

# V520 High Efficiency Varix Carbide Endmills

## 整體硬質合金高效益抗震銑刀

- **Unequal flute spacing for anti-vibration.**

不等分割設計大幅降低加工時產生的震動

- **Suitable for high temperature alloy and stainless steel machining.**

適用於鎳基合金、鈦合金及不鏽鋼加工

- **High removal rate for steel and alloy steel machining.**

適用於一般鋼料及合金鋼高去除率加工

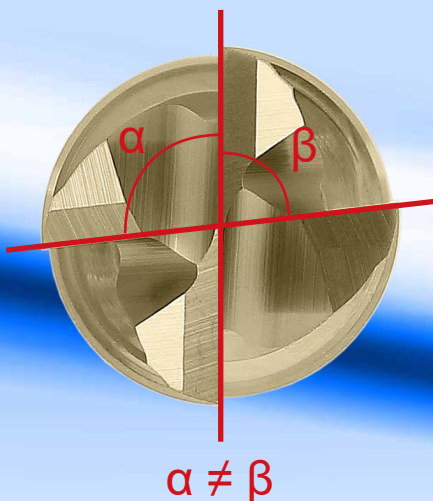
- **Low cutting force and burr prevention.**

低切削阻力和抑制毛刺

**METRIC**

P	M	K	N	S	H
●	●	●		●	●

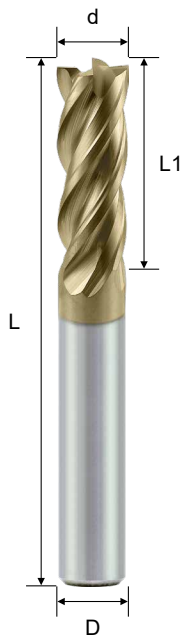
Finishing & Roughing together  
同步進行精加工與粗加工



W200201EC

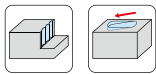
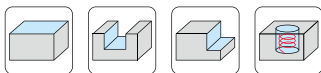
- Unequal flute spacing for anti-vibration.
- High removal rate for steel and alloy steel machining.
- Low cutting force and burr prevention.
- SICO coating includes Al, Ti, Si, N elements.

### EMSSV



Work Material 加工材料							
Carbon Steel 碳素鋼 (S45C, S55C)	Alloy Steel 合金鋼 (SK, SCM)	Hardened Steel 硬度鋼			Stainless Steel 不鏽鋼 (SUS304, 316)	Cast Iron 鑄鐵	Superalloy 高溫合金
		~ HRC 40	~ HRC 45	~ HRC 55			
◎	◎	◎	◎	○	◎	◎	○

Order No. 訂購編碼	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	Flutes (F)
EMSSV444000S	4	10	50	4	4
EMSSV403000S	3	8	50	6	4
EMSSV404000S	4	10	50	6	4
EMSSV406000S	6	15	50	6	4
EMSSV408000S	8	20	60	8	4
EMSSV410000S	10	25	75	10	4
EMSSV412000S	12	30	75	12	4
EMSSV416000S	16	35	100	16	4

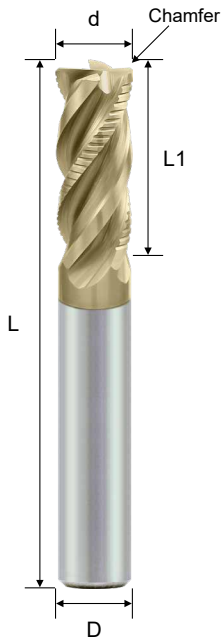


Ød	Tolerance
Ød ≤ 12	0 ~ -0.02
Ød ≥ 12	0 ~ -0.03

## V520 - Variable Spacing · Roughing & Finishing · Square · 4F 整體硬質合金平銑刀 - 抗震不等粗精型 - 4 刃

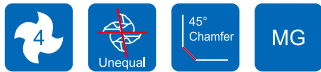
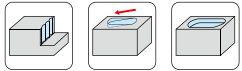
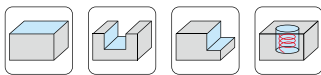
- Unequal flute spacing for reducing vibrations at high load applications.
- High removal rate for steel and alloy steel side roughing.
- Provides finish surface at rough machining parameters.
- SICO coating includes Al, Ti, Si, N elements.

### EMSRV



Work Material 加工材料							
Carbon Steel 碳素鋼 (S45C, S55C)	Alloy Steel 合金鋼 (SK, SCM)	Hardened Steel 硬度鋼			Stainless Steel 不鏽鋼 (SUS304, 316)	Cast Iron 鑄鐵	Superalloy 高溫合金
		~ HRC 40	~ HRC 45	~ HRC 55			
◎	◎	◎	◎	○	◎	◎	○

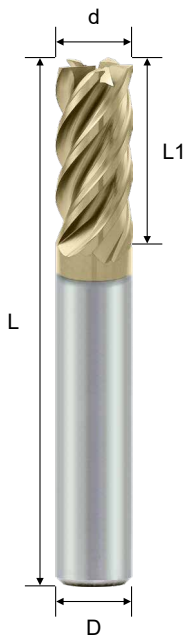
Order No. 訂購編碼	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	Chamfer	Flutes (F)
EMSRV406000S	6	15	50	6	0.25C	4
EMSRV408000S	8	20	60	8	0.30C	4
EMSRV410000S	10	25	75	10	0.40C	4
EMSRV412000S	12	30	75	12	0.50C	4
EMSRV416000S	16	35	100	16	0.60C	4



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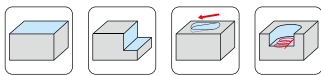
- Unequal flute spacing for anti-vibration.
- Suitable for high temperature alloy and stainless steel machining.
- Low cutting force and outstanding finishing for mold & die.
- SICO coating includes Al, Ti, Si, N elements.

### EMSSV



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Carbon Steel 碳素鋼 (S45C, S55C)	Alloy Steel 合金鋼 (SK, SCM)	Hardened Steel 硬度鋼			Stainless Steel 不鏽鋼 (SUS304, 316)	Cast Iron 鑄鐵	Superalloy 高溫合金
		~ HRC 40	~ HRC 45	~ HRC 55			
◎	◎	◎	◎	◎	◎	◎	

Order No. 訂購編碼	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	Flutes (F)
EMSSV506000S	6	15	50	6	5
EMSSV508000S	8	20	60	8	5
EMSSV510000S	10	25	75	10	5
EMSSV512000S	12	30	75	12	5
EMSSV516000S	16	35	100	16	5



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# Solid Carbide Endmills

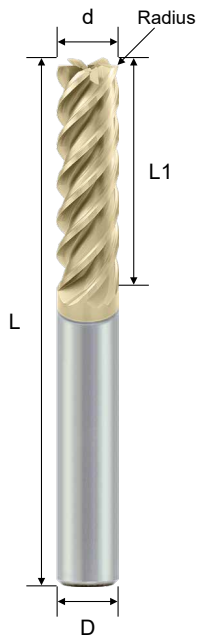


V520 - Variable Spacing · Long Flute · Square · 5F

整體硬質合金平銼刀 - 抗震不等長刃型 - 5 刃

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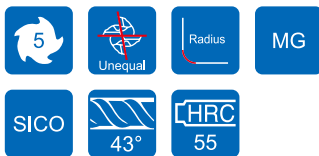
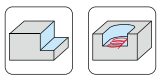
## EMSCV



Work Material 加工材料							
Carbon Steel 碳素鋼 (S45C, S55C)	Alloy Steel 合金鋼 (SK, SCM)	Hardened Steel 硬度鋼			Stainless Steel 不鏽鋼 (SUS304, 316)	Cast Iron 鑄鐵	Superalloy 高溫合金
		~ HRC 40	~ HRC 45	~ HRC 55			
◎	◎	◎	◎	◎	◎	◎	◎

Order No. 訂購編碼	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	Radius	Flutes (F)
EMSCV506000S	6	24	75	6	-	5
EMSCV506052S	6	24	75	6	0.5R	5
EMSCV506102S	6	24	75	6	1.0R	5
EMSCV508000S	8	32	75	8	-	5
EMSCV508052S	8	32	75	8	0.5R	5
EMSCV508102S	8	32	75	8	1.0R	5
EMSCV510000S	10	40	100	10	-	5
EMSCV510052S	10	40	100	10	0.5R	5
EMSCV510202S	10	40	100	10	2.0R	5
EMSCV512000S	12	48	100	12	-	5
EMSCV512102S	12	48	100	12	1.0R	5
EMSCV512202S	12	48	100	12	2.0R	5
* EMSCV516000S	16	64	110	16	-	5
EMSCV516000S55C	16	55	105	16	-	5

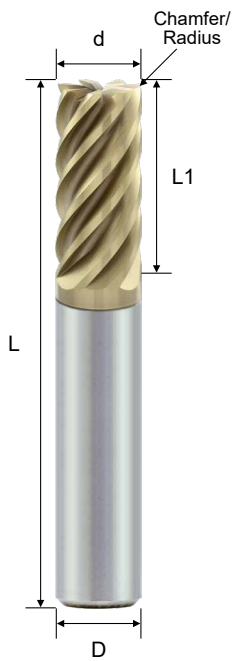
\* Made to order



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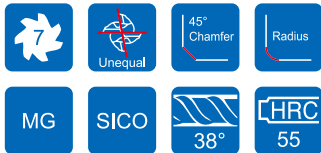
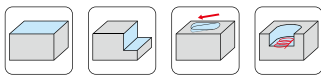
- Unequal flute spacing for anti-vibration.
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◎	◎	◎	◎	◎	◎	◎	

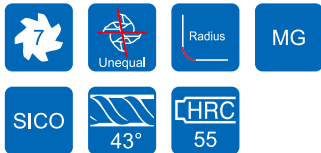
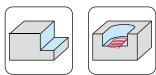
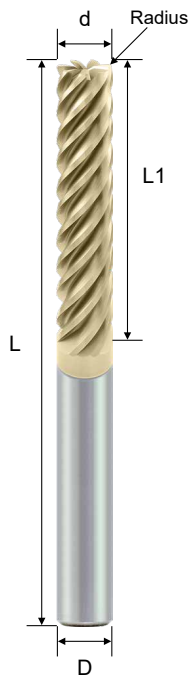
Order No. 訂購編碼	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	Chamfer/ Radius	Flutes (F)
EMSSV710000S	10	25	75	10	-	7
EMSSV710051S	10	25	75	10	0.5C	7
EMSSV710052S	10	25	75	10	0.5R	7
EMSSV712000S	12	30	75	12	-	7
EMSSV712051S	12	30	75	12	0.5C	7
EMSSV716000S	16	35	100	16	-	7



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◎	◎	◎	◎	◎	◎	◎	

Order No. 訂購編碼	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	Radius	Flutes (F)
EMSCV710000S	10	50	100	10	-	7
EMSCV710052S	10	50	100	10	0.5R	7
EMSCV712000S	12	60	110	12	-	7
EMSCV712052S	12	60	110	12	0.5R	7
EMSCV716000S	16	80	150	16	-	7
EMSCV716052S	16	80	150	16	0.5R	7



※If the machine not stable, please reduce the feed about 20%.  
若機床條件較不穩定，請將進給率調降 20%

Working material 被加工材料	Cutting application 加工方式	ae (mm)	ap (mm)	Vc (m/min)	fz (mm/z)					
					4mm	6mm	8mm	10mm	12mm	16mm
Carbon steel (S45C, S55C) 中碳鋼	Slot milling 溝銑	1×d	0.5 ~ 1.0×d	80 ~ 145	0.025	0.030	0.040	0.050	0.060	0.080
	Side roughing 粗側銑	0.4 ~ 0.9×d	0.7 ~ 1.0×d	90 ~ 160	0.030	0.035	0.050	0.060	0.075	0.100
	Side finishing 精側銑	0.1 ~ 0.3×d	0.7 ~ 1.5×d	130 ~ 225	0.020	0.025	0.035	0.045	0.055	0.072
Alloy steel (SK, SCM) 合金鋼	Slot milling 溝銑	1×d	0.5 ~ 1.0×d	70 ~ 130	0.024	0.029	0.038	0.048	0.057	0.076
	Side roughing 粗側銑	0.4 ~ 0.9×d	0.7 ~ 1.0×d	80 ~ 145	0.029	0.033	0.048	0.057	0.071	0.095
	Side finishing 精側銑	0.1 ~ 0.3×d	0.7 ~ 1.5×d	95 ~ 180	0.019	0.024	0.033	0.043	0.052	0.068
Tool steel (SKD) 工具鋼	Slot milling 溝銑	1×d	0.5 ~ 1.0×d	65 ~ 110	0.020	0.025	0.035	0.045	0.055	0.072
	Side roughing 粗側銑	0.4 ~ 0.9×d	0.7 ~ 1.0×d	70 ~ 130	0.030	0.035	0.045	0.055	0.070	0.088
	Side finishing 精側銑	0.1 ~ 0.3×d	0.7 ~ 1.5×d	90 ~ 160	0.020	0.025	0.035	0.040	0.050	0.064
Stainless steel (SUS304, SUS316) 不銹鋼	Slot milling 溝銑	1×d	0.5 ~ 1.0×d	50 ~ 65	0.015	0.020	0.030	0.035	0.040	0.056
	Side roughing 粗側銑	0.4 ~ 0.9×d	0.7 ~ 1.0×d	65 ~ 100	0.020	0.025	0.035	0.045	0.055	0.072
	Side finishing 精側銑	0.1 ~ 0.3×d	0.7 ~ 1.5×d	80 ~ 110	0.020	0.025	0.035	0.040	0.050	0.064
Superalloy & Hardened steel 高溫合金 & 熱處理高硬鋼	Slot milling 溝銑	1×d	0.5 ~ 1.0×d	30 ~ 60	0.015	0.020	0.025	0.030	0.035	0.048
	Side roughing 粗側銑	0.4 ~ 0.9×d	0.7 ~ 1.0×d	50 ~ 90	0.015	0.020	0.030	0.035	0.040	0.056
	Side finishing 精側銑	0.1 ~ 0.3×d	0.7 ~ 1.5×d	65 ~ 120	0.020	0.025	0.035	0.040	0.050	0.064

