



DESIGN . HONESTY . FUTURE

NEW

Special 5 flutes



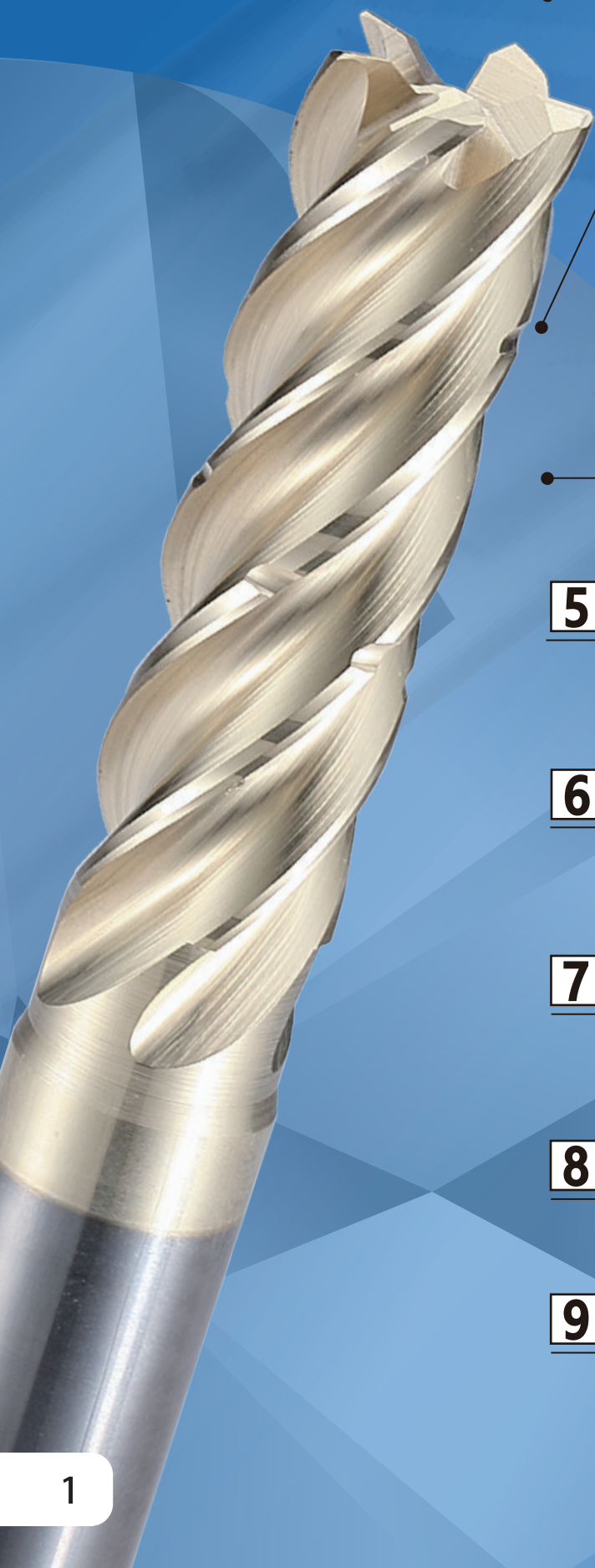
**不等分割
特殊5刃斷屑設計**

Special five flutes unequal flute spacing design

5刃斷屑刀

Special five flutes unequal flute spacing design

UEF



1 特殊的5刃<不等分割設計>、於加工中抗震性更加良好。

Special five flutes unequal flute spacing design improves vibration resistance.

2 獨特的<斷屑槽設計>、解決了長條狀鐵削堆積在加工材料上面、排屑更加安全及優化。

Unique chip breaker avoids chip stripes accumulation on the work material and furthermore optimizes chip evacuation.

3 各尺寸3D//4D//5D的長刃設計、加深側銑切削深度、創造更高的加工效能。

Each diameter available with 3D, 4D and 5D flute length options. Side milling goes deeper for higher machining performance.

4 <UEF>採用< G11 >新研發鍍層、刀具壽命更加提升。

New G11 coating significantly extends tool life.

5 <UEF>採用新製程、刀具表面光滑、排屑性更加順暢、延長刀具壽命。

With new manufacturing process, UEF tool surface is smooth. Better chip evacuation and longer tool life.

6 適用於難切削材料及一般鋼材,例如: 不銹鋼 // 鈦合金。

Good for difficult-to-cut material and normal steels, e.g. stainless steel and titanium alloy.

7 應用於側銑及擺線加工的<高速高進給>加工、效率佳,亦適用於精銑加工。

Ideal for high speed & high feed side milling and trochoidal milling. Great efficiency. Also suitable for finishing.

8 <UEF>加工應用Vc值可達200m/min。
<UEF>刀具壽命高於<LEF>30%以上。

UEF Vc can reach 200(m/min). UEF tool life 30% higher than LEF.

9 經DHF應用中心與知名刀具品牌做壽命對比、<UEF>壽命高出1.5倍以上。

Test result by DHF application center shows that UEF's tool life is 50% higher than other well-known tool brands.

UEF

不等分割斷屑立銑刀 End Mills



型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
UEF0605	6	18	60	6
UEF0605M	6	24	65	6
UEF0605L	6	30	75	6
UEF0805	8	24	75	8
UEF0805M	8	32	75	8
UEF0805L	8	40	100	8
UEF1005	10	30	80	10
UEF1005M	10	40	100	10
UEF1005L	10	50	100	10
UEF1205	12	36	100	12
UEF1205M	12	48	100	12
UEF1605	16	50	120	16
UEF1605L	16	70	150	16

附註
Note

UEF的刀具測試報告詳見P.5。
Please see page 5 for detailed UEF service life testing report.

5刃斷屑刀

Special five flutes unequal flute spacing design

LEF



1 特殊的5刃〈不等分割設計〉、於加工中抗震性更加良好。

Special five flutes unequal flute spacing design improves vibration resistance.

2 獨特的〈斷屑槽設計〉、解決了長條狀鐵屑堆積在加工材料上面、排屑更加安全及優化。

Unique chip breaker avoids chip stripes accumulation on the work material and furthermore optimizes chip evacuation.

3 各尺寸3D//4D//5D的長刃設計、加深側銑切削深度、創造更高的加工效能。

Each diameter available with 3D, 4D and 5D flute length options. Side milling goes deeper for higher machining performance.

4 適用於難切削材料及一般鋼材,例如: 不銹鋼/鈦合金。

Good for difficult-to-cut material and normal steels, e.g. stainless steel and titanium alloy.

5 應用於側銑及擺線加工的〈高速高進給〉加工、效率佳,亦適用於精銑加工。

Ideal for high speed & high feed side milling and trochoidal milling. Great efficiency. Also suitable for finishing.

6 〈LEF〉加工應用Vc值可達200m/min。

LEF Vc can reach 200(m/min).

7 經濟型〈LEF〉、幾何圖形設計同UEF。

LEF geometry same as UEF.

LEF

不等分割斷屑立銑刀 End Mills



型號 Type No.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
LEF0605	6	18	60	6
LEF0605M	6	24	65	6
LEF0605L	6	30	75	6
LEF0805	8	24	75	8
LEF0805M	8	32	75	8
LEF0805L	8	40	100	8
LEF1005	10	30	80	10
LEF1005M	10	40	100	10
LEF1005L	10	50	100	10
LEF1205	12	36	100	12
LEF1205M	12	48	100	12
LEF1605	16	50	110	16
LEF1605L	16	70	150	16

附註
Note

LEF的刀具測試報告詳見P.6。
Please see page 6 for detailed LEF service life testing report.



DHF應用中心測試設備條件表 Equipment test condition

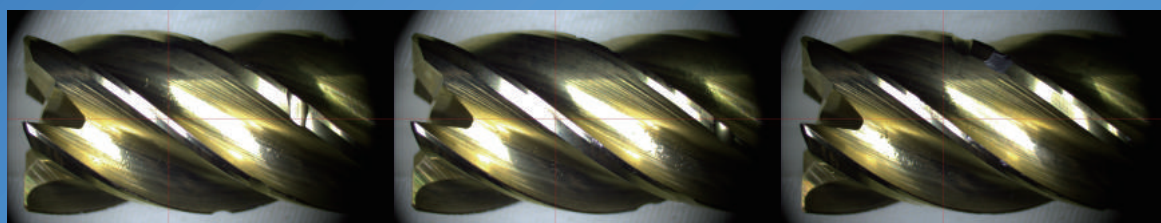
機器 Machine	主軸 驅動功率 Spindle drive power	主軸 最大扭矩 Maximum torque of spindle	主軸 最高轉速 Maximum speed of spindle	控制器 Controller	刀桿型式 Shank type
DMG-635V	35/25KW	130/87Nm	18000min	Heidenhain-TNC530	SK40(=BT40=HSK63A)

型號 Type NO.	被切削材 Work Material	刀具伸長量 Extension Length	切削速度 Cutting Speed (m/min)	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Cut of depth	加工寬度 (Ap) Cut of width	加工方式 Milling Type	鍍層 Coating
UEF1005	SUS304// 1.4301	43mm	190	6000	2000	25	0.8	側銑 Side milling	G11
歐洲他品牌 Competitor's brand	SUS304// 1.4301	43mm	190	6000	2000	25	0.8	側銑 Side milling	X

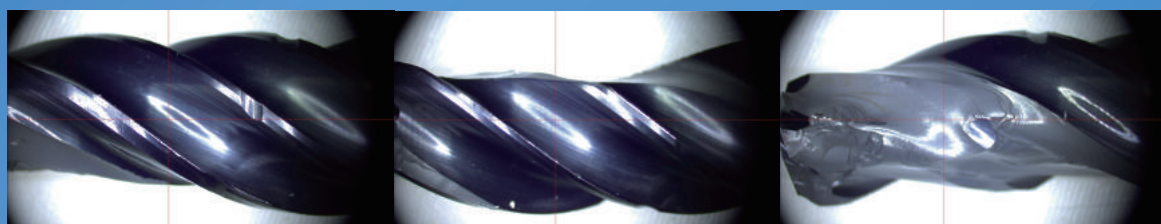
測試結果 Test Results

型號 Type NO.	壽命百分比 Tool life	較佳冷卻方式 The best coolant way	總測試加工時間 Total test time
UEF1005	100%	濕式 Wet	480min
歐洲他品牌 Competitor's brand	70%	濕式 Wet	405min (斷刀 The tool breaks)

刀具磨耗後影像照片 Tool photo after machining



UEF1005



歐洲他品牌
Competitor's brand

被切削材
Work Material沃斯田鐵系不銹鋼
SUS304//1.4301DHF應用中心測試設備條件表
Equipment test condition

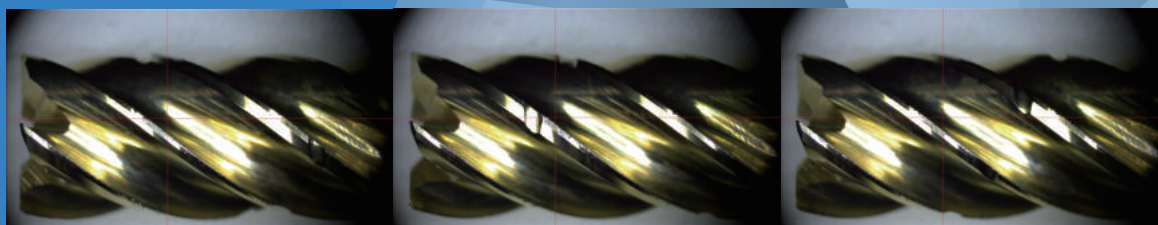
機器 Machine	主軸 驅動功率 Spindle drive power	主軸 最大扭矩 Maximum torque of spindle	主軸 最高轉速 Maximum speed of spindle	控制器 Controller	刀桿型式 Shank type
DMG-635V	35/25KW	130/87Nm	18000min	Heidenhain-TNC530	SK40(=BT40=HSK63A)

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UEF0605	SUS304// 1.4301	30mm	150	8000	1500	18	0.4	側銑 Side milling	G11
LEF0605	SUS304// 1.4301	30mm	150	8000	1500	18	0.4	側銑 Side milling	G10

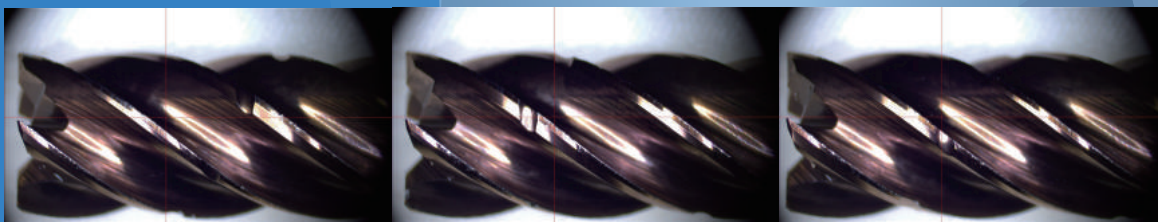
測試結果 Test Results

型號 Type NO.	壽命百分比 Tool life	較佳冷卻方式 The best coolant way	總測試加工時間 Total test time
UEF0605	100%	濕式 Wet	360min
LEF0605	70%	濕式 Wet	360min

刀具磨耗後影像照片 Tool photo after machining



UEF0605



LEF0605