규격
ARBDM-001-IN	For Drill Machine	MT2	Standard
ARBDM-002-IN			Long
ARBDM-003-IN		MT3	Standard
ARBDM-004-IN			Long

Arbor – Outer Coolant(외부급유)

Item no. 제품코드	Purpose 종류	Type 구분	Designation 규격
ARBDM-001-OUT	For Drill Machine	MT2	Standard
ARBDM-002-OUT			Long
ARBDM-003-OUT		MT3	Standard
ARBDM-004-OUT			Long
ARBLM-001-OUT	For Lathe & Milling Machine	Collet	Ø25
ARBLM-002-OUT			Ø32
ARBLM-003-OUT			Ø42
ARBLM-004-OUT		MT	MT2
ARBLM-005-OUT			MT3
ARBLM-006-OUT			MT4
ARBED-001-OUT	For Electric Drill		Standard
ARBOTC-001-OUT	One Touch Connector		NITTO Type

Pin

Item no. 제품코드	Standard Type		Item no. 제품코드	2 Steps Type		Item no. 제품코드	Connector	
	Designation (규격)	Remarks (비고)		Designation (규격)	Remarks (비고)		Designation (규격)	Remarks (비고)
PIN-001-ST	Ø8X80L	1"(HSS)	PIN-001-2S	Ø6X80L	Ø11, Ø12(HSS)	PIN-001-CN	Ø8X110L	1"(HSS)
PIN-002-ST	Ø8X90L	1"(Carbide)	PIN-002-2S	Ø6X105L	Ø12(HSS-Long)	PIN-002-CN	Ø8X120L	1"(Carbide)
PIN-003-ST	Ø8X105L	2"	PIN-003-2S	Ø8X80L	Ø13, Ø16(HSS)	PIN-003-CN	Ø8X135L	2"
PIN-004-ST	Ø8X130L	3"	PIN-004-2S	Ø8X90L	Ø14, Ø16(Carbide)			
PIN-005-ST	Ø8X155L	4"	PIN-005-2S	Ø8X105L	Ø13, Ø16(HSS-Long)			

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

TC01H1, TA01H1, TA02H1, TS01H1, TS02H2, Ts03H1 - HSS Cutters

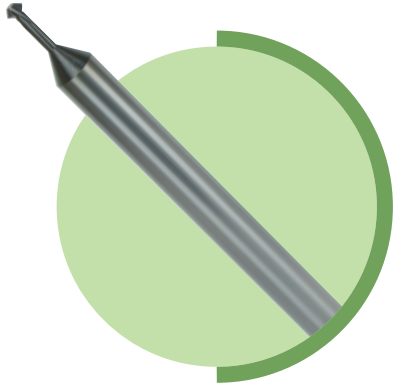
Materials	Carbon Steels		Alloy steel		Cast Iron		Stainless Steel		Aluminum Alloys	
Cutting speed	115		58		90		58		300	
외경	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
10.0	1,116	91	563	34	873	71	563	23	2,911	355
20.0	558	57	281	21	437	44	281	14	1,455	222
30.0	372	45	188	17	291	35	188	11	970	177
40.0	279	40	141	15	218	31	141	10	728	155
50.0	223	36	113	14	175	28	113	9	582	142

RPM = rev./min. Feed = min/rev.

CR01H9 - HSS Co5% Corner Rounding Cutters

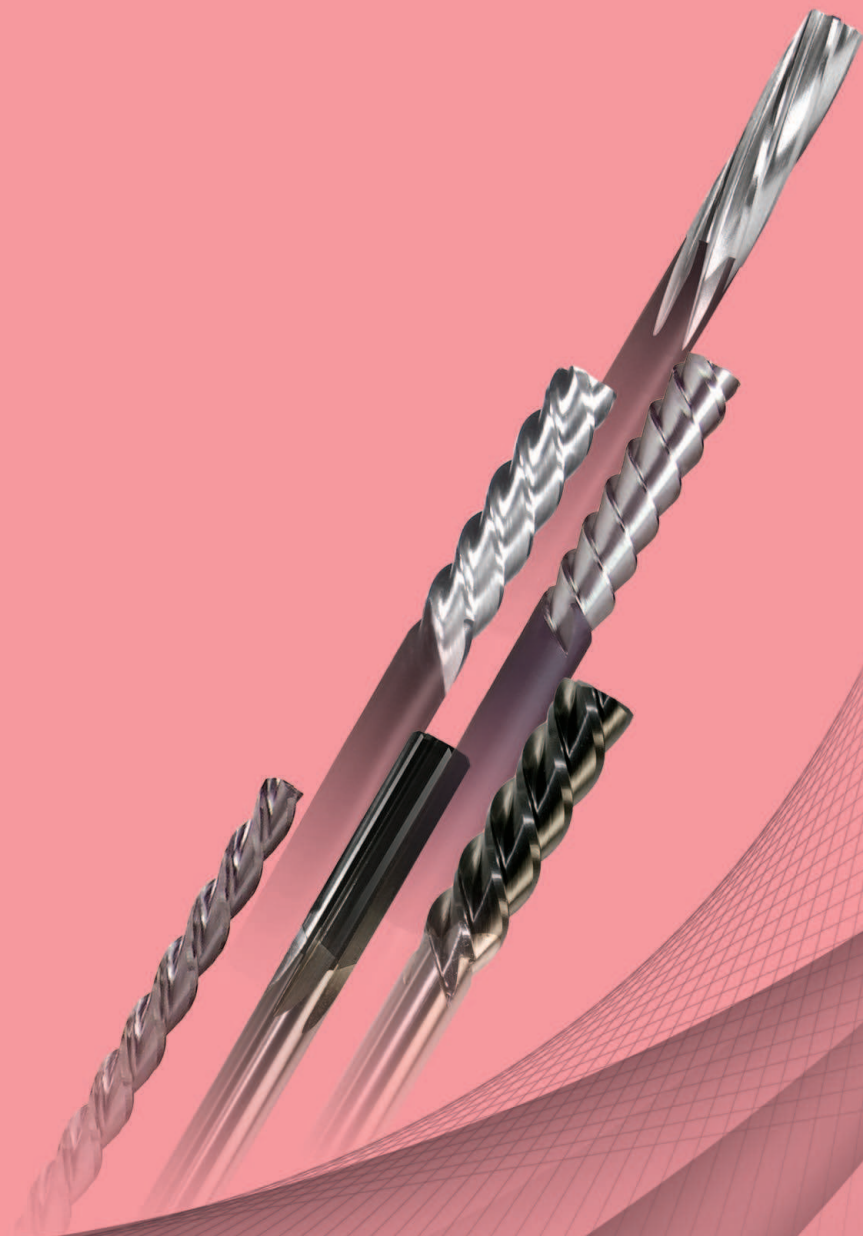
Work materials	Aluminum		Carbon Steels & Alloy Steels					
			<500 N/mm ²		<HRc20		HRc20 ~ HRc35	
					500~800 N/mm ²		800~1100 N/mm ²	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
R2	2,800	220	630	50	470	30	380	30
R3	2,400	210	530	45	390	30	315	30
R4	200	200	450	45	330	30	270	25
R5	1,600	200	350	40	260	30	210	25
R6	1,400	190	310	40	230	30	185	25
R8	1,200	180	260	40	190	30	155	25
R10	950	170	210	35	155	25	125	25

RPM = rev./min. Feed = min/rev.



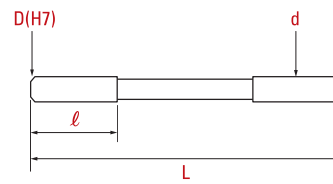
DYC BEST TOTAL TOOLS

CARBIDE Reamers



Carbide Straight Chucking Reamers - Straight Shank

초경 직선날
척킹리머,
직선샤크



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크	Remarks 비고
RM01CA-010	1.0	9	40	D	Solid Carbide
RM01CA-011	1.1	9	40	D	
RM01CA-012	1.2	9	40	D	
RM01CA-013	1.3	9	40	D	
RM01CA-014	1.4	9	40	D	
RM01CA-015	1.5	10	40	D	
RM01CA-016	1.6	10	40	D	
RM01CA-017	1.7	10	40	D	
RM01CA-018	1.8	10	40	D	
RM01CA-019	1.9	10	40	D	
RM01CA-020	2.0	11	46	D	
RM01CA-021	2.1	11	46	D	
RM01CA-022	2.2	11	46	D	
RM01CA-023	2.3	11	46	D	
RM01CA-024	2.4	11	46	D	
RM01CA-025	2.5	15	46	D	
RM01CA-026	2.6	15	46	D	
RM01CA-027	2.7	15	46	D	
RM01CA-028	2.8	15	46	D	
RM01CA-029	2.9	15	46	D	
RM01CA-030	3.0	15	57	D	
RM01CA-031	3.1	15	57	D	
RM01CA-032	3.2	15	57	D	
RM01CA-033	3.3	15	57	D	

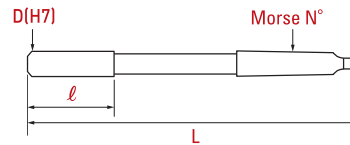
Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크	Remarks 비고
RM01CA-034	3.4	15	57	D	Solid Carbide
RM01CA-035	3.5	15	57	D	
RM01CA-036	3.6	15	57	D	
RM01CA-037	3.7	15	57	D	
RM01CA-038	3.8	15	57	D	
RM01CA-039	3.9	15	57	D	
RM01CA-040	4.0	19	75	4	
RM01CA-045	4.5	21	80	4.5	
RM01CA-050	5.0	23	86	5	
RM01CA-055	5.5	26	86	5.5	
RM01CA-060	6.0	26	93	6	
RM01CA-065	6.5	26	93	6	
RM01CA-070	7.0	31	107	7	
RM01CA-075	7.5	31	107	7	
RM01CA-080	8.0	33	117	8	
RM01CA-085	8.5	33	117	8	
RM01CA-090	9.0	36	125	9	
RM01CA-095	9.5	36	125	9	
RM01CA-100	10.0	38	133	10	
RM01CA-105	10.5	38	133	10	
RM01CA-110	11.0	41	142	10	
RM01CA-115	11.5	41	142	12	
RM01CA-120	12.0	44	151	12	
RM01CA-125	12.5	44	151	12	
RM01CA-130	13.0	44	151	12	
RM01CA-135	13.5	44	151	14	
RM01CA-140	14.0	47	160	14	
RM01CA-145	14.5	47	160	14	
RM01CA-150	15.0	50	162	14	
RM01CA-155	15.5	52	162	16	
RM01CA-160	16.0	52	170	16	
RM01CA-165	16.5	54	170	16	
RM01CA-170	17.0	54	175	16	
RM01CA-175	17.5	54	175	18	
RM01CA-180	18.0	56	182	18	
RM01CA-185	18.5	56	182	18	
RM01CA-190	19.0	59	189	18	
RM01CA-195	19.5	58	189	20	
RM01CA-200	20.0	60	195	20	

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

Tolerance (허용공차)			
D	d	ℓ	L
m5	h8	±1	±1

Carbide 12° Helix Chucking Reamers - Straight Shank

초경 12°
헬릭스 척킹리머,
직선샤홅크



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤홅크	Remarks 비고
RM02CA-020	2.0	11	46	D	Solid
RM02CA-021	2.1	11	46	D	
RM02CA-022	2.2	11	46	D	
RM02CA-023	2.3	11	46	D	
RM02CA-024	2.4	11	46	D	
RM02CA-025	2.5	15	46	D	
RM02CA-026	2.6	15	46	D	
RM02CA-027	2.7	15	46	D	
RM02CA-028	2.8	15	46	D	
RM02CA-029	2.9	15	46	D	
RM02CA-030	3.0	15	57	D	
RM02CA-031	3.1	15	57	D	
RM02CA-032	3.2	15	57	D	
RM02CA-033	3.3	15	57	D	
RM02CA-034	3.4	15	57	D	
RM02CA-035	3.5	15	57	D	
RM02CA-036	3.6	15	57	D	
RM02CA-037	3.7	15	57	D	
RM02CA-038	3.8	15	57	D	
RM02CA-039	3.9	15	57	D	
RM02CA-040	4.0	19	75	4	
RM02CA-045	4.5	21	80	4.5	

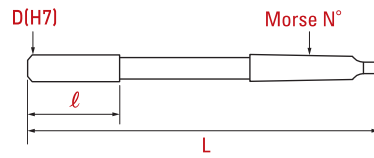
Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크	Remarks 비고
RM02CA-050	5.0	23	86	5	Solid
RM02CA-055	5.5	26	86	5.5	
RM02CA-060	6.0	26	93	6	
RM02CA-065	6.5	26	93	6	
RM02CA-070	7.0	31	107	7	
RM02CA-075	7.5	31	107	7	
RM02CA-080	8.0	33	117	8	
RM02CA-085	8.5	33	117	8	
RM02CA-090	9.0	36	125	9	
RM02CA-095	9.5	36	125	9	
RM02CA-100	10.0	38	133	10	Top Solid Carbide
RM02CA-105	10.5	38	133	10	
RM02CA-110	11.0	41	142	10	
RM02CA-115	11.5	41	142	12	
RM02CA-120	12.0	44	151	12	
RM02CA-125	12.5	44	151	12	
RM02CA-130	13.0	44	151	12	
RM02CA-135	13.5	44	151	14	
RM02CA-140	14.0	47	160	14	
RM02CA-145	14.5	47	160	14	
RM02CA-150	15.0	50	162	14	
RM02CA-155	15.5	50	162	16	
RM02CA-160	16.0	52	170	16	
RM02CA-165	16.5	52	170	16	
RM02CA-170	17.0	54	175	16	
RM02CA-175	17.5	54	175	18	
RM02CA-180	18.0	56	182	18	
RM02CA-185	18.5	56	182	18	
RM02CA-190	19.0	58	189	18	
RM02CA-195	19.5	58	189	20	
RM02CA-200	20.0	60	195	20	

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiALN is added after the item no, ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

Tolerance (허용공차)			
D	d	ℓ	L
m5	h8	±1	±1

Carbide 12° Helix Chucking Reamers - Morse Taper Shank

초경 12°
헬릭스 척킹리머,
MT 샹크



Item no. 제품코드	D 외경	ℓ 날장	L 전장	No. of Flute 날수	Morse N°	
RM03CA-120	12.0	44	182	6	MT1	
RM03CA-130	13.0	44	182			
RM03CA-140	14.0	47	189			
RM03CA-150	15.0	50	204		8	MT2
RM03CA-160	16.0	52	204			
RM03CA-170	17.0	54	204			
RM03CA-180	18.0	56	214			
RM03CA-190	19.0	58	214			
RM03CA-200	20.0	60	214			
RM03CA-250	25.0	64	250		10	MT3
RM03CA-300	30.0	64	280			

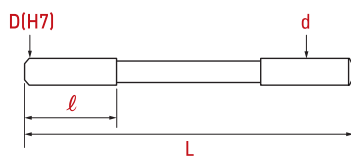
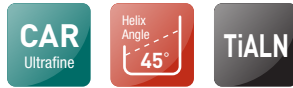
• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

• For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
 • 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

Tolerance (허용공차)		
D	ℓ	L
m5	±1	±1

Carbide 45° Helix Chucking Reamers - Straight Shank

초경 45°
헬릭스 척킹리머,
직선샤홅크



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤홅크	Remarks 비고
RM04CA-020	2.0	11	46	D	Solid
RM04CA-021	2.1	11	46	D	
RM04CA-022	2.2	11	46	D	
RM04CA-023	2.3	11	46	D	
RM04CA-024	2.4	11	46	D	
RM04CA-025	2.5	15	46	D	
RM04CA-026	2.6	15	46	D	
RM04CA-027	2.7	15	46	D	
RM04CA-028	2.8	15	46	D	
RM04CA-029	2.9	15	46	D	
RM04CA-030	3.0	15	57	D	
RM04CA-031	3.1	15	57	D	
RM04CA-032	3.2	15	57	D	
RM04CA-033	3.3	15	57	D	
RM04CA-034	3.4	15	57	D	
RM04CA-035	3.5	15	57	D	
RM04CA-036	3.6	15	57	D	
RM04CA-037	3.7	15	57	D	
RM04CA-038	3.8	15	57	D	
RM04CA-039	3.9	15	57	D	
RM04CA-040	4.0	19	75	4	

Carbide Reamers

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 상크	Remarks 비고
RM04CA-045	4.5	21	80	4.5	Solid
RM04CA-050	5.0	23	86	5	
RM04CA-055	5.5	26	86	5.5	
RM04CA-060	6.0	26	93	6	
RM04CA-065	6.5	26	93	6	
RM04CA-070	7.0	31	107	7	
RM04CA-075	7.5	31	107	7	
RM04CA-080	8.0	33	117	8	
RM04CA-085	8.5	33	117	8	
RM04CA-090	9.0	36	125	9	
RM04CA-095	9.5	36	125	9	
RM04CA-100	10.0	38	133	10	Top Solid Carbide
RM04CA-105	10.5	38	133	10	
RM04CA-110	11.0	41	142	10	
RM04CA-115	11.5	41	142	12	
RM04CA-120	12.0	44	151	12	
RM04CA-125	12.5	44	151	12	
RM04CA-130	13.0	44	151	12	
RM04CA-135	13.5	44	151	14	
RM04CA-140	14.0	47	160	14	
RM04CA-145	14.5	47	160	14	
RM04CA-150	15.0	50	162	14	
RM04CA-155	15.5	50	162	16	
RM04CA-160	16.0	52	170	16	
RM04CA-165	16.5	52	170	16	
RM04CA-170	17.0	54	175	16	
RM04CA-175	17.5	54	175	18	
RM04CA-180	18.0	56	182	18	
RM04CA-185	18.5	56	182	18	
RM04CA-190	19.0	58	189	18	
RM04CA-195	19.5	58	189	20	
RM04CA-200	20.0	60	195	20	

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

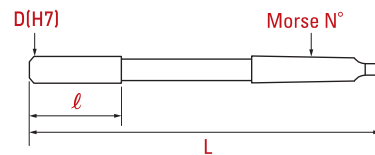
• For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
 • 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

Tolerance (허용공차)

D	d	ℓ	L
m5	h8	±1	±1

Carbide 45° Helix Chucking Reamers - Morse Taper Shank

초경 45°
헬릭스 척킹리머,
MT 샹크



Item no. 제품코드	D 외경	ℓ 날장	L 전장	No. of Flute 날수	Morse N°
RM05CA-120	12.0	44	182	4	MT1
RM05CA-130	13.0	44	182		
RM05CA-140	14.0	47	189		
RM05CA-150	15.0	50	204		
RM05CA-160	16.0	52	204	6	MT2
RM05CA-170	17.0	54	204		
RM05CA-180	18.0	56	214		
RM05CA-190	19.0	58	214		
RM05CA-200	20.0	60	214	6	MT3
RM05CA-250	25.0	64	250		
RM05CA-300	30.0	64	280		

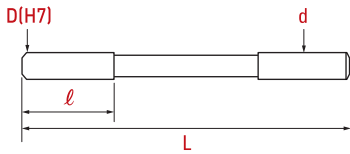
• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

• For the coating products item number, TiALN is added after the item no. ex) Item no. - TiALN
• 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다. ex) Item no. - TiALN

Tolerance (허용공차)		
D	ℓ	L
m5	±1	±1

Carbide 60° Helix Chucking Reamers - Straight Shank

초경 60°
헬릭스 척킹리머,
직선샤홅크



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤홅크	Remarks 비고	
RM06CA-020	2.0	10	46	D	Solid	
RM06CA-025	2.5	10	46	D		
RM06CA-030	3.0	15	57	D		
RM06CA-035	3.5	15	57	D		
RM06CA-040	4.0	15	75	4		
RM06CA-045	4.5	18	80	4.5		
RM06CA-050	5.0	20	86	5		
RM06CA-055	5.5	20	86	5.5		
RM06CA-060	6.0	23	93	6		
RM06CA-065	6.5	23	93	6		
RM06CA-070	7.0	26	107	7		
RM06CA-075	7.5	26	107	7		
RM06CA-080	8.0	28	117	8		Top Solid Carbide
RM06CA-085	8.5	28	117	8		
RM06CA-090	9.0	30	125	9		
RM06CA-095	9.5	30	125	9		
RM06CA-100	10.0	32	133	10		
RM06CA-105	10.5	32	133	10		
RM06CA-110	11.0	35	142	10		
RM06CA-115	11.5	35	142	12		

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤홅크	Remarks 비고
RM06CA-120	12.0	36	151	12	Top Solid Carbide
RM06CA-125	12.5	36	151	12	
RM06CA-130	13.0	38	151	12	
RM06CA-135	13.5	38	151	14	
RM06CA-140	14.0	40	160	14	
RM06CA-150	15.0	40	162	14	
RM06CA-160	16.0	42	170	16	
RM06CA-170	17.0	42	175	16	
RM06CA-180	18.0	45	182	18	
RM06CA-190	19.0	45	189	18	
RM06CA-200	20.0	48	195	20	

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

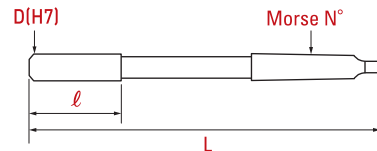
• For the coating products item number, TiALN is added after the item no.
 ex) Item no. - TiALN

• 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다.
 ex) Item no. - TiALN

Tolerance (허용공차)			
D	d	ℓ	L
m5	h8	±1	±1

Carbide 60° Helix Chucking Reamers - Morse Taper Shank

초경 60°
헬릭스 척킹리머,
MT 샹크



Item no. 제품코드	D 외경	ℓ 날장	L 전장	No. of Flute 날수	Morse N°
RM07CA-120	12.0	44	182	4	MT1
RM07CA-130	13.0	44	182		
RM07CA-140	14.0	47	189		
RM07CA-150	15.0	50	204		
RM07CA-160	16.0	52	204	6	MT2
RM07CA-170	17.0	54	204		
RM07CA-180	18.0	56	214		
RM07CA-190	19.0	58	214		
RM07CA-200	20.0	60	214		
RM07CA-250	25.0	64	250		MT3

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiALN is added after the item no.
ex) Item no. - TiALN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiALN이 추가됩니다.
ex) Item no. - TiALN

Tolerance (허용공차)		
D	ℓ	L
m5	±1	±1

RM01CA - Solid Carbide Straight Chucking Reamers

Work materials	Carbon Steels	Cast Iron, Alloy steels	Prehardened Steels (~ HRc45)	Stainless Steels	Aluminum Alloys
Cutting speed	12.0	11.0	9.0	8.0	19.0
Diameter	Feed(mm/rev)	Feed(mm/rev)	Feed(mm/rev)	Feed(mm/rev)	Feed(mm/rev)
4.0	0.11	0.08	0.08	0.07	0.20
6.0	0.15	0.12	0.12	0.08	0.20
8.0	0.20	0.15	0.15	0.11	0.30
10.0	0.20	0.20	0.20	0.15	0.30
12.0	0.30	0.15	0.15	0.20	0.40
16.0	0.40	0.30	0.25	0.25	0.40
20.0	0.40	0.40	0.30	0.30	0.45

Feed = min/rev.

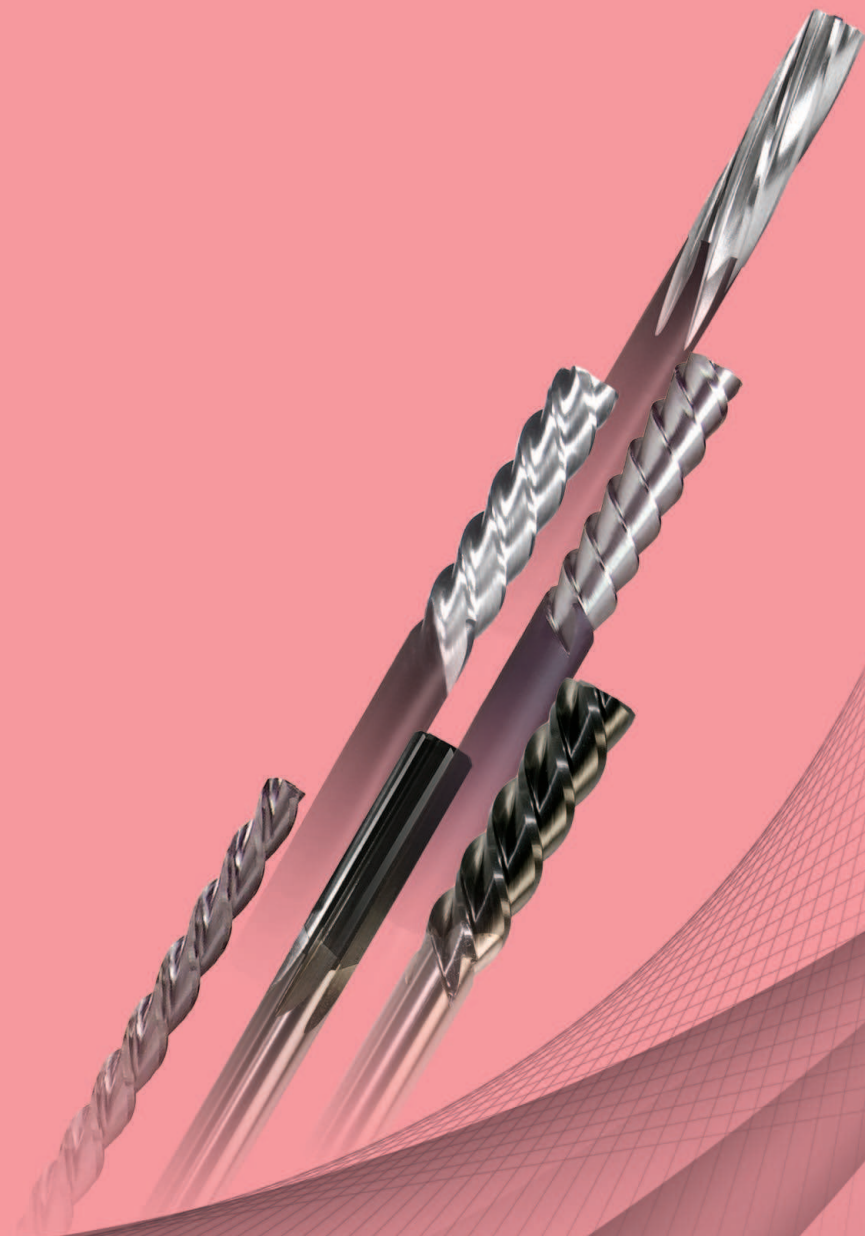
RM04CA - Solid Carbide 45° Helix Chucking Reamers

Work materials	Carbon Steels	Cast Iron, Alloy steels	Prehardened Steels (~ HRc45)	Stainless Steels	Aluminum Alloys
Cutting speed	20.0	17.0	12.0	10.0	28.0
Diameter	Feed(mm/rev)	Feed(mm/rev)	Feed(mm/rev)	Feed(mm/rev)	Feed(mm/rev)
4.0	0.08	0.08	0.06	0.05	0.15
6.0	0.08	0.08	0.08	0.08	0.15
8.0	0.18	0.14	0.10	0.14	0.23
10.0	0.20	0.18	0.14	0.16	0.25
12.0	0.25	0.18	0.14	0.20	0.30
16.0	0.28	0.23	0.15	0.20	0.30
20.0	0.45	0.35	0.23	0.33	0.45

Feed = min/rev.

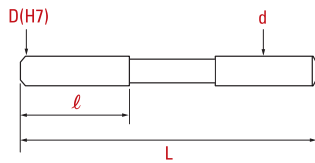
DYC BEST TOTAL TOOLS

HSS Reamers



HSS-Co 5% 12° Helix Chucking Reamers - Straight Shank

하이스 12° 헬릭스 척킹리머
직선샤크, SKH55



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
RM01H5-020	2.0	20	57	2
RM01H5-021	2.1	20	57	2.1
RM01H5-022	2.2	20	57	2.2
RM01H5-023	2.3	20	57	2.3
RM01H5-024	2.4	20	57	2.4
RM01H5-025	2.5	20	57	2.5
RM01H5-026	2.6	20	57	2.6
RM01H5-027	2.7	20	57	2.7
RM01H5-028	2.8	20	57	2.8
RM01H5-029	2.9	20	57	2.9
RM01H5-030	3.0	20	75	3.0
RM01H5-031	3.1	20	75	3.1
RM01H5-032	3.2	20	75	3.2
RM01H5-033	3.3	20	75	3.3
RM01H5-034	3.4	20	75	3.4
RM01H5-035	3.5	20	75	3.5
RM01H5-036	3.6	20	75	3.6
RM01H5-037	3.7	20	75	3.7
RM01H5-038	3.8	20	75	3.8
RM01H5-039	3.9	20	75	3.9
RM01H5-040	4.0	24	75	4
RM01H5-041	4.1	25	75	4
RM01H5-042	4.2	25	75	4
RM01H5-043	4.3	25	75	4
RM01H5-044	4.4	25	75	4
RM01H5-045	4.5	25	80	4.5
RM01H5-046	4.6	25	80	4.5
RM01H5-047	4.7	25	80	4.5
RM01H5-048	4.8	25	80	4.5

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
RM01H5-049	4.9	25	80	4.5
RM01H5-050	5.0	26	86	5
RM01H5-051	5.1	26	86	5
RM01H5-052	5.2	26	86	5
RM01H5-053	5.3	26	86	5
RM01H5-054	5.4	26	86	5
RM01H5-055	5.5	27	93	5.5
RM01H5-056	5.6	27	93	5.5
RM01H5-057	5.7	27	93	5.5
RM01H5-058	5.8	27	93	5.5
RM01H5-059	5.9	27	93	5.5
RM01H5-060	6.0	28	101	6
RM01H5-061	6.1	28	101	6
RM01H5-062	6.2	28	101	6
RM01H5-063	6.3	28	101	6
RM01H5-064	6.4	28	101	6
RM01H5-065	6.5	28	101	6
RM01H5-066	6.6	28	101	6
RM01H5-067	6.7	28	101	6
RM01H5-068	6.8	28	101	6
RM01H5-069	6.9	28	101	6
RM01H5-070	7.0	31	109	7
RM01H5-071	7.1	31	109	7
RM01H5-072	7.2	31	109	7
RM01H5-073	7.3	31	109	7
RM01H5-074	7.4	31	109	7
RM01H5-075	7.5	31	109	7
RM01H5-076	7.6	31	109	7
RM01H5-077	7.7	31	109	7

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
RM01H5-078	7.8	31	109	7
RM01H5-079	7.9	31	109	7
RM01H5-080	8.0	33	117	8
RM01H5-081	8.1	33	117	8
RM01H5-082	8.2	33	117	8
RM01H5-083	8.3	33	117	8
RM01H5-084	8.4	33	117	8
RM01H5-085	8.5	33	117	8
RM01H5-086	8.6	33	117	8
RM01H5-087	8.7	33	117	8
RM01H5-088	8.8	33	117	8
RM01H5-089	8.9	33	117	8
RM01H5-090	9.0	36	125	9
RM01H5-091	9.1	36	125	9
RM01H5-092	9.2	36	125	9
RM01H5-093	9.3	36	125	9
RM01H5-094	9.4	36	125	9
RM01H5-095	9.5	36	133	9
RM01H5-096	9.6	36	133	9
RM01H5-097	9.7	36	133	9
RM01H5-098	9.8	36	133	9
RM01H5-099	9.9	36	133	9
RM01H5-100	10.0	38	133	10
RM01H5-101	10.1	38	133	10
RM01H5-102	10.2	38	133	10
RM01H5-103	10.3	38	133	10
RM01H5-104	10.4	38	133	10
RM01H5-105	10.5	38	133	10
RM01H5-106	10.6	38	133	10
RM01H5-107	10.7	38	133	10
RM01H5-108	10.8	38	133	10
RM01H5-109	10.9	38	133	10
RM01H5-110	11.0	38	133	10
RM01H5-111	11.1	38	133	10
RM01H5-112	11.2	38	133	10
RM01H5-113	11.3	38	133	10
RM01H5-114	11.4	38	133	10
RM01H5-115	11.5	44	151	12
RM01H5-116	11.6	44	151	12
RM01H5-117	11.7	44	151	12

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
RM01H5-118	11.8	44	151	12
RM01H5-119	11.9	44	151	12
RM01H5-120	12.0	44	151	12
RM01H5-121	12.1	44	151	12
RM01H5-122	12.2	44	151	12
RM01H5-123	12.3	44	151	12
RM01H5-124	12.4	44	151	12
RM01H5-125	12.5	44	151	12
RM01H5-126	12.6	44	151	12
RM01H5-127	12.7	44	151	12
RM01H5-128	12.8	44	151	12
RM01H5-129	12.9	44	151	12
RM01H5-130	13.0	44	151	12
RM01H5-135	13.5	47	160	14
RM01H5-140	14.0	47	160	14
RM01H5-145	14.5	50	160	14
RM01H5-150	15.0	50	162	14
RM01H5-155	15.5	52	162	16
RM01H5-160	16.0	52	170	16
RM01H5-165	16.5	54	170	16
RM01H5-170	17.0	54	175	16
RM01H5-175	17.5	56	175	18
RM01H5-180	18.0	56	182	18
RM01H5-185	18.5	58	182	18
RM01H5-190	19.0	58	189	18
RM01H5-195	19.5	60	189	20
RM01H5-200	20.0	60	195	20
RM01H5-210	21.0	60	205	20
RM01H5-220	22.0	60	205	20

• Products except for the above standard items will be produced by the special order.

• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

• For the coating products item number, TIN or TiCN is added after the item no.

ex) Item no. - TIN or Item no. - TiCN

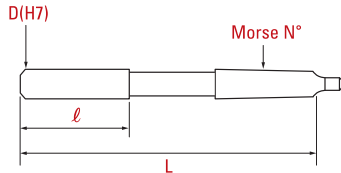
• 코팅 제품의 아이템 번호는 Item no. 뒤에 TIN 또는 TiCN이 추가됩니다.

ex) Item no. - TIN 또는 Item no. - TiCN

Tolerance (허용공차)			
D	d	ℓ	L
m5	h8	±1	±1

HSS-Co 5% 12° Helix Chucking Reamers - Morse Taper Shank

하이스 12° 헬릭스 척킹리머
MT샤크, SKH55



Item no. 제품코드	D 외경	ℓ 날장	L 전장	MORSE N°	No. of Flute 날수
RM02H5-080	8.0	33	156	MT1	6
RM02H5-090	9.0	36	162		
RM02H5-100	10.0	38	168		
RM02H5-105	10.5	38	168		
RM02H5-110	11.0	41	175		
RM02H5-115	11.5	41	175		
RM02H5-120	12.0	44	182		
RM02H5-125	12.5	44	182		
RM02H5-130	13.0	44	182		
RM02H5-135	13.5	44	189		
RM02H5-140	14.0	47	189		
RM02H5-145	14.5	47	189		
RM02H5-150	15.0	50	204	MT2	8
RM02H5-155	15.5	50	204		
RM02H5-160	16.0	52	204		
RM02H5-170	17.0	52	204		
RM02H5-180	18.0	56	214		
RM02H5-190	19.0	56	214		
RM02H5-200	20.0	58	214		
RM02H5-210	21.0	58	214		
RM02H5-220	22.0	58	214		
RM02H5-240	24.0	66	240		
RM02H5-250	25.0	68	250		
RM02H5-260	26.0	70	260		
RM02H5-280	28.0	71	270		
RM02H5-300	30.0	72	280		

Item no. 제품코드	D 외경	ℓ 날장	L 전장	MORSE N°	No. of Flute 날수
RM02H5-320	32.0	73	300	MT4	10
RM02H5-350	35.0	75	320		
RM02H5-360	36.0	78	325		
RM02H5-380	38.0	81	329		
RM02H5-400	40.0	81	329		
RM02H5-420	42.0	82	333		
RM02H5-450	45.0	83	336		
RM02H5-480	48.0	86	344		
RM02H5-500	50.0	86	344		

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

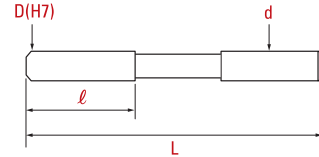
Tolerance (허용공차)		
D	ℓ	L
m5	±1	±1

HSS-Co 5%

45° Helix Chucking Reamers

- Straight Shank

하이스 45° 헬릭스 척킹리머
직선샤크, SKH55



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
RM03H5-020	2.0	20	57	2.0
RM03H5-021	2.1	20	57	2.1
RM03H5-022	2.2	20	57	2.2
RM03H5-023	2.3	20	57	2.3
RM03H5-024	2.4	20	57	2.4
RM03H5-025	2.5	20	57	2.5
RM03H5-026	2.6	20	57	2.6
RM03H5-027	2.7	20	57	2.7
RM03H5-028	2.8	20	57	2.8
RM03H5-029	2.9	20	57	2.9
RM03H5-030	3.0	20	75	3.0
RM03H5-031	3.1	20	75	3.1
RM03H5-032	3.2	20	75	3.2
RM03H5-033	3.3	20	75	3.3
RM03H5-034	3.4	20	75	3.4
RM03H5-035	3.5	20	75	3.5
RM03H5-036	3.6	20	75	3.6
RM03H5-037	3.7	20	75	3.7
RM03H5-038	3.8	20	75	3.8
RM03H5-039	3.9	20	75	3.9
RM03H5-040	4.0	24	75	4
RM03H5-041	4.1	25	75	4
RM03H5-042	4.2	25	75	4
RM03H5-043	4.3	25	75	4
RM03H5-044	4.4	25	75	4
RM03H5-045	4.5	25	80	4.5
RM03H5-046	4.6	25	80	4.5
RM03H5-047	4.7	25	80	4.5
RM03H5-048	4.8	25	80	4.5

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
RM03H5-049	4.9	25	80	4.5
RM03H5-050	5.0	26	86	5
RM03H5-051	5.1	26	86	5
RM03H5-052	5.2	26	86	5
RM03H5-053	5.3	26	86	5
RM03H5-054	5.4	26	86	5
RM03H5-055	5.5	27	93	5.5
RM03H5-056	5.6	27	93	5.5
RM03H5-057	5.7	27	93	5.5
RM03H5-058	5.8	27	93	5.5
RM03H5-059	5.9	27	93	5.5
RM03H5-060	6.0	28	101	6
RM03H5-061	6.1	28	101	6
RM03H5-062	6.2	28	101	6
RM03H5-063	6.3	28	101	6
RM03H5-064	6.4	28	101	6
RM03H5-065	6.5	28	101	6
RM03H5-066	6.6	28	101	6
RM03H5-067	6.7	28	101	6
RM03H5-068	6.8	28	101	6
RM03H5-069	6.9	28	101	6
RM03H5-070	7.0	31	109	7
RM03H5-071	7.1	31	109	7
RM03H5-072	7.2	31	109	7
RM03H5-073	7.3	31	109	7
RM03H5-074	7.4	31	109	7
RM03H5-075	7.5	31	109	7
RM03H5-076	7.6	31	109	7
RM03H5-077	7.7	31	109	7

HSS Reamers

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 상크
RM03H5-078	7.8	31	109	7
RM03H5-079	7.9	31	109	7
RM03H5-080	8.0	33	117	8
RM03H5-081	8.1	33	117	8
RM03H5-082	8.2	33	117	8
RM03H5-083	8.3	33	117	8
RM03H5-084	8.4	33	117	8
RM03H5-085	8.5	33	117	8
RM03H5-086	8.6	33	117	8
RM03H5-087	8.7	33	117	8
RM03H5-088	8.8	33	117	8
RM03H5-089	8.9	33	117	8
RM03H5-090	9.0	36	125	9
RM03H5-091	9.1	36	125	9
RM03H5-092	9.2	36	125	9
RM03H5-093	9.3	36	125	9
RM03H5-094	9.4	36	125	9
RM03H5-095	9.5	36	133	9
RM03H5-096	9.6	36	133	9
RM03H5-097	9.7	36	133	9
RM03H5-098	9.8	36	133	9
RM03H5-099	9.9	36	133	9
RM03H5-100	10.0	38	133	10
RM03H5-101	10.1	38	133	10
RM03H5-102	10.2	38	133	10
RM03H5-103	10.3	38	133	10
RM03H5-104	10.4	38	133	10
RM03H5-105	10.5	38	133	10
RM03H5-106	10.6	38	133	10
RM03H5-107	10.7	38	133	10
RM03H5-108	10.8	38	133	10
RM03H5-109	10.9	38	133	10
RM03H5-110	11.0	38	133	10
RM03H5-111	11.1	38	133	10
RM03H5-112	11.2	38	133	10
RM03H5-113	11.3	38	133	10
RM03H5-114	11.4	38	133	10
RM03H5-115	11.5	44	151	12
RM03H5-116	11.6	44	151	12
RM03H5-117	11.7	44	151	12

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 상크
RM03H5-118	11.8	44	151	12
RM03H5-119	11.9	44	151	12
RM03H5-120	12.0	44	151	12
RM03H5-121	12.1	44	151	12
RM03H5-122	12.2	44	151	12
RM03H5-123	12.3	44	151	12
RM03H5-124	12.4	44	151	12
RM03H5-125	12.5	44	151	12
RM03H5-126	12.6	44	151	12
RM03H5-127	12.7	44	151	12
RM03H5-128	12.8	44	151	12
RM03H5-129	12.9	44	151	12
RM03H5-130	13.0	44	151	12
RM03H5-135	13.5	47	160	14
RM03H5-140	14.0	47	160	14
RM03H5-145	14.5	50	160	14
RM03H5-150	15.0	50	162	14
RM03H5-155	15.5	52	162	16
RM03H5-160	16.0	52	170	16
RM03H5-165	16.5	54	170	16
RM03H5-170	17.0	54	175	16
RM03H5-175	17.5	56	175	18
RM03H5-180	18.0	56	182	18
RM03H5-185	18.5	58	182	18
RM03H5-190	19.0	58	189	18
RM03H5-195	19.5	60	189	20
RM03H5-200	20.0	60	195	20
RM03H5-210	21.0	60	205	20
RM03H5-220	22.0	60	205	20

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ex) Item no. - TiN or Item no. - TiCN

• 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.

ex) Item no. - TiN 또는 Item no. - TiCN

Tolerance (허용공차)

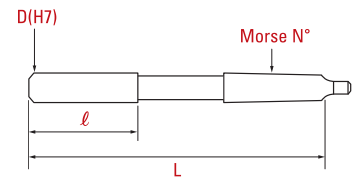
D	d	ℓ	L
m5	h8	±1	±1

HSS-Co 5% 45° Helix Chucking Reamers - Morse Taper Shank

하이스 45° 헬릭스 척킹리머
MT샤크, SKH55



Item no. 제품코드	D 외경	ℓ 날장	L 전장	MORSE N°	No. of Flute 날수
RM04H5-080	8.0	33	156	MT1	3
RM04H5-090	9.0	36	162		
RM04H5-100	10.0	38	168		
RM04H5-110	11.0	41	175		
RM04H5-120	12.0	44	182		4
RM04H5-130	13.0	44	182		
RM04H5-140	14.0	47	189		
RM04H5-150	15.0	50	204		
RM04H5-160	16.0	52	204	MT2	6
RM04H5-170	17.0	52	204		
RM04H5-180	18.0	56	214		
RM04H5-190	19.0	56	214		
RM04H5-200	20.0	58	214		8
RM04H5-220	22.0	58	214		
RM04H5-240	24.0	66	240		
RM04H5-250	25.0	68	250		
RM04H5-260	26.0	70	260	MT3	8
RM04H5-280	28.0	71	270		
RM04H5-300	30.0	72	280		
RM04H5-320	32.0	73	300		
RM04H5-350	35.0	75	320	MT4	10
RM04H5-360	36.0	78	325		
RM04H5-380	38.0	81	329		
RM04H5-400	40.0	81	329		



Item no. 제품코드	D 외경	ℓ 날장	L 전장	MORSE N°	No. of Flute 날수
RM04H5-420	42.0	82	333	MT4	12
RM04H5-450	45.0	83	336		
RM04H5-480	48.0	86	344		
RM04H5-500	50.0	86	344		

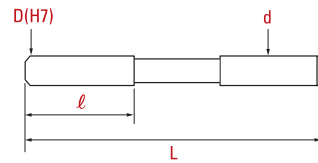
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ex) Item no. - TiN 또는 Item no. - TiCN

Tolerance (허용공차)		
D	ℓ	L
m5	±1	±1

HSS-Co 5% 60° Helix Chucking Reamers - Straight Shank

하이스 60° 헬릭스 척킹리머
직선샤희, SKH55

Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤희
RM05H5-020	2.0	20	57	2
RM05H5-025	2.5	20	57	2.5
RM05H5-030	3.0	20	75	3
RM05H5-035	3.5	20	75	3.5
RM05H5-040	4.0	24	75	4
RM05H5-045	4.5	25	80	4.5
RM05H5-050	5.0	26	86	5
RM05H5-055	5.5	27	93	5.5
RM05H5-060	6.0	28	101	6
RM05H5-065	6.5	28	101	6
RM05H5-070	7.0	31	109	7
RM05H5-075	7.5	31	109	7
RM05H5-080	8.0	33	117	8
RM05H5-085	8.5	33	117	8
RM05H5-090	9.0	36	125	9
RM05H5-095	9.5	36	133	9
RM05H5-100	10.0	38	133	10
RM05H5-105	10.5	38	133	10
RM05H5-110	11.0	38	133	10
RM05H5-115	11.5	44	151	12
RM05H5-120	12.0	44	151	12
RM05H5-125	12.5	44	151	12
RM05H5-130	13.0	44	151	12
RM05H5-135	13.5	47	160	14
RM05H5-140	14.0	47	160	14
RM05H5-150	15.0	50	162	14
RM05H5-160	16.0	52	170	16
RM05H5-170	17.0	54	175	16
RM05H5-180	18.0	56	182	18



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤희
RM05H5-190	19.0	58	189	18
RM05H5-200	20.0	60	195	20
RM05H5-210	21.0	60	205	20
RM05H5-220	22.0	60	205	20

- Products except for the above standard items will be produced by the special order.
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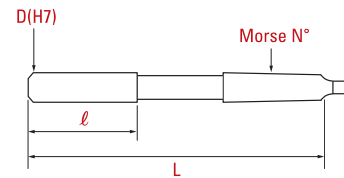
Tolerance (허용공차)			
D	d	ℓ	L
m5	h8	±1	±1

HSS-Co 5% 60° Helix Chucking Reamers - Morse Taper Shank

하이스 60° 헬릭스 척킹리머
MT상크, SKH55



Item no. 제품코드	D 외경	ℓ 날장	L 전장	MORSE N°	No. of Flute 날수
RM06H5-080	8.0	33	156	MT1	3
RM06H5-090	9.0	36	162		
RM06H5-100	10.0	38	168		
RM06H5-110	11.0	41	175		
RM06H5-120	12.0	44	182		
RM06H5-130	13.0	44	182		
RM06H5-140	14.0	47	189		
RM06H5-150	15.0	50	204	MT2	4
RM06H5-160	16.0	52	204		
RM06H5-170	17.0	52	204		
RM06H5-180	18.0	56	214		
RM06H5-190	19.0	56	214		
RM06H5-200	20.0	58	214	MT3	
RM06H5-220	22.0	58	214		
RM06H5-240	24.0	66	240		
RM06H5-250	25.0	68	250		



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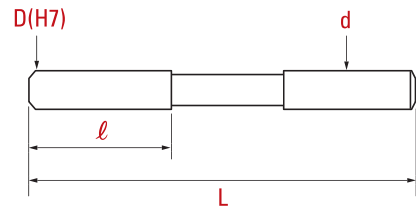
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ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

Tolerance (허용공차)

D	ℓ	L
m5	±1	±1

HSS-Co 5% 12° Helix Power Long Chucking Reamers - Straight Shank

하이스
12° 헬릭스
파워롱 척킹 리머
직선 샹크, SKH55



Item no. 제품코드	L 전장	
	100L	
	D 외경	ℓ 날장
RM23H5-10020	2.0	20
RM23H5-10025	2.5	25
RM23H5-10030	3.0	30
RM23H5-10035	3.5	30

Item no. 제품코드	L 전장	
	150L	
	D 외경	ℓ 날장
RM23H5-15020	2.0	20
RM23H5-15025	2.5	25
RM23H5-15030	3.0	30
RM23H5-15035	3.5	30
RM23H5-15040	4.0	30
RM23H5-15045	4.5	30
RM23H5-15050	5.0	30
RM23H5-15055	5.5	30
RM23H5-15060	6.0	35
RM23H5-15065	6.5	35
RM23H5-15070	7.0	35
RM23H5-15075	7.5	35
RM23H5-15080	8.0	35
RM23H5-15085	8.5	35

Tolerance (허용공차)			
D	d	ℓ	L
m5	h8	±1	±1

Item no. 제품코드	L 전장	
	200L	
	D 외경	ℓ 날장
RM23H5-20040	4.0	30
RM23H5-20045	4.5	30
RM23H5-20050	5.0	30
RM23H5-20055	5.5	30
RM23H5-20060	6.0	35
RM23H5-20065	6.5	35
RM23H5-20070	7.0	35
RM23H5-20075	7.5	35
RM23H5-20080	8.0	35
RM23H5-20085	8.5	35

Item no. 제품코드	L 전장	
	200L	
	D 외경	ℓ 날장
RM23H5-20090	9.0	35
RM23H5-20095	9.5	35
RM23H5-20100	10.0	35
RM23H5-20110	11.0	40
RM23H5-20120	12.0	40
RM23H5-20130	13.0	40
RM23H5-20140	14.0	40
RM23H5-20150	15.0	45
RM23H5-20160	16.0	45

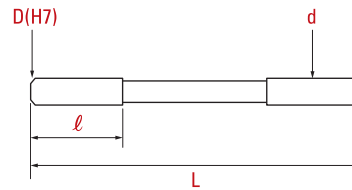
Item no. 제품코드	L 전장	
	250L	
	D 외경	ℓ 날장
RM23H5-25060	6.0	35
RM23H5-25065	6.5	35
RM23H5-25070	7.0	35
RM23H5-25075	7.5	35
RM23H5-25080	8.0	35
RM23H5-25085	8.5	35
RM23H5-25090	9.0	35
RM23H5-25095	9.5	35
RM23H5-25100	10.0	35
RM23H5-25110	11.0	40
RM23H5-25120	12.0	40
RM23H5-25130	13.0	40
RM23H5-25140	14.0	40
RM23H5-25150	15.0	45
RM23H5-25160	16.0	45
RM23H5-25180	18.0	50
RM23H5-25200	20.0	50

Item no. 제품코드	L 전장	
	300L	
	D 외경	ℓ 날장
RM23H5-30060	6.0	35
RM23H5-30066	6.5	35
RM23H5-30070	7.0	35
RM23H5-30075	7.5	35
RM23H5-30080	8.0	35
RM23H5-30085	8.5	35
RM23H5-30090	9.0	35
RM23H5-30095	9.5	35
RM23H5-30100	10.0	35
RM23H5-30110	11.0	40
RM23H5-30120	12.0	40
RM23H5-30130	13.0	40
RM23H5-30140	14.0	40
RM23H5-30150	15.0	45
RM23H5-30160	16.0	45
RM23H5-30180	18.0	50
RM23H5-30200	20.0	50

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

HSS-Co 5% 12° Helix Extra Long Chucking Reamers - Morse Taper Shank

하이스 12°
롱 헬릭스 척킹리머
MT샤크, SKH55



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
RM12H5-120	12.0	40	315	MT1
RM12H5-130	13.0	40	315	
RM12H5-140	14.0	40	315	
RM12H5-160	16.0	45	350	MT2
RM12H5-180	18.0	45	350	
RM12H5-200	20.0	45	350	
RM12H5-250	25.0	70	450	MT3
RM12H5-300	30.0	70	450	

Tolerance (허용공차)			
D	d	ℓ	L
m5	h8	±1	±1

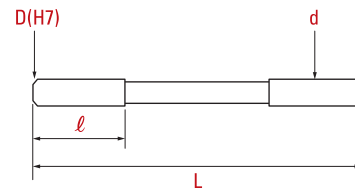
• Products except for the above standard items will be produced by the special order.
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HSS-Co 5% 45° Helix Extra Long Chucking Reamers - Straight & Morse Taper Shank

하이스 45° 헬릭스 롱 척킹리머
직선 & MT상크, SKH55

HSS
Co 5%

Helix
Angle
45°



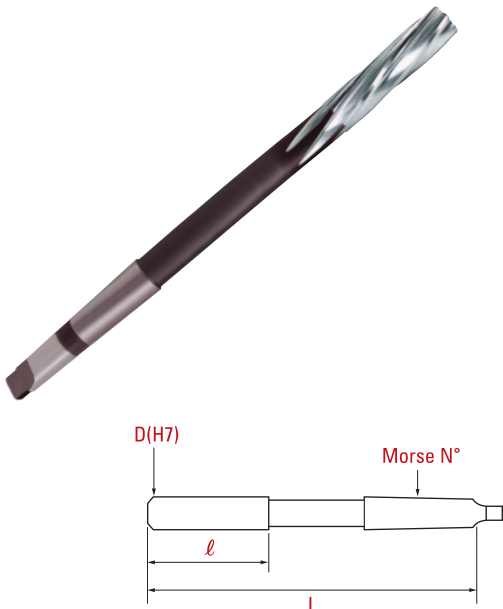
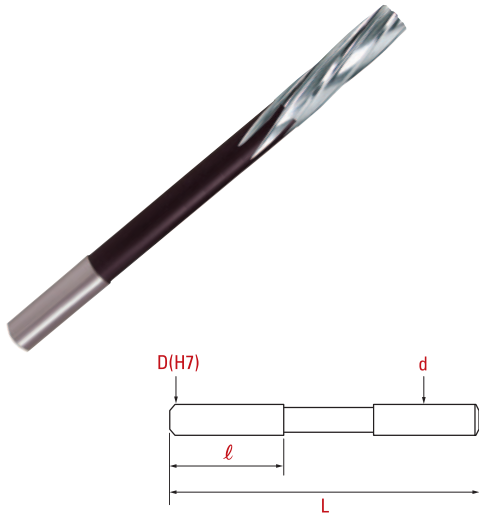
Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 상크
RM13H5-060	6.0	32	250	6
RM13H5-080	8.0	35	250	8
RM13H5-100	10.0	35	250	10
RM13H5-120	12.0	40	315	MT1
RM13H5-130	13.0	40	315	
RM13H5-140	14.0	40	315	
RM13H5-160	16.0	45	350	MT2
RM13H5-180	18.0	45	350	
RM13H5-200	20.0	45	350	MT3
RM13H5-250	25.0	70	450	
RM13H5-300	30.0	70	450	

Tolerance (허용공차)			
D	d	ℓ	L
m5	h8	±1	±1

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HSS-Co 5% 12° Helix Chucking Reamers for Mold - Straight & Morse Taper Shank

하이스 12° 헬릭스
금형용 척킹리머
직선 & MT샤크, SKH55



Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
RM08H5-080	8.0	33	117	8
RM08H5-100	10.0	38	133	10
RM08H5-120	12.0	44	151	12
RM08H5-130	13.0	44	151	12
RM08H5-140	14.0	47	160	14
RM08H5-160	16.0	52	170	16
RM08H5-180	18.0	56	182	18
RM08H5-200	20.0	60	195	20

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Item no. 제품코드	D 외경	ℓ 날장	L 전장	MORSE N°	No. of Flute 날수
RM09H5-120	12.0	44	182	6	MT1
RM09H5-130	13.0	44	182	8	
RM09H5-140	14.0	47	189	8	
RM09H5-160	16.0	52	204	8	MT2
RM09H5-180	18.0	56	214	8	
RM09H5-200	20.0	60	214	8	

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Tolerance (허용공차)			
D	d	ℓ	L
+0.015~0.020	h8	±1	±1

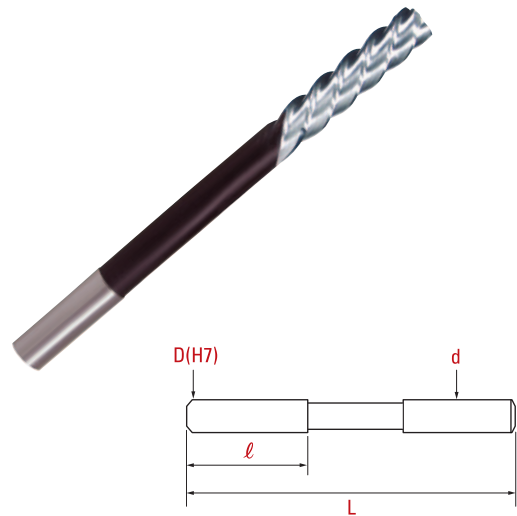
HSS-Co 5% 45° Helix Chucking Reamers for Mold - Straight & Morse Taper Shank

하이스 45° 헬릭스
금형용 척킹리머
직선 & MT샤크, SKH55



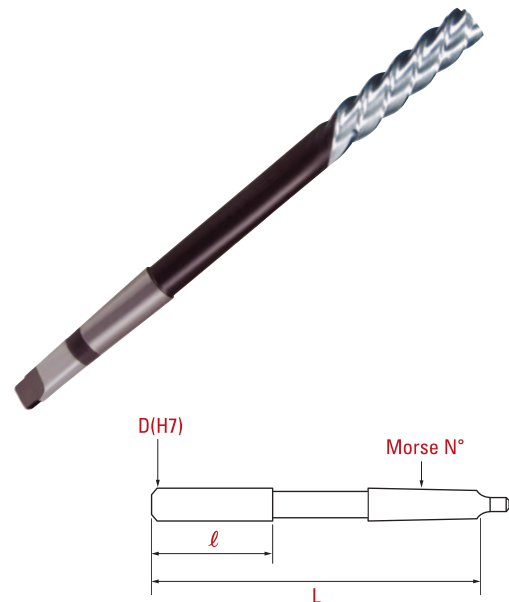
Item no. 제품코드	D 외경	ℓ 날장	L 전장	d 샤크
RM10H5-080	8.0	33	117	8
RM10H5-100	10.0	38	133	10
RM10H5-120	12.0	44	151	12
RM10H5-130	13.0	44	151	12
RM10H5-140	14.0	47	160	14
RM10H5-160	16.0	52	170	16
RM10H5-180	18.0	56	182	18
RM10H5-200	20.0	60	195	20

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.



Item no. 제품코드	D 외경	ℓ 날장	L 전장	MORSE N°	No. of Flute 날수
RM11H5-120	12.0	44	182	4	MT1
RM11H5-130	13.0	44	182	4	
RM11H5-140	14.0	47	189	4	
RM11H5-160	16.0	52	204	4	MT2
RM11H5-180	18.0	56	214	6	
RM11H5-200	20.0	60	214	6	

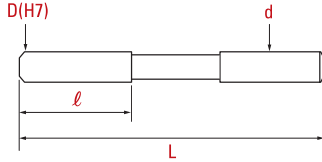
• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.



Tolerance (허용공차)			
D	d	ℓ	L
+0.015~-0.020	h8	±1	±1

HSS-PM 12° Helix Chucking Reamers - Straight Shank

분말하이스 12° 헬릭스 척킹리머
직선샤크, HSS-PM



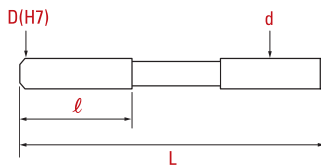
Item no. 제품코드	D 외경	ℓ1 날장	ℓ2 샤크장	No. of Flute 날수	L 전장	d 샤크
RM07PM-030	3.0	20	25	6	75	3
RM07PM-035	3.5	20	25	6	75	4
RM07PM-040	4.0	24	29	6	75	4
RM07PM-045	4.5	25	30	6	80	6
RM07PM-050	5.0	26	31	6	86	6
RM07PM-055	5.5	27	32	6	93	6
RM07PM-060	6.0	28	33	6	101	6
RM07PM-065	6.5	28	33	6	101	8
RM07PM-070	7.0	31	36	6	109	8
RM07PM-075	7.5	31	36	6	109	8
RM07PM-080	8.0	33	38	6	117	8
RM07PM-085	8.5	33	38	6	117	10
RM07PM-090	9.0	36	41	6	125	10
RM07PM-095	9.5	36	41	6	133	10
RM07PM-100	10.0	38	43	6	133	10
RM07PM-105	10.5	38	43	6	133	12
RM07PM-110	11.0	38	43	6	133	12
RM07PM-115	11.5	44	49	6	151	12
RM07PM-120	12.0	44	49	6	151	12
RM07PM-130	13.0	44	49	8	151	12
RM07PM-140	14.0	47	52	8	160	16
RM07PM-150	15.0	50	55	8	162	16
RM07PM-160	16.0	52	57	8	170	16
RM07PM-170	17.0	54	59	8	175	20
RM07PM-180	18.0	56	61	8	182	20
RM07PM-190	19.0	58	63	8	189	20
RM07PM-200	20.0	60	65	8	195	20

Tolerance (허용공차)			
D	d	ℓ	L
m5	h8	±1	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

HSS-Co 5% 12° Helix Inch Chucking Reamers - Straight Shank

하이스 12° 헬릭스 인치 척킹리머
직선샤홅크, SKH55



Item no. 제품코드	D 외경		ℓ 날장	L 전장	d 샤홅크
	Inch	mm			
RM14H5-030	1/8"	3.175	20	75	3
RM14H5-040	3/16"	4.763	25	80	5
RM14H5-060	1/4"	6.350	28	101	6
RM14H5-070	5/16"	7.938	33	117	8
RM14H5-090	3/8"	9.525	36	133	10
RM14H-110	7/16"	11.113	38	133	10
RM14H5-120	1/2"	12.700	44	151	12
RM14H5-150	5/8"	15.880	52	162	16
RM14H5-170	11/16"	17.470	56	175	18
RM14H5-190	3/4"	19.050	58	189	18
RM14H5-200	13/16"	20.640	60	195	20
RM14H5-220	7/8"	22.230	60	205	20
RM14H5-250	1"	25.400	68	250	MT3

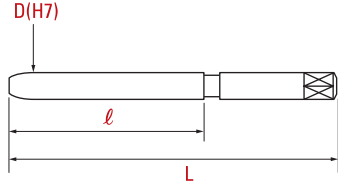
Tolerance (허용공차)			
D	d	ℓ	L
m5	h8	±1	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

HSS Straight Hand Reamers - Straight Shank

하이스 직선날 핸드리머
직선 샤프트, SKH51



Item no. 제품코드	D 외경	l 날장	L 전장
RM15H1-010	1.0	17	75
RM15H1-011	1.1	17	75
RM15H1-012	1.2	17	75
RM15H1-013	1.3	17	75
RM15H1-014	1.4	17	75
RM15H1-015	1.5	17	75
RM15H1-016	1.6	17	75
RM15H1-017	1.7	17	75
RM15H1-018	1.8	17	75
RM15H1-019	1.9	17	75
RM15H1-020	2.0	25	75
RM15H1-021	2.1	25	75
RM15H1-022	2.2	25	75
RM15H1-023	2.3	25	75
RM15H1-024	2.4	25	75
RM15H1-025	2.5	25	75
RM15H1-026	2.6	25	75
RM15H1-027	2.7	25	75
RM15H1-028	2.8	25	75
RM15H1-029	2.9	25	75
RM15H1-030	3.0	30	80
RM15H1-031	3.1	30	80
RM15H1-032	3.2	30	80
RM15H1-033	3.3	30	80
RM15H1-034	3.4	30	80
RM15H1-035	3.5	30	80
RM15H1-036	3.6	30	80
RM15H1-037	3.7	30	80
RM15H1-038	3.8	30	80
RM15H1-039	3.9	30	80

Item no. 제품코드	D 외경	l 날장	L 전장
RM15H1-040	4.0	40	85
RM15H1-041	4.1	40	85
RM15H1-042	4.2	40	85
RM15H1-043	4.3	40	85
RM15H1-044	4.4	40	85
RM15H1-045	4.5	40	85
RM15H1-046	4.6	40	85
RM15H1-047	4.7	40	85
RM15H1-048	4.8	40	85
RM15H1-049	4.9	40	85
RM15H1-050	5.0	45	90
RM15H1-051	5.1	45	90
RM15H1-052	5.2	45	90
RM15H1-053	5.3	45	90
RM15H1-054	5.4	45	90
RM15H1-055	5.5	45	90
RM15H1-056	5.6	45	90
RM15H1-057	5.7	45	90
RM15H1-058	5.8	45	90
RM15H1-059	5.9	45	90
RM15H1-060	6.0	50	100
RM15H1-061	6.1	50	100
RM15H1-062	6.2	50	100
RM15H1-063	6.3	50	100
RM15H1-064	6.4	50	100
RM15H1-065	6.5	50	100
RM15H1-066	6.6	50	100
RM15H1-067	6.7	50	100
RM15H1-068	6.8	50	100
RM15H1-069	6.9	50	100

Item no. 제품코드	D 외경	ℓ 날장	L 전장
RM15H1-070	7.0	55	110
RM15H1-071	7.1	55	110
RM15H1-072	7.2	55	110
RM15H1-073	7.3	55	110
RM15H1-074	7.4	55	110
RM15H1-075	7.5	55	110
RM15H1-076	7.6	55	110
RM15H1-077	7.7	55	110
RM15H1-078	7.8	55	110
RM15H1-079	7.9	55	110
RM15H1-080	8.0	57	115
RM15H1-081	8.1	57	115
RM15H1-082	8.2	57	115
RM15H1-083	8.3	57	115
RM15H1-084	8.4	57	115
RM15H1-085	8.5	57	115
RM15H1-086	8.6	57	115
RM15H1-087	8.7	57	115
RM15H1-088	8.8	57	115
RM15H1-089	8.9	57	115
RM15H1-090	9.0	59	125
RM15H1-091	9.1	59	125
RM15H1-092	9.2	59	125
RM15H1-093	9.3	59	125
RM15H1-094	9.4	59	125
RM15H1-095	9.5	59	125
RM15H1-096	9.6	59	125
RM15H1-097	9.7	59	125
RM15H1-098	9.8	59	125
RM15H1-099	9.9	59	125
RM15H1-100	10.0	61	135
RM15H1-101	10.1	61	135
RM15H1-102	10.2	61	135
RM15H1-103	10.3	61	135
RM15H1-104	10.4	61	135
RM15H1-105	10.5	61	135
RM15H1-106	10.6	61	135
RM15H1-107	10.7	61	135
RM15H1-108	10.8	61	135
RM15H1-109	10.9	61	135
RM15H1-110	11.0	65	145
RM15H1-111	11.1	65	145
RM15H1-112	11.2	65	145
RM15H1-113	11.3	65	145
RM15H1-114	11.4	65	145
RM15H1-115	11.5	65	145

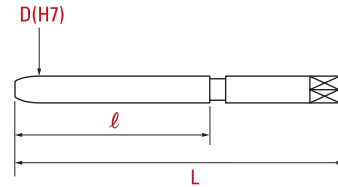
Item no. 제품코드	D 외경	ℓ 날장	L 전장
RM15H1-116	11.6	65	145
RM15H1-117	11.7	65	145
RM15H1-118	11.8	65	145
RM15H1-119	11.9	65	145
RM15H1-120	12.0	70	155
RM15H1-121	12.1	70	155
RM15H1-122	12.2	70	155
RM15H1-123	12.3	70	155
RM15H1-124	12.4	70	155
RM15H1-125	12.5	70	155
RM15H1-126	12.6	70	155
RM15H1-127	12.7	70	155
RM15H1-128	12.8	70	155
RM15H1-129	12.9	70	155
RM15H1-130	13.0	73	160
RM15H1-135	13.5	73	160
RM15H1-140	14.0	76	165
RM15H1-150	15.0	78	170
RM15H1-160	16.0	80	175
RM15H1-170	17.0	85	185
RM15H1-180	18.0	90	195
RM15H1-190	19.0	95	200
RM15H1-200	20.0	100	210
RM15H1-210	21.0	100	210
RM15H1-220	22.0	100	210
RM15H1-230	23.0	107	215
RM15H1-240	24.0	115	230
RM15H1-250	25.0	115	230
RM15H1-260	26.0	115	230
RM15H1-280	28.0	124	247
RM15H1-300	30.0	124	247
RM15H1-320	32.0	133	265
RM15H1-350	35.0	160	315
RM15H1-380	38.0	165	325
RM15H1-400	40.0	165	330
RM15H1-420	42.0	165	330
RM15H1-450	45.0	170	340
RM15H1-480	48.0	170	340
RM15H1-500	50.0	180	355

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 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	ℓ	L
m5	±1	±1

HSS 12° Helix Hand Reamers - Straight Shank

하이스 12° 헬릭스 핸드리머
직선샤홅크, SKH51



Item no. 제품코드	D 외경	ℓ 날장	L 전장
RM16H1-020	2.0	25	75
RM16H1-021	2.1	25	75
RM16H1-022	2.2	25	75
RM16H1-023	2.3	25	75
RM16H1-024	2.4	25	75
RM16H1-025	2.5	25	75
RM16H1-026	2.6	25	75
RM16H1-027	2.7	25	75
RM16H1-028	2.8	25	75
RM16H1-029	2.9	25	75
RM16H1-030	3.0	30	80
RM16H1-031	3.1	30	80
RM16H1-032	3.2	30	80
RM16H1-033	3.3	30	80
RM16H1-034	3.4	30	80
RM16H1-035	3.5	30	80
RM16H1-036	3.6	30	80
RM16H1-037	3.7	30	80
RM16H1-038	3.8	30	80
RM16H1-039	3.9	30	80
RM16H1-040	4.0	40	85
RM16H1-041	4.1	40	85

Item no. 제품코드	D 외경	ℓ 날장	L 전장
RM16H1-042	4.2	40	85
RM16H1-043	4.3	40	85
RM16H1-044	4.4	40	85
RM16H1-045	4.5	40	85
RM16H1-046	4.6	40	85
RM16H1-047	4.7	40	85
RM16H1-048	4.8	40	85
RM16H1-049	4.9	40	85
RM16H1-050	5.0	45	90
RM16H1-051	5.1	45	90
RM16H1-052	5.2	45	90
RM16H1-053	5.3	45	90
RM16H1-054	5.4	45	90
RM16H1-055	5.5	45	90
RM16H1-056	5.6	45	90
RM16H1-057	5.7	45	90
RM16H1-058	5.8	45	90
RM16H1-059	5.9	45	90
RM16H1-060	6.0	50	100
RM16H1-061	6.1	50	100
RM16H1-062	6.2	50	100
RM16H1-063	6.3	50	100

Item no. 제품코드	D 외경	ℓ 날장	L 전장
RM16H1-064	6.4	50	100
RM16H1-065	6.5	50	100
RM16H1-066	6.6	50	100
RM16H1-067	6.7	50	100
RM16H1-068	6.8	50	100
RM16H1-069	6.9	50	100
RM16H1-070	7.0	55	110
RM16H1-071	7.1	55	110
RM16H1-072	7.2	55	110
RM16H1-073	7.3	55	110
RM16H1-074	7.4	55	110
RM16H1-075	7.5	55	110
RM16H1-076	7.6	55	110
RM16H1-077	7.7	55	110
RM16H1-078	7.8	55	110
RM16H1-079	7.9	55	110
RM16H1-080	8.0	57	115
RM16H1-081	8.1	57	115
RM16H1-082	8.2	57	115
RM16H1-083	8.3	57	115
RM16H1-084	8.4	57	115
RM16H1-085	8.5	57	115
RM16H1-086	8.6	57	115
RM16H1-087	8.7	57	115
RM16H1-088	8.8	57	115
RM16H1-089	8.9	57	115
RM16H1-090	9.0	59	125
RM16H1-091	9.1	59	125
RM16H1-092	9.2	59	125
RM16H1-093	9.3	59	125
RM16H1-094	9.4	59	125
RM16H1-095	9.5	59	125
RM16H1-096	9.6	59	125
RM16H1-097	9.7	59	125
RM16H1-098	9.8	59	125
RM16H1-099	9.9	59	125
RM16H1-100	10.0	61	135
RM16H1-101	10.1	61	135
RM16H1-102	10.2	61	135
RM16H1-103	10.3	61	135
RM16H1-104	10.4	61	135
RM16H1-105	10.5	61	135
RM16H1-106	10.6	61	135

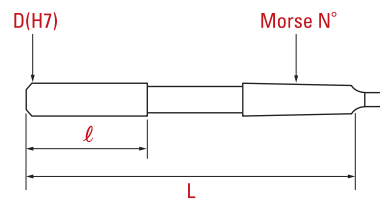
Item no. 제품코드	D 외경	ℓ 날장	L 전장
RM16H1-107	10.7	61	135
RM16H1-108	10.8	61	135
RM16H1-109	10.9	61	135
RM16H1-110	11.0	65	145
RM16H1-111	11.1	65	145
RM16H1-112	11.2	65	145
RM16H1-113	11.3	65	145
RM16H1-114	11.4	65	145
RM16H1-115	11.5	65	145
RM16H1-116	11.6	65	145
RM16H1-117	11.7	65	145
RM16H1-118	11.8	65	145
RM16H1-119	11.9	65	145
RM16H1-120	12.0	70	155
RM16H1-121	12.1	70	155
RM16H1-122	12.2	70	155
RM16H1-123	12.3	70	155
RM16H1-124	12.4	70	155
RM16H1-125	12.5	70	155
RM16H1-126	12.6	70	155
RM16H1-127	12.7	70	155
RM16H1-128	12.8	70	155
RM16H1-129	12.9	70	155
RM16H1-130	13.0	73	160
RM16H1-135	13.5	73	160
RM16H1-140	14.0	76	165
RM16H1-150	15.0	78	170
RM16H1-160	16.0	80	175
RM16H1-170	17.0	85	185
RM16H1-180	18.0	90	195
RM16H1-190	19.0	95	200
RM16H1-200	20.0	100	210
RM16H1-210	21.0	100	210
RM16H1-220	22.0	100	210

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	ℓ	L
m5	±1	±1

HSS Straight Machine Reamers - Morse Taper Shank

하이스 직선날 머신리머
MT샤크, SKH51



Item no. 제품코드	D 외경	ℓ 날장	L 전장	No. of Flute 날수	MORSE N°
RM17H1-080	8.0	60	150	6	MT1
RM17H1-090	9.0	70	160	6	
RM17H1-100	10.0	70	160	6	
RM17H1-110	11.0	75	170	6	
RM17H1-120	12.0	75	170	6	
RM17H1-130	13.0	80	180	8	
RM17H1-140	14.0	85	190	8	MT2
RM17H1-150	15.0	90	210	8	
RM17H1-160	16.0	95	215	8	
RM17H1-170	17.0	100	220	8	
RM17H1-180	18.0	105	225	8	
RM17H1-190	19.0	105	225	8	
RM17H1-200	20.0	110	230	8	MT3
RM17H1-220	22.0	120	240	8	
RM17H1-240	24.0	130	270	8	
RM17H1-250	25.0	130	270	8	
RM17H1-260	26.0	140	280	10	
RM17H1-270	27.0	140	280	10	
RM17H1-280	28.0	140	280	10	MT3
RM17H1-300	30.0	150	290	10	

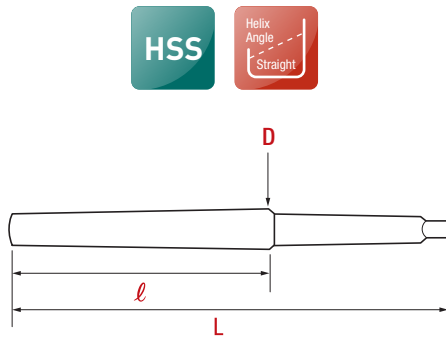
Item no. 제품코드	D 외경	ℓ 날장	L 전장	No. of Flute 날수	MORSE N°
RM17H1-320	32.0	160	300	10	MT4
RM17H1-350	35.0	160	325	10	
RM17H1-360	36.0	165	330	10	
RM17H1-380	38.0	165	330	12	
RM17H1-400	40.0	165	330	12	
RM17H1-420	42.0	165	330	12	
RM17H1-450	45.0	170	340	12	
RM17H1-480	48.0	170	340	12	
RM17H1-500	50.0	180	385	12	
RM17H1-520	52.0	180	385	12	

• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)		
D	ℓ	L
m5	±1	±1

HSS Straight Bridge Reamers - Morse Taper Shank

하이스 직선날 브릿지 리머
MT 샹크, SKH51



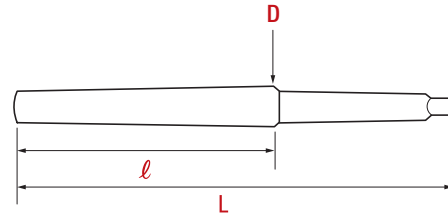
Item no. 제품코드	D 외경	l 날장	L 전장	No. of Flute 날수	MORSE N°
RM18H1-160	16.0	115	210	6	MT2
RM18H1-180	18.0	115	210	6	
RM18H1-200	20.0	120	215	6	
RM18H1-210	21.0	120	215	6	
RM18H1-220	22.0	120	215	8	
RM18H1-230	23.0	120	215	8	
RM18H1-240	24.0	135	250	8	MT3
RM18H1-250	25.0	135	250	8	
RM18H1-260	26.0	135	250	8	
RM18H1-280	28.0	260	260	8	
RM18H1-300	30.0	280	280	8	

Tolerance (허용공차)		
D	l	L
m5	±1	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

HSS 25° Helix Bridge Reamers - Morse Taper Shank

하이스 25° 헬릭스
브릿지 리머
MT 샹크, SKH51



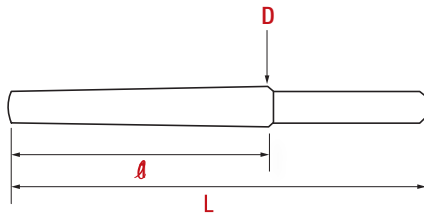
Item no. 제품코드	D 외경	l 날장	L 전장	No. of Flute 날수	MORSE N°
RM19H1-160	16.0	115	210	6	MT2
RM19H1-180	18.0	115	210	6	
RM19H1-200	20.0	120	215	6	
RM19H1-210	21.0	120	215	6	
RM19H1-220	22.0	120	215	8	
RM19H1-230	23.0	120	215	8	
RM19H1-240	24.0	135	250	8	MT3
RM19H1-250	25.0	135	250	8	
RM19H1-260	26.0	135	250	8	
RM19H1-280	28.0	260	260	8	
RM19H1-300	30.0	280	280	8	

Tolerance (허용공차)		
D	l	L
m5	±1	±1

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

HSS Straight Bridge Reamers - Straight Shank

하이스 직선날 브릿지 리머
직선 샤프트, SKH51



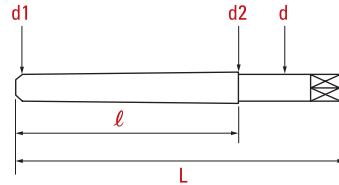
Item no. 제품코드	D 외경	ℓ 날장	L 전장	No. of Flute 날수
RM20H1-200	20.0	140	190	6
RM20H1-210	21.0	140	190	6
RM20H1-220	22.0	140	190	8
RM20H1-230	23.0	140	190	8
RM20H1-240	24.0	140	190	8
RM20H1-250	25.0	140	190	8
RM20H1-260	26.0	140	190	8

Tolerance (허용공차)		
D	ℓ	L
m5	±1	±1

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

HSS Straight Taper Pin Reamer(1:50) - Hand Uses

하이스 직선날
테이퍼 핀 리머(1:50)
핸드용, SKH51



Item no. 제품코드	D 외경	d1 소경	d2 대경	ℓ 날장	L 전장	d 상크
RM21H1-030	3.0	2.9	4	58	80	4
RM21H1-040	4.0	3.9	5.2	68	93	5
RM21H1-050	5.0	4.9	6.3	73	105	6
RM21H1-060	6.0	5.9	8	105	140	8
RM21H1-070	7.0	6.9	9	105	140	9
RM21H1-080	8.0	7.9	10.8	145	185	10
RM21H1-090	9.0	8.9	11.8	145	190	12
RM21H1-100	10.0	9.9	13.4	175	220	12
RM21H1-110	11.0	10.9	14.6	185	240	14
RM21H1-120	12.0	11.8	16	210	260	14
RM21H1-130	13.0	12.8	17	210	260	16
RM21H1-140	14.0	13.8	18	210	260	18
RM21H1-150	15.0	14.8	19.2	220	270	18
RM21H1-160	16.0	15.8	20.4	230	280	20
RM21H1-180	18.0	17.8	22.4	230	290	22
RM21H1-200	20.0	19.8	24.8	250	310	22

Item no. 제품코드	D 외경	d1 소경	d2 대경	ℓ 날장	L 전장	d 상크
RM21H1-220	22.0	21.8	26.8	250	320	26
RM21H1-250	25.0	24.7	30.7	300	370	28
RM21H1-280	28.0	27.7	33.7	300	380	32
RM21H1-300	30.0	29.7	36.1	320	400	35
RM21H1-400	40.0	39.7	46.5	340	430	40
RM21H1-500	50.0	49.7	56.9	360	460	50

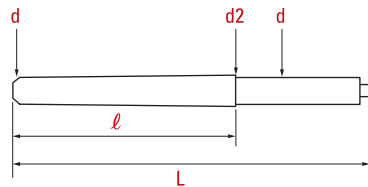
• Products except for the above standard items will be produced by the special order.
• 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Tolerance (허용공차)			
d	d1	L	ℓ
±0.05	±0.05	±1	±2

HSS 45° Helix Taper Pin Reamer(1:50)

- Machine Uses

하이스 45° 헬릭스
테이퍼 핀 리머(1:50)
머신용, SKH55



Item no. 제품코드	D 외경	d1 소경	d2 대경	l 날장	L 전장	d 상크
RM22H5-030	3.0	2.9	4.06	58	100	4
RM22H5-040	4.0	3.9	5.26	68	112	5
RM22H5-050	5.0	4.9	6.36	73	122	6
RM22H5-060	6.0	5.9	8	105	160	8
RM22H5-070	8.0	7.9	10.8	145	207	10
RM22H5-100	10.0	9.9	13.4	175	245	12
RM22H5-120	12.0	11.8	16	210	290	16

Tolerance (허용공차)			
d	d1	L	l
±0.05	±0.05	±1	±2

- Products except for the above standard items will be produced by the special order.
- 상기 목록 이외의 제품은 주문에 의해 제작됩니다.
- For the coating products item number, TiN or TiCN is added after the item no.
ex) Item no. - TiN or Item no. - TiCN
- 코팅 제품의 아이템 번호는 Item no. 뒤에 TiN 또는 TiCN이 추가됩니다.
ex) Item no. - TiN 또는 Item no. - TiCN

RM01H5 - HSS Spiral Chucking Reamers

Work materials	Carbon Steels		Alloy steels		Prehardened Steels		Aluminum alloys	
Hardness			Stainless Steels		HRc30 ~ HRc45			
Cutting speed	9.0		8.0		5.0		16.0	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
4.0	677	90	597	80	397	53	1,270	172
6.0	451	65	397	59	265	39	850	127
8.0	338	55	298	48	199	32	635	104
10.0	270	47	238	42	159	28	510	91
12.0	225	43	199	38	132	25	424	82
16.0	180	37	159	33	106	21	340	70
20.0	135	33	119	30	79	20	254	64

RPM=rev./min. Feed = min/rev.

RM05H5 - HSS 60° Helix Chucking Reamers

Work materials	Carbon Steels		Alloy steels		Prehardened Steels		Aluminum alloys	
Hardness			Stainless Steels		HRc30 ~ HRc45			
Cutting speed	11.0		10.0		6.0		20.0	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
4.0	875	108	796	98	517	64	1,630	203
6.0	583	79	530	72	344	47	1,087	149
8.0	437	65	397	59	258	39	816	123
10.0	350	55	318	51	207	34	652	104
12.0	292	51	265	47	172	30	543	96
16.0	219	44	199	40	129	26	407	83
20.0	175	39	159	36	103	24	326	74

RPM=rev./min. Feed = min/rev.

RM15H1 - HSS Hand Reamers

Work materials	Carbon Steels		Alloy steels		Prehardened Steels		Aluminum alloys	
Hardness			Stainless Steels		HRC30 ~ HRC45			
Cutting speed	9.0		8.0		5.0		16.0	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
4.0	677	83	597	74	397	49	1,270	160
6.0	451	63	397	56	265	37	850	121
8.0	338	52	298	46	199	31	635	99
10.0	270	45	238	40	159	26	510	86
12.0	225	40	199	36	132	24	424	78
16.0	180	35	159	31	106	21	340	67
20.0	135	32	119	28	79	19	254	60

RPM=rev./min. Feed = min/rev.

RM21H1 - HSS Taper Pin Straight Flutes Reamers

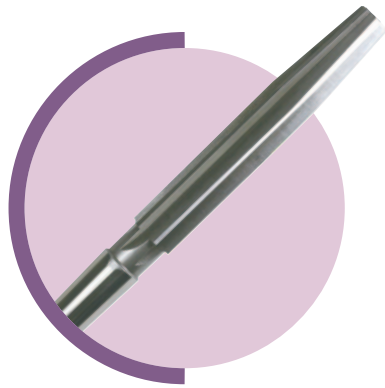
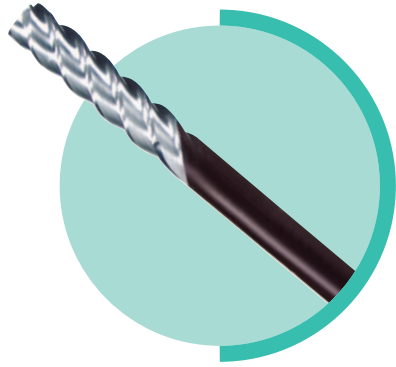
Work materials	Carbon Steels		Alloy steels		Prehardened Steels		Aluminum alloys	
Hardness			Stainless Steels		HRC30 ~ HRC45			
Cutting speed	9.0		8.0		6.0		12.0	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
4.0	676	12	517	9	437	8	995	19
6.0	451	10	344	8	290	7	663	15
8.0	338	9	258	7	219	6	497	14
10.0	270	8	207	6	175	5	397	13
12.0	225	7	172	6	146	5	331	11
16.0	169	6	129	5	109	4	248	10
20.0	135	6	103	4	87	4	199	8

RPM=rev./min. Feed = min/rev.

RM22H5 - HSS Taper Pin 45° Helix Flutes Reamers

Work materials	Carbon Steels		Alloy steels		Prehardened Steels		Aluminum alloys	
Hardness			Stainless Steels		HRC30 ~ HRC45			
Cutting speed	9.0		7.0		5.0		13.0	
Diameter	RPM	Feed	RPM	Feed	RPM	Feed	RPM	Feed
4.0	676	12	517	9	437	8	995	18
6.0	451	10	344	8	291	7	663	15
8.0	338	9	258	7	219	6	497	14
10.0	270	8	207	6	175	5	397	13
12.0	225	7	172	6	146	5	331	11

RPM=rev./min. Feed = min/rev.



DYC BEST TOTAL TOOLS

Inside Deburring Tools



Inside Deburring Tools

내부 면취 공구



Standard Tool A Type

Item no. 제품코드	Hole size 홀 규격	BLADE 블레이드	Remarks 비고
DT01A-030	3.0	N3	Adaptor + Arbor + Blade
DT01A-035	3.5		
DT01A-040	4.0		
DT01A-045	4.5	N4	
DT01A-050	5.0		
DT01A-055	5.5		

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Standard Tool B Type

Item no. 제품코드	Hole size 홀 규격	BLADE 블레이드	Remarks 비고
DT02B-060	6.0	N5	Arbor + Blade
DT02B-065	6.5		
DT02B-070	7.0		
DT02B-075	7.5	N6	
DT02B-080	8.0		
DT02B-085	8.5		
DT02B-090	9.0		
DT02B-095	9.5	N7	
DT02B-100	10.0		
DT02B-105	10.5		
DT02B-110	11.0		
DT02B-115	11.5		
DT02B-120	12.0	N8	
DT02B-125	12.5		
DT02B-130	13.0		
DT02B-135	13.5		
DT02B-140	14.0		
DT02B-145	14.5		
DT02B-150	15.0	N8	
DT02B-155	15.5		
DT02B-160	16.0		
DT02B-170	17.0		

• Products except for the above standard items will be produced by the special order.
 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Standard Tool C Type

Item no. 제품코드	Hole size 홀 규격	BLADE 블레이드	Remarks 비고
DT03C-180	18.0	N9	Arbor + Blade
DT03C-185	18.5		
DT03C-190	19.0		
DT03C-195	19.5		
DT03C-200	20.0		
DT03C-250	25.0		

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 • 상기 목록 이외의 제품은 주문에 의해 제작됩니다.

Inside Deburring Tools Blade - HSS with TiN & Carbide with TiALN

내부 면취 공구 블레이드
SKH51 & 초경



BL01H1



BL01CA

HSS

TiN

HSS

Item no. 제품코드	Hole size 홀 규격	Working Range 가공범위
BL01H1-N3-TiN	N3	D3.0-D4.0
BL01H1-N4-TiN	N4	D4.5-D5.5
BL01H1-N5-TiN	N5	D6.0-D7.0
BL01H1-N6-TiN	N6	D7.5-D10.0
BL01H1-N7-TiN	N7	D10.5-D13.5
BL01H1-N8-TiN	N8	D14.0-D17.0
BL01H1-N9-TiN	N9	D18.0-D25.0

CAR
Ultrafine

TiALN

Carbide

Item no. 제품코드	Hole size 홀 규격	Working Range 가공범위
BL01CA-N3-TiALN	N3	D3.0-D4.0
BL01CA-N4-TiALN	N4	D4.5-D5.5
BL01CA-N5-TiALN	N5	D6.0-D7.0
BL01CA-N6-TiALN	N6	D7.5-D10.0
BL01CA-N7-TiALN	N7	D10.5-D13.5
BL01CA-N8-TiALN	N8	D14.0-D17.0

Accu Center - Standard Type & Bearing Type

아큐센터
일반형 & 베어링형



Accu Center

Item no. 제품코드	Type 종류	Shank(Ø) 샤크	Nose(Ø)	Overall Length(L) 전장
ACCT - ST	Standard(일반형)	10	10	82
ACCT - BR	Bearing(베어링형)	10	10	82

Marking Center - Standard Type & Long Type

마킹센터
일반형 & 롱형

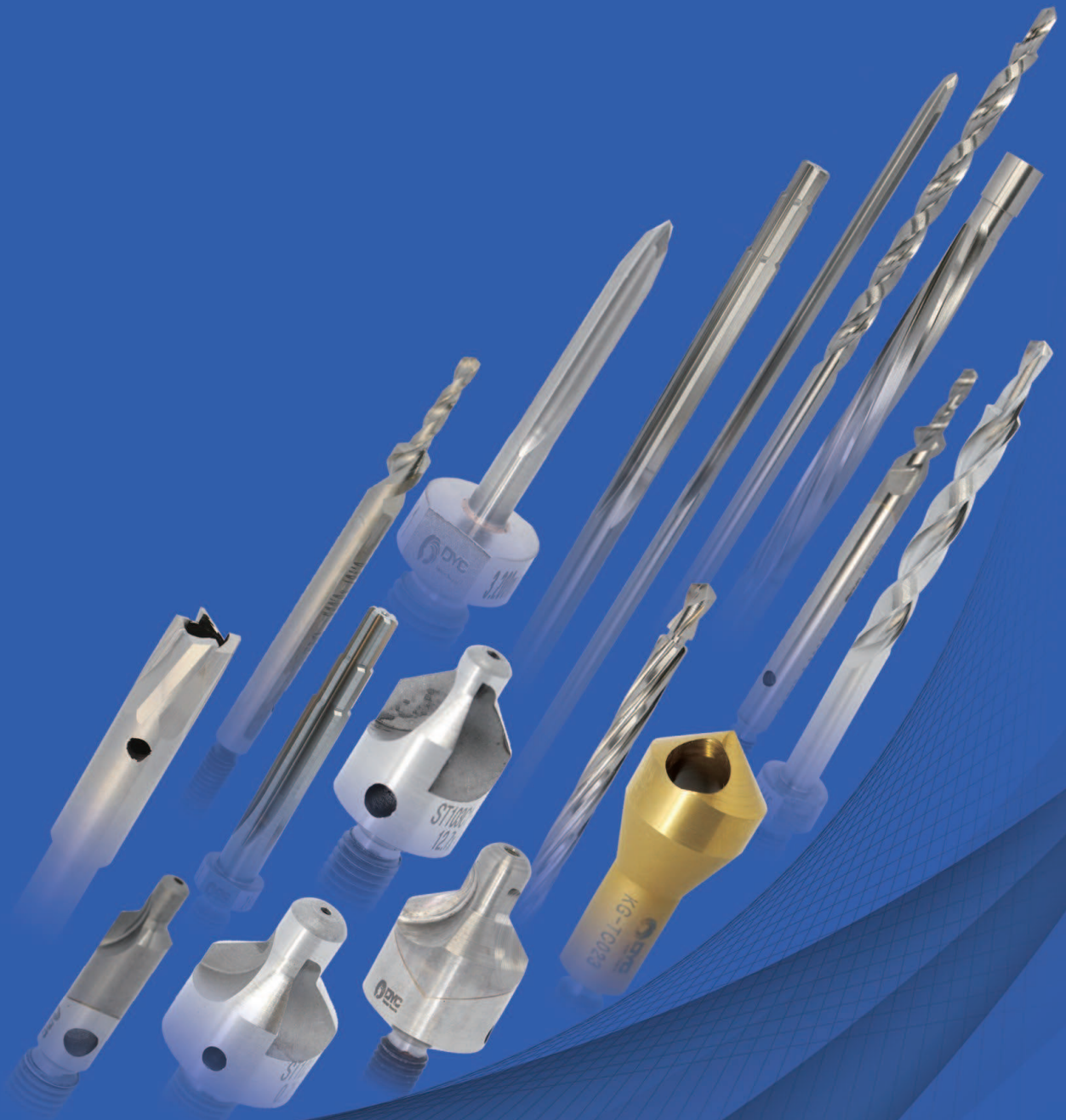


Marking Center

Item no. 제품코드	Type 종류	Shank(Ø) 샤크	Overall Length(L) 전장
MKCT - ST	Standard	16	100
MKCT - LG	Long	16	175

DYC BEST TOTAL TOOLS

Aerospace Special Tools



Countersink and Nutplate Drill

- HSS countersink cutters may be used in all aerospace applications using adjustable-stop or micro-stop countersinking units utilizing a threaded shank drive. Made from the finest raw materials.
- Precision-ground to exacting tolerances and form relieved to insure concentricity of countersink angle, pilot and seat angle. Standard in 3 flutes.
- Carbide tipped and Solid Carbide countersinks are designed for cutting highly abrasive materials such as composites and hard to cut materials where longer tool life is required.
- The tool body is made of HSS. Two or three flutes gives excellent wear resistance to highly abrasive materials and hard to cut materials.
- Nutplate Drills are CNC ground and used in conjunction with Nutplate Drill motors.



Counterbore and reverse spotfacers

- Counterbores with small and short, sturdy design are ideal for use in portable electric drill and air pressure drill.
- It is made of HSS. All counterbores has sharp corners.
- Reverse spotfacers are designed for use in restricted areas where conventional spotfacers cannot be used.
- Made from the finest HSS and Solid Carbide.
- Cutters are furnished with corner radius.
- Specials are available on request.



Tapered Drill Reamers

- Carbide tapered drill reamers allow you to drill and ream in one operation eliminating multiple tools and steps. Also known as a "one-shot" drill-reamer, this tool can be used for hand drilling through a bushing or with power feed drill motors. These drills are excellent for drilling graphite composites and CFRP with a self-centering point design. Also available in threaded shank.



Double margin drills

- Double margin drills have an additional margin ground behind the main margin, providing two contact points. The second margin performs various functions to improve hole quality.
- Double Margin Drills are good for tight hole tolerances and stability when cutting non-ferrous materials and irons. The trailing margin burnishes the cavity, making a true hole and smoother finish while providing a more concentric, rounder drilled hole and frequently reaming can often be eliminated.
- When a double margin drill is used with a drill bushing, the four margins locate in the bushing, providing increased bushing support in excess of 200%.



Pilot reamer with Straight shanks and threaded shanks

- Pilot reamers are manufactured in M42(Co 8%) and Carbide Material which is suitable for all aerospace material grades such as CFRP, titanium, steel, and will easily ream through aluminium.
- It has the reduced shanks for easy chucking.
- Pilot reamers have been specifically designed for all types of aircraft manufacture and repair.
- All reamers are suitable for any requirement where a precision interference / clearance fit hole for a close tolerance fastener.
- Pilot reamers are all flute ground and cylindrical ground between both centers to produce the accurate diameters with consistent concentricity.
- Manufactured with 1/4-28 UNF threaded shanks and ground seat angle for accurate reaming in limited space applications. Specials are available on request.



Icon Guide

Material



No. of Flutes



Helix Angle



Point Angle



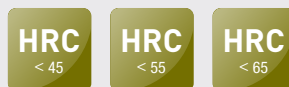
Step Angle



Coating



Work Material



MEMO

A large rectangular area with rounded corners, containing 25 horizontal dotted lines for writing.

MEMO

A large rectangular area with rounded corners, containing numerous horizontal dotted lines for writing.

DYC BEST TOOLS

Carbide End Mills

For Hardened Materials & For SUS(Stainless steel)

www.dyctool.co.kr



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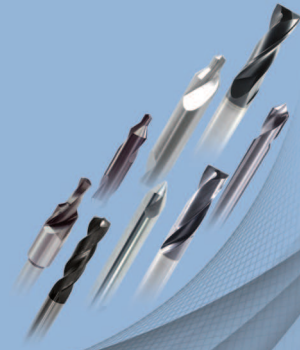


DYC BEST TOOLS

Drills

(Carbide & HSS)

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AEROSPACE

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- Carbide/HSS Step & Pilot Reamers
- HSS Double Margin Drills
- Carbide & HSS Countersinks
- HSS & Carbide Nutplate Drills
- Double Margin Drills - Thread Shank
Carbide/HSS Step & Pilot Reamers - Thread Shank
- Carbide Reamers - Special Drills



DYC Co., Ltd.
1521, Bogwang-Ro, Gwangtan-Myeon, Paju-Si,
Gyeonggi-Do, 10831, Korea
Tel: +82-31-957-3280 Fax: +82-31-957-3281
E-mail : dyc@dyctool.co.kr
<http://www.dyctool.co.kr>

(주)디와이씨
우)10831, 경기도 파주시 광탄면 보광로 1521
TEL 031)957-3280 FAX 031)957-3281

E-mail : dyc@dyctool.co.kr
<http://www.dyctool.co.kr>