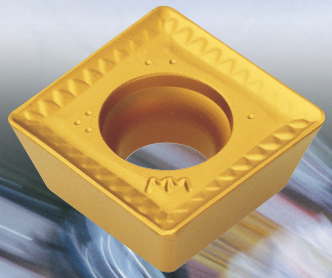
KORLOY TECH-NEWS

No: 131-3
METRIC

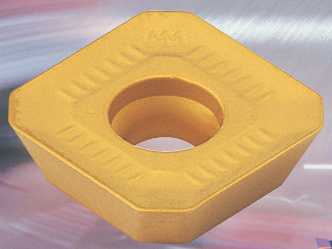
New Generation Cutting Tools

Future Mill Series



FMP
(Square Shoulder & Face Milling)

NEW

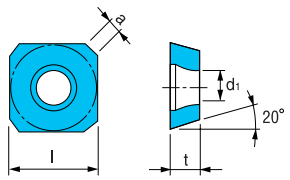


FMA
(Face Milling)

KORLOY is ISO9001 Certified
ISO9001

KORLOY Inc.

FMA-Insert Selection

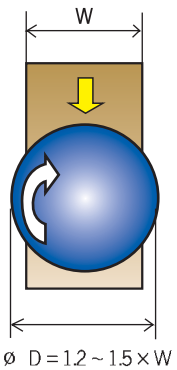
Description	Applicable Cutter	Spec(mm)				Insert shape
		l(=d)	t	a	d1	
SEET0903AGSN-MF SEXT0903AGSN-MF SEET0903AGSN-MM SEXT0903AGSN-MM SEET0903AGFN-MA	FMAS3000R FMAC3000R FMACM300R	9.525	3.18	2.11	3.4	
SEET14M4AGSN-MF SEXT14M4AGSN-MF SEET14M4AGSN-MM SEX14M4AGSN-MM SEET14M4AGFN-MA	FMAS4000R FMAC4000R FMACM400R	14.0	4.0	2.64	4.4	

Recommended Cutting Condition

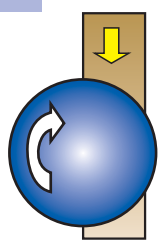
ISO	C/B / Grade	MF		MM		MA	
		V(m/min)	fz(mm/tooth)	V(m/min)	fz(mm/tooth)	V(m/min)	fz(mm/tooth)
P	NCM325	180 ~ 300	0.05 ~ 0.2	180 ~ 300	0.1 ~ 0.3	-	-
	NCM335	150 ~ 250	0.05 ~ 0.2	150 ~ 250	0.1 ~ 0.3	-	-
	PC3530	120 ~ 220	0.05 ~ 0.2	120 ~ 220	0.1 ~ 0.3	-	-
M(STS)	NCM335	120 ~ 200	0.05 ~ 0.2	120 ~ 200	0.1 ~ 0.3	-	-
K	NCM310K	180 ~ 300	0.05 ~ 0.2	180 ~ 300	0.1 ~ 0.3	-	-
	NCM320K	150 ~ 250	0.05 ~ 0.2	150 ~ 250	0.1 ~ 0.3	-	-
Aluminum	H01	-	-	-	-	350 ~ 1,000	0.1 ~ 0.35

Optimal Cutting Method

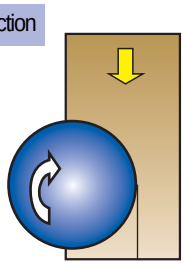
Optimal Cutting Dia



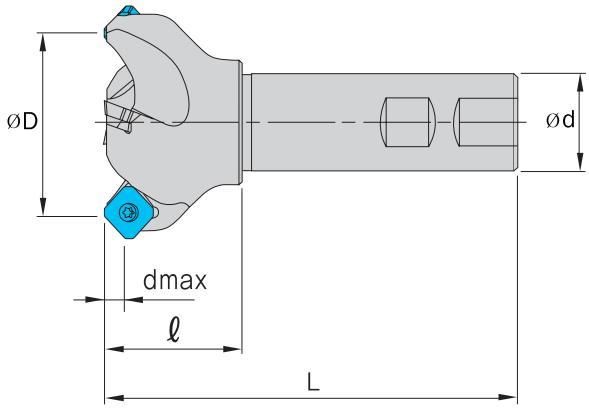
Optimal Cutting Position



Optimal Cutting Direction

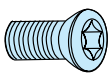
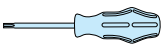
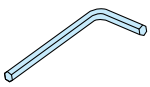
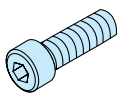
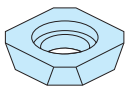


FMAS3000/4000

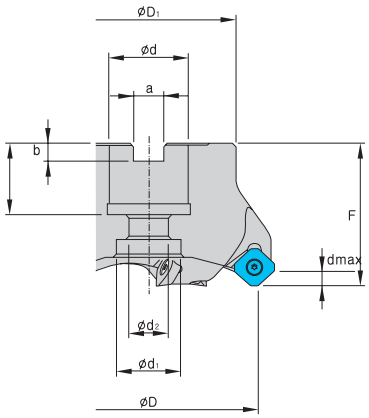


Description	Spec(mm)						Applicable Insert
	øD	ød	L	ℓ	⊙	dmax	
FMAS3025R	25	25	115	35	2	4	SEOO0903AGON-OO
FMAS3032R	32	25	125	40	3		
FMAS3040R	40	32	130	40	3		
FMAS3050R	50	32	135	40	4		
FMAS3063R	63	32	135	45	5		
FMAS4050R	50	32	135	50	3	6.5	SEOO14M4AGON-OO
FMAS4063R	63	32	135	45	4		

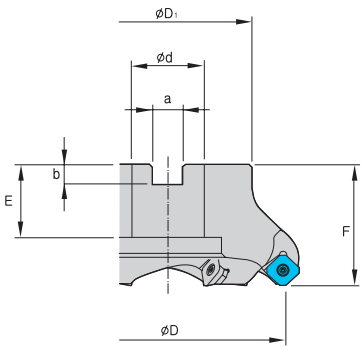
Parts

Cutter	Screw	Wrench		Shim Screw	Shim
		I/S	Shim Wrench		
					
FMAS3000R	FTNA0307	TW09S			
FMAS4000R	FTGA03512	TW15S	HW40L	SHXN0509F	SS42SAF

FMAC(M)3000/4000



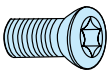
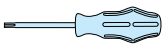
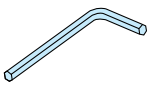
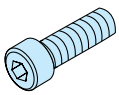
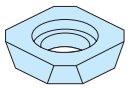
ø50~ø63



ø80~ø160

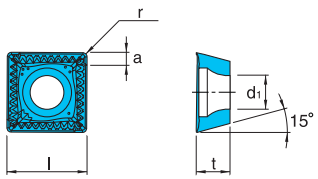
Description		Spec(mm)											Applicable Insert
		øD	øD1	ød	F	a	b	ød1	ød2	E	◎	d max	
FMAC (FMACM)	3050R	50	42	22.225(22)	40	8.4(10.4)	5(6.3)	11	18	20(20)	4	4	SEOO0903AGON-OO
	3063R	63	49	22.225(22)	40	8.4(10.4)	5(6.3)	11	18	20(20)	5		
	3080R	80	57	25.4(27)	50	9.75(12.4)	6(7)			25(22)	6		
	3100R	100	67	31.75(32)	50	12.95(14.4)	8(8)			32(32)	7		
	3125R	125	87	38.1(40)	63	16.15(16.4)	10(9)			38(35)	8		
FMAC (FMACM)	4050R	50	45	22.225(22)	40	8.4(10.4)	5(5.3)	11	18	20(20)	3	6.5	SEOO14M4AGON-OO
	4063R	63	49	22.225(22)	40	8.4(10.4)	5(5.3)	11	18	20(20)	4		
	4080R	80	57	25.4(27)	50	9.75(12.4)	6(7)			25(22)	5		
	4100R	100	67	31.75(32)	50	12.95(14.4)	8(8)			32(32)	5		
	4125R	125	87	37.1(40)	63	16.15(16.4)	10(9)			38(35)	6		
	4160R	160	107	50.8(40)	63	19.25(16.4)	11(9)			38(35)	7		
	4200R	200	130	47.625(60)	63	25.7(25.7)	14(14)			38(32)	8		

Parts

Cutter	Screw	Wrench		Shim Screw	Shim
		I/S	Shim Wrench		
					
FMAC3000R	FTNA0307	TW09S			
FMAC4000R	FTGA03512	TW15S	HW40L	SHXN0509F	SS42SAF

FMP-Insert Selection(C/B / Grade)

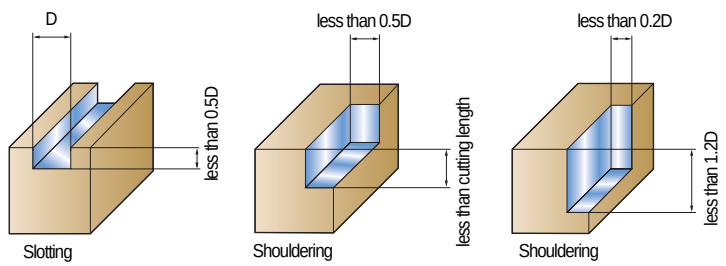
ISO	Low Cutting-resistance	General Use	Strengthened Cutting edge
P	MF / NCM325	MM / NCM325	MM / PC230
M	MF / NCM335	MF / NCM335	MM / NCM335
K	MF / NCM310K	MF / NCM320K	MF / PC215K
Al	MA / H01	MA / H01	MA / H01

Description	Cutter	Spec(mm)					Insert shape
		l(=d)	T	r	a	d1	
SDXT09M405R-MF SDXT09M405R-MM SDXT09M405R-MA	FMPS3000S FMPC3000S FMPCM300S	9.525	4.0	0.5	1.2	4.4	
SDXT130508R-MF SDXT130508R-MM SDXT130508R-MA	FMPS4000S FMPC4000S FMPCM400S	13.5	5.56	0.8	2.2	5.5	

Recommended Cutting Condition

ISO	Diameter of cutter(ø) / Grade	ø 32~63		Ø 80~125	
		V(m/min)	fz(mm/tooth)	V(m/min)	fz(mm/tooth)
P	NCM325	100~250	0.05~0.3	120~250	0.08~0.3
	NCM335	100~220	0.05~0.25	120~220	0.08~0.25
	PC3530	100~220	0.05~0.25	100~220	0.1~0.25
M(STS)	NCM335	80~180	0.05~0.2	80~180	0.1~0.25
K	NCM310K	200~300	0.08~0.25	200~280	0.1~0.25
	NCM320K	180~250	0.08~0.25	180~250	0.1~0.25
	PC215K	150~250	0.08~0.25	150~230	0.1~0.25
Non-Ferreous Aluminum	H01	400~1,000	0.05~0.4	400~1,000	0.1~0.4

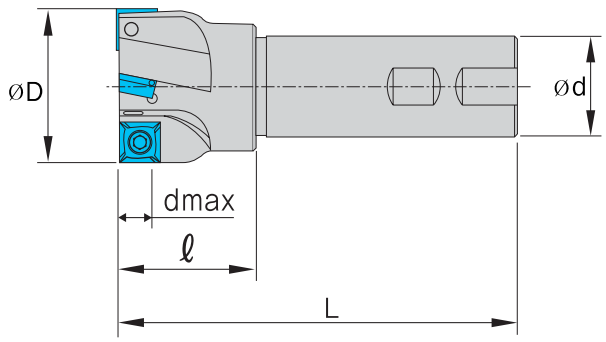
Cutting Applications



Note for Use

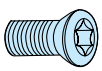
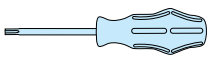
1. Cutting speed and feed rate should be considered in accordance with machine power and work-piece material
2. During slotting and plunging, remove the chips with compressed air.
3. If chattering occurs, please reduce cutting speed.

FMPS3000/4000

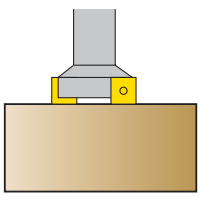


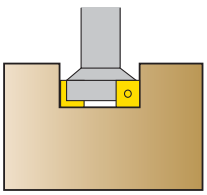
Description	Spec(mm)						Applicable Insert
	øD	ød	L	ℓ	◎	dmax	
FMPS3025S	25	25	115	35	2	8	MF SDXT09M405R-MM MA
FMPS3032S	32	25	125	40	3		
FMPS3040S	40	32	130	40	4		
FMPS3050S	50	32	135	40	5		
FMPS3063S	63	32	135	45	6		
FMPS4040S	40	32	130	40	3	11	MF SDXT130508R-MM MA
FMPS4050S	50	32	135	45	4		
FMPS4063S	63	32	135	45	5		

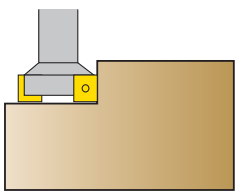
Parts

Cutter	Screw		Wrench	
FMPS3000S	FTGA03508		TW15S	
FMPS4000S	FTNC04511		TW20S	

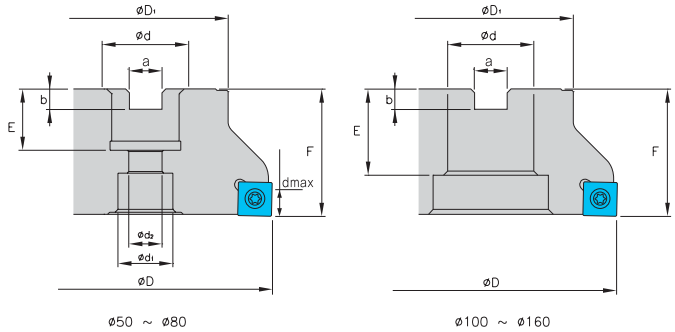
Cutting Applications







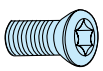
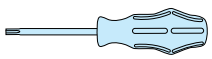
FMPC(M)3000/4000



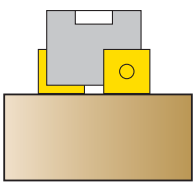
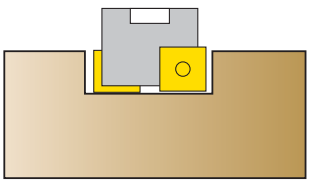
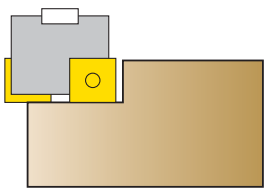
ø50~ ø80 ø100~ ø160

Description		Spec(mm) øD	øD1	ød	F	a	b	ød1	ød2	E	⊚	d max	Applicable Insert
FMPC (FMPCM)	3050S	50	40	22.225(22)	40	8.4(10.4)	5(6.3)	11	18	20(20)	5	8	M F SDXT09M405R-MM MA
	3063S	63	40	22.225(22)	40	8.4(10.4)	5(6.3)	11	18	20(20)	6		
	3080S	80	55	25.4(27)	50	9.75(12.4)	6(7)	13.5	20	25(22)	7		
	3100S	100	67	31.75(32)	50	12.95(14.4)	8(8)			32(32)	8		
FMPC (FMPCM)	4063S	63	40	22.225(22)	40	8.4(10.4)	5(5.3)	11	18	20(20)	5	11	M F SDXT130508R-MM MA
	4080S	80	55	25.4(27)	50	9.75(12.4)	6(7)	13.5	20	25(22)	6		
	4100S	100	67	31.75(32)	50	12.95(14.4)	8(8)			32(32)	7		
	4125S	125	80	38.1(40)	63	16.15(16.4)	10(9)			38(35)	8		

Parts

Cutter	Screw		Wrench	
FMPC(M)3000S	FTGA03508		TW15S	
FMPC(M)4000S	FTNC04511		TW20S	

Cutting Applications

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APR. 2004