# MECX Face Mill

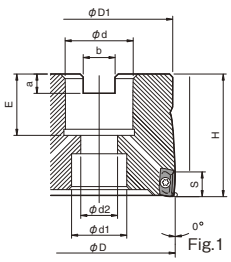


Fig.1

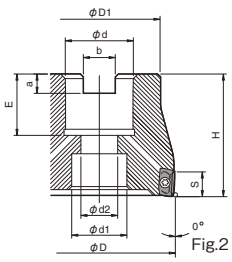
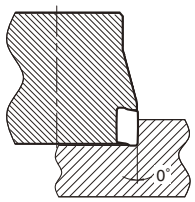


Fig.2




## Toolholder Dimensions

| Description | | Std. | No. of Insert | Dimension (mm) øD | øD1 | ød | ød1 | ød2 | H | E | a | b | S | Rake Angle (°) A.R. (MAX) | R.R. | Coolant Hole | Drawing | Weight (kg) | Spare Parts Clamp Screw | Wrench | Max. Revolution (min⁻¹) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MECX | 032R-07-8T-M | ● | 8 | 32 | 30 | 16 | 14 | 8.5 | 40 | 20 | 5.5 | 8.5 | 6 | +16.3° | -8.9° | Yes | Fig.1 | 0.15 | SB-2042TRG | DTM-6 | 33,600 |
| | 040R-07-10T-M | ● | 10 | 40 | 38 | 22 | 18 | 12 | | 22 | 6.3 | 10.4 | | | -8.4° | | | 0.25 | | | 30,500 |
| | 050R-07-12T-M | ● | 12 | 50 | 40 | | | | | | | | | | -8.3° | | Fig.2 | 0.35 | | | 27,700 |
| | 063R-07-14T-M | ● | 14 | 63 | | | | | | | | | | | -7.9° | | | 0.50 | | | 24,900 |

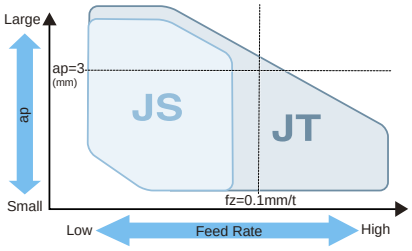
■ Max. Revolution
When running the endmill and cutter at the maximum revolution, the insert or holder may be damaged by centrifugal force. For more details, see "Warning" on page **M52**.

■ For good shoulder finishes by MECX multistage ap.
In order to obtain smooth cutting wall surface by MECX multistage ap set ap within 5mm for each cut.

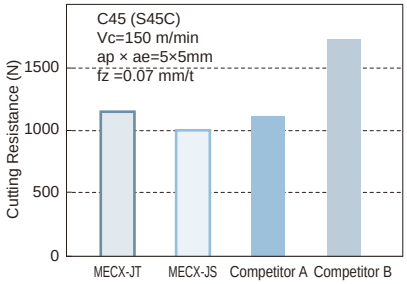
## Applicable Inserts (MECX Face Mill)

| Toolholder | Applicable Inserts ➔ M16 | |
|---|---|---|
| | | |
| MECX···R-07.. | BDMT 0703 ○○ ER-JT | BDMT 0703 ○○ ER-JS |

## Selecting Chipbreaker




## Cutting Resistance




## Recommended Cutting Conditions

(JT Chipbreaker)

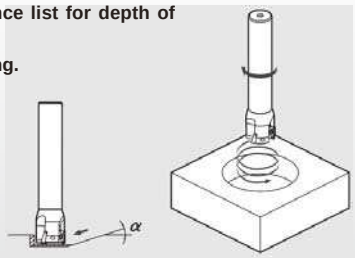
| Workpiece Material | fz (mm/t) | Recommended Insert Grade (Cutting Speed Vc : m/min) PVD Coated Carbide PR830 | PR1025 | PR905 |
|---|---|---|---|---|
| Stainless Steel | 0.05~0.07 | | 100~200 | |
| Carbon Steel | 0.06~0.1~0.15 | 120~180 | | |
| Alloy Steel | 0.06~0.08~0.12 | 100~180 | | |
| Mold Steel | 0.06~0.08~0.12 | 80~150 | | |
| Gray Cast Iron | 0.08~0.1~0.15 | | | 100~180 |
| Nodular Cast Iron | 0.08~0.1~0.12 | | | 80~120 |

(JS Chipbreaker)

| Workpiece Material | fz (mm/t) | Recommended Insert Grade (Cutting Speed Vc : m/min) PVD Coated Carbide PR830 | PR1025 | PR905 |
|---|---|---|---|---|
| Stainless Steel | 0.04~0.05 | | 100~200 | |
| Carbon Steel | 0.04~0.08~0.1 | 120~180 | | |
| Alloy Steel | 0.04~0.06~0.08 | 100~180 | | |
| Mold Steel | 0.04~0.06~0.08 | 80~150 | | |
| Gray Cast Iron | 0.04~0.08~0.1 | | | 100~180 |
| Nodular Cast Iron | 0.04~0.06~0.08 | | | 80~120 |

## Ramping, Helical Milling

- **Ramping angle is recommended under α°.**
- **Refer each tools' cutting performance list for depth of helical milling per one revolution.**
- **Use compressed air during machining.**




| Cutting Dia. | Applicable Inserts | Maximum ramping angle (α°) |
|---|---|---|
| ø8 | BDMT0703 type | Not recommended. |
| ø10 | | 1.5° |
| ø12, ø14 | | 2° |
| ø16 | | 3° |
| ø17, ø18 | | 1.5° |
| ø20 | | 2° |
| ø21 | | 1.8° |
| ø25 | | 1.3° |
| ø26 | | 1.2° |
| ø32 | | 0.8° |
| ø33 | | 0.5° |

● : Std. Item ○ : Check Availability R : Std. Item (R-hand Only) L : Std. Item (L-hand Only)