KORLOY TECH-NEWS

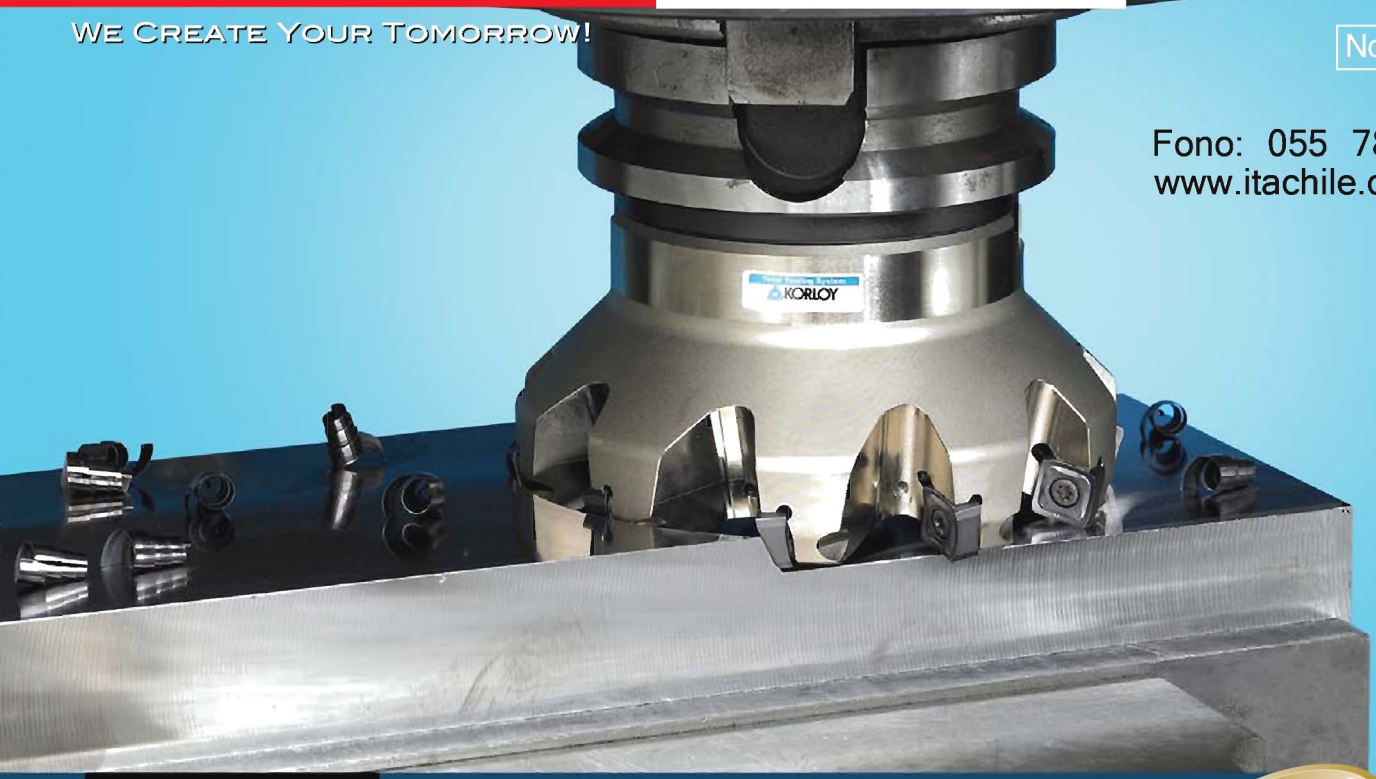
ITACHILE
Comercial Itachile LTDA

KORLOY is ISO9001 Certified
ISO9001

WE CREATE YOUR TOMORROW!

No: 200-1

Fono: 055 787169
www.itachile.com



RM4
RM8
RM16
RMT

Rich Mill Series

New

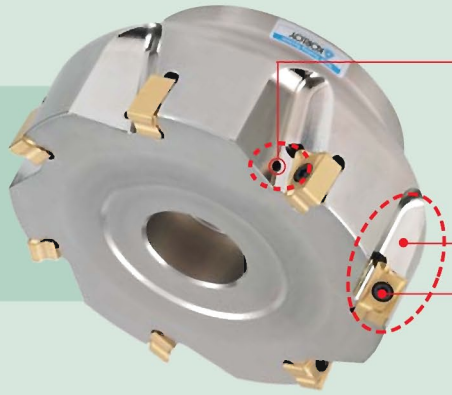
Features

- Rich Mill Series, as a new concept tool for milling application, offer improved tool life and increase of usable cutting edge adopting innovative double sided insert with unique geometries.
- Specially designed chip breaker consists of high rake angle provides low cutting resistance and long tool life.
- Applicable for various workpieces such as alloy steel, cast iron, stainless steel even aluminum.
- The combination of the innovative geometries and the variety of grades provides wide coverage for milling application.
- The strong cutting edge of negative type from thick configuration of insert guarantees long tool life.
- Rich Mill Series consist of screw on type and latch type by clamping system.

KORLOY Inc.

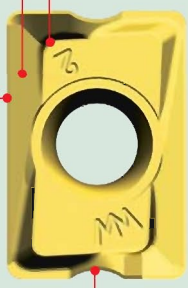
Features of RM4

- Double sided insert with usable 4 cutting edges
- Special indexable tool using strong negative insert having high rake angle cutting edges
- Multi functional tool covers facing, side cutting, shouldering, slotting, ramping and helical cutting



Through coolant system
: Longer tool life due to direct cooling injection into the cutting edge of insert

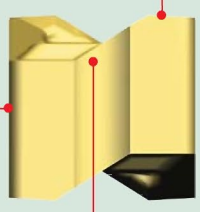
- Wide chip pocket for better chip evacuation
- Simple screw on system



Chip breaker
: High rake angle for smooth chip control

Step design
: Improved chip control by reducing the cutting load

Minor cutting edge
: Special design of cutting edge to improve surface roughness



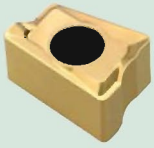
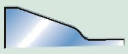
Periphery face
: Strong and negative face (Clearance angle 0°)

Major cutting edge
: Low cutting load from high rake chip breaker provides smooth cutting

Concave design
: To avoid interference between each cutting edges

Using 4-cutting edges

Chip Breakers

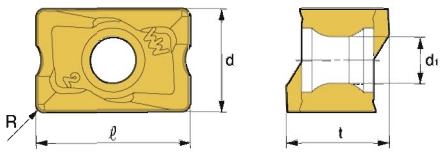
Configuration			Cutting edge	Features
Finishing	MF			• Low cutting resistance Light cutting and hard-to-cut material cutting chip breaker
Medium	MM			• General and wide milling application

Rich Mill-RM4

ITACHILE
Comercial Itachile LTDA

RM4 Insert | Ramping
www.itachile.com

RM4 Insert

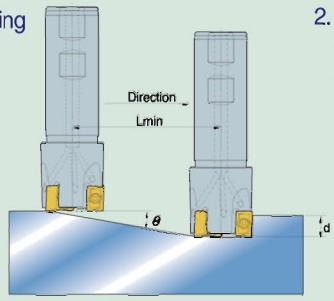


Designation	Grade					Dimensions (mm)				
	NCM325	PC3525	PC3545	PC6510	PC9530	ℓ	d	t	R	d_1
LNMX100605PNR-MF		●		●		10.0	6.5	6.5	0.5	3.5
LNEX100605PNR-MF		●		●		10.0	6.5	6.5	0.5	3.5
LNMX100605PNR-MM		●		●		10.0	6.5	6.5	0.5	3.5
LNEX100605PNR-MM		●		●		10.0	6.5	6.5	0.5	3.5
LNMX151008PNR-MF	○	●		●		15.0	10.0	10.0	0.8	4.5
LNEX151008PNR-MF		●		●		15.0	10.0	10.0	0.8	4.5
LNMX151008PNR-MM	○	●	●	●		15.0	10.0	10.0	0.8	4.5
LNEX151008PNR-MM		●		●		15.0	10.0	10.0	0.8	4.5

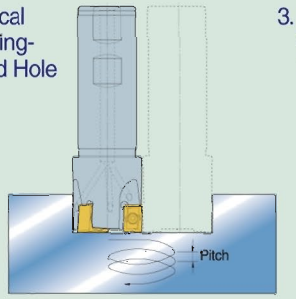
P M K S N ●Stock item, ○Under preparing for stock

Ramping

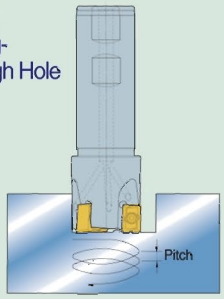
1. Ramping



2. Helical Cutting-Blind Hole



3. Helical Cutting-Through Hole

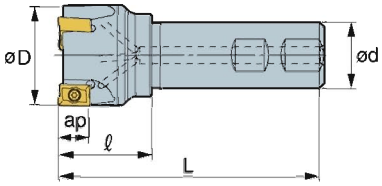


Designation		1. Ramping			2. Helical Cutting-Blind Hole				3. Helical Cutting-Through Hole	
		D	θ°	Lmin	Max. Hole Diameter	Max. Pitch	Min. Hole Diameter	Max. Pitch	Min. Hole Diameter	Max. Pitch
RM4PS	3014HR	14	5.0	114	27	3	25	2.5	19	1.0
	3016HR	16	4.0	143	31	3	29	2.0	23	1.0
	3018HR	18	4.0	143	35	3	33	3.0	27	2.0
	3020HR	20	4.0	143	39	4	37	3.0	31	2.0
	3025HR	25	3.5	163	49	4	47	4.0	41	3.0
	3032HR	32	3.0	191	63	4.5	61	4.0	55	3.5
	3040HR	40	2.0	286	79	4	77	3.5	71	3.0
	3050HR	50	1.5	382	99	3.5	97	3.5	91	3.0
RM4PCM	3040HR	40	2.0	286	79	4	77	4.0	71	3.0
	3050HR	50	1.5	382	99	3.5	97	3.5	91	3.0
	3063HR	63	1.0	573	125	3	123	3.0	117	2.5
	3080HR	80	1.0	573	159	4	157	4.0	151	3.5
	3100HR	100	0.5	1146	199	2	197	2.0	191	2.0
RM4PS	4032HR	32	2.5	229	62	4	59.5	3.0	49	2.0
	4040HR	40	2.0	286	78	4	75.5	3.0	65	2.0
	4050HR	50	2.0	286	98	5	95.5	4.0	85	3.5
	4063HR	63	2.0	286	124	5	121.5	5.0	111	5.0
RM4PCM	4050HR	50	2.0	286	98	5	95.5	4.0	85	3.5
	4063HR	63	2.0	286	124	5	121.5	5.0	111	5.0
	4080HR	80	1.5	382	158	5	155.5	5.0	145	5.0
	4100HR	100	1.0	573	198	5	195.5	4.5	185	4.0
	4125HR	125	1.0	573	248	5	245.5	5.0	235	5.0
	4160R	160	0.5	1146	318	4	315.5	3.5	305	3.5

* d =10mm

RM4 Shank

• RM4PS3000/4000



(mm)

Designation		Stock	øD	L	ød	ℓ	◎	ap (Max.depth of cut)
RM4PS	3014HR-S16	○	14	90	16	23	1	9.0
	3016HR-S16	○	16	90	16	25	1	
	3018HR-S16	○	18	90	16	23	2	
	3020HR-S20	○	20	100	20	30	2	
	3020HR-S20M	○	20	100	20	30	3	
	3025HR-S25	○	25	115	25	35	2	
	3025HR-S25M	○	25	115	25	35	3	
	3032HR-S32	○	32	125	32	40	3	
	3032HR-S32M	○	32	125	32	40	4	
	3040HR-S32	○	40	130	32	42	4	
	3040HR-S32M	○	40	130	32	42	5	
	3040HR-S40	○	40	130	40	42	4	
	3040HR-S40M	○	40	130	40	42	5	
	3040HR-S42	○	40	130	42	42	4	
	3040HR-S42M	○	40	130	42	42	5	
	3050HR-S32	○	50	135	32	45	5	
	3050HR-S32M	○	50	135	32	45	7	
	3050HR-S40	○	50	135	40	45	5	
	3050HR-S40M	○	50	135	40	45	7	
	3050HR-S42	○	50	135	42	45	5	
	3050HR-S42M	○	50	135	42	45	7	
RM4PS	4032HR-S32	●	32	125	32	40	2	14
	4040HR-S32	●	40	125	32	42	3	
	4040HR-S40	○	40	125	40	42	3	
	4040HR-S42	○	40	125	42	42	3	
	4050HR-S32	●	50	125	32	45	3	
	4050HR-S32M	●	50	125	32	45	4	
	4050HR-S40	○	50	125	40	45	3	
	4050HR-S40M	○	50	125	40	45	4	
	4050HR-S42	○	50	125	42	45	3	
	4050HR-S42M	○	50	125	42	45	4	
	4063HR-S32	●	63	125	32	45	4	
	4063HR-S32M	●	63	125	32	45	6	
	4063HR-S40	○	63	125	40	45	4	
	4063HR-S40M	○	63	125	40	45	6	
	4063HR-S42	○	63	125	42	45	4	
	4063HR-S42M	○	63	125	42	45	6	

●Stock item, ○Under preparing for stock

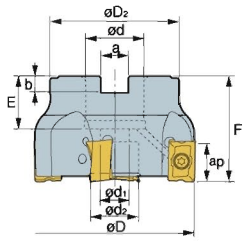
Rich Mill-RM4

ITACHILE
Comercial Itachile LTDA

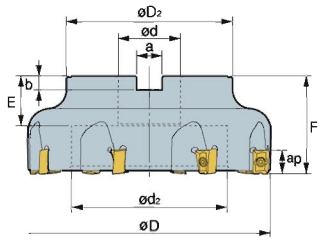
RM4 Cutter | RM4 Modular Head
www.itachile.com

RM4 Cutter

• RM4PCM3000/4000



Ø40 ~ Ø125 (with coolant hole)



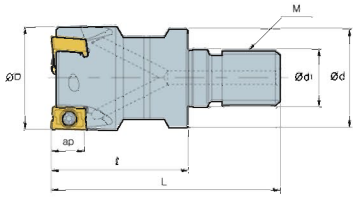
Ø160 (no coolant hole)

(mm)

Designation	Stock	øD	øD2	ød	ød1	ød2	F	a	b	E	◎	Available arbor	ap (Max.depth of cut)
RM4PCM 3040HR	●	40	35	16	9	14	40	8.4	5.6	19	4	BT30 / BT40 / BT50 FMC / SMA16	9.0
3040HR-M	●	40	35	16	9	14	40	8.4	5.6	19	5		
3050HR	●	50	42	22	11	18	40	10.4	6.3	20	5	BT30 / BT40 / BT50 FMC22	
3050HR-M	●	50	42	22	11	18	40	10.4	6.3	20	7		
3063HR	●	63	49	22	11	18	40	10.4	6.3	20	7		
3063HR-M	●	63	49	22	11	18	40	10.4	6.3	20	9		
3080HR	●	80	57	27	14	20	50	12.4	7.0	23	8	BT40 / BT50 FMB / FMC27	
3080HR-M	●	80	57	27	14	20	50	12.4	7.0	23	10		
3100HR	●	100	67	32	18	26	50	14.4	8.0	25	9	BT40 / BT50 FMC32	
3100HR-M	●	100	67	32	18	26	50	14.4	8.0	25	12		
RM4PCM 4050HR	●	50	46	22	11	18	40	10.4	6.3	20	3	BT30 / BT40 / BT50 FMC22	14
4050HR-M	●	50	46	22	11	18	40	10.4	6.3	20	4		
4063HR	●	63	49	22	11	18	40	10.4	6.3	20	4		
4063HR-M	●	63	49	22	11	18	40	10.4	6.3	20	6		
4080HR	●	80	57	27	14	20	50	12.4	7.0	23	5	BT40 / BT50 FMB / FMC27	
4080HR-M	●	80	57	27	14	20	50	12.4	7.0	23	7		
4100HR	●	100	67	32	18	26	50	14.4	8.0	25	5	BT40 / BT50 FMC32	
4100HR-M	●	100	67	32	18	26	50	14.4	8.0	25	8		
4125HR	●	125	87	40	22	32	63	16.4	9.0	30	7	BT40 / BT50 FMB / FMC40	
4125HR-M	●	125	87	40	22	32	63	16.4	9.0	30	10		
4160R		160	107	40	-	100	63	16.4	9.0	32	8		
4160R-M		160	107	40	-	100	63	16.4	9.0	32	12		

● Stock item, ○ Under preparing for stock

RM4 Modular Head



(mm)

Designation	Dimensions(mm)								Available Inserts
	M	øD	L	ℓ	ød1	ød	ap	◎	
RM4PM 3014HR-M06	M06	14	40	25	6.5	12	9.0	1	LNEX100605PNR-MM, MF LNMX100605PNR-MM, MF
3016HR-M08	M08	16	42	25	8.5	14.5	9.0	1	
3018HR-M08	M08	18	42	25	8.5	14.5	9.0	2	
3020HR-M10	M10	20	51	30	10.5	18	9.0	2	
3025HR-M12	M12	25	59	35	12.5	23	9.0	2	
3032HR-M16	M16	32	67	40	17	28	9.0	3	
3040HR-M16	M16	40	67	40	17	28	9.0	4	
3050HR-M16	M16	50	72	45	17	30	9.0	5	

Modular adaptor

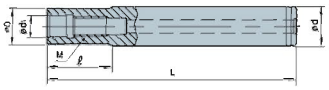


Fig 1. Straight Neck adaptor

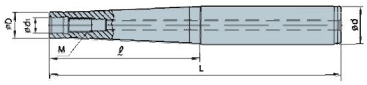


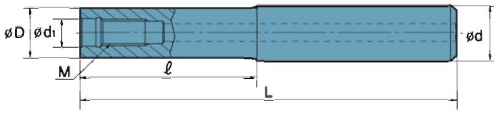
Fig 2. Taper Neck adaptor

• **Steel**

Designation	Stock	Fig.	Dimensions(mm)					
			M	øD	ød	ød₁	ℓ	L
MAT- M06-020-S10S	●	1	M06	9.5	10	6.5	20	70
M06-040-S12T	●	2	M06	9.5	12	6.5	40	96
M06-065-S16T	●	2	M06	9.5	16	6.5	65	125
M6B-020-S12S	●	1	M06	11	12	6.5	20	76
M6B-040-S12S	●	1	M06	11	12	6.5	40	96
M6B-065-S16T	●	2	M06	11	16	6.5	65	125
M6B-080-S16T	●	2	M06	11	16	6.5	80	140
M08-020-S16S	●	1	M08	14.5	16	8.5	20	80
M08-040-S16T	●	2	M08	14.5	16	8.5	40	100
M08-065-S16T	●	2	M08	14.5	16	8.5	65	125
M08-080-S20T	●	2	M08	14.5	20	8.5	80	150
M08-110-S25T	●	2	M08	14.5	25	8.5	110	190
M10-030-S20S	●	1	M10	18	20	10.5	30	100
M10-050-S20T	●	2	M10	18	20	10.5	50	120
M10-070-S20T	●	2	M10	18	20	10.5	70	140
M10-090-S25T	●	2	M10	18	25	10.5	90	170
M10-110-S25T	●	2	M10	18	25	10.5	110	190
M10-130-S32T	●	2	M10	18	32	10.5	130	220
M12-030-S25S	●	1	M12	22.5	25	12.5	30	110
M12-050-S25T	●	2	M12	22.5	25	12.5	50	130
M12-070-S25T	●	2	M12	22.5	25	12.5	70	150
M12-090-S25T	●	2	M12	22.5	25	12.5	90	170
M12-110-S32T	●	2	M12	22.5	32	12.5	110	200
M12-175-S40T	●	2	M12	22.5	40	12.5	175	300
M16-035-S32S	●	1	M16	28.5	32	17	35	125
M16-055-S32T	●	2	M16	28.5	32	17	55	145
M16-080-S32T	●	2	M16	28.5	32	17	80	170
M16-120-S32T	●	2	M16	28.5	32	17	120	210
M16-175-S40T	●	2	M16	28.5	40	17	175	300

• Available to use (FMRM, LBE, PAM, AMM, RM4PM, HRMM, PAXM) • S : Straight type • T : Taper type ●Stock item, ○Under preparing for stock

Modular adaptor



• **Carbide**

Designation	Stock	Dimensions(mm)					
		M	øD	ød	ød₁	ℓ	L
MAT-M08-080-S16S-C	●	M08	14.5	16	8.5	80	150
M08-110-S16S-C	●	M08	14.5	16	8.5	110	180
M08-150-S16S-C	●	M08	14.5	16	8.5	150	250
M10-090-S20S-C	●	M10	18	20	10.5	90	170
M10-110-S20S-C	●	M10	18	20	10.5	110	200
M10-175-S20S-C	●	M10	18	20	10.5	175	300
M12-090-S25S-C	●	M12	22.5	25	12.5	90	170
M12-110-S25S-C	●	M12	22.5	25	12.5	110	200
M12-175-S25S-C	●	M12	22.5	25	12.5	175	300
M16-090-S32S-C	●	M16	28.5	32	17	90	180
M16-120-S32S-C	●	M16	28.5	32	17	120	210
M16-175-S32S-C	●	M16	28.5	32	17	175	300

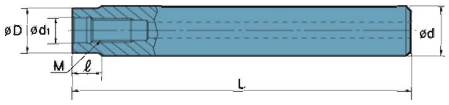
• Available to use (FMRM, LBE, PAM, AMM, RM4PM, HRMM, PAXM) ●Stock item, ○Under preparing for stock

Rich Mill-RM4

ITACHILE
Comercial Itachile LTDA

www.itachile.com

Modular adaptor



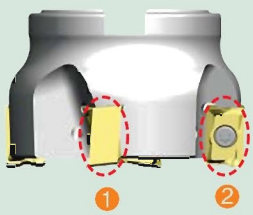
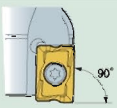
• Carbide

Designation	Stock	Dimensions(mm)					
		M	øD	ød	ød1	ℓ	L
MAT-M08-010-S16S-C-150	●	M08	14.5	16	8.5	10	150
M08-010-S16S-C-180	●	M08	14.5	16	8.5	10	180
M08-010-S16S-C-250	●	M08	14.5	16	8.5	10	250
M10-010-S20S-C-170	●	M10	18	20	10.5	10	170
M10-010-S20S-C-200	●	M10	18	20	10.5	10	200
M10-010-S20S-C-300	●	M10	18	20	10.5	10	300
M12-015-S25S-C-170	●	M12	22.5	25	12.5	15	170
M12-015-S25S-C-200	●	M12	22.5	25	12.5	15	200
M12-015-S25S-C-300	●	M12	22.5	25	12.5	15	300
M16-020-S32S-C-180	●	M16	28.5	32	17	20	180
M16-020-S32S-C-210	●	M16	28.5	32	17	20	210
M16-020-S32S-C-300	●	M16	28.5	32	17	20	300

• Available to use (FMRM, LBE, PAM, AMM, RM4PM, HRMM, PAXM)

●Stock item, ○Under preparing for stock

Features of cutter

Setting configuration	Cutting edge		Features
	①		• High rake chip breaker & positive setting angle for low cutting load
	②		• Multi applications for facing, shouldering ,slotting, ramping and helical, etc.

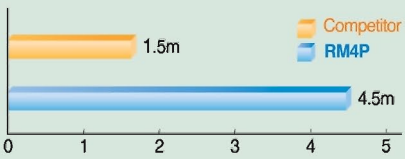
Recommended cutting condition

ISO	Grade	LNM(E)X100605PNR-MM		LNM(E)X100605PNR-MF		LNM(E)X15008PNR-MM		LNM(E)X151008PNR-MF	
		vc(m/min)	fz(mm/t)	vc(m/min)	fz(mm/t)	vc(m/min)	fz(mm/t)	vc(m/min)	fz(mm/t)
P	NCM325	-	-	-	-	120~300	0.05~0.25	150~300	0.05~0.25
	PC3525	120~300	0.05~0.25	150~300	0.05~0.2	120~300	0.05~0.25	150~300	0.05~0.25
	PC3535	100~250	0.05~0.25	150~250	0.05~0.2	100~250	0.05~0.25	150~250	0.05~0.25
M	PC9530	100~180	0.05~0.25	120~180	0.05~0.2	100~180	0.05~0.25	120~180	0.05~0.25
K	PC6510	120~300	0.08~0.25	150~300	0.08~0.25	120~300	0.08~0.30	150~300	0.08~0.30

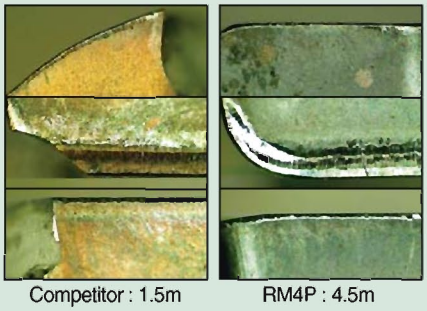
Application example

● **Cutting Condition**

- Cutter : RM4PCM4100HR LNMX151008PNR-MM(PC3525)
- Workpiece : SCM440, dry
- Cutting speed : 250m/min
- Feed rate : 0.2mm/t
- D. O. C : ap=10mm, ae=30mm
- Machine : C. N. C



Result : Tool life 300% up than competitor tool under the same cutting condition



Competitor : 1.5m RM4P : 4.5m

Rich Mill-RM8

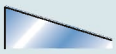
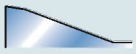
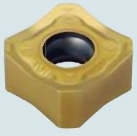
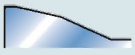
ITACHILE
Comercial Itachile LTDA

Features of RM8

- Innovative double-sided high rake angle insert makes it possible to use 8 cutting edges.
- Smooth cutting with low cutting load that has been acquired from the unique geometry & high rake angle of cutting edge guarantees excellent surface finish.
- The combination of the innovative geometries & the variety of grades provides wide coverage for milling application.
- Applicable for various workpieces not only Steel, Cast iron but stainless steel.

*Rich Mill Series are new milling tool of KORLOY with economical cutting edge and long tool life

Chip Breakers

Configuration			Cutting edge	Features
Aluminum	MA			• Aluminum cutting C/B Buffing surface treatment : Good chip flow & adhesion resistance
Finishing	MF			• Low cutting resistance Light cutting and hard-to-cut material cutting chip breaker
Medium	MM			• General and wide milling application

Recommended cutting condition

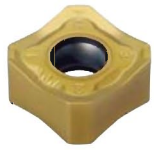
ISO	Grade	SNM(E)X1206ANN-MM		SNM(E)X1206ANN-MF	
		vc(m/min)	fz(mm/t)	vc(m/min)	fz(mm/t)
P	NCM325	150~300	0.10~0.35	200~300	0.05~0.30
	PC3525	150~300	0.10~0.35	200~300	0.05~0.30
	PC3535	120~250	0.10~0.35	150~250	0.05~0.30
M	PC9530	120~180	0.10~0.35	100~180	0.05~0.30
K	PC6510	150~300	0.10~0.40	150~300	0.08~0.35

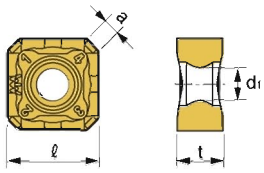
Rich Mill-RM8

ITACHILE
Comercial Itachile LTDA

RM8ACM Insert | RM8 Cutter
www.itachile.com

RM8ACM Insert



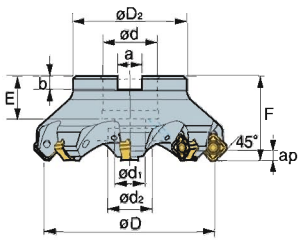


ISO / Designation	Grade					Dimensions(mm)			
	NCM325	PC3525	PC6510	PC9530	H01	ℓ	t	a	d1
SNMX1206ANN-MM	○	●	●	○		12.7	6.35	2.36	4.5
SNEX1206ANN-MM	●	●	●	○		12.7	6.35	2.36	4.5
SNMX1206ANN-MF		●	●			12.7	6.35	2.36	4.5
SNEX1206ANN-MF		●	●			12.7	6.35	2.36	4.5
SNEX1206ANN-MA					○	12.7	6.35	2.36	4.5

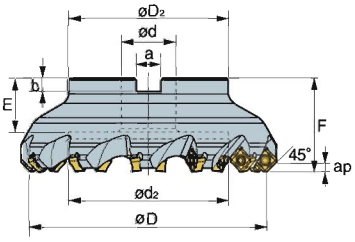
P M K S N ●Stock item, ○ Under preparing for stock

RM8 Cutter

• RM8ACM4000



Ø50 mm ~ Ø125 mm
(with coolant hole)



Ø160 mm ~ Ø250 mm

(mm)

Designation	Stock R	Stock L	ØD	ØD2	Ød	Ød1	Ød2	F	a	b	E	◎	Available arbor	ap (Max.depth of cut)
RM8ACM 4050HR-M	●		50	49	22	11	18	40	10.4	6.3	20	4	BT30/BT40/BT50 FMC22	6.0
4050HR-H	●		50	49	22	11	18	40	10.4	6.3	20	6		
4063HR-M	●		63	49	22	11	18	40	10.4	6.3	20	6		
4063HR-H	●		63	49	22	11	18	40	10.4	6.3	20	8		
4080HR	○		80	57	27	14	20	50	12.4	7.0	23	5	BT40/BT50 FMB/FMC27	
4080HR-M	●		80	57	27	14	20	50	12.4	7.0	23	7		
4080HR-H	●		80	57	27	14	20	50	12.4	7.0	23	10		
4100HR	○		100	67	32	18	26	50	14.4	8.0	25.5	6	BT40/BT50 FMC32	
4100HR-M	●		100	67	32	18	26	50	14.4	8.0	25.5	8		
4100HR-H	●		100	67	32	18	26	50	14.4	8.0	25.5	12		
4125HR	○		125	87	40	22	32	63	16.4	9.0	30	8	BT40/BT50 FMB/FMC40	
4125HR-M	●		125	87	40	22	32	63	16.4	9.0	30	10		
4125HR-H	●		125	87	40	22	32	63	16.4	9.0	30	16		
4160R	○		160	107	40	-	107	63	16.4	9.0	32	10		
4160R-M	●		160	107	40	-	107	63	16.4	9.0	32	12		
4160R-H	●		160	107	40	-	107	63	16.4	9.0	32	20		
4200R-M	○		200	130	60	-	135	63	25.7	14.0	32	14	BT50 FMB60	
4200R-H	○		200	130	60	-	135	63	25.7	14.0	32	24		
4250R-M	○		250	180	60	-	180	63	25.7	14.0	32	16		
4250R-H	○		250	180	60	-	180	63	25.7	14.0	32	30		

●Stock item, ○Under preparing for stock

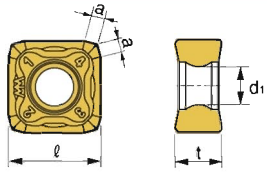
Rich Mill-RM8

ITACHILE Comercial Itachile LTDA

RM8ECM Insert | RM8 Cutter | Application example

www.itachile.com

RM8ECM Insert

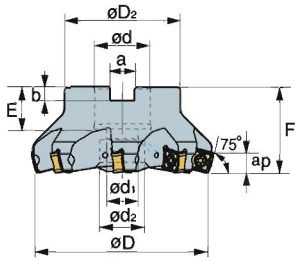


ISO / Designation	Grade					Dimensions(mm)			
	NCM325	PC3525	PC6510	PC9530	H01	ℓ	t	a	d1
SNMX1206ENN-MM	○	●	●			12.7	6.35	1.82	5.2
SNEX1206ENN-MM	○	●	●			12.7	6.35	1.82	5.2
SNMX1206ENN-MF		●	●			12.7	6.35	1.82	5.2
SNEX1206ENN-MF		●	●			12.7	6.35	1.82	5.2

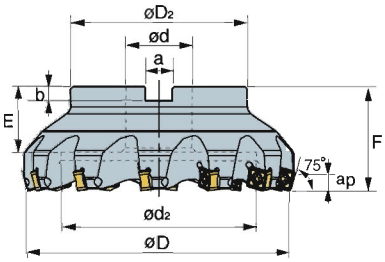
P M K S N ●Stock item, ○Under preparing for stock

RM8 Cutter

• RM8ECM4000



Ø50 mm ~ Ø125 mm
(with coolant hole)



Ø160 ~ Ø250

(mm)

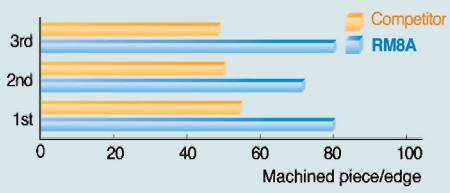
Designation	Stock R	Stock L	ØD	ØD2	Ød	Ød1	Ød2	F	a	b	E	◎	Available arbor	ap (Max.depth of cut)
RM8ECM 4050HR-M	●		50	49	22	11	18	40	10.4	6.3	20	4	BT30/BT40	9.0
4063HR-M	●		63	49	22	11	18	40	10.4	6.3	20	6	BT50 FMC22	
4080HR-M	●		80	57	27	14	20	50	12.4	7.0	23	7	BT40/BT50 FMB/FMC27	
4100HR-M	●		100	67	32	18	26	50	14.4	8.0	25.5	8	BT40/BT50 FMC32	
4125HR-M	●		125	87	40	22	32	63	16.4	9.0	30	10	BT40/BT50	
4160R-M	●		160	107	40	-	107	63	16.4	9.0	32	12	FMB/FMC40	
4200R-M			200	130	60	-	135	63	25.7	14.0	32	16	BT50 FMB60	

●Stock item, ○Under preparing for stock

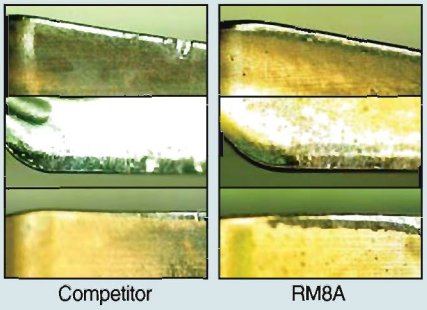
Application example

Cutting Condition

- Cutter : RM8ACM4160R-H SNMX1206ANN-MM(PC6510)
- Workpiece : GC (Part of Diesel Engine)
- Cutting speed : 196m/min
- Feed rate : 0.21mm/t
- D. O. C : 3.0mm
- Machine : C. N. C



Result : RM8 has got superior tool life up to 140% compared with similar application cutter



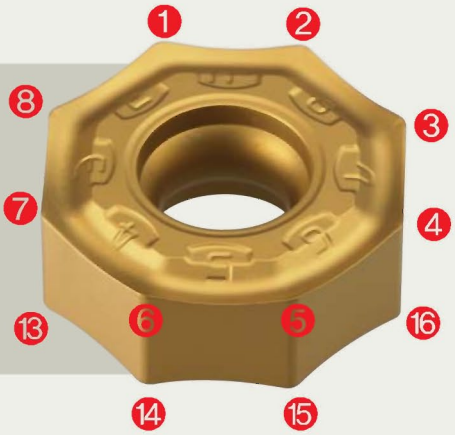
Competitor RM8A

Rich Mill-RM16

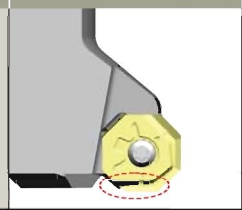
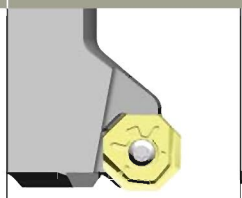
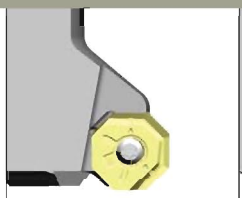
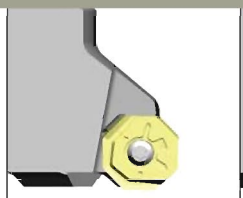
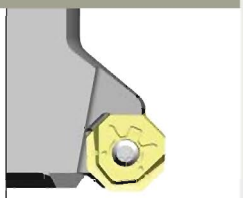
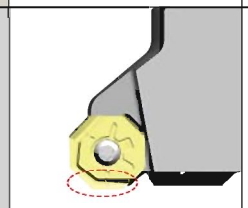
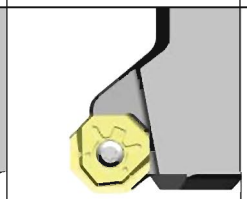
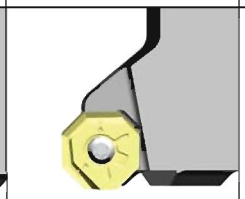
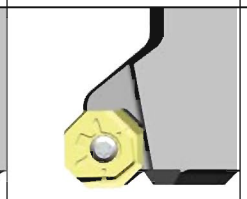
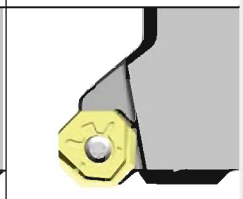
ITACHILE Comercial Itachile LTDA

Features of RM16

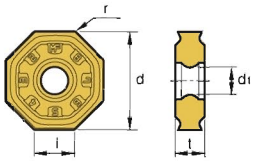
- Economical 16 cutting edges.
- It can reduce cost in medium cutting.
- Wiper insert can be used for good surface roughness.
- Optimal matching of the special cutting edge geometry with variety of new grades provides consistence & long tool life of insert.
- When it is used 16 corners, maximum cutting depth is 5.5mm.
- Wiper insert is placed 0.05mm lower than facing insert in cutter.
- When feed is bigger than wiper cutting edge length(7mm), 2 wiper inserts are placed in symmetrical position.



Instruction for wiper insert

Hand of tool	Correct setting	Incorrect setting			
Right hand					
	○	X	X	X	X
Left hand					
	○	X	X	X	X

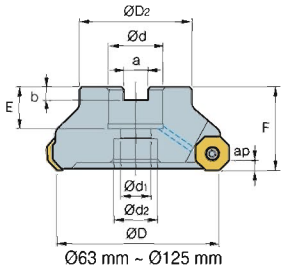
RM16ACM Insert



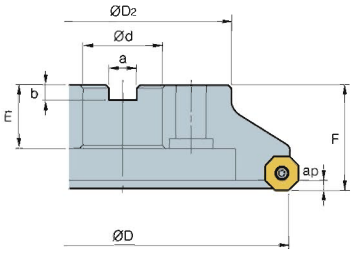
Designation \ ISO	Grade			Dimensions(mm)				
	PC3525	PC6510	PC9530	ℓ	d	t	r	d_1
ONMX 060608-MM	○	○	○	6.63	16.0	6.0	0.8	5.6
ONHX 060608-MM	○	○	○	6.63	16.0	6.0	0.8	5.6
ONMX 060608-MF	○	○	○	6.63	16.0	6.0	0.8	5.6
ONHX 060608-MF	○	○	○	6.63	16.0	6.0	0.8	5.6
ONHX 060608-W	○	○	○	6.48	16.0	6.0	0.8	5.6
ONMX 080608-MM	●	●	●	8.37	20.2	6.0	0.8	5.6
ONHX 080608-MM	●	●	●	8.37	20.2	6.0	0.8	5.6
ONMX 080608-MF	●	●	●	8.37	20.2	6.0	0.8	5.6
ONHX 080608-MF	●	●	●	8.37	20.2	6.0	0.8	5.6
ONHX 080608-W	●	●	●	8.22	20.2	6.0	0.8	5.6

P M K S N ●Stock item, ○ Under preparing for stock

RM16 Cutter



Ø63 mm ~ Ø125 mm
(with coolant hole)



Ø160 mm ~ Ø200 mm

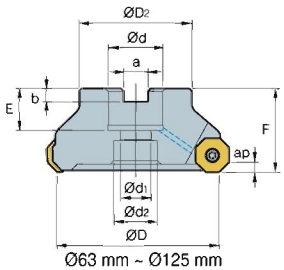
•RM16ACM6000

(mm)

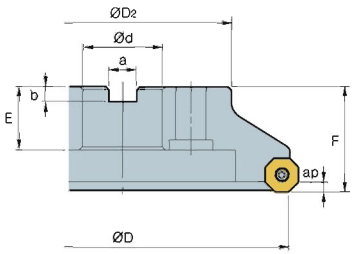
Designation	Stock	ØD	ØD2	Ød	Ød1	Ød2	F	a	b	E	◎	Available arbor	ap (Max.depth of cut)
RM16ACM 6063HR-M	○	63	49	22	11	18	40	10.4	6.3	20	5	BT30/BT40/BT50 FMC22	4.0
6080HR-M	○	80	57	27	14	20	50	12.4	7	23	6	BT40/BT50 FMB/FMC27	
6100HR-M	○	100	67	32	18	26	50	14.4	8	25.5	7	BT40/BT50 FMC32	
6125HR-M	○	125	87	40	22	32	63	16.4	9	30	8	BT40/BT50 FMB/FMC40	
6160R-M	○	160	107	40	-	107	63	16.4	9	32	10		
6200R-M	○	200	130	60	-	135	63	25.7	14	32	12	BT50 FMB60	

●Stock item, ○Under preparing for stock

RM16 Cutter



Ø63 mm ~ Ø125 mm
(with coolant hole)



Ø160 mm ~ Ø200 mm

•RM16ACM8000

(mm)

Designation	Stock	ØD	ØD2	Ød	Ød1	Ød2	F	a	b	E	◎	Available arbor	ap (Max.depth of cut)
RM16ACM 8063HR-M	●	63	49	22	11	18	40	10.4	6.3	20	5	BT30/BT40/BT50 FMC22	5.5
8080HR-M	●	80	57	27	14	20	50	12.4	7	23	6	BT40/BT50 FMB/FMC27	
8100HR-M	●	100	67	32	18	26	50	14.4	8	25.5	7	BT40/BT50 FMC32	
8125HR-M	●	125	87	40	22	32	63	16.4	9	30	8	BT40/BT50 FMB/FMC40	
8160R-M	●	160	107	40	-	107	63	16.4	9	32	10		
8200R-M	●	200	130	60	-	135	63	25.7	14	32	12	BT50 FMB60	

●Stock item, ○Under preparing for stock

Recommended cutting condition

ISO	Grade	ONM(H)X060608-MM		ONM(H)X060608-MF		ONHX060608-W		ONM(H)X080608-MM		ONM(H)X080608-MF		ONHX080608-W	
		vc(m/min)	fz(mm/t)	vc(m/min)	fz(mm/t)	vc(m/min)	fz(mm/t)	vc(m/min)	fz(mm/t)	vc(m/min)	fz(mm/t)	vc(m/min)	fz(mm/t)
P	NCM325	150~300	0.1~0.35	200~300	0.05~0.3	200~300	0.05~0.2	150~300	0.1~0.4	200~300	0.05~0.35	200~300	0.05~0.25
	PC3525	150~300	0.1~0.35	200~300	0.05~0.3	200~300	0.05~0.2	150~300	0.1~0.4	200~300	0.05~0.35	200~300	0.05~0.25
	PC3535	120~250	0.1~0.35	150~250	0.05~0.3	150~250	0.05~0.2	120~250	0.1~0.4	150~250	0.05~0.35	150~250	0.05~0.25
M	PC9530	120~180	0.1~0.35	100~180	0.05~0.3	100~180	0.05~0.2	120~180	0.1~0.4	100~180	0.05~0.35	100~180	0.05~0.25
K	PC6510	150~300	0.1~0.4	150~300	0.08~0.35	150~300	0.05~0.25	150~300	0.1~0.45	150~300	0.08~0.4	150~300	0.05~0.3

Rich Mill-RM16

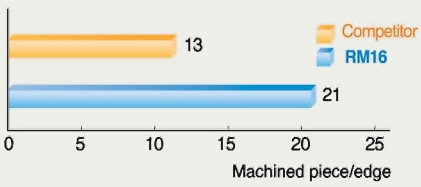
Chip Breakers

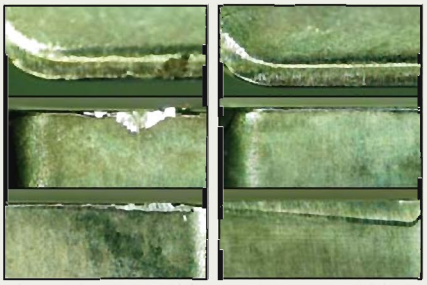
Configuration		Cutting edge	Features
General cutting MM			• It is suitable design for general milling.
Light cutting MF			• Due to low cutting load, it is good for light cutting and difficult-to-cut material.
Wiper W			• It has good surface roughness than MM,MF chip breaker.

Application example

Cutting Condition

- Cutter : RM16ACM8125HR-M ONHX080608-MM(PC3525)
- Workpiece : SM45C
- Cutting speed : 250m/min
- Feed rate : 0.25mm/t
- D. O. C : 2.0mm
- Machine : C. N. C

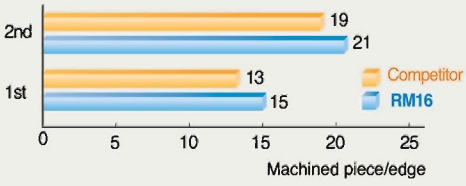


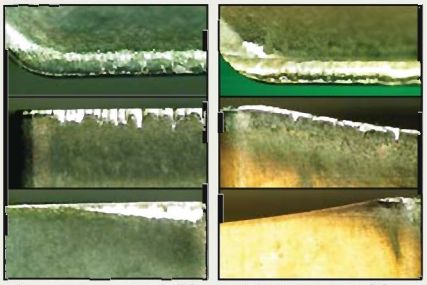


Competitor : 13 PASS RM16 : 21 PASS

Cutting Condition

- Cutter : RM16ACM8125HR-M ONHX080608-MF(PC6510)
- Workpiece : GC25
- Cutting speed : 250m/min
- Feed rate : 0.25mm/t
- D. O. C : 2.0mm
- Machine : C. N. C





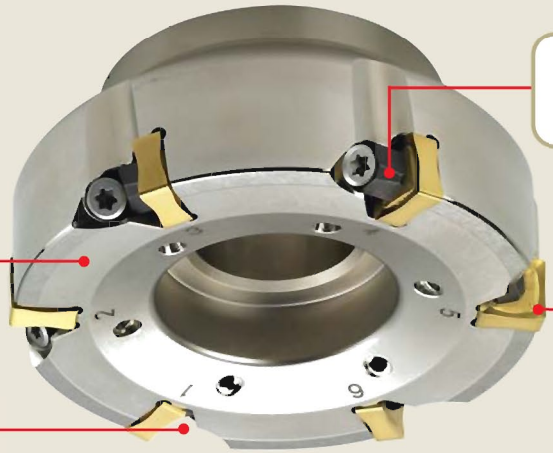
Competitor : 19 PASS RM16 : 21 PASS

Rich Mill-RMT

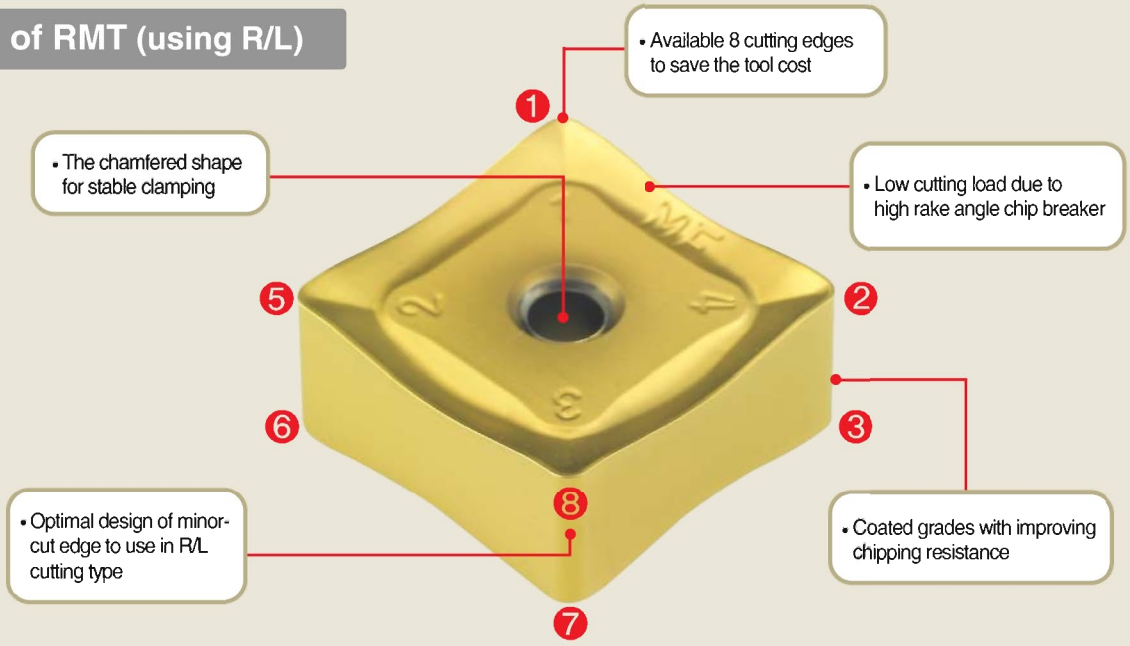
ITACHILE
Comercial Itachile LTDA

Features of RMT

- The new latch clamping system ensures powerful cutting force and replacing inserts easily
- Korloy coated grade with improved chipping resistance guarantees longer tool life
- The exclusive chip-breakers with sharp cutting edge & strong cutting edge accomplish better performance



Insert of RMT (using R/L)



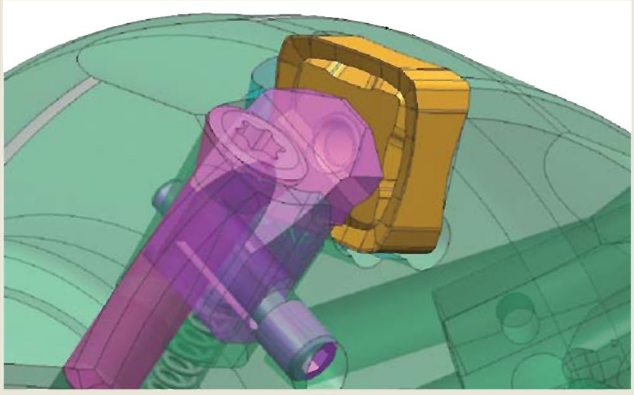
Chip breakers of RMT

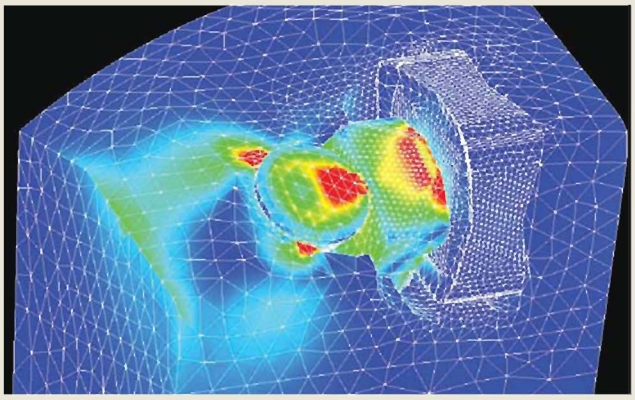
MF〈Sharp cutting edge〉

MM〈Strong cutting edge〉

Clamping system

(by Finite Element Method)





Recommended grade & C/B by workpiece

Workpiece	Grade	MM	MF
P	NCM325	◎	○
	PC3525	◎	○
	PC3545	◎	○
M	PC9530	△	◎
K	PC6510	○	◎

◎:Optimum ○:Proper △:General

Recommended cutting condition

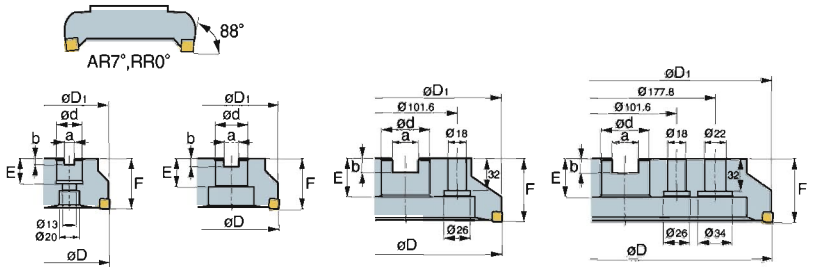
Workpiece	Grade	MM		MF	
		vc(m/min)	fz(mm/t)	vc(m/min)	fz(mm/t)
P	NCM325	150~300	0.05~0.3	150~300	0.05~0.2
	PC3525	150~300	0.05~0.3	150~300	0.05~0.2
	PC3545	150~300	0.05~0.3	150~300	0.05~0.2
M	PC9530	120~180	0.05~0.2	120~180	0.05~0.2
K	PC6510	150~300	0.05~0.3	150~300	0.05~0.2

Rich Mill-RMT

ITACHILE
Comercial Itachile LTDA

RMT8 Cutter | RMT8QM Insert
www.itachile.com

RMT8 Cutter



Ø80 Ø100~Ø160 Ø200~Ø250 Ø315

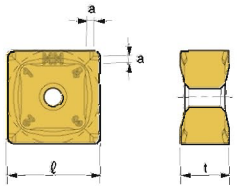
•RMT8QM4000

(mm)

Designation		Stock R	Stock L	ØD	ØD1	ØD2	Ød	a	b	E	F	◎	kg
RMT8QM	4080R/L	●	○	80	79	57	27	12.4	7	22	50	5	1.4
	4100R/L	●	○	100	99	67	32	14.4	8	28	50	6	1.8
	4125R/L	●	○	125	124	87	40	16.4	9	30	63	8	3.6
	4160R/L	●	○	160	159	107	40	16.4	9	30	63	10	5.7
	4200R/L	●	○	200	199	130	60	25.7	14	38	63	12	7.5
	4250R/L	●	○	250	249	180	60	25.7	14	38	63	16	12.5
	4315R/L	●	○	315	314	240	60	25.7	14	38	63	20	19.9
RMT8QM	4080R/L-M	●	○	80	79	57	27	12.4	7	22	50	6	1.4
	4100R/L-M	●	○	100	99	67	32	14.4	8	28	50	8	1.8
	4125R/L-M	●	○	125	124	87	40	16.4	9	30	63	10	3.6
	4160R/L-M	○	○	160	159	107	40	16.4	9	30	63	14	5.7
	4200R/L-M	○	○	200	199	130	60	25.7	14	38	63	18	7.5
	4250R/L-M	○	○	250	249	180	60	25.7	14	38	63	22	12.5
	4315R/L-M	○	○	315	314	240	60	25.7	14	38	63	28	19.9

●Stock item, ○Under preparing for stock

RMT8QM Insert



SNMF□□□□QNN

Designation	Grade	Dimensions (mm)		
	PC3525	ℓ	t	a
SNMF 1206QNN-MM	●	12.7	6.6	1
1206QNN-MF		12.7	6.6	1

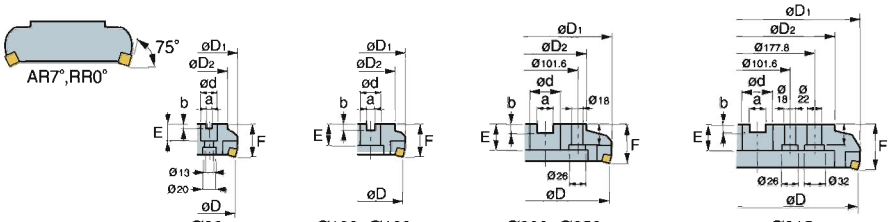
P M K S N ●Stock item, ○Under preparing for stock

Rich Mill-RMT

ITACHILE
Comercial Itachile LTDA

RMT8 Cutter | RMT8EM Insert
www.itachile.com

RMT8 Cutter



Ø80 Ø100~Ø160 Ø200~Ø250 Ø315

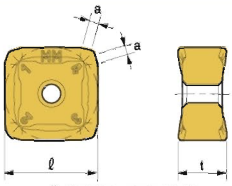
• RMT8EM4000/5000

(mm)

Designation		Stock R	Stock L	ØD	ØD1	ØD2	Ød	a	b	E	F	◎	kg
RMT8EM	4080R/L	●	○	80	87	57	27	12.4	7	22	50	5	1.5
	4100R/L	●	○	100	107	67	32	14.4	8	28	50	6	2.0
	4125R/L	●	○	125	132	87	40	16.4	9	30	63	8	3.8
	4160R/L	●	○	160	167	107	40	16.4	9	30	63	10	5.8
	4200R/L	●	○	200	207	130	60	25.7	14	38	63	12	7.9
	4250R/L	●	○	250	257	180	60	25.7	14	38	63	16	13.0
	4315R/L	●	○	315	322	240	60	25.7	14	38	63	20	20.5
RMT8EM	4080R/L-M	○	○	80	87	57	27	12.4	7	22	50	6	1.5
	4100R/L-M	○	○	100	107	67	32	14.4	8	28	50	8	2.0
	4125R/L-M	○	○	125	132	87	40	16.4	9	30	63	10	3.8
	4160R/L-M	○	○	160	167	107	40	16.4	9	30	63	14	5.8
	4200R/L-M	○	○	200	207	130	60	25.7	14	38	63	18	7.9
	4250R/L-M	○	○	250	257	180	60	25.7	14	38	63	22	13.0
	4315R/L-M	○	○	315	322	240	60	25.7	14	38	63	28	20.5
RMT8EM	5080R/L	●	○	80	88	57	27	12.4	7	22	50	5	1.4
	5100R/L	●	○	100	108	67	32	14.4	8	28	50	6	1.9
	5125R/L	●	○	125	133	87	40	16.4	9	30	63	8	3.7
	5160R/L	●	○	160	168	107	40	16.4	9	30	63	10	5.7
	5200R/L	●	○	200	208	130	60	25.7	14	38	63	12	7.5
	5250R/L	●	○	250	258	180	60	25.7	14	38	63	16	12.4
	5315R/L	●	○	315	323	240	60	25.7	14	38	63	20	19.9
RMT8EM	5080R/L-M	○	○	80	88	57	27	12.4	7	22	50	6	1.4
	5100R/L-M	○	○	100	108	67	32	14.4	8	28	50	8	1.9
	5125R/L-M	○	○	125	133	87	40	16.4	9	30	63	10	3.7
	5160R/L-M	○	○	160	168	107	40	16.4	9	30	63	14	5.7
	5200R/L-M	○	○	200	208	130	60	25.7	14	38	63	18	7.5
	5250R/L-M	○	○	250	258	180	60	25.7	14	38	63	22	12.4
	5315R/L-M	○	○	315	323	240	60	25.7	14	38	63	28	19.9

●Stock item, ○Under preparing for stock

RMT8EM Insert



SN□F□□□□ENN

Designation	Grade PC3525	Grade PC3545	Grade PC6510	Grade PC9530	Dimensions (mm) ℓ	Dimensions (mm) t	Dimensions (mm) a
SNCF 1206ENN-MM	●				12.7	6.6	1.3
1206ENN-MF	●		●	○	12.7	6.6	1.3
SNMF 1206ENN-MM	●				12.7	6.6	1.3
1206ENN-MF	○	○			12.7	6.6	1.3
SNCF 1507ENN-MM	●				15.875	7.35	1.3
1507ENN-MF	●		●		15.875	7.35	1.3
SNMF 1507ENN-MM	○				15.875	7.35	1.3
1507ENN-MF	○				15.875	7.35	1.3

P M K S N

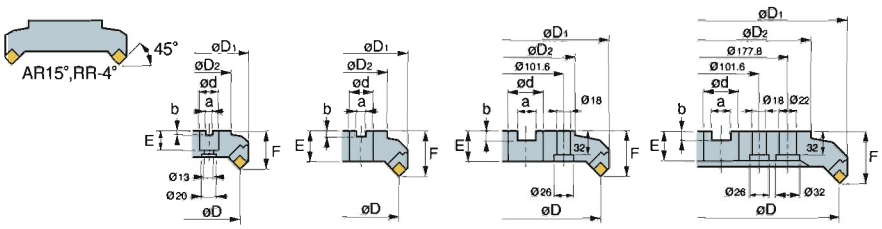
●Stock item, ○Under preparing for stock

Rich Mill-RMT

ITACHILE
Comercial Itachile LTDA

RMT8 Cutter | RMT8AM Insert
www.itachile.com

RMT8 Cutter



• RMT8AM4000/5000

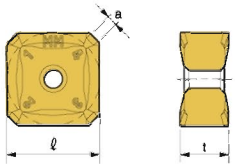
Ø80 | Ø100~Ø160 | Ø200~Ø250 | Ø315

(mm)

Designation		Stock R	Stock L	øD	øD1	øD2	ød	a	b	E	F	◎	kg
RMT8AM	4080R/L	●	○	80	100	57	27	12.4	7	22	50	5	1.6
	4100R/L	○	○	100	120	70	32	14.4	8	28	50	6	2.3
	4125R/L	●	○	125	144	87	40	16.4	9	30	63	8	4.3
	4160R/L	○	○	160	179	110	40	16.4	9	30	63	10	6.5
	4200R/L	●	○	200	219	130	60	25.7	14	38	63	12	8.8
	4250R/L	●	○	250	269	180	60	25.7	14	38	63	16	14.1
	4315R/L	●	○	315	334	240	60	25.7	14	38	63	20	22.3
RMT8AM	4080R/L-M	○	○	80	100	57	27	12.4	7	22	50	6	1.6
	4100R/L-M	○	○	100	120	70	32	14.4	8	28	50	8	2.3
	4125R/L-M	○	○	125	144	87	40	16.4	9	30	63	10	4.3
	4160R/L-M	○	○	160	179	110	40	16.4	9	30	63	14	6.5
	4200R/L-M	○	○	200	219	130	60	25.7	14	38	63	18	8.8
	4250R/L-M	○	○	250	269	180	60	25.7	14	38	63	22	14.1
	4315R/L-M	○	○	315	334	240	60	25.7	14	38	63	28	22.3
RMT8AM	5080R/L	●	○	80	104	57	27	12.4	7	22	50	5	1.8
	5100R/L	●	○	100	124	70	32	14.4	8	28	50	6	2.6
	5125R/L	●	○	125	149	87	40	16.4	9	30	63	8	4.3
	5160R/L	●	○	160	184	110	40	16.4	9	30	63	10	6.5
	5200R/L	○	○	200	224	130	60	25.7	14	38	63	12	9.0
	5250R/L	○	○	250	274	180	60	25.7	14	38	63	16	14.4
	5315R/L	○	○	315	339	240	60	25.7	14	38	63	20	22.2
RMT8AM	5080R/L-M	○	○	80	104	57	27	12.4	7	22	50	6	1.8
	5100R/L-M	○	○	100	124	70	32	14.4	8	28	50	8	2.6
	5125R/L-M	○	○	125	149	87	40	16.4	9	30	63	10	4.3
	5160R/L-M	○	○	160	184	110	40	16.4	9	30	63	14	6.5
	5200R/L-M	○	○	200	224	130	60	25.7	14	38	63	18	9.0
	5250R/L-M	○	○	250	274	180	60	25.7	14	38	63	22	14.4
	5315R/L-M	○	○	315	339	240	60	25.7	14	38	63	28	22.2

●Stock item, ○Under preparing for stock

RMT8AM Insert



SN□F□□□□ANN

Designation	Grade PC3525	Grade PC3545	Grade PC6510	Grade PC9530	Dimensions (mm) ℓ	t	a
SNCF 1206ANN-MM	●		●		12.7	6.6	1.4
1206ANN-MF	●		●	○	12.7	6.6	1.4
SNMF 1206ANN-MM	●				12.7	6.6	1.4
1206ANN-MF	●		○		12.7	6.6	1.4
SNCF 1507ANN-MM	●				15.875	7.35	1.5
1507ANN-MF	●	○	○		15.875	7.35	1.5
SNMF 1507ANN-MM					15.875	7.35	1.5
1507ANN-MF			○		15.875	7.35	1.5

P M K S N

●Stock item, ○Under preparing for stock

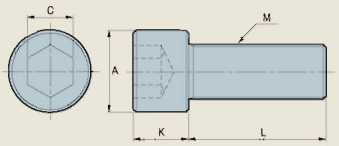
Rich Mill-RM4, RM8, RM16, RMT

Clamping bolt | Through coolant system | Rich Mill series code system

www.itachile.com

ITACHILE
Comercial Itachile LTDA

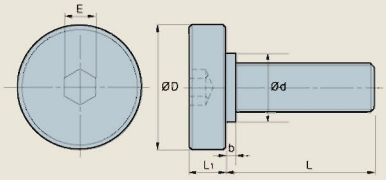
Clamping bolt



Socket bolt

Designation	A	C	K	L	M	Cutter size
SB0825	13	6	8	25	M08 x 1.25	ø40
SB1025	16	8	10	25	M10 x 1.50	ø50, ø63
SB1230	18	10	12	30	M12 x 1.75	ø80
SB1630	24	14	16	30	M16 x 2.0	ø100
SB2040	30	17	20	40	M20 x 2.5	ø125

• Detail spec. for HRM : see pages E107



Mounting bolt

Specifications	Dimensions (mm)						Cutter size
	ØD	L	L1	E	b	Ød	
M12 X1.75	33	28	10	10	2	23	ø80
M16 X 2	40	32	10	14	5	23	ø100
M20 X2.5	50	40	14	17	5	27	ø125 , ø160

Through coolant system

- Exclusive coolant bolt is adapted for better chip evacation and more powerful cooling.
- For optimal chip evacuation, the direction of coolant injection has designed to reach each cutting edge directly.

* Exclusive coolant bolt is sold separately

Rich Mill series code system

RM8 — Name & Number of edge
- **RM4** : 4 edges
- **RM8** : 8 edges
- ★ **RM10** : 10 edges
- ★ **RM12** : 12 edges
- **RM16** : 16 edges
- **RMT** : Latch clamp

★ Under developing item

A — Approach angle
- A : 45°
- ★D : 60°
- E : 75°
- ★F : 85°
- P : 90°
- ★Q : 88°

C — Tool type
- C : Cutter
- S : Shank
- M : Modular

M — Arbor type
- M : Metric
- A : Inch

4 — Insert I/C
- 3 : 9.525
- 4 : 12.7
- 5 : 15.875

100 — Tool diameter
- ISO : mm
- AISI : inch

H — Coolant type
- H : Thru-hole
- Unmarked : No thru-hole

R — Hand of Tool
- R : Right
- L : Left

-

M — Pitch type
- M : Close
- H : Extra Close

ITACHILE
Comercial Itachile LTDA

• HEAD OFFICE

Holystar B/D 953-1, Doksanbon-Dong, Geumcheon-Gu, Seoul, Korea
TEL:+82 2 522 3181 FAX:+82 2 522 3184, +82 2 3474 4744

• CHEONGJU FACTORY

53-16, Songjeong-Dong, Hungduk-Gu, Chengju, Chungcheongbuk-Do, Korea
TEL:+82 43 262 0141 FAX:+82 43 262 0146

• JINCHEON FACTORY

767-1, Gwanghyewon-Ri, Gwanghyewon-Myon, Jincheon-Gun, Chungcheongbuk-Do, Korea
TEL:+82 43 535 0141 FAX:+82 43 535 0144

Web site : www.korloy.com
E-mail : export@korloy.com

May. 2008

www.itachile.com

KORLOY Inc.

Warning

※ Safety instruction

- Please wear safety gloves and shoes because the edge is shape.
- Please use safety glasses, face cover and other protective equipment as breakage of tool and danger of scattering in case of wrong use condition.
- Please make suitable tool replacement because tool could be damaged by serious load and wear.
- When you handle hot and acute chips, please wear safety gloves after stop the engine.
- Please make fire prevention countermeasure because fire can break out when use straight cutting oils.
- Please settle the workpiece tightly.
- Please follow recommended cutting condition to prevent falling inserts when high speed cutting.
- Please consult with our specialists if there are any inquiries of products.