



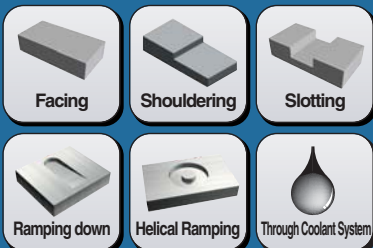
RM4
RM8
RM16
RMT

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.





Rich Mill-RM4

Features of RM4 | Chip Breakers

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



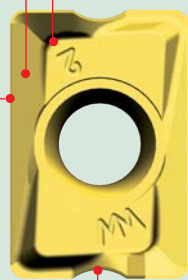
Through coolant system
: Longer tool life due to direct cooling injection into the cutting edge of insert

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

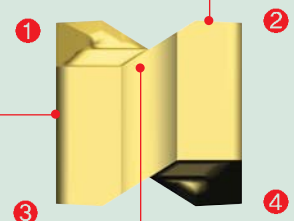
Chip breaker
: High rake angle for smooth chip control

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°)

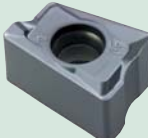

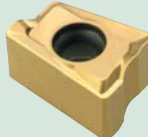



Major cutting edge
: Low cutting load from high rake chip breaker provides smooth cutting

Concave design
: To avoid interference between each cutting edges

Using **4-cutting edges**

Chip Breakers

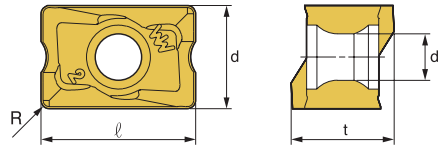
| | | Configuration | Cutting edge | Features |
|-----------|----|---|---|---|
| Finishing | MF |  |  | <ul style="list-style-type: none"> • Low cutting resistance • Light cutting and hard-to-cut material cutting chip breaker |
| Medium | MM |  |  | <ul style="list-style-type: none"> • General and wide milling application |



Rich Mill-RM4

RM4 Insert | Ramping

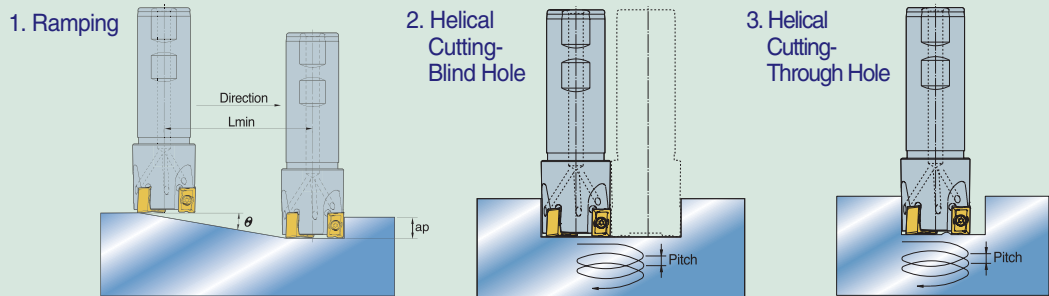
RM4 Insert



| Designation | Grade | | | | | Dimensions (inch) | | | | |
|------------------|--------|--------|--------|--------|--------|-------------------|-------|-------|-------|-------|
| | NCM325 | PC3525 | PC3545 | PC6510 | PC9530 | l | d | t | R | di |
| LNMX100605PNR-MF | | ● | | ● | | 0.394 | 0.256 | 0.256 | 0.020 | 0.138 |
| LNEX100605PNR-MF | | ● | | ● | | 0.394 | 0.256 | 0.256 | 0.020 | 0.138 |
| LNMX100605PNR-MM | | ● | | ● | | 0.394 | 0.256 | 0.256 | 0.020 | 0.138 |
| LNEX100605PNR-MM | | ● | | ● | | 0.394 | 0.256 | 0.256 | 0.020 | 0.138 |
| LNMX151008PNR-MF | ○ | ● | | ● | | 0.591 | 0.394 | 0.394 | 0.031 | 0.177 |
| LNEX151008PNR-MF | | ● | | ● | | 0.591 | 0.394 | 0.394 | 0.031 | 0.177 |
| LNMX151008PNR-MM | ○ | ● | ● | ● | | 0.591 | 0.394 | 0.394 | 0.031 | 0.177 |
| LNEX151008PNR-MM | | ● | | ● | | 0.591 | 0.394 | 0.394 | 0.031 | 0.177 |

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 | øD | θ° | Lmin | Max. Hole ø | Max. Pitch | Min. Hole ø | Max. Pitch | Min.Hole ø | Max. Pitch |
| RM4PSA | 3056HR | 0.562 | 5.0 | 4.503 | 1.069 | 0.13 | 0.990 | 0.11 | 0.785 |
| | 3062HR | 0.625 | 4.0 | 5.634 | 1.195 | 0.12 | 1.116 | 0.10 | 0.911 |
| | 3068HR | 0.688 | 4.0 | 5.634 | 1.321 | 0.13 | 1.242 | 0.12 | 1.037 |
| | 3075HR | 0.750 | 4.0 | 5.634 | 1.445 | 0.15 | 1.366 | 0.13 | 1.161 |
| | 3100HR | 1.000 | 3.5 | 6.442 | 1.945 | 0.18 | 1.866 | 0.16 | 1.661 |
| | 3125HR | 1.250 | 3.0 | 7.518 | 2.445 | 0.19 | 2.366 | 0.18 | 2.161 |
| | 3150HR | 1.500 | 2.0 | 11.283 | 2.945 | 0.15 | 2.866 | 0.14 | 2.661 |
| 3200HR | 2.000 | 1.5 | 15.046 | 3.945 | 0.15 | 3.866 | 0.14 | 3.661 | |
| RM4PCA | 3150HR | 1.500 | 2.0 | 11.283 | 2.945 | 0.15 | 2.866 | 0.14 | 2.661 |
| | 3200HR | 2.000 | 1.5 | 15.046 | 3.945 | 0.15 | 3.866 | 0.14 | 3.661 |
| | 3250HR | 2.500 | 1.0 | 22.572 | 4.945 | 0.13 | 4.866 | 0.12 | 4.661 |
| | 3300HR | 3.000 | 1.0 | 22.572 | 5.945 | 0.15 | 5.866 | 0.14 | 5.661 |
| | 3400HR | 4.000 | 0.5 | 45.148 | 7.945 | 0.10 | 7.866 | 0.10 | 7.661 |
| RM4PSA | 4125HR | 1.250 | 2.5 | 9.024 | 2.445 | 0.16 | 2.366 | 0.15 | 2.161 |
| | 4150HR | 1.500 | 2.0 | 11.283 | 2.945 | 0.15 | 2.866 | 0.14 | 2.661 |
| | 4200HR | 2.000 | 2.0 | 11.283 | 3.945 | 0.20 | 3.866 | 0.19 | 3.661 |
| | 4250HR | 2.500 | 2.0 | 11.283 | 4.945 | 0.25 | 4.866 | 0.24 | 4.661 |
| | 4200HR | 2.000 | 2.0 | 11.283 | 3.945 | 0.20 | 3.866 | 0.19 | 3.661 |
| RM4PCA | 4250HR | 2.500 | 2.0 | 11.283 | 4.945 | 0.25 | 4.866 | 0.24 | 4.661 |
| | 4300HR | 3.000 | 1.5 | 15.046 | 5.945 | 0.23 | 5.866 | 0.22 | 5.661 |
| | 4400HR | 4.000 | 1.0 | 22.572 | 7.945 | 0.20 | 7.866 | 0.19 | 7.661 |
| | 4500HR | 5.000 | 1.0 | 22.572 | 9.945 | 0.26 | 9.866 | 0.25 | 9.661 |
| | 4600R | 6.000 | 0.5 | 45.148 | 11.945 | 0.15 | 11.866 | 0.15 | 11.661 |

* ap=0.394inch



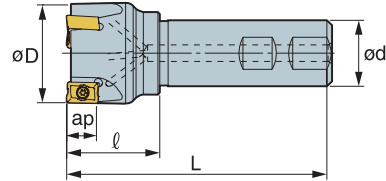
Rich Mill-RM4

RM4P Shank

RM4 Shank



• RM4PSA3000/4000



(inch)

| Designation | Stock | øD | L | ød | l | ⊙ | ap (Max.depth of cut) |
|---------------------------|-------|-------|-------|-------|-------|---|--------------------------|
| RM4PSA 3056HR-S062 | ○ | 0.562 | 3.543 | 0.625 | 0.906 | 1 | 0.354 |
| 3062HR-S062 | ○ | 0.625 | 3.543 | 0.625 | 0.984 | 1 | |
| 3068HR-S062 | ○ | 0.688 | 3.543 | 0.625 | 0.906 | 2 | |
| 3075HR-S075 | ○ | 0.750 | 3.937 | 0.750 | 1.181 | 2 | |
| 3075HR-S075M | ○ | 0.750 | 3.937 | 0.750 | 1.181 | 3 | |
| 3100HR-S100 | ○ | 1.000 | 4.528 | 1.000 | 1.378 | 2 | |
| 3100HR-S100M | ○ | 1.000 | 4.528 | 1.000 | 1.378 | 3 | |
| 3125HR-S125 | ○ | 1.250 | 4.921 | 1.250 | 1.575 | 3 | |
| 3125HR-S125M | ○ | 1.250 | 4.921 | 1.250 | 1.575 | 4 | |
| 3150HR-S125 | ○ | 1.500 | 5.118 | 1.250 | 1.654 | 4 | |
| 3150HR-S125M | ○ | 1.500 | 5.118 | 1.250 | 1.654 | 5 | |
| 3150HR-S150 | ○ | 1.500 | 5.118 | 1.500 | 1.654 | 4 | |
| 3150HR-S150M | ○ | 1.500 | 5.118 | 1.500 | 1.654 | 5 | |
| 3150HR-S165 | ○ | 1.500 | 5.118 | 1.654 | 1.654 | 4 | |
| 3150HR-S165M | ○ | 1.500 | 5.118 | 1.654 | 1.654 | 5 | |
| 3200HR-S125 | ○ | 2.000 | 5.315 | 1.250 | 1.772 | 5 | |
| 3200HR-S125M | ○ | 2.000 | 5.315 | 1.250 | 1.772 | 7 | |
| 3200HR-S150 | ○ | 2.000 | 5.315 | 1.500 | 1.772 | 5 | |
| 3200HR-S150M | ○ | 2.000 | 5.315 | 1.500 | 1.772 | 7 | |
| 3200HR-S165 | ○ | 2.000 | 5.315 | 1.654 | 1.772 | 5 | |
| 3200HR-S165M | ○ | 2.000 | 5.315 | 1.654 | 1.772 | 7 | |
| RM4PSA 4125HR-S125 | ○ | 1.250 | 4.921 | 1.250 | 1.575 | 2 | 0.551 |
| 4150HR-S125 | ○ | 1.500 | 5.118 | 1.250 | 1.654 | 3 | |
| 4150HR-S150 | ○ | 1.500 | 5.118 | 1.500 | 1.654 | 3 | |
| 4150HR-S165 | ○ | 1.500 | 5.118 | 1.654 | 1.654 | 3 | |
| 4200HR-S125 | ○ | 2.000 | 5.315 | 1.250 | 1.772 | 3 | |
| 4200HR-S125M | ○ | 2.000 | 5.315 | 1.250 | 1.772 | 4 | |
| 4200HR-S150 | ○ | 2.000 | 5.315 | 1.500 | 1.772 | 3 | |
| 4200HR-S150M | ○ | 2.000 | 5.315 | 1.500 | 1.772 | 4 | |
| 4200HR-S165 | ○ | 2.000 | 5.315 | 1.654 | 1.772 | 3 | |
| 4200HR-S165M | ○ | 2.000 | 5.315 | 1.654 | 1.772 | 4 | |
| 4250HR-S125 | ○ | 2.500 | 5.315 | 1.250 | 1.772 | 4 | |
| 4250HR-S125M | ○ | 2.500 | 5.315 | 1.250 | 1.772 | 6 | |
| 4250HR-S150 | ○ | 2.500 | 5.315 | 1.500 | 1.772 | 4 | |
| 4250HR-S150M | ○ | 2.500 | 5.315 | 1.500 | 1.772 | 6 | |
| 4250HR-S165 | ○ | 2.500 | 5.315 | 1.654 | 1.772 | 4 | |
| 4250HR-S165M | ○ | 2.500 | 5.315 | 1.654 | 1.772 | 6 | |

● Stock item, ○ Under preparing for stock



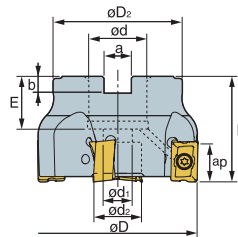
Rich Mill-**RM4**

RM4 Cutter | RM4 Modular Head

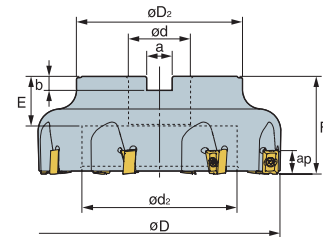
RM4 Cutter



•RM4PCA3000/4000



Ø1.5 ~ Ø5.0 (with coolant hole)



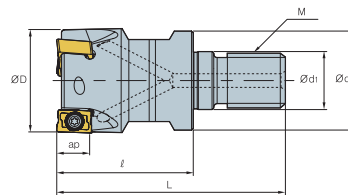
Ø6.0 (no coolant hole)

(inch)

| Designation | Stock | ϕD | ϕD_2 | ϕd | ϕd_1 | ϕd_2 | a | b | E | F | ϕ | ap (Max. depth of cut) |
|----------------------|-------|----------|------------|----------|------------|------------|-------|-------|-------|------|--------|---------------------------|
| RM4PCA 3150HR | ○ | 1.50 | 1.417 | 0.5 | 0.287 | 0.433 | 0.250 | 0.169 | 0.630 | 1.50 | 4 | 0.354 |
| 3150HR-M | ○ | 1.50 | 1.417 | 0.5 | 0.287 | 0.433 | 0.250 | 0.169 | 0.630 | 1.50 | 5 | |
| 3200HR | ○ | 2.00 | 1.772 | 0.75 | 0.413 | 0.630 | 0.313 | 0.220 | 0.787 | 1.75 | 5 | |
| 3200HR-M | ○ | 2.00 | 1.772 | 0.75 | 0.413 | 0.630 | 0.313 | 0.220 | 0.787 | 1.75 | 7 | |
| 3250HR | ○ | 2.50 | 2.205 | 1.00 | 0.551 | 0.827 | 0.375 | 0.248 | 0.866 | 1.75 | 7 | |
| 3250HR-M | ○ | 2.50 | 2.205 | 1.00 | 0.551 | 0.827 | 0.375 | 0.248 | 0.866 | 1.75 | 9 | |
| 3300HR | ○ | 3.00 | 2.205 | 1.00 | 0.551 | 0.827 | 0.375 | 0.248 | 0.866 | 2.00 | 8 | |
| 3300HR-M | ○ | 3.00 | 2.205 | 1.00 | 0.551 | 0.827 | 0.375 | 0.248 | 0.866 | 2.00 | 10 | |
| 3400HR | ○ | 4.00 | 2.874 | 1.25 | 0.709 | 1.024 | 0.500 | 0.319 | 0.866 | 2.00 | 9 | |
| 3400HR-M | ○ | 4.00 | 2.874 | 1.25 | 0.709 | 1.024 | 0.500 | 0.319 | 0.866 | 2.00 | 12 | |
| RM4PCA 4200HR | ○ | 2.00 | 1.772 | 0.75 | 0.413 | 0.630 | 0.313 | 0.220 | 0.787 | 1.75 | 3 | 0.551 |
| 4200HR-M | ○ | 2.00 | 1.772 | 0.75 | 0.413 | 0.630 | 0.313 | 0.220 | 0.787 | 1.75 | 4 | |
| 4250HR | ○ | 2.50 | 2.205 | 1.00 | 0.551 | 0.827 | 0.375 | 0.248 | 0.866 | 1.75 | 4 | |
| 4250HR-M | ○ | 2.50 | 2.205 | 1.00 | 0.551 | 0.827 | 0.375 | 0.248 | 0.866 | 1.75 | 6 | |
| 4300HR | ○ | 3.00 | 2.205 | 1.00 | 0.551 | 0.827 | 0.375 | 0.248 | 0.866 | 2.00 | 5 | |
| 4300HR-M | ○ | 3.00 | 2.205 | 1.00 | 0.551 | 0.827 | 0.375 | 0.248 | 0.866 | 2.00 | 6 | |
| 4400HR | ○ | 4.00 | 2.874 | 1.25 | 0.709 | 1.024 | 0.500 | 0.319 | 0.866 | 2.00 | 5 | |
| 4400HR-M | ○ | 4.00 | 2.874 | 1.25 | 0.709 | 1.024 | 0.500 | 0.319 | 0.866 | 2.00 | 8 | |
| 4500HR | ○ | 5.00 | 3.386 | 1.50 | 0.827 | 1.220 | 0.625 | 0.394 | 1.181 | 2.50 | 7 | |
| 4500HR-M | ○ | 5.00 | 3.386 | 1.50 | 0.827 | 1.220 | 0.625 | 0.394 | 1.181 | 2.50 | 10 | |
| 4600R | ○ | 6.00 | 4.882 | 2.00 | - | 4.213 | 0.750 | 0.433 | 1.181 | 2.50 | 8 | |
| 4600R-M | ○ | 6.00 | 4.882 | 2.00 | - | 4.213 | 0.750 | 0.433 | 1.181 | 2.50 | 11 | |

● Stock item, ○ Under preparing for stock

RM4 Modular Head



(inch)

| Designation | Dimensions(inch) | | | | | | | |
|--------------------------|------------------|----------|-------|--------|----------|------------|-------|--------|
| | M | ϕD | L | ℓ | ϕd | ϕd_1 | ap | ϕ |
| RM4PMA 3056HR-M06 | M06 | 0.563 | 1.575 | 0.984 | 0.433 | 0.256 | 0.354 | 1 |
| 3063HR-M08 | M08 | 0.625 | 0.654 | 0.984 | 0.571 | 0.335 | 0.354 | 1 |
| 3068HR-M08 | M08 | 0.688 | 0.654 | 0.984 | 0.571 | 0.335 | 0.354 | 2 |
| 3075HR-M10 | M10 | 0.750 | 2.008 | 1.181 | 0.689 | 0.413 | 0.354 | 2 |
| 3100HR-M12 | M12 | 1.000 | 2.323 | 1.378 | 0.906 | 0.492 | 0.354 | 2 |
| 3125HR-M16 | M16 | 1.250 | 2.638 | 1.575 | 1.142 | 0.669 | 0.354 | 3 |
| 3150HR-M16 | M16 | 1.500 | 2.638 | 1.575 | 1.142 | 0.669 | 0.354 | 4 |
| 3200HR-M16 | M16 | 2.000 | 2.835 | 1.772 | 1.142 | 0.669 | 0.354 | 5 |



Rich Mill-RM4

Modular adaptor

Modular adaptor

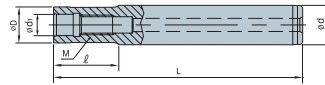


Fig 1. Straight Neck adaptor

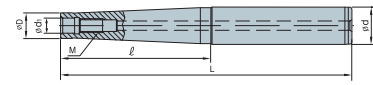


Fig 2. Taper Neck adaptor

•Steel

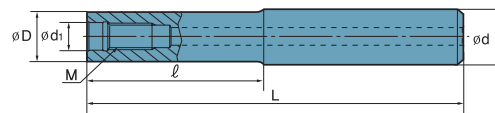
| Designation | Stock | Dimensions(inch) | | | | | |
|----------------------|-------|------------------|----------|----------|------------|-------|--------|
| | | M | ϕD | ϕd | ϕd_1 | l | L |
| MATA - M06-078-S038S | ● | M06 | 0.354 | 0.375 | 0.256 | 0.787 | 2.756 |
| M06-157-S050T | ● | M06 | 0.354 | 0.500 | 0.256 | 1.575 | 3.780 |
| M06-255-S063T | ● | M06 | 0.354 | 0.625 | 0.256 | 2.559 | 4.921 |
| M6B-078-S050S | ● | M06 | 0.433 | 0.500 | 0.256 | 0.787 | 2.992 |
| M6B-157-S050S | ● | M06 | 0.433 | 0.500 | 0.256 | 1.575 | 3.780 |
| M6B-255-S063T | ● | M06 | 0.433 | 0.625 | 0.256 | 2.559 | 4.921 |
| M6B-315-S063T | ● | M06 | 0.433 | 0.625 | 0.256 | 3.150 | 5.512 |
| M08-078-S063S | ● | M08 | 0.571 | 0.625 | 0.335 | 0.787 | 3.150 |
| M08-157-S063T | ● | M08 | 0.571 | 0.625 | 0.335 | 1.575 | 3.937 |
| M08-255-S063T | ● | M08 | 0.571 | 0.625 | 0.335 | 2.559 | 4.921 |
| M08-315-S075T | ● | M08 | 0.571 | 0.750 | 0.335 | 3.150 | 5.906 |
| M08-433-S100T | ● | M08 | 0.571 | 1.000 | 0.335 | 4.331 | 7.480 |
| M10-118-S075S | ● | M10 | 0.689 | 0.750 | 0.413 | 1.181 | 3.937 |
| M10-196-S075T | ● | M10 | 0.689 | 0.750 | 0.413 | 1.969 | 4.724 |
| M10-275-S075T | ● | M10 | 0.689 | 0.750 | 0.413 | 2.756 | 5.512 |
| M10-354-S100T | ● | M10 | 0.689 | 1.000 | 0.413 | 3.543 | 6.693 |
| M10-433-S100T | ● | M10 | 0.689 | 1.000 | 0.413 | 4.331 | 7.480 |
| M10-511-S125T | ● | M10 | 0.689 | 1.250 | 0.413 | 5.118 | 8.661 |
| M12-118-S100S | ● | M12 | 0.906 | 1.000 | 0.492 | 1.181 | 4.331 |
| M12-196-S100T | ● | M12 | 0.906 | 1.000 | 0.492 | 1.969 | 5.118 |
| M12-275-S100T | ● | M12 | 0.906 | 1.000 | 0.492 | 2.756 | 5.906 |
| M12-354-S100T | ● | M12 | 0.906 | 1.000 | 0.492 | 3.543 | 6.693 |
| M12-433-S125T | ● | M12 | 0.906 | 1.250 | 0.492 | 4.331 | 7.874 |
| M12-689-S150T | ● | M12 | 0.906 | 1.500 | 0.492 | 6.890 | 11.811 |
| M16-137-S125S | ● | M16 | 1.142 | 1.250 | 0.669 | 1.378 | 4.921 |
| M16-216-S125T | ● | M16 | 1.142 | 1.250 | 0.669 | 2.165 | 5.709 |
| M16-315-S125T | ● | M16 | 1.142 | 1.250 | 0.669 | 3.150 | 6.693 |
| M16-472-S125T | ● | M16 | 1.142 | 1.250 | 0.669 | 4.724 | 8.268 |
| M16-689-S150T | ● | M16 | 1.142 | 1.500 | 0.669 | 6.890 | 11.811 |

•Available to use (FMRMA, LBEA, PAMA, AMMA, RM4PMA, HRMMA, PAXMA)

•S : Straight type •T : Taper type

●Stock item, ○Under preparing for stock

Modular adaptor



•Carbide

| Designation | Stock | Dimensions(inch) | | | | | |
|------------------------|-------|------------------|----------|----------|------------|-------|--------|
| | | M | ϕD | ϕd | ϕd_1 | l | L |
| MATA - M08-315-S063S-C | ● | M08 | 0.571 | 0.625 | 0.335 | 3.150 | 5.906 |
| M08-433-S063S-C | ● | M08 | 0.571 | 0.625 | 0.335 | 4.331 | 7.087 |
| M08-590-S063S-C | ● | M08 | 0.571 | 0.625 | 0.335 | 5.906 | 9.843 |
| M10-354-S075S-C | ● | M10 | 0.689 | 0.750 | 0.413 | 3.543 | 6.693 |
| M10-433-S075S-C | ● | M10 | 0.689 | 0.750 | 0.413 | 4.331 | 7.874 |
| M10-689-S075S-C | ● | M10 | 0.689 | 0.750 | 0.413 | 6.890 | 11.811 |
| M12-354-S100S-C | ● | M12 | 0.906 | 1.000 | 0.492 | 3.543 | 6.693 |
| M12-433-S100S-C | ● | M12 | 0.906 | 1.000 | 0.492 | 4.331 | 7.874 |
| M12-689-S100S-C | ● | M12 | 0.906 | 1.000 | 0.492 | 6.890 | 11.811 |
| M16-354-S125S-C | ● | M16 | 1.142 | 1.250 | 0.669 | 3.543 | 7.087 |
| M16-472-S125S-C | ● | M16 | 1.142 | 1.250 | 0.669 | 4.724 | 8.268 |
| M16-689-S125S-C | ● | M16 | 1.142 | 1.250 | 0.669 | 6.890 | 11.811 |

•Available to use (FMRMA, LBEA, PAMA, AMMA, RM4PMA, HRMMA, PAXMA)

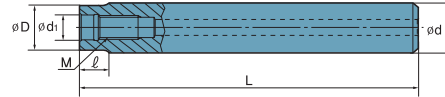
●Stock item, ○Under preparing for stock



Rich Mill-RM4

Modular adaptor | Features of cutter | Recommended cutting condition | Application example

Modular adaptor



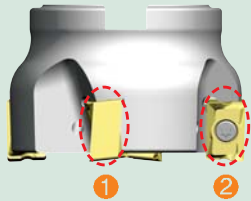
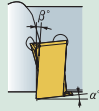
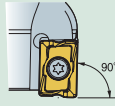
•Carbide

| Designation | Stock | Dimensions(inch) | | | | | |
|----------------------------|-------|------------------|-------|-------|-----------------|-------|--------|
| | | M | øD | ød | ød ₁ | l | L |
| MATA - M08-394-S063S-C-590 | ● | M08 | 0.571 | 0.625 | 0.335 | 0.394 | 5.906 |
| M08-394-S063S-C-708 | ● | M08 | 0.571 | 0.625 | 0.335 | 0.394 | 7.087 |
| M08-394-S063S-C-984 | ● | M08 | 0.571 | 0.625 | 0.335 | 0.394 | 9.843 |
| M10-394-S075S-C-669 | ● | M10 | 0.689 | 0.750 | 0.413 | 0.394 | 6.693 |
| M10-394-S075S-C-787 | ● | M10 | 0.689 | 0.750 | 0.413 | 0.394 | 7.874 |
| M10-394-S075S-C-1181 | ● | M10 | 0.689 | 0.750 | 0.413 | 0.394 | 11.811 |
| M12-059-S100S-C-669 | ● | M12 | 0.906 | 1.000 | 0.492 | 0.591 | 6.693 |
| M12-059-S100S-C-787 | ● | M12 | 0.906 | 1.000 | 0.492 | 0.591 | 7.874 |
| M12-059-S100S-C-1181 | ● | M12 | 0.906 | 1.000 | 0.492 | 0.591 | 11.811 |
| M16-078-S125S-C-708 | ● | M16 | 1.142 | 1.250 | 0.669 | 0.787 | 7.087 |
| M16-078-S125S-C-826 | ● | M16 | 1.142 | 1.250 | 0.669 | 0.787 | 8.268 |
| M16-078-S125S-C-1181 | ● | M16 | 1.142 | 1.250 | 0.669 | 0.787 | 11.811 |

• Available to use (FMRMA, LBEA, PAMA, AMMA, RM4PMA, HRMMA, PAXMA)

● Stock item, ○ Under preparing for stock

Features of cutter

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

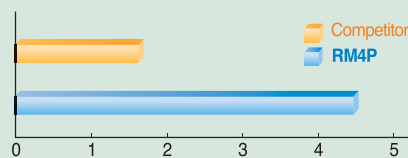
Recommended cutting condition

| ISO | Grade | LNM(E)X100605PNR-MM | | LNM(E)X100605PNR-MF | | LNM(E)X15008PNR-MM | | LNM(E)X151008PNR-MF | |
|-----|--------|---------------------|-------------|---------------------|-------------|--------------------|-------------|---------------------|-------------|
| | | vc(sfm) | fz(ipst) | vc(sfm) | fz(ipst) | vc(sfm) | fz(ipst) | vc(sfm) | fz(ipst) |
| P | NCM325 | - | - | - | - | 500~990 | 0.004~0.014 | 660~990 | 0.002~0.012 |
| | PC3525 | 400~990 | 0.002~0.010 | 500~990 | 0.002~0.008 | 500~990 | 0.004~0.014 | 660~990 | 0.002~0.012 |
| | PC3535 | 330~830 | 0.002~0.010 | 500~830 | 0.002~0.008 | 400~830 | 0.004~0.014 | 500~830 | 0.002~0.012 |
| M | PC9530 | 330~590 | 0.002~0.010 | 400~590 | 0.002~0.008 | 400~590 | 0.004~0.014 | 330~590 | 0.002~0.012 |
| K | PC6510 | 400~990 | 0.003~0.010 | 500~990 | 0.003~0.010 | 500~990 | 0.004~0.016 | 500~990 | 0.003~0.014 |

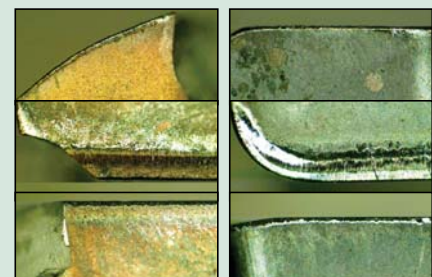
Application example

● Cutting Condition

- Cutter : RM4PCA4400HR
LNMX151008PNR-MM(PC3525)
- Workpiece : 4140, dry
- Cutting speed : 830sfm
- Feed rate : 0.008ipt
- D. O. C : ap=0.39inch, ae=1.18inch
- 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**

Features of RM8 | Chip Breakers | Recommended cutting condition

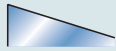

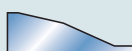
Features of RM8

- 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 |  | <ul style="list-style-type: none"> • Aluminum cutting C/B • Buffing surface treatment : Good chip flow & adhesion resistance |
| Finishing | MF |  | <ul style="list-style-type: none"> • Low cutting resistance • Light cutting and hard-to-cut material cutting chip breaker |
| Medium | MM |  | <ul style="list-style-type: none"> • General and wide milling application |

Recommended cutting condition

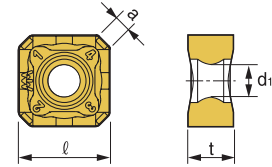
| ISO | Grade | SNM(E)X1206ANN-MM | | SNM(E)X1206ANN-MF | |
|----------|--------|-------------------|-------------|-------------------|-------------|
| | | vc(sfm) | fz(ipt) | vc(sfm) | fz(ipt) |
| P | NCM325 | 500~990 | 0.004~0.014 | 660~990 | 0.002~0.012 |
| | PC3525 | 500~990 | 0.004~0.014 | 660~990 | 0.002~0.012 |
| | PC3535 | 400~830 | 0.004~0.014 | 500~830 | 0.002~0.012 |
| M | PC9530 | 400~590 | 0.004~0.014 | 330~590 | 0.002~0.012 |
| K | PC6510 | 500~990 | 0.004~0.016 | 500~990 | 0.003~0.014 |



Rich Mill-**RM8**

RM8A Insert | RM8 Cutter

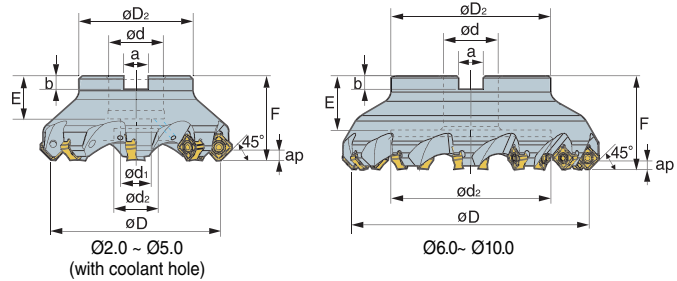
RM8A Insert



| Designation | ISO | Grade | | | | Dimensions(inch) | | | | |
|----------------|-----|--------|--------|--------|--------|------------------|-------|-------|-------|-------|
| | | NCM325 | PC3525 | PC6510 | PC9530 | H01 | l | t | a | di |
| SNMX1206ANN-MM | ○ | ● | ● | ● | ○ | | 0.500 | 0.250 | 0.093 | 0.177 |
| SNEX1206ANN-MM | ● | ● | ● | ● | ○ | | 0.500 | 0.250 | 0.093 | 0.177 |
| SNMX1206ANN-MF | | | ● | ● | | | 0.500 | 0.250 | 0.093 | 0.177 |
| SNEX1206ANN-MF | | | ● | ● | | | 0.500 | 0.250 | 0.093 | 0.177 |
| SNEX1206ANN-MA | | | | | | ○ | 0.500 | 0.250 | 0.093 | 0.177 |

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

RM8 Cutter



• RM8ACA4000

| Designation | Stock | | ØD | ØD ₂ | Ød | Ød ₁ | Ød ₂ | a | b | E | F | ◎ | ap |
|-----------------|-------|---|------|-----------------|------|-----------------|-----------------|-------|-------|-------|------|----|-------|
| | R | L | | | | | | | | | | | |
| RM8ACA 4200HR-M | ○ | | 2.0 | 1.772 | 0.75 | 0.413 | 0.630 | 0.313 | 0.220 | 0.787 | 1.75 | 4 | 0.236 |
| 4200HR-H | ○ | | 2.0 | 1.772 | 0.75 | 0.413 | 0.630 | 0.313 | 0.220 | 0.787 | 1.75 | 6 | |
| 4250HR-M | ○ | | 2.5 | 2.205 | 1.00 | 0.551 | 0.827 | 0.375 | 0.248 | 0.866 | 1.75 | 6 | |
| 4250HR-H | ○ | | 2.5 | 2.205 | 1.00 | 0.551 | 0.827 | 0.375 | 0.248 | 0.866 | 1.75 | 8 | |
| 4300HR | ○ | | 3.0 | 2.205 | 1.00 | 0.551 | 0.827 | 0.375 | 0.248 | 0.866 | 2.00 | 5 | |
| 4300HR-M | ○ | | 3.0 | 2.205 | 1.00 | 0.551 | 0.827 | 0.375 | 0.248 | 0.866 | 2.00 | 7 | |
| 4300HR-H | ○ | | 3.0 | 2.205 | 1.00 | 0.551 | 0.827 | 0.375 | 0.248 | 0.866 | 2.00 | 10 | |
| 4400HR | ○ | | 4.0 | 2.874 | 1.25 | 0.709 | 1.024 | 0.500 | 0.319 | 0.866 | 2.00 | 6 | |
| 4400HR-M | ○ | | 4.0 | 2.874 | 1.25 | 0.709 | 1.024 | 0.500 | 0.319 | 0.866 | 2.00 | 8 | |
| 4400HR-H | ○ | | 4.0 | 2.874 | 1.25 | 0.709 | 1.024 | 0.500 | 0.319 | 0.866 | 2.00 | 12 | |
| 4500HR | ○ | | 5.0 | 3.386 | 1.50 | 0.827 | 1.220 | 0.625 | 0.394 | 1.181 | 2.50 | 8 | |
| 4500HR-M | ○ | | 5.0 | 3.386 | 1.50 | 0.827 | 1.220 | 0.625 | 0.394 | 1.181 | 2.50 | 10 | |
| 4500HR-H | ○ | | 5.0 | 3.386 | 1.50 | 0.827 | 1.220 | 0.625 | 0.394 | 1.181 | 2.50 | 16 | |
| 4600R | ○ | | 6.0 | 4.882 | 2.00 | - | 4.213 | 0.750 | 0.433 | 1.181 | 2.50 | 10 | |
| 4600R-M | ○ | | 6.0 | 4.882 | 2.00 | - | 4.213 | 0.750 | 0.433 | 1.181 | 2.50 | 12 | |
| 4600R-H | ○ | | 6.0 | 4.882 | 2.00 | - | 4.213 | 0.750 | 0.433 | 1.181 | 2.50 | 18 | |
| 4800R-M | ○ | | 8.0 | 5.118 | 2.50 | - | 5.315 | 1.000 | 0.551 | 1.496 | 2.50 | 14 | |
| 4800R-H | ○ | | 8.0 | 5.118 | 2.50 | - | 5.315 | 1.000 | 0.551 | 1.496 | 2.50 | 24 | |
| 41000R-M | ○ | | 10.0 | 7.087 | 2.50 | - | 7.087 | 1.000 | 0.551 | 1.496 | 2.50 | 16 | |
| 41000R-H | ○ | | 10.0 | 7.087 | 2.50 | - | 7.087 | 1.000 | 0.551 | 1.496 | 2.50 | 30 | |

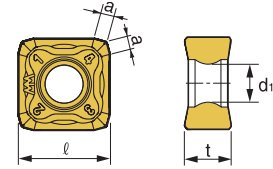
● Stock item, ○ Under preparing for stock



Rich Mill-**RM8**

RM8E Insert | RM8 Cutter | Application example

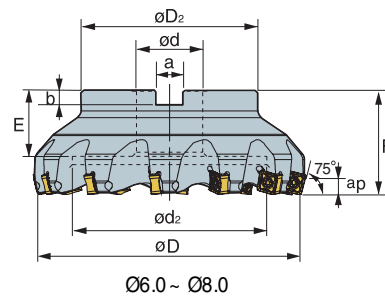
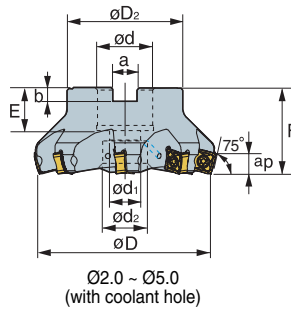
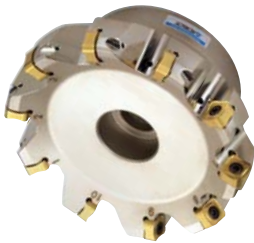
RM8E Insert



| Designation | ISO | Grade | | | | | Dimensions (inch) | | | |
|----------------|-----|--------|--------|--------|--------|-----|-------------------|-------|-------|----------------|
| | | NCM325 | PC3525 | PC6510 | PC9530 | H01 | l | t | a | d ₁ |
| SNMX1206ENN-MM | ○ | ● | ● | ● | | | 0.500 | 0.250 | 0.072 | 0.205 |
| SNEX1206ENN-MM | ○ | ● | ● | ● | | | 0.500 | 0.250 | 0.072 | 0.205 |
| SNMX1206ENN-MF | | ● | ● | ● | | | 0.500 | 0.250 | 0.072 | 0.205 |
| SNEX1206ENN-MF | | ● | ● | ● | | | 0.500 | 0.250 | 0.072 | 0.205 |

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

RM8 Cutter



• RM8ECA4000

(inch)

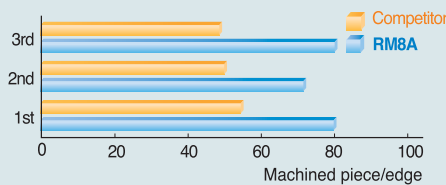
| Designation | Stock | | ØD | ØD ₂ | Ød | Ød ₁ | Ød ₂ | a | b | E | F | ⊙ | ap |
|-----------------|-------|---|-----|-----------------|------|-----------------|-----------------|-------|-------|-------|------|----|-------|
| | R | L | | | | | | | | | | | |
| RM8ECA 4200HR-M | ○ | | 2.0 | 1.772 | 0.75 | 0.413 | 0.630 | 0.313 | 0.220 | 0.787 | 1.75 | 4 | 0.354 |
| 4250HR-M | ○ | | 2.5 | 2.205 | 1.00 | 0.551 | 0.827 | 0.375 | 0.248 | 0.866 | 1.75 | 6 | |
| 4300HR | ○ | | 3.0 | 2.205 | 1.00 | 0.551 | 0.827 | 0.375 | 0.248 | 0.866 | 2.00 | 5 | |
| 4300HR-M | ○ | | 3.0 | 2.205 | 1.00 | 0.551 | 0.827 | 0.375 | 0.248 | 0.866 | 2.00 | 7 | |
| 4400HR | ○ | | 4.0 | 2.874 | 1.25 | 0.709 | 1.024 | 0.500 | 0.319 | 0.866 | 2.00 | 6 | |
| 4400HR-M | ○ | | 4.0 | 2.874 | 1.25 | 0.709 | 1.024 | 0.500 | 0.319 | 0.866 | 2.00 | 8 | |
| 4500HR | ○ | | 5.0 | 3.386 | 1.50 | 0.827 | 1.220 | 0.625 | 0.394 | 1.181 | 2.50 | 8 | |
| 4500HR-M | ○ | | 5.0 | 3.386 | 1.50 | 0.827 | 1.220 | 0.625 | 0.394 | 1.181 | 2.50 | 10 | |
| 4600R | ○ | | 6.0 | 4.882 | 2.00 | - | 4.213 | 0.750 | 0.433 | 1.181 | 2.50 | 10 | |
| 4600R-M | ○ | | 6.0 | 4.882 | 2.00 | - | 4.213 | 0.750 | 0.433 | 1.181 | 2.50 | 12 | |
| 4800R-M | ○ | | 8.0 | 5.118 | 2.50 | - | 5.315 | 1.000 | 0.551 | 1.496 | 2.50 | 16 | |

● Stock item, ○ Under preparing for stock

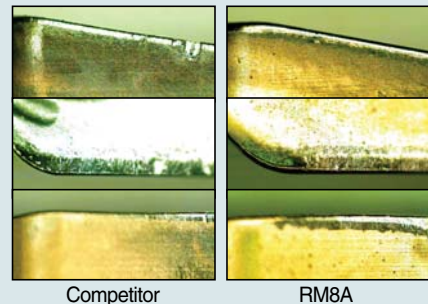
Application example

● Cutting Condition

- Cutter : RM8ACA4600R-H
SNMX1206ANN-MM(PC6510)
- Workpiece : No 30B (Part of Diesel Engine)
- Cutting speed : 645sfm
- Feed rate : 0.008ipt
- D. O. C : 0.12inch
- Machine : C. N. C



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



Competitor

RM8A

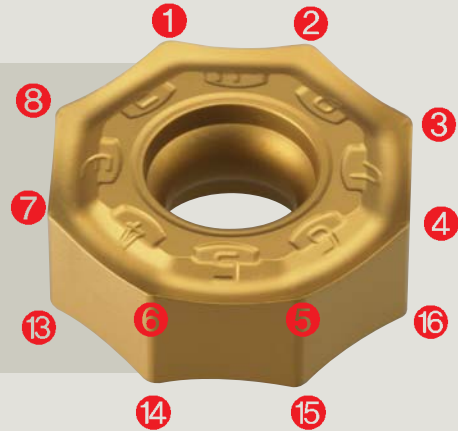


Rich Mill-**RM16**

Features of RM16 | Instruction for wiper insert | RM16ACA Insert

Features of RM16

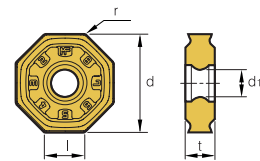
- Economical 16 cutting edges.
- It can reduce cost in medium cutting.
- Wiper insert can be used for good surface roughness.
- Optimal matching of the special cutting edge geometry with variety of new grades provides consistence & long tool life of insert.
- When it is used 16 corners, maximum cutting depth is 0.217inch.
- Wiper insert is placed 0.002inch lower than facing insert in cutter.
- When feed is bigger than wiper cutting edge length(0.276inch), 2 wiper inserts are placed in symmetrical position.



Instruction for wiper insert

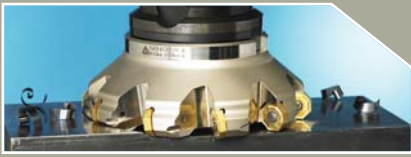
| Hand of tool | Correct setting | Incorrect setting | | | |
|--------------|-----------------|-------------------|---|---|---|
| Right hand | | | | | |
| | ○ | X | X | X | X |
| Left hand | | | | | |
| | ○ | X | X | X | X |

RM16ACA Insert



| Designation | ISO | Grade | | | Dimensions(inch) | | | | |
|----------------|-----|--------|--------|--------|------------------|-------|-------|-------|----------------|
| | | PC3525 | PC6510 | PC9530 | ℓ | d | t | r | d _i |
| ONMX 060608-MM | ○ | ○ | ○ | ○ | 0.261 | 0.630 | 0.236 | 0.031 | 0.220 |
| ONHX 060608-MM | ○ | ○ | ○ | ○ | 0.261 | 0.630 | 0.236 | 0.031 | 0.220 |
| ONMX 060608-MF | ○ | ○ | ○ | ○ | 0.261 | 0.630 | 0.236 | 0.031 | 0.220 |
| ONHX 060608-MF | ○ | ○ | ○ | ○ | 0.261 | 0.630 | 0.236 | 0.031 | 0.220 |
| ONHX 060608-W | ○ | ○ | ○ | ○ | 0.255 | 0.630 | 0.236 | 0.031 | 0.220 |
| ONMX 080608-MM | ● | ● | ● | ● | 0.330 | 0.795 | 0.236 | 0.031 | 0.220 |
| ONHX 080608-MM | ● | ● | ● | ● | 0.330 | 0.795 | 0.236 | 0.031 | 0.220 |
| ONMX 080608-MF | ● | ● | ● | ● | 0.330 | 0.795 | 0.236 | 0.031 | 0.220 |
| ONHX 080608-MF | ● | ● | ● | ● | 0.330 | 0.795 | 0.236 | 0.031 | 0.220 |
| ONHX 080608-W | ● | ● | ● | ● | 0.324 | 0.795 | 0.236 | 0.031 | 0.220 |

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



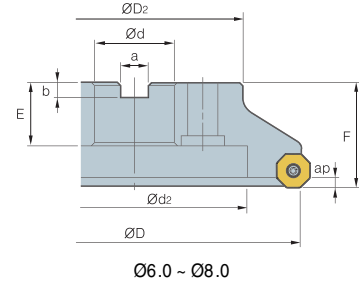
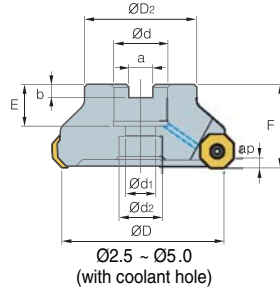
Rich Mill-**RM16**

RM16 Cutter | Recommended cutting condition

RM16 Cutter



•RM16ACA6000



(inch)

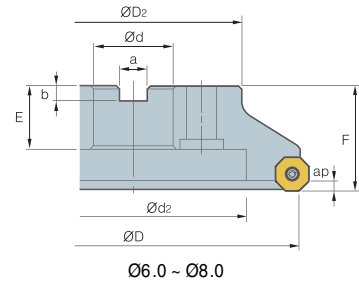
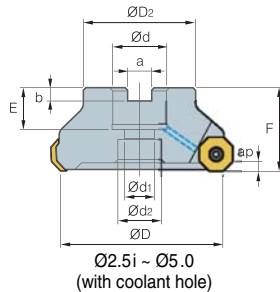
| Designation | Stock | | ØD | ØD ₂ | Ød | Ød ₁ | Ød ₂ | F | a | b | E | ⊙ | ap (Max.depth of cut) |
|------------------|-------|---|-----|-----------------|------|-----------------|-----------------|------|-------|-------|-------|----|--------------------------|
| | R | L | | | | | | | | | | | |
| RM16ACA 6250HR-M | ○ | | 2.5 | 2.205 | 1.00 | 0.551 | 0.827 | 1.75 | 0.374 | 0.236 | 0.866 | 5 | 0.157 |
| 6250HR-H | ○ | | 2.5 | 2.205 | 1.00 | 0.551 | 0.827 | 1.75 | 0.374 | 0.236 | 0.866 | 7 | |
| 6300HR-M | ○ | | 3.0 | 2.205 | 1.00 | 0.551 | 0.827 | 2.00 | 0.374 | 0.236 | 0.866 | 6 | |
| 6300HR-H | ○ | | 3.0 | 2.205 | 1.00 | 0.551 | 0.827 | 2.00 | 0.374 | 0.236 | 0.866 | 8 | |
| 6400HR-M | ○ | | 4.0 | 2.874 | 1.25 | 0.709 | 1.024 | 2.00 | 0.500 | 0.315 | 0.866 | 7 | |
| 6400HR-H | ○ | | 4.0 | 2.874 | 1.25 | 0.709 | 1.024 | 2.00 | 0.500 | 0.315 | 0.866 | 10 | |
| 6500HR-M | ○ | | 5.0 | 3.386 | 1.50 | 0.827 | 1.220 | 2.50 | 0.626 | 0.394 | 1.181 | 8 | |
| 6500HR-H | ○ | | 5.0 | 3.386 | 1.50 | 0.827 | 1.220 | 2.50 | 0.626 | 0.394 | 1.181 | 14 | |
| 6600R-M | ○ | | 6.0 | 4.882 | 2.00 | - | 4.213 | 2.50 | 0.748 | 0.433 | 1.181 | 10 | |
| 6600R-H | ○ | | 6.0 | 4.882 | 2.00 | - | 4.213 | 2.50 | 0.748 | 0.433 | 1.181 | 16 | |
| 6800R-M | ○ | | 8.0 | 5.118 | 2.50 | - | 5.315 | 2.50 | 1.012 | 0.551 | 1.496 | 12 | |
| 6800R-H | ○ | | 8.0 | 5.118 | 2.50 | - | 5.315 | 2.50 | 1.012 | 0.551 | 1.496 | 20 | |

●Stock item, ○Under preparing for stock

RM16 Cutter



•RM16ACA8000



(inch)

| Designation | Stock | | ØD | ØD ₂ | Ød | Ød ₁ | Ød ₂ | F | a | b | E | ⊙ | ap (Max.depth of cut) |
|------------------|-------|---|-----|-----------------|------|-----------------|-----------------|------|-------|-------|-------|----|--------------------------|
| | R | L | | | | | | | | | | | |
| RM16ACA 8250HR-M | ○ | | 2.5 | 2.205 | 1.00 | 0.551 | 0.827 | 1.75 | 0.374 | 0.236 | 0.866 | 5 | 0.216 |
| 8250HR-H | ○ | | 2.5 | 2.205 | 1.00 | 0.551 | 0.827 | 1.75 | 0.374 | 0.236 | 0.866 | 6 | |
| 8300HR-M | ○ | | 3.0 | 2.205 | 1.00 | 0.551 | 0.827 | 2.00 | 0.374 | 0.236 | 0.866 | 6 | |
| 8300HR-H | ○ | | 3.0 | 2.205 | 1.00 | 0.551 | 0.827 | 2.00 | 0.374 | 0.236 | 0.866 | 7 | |
| 8400HR-M | ○ | | 4.0 | 2.874 | 1.25 | 0.709 | 1.024 | 2.00 | 0.500 | 0.315 | 0.866 | 7 | |
| 8400HR-H | ○ | | 4.0 | 2.874 | 1.25 | 0.709 | 1.024 | 2.00 | 0.500 | 0.315 | 0.866 | 9 | |
| 8500HR-M | ○ | | 5.0 | 3.386 | 1.50 | 0.827 | 1.220 | 2.50 | 0.626 | 0.394 | 1.181 | 8 | |
| 8500HR-H | ○ | | 5.0 | 3.386 | 1.50 | 0.827 | 1.220 | 2.50 | 0.626 | 0.394 | 1.181 | 10 | |
| 8600R-M | ○ | | 6.0 | 4.882 | 2.00 | - | 4.213 | 2.50 | 0.748 | 0.433 | 1.181 | 10 | |
| 8600R-H | ○ | | 6.0 | 4.882 | 2.00 | - | 4.213 | 2.50 | 0.748 | 0.433 | 1.181 | 14 | |
| 8800R-M | ○ | | 8.0 | 5.118 | 2.50 | - | 5.315 | 2.50 | 1.012 | 0.551 | 1.496 | 12 | |
| 8800R-H | ○ | | 8.0 | 5.118 | 2.50 | - | 5.315 | 2.50 | 1.012 | 0.551 | 1.496 | 16 | |

●Stock item, ○Under preparing for stock

Recommended cutting condition

| ISO | Grade | ONM(H)X060608-MM | | ONM(H)X060608-MF | | ONM(H)X060608-W | |
|-----|--------|------------------|---------------|------------------|---------------|-----------------|---------------|
| | | vc(sfm) | fz(ipt) | vc(sfm) | fz(ipt) | vc(sfm) | fz(ipt) |
| P | NCM325 | 500 ~ 990 | 0.004 ~ 0.014 | 660 ~ 990 | 0.002 ~ 0.012 | 660 ~ 990 | 0.002 ~ 0.008 |
| | PC3525 | 500 ~ 990 | 0.004 ~ 0.014 | 660 ~ 990 | 0.002 ~ 0.012 | 660 ~ 990 | 0.002 ~ 0.008 |
| | PC3535 | 400 ~ 830 | 0.004 ~ 0.014 | 500 ~ 830 | 0.002 ~ 0.012 | 500 ~ 830 | 0.002 ~ 0.008 |
| M | PC9530 | 400 ~ 590 | 0.004 ~ 0.014 | 330 ~ 590 | 0.002 ~ 0.012 | 330 ~ 590 | 0.002 ~ 0.008 |
| K | PC6510 | 500 ~ 990 | 0.004 ~ 0.016 | 500 ~ 990 | 0.003 ~ 0.014 | 500 ~ 990 | 0.002 ~ 0.010 |

| ISO | Grade | ONM(H)X080608-MM | | ONM(H)X080608-MF | | ONM(H)X080608-W | |
|-----|--------|------------------|---------------|------------------|---------------|-----------------|---------------|
| | | vc(sfm) | fz(ipt) | vc(sfm) | fz(ipt) | vc(sfm) | fz(ipt) |
| P | NCM325 | 500 ~ 990 | 0.004 ~ 0.016 | 660 ~ 990 | 0.002 ~ 0.014 | 660 ~ 990 | 0.002 ~ 0.010 |
| | PC3525 | 500 ~ 990 | 0.004 ~ 0.016 | 660 ~ 990 | 0.002 ~ 0.014 | 660 ~ 990 | 0.002 ~ 0.010 |
| | PC3535 | 400 ~ 830 | 0.004 ~ 0.016 | 500 ~ 830 | 0.002 ~ 0.014 | 500 ~ 830 | 0.002 ~ 0.010 |
| M | PC9530 | 400 ~ 590 | 0.004 ~ 0.016 | 330 ~ 590 | 0.002 ~ 0.014 | 330 ~ 590 | 0.002 ~ 0.010 |
| K | PC6510 | 500 ~ 990 | 0.004 ~ 0.018 | 500 ~ 990 | 0.003 ~ 0.016 | 500 ~ 990 | 0.002 ~ 0.012 |



Rich Mill-**RM16**

Chip Breakers | Application example

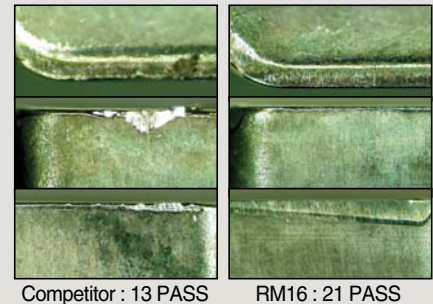
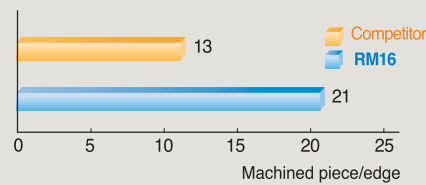
Chip Breakers

| Configuration | Cutting edge | Features |
|---|---|--|
| General cutting MM  |  | <ul style="list-style-type: none"> It is suitable design for general milling. |
| Light cutting MF  |  | <ul style="list-style-type: none"> Due to low cutting load, it is good for light cutting and difficult-to-cut material. |
| Wiper W  |  | <ul style="list-style-type: none"> It has good surface roughness than MM, MF chip breaker. |

Application example

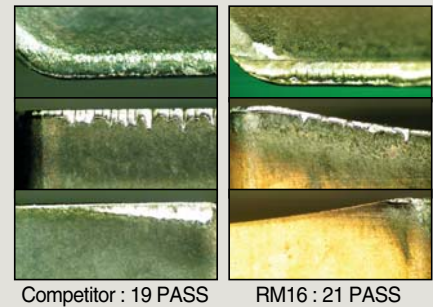
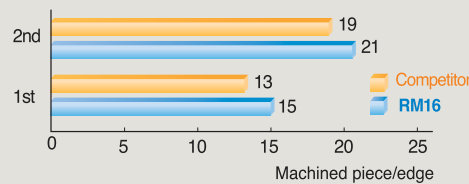
● Cutting Condition

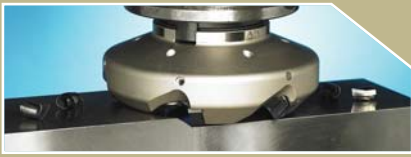
- Cutter : RM16ACA8500HR-M ONHX080608-MM(PC3525)
- Workpiece : 1045
- Cutting speed : 825sfm
- Feed rate : 0.01ipt
- D. O. C : 0.08inch
- Machine : C. N. C



● Cutting Condition

- Cutter : RM16ACA8500HR-M ONHX080608-MF(PC6510)
- Workpiece : No 35B
- Cutting speed : 825sfm
- Feed rate : 0.01ipt
- D. O. C : 0.08inch
- Machine : C. N. C



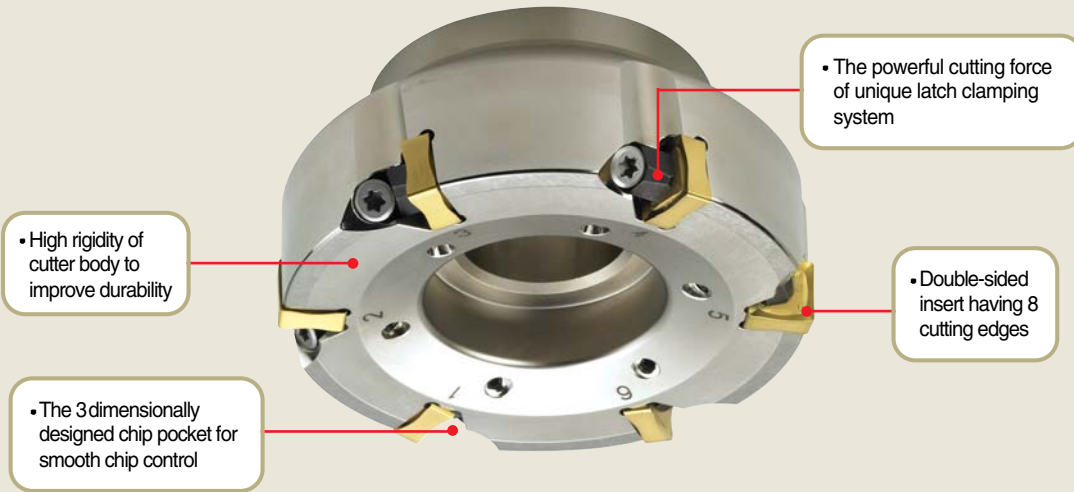


Rich Mill-RMT

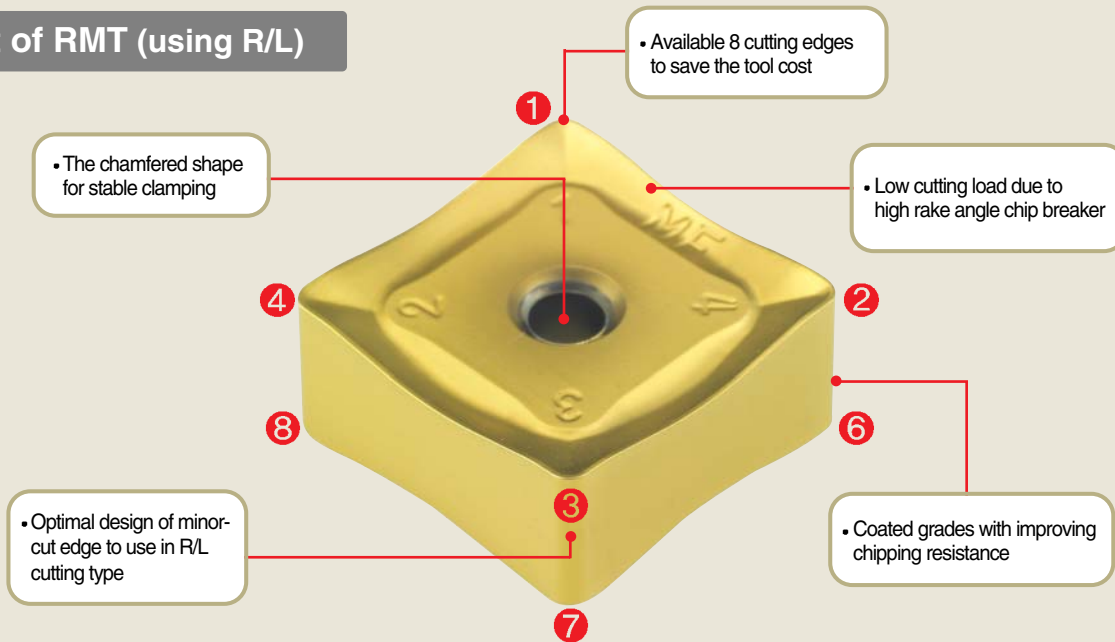
Features of RMT | Insert of RMT | Chip breakers of RMT

Features of RMT

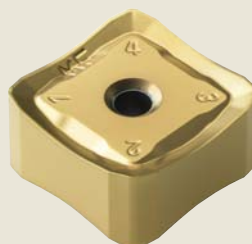
- The new latch clamping system ensures powerful cutting force and replacing inserts easily
- Korloy coated grade with improved chipping resistance guarantees longer tool life
- The exclusive chip-breakers with sharp cutting edge & strong cutting edge accomplish better performance



Insert of RMT (using R/L)



Chip breakers of RMT



MF <Sharp cutting edge>



MM <Strong cutting edge>

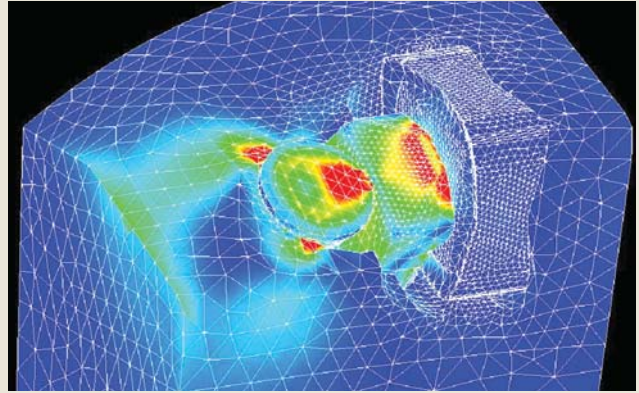
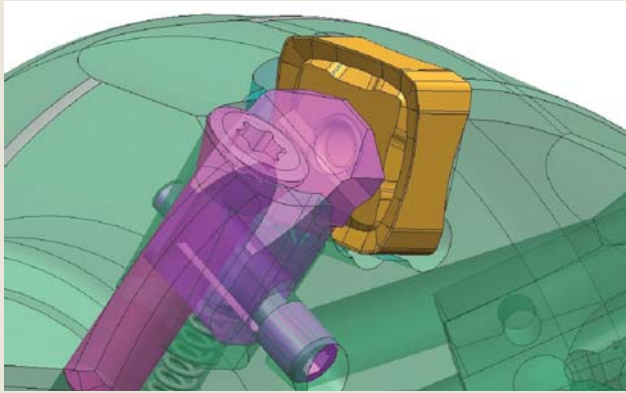


Rich Mill-RMT

Clamping system | Recommended condition

Clamping system

(by Finite Element Method)



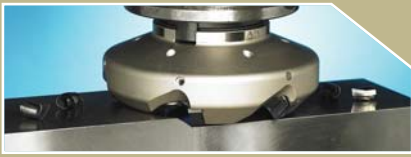
Recommended grade & C/B by workpiece

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

◎Optimum ○Proper △General

Recommended cutting condition

| Workpiece | Grade | MM | | MF | |
|-----------|--------|-----------|---------------|-----------|---------------|
| | | vc(sfm) | fz(ipt) | vc(sfm) | fz(ipt) |
| P | NCM325 | 500 ~ 990 | 0.002 ~ 0.012 | 500 ~ 990 | 0.002 ~ 0.008 |
| | PC3525 | 500 ~ 990 | 0.002 ~ 0.012 | 500 ~ 990 | 0.002 ~ 0.008 |
| | PC3545 | 500 ~ 990 | 0.002 ~ 0.012 | 500 ~ 990 | 0.002 ~ 0.008 |
| M | PC9530 | 500 ~ 990 | 0.002 ~ 0.012 | 500 ~ 990 | 0.002 ~ 0.008 |
| K | PC6510 | 400 ~ 590 | 0.002 ~ 0.008 | 400 ~ 590 | 0.002 ~ 0.008 |



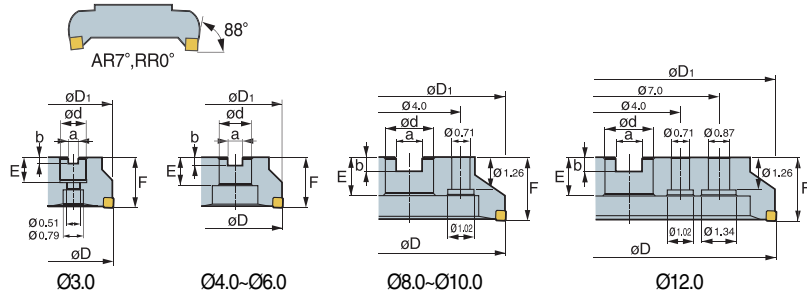
Rich Mill-RMT

RMT8 Cutter | RMT8Q Insert

RMT8 Cutter



• RMT8QA4000

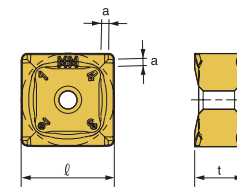


(inch)

| Designation | Stock | | ØD | ØD ₁ | ØD ₂ | Ød | a | b | E | F | ⊙ | lbs |
|---------------|-----------|------|--------|-----------------|-----------------|-------|--------|--------|--------|-----|-------|-------|
| | R | L | | | | | | | | | | |
| RMT8QA | 4300R/L | ○ | 3.0 | 2.953 | 2.205 | 1.0 | 9.500 | 6.300 | 22.000 | 2.0 | 5 | 3.08 |
| | 4400R/L | ○ | 4.0 | 3.996 | 2.874 | 1.3 | 12.700 | 8.100 | 22.000 | 2.0 | 6 | 3.86 |
| | 4500R/L | ○ | 5.0 | 4.961 | 3.386 | 1.5 | 15.900 | 10.000 | 30.000 | 2.5 | 8 | 7.92 |
| | 4600R/L | ○ | 6.0 | 5.965 | 4.882 | 2.0 | 19.000 | 11.000 | 30.000 | 2.5 | 10 | 12.54 |
| | 4800R/L | ○ | 8.0 | 7.953 | 5.118 | 2.5 | 25.400 | 14.000 | 38.000 | 2.5 | 12 | 16.50 |
| | 41000R/L | ○ | 10.0 | 9.961 | 7.087 | 2.5 | 25.400 | 14.000 | 38.000 | 2.5 | 16 | 27.50 |
| RMT8QA | 41200R/L | ○ | 12.0 | 11.969 | 9.449 | 2.5 | 25.400 | 14.000 | 38.000 | 2.5 | 20 | 43.78 |
| | 4300R/L-M | ○ | 3.0 | 2.953 | 2.205 | 1.0 | 0.374 | 0.248 | 0.866 | 2.0 | 6 | 3.08 |
| | 4400R/L-M | ○ | 4.0 | 3.996 | 2.874 | 1.3 | 0.500 | 0.319 | 0.866 | 2.0 | 8 | 3.86 |
| | 4500R/L-M | ○ | 5.0 | 4.961 | 3.386 | 1.5 | 0.626 | 0.394 | 1.181 | 2.5 | 10 | 7.92 |
| | 4600R/L-M | ○ | 6.0 | 5.965 | 4.882 | 2.0 | 0.748 | 0.433 | 1.181 | 2.5 | 14 | 12.54 |
| | 4800R/L-M | ○ | 8.0 | 7.953 | 5.118 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 18 | 16.50 |
| 41000R/L-M | ○ | 10.0 | 9.961 | 7.087 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 22 | 27.50 | |
| 41200R/L-M | ○ | 12.0 | 11.969 | 9.449 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 28 | 43.78 | |

● Stock item, ○ Under preparing for stock

RMT8Q Insert



SNMF□□□□QNN

| Designation | Grade | Dimensions (inch) | | |
|-----------------|-------|-------------------|-------|-------|
| | | ℓ | t | a |
| SNMF 1206QNN-MM | ● | 0.500 | 0.260 | 0.039 |
| 1206QNN-MF | | 0.500 | 0.260 | 0.039 |



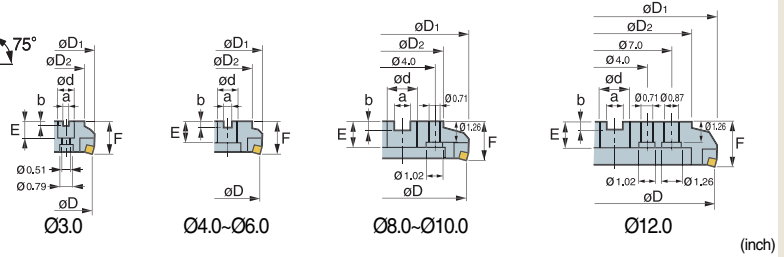
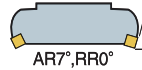
● Stock item, ○ Under preparing for stock



Rich Mill-RMT

RMT8 Cutter | RMT8E Insert

RMT8 Cutter

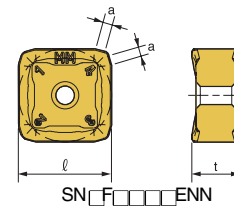


•RMT8EA4000/5000

| Designation | Stock | | ØD | ØD ₁ | ØD ₂ | Ød | a | b | E | F | ⊙ | lbs |
|-------------|------------|---|------|-----------------|-----------------|-----|-------|-------|-------|-----|----|-------|
| | R | L | | | | | | | | | | |
| RMT8EA | 4300R/L | ○ | 3.0 | 3.268 | 2.205 | 1.0 | 0.374 | 0.248 | 0.866 | 2.0 | 5 | 3.30 |
| | 4400R/L | ○ | 4.0 | 4.291 | 2.874 | 1.3 | 0.500 | 0.319 | 0.866 | 2.0 | 6 | 4.40 |
| | 4500R/L | ○ | 5.0 | 5.276 | 3.386 | 1.5 | 0.626 | 0.394 | 1.181 | 2.5 | 8 | 8.36 |
| | 4600R/L | ○ | 6.0 | 6.299 | 4.882 | 2.0 | 0.748 | 0.433 | 1.181 | 2.5 | 10 | 12.76 |
| | 4800R/L | ○ | 8.0 | 8.268 | 5.118 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 12 | 17.38 |
| | 41000R/L | ○ | 10.0 | 10.276 | 7.087 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 16 | 28.60 |
| RMT8EA | 41200R/L | ○ | 12.0 | 12.283 | 9.449 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 20 | 45.10 |
| | 4300R/L-M | ○ | 3.0 | 2.953 | 2.205 | 1.0 | 0.374 | 0.248 | 0.866 | 2.0 | 6 | 3.30 |
| | 4400R/L-M | ○ | 4.0 | 3.996 | 2.874 | 1.3 | 0.500 | 0.319 | 0.866 | 2.0 | 8 | 4.40 |
| | 4500R/L-M | ○ | 5.0 | 4.961 | 3.386 | 1.5 | 0.626 | 0.394 | 1.181 | 2.5 | 10 | 8.36 |
| | 4600R/L-M | ○ | 6.0 | 5.965 | 4.882 | 2.0 | 0.748 | 0.433 | 1.181 | 2.5 | 14 | 12.76 |
| | 4800R/L-M | ○ | 8.0 | 7.953 | 5.118 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 18 | 17.38 |
| RMT8EA | 41000R/L-M | ○ | 10.0 | 9.961 | 7.087 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 22 | 28.60 |
| | 41200R/L-M | ○ | 12.0 | 11.969 | 9.449 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 28 | 45.10 |
| | 5300R/L | ○ | 3.0 | 3.307 | 2.205 | 1.0 | 0.374 | 0.248 | 0.866 | 2.0 | 5 | 3.08 |
| | 5400R/L | ○ | 4.0 | 4.331 | 2.874 | 1.3 | 0.500 | 0.319 | 0.866 | 2.0 | 6 | 4.18 |
| | 5500R/L | ○ | 5.0 | 5.315 | 3.386 | 1.5 | 0.626 | 0.394 | 1.181 | 2.5 | 8 | 8.14 |
| | 5600R/L | ○ | 6.0 | 6.339 | 4.882 | 2.0 | 0.748 | 0.433 | 1.181 | 2.5 | 10 | 12.54 |
| RMT8EA | 5800R/L | ○ | 8.0 | 8.307 | 5.118 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 12 | 16.50 |
| | 51000R/L | ○ | 10.0 | 10.315 | 7.087 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 16 | 27.28 |
| | 51200R/L | ○ | 12.0 | 12.323 | 9.449 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 20 | 43.78 |
| | 5300R/L-M | ○ | 3.0 | 2.953 | 2.205 | 1.0 | 0.374 | 0.248 | 0.866 | 2.0 | 6 | 3.08 |
| | 5400R/L-M | ○ | 4.0 | 3.996 | 2.874 | 1.3 | 0.500 | 0.319 | 0.866 | 2.0 | 8 | 4.18 |
| | 5500R/L-M | ○ | 5.0 | 4.961 | 3.386 | 1.5 | 0.626 | 0.394 | 1.181 | 2.5 | 10 | 8.14 |
| RMT8EA | 5600R/L-M | ○ | 6.0 | 5.965 | 4.882 | 2.0 | 0.748 | 0.433 | 1.181 | 2.5 | 14 | 12.54 |
| | 5800R/L-M | ○ | 8.0 | 7.953 | 5.118 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 18 | 16.50 |
| | 51000R/L-M | ○ | 10.0 | 9.961 | 7.087 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 22 | 27.28 |
| | 51200R/L-M | ○ | 12.0 | 11.969 | 9.449 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 28 | 43.78 |

● Stock item, ○ Under preparing for stock

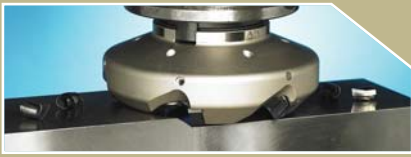
RMT8E Insert



| Designation | Grade | | | | Dimensions (inch) | | |
|-----------------|--------|--------|--------|--------|-------------------|-------|------|
| | PC3525 | PC3545 | PC6510 | PC9530 | l | t | a |
| SNCF 1206ENN-MM | ● | | | | 0.500 | 0.260 | 0.51 |
| 1206ENN-MF | ● | | ● | ○ | 0.500 | 0.260 | 0.51 |
| SNMF 1206ENN-MM | ● | | | | 0.500 | 0.260 | 0.51 |
| 1206ENN-MF | ○ | ○ | | | 0.500 | 0.260 | 0.51 |
| SNCF 1507ENN-MM | ● | | | | 0.625 | 0.289 | 0.51 |
| 1507ENN-MF | ● | | ● | | 0.625 | 0.289 | 0.51 |
| SNMF 1507ENN-MM | ○ | | | | 0.625 | 0.289 | 0.51 |
| 1507ENN-MF | ○ | | | | 0.625 | 0.289 | 0.51 |

P M K S N

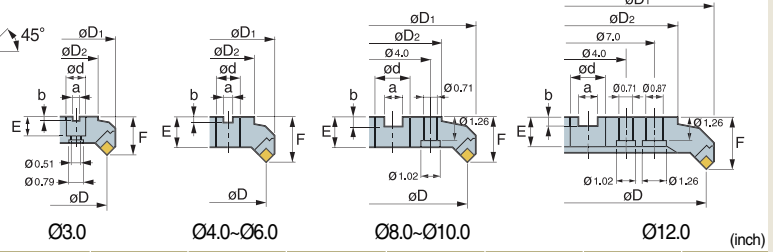
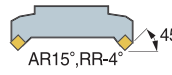
● Stock item, ○ Under preparing for stock



Rich Mill-RMT

RMT8 Cutter | RMT8A Insert

RMT8 Cutter

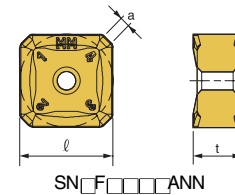


• RMT8AA4000/5000

| Designation | Stock | | ØD | ØD ₁ | ØD ₂ | Ød | a | b | E | F | ⊙ | lbs |
|-------------|------------|---|------|-----------------|-----------------|-----|-------|-------|-------|-----|----|-------|
| | R | L | | | | | | | | | | |
| RMT8AA | 4300R/L | ○ | 3.0 | 3.780 | 2.205 | 1.0 | 0.374 | 0.248 | 0.866 | 2.0 | 5 | 3.52 |
| | 4400R/L | ○ | 4.0 | 4.803 | 2.874 | 1.3 | 0.500 | 0.319 | 0.866 | 2.0 | 6 | 5.06 |
| | 4500R/L | ○ | 5.0 | 5.748 | 3.386 | 1.5 | 0.626 | 0.394 | 1.181 | 2.5 | 8 | 9.46 |
| | 4600R/L | ○ | 6.0 | 6.732 | 4.882 | 2.0 | 0.748 | 0.433 | 1.181 | 2.5 | 10 | 14.30 |
| | 4800R/L | ○ | 8.0 | 8.740 | 5.118 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 12 | 19.36 |
| | 41000R/L | ○ | 10.0 | 10.748 | 7.087 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 16 | 31.02 |
| RMT8AA | 41200R/L | ○ | 12.0 | 8.819 | 9.449 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 20 | 49.06 |
| | 4300R/L-M | ○ | 3.0 | 2.953 | 2.205 | 1.0 | 0.374 | 0.248 | 0.866 | 2.0 | 6 | 3.52 |
| | 4400R/L-M | ○ | 4.0 | 3.996 | 2.874 | 1.3 | 0.500 | 0.319 | 0.866 | 2.0 | 8 | 5.06 |
| | 4500R/L-M | ○ | 5.0 | 4.961 | 3.386 | 1.5 | 0.626 | 0.394 | 1.181 | 2.5 | 10 | 9.46 |
| | 4600R/L-M | ○ | 6.0 | 5.965 | 4.882 | 2.0 | 0.748 | 0.433 | 1.181 | 2.5 | 14 | 14.30 |
| | 4800R/L-M | ○ | 8.0 | 7.953 | 5.118 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 18 | 19.36 |
| RMT8AA | 41000R/L-M | ○ | 10.0 | 9.961 | 7.087 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 22 | 31.02 |
| | 41200R/L-M | ○ | 12.0 | 11.969 | 9.449 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 28 | 49.06 |
| | 5300R/L | ○ | 3.0 | 3.937 | 2.205 | 1.0 | 0.374 | 0.248 | 0.866 | 2.0 | 5 | 3.96 |
| | 5400R/L | ○ | 4.0 | 4.961 | 2.874 | 1.3 | 0.500 | 0.319 | 0.866 | 2.0 | 6 | 5.72 |
| | 5500R/L | ○ | 5.0 | 5.945 | 3.386 | 1.5 | 0.626 | 0.394 | 1.181 | 2.5 | 8 | 9.46 |
| | 5600R/L | ○ | 6.0 | 6.929 | 4.882 | 2.0 | 0.748 | 0.433 | 1.181 | 2.5 | 10 | 14.30 |
| RMT8AA | 5800R/L | ○ | 8.0 | 8.937 | 5.118 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 12 | 19.80 |
| | 51000R/L | ○ | 10.0 | 10.945 | 7.087 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 16 | 31.68 |
| | 51200R/L | ○ | 12.0 | 12.953 | 9.449 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 20 | 48.84 |
| | 5300R/L-M | ○ | 3.0 | 2.953 | 2.205 | 1.0 | 0.374 | 0.248 | 0.866 | 2.0 | 6 | 3.96 |
| | 5400R/L-M | ○ | 4.0 | 3.996 | 2.874 | 1.3 | 0.500 | 0.319 | 0.866 | 2.0 | 8 | 5.72 |
| | 5500R/L-M | ○ | 5.0 | 4.961 | 3.386 | 1.5 | 0.626 | 0.394 | 1.181 | 2.5 | 10 | 9.46 |
| RMT8AA | 5600R/L-M | ○ | 6.0 | 5.965 | 4.882 | 2.0 | 0.748 | 0.433 | 1.181 | 2.5 | 14 | 14.30 |
| | 5800R/L-M | ○ | 8.0 | 7.953 | 5.118 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 18 | 19.80 |
| | 51000R/L-M | ○ | 10.0 | 9.961 | 7.087 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 22 | 31.68 |
| | 51200R/L-M | ○ | 12.0 | 11.969 | 9.449 | 2.5 | 1.000 | 0.551 | 1.496 | 2.5 | 28 | 48.84 |

● Stock item, ○ Under preparing for stock

RMT8A Insert



| Designation | Grade | | | | Dimensions (inch) | | |
|-----------------|--------|--------|--------|--------|-------------------|-------|-------|
| | PC3525 | PC3545 | PC6510 | PC9530 | ℓ | t | a |
| SNCF 1206ANN-MM | ● | | ● | | 0.500 | 0.260 | 0.550 |
| 1206ANN-MF | ● | | ● | ○ | 0.500 | 0.260 | 0.550 |
| SNMF 1206ANN-MM | ● | | | | 0.500 | 0.260 | 0.550 |
| 1206ANN-MF | ● | | ○ | | 0.500 | 0.260 | 0.550 |
| SNCF 1507ANN-MM | ● | | | | 0.625 | 0.289 | 0.059 |
| 1507ANN-MF | ● | ○ | ○ | | 0.625 | 0.289 | 0.059 |
| SNMF 1507ANN-MM | | | | | 0.625 | 0.289 | 0.059 |
| 1507ANN-MF | | | ○ | | 0.625 | 0.289 | 0.059 |

P M K S N

● Stock item, ○ Under preparing for stock



Rich Mill-**RM4, RM8, RM16, RMT**

Through coolant system | Rich Mill series code system

Through coolant system

- Exclusive coolant bolt is adapted for better chip evacuation 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

A

Arbor type

- M : Metric
- A : Inch

4

Insert I/C

- 3 : 0.375
- 4 : 0.500
- 5 : 0.625

400

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



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Warning

※ Safety instruction

- Use glasses safely and face cover with protective equipment. If cutting condition and use method are inaccurate, you may be injured by broken tools or scattered chips.
- Excessive cutting load may influence badly on both tool and machine.
Make suitable tool replacement for preventing failure of machining.
- After machine stopped, clean remained chips from machine with special cleaning equipment.
- Keep safety distance from acute and hot chip during machining.
- Make precaution for prevention of fire in advance when you use insoluble cutting oil.
- Assembled parts may be scattered at high speed cutting. Please use protective equipment.