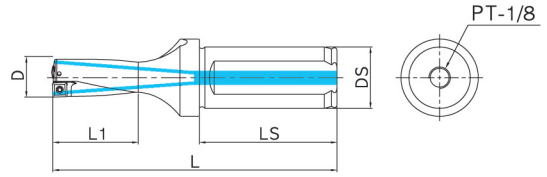


KSD 2×D



● Shank ISO9766, Parallel with clamping flat

Code No.	치수 Dimension(mm)					인서트 Insert		부품 Component	
	D	L1	L	DS	Ls	내측	외측	Screw	T-Driver
KSD-1302D-S20	13.0	29	99	20	50	XOMT040204 PD	SPMT040204 PD	TSB-20045	TXL-6
KSD-1352D-S20	13.5	30	100						
KSD-1402D-S20	14.0	31	101						
KSD-1452D-S20	14.5	32	102						
KSD-1502D-S20	15.0	33	103						
KSD-1552D-S20	15.5	34	104						
KSD-1602D-S20	16.0	35	105	25	56	XOMT060204 PD	SPMT060205 PD	TSB-22052	TXL-8
KSD-1652D-S25	16.5	36	117						
KSD-1702D-S25	17.0	37	118						
KSD-1752D-S25	17.5	38	119						
KSD-1802D-S25	18.0	39	120						
KSD-1852D-S25	18.5	40	121						
KSD-1902D-S25	19.0	41	122			XOMT07T205 PD	SPMT07T208 PD	TSB-25065	TXL-8
KSD-1952D-S25	19.5	42	123						
KSD-2002D-S25	20.0	43	124						
KSD-2052D-S25	20.5	44	125						
KSD-2102D-S25	21.0	45	126						
KSD-2152D-S25	21.5	46	127						
KSD-2202D-S25	22.0	47	128						
KSD-2252D-S25	22.5	48	129						
KSD-2302D-S25	23.0	49	130						
KSD-2352D-S25	23.5	50	131						

● KSD 드릴 특징 KSD Drill Characteristic

- 내인과 외인의 가공 특성에 맞춘 인서트 사용으로 절삭성과 칩처리성, 수명이 우수함.
- Excellent cutting performance and chip control due to the optimized chip breaker geometry of both inserts, central & peripheral.

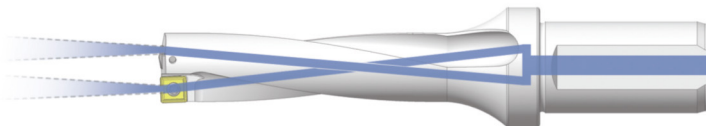


내측 인서트
Central Insert



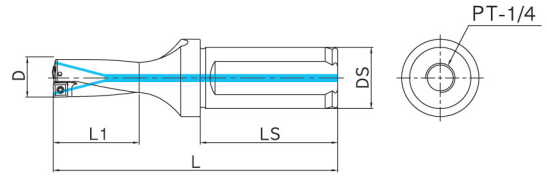
외측 인서트
Peripheral Insert

- KSD 소구경($\phi 13 \sim \phi 23.5$) 드릴은 절삭유 방식을 개선하여 칩플루트 공간이 넓어져 칩 처리성이 우수함.
- Small Dia. drills ($\phi 13 \sim \phi 23.5$) are designed with oil holes and the optimized shape of the flute increases the rigidity of the drill while body improves chip evacuation



- KSD 직부형 중대구경($\phi 24 \sim \phi 60$) 드릴은 최적의 설계로 칩 배출 공간을 대폭 확장 시켰습니다. 깊은 홀 가공에서도 드릴링이 안정되고, 표면조도가 우수합니다.
- The chip discharging space for KSD middle dia and big dia drill($\phi 24 \sim \phi 60$) was greatly extended. These drills are stable and surface roughness are excellent in the deep hole drilling also.

KSD 2×D



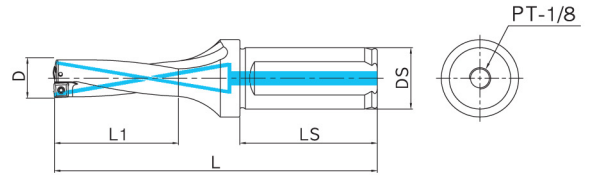
● Shank ISO9766, Parallel with clamping flat

Code No.	치수 Dimension(mm)					인서트 Insert		부품 Component	
	D	L1	L	Ds	Ls	내측	외측	Screw	T-Driver
KSD-2402D-S32	24.0	51	141	32	60	XOMT090305 PD	SPMT090308 PD	TSB-30072	TXL-8
KSD-2452D-S32	24.5	52	142						
KSD-2502D-S32	25.0	53	143						
KSD-2552D-S32	25.5	54	144						
KSD-2602D-S32	26.0	55	145						
KSD-2652D-S32	26.5	56	146						
KSD-2702D-S32	27.0	57	147						
KSD-2752D-S32	27.5	58	148						
KSD-2802D-S32	28.0	59	149						
KSD-2852D-S32	28.5	60	150						
KSD-2902D-S32	29.0	61	151						
KSD-2952D-S32	29.5	62	152						
KSD-3002D-S32	30.0	65	155						
KSD-3102D-S32	31.0	67	157						
KSD-3202D-S32	32.0	69	159						
KSD-3302D-S32	33.0	71	161	40	70	XOMT11T306 PD	SPMT11T308 PD	TSB-35080	TXL-15
KSD-3402D-S32	34.0	73	163						
KSD-3502D-S32	35.0	75	165						
KSD-3602D-S40	36.0	77	182						
KSD-3702D-S40	37.0	79	184						
KSD-3802D-S40	38.0	81	186						
KSD-3902D-S40	39.0	83	188						
KSD-4002D-S40	40.0	85	190						
KSD-4102D-S40	41.0	87	192						
KSD-4202D-S40	42.0	89	194						
KSD-4302D-S40	43.0	91	196						
KSD-4402D-S40	44.0	93	198						
KSD-4502D-S40	45.0	95	200						
KSD-4602D-S40	46.0	97	202						
KSD-4702D-S40	47.0	99	204						
KSD-4802D-S40	48.0	101	206	40	70	XOMT15M508 PD	SPMT15M510 PD	TSB-50125	TXL-20
KSD-4902D-S40	49.0	103	208						
KSD-5002D-S40	50.0	105	210						
KSD-5102D-S40	51.0	107	212						
KSD-5202D-S40	52.0	109	214						
KSD-5302D-S40	53.0	111	216						
KSD-5402D-S40	54.0	113	218						
KSD-5502D-S40	55.0	115	220						
KSD-5602D-S40	56.0	117	222						
KSD-5702D-S40	57.0	119	224						
KSD-5802D-S40	58.0	121	226						
KSD-5902D-S40	59.0	123	228						
KSD-6002D-S40	60.0	125	230						

※ 범용선반 작업할 경우, 가공직경 $\phi 40$ 이상이면 VLT나, VMD 사용을 권장합니다.
KSD와 체결되는 툴 홀더는 '사이드락 아버'입니다.

※ If you are working on the lathe, diameter $\phi 40$ or higher, we recommend using the VLT, VMD
The tool holder that locks with KSD is Side Lock Arbor.

KSD 3×D

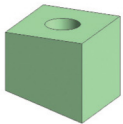


● Shank ISO9766, Parallel with clamping flat

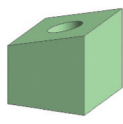
Code No.	치수 Dimension(mm)					인서트 Insert		부품 Component	
	D	L1	L	Ds	Ls	내측	외측	Screw	T-Driver
KSD-1303D-S20	13.0	42	112	20	50	XOMT040204 PD	SPMT040204 PD	TSB-20045	TXL-6
KSD-1353D-S20	13.5	44	114						
KSD-1403D-S20	14.0	45	115						
KSD-1453D-S20	14.5	47	117						
KSD-1503D-S20	15.0	48	118						
KSD-1553D-S20	15.5	50	120						
KSD-1603D-S20	16.0	51	121						
KSD-1653D-S25	16.5	53	134						
KSD-1703D-S25	17.0	54	135						
KSD-1753D-S25	17.5	56	137						
KSD-1803D-S25	18.0	57	138	25	56	XOMT060204 PD	SPMT060205 PD	TSB-22052	TXL-8
KSD-1853D-S25	18.5	59	140						
KSD-1903D-S25	19.0	60	141						
KSD-1953D-S25	19.5	62	143						
KSD-2003D-S25	20.0	63	144						
KSD-2053D-S25	20.5	65	146						
KSD-2103D-S25	21.0	66	147						
KSD-2153D-S25	21.5	68	149						
KSD-2203D-S25	22.0	69	150						
KSD-2253D-S25	22.5	71	152						
KSD-2303D-S25	23.0	72	153						
KSD-2353D-S25	23.5	74	155						

※ 최고의 결과물을 위해서는 절삭조건표와 절삭유 적정 압력을 확인해 주세요.(절삭유 적정압력은 5kg/cm² 이상입니다.)

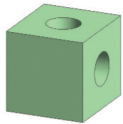
※ Please make sure the proper oil pressure and the cutting date for the best performance.(The proper pressure is over 5kg/cm²)



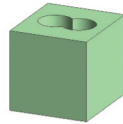
경사면 가공
Inclined Surface



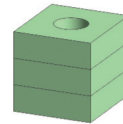
경사면 가공
Inclined Surface



교차홀 가공
Crossing Hole



겹친홀 가공
Chain Drilling



겹판 가공
Stack Drilling

※ KSD용 인서트(SPMT, XOMT)

※ KSD inserts.(SPMT, XOMT)



• XOMT
내측 Central Insert



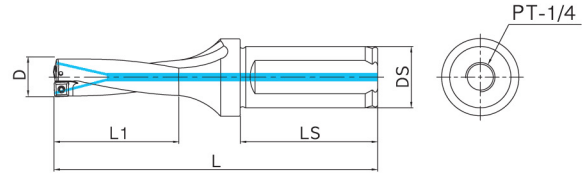
• SPMT
외측 Peripheral Insert

• KSD 드릴 가공 동영상을 보시려면, 오른쪽 QR코드를 스캔하세요.

• Please scan the QR code if you want to see KSD drill testing sample video.



KSD 3×D



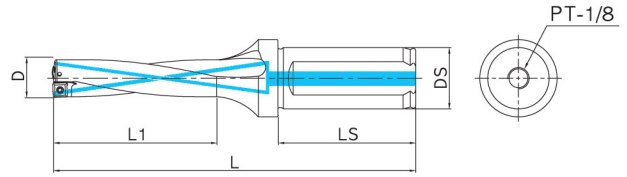
● Shank ISO9766, Parallel with clamping flat

Code No.	치수 Dimension(mm)					인서트 Insert		부품 Component	
	D	L1	L	Ds	Ls	내측	외측	Screw	T-Driver
KSD-2403D-S32	24.0	75	165	32	60	XOMT090305 PD	SPMT090308 PD	TSB-30072	TXL-8
KSD-2453D-S32	24.5	77	167						
KSD-2503D-S32	25.0	78	168						
KSD-2553D-S32	25.5	80	170						
KSD-2603D-S32	26.0	81	171						
KSD-2653D-S32	26.5	83	173						
KSD-2703D-S32	27.0	84	174						
KSD-2753D-S32	27.5	86	176						
KSD-2803D-S32	28.0	87	177						
KSD-2853D-S32	28.5	89	179						
KSD-2903D-S32	29.0	90	180						
KSD-2953D-S32	29.5	92	182						
KSD-3003D-S32	30.0	95	185						
KSD-3103D-S32	31.0	98	188						
KSD-3203D-S32	32.0	101	191						
KSD-3303D-S32	33.0	104	194	40	70	XOMT11T306 PD	SPMT11T308 PD	TSB-35080	TXL-15
KSD-3403D-S32	34.0	107	197						
KSD-3503D-S32	35.0	110	200						
KSD-3603D-S40	36.0	113	218						
KSD-3703D-S40	37.0	116	221						
KSD-3803D-S40	38.0	119	224						
KSD-3903D-S40	39.0	122	227						
KSD-4003D-S40	40.0	125	230						
KSD-4103D-S40	41.0	128	233						
KSD-4203D-S40	42.0	131	236						
KSD-4303D-S40	43.0	134	239						
KSD-4403D-S40	44.0	137	242						
KSD-4503D-S40	45.0	140	245						
KSD-4603D-S40	46.0	143	248						
KSD-4703D-S40	47.0	146	251						
KSD-4803D-S40	48.0	149	254						
KSD-4903D-S40	49.0	152	257						
KSD-5003D-S40	50.0	155	260						
KSD-5103D-S40	51.0	158	263						
KSD-5203D-S40	52.0	161	266						
KSD-5303D-S40	53.0	164	269						
KSD-5403D-S40	54.0	167	272						
KSD-5503D-S40	55.0	170	275						
KSD-5603D-S40	56.0	173	278						
KSD-5703D-S40	57.0	176	281						
KSD-5803D-S40	58.0	179	284						
KSD-5903D-S40	59.0	182	287						
KSD-6003D-S40	60.0	185	290						
						XOMT130406 PD	SPMT130410 PD	TSB-40100	
						XOMT15M508 PD	SPMT15M510 PD		
						XOMT180508 PD	SPMT180510 PD	TSB-50125	TXL-20

※ 범용선반 작업할 경우, 가공직경 $\phi 40$ 이상이면 VLT나, VMD 사용을 권장합니다.
KSD와 체결되는 툴 홀더는 '사이드락 아버' 입니다.

※ If you are working on the lathe, diameter $\phi 40$ or higher, we recommend using the VLT, VMD
The tool holder that locks with KSD is Side Lock Arbor.

KSD 4×D



● Shank ISO9766, Parallel with clamping flat

Code No.	치수 Dimension(mm)					인서트 Insert		부품 Component	
	D	L1	L	Ds	LS	내측	외측	Screw	T-Driver
KSD-1304D-S20	13.0	55	125	20	50	XOMT040204 PD	SPMT040204 PD	TSB-20045	TXL-6
KSD-1354D-S20	13.5	57	127						
KSD-1404D-S20	14.0	59	129						
KSD-1454D-S20	14.5	61	131						
KSD-1504D-S20	15.0	63	133						
KSD-1554D-S20	15.5	65	135						
KSD-1604D-S20	16.0	67	137	25	56	XOMT060204 PD	SPMT060205 PD	TSB-22052	TXL-8
KSD-1654D-S25	16.5	69	150						
KSD-1704D-S25	17.0	71	152						
KSD-1754D-S25	17.5	73	154						
KSD-1804D-S25	18.0	75	156						
KSD-1854D-S25	18.5	77	158						
KSD-1904D-S25	19.0	79	160						
KSD-1954D-S25	19.5	81	162						
KSD-2004D-S25	20.0	83	164						
KSD-2054D-S25	20.5	85	166						
KSD-2104D-S25	21.0	87	168						
KSD-2154D-S25	21.5	89	170						
KSD-2204D-S25	22.0	91	172						
KSD-2254D-S25	22.5	93	174						
KSD-2304D-S25	23.0	95	176						
KSD-2354D-S25	23.5	97	178						

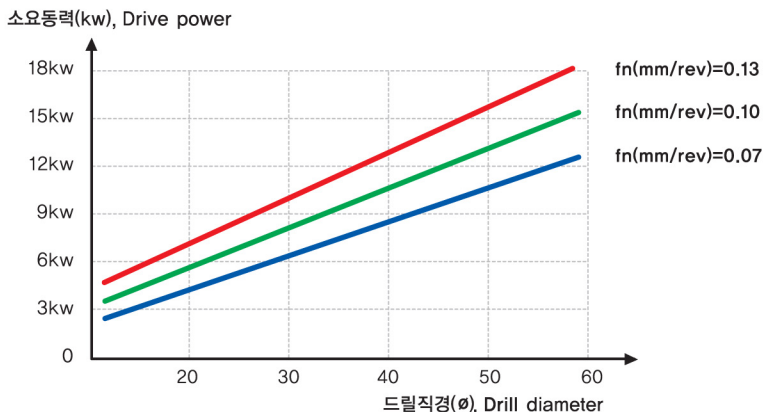
※ 불규칙한 면을 가공할 경우에는 이송속도를 30%~50% 줄여 가공하여 주시기 바랍니다.
 ※ When working on irregular (uneven) surfaces, please reduce the feed rate by 30~50%.

● KSD 드릴 홀 공차 Hole tolerance of KSD drill

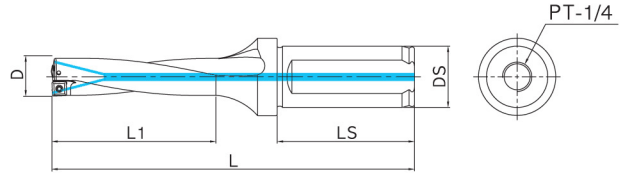
Diameter	2×D	3×D	4×D	5×D
φ13 ~ φ23.5	-0.10 ~ +0.15	-0.10 ~ +0.18	-0.12 ~ +0.20	-0.13 ~ +0.23
φ30 ~ φ42	-0.10 ~ +0.15	-0.12 ~ +0.22	-0.12 ~ +0.25	-0.15 ~ +0.27
φ43 ~ φ60	-0.10 ~ +0.20	-0.12 ~ +0.25	-0.15 ~ +0.27	-0.17 ~ +0.30

※ 홀 공차는 드릴의 길이, 피삭재, 장비, 가공조건 등에 따라 차이가 생길 수 있습니다.
 ※ The length of drill, kind of workpiece, machine stability, and cutting condition could affect the hole tolerance.

● 소요동력 Power Requirements



KSD 4×D



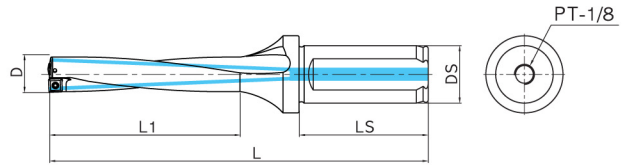
● Shank ISO9766, Parallel with clamping flat

Code No.	치수 Dimension(mm)					인서트 Insert		부품 Component	
	D	L1	L	Ds	Ls	내측	외측	Screw	T-Driver
KSD-2404D-S32	24.0	99	189	32	60	XOMT090305 PD	SPMT090308 PD	TSB-30072	TXL-8
KSD-2454D-S32	24.5	101	191						
KSD-2504D-S32	25.0	103	193						
KSD-2554D-S32	25.5	105	195						
KSD-2604D-S32	26.0	107	197						
KSD-2654D-S32	26.5	109	199						
KSD-2704D-S32	27.0	111	201						
KSD-2754D-S32	27.5	113	203						
KSD-2804D-S32	28.0	115	205						
KSD-2854D-S32	28.5	117	207						
KSD-2904D-S32	29.0	119	209						
KSD-2954D-S32	29.5	121	211						
KSD-3004D-S32	30.0	125	215						
KSD-3104D-S32	31.0	129	219						
KSD-3204D-S32	32.0	133	223						
KSD-3304D-S32	33.0	137	227	40	70	XOMT11T306 PD	SPMT11T308 PD	TSB-35080	TXL-15
KSD-3404D-S32	34.0	141	231						
KSD-3504D-S32	35.0	145	235						
KSD-3604D-S40	36.0	149	254						
KSD-3704D-S40	37.0	153	258						
KSD-3804D-S40	38.0	157	262						
KSD-3904D-S40	39.0	161	266						
KSD-4004D-S40	40.0	165	270						
KSD-4104D-S40	41.0	169	274						
KSD-4204D-S40	42.0	173	278						
KSD-4304D-S40	43.0	177	282						
KSD-4404D-S40	44.0	181	286						
KSD-4504D-S40	45.0	185	290						
KSD-4604D-S40	46.0	189	294						
KSD-4704D-S40	47.0	193	298						
KSD-4804D-S40	48.0	197	302						
KSD-4904D-S40	49.0	201	306						
KSD-5004D-S40	50.0	205	310						
KSD-5104D-S40	51.0	209	314						
KSD-5204D-S40	52.0	213	318						
KSD-5304D-S40	53.0	217	322						
KSD-5404D-S40	54.0	221	326						
KSD-5504D-S40	55.0	225	330						
KSD-5604D-S40	56.0	229	334						
KSD-5704D-S40	57.0	233	338						
KSD-5804D-S40	58.0	237	342						
KSD-5904D-S40	59.0	241	346						
KSD-6004D-S40	60.0	245	350						
						XOMT130406 PD	SPMT130410 PD	TSB-40100	
						XOMT15M508 PD	SPMT15M510 PD		
						XOMT180508 PD	SPMT180510 PD	TSB-50125	TXL-20

※ 범용선반 작업할 경우, 가공직경 $\phi 40$ 이상이면 VLT나, VMD 사용을 권장합니다.
KSD와 체결되는 툴 홀더는 '사이드락 아버' 입니다.

※ If you are working on the lathe, diameter $\phi 40$ or higher, we recommend using the VLT, VMD
The tool holder that locks with KSD is Side Lock Arbor.

KSD 5×D



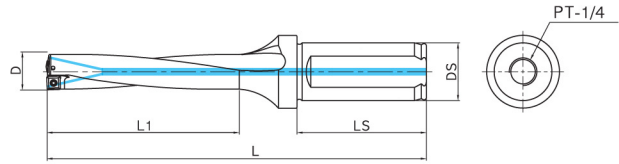
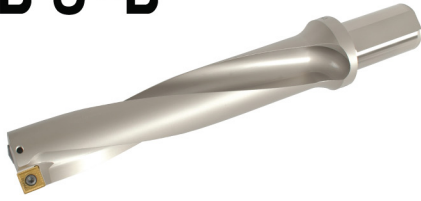
● Shank ISO9766, Parallel with clamping flat

Code No.	치수 Dimension(mm)					인서트 Insert		부품 Component	
	D	L1	L	Ds	LS	내측	외측	Screw	T-Driver
KSD-1305D-S20	13.0	68	133	20	50	XOMT040204 PD	SPMT040204 PD	TSB-20045	TXL-6
KSD-1355D-S20	13.5	71	136						
KSD-1405D-S20	14.0	73	138						
KSD-1455D-S20	14.5	76	141						
KSD-1505D-S20	15.0	78	143						
KSD-1555D-S20	15.5	81	146						
KSD-1605D-S20	16.0	83	148						
KSD-1655D-S25	16.5	86	162						
KSD-1705D-S25	17.0	88	164						
KSD-1755D-S25	17.5	91	167						
KSD-1805D-S25	18.0	93	169	25	56	XOMT060204 PD	SPMT060205 PD	TSB-22052	TXL-6
KSD-1855D-S25	18.5	96	172						
KSD-1905D-S25	19.0	98	174						
KSD-1955D-S25	19.5	101	177						
KSD-2005D-S25	20.0	103	179						
KSD-2055D-S25	20.5	106	182						
KSD-2105D-S25	21.0	108	184						
KSD-2155D-S25	21.5	111	187						
KSD-2205D-S25	22.0	113	189						
KSD-2255D-S25	22.5	116	192						
KSD-2305D-S25	23.0	118	194	XOMT07T205 PD	SPMT07T208 PD	TSB-25065	TXL-8		
KSD-2355D-S25	23.5	121	197						

● KSD 절삭조건표 Recommended Cutting Values KSD

ISO	재질부분	Vc (m/min)	이송 (mm/rev)				
			φ13~φ16	φ16.5~φ23.5	φ24~φ29.5	φ30~φ42	φ43~φ60
P 강 Steel	탄소강 (-0.25%) (Low-alloy steel)	160-250	0.04-0.08	0.04-0.08	0.04-0.10	0.05-0.12	0.05-0.14
	탄소강 (0.25%-) (High-alloy steel)	140-220	0.04-0.10	0.04-0.12	0.05-0.15	0.08-0.18	0.10-0.20
	합금강 (-HB300) (Low-alloy steel)	120-220	0.04-0.10	0.05-0.11	0.05-0.12	0.06-0.18	0.06-0.20
	합금강 (HB300-) (High-alloy steel)	120-180	0.04-0.12	0.05-0.12	0.07-0.16	0.08-0.18	0.08-0.20
M 스테인레스강 Stainless steel	스테인레스강 Stainless steel	130-220	0.04-0.10	0.04-0.12	0.05-0.14	0.06-0.16	0.06-0.18
K 주철 Cast iron	회주철 Grey cast iron	150-250	0.04-0.10	0.05-0.14	0.05-0.17	0.08-0.20	0.08-0.25
	구상흑연주철 Cast iron with nodular cast iron	100-200	0.04-0.10	0.04-0.12	0.05-0.14	0.06-0.15	0.06-0.18
S 티타늄 합금강 Super-alloys and titanium	티타늄 합금 Super-alloys and titanium	30-90	0.04-0.08	0.04-0.08	0.04-0.11	0.07-0.12	0.08-0.15

KSD 5×D



● Shank ISO9766, Parallel with clamping flat

Code No.	치수 Dimension(mm)					인서트 Insert		부품 Component	
	D	L1	L	Ds	Ls	내측	외측	Screw	T-Driver
KSD-2405D-S32	24.0	123	208	32	60	XOMT090305 PD	SPMT090308 PD	TSB-30072	TXL-8
KSD-2455D-S32	24.5	126	211						
KSD-2505D-S32	25.0	128	213						
KSD-2555D-S32	25.5	131	216						
KSD-2605D-S32	26.0	133	218						
KSD-2655D-S32	26.5	136	221						
KSD-2705D-S32	27.0	138	223						
KSD-2755D-S32	27.5	141	226						
KSD-2805D-S32	28.0	143	228						
KSD-2855D-S32	28.5	146	231						
KSD-2905D-S32	29.0	148	233						
KSD-2955D-S32	29.5	151	236						
KSD-3005D-S32	30.0	155	240						
KSD-3105D-S32	31.0	160	245						
KSD-3205D-S32	32.0	165	250						
KSD-3305D-S32	33.0	170	255	40	70	XOMT11T306 PD	SPMT11T308 PD	TSB-35080	TXL-15
KSD-3405D-S32	34.0	175	260						
KSD-3505D-S32	35.0	180	265						
KSD-3605D-S40	36.0	185	285						
KSD-3705D-S40	37.0	190	290						
KSD-3805D-S40	38.0	195	295						
KSD-3905D-S40	39.0	200	300						
KSD-4005D-S40	40.0	205	305						
KSD-4105D-S40	41.0	210	310						
KSD-4205D-S40	42.0	215	315						
KSD-4305D-S40	43.0	220	320						
KSD-4405D-S40	44.0	225	325						
KSD-4505D-S40	45.0	230	330						
KSD-4605D-S40	46.0	235	335						
KSD-4705D-S40	47.0	240	340						
KSD-4805D-S40	48.0	245	345						
KSD-4905D-S40	49.0	250	350						
KSD-5005D-S40	50.0	255	355						
KSD-5105D-S40	51.0	260	360						
KSD-5205D-S40	52.0	265	365						
KSD-5305D-S40	53.0	270	370						
KSD-5405D-S40	54.0	275	375						
KSD-5505D-S40	55.0	280	380						
KSD-5605D-S40	56.0	285	385						
KSD-5705D-S40	57.0	290	390						
KSD-5805D-S40	58.0	295	395						
KSD-5905D-S40	59.0	300	400						
KSD-6005D-S40	60.0	305	405						

※ 범용선반 작업할 경우, 가공직경 $\phi 40$ 이상이면 VLT나, VMD 사용을 권장합니다.
KSD와 체결되는 툴 홀더는 '사이드락 아버' 입니다.

※ If you are working on the lathe, diameter $\phi 40$ or higher, we recommend using the VLT, VMD
The tool holder that locks with KSD is Side Lock Arbor.