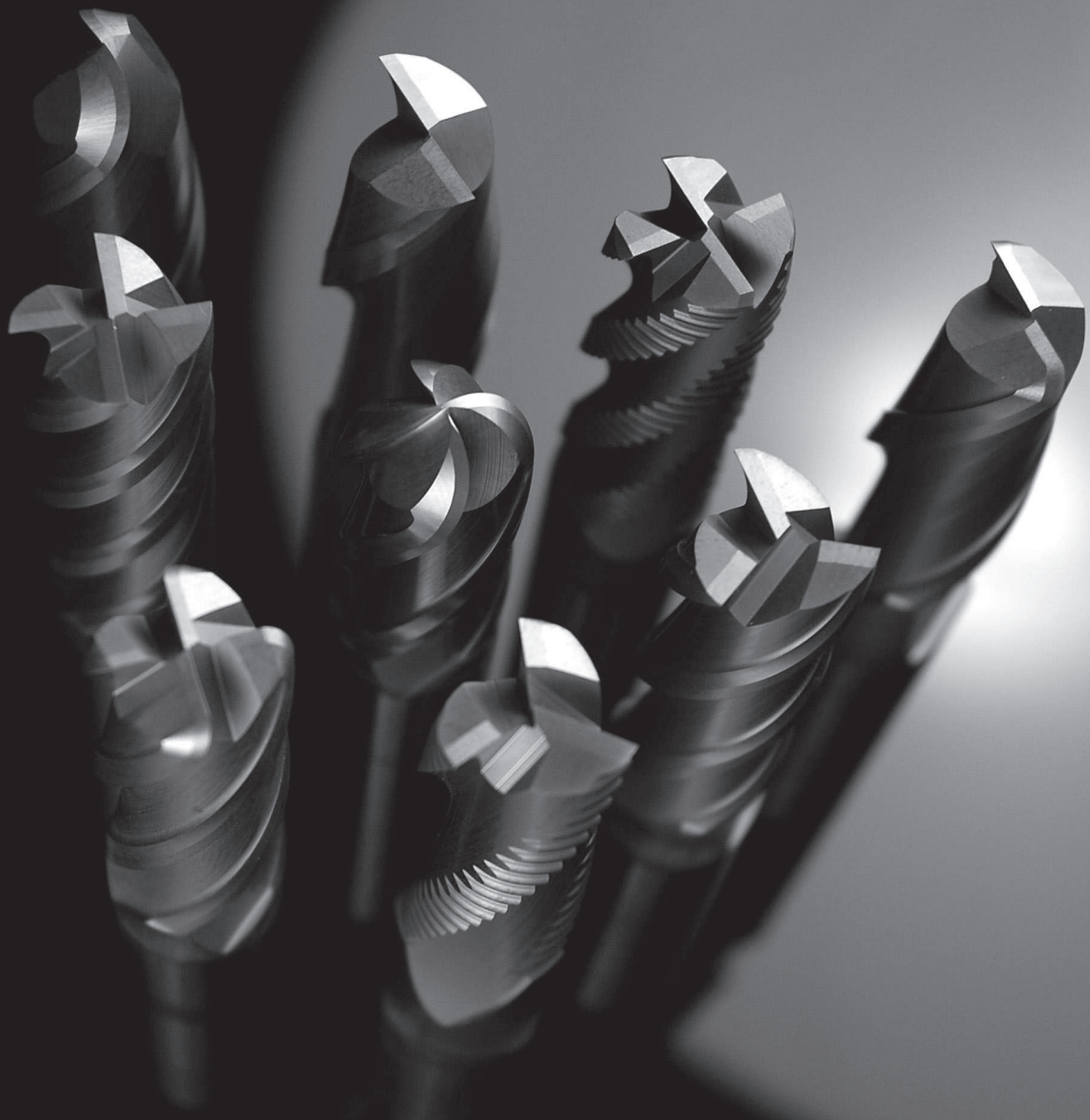




Oil Jet End Mill Series



Oil Jet End Mill Series

Technical Data

● 中心出水銑刀系列

Details 產品特點

1. Less cutting heat on cutter edge due to strengthen cool purpose by oil jet function.
2. Increase lubrication and excellent chip removal.
3. CrSiN coating, improve efficiency and function.
4. Special design cutter, better surface finish.

中心出水，加強冷卻效果，使刃口溫度更低。
增加潤滑性，排屑性更加。

CrSiN奈米鍍層，效能、性能更上一層樓。
特殊刀具設計，被切剖面更光滑細緻。

Application 適用材料

Cast Iron, Stainless, Titanium Alloy, Carbon Steel, Copper, Aluminium.

鑄鐵、不鏽鋼、鈦合金、炭素鋼、銅、鋁...等
幾乎包含所有被加工材。

RS coating advantage RS塗層優點

1. Improve the tooling and mold life.
2. Improve productivity and product quality.
3. Better Surface finish.
4. Mold Release forces.
5. Cutting Condition improved.

大幅增加刀具、模具之使用壽命。
增加製造良率。
提高工件表面品質。
增加脫膜性。
提高切削條件。

矽塗層高性能刀具的推廣與應用，不僅嚴格保證塗層的質量，更保證刀具本身材料的質量與性能
Coating with Si element in tools promotion and application ensure the coating quality, cutting performance and the quality of endmill material.

ST Coating	Typical Thickness(u)	Microhardness HV	Max Service Temp(C)	Friction Coefficient
TiAlN	3~5	2,800	800	0.4
TiSiN(Si)	2~4	3,600	1,100	0.4
CrN	3~5	2,200	700	0.4
CrSiN(Rs)	3~4	2,800	1,000	0.4

結論 Conclusion :

使用矽塗層刀具可以解決難加工材料的加工問題，改變傳統的機械加工工藝，提高加工效率，節約工時及電力因此推廣和應用矽塗層刀具具有寬廣的發展與前景。

Rs coating contain Si element cutting tools can solve the problem for machining in Hard work material and change the traditional process. Improving the productivity Reducing the time and cost.



切削條件表
P324
P334
Cutting Condition

Square Series - Oil Jet

油孔立銑刀

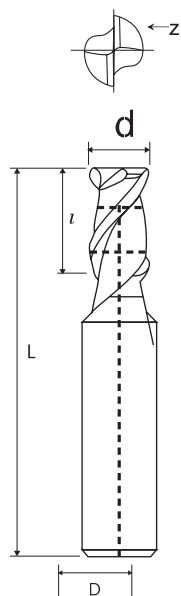


● Micro Grain Carbide

● WC=90 Co=10 HV30=1571 Rupture=3750N/mm² Grain Size=0.6μm



MODE	Diameter	Flute Length	Full Length	Shank Diameter	Flutes
型號	d 刃徑	ℓ 刃長	L 全長	D 柄徑	Z 刃數
JSE0602RS	6	16	50	6	2
JSE0604RS	6	16	50	6	4
JSE0802RS	8	20	60	8	2
JSE0804RS	8	20	60	8	4
JSE1002RS	10	25	75	10	2
JSE1004RS	10	25	75	10	4
JSE1202RS	12	32	75	12	2
JSE1204RS	12	32	75	12	4
JSE1602RS	16	40	100	16	2
JSE1604RS	16	40	100	16	4
JSE2002RS	20	45	100	20	2
JSE2004RS	20	45	100	20	4



Application 適用材質：

◎ Recommend 最適合 ○ Suitable 適合 X Not Recommend 不建議

carbon steel, Alloy steel 炭素鋼, 合金鋼	Pre-hardened steel 預硬鋼	High-hardened 高硬度鋼				Stainless steel 不銹鋼	Copper alloy 銅合金, 銅	Aluminum alloy 鋁合金
	~45HRC	~50HRC	~55HRC	~60HRC	~65HRC			
◎	◎	◎	○				○	○

Square Series - For Aluminum - Oil Jet

■ 油孔鋁用立銑刀

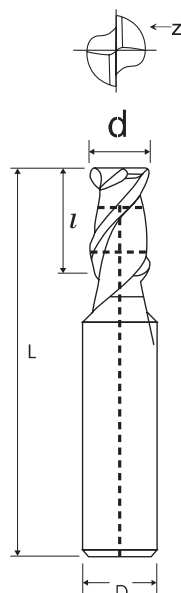


● Micro Grain Carbide

● WC=90 Co=10 HV30=1571 Rupture=3750N/mm² Grain Size=0.6μm



MODE	Diameter	Flute Length	Full Length	Shank Diameter	Flutes
型號	d 刃徑	l 刃長	L 全長	D 柄徑	Z 刃數
JAE50602	6	18	50	6	2
JAE50802	8	20	60	8	2
JAE51002	10	30	75	10	2
JAE51202	12	32	75	12	2
JAE51602	16	45	100	16	2
JAE52002	20	45	100	20	2
JAE50603	6	18	50	6	3
JAE50803	8	20	60	8	3
JAE51003	10	30	75	10	3
JAE51203	12	32	75	12	3
JAE51603	16	45	100	16	3
JAE52003	20	45	100	20	3



Application 適用材質：

◎ Recommend 最適合 ○ Suitable 適合 X Not Recommend 不建議

carbon steel, Alloy steel 炭素鋼, 合金鋼	Pre-hardened steel 預硬鋼	High-hardened 高硬度鋼				Stainless steel 不銹鋼	Copper alloy 銅合金, 銅	Aluminum alloy 鋁合金
	~45HRC	~50HRC	~55HRC	~60HRC	~65HRC			
X	X	X	X	X	X	X	◎	◎



切削
條件表
P373
Cutting Condition

Roughing Series - For Aluminum - 3 flutes - Oil Jet

■ 油孔鋁用3刃粗銑刀

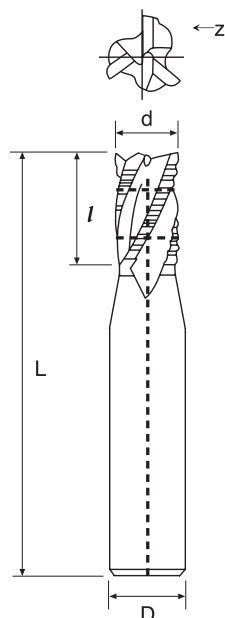


● Micro Grain Carbide

● WC=90 Co=10 HV30=1571 Rupture=3750N/mm² Grain Size=0.6μm



MODE	Diameter	Flute Length	Full Length	Shank Diameter	Flutes
型號	d 刃徑	ℓ 刃長	L 全長	D 柄徑	Z 刃數
JANT0603	6	15	50	6	3
JANT0803	8	20	60	8	3
JANT1003	10	25	75	10	3
JANT1203	12	30	75	12	3
JANT1603	16	35	100	16	3
JANT2003	20	45	100	20	3



Application 適用材質：

◎ Recommend 最適合 ○ Suitable 適合 X Not Recommend 不建議

carbon steel, Alloy steel 炭素鋼,合金鋼	Pre-hardened steel 預硬鋼	High-hardened 高硬度鋼				Stainless steel 不銹鋼	Copper alloy 銅合金,銅	Aluminun alloy 鋁合金
	~45HRC	~50HRC	~55HRC	~60HRC	~65HRC			
X	X	X	X	X	X	X	◎	◎

Fine Pitch Roughing series - Oil Jet

■ **油孔粗精銑刀**

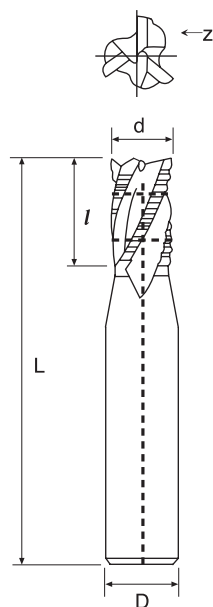


● Micro Grain Carbide

● WC=90 Co=10 HV30=1571 Rupture=3750N/mm² Grain Size=0.6μm



MODE	Diameter	Flute Length	Full Length	Shank Diameter	Flutes
型號	d 刃徑	ℓ 刃長	L 全長	D 柄徑	Z 刃數
JNTA0603RS	6	16	50	6	3
JNTA0803RS	8	19	60	8	3
JNTA1003RS	10	25	75	10	3
JNTA1203RS	12	30	75	12	3
JNTA1603RS	16	35	100	16	3
JNTA2003RS	20	45	100	20	3
JNTA0604RS	6	16	50	6	4
JNTA0804RS	8	19	60	8	4
JNTA1004RS	10	25	75	10	4
JNTA1204RS	12	30	75	12	4
JNTA1604RS	16	35	100	16	4
JNTA2004RS	20	45	100	20	4



Application 適用材質：

◎ Recommend 最適合 ○ Suitable 適合 X Not Recommend 不建議

carbon steel, Alloy steel 炭素鋼, 合金鋼	Pre-hardened steel 預硬鋼	High-hardened 高硬度鋼				Stainless steel 不銹鋼	Copper alloy 銅合金, 銅	Aluminum alloy 鋁合金
	~45HRC	~50HRC	~55HRC	~60HRC	~65HRC			
◎	◎	◎	○				○	○





切削
條件表
P329
Cutting Condition

Roughing series - Oil Jet

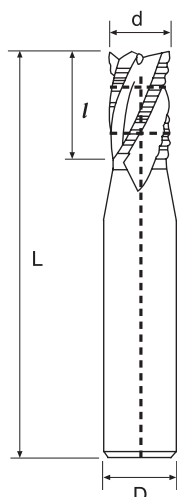
油孔粗銑刀



- Micro Grain Carbide
- WC=90 Co=10 HV30=1571 Rupture=3750N/mm² Grain Size=0.6μm



MODE	Diameter	Flute Length	Full Length	Shank Diameter	Flutes
型號	d 刃徑	ℓ 刃長	L 全長	D 柄徑	Z 刃數
JXTA0603RS	6	16	50	6	3
JXTA0803RS	8	19	60	8	3
JXTA1003RS	10	25	75	10	3
JXTA1203RS	12	30	75	12	3
JXTA1603RS	16	35	100	16	3
JXTA2003RS	20	45	100	20	3
JXTA0604RS	6	16	50	6	4
JXTA0804RS	8	19	60	8	4
JXTA1004RS	10	25	75	10	4
JXTA1204RS	12	30	75	12	4
JXTA1604RS	16	35	100	16	4
JXTA2004RS	20	45	100	20	4



Application 適用材質：

◎ Recommend 最適合 ○ Suitable 適合 X Not Recommend 不建議

carbon steel, Alloy steel 炭素鋼,合金鋼	Pre-hardened steel 預硬鋼	High-hardened 高硬度鋼				Stainless steel 不銹鋼	Copper alloy 銅合金,銅	Aluminun alloy 鋁合金
	~45HRC	~50HRC	~55HRC	~60HRC	~65HRC			
◎	◎	◎	○				○	○

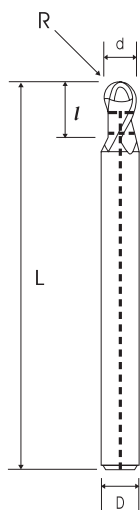
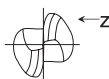
Ball Nose - 2 flutes - Oil Jet

■ **油孔2刃球刀**



● Micro Grain Carbide

● WC=90 Co=10 HV30=1571 Rupture=3750N/mm² Grain Size=0.6μm



MODE	Diameter	Radius	Flute Length	Full Length	Shank Diameter	Flutes
型號	d 刀徑	R 值	刀長	L 全長	D 柄徑	Z 刃數
JSB0602RS	6	3	12	50	6	2
JSB0802RS	8	4	16	60	8	2
JSB1002RS	10	5	20	75	10	2
JSB1202RS	12	6	24	75	12	2
JSB1602RS	16	8	32	100	16	2
JSB2002RS	20	10	40	100	20	2

Application 適用材質：

◎ Recommend 最適合 ○ Suitable 適合 X Not Recommend 不建議

carbon steel, Alloy steel 炭素鋼,合金鋼	Pre-hardened steel 預硬鋼	High-hardened 高硬度鋼				Stainless steel 不銹鋼	Copper alloy 銅合金,銅	Aluminun alloy 鋁合金
	~45HRC	~50HRC	~55HRC	~60HRC	~65HRC			
◎	◎	◎	○				○	○





切削
條件表
P401
Cutting Condition

Corner Radius - 4 flutes - Oil Jet

■ 油孔4刃圓鼻立銑刀

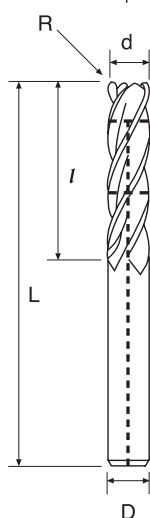
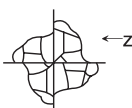


● Micro Grain Carbide

● WC=90 Co=10 HV30=1571 Rupture=3750N/mm² Grain Size=0.6μm



MODE	Diameter	radius of Ball Nose	Flute Length	Full Length	Shank Diameter	Flutes
型號	d 刃徑	R 角	ℓ 刃長	L 全長	D 柄徑	Z 刃數
JRTA060034RS	6	0.3	15	50	6	4
JRTA060054RS	6	0.5	15	50	6	4
JRTA060104RS	6	1	15	50	6	4
JRTA060204RS	6	2	15	50	6	4
JRTA080034RS	8	0.3	20	60	8	4
JRTA080054RS	8	0.5	20	60	8	4
JRTA080104RS	8	1	20	60	8	4
JRTA080204RS	8	2	20	60	8	4
JRTA100034RS	10	0.3	25	75	10	4
JRTA100054RS	10	0.5	25	75	10	4
JRTA100104RS	10	1	25	75	10	4
JRTA100204RS	10	2	25	75	10	4
JRTA120034RS	12	0.3	30	75	12	4
JRTA120054RS	12	0.5	30	75	12	4
JRTA120104RS	12	1	30	75	12	4
JRTA120204RS	12	2	30	75	12	4



Application 適用材質：

◎ Recommend 最適合 ○ Suitable 適合 X Not Recommend 不建議

carbon steel, Alloy steel 炭素鋼,合金鋼	Pre-hardened steel 預硬鋼	High-hardened 高硬度鋼				Stainless steel 不銹鋼	Copper alloy 銅合金,銅	Aluminum alloy 鋁合金
	~45HRC	~50HRC	~55HRC	~60HRC	~65HRC			
◎	◎	◎	○	○			○	○