

# MIRACLE END MILLS

CARBIDE

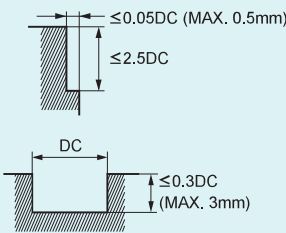
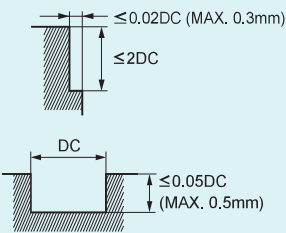
## VC4JRB

Corner radius end mill, Semi long cut length, 4 flute

### RECOMMENDED CUTTING CONDITIONS

Work material	Carbon steel, Cast iron, Alloy steel (—30HRC)		Alloy steel, Tool steel, Pre-hardened steel		Austenitic stainless steel, Titanium alloy		Hardened steel (45—55HRC)	
	AISI 1050, AISI No 35 B, AISI P20		AISI H13, AISI W1-10, AISI P21		AISI 304, AISI 306, Ti-6Al-4V		AISI H13	
Dia. DC (mm)	Revolution (min <sup>-1</sup> )	Feed rate (mm/min)	Revolution (min <sup>-1</sup> )	Feed rate (mm/min)	Revolution (min <sup>-1</sup> )	Feed rate (mm/min)	Revolution (min <sup>-1</sup> )	Feed rate (mm/min)
<b>3</b>	4200	110	3400	95	2600	70	2100	50
<b>4</b>	3400	140	2700	110	2100	85	1700	60
<b>5</b>	2900	170	2300	140	1800	100	1500	70
<b>6</b>	2500	200	2000	170	1500	130	1300	85
<b>8</b>	1900	220	1500	170	1200	150	1000	85
<b>10</b>	1600	220	1300	170	950	130	800	85
<b>12</b>	1300	170	1100	150	800	100	670	70
<b>16</b>	1000	140	820	110	600	80	500	50
<b>20</b>	800	110	650	85	480	70	400	40
<b>25</b>	650	85	520	70	380	50	320	35

Depth of cut	Carbon steel, Cast iron, Alloy steel (—30HRC)		Alloy steel, Tool steel, Pre-hardened steel		Austenitic stainless steel, Titanium alloy		Hardened steel (45—55HRC)	
								
								

DC: Dia.

- 1) When cutting austenitic stainless steels, the use of water-soluble cutting fluid is effective.
- 2) If the depth of cut is shallow, the revolution and feed rate can be increased.
- 3) The above table shows cutting conditions for standard side milling. For slotting, please reduce the feed rate only to 50% of the table figure. Please set the revolution rate at 60% and the feed rate at 40% when slotting austenitic stainless steels.
- 4) When drilling, please set the feed rate at 1/3 or below the values above.
- 5) If the rigidity of the machine or the work materials installation is very low, or chattering and noise are generated, reduce the revolution and feed rate proportionately.

SOLID END MILLS