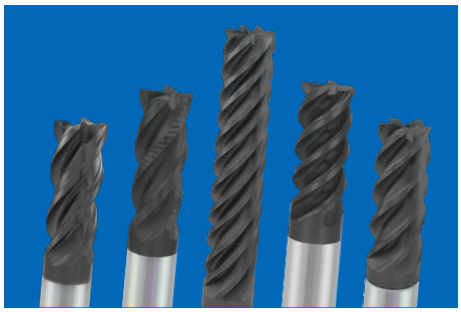
V47X Series



- For stainless steel, high temperature alloy & alloy steel.
- High efficiency cutting.
- Unequal flute spacing for anti-vibration.
- ANAX smooth coating.

- 適用於不鏽鋼 , 高溫合金及合金鋼
- 高效益、高去除率加工
- 抗震不等分割刃設計
- 含鉻平滑塗層

Appearance 外觀	Name 名稱	Code No. 編碼	Diameter 外徑	Helix 螺旋角	Coating 塗層	P	M	K	N	S	H	Page 頁碼
V47X Series for Exotic Material・Anti-Vibration・Unequal Spacing 適用不鏽鋼 / 高溫合金・抗震・不等分割												
	Square · Unequal Spacing · Standard · 4F 不等分割平銑刀・標準型・4 刃	EPSSVC	Ø1~Ø25	38°	ANAX	●	●	●		●	○	B157
	Square · Unequal Spacing · Standard · 5F 不等分割平銑刀・標準型・5 刃	EPSSVC	Ø6~Ø16	38°	ANAX	●	●	●		●	○	B158
	Square · Unequal Spacing · Necked · 4F 不等分割平銑刀・帶頸型・4 刃	EPSUVC	Ø6~Ø16	38°	ANAX	●	●	●		●	○	B159
	Square · Unequal Spacing · Roughing & Finishing · 4F 不等分割平銑刀・粗精一體型・4 刃	EPSRVC	Ø6~Ø16	38°	ANAX	●	●	●		●	○	B160
	Square · Unequal Spacing · Standard · 4F 不等分割平銑刀・標準型・4 刃	EPSSVD	Ø4~Ø16	45°	ANAX	●	●	●		●	●	B161
	Square · Unequal Spacing · Standard · 5F 不等分割平銑刀・標準型・5 刃	EPSSVD	Ø6~Ø16	43°	ANAX	●	●	●		●	●	B162
	Square · Unequal Spacing · Standard · 7F 不等分割平銑刀・標準型・7 刃	EPSSVD	Ø10~Ø16	43°	ANAX	●	●	●		●	●	B163
	Square · Unequal Spacing · Long Flute · 5F 不等分割平銑刀・長刃型・5 刃	EPSCVD	Ø6~Ø16	43°	ANAX	●	●	●		●	●	B164
	Square · Unequal Spacing · Long Flute · 7F 不等分割平銑刀・長刃型・7 刃	EPSCVD	Ø10~Ø16	43°	ANAX	●	●	●		●	●	B165
	Square · Unequal Spacing · Standard · 4F 不等分割平銑刀・標準型・4 刃	EPSSVE	Ø8~Ø16	52°	ANAX	○	●	○		●	●	B166

V47X - Tools selection 刀具選擇建議

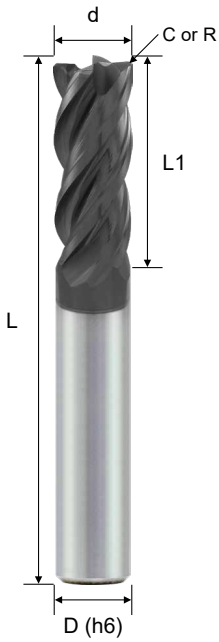
Series 系列	Series Number 系列編碼		Helix Angle 螺旋角	Tool Type 刀具型式	Slot milling 開槽加工	Side roughing 側邊粗加工	Side finishing 側邊精加工	P	M	K	N	S	H
V47XC	EPSSVC	4 Unequal ANAX Standard 標準型	38°	Square 平刀 Chamfer 倒 C Radius 小 R	✓	✓	✓	●	●	●		●	○
		5 Unequal ANAX Standard 標準型	38°	Square 平刀 Radius 小 R	✓	✓	✓	●	●	●		●	○
	EPSUVC	4 Unequal ANAX Necked 帶頸型	38°	Square 平刀 Radius 小 R	✓	✓	✓	●	●	●		●	○
	EPSRVC	4 Unequal ANAX Roughing/Finishing 粗精型	38°	Chamfer 倒 C	✓	✓		●	●	●		●	○
V47XD	EPSSVD	4 Unequal ANAX Standard 標準型	43°	Square 平刀 Chamfer 倒 C Radius 小 R		✓	✓	●	●	●		●	●
		5 Unequal ANAX Standard 標準型	43°	Square 平刀		✓	✓	●	●	●		●	●
		7 Unequal ANAX Standard 標準型	43°	Square 平刀 Chamfer 倒 C			✓	●	●	●		●	●
	EPSCVD	5 Unequal ANAX Long Flute 長刃型	43°	Square 平刀 Radius 小 R			✓	●	●	●		●	●
		7 Unequal ANAX Long Flute 長刃型	43°	Square 平刀 Radius 小 R			✓	●	●	●		●	●
V47XE	EPSSVE	4 Unequal ANAX Standard 標準型	52°	Radius 小 R			✓	○	●	○		●	●

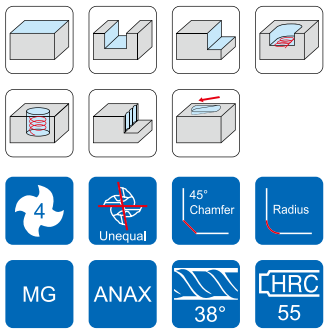
V47XC - Square · Unequal Spacing · Standard · 4F 不等分割平銑刀・標準型・4 刃

- Unequal flute spacing for anti-vibration.
- 38° helix angle design for exotic materials slot and side milling.
- ANAX smooth coating (Al, Ti, Cr, N) provides a superior wear resistance and extend tool life.

EPSSVC

P	M	K	N	S	H
●	●	●		●	○





d Tolerance	
d ≤ 6	0 ~ -0.02
6 < d ≤ 12	0 ~ -0.03
d > 12	0 ~ -0.04

R Tolerance	
R	±0.020

Order No. 訂購編碼	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	C or R	Flutes (Z)
EPSSVC4410000A	1	3	50	4	-	4
EPSSVC4420000A	2	5	50	4	-	4
EPSSVC4430000A	3	8	50	4	-	4
EPSSVC4030000A	3	8	50	6	-	4
EPSSVC4440000A	4	10	50	4	-	4
EPSSVC4440052A	4	8	50	4	0.5R	4
EPSSVC4040000A	4	10	50	6	-	4
EPSSVC4050000A	5	13	50	6	-	4
EPSSVC4060000A	6	15	50	6	-	4
EPSSVC4060011A	6	15	50	6	0.10C	4
EPSSVC4060032A	6	12	50	6	0.3R	4
EPSSVC4060052A	6	12	50	6	0.5R	4
EPSSVC4060102A	6	12	50	6	1R	4
EPSSVC4080000A	8	20	60	8	-	4
EPSSVC4080011A	8	20	60	8	0.15C	4
EPSSVC4080052A	8	16	60	8	0.5R	4
EPSSVC4080102A	8	16	60	8	1R	4
EPSSVC4080152A	8	16	60	8	1.5R	4
EPSSVC4100000A	10	25	75	10	-	4
EPSSVC4100003A	10	30	75	10	-	4
EPSSVC4100011A	10	25	75	10	0.15C	4
EPSSVC4100052A	10	20	75	10	0.5R	4
EPSSVC4100102A	10	20	75	10	1R	4
EPSSVC4100202A	10	20	75	10	2R	4
EPSSVC4120000A	12	30	75	12	-	4
EPSSVC4120021A	12	30	75	12	0.20C	4
EPSSVC4120052A	12	24	75	12	0.5R	4
EPSSVC4120102A	12	24	75	12	1R	4
EPSSVC4120202A	12	24	75	12	2R	4
EPSSVC4140000A	14	30	75	14	-	4
EPSSVC4160000A	16	35	100	16	-	4
EPSSVC4160021A	16	35	100	16	0.25C	4
EPSSVC4160102A	16	32	100	16	1R	4
EPSSVC4160202A	16	32	100	16	2R	4
EPSSVC4160302A	16	32	100	16	3R	4
EPSSVC4200000A	20	45	100	20	-	4
EPSSVC4250000A	25	45	100	25	-	4

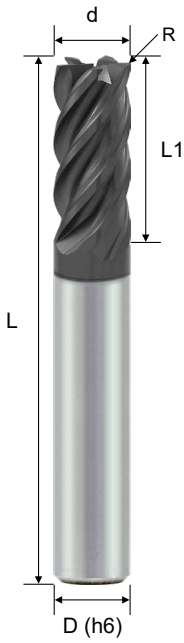
Cutting conditions：Page B260

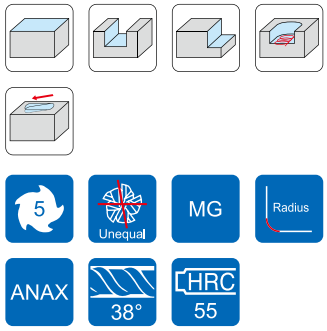
V47XC - Square · Unequal Spacing · Standard · 5F 不等分割平銑刀・標準型・5 刃

- Unequal flute spacing for anti-vibration.
- 38° helix angle design for exotic materials side milling.
- ANAX smooth coating (Al, Ti, Cr, N) provides a superior wear resistance and extend tool life.

EPSSVC

P	M	K	N	S	H
●	●	●		●	○





Order No. 訂購編碼	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	R	Flutes (Z)
EPSSVC5060000A	6	15	50	6	-	5
EPSSVC5060032A	6	12	50	6	0.3R	5
EPSSVC5060052A	6	12	50	6	0.5R	5
EPSSVC5080000A	8	20	60	8	-	5
EPSSVC5080052A	8	16	60	8	0.5R	5
EPSSVC5080102A	8	16	60	8	1.0R	5
EPSSVC5100000A	10	25	75	10	-	5
EPSSVC5100052A	10	20	75	10	0.5R	5
EPSSVC5100102A	10	20	75	10	1.0R	5
EPSSVC5100202A	10	20	75	10	2.0R	5
EPSSVC5120000A	12	30	75	12	-	5
EPSSVC5120052A	12	24	75	12	0.5R	5
EPSSVC5120102A	12	24	75	12	1.0R	5
EPSSVC5120202A	12	24	75	12	2.0R	5
EPSSVC5160000A	16	35	100	16	-	5
EPSSVC5160102A	16	32	100	16	1.0R	5
EPSSVC5160202A	16	32	100	16	2.0R	5
EPSSVC5160302A	16	32	100	16	3.0R	5

Cutting conditions：Page B260

d Tolerance	
d ≤ 6	0 ~ -0.02
6 < d ≤ 12	0 ~ -0.03
d > 12	0 ~ -0.04

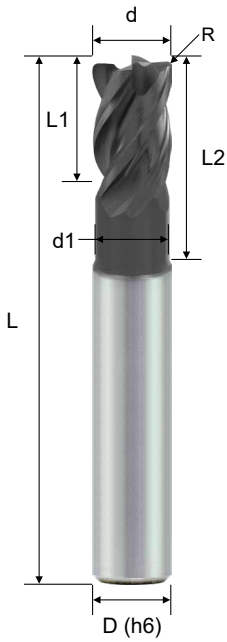
R Tolerance	
R	±0.020

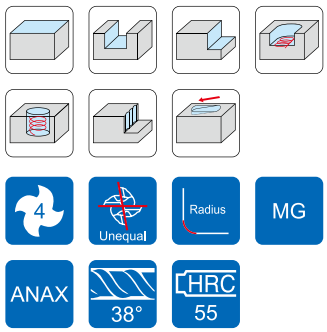
V47XC - Square · Unequal Spacing · Necked · 4F 不等分割平銑刀・帶頸型・4 刃

- Unequal flute spacing for anti-vibration.
- 38° helix angle design for exotic materials slot and side milling.
- Necked design is able to increase feed rate.
- ANAX smooth coating (Al, Ti, Cr, N) provides a superior wear resistance and extend tool life.

EPSUVC

P	M	K	N	S	H
●	●	●		●	○





d Tolerance	
d ≤ 6	0 ~ -0.02
6 < d ≤ 12	0 ~ -0.03
d > 12	0 ~ -0.04

R Tolerance	
R	±0.020

Order No. 訂購編碼	Dia. (d)	CL (L1)	EFF-L (L2)	Neck Dia. (d1)	OAL (L)	Shank (D)	R	Flutes (Z)
EPSUVC4060000A	6	9	15	5.64	50	6	-	4
EPSUVC4060052A	6	9	15	5.64	50	6	0.50R	4
EPSUVC4080000A	8	12	20	7.52	60	8	-	4
EPSUVC4080052A	8	12	20	7.52	60	8	0.50R	4
EPSUVC4080102A	8	12	20	7.52	60	8	1.00R	4
EPSUVC4100000A	10	15	25	9.4	75	10	-	4
EPSUVC4100052A	10	15	25	9.4	75	10	0.50R	4
EPSUVC4100102A	10	15	25	9.4	75	10	1.00R	4
EPSUVC4100152A	10	15	25	9.4	75	10	1.50R	4
EPSUVC4120000A	12	18	30	11.28	75	12	-	4
EPSUVC4120102A	12	18	30	11.28	75	12	1.00R	4
EPSUVC4120202A	12	18	30	11.28	75	12	2.00R	4
EPSUVC4160000A	16	24	40	15.04	100	16	-	4
EPSUVC4160102A	16	24	40	15.04	100	16	1.00R	4
EPSUVC4160202A	16	24	40	15.04	100	16	2.00R	4
EPSUVC4160302A	16	24	40	15.04	100	16	3.00R	4

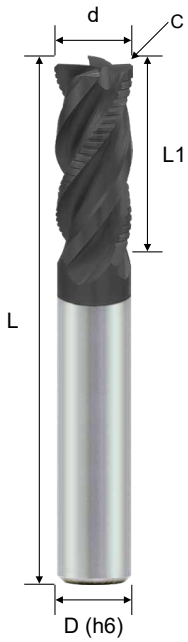
Cutting conditions：Page B261

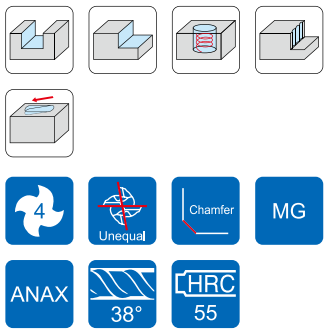
V47XC - Square · Unequal Spacing · Roughing & Finishing · 4F 不等分割平銑刀・粗精一體型・4 刃

- Unequal flute spacing for anti-vibration.
- 38° helix angle design for exotic materials slot milling and side roughing.
- ANAX smooth coating (Al, Ti, Cr, N) provides a superior wear resistance and extend tool life.

EPSRVC

P	M	K	N	S	H
●	●	●		●	○





d Tolerance	
d ≤ 6	0 ~ -0.02
6 < d ≤ 12	0 ~ -0.03
d > 12	0 ~ -0.04

Order No. 訂購編碼	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	C	Flutes (Z)
EPSRVC4060021A	6	15	50	6	0.25C	4
EPSRVC4080031A	8	20	60	8	0.30C	4
EPSRVC4100041A	10	25	75	10	0.40C	4
EPSRVC4120051A	12	30	75	12	0.50C	4
EPSRVC4160061A	16	35	100	16	0.60C	4

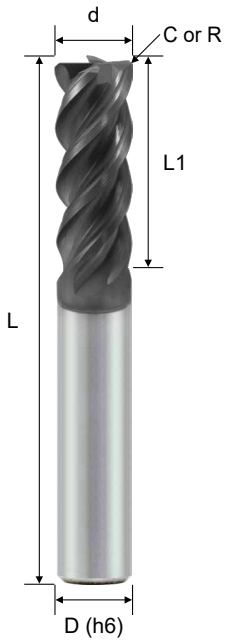
Cutting conditions：Page B261

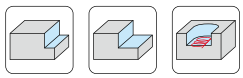
V47XD - Square · Unequal Spacing · Standard · 4F 不等分割平銑刀・標準型・4 刃

- Unequal flute spacing for anti-vibration.
- 43° helix angle design for exotic materials side milling.
- ANAX smooth coating (Al, Ti, Cr, N) provides a superior wear resistance and extend tool life.

EPSSVD

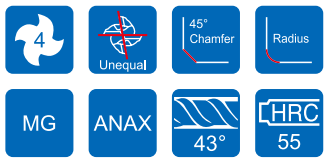
P	M	K	N	S	H
●	●	●		●	●





Order No. 訂購編碼	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	C or R	Flutes (Z)
EPSSVD4440000A	4	10	50	4	-	4
EPSSVD4060000A	6	15	50	6	-	4
EPSSVD4060011A	6	15	50	6	0.10C	4
EPSSVD4060052A	6	12	50	6	0.5R	4
EPSSVD4060102A	6	12	50	6	1R	4
EPSSVD4080000A	8	20	60	8	-	4
EPSSVD4080011A	8	20	60	8	0.15C	4
EPSSVD4080052A	8	16	60	8	0.5R	4
EPSSVD4080102A	8	16	60	8	1R	4
EPSSVD4100000A	10	25	75	10	-	4
EPSSVD4100003A	10	30	75	10	-	4
EPSSVD4100011A	10	25	75	10	0.15C	4
EPSSVD4100052A	10	20	75	10	0.5R	4
EPSSVD4100102A	10	20	75	10	1R	4
EPSSVD4100202A	10	20	75	10	2R	4
EPSSVD4120000A	12	30	75	12	-	4
EPSSVD4120021A	12	30	75	12	0.20C	4
EPSSVD4120052A	12	24	75	12	0.5R	4
EPSSVD4120102A	12	24	75	12	1R	4
EPSSVD4120202A	12	24	75	12	2R	4
EPSSVD4160000A	16	35	100	16	-	4
EPSSVD4160021A	16	35	100	16	0.25C	4
EPSSVD4160102A	16	32	100	16	1R	4
EPSSVD4160202A	16	32	100	16	2R	4
EPSSVD4160302A	16	32	100	16	3R	4

Cutting conditions：Page B262



d Tolerance	
d ≤ 6	0 ~ -0.02
6 < d ≤ 12	0 ~ -0.03
d > 12	0 ~ -0.04

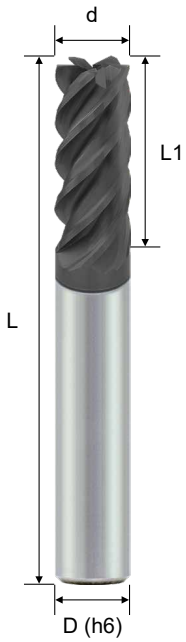
R Tolerance	
R	±0.020

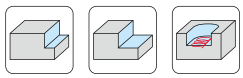
V47XD - Square · Unequal Spacing · Standard · 5F 不等分割平銑刀・標準型・5 刃

- Unequal flute spacing for anti-vibration.
- 43° helix angle design for high temperature alloy, stainless steel and alloy steel side milling.
- ANAX smooth coating (Al, Ti, Cr, N) provides a superior wear resistance and extend tool life.

EPSSVD

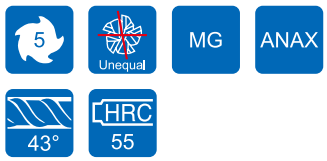
P	M	K	N	S	H
●	●	●		●	●





Order No. 訂購編碼	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	Flutes (Z)
EPSSVD5060000A	6	15	50	6	5
EPSSVD5080000A	8	20	60	8	5
EPSSVD5100000A	10	25	75	10	5
EPSSVD5120000A	12	30	75	12	5
EPSSVD5160000A	16	35	100	16	5

Cutting conditions：Page B262



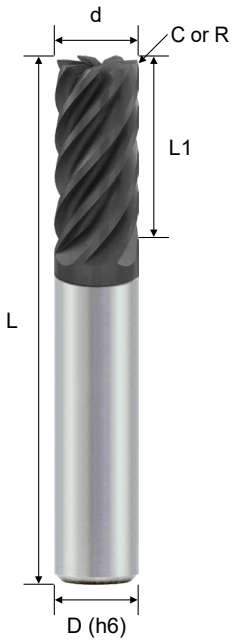
d Tolerance	
d ≤ 6	0 ~ -0.02
6 < d ≤ 12	0 ~ -0.03
d > 12	0 ~ -0.04

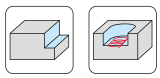
V47XD - Square · Unequal Spacing · Standard · 7F 不等分割平銑刀・標準型・7 刃

- Unequal flute spacing for anti-vibration.
- 43° helix angle design for exotic materials side milling.
- ANAX smooth coating (Al, Ti, Cr, N) provides a superior wear resistance and extend tool life.

EPSSVD

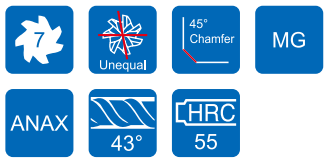
P	M	K	N	S	H
●	●	●		●	●





Order No. 訂購編碼	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	C or R	Flutes (Z)
EPSSVD7100000A	10	25	75	10	-	7
EPSSVD7100051A	10	25	75	10	0.5C	7
EPSSVD7100052A	10	25	75	10	0.5R	7
EPSSVD7120000A	12	30	75	12	-	7
EPSSVD7120051A	12	30	75	12	0.5C	7
EPSSVD7120052A	12	30	75	12	0.5R	7
EPSSVD7160000A	16	35	100	16	-	7

Cutting conditions：Page B262



d Tolerance	
d ≤ 6	0 ~ -0.02
6 < d ≤ 12	0 ~ -0.03
d > 12	0 ~ -0.04

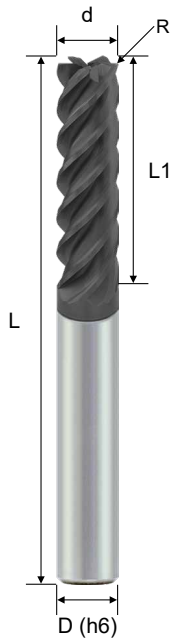
R Tolerance	
R	±0.020

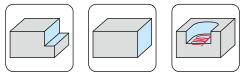
V47XD - Square · Unequal Spacing · Long Flute · 5F 不等分割平銑刀・長刃型・5 刃

- Unequal flute spacing for anti-vibration.
- 43° helix angle design for exotic materials deep side milling.
- ANAX smooth coating (Al, Ti, Cr, N) provides a superior wear resistance and extend tool life.

EPSCVD

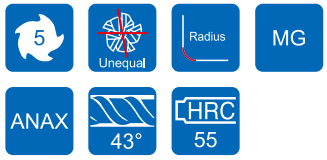
P	M	K	N	S	H
●	●	●		●	●





Order No. 訂購編碼	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	R	Flutes (Z)
EPSCVD5060000A	6	24	75	6	-	5
EPSCVD5060102A	6	24	75	6	1.0R	5
EPSCVD5080000A	8	32	75	8	-	5
EPSCVD5080102A	8	32	75	8	1.0R	5
EPSCVD5100000A	10	40	100	10	-	5
EPSCVD5120000A	12	48	100	12	-	5
EPSCVD5120202A	12	48	100	12	2.0R	5
EPSCVD5160000A	16	55	110	16	-	5

Cutting conditions：Page B262



d Tolerance	
d ≤ 6	0 ~ -0.03
6 < d ≤ 12	0 ~ -0.04
d > 12	0 ~ -0.05

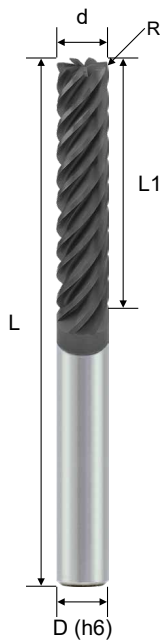
R Tolerance	
R	±0.020

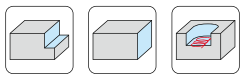
V47XD - Square · Unequal Spacing · Long Flute · 7F 不等分割平銑刀・長刃型・7 刃

- Unequal flute spacing for anti-vibration.
- 43° helix angle design for exotic materials deep side milling.
- ANAX smooth coating (Al, Ti, Cr, N) provides a superior wear resistance and extend tool life.

EPSCVD

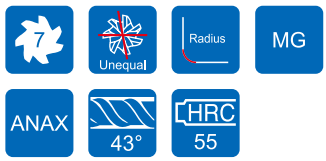
P	M	K	N	S	H
●	●	●		●	●





Order No. 訂購編碼	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	R	Flutes (Z)
EPSCVD7100000A	10	50	100	10	-	7
EPSCVD7100052A	10	50	100	10	0.5R	7
EPSCVD7120000A	12	60	110	12	-	7
EPSCVD7120052A	12	60	110	12	0.5R	7
EPSCVD7160000A	16	80	150	16	-	7
EPSCVD7160052A	16	80	150	16	0.5R	7

Cutting conditions：Page B262



d Tolerance	
d ≤ 6	0 ~ -0.03
6 < d ≤ 12	0 ~ -0.04
d > 12	0 ~ -0.05

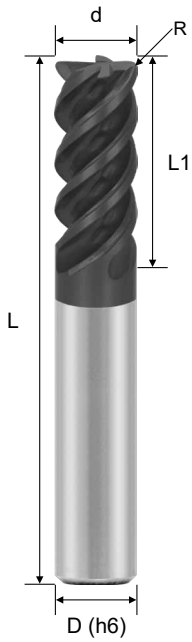
R Tolerance	
R	±0.020

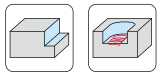
V47XE - Square · Unequal Spacing · Standard · 4F 不等分割平銑刀・標準型・4 刃

- Unequal flute spacing for anti-vibration.
- 52° helix angle design with low cutting force and outstanding side finishing for exotic materials.
- ANAX smooth coating (Al, Ti, Cr, N) provides a superior wear resistance and extend tool life.

EPSSVE

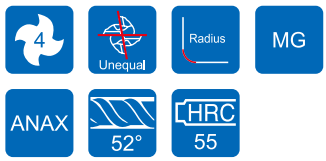
P	M	K	N	S	H
○	●	○		●	●





Order No. 訂購編碼	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	R	Flutes (Z)
EPSSVE4080052A	8	16	60	8	0.5R	4
EPSSVE4100102A	10	20	75	10	1.0R	4
EPSSVE4120102A	12	24	75	12	1.0R	4
EPSSVE4160152A	16	32	100	16	1.5R	4

Cutting conditions：Page B263



d Tolerance	
d ≤ 6	0 ~ -0.02
6 < d ≤ 12	0 ~ -0.03
d > 12	0 ~ -0.04

R Tolerance	
R	±0.020

Recommended Cutting Conditions 建議切削參數

V470 Seires EPSSVB4, EPSSVC4

Working Material	Cutting Application	ae×d	ap×d	Vc	fz					
					4	6	8	10	12	16
Carbon steel (S45C，S55C)	Slot milling	1	0.5 ~ 1.0	80 ~ 145	0.025	0.030	0.040	0.050	0.060	0.080
	Side milling	0.1 ~ 0.3	0.7 ~ 1.5	130 ~ 225	0.030	0.036	0.048	0.06	0.072	0.096
Alloy steel / Tool steel (SK, SCM, SKD)	Slot milling	1	0.5 ~ 1.0	65 ~ 130	0.022	0.027	0.036	0.047	0.056	0.074
	Side milling	0.1 ~ 0.3	0.7 ~ 1.5	90 ~ 180	0.026	0.032	0.043	0.056	0.067	0.089
Stainless steel (SUS304, SUS316)	Slot milling	1	0.3 ~ 0.6	50 ~ 100	0.015	0.020	0.030	0.035	0.040	0.056
	Side milling	0.1 ~ 0.2	0.7 ~ 1.5	80 ~ 130	0.018	0.024	0.036	0.042	0.048	0.067
Hardened steel (HRC 40 ~ 50)	Slot milling	1	0.2 ~ 0.4	30 ~ 60	0.015	0.020	0.025	0.030	0.035	0.048
	Side milling	0.05 ~ 0.1	0.7 ~ 1.5	65 ~ 100	0.018	0.024	0.030	0.036	0.042	0.058

d = tool diameter

V47X Seires EPSSVC4, EPSSVC5

Working Material	Cutting Application	ae×d	ap×d	Vc	fz					
					4	6	8	10	12	16
Carbon steel (S45C，S55C)	Slot milling	1	0.5 ~ 1.0	80 ~ 145	0.025	0.030	0.040	0.050	0.060	0.080
	Side milling	0.1 ~ 0.3	0.7 ~ 2.0	130 ~ 225	0.035	0.042	0.056	0.070	0.084	0.112
Alloy steel / Tool steel (SK, SCM, SKD)	Slot milling	1	0.5 ~ 1.0	65 ~ 130	0.022	0.027	0.036	0.047	0.056	0.074
	Side milling	0.1 ~ 0.3	0.7 ~ 2.0	90 ~ 180	0.031	0.038	0.050	0.066	0.078	0.104
Stainless steel (SUS304, SUS316)	Slot milling	1	0.3 ~ 0.6	50 ~ 100	0.015	0.020	0.030	0.035	0.040	0.056
	Side milling	0.1 ~ 0.2	0.7 ~ 2.0	80 ~ 130	0.021	0.028	0.042	0.049	0.056	0.078
Hardened steel (HRC 40 ~ 50)	Slot milling	1	0.2 ~ 0.4	30 ~ 60	0.015	0.020	0.025	0.030	0.035	0.048
	Side milling	0.05 ~ 0.1	0.7 ~ 2.0	65 ~ 100	0.021	0.028	0.035	0.042	0.049	0.067

d = tool diameter

※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%

Recommended Cutting Conditions 建議切削參數

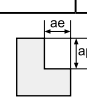
V47X Seires EPSUVC4

Working Material	Cutting Application	ae×d	ap×d	Vc	fz					
					4	6	8	10	12	16
Carbon steel (S45C，S55C)	Slot milling	1	0.5 ~ 1.0	80 ~ 145	0.030	0.036	0.048	0.060	0.072	0.096
	Side milling	0.1 ~ 0.3	0.7 ~ 1.2	130 ~ 225	0.042	0.050	0.067	0.084	0.101	0.134
Alloy steel / Tool steel (SK, SCM, SKD)	Slot milling	1	0.5 ~ 1.0	65 ~ 130	0.026	0.032	0.043	0.056	0.067	0.089
	Side milling	0.1 ~ 0.3	0.7 ~ 1.2	90 ~ 180	0.037	0.046	0.060	0.079	0.094	0.125
Stainless steel (SUS304, SUS316)	Slot milling	1	0.3 ~ 0.6	50 ~ 100	0.018	0.024	0.036	0.042	0.048	0.067
	Side milling	0.1 ~ 0.2	0.7 ~ 1.2	80 ~ 130	0.025	0.034	0.050	0.059	0.067	0.094
Hardened steel (HRC 40 ~ 50)	Slot milling	1	0.2 ~ 0.4	30 ~ 60	0.018	0.024	0.030	0.036	0.042	0.058
	Side milling	0.05 ~ 0.1	0.7 ~ 1.2	65 ~ 100	0.025	0.034	0.042	0.050	0.059	0.080

d = tool diameter

V47X Seires EPSRVC4

Working Material	Cutting Application	ae×d	ap×d	Vc	fz					
					4	6	8	10	12	16
Carbon steel (S45C，S55C)	Slot milling	1	0.5 ~ 1.0	80 ~ 145	0.025	0.030	0.040	0.050	0.060	0.080
	Side milling	0.1 ~ 0.4	0.7 ~ 1.5	130 ~ 225	0.035	0.042	0.056	0.070	0.084	0.112
Alloy steel / Tool steel (SK, SCM, SKD)	Slot milling	1	0.5 ~ 1.0	65 ~ 130	0.022	0.027	0.036	0.047	0.056	0.074
	Side milling	0.1 ~ 0.4	0.7 ~ 1.5	90 ~ 180	0.031	0.038	0.050	0.066	0.078	0.104
Stainless steel (SUS304, SUS316)	Slot milling	1	0.3 ~ 0.6	50 ~ 100	0.015	0.020	0.030	0.035	0.040	0.056
	Side milling	0.1 ~ 0.3	0.7 ~ 1.5	80 ~ 130	0.021	0.028	0.042	0.049	0.056	0.078
Hardened steel (HRC 40 ~ 50)	Slot milling	1	0.2 ~ 0.4	30 ~ 60	0.015	0.020	0.025	0.030	0.035	0.048
	Side milling	0.05 ~ 0.2	0.7 ~ 1.5	65 ~ 100	0.021	0.028	0.035	0.042	0.049	0.067



d = tool diameter

※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%

Recommended Cutting Conditions 建議切削參數

V47X Seires EPSSVD4, EPSSVD5, EPSSVD7

Working Material	Cutting Application	ae×d	ap×d	Vc	fz					
					4	6	8	10	12	16
Carbon steel (S45C，S55C)	Side milling	0.1 ~ 0.3	0.7 ~ 1.5	80 ~ 125	0.035	0.042	0.056	0.070	0.084	0.112
	Side finishing	0.05 ~ 0.2	0.7 ~ 1.5	120 ~ 180	0.039	0.046	0.062	0.077	0.092	0.123
Alloy steel / Tool steel (SK, SCM, SKD)	Side milling	0.1 ~ 0.3	0.7 ~ 1.5	70 ~ 105	0.031	0.038	0.050	0.066	0.078	0.104
	Side finishing	0.05 ~ 0.2	0.7 ~ 1.5	100 ~ 150	0.034	0.042	0.055	0.073	0.086	0.114
Stainless steel (SUS304, SUS316)	Side milling	0.1 ~ 0.3	0.7 ~ 1.5	60 ~ 90	0.021	0.028	0.042	0.049	0.056	0.078
	Side finishing	0.05 ~ 0.2	0.7 ~ 1.5	85 ~ 130	0.023	0.031	0.046	0.054	0.062	0.086
Superalloy	Side milling	0.1 ~ 0.3	0.7 ~ 1.5	45 ~ 70	0.021	0.028	0.035	0.042	0.049	0.067
	Side finishing	0.05 ~ 0.2	0.7 ~ 1.5	65 ~ 100	0.023	0.031	0.039	0.046	0.054	0.074

d = tool diameter

V47X Seires EPSCVD5, EPSCVD7

Working Material	Cutting Application	ae×d	ap×d	Vc	fz					
					4	6	8	10	12	16
Carbon steel (S45C，S55C)	Side milling	0.1 ~ 0.3	0.7 ~ 3.0	80 ~ 125	0.028	0.034	0.045	0.056	0.067	0.090
	Side finishing	0.05 ~ 0.3	0.7 ~ 2.5	120 ~ 180	0.031	0.037	0.050	0.062	0.074	0.098
Alloy steel / Tool steel (SK, SCM, SKD)	Side milling	0.1 ~ 0.3	0.7 ~ 3.0	70 ~ 105	0.025	0.030	0.040	0.053	0.062	0.083
	Side finishing	0.05 ~ 0.3	0.7 ~ 2.5	100 ~ 150	0.027	0.034	0.044	0.058	0.069	0.091
Stainless steel (SUS304, SUS316)	Side milling	0.1 ~ 0.3	0.7 ~ 2.5	60 ~ 90	0.017	0.022	0.034	0.039	0.045	0.062
	Side finishing	0.05 ~ 0.3	0.7 ~ 2.0	85 ~ 130	0.018	0.025	0.037	0.043	0.050	0.069
Superalloy	Side milling	0.1 ~ 0.3	0.7 ~ 2.5	45 ~ 70	0.017	0.022	0.028	0.034	0.039	0.054
	Side finishing	0.05 ~ 0.3	0.7 ~ 2.0	65 ~ 100	0.018	0.025	0.031	0.037	0.043	0.059

d = tool diameter

※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%

Recommended Cutting Conditions 建議切削參數

V47X Seires EPSSVE4

Working Material	Cutting Application	ae×d	ap×d	Vc	fz					
					4	6	8	10	12	16
Carbon steel (S45C，S55C)	Side milling	0.1 ~ 0.3	0.7 ~ 1.5	80 ~ 125	0.035	0.042	0.056	0.070	0.084	0.112
	Side finishing	0.05 ~ 0.2	0.7 ~ 1.5	120 ~ 180	0.039	0.046	0.062	0.077	0.092	0.123
Alloy steel / Tool steel (SK, SCM, SKD)	Side milling	0.1 ~ 0.3	0.7 ~ 1.5	70 ~ 105	0.031	0.038	0.050	0.066	0.078	0.104
	Side finishing	0.05 ~ 0.2	0.7 ~ 1.5	100 ~ 150	0.034	0.042	0.055	0.073	0.086	0.114
Stainless steel (SUS304, SUS316)	Side milling	0.1 ~ 0.3	0.7 ~ 1.5	60 ~ 90	0.021	0.028	0.042	0.049	0.056	0.078
	Side finishing	0.05 ~ 0.2	0.7 ~ 1.5	85 ~ 130	0.023	0.031	0.046	0.054	0.062	0.086
Superalloy	Side milling	0.1 ~ 0.3	0.7 ~ 1.5	45 ~ 70	0.021	0.028	0.035	0.042	0.049	0.067
	Side finishing	0.05 ~ 0.2	0.7 ~ 1.5	65 ~ 100	0.023	0.031	0.039	0.046	0.054	0.074

d = tool diameter

V470 Inch Seires EP□□□V4

Working Material	Cutting Application	ae×d	ap×d	SFM	fz (inch/z)				
					1/8	1/4	5/16	3/8	1/2
Carbon steel (S45C, S55C)	Slot milling	1	0.5 ~ 1.0	260 ~ 475	.0008	.0012	.0016	.0019	.0025
	Side roughing	0.4 ~ 0.9	0.7 ~ 1.0	295 ~ 525	.0009	.0015	.0020	.0023	.0031
	Side finishing	0.1 ~ 0.3	0.7 ~ 1.5	425 ~ 740	.0006	.0010	.0014	.0017	.0023
Alloy steel (SK, SCM)	Slot milling	1	0.5 ~ 1.0	230 ~ 430	.0007	.0011	.0015	.0018	.0024
	Side roughing	0.4 ~ 0.9	0.7 ~ 1.0	260 ~ 475	.0008	.0014	.0019	.0022	.0030
	Side finishing	0.1 ~ 0.3	0.7 ~ 1.5	310 ~ 590	.0005	.0009	.0013	.0016	.0022
Tool Steel (SKD)	Slot milling	1	0.5 ~ 1.0	215 ~ 360	.0006	.0010	.0014	.0017	.0023
	Side roughing	0.4 ~ 0.9	0.7 ~ 1.0	230 ~ 430	.0009	.0015	.0018	.0021	.0029
	Side finishing	0.1 ~ 0.3	0.7 ~ 1.5	295 ~ 525	.0006	.0010	.0014	.0015	.0021
Stainless steel (SUS304, SUS316)	Slot milling	1	0.5 ~ 1.0	165 ~ 215	.0005	.0008	.0012	.0013	.0017
	Side roughing	0.4 ~ 0.9	0.7 ~ 1.0	215 ~ 330	.0006	.0010	.0014	.0017	.0023
	Side finishing	0.1 ~ 0.3	0.7 ~ 1.5	260 ~ 360	.0006	.0010	.0014	.0015	.0021
Hardened steel (HRC ≤ 45)	Slot milling	1	0.5 ~ 1.0	100 ~ 200	.0005	.0008	.0010	.0011	.0015
	Side roughing	0.4 ~ 0.9	0.7 ~ 1.0	165 ~ 300	.0005	.0008	.0012	.0013	.0017
	Side finishing	0.1~ 0.3	0.7 ~ 1.5	215 ~ 395	.0006	.0010	.0014	.0015	.0021

d = tool diameter

※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%