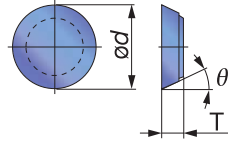
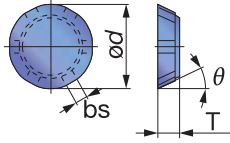


## INSERT

RFEN2004

RFEN2004M0TN



| Designation  | Max. ap | Coating |       | Un-coated | P | M | K | N | S | H | ød | T    | θ° | bs  |
|--------------|---------|---------|-------|-----------|---|---|---|---|---|---|----|------|----|-----|
|              |         | AH120   | GH330 |           |   |   |   |   |   |   |    |      |    |     |
| RFEN2004ZFTN | 3       | ●       | ●     | ●         | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | 20 | 4.76 | 25 | 2.8 |
| RFEN2004M0TN | 10      | ●       | ●     | ●         | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | 20 | 4.76 | 25 | -   |

★ : First choice  
☆ : Second choice

Note: ● RFEN2004M0TN type inserts should not be used for finishing requiring surface finish better than 12s.  
● RFEN2004ZFTN type inserts can be used both finishing and roughing at depth of cut up to 3mm.  
● RFEN2004M0TN does not have flattened flanks.

● : Line-up

## STANDARD CUTTING CONDITIONS

Face Milling

| ISO | Workpiece material                                     | Grade   | Depth of cut = 1 ~ 3 mm |                          | Depth of cut = 0.4 ~ 1 mm |                          | Cutting fluid                     |             |
|-----|--|---|-------------------------|--------------------------|---------------------------|--------------------------|-----------------------------------|-------------|
|     |  |   | Cutting speed vc(m/min) | Feed per tooth fz (mm/t) | Cutting speed vc(m/min)   | Feed per tooth fz (mm/t) |                                   |             |
| M   | Stainless steels                                       | Austenitic, Ferritic SUS304, X5CrNi18-9 < 300HB | AH120 · GH330           | 150 ~ 250                | 0.20 ~ 0.35               | 180 ~ 250                | 0.2 ~ 0.5                         | Dry cutting |
|     |  |   | UX30                    | 150 ~ 230                | 0.20 ~ 0.35               | 180 ~ 250                | 0.2 ~ 0.5                         | Dry cutting |
|     | Precipitation hardening SUS630, X5CrNiCuNb16-4 < 35HRC | AH120 · GH330                                   | 150 ~ 200               | 0.15 ~ 0.3               | 180 ~ 250                 | 0.2 ~ 0.4                | Dry cutting                       |             |
|     |  | UX30  | 130 ~ 180               | 0.15 ~ 0.3               | 150 ~ 200                 | 0.2 ~ 0.4                | Dry cutting                       |             |
| S   | Superalloys Inconel, Hastelloy etc.                    | KS20  | 20 ~ 30                 | 0.10 ~ 0.15              | 20 ~ 50                   | 0.2 ~ 0.4                | Water insoluble type              |             |
|     | Titanium alloys Ti-6Al-4V etc.                         | KS20  | 40 ~ 50                 | 0.15 ~ 0.35              | 40 ~ 60                   | 0.2 ~ 0.5                | Water soluble type or dry cutting |             |
| H   | Hard materials 40 ~ 50HRC                              | KS20  | 20 ~ 50                 | 0.05 ~ 0.1               | 20 ~ 50                   | 0.05 ~ 0.2               | Water insoluble type              |             |

Note: Cutting width should be within 60 to 70 % of effective cutter diameter.

- No. of revolutions (min<sup>-1</sup>) = Cutting speed × 1000 ÷ 3.14 ÷ Cutter diameter
- Table feed (mm/min) = No. of revolutions × Feed per tooth × No. of inserts