

圖示說明

Guide Lines to Icons

鎢鋼種類 Carbide



超微粒。
Mirco grain.



極超微粒。
Super Mirco grain.

圓隅角 Corner R



圓隅角。
Corner Radius.

顆粒大小 Grain Size



粉末顆粒是0.4μm
Grain size is 0.4μm.



粉末顆粒是0.6μm
Grain size is 0.6μm.

刃數 Flute



齒形 Roughing



中粗齒
Middle Roughing.



細粗齒
Small Roughing.

螺旋角 Helix Angle



螺旋角度25°、30°、35°、45°、50°
Helix Angle is 25°、30°、35°、45°、50°

被切削材硬度 Work Material Hardness



被切削工件硬度可達HRC55、60、65。
Work material hardness is up to HRC55、60、65.

切削性能 Cutting Performance



優
Excellent



良
Good



尚可
Acceptable



禁止
No

鍍層 Coating



適用於難切削材和含碳量高之材料(例:S45C//1.1210)。
油霧、溼式切削。
Good at difficult material and high carbon content
(e.g., S45C//1.1210), for MQL & Wet cutting.




適用於各式切削，使用壽命長。
Genetally used on all kind of machining with
benefit of long tool life















適用於高速加工，乾式切削。
Good at high speed cutting. For Dry cutting.

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BTA^{2T}

超微粒圓頭立銑刀 Ball Nose End Mills

0.6
μmHRC
55

T1

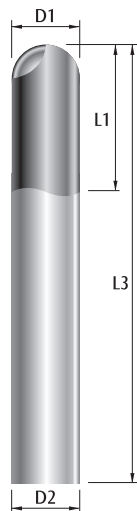


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
BTA0102	R0.5	2	50	4
BTA0152	R0.75	3	50	4
BTA0202	R1	4	50	4
BTA0252	R1.25	5	50	4
BTA0302	R1.5	6	50	4
BTA0402	R2	8	50	4
BTA0502	R2.5	10	50	6
BTA0602	R3	12	50	6
BTA0802	R4	16	60	8
BTA1002	R5	20	75	10
BTA1202	R6	24	75	12
BTA1602	R8	32	100	16
BTA2002	R10	40	100	20

Unit : mm



直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02
R10	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011
Ø20	0 -0.013

Unit : mm

BTA^{4T}

超微粒圓頭立銑刀 Ball Nose End Mills

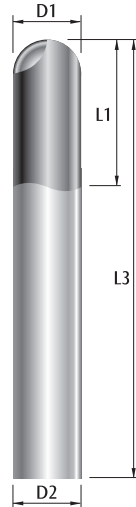


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
BTA0104	R0.5	2	50	4
BTA0154	R0.75	3	50	4
BTA0204	R1	4	50	4
BTA0304	R1.5	6	50	4
BTA0404	R2	8	50	4
BTA0504	R2.5	10	50	6
BTA0604	R3	12	50	6
BTA0804	R4	16	60	8
BTA1004	R5	20	75	10
BTA1204	R6	24	75	12
BTA1604	R8	32	100	16

Unit : mm



直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	⁰ _{-0.008}
Ø6	⁰ _{-0.008}
Ø8	⁰ _{-0.009}
Ø10	⁰ _{-0.009}
Ø12	⁰ _{-0.011}
Ø16	⁰ _{-0.011}

Unit : mm

BTD^{2T}

超微粒圓頭立銑刀 Ball Nose End Mills

0.6
μmHRC
55

G10

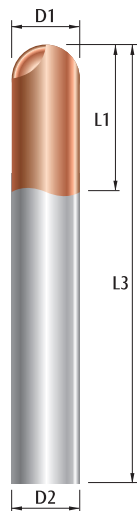


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
BTD0102	R0.5	2	50	4
BTD0152	R0.75	3	50	4
BTD0202	R1	4	50	4
BTD0252	R1.25	5	50	4
BTD0302	R1.5	6	50	4
BTD0402	R2	8	50	4
BTD0502	R2.5	10	57	6
BTD0602	R3	12	57	6
BTD0802	R4	16	63	8
BTD1002	R5	20	72	10
BTD1202	R6	24	83	12
BTD1602	R8	32	100	16
BTD2002	R10	40	100	20

Unit : mm



直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02
R10	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011
Ø20	0 -0.013

Unit : mm

BTD4T

超微粒圓頭立銑刀 Ball Nose End Mills

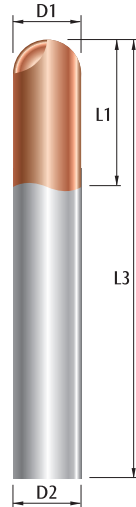


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
BTD0104	R0.5	2	50	4
BTD0154	R0.75	3	50	4
BTD0204	R1	4	50	4
BTD0304	R1.5	6	50	4
BTD0404	R2	8	50	4
BTD0504	R2.5	10	57	6
BTD0604	R3	12	57	6
BTD0804	R4	16	63	8
BTD1004	R5	20	72	10
BTD1204	R6	24	83	12
BTD1604	R8	32	100	16

Unit : mm



直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011

Unit : mm

BTB²T

超微粒圓頭立銑刀 Ball Nose End Mills

0.6
μmHRC
55

T2

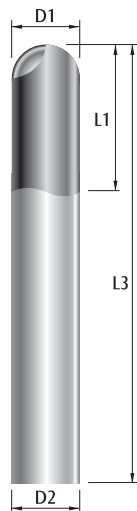


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
BTB0102	R0.5	2	50	6
BTB0152	R0.75	3	50	6
BTB0202	R1	4	50	6
BTB0252	R1.25	5	50	6
BTB0302	R1.5	6	50	6
BTB0402	R2	8	50	6
BTB0502	R2.5	10	50	6
BTB0602	R3	12	50	6
BTB0802	R4	16	60	8
BTB1002	R5	20	75	10
BTB1202	R6	24	75	12
BTB1602	R8	32	100	16
BTB2002	R10	40	100	20

Unit : mm



直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02
R10	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011
Ø20	0 -0.013

Unit : mm

BTB4T

超微粒圓頭立銑刀 Ball Nose End Mills

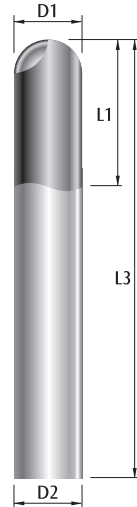


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
BTB0204	R1	4	50	6
BTB0304	R1.5	6	50	6
BTB0404	R2	8	50	6
BTB0504	R2.5	10	50	6
BTB0604	R3	12	50	6
BTB0804	R4	16	60	8
BTB1004	R5	20	75	10
BTB1204	R6	24	75	12
BTB1604	R8	32	100	16

Unit : mm



直徑 D1	球頭公差值 R Tolerance
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	$\begin{matrix} 0 \\ -0.008 \end{matrix}$
Ø8	$\begin{matrix} 0 \\ -0.009 \end{matrix}$
Ø10	$\begin{matrix} 0 \\ -0.009 \end{matrix}$
Ø12	$\begin{matrix} 0 \\ -0.011 \end{matrix}$
Ø16	$\begin{matrix} 0 \\ -0.011 \end{matrix}$

Unit : mm

BTH^{2T}

超微粒圓頭立銑刀 Ball Nose End Mills

0.6
μmHRC
55

G10

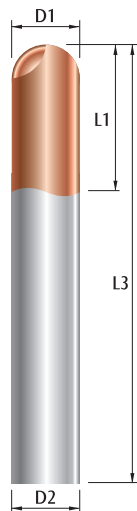


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
BTH0102	R0.5	2	50	6
BTH0152	R0.75	3	50	6
BTH0202	R1	4	50	6
BTH0252	R1.25	5	50	6
BTH0302	R1.5	6	50	6
BTH0402	R2	8	50	6
BTH0502	R2.5	10	50	6
BTH0602	R3	12	50	6
BTH0802	R4	16	60	8
BTH1002	R5	20	75	10
BTH1202	R6	24	75	12
BTH1602	R8	32	100	16
BTH2002	R10	40	100	20

Unit : mm



直徑 D1	球頭公差值 R Tolerance
R0.5	±0.01
R0.75	±0.01
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02
R10	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011
Ø20	0 -0.013

Unit : mm

BTH4T

超微粒圓頭立銑刀 Ball Nose End Mills

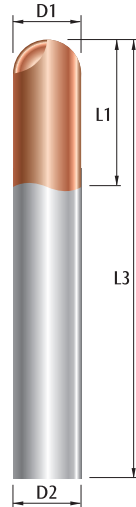


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水性切削劑 Emulsion Machining
	油性切削劑 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
BTH0204	R1	4	50	6
BTH0304	R1.5	6	50	6
BTH0404	R2	8	50	6
BTH0504	R2.5	10	50	6
BTH0604	R3	12	50	6
BTH0804	R4	16	60	8
BTH1004	R5	20	75	10
BTH1204	R6	24	75	12
BTH1604	R8	32	100	16

Unit : mm



直徑 D1	球頭公差值 R Tolerance
R1	±0.01
R1.5	±0.01
R2	±0.01
R2	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	$\begin{matrix} 0 \\ -0.008 \end{matrix}$
Ø8	$\begin{matrix} 0 \\ -0.009 \end{matrix}$
Ø10	$\begin{matrix} 0 \\ -0.009 \end{matrix}$
Ø12	$\begin{matrix} 0 \\ -0.011 \end{matrix}$
Ø16	$\begin{matrix} 0 \\ -0.011 \end{matrix}$

Unit : mm

HBA IBA JBA

超微粒長柄圓頭立銑刀 Ball Nose End Mills

Long Shank

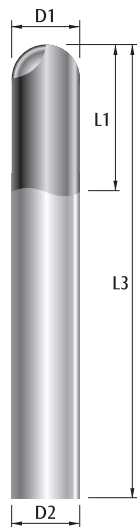
0.6
μmHRC
55

T1

精銑
Finishing中銑
Semi-finishing粗銑
Roughing乾式切削
Dry Machining油霧切削
MQL (Mist)水溶性切削
Emulsion Machining油性切削
Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
HBA0202	R1	4	75	6
HBA0252	R1.25	5	75	6
HBA0302	R1.5	6	75	6
HBA0402	R2	8	75	6
HBA0502	R2.5	10	75	6
HBA0602	R3	12	75	6
HBA0802	R4	16	75	8
IBA0202	R1	4	100	6
IBA0302	R1.5	6	100	6
IBA0402	R2	8	100	6
IBA0602	R3	12	100	6
IBA0802	R4	16	100	8
IBA1002	R5	20	100	10
IBA1202	R6	24	100	12
JBA0602	R3	12	150	6
JBA0802	R4	16	150	8
JBA1002	R5	20	150	10
JBA1202	R6	24	150	12
JBA1602	R8	32	150	16



直徑 D1	球頭公差值 R Tolerance
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011

Unit : mm

Unit : mm

HBH IBH JBH

超微粒長柄圓頭立銑刀 Ball Nose End Mills

Long Shank

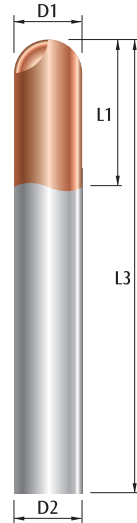


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
HBH0202	R1	4	75	6
HBH0252	R1.25	5	75	6
HBH0302	R1.5	6	75	6
HBH0402	R2	8	75	6
HBH0502	R2.5	10	75	6
HBH0602	R3	12	75	6
HBH0802	R4	16	75	8
IBH0202	R1	4	100	6
IBH0302	R1.5	6	100	6
IBH0402	R2	8	100	6
IBH0602	R3	12	100	6
IBH0802	R4	16	100	8
IBH1002	R5	20	100	10
IBH1202	R6	24	100	12
JBH0602	R3	12	150	6
JBH0802	R4	16	150	8
JBH1002	R5	20	150	10
JBH1202	R6	24	150	12
JBH1602	R8	32	150	16

Unit : mm



直徑 D1	球頭公差值 R Tolerance
R1	±0.01
R1.5	±0.01
R2	±0.01
R2.5	±0.01
R3	±0.01
R4	±0.01
R5	±0.015
R6	±0.015
R8	±0.02

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011

Unit : mm

ETA²T

超微粒立銑刀 End Mills

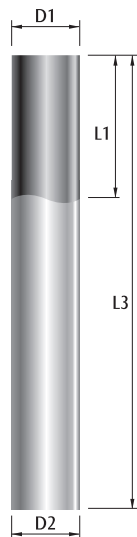
0.6
μmHRC
55

	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETA0102	1.0	3	50	4
ETA0152	1.5	4	50	4
ETA0202	2.0	6	50	4
ETA0252	2.5	8	50	4
ETA0302S	3.0	8	50	3
ETA0302	3.0	8	50	4
ETA0402	4.0	11	50	4
ETA0502S	5.0	13	50	5
ETA0502	5.0	13	50	6
ETA0602	6.0	16	50	6
ETA0802	8.0	20	60	8
ETA1002	10.0	25	75	10
ETA1202	12.0	30	75	12
ETA1602	16.0	40	100	16
ETA2002	20.0	45	100	20

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
1.0	0 -0.02
1.5	0 -0.02
2.0	0 -0.02
2.5	0 -0.02
3.0	0 -0.02
4.0	0 -0.02
5.0	0 -0.02
6.0	0 -0.02
8.0	0 -0.025
10.0	0 -0.03
12.0	0 -0.035
16.0	0 -0.04
20.0	0 -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011
Ø20	0 -0.013

Unit : mm

ETA^{4T}

超微粒立銑刀 End Mills

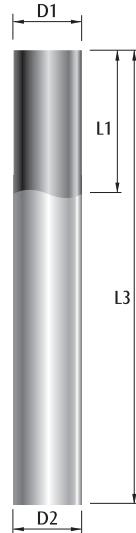


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETA0104	1.0	3	50	4
ETA0154	1.5	4	50	4
ETA0204	2.0	6	50	4
ETA0254	2.5	8	50	4
ETA0304S	3.0	8	50	3
ETA0304	3.0	8	50	4
ETA0404	4.0	11	50	4
ETA0504S	5.0	13	50	5
ETA0504	5.0	13	50	6
ETA0604	6.0	16	50	6
ETA0804	8.0	20	60	8
ETA1004	10.0	25	75	10
ETA1204	12.0	30	75	12
ETA1604	16.0	40	100	16
ETA2004	20.0	45	100	20

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
1.0	$\frac{0}{-0.02}$
1.5	$\frac{0}{-0.02}$
2.0	$\frac{0}{-0.02}$
2.5	$\frac{0}{-0.02}$
3.0	$\frac{0}{-0.02}$
4.0	$\frac{0}{-0.02}$
5.0	$\frac{0}{-0.02}$
6.0	$\frac{0}{-0.02}$
8.0	$\frac{0}{-0.025}$
10.0	$\frac{0}{-0.03}$
12.0	$\frac{0}{-0.035}$
16.0	$\frac{0}{-0.04}$
20.0	$\frac{0}{-0.04}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	$\frac{0}{-0.008}$
Ø6	$\frac{0}{-0.008}$
Ø8	$\frac{0}{-0.009}$
Ø10	$\frac{0}{-0.009}$
Ø12	$\frac{0}{-0.011}$
Ø16	$\frac{0}{-0.011}$
Ø20	$\frac{0}{-0.013}$

Unit : mm

ETD^{2T}

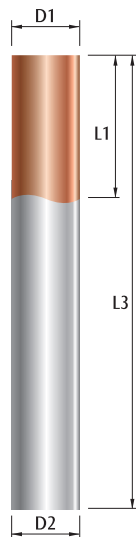
超微粒立銑刀 End Mills

0.6
μmHRC
55精銑
Finishing中銑
Semi-finishing粗銑
Roughing乾式切削
Dry Machining油霧切削
MQL (Mist)水溶性切削
Emulsion Machining油性切削
Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETD0102	1.0	3	50	4
ETD0152	1.5	4	50	4
ETD0202	2.0	6	50	4
ETD0252	2.5	8	50	4
ETD0302S	3.0	8	50	3
ETD0302	3.0	8	50	4
ETD0402	4.0	11	50	4
ETD0502S	5.0	13	50	5
ETD0502	5.0	13	57	6
ETD0602	6.0	16	57	6
ETD0802	8.0	20	63	8
ETD1002	10.0	25	72	10
ETD1202	12.0	30	83	12
ETD1602	16.0	40	100	16
ETD2002	20.0	45	100	20

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
1.0	0 -0.02
1.5	0 -0.02
2.0	0 -0.02
2.5	0 -0.02
3.0	0 -0.02
4.0	0 -0.02
5.0	0 -0.02
6.0	0 -0.02
8.0	0 -0.025
10.0	0 -0.03
12.0	0 -0.035
16.0	0 -0.04
20.0	0 -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011
Ø20	0 -0.013

Unit : mm

ETD4T

超微粒立銑刀 End Mills

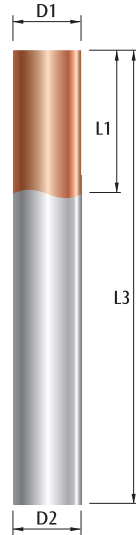


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETD0104	1.0	3	50	4
ETD0154	1.5	4	50	4
ETD0204	2.0	6	50	4
ETD0254	2.5	8	50	4
ETD0304S	3.0	8	50	3
ETD0304	3.0	8	50	4
ETD0404	4.0	11	50	4
ETD0504S	5.0	13	50	5
ETD0504	5.0	13	57	6
ETD0604	6.0	16	57	6
ETD0804	8.0	20	63	8
ETD1004	10.0	25	72	10
ETD1204	12.0	30	83	12
ETD1604	16.0	40	100	16
ETD2004	20.0	45	100	20

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
1.0	$\frac{0}{-0.02}$
1.5	$\frac{0}{-0.02}$
2.0	$\frac{0}{-0.02}$
2.5	$\frac{0}{-0.02}$
3.0	$\frac{0}{-0.02}$
4.0	$\frac{0}{-0.02}$
5.0	$\frac{0}{-0.02}$
6.0	$\frac{0}{-0.02}$
8.0	$\frac{0}{-0.025}$
10.0	$\frac{0}{-0.03}$
12.0	$\frac{0}{-0.035}$
16.0	$\frac{0}{-0.04}$
20.0	$\frac{0}{-0.04}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	$\frac{0}{-0.008}$
Ø6	$\frac{0}{-0.008}$
Ø8	$\frac{0}{-0.009}$
Ø10	$\frac{0}{-0.009}$
Ø12	$\frac{0}{-0.011}$
Ø16	$\frac{0}{-0.011}$
Ø20	$\frac{0}{-0.013}$

Unit : mm

ETB^{2T}

極超微粒立銑刀 End Mills

Super
MG0.4
μm

35°

2 Flutes

HRC
▶60

T2

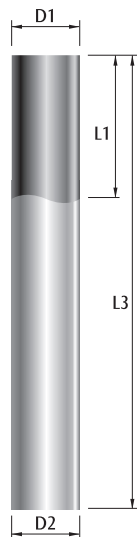


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETB0102	1.0	3	50	6
ETB0152	1.5	4	50	6
ETB0202	2.0	6	50	6
ETB0252	2.5	8	50	6
ETB0302	3.0	8	50	6
ETB0402	4.0	11	50	6
ETB0502	5.0	13	50	6
ETB0602	6.0	16	50	6
ETB0802	8.0	20	60	8
ETB1002	10.0	30	75	10
ETB1202	12.0	30	75	12
ETB1602	16.0	40	100	16
ETB2002	20.0	45	100	20

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
1.0	0 -0.02
1.5	0 -0.02
2.0	0 -0.02
2.5	0 -0.02
3.0	0 -0.02
4.0	0 -0.02
5.0	0 -0.02
6.0	0 -0.02
8.0	0 -0.025
10.0	0 -0.03
12.0	0 -0.035
16.0	0 -0.04
20.0	0 -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011
Ø20	0 -0.013

Unit : mm

ETB4T

極超微粒立銑刀 End Mills

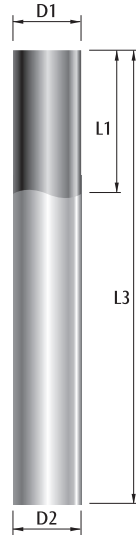


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETB0104	1.0	3	50	4
ETB0154	1.5	4	50	4
ETB0204S	2.0	6	50	4
ETB0204	2.0	6	50	6
ETB0254S	2.5	8	50	4
ETB0254	2.5	8	50	6
ETB0304S	3.0	8	50	4
ETB0304	3.0	8	50	6
ETB0354	3.5	10	50	6
ETB0404S	4.0	11	50	4
ETB0404	4.0	11	50	6
ETB0454	4.5	11	50	6
ETB0504	5.0	13	50	6
ETB0604	6.0	16	50	6
ETB0804	8.0	20	60	8
ETB1004Z	10.0	25	75	10
ETB1004	10.0	30	75	10
ETB1204	12.0	30	75	12
ETB1604	16.0	40	100	16
ETB2004	20.0	45	100	20

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
1.0	$\frac{0}{-0.02}$
1.5	$\frac{0}{-0.02}$
2.0	$\frac{0}{-0.02}$
2.5	$\frac{0}{-0.02}$
3.0	$\frac{0}{-0.02}$
3.5	$\frac{0}{-0.02}$
4.0	$\frac{0}{-0.02}$
4.5	$\frac{0}{-0.02}$
5.0	$\frac{0}{-0.02}$
6.0	$\frac{0}{-0.02}$
8.0	$\frac{0}{-0.025}$
10.0	$\frac{0}{-0.03}$
12.0	$\frac{0}{-0.035}$
16.0	$\frac{0}{-0.04}$
20.0	$\frac{0}{-0.04}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	$\frac{0}{-0.008}$
Ø6	$\frac{0}{-0.008}$
Ø8	$\frac{0}{-0.009}$
Ø10	$\frac{0}{-0.009}$
Ø12	$\frac{0}{-0.011}$
Ø16	$\frac{0}{-0.011}$
Ø20	$\frac{0}{-0.013}$

Unit : mm

ETH²T

極超微粒立銑刀 End Mills

Super
MG0.4
μm

35°

2 Flutes

HRC
▶60

G10

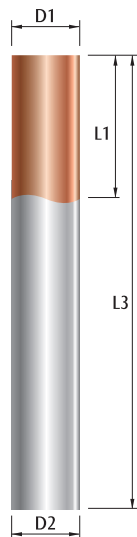


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETH0102	1.0	3	50	6
ETH0152	1.5	4	50	6
ETH0202	2.0	6	50	6
ETH0252	2.5	8	50	6
ETH0302	3.0	8	50	6
ETH0352	3.5	10	50	6
ETH0402	4.0	11	50	6
ETH0452	4.5	13	50	6
ETH0502	5.0	13	50	6
ETH0552	5.5	13	50	6
ETH0602	6.0	16	50	6
ETH0652	6.5	16	60	8
ETH0702	7.0	16	60	8
ETH0752	7.5	19	60	8
ETH0802	8.0	20	60	8
ETH0852	8.5	20	75	10
ETH0902	9.0	22	75	10
ETH0952	9.5	25	75	10
ETH1002	10.0	30	75	10
ETH1052	10.5	25	75	12

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
1.0	0 -0.02
1.5	0 -0.02
2.0	0 -0.02
2.5	0 -0.02
3.0	0 -0.02
4.0	0 -0.02
5.0	0 -0.02
6.0	0 -0.02
8.0	0 -0.025
10.0	0 -0.03
12.0	0 -0.035
16.0	0 -0.04
20.0	0 -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011
Ø20	0 -0.013

Unit : mm

ETH2T

極超微粒立銑刀 End Mills

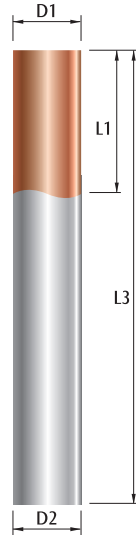


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETH1102	11.0	28	75	12
ETH1152	11.5	30	75	12
ETH1202	12.0	30	75	12
ETH1252	12.5	30	80	14
ETH1302	13.0	35	80	14
ETH1352	13.5	35	80	14
ETH1402	14.0	40	80	14
ETH1502	15.0	40	100	16
ETH1602	16.0	40	100	16
ETH1702	17.0	45	100	18
ETH1802	18.0 </td <td>45</td> <td>100</td> <td>18</td>	45	100	18
ETH2002	20.0	45	100	20

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
1.0	$\frac{0}{-0.02}$
1.5	$\frac{0}{-0.02}$
2.0	$\frac{0}{-0.02}$
2.5	$\frac{0}{-0.02}$
3.0	$\frac{0}{-0.02}$
4.0	$\frac{0}{-0.02}$
5.0	$\frac{0}{-0.02}$
6.0	$\frac{0}{-0.02}$
8.0	$\frac{0}{-0.025}$
10.0	$\frac{0}{-0.03}$
12.0	$\frac{0}{-0.035}$
16.0	$\frac{0}{-0.04}$
20.0	$\frac{0}{-0.04}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	$\frac{0}{-0.008}$
Ø8	$\frac{0}{-0.009}$
Ø10	$\frac{0}{-0.009}$
Ø12	$\frac{0}{-0.011}$
Ø16	$\frac{0}{-0.011}$
Ø20	$\frac{0}{-0.013}$

Unit : mm

ETH^{4T}

極超微粒立銑刀 End Mills

Super
MG0.4
μm

45°

4 Flutes

HRC
▶60

G10

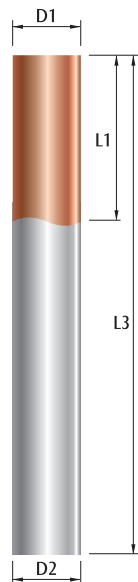


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETH0104	1.0	3	50	4
ETH0154	1.5	4	50	4
ETH0204	2.0	6	50	4
ETH0254	2.5	8	50	4
ETH0304S	3.0	8	50	3
ETH0304	3.0	8	50	4
ETH0354	3.5	10	50	4
ETH0404	4.0	11	50	4
ETH0454	4.5	13	50	6
ETH0504S	5.0	13	50	5
ETH0504	5.0	13	50	6
ETH0554	5.5	13	50	6
ETH0604	6.0	16	50	6
ETH0654	6.5	16	60	8
ETH0704	7.0	16	60	8
ETH0754	7.5	19	60	8
ETH0804	8.0	20	60	8
ETH0854	8.5	20	75	10
ETH0904	9.0	22	75	10
ETH0954	9.5	25	75	10

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
1.0	0 -0.02
1.5	0 -0.02
2.0	0 -0.02
2.5	0 0.02
3.0	0 -0.02
3.5	0 -0.02
4.0	0 -0.02
4.5	0 -0.02
5.0	0 -0.02
6.0	0 -0.02
8.0	0 -0.025
10.0	0 -0.03
12.0	0 -0.035
16.0	0 -0.04
20.0	0 -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011
Ø20	0 -0.013

Unit : mm

ETH4T

極超微粒立銑刀 End Mills

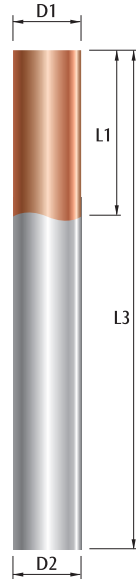


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETH1004	10.0	30	75	10
ETH1054	10.5	25	75	12
ETH1104	11.0	28	75	12
ETH1154	11.5	30	75	12
ETH1204	12.0	30	75	12
ETH1254	12.5	30	80	14
ETH1304	13.0	35	80	14
ETH1354	13.5	35	80	14
ETH1404	14.0	40	80	14
ETH1504	15.0	40	100	16
ETH1604	16.0	40	100	16
ETH1704	17.0	45	100	18
ETH1804	18.0	45	100	18
ETH2004	20.0	45	100	20

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
1.0	$\frac{0}{-0.02}$
1.5	$\frac{0}{-0.02}$
2.0	$\frac{0}{-0.02}$
2.5	$\frac{0}{-0.02}$
3.0	$\frac{0}{-0.02}$
3.5	$\frac{0}{-0.02}$
4.0	$\frac{0}{-0.02}$
4.5	$\frac{0}{-0.02}$
5.0	$\frac{0}{-0.02}$
6.0	$\frac{0}{-0.02}$
8.0	$\frac{0}{-0.025}$
10.0	$\frac{0}{-0.03}$
12.0	$\frac{0}{-0.035}$
16.0	$\frac{0}{-0.04}$
20.0	$\frac{0}{-0.04}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	$\frac{0}{-0.008}$
Ø6	$\frac{0}{-0.008}$
Ø8	$\frac{0}{-0.009}$
Ø10	$\frac{0}{-0.009}$
Ø12	$\frac{0}{-0.011}$
Ø16	$\frac{0}{-0.011}$
Ø20	$\frac{0}{-0.013}$

Unit : mm

ETG^{2T}

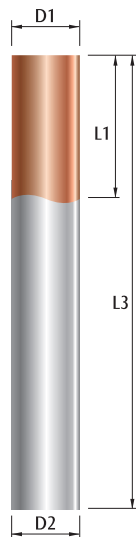
超微粒立銑刀 End Mills

▲ 塗層升級
Coating Upgraded0.6
μmHRC
▶55精銑
Finishing中銑
Semi-finishing粗銑
Roughing乾式切削
Dry Machining油霧切削
MQL (Mist)水溶性切削
Emulsion Machining油性切削
Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETG0102	1.0	3	50	4
ETG0152	1.5	4	50	4
ETG0202	2.0	6	50	4
ETG0252	2.5	8	50	4
ETG0302	3.0	8	50	4
ETG0402	4.0	11	50	4
ETG0502	5.0	13	50	6
ETG0602	6.0	16	50	6
ETG0802	8.0	20	60	8
ETG1002	10.0	25	75	10
ETG1202	12.0	30	75	12

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
1.0	0 -0.02
1.5	0 -0.02
2.0	0 -0.02
2.5	0 0.02
3.0	0 -0.02
4.0	0 -0.02
5.0	0 -0.02
6.0	0 -0.02
8.0	0 -0.025
10.0	0 -0.03
12.0	0 -0.035

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011

Unit : mm

ETG4T

超微粒立銑刀 End Mills

▲ 塗層升級
Coating Upgraded

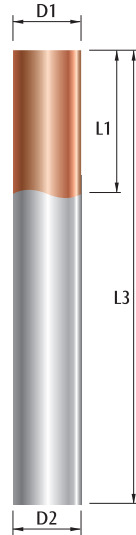


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ETG0104	1.0	3	50	4
ETG0154	1.5	4	50	4
ETG0204	2.0	6	50	4
ETG0254	2.5	8	50	4
ETG0304	3.0	8	50	4
ETG0404	4.0	11	50	4
ETG0504	5.0	13	50	6
ETG0604	6.0	16	50	6
ETG0804	8.0	20	60	8
ETG1004	10.0	25	75	10
ETG1204	12.0	30	75	12
ETG1604	16.0	40	100	16

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
1.0	$\begin{matrix} 0 \\ -0.02 \end{matrix}$
1.5	$\begin{matrix} 0 \\ -0.02 \end{matrix}$
2.0	$\begin{matrix} 0 \\ -0.02 \end{matrix}$
2.5	$\begin{matrix} 0 \\ -0.02 \end{matrix}$
3.0	$\begin{matrix} 0 \\ -0.02 \end{matrix}$
4.0	$\begin{matrix} 0 \\ -0.02 \end{matrix}$
5.0	$\begin{matrix} 0 \\ -0.02 \end{matrix}$
6.0	$\begin{matrix} 0 \\ -0.02 \end{matrix}$
8.0	$\begin{matrix} 0 \\ -0.025 \end{matrix}$
10.0	$\begin{matrix} 0 \\ -0.03 \end{matrix}$
12.0	$\begin{matrix} 0 \\ -0.035 \end{matrix}$
16.0	$\begin{matrix} 0 \\ -0.04 \end{matrix}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	$\begin{matrix} 0 \\ -0.008 \end{matrix}$
Ø6	$\begin{matrix} 0 \\ -0.008 \end{matrix}$
Ø8	$\begin{matrix} 0 \\ -0.009 \end{matrix}$
Ø10	$\begin{matrix} 0 \\ -0.009 \end{matrix}$
Ø12	$\begin{matrix} 0 \\ -0.011 \end{matrix}$
Ø16	$\begin{matrix} 0 \\ -0.011 \end{matrix}$

Unit : mm

HEA IEA JEA^{2T}

超微粒長柄立銑刀 End Mills

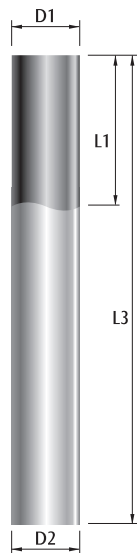
Long Shank

0.6
μmHRC
55○ 精銑
Finishing○ 中銑
Semi-finishing- - - 粗銑
Roughing 乾式切削
Dry Machining 油霧切削
MQL (Mist) 水溶性切削
Emulsion Machining 油性切削
Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
HEA0302	3.0	8	75	3
HEA0402	4.0	11	75	4
HEA0502	5.0	13	75	6
HEA0602	6.0	16	75	6
HEA0802	8.0	20	75	8
IEA0302	3.0	8	100	3
IEA0402	4.0	11	100	4
IEA0502	5.0	13	100	6
IEA0602	6.0	16	100	6
IEA0802	8.0	20	100	8
IEA1002	10.0	25	100	10
IEA1202	12.0	30	100	12
JEA0602	6.0	16	150	6
JEA0802	8.0	20	150	8
JEA1002	10.0	25	150	10
JEA1202	12.0	30	150	12

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
3.0	0 -0.02
4.0	0 -0.02
5.0	0 -0.02
6.0	0 -0.02
8.0	0 -0.025
10.0	0 -0.03
12.0	0 -0.035

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 -0.006
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011

Unit : mm

HEA IEA JEA^{4T}

超微粒長柄立銑刀 End Mills

Long Shank

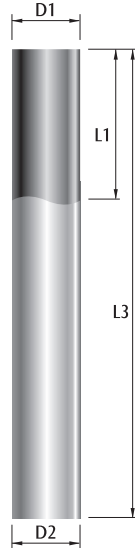


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
HEA0304	3.0	8	75	3
HEA0404	4.0	11	75	4
HEA0504	5.0	13	75	6
HEA0604	6.0	16	75	6
HEA0804	8.0	20	75	8
IEA0404	4.0	11	100	4
IEA0604	6.0	16	100	6
IEA0804	8.0	20	100	8
IEA1004	10.0	25	100	10
IEA1204	12.0	30	100	12
JEA0604	6.0	16	150	6
JEA0804	8.0	20	150	8
JEA1004	10.0	25	150	10
JEA1204	12.0	30	150	12
JEA1604	16.0	45	150	16
JEA2004	20.0	50	150	20

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
3.0	0 -0.02
4.0	0 -0.02
5.0	0 -0.02
6.0	0 -0.02
8.0	0 -0.025
10.0	0 -0.03
12.0	0 -0.035
16.0	0 -0.04
20.0	0 -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 -0.006
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011
Ø20	0 -0.011

Unit : mm

HEH IEH JEH^{2T}

超微粒長柄立銑刀 End Mills

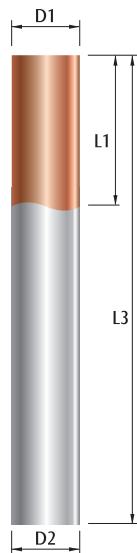
Long Shank

0.6
μmHRC
55○ 精銑
Finishing○ 中銑
Semi-finishing- - - 粗銑
Roughing○ 乾式切削
Dry Machining○ 油霧切削
MQL (Mist)○ 水溶性切削
Emulsion Machining○ 油性切削
Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
HEH0302	3.0	8	75	3
HEH0402	4.0	11	75	4
HEH0502	5.0	13	75	6
HEH0602	6.0	16	75	6
HEH0802	8.0	20	75	8
IEH0302	3.0	8	100	3
IEH0402	4.0	11	100	4
IEH0502	5.0	13	100	6
IEH0602	6.0	16	100	6
IEH0802	8.0	20	100	8
IEH1002	10.0	25	100	10
IEH1202	12.0	30	100	12
JEH0602	6.0	16	150	6
JEH0802	8.0	20	150	8
JEH1002	10.0	25	150	10
JEH1202	12.0	30	150	12

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
3.0	0 -0.02
4.0	0 -0.02
5.0	0 -0.02
6.0	0 -0.02
8.0	0 -0.025
10.0	0 -0.03
12.0	0 -0.035

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 -0.006
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011

Unit : mm

HEH IEH JEH4T

超微粒長柄立銑刀 End Mills

Long Shank

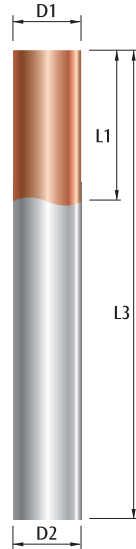


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
HEH0304	3.0	8	75	3
HEH0404	4.0	11	75	4
HEH0504	5.0	13	75	6
HEH0604	6.0	16	75	6
HEH0804	8.0	20	75	8
IEH0404	4.0	11	100	4
IEH0604	6.0	16	100	6
IEH0804	8.0	20	100	8
IEH1004	10.0	25	100	10
IEH1204	12.0	30	100	12
JEH0604	6.0	16	150	6
JEH0804	8.0	20	150	8
JEH1004	10.0	25	150	10
JEH1204	12.0	30	150	12
JEH1604	16.0	45	150	16
JEH2004	20.0	50	150	20

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
3.0	$\frac{0}{-0.02}$
4.0	$\frac{0}{-0.02}$
5.0	$\frac{0}{-0.02}$
6.0	$\frac{0}{-0.02}$
8.0	$\frac{0}{-0.025}$
10.0	$\frac{0}{-0.03}$
12.0	$\frac{0}{-0.035}$
16.0	$\frac{0}{-0.04}$
20.0	$\frac{0}{-0.04}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	$\frac{0}{-0.006}$
Ø4	$\frac{0}{-0.008}$
Ø6	$\frac{0}{-0.008}$
Ø8	$\frac{0}{-0.009}$
Ø10	$\frac{0}{-0.009}$
Ø12	$\frac{0}{-0.011}$
Ø16	$\frac{0}{-0.011}$
Ø20	$\frac{0}{-0.013}$

Unit : mm

LFTA^{2T}

超微粒長刃立銑刀 End Mills

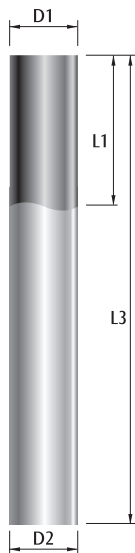
Long Flute

0.6
μmHRC
55○ 精銑
Finishing○ 中銑
Semi-finishing- - - 粗銑
Roughing 乾式切削
Dry Machining 油霧切削
MQL (Mist) 水溶性切削
Emulsion Machining 油性切削
Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
LFTA0202	2.0	12	50	4
LFTA0302	3.0	20	50	4
LFTA0302B	3.0	15	50	6
LFTA0402	4.0	25	75	4
LFTA0402B	4.0	20	75	6
LFTA0502	5.0	30	75	6
LFTA0602	6.0	30	75	6
LFTA0802	8.0	40	100	8
LFTA1002	10.0	40	100	10
LFTA1202	12.0	45	100	12

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
2.0	0 -0.02
3.0	0 -0.02
4.0	0 -0.02
5.0	0 -0.02
6.0	0 -0.02
8.0	0 -0.025
10.0	0 -0.03
12.0	0 -0.35

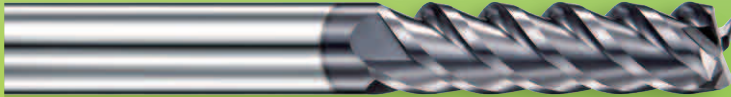
柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011

Unit : mm

LFTA4T

超微粒長刃立銑刀 End Mills

Long Flute

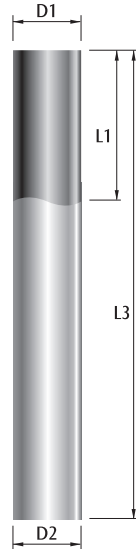


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
LFTA0204	2.0	15	50	4
LFTA0304	3.0	20	50	4
LFTA0304B	3.0	15	50	6
LFTA0404	4.0	25	75	4
LFTA0404B	4.0	20	75	6
LFTA0504	5.0	30	75	6
LFTA0604	6.0	30	75	6
LFTA0804	8.0	40	100	8
LFTA1004	10.0	40	100	10
LFTA1004L	10.0	50	100	10
LFTA1204	12.0	45	100	12
LFTA1204L	12.0	50	100	12
LFTA1604	16.0	60	150	16
LFTA1604L	16.0	70	150	16
LFTA2004	20.0	60	150	20
LFTA2004L	20.0	75	150	20

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
2.0	$\frac{0}{-0.02}$
3.0	$\frac{0}{-0.02}$
4.0	$\frac{0}{-0.02}$
5.0	$\frac{0}{-0.02}$
6.0	$\frac{0}{-0.02}$
8.0	$\frac{0}{-0.025}$
10.0	$\frac{0}{-0.03}$
12.0	$\frac{0}{-0.035}$
16.0	$\frac{0}{-0.04}$
20.0	$\frac{0}{-0.04}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	$\frac{0}{-0.008}$
Ø6	$\frac{0}{-0.008}$
Ø8	$\frac{0}{-0.009}$
Ø10	$\frac{0}{-0.009}$
Ø12	$\frac{0}{-0.011}$
Ø16	$\frac{0}{-0.011}$
Ø20	$\frac{0}{-0.013}$

Unit : mm

LFTH2T

超微粒長刃立銑刀 End Mills

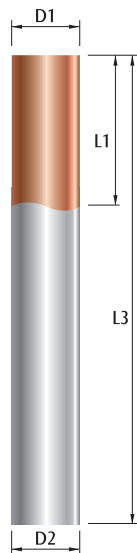
Long Flute

精銑
Finishing中銑
Semi-finishing粗銑
Roughing乾式切削
Dry Machining油霧切削
MQL (Mist)水溶性切削
Emulsion Machining油性切削
Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
LFTH0202	2.0	12	50	4
LFTH0302	3.0	20	50	4
LFTH0402	4.0	25	75	4
LFTH0502	5.0	30	75	6
LFTH0602	6.0	30	75	6
LFTH0802	8.0	40	100	8
LFTH1002	10.0	40	100	10
LFTH1202	12.0	45	100	12

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
----------	-----------------------

2.0	0 -0.02
3.0	0 -0.02
4.0	0 -0.02
5.0	0 -0.02
6.0	0 -0.02
8.0	0 -0.025
10.0	0 -0.03
12.0	0 -0.035

柄徑 D2	柄徑公差值 D2 Tolerance
----------	-----------------------

Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011

Unit : mm

LFTH4T

超微粒長刃立銑刀 End Mills

Long Flute

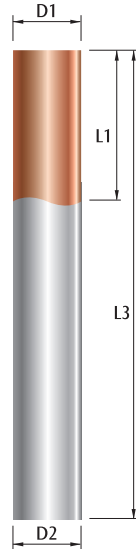


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
LFTH0204	2.0	15	50	4
LFTH0304	3.0	20	50	4
LFTH0404	4.0	25	75	4
LFTH0504	5.0	30	75	6
LFTH0604	6.0	30	75	6
LFTH0804	8.0	40	100	8
LFTH1004	10.0	40	100	10
LFTH1204	12.0	45	100	12
LFTH1604	16.0	60	150	16
LFTH2004	20.0	60	150	20

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
2.0	$\begin{matrix} 0 \\ -0.02 \end{matrix}$
3.0	$\begin{matrix} 0 \\ -0.02 \end{matrix}$
4.0	$\begin{matrix} 0 \\ -0.02 \end{matrix}$
5.0	$\begin{matrix} 0 \\ -0.02 \end{matrix}$
6.0	$\begin{matrix} 0 \\ -0.02 \end{matrix}$
8.0	$\begin{matrix} 0 \\ -0.025 \end{matrix}$
10.0	$\begin{matrix} 0 \\ -0.03 \end{matrix}$
12.0	$\begin{matrix} 0 \\ -0.035 \end{matrix}$
16.0	$\begin{matrix} 0 \\ -0.04 \end{matrix}$
20.0	$\begin{matrix} 0 \\ -0.04 \end{matrix}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	$\begin{matrix} 0 \\ -0.008 \end{matrix}$
Ø6	$\begin{matrix} 0 \\ -0.008 \end{matrix}$
Ø8	$\begin{matrix} 0 \\ -0.009 \end{matrix}$
Ø10	$\begin{matrix} 0 \\ -0.009 \end{matrix}$
Ø12	$\begin{matrix} 0 \\ -0.011 \end{matrix}$
Ø16	$\begin{matrix} 0 \\ -0.011 \end{matrix}$
Ø20	$\begin{matrix} 0 \\ -0.013 \end{matrix}$

Unit : mm

RTG

極超微粒圓鼻角立銑刀 End Mills

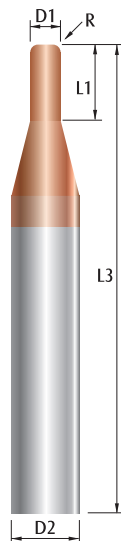
Corner Radius



產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
RTG0102	1.0	0.2	3	50	4
RTG0152	1.5	0.2	4	50	4
RTG0202	2.0	0.2	6	50	4
RTG0205	2.0	0.5	6	50	4
RTG0252	2.5	0.2	8	50	4
RTG0255	2.5	0.5	8	50	4
RTG0302	3.0	0.2	8	50	4
RTG0303	3.0	0.3	8	50	4
RTG0305	3.0	0.5	8	50	4
RTG0402	4.0	0.2	11	50	4
RTG0403	4.0	0.3	11	50	4
RTG0405	4.0	0.5	11	50	4
RTG0503	5.0	0.3	13	50	6
RTG0505	5.0	0.5	13	50	6
RTG0602	6.0	0.2	16	50	6
RTG0603	6.0	0.3	16	50	6
RTG0605	6.0	0.5	16	50	6
RTG0610	6.0	1.0	16	50	6

Unit : mm



直徑 D1	R 公差值 R Tolerance	直徑公差值 D1 Tolerance
1.0	+0.02 0	0 -0.02
1.5	+0.02 0	0 -0.02
2.0	+0.02 0	0 -0.02
2.5	+0.02 0	0 -0.02
3.0	+0.02 0	0 -0.02
4.0	+0.02 0	0 -0.02
5.0	+0.02 0	0 -0.02
6.0	+0.02 0	0 -0.02
8.0	+0.02 0	0 -0.025
10.0	+0.02 0	0 -0.03
12.0	+0.02 0	0 -0.035

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011

Unit : mm

RTG

極超微粒圓鼻角立銑刀 End Mills

Corner Radius

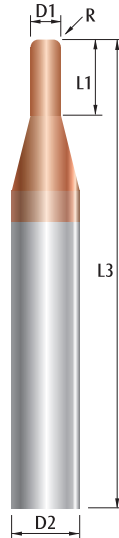


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
RTG0803	8.0	0.3	20	60	8
RTG0805	8.0	0.5	20	60	8
RTG1002	10.0	0.2	25	75	10
RTG1003	10.0	0.3	25	75	10
RTG1005	10.0	0.5	25	75	10
RTG1010	10.0	1.0	25	75	10
RTG1203	12.0	0.3	30	75	12
RTG1205	12.0	0.5	30	75	12
RTG1210	12.0	1.0	30	75	12
RTG1215	12.0	1.5	30	75	12
RTG1220	12.0	2.0	30	75	12

Unit : mm



直徑 D1	R 徑公差值 R Tolerance	直徑公差值 D1 Tolerance
1.0	+0.02 0	0 -0.02
1.5	+0.02 0	0 -0.02
2.0	+0.02 0	0 -0.02
2.5	+0.02 0	0 -0.02
3.0	+0.02 0	0 -0.02
4.0	+0.02 0	0 -0.02
5.0	+0.02 0	0 -0.02
6.0	+0.02 0	0 -0.02
8.0	+0.02 0	0 -0.025
10.0	+0.02 0	0 -0.03
12.0	+0.02 0	0 -0.035

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011

Unit : mm

RTA

超微粒圓鼻角立銑刀 End Mills

▲塗層升級
Coating Upgraded

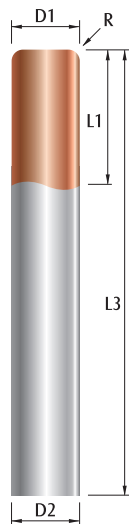
Corner Radius

0.6
μmHRC
>55精銑
Finishing中銑
Semi-finishing粗銑
Roughing乾式切削
Dry Machining油霧切削
MQL (Mist)水溶性切削
Emulsion Machining油性切削
Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
RTA0205	2.0	0.5	6	50	4
RTA0305	3.0	0.5	8	50	3
RTA0405	4.0	0.5	10	50	4
RTA0410	4.0	1.0	10	50	4
RTA0505	5.0	0.5	13	50	6
RTA0510	5.0	1.0	13	50	6
RTA0605	6.0	0.5	16	50	6
RTA0610	6.0	1.0	16	50	6
RTA0805	8.0	0.5	19	60	8
RTA0810	8.0	1.0	19	60	8
RTA1005	10.0	0.5	25	75	10
RTA1010	10.0	1.0	25	75	10
RTA1015	10.0	1.5	25	75	10
RTA1020	10.0	2.0	25	75	10
RTA1210	12.0	1.0	30	75	12
RTA1220	12.0	2.0	30	75	12

Unit : mm



直徑 D1	R 公差值 R Tolerance	直徑公差值 D1 Tolerance
2.0	+0.02 0	0 -0.02
3.0	+0.02 0	0 -0.02
4.0	+0.02 0	0 -0.02
5.0	+0.02 0	0 -0.02
6.0	+0.02 0	0 -0.02
8.0	+0.02 0	0 -0.025
10.0	+0.02 0	0 -0.03
12.0	+0.02 0	0 -0.035

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 -0.008
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011

Unit : mm

RTD

超微粒圓鼻角立銑刀 End Mills

▲ 塗層升級
Coating Upgraded

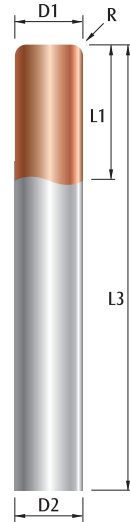
Corner Radius



	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水性切削劑 Emulsion Machining
	油性切削劑 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
RTD0202	2.0	0.2	6	50	4
RTD0205	2.0	0.5	6	50	4
RTD0305	3.0	0.5	8	50	3
RTD0405	4.0	0.5	10	50	4
RTD0505	5.0	0.5	13	50	6
RTD0510	5.0	1.0	13	50	6
RTD0605	6.0	0.5	16	50	6
RTD0610	6.0	1.0	16	50	6
RTD0805	8.0	0.5	20	60	8
RTD0810	8.0	1.0	20	60	8
RTD1005Z	10.0	0.5	25	75	10
RTD1005	10.0	0.5	30	75	10
RTD1010Z	10.0	1.0	25	75	10
RTD1010	10.0	1.0	30	75	10
RTD1020Z	10.0	2.0	25	75	10
RTD1020	10.0	2.0	30	75	10
RTD1030Z	10.0	3.0	25	75	10
RTD1030	10.0	3.0	30	75	10
RTD1210	12.0	1.0	30	75	12
RTD1220	12.0	2.0	30	75	12
RTD1230	12.0	3.0	30	75	12



直徑 D1	R 徑公差值 R Tolerance	直徑公差值 D1 Tolerance
2.0	+0.02 0	0 -0.02
3.0	+0.02 0	0 -0.02
4.0	+0.02 0	0 -0.02
5.0	+0.02 0	0 -0.02
6.0	+0.02 0	0 -0.02
8.0	+0.02 0	0 -0.025
10.0	+0.02 0	0 -0.03
12.0	+0.02 0	0 -0.035

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 -0.006
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011

Unit : mm

Unit : mm

LRTA

超微粒長柄圓鼻角立銑刀 End Mills

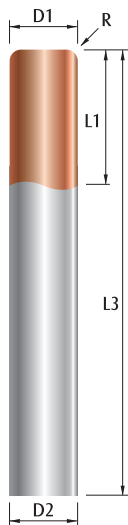
▲ 塗層升級
Coating UpgradedLong Shank
Corner Radius

	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
LRTA0405	4.0	0.5	11	75	4
LRTA0410	4.0	1.0	11	75	4
LRTA0602	6.0	0.2	16	75	6
LRTA0603	6.0	0.3	16	75	6
LRTA0605	6.0	0.5	16	75	6
LRTA0610	6.0	1.0	16	75	6
LRTA0803	8.0	0.3	19	100	8
LRTA0805	8.0	0.5	19	100	8
LRTA0810	8.0	1.0	19	100	8
LRTA1002	10.0	0.2	25	100	10
LRTA1003	10.0	0.3	25	100	10
LRTA1005	10.0	0.5	25	100	10
LRTA1010	10.0	1.0	25	100	10
LRTA1020	10.0	2.0	25	100	10
LRTA1205	12.0	0.5	30	100	12
LRTA1210	12.0	1.0	30	100	12
LRTA1220	12.0	2.0	30	100	12

Unit : mm



直徑 D1	R 徑公差值 R Tolerance	直徑公差值 D1 Tolerance
4.0	+0.02 0	0 -0.02
6.0	+0.02 0	0 -0.02
8.0	+0.02 0	0 -0.025
10.0	+0.02 0	0 -0.03
12.0	+0.02 0	0 -0.035

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011

Unit : mm

LRTD

超微粒長柄圓鼻角立銑刀 End Mills

 ▲ 塗層升級
Coating Upgraded

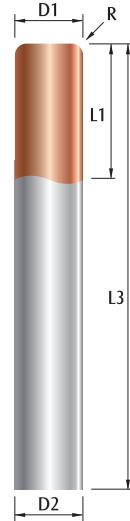
 Long Shank
Corner Radius


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining



產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
LRTD0405	4.0	0.5	11	75	4
LRTD0410	4.0	1.0	11	75	4
LRTD0602	6.0	0.2	16	75	6
LRTD0603	6.0	0.3	16	75	6
LRTD0605	6.0	0.5	16	75	6
LRTD0610	6.0	1.0	16	75	6
LRTD0803	8.0	0.3	19	100	8
LRTD0805	8.0	0.5	19	100	8
LRTD0810	8.0	1.0	19	100	8
LRTD1002	10.0	0.2	25	100	10
LRTD1003	10.0	0.3	25	100	10
LRTD1005	10.0	0.5	25	100	10
LRTD1010	10.0	1.0	25	100	10
LRTD1020	10.0	2.0	25	100	10
LRTD1205	12.0	0.5	30	100	12
LRTD1210	12.0	1.0	30	100	12
LRTD1220	12.0	2.0	30	100	12
LRTD1610	16.0	1.0	45	150	16
LRTD1620	16.0	2.0	45	150	16



直徑 D1	R 徑公差值 R Tolerance	直徑公差值 D1 Tolerance
4.0	+0.02 0	0 -0.02
6.0	+0.02 0	0 -0.02
8.0	+0.02 0	0 -0.025
10.0	+0.02 0	0 -0.03
12.0	+0.02 0	0 -0.035
16.0	+0.02 0	0 -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011

Unit : mm

Unit : mm

RTB

極超微粒圓鼻角立銑刀 End Mills

▲ 塗層升級
Coating Upgraded

Corner Radius

Super
MG0.4
μm

45°

R

4 Flutes

HRC
>60

G10

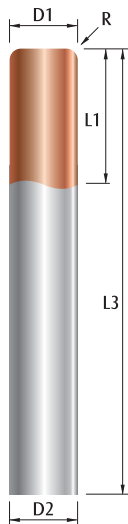


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	R R角 Corner R	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
RTB0305	3.0	0.5	8	50	3
RTB0405	4.0	0.5	10	50	4
RTB0505	5.0	0.5	13	50	6
RTB0510	5.0	1.0	13	50	6
RTB0605	6.0	0.5	16	50	6
RTB0610	6.0	1.0	16	50	6
RTB0805	8.0	0.5	20	60	8
RTB0810	8.0	1.0	20	60	8
RTB1005Z	10.0	0.5	25	75	10
RTB1005	10.0	0.5	30	75	10
RTB1010Z	10.0	1.0	25	75	10
RTB1010	10.0	1.0	30	75	10
RTB1020Z	10.0	2.0	25	75	10
RTB1020	10.0	2.0	30	75	10
RTB1030Z	10.0	3.0	25	75	10
RTB1030	10.0	3.0	30	75	10
RTB1210	12.0	1.0	30	75	12
RTB1220	12.0	2.0	30	75	12
RTB1230	12.0	3.0	30	75	12

Unit : mm



直徑 D1	R 公差值 R Tolerance	直徑公差值 D1 Tolerance
3.0	+0.02 0	0 -0.02
4.0	+0.02 0	0 -0.02
5.0	+0.02 0	0 -0.02
6.0	+0.02 0	0 -0.02
8.0	+0.02 0	0 -0.025
10.0	+0.02 0	0 -0.03
12.0	+0.02 0	0 -0.035

柄徑 D2	柄徑公差值 D2 Tolerance
Ø3	0 -0.006
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011

Unit : mm

PET

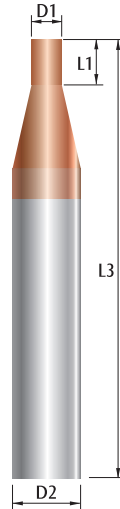
超微粒強力型立銑刀 End Mills
Short Flute


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
PET0303	3.0	3	50	6
PET0403	4.0	4	50	6
PET0503	5.0	5	50	6
PET0603	6.0	6	50	8
PET0803	8.0	8	60	10
PET1003	10.0	10	60	12

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
3.0	$\frac{0}{-0.02}$
4.0	$\frac{0}{-0.02}$
5.0	$\frac{0}{-0.02}$
6.0	$\frac{0}{-0.02}$
8.0	$\frac{0}{-0.025}$
10.0	$\frac{0}{-0.03}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	$\frac{0}{-0.008}$
Ø8	$\frac{0}{-0.009}$
Ø10	$\frac{0}{-0.009}$
Ø12	$\frac{0}{-0.011}$

Unit : mm

HTA

超微粒高螺旋立銑刀 End Mills

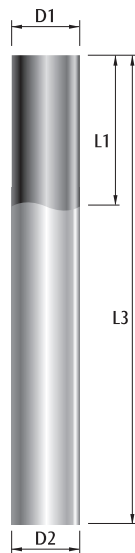
High Helix

0.6
μmHRC
▶60精銑
Finishing中銑
Semi-finishing粗銑
Roughing乾式切削
Dry Machining油霧切削
MQL (Mist)水溶性切削
Emulsion Machining油性切削
Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
HTA0203	2.0	6	50	4
HTA0303	3.0	8	50	4
HTA0403	4.0	11	50	4
HTA0503	5.0	13	50	6
HTA0603	6.0	16	50	6
HTA0803	8.0	20	50	8
HTA1003	10.0	25	75	10
HTA1203	12.0	30	75	12
HTA1603	16.0	40	100	16
HTA2003	20.0	45	100	20

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
2.0	0 -0.02
3.0	0 -0.02
4.0	0 -0.02
5.0	0 -0.02
6.0	0 -0.02
8.0	0 -0.025
10.0	0 -0.03
12.0	0 -0.035
16.0	0 -0.04
20.0	0 -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011
Ø20	0 -0.013

Unit : mm

HTD

超微粒高螺旋立銑刀 End Mills

High Helix

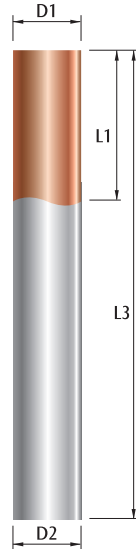


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
HTD0203	2.0	6	50	4
HTD0303	3.0	8	50	4
HTD0403	4.0	11	50	4
HTD0503	5.0	13	50	6
HTD0603	6.0	16	50	6
HTD0803	8.0	20	60	8
HTD1003	10.0	25	75	10
HTD1203	12.0	30	75	12
HTD1603	16.0	40	100	16
HTD2003	20.0	45	100	20

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
2.0	$\frac{0}{-0.02}$
3.0	$\frac{0}{-0.02}$
4.0	$\frac{0}{-0.02}$
5.0	$\frac{0}{-0.02}$
6.0	$\frac{0}{-0.02}$
8.0	$\frac{0}{-0.025}$
10.0	$\frac{0}{-0.03}$
12.0	$\frac{0}{-0.035}$
16.0	$\frac{0}{-0.04}$
20.0	$\frac{0}{-0.04}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	$\frac{0}{-0.008}$
Ø6	$\frac{0}{-0.008}$
Ø8	$\frac{0}{-0.009}$
Ø10	$\frac{0}{-0.009}$
Ø12	$\frac{0}{-0.011}$
Ø16	$\frac{0}{-0.011}$
Ø20	$\frac{0}{-0.013}$

Unit : mm

ITA

極超微粒高螺旋立銑刀 End Mills

High Helix

Super
MG0.4
μm

50°

3 Flutes

HRC
▶60

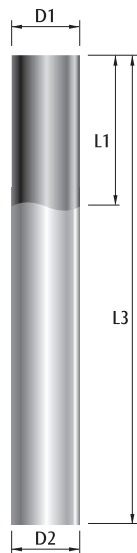
T2



產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ITA0303	3.0	8	50	6
ITA0403	4.0	12	50	6
ITA0603	6.0	16	50	6
ITA0803	8.0	20	60	8
ITA1003	10.0	25	75	10
ITA1203	12.0	30	75	12
ITA1603	16.0	45	100	16
ITA2003	20.0	45	100	20

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
3.0	0 -0.02
4.0	0 -0.02
6.0	0 -0.02
8.0	0 -0.025
10.0	0 -0.03
12.0	0 -0.035
16.0	0 -0.04
20.0	0 -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011
Ø20	0 -0.013

Unit : mm

ITH

極超微粒高螺旋立銑刀 End Mills

High Helix

Super
MG

0.4
μm

50°

3 Flutes

HRC
>60

G10

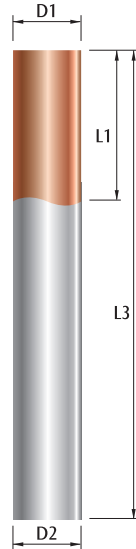


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
ITH0303	3.0	8	50	6
ITH0403	4.0	12	50	6
ITH0603	6.0	16	50	6
ITH0803	8.0	20	60	8
ITH1003	10.0	25	75	10
ITH1203	12.0	30	75	12
ITH1603	16.0	45	100	16
ITH2003	20.0	45	100	20

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
3.0	$\frac{0}{-0.02}$
4.0	$\frac{0}{-0.02}$
6.0	$\frac{0}{-0.02}$
8.0	$\frac{0}{-0.025}$
10.0	$\frac{0}{-0.03}$
12.0	$\frac{0}{-0.035}$
16.0	$\frac{0}{-0.04}$
20.0	$\frac{0}{-0.04}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	$\frac{0}{-0.008}$
Ø8	$\frac{0}{-0.009}$
Ø10	$\frac{0}{-0.009}$
Ø12	$\frac{0}{-0.011}$
Ø16	$\frac{0}{-0.011}$
Ø20	$\frac{0}{-0.013}$

Unit : mm

VTA

高硬度用立銑刀 End Mills

High Hardness

Super
MG0.4
μm

45°

6 Flutes

HRC
65

T2

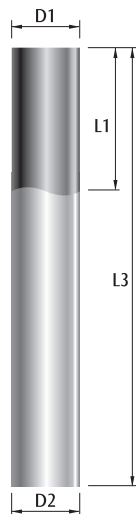


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水性切削劑 Emulsion Machining
	油性切削劑 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
VTA0606	6.0	16	50	6
VTA0806	8.0	20	60	8
VTA1006	10.0	25	75	10
VTA1206	12.0	30	75	12
VTA1606	16.0	40	100	16

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
6.0	0 -0.02
8.0	0 -0.025
10.0	0 -0.03
12.0	0 -0.035
16.0	0 -0.04

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011

Unit : mm

VTB

難切削材用立銑刀 End Mills

Difficult-to-cut

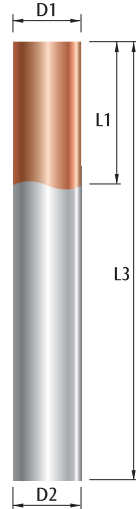


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
VTB0606	6.0	16	50	6
VTB0806	8.0	20	60	8
VTB1006	10.0	25	75	10
VTB1206	12.0	30	75	12
VTB1606	16.0	40	100	16

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
6.0	$\frac{0}{-0.02}$
8.0	$\frac{0}{-0.025}$
10.0	$\frac{0}{-0.03}$
12.0	$\frac{0}{-0.035}$
16.0	$\frac{0}{-0.04}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	$\frac{0}{-0.008}$
Ø8	$\frac{0}{-0.009}$
Ø10	$\frac{0}{-0.009}$
Ø12	$\frac{0}{-0.011}$
Ø16	$\frac{0}{-0.011}$

Unit : mm

WUA^{3T}

超微粒粗齒中目立銑刀 End Mills

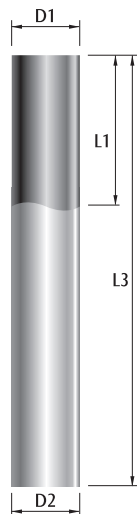
Roughing

精銑
Finishing中銑
Semi-finishing粗銑
Roughing

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
WUA0603	6.0	16	50	6
WUA0803	8.0	20	60	8
WUA1003	10.0	25	75	10
WUA1203	12.0	30	75	12
WUA1403	14.0	35	100	16
WUA1603	16.0	40	100	16
WUA1803	18.0	40	100	20
WUA2003	20.0	45	100	20

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
6.0	0 -0.04
8.0	0 -0.04
10.0	0 -0.045
12.0	0 -0.045
14.0	0 -0.05
16.0	0 -0.05
18.0	0 -0.05
20.0	0 -0.05

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011
Ø20	0 -0.013

Unit : mm

WUA4T

超微粒粗齒中目立銑刀 End Mills

Roughing

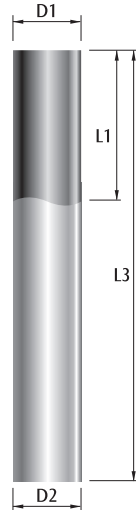


-----	精銑 Finishing
-----	中銑 Semi-finishing
◎	粗銑 Roughing
◎	乾式切削 Dry Machining
◎	油霧切削 MQL (Mist)
◎	水溶性切削 Emulsion Machining
◎	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
WUA0604	6.0	16	50	6
WUA0804	8.0	20	60	8
WUA1004	10.0	25	75	10
WUA1204	12.0	30	75	12
WUA1404	14.0	35	100	16
WUA1604	16.0	40	100	16
WUA1804	18.0	40	100	20
WUA2004	20.0	45	100	20

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
6.0	$\begin{matrix} 0 \\ -0.04 \end{matrix}$
8.0	$\begin{matrix} 0 \\ -0.04 \end{matrix}$
10.0	$\begin{matrix} 0 \\ -0.045 \end{matrix}$
12.0	$\begin{matrix} 0 \\ -0.045 \end{matrix}$
14.0	$\begin{matrix} 0 \\ -0.05 \end{matrix}$
16.0	$\begin{matrix} 0 \\ -0.05 \end{matrix}$
18.0	$\begin{matrix} 0 \\ -0.05 \end{matrix}$
20.0	$\begin{matrix} 0 \\ -0.05 \end{matrix}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	$\begin{matrix} 0 \\ -0.008 \end{matrix}$
Ø8	$\begin{matrix} 0 \\ -0.009 \end{matrix}$
Ø10	$\begin{matrix} 0 \\ -0.009 \end{matrix}$
Ø12	$\begin{matrix} 0 \\ -0.011 \end{matrix}$
Ø16	$\begin{matrix} 0 \\ -0.011 \end{matrix}$
Ø20	$\begin{matrix} 0 \\ -0.013 \end{matrix}$

Unit : mm

WWA3T

超微粒粗齒細目立銑刀 End Mills

Roughing

0.6
μmHRC
>55

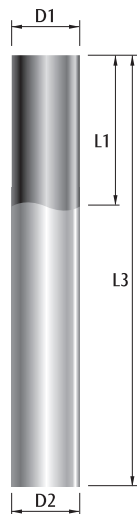
T2

精銑
Finishing中銑
Semi-finishing粗銑
Roughing

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
WWA0603	6.0	16	50	6
WWA0803	8.0	20	60	8
WWA1003	10.0	25	75	10
WWA1203	12.0	30	75	12
WWA1403	14.0	35	100	16
WWA1603	16.0	40	100	16
WWA1803	18.0	40	100	20
WWA2003	20.0	45	100	20

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
6.0	0 -0.04
8.0	0 -0.04
10.0	0 -0.045
12.0	0 -0.045
14.0	0 -0.05
16.0	0 -0.05
18.0	0 -0.05
20.0	0 -0.05

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011
Ø20	0 -0.013

Unit : mm

WWA4T

超微粒粗齒細目立銑刀 End Mills

Roughing

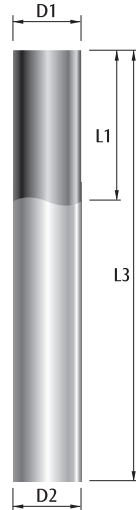


-----	精銑 Finishing
-----	中銑 Semi-finishing
◎	粗銑 Roughing
◎	乾式切削 Dry Machining
◎	油霧切削 MQL (Mist)
◎	水溶性切削 Emulsion Machining
◎	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 直徑 Diameter	L1 刃長 Flute Length	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
WWA0604	6.0	16	50	6
WWA0804	8.0	20	60	8
WWA1004	10.0	25	75	10
WWA1204	12.0	30	75	12
WWA1404	14.0	35	100	16
WWA1604	16.0	40	100	16
WWA1804	18.0	40	100	20
WWA2004	20.0	45	100	20

Unit : mm



直徑 D1	直徑公差值 D1 Tolerance
6.0	$\begin{matrix} 0 \\ -0.04 \end{matrix}$
8.0	$\begin{matrix} 0 \\ -0.04 \end{matrix}$
10.0	$\begin{matrix} 0 \\ -0.045 \end{matrix}$
12.0	$\begin{matrix} 0 \\ -0.045 \end{matrix}$
14.0	$\begin{matrix} 0 \\ -0.05 \end{matrix}$
16.0	$\begin{matrix} 0 \\ -0.05 \end{matrix}$
18.0	$\begin{matrix} 0 \\ -0.05 \end{matrix}$
20.0	$\begin{matrix} 0 \\ -0.05 \end{matrix}$

柄徑 D2	柄徑公差值 D2 Tolerance
Ø6	$\begin{matrix} 0 \\ -0.008 \end{matrix}$
Ø8	$\begin{matrix} 0 \\ -0.009 \end{matrix}$
Ø10	$\begin{matrix} 0 \\ -0.009 \end{matrix}$
Ø12	$\begin{matrix} 0 \\ -0.011 \end{matrix}$
Ø16	$\begin{matrix} 0 \\ -0.011 \end{matrix}$
Ø20	$\begin{matrix} 0 \\ -0.013 \end{matrix}$

Unit : mm

TA

極超微粒斜度立銑刀 End Mills

Taper

Super
MG0.4
μm

35°

2 Flutes

HRC
▶60

G10

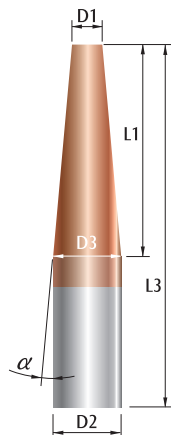


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 先端徑 Small Mill Dia.	L1 刃長 Flute Length	α 斜角 Taper Angle	D3 粗端徑 Large Mill Dia.	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
TA005005	0.5	2	30'	0.53	50	4
TA005010	0.5	2	1°	0.57	50	4
TA005015	0.5	2	1° 30'	0.60	50	4
TA005020	0.5	2	2°	0.64	50	4
TA005025	0.5	2	2° 30'	0.67	50	4
TA005030	0.5	2	3°	0.71	50	4
TA005050	0.5	2	5°	0.85	50	4
TA005070	0.5	2	7°	0.99	50	4
TA005100	0.5	2	10°	1.21	50	4
TA010005	1.0	4	30'	1.07	50	4
TA010010	1.0	4	1°	1.14	50	4
TA010015	1.0	4	1° 30'	1.21	50	4
TA010020	1.0	4	2°	1.28	50	4
TA010025	1.0	4	2° 30'	1.35	50	4
TA010030	1.0	4	3°	1.42	50	4
TA010050	1.0	4	5°	1.70	50	4
TA010070	1.0	4	7°	1.98	50	4
TA010100	1.0	4	10°	2.41	50	4

Unit : mm



柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011

斜角公差值 α Tolerance	直徑公差值 D1 Tolerance
±6'	D1 < 1.0 0 ~ -0.02 1.0 ≤ D1 0 ~ -0.03

Unit : mm

TA

極超微粒斜度立銑刀 End Mills

Taper

Super
MG

0.4
μm

35°

2 Flutes

HRC
>60

G10

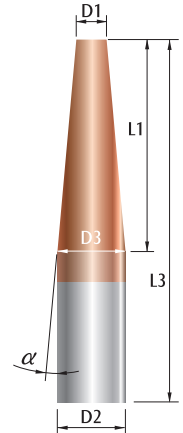


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 先端徑 Small Mill Dia.	L1 刃長 Flute Length	α 斜角 Taper Angle	D3 粗端徑 Large Mill Dia.	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
TA015005	1.5	5	30°	1.59	50	4
TA015010	1.5	5	1°	1.67	50	4
TA015015	1.5	5	1° 30'	1.76	50	4
TA015020	1.5	5	2°	1.85	50	4
TA015025	1.5	5	2° 30'	1.94	50	4
TA015030	1.5	5	3°	2.02	50	4
TA015050	1.5	5	5°	2.37	50	4
TA015070	1.5	5	7°	2.73	50	4
TA015100	1.5	5	10°	3.26	50	4
TA020005	2.0	96	30°	2.10	50	4
TA020010	2.0	6	1°	2.21	50	4
TA020015	2.0	6	1° 30'	2.31	50	4
TA020020	2.0	6	2°	2.42	50	4
TA020025	2.0	6	2° 30'	2.52	50	4
TA020030	2.0	6	3°	2.63	50	4
TA020050	2.0	6	5°	3.05	50	4
TA020070	2.0	6	7°	3.47	50	4
TA020100	2.0	5	10°	3.76	50	4

Unit : mm



柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011

斜角公差值 α Tolerance	直徑公差值 D1 Tolerance
±6'	D1 < 1.0 0 ~ -0.02 1.0 ≤ D1 0 ~ -0.03

Unit : mm

TA

極超微粒斜度立銑刀 End Mills

Taper

Super
MG0.4
μm

35°

2 Flutes

HRC
▶60

G10

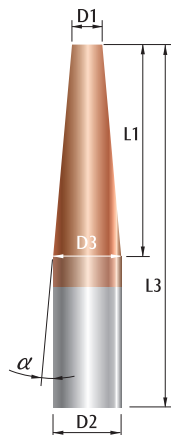


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 先端徑 Small Mill Dia.	L1 刃長 Flute Length	α 斜角 Taper Angle	D3 粗端徑 Large Mill Dia.	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
TA025005	2.5	8	30'	2.64	50	4
TA025010	2.5	8	1°	2.78	50	4
TA025015	2.5	8	1° 30'	2.92	50	4
TA025020	2.5	8	2°	3.06	50	4
TA025025	2.5	8	2° 30'	3.20	50	4
TA025030	2.5	8	3°	3.34	50	4
TA025050	2.5	8	5°	3.90	50	4
TA025070	2.5	8	7°	4.46	50	6
TA025100	2.5	8	10°	5.32	50	6
TA030005	3.0	10	30'	3.17	50	6
TA030010	3.0	10	1°	3.35	50	6
TA030015	3.0	10	1° 30'	3.52	50	6
TA030020	3.0	10	2°	3.70	50	6
TA030025	3.0	10	2° 30'	3.87	50	6
TA030030	3.0	10	3°	4.05	50	6
TA030050	3.0	10	5°	4.75	50	6
TA030070	3.0	10	7°	5.46	50	6
TA030100	3.0	8	10°	5.82	50	6

Unit : mm



柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011

斜角公差值 α Tolerance	直徑公差值 D1 Tolerance
±6'	D1 < 1.0 0 ~ -0.02 1.0 ≤ D1 0 ~ -0.03

Unit : mm

TA

極超微粒斜度立銑刀 End Mills

Taper

Super
MG

0.4
μm

35°

2 Flutes

HRC
>60

G10

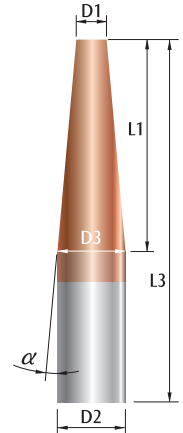


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 先端徑 Small Mill Dia.	L1 刃長 Flute Length	α 斜角 Taper Angle	D3 粗端徑 Large Mill Dia.	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
TA040005	4.0	15	30°	4.26	50	6
TA040010	4.0	15	1°	4.52	50	6
TA040015	4.0	15	1° 30'	4.79	50	6
TA040020	4.0	15	2°	5.05	50	6
TA040025	4.0	15	2° 30'	5.31	50	6
TA040030	4.0	15	3°	5.57	50	6
TA040050	4.0	15	5°	6.62	60	8
TA040070	4.0	15	7°	7.68	60	8
TA050005	5.0	20	30°	5.35	60	6
TA050010	5.0	20	1°	5.70	60	6
TA050015	5.0	18	1° 30'	5.94	60	6
TA050020	5.0	20	2°	6.40	60	8
TA050025	5.0	20	2° 30'	6.75	60	8
TA050030	5.0	20	3°	7.10	60	8
TA050050	5.0	20	5°	8.50	75	10
TA050070	5.0	20	7°	9.91	75	10
TA060005	6.0	20	30°	6.35	60	8
TA060010	6.0	20	1°	6.70	60	8
TA060015	6.0	20	1° 30'	7.05	60	8
TA060020	6.0	20	2°	7.40	60	8
TA060025	6.0	20	2° 30'	7.75	60	8
TA060030	6.0	18	3°	7.89	60	8
TA060050	6.0	20	5°	9.50	75	10

Unit : mm



柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011

斜角公差值 α Tolerance	直徑公差值 D1 Tolerance
±6'	D1 < 1.0 0~-0.02 1.0 ≤ D1 0~-0.03

Unit : mm

TA

極超微粒斜度立銑刀 End Mills

Taper

Super
MG0.4
μm

35°

2 Flutes

HRC
▶60

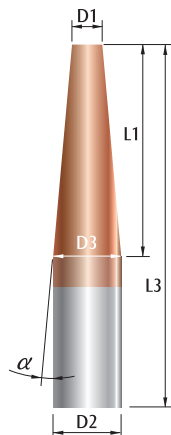
G10



產品規格 / SPECIFICATIONS

型號 Type NO.	D1 先端徑 Small Mill Dia.	L1 刃長 Flute Length	α 斜角 Taper Angle	D3 粗端徑 Large Mill Dia.	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
TA080005	8.0	25	30'	8.44	75	10
TA080010	8.0	25	1°	8.87	75	10
TA080015	8.0	25	1° 30'	9.31	75	10
TA080020	8.0	25	2°	9.75	75	10
TA080025	8.0	22	2° 30'	9.92	75	10
TA080030	8.0	25	3°	10.62	75	12
TA080050	8.0	22	5°	11.85	75	12
TA100005	10.0	35	30'	10.61	100	12
TA100010	10.0	35	1°	11.22	100	12
TA100015	10.0	35	1° 30'	11.83	100	12
TA100020	10.0	28	2°	11.96	100	12
TA100025	10.0	35	2° 30'	13.06	100	16
TA100030	10.0	35	3°	13.67	100	16
TA100050	10.0	33	5°	15.77	100	16

Unit : mm



柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
Ø10	0 -0.009
Ø12	0 -0.011
Ø16	0 -0.011

斜角公差值 α Tolerance	直徑公差值 D1 Tolerance
±6'	D1 < 1.0 0 ~ -0.02
	1.0 ≤ D1 0 ~ -0.03

Unit : mm

TTA

極超微粒長刃斜度立銑刀 End Mills

Long Flute Taper

 Super
MG

 0.4
 μm

35°

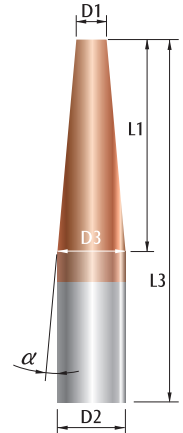
2 Flutes

 HRC
>60
G10


	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 先端徑 Small Mill Dia.	L1 刃長 Flute Length	α 斜角 Taper Angle	D3 粗端徑 Large Mill Dia.	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
TTA01005	1.0	10	30°	1.17	50	4
TTA01010	1.0	10	1°	1.35	50	4
TTA01015	1.0	10	1° 30'	1.52	50	4
TTA01020	1.0	10	2°	1.70	50	4
TTA01025	1.0	10	2° 30'	1.87	50	4
TTA01030	1.0	10	3°	2.05	50	4
TTA01050	1.0	10	5°	2.75	50	4
TTA01070	1.0	10	7°	3.46	50	4
TTA01505	1.5	10	30°	1.67	50	4
TTA01510	1.5	10	1°	1.85	50	4
TTA01515	1.5	10	1° 30'	2.02	50	4
TTA01520	1.5	10	2°	2.20	50	4
TTA01525	1.5	10	2° 30'	2.37	50	4
TTA01530	1.5	10	3°	2.55	50	4
TTA02005	2.0	13	30°	2.23	50	4
TTA02010	2.0	13	1°	2.45	50	4
TTA02015	2.0	13	1° 30'	2.68	50	4
TTA02020	2.0	13	2°	2.91	50	4
TTA02025	2.0	13	2° 30'	3.14	50	4
TTA02030	2.0	13	3°	3.36	50	4
TTA02050	2.0	10	5°	3.75	50	4



柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
斜角公差值 α Tolerance	直徑公差值 D1 Tolerance
$\pm 6'$	1.0 \leq D1 0 ~ -0.03

Unit : mm

Unit : mm

TTA

極超微粒長刃斜度立銑刀 End Mills

Long Flute
TaperSuper
MG0.4
μm

35°

2 Flutes

HRC
>60

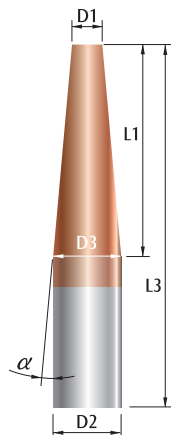
G10



	精銑 Finishing
	中銑 Semi-finishing
	粗銑 Roughing
	乾式切削 Dry Machining
	油霧切削 MQL (Mist)
	水溶性切削 Emulsion Machining
	油性切削 Oil Machining

產品規格 / SPECIFICATIONS

型號 Type NO.	D1 先端徑 Small Mill Dia.	L1 刃長 Flute Length	α 斜角 Taper Angle	D3 粗端徑 Large Mill Dia.	L3 全長 O.A.L.	D2 柄徑 Shank Dia.
TTA02505	2.5	15	30'	2.76	50	4
TTA02510	2.5	15	1°	3.02	50	4
TTA02515	2.5	15	1° 30'	3.29	50	4
TTA02520	2.5	15	2°	3.55	50	4
TTA02525	2.5	15	2° 30'	3.81	50	4
TTA02530	2.5	13	3°	3.86	50	4
TTA02550	2.5	15	5°	5.12	50	6
TTA03005	3.0	20	30'	3.35	60	6
TTA03010	3.0	20	1°	3.70	60	6
TTA03015	3.0	20	1° 30'	4.05	60	6
TTA03020	3.0	20	2°	4.40	60	6
TTA03025	3.0	20	2° 30'	4.75	60	6
TTA03030	3.0	20	3°	5.10	60	6
TTA03050	3.0	16	5°	5.80	60	6
TTA04005	4.0	25	30'	4.44	60	6
TTA04010	4.0	25	1°	4.87	60	6
TTA04015	4.0	25	1° 30'	5.31	60	6
TTA04020	4.0	25	2°	5.75	60	6
TTA04025	4.0	25	2° 30'	6.18	60	8
TTA04030	4.0	25	3°	6.62	60	8
TTA04050	4.0	22	5°	7.85	60	8



柄徑 D2	柄徑公差值 D2 Tolerance
Ø4	0 -0.008
Ø6	0 -0.008
Ø8	0 -0.009
斜角公差值 α Tolerance	直徑公差值 D1 Tolerance
±6'	1.0 ≤ D1 0 ~ -0.03

Unit : mm

Unit : mm

BTA^{2T} / BTD^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

BTA^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

BTD^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
BTA BTD 0102	10	60	18000~20000	600~800	0.08~0.1	0.16~0.2	3D銑 (3D MILLING)
0102	10	60	18000~20000	800~1100	0.06~0.08	0.12~0.16	3D銑 (3D MILLING)
0102	10	60	18000~20000	1000~1400	0.02~0.04	0.04~0.08	3D銑 (3D MILLING)
BTA BTD 0152	10	90	18000~20000	600~800	0.1~0.12	0.2~0.24	3D銑 (3D MILLING)
0152	10	90	18000~20000	800~1100	0.07~0.09	0.14~0.18	3D銑 (3D MILLING)
0152	10	90	18000~20000	1000~1400	0.03~0.05	0.06~0.1	3D銑 (3D MILLING)
BTA BTD 0202	12	120	18000~20000	600~800	0.1~0.12	0.2~0.24	3D銑 (3D MILLING)
0202	12	120	18000~20000	800~1100	0.07~0.09	0.14~0.18	3D銑 (3D MILLING)
0202	12	120	18000~20000	1000~1400	0.03~0.05	0.06~0.1	3D銑 (3D MILLING)
BTA BTD 0252	12	135	17000~18000	600~800	0.12~0.14	0.24~0.28	3D銑 (3D MILLING)
0252	12	135	17000~18000	800~1100	0.08~0.1	0.16~0.2	3D銑 (3D MILLING)
0252	12	135	17000~18000	1000~1400	0.04~0.06	0.08~0.12	3D銑 (3D MILLING)
BTA BTD 0302	13	150	16000~17000	600~800	0.15~0.18	0.3~0.36	3D銑 (3D MILLING)
0302	13	150	16000~17000	800~1100	0.1~0.12	0.2~0.24	3D銑 (3D MILLING)
0302	13	150	16000~17000	1000~1400	0.05~0.07	0.1~0.14	3D銑 (3D MILLING)
BTA BTD 0402	15	190	15000~16000	600~800	0.18~0.22	0.36~0.44	3D銑 (3D MILLING)
0402	15	190	15000~16000	800~1200	0.11~0.13	0.22~0.26	3D銑 (3D MILLING)
0402	15	190	15000~16000	1200~1600	0.05~0.08	0.14~0.22	3D銑 (3D MILLING)
BTA BTD 0502	18	220	14000~15000	600~800	0.23~0.26	0.46~0.52	3D銑 (3D MILLING)
0502	18	220	14000~15000	700~1100	0.13~0.16	0.26~0.32	3D銑 (3D MILLING)
0502	18	220	14000~15000	1600~2000	0.05~0.09	0.14~0.18	3D銑 (3D MILLING)
BTA BTD 0602	20	230	12000~13000	600~1000	0.28~0.33	0.56~0.66	3D銑 (3D MILLING)
0602	20	245	13000~14000	1000~1400	0.15~0.2	0.3~0.4	3D銑 (3D MILLING)
0602	20	245	13000~14000	1600~2000	0.05~0.11	0.14~0.22	3D銑 (3D MILLING)
BTA BTD 0802	30	255	10000~11000	1000~1200	0.35~0.4	0.7~0.8	3D銑 (3D MILLING)
0802	30	255	10000~11000	1500~1900	0.18~0.23	0.36~0.46	3D銑 (3D MILLING)
0802	30	255	10000~11000	1800~2200	0.05~0.13	0.16~0.26	3D銑 (3D MILLING)
BTA BTD 1002	35	285	8700~9200	1000~1400	0.35~0.45	0.7~0.9	3D銑 (3D MILLING)
1002	35	285	8700~9200	1700~2100	0.23~0.28	0.46~0.56	3D銑 (3D MILLING)
1002	35	285	8700~9200	1800~2200	0.05~0.15	0.2~0.3	3D銑 (3D MILLING)
BTA BTD 1202	40	265	7000~8000	800~1200	0.4~0.5	0.8~1	3D銑 (3D MILLING)
1202	40	265	7000~8000	1300~1700	0.27~0.32	0.54~0.64	3D銑 (3D MILLING)
1202	40	265	7000~8000	1400~1800	0.1~0.2	0.3~0.4	3D銑 (3D MILLING)
BTA BTD 1602	50	255	5000~6000	600~800	0.6~0.65	1.2~1.3	3D銑 (3D MILLING)
1602	50	255	5000~6000	800~1200	0.35~0.4	0.7~0.8	3D銑 (3D MILLING)
1602	50	255	5000~6000	1300~1600	0.1~0.23	0.36~0.46	3D銑 (3D MILLING)
BTA BTD 2002	60	280	4000~5000	600~800	0.7~0.8	1.4~1.6	3D銑 (3D MILLING)
2002	60	280	4000~5000	1000~1400	0.4~0.45	0.8~0.9	3D銑 (3D MILLING)
2002	60	280	4000~5000	1700~2100	0.1~0.25	0.4~0.5	3D銑 (3D MILLING)

BTA^{2T} / BTD^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)BTA^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

BTD^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
BTA BTD 0102	10	60	18000~20000	700~1000	0.06~0.08	0.12~0.16	3D銑 (3D MILLING)
0102	10	60	18000~20000	1000~1300	0.02~0.04	0.04~0.08	3D銑 (3D MILLING)
BTA BTD 0152	10	90	18000~20000	700~1000	0.07~0.09	0.14~0.18	3D銑 (3D MILLING)
0152	10	90	18000~20000	1000~1300	0.03~0.05	0.06~0.1	3D銑 (3D MILLING)
BTA BTD 0202	12	120	18000~20000	700~1000	0.07~0.09	0.14~0.18	3D銑 (3D MILLING)
0202	12	120	18000~20000	1000~1300	0.03~0.05	0.06~0.1	3D銑 (3D MILLING)
BTA BTD 0252	12	135	17000~18000	700~1000	0.07~0.09	0.14~0.18	3D銑 (3D MILLING)
0252	12	135	17000~18000	1000~1300	0.03~0.05	0.06~0.1	3D銑 (3D MILLING)
BTA BTD 0302	13	150	16000~17000	700~1000	0.09~0.11	0.18~0.22	3D銑 (3D MILLING)
0302	13	150	16000~17000	1000~1300	0.04~0.06	0.08~0.12	3D銑 (3D MILLING)
BTA BTD 0402	15	175	14000~15000	700~1000	0.11~0.13	0.22~0.26	3D銑 (3D MILLING)
0402	15	175	14000~15000	1100~1400	0.05~0.08	0.14~0.22	3D銑 (3D MILLING)
BTA BTD 0502	18	205	13000~14000	600~900	0.11~0.13	0.22~0.26	3D銑 (3D MILLING)
0502	18	205	13000~14000	1200~1500	0.05~0.08	0.14~0.22	3D銑 (3D MILLING)
BTA BTD 0602	20	230	12000~13000	700~1000	0.13~0.16	0.26~0.32	3D銑 (3D MILLING)
0602	20	230	12000~13000	1300~1700	0.05~0.11	0.14~0.22	3D銑 (3D MILLING)
BTA BTD 0802	30	255	10000~11000	1200~1600	0.15~0.2	0.3~0.4	3D銑 (3D MILLING)
0802	30	255	10000~11000	1300~1600	0.05~0.12	0.16~0.24	3D銑 (3D MILLING)
BTA BTD 1002	35	285	8700~9200	1200~1600	0.2~0.25	0.4~0.5	3D銑 (3D MILLING)
1002	35	285	8700~9200	1600~2000	0.05~0.15	0.2~0.3	3D銑 (3D MILLING)
BTA BTD 1202	40	260	6500~7500	1000~1300	0.23~0.28	0.46~0.56	3D銑 (3D MILLING)
1202	40	260	6500~7500	1200~1600	0.1~0.15	0.2~0.3	3D銑 (3D MILLING)
BTA BTD 1602	50	275	5000~6000	800~1100	0.27~0.32	0.54~0.64	3D銑 (3D MILLING)
1602	50	275	5000~6000	1200~1500	0.1~0.2	0.3~0.4	3D銑 (3D MILLING)
BTA BTD 2002	60	280	4000~5000	800~1100	0.3~0.35	0.6~0.7	3D銑 (3D MILLING)
2002	60	280	4000~5000	1200~1500	0.1~0.23	0.36~0.46	3D銑 (3D MILLING)

BTA^{2T} / BTD^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

BTA^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

BTD^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
BTA BTD 0102	10	60	18000~20000	700~900	0.06~0.08	0.12~0.16	3D 銑 (3D MILLING)
0102	10	60	18000~20000	1000~1200	0.02~0.04	0.04~0.08	3D 銑 (3D MILLING)
BTA BTD 0152	10	90	18000~20000	700~900	0.07~0.09	0.14~0.18	3D 銑 (3D MILLING)
0152	10	90	18000~20000	1000~1200	0.03~0.05	0.06~0.1	3D 銑 (3D MILLING)
BTA BTD 0202	12	120	18000~20000	700~900	0.07~0.09	0.14~0.18	3D 銑 (3D MILLING)
0202	12	120	18000~20000	1000~1200	0.03~0.05	0.06~0.1	3D 銑 (3D MILLING)
BTA BTD 0252	12	135	17000~18000	700~900	0.07~0.09	0.14~0.18	3D 銑 (3D MILLING)
0252	12	135	17000~18000	1000~1200	0.03~0.05	0.06~0.1	3D 銑 (3D MILLING)
BTA BTD 0302	13	150	16000~17000	700~900	0.09~0.11	0.18~0.22	3D 銑 (3D MILLING)
0302	13	150	16000~17000	1000~1200	0.04~0.06	0.08~0.12	3D 銑 (3D MILLING)
BTA BTD 0402	15	175	14000~15000	700~900	0.11~0.13	0.22~0.26	3D 銑 (3D MILLING)
0402	15	175	14000~15000	1000~1300	0.05~0.08	0.14~0.22	3D 銑 (3D MILLING)
BTA BTD 0502	18	205	13000~14000	600~800	0.11~0.13	0.22~0.26	3D 銑 (3D MILLING)
0502	18	205	13000~14000	1100~1300	0.05~0.08	0.14~0.22	3D 銑 (3D MILLING)
BTA BTD 0602	20	230	12000~13000	700~900	0.13~0.16	0.26~0.32	3D 銑 (3D MILLING)
0602	20	230	12000~13000	1200~1600	0.05~0.11	0.14~0.22	3D 銑 (3D MILLING)
BTA BTD 0802	30	255	10000~11000	1100~1500	0.15~0.2	0.3~0.4	3D 銑 (3D MILLING)
0802	30	255	10000~11000	1200~1500	0.05~0.12	0.16~0.24	3D 銑 (3D MILLING)
BTA BTD 1002	35	285	8700~9200	1100~1500	0.2~0.25	0.4~0.5	3D 銑 (3D MILLING)
1002	35	285	8700~9200	1400~1800	0.05~0.15	0.2~0.3	3D 銑 (3D MILLING)
BTA BTD 1202	40	260	6500~7500	1000~1200	0.23~0.28	0.46~0.56	3D 銑 (3D MILLING)
1202	40	260	6500~7500	1200~1600	0.1~0.15	0.2~0.3	3D 銑 (3D MILLING)
BTA BTD 1602	50	275	5000~6000	800~1000	0.27~0.32	0.54~0.64	3D 銑 (3D MILLING)
1602	50	275	5000~6000	1200~1400	0.1~0.2	0.3~0.4	3D 銑 (3D MILLING)
BTA BTD 2002	60	280	4000~5000	800~1000	0.3~0.35	0.6~0.7	3D 銑 (3D MILLING)
2002	60	280	4000~5000	1200~1400	0.1~0.23	0.36~0.46	3D 銑 (3D MILLING)

BTA^{4T} / BTD^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

BTA^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

BTD^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
BTA BTD 0104	10	60	18000~20000	1000~1400	0.06~0.08	0.12~0.16	3D銑(3D MILLING)
0104	10	60	18000~20000	1400~1800	0.02~0.04	0.04~0.08	3D銑(3D MILLING)
BTA BTD 0154	10	90	18000~20000	1000~1400	0.07~0.09	0.14~0.18	3D銑(3D MILLING)
0154	10	90	18000~20000	1400~1800	0.03~0.05	0.06~0.1	3D銑(3D MILLING)
BTA BTD 0204	12	120	18000~20000	1000~1400	0.07~0.09	0.14~0.18	3D銑(3D MILLING)
0204	12	120	18000~20000	1400~1800	0.03~0.05	0.06~0.1	3D銑(3D MILLING)
BTA BTD 0304	13	150	16000~17000	800~1200	0.1~0.12	0.2~0.24	3D銑(3D MILLING)
0304	13	150	16000~17000	1400~1800	0.05~0.07	0.1~0.14	3D銑(3D MILLING)
BTA BTD 0404	15	190	15000~16000	1000~1400	0.11~0.13	0.22~0.26	3D銑(3D MILLING)
0404	15	190	15000~16000	1600~2000	0.05~0.08	0.14~0.22	3D銑(3D MILLING)
BTA BTD 0504	18	220	14000~15000	1000~1400	0.13~0.16	0.26~0.32	3D銑(3D MILLING)
0504	18	220	14000~15000	2000~2400	0.05~0.09	0.14~0.18	3D銑(3D MILLING)
BTA BTD 0604	20	245	13000~14000	1200~1600	0.15~0.2	0.3~0.4	3D銑(3D MILLING)
0604	20	245	13000~14000	2000~2400	0.05~0.11	0.14~0.22	3D銑(3D MILLING)
BTA BTD 0804	25	305	12000~13000	1800~2200	0.18~0.23	0.36~0.46	3D銑(3D MILLING)
0804	25	305	12000~13000	2700~3100	0.05~0.13	0.16~0.22	3D銑(3D MILLING)
BTA BTD 1004	35	285	8700~9200	2000~2400	0.23~0.28	0.46~0.56	3D銑(3D MILLING)
1004	35	285	8700~9200	2800~3200	0.05~0.15	0.2~0.3	3D銑(3D MILLING)
BTA BTD 1204	40	265	7000~8000	1600~2000	0.27~0.32	0.54~0.64	3D銑(3D MILLING)
1204	40	265	7000~8000	2200~2600	0.1~0.2	0.3~0.4	3D銑(3D MILLING)
BTA BTD 1604	50	255	5000~6000	1000~1400	0.35~0.4	0.7~0.8	3D銑(3D MILLING)
1604	50	255	5000~6000	1800~2200	0.1~0.23	0.36~0.46	3D銑(3D MILLING)

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels

P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

BTA^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

BTD^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
BTA BTD 0104	10	60	18000~20000	700~1100	0.06~0.08	0.12~0.16	3D銑(3D MILLING)
0104	10	60	18000~20000	1000~1400	0.02~0.04	0.04~0.08	3D銑(3D MILLING)
BTA BTD 0154	10	90	18000~20000	700~1100	0.07~0.09	0.14~0.18	3D銑(3D MILLING)
0154	10	90	18000~20000	1000~1400	0.03~0.05	0.06~0.1	3D銑(3D MILLING)
BTA BTD 0204	12	110	16000~18000	700~1100	0.07~0.09	0.14~0.18	3D銑(3D MILLING)
0204	12	110	16000~18000	1000~1400	0.03~0.05	0.06~0.1	3D銑(3D MILLING)
BTA BTD 0304	13	145	15000~16000	700~1100	0.1~0.12	0.18~0.22	3D銑(3D MILLING)
0304	13	145	15000~16000	1000~1400	0.05~0.07	0.08~0.12	3D銑(3D MILLING)
BTA BTD 0404	15	175	14000~15000	900~1300	0.11~0.13	0.22~0.26	3D銑(3D MILLING)
0404	15	175	14000~15000	1400~1800	0.05~0.08	0.14~0.22	3D銑(3D MILLING)
BTA BTD 0504	18	205	13000~14000	900~1300	0.13~0.16	0.22~0.26	3D銑(3D MILLING)

BTA^{4T} / BTD^{4T}

切削條件表 Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

BTA^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

BTD^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
BTA BTD 0504	18	205	13000~14000	1700~2100	0.05~0.09	0.14~0.22	3D銑 (3D MILLING)
BTA BTD 0604	20	230	12000~13000	1000~1400	0.15~0.2	0.3~0.36	3D銑 (3D MILLING)
0604	20	230	12000~13000	1800~2200	0.05~0.11	0.14~0.22	3D銑 (3D MILLING)
BTA BTD 0804	25	255	10000~11000	1600~2000	0.18~0.23	0.3~0.4	3D銑 (3D MILLING)
0804	25	255	10000~11000	2400~2800	0.05~0.13	0.16~0.24	3D銑 (3D MILLING)
BTA BTD 1004	35	285	8700~9200	1600~2000	0.23~0.28	0.4~0.5	3D銑 (3D MILLING)
1004	35	285	8700~9200	2500~2900	0.05~0.15	0.2~0.3	3D銑 (3D MILLING)
BTA BTD 1204	40	190	5000~6000	1200~1600	0.27~0.32	0.54~0.64	3D銑 (3D MILLING)
1204	40	190	5000~6000	1800~2200	0.1~0.2	0.3~0.4	3D銑 (3D MILLING)
BTA BTD 1604	50	255	4500~5500	800~1200	0.35~0.4	0.6~0.7	3D銑 (3D MILLING)
1604	50	255	4500~5500	1500~1900	0.1~0.23	0.36~0.46	3D銑 (3D MILLING)

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

BTA^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

BTD^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
BTA BTD 0104	10	60	18000~20000	600~900	0.06~0.08	0.12~0.16	3D銑 (3D MILLING)
0104	10	60	18000~20000	900~1200	0.02~0.04	0.04~0.08	3D銑 (3D MILLING)
BTA BTD 0154	10	90	18000~20000	600~900	0.07~0.09	0.14~0.18	3D銑 (3D MILLING)
0154	10	90	18000~20000	900~1200	0.03~0.05	0.06~0.1	3D銑 (3D MILLING)
BTA BTD 0204	12	110	16000~18000	600~900	0.07~0.09	0.14~0.18	3D銑 (3D MILLING)
0204	12	110	16000~18000	900~1200	0.03~0.05	0.06~0.1	3D銑 (3D MILLING)
BTA BTD 0304	13	145	15000~16000	600~900	0.1~0.12	0.18~0.22	3D銑 (3D MILLING)
0304	13	145	15000~16000	900~1200	0.05~0.07	0.08~0.12	3D銑 (3D MILLING)
BTA BTD 0404	15	175	14000~15000	800~1200	0.11~0.13	0.22~0.26	3D銑 (3D MILLING)
0404	15	175	14000~15000	1300~1700	0.05~0.08	0.14~0.22	3D銑 (3D MILLING)
BTA BTD 0504	18	205	13000~14000	800~1200	0.13~0.16	0.22~0.26	3D銑 (3D MILLING)
0504	18	205	13000~14000	1500~1900	0.05~0.09	0.14~0.22	3D銑 (3D MILLING)
BTA BTD 0604	20	230	12000~13000	800~1200	0.15~0.2	0.3~0.36	3D銑 (3D MILLING)
0604	20	230	12000~13000	1600~2000	0.05~0.11	0.14~0.22	3D銑 (3D MILLING)
BTA BTD 0804	25	255	10000~11000	1400~1800	0.18~0.23	0.3~0.4	3D銑 (3D MILLING)
0804	25	255	10000~11000	2200~2600	0.05~0.13	0.16~0.24	3D銑 (3D MILLING)
BTA BTD 1004	35	285	8700~9200	1400~1800	0.23~0.28	0.4~0.5	3D銑 (3D MILLING)
1004	35	285	8700~9200	2000~2400	0.05~0.15	0.2~0.3	3D銑 (3D MILLING)
BTA BTD 1204	40	190	5000~6000	1100~1400	0.27~0.32	0.54~0.64	3D銑 (3D MILLING)
1204	40	190	5000~6000	1600~2000	0.1~0.2	0.3~0.4	3D銑 (3D MILLING)
BTA BTD 1604	50	255	4500~5500	800~1000	0.35~0.4	0.6~0.7	3D銑 (3D MILLING)
1604	50	255	4500~5500	1300~1600	0.1~0.23	0.36~0.46	3D銑 (3D MILLING)

BTB^{2T} / BTH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

BTB^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

BTH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
BTB BTH 0102	10	60	18000~20000	800~1000	0.08~0.1	0.16~0.2	3D銑(3D MILLING)
0102	10	60	18000~20000	1000~1400	0.06~0.08	0.12~0.16	3D銑(3D MILLING)
0102	10	60	18000~20000	1400~1800	0.02~0.04	0.04~0.08	3D銑(3D MILLING)
BTB BTH 0152	12	90	18000~20000	800~1000	0.1~0.12	0.2~0.24	3D銑(3D MILLING)
0152	12	90	18000~20000	1000~1400	0.07~0.09	0.14~0.18	3D銑(3D MILLING)
0152	12	90	18000~20000	1600~2000	0.03~0.05	0.06~0.1	3D銑(3D MILLING)
BTB BTH 0202	14	120	18000~20000	800~1000	0.1~0.12	0.2~0.24	3D銑(3D MILLING)
0202	14	120	18000~20000	1000~1400	0.07~0.09	0.14~0.18	3D銑(3D MILLING)
0202	14	120	18000~20000	1600~2000	0.03~0.05	0.06~0.1	3D銑(3D MILLING)
BTB BTH 0252	16	135	17000~18000	800~1000	0.12~0.14	0.24~0.28	3D銑(3D MILLING)
0252	16	135	17000~18000	1000~1400	0.08~0.1	0.16~0.2	3D銑(3D MILLING)
0252	16	135	17000~18000	1600~2000	0.04~0.06	0.08~0.12	3D銑(3D MILLING)
BTB BTH 0302	18	150	16000~17000	800~1000	0.15~0.18	0.3~0.36	3D銑(3D MILLING)
0302	18	150	16000~17000	1000~1400	0.1~0.12	0.2~0.24	3D銑(3D MILLING)
0302	18	150	16000~17000	1600~2000	0.05~0.07	0.1~0.14	3D銑(3D MILLING)
BTB BTH 0402	20	190	15000~16000	800~1000	0.18~0.22	0.36~0.44	3D銑(3D MILLING)
0402	20	190	15000~16000	1100~1500	0.11~0.13	0.22~0.26	3D銑(3D MILLING)
0402	20	190	15000~16000	1600~2000	0.05~0.08	0.14~0.22	3D銑(3D MILLING)
BTB BTH 0502	20	220	14000~15000	800~1200	0.2~0.25	0.4~0.5	3D銑(3D MILLING)
0502	20	220	14000~15000	1100~1500	0.13~0.16	0.26~0.32	3D銑(3D MILLING)
0502	20	220	14000~15000	1600~2000	0.05~0.09	0.14~0.18	3D銑(3D MILLING)
BTB BTH 0602	20	230	12000~13000	800~1200	0.28~0.33	0.56~0.66	3D銑(3D MILLING)
0602	20	245	13000~14000	1300~1700	0.15~0.2	0.3~0.4	3D銑(3D MILLING)
0602	20	245	13000~14000	1800~2200	0.05~0.11	0.14~0.22	3D銑(3D MILLING)
BTB BTH 0802	30	255	10000~11000	800~1200	0.3~0.35	0.6~0.7	3D銑(3D MILLING)
0802	30	305	12000~13000	1900~2300	0.2~0.25	0.4~0.5	3D銑(3D MILLING)
0802	30	305	12000~13000	1800~2200	0.05~0.13	0.2~0.26	3D銑(3D MILLING)
BTB BTH 1002	35	285	8700~9200	1200~1600	0.35~0.45	0.7~0.9	3D銑(3D MILLING)
1002	35	285	8700~9200	2100~2500	0.23~0.28	0.46~0.56	3D銑(3D MILLING)
1002	35	285	8700~9200	2000~2400	0.05~0.15	0.2~0.3	3D銑(3D MILLING)
BTB BTH 1202	40	265	7000~8000	1000~1400	0.4~0.5	0.8~1	3D銑(3D MILLING)
1202	40	265	7000~8000	1700~2100	0.27~0.32	0.54~0.64	3D銑(3D MILLING)
1202	40	265	7000~8000	2000~2400	0.1~0.2	0.3~0.4	3D銑(3D MILLING)
BTB BTH 1602	50	275	5000~6000	800~1000	0.6~0.65	1.2~1.3	3D銑(3D MILLING)
1602	50	275	5000~6000	1200~1600	0.35~0.4	0.7~0.8	3D銑(3D MILLING)
1602	50	275	5000~6000	2000~2400	0.1~0.23	0.36~0.46	3D銑(3D MILLING)
BTB BTH 2002	60	280	4000~5000	800~1200	0.7~0.8	1.4~1.6	3D銑(3D MILLING)
2002	60	280	4000~5000	1400~1800	0.4~0.45	0.8~0.9	3D銑(3D MILLING)
2002	60	280	4000~5000	1400~1800	0.1~0.25	0.4~0.5	3D銑(3D MILLING)

BTB^{2T} / BTH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 / Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

BTB^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

BTH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
BTB BTH 0102	10	60	18000~20000	900~1300	0.06~0.08	0.12~0.16	3D 銑 (3D MILLING)
0102	10	60	18000~20000	1200~1600	0.02~0.04	0.04~0.08	3D 銑 (3D MILLING)
BTB BTH 0152	12	90	18000~20000	900~1300	0.07~0.09	0.14~0.18	3D 銑 (3D MILLING)
0152	12	90	16000~20000	1200~1600	0.03~0.05	0.06~0.1	3D 銑 (3D MILLING)
BTB BTH 0202	14	110	16000~18000	800~1200	0.07~0.09	0.14~0.18	3D 銑 (3D MILLING)
0202	14	110	16000~18000	1200~1600	0.03~0.05	0.06~0.1	3D 銑 (3D MILLING)
BTB BTH 0252	16	120	15000~16000	800~1200	0.07~0.09	0.14~0.18	3D 銑 (3D MILLING)
0252	16	120	15000~16000	1200~1600	0.03~0.05	0.06~0.1	3D 銑 (3D MILLING)
BTB BTH 0302	18	145	15000~16000	800~1200	0.09~0.11	0.18~0.22	3D 銑 (3D MILLING)
0302	18	145	15000~16000	1200~1600	0.04~0.06	0.08~0.12	3D 銑 (3D MILLING)
BTB BTH 0402	20	175	14000~15000	900~1300	0.11~0.13	0.22~0.26	3D 銑 (3D MILLING)
0402	20	175	14000~15000	1400~1800	0.05~0.08	0.14~0.22	3D 銑 (3D MILLING)
BTB BTH 0502	20	205	13000~14000	900~1300	0.13~0.16	0.26~0.32	3D 銑 (3D MILLING)
0502	20	205	13000~14000	1400~1800	0.05~0.09	0.14~0.18	3D 銑 (3D MILLING)
BTB BTH 0602	20	230	12000~13000	900~1300	0.15~0.2	0.3~0.4	3D 銑 (3D MILLING)
0602	20	230	12000~13000	1600~2000	0.05~0.11	0.14~0.22	3D 銑 (3D MILLING)
BTB BTH 0802	30	255	10000~11000	600~1000	0.25~0.3	0.5~0.6	3D 銑 (3D MILLING)
0802	30	255	10000~11000	1700~2100	0.18~0.23	0.36~0.46	3D 銑 (3D MILLING)
0802	30	305	12000~13000	1600~2000	0.05~0.13	0.16~0.26	3D 銑 (3D MILLING)
BTB BTH 1002	35	285	8700~9200	800~1200	0.3~0.35	0.6~0.7	3D 銑 (3D MILLING)
1002	35	285	8700~9200	1800~2200	0.23~0.28	0.46~0.56	3D 銑 (3D MILLING)
1002	35	285	8700~9200	1600~2000	0.05~0.15	0.2~0.3	3D 銑 (3D MILLING)
BTB BTH 1202	40	260	6500~7500	800~1100	0.35~0.4	0.7~0.8	3D 銑 (3D MILLING)
1202	40	260	6500~7500	1500~1900	0.23~0.28	0.46~0.56	3D 銑 (3D MILLING)
1202	40	260	6500~7500	1600~2000	0.05~0.15	0.2~0.3	3D 銑 (3D MILLING)
BTB BTH 1602	50	275	5000~6000	700~900	0.5~0.55	1~1.1	3D 銑 (3D MILLING)
1602	50	275	5000~6000	1000~1400	0.27~0.32	0.54~0.64	3D 銑 (3D MILLING)
1602	50	275	5000~6000	1600~2000	0.1~0.2	0.3~0.4	3D 銑 (3D MILLING)
BTB BTH 2002	60	280	4000~5000	600~1000	0.6~0.65	1.2~1.3	3D 銑 (3D MILLING)
2002	60	280	4000~5000	1000~1400	0.3~0.35	0.6~0.7	3D 銑 (3D MILLING)
2002	60	280	4000~5000	1300~1700	0.1~0.23	0.36~0.46	3D 銑 (3D MILLING)

BTB^{2T} / BTH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

BTB ^{2T} 冷卻方式 Coolant Type		乾式切削 Dry coolant		BTH ^{2T} 冷卻方式 Coolant Type		濕式切削 Wet coolant	
型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
BTB BTH 0102	10	60	18000~20000	900~1300	0.06~0.08	0.12~0.16	3D銑 (3D MILLING)
0102	10	60	18000~20000	1100~1400	0.02~0.04	0.04~0.08	3D銑 (3D MILLING)
BTB BTH 0152	12	90	18000~20000	900~1300	0.07~0.09	0.14~0.18	3D銑 (3D MILLING)
0152	12	90	18000~20000	1100~1400	0.03~0.05	0.06~0.1	3D銑 (3D MILLING)
BTB BTH 0202	14	110	16000~18000	800~1200	0.07~0.09	0.14~0.18	3D銑 (3D MILLING)
0202	14	110	16000~18000	1100~1400	0.03~0.05	0.06~0.1	3D銑 (3D MILLING)
BTB BTH 0252	16	120	15000~16000	800~1200	0.07~0.09	0.14~0.18	3D銑 (3D MILLING)
0252	16	120	15000~16000	1100~1400	0.03~0.05	0.06~0.1	3D銑 (3D MILLING)
BTB BTH 0302	18	145	15000~16000	800~1200	0.09~0.11	0.18~0.22	3D銑 (3D MILLING)
0302	18	145	15000~16000	1100~1400	0.04~0.06	0.08~0.12	3D銑 (3D MILLING)
BTB BTH 0402	20	175	14000~15000	900~1300	0.11~0.13	0.22~0.26	3D銑 (3D MILLING)
0402	20	175	14000~15000	1200~1600	0.05~0.08	0.14~0.22	3D銑 (3D MILLING)
BTB BTH 0502	20	205	13000~14000	900~1300	0.13~0.16	0.26~0.32	3D銑 (3D MILLING)
0502	20	205	13000~14000	1200~1600	0.05~0.09	0.14~0.18	3D銑 (3D MILLING)
BTB BTH 0602	20	230	12000~13000	900~1300	0.15~0.2	0.3~0.4	3D銑 (3D MILLING)
0602	20	230	12000~13000	1400~1800	0.05~0.11	0.14~0.22	3D銑 (3D MILLING)
BTB BTH 0802	30	255	10000~11000	600~1000	0.25~0.3	0.5~0.6	3D銑 (3D MILLING)
0802	30	255	10000~11000	1700~2100	0.18~0.23	0.36~0.46	3D銑 (3D MILLING)
0802	30	305	12000~13000	1400~1800	0.05~0.13	0.16~0.26	3D銑 (3D MILLING)
BTB BTH 1002	35	285	8700~9200	800~1200	0.3~0.35	0.6~0.7	3D銑 (3D MILLING)
1002	35	285	8700~9200	1800~2200	0.23~0.28	0.46~0.56	3D銑 (3D MILLING)
1002	35	285	8700~9200	1400~1800	0.05~0.15	0.2~0.3	3D銑 (3D MILLING)
BTB BTH 1202	40	260	6500~7500	800~1100	0.35~0.4	0.7~0.8	3D銑 (3D MILLING)
1202	40	260	6500~7500	1500~1900	0.23~0.28	0.46~0.56	3D銑 (3D MILLING)
1202	40	260	6500~7500	1400~1800	0.05~0.15	0.2~0.3	3D銑 (3D MILLING)
BTB BTH 1602	50	275	5000~6000	700~900	0.5~0.55	1~1.1	3D銑 (3D MILLING)
1602	50	275	5000~6000	1000~1400	0.27~0.32	0.54~0.64	3D銑 (3D MILLING)
1602	50	275	5000~6000	1400~1800	0.1~0.2	0.3~0.4	3D銑 (3D MILLING)
BTB BTH 2002	60	280	4000~5000	600~1000	0.6~0.65	1.2~1.3	3D銑 (3D MILLING)
2002	60	280	4000~5000	1000~1400	0.3~0.35	0.6~0.7	3D銑 (3D MILLING)
2002	60	280	4000~5000	1200~1600	0.1~0.23	0.36~0.46	3D銑 (3D MILLING)

BTB^{2T} / BTH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

沃斯田鐵系不銹鋼 : Stainless Steels
SUS304 : 1.4301 : AISI 304 (HRC28~32)

BTB ^{2T} 冷卻方式 Coolant Type		乾式切削 Dry coolant		BTH ^{2T} 冷卻方式 Coolant Type		濕式切削 Wet coolant	
型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
BTB BTH 0102	10	60	18000~20000	900~1300	0.06~0.08	0.12~0.16	3D銑 (3D MILLING)
0102	10	60	18000~20000	1100~1400	0.02~0.04	0.04~0.08	3D銑 (3D MILLING)
BTB BTH 0152	12	90	18000~20000	900~1300	0.07~0.09	0.14~0.18	3D銑 (3D MILLING)
0152	12	90	18000~20000	1100~1400	0.03~0.05	0.06~0.1	3D銑 (3D MILLING)
BTB BTH 0202	14	110	16000~18000	800~1200	0.07~0.09	0.14~0.18	3D銑 (3D MILLING)
0202	14	110	16000~18000	1100~1400	0.03~0.05	0.06~0.1	3D銑 (3D MILLING)
BTB BTH 0252	16	120	15000~16000	800~1200	0.07~0.09	0.14~0.18	3D銑 (3D MILLING)
0252	16	120	15000~16000	1100~1400	0.03~0.05	0.06~0.1	3D銑 (3D MILLING)
BTB BTH 0302	18	145	15000~16000	800~1200	0.09~0.11	0.18~0.22	3D銑 (3D MILLING)
0302	18	145	15000~16000	1100~1400	0.04~0.06	0.08~0.12	3D銑 (3D MILLING)
BTB BTH 0402	20	175	14000~15000	900~1300	0.11~0.13	0.22~0.26	3D銑 (3D MILLING)
0402	20	175	14000~15000	1200~1600	0.05~0.08	0.14~0.22	3D銑 (3D MILLING)
BTB BTH 0502	20	205	13000~14000	900~1300	0.13~0.16	0.26~0.32	3D銑 (3D MILLING)
0502	20	205	13000~14000	1200~1600	0.05~0.09	0.14~0.18	3D銑 (3D MILLING)
BTB BTH 0602	20	230	12000~13000	900~1300	0.15~0.2	0.3~0.4	3D銑 (3D MILLING)
0602	20	230	12000~13000	1400~1800	0.05~0.11	0.14~0.22	3D銑 (3D MILLING)
BTB BTH 0802	30	255	10000~11000	600~1000	0.25~0.3	0.5~0.6	3D銑 (3D MILLING)
0802	30	255	10000~11000	1700~2100	0.18~0.23	0.36~0.46	3D銑 (3D MILLING)
0802	30	305	12000~13000	1400~1800	0.05~0.13	0.16~0.26	3D銑 (3D MILLING)
BTB BTH 1002	35	285	8700~9200	800~1200	0.3~0.35	0.6~0.7	3D銑 (3D MILLING)
1002	35	285	8700~9200	1800~2200	0.23~0.28	0.46~0.56	3D銑 (3D MILLING)
1002	35	285	8700~9200	1400~1800	0.05~0.15	0.2~0.3	3D銑 (3D MILLING)
BTB BTH 1202	40	260	6500~7500	800~1100	0.35~0.4	0.7~0.8	3D銑 (3D MILLING)
1202	40	260	6500~7500	1500~1900	0.23~0.28	0.46~0.56	3D銑 (3D MILLING)
1202	40	260	6500~7500	1400~1800	0.05~0.15	0.2~0.3	3D銑 (3D MILLING)
BTB BTH 1602	50	275	5000~6000	700~900	0.5~0.55	1~1.1	3D銑 (3D MILLING)
1602	50	275	5000~6000	1000~1400	0.27~0.32	0.54~0.64	3D銑 (3D MILLING)
1602	50	275	5000~6000	1400~1800	0.1~0.2	0.3~0.4	3D銑 (3D MILLING)
BTB BTH 2002	60	280	4000~5000	600~1000	0.6~0.65	1.2~1.3	3D銑 (3D MILLING)
2002	60	280	4000~5000	1000~1400	0.3~0.35	0.6~0.7	3D銑 (3D MILLING)
2002	60	280	4000~5000	1200~1600	0.1~0.23	0.36~0.46	3D銑 (3D MILLING)

BTB^{4T} / BTH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

BTB^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

BTH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
BTB BTH 0204	14	120	18000~20000	1200~1600	0.08~0.1	0.16~0.2	3D銑(3D MILLING)
0204	14	120	18000~20000	1800~2200	0.04~0.06	0.08~0.12	3D銑(3D MILLING)
BTB BTH 0304	14	150	16000~17000	1200~1600	0.1~0.12	0.2~0.24	3D銑(3D MILLING)
0304	14	150	16000~17000	1800~2200	0.05~0.07	0.1~0.14	3D銑(3D MILLING)
BTB BTH 0404	20	190	15000~16000	1400~1800	0.11~0.13	0.22~0.26	3D銑(3D MILLING)
0404	20	190	15000~16000	2200~2600	0.05~0.08	0.14~0.22	3D銑(3D MILLING)
BTB BTH 0504	20	220	14000~15000	1400~1800	0.13~0.16	0.26~0.32	3D銑(3D MILLING)
0504	20	220	14000~15000	2400~2800	0.05~0.09	0.14~0.18	3D銑(3D MILLING)
BTB BTH 0604	20	245	13000~14000	1600~2000	0.15~0.2	0.3~0.4	3D銑(3D MILLING)
0604	20	245	13000~14000	2600~3000	0.05~0.11	0.14~0.22	3D銑(3D MILLING)
BTB BTH 0804	30	305	12000~13000	2200~2600	0.2~0.25	0.4~0.5	3D銑(3D MILLING)
0804	30	305	12000~13000	3000~3400	0.05~0.13	0.2~0.26	3D銑(3D MILLING)
BTB BTH 1004	35	285	8700~9200	2400~2800	0.23~0.28	0.46~0.56	3D銑(3D MILLING)
1004	35	285	8700~9200	3000~3400	0.05~0.15	0.2~0.3	3D銑(3D MILLING)
BTB BTH 1204	40	265	7000~8000	2000~2400	0.27~0.32	0.54~0.64	3D銑(3D MILLING)
1204	40	265	7000~8000	2800~3200	0.1~0.2	0.3~0.4	3D銑(3D MILLING)
BTB BTH 1604	50	255	5000~6000	1400~1800	0.35~0.4	0.7~0.8	3D銑(3D MILLING)
1604	50	255	5000~6000	2400~2800	0.1~0.23	0.36~0.46	3D銑(3D MILLING)

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels

P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

BTA^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

BTD^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
BTB BTH 0204	14	110	16000~18000	1000~1200	0.08~0.1	0.16~0.2	3D銑(3D MILLING)
0204	14	110	16000~18000	1600~2000	0.04~0.06	0.08~0.12	3D銑(3D MILLING)
BTB BTH 0304	14	145	15000~16000	1000~1400	0.1~0.12	0.2~0.24	3D銑(3D MILLING)
0304	14	145	15000~16000	1600~2000	0.05~0.07	0.1~0.14	3D銑(3D MILLING)
BTB BTH 0404	20	175	14000~15000	1200~1600	0.11~0.13	0.22~0.26	3D銑(3D MILLING)
0404	20	175	14000~15000	2000~2400	0.05~0.08	0.14~0.22	3D銑(3D MILLING)
BTB BTH 0504	20	205	13000~14000	1200~1600	0.13~0.16	0.26~0.32	3D銑(3D MILLING)
0504	20	205	13000~14000	2200~2600	0.05~0.09	0.14~0.18	3D銑(3D MILLING)
BTB BTH 0604	20	230	12000~13000	1200~1600	0.15~0.2	0.3~0.4	3D銑(3D MILLING)
0604	20	230	12000~13000	2400~2800	0.05~0.11	0.14~0.22	3D銑(3D MILLING)
BTB BTH 0804	30	255	10000~11000	2000~2400	0.18~0.23	0.36~0.46	3D銑(3D MILLING)
0804	30	305	12000~13000	2800~3200	0.05~0.13	0.16~0.26	3D銑(3D MILLING)
BTB BTH 1004	35	285	8700~9200	2200~2600	0.2~0.25	0.4~0.5	3D銑(3D MILLING)
1004	35	285	8700~9200	2800~3200	0.05~0.15	0.2~0.3	3D銑(3D MILLING)

BTB^{4T} / BTH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

BTB^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

BTH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
BTB BTH 1204	40	225	5500~6500	1800~2200	0.23~0.28	0.46~0.56	3D 銼 (3D MILLING)
1204	40	225	5500~6500	2600~3000	0.1~0.15	0.2~0.3	3D 銼 (3D MILLING)
BTB BTH 1604	50	200	4000~5000	1000~1400	0.27~0.32	0.54~0.64	3D 銼 (3D MILLING)
1604	50	200	4000~5000	2000~2400	0.1~0.2	0.3~0.4	3D 銼 (3D MILLING)

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 ; AISI420 : M310 (HRC36~45)

BTB^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

BTH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
BTB BTH 0204	14	110	16000~18000	900~1100	0.08~0.1	0.16~0.2	3D 銼 (3D MILLING)
0204	14	110	16000~18000	1400~1800	0.04~0.06	0.08~0.12	3D 銼 (3D MILLING)
BTB BTH 0304	14	145	15000~16000	900~1200	0.1~0.12	0.2~0.24	3D 銼 (3D MILLING)
0304	14	145	15000~16000	1400~1800	0.05~0.07	0.1~0.14	3D 銼 (3D MILLING)
BTB BTH 0404	20	175	14000~15000	1200~1400	0.11~0.13	0.22~0.26	3D 銼 (3D MILLING)
0404	20	175	14000~15000	1800~2200	0.05~0.08	0.14~0.22	3D 銼 (3D MILLING)
BTB BTH 0504	20	205	13000~14000	1200~1400	0.13~0.16	0.26~0.32	3D 銼 (3D MILLING)
0504	20	205	13000~14000	2000~2400	0.05~0.09	0.14~0.18	3D 銼 (3D MILLING)
BTB BTH 0604	20	230	12000~13000	1200~1400	0.15~0.2	0.3~0.4	3D 銼 (3D MILLING)
0604	20	230	12000~13000	2200~2600	0.05~0.11	0.14~0.22	3D 銼 (3D MILLING)
BTB BTH 0804	30	255	10000~11000	1800~2200	0.18~0.23	0.36~0.46	3D 銼 (3D MILLING)
0804	30	305	12000~13000	2600~3000	0.05~0.13	0.16~0.26	3D 銼 (3D MILLING)
BTB BTH 1004	35	285	8700~9200	2000~2400	0.2~0.25	0.4~0.5	3D 銼 (3D MILLING)
1004	35	285	8700~9200	2400~2800	0.05~0.15	0.2~0.3	3D 銼 (3D MILLING)
BTB BTH 1204	40	225	5500~6500	1600~2000	0.23~0.28	0.46~0.56	3D 銼 (3D MILLING)
1204	40	225	5500~6500	2000~2400	0.1~0.15	0.2~0.3	3D 銼 (3D MILLING)
BTB BTH 1604	50	200	4000~5000	900~1200	0.27~0.32	0.54~0.64	3D 銼 (3D MILLING)
1604	50	200	4000~5000	1600~2000	0.1~0.2	0.3~0.4	3D 銼 (3D MILLING)

BTB^{4T} / BTH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

沃斯田鐵系不銹鋼 : Stainless Steels
SUS304 : 1.4301 : AISI 304 (HRc28~32)

BTB ^{4T} 冷卻方式 Coolant Type		乾式切削 Dry coolant			BTH ^{4T} 冷卻方式 Coolant Type		濕式切削 Wet coolant	
型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type	
BTB BTH 0204	14	110	16000~18000	900~1100	0.08~0.1	0.16~0.2	3D銑 (3D MILLING)	
0204	14	110	16000~18000	1400~1800	0.04~0.06	0.08~0.12	3D銑 (3D MILLING)	
BTB BTH 0304	14	145	15000~16000	900~1200	0.1~0.12	0.2~0.24	3D銑 (3D MILLING)	
0304	14	145	15000~16000	1400~1800	0.05~0.07	0.1~0.14	3D銑 (3D MILLING)	
BTB BTH 0404	20	175	14000~15000	1200~1400	0.11~0.13	0.22~0.26	3D銑 (3D MILLING)	
0404	20	175	14000~15000	1800~2200	0.05~0.08	0.14~0.22	3D銑 (3D MILLING)	
BTB BTH 0504	20	205	13000~14000	1200~1400	0.13~0.16	0.26~0.32	3D銑 (3D MILLING)	
0504	20	205	13000~14000	2000~2400	0.05~0.09	0.14~0.18	3D銑 (3D MILLING)	
BTB BTH 0604	20	230	12000~13000	1200~1400	0.15~0.2	0.3~0.4	3D銑 (3D MILLING)	
0604	20	230	12000~13000	2200~2600	0.05~0.11	0.14~0.22	3D銑 (3D MILLING)	
BTB BTH 0804	30	255	10000~11000	1800~2200	0.18~0.23	0.36~0.46	3D銑 (3D MILLING)	
0804	30	305	12000~13000	2600~3000	0.05~0.13	0.16~0.26	3D銑 (3D MILLING)	
BTB BTH 1004	35	285	8700~9200	2000~2400	0.2~0.25	0.4~0.5	3D銑 (3D MILLING)	
1004	35	285	8700~9200	2400~2800	0.05~0.15	0.2~0.3	3D銑 (3D MILLING)	
BTB BTH 1204	40	225	5500~6500	1600~2000	0.23~0.28	0.46~0.56	3D銑 (3D MILLING)	
1204	40	225	5500~6500	2000~2400	0.1~0.15	0.2~0.3	3D銑 (3D MILLING)	
BTB BTH 1604	50	200	4000~5000	900~1200	0.27~0.32	0.54~0.64	3D銑 (3D MILLING)	
1604	50	200	4000~5000	1600~2000	0.1~0.2	0.3~0.4	3D銑 (3D MILLING)	

HBA IBA / HBH IBH

切削條件表

Milling Conditions

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

被切削材 Work Material		乾式切削 Dry coolant						HBH IBH 冷卻方式 Coolant Type		濕式切削 Wet coolant	
型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type				
HBA HBH 0202	40	105	15500~16500	1600~2000	0.03~0.05	0.06~0.1	3D 銼 (3D MILLING)				
HBA HBH 0252	40	115	15500~16500	1600~2000	0.03~0.05	0.06~0.1	3D 銼 (3D MILLING)				
HBA HBH 0302	40	135	13000~14000	1800~2200	0.04~0.05	0.08~0.1	3D 銼 (3D MILLING)				
HBA HBH 0402	40	160	11500~12500	1800~2200	0.06~0.08	0.12~0.16	3D 銼 (3D MILLING)				
HBA HBH 0502	40	175	10000~11000	1800~2200	0.06~0.08	0.12~0.16	3D 銼 (3D MILLING)				
HBA HBH 0602	40	175	8800~9300	1600~2000	0.07~0.09	0.14~0.18	3D 銼 (3D MILLING)				
HBA HBH 0802	40	265	9500~10500	1600~2000	0.08~0.1	0.16~0.2	3D 銼 (3D MILLING)				
IBA IBH 0202	60	80	12000~13000	1200~1600	0.03~0.05	0.08~0.12	3D 銼 (3D MILLING)				
IBA IBH 0302	60	120	12000~13000	1300~1700	0.03~0.06	0.08~0.12	3D 銼 (3D MILLING)				
IBA IBH 0402	60	150	11000~12000	1400~1800	0.04~0.06	0.08~0.12	3D 銼 (3D MILLING)				
IBA IBH 0602	60	200	10000~11000	1600~2000	0.06~0.08	0.12~0.16	3D 銼 (3D MILLING)				
IBA IBH 0802	60	225	8300~8800	1400~1800	0.06~0.1	0.16~0.2	3D 銼 (3D MILLING)				
IBA IBH 1002	60	290	8700~9200	1400~1800	0.05~0.14	0.18~0.28	3D 銼 (3D MILLING)				
IBA IBH 1202	60	325	8200~8600	1400~1800	0.05~0.15	0.2~0.3	3D 銼 (3D MILLING)				

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels

P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

被切削材 Work Material		乾式切削 Dry coolant						HBH IBH 冷卻方式 Coolant Type		濕式切削 Wet coolant	
型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type				
HBA HBH 0202	40	105	15500~16500	1400~1800	0.03~0.05	0.06~0.1	3D 銼 (3D MILLING)				
HBA HBH 0252	40	115	15500~16500	1400~1800	0.03~0.05	0.06~0.1	3D 銼 (3D MILLING)				
HBA HBH 0302	40	135	13000~14000	1600~2000	0.04~0.05	0.08~0.1	3D 銼 (3D MILLING)				
HBA HBH 0402	40	160	11500~12500	1600~2000	0.06~0.08	0.12~0.16	3D 銼 (3D MILLING)				
HBA HBH 0502	40	175	10000~11000	1600~2000	0.06~0.08	0.12~0.16	3D 銼 (3D MILLING)				
HBA HBH 0602	40	175	8800~9300	1400~1800	0.07~0.09	0.14~0.18	3D 銼 (3D MILLING)				
HBA HBH 0802	40	265	9500~10500	1400~1800	0.08~0.1	0.16~0.2	3D 銼 (3D MILLING)				
IBA IBH 0202	60	75	11000~12000	1200~1600	0.04~0.06	0.08~0.12	3D 銼 (3D MILLING)				
IBA IBH 0302	60	110	11000~12000	1200~1600	0.04~0.06	0.08~0.12	3D 銼 (3D MILLING)				
IBA IBH 0402	60	130	10000~11000	1200~1600	0.04~0.06	0.08~0.12	3D 銼 (3D MILLING)				
IBA IBH 0602	60	180	9000~10000	1400~1800	0.05~0.08	0.12~0.16	3D 銼 (3D MILLING)				
IBA IBH 0802	60	210	8000~8500	1200~1600	0.05~0.1	0.16~0.2	3D 銼 (3D MILLING)				
IBA IBH 1002	60	260	8000~8500	1200~1600	0.05~0.14	0.18~0.28	3D 銼 (3D MILLING)				
IBA IBH 1202	60	270	7000~7500	1200~1600	0.05~0.15	0.2~0.3	3D 銼 (3D MILLING)				

HBA IBA / HBH IBH

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRc36~45)

HBA IBA 冷卻方式 Coolant Type

乾式切削 Dry coolant

HBH IBH 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
HBA HBH 0202	40	105	15500~16500	1200~1600	0.03~0.05	0.06~0.1	3D銑 (3D MILLING)
HBA HBH 0252	40	115	15500~16500	1200~1600	0.03~0.05	0.06~0.1	3D銑 (3D MILLING)
HBA HBH 0302	40	135	13000~14000	1400~1800	0.04~0.05	0.08~0.1	3D銑 (3D MILLING)
HBA HBH 0402	40	160	11500~12500	1400~1800	0.06~0.08	0.12~0.16	3D銑 (3D MILLING)
HBA HBH 0502	40	175	10000~11000	1400~1800	0.06~0.08	0.12~0.16	3D銑 (3D MILLING)
HBA HBH 0602	40	175	8800~9300	1300~1700	0.07~0.09	0.14~0.18	3D銑 (3D MILLING)
HBA HBH 0802	40	265	9500~10500	1300~1700	0.08~0.1	0.16~0.2	3D銑 (3D MILLING)
IBA IBH 0202	60	75	11000~12000	1000~1400	0.04~0.06	0.08~0.12	3D銑 (3D MILLING)
IBA IBH 0302	60	110	11000~12000	1000~1400	0.04~0.06	0.08~0.12	3D銑 (3D MILLING)
IBA IBH 0402	60	130	10000~11000	1000~1400	0.04~0.06	0.08~0.12	3D銑 (3D MILLING)
IBA IBH 0602	60	180	9000~10000	1200~1600	0.05~0.08	0.12~0.16	3D銑 (3D MILLING)
IBA IBH 0802	60	200	7500~8000	1000~1400	0.05~0.1	0.16~0.2	3D銑 (3D MILLING)
IBA IBH 1002	60	230	7000~7500	1000~1400	0.05~0.14	0.18~0.28	3D銑 (3D MILLING)
IBA IBH 1202	60	250	6500~7000	1000~1400	0.05~0.15	0.2~0.3	3D銑 (3D MILLING)

ETA^{2T} / ETD^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

ETA^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

ETD^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETA ETD 0102	12	30	9000~10000	700~1000	0.03~0.05	1	溝銑 (SLOTTING)
0102	12	30	9000~10000	800~1200	0.06~0.08	1	溝銑 (SLOTTING)
0102	12	30	9000~10000	700~900	1	0.03~0.05	側銑 (SIDE MILLING)
0102	12	30	9000~10000	700~1000	1	0.06~0.08	側銑 (SIDE MILLING)
ETA ETD 0152	14	45	9000~10000	700~1000	0.03~0.05	1.5	溝銑 (SLOTTING)
0152	14	45	9000~10000	800~1200	0.06~0.09	1.5	溝銑 (SLOTTING)
0152	14	45	9000~10000	800~1000	1.5	0.03~0.05	側銑 (SIDE MILLING)
0152	14	45	9000~10000	700~1000	1.5	0.06~0.09	側銑 (SIDE MILLING)
ETA ETD 0202	16	55	8700~9200	700~1000	0.04~0.06	2	溝銑 (SLOTTING)
0202	16	55	8700~9200	1000~1400	0.07~0.13	2	溝銑 (SLOTTING)
0202	16	55	8700~9200	800~1000	4	0.04~0.06	側銑 (SIDE MILLING)
0202	16	55	8700~9200	700~1100	4	0.07~0.13	側銑 (SIDE MILLING)
ETA ETD 0252	16	65	8000~8500	700~1000	0.04~0.06	2.5	溝銑 (SLOTTING)
0252	16	65	8000~8500	1000~1400	0.07~0.13	2.5	溝銑 (SLOTTING)
0252	16	65	8000~8500	800~1000	5	0.04~0.06	側銑 (SIDE MILLING)
0252	16	65	8000~8500	700~1100	5	0.07~0.13	側銑 (SIDE MILLING)
ETA ETD 0302S	18	75	7500~8000	700~1000	0.04~0.08	3	溝銑 (SLOTTING)
0302S	18	75	7500~8000	1000~1400	0.09~0.15	3	溝銑 (SLOTTING)
0302S	18	75	7500~8000	700~1000	6	0.04~0.08	側銑 (SIDE MILLING)
0302S	18	75	7500~8000	800~1100	6	0.09~0.15	側銑 (SIDE MILLING)
ETA ETD 0302	18	75	7500~8000	700~1000	0.04~0.08	3	溝銑 (SLOTTING)
0302	18	75	7500~8000	1200~1600	0.09~0.15	3	溝銑 (SLOTTING)
0302	18	75	7500~8000	700~1000	6	0.04~0.08	側銑 (SIDE MILLING)
0302	18	75	7500~8000	800~1200	6	0.09~0.15	側銑 (SIDE MILLING)
ETA ETD 0402	20	75	5700~6200	700~1000	0.05~0.1	4	溝銑 (SLOTTING)
0402	20	75	5700~6200	1200~1600	0.11~0.18	4	溝銑 (SLOTTING)
0402	20	75	5700~6200	700~1000	8	0.05~0.1	側銑 (SIDE MILLING)
0402	20	75	5700~6200	1000~1400	8	0.11~0.18	側銑 (SIDE MILLING)
ETA ETD 0502S	20	80	4800~5300	700~1000	0.05~0.1	5	溝銑 (SLOTTING)
0502S	20	80	4800~5300	1200~1600	0.15~0.25	5	溝銑 (SLOTTING)
0502S	20	80	4800~5300	700~1000	10	0.05~0.1	側銑 (SIDE MILLING)
0502S	20	80	4800~5300	1000~1400	10	0.15~0.25	側銑 (SIDE MILLING)
ETA ETD 0502	20	80	4800~5300	700~1000	0.05~0.1	5	溝銑 (SLOTTING)
0502	20	80	4800~5300	1200~1600	0.15~0.25	5	溝銑 (SLOTTING)
0502	20	80	4800~5300	700~1000	10	0.05~0.1	側銑 (SIDE MILLING)
0502	20	80	4800~5300	1000~1400	10	0.15~0.25	側銑 (SIDE MILLING)
ETA ETD 0602	23	80	4000~4500	700~1000	0.05~0.1	6	溝銑 (SLOTTING)
0602	23	80	4000~4500	800~1200	0.3~0.4	6	溝銑 (SLOTTING)
0602	23	80	4000~4500	700~1000	12	0.05~0.1	側銑 (SIDE MILLING)
0602	23	80	4000~4500	1400~1800	12	0.3~0.4	側銑 (SIDE MILLING)

ETA^{2T} / ETD^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

ETA^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

ETD^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETA ETD 0802	30	90	2700~3200	700~1000	0.05~0.1	8	溝銑 (SLOTTING)
0802	30	90	2700~3200	700~1000	0.4~0.6	8	溝銑 (SLOTTING)
0802	30	90	2700~3200	500~800	16	0.05~0.1	側銑 (SIDE MILLING)
0802	30	90	2700~3200	1200~1600	16	0.4~0.6	側銑 (SIDE MILLING)
ETA ETD 1002	35	85	2500~3000	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
1002	35	85	2500~3000	700~1100	0.5~0.7	10	溝銑 (SLOTTING)
1002	35	70	2000~2500	400~700	20	0.05~0.1	側銑 (SIDE MILLING)
1002	35	70	2000~2500	800~1200	20	0.5~0.7	側銑 (SIDE MILLING)
ETA ETD 1202	37	105	2500~3000	700~1000	0.05~0.1	12	溝銑 (SLOTTING)
1202	37	85	2000~2500	500~800	0.6~0.9	12	溝銑 (SLOTTING)
1202	37	115	2800~3300	500~800	24	0.05~0.1	側銑 (SIDE MILLING)
1202	37	115	2800~3300	1000~1400	24	0.4~0.5	側銑 (SIDE MILLING)
ETA ETD 1602	50	100	1800~2300	500~800	0.05~0.1	16	溝銑 (SLOTTING)
1602	50	85	1500~2000	400~700	0.8~1.2	16	溝銑 (SLOTTING)
1602	50	115	2000~2500	500~800	16	0.8~1.2	側銑 (SIDE MILLING)
1602	50	115	2000~2500	400~700	32	0.05~0.1	側銑 (SIDE MILLING)
1602	50	115	2000~2500	700~1000	32	0.4~0.5	側銑 (SIDE MILLING)
ETA ETD 2002	55	95	1300~1800	400~700	0.05~0.15	20	溝銑 (SLOTTING)
2002	55	80	1000~1500	300~600	0.8~1.2	20	溝銑 (SLOTTING)
2002	55	110	1500~2000	400~700	20	0.8~1.2	側銑 (SIDE MILLING)
2002	55	110	1500~2000	300~600	40	0.05~0.15	側銑 (SIDE MILLING)
2002	55	110	1500~2000	500~800	40	0.4~0.5	側銑 (SIDE MILLING)

ETA^{2T} / ETD^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

鉻鉬合金鋼 : Chromium Molybdenum Alloy Steels
SCM440 : 1.7225 : 4140 : 42CrMoA (HRC25~28)

ETA^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

ETD^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETA ETD 0102	14	30	9000~10000	700~1000	0.03~0.05	1	溝銑 (SLOTTING)
0102	14	30	9000~10000	800~1200	0.06~0.08	1	溝銑 (SLOTTING)
0102	14	30	9000~10000	600~800	1	0.03~0.05	側銑 (SIDE MILLING)
0102	14	30	9000~10000	500~800	1	0.06~0.08	側銑 (SIDE MILLING)
ETA ETD 0152	14	45	9000~10000	700~1000	0.03~0.05	1.5	溝銑 (SLOTTING)
0152	14	45	9000~10000	800~1200	0.06~0.09	1.5	溝銑 (SLOTTING)
0152	14	45	9000~10000	700~900	1.5	0.03~0.05	側銑 (SIDE MILLING)
0152	14	45	9000~10000	500~800	1.5	0.06~0.09	側銑 (SIDE MILLING)
ETA ETD 0202	16	55	8700~9200	700~1000	0.04~0.06	2	溝銑 (SLOTTING)
0202	16	55	8700~9200	1000~1400	0.07~0.13	2	溝銑 (SLOTTING)
0202	16	55	8700~9200	800~1000	4	0.04~0.06	側銑 (SIDE MILLING)
0202	16	55	8700~9200	700~1000	4	0.07~0.13	側銑 (SIDE MILLING)
ETA ETD 0252	16	65	8000~8500	700~1000	0.04~0.06	2.5	溝銑 (SLOTTING)
0252	16	65	8000~8500	1000~1400	0.07~0.13	2.5	溝銑 (SLOTTING)
0252	16	65	8000~8500	700~900	5	0.04~0.06	側銑 (SIDE MILLING)
0252	16	65	8000~8500	700~1000	5	0.07~0.13	側銑 (SIDE MILLING)
ETA ETD 0302S	18	75	7500~8000	700~1000	0.04~0.08	3	溝銑 (SLOTTING)
0302S	18	75	7500~8000	900~1300	0.09~0.15	3	溝銑 (SLOTTING)
0302S	18	75	7500~8000	700~1000	6	0.04~0.08	側銑 (SIDE MILLING)
0302S	18	75	7500~8000	800~1100	6	0.09~0.15	側銑 (SIDE MILLING)
ETA ETD 0302	18	75	7500~8000	700~1000	0.04~0.08	3	溝銑 (SLOTTING)
0302	18	75	7500~8000	1000~1400	0.09~0.15	3	溝銑 (SLOTTING)
0302	18	75	7500~8000	700~1000	6	0.04~0.08	側銑 (SIDE MILLING)
0302	18	75	7500~8000	800~1200	6	0.09~0.15	側銑 (SIDE MILLING)
ETA ETD 0402	20	75	5700~6200	700~1000	0.05~0.1	4	溝銑 (SLOTTING)
0402	20	75	5700~6200	1000~1400	0.11~0.18	4	溝銑 (SLOTTING)
0402	20	75	5700~6200	700~1000	8	0.05~0.1	側銑 (SIDE MILLING)
0402	20	75	5700~6200	1000~1400	8	0.11~0.18	側銑 (SIDE MILLING)
ETA ETD 0502S	20	80	4800~5300	700~1000	0.05~0.1	5	溝銑 (SLOTTING)
0502S	20	80	4800~5300	1000~1400	0.15~0.25	5	溝銑 (SLOTTING)
0502S	20	80	4800~5300	700~1000	10	0.05~0.1	側銑 (SIDE MILLING)
0502S	20	80	4800~5300	1000~1400	10	0.15~0.25	側銑 (SIDE MILLING)
ETA ETD 0502	20	80	4800~5300	700~1000	0.05~0.1	5	溝銑 (SLOTTING)
0502	20	80	4800~5300	1000~1400	0.15~0.25	5	溝銑 (SLOTTING)
0502	20	80	4800~5300	700~1000	10	0.05~0.1	側銑 (SIDE MILLING)
0502	20	80	4800~5300	1000~1400	10	0.15~0.25	側銑 (SIDE MILLING)
ETA ETD 0602	23	80	4000~4500	700~1000	0.05~0.1	6	溝銑 (SLOTTING)
0602	23	80	4000~4500	800~1200	0.3~0.4	6	溝銑 (SLOTTING)
0602	23	80	4000~4500	500~800	12	0.05~0.1	側銑 (SIDE MILLING)
0602	23	80	4000~4500	1200~1600	12	0.3~0.4	側銑 (SIDE MILLING)

ETA^{2T} / ETD^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

鉻鉬合金鋼 : Chromium Molybdenum Alloy Steels
SCM440 : 1.7225 : 4140 : 42CrMoA (HRc25~28)ETA^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

ETD^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETA ETD 0802	30	75	2700~3200	700~1000	0.05~0.1	8	溝銑 (SLOTTING)
0802	30	75	2700~3200	700~1000	0.4~0.6	8	溝銑 (SLOTTING)
0802	30	75	2700~3200	500~800	16	0.05~0.1	側銑 (SIDE MILLING)
0802	30	75	2700~3200	1200~1600	16	0.4~0.6	側銑 (SIDE MILLING)
ETA ETD 1002	35	100	3000~3500	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
1002	35	75	2200~2700	700~1000	0.5~0.7	10	溝銑 (SLOTTING)
1002	35	100	3000~3500	400~700	20	0.05~0.1	側銑 (SIDE MILLING)
1002	35	70	2000~2500	800~1200	20	0.5~0.7	側銑 (SIDE MILLING)
ETA ETD 1202	37	105	2500~3000	700~1000	0.05~0.1	12	溝銑 (SLOTTING)
1202	37	85	2000~2500	500~800	0.6~0.9	12	溝銑 (SLOTTING)
1202	37	115	2800~3300	500~800	24	0.05~0.1	側銑 (SIDE MILLING)
1202	37	115	2800~3300	1000~1400	24	0.4~0.5	側銑 (SIDE MILLING)
ETA ETD 1602	50	100	1800~2300	500~800	0.05~0.1	16	溝銑 (SLOTTING)
1602	50	85	1500~2000	400~700	0.8~1.2	16	溝銑 (SLOTTING)
1602	50	115	2000~2500	500~800	16	0.8~1.2	側銑 (SIDE MILLING)
1602	50	115	2000~2500	400~700	32	0.05~0.1	側銑 (SIDE MILLING)
1602	50	115	2000~2500	700~1000	32	0.4~0.5	側銑 (SIDE MILLING)
ETA ETD 2002	55	95	1300~1800	400~700	0.05~0.15	20	溝銑 (SLOTTING)
2002	55	80	1000~1500	300~600	0.8~1.2	20	溝銑 (SLOTTING)
2002	55	110	1500~2000	400~700	20	0.8~1.2	側銑 (SIDE MILLING)
2002	55	110	1500~2000	300~600	40	0.05~0.15	側銑 (SIDE MILLING)
2002	55	110	1500~2000	500~800	40	0.4~0.5	側銑 (SIDE MILLING)

ETA^{2T} / ETD^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

ETA^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

ETD^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETA ETD 0102	14	30	9000~10000	700~1000	0.03~0.05	1	溝銼 (SLOTTING)
0102	14	30	9000~10000	700~1000	0.06~0.08	1	溝銼 (SLOTTING)
0102	14	30	9000~10000	500~700	1	0.03~0.05	側銼 (SIDE MILLING)
0102	14	30	9000~10000	400~700	1	0.06~0.08	側銼 (SIDE MILLING)
ETA ETD 0152	14	45	9000~10000	700~1000	0.03~0.05	1.5	溝銼 (SLOTTING)
0152	14	45	9000~10000	700~1000	0.06~0.09	1.5	溝銼 (SLOTTING)
0152	14	45	9000~10000	600~800	1.5	0.03~0.05	側銼 (SIDE MILLING)
0152	14	45	9000~10000	400~700	1.5	0.06~0.09	側銼 (SIDE MILLING)
ETA ETD 0202	16	55	8700~9200	700~1000	0.04~0.06	2	溝銼 (SLOTTING)
0202	16	55	8700~9200	800~1200	0.07~0.13	2	溝銼 (SLOTTING)
0202	16	55	8700~9200	700~900	4	0.04~0.06	側銼 (SIDE MILLING)
0202	16	55	8700~9200	500~800	4	0.07~0.13	側銼 (SIDE MILLING)
ETA ETD 0252	16	65	8000~8500	700~1000	0.04~0.06	2.5	溝銼 (SLOTTING)
0252	16	65	8000~8500	800~1200	0.07~0.13	2.5	溝銼 (SLOTTING)
0252	16	65	8000~8500	700~900	5	0.04~0.06	側銼 (SIDE MILLING)
0252	16	65	8000~8500	500~800	5	0.07~0.13	側銼 (SIDE MILLING)
ETA ETD 0302S	18	75	7500~8000	700~1000	0.04~0.08	3	溝銼 (SLOTTING)
0302S	18	75	7500~8000	800~1100	0.09~0.15	3	溝銼 (SLOTTING)
0302S	18	75	7500~8000	700~900	6	0.04~0.08	側銼 (SIDE MILLING)
0302S	18	75	7500~8000	700~1000	6	0.09~0.15	側銼 (SIDE MILLING)
ETA ETD 0302	18	75	7500~8000	700~1000	0.04~0.08	3	溝銼 (SLOTTING)
0302	18	75	7500~8000	800~1200	0.09~0.15	3	溝銼 (SLOTTING)
0302	18	75	7500~8000	700~900	6	0.04~0.08	側銼 (SIDE MILLING)
0302	18	75	7500~8000	700~1000	6	0.09~0.15	側銼 (SIDE MILLING)
ETA ETD 0402	20	75	5700~6200	700~1000	0.05~0.1	4	溝銼 (SLOTTING)
0402	20	75	5700~6200	800~1200	0.11~0.18	4	溝銼 (SLOTTING)
0402	20	75	5700~6200	700~1000	8	0.05~0.1	側銼 (SIDE MILLING)
0402	20	75	5700~6200	800~1200	8	0.11~0.18	側銼 (SIDE MILLING)
ETA ETD 0502S	20	80	4800~5300	700~1000	0.05~0.1	5	溝銼 (SLOTTING)
0502S	20	80	4800~5300	800~1200	0.15~0.25	5	溝銼 (SLOTTING)
0502S	20	80	4800~5300	700~1000	10	0.05~0.1	側銼 (SIDE MILLING)
0502S	20	80	4800~5300	800~1200	10	0.15~0.25	側銼 (SIDE MILLING)
ETA ETD 0502	20	80	4800~5300	700~1000	0.05~0.1	5	溝銼 (SLOTTING)
0502	20	80	4800~5300	800~1200	0.15~0.25	5	溝銼 (SLOTTING)
0502	20	80	4800~5300	700~1000	10	0.05~0.1	側銼 (SIDE MILLING)
0502	20	80	4800~5300	800~1200	10	0.15~0.25	側銼 (SIDE MILLING)
ETA ETD 0602	23	80	4000~4500	700~1000	0.05~0.1	6	溝銼 (SLOTTING)
0602	23	80	4000~4500	700~1000	0.3~0.4	6	溝銼 (SLOTTING)
0602	23	80	4000~4500	500~800	12	0.05~0.1	側銼 (SIDE MILLING)
0602	23	80	4000~4500	1000~1400	12	0.3~0.4	側銼 (SIDE MILLING)

ETA^{2T} / ETD^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)ETA^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

ETD^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETA ETD 0802	30	75	2700~3200	700~1000	0.05~0.1	8	溝銑 (SLOTTING)
0802	30	75	2700~3200	500~800	0.4~0.6	8	溝銑 (SLOTTING)
0802	30	75	2700~3200	500~800	16	0.05~0.1	側銑 (SIDE MILLING)
0802	30	75	2700~3200	1000~1400	16	0.4~0.6	側銑 (SIDE MILLING)
ETA ETD 1002	35	100	3000~3500	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
1002	35	75	2200~2700	500~800	0.5~0.7	10	溝銑 (SLOTTING)
1002	35	100	3000~3500	400~700	20	0.05~0.1	側銑 (SIDE MILLING)
1002	35	70	2000~2500	700~1100	20	0.5~0.7	側銑 (SIDE MILLING)
ETA ETD 1202	37	105	2500~3000	700~1000	0.05~0.1	12	溝銑 (SLOTTING)
1202	37	85	2000~2500	400~700	0.6~0.9	12	溝銑 (SLOTTING)
1202	37	115	2800~3300	400~700	24	0.05~0.1	側銑 (SIDE MILLING)
1202	37	115	2800~3300	800~1200	24	0.4~0.5	側銑 (SIDE MILLING)
ETA ETD 1602	50	100	1800~2300	500~800	0.05~0.1	16	溝銑 (SLOTTING)
1602	50	85	1500~2000	300~600	0.8~1.2	16	溝銑 (SLOTTING)
1602	50	115	2000~2500	300~600	16	0.8~1.2	側銑 (SIDE MILLING)
1602	50	115	2000~2500	300~600	32	0.05~0.1	側銑 (SIDE MILLING)
1602	50	115	2000~2500	500~800	32	0.4~0.5	側銑 (SIDE MILLING)
ETA ETD 2002	55	95	1300~1800	400~700	0.05~0.15	20	溝銑 (SLOTTING)
2002	55	80	1000~1500	300~500	0.8~1.2	20	溝銑 (SLOTTING)
2002	55	110	1500~2000	300~500	20	0.8~1.2	側銑 (SIDE MILLING)
2002	55	110	1500~2000	300~600	40	0.05~0.15	側銑 (SIDE MILLING)
2002	55	110	1500~2000	300~600	40	0.4~0.5	側銑 (SIDE MILLING)

ETA^{2T} / ETD^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

ETA^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

ETD^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETA ETD 0102	14	30	9000~10000	700~1000	0.03~0.05	1	溝銼 (SLOTTING)
0102	14	30	9000~10000	700~1000	0.06~0.08	1	溝銼 (SLOTTING)
0102	14	30	9000~10000	500~700	1	0.03~0.05	側銼 (SIDE MILLING)
0102	14	30	9000~10000	400~700	1	0.06~0.08	側銼 (SIDE MILLING)
ETA ETD 0152	14	45	9000~10000	700~1000	0.03~0.05	1.5	溝銼 (SLOTTING)
0152	14	45	9000~10000	700~1000	0.06~0.09	1.5	溝銼 (SLOTTING)
0152	14	45	9000~10000	500~800	1.5	0.03~0.05	側銼 (SIDE MILLING)
0152	14	45	9000~10000	400~700	1.5	0.06~0.09	側銼 (SIDE MILLING)
ETA ETD 0202	16	55	8700~9200	700~1000	0.04~0.06	2	溝銼 (SLOTTING)
0202	16	55	8700~9200	800~1200	0.07~0.13	2	溝銼 (SLOTTING)
0202	16	55	8700~9200	600~800	4	0.04~0.06	側銼 (SIDE MILLING)
0202	16	55	8700~9200	500~800	4	0.07~0.13	側銼 (SIDE MILLING)
ETA ETD 0252	16	65	8000~8500	700~1000	0.04~0.06	2.5	溝銼 (SLOTTING)
0252	16	65	8000~8500	800~1200	0.07~0.13	2.5	溝銼 (SLOTTING)
0252	16	65	8000~8500	600~800	5	0.04~0.06	側銼 (SIDE MILLING)
0252	16	65	8000~8500	500~800	5	0.07~0.13	側銼 (SIDE MILLING)
ETA ETD 0302S	18	75	7500~8000	700~1000	0.04~0.08	3	溝銼 (SLOTTING)
0302S	18	75	7500~8000	800~1100	0.09~0.15	3	溝銼 (SLOTTING)
0302S	18	75	7500~8000	600~800	6	0.04~0.08	側銼 (SIDE MILLING)
0302S	18	75	7500~8000	700~1000	6	0.09~0.15	側銼 (SIDE MILLING)
ETA ETD 0302	18	75	7500~8000	700~1000	0.04~0.08	3	溝銼 (SLOTTING)
0302	18	75	7500~8000	800~1200	0.09~0.15	3	溝銼 (SLOTTING)
0302	18	75	7500~8000	600~800	6	0.04~0.08	側銼 (SIDE MILLING)
0302	18	75	7500~8000	700~1000	6	0.09~0.15	側銼 (SIDE MILLING)
ETA ETD 0402	20	75	5700~6200	700~1000	0.05~0.1	4	溝銼 (SLOTTING)
0402	20	75	5700~6200	800~1200	0.11~0.18	4	溝銼 (SLOTTING)
0402	20	75	5700~6200	700~900	8	0.05~0.1	側銼 (SIDE MILLING)
0402	20	75	5700~6200	800~1200	8	0.11~0.18	側銼 (SIDE MILLING)
ETA ETD 0502S	20	80	4800~5300	700~1000	0.05~0.1	5	溝銼 (SLOTTING)
0502S	20	80	4800~5300	800~1200	0.15~0.25	5	溝銼 (SLOTTING)
0502S	20	80	4800~5300	700~1000	10	0.05~0.1	側銼 (SIDE MILLING)
0502S	20	80	4800~5300	800~1200	10	0.15~0.25	側銼 (SIDE MILLING)
ETA ETD 0502	20	80	4800~5300	700~1000	0.05~0.1	5	溝銼 (SLOTTING)
0502	20	80	4800~5300	800~1200	0.15~0.25	5	溝銼 (SLOTTING)
0502	20	80	4800~5300	700~1000	10	0.05~0.1	側銼 (SIDE MILLING)
0502	20	80	4800~5300	800~1200	10	0.15~0.25	側銼 (SIDE MILLING)
ETA ETD 0602	23	80	4000~4500	700~1000	0.05~0.1	6	溝銼 (SLOTTING)
0602	23	80	4000~4500	700~1000	0.3~0.4	6	溝銼 (SLOTTING)
0602	23	80	4000~4500	500~700	12	0.05~0.1	側銼 (SIDE MILLING)
0602	23	80	4000~4500	1000~1400	12	0.3~0.4	側銼 (SIDE MILLING)

ETA^{2T} / ETD^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

ETA ^{2T} 冷卻方式 Coolant Type		乾式切削 Dry coolant		ETD ^{2T} 冷卻方式 Coolant Type		濕式切削 Wet coolant	
型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETA ETD 0802	30	75	2700~3200	700~1000	0.05~0.1	8	溝銑 (SLOTTING)
0802	30	75	2700~3200	500~800	0.4~0.6	8	溝銑 (SLOTTING)
0802	30	75	2700~3200	500~700	16	0.05~0.1	側銑 (SIDE MILLING)
0802	30	75	2700~3200	1000~1400	16	0.4~0.6	側銑 (SIDE MILLING)
ETA ETD 1002	35	100	3000~3500	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
1002	35	75	2200~2700	500~800	0.5~0.7	10	溝銑 (SLOTTING)
1002	35	100	3000~3500	400~600	20	0.05~0.1	側銑 (SIDE MILLING)
1002	35	70	2000~2500	700~1100	20	0.5~0.7	側銑 (SIDE MILLING)
ETA ETD 1202	37	105	2500~3000	700~1000	0.05~0.1	12	溝銑 (SLOTTING)
1202	37	85	2000~2500	400~700	0.6~0.9	12	溝銑 (SLOTTING)
1202	37	115	2800~3300	400~600	24	0.05~0.1	側銑 (SIDE MILLING)
1202	37	115	2800~3300	800~1200	24	0.4~0.5	側銑 (SIDE MILLING)
ETA ETD 1602	50	100	1800~2300	500~800	0.05~0.1	16	溝銑 (SLOTTING)
1602	50	85	1500~2000	300~600	0.8~1.2	16	溝銑 (SLOTTING)
1602	50	115	2000~2500	300~600	16	0.8~1.2	側銑 (SIDE MILLING)
1602	50	115	2000~2500	300~500	32	0.05~0.1	側銑 (SIDE MILLING)
1602	50	115	2000~2500	500~800	32	0.4~0.5	側銑 (SIDE MILLING)
ETA ETD 2002	55	95	1300~1800	400~700	0.05~0.15	20	溝銑 (SLOTTING)
2002	55	80	1000~1500	300~500	0.8~1.2	20	溝銑 (SLOTTING)
2002	55	110	1500~2000	300~500	20	0.8~1.2	側銑 (SIDE MILLING)
2002	55	110	1500~2000	300~600	40	0.05~0.15	側銑 (SIDE MILLING)
2002	55	110	1500~2000	300~600	40	0.4~0.5	側銑 (SIDE MILLING)

ETA^{4T} / ETD^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

ETA^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

ETD^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETA ETD 0104	9	65	19000~20000	1100~1300	0.03~0.05	0.7~1	溝銼 (SLOTTING)
0104	9	65	19000~20000	600~900	0.05~0.08	1	溝銼 (SLOTTING)
0104	9	65	19000~20000	450~650	0.09~0.12	1	溝銼 (SLOTTING)
0104	9	65	19000~20000	800~1100	1~2	0.03~0.05	側銼 (SIDE MILLING)
0104	9	65	19000~20000	600~900	1~2	0.05~0.08	側銼 (SIDE MILLING)
0104	9	65	19000~20000	450~650	1~2	0.09~0.12	側銼 (SIDE MILLING)
ETA ETD 0154	9	80	16000~17000	1100~1300	0.03~0.05	1~1.5	溝銼 (SLOTTING)
0154	9	80	16000~17000	600~900	0.06~0.1	1.5	溝銼 (SLOTTING)
0154	9	80	16000~17000	450~650	0.1~0.2	1.5	溝銼 (SLOTTING)
0154	9	80	16000~17000	800~1100	1.5~3	0.03~0.05	側銼 (SIDE MILLING)
0154	9	80	16000~17000	600~900	1.5~3	0.06~0.1	側銼 (SIDE MILLING)
0154	9	80	16000~17000	450~650	1.5~3	0.1~0.2	側銼 (SIDE MILLING)
ETA ETD 0204	11	95	14000~15000	1100~1300	0.04~0.06	1.5~2	溝銼 (SLOTTING)
0204	11	95	14000~15000	600~900	0.1~0.18	2	溝銼 (SLOTTING)
0204	11	95	14000~15000	500~700	0.2~0.3	2	溝銼 (SLOTTING)
0204	11	95	14000~15000	800~1100	2~4	0.04~0.06	側銼 (SIDE MILLING)
0204	11	95	14000~15000	600~900	2~4	0.1~0.18	側銼 (SIDE MILLING)
0204	11	95	14000~15000	500~700	2~4	0.2~0.3	側銼 (SIDE MILLING)
ETA ETD 0254	12	100	12000~13000	1100~1300	0.04~0.06	2~2.5	溝銼 (SLOTTING)
0254	12	100	12000~13000	600~900	0.1~0.18	2.5	溝銼 (SLOTTING)
0254	12	100	12000~13000	500~700	0.2~0.3	2.5	溝銼 (SLOTTING)
0254	12	100	12000~13000	800~1100	2.5~5	0.04~0.06	側銼 (SIDE MILLING)
0254	12	100	12000~13000	600~900	2.5~5	0.1~0.18	側銼 (SIDE MILLING)
0254	12	100	12000~13000	500~700	2.5~5	0.2~0.3	側銼 (SIDE MILLING)
ETA ETD 0304S	13	110	11500~12500	1100~1300	0.04~0.07	2.5~3	溝銼 (SLOTTING)
0304S	13	110	11500~12500	700~1000	0.1~0.2	3	溝銼 (SLOTTING)
0304S	13	110	11500~12500	600~800	0.3~0.4	3	溝銼 (SLOTTING)
0304S	13	110	11500~12500	800~1100	3~6	0.04~0.07	側銼 (SIDE MILLING)
0304S	13	110	11500~12500	700~1000	3~6	0.1~0.2	側銼 (SIDE MILLING)
0304S	13	110	11500~12500	600~800	3~6	0.3~0.4	側銼 (SIDE MILLING)
ETA ETD 0304	15	110	11500~12500	1100~1300	0.04~0.07	2.5~3	溝銼 (SLOTTING)
0304	15	110	11500~12500	800~1100	0.15~0.25	3	溝銼 (SLOTTING)
0304	15	110	11500~12500	700~900	0.3~0.45	3	溝銼 (SLOTTING)
0304	15	110	11500~12500	800~1100	3~6	0.04~0.07	側銼 (SIDE MILLING)
0304	15	110	11500~12500	800~1100	3~6	0.15~0.25	側銼 (SIDE MILLING)
0304	15	110	11500~12500	700~900	3~6	0.3~0.45	側銼 (SIDE MILLING)

ETA^{4T} / ETD^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

ETA^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

ETD^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETA ETD 0404	16	120	9000~10000	1100~1300	0.04~0.07	3~4	溝銼 (SLOTTING)
0404	16	120	9000~10000	800~1100	0.3~0.4	4	溝銼 (SLOTTING)
0404	16	120	9000~10000	700~900	0.5~0.6	4	溝銼 (SLOTTING)
0404	16	120	9000~10000	800~1100	4~8	0.04~0.07	側銼 (SIDE MILLING)
0404	16	120	9000~10000	900~1200	4~8	0.3~0.4	側銼 (SIDE MILLING)
0404	16	120	9000~10000	700~900	4~8	0.5~0.6	側銼 (SIDE MILLING)
ETA ETD 0504S	18	125	7500~8500	1100~1300	0.05~0.08	4~5	溝銼 (SLOTTING)
0504S	18	125	7500~8500	700~1000	0.5~0.7	5	溝銼 (SLOTTING)
0504S	18	125	7500~8500	600~800	0.8~1	5	溝銼 (SLOTTING)
0504S	18	125	7500~8500	800~1100	5~10	0.05~0.08	側銼 (SIDE MILLING)
0504S	18	125	7500~8500	1100~1400	5~10	0.5~0.7	側銼 (SIDE MILLING)
0504S	18	125	7500~8500	600~800	5~10	0.8~1	側銼 (SIDE MILLING)
ETA ETD 0504	19	125	7500~8500	1100~1300	0.05~0.08	4~5	溝銼 (SLOTTING)
0504	19	125	7500~8500	800~1100	0.5~0.7	5	溝銼 (SLOTTING)
0504	19	125	7500~8500	700~900	0.8~1	5	溝銼 (SLOTTING)
0504	19	125	7500~8500	800~1100	5~10	0.05~0.08	側銼 (SIDE MILLING)
0504	19	125	7500~8500	1200~1500	5~10	0.5~0.7	側銼 (SIDE MILLING)
0504	19	125	7500~8500	700~900	5~10	0.8~1	側銼 (SIDE MILLING)
ETA ETD 0604	21	110	5500~6000	1100~1300	0.05~0.1	5~6	溝銼 (SLOTTING)
0604	21	110	5500~6000	800~1100	0.6~0.8	6	溝銼 (SLOTTING)
0604	21	110	5500~6000	700~900	1~1.5	6	溝銼 (SLOTTING)
0604	21	110	5500~6000	800~1100	6~12	0.05~0.15	側銼 (SIDE MILLING)
0604	21	110	5500~6000	1300~1500	6~12	0.6~0.8	側銼 (SIDE MILLING)
0604	21	110	5500~6000	700~900	6~12	1~1.5	側銼 (SIDE MILLING)
ETA ETD 0804	27	120	4500~5000	1000~1200	0.05~0.12	7~8	溝銼 (SLOTTING)
0804	27	110	4200~4700	900~1200	1.4~2	8	溝銼 (SLOTTING)
0804	27	110	4200~4700	700~900	2~3	8	溝銼 (SLOTTING)
0804	27	110	4200~4700	800~1100	8~16	0.05~0.12	側銼 (SIDE MILLING)
0804	27	110	4200~4700	1400~1600	8~16	1.4~2	側銼 (SIDE MILLING)
0804	27	110	4200~4700	700~900	8~16	2~3	側銼 (SIDE MILLING)
ETA ETD 1004	34	125	3800~4300	1000~1200	0.05~0.15	9~10	溝銼 (SLOTTING)
1004	34	100	3000~3500	900~1200	1~1.5	10	溝銼 (SLOTTING)
1004	34	100	3000~3500	700~900	2.5~3.5	10	溝銼 (SLOTTING)
1004	34	100	3000~3500	800~1100	10	0.05~0.15	側銼 (SIDE MILLING)
1004	34	100	3000~3500	900~1200	20	0.05~0.15	側銼 (SIDE MILLING)
1004	34	100	3000~3500	1400~1600	10	1~1.5	側銼 (SIDE MILLING)
1004	34	100	3000~3500	700~900	10	2.5~3.5	側銼 (SIDE MILLING)

ETA^{4T} / ETD^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

 ETA^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

 ETD^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETA ETD 1204	37	125	3000~3500	900~1100	0.05~0.15	11~12	溝銑 (SLOTTING)
1204	37	100	2500~3000	500~700	1~2	12	溝銑 (SLOTTING)
1204	37	100	2500~3000	300~400	3~4	12	溝銑 (SLOTTING)
1204	37	100	2500~3000	600~900	12~24	0.05~0.15	側銑 (SIDE MILLING)
1204	37	100	2500~3000	500~700	12	1~2	側銑 (SIDE MILLING)
1204	37	100	2500~3000	300~400	12	3~4	側銑 (SIDE MILLING)
ETA ETD 1604	50	125	2300~2800	500~800	0.05~0.2	15~16	溝銑 (SLOTTING)
1604	50	100	1800~2200	800~1000	0.5~1	16	溝銑 (SLOTTING)
1604	50	100	1800~2200	400~550	1~2	16	溝銑 (SLOTTING)
1604	50	100	1800~2200	200~400	2~3	16	溝銑 (SLOTTING)
1604	50	100	1800~2200	350~550	16~32	0.05~0.2	側銑 (SIDE MILLING)
1604	50	100	1800~2200	700~900	16	0.5~1	側銑 (SIDE MILLING)
1604	50	100	1800~2200	500~700	16	1~2	側銑 (SIDE MILLING)
1604	50	100	1800~2200	200~400	16	2~3	側銑 (SIDE MILLING)
ETA ETD 2004	50	125	1700~2200	400~700	0.05~0.2	18~20	溝銑 (SLOTTING)
2004	50	100	1300~1800	600~800	0.5~1	20	溝銑 (SLOTTING)
2004	50	100	1300~1800	350~500	1~2	20	溝銑 (SLOTTING)
2004	50	100	1300~1800	150~350	2~3	20	溝銑 (SLOTTING)
2004	50	100	1300~1800	250~450	20~40	0.05~0.2	側銑 (SIDE MILLING)
2004	50	100	1300~1800	600~800	20	0.5~1	側銑 (SIDE MILLING)
2004	50	100	1300~1800	350~500	20	1~2	側銑 (SIDE MILLING)
2004	50	100	1300~1800	150~350	20	2~3	側銑 (SIDE MILLING)

ETA^{4T} / ETD^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)ETA^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

ETD^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETA ETD 0104	9	65	19000~20000	1100~1300	0.03~0.05	0.7~1	溝銼 (SLOTTING)
0104	9	65	19000~20000	600~900	0.05~0.08	1	溝銼 (SLOTTING)
0104	9	65	19000~20000	400~600	0.09~0.12	1	溝銼 (SLOTTING)
0104	9	65	19000~20000	800~1100	1~2	0.03~0.05	側銼 (SIDE MILLING)
0104	9	65	19000~20000	600~900	1~2	0.05~0.08	側銼 (SIDE MILLING)
0104	9	65	19000~20000	350~550	1~2	0.09~0.12	側銼 (SIDE MILLING)
ETA ETD 0154	9	80	16000~17000	1100~1300	0.03~0.05	1~1.5	溝銼 (SLOTTING)
0154	9	80	16000~17000	600~900	0.06~0.1	1.5	溝銼 (SLOTTING)
0154	9	80	16000~17000	400~600	0.1~0.2	1.5	溝銼 (SLOTTING)
0154	9	80	16000~17000	800~1100	1.5~3	0.03~0.05	側銼 (SIDE MILLING)
0154	9	80	16000~17000	600~900	1.5~3	0.06~0.1	側銼 (SIDE MILLING)
0154	9	80	16000~17000	400~600	1.5~3	0.1~0.2	側銼 (SIDE MILLING)
ETA ETD 0204	11	90	13500~14500	1100~1300	0.04~0.06	1.5~2	溝銼 (SLOTTING)
0204	11	90	13500~14500	600~900	0.1~0.18	2	溝銼 (SLOTTING)
0204	11	90	13500~14500	400~600	0.2~0.3	2	溝銼 (SLOTTING)
0204	11	90	13500~14500	800~1100	2~4	0.04~0.06	側銼 (SIDE MILLING)
0204	11	90	13500~14500	600~900	2~4	0.1~0.18	側銼 (SIDE MILLING)
0204	11	90	13500~14500	400~600	2~4	0.2~0.3	側銼 (SIDE MILLING)
ETA ETD 0254	12	95	11500~12500	1100~1300	0.04~0.06	2~2.5	溝銼 (SLOTTING)
0254	12	95	11500~12500	600~900	0.1~0.18	2.5	溝銼 (SLOTTING)
0254	12	95	11500~12500	500~700	0.2~0.3	2.5	溝銼 (SLOTTING)
0254	12	95	11500~12500	800~1100	2.5~5	0.04~0.06	側銼 (SIDE MILLING)
0254	12	95	11500~12500	600~900	2.5~5	0.1~0.18	側銼 (SIDE MILLING)
0254	12	95	11500~12500	500~700	2.5~5	0.2~0.3	側銼 (SIDE MILLING)
ETA ETD 0304S	13	105	11000~12000	1100~1300	0.04~0.07	2.5~3	溝銼 (SLOTTING)
0304S	13	105	11000~12000	700~1000	0.1~0.2	3	溝銼 (SLOTTING)
0304S	13	105	11000~12000	600~800	0.3~0.4	3	溝銼 (SLOTTING)
0304S	13	105	11000~12000	800~1100	3~6	0.04~0.07	側銼 (SIDE MILLING)
0304S	13	105	11000~12000	700~1000	3~6	0.1~0.2	側銼 (SIDE MILLING)
0304S	13	105	11000~12000	600~800	3~6	0.3~0.4	側銼 (SIDE MILLING)
ETA ETD 0304	15	105	11000~12000	1100~1300	0.04~0.07	2.5~3	溝銼 (SLOTTING)
0304	15	105	11000~12000	800~1100	0.15~0.25	3	溝銼 (SLOTTING)
0304	15	105	11000~12000	700~900	0.3~0.45	3	溝銼 (SLOTTING)
0304	15	105	11000~12000	800~1100	3~6	0.04~0.07	側銼 (SIDE MILLING)
0304	15	105	11000~12000	800~1100	3~6	0.15~0.25	側銼 (SIDE MILLING)
0304	15	105	11000~12000	700~900	3~6	0.3~0.45	側銼 (SIDE MILLING)

ETA^{4T} / ETD^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

ETA^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

ETD^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETA ETD 0404	16	110	8500~9500	1100~1300	0.04~0.07	3~4	溝銑 (SLOTTING)
0404	16	110	8500~9500	800~1100	0.3~0.4	4	溝銑 (SLOTTING)
0404	16	110	8500~9500	700~900	0.5~0.6	4	溝銑 (SLOTTING)
0404	16	110	8500~9500	800~1100	4~8	0.04~0.07	側銑 (SIDE MILLING)
0404	16	110	8500~9500	900~1200	4~8	0.3~0.4	側銑 (SIDE MILLING)
0404	16	110	8500~9500	700~900	4~8	0.5~0.6	側銑 (SIDE MILLING)
ETA ETD 0504S	18	115	7000~8000	1100~1300	0.05~0.08	4~5	溝銑 (SLOTTING)
0504S	18	115	7000~8000	700~1000	0.5~0.7	5	溝銑 (SLOTTING)
0504S	18	115	7000~8000	600~800	0.8~1	5	溝銑 (SLOTTING)
0504S	18	115	7000~8000	800~1100	5~10	0.05~0.08	側銑 (SIDE MILLING)
0504S	18	115	7000~8000	1100~1400	5~10	0.5~0.7	側銑 (SIDE MILLING)
0504S	18	115	7000~8000	600~800	5~10	0.8~1	側銑 (SIDE MILLING)
ETA ETD 0504	19	115	7000~8000	1100~1300	0.05~0.08	4~5	溝銑 (SLOTTING)
0504	19	115	7000~8000	800~1100	0.5~0.7	5	溝銑 (SLOTTING)
0504	19	115	7000~8000	700~900	0.8~1	5	溝銑 (SLOTTING)
0504	19	115	7000~8000	800~1100	5~10	0.05~0.08	側銑 (SIDE MILLING)
0504	19	115	7000~8000	1200~1500	5~10	0.5~0.7	側銑 (SIDE MILLING)
0504	19	115	7000~8000	700~900	5~10	0.8~1	側銑 (SIDE MILLING)
ETA ETD 0604	21	100	5000~5500	1100~1300	0.05~0.1	5~6	溝銑 (SLOTTING)
0604	21	100	5000~5500	800~1100	0.6~0.8	6	溝銑 (SLOTTING)
0604	21	100	5000~5500	700~900	1~1.5	6	溝銑 (SLOTTING)
0604	21	100	5000~5500	600~800	6~12	0.05~0.15	側銑 (SIDE MILLING)
0604	21	100	5000~5500	1100~1300	6~12	0.6~0.8	側銑 (SIDE MILLING)
0604	21	100	5000~5500	700~900	6~12	1~1.5	側銑 (SIDE MILLING)
ETA ETD 0804	27	120	4500~5000	1000~1200	0.05~0.12	7~8	溝銑 (SLOTTING)
0804	27	105	4000~4500	900~1200	1.4~2	8	溝銑 (SLOTTING)
0804	27	105	4000~4500	700~900	2~3	8	溝銑 (SLOTTING)
0804	27	105	4000~4500	600~800	8~16	0.05~0.12	側銑 (SIDE MILLING)
0804	27	105	4000~4500	1200~1400	8~16	1.4~2	側銑 (SIDE MILLING)
0804	27	105	4000~4500	700~900	8~16	2~3	側銑 (SIDE MILLING)
ETA ETD 1004	34	125	3800~4300	1000~1200	0.05~0.15	9~10	溝銑 (SLOTTING)
1004	34	100	3000~3500	800~1000	1~1.5	10	溝銑 (SLOTTING)
1004	34	100	3000~3500	600~800	2.5~3.5	10	溝銑 (SLOTTING)
1004	34	100	3000~3500	600~800	10	0.05~0.15	側銑 (SIDE MILLING)
1004	34	100	3000~3500	600~800	20	0.05~0.15	側銑 (SIDE MILLING)
1004	34	100	3000~3500	700~1000	10	1~1.5	側銑 (SIDE MILLING)
1004	34	100	3000~3500	600~900	10	2.5~3.5	側銑 (SIDE MILLING)

ETA^{4T} / ETD^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)ETA^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

ETD^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETA ETD 1204	37	125	3000~3500	900~1100	0.05~0.15	11~12	溝銑 (SLOTTING)
1204	37	100	2500~3000	500~700	1~2	12	溝銑 (SLOTTING)
1204	37	100	2500~3000	300~400	3~4	12	溝銑 (SLOTTING)
1204	37	100	2500~3000	600~900	12~24	0.05~0.15	側銑 (SIDE MILLING)
1204	37	100	2500~3000	500~700	12	1~2	側銑 (SIDE MILLING)
1204	37	100	2500~3000	300~400	12	3~4	側銑 (SIDE MILLING)
ETA ETD 1604	50	125	2300~2800	500~800	0.05~0.2	15~16	溝銑 (SLOTTING)
1604	50	95	1700~2100	800~1000	0.5~1	16	溝銑 (SLOTTING)
1604	50	95	1700~2100	400~600	1~2	16	溝銑 (SLOTTING)
1604	50	95	1700~2100	200~400	2~3	16	溝銑 (SLOTTING)
1604	50	95	1700~2100	350~550	16~32	0.05~0.2	側銑 (SIDE MILLING)
1604	50	95	1700~2100	700~900	16	0.5~1	側銑 (SIDE MILLING)
1604	50	95	1700~2100	500~700	16	1~2	側銑 (SIDE MILLING)
1604	50	95	1700~2100	200~400	16	2~3	側銑 (SIDE MILLING)
ETA ETD 2004	50	125	1700~2200	400~700	0.05~0.2	18~20	溝銑 (SLOTTING)
2004	50	100	1300~1800	550~750	0.5~1	20	溝銑 (SLOTTING)
2004	50	100	1300~1800	300~450	1~2	20	溝銑 (SLOTTING)
2004	50	100	1300~1800	150~350	2~3	20	溝銑 (SLOTTING)
2004	50	100	1300~1800	250~450	20~40	0.05~0.2	側銑 (SIDE MILLING)
2004	50	100	1300~1800	550~750	20	0.5~1	側銑 (SIDE MILLING)
2004	50	100	1300~1800	300~450	20	1~2	側銑 (SIDE MILLING)
2004	50	100	1300~1800	150~350	20	2~3	側銑 (SIDE MILLING)

ETA^{4T} / ETD^{4T}

切削條件表 Milling Conditions

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

被切削材 Work Material		調質鋼 / 預硬鋼 : Prehardened Steels NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)					
ETA ^{4T} 冷卻方式 Coolant Type		乾式切削 Dry coolant		ETD ^{4T} 冷卻方式 Coolant Type		濕式切削 Wet coolant	
型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETA ETD 0104	9	60	18000~19000	1100~1300	0.03~0.05	0.7~1	溝銼 (SLOTTING)
0104	9	60	18000~19000	600~900	0.05~0.08	1	溝銼 (SLOTTING)
0104	9	60	18000~19000	350~550	0.09~0.12	1	溝銼 (SLOTTING)
0104	9	60	18000~19000	800~1100	1~2	0.03~0.05	側銼 (SIDE MILLING)
0104	9	60	18000~19000	600~900	1~2	0.05~0.08	側銼 (SIDE MILLING)
0104	9	60	18000~19000	350~550	1~2	0.09~0.12	側銼 (SIDE MILLING)
ETA ETD 0154	9	80	16000~17000	1100~1300	0.03~0.05	1~1.5	溝銼 (SLOTTING)
0154	9	75	15000~16000	600~900	0.06~0.1	1.5	溝銼 (SLOTTING)
0154	9	75	15000~16000	350~550	0.1~0.2	1.5	溝銼 (SLOTTING)
0154	9	80	16000~17000	800~1100	1.5~3	0.03~0.05	側銼 (SIDE MILLING)
0154	9	75	15000~16000	600~900	1.5~3	0.06~0.1	側銼 (SIDE MILLING)
0154	9	75	15000~16000	350~550	1.5~3	0.1~0.2	側銼 (SIDE MILLING)
ETA ETD 0204	11	80	13000~14000	1100~1300	0.04~0.06	1.5~2	溝銼 (SLOTTING)
0204	11	80	13000~14000	600~900	0.1~0.18	2	溝銼 (SLOTTING)
0204	11	80	13000~14000	350~550	0.2~0.3	2	溝銼 (SLOTTING)
0204	11	80	13000~14000	800~1100	2~4	0.04~0.06	側銼 (SIDE MILLING)
0204	11	80	13000~14000	600~900	2~4	0.1~0.18	側銼 (SIDE MILLING)
0204	11	80	13000~14000	350~550	2~4	0.2~0.3	側銼 (SIDE MILLING)
ETA ETD 0254	12	90	11000~12000	1100~1300	0.04~0.06	2~2.5	溝銼 (SLOTTING)
0254	12	90	11000~12000	600~900	0.1~0.18	2.5	溝銼 (SLOTTING)
0254	12	90	11000~12000	400~600	0.2~0.3	2.5	溝銼 (SLOTTING)
0254	12	90	11000~12000	800~1100	2.5~5	0.04~0.06	側銼 (SIDE MILLING)
0254	12	90	11000~12000	600~900	2.5~5	0.1~0.18	側銼 (SIDE MILLING)
0254	12	90	11000~12000	400~600	2.5~5	0.2~0.3	側銼 (SIDE MILLING)
ETA ETD 0304S	13	100	10500~11500	1100~1300	0.04~0.07	2.5~3	溝銼 (SLOTTING)
0304S	13	100	10500~11500	600~900	0.1~0.2	3	溝銼 (SLOTTING)
0304S	13	100	10500~11500	500~700	0.3~0.4	3	溝銼 (SLOTTING)
0304S	13	100	10500~11500	800~1100	3~6	0.04~0.07	側銼 (SIDE MILLING)
0304S	13	100	10500~11500	600~900	3~6	0.1~0.2	側銼 (SIDE MILLING)
0304S	13	100	10500~11500	500~700	3~6	0.3~0.4	側銼 (SIDE MILLING)
ETA ETD 0304	15	100	10500~11500	1100~1300	0.04~0.07	2.5~3	溝銼 (SLOTTING)
0304	15	100	10500~11500	700~1000	0.15~0.25	3	溝銼 (SLOTTING)
0304	15	100	10500~11500	600~800	0.3~0.45	3	溝銼 (SLOTTING)
0304	15	100	10500~11500	800~1100	3~6	0.04~0.07	側銼 (SIDE MILLING)
0304	15	100	10500~11500	700~1000	3~6	0.15~0.25	側銼 (SIDE MILLING)
0304	15	100	10500~11500	600~800	3~6	0.3~0.45	側銼 (SIDE MILLING)

ETA^{4T} / ETD^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

ETA ^{4T} 冷卻方式 Coolant Type		乾式切削 Dry coolant			ETD ^{4T} 冷卻方式 Coolant Type		濕式切削 Wet coolant	
型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type	
ETA ETD 0404	16	100	7500~8500	1000~1200	0.04~0.07	3~4	溝銼 (SLOTTING)	
0404	16	100	7500~8500	700~900	0.3~0.4	4	溝銼 (SLOTTING)	
0404	16	100	7500~8500	500~700	0.5~0.6	4	溝銼 (SLOTTING)	
0404	16	100	7500~8500	600~800	4~8	0.04~0.07	側銼 (SIDE MILLING)	
0404	16	100	7500~8500	700~900	4~8	0.3~0.4	側銼 (SIDE MILLING)	
0404	16	100	7500~8500	500~700	4~8	0.5~0.6	側銼 (SIDE MILLING)	
ETA ETD 0504S	18	105	6500~7500	1000~1200	0.05~0.08	4~5	溝銼 (SLOTTING)	
0504S	18	105	6500~7500	700~900	0.5~0.7	5	溝銼 (SLOTTING)	
0504S	18	105	6500~7500	500~700	0.8~1	5	溝銼 (SLOTTING)	
0504S	18	105	6500~7500	600~800	5~10	0.05~0.08	側銼 (SIDE MILLING)	
0504S	18	105	6500~7500	700~900	5~10	0.5~0.7	側銼 (SIDE MILLING)	
0504S	18	105	6500~7500	500~700	5~10	0.8~1	側銼 (SIDE MILLING)	
ETA ETD 0504	19	110	6500~7500	1000~1200	0.05~0.08	4~5	溝銼 (SLOTTING)	
0504	19	110	6500~7500	700~900	0.5~0.7	5	溝銼 (SLOTTING)	
0504	19	110	6500~7500	500~700	0.8~1	5	溝銼 (SLOTTING)	
0504	19	110	6500~7500	600~800	5~10	0.05~0.08	側銼 (SIDE MILLING)	
0504	19	110	6500~7500	700~900	5~10	0.5~0.7	側銼 (SIDE MILLING)	
0504	19	110	6500~7500	500~700	5~10	0.8~1	側銼 (SIDE MILLING)	
ETA ETD 0604	21	100	5000~5500	1000~1200	0.05~0.1	5~6	溝銼 (SLOTTING)	
0604	21	100	5000~5500	700~900	0.6~0.8	6	溝銼 (SLOTTING)	
0604	21	100	5000~5500	500~700	1~1.5	6	溝銼 (SLOTTING)	
0604	21	100	5000~5500	600~800	6~12	0.05~0.15	側銼 (SIDE MILLING)	
0604	21	100	5000~5500	700~900	6~12	0.6~0.8	側銼 (SIDE MILLING)	
0604	21	100	5000~5500	500~700	6~12	1~1.5	側銼 (SIDE MILLING)	
ETA ETD 0804	27	120	4500~5000	1000~1200	0.05~0.12	7~8	溝銼 (SLOTTING)	
0804	27	105	4000~4500	500~700	1.4~2	8	溝銼 (SLOTTING)	
0804	27	105	4000~4500	400~600	2~3	8	溝銼 (SLOTTING)	
0804	27	105	4000~4500	600~800	8~16	0.05~0.12	側銼 (SIDE MILLING)	
0804	27	105	4000~4500	500~700	8~16	1.4~2	側銼 (SIDE MILLING)	
0804	27	105	4000~4500	400~600	8~16	2~3	側銼 (SIDE MILLING)	
ETA ETD 1004	34	120	3500~4000	1000~1200	0.05~0.15	9~10	溝銼 (SLOTTING)	
1004	34	100	3000~3500	600~800	1~1.5	10	溝銼 (SLOTTING)	
1004	34	100	3000~3500	400~600	2.5~3.5	10	溝銼 (SLOTTING)	
1004	34	100	3000~3500	600~800	10	0.05~0.15	側銼 (SIDE MILLING)	
1004	34	100	3000~3500	600~800	20	0.05~0.15	側銼 (SIDE MILLING)	
1004	34	100	3000~3500	600~800	10	1~1.5	側銼 (SIDE MILLING)	
1004	34	100	3000~3500	400~600	10	2.5~3.5	側銼 (SIDE MILLING)	

ETA^{4T} / ETD^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

 調質鋼 / 預硬鋼 : Prehardened Steels
 NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

 ETA^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

 ETD^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETA ETD 1204	37	110	2800~3300	800~1000	0.05~0.15	11~12	溝銼 (SLOTTING)
1204	37	80	2200~2600	300~500	1~2	12	溝銼 (SLOTTING)
1204	37	80	2200~2600	250~450	3~4	12	溝銼 (SLOTTING)
1204	37	80	2200~2600	500~800	12~24	0.05~0.15	側銼 (SIDE MILLING)
1204	37	80	2200~2600	300~500	12	1~2	側銼 (SIDE MILLING)
1204	37	80	2200~2600	250~450	12	3~4	側銼 (SIDE MILLING)
ETA ETD 1604	50	110	2000~2500	400~600	0.05~0.2	15~16	溝銼 (SLOTTING)
1604	50	85	1500~1900	700~850	0.5~1	16	溝銼 (SLOTTING)
1604	50	85	1500~1900	400~600	1~2	16	溝銼 (SLOTTING)
1604	50	85	1500~1900	200~300	2~3	16	溝銼 (SLOTTING)
1604	50	85	1500~1900	300~500	16~32	0.05~0.2	側銼 (SIDE MILLING)
1604	50	85	1500~1900	700~850	16	0.5~1	側銼 (SIDE MILLING)
1604	50	85	1500~1900	400~600	16	1~2	側銼 (SIDE MILLING)
1604	50	85	1500~1900	200~300	16	2~3	側銼 (SIDE MILLING)
ETA ETD 2004	50	110	1400~1900	350~550	0.05~0.2	18~20	溝銼 (SLOTTING)
2004	50	85	1100~1600	450~650	0.5~1	20	溝銼 (SLOTTING)
2004	50	85	1100~1600	250~400	1~2	20	溝銼 (SLOTTING)
2004	50	85	1100~1600	150~300	2~3	20	溝銼 (SLOTTING)
2004	50	85	1100~1600	200~400	20~40	0.05~0.2	側銼 (SIDE MILLING)
2004	50	85	1100~1600	450~650	20	0.5~1	側銼 (SIDE MILLING)
2004	50	85	1100~1600	250~400	20	1~2	側銼 (SIDE MILLING)
2004	50	85	1100~1600	150~300	20	2~3	側銼 (SIDE MILLING)

ETB^{2T} / ETH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

ETB^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

ETH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 0102	12	30	9000~10000	700~1000	0.03~0.05	1	溝銼 (SLOTTING)
0102	12	30	9000~10000	800~1200	0.06~0.08	1	溝銼 (SLOTTING)
0102	12	30	9000~10000	700~900	1	0.03~0.05	側銼 (SIDE MILLING)
0102	12	30	9000~10000	700~1000	1	0.06~0.08	側銼 (SIDE MILLING)
ETB ETH 0152	14	45	9000~10000	700~1000	0.03~0.05	1.5	溝銼 (SLOTTING)
0152	14	45	9000~10000	800~1200	0.06~0.09	1.5	溝銼 (SLOTTING)
0152	14	45	9000~10000	800~1000	1.5	0.03~0.05	側銼 (SIDE MILLING)
0152	14	45	9000~10000	700~1000	1.5	0.06~0.09	側銼 (SIDE MILLING)
ETB ETH 0202	16	55	8700~9200	700~1000	0.04~0.06	2	溝銼 (SLOTTING)
0202	16	55	8700~9200	1000~1400	0.08~0.13	2	溝銼 (SLOTTING)
0202	16	55	8700~9200	700~900	2	0.04~0.06	側銼 (SIDE MILLING)
0202	16	55	8700~9200	800~1200	2	0.08~0.13	側銼 (SIDE MILLING)
ETB ETH 0252	16	65	8000~8500	700~1000	0.04~0.06	2.5	溝銼 (SLOTTING)
0252	16	65	8000~8500	1000~1400	0.08~0.13	2.5	溝銼 (SLOTTING)
0252	16	65	8000~8500	800~1000	5	0.04~0.06	側銼 (SIDE MILLING)
0252	16	65	8000~8500	700~1100	5	0.08~0.13	側銼 (SIDE MILLING)
ETB ETH 0302	18	75	7500~8000	700~1000	0.05~0.09	3	溝銼 (SLOTTING)
0302	18	75	7500~8000	1200~1600	0.12~0.18	3	溝銼 (SLOTTING)
0302	18	75	7500~8000	700~1000	6	0.05~0.09	側銼 (SIDE MILLING)
0302	18	75	7500~8000	800~1200	6	0.12~0.18	側銼 (SIDE MILLING)
ETH 0352	18	75	7500~8000	700~1000	0.05~0.1	3.5	溝銼 (SLOTTING)
0352	18	75	7500~8000	1200~1600	0.12~0.2	3.5	溝銼 (SLOTTING)
0352	18	75	7500~8000	700~1000	7	0.05~0.1	側銼 (SIDE MILLING)
0352	18	75	7500~8000	800~1200	7	0.12~0.2	側銼 (SIDE MILLING)
ETB ETH 0402	20	75	5700~6200	700~1000	0.05~0.1	4	溝銼 (SLOTTING)
0402	20	75	5700~6200	1200~1600	0.15~0.25	4	溝銼 (SLOTTING)
0402	20	75	5700~6200	700~1000	8	0.05~0.1	側銼 (SIDE MILLING)
0402	20	75	5700~6200	1000~1400	8	0.15~0.25	側銼 (SIDE MILLING)
ETH 0452	20	75	5700~6200	700~1000	0.05~0.1	4.5	溝銼 (SLOTTING)
0452	20	75	5700~6200	1200~1600	0.2~0.3	4.5	溝銼 (SLOTTING)
0452	20	75	5700~6200	700~1000	9	0.05~0.1	側銼 (SIDE MILLING)
0452	20	75	5700~6200	1000~1400	9	0.2~0.3	側銼 (SIDE MILLING)
ETB ETH 0502	20	80	4800~5300	700~1000	0.05~0.1	5	溝銼 (SLOTTING)
0502	20	80	4800~5300	1200~1600	0.3~0.4	5	溝銼 (SLOTTING)
0502	20	80	4800~5300	700~1000	10	0.05~0.1	側銼 (SIDE MILLING)
0502	20	80	4800~5300	1000~1400	10	0.3~0.4	側銼 (SIDE MILLING)
ETH 0552	20	80	4800~5300	700~1000	0.05~0.1	5.5	溝銼 (SLOTTING)
0552	20	80	4800~5300	1200~1600	0.3~0.4	5.5	溝銼 (SLOTTING)
0552	20	80	4800~5300	700~1000	11	0.05~0.1	側銼 (SIDE MILLING)
0552	20	80	4800~5300	1000~1400	11	0.3~0.4	側銼 (SIDE MILLING)

ETB^{2T} / ETH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

ETB^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

ETH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 0602	23	80	4000~4500	700~1000	0.05~0.1	6	溝銼 (SLOTTING)
0602	23	80	4000~4500	800~1200	0.5~1	6	溝銼 (SLOTTING)
0602	23	80	4000~4500	800~1200	6	0.5~1	側銼 (SIDE MILLING)
0602	23	80	4000~4500	700~1000	12	0.05~0.1	側銼 (SIDE MILLING)
0602	23	80	4000~4500	1400~1800	12	0.3~0.4	側銼 (SIDE MILLING)
ETH 0652	23	80	4000~4500	700~1000	0.05~0.1	6.5	溝銼 (SLOTTING)
0652	23	80	4000~4500	800~1200	0.5~1	6.5	溝銼 (SLOTTING)
0652	23	80	4000~4500	800~1200	6.5	0.5~1	側銼 (SIDE MILLING)
0652	23	80	4000~4500	700~1000	13	0.05~0.1	側銼 (SIDE MILLING)
0652	23	80	4000~4500	1400~1800	13	0.3~0.4	側銼 (SIDE MILLING)
ETH 0702	23	80	4000~4500	700~1000	0.05~0.1	7	溝銼 (SLOTTING)
0702	23	80	4000~4500	800~1200	0.5~1	7	溝銼 (SLOTTING)
0702	23	80	4000~4500	800~1200	7	0.5~1	側銼 (SIDE MILLING)
0702	23	80	4000~4500	700~1000	14	0.05~0.1	側銼 (SIDE MILLING)
0702	23	80	4000~4500	1400~1800	14	0.3~0.4	側銼 (SIDE MILLING)
ETH 0752	30	90	2700~3200	700~1000	0.05~0.1	7.5	溝銼 (SLOTTING)
0752	30	90	2700~3200	700~1000	0.5~1	7.5	溝銼 (SLOTTING)
0752	30	90	2700~3200	700~1100	7.5	0.5~1	側銼 (SIDE MILLING)
0752	30	90	2700~3200	500~800	15	0.05~0.1	側銼 (SIDE MILLING)
0752	30	90	2700~3200	1200~1600	15	0.4~0.5	側銼 (SIDE MILLING)
ETB ETH 0802	30	90	2700~3200	700~1000	0.05~0.1	8	溝銼 (SLOTTING)
0802	30	90	2700~3200	700~1000	0.7~1.2	8	溝銼 (SLOTTING)
0802	30	90	2700~3200	700~1100	8	0.7~1.2	側銼 (SIDE MILLING)
0802	30	90	2700~3200	500~800	16	0.05~0.1	側銼 (SIDE MILLING)
0802	30	90	2700~3200	1200~1600	16	0.4~0.5	側銼 (SIDE MILLING)
ETH 0852	30	90	2700~3200	700~1000	0.05~0.1	8.5	溝銼 (SLOTTING)
0852	30	90	2700~3200	700~1000	0.7~1.2	8.5	溝銼 (SLOTTING)
0852	30	90	2700~3200	700~1100	8.5	0.7~1.2	側銼 (SIDE MILLING)
0852	30	90	2700~3200	500~800	17	0.05~0.1	側銼 (SIDE MILLING)
0852	30	90	2700~3200	1200~1600	17	0.4~0.5	側銼 (SIDE MILLING)
ETH 0902	30	90	2700~3200	700~1000	0.05~0.1	9	溝銼 (SLOTTING)
0902	30	90	2700~3200	700~1000	0.7~1.2	9	溝銼 (SLOTTING)
0902	30	90	2700~3200	700~1100	9	0.7~1.2	側銼 (SIDE MILLING)
0902	30	90	2700~3200	500~800	18	0.05~0.1	側銼 (SIDE MILLING)
0902	30	90	2700~3200	1200~1600	18	0.4~0.5	側銼 (SIDE MILLING)
ETH 0952	35	85	2500~3000	700~1000	0.05~0.1	9.5	溝銼 (SLOTTING)
0952	35	85	2500~3000	700~1100	0.7~1.2	9.5	溝銼 (SLOTTING)
0952	35	70	2000~2500	700~1000	9.5	0.7~1.2	側銼 (SIDE MILLING)
0952	35	70	2000~2500	400~700	19	0.05~0.1	側銼 (SIDE MILLING)
0952	35	70	2000~2500	800~1200	19	0.4~0.5	側銼 (SIDE MILLING)

ETB^{2T} / ETH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

ETB^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

ETH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 1002	35	85	2500~3000	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
1002	35	85	2500~3000	700~1100	0.7~1.2	10	溝銑 (SLOTTING)
1002	35	70	2000~2500	700~1000	10	0.7~1.2	側銑 (SIDE MILLING)
1002	35	70	2000~2500	400~700	20	0.05~0.1	側銑 (SIDE MILLING)
1002	35	70	2000~2500	800~1200	20	0.4~0.5	側銑 (SIDE MILLING)
ETH 1052	35	85	2500~3000	700~1000	0.05~0.12	10.5	溝銑 (SLOTTING)
1052	35	85	2500~3000	700~1100	0.7~1.2	10.5	溝銑 (SLOTTING)
1052	35	70	2000~2500	700~1000	10.5	0.7~1.2	側銑 (SIDE MILLING)
1052	35	70	2000~2500	400~700	21	0.05~0.12	側銑 (SIDE MILLING)
1052	35	70	2000~2500	800~1200	21	0.4~0.5	側銑 (SIDE MILLING)
ETH 1102	35	85	2500~3000	700~1000	0.05~0.12	11	溝銑 (SLOTTING)
1102	35	85	2500~3000	700~1100	0.7~1.2	11	溝銑 (SLOTTING)
1102	35	70	2000~2500	700~1000	11	0.7~1.2	側銑 (SIDE MILLING)
1102	35	70	2000~2500	400~700	22	0.05~0.12	側銑 (SIDE MILLING)
1102	35	70	2000~2500	800~1200	22	0.4~0.5	側銑 (SIDE MILLING)
ETH 1152	35	85	2500~3000	700~1000	0.05~0.12	11.5	溝銑 (SLOTTING)
1152	35	85	2500~3000	700~1100	0.7~1.2	11.5	溝銑 (SLOTTING)
1152	35	70	2000~2500	700~1000	11.5	0.7~1.2	側銑 (SIDE MILLING)
1152	35	70	2000~2500	400~700	23	0.05~0.12	側銑 (SIDE MILLING)
1152	35	70	2000~2500	800~1200	23	0.4~0.5	側銑 (SIDE MILLING)
ETB ETH 1202	37	105	2500~3000	700~1000	0.05~0.12	12	溝銑 (SLOTTING)
1202	37	85	2000~2500	500~800	0.7~1.2	12	溝銑 (SLOTTING)
1202	37	115	2800~3300	700~1000	12	0.7~1.2	側銑 (SIDE MILLING)
1202	37	115	2800~3300	500~800	24	0.05~0.12	側銑 (SIDE MILLING)
1202	37	115	2800~3300	1000~1400	24	0.4~0.5	側銑 (SIDE MILLING)
ETH 1252	37	105	2500~3000	700~1000	0.05~0.15	12.5	溝銑 (SLOTTING)
1252	37	85	2000~2500	500~800	0.7~1.2	12.5	溝銑 (SLOTTING)
1252	37	115	2800~3300	700~1000	12.5	0.7~1.2	側銑 (SIDE MILLING)
1252	37	115	2800~3300	500~800	25	0.05~0.15	側銑 (SIDE MILLING)
1252	37	115	2800~3300	1000~1400	25	0.4~0.5	側銑 (SIDE MILLING)
ETH 1302	37	105	2500~3000	700~1000	0.05~0.15	13	溝銑 (SLOTTING)
1302	37	85	2000~2500	500~800	0.7~1.2	13	溝銑 (SLOTTING)
1302	37	115	2800~3300	700~1000	13	0.7~1.2	側銑 (SIDE MILLING)
1302	37	115	2800~3300	500~800	26	0.05~0.15	側銑 (SIDE MILLING)
1302	37	115	2800~3300	1000~1400	26	0.4~0.5	側銑 (SIDE MILLING)
ETH 1352	37	105	2500~3000	700~1000	0.05~0.15	13.5	溝銑 (SLOTTING)
1352	37	85	2000~2500	500~800	0.7~1.2	13.5	溝銑 (SLOTTING)
1352	37	115	2800~3300	700~1000	13.5	0.7~1.2	側銑 (SIDE MILLING)
1352	37	115	2800~3300	500~800	27	0.05~0.15	側銑 (SIDE MILLING)
1352	37	115	2800~3300	1000~1400	27	0.4~0.5	側銑 (SIDE MILLING)

ETB^{2T} / ETH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

 ETB^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

 ETH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETH 1402	37	105	2500~3000	700~1000	0.05~0.15	14	溝銑 (SLOTTING)
1402	37	85	2000~2500	500~800	0.7~1.2	14	溝銑 (SLOTTING)
1402	37	115	2800~3300	700~1000	14	0.7~1.2	側銑 (SIDE MILLING)
1402	37	115	2800~3300	500~800	28	0.05~0.15	側銑 (SIDE MILLING)
1402	37	115	2800~3300	1000~1400	28	0.4~0.5	側銑 (SIDE MILLING)
ETH 1502	50	100	1800~2300	500~800	0.05~0.15	15	溝銑 (SLOTTING)
1502	50	85	1500~2000	400~700	0.7~1.2	15	溝銑 (SLOTTING)
1502	50	115	2000~2500	500~800	15	0.7~1.2	側銑 (SIDE MILLING)
1502	50	115	2000~2500	400~700	30	0.05~0.15	側銑 (SIDE MILLING)
1502	50	115	2000~2500	700~1000	30	0.4~0.5	側銑 (SIDE MILLING)
ETB ETH 1602	50	100	1800~2300	500~800	0.05~0.15	16	溝銑 (SLOTTING)
1602	50	85	1500~2000	400~700	0.7~1.2	16	溝銑 (SLOTTING)
1602	50	115	2000~2500	500~800	16	0.7~1.2	側銑 (SIDE MILLING)
1602	50	115	2000~2500	400~700	32	0.05~0.15	側銑 (SIDE MILLING)
1602	50	115	2000~2500	700~1000	32	0.4~0.5	側銑 (SIDE MILLING)
ETH 1702	50	100	1800~2300	500~800	0.05~0.15	17	溝銑 (SLOTTING)
1702	50	85	1500~2000	400~700	0.7~1.2	17	溝銑 (SLOTTING)
1702	50	115	2000~2500	500~800	17	0.7~1.2	側銑 (SIDE MILLING)
1702	50	115	2000~2500	400~700	34	0.05~0.15	側銑 (SIDE MILLING)
1702	50	115	2000~2500	700~1000	34	0.4~0.5	側銑 (SIDE MILLING)
ETH 1802	55	95	1300~1800	400~700	0.05~0.15	18	溝銑 (SLOTTING)
1802	55	80	1000~1500	300~600	0.7~1.2	18	溝銑 (SLOTTING)
1802	55	110	1500~2000	400~700	18	0.7~1.2	側銑 (SIDE MILLING)
1802	55	110	1500~2000	300~600	36	0.05~0.15	側銑 (SIDE MILLING)
1802	55	110	1500~2000	500~800	36	0.4~0.5	側銑 (SIDE MILLING)
ETB ETH 2002	55	95	1300~1800	400~700	0.05~0.15	20	溝銑 (SLOTTING)
2002	55	80	1000~1500	300~600	0.7~1.2	20	溝銑 (SLOTTING)
2002	55	110	1500~2000	400~700	20	0.7~1.2	側銑 (SIDE MILLING)
2002	55	110	1500~2000	300~600	40	0.05~0.15	側銑 (SIDE MILLING)
2002	55	110	1500~2000	500~800	40	0.4~0.5	側銑 (SIDE MILLING)

ETB^{2T} / ETH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

鉻鉬合金鋼 : Chromium Molybdenum Alloy Steels
SCM440 : 1.7225 : 4140 : 42CrMoA (HRc25~28)ETB^{2T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 0102	14	30	9000~10000	700~1000	0.03~0.05	1	溝銼 (SLOTTING)
0102	14	30	9000~10000	800~1200	0.06~0.08	1	溝銼 (SLOTTING)
0102	14	30	9000~10000	600~800	1	0.03~0.05	側銼 (SIDE MILLING)
0102	14	30	9000~10000	500~800	1	0.06~0.08	側銼 (SIDE MILLING)
ETB ETH 0152	14	45	9000~10000	700~1000	0.03~0.05	1.5	溝銼 (SLOTTING)
0152	14	45	9000~10000	800~1200	0.06~0.09	1.5	溝銼 (SLOTTING)
0152	14	45	9000~10000	700~900	1.5	0.03~0.05	側銼 (SIDE MILLING)
0152	14	45	9000~10000	500~800	1.5	0.06~0.09	側銼 (SIDE MILLING)
ETB ETH 0202	16	55	8700~9200	700~1000	0.04~0.06	2	溝銼 (SLOTTING)
0202	16	55	8700~9200	1000~1400	0.08~0.13	2	溝銼 (SLOTTING)
0202	16	55	8700~9200	700~900	2	0.04~0.06	側銼 (SIDE MILLING)
0202	16	55	8700~9200	700~1100	2	0.08~0.13	側銼 (SIDE MILLING)
ETB ETH 0252	16	65	8000~8500	700~1000	0.04~0.06	2.5	溝銼 (SLOTTING)
0252	16	65	8000~8500	1000~1400	0.08~0.13	2.5	溝銼 (SLOTTING)
0252	16	65	8000~8500	700~900	5	0.04~0.06	側銼 (SIDE MILLING)
0252	16	65	8000~8500	700~1000	5	0.08~0.13	側銼 (SIDE MILLING)
ETB ETH 0302	18	75	7500~8000	700~1000	0.05~0.09	3	溝銼 (SLOTTING)
0302	18	75	7500~8000	1000~1400	0.12~0.18	3	溝銼 (SLOTTING)
0302	18	75	7500~8000	700~1000	6	0.05~0.09	側銼 (SIDE MILLING)
0302	18	75	7500~8000	800~1200	6	0.12~0.18	側銼 (SIDE MILLING)
ETH 0352	18	75	7500~8000	700~1000	0.05~0.1	3.5	溝銼 (SLOTTING)
0352	18	75	7500~8000	1000~1400	0.12~0.2	3.5	溝銼 (SLOTTING)
0352	18	75	7500~8000	700~1000	7	0.05~0.1	側銼 (SIDE MILLING)
0352	18	75	7500~8000	800~1200	7	0.12~0.2	側銼 (SIDE MILLING)
ETB ETH 0402	20	75	5700~6200	700~1000	0.05~0.1	4	溝銼 (SLOTTING)
0402	20	75	5700~6200	1000~1400	0.15~0.25	4	溝銼 (SLOTTING)
0402	20	75	5700~6200	700~1000	8	0.05~0.1	側銼 (SIDE MILLING)
0402	20	75	5700~6200	1000~1400	8	0.15~0.25	側銼 (SIDE MILLING)
ETH 0452	20	75	5700~6200	700~1000	0.05~0.1	4.5	溝銼 (SLOTTING)
0452	20	75	5700~6200	1000~1400	0.2~0.3	4.5	溝銼 (SLOTTING)
0452	20	75	5700~6200	700~1000	9	0.05~0.1	側銼 (SIDE MILLING)
0452	20	75	5700~6200	1000~1400	9	0.2~0.3	側銼 (SIDE MILLING)
ETB ETH 0502	20	80	4800~5300	700~1000	0.05~0.1	5	溝銼 (SLOTTING)
0502	20	80	4800~5300	1000~1400	0.3~0.4	5	溝銼 (SLOTTING)
0502	20	80	4800~5300	700~1000	10	0.05~0.1	側銼 (SIDE MILLING)
0502	20	80	4800~5300	1000~1400	10	0.3~0.4	側銼 (SIDE MILLING)
ETH 0552	20	80	4800~5300	700~1000	0.05~0.1	5.5	溝銼 (SLOTTING)
0552	20	80	4800~5300	1000~1400	0.3~0.4	5.5	溝銼 (SLOTTING)
0552	20	80	4800~5300	700~1000	11	0.05~0.1	側銼 (SIDE MILLING)
0552	20	80	4800~5300	1000~1400	11	0.3~0.4	側銼 (SIDE MILLING)

ETB^{2T} / ETH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

鉻鉬合金鋼 : Chromium Molybdenum Alloy Steels
SCM440 : 1.7225 : 4140 : 42CrMoA (HRC25~28)

ETB^{2T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 0602	23	80	4000~4500	700~1000	0.05~0.1	6	溝銑 (SLOTTING)
0602	23	80	4000~4500	800~1200	0.5~1	6	溝銑 (SLOTTING)
0602	23	80	4000~4500	700~1100	6	0.5~1	側銑 (SIDE MILLING)
0602	23	80	4000~4500	500~800	12	0.05~0.1	側銑 (SIDE MILLING)
0602	23	80	4000~4500	1200~1600	12	0.3~0.4	側銑 (SIDE MILLING)
ETH 0652	23	80	4000~4500	700~1000	0.05~0.1	6.5	溝銑 (SLOTTING)
0652	23	80	4000~4500	800~1200	0.5~1	6.5	溝銑 (SLOTTING)
0652	23	80	4000~4500	700~1100	6.5	0.5~1	側銑 (SIDE MILLING)
0652	23	80	4000~4500	500~800	13	0.05~0.1	側銑 (SIDE MILLING)
0652	23	80	4000~4500	1200~1600	13	0.3~0.4	側銑 (SIDE MILLING)
ETH 0702	23	80	4000~4500	700~1000	0.05~0.1	7	溝銑 (SLOTTING)
0702	23	80	4000~4500	800~1200	0.5~1	7	溝銑 (SLOTTING)
0702	23	80	4000~4500	700~1100	7	0.5~1	側銑 (SIDE MILLING)
0702	23	80	4000~4500	500~800	14	0.05~0.1	側銑 (SIDE MILLING)
0702	23	80	4000~4500	1200~1600	14	0.3~0.4	側銑 (SIDE MILLING)
ETH 0752	30	75	2700~3200	700~1000	0.05~0.1	7.5	溝銑 (SLOTTING)
0752	30	75	2700~3200	700~1000	0.5~1	7.5	溝銑 (SLOTTING)
0752	30	75	2700~3200	700~1000	7.5	0.5~1	側銑 (SIDE MILLING)
0752	30	75	2700~3200	500~800	15	0.05~0.1	側銑 (SIDE MILLING)
0752	30	75	2700~3200	1200~1600	15	0.4~0.5	側銑 (SIDE MILLING)
ETB ETH 0802	30	75	2700~3200	700~1000	0.05~0.1	8	溝銑 (SLOTTING)
0802	30	75	2700~3200	700~1000	0.7~1.2	8	溝銑 (SLOTTING)
0802	30	75	2700~3200	700~1000	8	0.7~1.2	側銑 (SIDE MILLING)
0802	30	75	2700~3200	500~800	16	0.05~0.1	側銑 (SIDE MILLING)
0802	30	75	2700~3200	1200~1600	16	0.4~0.5	側銑 (SIDE MILLING)
ETH 0852	30	75	2700~3200	700~1000	0.05~0.1	8.5	溝銑 (SLOTTING)
0852	30	75	2700~3200	700~1000	0.7~1.2	8.5	溝銑 (SLOTTING)
0852	30	75	2700~3200	700~1000	8.5	0.7~1.2	側銑 (SIDE MILLING)
0852	30	75	2700~3200	500~800	17	0.05~0.1	側銑 (SIDE MILLING)
0852	30	75	2700~3200	1200~1600	17	0.4~0.5	側銑 (SIDE MILLING)
ETH 0902	30	75	2700~3200	700~1000	0.05~0.1	9	溝銑 (SLOTTING)
0902	30	75	2700~3200	700~1000	0.7~1.2	9	溝銑 (SLOTTING)
0902	30	75	2700~3200	700~1000	9	0.7~1.2	側銑 (SIDE MILLING)
0902	30	75	2700~3200	500~800	18	0.05~0.1	側銑 (SIDE MILLING)
0902	30	75	2700~3200	1200~1600	18	0.4~0.5	側銑 (SIDE MILLING)
ETH 0952	35	100	3000~3500	700~1000	0.05~0.1	9.5	溝銑 (SLOTTING)
0952	35	75	2200~2700	700~1000	0.7~1.2	9.5	溝銑 (SLOTTING)
0952	35	70	2000~2500	700~1000	9.5	0.7~1.2	側銑 (SIDE MILLING)
0952	35	100	3000~3500	400~700	19	0.05~0.1	側銑 (SIDE MILLING)
0952	35	70	2000~2500	800~1200	19	0.4~0.5	側銑 (SIDE MILLING)

ETB^{2T} / ETH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

鉻鉬合金鋼 : Chromium Molybdenum Alloy Steels
SCM440 : 1.7225 : 4140 : 42CrMoA (HRc25~28)ETB^{2T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 1002	35	100	3000~3500	700~1000	0.05~0.1	10	溝銼 (SLOTTING)
1002	35	75	2200~2700	700~1000	0.7~1.2	10	溝銼 (SLOTTING)
1002	35	70	2000~2500	700~1000	10	0.7~1.2	側銼 (SIDE MILLING)
1002	35	100	3000~3500	400~700	20	0.05~0.1	側銼 (SIDE MILLING)
1002	35	70	2000~2500	800~1200	20	0.4~0.5	側銼 (SIDE MILLING)
ETH 1052	35	100	3000~3500	700~1000	0.05~0.12	10.5	溝銼 (SLOTTING)
1052	35	75	2200~2700	700~1000	0.7~1.2	10.5	溝銼 (SLOTTING)
1052	35	70	2000~2500	700~1000	10.5	0.7~1.2	側銼 (SIDE MILLING)
1052	35	100	3000~3500	400~700	21	0.05~0.12	側銼 (SIDE MILLING)
1052	35	70	2000~2500	800~1200	21	0.4~0.5	側銼 (SIDE MILLING)
ETH 1102	35	100	3000~3500	700~1000	0.05~0.12	11	溝銼 (SLOTTING)
1102	35	75	2200~2700	700~1000	0.7~1.2	11	溝銼 (SLOTTING)
1102	35	70	2000~2500	700~1000	11	0.7~1.2	側銼 (SIDE MILLING)
1102	35	100	3000~3500	400~700	22	0.05~0.12	側銼 (SIDE MILLING)
1102	35	70	2000~2500	800~1200	22	0.4~0.5	側銼 (SIDE MILLING)
ETH 1152	35	100	3000~3500	700~1000	0.05~0.12	11.5	溝銼 (SLOTTING)
1152	35	75	2200~2700	700~1000	0.7~1.2	11.5	溝銼 (SLOTTING)
1152	35	70	2000~2500	700~1000	11.5	0.7~1.2	側銼 (SIDE MILLING)
1152	35	100	3000~3500	400~700	23	0.05~0.12	側銼 (SIDE MILLING)
1152	35	70	2000~2500	800~1200	23	0.4~0.5	側銼 (SIDE MILLING)
ETB ETH 1202	37	105	2500~3000	700~1000	0.05~0.12	12	溝銼 (SLOTTING)
1202	37	85	2000~2500	500~800	0.7~1.2	12	溝銼 (SLOTTING)
1202	37	90	2200~2700	700~1000	12	0.7~1.2	側銼 (SIDE MILLING)
1202	37	115	2800~3300	500~800	24	0.05~0.12	側銼 (SIDE MILLING)
1202	37	115	2800~3300	1000~1400	24	0.4~0.5	側銼 (SIDE MILLING)
ETH 1252	37	105	2500~3000	700~1000	0.05~0.15	12.5	溝銼 (SLOTTING)
1252	37	85	2000~2500	500~800	0.7~1.2	12.5	溝銼 (SLOTTING)
1252	37	90	2200~2700	700~1000	12.5	0.7~1.2	側銼 (SIDE MILLING)
1252	37	115	2800~3300	500~800	25	0.05~0.15	側銼 (SIDE MILLING)
1252	37	115	2800~3300	1000~1400	25	0.4~0.5	側銼 (SIDE MILLING)
ETH 1302	37	105	2500~3000	700~1000	0.05~0.15	13	溝銼 (SLOTTING)
1302	37	85	2000~2500	500~800	0.7~1.2	13	溝銼 (SLOTTING)
1302	37	90	2200~2700	700~1000	13	0.7~1.2	側銼 (SIDE MILLING)
1302	37	115	2800~3300	500~800	26	0.05~0.15	側銼 (SIDE MILLING)
1302	37	115	2800~3300	1000~1400	26	0.4~0.5	側銼 (SIDE MILLING)
ETH 1352	37	105	2500~3000	700~1000	0.05~0.15	13.5	溝銼 (SLOTTING)
1352	37	85	2000~2500	500~800	0.7~1.2	13.5	溝銼 (SLOTTING)
1352	37	90	2200~2700	700~1000	13.5	0.7~1.2	側銼 (SIDE MILLING)
1352	37	115	2800~3300	500~800	27	0.05~0.15	側銼 (SIDE MILLING)
1352	37	115	2800~3300	1000~1400	27	0.4~0.5	側銼 (SIDE MILLING)

ETB^{2T} / ETH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

 鉻鉬合金鋼 : Chromium Molybdenum Alloy Steels
 SCM440 : 1.7225 : 4140 : 42CrMoA (HRC25~28)

 ETB^{2T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

 ETH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETH 1402	37	105	2500~3000	700~1000	0.05~0.15	14	溝銼 (SLOTTING)
1402	37	85	2000~2500	500~800	0.7~1.2	14	溝銼 (SLOTTING)
1402	37	90	2200~2700	700~1000	14	0.7~1.2	側銼 (SIDE MILLING)
1402	37	115	2800~3300	500~800	28	0.05~0.15	側銼 (SIDE MILLING)
1402	37	115	2800~3300	1000~1400	28	0.4~0.5	側銼 (SIDE MILLING)
ETH 1502	50	100	1800~2300	500~800	0.05~0.15	15	溝銼 (SLOTTING)
1502	50	85	1500~2000	400~700	0.7~1.2	15	溝銼 (SLOTTING)
1502	50	115	2000~2500	500~800	15	0.7~1.2	側銼 (SIDE MILLING)
1502	50	115	2000~2500	400~700	30	0.05~0.15	側銼 (SIDE MILLING)
1502	50	115	2000~2500	700~1000	30	0.4~0.5	側銼 (SIDE MILLING)
ETB ETH 1602	50	100	1800~2300	500~800	0.05~0.15	16	溝銼 (SLOTTING)
1602	50	85	1500~2000	400~700	0.7~1.2	16	溝銼 (SLOTTING)
1602	50	115	2000~2500	500~800	16	0.7~1.2	側銼 (SIDE MILLING)
1602	50	115	2000~2500	400~700	32	0.05~0.15	側銼 (SIDE MILLING)
1602	50	115	2000~2500	700~1000	32	0.4~0.5	側銼 (SIDE MILLING)
ETH 1702	50	100	1800~2300	500~800	0.05~0.15	17	溝銼 (SLOTTING)
1702	50	85	1500~2000	400~700	0.7~1.2	17	溝銼 (SLOTTING)
1702	50	115	2000~2500	500~800	17	0.7~1.2	側銼 (SIDE MILLING)
1702	50	115	2000~2500	400~700	34	0.05~0.15	側銼 (SIDE MILLING)
1702	50	115	2000~2500	700~1000	34	0.4~0.5	側銼 (SIDE MILLING)
ETH 1802	55	95	1300~1800	400~700	0.05~0.15	18	溝銼 (SLOTTING)
1802	55	80	1000~1500	300~600	0.7~1.2	18	溝銼 (SLOTTING)
1802	55	110	1500~2000	400~700	18	0.7~1.2	側銼 (SIDE MILLING)
1802	55	110	1500~2000	300~600	36	0.05~0.15	側銼 (SIDE MILLING)
1802	55	110	1500~2000	500~800	36	0.4~0.5	側銼 (SIDE MILLING)
ETB ETH 2002	55	95	1300~1800	400~700	0.05~0.15	20	溝銼 (SLOTTING)
2002	55	80	1000~1500	300~600	0.7~1.2	20	溝銼 (SLOTTING)
2002	55	110	1500~2000	400~700	20	0.7~1.2	側銼 (SIDE MILLING)
2002	55	110	1500~2000	300~600	40	0.05~0.15	側銼 (SIDE MILLING)
2002	55	110	1500~2000	500~800	40	0.4~0.5	側銼 (SIDE MILLING)

ETB^{2T} / ETH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels

P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

ETB^{2T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 0102	14	30	9000~10000	700~1000	0.03~0.05	1	溝銼 (SLOTTING)
0102	14	30	9000~10000	700~1000	0.06~0.08	1	溝銼 (SLOTTING)
0102	14	30	9000~10000	500~700	1	0.03~0.05	側銼 (SIDE MILLING)
0102	14	30	9000~10000	400~700	1	0.06~0.08	側銼 (SIDE MILLING)
ETB ETH 0152	14	45	9000~10000	700~1000	0.03~0.05	1.5	溝銼 (SLOTTING)
0152	14	45	9000~10000	700~1000	0.06~0.09	1.5	溝銼 (SLOTTING)
0152	14	45	9000~10000	600~800	1.5	0.03~0.05	側銼 (SIDE MILLING)
0152	14	45	9000~10000	400~700	1.5	0.06~0.09	側銼 (SIDE MILLING)
ETB ETH 0202	16	55	8700~9200	700~1000	0.04~0.06	2	溝銼 (SLOTTING)
0202	16	55	8700~9200	800~1200	0.08~0.13	2	溝銼 (SLOTTING)
0202	16	55	8700~9200	600~800	2	0.04~0.06	側銼 (SIDE MILLING)
0202	16	55	8700~9200	700~1000	2	0.08~0.13	側銼 (SIDE MILLING)
ETB ETH 0252	16	65	8000~8500	700~1000	0.04~0.06	2.5	溝銼 (SLOTTING)
0252	16	65	8000~8500	800~1200	0.08~0.13	2.5	溝銼 (SLOTTING)
0252	16	65	8000~8500	700~900	5	0.04~0.06	側銼 (SIDE MILLING)
0252	16	65	8000~8500	500~800	5	0.08~0.13	側銼 (SIDE MILLING)
ETB ETH 0302	18	75	7500~8000	700~1000	0.05~0.09	3	溝銼 (SLOTTING)
0302	18	75	7500~8000	800~1200	0.12~0.18	3	溝銼 (SLOTTING)
0302	18	75	7500~8000	700~900	6	0.05~0.09	側銼 (SIDE MILLING)
0302	18	75	7500~8000	700~1000	6	0.12~0.18	側銼 (SIDE MILLING)
ETH 0352	18	75	7500~8000	700~1000	0.05~0.1	3.5	溝銼 (SLOTTING)
0352	18	75	7500~8000	800~1200	0.12~0.2	3.5	溝銼 (SLOTTING)
0352	18	75	7500~8000	700~900	7	0.05~0.1	側銼 (SIDE MILLING)
0352	18	75	7500~8000	700~1000	7	0.12~0.2	側銼 (SIDE MILLING)
ETB ETH 0402	20	75	5700~6200	700~1000	0.05~0.1	4	溝銼 (SLOTTING)
0402	20	75	5700~6200	800~1200	0.15~0.25	4	溝銼 (SLOTTING)
0402	20	75	5700~6200	700~1000	8	0.05~0.1	側銼 (SIDE MILLING)
0402	20	75	5700~6200	800~1200	8	0.15~0.25	側銼 (SIDE MILLING)
ETH 0452	20	75	5700~6200	700~1000	0.05~0.1	4.5	溝銼 (SLOTTING)
0452	20	75	5700~6200	800~1200	0.2~0.3	4.5	溝銼 (SLOTTING)
0452	20	75	5700~6200	700~1000	9	0.05~0.1	側銼 (SIDE MILLING)
0452	20	75	5700~6200	800~1200	9	0.2~0.3	側銼 (SIDE MILLING)
ETB ETH 0502	20	80	4800~5300	700~1000	0.05~0.1	5	溝銼 (SLOTTING)
0502	20	80	4800~5300	800~1200	0.3~0.4	5	溝銼 (SLOTTING)
0502	20	80	4800~5300	700~1000	10	0.05~0.1	側銼 (SIDE MILLING)
0502	20	80	4800~5300	800~1200	10	0.3~0.4	側銼 (SIDE MILLING)
ETH 0552	20	80	4800~5300	700~1000	0.05~0.1	5.5	溝銼 (SLOTTING)
0552	20	80	4800~5300	800~1200	0.3~0.4	5.5	溝銼 (SLOTTING)
0552	20	80	4800~5300	700~1000	11	0.05~0.1	側銼 (SIDE MILLING)
0552	20	80	4800~5300	800~1200	11	0.3~0.4	側銼 (SIDE MILLING)

ETB^{2T} / ETH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

ETB^{2T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 0602	23	80	4000~4500	700~1000	0.05~0.1	6	溝銑 (SLOTTING)
	23	80	4000~4500	700~1000	0.5~1	6	溝銑 (SLOTTING)
	23	80	4000~4500	500~800	6	0.5~1	側銑 (SIDE MILLING)
	23	80	4000~4500	500~800	12	0.05~0.1	側銑 (SIDE MILLING)
	23	80	4000~4500	1000~1400	12	0.3~0.4	側銑 (SIDE MILLING)
ETH 0652	23	80	4000~4500	700~1000	0.05~0.1	6.5	溝銑 (SLOTTING)
	23	80	4000~4500	700~1000	0.5~1	6.5	溝銑 (SLOTTING)
	23	80	4000~4500	500~800	6.5	0.5~1	側銑 (SIDE MILLING)
	23	80	4000~4500	500~800	13	0.05~0.1	側銑 (SIDE MILLING)
	23	80	4000~4500	1000~1400	13	0.3~0.4	側銑 (SIDE MILLING)
ETH 0702	23	80	4000~4500	700~1000	0.05~0.1	7	溝銑 (SLOTTING)
	23	80	4000~4500	700~1000	0.5~1	7	溝銑 (SLOTTING)
	23	80	4000~4500	500~800	7	0.5~1	側銑 (SIDE MILLING)
	23	80	4000~4500	500~800	14	0.05~0.1	側銑 (SIDE MILLING)
	23	80	4000~4500	1000~1400	14	0.3~0.4	側銑 (SIDE MILLING)
ETH 0752	30	75	2700~3200	700~1000	0.05~0.1	7.5	溝銑 (SLOTTING)
	30	75	2700~3200	500~800	0.5~1	7.5	溝銑 (SLOTTING)
	30	75	2700~3200	500~800	7.5	0.5~1	側銑 (SIDE MILLING)
	30	75	2700~3200	500~800	15	0.05~0.1	側銑 (SIDE MILLING)
	30	75	2700~3200	1000~1400	15	0.4~0.5	側銑 (SIDE MILLING)
ETB ETH 0802	30	75	2700~3200	700~1000	0.05~0.1	8	溝銑 (SLOTTING)
	30	75	2700~3200	500~800	0.7~1.2	8	溝銑 (SLOTTING)
	30	75	2700~3200	500~800	8	0.7~1.2	側銑 (SIDE MILLING)
	30	75	2700~3200	500~800	16	0.05~0.1	側銑 (SIDE MILLING)
	30	75	2700~3200	1000~1400	16	0.4~0.5	側銑 (SIDE MILLING)
ETH 0852	30	75	2700~3200	700~1000	0.05~0.1	8.5	溝銑 (SLOTTING)
	30	75	2700~3200	500~800	0.7~1.2	8.5	溝銑 (SLOTTING)
	30	75	2700~3200	500~800	8.5	0.7~1.2	側銑 (SIDE MILLING)
	30	75	2700~3200	500~800	17	0.05~0.1	側銑 (SIDE MILLING)
	30	75	2700~3200	1000~1400	17	0.4~0.5	側銑 (SIDE MILLING)
ETH 0902	30	75	2700~3200	700~1000	0.05~0.1	9	溝銑 (SLOTTING)
	30	75	2700~3200	500~800	0.7~1.2	9	溝銑 (SLOTTING)
	30	75	2700~3200	500~800	9	0.7~1.2	側銑 (SIDE MILLING)
	30	75	2700~3200	500~800	18	0.05~0.1	側銑 (SIDE MILLING)
	30	75	2700~3200	1000~1400	18	0.4~0.5	側銑 (SIDE MILLING)
ETH 0952	35	100	3000~3500	700~1000	0.05~0.1	9.5	溝銑 (SLOTTING)
	35	75	2200~2700	500~800	0.7~1.2	9.5	溝銑 (SLOTTING)
	35	70	2000~2500	700~1000	9.5	0.7~1.2	側銑 (SIDE MILLING)
	35	100	3000~3500	400~700	19	0.05~0.1	側銑 (SIDE MILLING)
	35	70	2000~2500	700~1100	19	0.4~0.5	側銑 (SIDE MILLING)

ETB^{2T} / ETH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)ETB^{2T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 1002	35	100	3000~3500	700~1000	0.05~0.1	10	溝銼 (SLOTTING)
1002	35	75	2200~2700	500~800	0.7~1.2	10	溝銼 (SLOTTING)
1002	35	70	2000~2500	700~1000	10	0.7~1.2	側銼 (SIDE MILLING)
1002	35	100	3000~3500	400~700	20	0.05~0.1	側銼 (SIDE MILLING)
1002	35	70	2000~2500	700~1100	20	0.4~0.5	側銼 (SIDE MILLING)
ETH 1052	35	100	3000~3500	700~1000	0.05~0.12	10.5	溝銼 (SLOTTING)
1052	35	75	2200~2700	500~800	0.7~1.2	10.5	溝銼 (SLOTTING)
1052	35	70	2000~2500	700~1000	10.5	0.7~1.2	側銼 (SIDE MILLING)
1052	35	100	3000~3500	400~700	21	0.05~0.12	側銼 (SIDE MILLING)
1052	35	70	2000~2500	700~1100	21	0.4~0.5	側銼 (SIDE MILLING)
ETH 1102	35	100	3000~3500	700~1000	0.05~0.12	11	溝銼 (SLOTTING)
1102	35	75	2200~2700	500~800	0.7~1.2	11	溝銼 (SLOTTING)
1102	35	70	2000~2500	700~1000	11	0.7~1.2	側銼 (SIDE MILLING)
1102	35	100	3000~3500	400~700	22	0.05~0.12	側銼 (SIDE MILLING)
1102	35	70	2000~2500	700~1100	22	0.4~0.5	側銼 (SIDE MILLING)
ETH 1152	35	100	3000~3500	700~1000	0.05~0.12	11.5	溝銼 (SLOTTING)
1152	35	75	2200~2700	500~800	0.7~1.2	11.5	溝銼 (SLOTTING)
1152	35	70	2000~2500	700~1000	11.5	0.7~1.2	側銼 (SIDE MILLING)
1152	35	100	3000~3500	400~700	23	0.05~0.12	側銼 (SIDE MILLING)
1152	35	70	2000~2500	700~1100	23	0.4~0.5	側銼 (SIDE MILLING)
ETB ETH 1202	37	105	2500~3000	700~1000	0.05~0.12	12	溝銼 (SLOTTING)
1202	37	85	2000~2500	400~700	0.7~1.2	12	溝銼 (SLOTTING)
1202	37	90	2200~2700	500~800	12	0.7~1.2	側銼 (SIDE MILLING)
1202	37	115	2800~3300	400~700	24	0.05~0.12	側銼 (SIDE MILLING)
1202	37	115	2800~3300	800~1200	24	0.4~0.5	側銼 (SIDE MILLING)
ETH 1252	37	105	2500~3000	700~1000	0.05~0.15	12.5	溝銼 (SLOTTING)
1252	37	85	2000~2500	400~700	0.7~1.2	12.5	溝銼 (SLOTTING)
1252	37	90	2200~2700	500~800	12.5	0.7~1.2	側銼 (SIDE MILLING)
1252	37	115	2800~3300	400~700	25	0.05~0.15	側銼 (SIDE MILLING)
1252	37	115	2800~3300	800~1200	25	0.4~0.5	側銼 (SIDE MILLING)
ETH 1302	37	105	2500~3000	700~1000	0.05~0.15	13	溝銼 (SLOTTING)
1302	37	85	2000~2500	400~700	0.7~1.2	13	溝銼 (SLOTTING)
1302	37	90	2200~2700	500~800	13	0.7~1.2	側銼 (SIDE MILLING)
1302	37	115	2800~3300	400~700	26	0.05~0.15	側銼 (SIDE MILLING)
1302	37	115	2800~3300	800~1200	26	0.4~0.5	側銼 (SIDE MILLING)
ETH 1352	37	105	2500~3000	700~1000	0.05~0.15	13.5	溝銼 (SLOTTING)
1352	37	85	2000~2500	400~700	0.7~1.2	13.5	溝銼 (SLOTTING)
1352	37	90	2200~2700	500~800	13.5	0.7~1.2	側銼 (SIDE MILLING)
1352	37	115	2800~3300	400~700	27	0.05~0.15	側銼 (SIDE MILLING)
1352	37	115	2800~3300	800~1200	27	0.4~0.5	側銼 (SIDE MILLING)

ETB^{2T} / ETH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

ETB^{2T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETH 1402	37	105	2500~3000	700~1000	0.05~0.15	14	溝銼 (SLOTTING)
1402	37	85	2000~2500	400~700	0.7~1.2	14	溝銼 (SLOTTING)
1402	37	90	2200~2700	500~800	14	0.7~1.2	側銼 (SIDE MILLING)
1402	37	115	2800~3300	400~700	28	0.05~0.15	側銼 (SIDE MILLING)
1402	37	115	2800~3300	800~1200	28	0.4~0.5	側銼 (SIDE MILLING)
ETH 1502	50	100	1800~2300	500~800	0.05~0.15	15	溝銼 (SLOTTING)
1502	50	85	1500~2000	300~600	0.7~1.2	15	溝銼 (SLOTTING)
1502	50	115	2000~2500	300~600	15	0.7~1.2	側銼 (SIDE MILLING)
1502	50	115	2000~2500	300~600	30	0.05~0.15	側銼 (SIDE MILLING)
1502	50	115	2000~2500	500~800	30	0.4~0.5	側銼 (SIDE MILLING)
ETB ETH 1602	50	100	1800~2300	500~800	0.05~0.15	16	溝銼 (SLOTTING)
1602	50	85	1500~2000	300~600	0.7~1.2	16	溝銼 (SLOTTING)
1602	50	115	2000~2500	300~600	16	0.7~1.2	側銼 (SIDE MILLING)
1602	50	115	2000~2500	300~600	32	0.05~0.15	側銼 (SIDE MILLING)
1602	50	115	2000~2500	500~800	32	0.4~0.5	側銼 (SIDE MILLING)
ETH 1702	50	100	1800~2300	500~800	0.05~0.15	17	溝銼 (SLOTTING)
1702	50	85	1500~2000	300~600	0.7~1.2	17	溝銼 (SLOTTING)
1702	50	115	2000~2500	300~600	17	0.7~1.2	側銼 (SIDE MILLING)
1702	50	115	2000~2500	300~600	34	0.05~0.15	側銼 (SIDE MILLING)
1702	50	115	2000~2500	500~800	34	0.4~0.5	側銼 (SIDE MILLING)
ETH 1802	55	95	1300~1800	400~700	0.05~0.15	18	溝銼 (SLOTTING)
1802	55	80	1000~1500	300~500	0.7~1.2	18	溝銼 (SLOTTING)
1802	55	110	1500~2000	300~500	18	0.7~1.2	側銼 (SIDE MILLING)
1802	55	110	1500~2000	300~600	36	0.05~0.15	側銼 (SIDE MILLING)
1802	55	110	1500~2000	300~600	36	0.4~0.5	側銼 (SIDE MILLING)
ETB ETH 2002	55	95	1300~1800	400~700	0.05~0.15	20	溝銼 (SLOTTING)
2002	55	80	1000~1500	300~500	0.7~1.2	20	溝銼 (SLOTTING)
2002	55	110	1500~2000	300~500	20	0.7~1.2	側銼 (SIDE MILLING)
2002	55	110	1500~2000	300~600	40	0.05~0.15	側銼 (SIDE MILLING)
2002	55	110	1500~2000	300~600	40	0.4~0.5	側銼 (SIDE MILLING)

ETB^{2T} / ETH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)ETB^{2T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 0102	14	30	9000~10000	700~1000	0.03~0.05	1	溝銼 (SLOTTING)
0102	14	30	9000~10000	700~1000	0.06~0.08	1	溝銼 (SLOTTING)
0102	14	30	9000~10000	500~700	1	0.03~0.05	側銼 (SIDE MILLING)
0102	14	30	9000~10000	400~700	1	0.06~0.08	側銼 (SIDE MILLING)
ETB ETH 0152	14	45	9000~10000	700~1000	0.03~0.05	1.5	溝銼 (SLOTTING)
0152	14	45	9000~10000	700~1000	0.06~0.09	1.5	溝銼 (SLOTTING)
0152	14	45	9000~10000	500~800	1.5	0.03~0.05	側銼 (SIDE MILLING)
0152	14	45	9000~10000	400~700	1.5	0.06~0.09	側銼 (SIDE MILLING)
ETB ETH 0202	16	55	8700~9200	700~1000	0.04~0.06	2	溝銼 (SLOTTING)
0202	16	55	8700~9200	800~1200	0.08~0.13	2	溝銼 (SLOTTING)
0202	16	55	8700~9200	500~700	2	0.04~0.06	側銼 (SIDE MILLING)
0202	16	55	8700~9200	700~1000	2	0.08~0.13	側銼 (SIDE MILLING)
ETB ETH 0252	16	65	8000~8500	700~1000	0.04~0.06	2.5	溝銼 (SLOTTING)
0252	16	65	8000~8500	800~1200	0.08~0.13	2.5	溝銼 (SLOTTING)
0252	16	65	8000~8500	600~800	5	0.04~0.06	側銼 (SIDE MILLING)
0252	16	65	8000~8500	500~800	5	0.08~0.13	側銼 (SIDE MILLING)
ETB ETH 0302	18	75	7500~8000	700~1000	0.05~0.09	3	溝銼 (SLOTTING)
0302	18	75	7500~8000	800~1200	0.12~0.18	3	溝銼 (SLOTTING)
0302	18	75	7500~8000	600~800	6	0.05~0.09	側銼 (SIDE MILLING)
0302	18	75	7500~8000	700~1000	6	0.12~0.18	側銼 (SIDE MILLING)
ETH 0352	18	75	7500~8000	700~1000	0.05~0.1	3.5	溝銼 (SLOTTING)
0352	18	75	7500~8000	800~1200	0.12~0.2	3.5	溝銼 (SLOTTING)
0352	18	75	7500~8000	600~800	7	0.05~0.1	側銼 (SIDE MILLING)
0352	18	75	7500~8000	700~1000	7	0.12~0.2	側銼 (SIDE MILLING)
ETB ETH 0402	20	75	5700~6200	700~1000	0.05~0.1	4	溝銼 (SLOTTING)
0402	20	75	5700~6200	800~1200	0.15~0.25	4	溝銼 (SLOTTING)
0402	20	75	5700~6200	700~900	8	0.05~0.1	側銼 (SIDE MILLING)
0402	20	75	5700~6200	800~1200	8	0.15~0.25	側銼 (SIDE MILLING)
ETH 0452	20	75	5700~6200	700~1000	0.05~0.1	4.5	溝銼 (SLOTTING)
0452	20	75	5700~6200	800~1200	0.2~0.3	4.5	溝銼 (SLOTTING)
0452	20	75	5700~6200	700~900	9	0.05~0.1	側銼 (SIDE MILLING)
0452	20	75	5700~6200	800~1200	9	0.2~0.3	側銼 (SIDE MILLING)
ETB ETH 0502	20	80	4800~5300	700~1000	0.05~0.1	5	溝銼 (SLOTTING)
0502	20	80	4800~5300	800~1200	0.3~0.4	5	溝銼 (SLOTTING)
0502	20	80	4800~5300	700~1000	10	0.05~0.1	側銼 (SIDE MILLING)
0502	20	80	4800~5300	800~1200	10	0.3~0.4	側銼 (SIDE MILLING)
ETH 0552	20	80	4800~5300	700~1000	0.05~0.1	5.5	溝銼 (SLOTTING)
0552	20	80	4800~5300	800~1200	0.3~0.4	5.5	溝銼 (SLOTTING)
0552	20	80	4800~5300	700~1000	11	0.05~0.1	側銼 (SIDE MILLING)
0552	20	80	4800~5300	800~1200	11	0.3~0.4	側銼 (SIDE MILLING)

ETB^{2T} / ETH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 ; AISI420 : M310 (HRC36~45)

ETB^{2T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 0602	23	80	4000~4500	700~1000	0.05~0.1	6	溝銑 (SLOTTING)
0602	23	80	4000~4500	700~1000	0.5~1	6	溝銑 (SLOTTING)
0602	23	80	4000~4500	500~800	6	0.5~1	側銑 (SIDE MILLING)
0602	23	80	4000~4500	500~700	12	0.05~0.1	側銑 (SIDE MILLING)
0602	23	80	4000~4500	1000~1400	12	0.3~0.4	側銑 (SIDE MILLING)
ETH 0652	23	80	4000~4500	700~1000	0.05~0.1	6.5	溝銑 (SLOTTING)
0652	23	80	4000~4500	700~1000	0.5~1	6.5	溝銑 (SLOTTING)
0652	23	80	4000~4500	500~800	6.5	0.5~1	側銑 (SIDE MILLING)
0652	23	80	4000~4500	500~700	13	0.05~0.1	側銑 (SIDE MILLING)
0652	23	80	4000~4500	1000~1400	13	0.3~0.4	側銑 (SIDE MILLING)
ETH 0702	23	80	4000~4500	700~1000	0.05~0.1	7	溝銑 (SLOTTING)
0702	23	80	4000~4500	700~1000	0.5~1	7	溝銑 (SLOTTING)
0702	23	80	4000~4500	500~800	7	0.5~1	側銑 (SIDE MILLING)
0702	23	80	4000~4500	500~700	14	0.05~0.1	側銑 (SIDE MILLING)
0702	23	80	4000~4500	1000~1400	14	0.3~0.4	側銑 (SIDE MILLING)
ETH 0752	30	75	2700~3200	700~1000	0.05~0.1	7.5	溝銑 (SLOTTING)
0752	30	75	2700~3200	500~800	0.5~1	7.5	溝銑 (SLOTTING)
0752	30	75	2700~3200	500~800	7.5	0.5~1	側銑 (SIDE MILLING)
0752	30	75	2700~3200	500~700	15	0.05~0.1	側銑 (SIDE MILLING)
0752	30	75	2700~3200	1000~1400	15	0.4~0.5	側銑 (SIDE MILLING)
ETB ETH 0802	30	75	2700~3200	700~1000	0.05~0.1	8	溝銑 (SLOTTING)
0802	30	75	2700~3200	500~800	0.7~1.2	8	溝銑 (SLOTTING)
0802	30	75	2700~3200	500~800	8	0.7~1.2	側銑 (SIDE MILLING)
0802	30	75	2700~3200	500~700	16	0.05~0.1	側銑 (SIDE MILLING)
0802	30	75	2700~3200	1000~1400	16	0.4~0.5	側銑 (SIDE MILLING)
ETH 0852	30	75	2700~3200	700~1000	0.05~0.1	8.5	溝銑 (SLOTTING)
0852	30	75	2700~3200	500~800	0.7~1.2	8.5	溝銑 (SLOTTING)
0852	30	75	2700~3200	500~800	8.5	0.7~1.2	側銑 (SIDE MILLING)
0852	30	75	2700~3200	500~700	17	0.05~0.1	側銑 (SIDE MILLING)
0852	30	75	2700~3200	1000~1400	17	0.4~0.5	側銑 (SIDE MILLING)
ETH 0902	30	75	2700~3200	700~1000	0.05~0.1	9	溝銑 (SLOTTING)
0902	30	75	2700~3200	500~800	0.7~1.2	9	溝銑 (SLOTTING)
0902	30	75	2700~3200	500~800	9	0.7~1.2	側銑 (SIDE MILLING)
0902	30	75	2700~3200	500~700	18	0.05~0.1	側銑 (SIDE MILLING)
0902	30	75	2700~3200	1000~1400	18	0.4~0.5	側銑 (SIDE MILLING)
ETH 0952	35	100	3000~3500	700~1000	0.05~0.1	9.5	溝銑 (SLOTTING)
0952	35	75	2200~2700	500~800	0.7~1.2	9.5	溝銑 (SLOTTING)
0952	35	70	2000~2500	700~1000	9.5	0.7~1.2	側銑 (SIDE MILLING)
0952	35	100	3000~3500	400~600	19	0.05~0.1	側銑 (SIDE MILLING)
0952	35	70	2000~2500	700~1100	19	0.4~0.5	側銑 (SIDE MILLING)

ETB^{2T} / ETH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

ETB ^{2T} 冷卻方式 Coolant Type		乾式 / 油霧切削 Dry/MQL coolant		ETH ^{2T} 冷卻方式 Coolant Type		濕式切削 Wet coolant	
型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 1002	35	100	3000~3500	700~1000	0.05~0.1	10	溝銼 (SLOTTING)
1002	35	75	2200~2700	500~800	0.7~1.2	10	溝銼 (SLOTTING)
1002	35	70	2000~2500	700~1000	10	0.7~1.2	側銼 (SIDE MILLING)
1002	35	100	3000~3500	400~600	20	0.05~0.1	側銼 (SIDE MILLING)
1002	35	70	2000~2500	700~1100	20	0.4~0.5	側銼 (SIDE MILLING)
ETH 1052	35	100	3000~3500	700~1000	0.05~0.12	10.5	溝銼 (SLOTTING)
1052	35	75	2200~2700	500~800	0.7~1.2	10.5	溝銼 (SLOTTING)
1052	35	70	2000~2500	700~1000	10.5	0.7~1.2	側銼 (SIDE MILLING)
1052	35	100	3000~3500	400~600	21	0.05~0.12	側銼 (SIDE MILLING)
1052	35	70	2000~2500	700~1100	21	0.4~0.5	側銼 (SIDE MILLING)
ETH 1102	35	100	3000~3500	700~1000	0.05~0.12	11	溝銼 (SLOTTING)
1102	35	75	2200~2700	500~800	0.7~1.2	11	溝銼 (SLOTTING)
1102	35	70	2000~2500	700~1000	11	0.7~1.2	側銼 (SIDE MILLING)
1102	35	100	3000~3500	400~600	22	0.05~0.12	側銼 (SIDE MILLING)
1102	35	70	2000~2500	700~1100	22	0.4~0.5	側銼 (SIDE MILLING)
ETH 1152	35	100	3000~3500	700~1000	0.05~0.12	11.5	溝銼 (SLOTTING)
1152	35	75	2200~2700	500~800	0.7~1.2	11.5	溝銼 (SLOTTING)
1152	35	70	2000~2500	700~1000	11.5	0.7~1.2	側銼 (SIDE MILLING)
1152	35	100	3000~3500	400~600	23	0.05~0.12	側銼 (SIDE MILLING)
1152	35	70	2000~2500	700~1100	23	0.4~0.5	側銼 (SIDE MILLING)
ETB ETH 1202	37	105	2500~3000	700~1000	0.05~0.12	12	溝銼 (SLOTTING)
1202	37	85	2000~2500	400~700	0.7~1.2	12	溝銼 (SLOTTING)
1202	37	90	2200~2700	500~800	12	0.7~1.2	側銼 (SIDE MILLING)
1202	37	115	2800~3300	400~600	24	0.05~0.12	側銼 (SIDE MILLING)
1202	37	115	2800~3300	800~1200	24	0.4~0.5	側銼 (SIDE MILLING)
ETH 1252	37	105	2500~3000	700~1000	0.05~0.15	12.5	溝銼 (SLOTTING)
1252	37	85	2000~2500	400~700	0.7~1.2	12.5	溝銼 (SLOTTING)
1252	37	90	2200~2700	500~800	12.5	0.7~1.2	側銼 (SIDE MILLING)
1252	37	115	2800~3300	400~600	25	0.05~0.15	側銼 (SIDE MILLING)
1252	37	115	2800~3300	800~1200	25	0.4~0.5	側銼 (SIDE MILLING)
ETH 1302	37	105	2500~3000	700~1000	0.05~0.15	13	溝銼 (SLOTTING)
1302	37	85	2000~2500	400~700	0.7~1.2	13	溝銼 (SLOTTING)
1302	37	90	2200~2700	500~800	13	0.7~1.2	側銼 (SIDE MILLING)
1302	37	115	2800~3300	400~600	26	0.05~0.15	側銼 (SIDE MILLING)
1302	37	115	2800~3300	800~1200	26	0.4~0.5	側銼 (SIDE MILLING)
ETH 1352	37	105	2500~3000	700~1000	0.05~0.15	13.5	溝銼 (SLOTTING)
1352	37	85	2000~2500	400~700	0.7~1.2	13.5	溝銼 (SLOTTING)
1352	37	90	2200~2700	500~800	13.5	0.7~1.2	側銼 (SIDE MILLING)
1352	37	115	2800~3300	400~600	27	0.05~0.15	側銼 (SIDE MILLING)
1352	37	115	2800~3300	800~1200	27	0.4~0.5	側銼 (SIDE MILLING)

ETB^{2T} / ETH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

ETB^{2T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETH 1402	37	105	2500~3000	700~1000	0.05~0.15	14	溝銼 (SLOTTING)
1402	37	85	2000~2500	400~700	0.7~1.2	14	溝銼 (SLOTTING)
1402	37	90	2200~2700	500~800	14	0.7~1.2	側銼 (SIDE MILLING)
1402	37	115	2800~3300	400~600	28	0.05~0.15	側銼 (SIDE MILLING)
1402	37	115	2800~3300	800~1200	28	0.4~0.5	側銼 (SIDE MILLING)
ETH 1502	50	100	1800~2300	500~800	0.05~0.15	15	溝銼 (SLOTTING)
1502	50	85	1500~2000	300~600	0.7~1.2	15	溝銼 (SLOTTING)
1502	50	115	2000~2500	300~600	15	0.7~1.2	側銼 (SIDE MILLING)
1502	50	115	2000~2500	300~500	30	0.05~0.15	側銼 (SIDE MILLING)
1502	50	115	2000~2500	500~800	30	0.4~0.5	側銼 (SIDE MILLING)
ETB ETH 1602	50	100	1800~2300	500~800	0.05~0.15	16	溝銼 (SLOTTING)
1602	50	85	1500~2000	300~600	0.7~1.2	16	溝銼 (SLOTTING)
1602	50	115	2000~2500	300~600	16	0.7~1.2	側銼 (SIDE MILLING)
1602	50	115	2000~2500	300~500	32	0.05~0.15	側銼 (SIDE MILLING)
1602	50	115	2000~2500	500~800	32	0.4~0.5	側銼 (SIDE MILLING)
ETH 1702	50	100	1800~2300	500~800	0.05~0.15	17	溝銼 (SLOTTING)
1702	50	85	1500~2000	300~600	0.7~1.2	17	溝銼 (SLOTTING)
1702	50	115	2000~2500	300~600	17	0.7~1.2	側銼 (SIDE MILLING)
1702	50	115	2000~2500	300~500	34	0.05~0.15	側銼 (SIDE MILLING)
1702	50	115	2000~2500	500~800	34	0.4~0.5	側銼 (SIDE MILLING)
ETH 1802	55	95	1300~1800	400~700	0.05~0.15	18	溝銼 (SLOTTING)
1802	55	80	1000~1500	300~500	0.7~1.2	18	溝銼 (SLOTTING)
1802	55	110	1500~2000	300~500	18	0.7~1.2	側銼 (SIDE MILLING)
1802	55	110	1500~2000	300~600	36	0.05~0.15	側銼 (SIDE MILLING)
1802	55	110	1500~2000	300~600	36	0.4~0.5	側銼 (SIDE MILLING)
ETB ETH 2002	55	95	1300~1800	400~700	0.05~0.15	20	溝銼 (SLOTTING)
2002	55	80	1000~1500	300~500	0.7~1.2	20	溝銼 (SLOTTING)
2002	55	110	1500~2000	300~500	20	0.7~1.2	側銼 (SIDE MILLING)
2002	55	110	1500~2000	300~600	40	0.05~0.15	側銼 (SIDE MILLING)
2002	55	110	1500~2000	300~600	40	0.4~0.5	側銼 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 0104	9	60	18000~20000	1300~1600	0.03~0.05	1	溝銼 (SLOTTING)
0104	9	60	18000~20000	1200~1400	0.06~0.08	1	溝銼 (SLOTTING)
0104	9	60	18000~20000	700~900	0.09~0.12	1	溝銼 (SLOTTING)
0104	9	60	18000~20000	1100~1300	1~2	0.03~0.05	側銼 (SIDE MILLING)
0104	9	60	18000~20000	1000~1200	1~2	0.06~0.08	側銼 (SIDE MILLING)
0104	9	60	18000~20000	700~900	1~2	0.09~0.12	側銼 (SIDE MILLING)
ETB ETH 0154	9	90	18000~20000	1300~1600	0.03~0.05	1.5	溝銼 (SLOTTING)
0154	9	90	18000~20000	1200~1400	0.06~0.09	1.5	溝銼 (SLOTTING)
0154	9	90	18000~20000	700~900	0.1~0.15	1.5	溝銼 (SLOTTING)
0154	9	90	18000~20000	1100~1300	1.5~3	0.03~0.05	側銼 (SIDE MILLING)
0154	9	90	18000~20000	1000~1200	1.5~3	0.06~0.09	側銼 (SIDE MILLING)
0154	9	90	18000~20000	800~1000	1.5~3	0.1~0.15	側銼 (SIDE MILLING)
ETB ETH 0204(S)	11	125	18000~20000	1300~1600	0.03~0.06	2	溝銼 (SLOTTING)
0204(S)	11	125	18000~20000	1200~1400	0.07~0.11	2	溝銼 (SLOTTING)
0204(S)	11	125	18000~20000	700~900	0.12~0.16	2	溝銼 (SLOTTING)
0204(S)	11	125	18000~20000	1100~1300	2~4	0.03~0.06	側銼 (SIDE MILLING)
0204(S)	11	125	18000~20000	1000~1200	2~4	0.07~0.11	側銼 (SIDE MILLING)
0204(S)	11	105	16000~17000	700~900	2~4	0.12~0.16	側銼 (SIDE MILLING)
ETB ETH 0254(S)	12	125	15000~16000	1300~1600	0.04~0.07	2.5	溝銼 (SLOTTING)
0254(S)	12	125	15000~16000	1200~1400	0.08~0.15	2.5	溝銼 (SLOTTING)
0254(S)	12	125	15000~16000	700~900	0.2~0.3	2.5	溝銼 (SLOTTING)
0254(S)	12	125	15000~16000	1100~1300	2.5~5	0.04~0.07	側銼 (SIDE MILLING)
0254(S)	12	125	15000~16000	1100~1300	2.5~5	0.08~0.15	側銼 (SIDE MILLING)
0254(S)	12	105	13000~14000	800~1000	2.5~5	0.2~0.3	側銼 (SIDE MILLING)
ETB ETH 0304S	13	125	13000~13500	1300~1600	0.05~0.08	3	溝銼 (SLOTTING)
0304S	13	125	13000~13500	1000~1200	0.1~0.2	3	溝銼 (SLOTTING)
0304S	13	125	13000~13500	600~800	0.25~0.35	3	溝銼 (SLOTTING)
0304S	13	125	13000~13500	1100~1300	3~6	0.05~0.08	側銼 (SIDE MILLING)
0304S	13	125	13000~13500	1000~1200	3~6	0.1~0.2	側銼 (SIDE MILLING)
0304S	13	105	11000~11500	700~900	3~6	0.25~0.35	側銼 (SIDE MILLING)
ETB ETH 0304	13	125	13000~13500	1300~1600	0.05~0.08	3	溝銼 (SLOTTING)
0304	13	125	13000~13500	1100~1300	0.1~0.2	3	溝銼 (SLOTTING)
0304	13	125	13000~13500	700~900	0.25~0.35	3	溝銼 (SLOTTING)
0304	13	125	13000~13500	1100~1300	3~6	0.05~0.08	側銼 (SIDE MILLING)
0304	13	125	13000~13500	1100~1300	3~6	0.1~0.2	側銼 (SIDE MILLING)
0304	13	105	11000~11500	800~1000	3~6	0.25~0.35	側銼 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

被切削材 Work Material

ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 0354	16	125	9500~10000	1100~1400	0.05~0.08	3.5	溝銼 (SLOTTING)
0354	16	125	9500~10000	1300~1500	0.15~0.25	3.5	溝銼 (SLOTTING)
0354	16	125	9500~10000	900~1100	0.3~0.4	3.5	溝銼 (SLOTTING)
0354	16	125	9500~10000	1000~1200	3.5~7	0.05~0.08	側銼 (SIDE MILLING)
0354	16	125	9500~10000	1300~1500	3.5~7	0.15~0.25	側銼 (SIDE MILLING)
0354	16	105	8000~8500	700~900	3.5~7	0.3~0.4	側銼 (SIDE MILLING)
ETB ETH 0404	16	125	9500~10000	1100~1400	0.05~0.09	4	溝銼 (SLOTTING)
0404	16	125	9500~10000	1300~1500	0.3~0.4	4	溝銼 (SLOTTING)
0404	16	125	9500~10000	700~900	0.5~0.8	4	溝銼 (SLOTTING)
0404	16	125	9500~10000	1000~1200	4~8	0.05~0.09	側銼 (SIDE MILLING)
0404	16	125	9500~10000	1300~1500	4~8	0.3~0.4	側銼 (SIDE MILLING)
0404	16	105	8000~8500	700~900	4~8	0.5~0.8	側銼 (SIDE MILLING)
ETB ETH 0454	16	125	8500~9000	1100~1400	0.05~0.09	4	溝銼 (SLOTTING)
0454	16	125	8500~9000	1300~1500	0.3~0.4	4	溝銼 (SLOTTING)
0454	16	125	8500~9000	700~900	0.6~1	4	溝銼 (SLOTTING)
0454	16	125	8500~9000	1000~1200	4.5~9	0.05~0.09	側銼 (SIDE MILLING)
0454	16	125	8500~9000	1300~1500	4.5~9	0.3~0.4	側銼 (SIDE MILLING)
0454	16	110	7500~8000	700~900	4.5~9	0.6~1	側銼 (SIDE MILLING)
ETH 0504S	19	125	7800~8200	1100~1400	0.05~0.13	5	溝銼 (SLOTTING)
0504S	19	125	7800~8200	1300~1500	0.7~1.2	5	溝銼 (SLOTTING)
0504S	19	125	7800~8200	900~1100	1.5~2	5	溝銼 (SLOTTING)
0504S	19	125	7800~8200	900~1100	5~10	0.05~0.13	側銼 (SIDE MILLING)
0504S	19	125	7800~8200	1300~1500	5~10	0.5~1	側銼 (SIDE MILLING)
0504S	19	105	6700~7000	700~900	5	1.5~2	側銼 (SIDE MILLING)
ETB ETH 0504	19	125	7800~8200	1100~1400	0.05~0.13	5	溝銼 (SLOTTING)
0504	19	125	7800~8200	1300~1500	0.7~1.2	5	溝銼 (SLOTTING)
0504	19	125	7800~8200	900~1100	1.5~2	5	溝銼 (SLOTTING)
0504	19	125	7800~8200	600~800	2~2.5	5	溝銼 (SLOTTING)
0504	19	125	7800~8200	900~1100	5~10	0.05~0.13	側銼 (SIDE MILLING)
0504	19	125	7800~8200	1300~1500	5~10	0~1	側銼 (SIDE MILLING)
0504	19	105	6700~7000	700~900	5	1.5~2	側銼 (SIDE MILLING)
0504	19	105	6700~7000	600~800	5	2~2.5	側銼 (SIDE MILLING)
ETH 0554	19	125	7800~8200	1100~1400	0.05~0.13	5.5	溝銼 (SLOTTING)
0554	19	125	7800~8200	1300~1500	0.7~1.2	5.5	溝銼 (SLOTTING)
0554	19	125	7800~8200	900~1100	1.5~2	5.5	溝銼 (SLOTTING)
0554	19	125	7800~8200	600~800	2~2.5	5.5	溝銼 (SLOTTING)
0554	19	125	7800~8200	900~1100	5.5~11	0.05~0.13	側銼 (SIDE MILLING)
0554	19	125	7800~8200	1300~1500	5.5~11	0~1	側銼 (SIDE MILLING)
0554	19	105	6700~7000	700~900	5.5	1.5~2	側銼 (SIDE MILLING)
0554	19	105	6700~7000	600~800	5.5	2~2.5	側銼 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 0604	20	125	6600~6800	1100~1400	0.05~0.15	6	溝銼 (SLOTTING)
0604	20	125	6600~6800	1300~1500	1~1.5	6	溝銼 (SLOTTING)
0604	20	125	6600~6800	900~1100	1.5~2	6	溝銼 (SLOTTING)
0604	20	125	6600~6800	600~800	2~3	6	溝銼 (SLOTTING)
0604	20	125	6600~6800	800~1000	6~12	0.05~0.15	側銼 (SIDE MILLING)
0604	20	125	6600~6800	1300~1500	6~12	0~1	側銼 (SIDE MILLING)
0604	20	105	5500~5800	700~900	6	1.5~2	側銼 (SIDE MILLING)
0604	20	105	5500~5800	600~800	6	2~3	側銼 (SIDE MILLING)
ETH 0654	20	125	6600~6800	1100~1400	0.05~0.15	6.5	溝銼 (SLOTTING)
0654	20	125	6600~6800	1300~1500	1~1.5	6.5	溝銼 (SLOTTING)
0654	20	125	6600~6800	900~1100	1.5~2	6.5	溝銼 (SLOTTING)
0654	20	125	6600~6800	600~800	2~3	6.5	溝銼 (SLOTTING)
0654	20	125	6600~6800	800~1000	6.5~13	0.05~0.15	側銼 (SIDE MILLING)
0654	20	125	6600~6800	1300~1500	6.5~13	0~1	側銼 (SIDE MILLING)
0654	20	105	5500~5800	700~900	6.5	1.5~2	側銼 (SIDE MILLING)
0654	20	105	5500~5800	600~800	6.5	2~3	側銼 (SIDE MILLING)
ETH 0704	20	125	6600~6800	1100~1400	0.05~0.15	7	溝銼 (SLOTTING)
0704	20	125	6600~6800	1300~1500	1~1.5	7	溝銼 (SLOTTING)
0704	20	125	6600~6800	900~1100	1.5~2	7	溝銼 (SLOTTING)
0704	20	125	6600~6800	600~800	2~3	7	溝銼 (SLOTTING)
0704	20	125	6600~6800	800~1000	7~14	0.05~0.15	側銼 (SIDE MILLING)
0704	20	125	6600~6800	1300~1500	7~14	0~1	側銼 (SIDE MILLING)
0704	20	105	5500~5800	700~900	7	1.5~2	側銼 (SIDE MILLING)
0704	20	105	5500~5800	600~800	7	2~3	側銼 (SIDE MILLING)
ETH 0754	25	125	5000~5200	1000~1200	0.05~0.15	7.5	溝銼 (SLOTTING)
0754	25	105	4100~4300	1300~1500	1~2	7.5	溝銼 (SLOTTING)
0754	25	105	4100~4300	900~1100	2~3	7.5	溝銼 (SLOTTING)
0754	25	125	5000~5200	700~900	7.5~15	0.05~0.15	側銼 (SIDE MILLING)
0754	25	105	4100~4300	1300~1500	7.5~15	0.5~1	側銼 (SIDE MILLING)
0754	25	105	4100~4300	700~900	7.5	2~3	側銼 (SIDE MILLING)
0754	25	105	4100~4300	600~800	7.5	3~4	側銼 (SIDE MILLING)
ETB ETH 0804	25	125	5000~5200	1000~1200	0.05~0.15	8	溝銼 (SLOTTING)
0804	25	105	4100~4300	1300~1500	1~2	8	溝銼 (SLOTTING)
0804	25	105	4100~4300	900~1100	2~3	8	溝銼 (SLOTTING)
0804	25	125	5000~5200	700~900	8~16	0.05~0.15	側銼 (SIDE MILLING)
0804	25	105	4100~4300	1300~1500	8~16	0.5~1	側銼 (SIDE MILLING)
0804	25	105	4100~4300	700~900	8	2~3	側銼 (SIDE MILLING)
0804	25	105	4100~4300	600~800	8	3~4	側銼 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETH 0854	30	125	5000~5200	1000~1200	0.05~0.15	8.5	溝銑 (SLOTTING)
0854	30	105	4100~4300	1300~1500	1~2	8.5	溝銑 (SLOTTING)
0854	30	105	4100~4300	900~1100	2~3	8.5	溝銑 (SLOTTING)
0854	30	125	5000~5200	700~900	8.5~17	0.05~0.15	側銑 (SIDE MILLING)
0854	30	105	4100~4300	1300~1500	8.5~17	0.5~1	側銑 (SIDE MILLING)
0854	30	105	4100~4300	700~900	8.5	2~3	側銑 (SIDE MILLING)
0854	30	105	4100~4300	600~800	8.5	3~4	側銑 (SIDE MILLING)
ETH 0904	30	125	5000~5200	1000~1200	0.05~0.15	9	溝銑 (SLOTTING)
0904	30	105	4100~4300	1300~1500	1~2	9	溝銑 (SLOTTING)
0904	30	105	4100~4300	900~1100	2~3	9	溝銑 (SLOTTING)
0904	30	125	5000~5200	700~900	9~18	0.05~0.15	側銑 (SIDE MILLING)
0904	30	105	4100~4300	1300~1500	9~18	0.5~1	側銑 (SIDE MILLING)
0904	30	105	4100~4300	700~900	9	2~3	側銑 (SIDE MILLING)
ETH 0954	30	125	3900~4100	1000~1200	0.05~0.15	9.5	溝銑 (SLOTTING)
0954	30	105	3300~3500	1300~1500	0.8~1.2	9.5	溝銑 (SLOTTING)
0954	30	105	3300~3500	900~1100	1.5~2	9.5	溝銑 (SLOTTING)
0954	30	105	3300~3500	500~700	2.5~3	9.5	溝銑 (SLOTTING)
0954	30	125	3900~4100	600~800	9.5~19	0.05~0.2	側銑 (SIDE MILLING)
0954	30	105	3300~3500	1000~1200	19	0.5~1	側銑 (SIDE MILLING)
0954	30	105	3300~3500	1000~1200	9.5	1~1.5	側銑 (SIDE MILLING)
0954	30	105	3300~3500	500~700	9.5	2.5~3	側銑 (SIDE MILLING)
ETB ETH 1004(Z)	35	125	3900~4100	1000~1200	0.05~0.15	10	溝銑 (SLOTTING)
1004(Z)	35	105	3300~3500	1200~1400	1~1.5	10	溝銑 (SLOTTING)
1004(Z)	35	105	3300~3500	800~1000	1.5~3	10	溝銑 (SLOTTING)
1004(Z)	35	105	3300~3500	400~600	4~5	10	溝銑 (SLOTTING)
1004(Z)	35	125	3900~4100	600~800	10~30	0.05~0.2	側銑 (SIDE MILLING)
1004(Z)	35	105	3300~3500	1200~1400	20	0.3~0.5	側銑 (SIDE MILLING)
1004(Z)	35	105	3300~3500	1000~1200	20	0.5~1	側銑 (SIDE MILLING)
1004(Z)	35	105	3300~3500	1000~1200	10	1~1.5	側銑 (SIDE MILLING)
1004(Z)	35	105	3300~3500	500~700	10	3~4	側銑 (SIDE MILLING)
1004(Z)	35	85	2600~2800	300~400	10	4~5	側銑 (SIDE MILLING)
ETH 1054	33	125	3900~4100	1000~1200	0.05~0.15	10.5	溝銑 (SLOTTING)
1054	33	105	3300~3500	1200~1400	1~1.5	10.5	溝銑 (SLOTTING)
1054	33	105	3300~3500	800~1000	1.5~3	10.5	溝銑 (SLOTTING)
1054	33	105	3300~3500	400~600	4~5	10.5	溝銑 (SLOTTING)
1054	33	125	3900~4100	600~800	10.5~24	0.05~0.2	側銑 (SIDE MILLING)
1054	33	105	3300~3500	1200~1400	21	0.3~0.5	側銑 (SIDE MILLING)
1054	33	105	3300~3500	1000~1200	21	0.5~1	側銑 (SIDE MILLING)
1054	33	105	3300~3500	1000~1200	10.5	1~1.5	側銑 (SIDE MILLING)
1054	33	105	3300~3500	500~700	10.5	3~4	側銑 (SIDE MILLING)
1054	33	85	2600~2800	300~400	10.5	4~5	側銑 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETH 1104	33	125	3900~4100	1000~1200	0.05~0.15	11	溝銑 (SLOTTING)
1104	33	105	3300~3500	1200~1400	1~1.5	11	溝銑 (SLOTTING)
1104	33	105	3300~3500	800~1000	1.5~3	11	溝銑 (SLOTTING)
1104	33	105	3300~3500	400~600	4~5	11	溝銑 (SLOTTING)
1104	33	125	3900~4100	600~800	11~22	0.05~0.2	側銑 (SIDE MILLING)
1104	33	105	3300~3500	1200~1400	22	0.3~0.5	側銑 (SIDE MILLING)
1104	33	105	3300~3500	1000~1200	22	0.5~1	側銑 (SIDE MILLING)
1104	33	105	3300~3500	1000~1200	11	1~1.5	側銑 (SIDE MILLING)
1104	33	105	3300~3500	500~700	11	3~4	側銑 (SIDE MILLING)
1104	33	85	2600~2800	300~400	11	4~5	側銑 (SIDE MILLING)
ETH 1154	36	125	3200~3500	1000~1200	0.05~0.15	11.5	溝銑 (SLOTTING)
1154	36	125	3200~3500	900~1100	1~1.5	11.5	溝銑 (SLOTTING)
1154	36	125	3200~3500	600~800	3~4	11.5	溝銑 (SLOTTING)
1154	36	105	2700~2900	400~600	4~5	11.5	溝銑 (SLOTTING)
1154	36	125	3300~3500	300~500	11.5~23	0.05~0.15	側銑 (SIDE MILLING)
1154	36	125	3300~3500	1000~1200	11.5	0.5~1	側銑 (SIDE MILLING)
1154	36	125	3300~3500	500~700	11.5	2~4	側銑 (SIDE MILLING)
1154	36	125	3300~3500	300~500	11.5	4~5	側銑 (SIDE MILLING)
ETB ETH 1204	36	125	3200~3500	1000~1200	0.05~0.15	12	溝銑 (SLOTTING)
1204	36	125	3200~3500	900~1100	1~1.5	12	溝銑 (SLOTTING)
1204	36	125	3200~3500	600~800	3~4	12	溝銑 (SLOTTING)
1204	36	105	2700~2900	400~600	4~6	12	溝銑 (SLOTTING)
1204	36	125	3300~3500	300~500	12~24	0.05~0.15	側銑 (SIDE MILLING)
1204	36	125	3300~3500	1000~1200	12	0.5~1	側銑 (SIDE MILLING)
1204	36	125	3300~3500	500~700	12	2~4	側銑 (SIDE MILLING)
1204	36	125	3300~3500	300~500	12	4~6	側銑 (SIDE MILLING)
ETH 1254	36	125	3200~3500	1000~1200	0.05~0.15	12.5	溝銑 (SLOTTING)
1254	36	125	3200~3500	900~1100	1~1.5	12.5	溝銑 (SLOTTING)
1254	36	125	3200~3500	600~800	3~4	12.5	溝銑 (SLOTTING)
1254	36	105	2700~2900	400~600	4~6	12.5	溝銑 (SLOTTING)
1254	36	125	3300~3500	300~500	12.5~25	0.05~0.15	側銑 (SIDE MILLING)
1254	36	125	3300~3500	1000~1200	12.5	0.5~1	側銑 (SIDE MILLING)
1254	36	125	3300~3500	500~700	12.5	2~4	側銑 (SIDE MILLING)
1254	36	125	3300~3500	300~500	12.5	4~6	側銑 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

被切削材 Work Material

ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETH 1304	40	125	3000~3300	1000~1200	0.05~0.15	13	溝銑 (SLOTTING)
1304	40	125	3000~3300	900~1100	1~1.5	13	溝銑 (SLOTTING)
1304	40	125	3000~3300	600~800	3~4	13	溝銑 (SLOTTING)
1304	40	105	2500~2700	400~600	4~6	13	溝銑 (SLOTTING)
1304	40	125	3000~3300	300~500	13~26	0.05~0.15	側銑 (SIDE MILLING)
1304	40	125	3000~3300	1000~1200	13	0.5~1	側銑 (SIDE MILLING)
1304	40	125	3000~3300	500~700	13	2~4	側銑 (SIDE MILLING)
1304	40	125	3000~3300	300~500	13	4~6	側銑 (SIDE MILLING)
ETH 1354	40	125	3000~3300	1000~1200	0.05~0.15	13.5	溝銑 (SLOTTING)
1354	40	125	3000~3300	900~1100	1~1.5	13.5	溝銑 (SLOTTING)
1354	40	125	3000~3300	600~800	3~4	13.5	溝銑 (SLOTTING)
1354	40	105	2500~2700	400~600	4~6	13.5	溝銑 (SLOTTING)
1354	40	125	3000~3300	300~500	13.5~27	0.05~0.15	側銑 (SIDE MILLING)
1354	40	125	3000~3300	1000~1200	13.5	0.5~1	側銑 (SIDE MILLING)
1354	40	125	3000~3300	500~700	13.5	2~4	側銑 (SIDE MILLING)
1354	40	125	3000~3300	300~500	13.5	4~6	側銑 (SIDE MILLING)
ETH 1404	45	125	2500~2800	700~900	0.05~0.2	14	溝銑 (SLOTTING)
1404	45	105	2200~2400	700~900	0.5~1	14	溝銑 (SLOTTING)
1404	45	105	2200~2400	500~700	1~2	14	溝銑 (SLOTTING)
1404	45	105	2200~2400	300~500	2~3	14	溝銑 (SLOTTING)
1404	45	105	2200~2400	250~450	14~28	0.05~0.2	側銑 (SIDE MILLING)
1404	45	105	2200~2400	700~900	14~28	0.5~1	側銑 (SIDE MILLING)
1404	45	105	2200~2400	500~700	14	1~2	側銑 (SIDE MILLING)
1404	45	105	2200~2400	300~500	14	2~3	側銑 (SIDE MILLING)
ETH 1504	45	125	2500~2800	700~900	0.05~0.2	15	溝銑 (SLOTTING)
1504	45	105	2200~2400	700~900	0.5~1	15	溝銑 (SLOTTING)
1504	45	105	2200~2400	500~700	1~2	15	溝銑 (SLOTTING)
1504	45	105	2200~2400	300~500	2~3	15	溝銑 (SLOTTING)
1504	45	105	2200~2400	250~450	15~30	0.05~0.2	側銑 (SIDE MILLING)
1504	45	105	2200~2400	700~900	15~30	0.5~1	側銑 (SIDE MILLING)
1504	45	105	2200~2400	500~700	15	1~2	側銑 (SIDE MILLING)
1504	45	105	2200~2400	300~500	15	2~3	側銑 (SIDE MILLING)
ETB ETH 1604	50	125	2300~2600	700~900	0.05~0.2	16	溝銑 (SLOTTING)
1604	50	105	2000~2200	700~900	0.5~1	16	溝銑 (SLOTTING)
1604	50	105	2000~2200	500~700	1~2	16	溝銑 (SLOTTING)
1604	50	105	2000~2200	300~500	2~3	16	溝銑 (SLOTTING)
1604	50	105	2000~2200	250~450	16~32	0.05~0.2	側銑 (SIDE MILLING)
1604	50	105	2000~2200	700~900	16~32	0.5~1	側銑 (SIDE MILLING)
1604	50	105	2000~2200	500~700	16	1~2	側銑 (SIDE MILLING)
1604	50	105	2000~2200	300~500	16	2~3	側銑 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETH 1704	50	125	2300~2600	700~900	0.05~0.2	17	溝銼 (SLOTTING)
1704	50	105	2000~2200	700~900	0.5~1	17	溝銼 (SLOTTING)
1704	50	105	2000~2200	500~700	1~2	17	溝銼 (SLOTTING)
1704	50	105	2000~2200	300~500	2~3	17	溝銼 (SLOTTING)
1704	50	105	2000~2200	250~450	17~34	0.05~0.2	側銼 (SIDE MILLING)
1704	50	105	2000~2200	700~900	17~34	0.5~1	側銼 (SIDE MILLING)
1704	50	105	2000~2200	500~700	17	1~2	側銼 (SIDE MILLING)
1704	50	105	2000~2200	300~500	17	2~3	側銼 (SIDE MILLING)
ETH 1804	50	125	1900~2100	700~900	0.05~0.25	18	溝銼 (SLOTTING)
1804	50	90	1400~1600	700~900	0.5~1	18	溝銼 (SLOTTING)
1804	50	90	1400~1600	400~600	1~2	18	溝銼 (SLOTTING)
1804	50	90	1400~1600	300~400	2~3	18	溝銼 (SLOTTING)
1804	50	90	1400~1600	250~450	18~36	0.05~0.25	側銼 (SIDE MILLING)
1804	50	90	1400~1600	600~800	18~36	0.5~1	側銼 (SIDE MILLING)
1804	50	90	1400~1600	400~600	18	1~2	側銼 (SIDE MILLING)
1804	50	90	1400~1600	300~500	18	2~3	側銼 (SIDE MILLING)
ETB ETH 2004	50	125	1900~2100	700~900	0.05~0.25	20	溝銼 (SLOTTING)
2004	50	90	1400~1600	700~900	0.5~1	20	溝銼 (SLOTTING)
2004	50	90	1400~1600	400~600	1~2	20	溝銼 (SLOTTING)
2004	50	90	1400~1600	300~400	2~3	20	溝銼 (SLOTTING)
2004	50	90	1400~1600	250~450	20~40	0.05~0.25	側銼 (SIDE MILLING)
2004	50	90	1400~1600	600~800	20~40	0.5~1	側銼 (SIDE MILLING)
2004	50	90	1400~1600	400~600	20	1~2	側銼 (SIDE MILLING)
2004	50	90	1400~1600	300~500	20	2~3	側銼 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 0104	9	60	18000~20000	1200~1500	0.03~0.05	1	溝銑 (SLOTTING)
0104	9	60	18000~20000	1000~1200	0.06~0.08	1	溝銑 (SLOTTING)
0104	9	60	18000~20000	700~900	0.09~0.12	1	溝銑 (SLOTTING)
0104	9	60	18000~20000	1100~1300	1~2	0.03~0.05	側銑 (SIDE MILLING)
0104	9	60	18000~20000	1000~1200	1~2	0.06~0.08	側銑 (SIDE MILLING)
0104	9	60	18000~20000	700~900	1~2	0.09~0.12	側銑 (SIDE MILLING)
ETB ETH 0154	9	90	18000~20000	1200~1400	0.03~0.05	1.5	溝銑 (SLOTTING)
0154	9	90	18000~20000	1000~1200	0.06~0.09	1.5	溝銑 (SLOTTING)
0154	9	90	18000~20000	700~900	0.1~0.15	1.5	溝銑 (SLOTTING)
0154	9	90	18000~20000	1000~1200	1.5~3	0.03~0.05	側銑 (SIDE MILLING)
0154	9	90	18000~20000	900~1100	1.5~3	0.06~0.09	側銑 (SIDE MILLING)
0154	9	90	18000~20000	700~900	1.5~3	0.1~0.15	側銑 (SIDE MILLING)
ETB ETH 0204(S)	11	125	18000~20000	1300~1600	0.03~0.06	2	溝銑 (SLOTTING)
0204(S)	11	105	16000~17000	1000~1200	0.07~0.11	2	溝銑 (SLOTTING)
0204(S)	11	105	16000~17000	600~800	0.12~0.16	2	溝銑 (SLOTTING)
0204(S)	11	125	18000~20000	1100~1300	2~4	0.03~0.06	側銑 (SIDE MILLING)
0204(S)	11	90	14000~15000	1000~1200	2~4	0.07~0.11	側銑 (SIDE MILLING)
0204(S)	11	90	14000~15000	600~800	2~4	0.12~0.16	側銑 (SIDE MILLING)
ETB ETH 0254(S)	12	125	15000~16000	1300~1600	0.04~0.07	2.5	溝銑 (SLOTTING)
0254(S)	12	105	13000~14000	1200~1400	0.08~0.15	2.5	溝銑 (SLOTTING)
0254(S)	12	105	13000~14000	700~900	0.2~0.3	2.5	溝銑 (SLOTTING)
0254(S)	12	125	15000~16000	1100~1300	2.5~5	0.04~0.07	側銑 (SIDE MILLING)
0254(S)	12	105	13000~14000	1000~1200	2.5~5	0.08~0.15	側銑 (SIDE MILLING)
0254(S)	12	105	13000~14000	700~900	2.5~5	0.2~0.3	側銑 (SIDE MILLING)
ETB ETH 0304S	13	125	13000~13500	1300~1600	0.05~0.08	3	溝銑 (SLOTTING)
0304S	13	105	11000~11500	900~1100	0.1~0.2	3	溝銑 (SLOTTING)
0304S	13	105	11000~11500	500~700	0.25~0.35	3	溝銑 (SLOTTING)
0304S	13	125	13000~13500	1100~1200	3~6	0.05~0.08	側銑 (SIDE MILLING)
0304S	13	90	9500~10000	900~1100	3~6	0.1~0.2	側銑 (SIDE MILLING)
0304S	13	90	9500~10000	600~800	3~6	0.25~0.35	側銑 (SIDE MILLING)
ETB ETH 0304	13	125	13000~13500	1300~1600	0.05~0.08	3	溝銑 (SLOTTING)
0304	13	105	11000~11500	1000~1200	0.1~0.2	3	溝銑 (SLOTTING)
0304	13	105	11000~11500	600~800	0.25~0.35	3	溝銑 (SLOTTING)
0304	13	125	13000~13500	1100~1200	3~6	0.05~0.08	側銑 (SIDE MILLING)
0304	13	90	9500~10000	1000~1200	3~6	0.1~0.2	側銑 (SIDE MILLING)
0304	13	90	9500~10000	700~900	3~6	0.25~0.35	側銑 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 0354	16	125	9500~10000	1100~1400	0.05~0.08	3.5	溝銑 (SLOTTING)
0354	16	100	9000~9500	1000~1200	0.15~0.25	3.5	溝銑 (SLOTTING)
0354	16	100	9000~9500	800~1000	0.3~0.4	3.5	溝銑 (SLOTTING)
0354	16	125	9500~10000	1000~1200	3.5~7	0.05~0.08	側銑 (SIDE MILLING)
0354	16	90	7000~7500	900~1200	3.5~7	0.15~0.25	側銑 (SIDE MILLING)
0354	16	90	7000~7500	700~900	3.5~7	0.3~0.4	側銑 (SIDE MILLING)
ETB ETH 0404	16	125	9500~10000	1100~1400	0.05~0.09	4	溝銑 (SLOTTING)
0404	16	105	8000~8500	1000~1200	0.3~0.4	4	溝銑 (SLOTTING)
0404	16	105	8000~8500	700~900	0.5~0.8	4	溝銑 (SLOTTING)
0404	16	125	9500~10000	1000~1200	4~8	0.05~0.09	側銑 (SIDE MILLING)
0404	16	90	7000~7500	900~1200	4~8	0.3~0.4	側銑 (SIDE MILLING)
0404	16	90	7000~7500	700~900	4~8	0.5~0.8	側銑 (SIDE MILLING)
ETB ETH 0454	16	125	8500~9000	1100~1400	0.05~0.09	4	溝銑 (SLOTTING)
0454	16	110	7500~8000	1000~1200	0.3~0.4	4	溝銑 (SLOTTING)
0454	16	110	7500~8000	700~900	0.6~1	4	溝銑 (SLOTTING)
0454	16	110	7500~8000	900~1100	4.5~9	0.05~0.09	側銑 (SIDE MILLING)
0454	16	110	7500~8000	900~1200	4.5~9	0.3~0.4	側銑 (SIDE MILLING)
0454	16	110	7500~8000	700~900	4.5~9	0.6~1	側銑 (SIDE MILLING)
ETH 0504S	19	125	7800~8200	1100~1400	0.05~0.13	5	溝銑 (SLOTTING)
0504S	19	105	6700~7000	1000~1200	0.7~1.2	5	溝銑 (SLOTTING)
0504S	19	105	6700~7000	800~1000	1.5~2	5	溝銑 (SLOTTING)
0504S	19	125	7800~8200	800~1000	5~10	0.05~0.13	側銑 (SIDE MILLING)
0504S	19	90	5700~6000	900~1200	5~10	0.5~1	側銑 (SIDE MILLING)
0504S	19	90	5700~6000	700~900	5	1.5~2	側銑 (SIDE MILLING)
ETB ETH 0504	19	125	7800~8200	1100~1400	0.05~0.13	5	溝銑 (SLOTTING)
0504	19	105	6700~7000	1000~1200	0.7~1.2	5	溝銑 (SLOTTING)
0504	19	105	6700~7000	800~1000	1.5~2	5	溝銑 (SLOTTING)
0504	19	105	6700~7000	500~700	2~2.5	5	溝銑 (SLOTTING)
0504	19	125	7800~8200	800~1000	5~10	0.05~0.13	側銑 (SIDE MILLING)
0504	19	90	5700~6000	900~1200	5~10	0~1	側銑 (SIDE MILLING)
0504	19	90	5700~6000	700~900	5	1.5~2	側銑 (SIDE MILLING)
0504	19	90	5700~6000	600~800	5	2~2.5	側銑 (SIDE MILLING)
ETH 0554	19	125	7800~8200	1100~1400	0.05~0.13	5.5	溝銑 (SLOTTING)
0554	19	105	6700~7000	1000~1200	0.7~1.2	5.5	溝銑 (SLOTTING)
0554	19	105	6700~7000	800~1000	1.5~2	5.5	溝銑 (SLOTTING)
0554	19	105	6700~7000	500~700	2~2.5	5.5	溝銑 (SLOTTING)
0554	19	125	7800~8200	800~1000	5.5~11	0.05~0.13	側銑 (SIDE MILLING)
0554	19	90	5700~6000	900~1200	5.5~11	0~1	側銑 (SIDE MILLING)
0554	19	90	5700~6000	700~900	5.5	1.5~2	側銑 (SIDE MILLING)
0554	19	90	5700~6000	600~800	5.5	2~2.5	側銑 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 0604	20	125	6600~6800	1100~1400	0.05~0.15	6	溝銑 (SLOTTING)
0604	20	105	5500~5800	1000~1200	1~1.5	6	溝銑 (SLOTTING)
0604	20	105	5500~5800	800~1000	1.5~2	6	溝銑 (SLOTTING)
0604	20	105	5500~5800	500~700	2~3	6	溝銑 (SLOTTING)
0604	20	125	6600~6800	700~900	6~12	0.05~0.15	側銑 (SIDE MILLING)
0604	20	90	4700~5000	900~1200	6~12	0~1	側銑 (SIDE MILLING)
0604	20	90	4700~5000	700~900	6	1.5~2	側銑 (SIDE MILLING)
0604	20	90	4700~5000	600~800	6	2~3	側銑 (SIDE MILLING)
ETH 0654	20	125	6600~6800	1100~1400	0.05~0.15	6.5	溝銑 (SLOTTING)
0654	20	105	5500~5800	1000~1200	1~1.5	6.5	溝銑 (SLOTTING)
0654	20	105	5500~5800	800~1000	1.5~2	6.5	溝銑 (SLOTTING)
0654	20	105	5500~5800	500~700	2~3	6.5	溝銑 (SLOTTING)
0654	20	125	6600~6800	700~900	6.5~13	0.05~0.15	側銑 (SIDE MILLING)
0654	20	90	4700~5000	900~1200	6.5~13	0~1	側銑 (SIDE MILLING)
0654	20	90	4700~5000	700~900	6.5	1.5~2	側銑 (SIDE MILLING)
0654	20	90	4700~5000	600~800	6.5	2~3	側銑 (SIDE MILLING)
ETH 0704	20	125	6600~6800	1100~1400	0.05~0.15	7	溝銑 (SLOTTING)
0704	20	105	5500~5800	1000~1200	1~1.5	7	溝銑 (SLOTTING)
0704	20	105	5500~5800	800~1000	1.5~2	7	溝銑 (SLOTTING)
0704	20	105	5500~5800	500~700	2~3	7	溝銑 (SLOTTING)
0704	20	125	6600~6800	700~900	7~14	0.05~0.15	側銑 (SIDE MILLING)
0704	20	90	4700~5000	900~1200	7~14	0~1	側銑 (SIDE MILLING)
0704	20	90	4700~5000	700~900	7	1.5~2	側銑 (SIDE MILLING)
0704	20	90	4700~5000	600~800	7	2~3	側銑 (SIDE MILLING)
ETH 0754	25	125	5000~5200	1000~1200	0.05~0.15	7.5	溝銑 (SLOTTING)
0754	25	105	4100~4300	1000~1200	1~2	7.5	溝銑 (SLOTTING)
0754	25	105	4100~4300	800~1000	2~3	7.5	溝銑 (SLOTTING)
0754	25	125	5000~5200	600~800	7.5~15	0.05~0.15	側銑 (SIDE MILLING)
0754	25	90	3500~3700	800~1100	7.5~15	0.5~1	側銑 (SIDE MILLING)
0754	25	90	3500~3700	700~900	7.5	2~3	側銑 (SIDE MILLING)
0754	25	90	3500~3700	600~800	7.5	3~4	側銑 (SIDE MILLING)
ETB ETH 0804	25	125	5000~5200	1000~1200	0.05~0.15	8	溝銑 (SLOTTING)
0804	25	105	4100~4300	1000~1200	1~2	8	溝銑 (SLOTTING)
0804	25	105	4100~4300	800~1000	2~3	8	溝銑 (SLOTTING)
0804	25	125	5000~5200	600~800	8~16	0.05~0.15	側銑 (SIDE MILLING)
0804	25	90	3500~3700	800~1100	8~16	0.5~1	側銑 (SIDE MILLING)
0804	25	90	3500~3700	700~900	8	2~3	側銑 (SIDE MILLING)
0804	25	90	3500~3700	600~800	8	3~4	側銑 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETH 0854	30	125	5000~5200	1000~1200	0.05~0.15	8.5	溝銑 (SLOTTING)
0854	30	105	4100~4300	1000~1200	1~2	8.5	溝銑 (SLOTTING)
0854	30	105	4100~4300	800~1000	2~3	8.5	溝銑 (SLOTTING)
0854	30	125	5000~5200	600~800	8.5~17	0.05~0.15	側銑 (SIDE MILLING)
0854	30	90	3500~3700	800~1100	8.5~17	0.5~1	側銑 (SIDE MILLING)
0854	30	90	3500~3700	700~900	8.5	2~3	側銑 (SIDE MILLING)
0854	30	90	3500~3700	600~800	8.5	3~4	側銑 (SIDE MILLING)
ETH 0904	30	125	5000~5200	1000~1200	0.05~0.15	9	溝銑 (SLOTTING)
0904	30	105	4100~4300	1000~1200	1~2	9	溝銑 (SLOTTING)
0904	30	105	4100~4300	800~1000	2~3	9	溝銑 (SLOTTING)
0904	30	125	5000~5200	600~800	9~18	0.05~0.15	側銑 (SIDE MILLING)
0904	30	90	3500~3700	800~1100	9~18	0.5~1	側銑 (SIDE MILLING)
0904	30	90	3500~3700	700~900	9	2~3	側銑 (SIDE MILLING)
ETH 0954	30	125	3900~4100	1000~1200	0.05~0.15	9.5	溝銑 (SLOTTING)
0954	30	105	3300~3500	1000~1200	0.8~1.2	9.5	溝銑 (SLOTTING)
0954	30	105	3300~3500	900~1100	1.5~2	9.5	溝銑 (SLOTTING)
0954	30	105	3300~3500	400~600	2.5~3	9.5	溝銑 (SLOTTING)
0954	30	125	3900~4100	500~700	9.5~19	0.05~0.2	側銑 (SIDE MILLING)
0954	30	90	2800~3000	800~1000	19	0.5~1	側銑 (SIDE MILLING)
0954	30	90	2800~3000	800~1000	9.5	1~1.5	側銑 (SIDE MILLING)
0954	30	90	2800~3000	450~600	9.5	2.5~3	側銑 (SIDE MILLING)
ETB ETH 1004(Z)	35	125	3900~4100	1000~1200	0.05~0.15	10	溝銑 (SLOTTING)
1004(Z)	35	105	3300~3500	1000~1200	1~1.5	10	溝銑 (SLOTTING)
1004(Z)	35	105	3300~3500	800~1000	1.5~3	10	溝銑 (SLOTTING)
1004(Z)	35	105	3300~3500	350~550	4~5	10	溝銑 (SLOTTING)
1004(Z)	35	125	3900~4100	500~700	10~30	0.05~0.2	側銑 (SIDE MILLING)
1004(Z)	35	90	2800~3000	1100~1300	20	0.3~0.5	側銑 (SIDE MILLING)
1004(Z)	35	90	2800~3000	700~900	20	0.5~1	側銑 (SIDE MILLING)
1004(Z)	35	90	2800~3000	900~1100	10	1~1.5	側銑 (SIDE MILLING)
1004(Z)	35	90	2800~3000	400~600	10	3~4	側銑 (SIDE MILLING)
1004(Z)	35	85	2600~2800	300~400	10	4~5	側銑 (SIDE MILLING)
ETH 1054	33	125	3900~4100	1000~1200	0.05~0.15	10.5	溝銑 (SLOTTING)
1054	33	105	3300~3500	1000~1200	1~1.5	10.5	溝銑 (SLOTTING)
1054	33	105	3300~3500	800~1000	1.5~3	10.5	溝銑 (SLOTTING)
1054	33	105	3300~3500	350~550	4~5	10.5	溝銑 (SLOTTING)
1054	33	125	3900~4100	500~700	10.5~24	0.05~0.2	側銑 (SIDE MILLING)
1054	33	90	2800~3000	1100~1300	21	0.3~0.5	側銑 (SIDE MILLING)
1054	33	90	2800~3000	700~900	21	0.5~1	側銑 (SIDE MILLING)
1054	33	90	2800~3000	900~1100	10.5	1~1.5	側銑 (SIDE MILLING)
1054	33	90	2800~3000	400~600	10.5	3~4	側銑 (SIDE MILLING)
1054	33	85	2600~2800	300~400	10.5	4~5	側銑 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETH 1104	33	125	3900~4100	1000~1200	0.05~0.15	11	溝銼 (SLOTTING)
1104	33	105	3300~3500	1000~1200	1~1.5	11	溝銼 (SLOTTING)
1104	33	105	3300~3500	800~1000	1.5~3	11	溝銼 (SLOTTING)
1104	33	105	3300~3500	350~550	4~5	11	溝銼 (SLOTTING)
1104	33	125	3900~4100	500~700	11~22	0.05~0.2	側銼 (SIDE MILLING)
1104	33	90	2800~3000	1100~1300	22	0.3~0.5	側銼 (SIDE MILLING)
1104	33	90	2800~3000	700~900	22	0.5~1	側銼 (SIDE MILLING)
1104	33	90	2800~3000	900~1100	11	1~1.5	側銼 (SIDE MILLING)
1104	33	90	2800~3000	400~600	11	3~4	側銼 (SIDE MILLING)
1104	33	85	2600~2800	300~400	11	4~5	側銼 (SIDE MILLING)
ETH 1154	36	125	3200~3500	1000~1200	0.05~0.15	11.5	溝銼 (SLOTTING)
1154	36	125	3200~3500	800~1000	1~1.5	11.5	溝銼 (SLOTTING)
1154	36	125	3200~3500	500~700	3~4	11.5	溝銼 (SLOTTING)
1154	36	125	3200~3500	400~600	4~5	11.5	溝銼 (SLOTTING)
1154	36	125	3300~3500	300~500	11.5~23	0.05~0.15	側銼 (SIDE MILLING)
1154	36	105	2700~3000	700~900	11.5	0.5~1	側銼 (SIDE MILLING)
1154	36	105	2700~3000	400~600	11.5	2~4	側銼 (SIDE MILLING)
1154	36	125	3300~3500	300~400	11.5	4~5	側銼 (SIDE MILLING)
ETB ETH 1204	36	125	3200~3500	1000~1200	0.05~0.15	12	溝銼 (SLOTTING)
1204	36	125	3200~3500	800~1000	1~1.5	12	溝銼 (SLOTTING)
1204	36	125	3200~3500	500~700	3~4	12	溝銼 (SLOTTING)
1204	36	125	3200~3500	400~600	4~6	12	溝銼 (SLOTTING)
1204	36	125	3300~3500	300~500	12~24	0.05~0.15	側銼 (SIDE MILLING)
1204	36	105	2700~3000	700~900	12	0.5~1	側銼 (SIDE MILLING)
1204	36	105	2700~3000	400~600	12	2~4	側銼 (SIDE MILLING)
1204	36	125	3300~3500	300~400	12	4~6	側銼 (SIDE MILLING)
ETH 1254	36	125	3200~3500	1000~1200	0.05~0.15	12.5	溝銼 (SLOTTING)
1254	36	125	3200~3500	800~1000	1~1.5	12.5	溝銼 (SLOTTING)
1254	36	125	3200~3500	500~700	3~4	12.5	溝銼 (SLOTTING)
1254	36	125	3200~3500	400~600	4~6	12.5	溝銼 (SLOTTING)
1254	36	125	3300~3500	300~500	12.5~25	0.05~0.15	側銼 (SIDE MILLING)
1254	36	105	2700~3000	700~900	12.5	0.5~1	側銼 (SIDE MILLING)
1254	36	105	2700~3000	400~600	12.5	2~4	側銼 (SIDE MILLING)
1254	36	125	3300~3500	300~400	12.5	4~6	側銼 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB 1304	40	125	3000~3300	1000~1200	0.05~0.15	13	溝銼 (SLOTTING)
1304	40	125	3000~3300	800~1000	1~1.5	13	溝銼 (SLOTTING)
1304	40	125	3000~3300	500~700	3~4	13	溝銼 (SLOTTING)
1304	40	125	3000~3300	400~600	4~6	13	溝銼 (SLOTTING)
1304	40	125	3000~3300	300~500	13~26	0.05~0.15	側銼 (SIDE MILLING)
1304	40	105	2500~2700	700~900	13	0.5~1	側銼 (SIDE MILLING)
1304	40	105	2500~2700	400~600	13	2~4	側銼 (SIDE MILLING)
1304	40	125	3000~3300	300~400	13	4~6	側銼 (SIDE MILLING)
ETH 1354	40	125	3000~3300	1000~1200	0.05~0.15	13.5	溝銼 (SLOTTING)
1354	40	125	3000~3300	800~1000	1~1.5	13.5	溝銼 (SLOTTING)
1354	40	125	3000~3300	500~700	3~4	13.5	溝銼 (SLOTTING)
1354	40	125	3000~3300	400~600	4~6	13.5	溝銼 (SLOTTING)
1354	40	125	3000~3300	300~500	13.5~27	0.05~0.15	側銼 (SIDE MILLING)
1354	40	105	2500~2700	700~900	13.5	0.5~1	側銼 (SIDE MILLING)
1354	40	105	2500~2700	400~600	13.5	2~4	側銼 (SIDE MILLING)
1354	40	125	3000~3300	300~400	13.5	4~6	側銼 (SIDE MILLING)
ETH 1404	45	125	2500~2800	700~900	0.05~0.2	14	溝銼 (SLOTTING)
1404	45	105	2200~2400	600~800	0.5~1	14	溝銼 (SLOTTING)
1404	45	105	2200~2400	400~600	1~2	14	溝銼 (SLOTTING)
1404	45	105	2200~2400	300~400	2~3	14	溝銼 (SLOTTING)
1404	45	105	2200~2400	250~450	14~28	0.05~0.2	側銼 (SIDE MILLING)
1404	45	105	2200~2400	600~800	14~28	0.5~1	側銼 (SIDE MILLING)
1404	45	105	2200~2400	400~600	14	1~2	側銼 (SIDE MILLING)
1404	45	105	2200~2400	300~400	14	2~3	側銼 (SIDE MILLING)
ETH 1504	45	125	2500~2800	700~900	0.05~0.2	15	溝銼 (SLOTTING)
1504	45	105	2200~2400	600~800	0.5~1	15	溝銼 (SLOTTING)
1504	45	105	2200~2400	400~600	1~2	15	溝銼 (SLOTTING)
1504	45	105	2200~2400	300~400	2~3	15	溝銼 (SLOTTING)
1504	45	105	2200~2400	250~450	15~30	0.05~0.2	側銼 (SIDE MILLING)
1504	45	105	2200~2400	600~800	15~30	0.5~1	側銼 (SIDE MILLING)
1504	45	105	2200~2400	400~600	15	1~2	側銼 (SIDE MILLING)
1504	45	105	2200~2400	300~400	15	2~3	側銼 (SIDE MILLING)
ETB ETH 1604	50	125	2300~2600	700~900	0.05~0.2	16	溝銼 (SLOTTING)
1604	50	105	2000~2200	600~800	0.5~1	16	溝銼 (SLOTTING)
1604	50	105	2000~2200	400~600	1~2	16	溝銼 (SLOTTING)
1604	50	105	2000~2200	300~400	2~3	16	溝銼 (SLOTTING)
1604	50	105	2000~2200	250~450	16~32	0.05~0.2	側銼 (SIDE MILLING)
1604	50	105	2000~2200	600~800	16~32	0.5~1	側銼 (SIDE MILLING)
1604	50	105	2000~2200	400~600	16	1~2	側銼 (SIDE MILLING)
1604	50	105	2000~2200	300~400	16	2~3	側銼 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

 合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
 P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRc23~32)

 ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

 ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETH 1704	50	125	2300~2600	700~900	0.05~0.2	17	溝銼 (SLOTTING)
1704	50	105	2000~2200	600~800	0.5~1	17	溝銼 (SLOTTING)
1704	50	105	2000~2200	400~600	1~2	17	溝銼 (SLOTTING)
1704	50	105	2000~2200	300~400	2~3	17	溝銼 (SLOTTING)
1704	50	105	2000~2200	250~450	17~34	0.05~0.2	側銼 (SIDE MILLING)
1704	50	105	2000~2200	600~800	17~34	0.5~1	側銼 (SIDE MILLING)
1704	50	105	2000~2200	400~600	17	1~2	側銼 (SIDE MILLING)
1704	50	105	2000~2200	300~400	17	2~3	側銼 (SIDE MILLING)
ETH 1804	50	125	1900~2100	700~900	0.05~0.25	18	溝銼 (SLOTTING)
1804	50	90	1400~1600	600~800	0.5~1	18	溝銼 (SLOTTING)
1804	50	90	1400~1600	300~500	1~2	18	溝銼 (SLOTTING)
1804	50	90	1400~1600	250~350	2~3	18	溝銼 (SLOTTING)
1804	50	90	1400~1600	250~450	18~36	0.05~0.25	側銼 (SIDE MILLING)
1804	50	90	1400~1600	500~700	18~36	0.5~1	側銼 (SIDE MILLING)
1804	50	90	1400~1600	300~500	18	1~2	側銼 (SIDE MILLING)
1804	50	90	1400~1600	250~400	18	2~3	側銼 (SIDE MILLING)
ETB ETH 2004	50	125	1900~2100	700~900	0.05~0.25	20	溝銼 (SLOTTING)
2004	50	90	1400~1600	600~800	0.5~1	20	溝銼 (SLOTTING)
2004	50	90	1400~1600	300~500	1~2	20	溝銼 (SLOTTING)
2004	50	90	1400~1600	250~350	2~3	20	溝銼 (SLOTTING)
2004	50	90	1400~1600	250~450	20~40	0.05~0.25	側銼 (SIDE MILLING)
2004	50	90	1400~1600	500~700	20~40	0.5~1	側銼 (SIDE MILLING)
2004	50	90	1400~1600	300~500	20	1~2	側銼 (SIDE MILLING)
2004	50	90	1400~1600	250~400	20	2~3	側銼 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

ETB ^{4T} 冷卻方式 Coolant Type		乾式 / 油霧切削 Dry/MQL coolant			ETH ^{4T} 冷卻方式 Coolant Type		濕式切削 Wet coolant	
型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type	
ETB ETH 0104	9	60	18000~20000	1100~1300	0.03~0.05	1	溝銼 (SLOTTING)	
0104	9	60	18000~20000	700~900	0.06~0.08	1	溝銼 (SLOTTING)	
0104	9	60	18000~20000	500~700	0.09~0.12	1	溝銼 (SLOTTING)	
0104	9	60	18000~20000	900~1100	1~2	0.03~0.05	側銼 (SIDE MILLING)	
0104	9	60	18000~20000	700~900	1~2	0.06~0.08	側銼 (SIDE MILLING)	
0104	9	60	18000~20000	500~700	1~2	0.09~0.12	側銼 (SIDE MILLING)	
ETB ETH 0154	9	90	18000~20000	1100~1300	0.03~0.05	1.5	溝銼 (SLOTTING)	
0154	9	90	18000~20000	700~900	0.06~0.09	1.5	溝銼 (SLOTTING)	
0154	9	90	18000~20000	500~700	0.1~0.15	1.5	溝銼 (SLOTTING)	
0154	9	90	18000~20000	900~1100	1.5~3	0.03~0.05	側銼 (SIDE MILLING)	
0154	9	90	18000~20000	700~900	1.5~3	0.06~0.09	側銼 (SIDE MILLING)	
0154	9	90	18000~20000	500~700	1.5~3	0.1~0.15	側銼 (SIDE MILLING)	
ETB ETH 0204	11	105	16000~17000	1200~1500	0.03~0.06	2	溝銼 (SLOTTING)	
0204	11	105	16000~17000	800~1000	0.07~0.11	2	溝銼 (SLOTTING)	
0204	11	105	16000~17000	500~700	0.12~0.16	2	溝銼 (SLOTTING)	
0204	11	105	16000~17000	1000~1200	2~4	0.03~0.06	側銼 (SIDE MILLING)	
0204	11	105	16000~17000	800~1000	2~4	0.07~0.11	側銼 (SIDE MILLING)	
0204	11	105	16000~17000	500~700	2~4	0.12~0.16	側銼 (SIDE MILLING)	
ETB ETH 0254(S)	12	105	13000~14000	1200~1400	0.04~0.07	2.5	溝銼 (SLOTTING)	
0254(S)	12	105	13000~14000	1100~1300	0.08~0.15	2.5	溝銼 (SLOTTING)	
0254(S)	12	105	13000~14000	600~800	0.2~0.3	2.5	溝銼 (SLOTTING)	
0254(S)	12	105	13000~14000	1000~1200	2.5~5	0.04~0.07	側銼 (SIDE MILLING)	
0254(S)	12	105	13000~14000	900~1100	2.5~5	0.08~0.15	側銼 (SIDE MILLING)	
0254(S)	12	105	13000~14000	600~800	2.5~5	0.2~0.3	側銼 (SIDE MILLING)	
ETB ETH 0304S	13	105	11000~11500	1200~1600	0.05~0.08	3	溝銼 (SLOTTING)	
0304S	13	105	11000~11500	700~900	0.1~0.2	3	溝銼 (SLOTTING)	
0304S	13	105	11000~11500	350~550	0.25~0.35	3	溝銼 (SLOTTING)	
0304S	13	105	11000~11500	1000~1200	3~6	0.05~0.08	側銼 (SIDE MILLING)	
0304S	13	105	11000~11500	700~800	3~6	0.1~0.2	側銼 (SIDE MILLING)	
0304S	13	105	11000~11500	400~600	3~6	0.25~0.35	側銼 (SIDE MILLING)	
ETB ETH 0304	13	105	11000~11500	1200~1600	0.05~0.08	3	溝銼 (SLOTTING)	
0304	13	105	11000~11500	700~900	0.1~0.2	3	溝銼 (SLOTTING)	
0304	13	105	11000~11500	400~600	0.25~0.35	3	溝銼 (SLOTTING)	
0304	13	105	11000~11500	1000~1200	3~6	0.05~0.08	側銼 (SIDE MILLING)	
0304	13	105	11000~11500	700~900	3~6	0.1~0.2	側銼 (SIDE MILLING)	
0304	13	105	11000~11500	500~600	3~6	0.25~0.35	側銼 (SIDE MILLING)	

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 0354	15	100	9000~9500	1000~1300	0.05~0.08	3.5	溝銼 (SLOTTING)
	15	100	9000~9500	800~1000	0.15~0.25	3.5	溝銼 (SLOTTING)
	15	100	9000~9500	600~800	0.3~0.4	3.5	溝銼 (SLOTTING)
	15	100	9000~9500	1000~1200	3.5~7	0.05~0.08	側銼 (SIDE MILLING)
	15	100	9000~9500	800~1000	3.5~7	0.15~0.25	側銼 (SIDE MILLING)
	15	100	9000~9500	700~900	3.5~7	0.3~0.4	側銼 (SIDE MILLING)
ETB ETH 0404(S)	16	100	7700~8200	1100~1400	0.05~0.09	4	溝銼 (SLOTTING)
	16	100	7700~8200	800~1000	0.3~0.4	4	溝銼 (SLOTTING)
	16	100	7700~8200	600~800	0.5~0.8	4	溝銼 (SLOTTING)
	16	100	7700~8200	900~1100	4~8	0.05~0.09	側銼 (SIDE MILLING)
	16	100	7700~8200	800~1000	4~8	0.3~0.4	側銼 (SIDE MILLING)
	16	90	7000~7500	700~900	4~8	0.5~0.8	側銼 (SIDE MILLING)
ETH 0454	16	100	6800~7300	1100~1400	0.05~0.09	4	溝銼 (SLOTTING)
	16	100	6800~7300	800~1000	0.3~0.4	4	溝銼 (SLOTTING)
	16	100	6800~7300	600~800	0.6~1	4	溝銼 (SLOTTING)
	16	100	6800~7300	900~1100	4.5~9	0.05~0.09	側銼 (SIDE MILLING)
	16	100	6800~7300	800~1000	4.5~9	0.3~0.4	側銼 (SIDE MILLING)
	16	100	6800~7300	700~900	4.5~9	0.6~1	側銼 (SIDE MILLING)
ETH 0504S	19	105	6400~6900	1400~1800	0.05~0.1	5	溝銼 (SLOTTING)
	19	105	6400~6900	1000~1200	0.8~1	5	溝銼 (SLOTTING)
	19	105	6400~6900	750~950	1.1~1.4	5	溝銼 (SLOTTING)
	19	105	6400~6900	400~600	1.5~1.8	5	溝銼 (SLOTTING)
	19	105	6400~6900	900~1100	5~10	0.05~0.1	側銼 (SIDE MILLING)
	19	95	5800~6200	700~900	5~10	0.8~1	側銼 (SIDE MILLING)
	19	95	5800~6200	500~700	5	1.3~1.6	側銼 (SIDE MILLING)
	19	105	6400~6900	800~1000	5	1.8~2	側銼 (SIDE MILLING)
	19	105	6400~6900	1400~1800	0.05~0.1	5	溝銼 (SLOTTING)
ETB ETH 0504	19	105	6400~6900	1000~1200	0.8~1	5	溝銼 (SLOTTING)
	19	105	6400~6900	750~950	1.1~1.4	5	溝銼 (SLOTTING)
	19	105	6400~6900	400~600	1.5~1.8	5	溝銼 (SLOTTING)
	19	105	6400~6900	900~1100	5~10	0.05~0.1	側銼 (SIDE MILLING)
	19	95	5800~6200	700~900	5~10	0.8~1	側銼 (SIDE MILLING)
	19	95	5800~6200	500~700	5	1.3~1.6	側銼 (SIDE MILLING)
	19	105	6400~6900	800~1000	5	1.8~2	側銼 (SIDE MILLING)
	19	105	6400~6900	1400~1800	0.05~0.1	5	溝銼 (SLOTTING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETH 0554	19	105	6400~6900	1400~1800	0.05~0.1	5.5	溝銑 (SLOTTING)
0554	19	105	6400~6900	1000~1200	0.8~1	5.5	溝銑 (SLOTTING)
0554	19	105	6400~6900	750~950	1.1~1.4	5.5	溝銑 (SLOTTING)
0554	19	105	6400~6900	400~600	1.5~1.8	5.5	溝銑 (SLOTTING)
0554	19	105	6400~6900	900~1100	5.5~11	0.05~0.1	側銑 (SIDE MILLING)
0554	19	95	5800~6200	700~900	5.5~11	0.8~1	側銑 (SIDE MILLING)
0554	19	95	5800~6200	500~700	5.5	1.3~1.6	側銑 (SIDE MILLING)
0554	19	105	6400~6900	800~1000	5.5	1.8~2	側銑 (SIDE MILLING)
ETB ETH 0604	21	105	5400~5800	1100~1300	0.05~0.12	6	溝銑 (SLOTTING)
0604	21	105	5400~5800	1000~1200	0.5~1	6	溝銑 (SLOTTING)
0604	21	105	5400~5800	600~800	1.1~1.3	6	溝銑 (SLOTTING)
0604	21	105	5400~5800	1200~1400	6~12	0~0.5	溝銑 (SLOTTING)
0604	21	105	5400~5800	700~900	6~12	0.05~0.12	側銑 (SIDE MILLING)
0604	21	105	5400~5800	900~1100	6~12	1	側銑 (SIDE MILLING)
0604	21	90	4500~5000	700~900	6~12	2	側銑 (SIDE MILLING)
0604	21	90	4500~5000	550~750	6~12	3	側銑 (SIDE MILLING)
ETH 0654	21	105	5400~5800	1100~1300	0.05~0.12	6.5	溝銑 (SLOTTING)
0654	21	105	5400~5800	1000~1200	0.5~1	6.5	溝銑 (SLOTTING)
0654	21	105	5400~5800	600~800	1.1~1.3	6.5	溝銑 (SLOTTING)
0654	21	105	5400~5800	1200~1400	6.5~13	0~0.5	側銑 (SIDE MILLING)
0654	21	105	5400~5800	700~900	6.5~13	0.05~0.12	側銑 (SIDE MILLING)
0654	21	105	5400~5800	900~1100	6.5~13	1	側銑 (SIDE MILLING)
0654	21	90	4500~5000	700~900	6.5~13	2	側銑 (SIDE MILLING)
0654	21	90	4500~5000	550~750	6.5~13	3	側銑 (SIDE MILLING)
ETH 0704	21	105	5400~5800	1100~1300	0.05~0.12	7	溝銑 (SLOTTING)
0704	21	105	5400~5800	1000~1200	0.5~1	7	溝銑 (SLOTTING)
0704	21	105	5400~5800	600~800	1.1~1.3	7	溝銑 (SLOTTING)
0704	21	105	5400~5800	1200~1400	7~14	0~0.5	側銑 (SIDE MILLING)
0704	21	105	5400~5800	700~900	7~14	0.05~0.12	側銑 (SIDE MILLING)
0704	21	105	5400~5800	900~1100	7~14	1	側銑 (SIDE MILLING)
0704	21	90	4500~5000	700~900	7~14	2	側銑 (SIDE MILLING)
0704	21	90	4500~5000	550~750	7~14	3	側銑 (SIDE MILLING)
ETH 0754	27	105	4000~4500	1000~1200	0.05~0.15	7.5	溝銑 (SLOTTING)
0754	27	105	4000~4500	800~1000	0.7~1	7.5	溝銑 (SLOTTING)
0754	27	105	4000~4500	600~800	2~3	7.5	溝銑 (SLOTTING)
0754	27	105	4000~4500	600~800	16	0.05~0.15	側銑 (SIDE MILLING)
0754	27	105	4000~4500	1000~1200	7.5~15	0.3~0.5	側銑 (SIDE MILLING)
0754	27	70	2500~3000	600~800	7.5~15	1	側銑 (SIDE MILLING)
0754	27	70	2500~3000	300~500	7.5~15	2	側銑 (SIDE MILLING)
0754	27	70	2500~3000	300~500	7.5~15	2~4	側銑 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 ; AISI420 : M310 (HRC36~45)

ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 0804	27	105	4000~4500	1000~1200	0.05~0.15	8	溝銑 (SLOTTING)
0804	27	105	4000~4500	800~1000	0.7~1	8	溝銑 (SLOTTING)
0804	27	105	4000~4500	600~800	2~3	8	溝銑 (SLOTTING)
0804	27	105	4000~4500	600~800	16	0.05~0.15	側銑 (SIDE MILLING)
0804	27	105	4000~4500	1000~1200	8~16	0.3~0.5	側銑 (SIDE MILLING)
0804	27	70	2500~3000	600~800	8~16	1	側銑 (SIDE MILLING)
0804	27	70	2500~3000	300~500	8~16	2	側銑 (SIDE MILLING)
0804	27	70	2500~3000	300~500	8	2~4	側銑 (SIDE MILLING)
ETH 0854	27	105	4000~4500	1000~1200	0.05~0.15	8.5	溝銑 (SLOTTING)
0854	27	105	4000~4500	800~1000	0.7~1	8.5	溝銑 (SLOTTING)
0854	27	105	4000~4500	600~800	2~3	8.5	溝銑 (SLOTTING)
0854	27	105	4000~4500	600~800	16	0.05~0.15	側銑 (SIDE MILLING)
0854	27	105	4000~4500	1000~1200	8.5~17	0.3~0.5	側銑 (SIDE MILLING)
0854	27	70	2500~3000	600~800	8.5~17	1	側銑 (SIDE MILLING)
0854	27	70	2500~3000	300~500	8.5~17	2	側銑 (SIDE MILLING)
0854	27	70	2500~3000	300~500	8.5~17	2~4	側銑 (SIDE MILLING)
ETH 0904	27	105	4000~4500	1000~1200	0.05~0.15	9	溝銑 (SLOTTING)
0904	27	105	4000~4500	800~1000	0.7~1	9	溝銑 (SLOTTING)
0904	27	105	4000~4500	600~800	2~3	9	溝銑 (SLOTTING)
0904	27	105	4000~4500	600~800	16	0.05~0.15	側銑 (SIDE MILLING)
0904	27	105	4000~4500	1000~1200	9~18	0.3~0.5	側銑 (SIDE MILLING)
0904	27	70	2500~3000	600~800	9~18	1	側銑 (SIDE MILLING)
0904	27	70	2500~3000	300~500	9~18	2	側銑 (SIDE MILLING)
0904	27	70	2500~3000	300~500	9~18	2~4	側銑 (SIDE MILLING)
ETB ETH 0954	30	115	3300~3800	1000~1200	0.05~0.15	9.5	溝銑 (SLOTTING)
0954	30	115	3300~3800	650~850	1.5~2	9.5	溝銑 (SLOTTING)
0954	30	115	3300~3800	500~700	3~4	9.5	溝銑 (SLOTTING)
0954	30	105	3100~3500	500~700	25	0.05~0.15	側銑 (SIDE MILLING)
0954	30	105	3100~3500	1200~1500	9.5~24	0~0.6	側銑 (SIDE MILLING)
0954	30	105	3100~3500	600~800	19	1	側銑 (SIDE MILLING)
0954	30	65	2000or2700	250~400	19	2~3	側銑 (SIDE MILLING)
0954	30	65	2000	200~350	19	3~4	側銑 (SIDE MILLING)
ETB ETH 1004(Z)	35	105	3000~3500	1000~1200	0.05~0.15	10	溝銑 (SLOTTING)
1004(Z)	35	105	3000~3500	600~800	2~3	10	溝銑 (SLOTTING)
1004(Z)	35	105	3000~3500	400~600	3~4	10	溝銑 (SLOTTING)
1004(Z)	35	105	3000~3500	400~600	10~30	0.05~0.15	側銑 (SIDE MILLING)
1004(Z)	35	105	3000~3500	1100~1400	10~30	0.4~0.6	側銑 (SIDE MILLING)
1004(Z)	35	105	3000~3500	600~800	20	1	側銑 (SIDE MILLING)
1004(Z)	35	65	2000	250~400	20	2~3	側銑 (SIDE MILLING)
1004(Z)	35	65	2000	200~350	20	3~4	側銑 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETH 1054	30	105	3000~3500	1000~1200	0.05~0.15	10.5	溝銼 (SLOTTING)
1054	30	105	3000~3500	600~800	2~3	10.5	溝銼 (SLOTTING)
1054	30	105	3000~3500	400~600	3~4	10.5	溝銼 (SLOTTING)
1054	30	105	3000~3500	400~600	10~25	0.05~0.15	側銼 (SIDE MILLING)
1054	30	105	3000~3500	1100~1400	10~25	0.4~0.6	側銼 (SIDE MILLING)
1054	30	105	3000~3500	600~800	21	1	側銼 (SIDE MILLING)
1054	30	65	2000	250~400	21	2~3	側銼 (SIDE MILLING)
1054	30	65	2000	200~350	21	3~4	側銼 (SIDE MILLING)
ETH 1104	33	105	3000~3500	1000~1200	0.05~0.15	11	溝銼 (SLOTTING)
1104	33	105	3000~3500	600~800	2~3	11	溝銼 (SLOTTING)
1104	33	105	3000~3500	400~600	3~4	11	溝銼 (SLOTTING)
1104	33	105	3000~3500	400~600	10~25	0.05~0.15	側銼 (SIDE MILLING)
1104	33	105	3000~3500	1100~1400	10~25	0.4~0.6	側銼 (SIDE MILLING)
1104	33	105	3000~3500	600~800	22	1	側銼 (SIDE MILLING)
1104	33	65	2000	250~400	22	2~3	側銼 (SIDE MILLING)
1104	33	65	2000	200~350	22	3~4	側銼 (SIDE MILLING)
ETH 1154	36	105	2600~3000	1000~1200	0.05~0.15	11.5	溝銼 (SLOTTING)
1154	36	85	2000~2500	500~700	0.7~1	11.5	溝銼 (SLOTTING)
1154	36	75	1800~2200	300~400	2~3	11.5	溝銼 (SLOTTING)
1154	36	105	2600~3000	300~500	11.5~23	0.05~0.15	側銼 (SIDE MILLING)
1154	36	105	2600~3000	800~1000	11.5~23	0.4~0.6	側銼 (SIDE MILLING)
1154	36	80	1900~2300	500~700	11.5~23	1~1.3	側銼 (SIDE MILLING)
1154	36	65	1500~1900	250~400	23	1.5~2	側銼 (SIDE MILLING)
1154	36	65	1500~1900	200~300	23	3~4	側銼 (SIDE MILLING)
ETB ETH 1204	36	105	2600~3000	1000~1200	0.05~0.15	12	溝銼 (SLOTTING)
1204	36	85	2000~2500	500~700	0.7~1	12	溝銼 (SLOTTING)
1204	36	75	1800~2200	300~400	2~3	12	溝銼 (SLOTTING)
1204	36	105	2600~3000	300~500	12~24	0.05~0.15	側銼 (SIDE MILLING)
1204	36	105	2600~3000	800~1000	12~24	0.4~0.6	側銼 (SIDE MILLING)
1204	36	80	1900~2300	500~700	12~24	1~1.3	側銼 (SIDE MILLING)
1204	36	65	1500~1900	250~400	24	1.5~2	側銼 (SIDE MILLING)
1204	36	65	1500~1900	200~300	24	3~4	側銼 (SIDE MILLING)
ETH 1254	36	105	2600~3000	1000~1200	0.05~0.15	12.5	溝銼 (SLOTTING)
1254	36	85	2000~2500	500~700	0.7~1	12.5	溝銼 (SLOTTING)
1254	36	75	1800~2200	300~400	2~3	12.5	溝銼 (SLOTTING)
1254	36	105	2600~3000	300~500	12.5~25	0.05~0.15	側銼 (SIDE MILLING)
1254	36	105	2600~3000	800~1000	12.5~25	0.4~0.6	側銼 (SIDE MILLING)
1254	36	80	1900~2300	500~700	12.5~25	1~1.3	側銼 (SIDE MILLING)
1254	36	65	1500~1900	250~400	25	1.5~2	側銼 (SIDE MILLING)
1254	36	65	1500~1900	200~300	25	3~4	側銼 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETH 1304	40	105	2600~3000	1000~1200	0.05~0.15	13	溝銑 (SLOTTING)
1304	40	85	2000~2500	500~700	0.7~1	13	溝銑 (SLOTTING)
1304	40	75	1800~2200	300~400	2~3	13	溝銑 (SLOTTING)
1304	40	105	2600~3000	300~500	13~26	0.05~0.15	側銑 (SIDE MILLING)
1304	40	105	2600~3000	800~1000	13~26	0.4~0.6	側銑 (SIDE MILLING)
1304	40	80	1900~2300	500~700	13~26	1~1.3	側銑 (SIDE MILLING)
1304	40	65	1500~1900	250~400	26	1.5~2	側銑 (SIDE MILLING)
1304	40	65	1500~1900	200~300	26	3~4	側銑 (SIDE MILLING)
ETH 1354	40	105	2400~2800	1000~1200	0.05~0.15	13.5	溝銑 (SLOTTING)
1354	40	85	1900~2300	500~700	0.7~1	13.5	溝銑 (SLOTTING)
1354	40	75	1800~2200	300~400	2~3	13.5	溝銑 (SLOTTING)
1354	40	105	2400~2800	300~500	13.5~27	0.05~0.15	側銑 (SIDE MILLING)
1354	40	105	2400~2800	800~1000	13.5~27	0.4~0.6	側銑 (SIDE MILLING)
1354	40	80	1900~2300	500~700	13.5~27	1~1.3	側銑 (SIDE MILLING)
1354	40	65	1500~1900	250~400	27	1.5~2	側銑 (SIDE MILLING)
1354	40	65	1500~1900	200~300	27	3~4	側銑 (SIDE MILLING)
ETH 1404	45	105	2200~2600	1000~1200	0.05~0.15	14	溝銑 (SLOTTING)
1404	45	85	1800~2200	500~700	0.7~1	14	溝銑 (SLOTTING)
1404	45	85	1800~2200	300~400	2~3	14	溝銑 (SLOTTING)
1404	45	105	2200~2600	300~500	14~28	0.05~0.15	側銑 (SIDE MILLING)
1404	45	105	2200~2600	800~1000	14~28	0.4~0.6	側銑 (SIDE MILLING)
1404	45	85	1800~2200	500~700	14~28	1~1.3	側銑 (SIDE MILLING)
1404	45	65	1300~1700	250~400	28	1.5~2	側銑 (SIDE MILLING)
1404	45	65	1300~1700	200~300	28	3~4	側銑 (SIDE MILLING)
ETH 1504	50	140	2600~3000	800~1000	0.05~0.15	15	溝銑 (SLOTTING)
1504	50	105	1900~2300	800~1000	0.5~0.7	15	溝銑 (SLOTTING)
1504	50	85	1500~1900	300~500	1~2	15	溝銑 (SLOTTING)
1504	50	75	1300~1700	200~300	3~4	15	溝銑 (SLOTTING)
1504	50	105	1900~2300	250~450	15~30	0.05~0.2	側銑 (SIDE MILLING)
1504	50	105	1900~2300	600~800	15~30	0.5~0.7	側銑 (SIDE MILLING)
1504	50	80	1400~1800	300~500	15~30	2~3	側銑 (SIDE MILLING)
ETB ETH 1604	50	140	2600~3000	800~1000	0.05~0.15	16	溝銑 (SLOTTING)
1604	50	105	1900~2300	800~1000	0.5~0.7	16	溝銑 (SLOTTING)
1604	50	85	1500~1900	300~500	1~2	16	溝銑 (SLOTTING)
1604	50	75	1300~1700	200~300	3~4	16	溝銑 (SLOTTING)
1604	50	105	1900~2300	250~450	16~32	0.05~0.2	側銑 (SIDE MILLING)
1604	50	105	1900~2300	600~800	16~32	0.5~0.7	側銑 (SIDE MILLING)
1604	50	80	1400~1800	300~500	16~32	2~3	側銑 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETH 1704	50	140	2600~3000	800~1000	0.05~0.15	17	溝銑 (SLOTTING)
1704	50	105	1900~2300	800~1000	0.5~0.7	17	溝銑 (SLOTTING)
1704	50	85	1500~1900	300~500	1~2	17	溝銑 (SLOTTING)
1704	50	75	1300~1700	200~300	3~4	17	溝銑 (SLOTTING)
1704	50	105	1900~2300	250~450	17~34	0.05~0.2	側銑 (SIDE MILLING)
1704	50	105	1900~2300	600~800	17~34	0.5~0.7	側銑 (SIDE MILLING)
1704	50	80	1400~1800	300~500	17~34	2~3	側銑 (SIDE MILLING)
ETH 1804	50	150	2400~2800	600~800	0.05~0.15	18	溝銑 (SLOTTING)
1804	50	105	1600~2000	600~800	0.5~0.7	18	溝銑 (SLOTTING)
1804	50	85	1300~1700	200~400	1.5~2	18	溝銑 (SLOTTING)
1804	50	75	1200~1600	150~250	3~4	18	溝銑 (SLOTTING)
1804	50	105	1600~2000	200~400	18~36	0.05~0.2	側銑 (SIDE MILLING)
1804	50	105	1600~2000	500~700	18~36	0.5~0.7	側銑 (SIDE MILLING)
1804	50	75	1200~1600	300~400	18~36	3~4	側銑 (SIDE MILLING)
ETB ETH 2004	50	150	2200~2600	600~800	0.05~0.15	20	溝銑 (SLOTTING)
2004	50	105	1400~1800	600~800	0.5~0.7	20	溝銑 (SLOTTING)
2004	50	85	1100~1500	200~400	1.5~2	20	溝銑 (SLOTTING)
2004	50	75	1000~1400	150~250	3~4	20	溝銑 (SLOTTING)
2004	50	105	1400~1800	200~400	20~40	0.05~0.2	側銑 (SIDE MILLING)
2004	50	105	1400~1800	500~700	20~40	0.5~0.7	側銑 (SIDE MILLING)
2004	50	75	1000~1400	300~400	20~40	3~4	側銑 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

沃斯田鐵系不銹鋼 : Stainless Steels
SUS304 : 1.4301 : AISI 304 (HRC28~32)

ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 0104	9	60	18000~20000	1100~1400	0.03~0.05	1	溝銼 (SLOTTING)
0104	9	60	18000~20000	800~1000	0.06~0.08	1	溝銼 (SLOTTING)
0104	9	60	18000~20000	600~800	0.09~0.12	1	溝銼 (SLOTTING)
0104	9	60	18000~20000	900~1100	1~2	0.03~0.05	側銼 (SIDE MILLING)
0104	9	60	18000~20000	800~1000	1~2	0.06~0.08	側銼 (SIDE MILLING)
0104	9	60	18000~20000	600~800	1~2	0.09~0.12	側銼 (SIDE MILLING)
ETB ETH 0154	9	90	18000~20000	1100~1300	0.03~0.05	1.5	溝銼 (SLOTTING)
0154	9	90	18000~20000	800~1000	0.06~0.09	1.5	溝銼 (SLOTTING)
0154	9	90	18000~20000	600~800	0.1~0.15	1.5	溝銼 (SLOTTING)
0154	9	90	18000~20000	900~1100	1.5~3	0.03~0.05	側銼 (SIDE MILLING)
0154	9	90	18000~20000	800~1000	1.5~3	0.06~0.09	側銼 (SIDE MILLING)
0154	9	90	18000~20000	600~800	1.5~3	0.1~0.15	側銼 (SIDE MILLING)
ETB ETH 0204	11	105	16000~17000	1200~1500	0.03~0.06	2	溝銼 (SLOTTING)
0204	11	105	16000~17000	900~1100	0.07~0.11	2	溝銼 (SLOTTING)
0204	11	105	16000~17000	500~700	0.12~0.16	2	溝銼 (SLOTTING)
0204	11	105	16000~17000	1000~1200	2~4	0.03~0.06	側銼 (SIDE MILLING)
0204	11	105	16000~17000	800~1000	2~4	0.07~0.11	側銼 (SIDE MILLING)
0204	11	105	16000~17000	500~700	2~4	0.12~0.16	側銼 (SIDE MILLING)
ETB ETH 0254(S)	12	105	13000~14000	1200~1400	0.04~0.07	2.5	溝銼 (SLOTTING)
0254(S)	12	105	13000~14000	1100~1300	0.08~0.15	2.5	溝銼 (SLOTTING)
0254(S)	12	105	13000~14000	600~800	0.2~0.3	2.5	溝銼 (SLOTTING)
0254(S)	12	105	13000~14000	1000~1200	2.5~5	0.04~0.07	側銼 (SIDE MILLING)
0254(S)	12	105	13000~14000	900~1100	2.5~5	0.08~0.15	側銼 (SIDE MILLING)
0254(S)	12	105	13000~14000	600~800	2.5~5	0.2~0.3	側銼 (SIDE MILLING)
ETB ETH 0304S	13	105	11000~11500	1200~1600	0.05~0.08	3	溝銼 (SLOTTING)
0304S	13	105	11000~11500	700~900	0.1~0.2	3	溝銼 (SLOTTING)
0304S	13	105	11000~11500	350~550	0.25~0.35	3	溝銼 (SLOTTING)
0304S	13	105	11000~11500	1000~1200	3~6	0.05~0.08	側銼 (SIDE MILLING)
0304S	13	105	11000~11500	700~800	3~6	0.1~0.2	側銼 (SIDE MILLING)
0304S	13	105	11000~11500	400~600	3~6	0.25~0.35	側銼 (SIDE MILLING)
ETB ETH 0304	13	105	11000~11500	1200~1600	0.05~0.08	3	溝銼 (SLOTTING)
0304	13	105	11000~11500	700~900	0.1~0.2	3	溝銼 (SLOTTING)
0304	13	105	11000~11500	400~600	0.25~0.35	3	溝銼 (SLOTTING)
0304	13	105	11000~11500	1000~1200	3~6	0.05~0.08	側銼 (SIDE MILLING)
0304	13	105	11000~11500	700~900	3~6	0.1~0.2	側銼 (SIDE MILLING)
0304	13	105	11000~11500	500~600	3~6	0.25~0.35	側銼 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

沃斯田鐵系不銹鋼 : Stainless Steels
SUS304 : 1.4301 : AISI 304 (HRc28-32)ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 0354	15	100	9000~9500	1000~1300	0.05~0.08	3.5	溝銑 (SLOTTING)
0354	15	100	9000~9500	800~1000	0.15~0.25	3.5	溝銑 (SLOTTING)
0354	15	100	9000~9500	600~800	0.3~0.4	3.5	溝銑 (SLOTTING)
0354	15	100	9000~9500	1000~1200	3.5~7	0.05~0.08	側銑 (SIDE MILLING)
0354	15	100	9000~9500	800~1000	3.5~7	0.15~0.25	側銑 (SIDE MILLING)
0354	15	100	9000~9500	700~900	3.5~7	0.3~0.4	側銑 (SIDE MILLING)
ETB ETH 0404(S)	16	100	7700~8200	1100~1400	0.05~0.09	4	溝銑 (SLOTTING)
0404(S)	16	100	7700~8200	800~1000	0.3~0.4	4	溝銑 (SLOTTING)
0404(S)	16	100	7700~8200	600~800	0.5~0.8	4	溝銑 (SLOTTING)
0404(S)	16	100	7700~8200	1000~1200	4~8	0.05~0.09	側銑 (SIDE MILLING)
0404(S)	16	100	7700~8200	800~1000	4~8	0.3~0.4	側銑 (SIDE MILLING)
0404(S)	16	90	7000~7500	700~900	4~8	0.5~0.8	側銑 (SIDE MILLING)
ETH 0454	16	100	6800~7300	1100~1400	0.05~0.09	4	溝銑 (SLOTTING)
0454	16	100	6800~7300	800~1000	0.3~0.4	4	溝銑 (SLOTTING)
0454	16	100	6800~7300	600~800	0.6~1	4	溝銑 (SLOTTING)
0454	16	100	6800~7300	1000~1200	4.5~9	0.05~0.09	側銑 (SIDE MILLING)
0454	16	100	6800~7300	800~1000	4.5~9	0.3~0.4	側銑 (SIDE MILLING)
0454	16	100	6800~7300	700~900	4.5~9	0.6~1	側銑 (SIDE MILLING)
ETH 0504S	19	105	6400~6900	1400~1800	0.05~0.1	5	溝銑 (SLOTTING)
0504S	19	105	6400~6900	1000~1200	0.8~1	5	溝銑 (SLOTTING)
0504S	19	105	6400~6900	750~950	1.1~1.4	5	溝銑 (SLOTTING)
0504S	19	105	6400~6900	400~600	1.5~1.8	5	溝銑 (SLOTTING)
0504S	19	105	6400~6900	900~1100	5~10	0.05~0.1	側銑 (SIDE MILLING)
0504S	19	95	5800~6200	700~900	5~10	0.8~1	側銑 (SIDE MILLING)
0504S	19	95	5800~6200	500~700	5	1.3~1.6	側銑 (SIDE MILLING)
0504S	19	105	6400~6900	800~1000	5	1.8~2	側銑 (SIDE MILLING)
ETB ETH 0504	19	105	6400~6900	1400~1800	0.05~0.1	5	溝銑 (SLOTTING)
0504	19	105	6400~6900	1000~1200	0.8~1	5	溝銑 (SLOTTING)
0504	19	105	6400~6900	750~950	1.1~1.4	5	溝銑 (SLOTTING)
0504	19	105	6400~6900	400~600	1.5~1.8	5	溝銑 (SLOTTING)
0504	19	105	6400~6900	900~1100	5~10	0.05~0.1	側銑 (SIDE MILLING)
0504	19	95	5800~6200	700~900	5~10	0.8~1	側銑 (SIDE MILLING)
0504	19	95	5800~6200	500~700	5	1.3~1.6	側銑 (SIDE MILLING)
0504	19	105	6400~6900	800~1000	5	1.8~2	側銑 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

沃斯田鐵系不銹鋼 : Stainless Steels
SUS304 : 1.4301 : AISI 304 (HRC28~32)

ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETH 0554	19	105	6400~6900	1400~1800	0.05~0.1	5.5	溝銑 (SLOTTING)
0554	19	105	6400~6900	1000~1200	0.8~1	5.5	溝銑 (SLOTTING)
0554	19	105	6400~6900	750~950	1.1~1.4	5.5	溝銑 (SLOTTING)
0554	19	105	6400~6900	400~600	1.5~1.8	5.5	溝銑 (SLOTTING)
0554	19	105	6400~6900	900~1100	5.5~11	0.05~0.1	側銑 (SIDE MILLING)
0554	19	95	5800~6200	700~900	5.5~11	0.8~1	側銑 (SIDE MILLING)
0554	19	95	5800~6200	500~700	5.5	1.3~1.6	側銑 (SIDE MILLING)
0554	19	105	6400~6900	800~1000	5.5	1.8~2	側銑 (SIDE MILLING)
ETB ETH 0604	21	105	5400~5800	1100~1300	0.05~0.12	6	溝銑 (SLOTTING)
0604	21	105	5400~5800	1000~1200	0.5~1	6	溝銑 (SLOTTING)
0604	21	105	5400~5800	800~1000	1.5~2	6	溝銑 (SLOTTING)
0604	21	105	5400~5800	1200~1400	6~12	0~0.5	溝銑 (SLOTTING)
0604	21	105	5400~5800	700~900	6~12	0.05~0.12	側銑 (SIDE MILLING)
0604	21	105	5400~5800	900~1100	6~12	1	側銑 (SIDE MILLING)
0604	21	90	4500~5000	700~900	6~12	2	側銑 (SIDE MILLING)
0604	21	90	4500~5000	550~750	6~12	3	側銑 (SIDE MILLING)
ETH 0654	21	105	5400~5800	1100~1300	0.05~0.12	6.5	溝銑 (SLOTTING)
0654	21	105	5400~5800	1000~1200	0.5~1	6.5	溝銑 (SLOTTING)
0654	21	105	5400~5800	800~1000	1.5~2	6.5	溝銑 (SLOTTING)
0654	21	105	5400~5800	1200~1400	6.5~13	0~0.5	側銑 (SIDE MILLING)
0654	21	105	5400~5800	700~900	6.5~13	0.05~0.12	側銑 (SIDE MILLING)
0654	21	105	5400~5800	900~1100	6.5~13	1	側銑 (SIDE MILLING)
0654	21	90	4500~5000	700~900	6.5~13	2	側銑 (SIDE MILLING)
0654	21	90	4500~5000	550~750	6.5~13	3	側銑 (SIDE MILLING)
ETH 0704	21	105	5400~5800	1100~1300	0.05~0.12	7	溝銑 (SLOTTING)
0704	21	105	5400~5800	1000~1200	0.5~1	7	溝銑 (SLOTTING)
0704	21	105	5400~5800	800~1000	1.5~2	7	溝銑 (SLOTTING)
0704	21	105	5400~5800	1200~1400	7~14	0~0.5	側銑 (SIDE MILLING)
0704	21	105	5400~5800	700~900	7~14	0.05~0.12	側銑 (SIDE MILLING)
0704	21	105	5400~5800	900~1100	7~14	1	側銑 (SIDE MILLING)
0704	21	90	4500~5000	700~900	7~14	2	側銑 (SIDE MILLING)
0704	21	90	4500~5000	550~750	7~14	3	側銑 (SIDE MILLING)
ETH 0754	27	105	4000~4500	1000~1200	0.05~0.15	7.5	溝銑 (SLOTTING)
0754	27	105	4000~4500	800~1000	0.7~1	7.5	溝銑 (SLOTTING)
0754	27	105	4000~4500	600~800	3~4	7.5	溝銑 (SLOTTING)
0754	27	105	4000~4500	600~800	16	0.05~0.15	側銑 (SIDE MILLING)
0754	27	105	4000~4500	1000~1200	7.5~15	0.3~0.5	側銑 (SIDE MILLING)
0754	27	70	2500~3000	600~800	7.5~15	1	側銑 (SIDE MILLING)
0754	27	70	2500~3000	300~500	7.5~15	2	側銑 (SIDE MILLING)
0754	27	70	2500~3000	300~500	7.5~15	2~4	側銑 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

沃斯田鐵系不銹鋼 : Stainless Steels
SUS304 : 1.4301 : AISI 304 (HRc28-32)ETB^{4T} 冷卻方式 Coolant Type 乾式 / 油霧切削 Dry/MQL coolant ETH^{4T} 冷卻方式 Coolant Type 濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETB ETH 0804	27	105	4000~4500	1000~1200	0.05~0.15	8	溝銼 (SLOTTING)
0804	27	105	4000~4500	800~1000	0.7~1	8	溝銼 (SLOTTING)
0804	27	105	4000~4500	600~800	3~4	8	溝銼 (SLOTTING)
0804	27	105	4000~4500	600~800	16	0.05~0.15	側銼 (SIDE MILLING)
0804	27	105	4000~4500	1000~1200	8~16	0.3~0.5	側銼 (SIDE MILLING)
0804	27	70	2500~3000	600~800	8~16	1	側銼 (SIDE MILLING)
0804	27	70	2500~3000	300~500	8~16	2	側銼 (SIDE MILLING)
0804	27	70	2500~3000	300~500	8	2~4	側銼 (SIDE MILLING)
ETH 0854	27	105	4000~4500	1000~1200	0.05~0.15	8.5	溝銼 (SLOTTING)
0854	27	105	4000~4500	800~1000	0.7~1	8.5	溝銼 (SLOTTING)
0854	27	105	4000~4500	600~800	3~4	8.5	溝銼 (SLOTTING)
0854	27	105	4000~4500	600~800	16	0.05~0.15	側銼 (SIDE MILLING)
0854	27	105	4000~4500	1000~1200	8.5~17	0.3~0.5	側銼 (SIDE MILLING)
0854	27	70	2500~3000	600~800	8.5~17	1	側銼 (SIDE MILLING)
0854	27	70	2500~3000	300~500	8.5~17	2	側銼 (SIDE MILLING)
0854	27	70	2500~3000	300~500	8.5~17	2~4	側銼 (SIDE MILLING)
ETH 0904	27	105	4000~4500	1000~1200	0.05~0.15	9	溝銼 (SLOTTING)
0904	27	105	4000~4500	800~1000	0.7~1	9	溝銼 (SLOTTING)
0904	27	105	4000~4500	600~800	3~4	9	溝銼 (SLOTTING)
0904	27	105	4000~4500	600~800	16	0.05~0.15	側銼 (SIDE MILLING)
0904	27	105	4000~4500	1000~1200	9~18	0.3~0.5	側銼 (SIDE MILLING)
0904	27	70	2500~3000	600~800	9~18	1	側銼 (SIDE MILLING)
0904	27	70	2500~3000	300~500	9~18	2	側銼 (SIDE MILLING)
0904	27	70	2500~3000	300~500	9~18	2~4	側銼 (SIDE MILLING)
ETB ETH 0954	30	115	3300~3800	1000~1200	0.05~0.15	9.5	溝銼 (SLOTTING)
0954	30	115	3300~3800	650~850	1.5~2	9.5	溝銼 (SLOTTING)
0954	30	115	3300~3800	500~700	3~5	9.5	溝銼 (SLOTTING)
0954	30	105	3100~3500	400~600	25	0.05~0.15	側銼 (SIDE MILLING)
0954	30	105	3100~3500	1200~1500	9.5~24	0~0.6	側銼 (SIDE MILLING)
0954	30	105	3100~3500	600~800	19	1	側銼 (SIDE MILLING)
0954	30	65	2000or2700	250~400	19	2~4	側銼 (SIDE MILLING)
0954	30	65	2000	200~350	19	4~5	側銼 (SIDE MILLING)
ETB ETH 1004(Z)	35	105	3000~3500	1000~1200	0.05~0.15	10	溝銼 (SLOTTING)
1004(Z)	35	105	3000~3500	600~800	2~3	10	溝銼 (SLOTTING)
1004(Z)	35	105	3000~3500	400~600	3~5	10	溝銼 (SLOTTING)
1004(Z)	35	105	3000~3500	400~600	10~30	0.05~0.15	側銼 (SIDE MILLING)
1004(Z)	35	105	3000~3500	1100~1400	10~30	0.4~0.6	側銼 (SIDE MILLING)
1004(Z)	35	105	3000~3500	600~800	20	1	側銼 (SIDE MILLING)
1004(Z)	35	65	2000	250~400	20	2~4	側銼 (SIDE MILLING)
1004(Z)	35	65	2000	200~350	20	4~5	側銼 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

沃斯田鐵系不銹鋼 : Stainless Steels
SUS304 : 1.4301 : AISI 304 (HRC28~32)

ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETH 1054	30	105	3000~3500	1000~1200	0.05~0.15	10.5	溝銑 (SLOTTING)
1054	30	105	3000~3500	600~800	2~3	10.5	溝銑 (SLOTTING)
1054	30	105	3000~3500	400~600	3~5	10.5	溝銑 (SLOTTING)
1054	30	105	3000~3500	400~600	10~25	0.05~0.15	側銑 (SIDE MILLING)
1054	30	105	3000~3500	1100~1400	10~25	0.4~0.6	側銑 (SIDE MILLING)
1054	30	105	3000~3500	600~800	21	1	側銑 (SIDE MILLING)
1054	30	65	2000	250~400	21	2~4	側銑 (SIDE MILLING)
1054	30	65	2000	200~350	21	4~5	側銑 (SIDE MILLING)
ETH 1104	33	105	3000~3500	1000~1200	0.05~0.15	11	溝銑 (SLOTTING)
1104	33	105	3000~3500	600~800	2~3	11	溝銑 (SLOTTING)
1104	33	105	3000~3500	400~600	3~5	11	溝銑 (SLOTTING)
1104	33	105	3000~3500	400~600	10~25	0.05~0.15	側銑 (SIDE MILLING)
1104	33	105	3000~3500	1100~1400	10~25	0.4~0.6	側銑 (SIDE MILLING)
1104	33	105	3000~3500	600~800	22	1	側銑 (SIDE MILLING)
1104	33	65	2000	250~400	22	2~4	側銑 (SIDE MILLING)
1104	33	65	2000	200~350	22	4~5	側銑 (SIDE MILLING)
ETH 1154	36	105	2600~3000	1000~1200	0.05~0.15	11.5	溝銑 (SLOTTING)
1154	36	85	2000~2500	500~700	0.7~1	11.5	溝銑 (SLOTTING)
1154	36	75	1800~2200	300~400	3~4	11.5	溝銑 (SLOTTING)
1154	36	105	2600~3000	300~500	11.5~23	0.05~0.15	側銑 (SIDE MILLING)
1154	36	105	2600~3000	800~1000	11.5~23	0.4~0.6	側銑 (SIDE MILLING)
1154	36	80	1900~2300	500~700	11.5~23	1~1.3	側銑 (SIDE MILLING)
1154	36	65	1500~1900	250~400	23	1.5~2	側銑 (SIDE MILLING)
1154	36	65	1500~1900	200~300	23	3~4	側銑 (SIDE MILLING)
ETB ETH 1204	36	105	2600~3000	1000~1200	0.05~0.15	12	溝銑 (SLOTTING)
1204	36	85	2000~2500	500~700	0.7~1	12	溝銑 (SLOTTING)
1204	36	75	1800~2200	300~400	3~4	12	溝銑 (SLOTTING)
1204	36	105	2600~3000	300~500	12~24	0.05~0.15	側銑 (SIDE MILLING)
1204	36	105	2600~3000	800~1000	12~24	0.4~0.6	側銑 (SIDE MILLING)
1204	36	80	1900~2300	500~700	12~24	1~1.3	側銑 (SIDE MILLING)
1204	36	65	1500~1900	250~400	24	1.5~2	側銑 (SIDE MILLING)
1204	36	65	1500~1900	200~300	24	3~4	側銑 (SIDE MILLING)
ETH 1254	36	105	2600~3000	1000~1200	0.05~0.15	12.5	溝銑 (SLOTTING)
1254	36	85	2000~2500	500~700	0.7~1	12.5	溝銑 (SLOTTING)
1254	36	75	1800~2200	300~400	3~4	12.5	溝銑 (SLOTTING)
1254	36	105	2600~3000	300~500	12.5~25	0.05~0.15	側銑 (SIDE MILLING)
1254	36	105	2600~3000	800~1000	12.5~25	0.4~0.6	側銑 (SIDE MILLING)
1254	36	80	1900~2300	500~700	12.5~25	1~1.3	側銑 (SIDE MILLING)
1254	36	65	1500~1900	250~400	25	1.5~2	側銑 (SIDE MILLING)
1254	36	65	1500~1900	200~300	25	3~4	側銑 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

沃斯田鐵系不銹鋼 : Stainless Steels
SUS304 : 1.4301 : AISI 304 (HRc28-32)ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETH 1304	40	105	2600~3000	1000~1200	0.05~0.15	13	溝銑 (SLOTTING)
1304	40	85	2000~2500	500~700	0.7~1	13	溝銑 (SLOTTING)
1304	40	75	1800~2200	300~400	3~4	13	溝銑 (SLOTTING)
1304	40	105	2600~3000	300~500	13~26	0.05~0.15	側銑 (SIDE MILLING)
1304	40	105	2600~3000	800~1000	13~26	0.4~0.6	側銑 (SIDE MILLING)
1304	40	80	1900~2300	500~700	13~26	1~1.3	側銑 (SIDE MILLING)
1304	40	65	1500~1900	250~400	26	1.5~2	側銑 (SIDE MILLING)
1304	40	65	1500~1900	200~300	26	3~4	側銑 (SIDE MILLING)
ETH 1354	40	105	2400~2800	1000~1200	0.05~0.15	13.5	溝銑 (SLOTTING)
1354	40	85	2000~2500	500~700	0.7~1	13.5	溝銑 (SLOTTING)
1354	40	75	1800~2200	300~400	3~4	13.5	溝銑 (SLOTTING)
1354	40	105	2400~2800	300~500	13.5~27	0.05~0.15	側銑 (SIDE MILLING)
1354	40	105	2400~2800	800~1000	13.5~27	0.4~0.6	側銑 (SIDE MILLING)
1354	40	80	1900~2300	500~700	13.5~27	1~1.3	側銑 (SIDE MILLING)
1354	40	65	1500~1900	250~400	27	1.5~2	側銑 (SIDE MILLING)
1354	40	65	1500~1900	200~300	27	3~4	側銑 (SIDE MILLING)
ETH 1404	45	105	2200~2600	1000~1200	0.05~0.15	14	溝銑 (SLOTTING)
1404	45	85	1800~2200	500~700	0.7~1	14	溝銑 (SLOTTING)
1404	45	85	1800~2200	300~400	3~4	14	溝銑 (SLOTTING)
1404	45	105	2200~2600	300~500	14~28	0.05~0.15	側銑 (SIDE MILLING)
1404	45	105	2200~2600	800~1000	14~28	0.4~0.6	側銑 (SIDE MILLING)
1404	45	85	1800~2200	500~700	14~28	1~1.3	側銑 (SIDE MILLING)
1404	45	65	1300~1700	250~400	28	1.5~2	側銑 (SIDE MILLING)
1404	45	65	1300~1700	200~300	28	3~4	側銑 (SIDE MILLING)
ETH 1504	50	140	2600~3000	800~1000	0.05~0.15	15	溝銑 (SLOTTING)
1504	50	105	1900~2300	800~1000	0.5~0.7	15	溝銑 (SLOTTING)
1504	50	85	1500~1900	300~500	1~2	15	溝銑 (SLOTTING)
1504	50	75	1300~1700	200~300	3~4	15	溝銑 (SLOTTING)
1504	50	105	1900~2300	250~450	15~30	0.05~0.2	側銑 (SIDE MILLING)
1504	50	105	1900~2300	600~800	15~30	0.5~0.7	側銑 (SIDE MILLING)
1504	50	80	1400~1800	300~500	15~30	2~3	側銑 (SIDE MILLING)
ETB ETH 1604	50	140	2600~3000	800~1000	0.05~0.15	16	溝銑 (SLOTTING)
1604	50	105	1900~2300	800~1000	0.5~0.7	16	溝銑 (SLOTTING)
1604	50	85	1500~1900	300~500	1~2	16	溝銑 (SLOTTING)
1604	50	75	1300~1700	200~300	3~4	16	溝銑 (SLOTTING)
1604	50	105	1900~2300	250~450	16~32	0.05~0.2	側銑 (SIDE MILLING)
1604	50	105	1900~2300	600~800	16~32	0.5~0.7	側銑 (SIDE MILLING)
1604	50	80	1400~1800	300~500	16~32	2~3	側銑 (SIDE MILLING)

ETB^{4T} / ETH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

 沃斯田鐵系不銹鋼 : Stainless Steels
 SUS304 : 1.4301 : AISI 304 (HRc28~32)

 ETB^{4T} 冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

 ETH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETH 1704	50	140	2600~3000	800~1000	0.05~0.15	17	溝銼 (SLOTTING)
1704	50	105	1900~2300	800~1000	0.5~0.7	17	溝銼 (SLOTTING)
1704	50	85	1500~1900	300~500	1~2	17	溝銼 (SLOTTING)
1704	50	75	1300~1700	200~300	3~4	17	溝銼 (SLOTTING)
1704	50	105	1900~2300	250~450	17~34	0.05~0.2	側銼 (SIDE MILLING)
1704	50	105	1900~2300	600~800	17~34	0.5~0.7	側銼 (SIDE MILLING)
1704	50	80	1400~1800	300~500	17~34	2~3	側銼 (SIDE MILLING)
ETH 1804	50	150	2400~2800	600~800	0.05~0.15	18	溝銼 (SLOTTING)
1804	50	105	1600~2000	600~800	0.5~0.7	18	溝銼 (SLOTTING)
1804	50	85	1300~1700	200~400	1.5~2	18	溝銼 (SLOTTING)
1804	50	75	1200~1600	150~250	3~4	18	溝銼 (SLOTTING)
1804	50	105	1600~2000	200~400	18~36	0.05~0.2	側銼 (SIDE MILLING)
1804	50	105	1600~2000	500~700	18~36	0.5~0.7	側銼 (SIDE MILLING)
1804	50	75	1200~1600	300~400	18~36	3~4	側銼 (SIDE MILLING)
ETB ETH 2004	50	150	2200~2600	600~800	0.05~0.15	20	溝銼 (SLOTTING)
2004	50	105	1400~1800	600~800	0.5~0.7	20	溝銼 (SLOTTING)
2004	50	85	1100~1500	200~400	1.5~2	20	溝銼 (SLOTTING)
2004	50	75	1000~1400	150~250	3~4	20	溝銼 (SLOTTING)
2004	50	105	1400~1800	200~400	20~40	0.05~0.2	側銼 (SIDE MILLING)
2004	50	105	1400~1800	500~700	20~40	0.5~0.7	側銼 (SIDE MILLING)
2004	50	75	1000~1400	300~400	20~40	3~4	側銼 (SIDE MILLING)

ETG^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
 S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETG0102	12	30	9000~10000	700~1000	0.03~0.05	1	溝銑 (SLOTTING)
ETG0102	12	30	9000~10000	800~1200	0.06~0.08	1	溝銑 (SLOTTING)
ETG0102	12	30	9000~10000	700~900	1	0.03~0.05	側銑 (SIDE MILLING)
ETG0102	12	30	9000~10000	700~1000	1	0.06~0.08	側銑 (SIDE MILLING)
ETG0152	14	45	9000~10000	700~1000	0.03~0.05	1.5	溝銑 (SLOTTING)
ETG0152	14	45	9000~10000	800~1200	0.06~0.09	1.5	溝銑 (SLOTTING)
ETG0152	14	45	9000~10000	800~1000	1.5	0.03~0.05	側銑 (SIDE MILLING)
ETG0152	14	45	9000~10000	800~1000	1.5	0.06~0.09	側銑 (SIDE MILLING)
ETG0202	16	55	8700~9200	700~1000	0.04~0.06	2	溝銑 (SLOTTING)
ETG0202	16	55	8700~9200	1000~1400	0.07~0.12	2	溝銑 (SLOTTING)
ETG0202	16	55	8700~9200	800~1000	2	0.04~0.06	側銑 (SIDE MILLING)
ETG0202	16	55	8700~9200	800~1200	4	0.07~0.12	側銑 (SIDE MILLING)
ETG0252	16	65	8000~8500	700~1000	0.04~0.06	2.5	溝銑 (SLOTTING)
ETG0252	16	65	8000~8500	1000~1400	0.07~0.12	2.5	溝銑 (SLOTTING)
ETG0252	16	65	8000~8500	800~1200	2.5	0.04~0.06	側銑 (SIDE MILLING)
ETG0252	16	65	8000~8500	1000~1400	5	0.07~0.12	側銑 (SIDE MILLING)
ETG0302	18	75	7500~8000	700~1000	0.05~0.1	3	溝銑 (SLOTTING)
ETG0302	18	75	7500~8000	1200~1600	0.11~0.16	3	溝銑 (SLOTTING)
ETG0302	18	75	7500~8000	700~1000	6	0.05~0.1	側銑 (SIDE MILLING)
ETG0302	18	75	7500~8000	800~1200	6	0.11~0.16	側銑 (SIDE MILLING)
ETG0402	20	75	5700~6200	700~1000	0.05~0.1	4	溝銑 (SLOTTING)
ETG0402	20	75	5700~6200	1200~1600	0.11~0.18	4	溝銑 (SLOTTING)
ETG0402	20	75	5700~6200	700~1000	8	0.05~0.1	側銑 (SIDE MILLING)
ETG0402	20	75	5700~6200	1000~1400	8	0.11~0.18	側銑 (SIDE MILLING)
ETG0502	20	80	4800~5300	700~1000	0.05~0.1	5	溝銑 (SLOTTING)
ETG0502	20	80	4800~5300	1200~1600	0.12~0.2	5	溝銑 (SLOTTING)
ETG0502	20	80	4800~5300	700~1000	10	0.05~0.1	側銑 (SIDE MILLING)
ETG0502	20	80	4800~5300	1000~1400	10	0.12~0.2	側銑 (SIDE MILLING)
ETG0602	23	80	4000~4500	700~1000	0.05~0.1	6	溝銑 (SLOTTING)
ETG0602	23	80	4000~4500	800~1200	0.3~0.5	6	溝銑 (SLOTTING)
ETG0602	23	80	4000~4500	700~1000	12	0.05~0.1	側銑 (SIDE MILLING)
ETG0602	23	80	4000~4500	800~1200	12	0.3~0.4	側銑 (SIDE MILLING)
ETG0802	30	90	2700~3200	700~1000	0.05~0.1	8	溝銑 (SLOTTING)
ETG0802	30	90	2700~3200	700~1000	0.4~0.6	8	溝銑 (SLOTTING)
ETG0802	30	90	2700~3200	500~800	16	0.05~0.1	側銑 (SIDE MILLING)
ETG0802	30	90	2700~3200	1200~1600	16	0.4~0.5	側銑 (SIDE MILLING)
ETG1002	35	85	2500~3000	700~1000	0.05~0.12	10	溝銑 (SLOTTING)
ETG1002	35	85	2500~3000	700~1100	0.5~0.7	10	溝銑 (SLOTTING)
ETG1002	35	70	2000~2500	400~700	20	0.05~0.12	側銑 (SIDE MILLING)
ETG1002	35	70	2000~2500	800~1200	20	0.4~0.5	側銑 (SIDE MILLING)

ETG^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETG1202	37	105	2500~3000	700~1000	0.05~0.12	12	溝銼 (SLOTTING)
ETG1202	37	85	2000~2500	500~800	0.5~0.7	12	溝銼 (SLOTTING)
ETG1202	37	115	2800~3300	500~800	24	0.05~0.12	側銼 (SIDE MILLING)
ETG1202	37	115	2800~3300	1000~1400	24	0.5~0.7	側銼 (SIDE MILLING)

被切削材 Work Material

鉻鉬合金鋼 : Chromium Molybdenum Alloy Steels
SCM440 : 1.7225 : 4140 : 42CrMoA (HRc25~28)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETG0102	14	30	9000~10000	700~1000	0.03~0.05	1	溝銼 (SLOTTING)
ETG0102	14	30	9000~10000	800~1200	0.06~0.08	1	溝銼 (SLOTTING)
ETG0102	14	30	9000~10000	600~800	1	0.03~0.05	側銼 (SIDE MILLING)
ETG0102	14	30	9000~10000	500~800	1	0.06~0.08	側銼 (SIDE MILLING)
ETG0152	14	45	9000~10000	700~1000	0.03~0.05	1.5	溝銼 (SLOTTING)
ETG0152	14	45	9000~10000	800~1200	0.06~0.09	1.5	溝銼 (SLOTTING)
ETG0152	14	45	9000~10000	700~900	1.5	0.03~0.05	側銼 (SIDE MILLING)
ETG0152	14	45	9000~10000	700~900	1.5	0.06~0.09	側銼 (SIDE MILLING)
ETG0202	16	55	8700~9200	700~1000	0.04~0.06	2	溝銼 (SLOTTING)
ETG0202	16	55	8700~9200	1000~1400	0.07~0.12	2	溝銼 (SLOTTING)
ETG0202	16	55	8700~9200	700~1100	2	0.04~0.06	側銼 (SIDE MILLING)
ETG0202	16	55	8700~9200	800~1000	4	0.07~0.12	側銼 (SIDE MILLING)
ETG0252	16	65	8000~8500	700~1000	0.04~0.06	2.5	溝銼 (SLOTTING)
ETG0252	16	65	8000~8500	1000~1400	0.07~0.12	2.5	溝銼 (SLOTTING)
ETG0252	16	65	8000~8500	700~1100	2.5	0.04~0.06	側銼 (SIDE MILLING)
ETG0252	16	65	8000~8500	900~1100	5	0.07~0.12	側銼 (SIDE MILLING)
ETG0302	18	75	7500~8000	700~1000	0.05~0.1	3	溝銼 (SLOTTING)
ETG0302	18	75	7500~8000	1000~1400	0.11~0.16	3	溝銼 (SLOTTING)
ETG0302	18	75	7500~8000	700~1000	6	0.05~0.1	側銼 (SIDE MILLING)
ETG0302	18	75	7500~8000	800~1200	6	0.11~0.16	側銼 (SIDE MILLING)
ETG0402	20	75	5700~6200	700~1000	0.05~0.1	4	溝銼 (SLOTTING)
ETG0402	20	75	5700~6200	1000~1400	0.11~0.18	4	溝銼 (SLOTTING)
ETG0402	20	75	5700~6200	700~1000	8	0.05~0.1	側銼 (SIDE MILLING)
ETG0402	20	75	5700~6200	1000~1400	8	0.11~0.18	側銼 (SIDE MILLING)
ETG0502	20	80	4800~5300	700~1000	0.05~0.1	5	溝銼 (SLOTTING)
ETG0502	20	80	4800~5300	1000~1400	0.12~0.2	5	溝銼 (SLOTTING)
ETG0502	20	80	4800~5300	700~1000	10	0.05~0.1	側銼 (SIDE MILLING)
ETG0502	20	80	4800~5300	1000~1400	10	0.12~0.2	側銼 (SIDE MILLING)

ETG^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

鉻鉬合金鋼 : Chromium Molybdenum Alloy Steels
SCM440 : 1.7225 / 4140 : 42CrMoA (HRC25~28)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETG0602	23	80	4000~4500	700~1000	0.05~0.1	6	溝銑 (SLOTTING)
ETG0602	23	80	4000~4500	800~1200	0.3~0.5	6	溝銑 (SLOTTING)
ETG0602	23	80	4000~4500	500~800	12	0.05~0.1	側銑 (SIDE MILLING)
ETG0602	23	80	4000~4500	800~1200	12	0.3~0.4	側銑 (SIDE MILLING)
ETG0802	30	75	2700~3200	700~1000	0.05~0.1	8	溝銑 (SLOTTING)
ETG0802	30	75	2700~3200	700~1000	0.4~0.6	8	溝銑 (SLOTTING)
ETG0802	30	75	2700~3200	500~800	16	0.05~0.1	側銑 (SIDE MILLING)
ETG0802	30	75	2700~3200	1200~1600	16	0.4~0.5	側銑 (SIDE MILLING)
ETG1002	35	100	3000~3500	700~1000	0.05~0.12	10	溝銑 (SLOTTING)
ETG1002	35	75	2200~2700	700~1000	0.5~0.7	10	溝銑 (SLOTTING)
ETG1002	35	100	3000~3500	400~700	20	0.05~0.12	側銑 (SIDE MILLING)
ETG1002	35	70	2000~2500	800~1200	20	0.4~0.5	側銑 (SIDE MILLING)
ETG1202	37	105	2500~3000	700~1000	0.05~0.12	12	溝銑 (SLOTTING)
ETG1202	37	85	2000~2500	500~800	0.5~0.7	12	溝銑 (SLOTTING)
ETG1202	37	115	2800~3300	500~800	24	0.05~0.12	側銑 (SIDE MILLING)
ETG1202	37	115	2800~3300	1000~1400	24	0.5~0.7	側銑 (SIDE MILLING)

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETG0102	14	30	9000~10000	700~1000	0.03~0.05	1	溝銑 (SLOTTING)
ETG0102	14	30	9000~10000	700~1000	0.06~0.08	1	溝銑 (SLOTTING)
ETG0102	14	30	9000~10000	500~700	1	0.03~0.05	側銑 (SIDE MILLING)
ETG0102	14	30	9000~10000	400~700	1	0.06~0.08	側銑 (SIDE MILLING)
ETG0152	14	45	9000~10000	700~1000	0.03~0.05	1.5	溝銑 (SLOTTING)
ETG0152	14	45	9000~10000	700~1000	0.06~0.09	1.5	溝銑 (SLOTTING)
ETG0152	14	45	9000~10000	600~800	1.5	0.03~0.05	側銑 (SIDE MILLING)
ETG0152	14	45	9000~10000	600~800	1.5	0.06~0.09	側銑 (SIDE MILLING)
ETG0202	16	55	8700~9200	700~1000	0.04~0.06	2	溝銑 (SLOTTING)
ETG0202	16	55	8700~9200	800~1200	0.07~0.12	2	溝銑 (SLOTTING)
ETG0202	16	55	8700~9200	700~1000	2	0.04~0.06	側銑 (SIDE MILLING)
ETG0202	16	55	8700~9200	700~900	4	0.07~0.12	側銑 (SIDE MILLING)
ETG0252	16	65	8000~8500	700~1000	0.04~0.06	2.5	溝銑 (SLOTTING)
ETG0252	16	65	8000~8500	800~1200	0.07~0.12	2.5	溝銑 (SLOTTING)
ETG0252	16	65	8000~8500	700~1000	2.5	0.04~0.06	側銑 (SIDE MILLING)
ETG0252	16	65	8000~8500	900~1100	5	0.07~0.12	側銑 (SIDE MILLING)

ETG^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRc23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETG0302	18	75	7500~8000	700~1000	0.05~0.1	3	溝銑 (SLOTTING)
ETG0302	18	75	7500~8000	800~1200	0.11~0.16	3	溝銑 (SLOTTING)
ETG0302	18	75	7500~8000	700~900	6	0.05~0.1	側銑 (SIDE MILLING)
ETG0302	18	75	7500~8000	700~1000	6	0.11~0.16	側銑 (SIDE MILLING)
ETG0402	20	75	5700~6200	700~1000	0.05~0.1	4	溝銑 (SLOTTING)
ETG0402	20	75	5700~6200	800~1200	0.11~0.18	4	溝銑 (SLOTTING)
ETG0402	20	75	5700~6200	700~1000	8	0.05~0.1	側銑 (SIDE MILLING)
ETG0402	20	75	5700~6200	800~1200	8	0.11~0.18	側銑 (SIDE MILLING)
ETG0502	20	80	4800~5300	700~1000	0.05~0.1	5	溝銑 (SLOTTING)
ETG0502	20	80	4800~5300	800~1200	0.12~0.2	5	溝銑 (SLOTTING)
ETG0502	20	80	4800~5300	700~1000	10	0.05~0.1	側銑 (SIDE MILLING)
ETG0502	20	80	4800~5300	800~1200	10	0.12~0.2	側銑 (SIDE MILLING)
ETG0602	23	80	4000~4500	700~1000	0.05~0.1	6	溝銑 (SLOTTING)
ETG0602	23	80	4000~4500	700~1000	0.3~0.5	6	溝銑 (SLOTTING)
ETG0602	23	80	4000~4500	500~800	12	0.05~0.1	側銑 (SIDE MILLING)
ETG0602	23	80	4000~4500	700~1000	12	0.3~0.4	側銑 (SIDE MILLING)
ETG0802	30	75	2700~3200	700~1000	0.05~0.1	8	溝銑 (SLOTTING)
ETG0802	30	75	2700~3200	500~800	0.4~0.6	8	溝銑 (SLOTTING)
ETG0802	30	75	2700~3200	500~800	16	0.05~0.1	側銑 (SIDE MILLING)
ETG0802	30	75	2700~3200	1000~1400	16	0.4~0.5	側銑 (SIDE MILLING)
ETG1002	35	100	3000~3500	700~1000	0.05~0.12	10	溝銑 (SLOTTING)
ETG1002	35	75	2200~2700	500~800	0.5~0.7	10	溝銑 (SLOTTING)
ETG1002	35	100	3000~3500	400~700	20	0.05~0.12	側銑 (SIDE MILLING)
ETG1002	35	70	2000~2500	700~1100	20	0.4~0.5	側銑 (SIDE MILLING)
ETG1202	37	105	2500~3000	700~1000	0.05~0.12	12	溝銑 (SLOTTING)
ETG1202	37	85	2000~2500	400~700	0.5~0.7	12	溝銑 (SLOTTING)
ETG1202	37	115	2800~3300	400~700	24	0.05~0.12	側銑 (SIDE MILLING)
ETG1202	37	115	2800~3300	800~1200	24	0.5~0.7	側銑 (SIDE MILLING)

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRc36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETG0102	14	30	9000~10000	700~1000	0.03~0.05	1	溝銑 (SLOTTING)
ETG0102	14	30	9000~10000	700~1000	0.06~0.08	1	溝銑 (SLOTTING)
ETG0102	14	30	9000~10000	500~700	1	0.03~0.05	側銑 (SIDE MILLING)
ETG0102	14	30	9000~10000	400~700	1	0.06~0.08	側銑 (SIDE MILLING)

ETG^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRc36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETG0152	14	45	9000~10000	700~1000	0.03~0.05	1.5	溝銑 (SLOTTING)
ETG0152	14	45	9000~10000	700~1000	0.06~0.09	1.5	溝銑 (SLOTTING)
ETG0152	14	45	9000~10000	500~800	1.5	0.03~0.05	側銑 (SIDE MILLING)
ETG0152	14	45	9000~10000	500~800	1.5	0.06~0.09	側銑 (SIDE MILLING)
ETG0202	16	55	8700~9200	700~1000	0.04~0.06	2	溝銑 (SLOTTING)
ETG0202	16	55	8700~9200	800~1200	0.07~0.12	2	溝銑 (SLOTTING)
ETG0202	16	55	8700~9200	700~1000	2	0.04~0.06	側銑 (SIDE MILLING)
ETG0202	16	55	8700~9200	600~800	4	0.07~0.12	側銑 (SIDE MILLING)
ETG0252	16	65	8000~8500	700~1000	0.04~0.06	2.5	溝銑 (SLOTTING)
ETG0252	16	65	8000~8500	800~1200	0.07~0.12	2.5	溝銑 (SLOTTING)
ETG0252	16	65	8000~8500	700~1000	2.5	0.04~0.06	側銑 (SIDE MILLING)
ETG0252	16	65	8000~8500	800~1000	5	0.07~0.12	側銑 (SIDE MILLING)
ETG0302	18	75	7500~8000	700~1000	0.05~0.1	3	溝銑 (SLOTTING)
ETG0302	18	75	7500~8000	800~1200	0.11~0.16	3	溝銑 (SLOTTING)
ETG0302	18	75	7500~8000	600~800	6	0.05~0.1	側銑 (SIDE MILLING)
ETG0302	18	75	7500~8000	700~1000	6	0.11~0.16	側銑 (SIDE MILLING)
ETG0402	20	75	5700~6200	700~1000	0.05~0.1	4	溝銑 (SLOTTING)
ETG0402	20	75	5700~6200	800~1200	0.11~0.18	4	溝銑 (SLOTTING)
ETG0402	20	75	5700~6200	700~900	8	0.05~0.1	側銑 (SIDE MILLING)
ETG0402	20	75	5700~6200	800~1200	8	0.11~0.18	側銑 (SIDE MILLING)
ETG0502	20	80	4800~5300	700~1000	0.05~0.1	5	溝銑 (SLOTTING)
ETG0502	20	80	4800~5300	800~1200	0.12~0.2	5	溝銑 (SLOTTING)
ETG0502	20	80	4800~5300	700~1000	10	0.05~0.1	側銑 (SIDE MILLING)
ETG0502	20	80	4800~5300	800~1200	10	0.12~0.2	側銑 (SIDE MILLING)
ETG0602	23	80	4000~4500	700~1000	0.05~0.1	6	溝銑 (SLOTTING)
ETG0602	23	80	4000~4500	700~1000	0.3~0.5	6	溝銑 (SLOTTING)
ETG0602	23	80	4000~4500	500~700	12	0.05~0.1	側銑 (SIDE MILLING)
ETG0602	23	80	4000~4500	700~1000	12	0.3~0.4	側銑 (SIDE MILLING)
ETG0802	30	75	2700~3200	700~1000	0.05~0.1	8	溝銑 (SLOTTING)
ETG0802	30	75	2700~3200	500~800	0.4~0.6	8	溝銑 (SLOTTING)
ETG0802	30	75	2700~3200	500~700	16	0.05~0.1	側銑 (SIDE MILLING)
ETG0802	30	75	2700~3200	1000~1400	16	0.4~0.5	側銑 (SIDE MILLING)
ETG1002	35	100	3000~3500	700~1000	0.05~0.12	10	溝銑 (SLOTTING)
ETG1002	35	75	2200~2700	500~800	0.5~0.7	10	溝銑 (SLOTTING)
ETG1002	35	100	3000~3500	400~600	20	0.05~0.12	側銑 (SIDE MILLING)
ETG1002	35	70	2000~2500	700~1100	20	0.4~0.5	側銑 (SIDE MILLING)
ETG1202	37	105	2500~3000	700~1000	0.05~0.12	12	溝銑 (SLOTTING)
ETG1202	37	85	2000~2500	400~700	0.5~0.7	12	溝銑 (SLOTTING)
ETG1202	37	115	2800~3300	400~600	24	0.05~0.12	側銑 (SIDE MILLING)
ETG1202	37	115	2800~3300	800~1200	24	0.5~0.7	側銑 (SIDE MILLING)

ETG^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETG0104	9	65	19000~20000	1100~1300	0.03~0.04	0.7~1	溝銑 (SLOTTING)
ETG0104	9	65	19000~20000	600~900	0.05~0.08	1	溝銑 (SLOTTING)
ETG0104	9	65	19000~20000	800~1100	1~2	0.03~0.04	側銑 (SIDE MILLING)
ETG0104	9	65	19000~20000	600~900	1~2	0.05~0.08	側銑 (SIDE MILLING)
ETG0154	9	80	16000~17000	1100~1300	0.03~0.05	1~1.5	溝銑 (SLOTTING)
ETG0154	9	80	16000~17000	600~900	0.06~0.09	1.5	溝銑 (SLOTTING)
ETG0154	9	80	16000~17000	800~1100	1.5~3	0.03~0.05	側銑 (SIDE MILLING)
ETG0154	9	80	16000~17000	600~900	1.5~3	0.06~0.09	側銑 (SIDE MILLING)
ETG0204	11	95	14000~15000	1100~1300	0.04~0.06	1.5~2	溝銑 (SLOTTING)
ETG0204	11	95	14000~15000	600~900	0.08~0.13	2	溝銑 (SLOTTING)
ETG0204	11	95	14000~15000	800~1100	2~4	0.04~0.06	側銑 (SIDE MILLING)
ETG0204	11	95	14000~15000	600~900	2~4	0.08~0.13	側銑 (SIDE MILLING)
ETG0254	12	100	12000~13000	1100~1300	0.04~0.06	2~2.5	溝銑 (SLOTTING)
ETG0254	12	100	12000~13000	600~900	0.08~0.13	2.5	溝銑 (SLOTTING)
ETG0254	12	100	12000~13000	800~1100	2.5~5	0.04~0.06	側銑 (SIDE MILLING)
ETG0254	12	100	12000~13000	600~900	2.5~5	0.08~0.13	側銑 (SIDE MILLING)
ETG0304	15	110	11500~12500	1100~1300	0.04~0.07	2.5~3	溝銑 (SLOTTING)
ETG0304	15	110	11500~12500	800~1100	0.1~0.18	3	溝銑 (SLOTTING)
ETG0304	15	110	11500~12500	800~1100	3~6	0.04~0.07	側銑 (SIDE MILLING)
ETG0304	15	110	11500~12500	800~1100	3~6	0.1~0.18	側銑 (SIDE MILLING)
ETG0404	16	120	9000~10000	1100~1300	0.04~0.07	3~4	溝銑 (SLOTTING)
ETG0404	16	120	9000~10000	800~1100	0.12~0.2	4	溝銑 (SLOTTING)
ETG0404	16	120	9000~10000	800~1100	4~8	0.04~0.07	側銑 (SIDE MILLING)
ETG0404	16	120	9000~10000	900~1200	4~8	0.12~0.2	側銑 (SIDE MILLING)
ETG0504	19	125	7500~8500	1100~1300	0.05~0.08	4~5	溝銑 (SLOTTING)
ETG0504	19	125	7500~8500	800~1100	0.2~0.3	5	溝銑 (SLOTTING)
ETG0504	19	125	7500~8500	800~1100	5~10	0.05~0.08	側銑 (SIDE MILLING)
ETG0504	19	125	7500~8500	1200~1500	5~10	0.2~0.3	側銑 (SIDE MILLING)
ETG0604	21	110	5500~6000	1100~1300	0.05~0.1	5~6	溝銑 (SLOTTING)
ETG0604	21	110	5500~6000	800~1100	0.3~0.5	6	溝銑 (SLOTTING)
ETG0604	21	110	5500~6000	800~1100	6~12	0.05~0.15	側銑 (SIDE MILLING)
ETG0604	21	110	5500~6000	1300~1500	6~12	0.3~0.5	側銑 (SIDE MILLING)
ETG0804	27	120	4500~5000	1000~1200	0.05~0.1	7~8	溝銑 (SLOTTING)
ETG0804	27	110	4200~4700	900~1200	0.4~0.6	8	溝銑 (SLOTTING)
ETG0804	27	110	4200~4700	800~1100	8~16	0.05~0.1	側銑 (SIDE MILLING)
ETG0804	27	110	4200~4700	1200~1400	8~16	0.4~0.6	側銑 (SIDE MILLING)
ETG1004	34	125	3800~4300	1000~1200	0.05~0.12	9~10	溝銑 (SLOTTING)
ETG1004	34	100	3000~3500	900~1200	0.5~0.7	10	溝銑 (SLOTTING)
ETG1004	34	100	3000~3500	900~1200	20	0.05~0.12	側銑 (SIDE MILLING)
ETG1004	34	100	3000~3500	900~1200	10	0.5~0.7	側銑 (SIDE MILLING)

ETG^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
 S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETG1204	37	125	3000~3500	900~1100	0.05~0.15	11~12	溝銼 (SLOTTING)
ETG1204	37	100	2500~3000	500~700	0.7~1	12	溝銼 (SLOTTING)
ETG1204	37	100	2500~3000	600~900	12~24	0.05~0.15	側銼 (SIDE MILLING)
ETG1204	37	100	2500~3000	500~700	12	0.7~1	側銼 (SIDE MILLING)
ETG1604	50	125	2300~2800	500~800	0.05~0.15	15~16	溝銼 (SLOTTING)
ETG1604	50	100	1800~2200	500~700	0.5~1	16	溝銼 (SLOTTING)
ETG1604	50	100	1800~2200	350~550	16~32	0.05~0.15	側銼 (SIDE MILLING)
ETG1604	50	100	1800~2200	500~700	16	0.5~1	側銼 (SIDE MILLING)

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
 P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRc23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETG0104	9	65	19000~20000	1100~1300	0.03~0.04	0.7~1	溝銼 (SLOTTING)
ETG0104	9	65	19000~20000	600~900	0.05~0.08	1	溝銼 (SLOTTING)
ETG0104	9	65	19000~20000	800~1100	1~2	0.03~0.04	側銼 (SIDE MILLING)
ETG0104	9	65	19000~20000	600~900	1~2	0.05~0.08	側銼 (SIDE MILLING)
ETG0154	9	80	16000~17000	1100~1300	0.03~0.05	1~1.5	溝銼 (SLOTTING)
ETG0154	9	80	16000~17000	600~900	0.06~0.09	1.5	溝銼 (SLOTTING)
ETG0154	9	80	16000~17000	800~1100	1.5~3	0.03~0.05	側銼 (SIDE MILLING)
ETG0154	9	80	16000~17000	600~900	1.5~3	0.06~0.09	側銼 (SIDE MILLING)
ETG0204	11	90	13500~14500	1100~1300	0.04~0.06	1.5~2	溝銼 (SLOTTING)
ETG0204	11	90	13500~14500	600~900	0.08~0.13	2	溝銼 (SLOTTING)
ETG0204	11	90	13500~14500	800~1100	2~4	0.04~0.06	側銼 (SIDE MILLING)
ETG0204	11	90	13500~14500	600~900	2~4	0.08~0.13	側銼 (SIDE MILLING)
ETG0254	12	95	11500~12500	1100~1300	0.04~0.06	2~2.5	溝銼 (SLOTTING)
ETG0254	12	95	11500~12500	600~900	0.08~0.13	2.5	溝銼 (SLOTTING)
ETG0254	12	95	11500~12500	800~1100	2.5~5	0.04~0.06	側銼 (SIDE MILLING)
ETG0254	12	95	11500~12500	600~900	2.5~5	0.08~0.13	側銼 (SIDE MILLING)
ETG0304	15	105	11000~12000	1100~1300	0.04~0.07	2.5~3	溝銼 (SLOTTING)
ETG0304	15	105	11000~12000	800~1100	0.1~0.18	3	溝銼 (SLOTTING)
ETG0304	15	105	11000~12000	800~1100	3~6	0.04~0.07	側銼 (SIDE MILLING)
ETG0304	15	105	11000~12000	800~1100	3~6	0.1~0.18	側銼 (SIDE MILLING)
ETG0404	16	110	8500~9500	1100~1300	0.04~0.07	3~4	溝銼 (SLOTTING)
ETG0404	16	110	8500~9500	800~1100	0.12~0.2	4	溝銼 (SLOTTING)
ETG0404	16	110	8500~9500	800~1100	4~8	0.04~0.07	側銼 (SIDE MILLING)
ETG0404	16	110	8500~9500	900~1200	4~8	0.12~0.2	側銼 (SIDE MILLING)

ETG^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 / Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETG0504	19	115	7000~8000	1100~1300	0.05~0.08	4~5	溝銼 (SLOTTING)
ETG0504	19	115	7000~8000	800~1100	0.2~0.3	5	溝銼 (SLOTTING)
ETG0504	19	115	7000~8000	800~1100	5~10	0.05~0.08	側銼 (SIDE MILLING)
ETG0504	19	115	7000~8000	1200~1500	5~10	0.2~0.3	側銼 (SIDE MILLING)
ETG0604	21	100	5000~5500	1100~1300	0.05~0.1	5~6	溝銼 (SLOTTING)
ETG0604	21	100	5000~5500	800~1100	0.3~0.5	6	溝銼 (SLOTTING)
ETG0604	21	100	5000~5500	600~800	6~12	0.05~0.15	側銼 (SIDE MILLING)
ETG0604	21	100	5000~5500	1100~1300	6~12	0.3~0.5	側銼 (SIDE MILLING)
ETG0804	27	120	4500~5000	1000~1200	0.05~0.1	7~8	溝銼 (SLOTTING)
ETG0804	27	105	4000~4500	900~1200	0.4~0.6	8	溝銼 (SLOTTING)
ETG0804	27	105	4000~4500	600~800	8~16	0.05~0.1	側銼 (SIDE MILLING)
ETG0804	27	105	4000~4500	1000~1200	8~16	0.4~0.6	側銼 (SIDE MILLING)
ETG1004	34	125	3800~4300	1000~1200	0.05~0.12	9~10	溝銼 (SLOTTING)
ETG1004	34	100	3000~3500	800~1000	0.5~0.7	10	溝銼 (SLOTTING)
ETG1004	34	100	3000~3500	600~800	20	0.05~0.12	側銼 (SIDE MILLING)
ETG1004	34	100	3000~3500	700~1000	10	0.5~0.7	側銼 (SIDE MILLING)
ETG1204	37	125	3000~3500	900~1100	0.05~0.15	11~12	溝銼 (SLOTTING)
ETG1204	37	100	2500~3000	500~700	0.7~1	12	溝銼 (SLOTTING)
ETG1204	37	100	2500~3000	600~900	12~24	0.05~0.15	側銼 (SIDE MILLING)
ETG1204	37	100	2500~3000	500~700	12	0.7~1	側銼 (SIDE MILLING)
ETG1604	50	125	2300~2800	500~800	0.05~0.15	15~16	溝銼 (SLOTTING)
ETG1604	50	95	1700~2100	400~600	0.5~1	16	溝銼 (SLOTTING)
ETG1604	50	95	1700~2100	350~550	16~32	0.05~0.15	側銼 (SIDE MILLING)
ETG1604	50	95	1700~2100	400~600	16	0.5~1	側銼 (SIDE MILLING)

被切削材 Work Material

調質鋼 / 預硬鋼 / Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETG0104	9	60	18000~19000	1100~1300	0.03~0.04	0.7~1	溝銼 (SLOTTING)
ETG0104	9	60	18000~19000	600~900	0.05~0.08	1	溝銼 (SLOTTING)
ETG0104	9	60	18000~19000	800~1100	1~2	0.03~0.04	側銼 (SIDE MILLING)
ETG0104	9	60	18000~19000	600~900	1~2	0.05~0.08	側銼 (SIDE MILLING)
ETG0154	9	80	16000~17000	1100~1300	0.03~0.05	1~1.5	溝銼 (SLOTTING)
ETG0154	9	75	15000~16000	600~900	0.06~0.09	1.5	溝銼 (SLOTTING)
ETG0154	9	80	16000~17000	800~1100	1.5~3	0.03~0.05	側銼 (SIDE MILLING)
ETG0154	9	75	15000~16000	600~900	1.5~3	0.06~0.09	側銼 (SIDE MILLING)

ETG^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ETG0204	11	80	13000~14000	1100~1300	0.04~0.06	1.5~2	溝銑 (SLOTTING)
ETG0204	11	80	13000~14000	600~900	0.08~0.13	2	溝銑 (SLOTTING)
ETG0204	11	80	13000~14000	800~1100	2~4	0.04~0.06	側銑 (SIDE MILLING)
ETG0204	11	80	13000~14000	600~900	2~4	0.08~0.13	側銑 (SIDE MILLING)
ETG0254	12	90	11000~12000	1100~1300	0.04~0.06	2~2.5	溝銑 (SLOTTING)
ETG0254	12	90	11000~12000	600~900	0.08~0.13	2.5	溝銑 (SLOTTING)
ETG0254	12	90	11000~12000	800~1100	2.5~5	0.04~0.06	側銑 (SIDE MILLING)
ETG0254	12	90	11000~12000	600~900	2.5~5	0.08~0.13	側銑 (SIDE MILLING)
ETG0304	15	100	10500~11500	1100~1300	0.04~0.07	2.5~3	溝銑 (SLOTTING)
ETG0304	15	100	10500~11500	700~1000	0.1~0.18	3	溝銑 (SLOTTING)
ETG0304	15	100	10500~11500	800~1100	3~6	0.04~0.07	側銑 (SIDE MILLING)
ETG0304	15	100	10500~11500	700~1000	3~6	0.1~0.18	側銑 (SIDE MILLING)
ETG0404	16	100	7500~8500	1000~1200	0.04~0.07	3~4	溝銑 (SLOTTING)
ETG0404	16	100	7500~8500	700~900	0.12~0.2	4	溝銑 (SLOTTING)
ETG0404	16	100	7500~8500	600~800	4~8	0.04~0.07	側銑 (SIDE MILLING)
ETG0404	16	100	7500~8500	700~900	4~8	0.12~0.2	側銑 (SIDE MILLING)
ETG0504	19	110	6500~7500	1000~1200	0.05~0.08	4~5	溝銑 (SLOTTING)
ETG0504	19	110	6500~7500	700~900	0.2~0.3	5	溝銑 (SLOTTING)
ETG0504	19	110	6500~7500	600~800	5~10	0.05~0.08	側銑 (SIDE MILLING)
ETG0504	19	110	6500~7500	700~900	5~10	0.2~0.3	側銑 (SIDE MILLING)
ETG0604	21	100	5000~5500	1000~1200	0.05~0.1	5~6	溝銑 (SLOTTING)
ETG0604	21	100	5000~5500	700~900	0.3~0.5	6	溝銑 (SLOTTING)
ETG0604	21	100	5000~5500	600~800	6~12	0.05~0.15	側銑 (SIDE MILLING)
ETG0604	21	100	5000~5500	700~900	6~12	0.3~0.5	側銑 (SIDE MILLING)
ETG0804	27	120	4500~5000	1000~1200	0.05~0.1	7~8	溝銑 (SLOTTING)
ETG0804	27	105	4000~4500	500~700	0.4~0.6	8	溝銑 (SLOTTING)
ETG0804	27	105	4000~4500	600~800	8~16	0.05~0.1	側銑 (SIDE MILLING)
ETG0804	27	105	4000~4500	700~900	8~16	0.4~0.6	側銑 (SIDE MILLING)
ETG1004	34	120	3500~4000	1000~1200	0.05~0.12	9~10	溝銑 (SLOTTING)
ETG1004	34	100	3000~3500	600~800	0.5~0.7	10	溝銑 (SLOTTING)
ETG1004	34	100	3000~3500	600~800	20	0.05~0.12	側銑 (SIDE MILLING)
ETG1004	34	100	3000~3500	600~800	10	0.5~0.7	側銑 (SIDE MILLING)
ETG1204	37	110	2800~3300	800~1000	0.05~0.15	11~12	溝銑 (SLOTTING)
ETG1204	37	80	2200~2600	300~500	0.7~1	12	溝銑 (SLOTTING)
ETG1204	37	80	2200~2600	500~800	12~24	0.05~0.15	側銑 (SIDE MILLING)
ETG1204	37	80	2200~2600	300~500	12	0.7~1	側銑 (SIDE MILLING)
ETG1604	50	110	2000~2500	400~600	0.05~0.15	15~16	溝銑 (SLOTTING)
ETG1604	50	85	1500~1900	300~500	0.5~1	16	溝銑 (SLOTTING)
ETG1604	50	85	1500~1900	300~500	16~32	0.05~0.15	側銑 (SIDE MILLING)
ETG1604	50	85	1500~1900	300~500	16	0.5~1	側銑 (SIDE MILLING)

HEA IEA^{2T} / HEH IEH^{2T}

切削條件表

Milling Conditions

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

被切削材 Work Material		HEA IEA ^{2T} 冷卻方式 Coolant Type						HEH IEH ^{2T} 冷卻方式 Coolant Type	
		乾式切削 Dry coolant				濕式切削 Wet coolant			
型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type		
HEA HEH 0302	30	50	5000~5500	500~700	0.03~0.04	3	溝銑 (SLOTTING)		
0302	30	50	5000~5500	600~800	0.05~0.08	3	溝銑 (SLOTTING)		
0302	30	45	4500~5000	250~450	3~6	0.02~0.03	側銑 (SIDE MILLING)		
0302	30	45	4500~5000	400~600	3~6	0.04~0.07	側銑 (SIDE MILLING)		
HEA HEH 0402	40	40	3000~3500	500~700	0.03~0.05	4	溝銑 (SLOTTING)		
0402	40	40	3000~3500	600~800	0.06~0.09	4	溝銑 (SLOTTING)		
0402	40	35	2600~3000	250~450	4~8	0.03~0.05	側銑 (SIDE MILLING)		
0402	40	35	2600~3000	400~600	4~8	0.06~0.09	側銑 (SIDE MILLING)		
HEA HEH 0502	35	80	5000~5500	500~700	0.04~0.06	4	溝銑 (SLOTTING)		
0502	35	65	4000~4500	600~800	0.1~0.15	5	溝銑 (SLOTTING)		
0502	35	60	3500~4000	250~450	5~10	0.04~0.06	側銑 (SIDE MILLING)		
0502	35	60	3500~4000	400~600	5~10	0.1~0.15	側銑 (SIDE MILLING)		
HEA HEH 0602	35	90	4500~5000	800~1000	0.04~0.07	5	溝銑 (SLOTTING)		
0602	35	75	3800~4300	800~1000	0.1~0.2	6	溝銑 (SLOTTING)		
0602	35	75	3800~4300	450~650	6~12	0.04~0.07	側銑 (SIDE MILLING)		
0602	35	75	3800~4300	600~800	6~12	0.1~0.2	側銑 (SIDE MILLING)		
HEA HEH 0802	42	70	2500~3000	700~900	0.05~0.08	7	溝銑 (SLOTTING)		
0802	42	65	2400~2800	600~800	0.15~0.25	8	溝銑 (SLOTTING)		
0802	42	65	2400~2800	500~700	8~16	0.05~0.08	側銑 (SIDE MILLING)		
0802	42	65	2400~2800	600~800	8~16	0.15~0.25	側銑 (SIDE MILLING)		
IEA IEH 0302	50	40	4000~4500	500~700	0.02~0.04	3	溝銑 (SLOTTING)		
0302	50	35	3500~4000	250~450	3~6	0.02~0.04	溝銑 (SLOTTING)		
IEA IEH 0402	50	40	3200~3600	500~700	0.03~0.04	4	側銑 (SIDE MILLING)		
0402	50	35	2800~3200	250~450	4~8	0.02~0.04	側銑 (SIDE MILLING)		
IEA IEH 0602	50	55	2600~3000	600~800	0.03~0.05	6	溝銑 (SLOTTING)		
0602	50	45	2200~2600	400~600	6~12	0.03~0.05	溝銑 (SLOTTING)		
IEA IEH 0802	60	70	2600~3000	700~900	0.04~0.06	8	側銑 (SIDE MILLING)		
0802	60	55	1800~2200	400~600	8~16	0.04~0.06	側銑 (SIDE MILLING)		
IEA IEH 1002	60	90	2600~3000	500~700	0.04~0.08	10	溝銑 (SLOTTING)		
1002	60	65	1800~2200	350~550	10~20	0.04~0.08	溝銑 (SLOTTING)		
IEA IEH 1202	60	90	2200~2600	600~800	0.05~0.1	12	側銑 (SIDE MILLING)		
1202	60	65	1500~1900	300~500	12~24	0.05~0.1	側銑 (SIDE MILLING)		

HEA IEA^{2T} / HEH IEH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)HEA IEA^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

HEH IEH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
HEA HEH 0302	30	40	4000~4500	500~700	0.03~0.04	3	溝銑 (SLOTTING)
0302	30	40	4000~4500	500~700	0.05~0.08	3	溝銑 (SLOTTING)
0302	30	35	3500~4000	250~400	3~6	0.02~0.03	側銑 (SIDE MILLING)
0302	30	35	3500~4000	400~500	3~6	0.04~0.07	側銑 (SIDE MILLING)
HEA HEH 0402	40	35	2800~3300	500~700	0.03~0.05	4	溝銑 (SLOTTING)
0402	40	35	2800~3300	500~700	0.06~0.09	4	溝銑 (SLOTTING)
0402	40	30	2500~2800	250~400	4~8	0.03~0.05	側銑 (SIDE MILLING)
0402	40	30	2500~2800	400~500	4~8	0.06~0.09	側銑 (SIDE MILLING)
HEA HEH 0502	35	80	5000~5500	500~700	0.04~0.06	4	溝銑 (SLOTTING)
0502	35	65	4000~4500	500~700	0.1~0.15	5	溝銑 (SLOTTING)
0502	35	60	3500~4000	250~400	5~10	0.04~0.06	側銑 (SIDE MILLING)
0502	35	60	3500~4000	400~500	5~10	0.1~0.15	側銑 (SIDE MILLING)
HEA HEH 0602	35	90	4500~5000	700~900	0.04~0.07	5	溝銑 (SLOTTING)
0602	35	70	3500~4000	700~900	0.1~0.2	6	溝銑 (SLOTTING)
0602	35	70	3500~4000	400~600	6~12	0.04~0.07	側銑 (SIDE MILLING)
0602	35	70	3500~4000	500~700	6~12	0.1~0.2	側銑 (SIDE MILLING)
HEA HEH 0802	42	70	2500~3000	600~800	0.05~0.08	7	溝銑 (SLOTTING)
0802	42	60	2200~2600	500~700	0.15~0.25	8	溝銑 (SLOTTING)
0802	42	60	2200~2600	400~600	8~16	0.05~0.08	側銑 (SIDE MILLING)
0802	42	60	2200~2600	500~700	8~16	0.15~0.25	側銑 (SIDE MILLING)
IEA IEH 0302	50	35	3500~4000	300~500	0.02~0.04	3	溝銑 (SLOTTING)
0302	50	30	3000~3500	200~400	3~6	0.02~0.04	溝銑 (SLOTTING)
IEA IEH 0402	50	35	2800~3200	300~500	0.03~0.04	4	側銑 (SIDE MILLING)
0402	50	30	2600~3000	200~400	4~8	0.02~0.04	側銑 (SIDE MILLING)
IEA IEH 0602	50	50	2500~2900	400~600	0.03~0.05	6	溝銑 (SLOTTING)
0602	50	45	2200~2600	250~400	6~12	0.03~0.05	溝銑 (SLOTTING)
IEA IEH 0802	60	70	2600~3000	550~750	0.04~0.06	8	側銑 (SIDE MILLING)
0802	60	50	1700~2100	300~450	8~16	0.04~0.06	側銑 (SIDE MILLING)
IEA IEH 1002	60	80	2400~2800	450~650	0.04~0.08	10	溝銑 (SLOTTING)
1002	60	55	1600~2000	300~500	10~20	0.04~0.08	溝銑 (SLOTTING)
IEA IEH 1202	60	85	2100~2500	600~800	0.05~0.1	12	側銑 (SIDE MILLING)
1202	60	60	1400~1800	250~450	12~24	0.05~0.1	側銑 (SIDE MILLING)

HEA IEA^{2T} / HEH IEH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

HEA IEA^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

HEH IEH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
HEA HEH 0302	30	40	4000~4500	500~700	0.03~0.04	3	溝銼 (SLOTTING)
0302	30	35	3500~4000	500~700	0.05~0.08	3	溝銼 (SLOTTING)
0302	30	35	3500~4000	250~400	3~6	0.02~0.03	側銼 (SIDE MILLING)
0302	30	35	3500~4000	400~500	3~6	0.04~0.07	側銼 (SIDE MILLING)
HEA HEH 0402	40	35	2800~3300	500~700	0.03~0.05	4	溝銼 (SLOTTING)
0402	40	35	2800~3300	500~700	0.06~0.09	4	溝銼 (SLOTTING)
0402	40	30	2500~2800	250~400	4~8	0.03~0.05	側銼 (SIDE MILLING)
0402	40	30	2500~2800	400~500	4~8	0.06~0.09	側銼 (SIDE MILLING)
HEA HEH 0502	35	80	5000~5500	500~700	0.04~0.06	4	溝銼 (SLOTTING)
0502	35	60	3500~4000	500~700	0.1~0.15	5	溝銼 (SLOTTING)
0502	35	50	3000~3500	250~400	5~10	0.04~0.06	側銼 (SIDE MILLING)
0502	35	55	3300~3700	400~500	5~10	0.1~0.15	側銼 (SIDE MILLING)
HEA HEH 0602	35	90	4500~5000	700~900	0.04~0.07	5	溝銼 (SLOTTING)
0602	35	70	3500~4000	700~900	0.1~0.2	6	溝銼 (SLOTTING)
0602	35	65	3200~3600	400~600	6~12	0.04~0.07	側銼 (SIDE MILLING)
0602	35	65	3200~3600	500~700	6~12	0.1~0.2	側銼 (SIDE MILLING)
HEA HEH 0802	42	60	2200~2600	600~800	0.05~0.08	7	溝銼 (SLOTTING)
0802	42	50	1800~2300	500~700	0.15~0.25	8	溝銼 (SLOTTING)
0802	42	50	1800~2300	400~600	8~16	0.05~0.08	側銼 (SIDE MILLING)
0802	42	50	1800~2300	500~700	8~16	0.15~0.25	側銼 (SIDE MILLING)
IEA IEH 0302	50	35	3500~4000	300~500	0.02~0.04	3	溝銼 (SLOTTING)
0302	50	30	3000~3500	200~400	3~6	0.02~0.04	溝銼 (SLOTTING)
IEA IEH 0402	50	35	2800~3200	300~500	0.03~0.04	4	側銼 (SIDE MILLING)
0402	50	30	2600~3000	200~400	4~8	0.02~0.04	側銼 (SIDE MILLING)
IEA IEH 0602	50	45	2300~2700	400~600	0.03~0.05	6	溝銼 (SLOTTING)
0602	50	40	2000~2400	250~400	6~12	0.03~0.05	溝銼 (SLOTTING)
IEA IEH 0802	60	60	1800~2200	550~750	0.04~0.06	8	側銼 (SIDE MILLING)
0802	60	50	1700~2100	300~450	8~16	0.04~0.06	側銼 (SIDE MILLING)
IEA IEH 1002	60	70	2200~2600	450~650	0.04~0.08	10	溝銼 (SLOTTING)
1002	60	50	1400~1800	300~500	10~20	0.04~0.08	溝銼 (SLOTTING)
IEA IEH 1202	60	80	1900~2300	600~800	0.05~0.1	12	側銼 (SIDE MILLING)
1202	60	60	1400~1800	250~450	12~24	0.05~0.1	側銼 (SIDE MILLING)

HEA IEA^{4T} / HEH IEH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

HEA IEA^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

HEH IEH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
HEA HEH 0304	15	115	12000~13000	1100~1300	0.04~0.08	2.5	溝銑 (SLOTTING)
0304	15	90	9000~10000	800~1100	0.1~0.2	3	溝銑 (SLOTTING)
0304	15	115	12000~13000	800~1100	3~6	0.04~0.08	側銑 (SIDE MILLING)
0304	15	90	9000~10000	800~1100	3	0.1~0.2	側銑 (SIDE MILLING)
0304	30	50	5000~5500	500~700	0.02~0.04	2	溝銑 (SLOTTING)
0304	30	50	5000~5500	800~1000	0.05~0.08	3	溝銑 (SLOTTING)
0304	30	45	4500~5000	250~450	3~6	0.02~0.04	側銑 (SIDE MILLING)
0304	30	45	4500~5000	500~700	3	0.05~0.08	側銑 (SIDE MILLING)
HEA HEH 0404	16	120	9000~10000	1100~1300	0.03~0.06	3~4	溝銑 (SLOTTING)
0404	16	120	9000~10000	800~1100	0.2~0.3	4	溝銑 (SLOTTING)
0404	16	120	9000~10000	800~1100	4~8	0.03~0.06	側銑 (SIDE MILLING)
0404	16	120	9000~10000	900~1200	4~8	0.2~0.3	側銑 (SIDE MILLING)
0404	40	40	3000~3500	500~700	0.03~0.05	3	溝銑 (SLOTTING)
0404	40	40	3000~3500	800~1000	0.06~0.1	4	溝銑 (SLOTTING)
0404	40	35	2600~3000	250~450	4~8	0.03~0.05	側銑 (SIDE MILLING)
0404	40	35	2600~3000	500~700	4	0.06~0.1	側銑 (SIDE MILLING)
HEA HEH 0504	19	125	7500~8500	1100~1300	0.04~0.07	4~5	溝銑 (SLOTTING)
0504	19	125	7500~8500	800~1100	0.3~0.4	5	溝銑 (SLOTTING)
0504	19	125	7500~8500	800~1100	5~10	0.04~0.07	側銑 (SIDE MILLING)
0504	19	125	7500~8500	1200~1500	5~10	0.3~0.4	側銑 (SIDE MILLING)
0504	35	80	5000~5500	500~700	0.04~0.06	4	溝銑 (SLOTTING)
0504	35	65	4000~4500	800~1000	0.07~0.13	5	溝銑 (SLOTTING)
0504	35	60	3500~4000	250~450	5~10	0.04~0.06	側銑 (SIDE MILLING)
0504	35	60	3500~4000	600~800	5	0.07~0.13	側銑 (SIDE MILLING)
HEA HEH 0604	21	110	5500~6000	1100~1300	0.05~0.1	5~6	溝銑 (SLOTTING)
0604	21	110	5500~6000	800~1100	0.4~0.5	6	溝銑 (SLOTTING)
0604	21	110	5500~6000	800~1100	6~12	0.05~0.1	側銑 (SIDE MILLING)
0604	21	110	5500~6000	1300~1500	6~12	0.4~0.5	側銑 (SIDE MILLING)
0604	35	90	4500~5000	800~1000	0.05~0.08	5	溝銑 (SLOTTING)
0604	35	75	3800~4300	1300~1500	0.1~0.2	6	溝銑 (SLOTTING)
0604	35	75	3800~4300	450~650	6~12	0.05~0.08	側銑 (SIDE MILLING)
0604	35	75	3800~4300	700~900	6	0.1~0.2	側銑 (SIDE MILLING)
HEA HEH 0804	27	120	4500~5000	1000~1200	0.05~0.1	7~8	溝銑 (SLOTTING)
0804	27	110	4200~4700	900~1200	0.5~0.6	8	溝銑 (SLOTTING)
0804	27	110	4200~4700	800~1100	8~16	0.05~0.1	側銑 (SIDE MILLING)
0804	27	110	4200~4700	1400~1600	8~16	0.5~0.6	側銑 (SIDE MILLING)
0804	42	70	2500~3000	700~900	0.05~0.1	7	溝銑 (SLOTTING)
0804	42	65	2400~2800	700~900	0.2~0.3	8	溝銑 (SLOTTING)
0804	42	65	2400~2800	500~700	8~16	0.05~0.1	側銑 (SIDE MILLING)
0804	42	65	2400~2800	700~900	8	0.2~0.3	側銑 (SIDE MILLING)

HEA IEA^{4T} / HEH IEH^{4T}

切削條件表

Milling Conditions

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

被切削材 Work Material		HEA IEA ^{4T} 冷卻方式 Coolant Type						HEH IEH ^{4T} 冷卻方式 Coolant Type	
		乾式切削 Dry coolant			濕式切削 Wet coolant				
型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type		
IEA IEH 0404	50	40	3200~3600	500~700	0.03~0.05	3	溝銼 (SLOTTING)		
	50	40	3200~3600	700~900	0.06~0.08	4	溝銼 (SLOTTING)		
	50	35	2800~3200	250~450	4~8	0.03~0.05	側銼 (SIDE MILLING)		
	50	35	2800~3200	400~600	4~8	0.06~0.08	側銼 (SIDE MILLING)		
IEA IEH 0604	50	55	2600~3000	600~800	0.04~0.06	5	溝銼 (SLOTTING)		
	50	55	2600~3000	1000~1200	0.07~0.13	6	溝銼 (SLOTTING)		
	50	45	2200~2600	400~600	6~12	0.04~0.06	側銼 (SIDE MILLING)		
	50	45	2200~2600	500~700	6~12	0.07~0.13	側銼 (SIDE MILLING)		
IEA IEH 0804	60	70	2600~3000	700~900	0.05~0.1	7	溝銼 (SLOTTING)		
	60	70	2600~3000	800~1000	0.1~0.2	8	溝銼 (SLOTTING)		
	60	55	1800~2200	400~600	8~16	0.05~0.1	側銼 (SIDE MILLING)		
	60	55	1800~2200	600~800	8	0.1~0.2	側銼 (SIDE MILLING)		
IEA IEH 1004	60	90	2600~3000	500~700	0.05~0.1	9	溝銼 (SLOTTING)		
	60	80	2400~2800	700~900	0.15~0.25	10	溝銼 (SLOTTING)		
	60	65	1800~2200	350~550	10	0.05~0.1	側銼 (SIDE MILLING)		
	60	65	1800~2200	700~900	10	0.15~0.25	側銼 (SIDE MILLING)		
IEA IEH 1204	60	90	2200~2600	600~800	0.05~0.12	11	溝銼 (SLOTTING)		
	60	85	2100~2500	700~900	0.2~0.3	12	溝銼 (SLOTTING)		
	60	65	1500~1900	300~500	12~24	0.05~0.12	側銼 (SIDE MILLING)		
	60	65	1500~1900	600~800	12~24	0.2~0.3	側銼 (SIDE MILLING)		

HEA IEA^{4T} / HEH IEH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)HEA IEA^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

HEH IEH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
HEA HEH 0304	15	115	12000~13000	1100~1300	0.04~0.08	2.5	溝銼 (SLOTTING)
0304	15	90	9000~10000	800~1100	0.1~0.2	3	溝銼 (SLOTTING)
0304	15	105	11000~12000	800~1100	3~6	0.04~0.08	側銼 (SIDE MILLING)
0304	15	90	9000~10000	800~1100	3	0.1~0.2	側銼 (SIDE MILLING)
0304	30	40	4000~4500	500~700	0.02~0.04	2	溝銼 (SLOTTING)
0304	30	40	4000~4500	800~1000	0.05~0.08	3	溝銼 (SLOTTING)
0304	30	35	3500~4000	250~450	3~6	0.02~0.04	側銼 (SIDE MILLING)
0304	30	35	3500~4000	400~600	3	0.05~0.08	側銼 (SIDE MILLING)
HEA HEH 0404	16	110	8500~9500	1100~1300	0.03~0.06	3~4	溝銼 (SLOTTING)
0404	16	110	8500~9500	800~1100	0.2~0.3	4	溝銼 (SLOTTING)
0404	16	110	8500~9500	800~1100	4~8	0.03~0.06	側銼 (SIDE MILLING)
0404	16	110	8500~9500	900~1200	4~8	0.2~0.3	側銼 (SIDE MILLING)
0404	40	35	2800~3300	300~500	0.03~0.05	3	溝銼 (SLOTTING)
0404	40	35	2800~3300	500~700	0.06~0.1	4	溝銼 (SLOTTING)
0404	40	30	2500~2800	200~400	4~8	0.03~0.05	側銼 (SIDE MILLING)
0404	40	30	2500~2800	400~600	4	0.06~0.1	側銼 (SIDE MILLING)
HEA HEH 0504	19	115	7000~8000	1100~1300	0.04~0.07	4~5	溝銼 (SLOTTING)
0504	19	115	7000~8000	800~1100	0.3~0.4	5	溝銼 (SLOTTING)
0504	19	115	7000~8000	800~1100	5~10	0.04~0.07	側銼 (SIDE MILLING)
0504	19	115	7000~8000	1200~1500	5~10	0.3~0.4	側銼 (SIDE MILLING)
0504	35	80	5000~5500	500~700	0.04~0.06	4	溝銼 (SLOTTING)
0504	35	65	4000~4500	700~900	0.07~0.13	5	溝銼 (SLOTTING)
0504	35	60	3500~4000	250~450	5~10	0.04~0.06	側銼 (SIDE MILLING)
0504	35	60	3500~4000	500~700	5	0.07~0.13	側銼 (SIDE MILLING)
HEA HEH 0604	21	100	5000~5500	1100~1300	0.05~0.1	5~6	溝銼 (SLOTTING)
0604	21	100	5000~5500	800~1100	0.4~0.5	6	溝銼 (SLOTTING)
0604	21	100	5000~5500	600~800	6~12	0.05~0.1	側銼 (SIDE MILLING)
0604	21	100	5000~5500	1100~1300	6~12	0.4~0.5	側銼 (SIDE MILLING)
0604	35	90	4500~5000	800~1000	0.05~0.08	5	溝銼 (SLOTTING)
0604	35	70	3500~4000	1200~1400	0.1~0.2	6	溝銼 (SLOTTING)
0604	35	70	3500~4000	450~650	6~12	0.05~0.08	側銼 (SIDE MILLING)
0604	35	70	3500~4000	600~800	6	0.1~0.2	側銼 (SIDE MILLING)
HEA HEH 0804	27	120	4500~5000	1000~1200	0.05~0.1	7~8	溝銼 (SLOTTING)
0804	27	105	4000~4500	900~1200	0.5~0.6	8	溝銼 (SLOTTING)
0804	27	105	4000~4500	600~800	8~16	0.05~0.1	側銼 (SIDE MILLING)
0804	27	105	4000~4500	1200~1400	8~16	0.5~0.6	側銼 (SIDE MILLING)
0804	42	70	2500~3000	600~800	0.05~0.1	7	溝銼 (SLOTTING)
0804	42	60	2200~2600	600~800	0.2~0.3	8	溝銼 (SLOTTING)
0804	42	60	2200~2600	400~600	8~16	0.05~0.1	側銼 (SIDE MILLING)
0804	42	60	2200~2600	600~800	8	0.2~0.3	側銼 (SIDE MILLING)

HEA IEA^{4T} / HEH IEH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

 合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
 P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRc23~32)

 HEA IEA^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

 HEH IEH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type	
IEA IEH 0404	50	35	2800~3200	300~500	0.03~0.05	3	溝銼 (SLOTTING)	
	0404	50	35	2800~3200	500~700	0.06~0.08	4	溝銼 (SLOTTING)
	0404	50	30	2600~3000	200~400	4~8	0.03~0.05	側銼 (SIDE MILLING)
	0404	50	30	2600~3000	300~500	4~8	0.06~0.08	側銼 (SIDE MILLING)
IEA IEH 0604	50	50	2500~2900	400~600	0.04~0.06	5	溝銼 (SLOTTING)	
	0604	50	50	2500~2900	700~900	0.07~0.13	6	溝銼 (SLOTTING)
	0604	50	45	2200~2600	250~400	6~12	0.04~0.06	側銼 (SIDE MILLING)
	0604	50	45	2200~2600	400~600	6~12	0.07~0.13	側銼 (SIDE MILLING)
IEA IEH 0804	60	70	2600~3000	550~750	0.05~0.1	7	溝銼 (SLOTTING)	
	0804	60	70	2600~3000	700~900	0.1~0.2	8	溝銼 (SLOTTING)
	0804	60	50	1700~2100	300~450	8~16	0.05~0.1	側銼 (SIDE MILLING)
	0804	60	50	1700~2100	700~900	8	0.1~0.2	側銼 (SIDE MILLING)
IEA IEH 1004	60	80	2400~2800	450~650	0.05~0.1	9	溝銼 (SLOTTING)	
	1004	60	70	2200~2600	600~800	0.15~0.25	10	溝銼 (SLOTTING)
	1004	60	55	1600~2000	300~500	10	0.05~0.1	側銼 (SIDE MILLING)
	1004	60	55	1600~2000	500~700	10	0.15~0.25	側銼 (SIDE MILLING)
IEA IEH 1204	60	85	2100~2500	600~800	0.05~0.12	11	溝銼 (SLOTTING)	
	1204	60	85	2100~2500	600~800	0.2~0.3	12	溝銼 (SLOTTING)
	1204	60	60	1400~1800	250~450	12~24	0.05~0.12	側銼 (SIDE MILLING)
	1204	60	60	1400~1800	500~700	12~24	0.2~0.3	側銼 (SIDE MILLING)

HEA IEA^{4T} / HEH IEH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

HEA IEA ^{4T} 冷卻方式 Coolant Type		乾式切削 Dry coolant		HEH IEH ^{4T} 冷卻方式 Coolant Type		濕式切削 Wet coolant	
型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
HEA HEH 0304	15	105	11000~12000	1100~1300	0.04~0.08	2.5	溝銼 (SLOTTING)
0304	15	80	8000~9000	700~1000	0.1~0.2	3	溝銼 (SLOTTING)
0304	15	95	9500~10500	800~1100	3~6	0.04~0.08	側銼 (SIDE MILLING)
0304	15	80	8000~9000	700~1000	3	0.1~0.2	側銼 (SIDE MILLING)
0304	30	40	4000~4500	500~700	0.02~0.04	2	溝銼 (SLOTTING)
0304	30	35	3500~4000	700~900	0.05~0.08	3	溝銼 (SLOTTING)
0304	30	35	3500~4000	250~450	3~6	0.02~0.04	側銼 (SIDE MILLING)
0304	30	35	3500~4000	400~500	3	0.05~0.08	側銼 (SIDE MILLING)
HEA HEH 0404	16	100	7500~8500	1000~1200	0.03~0.06	3~4	溝銼 (SLOTTING)
0404	16	100	7500~8500	700~900	0.2~0.3	4	溝銼 (SLOTTING)
0404	16	100	7500~8500	600~800	4~8	0.03~0.06	側銼 (SIDE MILLING)
0404	16	100	7500~8500	700~900	4~8	0.2~0.3	側銼 (SIDE MILLING)
0404	40	35	2800~3300	300~500	0.03~0.05	3	溝銼 (SLOTTING)
0404	40	35	2800~3300	400~600	0.06~0.1	4	溝銼 (SLOTTING)
0404	40	30	2500~2800	200~400	4~8	0.03~0.05	側銼 (SIDE MILLING)
0404	40	30	2500~2800	300~500	4	0.06~0.1	側銼 (SIDE MILLING)
HEA HEH 0504	19	110	6500~7500	1000~1200	0.04~0.07	4~5	溝銼 (SLOTTING)
0504	19	110	6500~7500	700~900	0.3~0.4	5	溝銼 (SLOTTING)
0504	19	110	6500~7500	600~800	5~10	0.04~0.07	側銼 (SIDE MILLING)
0504	19	110	6500~7500	700~900	5~10	0.3~0.4	側銼 (SIDE MILLING)
0504	35	80	5000~5500	500~700	0.04~0.06	4	溝銼 (SLOTTING)
0504	35	60	3500~4000	700~900	0.07~0.13	5	溝銼 (SLOTTING)
0504	35	50	3000~3500	250~450	5~10	0.04~0.06	側銼 (SIDE MILLING)
0504	35	55	3300~3700	400~600	5	0.07~0.13	側銼 (SIDE MILLING)
HEA HEH 0604	21	100	5000~5500	1000~1200	0.05~0.1	5~6	溝銼 (SLOTTING)
0604	21	100	5000~5500	700~900	0.4~0.5	6	溝銼 (SLOTTING)
0604	21	100	5000~5500	600~800	6~12	0.05~0.1	側銼 (SIDE MILLING)
0604	21	100	5000~5500	700~900	6~12	0.4~0.5	側銼 (SIDE MILLING)
0604	35	90	4500~5000	800~1000	0.05~0.08	5	溝銼 (SLOTTING)
0604	35	70	3500~4000	1100~1300	0.1~0.2	6	溝銼 (SLOTTING)
0604	35	65	3200~3600	450~650	6~12	0.05~0.08	側銼 (SIDE MILLING)
0604	35	65	3200~3600	500~700	6	0.1~0.2	側銼 (SIDE MILLING)
HEA HEH 0804	27	120	4500~5000	1000~1200	0.05~0.1	7~8	溝銼 (SLOTTING)
0804	27	105	4000~4500	500~700	0.5~0.6	8	溝銼 (SLOTTING)
0804	27	105	4000~4500	600~800	8~16	0.05~0.1	側銼 (SIDE MILLING)
0804	27	105	4000~4500	500~700	8~16	0.5~0.6	側銼 (SIDE MILLING)
0804	42	60	2200~2600	600~800	0.05~0.1	7	溝銼 (SLOTTING)
0804	42	50	1800~2300	600~800	0.2~0.3	8	溝銼 (SLOTTING)
0804	42	50	1800~2300	400~600	8~16	0.05~0.1	側銼 (SIDE MILLING)
0804	42	50	1800~2300	500~700	8	0.2~0.3	側銼 (SIDE MILLING)

HEA IEA^{4T} / HEH IEH^{4T}

切削條件表

Milling Conditions

調質鋼 / 預硬鋼 : Prehardened Steels

NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

被切削材 Work Material

 HEA IEA^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

 HEH IEH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
IEA IEH 0404	50	35	2800~3200	300~500	0.03~0.05	3	溝銼 (SLOTTING)
0404	50	35	2800~3200	400~600	0.06~0.08	4	溝銼 (SLOTTING)
0404	50	30	2600~3000	200~400	4~8	0.03~0.05	側銼 (SIDE MILLING)
0404	50	30	2600~3000	300~400	4~8	0.06~0.08	側銼 (SIDE MILLING)
IEA IEH 0604	50	45	2300~2700	400~600	0.04~0.06	5	溝銼 (SLOTTING)
0604	50	45	2300~2700	600~800	0.07~0.13	6	溝銼 (SLOTTING)
0604	50	40	2000~2400	250~400	6~12	0.04~0.06	側銼 (SIDE MILLING)
0604	50	40	2000~2400	300~500	6~12	0.07~0.13	側銼 (SIDE MILLING)
IEA IEH 0804	60	60	1800~2200	550~750	0.05~0.1	7	溝銼 (SLOTTING)
0804	60	60	1800~2200	600~800	0.1~0.2	8	溝銼 (SLOTTING)
0804	60	50	1700~2100	300~450	8~16	0.05~0.1	側銼 (SIDE MILLING)
0804	60	50	1700~2100	700~800	8	0.1~0.2	側銼 (SIDE MILLING)
IEA IEH 1004	60	70	2200~2600	450~650	0.05~0.1	9	溝銼 (SLOTTING)
1004	60	70	2200~2600	500~700	0.1~0.2	10	溝銼 (SLOTTING)
1004	60	50	1400~1800	300~500	10~20	0.05~0.1	側銼 (SIDE MILLING)
1004	60	50	1400~1800	450~650	10~20	0.1~0.2	側銼 (SIDE MILLING)
IEA IEH 1204	60	80	1900~2300	600~800	0.05~0.1	11	溝銼 (SLOTTING)
1204	60	75	1800~2200	500~700	0.1~0.2	12	溝銼 (SLOTTING)
1204	60	60	1400~1800	250~450	12~24	0.05~0.1	側銼 (SIDE MILLING)
1204	60	60	1400~1800	500~600	12~24	0.1~0.2	側銼 (SIDE MILLING)

LFTA^{2T} / LFTH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

LFTA^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

LFTH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LFTA LFTH 0202	20	50	7700~8200	500~700	6~12	0.02~0.03	側銑 (SIDE MILLING)
0202	20	50	7700~8200	500~700	6~12	0.05~0.08	側銑 (SIDE MILLING)
LFTA LFTH 0302	25	50	5000~5500	500~700	10~20	0.03~0.04	側銑 (SIDE MILLING)
0302	25	50	5000~5500	600~800	10~20	0.06~0.1	側銑 (SIDE MILLING)
LFTA 0302B	20	50	5000~5500	500~700	10~15	0.03~0.05	側銑 (SIDE MILLING)
0302B	20	50	5000~5500	700~900	10~15	0.06~0.1	側銑 (SIDE MILLING)
LFTA LFTH 0402	30	50	3700~4200	350~550	15~25	0.03~0.05	側銑 (SIDE MILLING)
0402	30	50	3700~4200	600~800	15~25	0.06~0.11	側銑 (SIDE MILLING)
LFTA 0402B	26	50	3700~4200	400~600	10~20	0.05~0.05	側銑 (SIDE MILLING)
0402B	26	50	3700~4200	700~900	10~20	0.06~0.11	側銑 (SIDE MILLING)
LFTA LFTH 0502	35	45	2700~3200	300~500	20~30	0.05~0.07	側銑 (SIDE MILLING)
0502	35	45	2700~3200	400~600	20~30	0.08~0.15	側銑 (SIDE MILLING)
LFTA LFTH 0602	35	45	2000~2500	300~500	20~30	0.05~0.08	側銑 (SIDE MILLING)
0602	35	45	2000~2500	400~600	20~30	0.1~0.2	側銑 (SIDE MILLING)
LFTA LFTH 0802	50	50	1800~2300	300~500	25~40	0.05~0.1	側銑 (SIDE MILLING)
0802	50	50	1800~2300	400~600	25~40	0.15~0.3	側銑 (SIDE MILLING)
LFTA LFTH 1002	50	60	1700~2200	300~450	25~40	0.05~0.1	側銑 (SIDE MILLING)
1002	50	60	1700~2200	400~600	25~40	0.2~0.35	側銑 (SIDE MILLING)
LFTA LFTH 1202	50	60	1300~1800	250~400	30~45	0.05~0.1	側銑 (SIDE MILLING)
1202	50	60	1300~1800	350~550	30~45	0.2~0.4	側銑 (SIDE MILLING)

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels

P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRc23~32)

LFTA^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

LFTH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LFTA LFTH 0202	20	50	7700~8200	400~600	5~15	0.02~0.03	側銑 (SIDE MILLING)
0202	20	50	7700~8200	400~600	5~15	0.04~0.06	側銑 (SIDE MILLING)
LFTA LFTH 0302	25	50	5000~5500	450~650	10~20	0.03~0.04	側銑 (SIDE MILLING)
0302	25	50	5000~5500	300~500	10~20	0.06~0.1	側銑 (SIDE MILLING)
LFTA 0302B	20	50	5000~5500	450~650	10~15	0.03~0.05	側銑 (SIDE MILLING)
0302B	20	50	5000~5500	450~650	10~15	0.06~0.1	側銑 (SIDE MILLING)
LFTA LFTH 0402	30	50	3700~4200	350~550	15~25	0.03~0.05	側銑 (SIDE MILLING)
0402	30	50	3700~4200	500~700	15~25	0.06~0.11	側銑 (SIDE MILLING)
LFTA 0402B	26	50	3700~4200	400~600	10~20	0.05~0.05	側銑 (SIDE MILLING)
0402B	26	50	3700~4200	600~800	10~20	0.06~0.11	側銑 (SIDE MILLING)
LFTA LFTH 0502	35	45	2700~3200	300~500	20~30	0.05~0.07	側銑 (SIDE MILLING)
0502	35	45	2700~3200	400~500	20~30	0.08~0.15	側銑 (SIDE MILLING)

LFTA^{2T} / LFTH^{2T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

LFTA^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

LFTH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LFTA LFTH 0602	35	45	2000~2500	300~450	20~30	0.05~0.08	側銑 (SIDE MILLING)
0602	35	45	2000~2500	400~600	20~30	0.1~0.2	側銑 (SIDE MILLING)
LFTA LFTH 0802	50	50	1800~2300	300~400	25~40	0.05~0.1	側銑 (SIDE MILLING)
0802	50	50	1800~2300	400~600	25~40	0.15~0.25	側銑 (SIDE MILLING)
LFTA LFTH 1002	50	60	1700~2200	300~450	25~40	0.05~0.1	側銑 (SIDE MILLING)
1002	50	60	1700~2200	400~600	25~40	0.2~0.3	側銑 (SIDE MILLING)
LFTA LFTH 1202	50	60	1300~1800	250~400	30~45	0.05~0.1	側銑 (SIDE MILLING)
1202	50	60	1300~1800	300~500	30~45	0.2~0.35	側銑 (SIDE MILLING)

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

LFTA^{2T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

LFTH^{2T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LFTA LFTH 0202	20	50	7700~8200	400~550	5~15	0.02~0.03	側銑 (SIDE MILLING)
0202	20	50	7700~8200	400~550	5~15	0.04~0.06	側銑 (SIDE MILLING)
LFTA LFTH 0302	25	50	5000~5500	450~600	10~20	0.03~0.04	側銑 (SIDE MILLING)
0302	25	50	5000~5500	300~450	10~20	0.06~0.1	側銑 (SIDE MILLING)
LFTA 0302B	20	50	5000~5500	400~600	10~15	0.03~0.05	側銑 (SIDE MILLING)
0302B	20	50	5000~5500	400~600	10~15	0.06~0.1	側銑 (SIDE MILLING)
LFTA LFTH 0402	30	50	3700~4200	350~550	15~25	0.03~0.05	側銑 (SIDE MILLING)
0402	30	50	3700~4200	450~650	15~25	0.06~0.11	側銑 (SIDE MILLING)
LFTA 0402B	26	50	3700~4200	400~600	10~20	0.05~0.05	側銑 (SIDE MILLING)
0402B	26	50	3700~4200	550~750	10~20	0.06~0.11	側銑 (SIDE MILLING)
LFTA LFTH 0502	35	45	2700~3200	300~450	20~30	0.05~0.07	側銑 (SIDE MILLING)
0502	35	45	2700~3200	350~450	20~30	0.08~0.15	側銑 (SIDE MILLING)
LFTA LFTH 0602	35	45	2000~2500	300~450	20~30	0.05~0.08	側銑 (SIDE MILLING)
0602	35	45	2000~2500	400~550	20~30	0.1~0.2	側銑 (SIDE MILLING)
LFTA LFTH 0802	50	50	1800~2300	300~400	25~40	0.05~0.1	側銑 (SIDE MILLING)
0802	50	50	1800~2300	400~550	25~40	0.15~0.25	側銑 (SIDE MILLING)
LFTA LFTH 1002	50	60	1700~2200	300~450	25~40	0.05~0.1	側銑 (SIDE MILLING)
1002	50	60	1700~2200	400~550	25~40	0.2~0.3	側銑 (SIDE MILLING)
LFTA LFTH 1202	50	60	1300~1800	250~400	30~45	0.05~0.1	側銑 (SIDE MILLING)
1202	50	60	1300~1800	300~450	30~45	0.2~0.35	側銑 (SIDE MILLING)

LFTA^{4T} / LFTH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

LFTA^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

LFTH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LFTA LFTH 0204	20	65	10000~11000	700~900	5~15	0.03~0.04	側銑 (SIDE MILLING)
0204	20	65	10000~11000	600~800	5~15	0.05~0.08	側銑 (SIDE MILLING)
LFTA LFTH 0304	25	65	6800~7300	600~800	10~20	0.03~0.05	側銑 (SIDE MILLING)
0304	25	65	6800~7300	600~800	10~20	0.06~0.1	側銑 (SIDE MILLING)
LFTA 0304B	25	65	6800~7300	600~800	10~15	0.03~0.05	側銑 (SIDE MILLING)
0304B	25	65	6800~7300	700~900	10~15	0.06~0.12	側銑 (SIDE MILLING)
LFTA LFTH 0404	30	65	5100~5400	500~700	15~25	0.04~0.06	側銑 (SIDE MILLING)
0404	30	65	5100~5400	600~800	15~25	0.07~0.13	側銑 (SIDE MILLING)
LFTA 0404B	30	65	5100~5400	500~700	10~20	0.04~0.06	側銑 (SIDE MILLING)
0404B	30	65	5100~5400	700~900	10~20	0.07~0.13	側銑 (SIDE MILLING)
LFTA LFTH 0504	33	65	4000~4300	500~700	20~30	0.04~0.07	側銑 (SIDE MILLING)
0504	33	65	4000~4300	700~900	20~30	0.15~0.25	側銑 (SIDE MILLING)
LFTA LFTH 0604	33	65	3100~3400	400~600	20~30	0.04~0.08	側銑 (SIDE MILLING)
0604	33	65	3100~3400	700~900	20~30	0.2~0.3	側銑 (SIDE MILLING)
LFTA LFTH 0804	45	60	2300~2500	300~500	25~40	0.05~0.1	側銑 (SIDE MILLING)
0804	45	60	2300~2500	700~900	25~40	0.3~0.4	側銑 (SIDE MILLING)
LFTA LFTH 1004	47	80	2400~2700	300~500	25~40	0.05~0.1	側銑 (SIDE MILLING)
1004	47	80	2400~2700	700~900	25~40	0.3~0.5	側銑 (SIDE MILLING)
LFTA 1004L	55	80	2400~2700	300~500	25~50	0.05~0.1	側銑 (SIDE MILLING)
1004L	55	80	2400~2700	600~800	25~50	0.3~0.5	側銑 (SIDE MILLING)
LFTA LFTH 1204	50	90	2300~2600	300~500	30~45	0.05~0.12	側銑 (SIDE MILLING)
1204	50	85	2200~2400	600~800	30~45	0.3~0.5	側銑 (SIDE MILLING)
LFTA 1204L	50	90	2300~2600	300~500	30~50	0.05~0.12	側銑 (SIDE MILLING)
1204L	50	85	2200~2400	500~700	30~50	0.3~0.5	側銑 (SIDE MILLING)
LFTA LFTH 1604	75	85	1600~1800	300~450	40~60	0.05~0.12	側銑 (SIDE MILLING)
1604	75	85	1600~1800	500~700	40~60	0.4~0.6	側銑 (SIDE MILLING)
LFTA 1604L	85	85	1600~1800	250~400	40~60	0.05~0.12	側銑 (SIDE MILLING)
1604L	85	85	1600~1800	500~700	40~60	0.4~0.6	側銑 (SIDE MILLING)
LFTA LFTH 2004	70	85	1400~1600	250~400	40~60	0.05~0.12	側銑 (SIDE MILLING)
2004	70	85	1250~1500	500~700	40~60	0.4~0.6	側銑 (SIDE MILLING)
LFTA 2004L	85	85	1400~1600	200~350	40~60	0.05~0.12	側銑 (SIDE MILLING)
2004L	85	85	1250~1500	400~600	40~60	0.4~0.6	側銑 (SIDE MILLING)

LFTA^{4T} / LFTH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

LFTA^{4T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

LFTH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LFTA LFTH 0204	20	60	9500~10000	700~900	5~15	0.03~0.04	側銑 (SIDE MILLING)
0204	20	60	9500~10000	500~700	5~15	0.05~0.08	側銑 (SIDE MILLING)
LFTA LFTH 0304	25	60	6300~6600	600~800	10~20	0.03~0.05	側銑 (SIDE MILLING)
0304	25	60	6300~6600	500~700	10~20	0.06~0.1	側銑 (SIDE MILLING)
LFTA 0304B	25	60	6300~6600	600~800	10~15	0.03~0.05	側銑 (SIDE MILLING)
0304B	25	60	6300~6600	500~700	10~15	0.06~0.12	側銑 (SIDE MILLING)
LFTA LFTH 0404	30	60	4700~5100	400~600	15~25	0.04~0.06	側銑 (SIDE MILLING)
0404	30	60	4700~5100	500~700	15~25	0.07~0.13	側銑 (SIDE MILLING)
LFTA 0404B	30	60	4700~5100	400~600	10~20	0.04~0.06	側銑 (SIDE MILLING)
0404B	30	60	4700~5100	600~800	10~20	0.07~0.13	側銑 (SIDE MILLING)
LFTA LFTH 0504	33	60	3700~4000	400~600	20~30	0.04~0.07	側銑 (SIDE MILLING)
0504	33	60	3700~4000	600~800	20~30	0.15~0.25	側銑 (SIDE MILLING)
LFTA LFTH 0604	33	55	2800~3100	300~500	20~30	0.04~0.08	側銑 (SIDE MILLING)
0604	33	60	3000~3300	600~800	20~30	0.2~0.3	側銑 (SIDE MILLING)
LFTA LFTH 0804	45	50	1700~2000	300~400	25~40	0.05~0.1	側銑 (SIDE MILLING)
0804	45	60	2300~2500	600~800	25~40	0.3~0.4	側銑 (SIDE MILLING)
LFTA LFTH 1004	47	80	2400~2700	300~500	25~40	0.05~0.1	側銑 (SIDE MILLING)
1004	47	75	2200~2400	600~800	25~40	0.3~0.5	側銑 (SIDE MILLING)
LFTA 1004L	55	80	2400~2700	300~500	25~50	0.05~0.1	側銑 (SIDE MILLING)
1004L	55	75	2200~2400	500~700	25~50	0.3~0.5	側銑 (SIDE MILLING)
LFTA LFTH 1204	50	90	2300~2600	300~500	30~45	0.05~0.12	側銑 (SIDE MILLING)
1204	50	85	2200~2400	500~700	30~45	0.3~0.5	側銑 (SIDE MILLING)
LFTA 1204L	50	90	2300~2600	300~500	30~50	0.05~0.12	側銑 (SIDE MILLING)
1204L	50	85	2200~2400	400~600	30~50	0.3~0.5	側銑 (SIDE MILLING)
LFTA LFTH 1604	75	85	1600~1800	300~450	40~60	0.05~0.12	側銑 (SIDE MILLING)
1604	75	85	1600~1800	400~600	40~60	0.4~0.6	側銑 (SIDE MILLING)
LFTA 1604L	85	85	1600~1800	250~400	40~60	0.05~0.12	側銑 (SIDE MILLING)
1604L	85	85	1600~1800	400~600	40~60	0.4~0.6	側銑 (SIDE MILLING)
LFTA LFTH 2004	70	85	1400~1600	250~400	40~60	0.05~0.12	側銑 (SIDE MILLING)
2004	70	85	1250~1500	400~600	40~60	0.4~0.6	側銑 (SIDE MILLING)
LFTA 2004L	85	85	1400~1600	200~350	40~60	0.05~0.12	側銑 (SIDE MILLING)
2004L	85	85	1250~1500	400~600	40~60	0.4~0.6	側銑 (SIDE MILLING)

LFTA^{4T} / LFTH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

LFTA ^{4T} 冷卻方式 Coolant Type		乾式切削 Dry coolant			LFTH ^{4T} 冷卻方式 Coolant Type		濕式切削 Wet coolant	
型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type	
LFTA LFTH 0204	20	60	9500~10000	600~800	5~15	0.03~0.04	側銑 (SIDE MILLING)	
0204	20	60	9500~10000	500~600	5~15	0.05~0.08	側銑 (SIDE MILLING)	
LFTA LFTH 0304	25	60	6300~6600	400~600	10~20	0.03~0.05	側銑 (SIDE MILLING)	
0304	25	60	6300~6600	500~600	10~20	0.06~0.1	側銑 (SIDE MILLING)	
LFTA 0304B	25	60	6300~6600	500~700	10~15	0.03~0.05	側銑 (SIDE MILLING)	
0304B	25	60	6300~6600	500~600	10~15	0.06~0.12	側銑 (SIDE MILLING)	
LFTA LFTH 0404	30	60	4700~5100	300~500	15~25	0.04~0.06	側銑 (SIDE MILLING)	
0404	30	60	4700~5100	500~600	15~25	0.07~0.13	側銑 (SIDE MILLING)	
LFTA 0404B	30	60	4700~5100	400~600	10~20	0.04~0.06	側銑 (SIDE MILLING)	
0404B	30	60	4700~5100	600~700	10~20	0.07~0.13	側銑 (SIDE MILLING)	
LFTA LFTH 0504	33	60	3700~4000	300~500	20~30	0.04~0.07	側銑 (SIDE MILLING)	
0504	33	60	3700~4000	600~700	20~30	0.15~0.25	側銑 (SIDE MILLING)	
LFTA LFTH 0604	33	50	2400~2700	350~450	20~30	0.04~0.08	側銑 (SIDE MILLING)	
0604	33	60	3000~3300	600~700	20~30	0.2~0.3	側銑 (SIDE MILLING)	
LFTA LFTH 0804	45	50	1700~2000	300~400	25~40	0.05~0.1	側銑 (SIDE MILLING)	
0804	45	60	2300~2500	600~700	25~40	0.3~0.4	側銑 (SIDE MILLING)	
LFTA LFTH 1004	47	80	2400~2700	300~500	25~40	0.05~0.1	側銑 (SIDE MILLING)	
1004	47	80	2400~2700	600~700	25~40	0.3~0.5	側銑 (SIDE MILLING)	
LFTA 1004L	55	80	2400~2700	300~500	25~50	0.05~0.1	側銑 (SIDE MILLING)	
1004L	55	80	2400~2700	500~600	25~50	0.3~0.4	側銑 (SIDE MILLING)	
LFTA LFTH 1204	50	90	2300~2600	300~500	30~45	0.05~0.12	側銑 (SIDE MILLING)	
1204	50	90	2300~2600	500~600	30~45	0.3~0.5	側銑 (SIDE MILLING)	
LFTA 1204L	50	90	2300~2600	300~500	30~50	0.05~0.12	側銑 (SIDE MILLING)	
1204L	50	90	2300~2600	400~500	30~50	0.3~0.4	側銑 (SIDE MILLING)	
LFTA LFTH 1604	75	85	1600~1800	300~450	40~60	0.05~0.12	側銑 (SIDE MILLING)	
1604	75	85	1600~1800	400~500	40~60	0.4~0.6	側銑 (SIDE MILLING)	
LFTA 1604L	85	85	1600~1800	250~400	40~60	0.05~0.12	側銑 (SIDE MILLING)	
1604L	85	85	1600~1800	400~500	40~60	0.4~0.5	側銑 (SIDE MILLING)	
LFTA LFTH 2004	70	85	1400~1600	250~400	40~60	0.05~0.12	側銑 (SIDE MILLING)	
2004	70	85	1250~1500	400~500	40~60	0.4~0.6	側銑 (SIDE MILLING)	
LFTA 2004L	85	85	1400~1600	200~350	40~60	0.05~0.12	側銑 (SIDE MILLING)	
2004L	85	85	1250~1500	400~500	40~60	0.4~0.6	側銑 (SIDE MILLING)	

LFTA^{4T} / LFTH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

沃斯田鐵系不銹鋼 : Stainless Steels
SUS304 : 1.4301 : AISI 304 (HRC28~32)

LFTA^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

LFTH^{4T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LFTA LFTH 0204	20	60	9500~10000	600~800	5~15	0.03~0.04	側銑 (SIDE MILLING)
0204	20	60	9500~10000	500~600	5~15	0.05~0.08	側銑 (SIDE MILLING)
LFTA LFTH 0304	25	60	6300~6600	400~600	10~20	0.03~0.05	側銑 (SIDE MILLING)
0304	25	60	6300~6600	500~600	10~20	0.06~0.1	側銑 (SIDE MILLING)
LFTA 0304B	25	60	6300~6600	500~700	10~15	0.03~0.05	側銑 (SIDE MILLING)
0304B	25	60	6300~6600	500~600	10~15	0.06~0.12	側銑 (SIDE MILLING)
LFTA LFTH 0404	30	60	4700~5100	300~500	15~25	0.04~0.06	側銑 (SIDE MILLING)
0404	30	60	4700~5100	500~600	15~25	0.07~0.13	側銑 (SIDE MILLING)
LFTA 0404B	30	60	4700~5100	400~600	10~20	0.04~0.06	側銑 (SIDE MILLING)
0404B	30	60	4700~5100	600~700	10~20	0.07~0.13	側銑 (SIDE MILLING)
LFTA LFTH 0504	33	60	3700~4000	300~500	20~30	0.04~0.07	側銑 (SIDE MILLING)
0504	33	60	3700~4000	600~700	20~30	0.15~0.25	側銑 (SIDE MILLING)
LFTA LFTH 0604	33	50	2400~2700	350~450	20~30	0.04~0.08	側銑 (SIDE MILLING)
0604	33	60	3000~3300	600~700	20~30	0.2~0.3	側銑 (SIDE MILLING)
LFTA LFTH 0804	45	50	1700~2000	300~400	25~40	0.05~0.1	側銑 (SIDE MILLING)
0804	45	60	2300~2500	600~700	25~40	0.3~0.4	側銑 (SIDE MILLING)
LFTA LFTH 1004	47	80	2400~2700	300~500	25~40	0.05~0.1	側銑 (SIDE MILLING)
1004	47	80	2400~2700	600~700	25~40	0.3~0.5	側銑 (SIDE MILLING)
LFTA 1004L	55	80	2400~2700	300~500	25~50	0.05~0.1	側銑 (SIDE MILLING)
1004L	55	80	2400~2700	500~600	25~50	0.3~0.4	側銑 (SIDE MILLING)
LFTA LFTH 1204	50	90	2300~2600	300~500	30~45	0.05~0.12	側銑 (SIDE MILLING)
1204	50	90	2300~2600	500~600	30~45	0.3~0.5	側銑 (SIDE MILLING)
LFTA 1204L	50	90	2300~2600	300~500	30~50	0.05~0.12	側銑 (SIDE MILLING)
1204L	50	90	2300~2600	400~500	30~50	0.3~0.4	側銑 (SIDE MILLING)
LFTA LFTH 1604	75	85	1600~1800	300~450	40~60	0.05~0.12	側銑 (SIDE MILLING)
1604	75	85	1600~1800	400~500	40~60	0.4~0.6	側銑 (SIDE MILLING)
LFTA 1604L	85	85	1600~1800	250~400	40~60	0.05~0.12	側銑 (SIDE MILLING)
1604L	85	85	1600~1800	400~500	40~60	0.4~0.5	側銑 (SIDE MILLING)
LFTA LFTH 2004	70	85	1400~1600	250~400	40~60	0.05~0.12	側銑 (SIDE MILLING)
2004	70	85	1250~1500	400~500	40~60	0.4~0.6	側銑 (SIDE MILLING)
LFTA 2004L	85	85	1400~1600	200~350	40~60	0.05~0.12	側銑 (SIDE MILLING)
2004L	85	85	1250~1500	400~500	40~60	0.4~0.6	側銑 (SIDE MILLING)

LFTA^{4T} / LFTH^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

紅銅 : Copper
C1100 / 2.0090 / B152C11000

LFTA ^{4T} 冷卻方式 Coolant Type		濕式切削 Wet coolant		LFTH ^{4T} 冷卻方式 Coolant Type		濕式切削 Wet coolant	
型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LFTA LFTH 0204	20	110	17000~18000	1300~1600	5~15	0.04~0.06	側銑 (SIDE MILLING)
0204	20	110	17000~18000	1200~1600	5~15	0.07~0.1	側銑 (SIDE MILLING)
LFTA LFTH 0304	25	120	12000~13000	1000~1300	10~20	0.05~0.08	側銑 (SIDE MILLING)
0304	25	120	12000~13000	1200~1600	10~20	0.1~0.15	側銑 (SIDE MILLING)
LFTA 0304B	25	120	12000~13000	1000~1300	10~15	0.05~0.08	側銑 (SIDE MILLING)
0304B	25	120	12000~13000	1400~1800	10~15	0.1~0.15	側銑 (SIDE MILLING)
LFTA LFTH 0404	30	120	9500~10000	900~1200	15~25	0.05~0.08	側銑 (SIDE MILLING)
0404	30	120	9500~10000	1200~1600	15~25	0.1~0.2	側銑 (SIDE MILLING)
LFTA 0404B	30	120	9500~10000	900~1200	10~20	0.05~0.08	側銑 (SIDE MILLING)
0404B	30	120	9500~10000	1400~1800	10~20	0.1~0.2	側銑 (SIDE MILLING)
LFTA LFTH 0504	33	130	8200~8500	800~1000	20~30	0.05~0.1	側銑 (SIDE MILLING)
0504	33	130	8200~8500	1400~1800	20~30	0.2~0.3	側銑 (SIDE MILLING)
LFTA LFTH 0604	33	135	6800~7200	800~1000	20~30	0.05~0.1	側銑 (SIDE MILLING)
0604	33	135	6800~7200	1400~1800	20~30	0.2~0.35	側銑 (SIDE MILLING)
LFTA LFTH 0804	45	150	5800~6200	700~900	25~40	0.05~0.1	側銑 (SIDE MILLING)
0804	45	150	5800~6200	1400~1800	25~40	0.4~0.5	側銑 (SIDE MILLING)
LFTA LFTH 1004	47	180	5500~6000	700~900	25~40	0.05~0.1	側銑 (SIDE MILLING)
1004	47	195	6000~6500	1400~1800	25~40	0.6~0.7	側銑 (SIDE MILLING)
LFTA 1004L	55	180	5500~6000	500~700	25~50	0.05~0.1	側銑 (SIDE MILLING)
1004L	55	195	6000~6500	1000~1400	25~50	0.6~0.7	側銑 (SIDE MILLING)
LFTA LFTH 1204	50	180	4500~5000	600~800	30~45	0.05~0.12	側銑 (SIDE MILLING)
1204	50	185	4700~5200	1400~1800	30~45	0.7~0.8	側銑 (SIDE MILLING)
LFTA 1204L	50	180	4500~5000	600~800	30~50	0.05~0.12	側銑 (SIDE MILLING)
1204L	50	185	4700~5200	1000~1400	30~50	0.7~0.8	側銑 (SIDE MILLING)
LFTA LFTH 1604	75	180	3500~3800	500~700	40~60	0.05~0.12	側銑 (SIDE MILLING)
1604	75	180	3500~3800	1100~1400	40~60	0.8~0.9	側銑 (SIDE MILLING)
LFTA 1604L	85	160	2800~3300	400~600	40~60	0.05~0.12	側銑 (SIDE MILLING)
1604L	85	160	2800~3300	800~1100	40~60	0.8~0.9	側銑 (SIDE MILLING)
LFTA LFTH 2004	70	180	2700~3000	400~600	40~60	0.05~0.12	側銑 (SIDE MILLING)
2004	70	180	2700~3000	1100~1400	40~60	0.8~1	側銑 (SIDE MILLING)
LFTA 2004L	85	160	2300~2700	300~500	40~60	0.05~0.12	側銑 (SIDE MILLING)
2004L	85	160	2300~2700	700~900	40~60	0.8~1	側銑 (SIDE MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG0102	12	30	9000~10000	700~1100	0.05~0.1	1	溝銑 (SLOTTING)
RTG0102	12	30	9000~10000	500~800	0.2	1	溝銑 (SLOTTING)
RTG0102	12	30	9000~10000	700~1100	1~2	0.05~0.1	側銑 (SIDE MILLING)
RTG0102	12	30	9000~10000	500~800	1~2	0.2	側銑 (SIDE MILLING)
RTG0102	12	30	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0102	12	30	9000~10000	800~1200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0102	12	60	18000~20000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0102	12	60	18000~20000	1200~1600	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0152	12	45	9000~10000	700~1100	0.05~0.1	1.5	溝銑 (SLOTTING)
RTG0152	12	45	9000~10000	500~800	0.2	1.5	溝銑 (SLOTTING)
RTG0152	12	45	9000~10000	700~1100	1.5~3	0.05~0.1	側銑 (SIDE MILLING)
RTG0152	12	45	9000~10000	500~800	1.5~3	0.2	側銑 (SIDE MILLING)
RTG0152	12	45	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0152	12	45	9000~10000	800~1200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0152	12	90	18000~20000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0152	12	90	18000~20000	1200~1600	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0202	12	60	9000~9500	700~1100	0.05~0.1	2	溝銑 (SLOTTING)
RTG0202	12	60	9000~9500	700~1100	0.2	2	溝銑 (SLOTTING)
RTG0202	12	60	9000~9500	700~1100	2~4	0.05~0.1	側銑 (SIDE MILLING)
RTG0202	12	60	9000~9500	700~1100	2~4	0.2	側銑 (SIDE MILLING)
RTG0202	12	60	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0202	12	60	9000~10000	1000~1400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0202	12	105	16000~18000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0202	12	105	16000~18000	1400~1800	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0205	12	60	9000~9500	700~1100	0.05~0.1	2	溝銑 (SLOTTING)
RTG0205	12	60	9000~9500	700~1100	0.2	2	溝銑 (SLOTTING)
RTG0205	12	60	9000~9500	700~1100	2~4	0.05~0.1	側銑 (SIDE MILLING)
RTG0205	12	60	9000~9500	700~1100	2~4	0.2	側銑 (SIDE MILLING)
RTG0205	12	60	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0205	12	60	9000~10000	1000~1400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0205	12	105	16000~18000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0205	12	105	16000~18000	1400~1800	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0252	12	70	9000~9500	700~1100	0.05~0.1	2.5	溝銑 (SLOTTING)
RTG0252	12	70	9000~9500	700~1100	0.2	2.5	溝銑 (SLOTTING)
RTG0252	12	70	9000~9500	700~1100	2.5~5	0.05~0.1	側銑 (SIDE MILLING)
RTG0252	12	70	9000~9500	700~1100	2.5~5	0.2	側銑 (SIDE MILLING)
RTG0252	12	75	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0252	12	75	9000~10000	1000~1400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0252	12	135	16000~18000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0252	12	135	16000~18000	1400~1800	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG0255	12	70	9000~9500	700~1100	0.05~0.1	2.5	溝銼 (SLOTTING)
RTG0255	12	70	9000~9500	700~1100	0.2	2.5	溝銼 (SLOTTING)
RTG0255	12	70	9000~9500	700~1100	2.5~5	0.05~0.1	側銼 (SIDE MILLING)
RTG0255	12	70	9000~9500	700~1100	2.5~5	0.2	側銼 (SIDE MILLING)
RTG0255	12	75	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0255	12	75	9000~10000	1000~1400	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0255	12	135	16000~18000	1000~1400	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0255	12	135	16000~18000	1400~1800	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0302	12	80	8500~9000	800~1200	0.05~0.1	3	溝銼 (SLOTTING)
RTG0302	12	80	8500~9000	1000~1400	0.2	3	溝銼 (SLOTTING)
RTG0302	12	80	8500~9000	800~1200	3~6	0.05~0.1	側銼 (SIDE MILLING)
RTG0302	12	80	8500~9000	1000~1400	3~6	0.2	側銼 (SIDE MILLING)
RTG0302	12	90	9000~10000	800~1200	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0302	12	90	9000~10000	1000~1400	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0302	12	160	16000~18000	1000~1400	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0302	12	160	16000~18000	1400~1800	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0303	12	80	8500~9000	800~1200	0.05~0.1	3	溝銼 (SLOTTING)
RTG0303	12	80	8500~9000	1000~1400	0.2	3	溝銼 (SLOTTING)
RTG0303	12	80	8500~9000	800~1200	3~6	0.05~0.1	側銼 (SIDE MILLING)
RTG0303	12	80	8500~9000	1000~1400	3~6	0.2	側銼 (SIDE MILLING)
RTG0303	12	90	9000~10000	800~1200	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0303	12	90	9000~10000	1000~1400	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0303	12	160	16000~18000	1000~1400	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0303	12	160	16000~18000	1400~1800	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0305	12	80	8500~9000	800~1200	0.05~0.1	3	溝銼 (SLOTTING)
RTG0305	12	80	8500~9000	1000~1400	0.2	3	溝銼 (SLOTTING)
RTG0305	12	80	8500~9000	800~1200	3~6	0.05~0.1	側銼 (SIDE MILLING)
RTG0305	12	80	8500~9000	1000~1400	3~6	0.2	側銼 (SIDE MILLING)
RTG0305	12	90	9000~10000	800~1200	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0305	12	90	9000~10000	1000~1400	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0305	12	160	16000~18000	1000~1400	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0305	12	160	16000~18000	1400~1800	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0402	15	90	7000~7500	700~1100	0.05~0.1	4	溝銼 (SLOTTING)
RTG0402	15	90	7000~7500	800~1200	0.2~0.3	4	溝銼 (SLOTTING)
RTG0402	15	90	7000~7500	700~1000	4~8	0.05~0.1	側銼 (SIDE MILLING)
RTG0402	15	90	7000~7500	1000~1400	4~8	0.2~0.3	側銼 (SIDE MILLING)
RTG0402	15	120	9000~10000	1000~1400	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0402	15	120	9000~10000	1200~1600	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0402	15	180	14000~15000	1200~1600	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0402	15	180	14000~15000	1600~2000	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG0403	15	90	7000~7500	700~1100	0.05~0.1	4	溝銑 (SLOTTING)
RTG0403	15	90	7000~7500	800~1200	0.2~0.3	4	溝銑 (SLOTTING)
RTG0403	15	90	7000~7500	700~1000	4~8	0.05~0.1	側銑 (SIDE MILLING)
RTG0403	15	90	7000~7500	1000~1400	4~8	0.2~0.3	側銑 (SIDE MILLING)
RTG0403	15	120	9000~10000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0403	15	120	9000~10000	1200~1600	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0403	15	180	14000~15000	1200~1600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0403	15	180	14000~15000	1600~2000	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0405	15	90	7000~7500	700~1100	0.05~0.1	4	溝銑 (SLOTTING)
RTG0405	15	90	7000~7500	800~1200	0.2~0.3	4	溝銑 (SLOTTING)
RTG0405	15	90	7000~7500	700~1000	4~8	0.05~0.1	側銑 (SIDE MILLING)
RTG0405	15	90	7000~7500	1000~1400	4~8	0.2~0.3	側銑 (SIDE MILLING)
RTG0405	15	120	9000~10000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0405	15	120	9000~10000	1200~1600	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0405	15	180	14000~15000	1200~1600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0405	15	180	14000~15000	1600~2000	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0503	17	95	5700~6200	700~1100	0.05~0.1	5	溝銑 (SLOTTING)
RTG0503	17	95	5700~6200	800~1200	0.2~0.3	5	溝銑 (SLOTTING)
RTG0503	17	95	5700~6200	700~1000	5~10	0.05~0.1	側銑 (SIDE MILLING)
RTG0503	17	95	5700~6200	1000~1400	5~10	0.2~0.3	側銑 (SIDE MILLING)
RTG0503	17	150	9000~10000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0503	17	150	9000~10000	1200~1600	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0503	17	180	11000~12000	1200~1600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0503	17	180	11000~12000	1600~2000	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0505	17	95	5700~6200	700~1100	0.05~0.1	5	溝銑 (SLOTTING)
RTG0505	17	95	5700~6200	800~1200	0.2~0.3	5	溝銑 (SLOTTING)
RTG0505	17	95	5700~6200	700~1000	5~10	0.05~0.1	側銑 (SIDE MILLING)
RTG0505	17	95	5700~6200	1000~1400	5~10	0.2~0.3	側銑 (SIDE MILLING)
RTG0505	17	150	9000~10000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0505	17	150	9000~10000	1200~1600	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0505	17	180	11000~12000	1200~1600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0505	17	180	11000~12000	1600~2000	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0602	20	95	4700~5200	700~1100	0.05~0.1	6	溝銑 (SLOTTING)
RTG0602	20	95	4700~5200	800~1200	0.2~0.3	6	溝銑 (SLOTTING)
RTG0602	20	95	4700~5200	700~1000	6~12	0.05~0.1	側銑 (SIDE MILLING)
RTG0602	20	95	4700~5200	1000~1400	6~12	0.2~0.3	側銑 (SIDE MILLING)
RTG0602	20	180	9000~10000	1400~1800	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0602	20	180	9000~10000	1800~2200	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
 S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG0603	20	95	4700~5200	700~1100	0.05~0.1	6	溝銑 (SLOTTING)
RTG0603	20	95	4700~5200	800~1200	0.2~0.3	6	溝銑 (SLOTTING)
RTG0603	20	95	4700~5200	700~1000	6~12	0.05~0.1	側銑 (SIDE MILLING)
RTG0603	20	95	4700~5200	1000~1400	6~12	0.2~0.3	側銑 (SIDE MILLING)
RTG0603	20	180	9000~10000	1400~1800	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0603	20	180	9000~10000	1800~2200	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTG0605	20	95	4700~5200	700~1100	0.05~0.1	6	溝銑 (SLOTTING)
RTG0605	20	95	4700~5200	800~1200	0.2~0.3	6	溝銑 (SLOTTING)
RTG0605	20	95	4700~5200	700~1000	6~12	0.05~0.1	側銑 (SIDE MILLING)
RTG0605	20	95	4700~5200	1000~1400	6~12	0.2~0.3	側銑 (SIDE MILLING)
RTG0605	20	180	9000~10000	1400~1800	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0605	20	180	9000~10000	1800~2200	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTG0610	20	95	4700~5200	700~1100	0.05~0.1	6	溝銑 (SLOTTING)
RTG0610	20	95	4700~5200	800~1200	0.2~0.3	6	溝銑 (SLOTTING)
RTG0610	20	95	4700~5200	700~1000	6~12	0.05~0.1	側銑 (SIDE MILLING)
RTG0610	20	95	4700~5200	1000~1400	6~12	0.2~0.3	側銑 (SIDE MILLING)
RTG0610	20	180	9000~10000	1400~1800	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0610	20	180	9000~10000	1800~2200	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTG0803	30	100	3800~4300	700~1000	0.05~0.1	8	溝銑 (SLOTTING)
RTG0803	30	100	3800~4300	800~1200	0.25~0.35	8	溝銑 (SLOTTING)
RTG0803	30	100	3800~4300	700~1000	8~16	0.05~0.1	側銑 (SIDE MILLING)
RTG0803	30	100	3800~4300	1000~1400	8~16	0.25~0.35	側銑 (SIDE MILLING)
RTG0803	30	185	7200~7700	1600~2000	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0803	30	185	7200~7700	2000~2400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG0805	30	100	3800~4300	700~1000	0.05~0.1	8	溝銑 (SLOTTING)
RTG0805	30	100	3800~4300	800~1200	0.25~0.35	8	溝銑 (SLOTTING)
RTG0805	30	100	3800~4300	700~1000	8~16	0.05~0.1	側銑 (SIDE MILLING)
RTG0805	30	100	3800~4300	1000~1400	8~16	0.25~0.35	側銑 (SIDE MILLING)
RTG0805	30	185	7200~7700	1600~2000	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0805	30	185	7200~7700	2000~2400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1002	30	95	2800~3300	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTG1002	30	95	2800~3300	1000~1400	0.25~0.35	10	溝銑 (SLOTTING)
RTG1002	30	95	2800~3300	700~1000	10~20	0.05~0.1	側銑 (SIDE MILLING)
RTG1002	30	95	2800~3300	1200~1600	10~20	0.25~0.35	側銑 (SIDE MILLING)
RTG1002	30	190	5800~6300	1200~1600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1002	30	190	5800~6300	1800~2200	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG1003	30	95	2800~3300	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTG1003	30	95	2800~3300	1000~1400	0.25~0.35	10	溝銑 (SLOTTING)
RTG1003	30	95	2800~3300	700~1000	10~20	0.05~0.1	側銑 (SIDE MILLING)
RTG1003	30	95	2800~3300	1200~1600	10~20	0.25~0.35	側銑 (SIDE MILLING)
RTG1003	30	190	5800~6300	1200~1600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1003	30	190	5800~6300	1800~2200	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1005	30	95	2800~3300	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTG1005	30	95	2800~3300	1000~1400	0.25~0.35	10	溝銑 (SLOTTING)
RTG1005	30	95	2800~3300	700~1000	10~20	0.05~0.1	側銑 (SIDE MILLING)
RTG1005	30	95	2800~3300	1200~1600	10~20	0.25~0.35	側銑 (SIDE MILLING)
RTG1005	30	190	5800~6300	1200~1600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1005	30	190	5800~6300	1800~2200	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1010	30	95	2800~3300	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTG1010	30	95	2800~3300	1000~1400	0.25~0.35	10	溝銑 (SLOTTING)
RTG1010	30	95	2800~3300	700~1000	10~20	0.05~0.1	側銑 (SIDE MILLING)
RTG1010	30	95	2800~3300	1200~1600	10~20	0.25~0.35	側銑 (SIDE MILLING)
RTG1010	30	190	5800~6300	1200~1600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1010	30	190	5800~6300	1800~2200	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1203	35	90	2200~2700	700~1000	0.05~0.1	12	溝銑 (SLOTTING)
RTG1203	35	90	2200~2700	800~1200	0.25~0.35	12	溝銑 (SLOTTING)
RTG1203	35	90	2200~2700	700~1000	12~24	0.05~0.1	側銑 (SIDE MILLING)
RTG1203	35	90	2200~2700	1000~1400	12~24	0.25~0.35	側銑 (SIDE MILLING)
RTG1203	35	190	4800~5300	1200~1600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1203	35	190	4800~5300	1800~2200	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1205	35	90	2200~2700	700~1000	0.05~0.1	12	溝銑 (SLOTTING)
RTG1205	35	90	2200~2700	800~1200	0.25~0.35	12	溝銑 (SLOTTING)
RTG1205	35	90	2200~2700	700~1000	12~24	0.05~0.1	側銑 (SIDE MILLING)
RTG1205	35	90	2200~2700	1000~1400	12~24	0.25~0.35	側銑 (SIDE MILLING)
RTG1205	35	190	4800~5300	1200~1600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1205	35	190	4800~5300	1800~2200	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1210	35	90	2200~2700	700~1000	0.05~0.1	12	溝銑 (SLOTTING)
RTG1210	35	90	2200~2700	800~1200	0.25~0.35	12	溝銑 (SLOTTING)
RTG1210	35	90	2200~2700	700~1000	12~24	0.05~0.1	側銑 (SIDE MILLING)
RTG1210	35	90	2200~2700	1000~1400	12~24	0.25~0.35	側銑 (SIDE MILLING)
RTG1210	35	190	4800~5300	1200~1600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1210	35	190	4800~5300	1800~2200	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG1215	35	90	2200~2700	700~1000	0.05~0.1	12	溝銑 (SLOTTING)
RTG1215	35	90	2200~2700	800~1200	0.25~0.35	12	溝銑 (SLOTTING)
RTG1215	35	90	2200~2700	700~1000	12~24	0.05~0.1	側銑 (SIDE MILLING)
RTG1215	35	90	2200~2700	1000~1400	12~24	0.25~0.35	側銑 (SIDE MILLING)
RTG1215	35	190	4800~5300	1200~1600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1215	35	190	4800~5300	1800~2200	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1220	35	90	2200~2700	700~1000	0.05~0.1	12	溝銑 (SLOTTING)
RTG1220	35	90	2200~2700	800~1200	0.25~0.35	12	溝銑 (SLOTTING)
RTG1220	35	90	2200~2700	700~1000	12~24	0.05~0.1	側銑 (SIDE MILLING)
RTG1220	35	90	2200~2700	1000~1400	12~24	0.25~0.35	側銑 (SIDE MILLING)
RTG1220	35	190	4800~5300	1200~1600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1220	35	190	4800~5300	1800~2200	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)

被切削材 Work Material

鉻鉬合金鋼 : Chromium Molybdenum Alloy Steels
SCM440 : 1.7225 : 4140 : 42CrMoA (HRC25~28)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG0102	12	30	9000~10000	700~1100	0.05~0.1	1	溝銑 (SLOTTING)
RTG0102	12	30	9000~10000	500~800	0.2	1	溝銑 (SLOTTING)
RTG0102	12	30	9000~10000	700~1100	1~2	0.05~0.1	側銑 (SIDE MILLING)
RTG0102	12	30	9000~10000	500~800	1~2	0.2	側銑 (SIDE MILLING)
RTG0102	12	30	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0102	12	30	9000~10000	800~1200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0102	12	60	18000~20000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0102	12	60	18000~20000	1200~1600	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0152	12	45	9000~10000	700~1100	0.05~0.1	1.5	溝銑 (SLOTTING)
RTG0152	12	45	9000~10000	500~800	0.2	1.5	溝銑 (SLOTTING)
RTG0152	12	45	9000~10000	700~1100	1.5~3	0.05~0.1	側銑 (SIDE MILLING)
RTG0152	12	45	9000~10000	500~800	1.5~3	0.2	側銑 (SIDE MILLING)
RTG0152	12	45	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0152	12	45	9000~10000	800~1200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0152	12	90	18000~20000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0152	12	90	18000~20000	1200~1600	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

鉻鉬合金鋼 : Chromium Molybdenum Alloy Steels
SCM440 : 1.7225 : 4140 : 42CrMoA (HRC25~28)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG0202	12	60	9000~9500	700~1100	0.05~0.1	2	溝銑 (SLOTTING)
RTG0202	12	60	9000~9500	700~1100	0.2	2	溝銑 (SLOTTING)
RTG0202	12	60	9000~9500	700~1100	2~4	0.05~0.1	側銑 (SIDE MILLING)
RTG0202	12	60	9000~9500	700~1100	2~4	0.2	側銑 (SIDE MILLING)
RTG0202	12	60	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0202	12	60	9000~10000	1000~1400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0202	12	105	16000~18000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0202	12	105	16000~18000	1400~1800	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0205	12	60	9000~9500	700~1100	0.05~0.1	2	溝銑 (SLOTTING)
RTG0205	12	60	9000~9500	700~1100	0.2	2	溝銑 (SLOTTING)
RTG0205	12	60	9000~9500	700~1100	2~4	0.05~0.1	側銑 (SIDE MILLING)
RTG0205	12	60	9000~9500	700~1100	2~4	0.2	側銑 (SIDE MILLING)
RTG0205	12	60	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0205	12	60	9000~10000	1000~1400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0205	12	105	16000~18000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0205	12	105	16000~18000	1400~1800	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0252	12	70	9000~9500	700~1100	0.05~0.1	2.5	溝銑 (SLOTTING)
RTG0252	12	70	9000~9500	700~1100	0.2	2.5	溝銑 (SLOTTING)
RTG0252	12	70	9000~9500	700~1100	2.5~5	0.05~0.1	側銑 (SIDE MILLING)
RTG0252	12	70	9000~9500	700~1100	2.5~5	0.2	側銑 (SIDE MILLING)
RTG0252	12	75	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0252	12	75	9000~10000	1000~1400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0252	12	135	16000~18000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0252	12	135	16000~18000	1400~1800	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0255	12	70	9000~9500	700~1100	0.05~0.1	2.5	溝銑 (SLOTTING)
RTG0255	12	70	9000~9500	700~1100	0.2	2.5	溝銑 (SLOTTING)
RTG0255	12	70	9000~9500	700~1100	2.5~5	0.05~0.1	側銑 (SIDE MILLING)
RTG0255	12	70	9000~9500	700~1100	2.5~5	0.2	側銑 (SIDE MILLING)
RTG0255	12	75	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0255	12	75	9000~10000	1000~1400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0255	12	135	16000~18000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0255	12	135	16000~18000	1400~1800	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0302	12	80	8500~9000	700~1000	0.05~0.1	3	溝銑 (SLOTTING)
RTG0302	12	80	8500~9000	800~1200	0.2	3	溝銑 (SLOTTING)
RTG0302	12	80	8500~9000	700~1100	3~6	0.05~0.1	側銑 (SIDE MILLING)
RTG0302	12	80	8500~9000	1000~1400	3~6	0.2	側銑 (SIDE MILLING)
RTG0302	12	90	9000~10000	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0302	12	90	9000~10000	1000~1400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0302	12	160	16000~18000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0302	12	160	16000~18000	1400~1800	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

鉻鉬合金鋼 : Chromium Molybdenum Alloy Steels
SCM440 : 1.7225 : 4140 : 42CrMoA (HRC25~28)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG0303	12	80	8500~9000	700~1000	0.05~0.1	3	溝銼 (SLOTTING)
RTG0303	12	80	8500~9000	800~1200	0.2	3	溝銼 (SLOTTING)
RTG0303	12	80	8500~9000	700~1100	3~6	0.05~0.1	側銼 (SIDE MILLING)
RTG0303	12	80	8500~9000	1000~1400	3~6	0.2	側銼 (SIDE MILLING)
RTG0303	12	90	9000~10000	800~1200	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0303	12	90	9000~10000	1000~1400	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0303	12	160	16000~18000	1000~1400	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0303	12	160	16000~18000	1400~1800	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0305	12	80	8500~9000	700~1000	0.05~0.1	3	溝銼 (SLOTTING)
RTG0305	12	80	8500~9000	800~1200	0.2	3	溝銼 (SLOTTING)
RTG0305	12	80	8500~9000	700~1100	3~6	0.05~0.1	側銼 (SIDE MILLING)
RTG0305	12	80	8500~9000	1000~1400	3~6	0.2	側銼 (SIDE MILLING)
RTG0305	12	90	9000~10000	800~1200	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0305	12	90	9000~10000	1000~1400	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0305	12	160	16000~18000	1000~1400	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0305	12	160	16000~18000	1400~1800	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0402	15	90	7000~7500	700~1000	0.05~0.1	4	溝銼 (SLOTTING)
RTG0402	15	90	7000~7500	800~1200	0.2~0.3	4	溝銼 (SLOTTING)
RTG0402	15	90	7000~7500	700~1000	4~8	0.05~0.1	側銼 (SIDE MILLING)
RTG0402	15	90	7000~7500	1000~1400	4~8	0.2~0.3	側銼 (SIDE MILLING)
RTG0402	15	120	9000~10000	800~1200	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0402	15	120	9000~10000	1000~1400	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0402	15	180	14000~15000	1200~1600	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0402	15	180	14000~15000	1400~1800	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0403	15	90	7000~7500	700~1000	0.05~0.1	4	溝銼 (SLOTTING)
RTG0403	15	90	7000~7500	800~1200	0.2~0.3	4	溝銼 (SLOTTING)
RTG0403	15	90	7000~7500	700~1000	4~8	0.05~0.1	側銼 (SIDE MILLING)
RTG0403	15	90	7000~7500	1000~1400	4~8	0.2~0.3	側銼 (SIDE MILLING)
RTG0403	15	120	9000~10000	800~1200	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0403	15	120	9000~10000	1000~1400	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0403	15	180	14000~15000	1200~1600	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0403	15	180	14000~15000	1400~1800	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0405	15	90	7000~7500	700~1000	0.05~0.1	4	溝銼 (SLOTTING)
RTG0405	15	90	7000~7500	800~1200	0.2~0.3	4	溝銼 (SLOTTING)
RTG0405	15	90	7000~7500	700~1000	4~8	0.05~0.1	側銼 (SIDE MILLING)
RTG0405	15	90	7000~7500	1000~1400	4~8	0.2~0.3	側銼 (SIDE MILLING)
RTG0405	15	120	9000~10000	800~1200	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0405	15	120	9000~10000	1000~1400	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0405	15	180	14000~15000	1200~1600	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0405	15	180	14000~15000	1400~1800	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

鉻鉬合金鋼 : Chromium Molybdenum Alloy Steels
SCM440 : 1.7225 : 4140 : 42CrMoA (HRC25~28)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG0503	17	95	5700~6200	700~1100	0.05~0.1	5	溝銼 (SLOTTING)
RTG0503	17	95	5700~6200	800~1200	0.2~0.3	5	溝銼 (SLOTTING)
RTG0503	17	95	5700~6200	700~1000	5~10	0.05~0.1	側銼 (SIDE MILLING)
RTG0503	17	95	5700~6200	1000~1400	5~10	0.2~0.3	側銼 (SIDE MILLING)
RTG0503	17	150	9000~10000	1000~1400	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0503	17	150	9000~10000	1200~1600	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0503	17	180	11000~12000	1200~1600	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0503	17	180	11000~12000	1600~2000	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0505	17	95	5700~6200	700~1100	0.05~0.1	5	溝銼 (SLOTTING)
RTG0505	17	95	5700~6200	800~1200	0.2~0.3	5	溝銼 (SLOTTING)
RTG0505	17	95	5700~6200	700~1000	5~10	0.05~0.1	側銼 (SIDE MILLING)
RTG0505	17	95	5700~6200	1000~1400	5~10	0.2~0.3	側銼 (SIDE MILLING)
RTG0505	17	150	9000~10000	1000~1400	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0505	17	150	9000~10000	1200~1600	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0505	17	180	11000~12000	1200~1600	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0505	17	180	11000~12000	1600~2000	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0602	20	95	4700~5200	700~1100	0.05~0.1	6	溝銼 (SLOTTING)
RTG0602	20	95	4700~5200	800~1200	0.2~0.3	6	溝銼 (SLOTTING)
RTG0602	20	95	4700~5200	700~1000	6~12	0.05~0.1	側銼 (SIDE MILLING)
RTG0602	20	95	4700~5200	1000~1400	6~12	0.2~0.3	側銼 (SIDE MILLING)
RTG0602	20	180	9000~10000	1400~1800	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0602	20	180	9000~10000	1600~2000	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
RTG0603	20	95	4700~5200	700~1100	0.05~0.1	6	溝銼 (SLOTTING)
RTG0603	20	95	4700~5200	800~1200	0.2~0.3	6	溝銼 (SLOTTING)
RTG0603	20	95	4700~5200	700~1000	6~12	0.05~0.1	側銼 (SIDE MILLING)
RTG0603	20	95	4700~5200	1000~1400	6~12	0.2~0.3	側銼 (SIDE MILLING)
RTG0603	20	180	9000~10000	1400~1800	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0603	20	180	9000~10000	1600~2000	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
RTG0605	20	95	4700~5200	700~1100	0.05~0.1	6	溝銼 (SLOTTING)
RTG0605	20	95	4700~5200	800~1200	0.2~0.3	6	溝銼 (SLOTTING)
RTG0605	20	95	4700~5200	700~1000	6~12	0.05~0.1	側銼 (SIDE MILLING)
RTG0605	20	95	4700~5200	1000~1400	6~12	0.2~0.3	側銼 (SIDE MILLING)
RTG0605	20	180	9000~10000	1400~1800	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0605	20	180	9000~10000	1600~2000	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
RTG0610	20	95	4700~5200	700~1100	0.05~0.1	6	溝銼 (SLOTTING)
RTG0610	20	95	4700~5200	800~1200	0.2~0.3	6	溝銼 (SLOTTING)
RTG0610	20	95	4700~5200	700~1000	6~12	0.05~0.1	側銼 (SIDE MILLING)
RTG0610	20	95	4700~5200	1000~1400	6~12	0.2~0.3	側銼 (SIDE MILLING)
RTG0610	20	180	9000~10000	1400~1800	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0610	20	180	9000~10000	1600~2000	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

鉻鉬合金鋼 : Chromium Molybdenum Alloy Steels
SCM440 : 1.7225 : 4140 : 42CrMoA (HRC25~28)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG0803	30	100	3800~4300	700~1000	0.05~0.1	8	溝銑 (SLOTTING)
RTG0803	30	100	3800~4300	800~1200	0.25~0.35	8	溝銑 (SLOTTING)
RTG0803	30	100	3800~4300	700~1000	8~16	0.05~0.1	側銑 (SIDE MILLING)
RTG0803	30	100	3800~4300	1000~1400	8~16	0.25~0.35	側銑 (SIDE MILLING)
RTG0803	30	190	7200~7700	1400~1800	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0803	30	190	7200~7700	1800~2200	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG0805	30	100	3800~4300	700~1000	0.05~0.1	8	溝銑 (SLOTTING)
RTG0805	30	100	3800~4300	800~1200	0.25~0.35	8	溝銑 (SLOTTING)
RTG0805	30	100	3800~4300	700~1000	8~16	0.05~0.1	側銑 (SIDE MILLING)
RTG0805	30	100	3800~4300	1000~1400	8~16	0.25~0.35	側銑 (SIDE MILLING)
RTG0805	30	190	7200~7700	1400~1800	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0805	30	190	7200~7700	1800~2200	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1002	30	95	2800~3300	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTG1002	30	95	2800~3300	1000~1400	0.25~0.35	10	溝銑 (SLOTTING)
RTG1002	30	95	2800~3300	700~1000	10~20	0.05~0.1	側銑 (SIDE MILLING)
RTG1002	30	95	2800~3300	1000~1400	10~20	0.25~0.35	側銑 (SIDE MILLING)
RTG1002	30	190	5800~6300	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1002	30	190	5800~6300	1400~1800	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1003	30	95	2800~3300	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTG1003	30	95	2800~3300	1000~1400	0.25~0.35	10	溝銑 (SLOTTING)
RTG1003	30	95	2800~3300	700~1000	10~20	0.05~0.1	側銑 (SIDE MILLING)
RTG1003	30	95	2800~3300	1000~1400	10~20	0.25~0.35	側銑 (SIDE MILLING)
RTG1003	30	190	5800~6300	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1003	30	190	5800~6300	1400~1800	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1005	30	95	2800~3300	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTG1005	30	95	2800~3300	1000~1400	0.25~0.35	10	溝銑 (SLOTTING)
RTG1005	30	95	2800~3300	700~1000	10~20	0.05~0.1	側銑 (SIDE MILLING)
RTG1005	30	95	2800~3300	1000~1400	10~20	0.25~0.35	側銑 (SIDE MILLING)
RTG1005	30	190	5800~6300	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1005	30	190	5800~6300	1400~1800	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1010	30	95	2800~3300	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTG1010	30	95	2800~3300	1000~1400	0.25~0.35	10	溝銑 (SLOTTING)
RTG1010	30	95	2800~3300	700~1000	10~20	0.05~0.1	側銑 (SIDE MILLING)
RTG1010	30	95	2800~3300	1000~1400	10~20	0.25~0.35	側銑 (SIDE MILLING)
RTG1010	30	190	5800~6300	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1010	30	190	5800~6300	1400~1800	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

鉻鉬合金鋼 : Chromium Molybdenum Alloy Steels
SCM440 : 1.7225 : 4140 : 42CrMoA (HRC25~28)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG1203	35	90	2200~2700	700~1000	0.05~0.1	12	溝銑 (SLOTTING)
RTG1203	35	90	2200~2700	800~1200	0.25~0.35	12	溝銑 (SLOTTING)
RTG1203	35	90	2200~2700	700~1000	12~24	0.05~0.1	側銑 (SIDE MILLING)
RTG1203	35	90	2200~2700	800~1200	12~24	0.25~0.35	側銑 (SIDE MILLING)
RTG1203	35	190	4800~5300	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1203	35	190	4800~5300	1400~1800	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1205	35	90	2200~2700	700~1000	0.05~0.1	12	溝銑 (SLOTTING)
RTG1205	35	90	2200~2700	800~1200	0.25~0.35	12	溝銑 (SLOTTING)
RTG1205	35	90	2200~2700	700~1000	12~24	0.05~0.1	側銑 (SIDE MILLING)
RTG1205	35	90	2200~2700	800~1200	12~24	0.25~0.35	側銑 (SIDE MILLING)
RTG1205	35	190	4800~5300	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1205	35	190	4800~5300	1400~1800	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1210	35	90	2200~2700	700~1000	0.05~0.1	12	溝銑 (SLOTTING)
RTG1210	35	90	2200~2700	800~1200	0.25~0.35	12	溝銑 (SLOTTING)
RTG1210	35	90	2200~2700	700~1000	12~24	0.05~0.1	側銑 (SIDE MILLING)
RTG1210	35	90	2200~2700	800~1200	12~24	0.25~0.35	側銑 (SIDE MILLING)
RTG1210	35	190	4800~5300	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1210	35	190	4800~5300	1400~1800	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1215	35	90	2200~2700	700~1000	0.05~0.1	12	溝銑 (SLOTTING)
RTG1215	35	90	2200~2700	800~1200	0.25~0.35	12	溝銑 (SLOTTING)
RTG1215	35	90	2200~2700	700~1000	12~24	0.05~0.1	側銑 (SIDE MILLING)
RTG1215	35	90	2200~2700	800~1200	12~24	0.25~0.35	側銑 (SIDE MILLING)
RTG1215	35	190	4800~5300	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1215	35	190	4800~5300	1400~1800	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1220	35	90	2200~2700	700~1000	0.05~0.1	12	溝銑 (SLOTTING)
RTG1220	35	90	2200~2700	800~1200	0.25~0.35	12	溝銑 (SLOTTING)
RTG1220	35	90	2200~2700	700~1000	12~24	0.05~0.1	側銑 (SIDE MILLING)
RTG1220	35	90	2200~2700	800~1200	12~24	0.25~0.35	側銑 (SIDE MILLING)
RTG1220	35	190	4800~5300	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1220	35	190	4800~5300	1400~1800	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG0102	12	30	9000~10000	400~700	0.05~0.1	1	溝銑 (SLOTTING)
RTG0102	12	30	9000~10000	400~700	0.2	1	溝銑 (SLOTTING)
RTG0102	12	30	9000~10000	400~700	1~2	0.05~0.1	側銑 (SIDE MILLING)
RTG0102	12	30	9000~10000	400~700	1~2	0.2	側銑 (SIDE MILLING)
RTG0102	12	30	9000~10000	700~1000	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0102	12	30	9000~10000	700~1100	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0102	12	60	18000~20000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0102	12	60	18000~20000	800~1200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0152	12	45	9000~10000	400~700	0.05~0.1	1.5	溝銑 (SLOTTING)
RTG0152	12	45	9000~10000	400~700	0.2	1.5	溝銑 (SLOTTING)
RTG0152	12	45	9000~10000	400~700	1.5~3	0.05~0.1	側銑 (SIDE MILLING)
RTG0152	12	45	9000~10000	400~700	1.5~3	0.2	側銑 (SIDE MILLING)
RTG0152	12	45	9000~10000	700~1000	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0152	12	45	9000~10000	700~1100	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0152	12	90	18000~20000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0152	12	90	18000~20000	800~1200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0202	12	60	9000~9500	500~800	0.05~0.1	2	溝銑 (SLOTTING)
RTG0202	12	60	9000~9500	700~1000	0.2	2	溝銑 (SLOTTING)
RTG0202	12	60	9000~9500	500~800	2~4	0.05~0.1	側銑 (SIDE MILLING)
RTG0202	12	60	9000~9500	700~1000	2~4	0.2	側銑 (SIDE MILLING)
RTG0202	12	60	9000~10000	700~1000	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0202	12	60	9000~10000	800~1200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0202	12	105	16000~18000	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0202	12	105	16000~18000	1000~1400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0205	12	60	9000~9500	500~800	0.05~0.1	2	溝銑 (SLOTTING)
RTG0205	12	60	9000~9500	700~1000	0.2	2	溝銑 (SLOTTING)
RTG0205	12	60	9000~9500	500~800	2~4	0.05~0.1	側銑 (SIDE MILLING)
RTG0205	12	60	9000~9500	700~1000	2~4	0.2	側銑 (SIDE MILLING)
RTG0205	12	60	9000~10000	700~1000	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0205	12	60	9000~10000	800~1200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0205	12	105	16000~18000	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0205	12	105	16000~18000	1000~1400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0252	12	70	9000~9500	500~800	0.05~0.1	2.5	溝銑 (SLOTTING)
RTG0252	12	70	9000~9500	700~1100	0.2	2.5	溝銑 (SLOTTING)
RTG0252	12	70	9000~9500	700~1000	2.5~5	0.05~0.1	側銑 (SIDE MILLING)
RTG0252	12	70	9000~9500	800~1200	2.5~5	0.2	側銑 (SIDE MILLING)
RTG0252	12	75	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0252	12	75	9000~10000	800~1200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0252	12	135	16000~18000	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0252	12	135	16000~18000	1200~1600	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 / Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRc23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG0255	12	70	9000~9500	500~800	0.05~0.1	2.5	溝銑 (SLOTTING)
RTG0255	12	70	9000~9500	700~1100	0.2	2.5	溝銑 (SLOTTING)
RTG0255	12	70	9000~9500	700~1000	2.5~5	0.05~0.1	側銑 (SIDE MILLING)
RTG0255	12	70	9000~9500	800~1200	2.5~5	0.2	側銑 (SIDE MILLING)
RTG0255	12	75	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0255	12	75	9000~10000	800~1200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0255	12	135	16000~18000	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0255	12	135	16000~18000	1200~1600	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0302	12	80	8500~9000	500~800	0.05~0.1	3	溝銑 (SLOTTING)
RTG0302	12	80	8500~9000	700~1100	0.2	3	溝銑 (SLOTTING)
RTG0302	12	80	8500~9000	700~1000	3~6	0.05~0.1	側銑 (SIDE MILLING)
RTG0302	12	80	8500~9000	800~1200	3~6	0.2	側銑 (SIDE MILLING)
RTG0302	12	90	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0302	12	90	9000~10000	800~1200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0302	12	160	16000~18000	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0302	12	160	16000~18000	1200~1600	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0303	12	80	8500~9000	500~800	0.05~0.1	3	溝銑 (SLOTTING)
RTG0303	12	80	8500~9000	700~1100	0.2	3	溝銑 (SLOTTING)
RTG0303	12	80	8500~9000	700~1000	3~6	0.05~0.1	側銑 (SIDE MILLING)
RTG0303	12	80	8500~9000	800~1200	3~6	0.2	側銑 (SIDE MILLING)
RTG0303	12	90	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0303	12	90	9000~10000	800~1200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0303	12	160	16000~18000	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0303	12	160	16000~18000	1200~1600	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0305	12	80	8500~9000	500~800	0.05~0.1	3	溝銑 (SLOTTING)
RTG0305	12	80	8500~9000	700~1100	0.2	3	溝銑 (SLOTTING)
RTG0305	12	80	8500~9000	700~1000	3~6	0.05~0.1	側銑 (SIDE MILLING)
RTG0305	12	80	8500~9000	800~1200	3~6	0.2	側銑 (SIDE MILLING)
RTG0305	12	90	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0305	12	90	9000~10000	800~1200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0305	12	160	16000~18000	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0305	12	160	16000~18000	1200~1600	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0402	15	90	7000~7500	500~800	0.05~0.1	4	溝銑 (SLOTTING)
RTG0402	15	90	7000~7500	700~1000	0.2~0.3	4	溝銑 (SLOTTING)
RTG0402	15	90	7000~7500	500~800	4~8	0.05~0.1	側銑 (SIDE MILLING)
RTG0402	15	90	7000~7500	800~1200	4~8	0.2~0.3	側銑 (SIDE MILLING)
RTG0402	15	120	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0402	15	120	9000~10000	800~1200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0402	15	180	14000~15000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0402	15	180	14000~15000	1200~1600	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG0403	15	90	7000~7500	500~800	0.05~0.1	4	溝銑 (SLOTTING)
RTG0403	15	90	7000~7500	700~1000	0.2~0.3	4	溝銑 (SLOTTING)
RTG0403	15	90	7000~7500	500~800	4~8	0.05~0.1	側銑 (SIDE MILLING)
RTG0403	15	90	7000~7500	800~1200	4~8	0.2~0.3	側銑 (SIDE MILLING)
RTG0403	15	120	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0403	15	120	9000~10000	800~1200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0403	15	180	14000~15000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0403	15	180	14000~15000	1200~1600	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0405	15	90	7000~7500	500~800	0.05~0.1	4	溝銑 (SLOTTING)
RTG0405	15	90	7000~7500	700~1000	0.2~0.3	4	溝銑 (SLOTTING)
RTG0405	15	90	7000~7500	500~800	4~8	0.05~0.1	側銑 (SIDE MILLING)
RTG0405	15	90	7000~7500	800~1200	4~8	0.2~0.3	側銑 (SIDE MILLING)
RTG0405	15	120	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0405	15	120	9000~10000	800~1200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0405	15	180	14000~15000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0405	15	180	14000~15000	1200~1600	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0503	17	95	5700~6200	500~800	0.05~0.1	5	溝銑 (SLOTTING)
RTG0503	17	95	5700~6200	700~1000	0.2~0.3	5	溝銑 (SLOTTING)
RTG0503	17	95	5700~6200	500~800	5~10	0.05~0.1	側銑 (SIDE MILLING)
RTG0503	17	95	5700~6200	800~1200	5~10	0.2~0.3	側銑 (SIDE MILLING)
RTG0503	17	150	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0503	17	150	9000~10000	800~1200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0503	17	180	11000~12000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0503	17	180	11000~12000	1200~1600	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0505	17	95	5700~6200	500~800	0.05~0.1	5	溝銑 (SLOTTING)
RTG0505	17	95	5700~6200	700~1000	0.2~0.3	5	溝銑 (SLOTTING)
RTG0505	17	95	5700~6200	500~800	5~10	0.05~0.1	側銑 (SIDE MILLING)
RTG0505	17	95	5700~6200	800~1200	5~10	0.2~0.3	側銑 (SIDE MILLING)
RTG0505	17	150	9000~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0505	17	150	9000~10000	800~1200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0505	17	180	11000~12000	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0505	17	180	11000~12000	1200~1600	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0602	20	95	4700~5200	500~800	0.05~0.1	6	溝銑 (SLOTTING)
RTG0602	20	95	4700~5200	700~1000	0.2~0.3	6	溝銑 (SLOTTING)
RTG0602	20	95	4700~5200	500~800	6~12	0.05~0.1	側銑 (SIDE MILLING)
RTG0602	20	95	4700~5200	800~1200	6~12	0.2~0.3	側銑 (SIDE MILLING)
RTG0602	20	180	9000~10000	1200~1600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0602	20	180	9000~10000	1400~1800	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 / Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG0603	20	95	4700~5200	500~800	0.05~0.1	6	溝銑 (SLOTTING)
RTG0603	20	95	4700~5200	700~1000	0.2~0.3	6	溝銑 (SLOTTING)
RTG0603	20	95	4700~5200	500~800	6~12	0.05~0.1	側銑 (SIDE MILLING)
RTG0603	20	95	4700~5200	800~1200	6~12	0.2~0.3	側銑 (SIDE MILLING)
RTG0603	20	180	9000~10000	1200~1600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0603	20	180	9000~10000	1400~1800	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTG0605	20	95	4700~5200	500~800	0.05~0.1	6	溝銑 (SLOTTING)
RTG0605	20	95	4700~5200	700~1000	0.2~0.3	6	溝銑 (SLOTTING)
RTG0605	20	95	4700~5200	500~800	6~12	0.05~0.1	側銑 (SIDE MILLING)
RTG0605	20	95	4700~5200	800~1200	6~12	0.2~0.3	側銑 (SIDE MILLING)
RTG0605	20	180	9000~10000	1200~1600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0605	20	180	9000~10000	1400~1800	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTG0610	20	95	4700~5200	500~800	0.05~0.1	6	溝銑 (SLOTTING)
RTG0610	20	95	4700~5200	700~1000	0.2~0.3	6	溝銑 (SLOTTING)
RTG0610	20	95	4700~5200	500~800	6~12	0.05~0.1	側銑 (SIDE MILLING)
RTG0610	20	95	4700~5200	800~1200	6~12	0.2~0.3	側銑 (SIDE MILLING)
RTG0610	20	180	9000~10000	1200~1600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0610	20	180	9000~10000	1400~1800	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTG0803	30	100	3800~4300	500~800	0.05~0.1	8	溝銑 (SLOTTING)
RTG0803	30	100	3800~4300	700~1000	0.25~0.35	8	溝銑 (SLOTTING)
RTG0803	30	100	3800~4300	500~800	8~16	0.05~0.1	側銑 (SIDE MILLING)
RTG0803	30	100	3800~4300	800~1200	8~16	0.25~0.35	側銑 (SIDE MILLING)
RTG0803	30	190	7200~7700	1200~1600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0803	30	190	7200~7700	1600~2000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG0805	30	100	3800~4300	500~800	0.05~0.1	8	溝銑 (SLOTTING)
RTG0805	30	100	3800~4300	700~1000	0.25~0.35	8	溝銑 (SLOTTING)
RTG0805	30	100	3800~4300	500~800	8~16	0.05~0.1	側銑 (SIDE MILLING)
RTG0805	30	100	3800~4300	800~1200	8~16	0.25~0.35	側銑 (SIDE MILLING)
RTG0805	30	190	7200~7700	1200~1600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0805	30	190	7200~7700	1600~2000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1002	30	95	2800~3300	500~800	0.05~0.1	10	溝銑 (SLOTTING)
RTG1002	30	95	2800~3300	800~1200	0.25~0.35	10	溝銑 (SLOTTING)
RTG1002	30	75	2200~2700	500~800	10~20	0.05~0.1	側銑 (SIDE MILLING)
RTG1002	30	75	2200~2700	800~1200	10~20	0.25~0.35	側銑 (SIDE MILLING)
RTG1002	30	190	5800~6300	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1002	30	190	5800~6300	1200~1600	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG1003	30	95	2800~3300	500~800	0.05~0.1	10	溝銑 (SLOTTING)
RTG1003	30	95	2800~3300	800~1200	0.25~0.35	10	溝銑 (SLOTTING)
RTG1003	30	75	2200~2700	500~800	10~20	0.05~0.1	側銑 (SIDE MILLING)
RTG1003	30	75	2200~2700	800~1200	10~20	0.25~0.35	側銑 (SIDE MILLING)
RTG1003	30	190	5800~6300	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1003	30	190	5800~6300	1200~1600	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1005	30	95	2800~3300	500~800	0.05~0.1	10	溝銑 (SLOTTING)
RTG1005	30	95	2800~3300	800~1200	0.25~0.35	10	溝銑 (SLOTTING)
RTG1005	30	75	2200~2700	500~800	10~20	0.05~0.1	側銑 (SIDE MILLING)
RTG1005	30	75	2200~2700	800~1200	10~20	0.25~0.35	側銑 (SIDE MILLING)
RTG1005	30	190	5800~6300	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1005	30	190	5800~6300	1200~1600	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1010	30	95	2800~3300	500~800	0.05~0.1	10	溝銑 (SLOTTING)
RTG1010	30	95	2800~3300	800~1200	0.25~0.35	10	溝銑 (SLOTTING)
RTG1010	30	75	2200~2700	500~800	10~20	0.05~0.1	側銑 (SIDE MILLING)
RTG1010	30	75	2200~2700	800~1200	10~20	0.25~0.35	側銑 (SIDE MILLING)
RTG1010	30	190	5800~6300	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1010	30	190	5800~6300	1200~1600	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1203	35	90	2200~2700	500~800	0.05~0.1	12	溝銑 (SLOTTING)
RTG1203	35	90	2200~2700	700~1000	0.25~0.35	12	溝銑 (SLOTTING)
RTG1203	35	75	1800~2300	500~800	12~24	0.05~0.1	側銑 (SIDE MILLING)
RTG1203	35	75	1800~2300	700~1000	12~24	0.25~0.35	側銑 (SIDE MILLING)
RTG1203	35	190	4800~5300	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1203	35	190	4800~5300	1000~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1205	35	90	2200~2700	500~800	0.05~0.1	12	溝銑 (SLOTTING)
RTG1205	35	90	2200~2700	700~1000	0.25~0.35	12	溝銑 (SLOTTING)
RTG1205	35	75	1800~2300	500~800	12~24	0.05~0.1	側銑 (SIDE MILLING)
RTG1205	35	75	1800~2300	700~1000	12~24	0.25~0.35	側銑 (SIDE MILLING)
RTG1205	35	190	4800~5300	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1205	35	190	4800~5300	1000~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1210	35	90	2200~2700	500~800	0.05~0.1	12	溝銑 (SLOTTING)
RTG1210	35	90	2200~2700	700~1000	0.25~0.35	12	溝銑 (SLOTTING)
RTG1210	35	75	1800~2300	500~800	12~24	0.05~0.1	側銑 (SIDE MILLING)
RTG1210	35	75	1800~2300	700~1000	12~24	0.25~0.35	側銑 (SIDE MILLING)
RTG1210	35	190	4800~5300	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1210	35	190	4800~5300	1000~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG1215	35	90	2200~2700	500~800	0.05~0.1	12	溝銑 (SLOTTING)
RTG1215	35	90	2200~2700	700~1000	0.25~0.35	12	溝銑 (SLOTTING)
RTG1215	35	75	1800~2300	500~800	12~24	0.05~0.1	側銑 (SIDE MILLING)
RTG1215	35	75	1800~2300	700~1000	12~24	0.25~0.35	側銑 (SIDE MILLING)
RTG1215	35	190	4800~5300	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1215	35	190	4800~5300	1000~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1220	35	90	2200~2700	500~800	0.05~0.1	12	溝銑 (SLOTTING)
RTG1220	35	90	2200~2700	700~1000	0.25~0.35	12	溝銑 (SLOTTING)
RTG1220	35	75	1800~2300	500~800	12~24	0.05~0.1	側銑 (SIDE MILLING)
RTG1220	35	75	1800~2300	700~1000	12~24	0.25~0.35	側銑 (SIDE MILLING)
RTG1220	35	190	4800~5300	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1220	35	190	4800~5300	1000~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG0102	12	30	9000~10000	400~700	0.05~0.1	1	溝銑 (SLOTTING)
RTG0102	12	30	9000~10000	400~600	0.2	1	溝銑 (SLOTTING)
RTG0102	12	30	9000~10000	400~600	1~2	0.05~0.1	側銑 (SIDE MILLING)
RTG0102	12	30	9000~10000	400~600	1~2	0.2	側銑 (SIDE MILLING)
RTG0102	12	30	9000~10000	700~1000	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0102	12	30	9000~10000	700~1000	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0102	12	60	18000~20000	700~1000	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0102	12	60	18000~20000	800~1100	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0152	12	45	9000~10000	400~700	0.05~0.1	1.5	溝銑 (SLOTTING)
RTG0152	12	45	9000~10000	400~600	0.2	1.5	溝銑 (SLOTTING)
RTG0152	12	45	9000~10000	400~600	1.5~3	0.05~0.1	側銑 (SIDE MILLING)
RTG0152	12	45	9000~10000	400~600	1.5~3	0.2	側銑 (SIDE MILLING)
RTG0152	12	45	9000~10000	700~1000	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0152	12	45	9000~10000	700~1000	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0152	12	90	18000~20000	700~1000	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0152	12	90	18000~20000	800~1100	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG0202	12	60	9000~9500	500~800	0.05~0.1	2	溝銼 (SLOTTING)
RTG0202	12	60	9000~9500	700~900	0.2	2	溝銼 (SLOTTING)
RTG0202	12	60	9000~9500	500~700	2~4	0.05~0.1	側銼 (SIDE MILLING)
RTG0202	12	60	9000~9500	700~900	2~4	0.2	側銼 (SIDE MILLING)
RTG0202	12	60	9000~10000	700~900	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0202	12	60	9000~10000	800~1200	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0202	12	105	16000~18000	800~1100	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0202	12	105	16000~18000	1000~1300	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0205	12	60	9000~9500	500~800	0.05~0.1	2	溝銼 (SLOTTING)
RTG0205	12	60	9000~9500	700~900	0.2	2	溝銼 (SLOTTING)
RTG0205	12	60	9000~9500	500~700	2~4	0.05~0.1	側銼 (SIDE MILLING)
RTG0205	12	60	9000~9500	700~900	2~4	0.2	側銼 (SIDE MILLING)
RTG0205	12	60	9000~10000	700~900	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0205	12	60	9000~10000	800~1100	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0205	12	105	16000~18000	800~1100	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0205	12	105	16000~18000	1000~1300	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0252	12	70	9000~9500	500~800	0.05~0.1	2.5	溝銼 (SLOTTING)
RTG0252	12	70	9000~9500	700~1000	0.2	2.5	溝銼 (SLOTTING)
RTG0252	12	70	9000~9500	700~900	2.5~5	0.05~0.1	側銼 (SIDE MILLING)
RTG0252	12	70	9000~9500	800~1100	2.5~5	0.2	側銼 (SIDE MILLING)
RTG0252	12	75	9000~10000	700~1000	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0252	12	75	9000~10000	800~1100	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0252	12	135	16000~18000	800~1100	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0252	12	135	16000~18000	1200~1500	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0255	12	70	9000~9500	500~800	0.05~0.1	2.5	溝銼 (SLOTTING)
RTG0255	12	70	9000~9500	700~1000	0.2	2.5	溝銼 (SLOTTING)
RTG0255	12	70	9000~9500	700~900	2.5~5	0.05~0.1	側銼 (SIDE MILLING)
RTG0255	12	70	9000~9500	800~1100	2.5~5	0.2	側銼 (SIDE MILLING)
RTG0255	12	75	9000~10000	700~1000	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0255	12	75	9000~10000	800~1100	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0255	12	135	16000~18000	800~1100	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0255	12	135	16000~18000	1200~1500	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0302	12	80	8500~9000	500~800	0.05~0.1	3	溝銼 (SLOTTING)
RTG0302	12	80	8500~9000	700~1000	0.2	3	溝銼 (SLOTTING)
RTG0302	12	80	8500~9000	700~900	3~6	0.05~0.1	側銼 (SIDE MILLING)
RTG0302	12	80	8500~9000	800~1100	3~6	0.2	側銼 (SIDE MILLING)
RTG0302	12	90	9000~10000	700~1000	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0302	12	90	9000~10000	800~1100	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0302	12	160	16000~18000	800~1100	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0302	12	160	16000~18000	1200~1500	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG0303	12	80	8500~9000	500~800	0.05~0.1	3	溝銑 (SLOTTING)
RTG0303	12	80	8500~9000	700~1000	0.2	3	溝銑 (SLOTTING)
RTG0303	12	80	8500~9000	700~900	3~6	0.05~0.1	側銑 (SIDE MILLING)
RTG0303	12	80	8500~9000	800~1100	3~6	0.2	側銑 (SIDE MILLING)
RTG0303	12	90	9000~10000	700~1000	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0303	12	90	9000~10000	800~1100	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0303	12	160	16000~18000	800~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0303	12	160	16000~18000	1200~1500	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0305	12	80	8500~9000	500~800	0.05~0.1	3	溝銑 (SLOTTING)
RTG0305	12	80	8500~9000	700~1000	0.2	3	溝銑 (SLOTTING)
RTG0305	12	80	8500~9000	700~900	3~6	0.05~0.1	側銑 (SIDE MILLING)
RTG0305	12	80	8500~9000	800~1100	3~6	0.2	側銑 (SIDE MILLING)
RTG0305	12	90	9000~10000	700~1000	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0305	12	90	9000~10000	800~1100	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0305	12	160	16000~18000	800~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0305	12	160	16000~18000	1200~1500	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0402	15	90	7000~7500	500~800	0.05~0.1	4	溝銑 (SLOTTING)
RTG0402	15	90	7000~7500	700~1000	0.2~0.3	4	溝銑 (SLOTTING)
RTG0402	15	90	7000~7500	700~900	4~8	0.05~0.1	側銑 (SIDE MILLING)
RTG0402	15	90	7000~7500	800~1100	4~8	0.2~0.3	側銑 (SIDE MILLING)
RTG0402	15	120	9000~10000	700~1000	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0402	15	120	9000~10000	800~1100	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0402	15	180	14000~15000	800~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0402	15	180	14000~15000	1200~1500	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0403	15	90	7000~7500	500~800	0.05~0.1	4	溝銑 (SLOTTING)
RTG0403	15	90	7000~7500	700~1000	0.2~0.3	4	溝銑 (SLOTTING)
RTG0403	15	90	7000~7500	700~900	4~8	0.05~0.1	側銑 (SIDE MILLING)
RTG0403	15	90	7000~7500	800~1100	4~8	0.2~0.3	側銑 (SIDE MILLING)
RTG0403	15	120	9000~10000	700~1000	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0403	15	120	9000~10000	800~1100	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0403	15	180	14000~15000	800~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0403	15	180	14000~15000	1200~1500	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0405	15	90	7000~7500	500~800	0.05~0.1	4	溝銑 (SLOTTING)
RTG0405	15	90	7000~7500	700~1000	0.2~0.3	4	溝銑 (SLOTTING)
RTG0405	15	90	7000~7500	700~900	4~8	0.05~0.1	側銑 (SIDE MILLING)
RTG0405	15	90	7000~7500	800~1100	4~8	0.2~0.3	側銑 (SIDE MILLING)
RTG0405	15	120	9000~10000	700~1000	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0405	15	120	9000~10000	800~1100	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTG0405	15	180	14000~15000	800~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0405	15	180	14000~15000	1200~1500	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG0503	17	95	5700~6200	500~800	0.05~0.1	5	溝銼 (SLOTTING)
RTG0503	17	95	5700~6200	700~1000	0.2~0.3	5	溝銼 (SLOTTING)
RTG0503	17	95	5700~6200	700~900	5~10	0.05~0.1	側銼 (SIDE MILLING)
RTG0503	17	95	5700~6200	800~1100	5~10	0.2~0.3	側銼 (SIDE MILLING)
RTG0503	17	150	9000~10000	700~1000	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0503	17	150	9000~10000	800~1100	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0503	17	180	11000~12000	800~1100	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0503	17	180	11000~12000	1200~1500	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0505	17	95	5700~6200	500~800	0.05~0.1	5	溝銼 (SLOTTING)
RTG0505	17	95	5700~6200	700~1000	0.2~0.3	5	溝銼 (SLOTTING)
RTG0505	17	95	5700~6200	700~900	5~10	0.05~0.1	側銼 (SIDE MILLING)
RTG0505	17	95	5700~6200	800~1100	5~10	0.2~0.3	側銼 (SIDE MILLING)
RTG0505	17	150	9000~10000	700~1000	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0505	17	150	9000~10000	800~1100	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0505	17	180	11000~12000	800~1100	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0505	17	180	11000~12000	1200~1500	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTG0602	20	95	4700~5200	500~800	0.05~0.1	6	溝銼 (SLOTTING)
RTG0602	20	95	4700~5200	700~1000	0.2~0.3	6	溝銼 (SLOTTING)
RTG0602	20	95	4700~5200	500~800	6~12	0.05~0.1	側銼 (SIDE MILLING)
RTG0602	20	95	4700~5200	800~1200	6~12	0.2~0.3	側銼 (SIDE MILLING)
RTG0602	20	180	9000~10000	1200~1600	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0602	20	180	9000~10000	1400~1800	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
RTG0603	20	95	4700~5200	500~800	0.05~0.1	6	溝銼 (SLOTTING)
RTG0603	20	95	4700~5200	700~1000	0.2~0.3	6	溝銼 (SLOTTING)
RTG0603	20	95	4700~5200	500~800	6~12	0.05~0.1	側銼 (SIDE MILLING)
RTG0603	20	95	4700~5200	800~1200	6~12	0.2~0.3	側銼 (SIDE MILLING)
RTG0603	20	180	9000~10000	1200~1600	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0603	20	180	9000~10000	1400~1800	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
RTG0605	20	95	4700~5200	500~800	0.05~0.1	6	溝銼 (SLOTTING)
RTG0605	20	95	4700~5200	700~900	0.2~0.3	6	溝銼 (SLOTTING)
RTG0605	20	95	4700~5200	500~700	6~12	0.05~0.1	側銼 (SIDE MILLING)
RTG0605	20	95	4700~5200	800~1100	6~12	0.2~0.3	側銼 (SIDE MILLING)
RTG0605	20	180	9000~10000	1200~1400	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0605	20	180	9000~10000	1400~1600	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
RTG0610	20	95	4700~5200	500~800	0.05~0.1	6	溝銼 (SLOTTING)
RTG0610	20	95	4700~5200	700~900	0.2~0.3	6	溝銼 (SLOTTING)
RTG0610	20	95	4700~5200	500~700	6~12	0.05~0.1	側銼 (SIDE MILLING)
RTG0610	20	95	4700~5200	800~1100	6~12	0.2~0.3	側銼 (SIDE MILLING)
RTG0610	20	180	9000~10000	1200~1400	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTG0610	20	180	9000~10000	1400~1600	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG0803	30	100	3800~4300	500~800	0.05~0.1	8	溝銑 (SLOTTING)
RTG0803	30	100	3800~4300	700~900	0.25~0.35	8	溝銑 (SLOTTING)
RTG0803	30	100	3800~4300	500~800	8~16	0.05~0.1	側銑 (SIDE MILLING)
RTG0803	30	100	3800~4300	800~1100	8~16	0.25~0.35	側銑 (SIDE MILLING)
RTG0803	30	190	7200~7700	1200~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0803	30	190	7200~7700	1600~1800	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG0805	30	100	3800~4300	500~800	0.05~0.1	8	溝銑 (SLOTTING)
RTG0805	30	100	3800~4300	700~900	0.25~0.35	8	溝銑 (SLOTTING)
RTG0805	30	100	3800~4300	500~800	8~16	0.05~0.1	側銑 (SIDE MILLING)
RTG0805	30	100	3800~4300	800~1100	8~16	0.25~0.35	側銑 (SIDE MILLING)
RTG0805	30	190	7200~7700	1200~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG0805	30	190	7200~7700	1600~1800	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1002	30	95	2800~3300	500~800	0.05~0.1	10	溝銑 (SLOTTING)
RTG1002	30	95	2800~3300	800~1200	0.25~0.35	10	溝銑 (SLOTTING)
RTG1002	30	75	2200~2700	500~800	10~20	0.05~0.1	側銑 (SIDE MILLING)
RTG1002	30	75	2200~2700	800~1200	10~20	0.25~0.35	側銑 (SIDE MILLING)
RTG1002	30	190	5800~6300	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1002	30	190	5800~6300	1200~1600	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1003	30	95	2800~3300	500~800	0.05~0.1	10	溝銑 (SLOTTING)
RTG1003	30	95	2800~3300	800~1200	0.25~0.35	10	溝銑 (SLOTTING)
RTG1003	30	75	2200~2700	500~800	10~20	0.05~0.1	側銑 (SIDE MILLING)
RTG1003	30	75	2200~2700	800~1200	10~20	0.25~0.35	側銑 (SIDE MILLING)
RTG1003	30	190	5800~6300	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1003	30	190	5800~6300	1200~1600	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1005	30	95	2800~3300	500~800	0.05~0.1	10	溝銑 (SLOTTING)
RTG1005	30	95	2800~3300	800~1200	0.25~0.35	10	溝銑 (SLOTTING)
RTG1005	30	75	2200~2700	500~800	10~20	0.05~0.1	側銑 (SIDE MILLING)
RTG1005	30	75	2200~2700	800~1200	10~20	0.25~0.35	側銑 (SIDE MILLING)
RTG1005	30	190	5800~6300	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1005	30	190	5800~6300	1200~1600	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1010	30	95	2800~3300	500~800	0.05~0.1	10	溝銑 (SLOTTING)
RTG1010	30	95	2800~3300	800~1200	0.25~0.35	10	溝銑 (SLOTTING)
RTG1010	30	75	2200~2700	500~800	10~20	0.05~0.1	側銑 (SIDE MILLING)
RTG1010	30	75	2200~2700	800~1200	10~20	0.25~0.35	側銑 (SIDE MILLING)
RTG1010	30	190	5800~6300	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1010	30	190	5800~6300	1200~1600	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)

RTG

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTG1203	35	90	2200~2700	500~800	0.05~0.1	12	溝銑 (SLOTTING)
RTG1203	35	90	2200~2700	700~1000	0.25~0.35	12	溝銑 (SLOTTING)
RTG1203	35	75	1800~2300	500~800	12~24	0.05~0.1	側銑 (SIDE MILLING)
RTG1203	35	75	1800~2300	700~1000	12~24	0.25~0.35	側銑 (SIDE MILLING)
RTG1203	35	190	4800~5300	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1203	35	190	4800~5300	1000~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1205	35	90	2200~2700	500~800	0.05~0.1	12	溝銑 (SLOTTING)
RTG1205	35	90	2200~2700	700~1000	0.25~0.35	12	溝銑 (SLOTTING)
RTG1205	35	75	1800~2300	500~800	12~24	0.05~0.1	側銑 (SIDE MILLING)
RTG1205	35	75	1800~2300	700~1000	12~24	0.25~0.35	側銑 (SIDE MILLING)
RTG1205	35	190	4800~5300	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1205	35	190	4800~5300	1000~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1210	35	90	2200~2700	500~800	0.05~0.1	12	溝銑 (SLOTTING)
RTG1210	35	90	2200~2700	700~1000	0.25~0.35	12	溝銑 (SLOTTING)
RTG1210	35	75	1800~2300	500~800	12~24	0.05~0.1	側銑 (SIDE MILLING)
RTG1210	35	75	1800~2300	700~1000	12~24	0.25~0.35	側銑 (SIDE MILLING)
RTG1210	35	190	4800~5300	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1210	35	190	4800~5300	1000~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1215	35	90	2200~2700	500~800	0.05~0.1	12	溝銑 (SLOTTING)
RTG1215	35	90	2200~2700	700~1000	0.25~0.35	12	溝銑 (SLOTTING)
RTG1215	35	75	1800~2300	500~800	12~24	0.05~0.1	側銑 (SIDE MILLING)
RTG1215	35	75	1800~2300	700~1000	12~24	0.25~0.35	側銑 (SIDE MILLING)
RTG1215	35	190	4800~5300	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1215	35	190	4800~5300	1000~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTG1220	35	90	2200~2700	500~800	0.05~0.1	12	溝銑 (SLOTTING)
RTG1220	35	90	2200~2700	700~1000	0.25~0.35	12	溝銑 (SLOTTING)
RTG1220	35	75	1800~2300	500~800	12~24	0.05~0.1	側銑 (SIDE MILLING)
RTG1220	35	75	1800~2300	700~1000	12~24	0.25~0.35	側銑 (SIDE MILLING)
RTG1220	35	190	4800~5300	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTG1220	35	190	4800~5300	1000~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)

RTA

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTA0205	12	60	9000~9500	800~1000	0.11~0.14	1~2	溝銑 (SLOTTING)
RTA0205	12	60	9000~9500	800~1000	0.05~0.07	1~2	溝銑 (SLOTTING)
RTA0205	12	100	15500~16500	1200~1400	0.11~0.14	1~2	溝銑 (SLOTTING)
RTA0205	12	100	15500~16500	900~1100	0.05~0.07	1~2	溝銑 (SLOTTING)
RTA0205	12	60	9000~9500	1000~1200	2~4	0.12~0.15	側銑 (SIDE MILLING)
RTA0205	12	60	9000~9500	700~900	2~4	0.05~0.07	側銑 (SIDE MILLING)
RTA0205	12	85	13500~14000	1100~1300	2~4	0.12~0.15	側銑 (SIDE MILLING)
RTA0205	12	85	13500~14000	800~1000	2~4	0.05~0.07	側銑 (SIDE MILLING)
RTA0205	12	60	9000~9500	1200~1400	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTA0205	12	60	9000~9500	1100~1300	0.05~0.07	0.05~0.07	3D銑 (3D MILLING)
RTA0205	12	150	23000~24000	1800~2200	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTA0205	12	150	23000~24000	1800~2200	0.05~0.07	0.05~0.07	3D銑 (3D MILLING)
RTA0305	12	85	8800~9300	800~1000	0.12~0.15	1~3	溝銑 (SLOTTING)
RTA0305	12	85	8800~9300	800~1000	0.06~0.08	1~3	溝銑 (SLOTTING)
RTA0305	12	100	10500~11000	1000~1200	0.12~0.15	1~3	溝銑 (SLOTTING)
RTA0305	12	100	10500~11000	900~1100	0.06~0.08	1~3	溝銑 (SLOTTING)
RTA0305	12	85	8800~9300	1000~1200	3~6	0.12~0.15	側銑 (SIDE MILLING)
RTA0305	12	85	8800~9300	800~1000	3~6	0.06~0.08	側銑 (SIDE MILLING)
RTA0305	12	85	8800~9300	1000~1200	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTA0305	12	85	8800~9300	1000~1200	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)
RTA0305	12	165	17000~18000	1800~2200	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTA0305	12	165	17000~18000	1800~2200	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)
RTA0405	14	100	8000~8400	600~800	0.12~0.15	2~4	溝銑 (SLOTTING)
RTA0405	14	100	8000~8400	800~1000	0.06~0.08	2~4	溝銑 (SLOTTING)
RTA0405	14	85	6500~7000	800~1000	4~8	0.12~0.15	側銑 (SIDE MILLING)
RTA0405	14	85	6500~7000	600~800	4~8	0.06~0.08	側銑 (SIDE MILLING)
RTA0405	14	110	8700~9200	800~1000	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTA0405	14	110	8700~9200	600~800	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)
RTA0405	14	150	12000~13000	1200~1600	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTA0405	14	165	13000~14000	1600~2000	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)
RTA0410	14	100	8000~8400	700~900	0.12~0.15	1~4	溝銑 (SLOTTING)
RTA0410	14	100	8000~8400	800~1000	0.06~0.08	1~4	溝銑 (SLOTTING)
RTA0410	14	85	6500~7000	800~1000	4~8	0.12~0.15	側銑 (SIDE MILLING)
RTA0410	14	85	6500~7000	600~800	4~8	0.06~0.08	側銑 (SIDE MILLING)
RTA0410	14	110	8700~9200	900~1100	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTA0410	14	110	8700~9200	1100~1400	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)
RTA0410	14	150	12000~13000	1200~1600	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTA0410	14	165	13000~14000	1600~2000	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)

RTA

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
 S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTA0505	17	95	5800~6300	900~1100	0.15~0.18	3~5	溝銼 (SLOTTING)
RTA0505	17	120	7300~7800	800~1200	0.06~0.08	3~5	溝銼 (SLOTTING)
RTA0505	17	95	5800~6300	800~1000	5~10	0.15~0.18	側銼 (SIDE MILLING)
RTA0505	17	95	5800~6300	600~800	5~10	0.06~0.08	側銼 (SIDE MILLING)
RTA0505	17	135	8300~8800	1400~1800	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
RTA0505	17	135	8300~8800	1300~1700	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0505	17	165	10500~11000	1700~2100	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
RTA0505	17	165	10500~11000	1600~2000	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0510	17	95	5800~6300	900~1100	0.15~0.18	2~5	溝銼 (SLOTTING)
RTA0510	17	120	7300~7800	800~1200	0.06~0.08	2~5	溝銼 (SLOTTING)
RTA0510	17	95	5800~6300	800~1000	5~10	0.15~0.18	側銼 (SIDE MILLING)
RTA0510	17	95	5800~6300	600~800	5~10	0.06~0.08	側銼 (SIDE MILLING)
RTA0510	17	135	8300~8800	1400~1800	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
RTA0510	17	135	8300~8800	1300~1700	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0510	17	165	10500~11000	1700~2100	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
RTA0510	17	165	10500~11000	1600~2000	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0605	20	95	4800~5200	900~1100	0.15~0.18	4~6	溝銼 (SLOTTING)
RTA0605	20	120	6200~6600	800~1200	0.06~0.08	4~6	溝銼 (SLOTTING)
RTA0605	20	95	4800~5200	800~1000	6~12	0.15~0.18	側銼 (SIDE MILLING)
RTA0605	20	95	4800~5200	600~800	6~12	0.06~0.08	側銼 (SIDE MILLING)
RTA0605	20	135	7200~7600	1400~1800	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
RTA0605	20	135	7200~7600	1300~1700	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0610	20	80	4200~4600	900~1100	0.15~0.18	3~6	溝銼 (SLOTTING)
RTA0610	20	130	6800~7200	800~1200	0.06~0.08	3~6	溝銼 (SLOTTING)
RTA0610	20	95	5000~5500	800~1000	6~12	0.15~0.18	側銼 (SIDE MILLING)
RTA0610	20	95	5000~5500	600~800	6~12	0.06~0.08	側銼 (SIDE MILLING)
RTA0610	20	135	7200~7600	1400~1800	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
RTA0610	20	135	7200~7600	1300~1700	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0805	30	125	5000~5600	900~1100	0.18~0.23	6~8	溝銼 (SLOTTING)
RTA0805	30	135	5200~5600	600~800	0.07~0.1	6~8	溝銼 (SLOTTING)
RTA0805	30	90	3500~4000	700~1000	8~16	0.18~0.23	側銼 (SIDE MILLING)
RTA0805	30	90	3500~4000	600~800	8~16	0.07~0.1	側銼 (SIDE MILLING)
RTA0805	30	150	6000~6600	1600~2000	0.18~0.23	0.18~0.23	3D銼 (3D MILLING)
RTA0805	30	190	7500~8000	1100~1500	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
RTA0810	30	125	5000~5600	900~1100	0.18~0.23	5~8	溝銼 (SLOTTING)
RTA0810	30	135	5200~5600	600~800	0.07~0.1	5~8	溝銼 (SLOTTING)
RTA0810	30	90	3500~4000	600~1000	8~16	0.18~0.23	側銼 (SIDE MILLING)
RTA0810	30	90	3500~4000	600~800	8~16	0.07~0.1	側銼 (SIDE MILLING)
RTA0810	30	150	6000~6600	1600~2000	0.18~0.23	0.18~0.23	3D銼 (3D MILLING)
RTA0810	30	190	7500~8000	1000~1400	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)

RTA

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTA1005	35	125	4000~4500	800~1200	0.2~0.25	8~10	溝銑 (SLOTTING)
RTA1005	35	135	4200~4600	600~800	0.07~0.1	8~10	溝銑 (SLOTTING)
RTA1005	35	90	2800~3200	600~900	10~20	0.2~0.25	側銑 (SIDE MILLING)
RTA1005	35	90	2800~3200	600~800	10~20	0.07~0.1	側銑 (SIDE MILLING)
RTA1005	35	150	4800~5400	1600~2000	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTA1005	35	190	6000~6500	1200~1600	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTA1010	35	125	4000~4500	800~1200	0.2~0.25	7~10	溝銑 (SLOTTING)
RTA1010	35	135	4200~4600	600~800	0.07~0.1	7~10	溝銑 (SLOTTING)
RTA1010	35	90	2800~3200	600~900	10~20	0.2~0.25	側銑 (SIDE MILLING)
RTA1010	35	90	2800~3200	600~800	10~20	0.07~0.1	側銑 (SIDE MILLING)
RTA1010	35	150	4800~5400	1600~2000	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTA1010	35	190	6000~6500	1200~1600	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTA1015	35	125	4000~4500	800~1200	0.2~0.25	6~10	溝銑 (SLOTTING)
RTA1015	35	135	4200~4600	600~800	0.07~0.1	6~10	溝銑 (SLOTTING)
RTA1015	35	90	2800~3200	600~900	10~20	0.2~0.25	側銑 (SIDE MILLING)
RTA1015	35	90	2800~3200	600~800	10~20	0.07~0.1	側銑 (SIDE MILLING)
RTA1015	35	150	4800~5400	1600~2000	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTA1015	35	190	6000~6500	1200~1600	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTA1020	35	125	4000~4500	800~1200	0.2~0.25	5~10	溝銑 (SLOTTING)
RTA1020	35	135	4200~4600	600~800	0.07~0.1	5~10	溝銑 (SLOTTING)
RTA1020	35	90	2800~3200	600~900	10~20	0.2~0.25	側銑 (SIDE MILLING)
RTA1020	35	90	2800~3200	600~800	10~20	0.07~0.1	側銑 (SIDE MILLING)
RTA1020	35	150	4800~5400	1600~2000	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTA1020	35	190	6000~6500	1200~1600	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTA1210	40	75	2000~2500	800~1100	0.2~0.25	9~12	溝銑 (SLOTTING)
RTA1210	40	150	4000~4500	800~1000	0.07~0.12	9~12	溝銑 (SLOTTING)
RTA1210	40	105	2800~3200	600~800	12~24	0.2~0.25	側銑 (SIDE MILLING)
RTA1210	40	105	2800~3200	400~600	12~24	0.07~0.12	側銑 (SIDE MILLING)
RTA1210	40	150	4000~4500	1400~1600	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTA1210	40	170	4500~5000	1300~1600	0.07~0.12	0.07~0.12	3D銑 (3D MILLING)
RTA1220	40	75	2000~2500	800~1100	0.2~0.25	7~12	溝銑 (SLOTTING)
RTA1220	40	150	4000~4500	800~1000	0.07~0.12	7~12	溝銑 (SLOTTING)
RTA1220	40	105	2800~3200	600~800	12~24	0.2~0.25	側銑 (SIDE MILLING)
RTA1220	40	105	2800~3200	400~600	12~24	0.07~0.12	側銑 (SIDE MILLING)
RTA1220	40	150	4000~4500	1400~1600	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTA1220	40	170	4500~5000	1300~1600	0.07~0.12	0.07~0.12	3D銑 (3D MILLING)

RTA

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTA0205	12	60	9000~9500	700~900	0.11~0.14	1~2	溝銼 (SLOTTING)
RTA0205	12	60	9000~9500	700~900	0.05~0.07	1~2	溝銼 (SLOTTING)
RTA0205	12	90	14000~15000	1000~1200	0.11~0.14	1~2	溝銼 (SLOTTING)
RTA0205	12	90	14000~15000	900~1100	0.05~0.07	1~2	溝銼 (SLOTTING)
RTA0205	12	60	9000~9500	900~1100	2~4	0.12~0.15	側銼 (SIDE MILLING)
RTA0205	12	60	9000~9500	700~900	2~4	0.05~0.07	側銼 (SIDE MILLING)
RTA0205	12	85	13500~14000	1100~1300	2~4	0.12~0.15	側銼 (SIDE MILLING)
RTA0205	12	85	13500~14000	800~1000	2~4	0.05~0.07	側銼 (SIDE MILLING)
RTA0205	12	60	9000~9500	1000~1200	0.12~0.15	0.12~0.15	3D銼 (3D MILLING)
RTA0205	12	60	9000~9500	1000~1200	0.05~0.07	0.05~0.07	3D銼 (3D MILLING)
RTA0205	12	140	22000~23000	1600~2000	0.12~0.15	0.12~0.15	3D銼 (3D MILLING)
RTA0205	12	140	22000~23000	1600~2000	0.05~0.07	0.05~0.07	3D銼 (3D MILLING)
RTA0305	12	85	8800~9300	600~800	0.12~0.15	1~3	溝銼 (SLOTTING)
RTA0305	12	85	8800~9300	700~900	0.06~0.08	1~3	溝銼 (SLOTTING)
RTA0305	12	100	10500~11000	1000~1200	0.12~0.15	1~3	溝銼 (SLOTTING)
RTA0305	12	100	10500~11000	900~1100	0.06~0.08	1~3	溝銼 (SLOTTING)
RTA0305	12	85	8800~9300	800~1000	3~6	0.12~0.15	側銼 (SIDE MILLING)
RTA0305	12	85	8800~9300	700~900	3~6	0.06~0.08	側銼 (SIDE MILLING)
RTA0305	12	85	8800~9300	1000~1200	0.12~0.15	0.12~0.15	3D銼 (3D MILLING)
RTA0305	12	85	8800~9300	1000~1200	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0305	12	145	15000~16000	1700~2000	0.12~0.15	0.12~0.15	3D銼 (3D MILLING)
RTA0305	12	155	16000~17000	1600~2000	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0405	14	95	7800~8200	600~800	0.12~0.15	2~4	溝銼 (SLOTTING)
RTA0405	14	100	8000~8400	600~900	0.06~0.08	2~4	溝銼 (SLOTTING)
RTA0405	14	85	6500~7000	700~900	4~8	0.12~0.15	側銼 (SIDE MILLING)
RTA0405	14	85	6500~7000	400~600	4~8	0.06~0.08	側銼 (SIDE MILLING)
RTA0405	14	110	8700~9200	800~1100	0.12~0.15	0.12~0.15	3D銼 (3D MILLING)
RTA0405	14	110	8700~9200	1000~1300	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0405	14	145	11000~12000	1200~1400	0.12~0.15	0.12~0.15	3D銼 (3D MILLING)
RTA0405	14	155	12000~13000	1300~1700	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0410	14	95	7800~8200	600~800	0.12~0.15	1~4	溝銼 (SLOTTING)
RTA0410	14	100	8000~8400	600~900	0.06~0.08	1~4	溝銼 (SLOTTING)
RTA0410	14	85	6500~7000	700~900	4~8	0.12~0.15	側銼 (SIDE MILLING)
RTA0410	14	85	6500~7000	400~600	4~8	0.06~0.08	側銼 (SIDE MILLING)
RTA0410	14	110	8700~9200	800~1100	0.12~0.15	0.12~0.15	3D銼 (3D MILLING)
RTA0410	14	110	8700~9200	1000~1300	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0410	14	145	11000~12000	1200~1400	0.12~0.15	0.12~0.15	3D銼 (3D MILLING)
RTA0410	14	155	12000~13000	1300~1700	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)

RTA

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 / Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRc23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTA0505	17	85	5200~5700	900~1100	0.15~0.18	3~5	溝銼 (SLOTTING)
RTA0505	17	120	7300~7800	800~1200	0.06~0.08	3~5	溝銼 (SLOTTING)
RTA0505	17	85	5200~5700	800~1000	5~10	0.15~0.18	側銼 (SIDE MILLING)
RTA0505	17	95	5800~6300	600~800	5~10	0.06~0.08	側銼 (SIDE MILLING)
RTA0505	17	135	8300~8800	1300~1700	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
RTA0505	17	135	8300~8800	1200~1600	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0505	17	160	10000~10500	1600~1900	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
RTA0505	17	160	10000~10500	1500~1800	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0510	17	85	5200~5700	900~1100	0.15~0.18	2~5	溝銼 (SLOTTING)
RTA0510	17	120	7300~7800	800~1200	0.06~0.08	2~5	溝銼 (SLOTTING)
RTA0510	17	85	5200~5700	800~1000	5~10	0.15~0.18	側銼 (SIDE MILLING)
RTA0510	17	95	5800~6300	600~800	5~10	0.06~0.08	側銼 (SIDE MILLING)
RTA0510	17	135	8300~8800	1300~1700	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
RTA0510	17	135	8300~8800	1200~1600	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0510	17	160	10000~10500	1600~1900	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
RTA0510	17	160	10000~10500	1500~1800	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0605	20	85	4200~4700	800~1000	0.15~0.18	4~6	溝銼 (SLOTTING)
RTA0605	20	115	5700~6200	800~1200	0.06~0.08	4~6	溝銼 (SLOTTING)
RTA0605	20	85	4200~4600	700~900	6~12	0.15~0.18	側銼 (SIDE MILLING)
RTA0605	20	90	4400~4800	500~700	6~12	0.06~0.08	側銼 (SIDE MILLING)
RTA0605	20	135	7200~7600	1200~1600	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
RTA0605	20	135	7200~7600	1200~1600	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0610	20	85	4200~4700	800~1000	0.15~0.18	3~6	溝銼 (SLOTTING)
RTA0610	20	115	5700~6200	800~1200	0.06~0.08	3~6	溝銼 (SLOTTING)
RTA0610	20	85	4200~4600	700~900	6~12	0.15~0.18	側銼 (SIDE MILLING)
RTA0610	20	90	4400~4800	500~700	6~12	0.06~0.08	側銼 (SIDE MILLING)
RTA0610	20	135	7200~7600	1200~1600	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
RTA0610	20	135	7200~7600	1200~1600	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0805	30	100	3800~4300	800~1000	0.18~0.23	6~8	溝銼 (SLOTTING)
RTA0805	30	135	5200~5600	600~800	0.07~0.1	6~8	溝銼 (SLOTTING)
RTA0805	30	80	3000~3500	600~900	8~16	0.18~0.23	側銼 (SIDE MILLING)
RTA0805	30	90	3400~3800	600~800	8~16	0.07~0.1	側銼 (SIDE MILLING)
RTA0805	30	105	4000~4500	1600~1800	0.18~0.23	0.18~0.23	3D銼 (3D MILLING)
RTA0805	30	185	7200~7700	1000~1400	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
RTA0810	30	100	3800~4300	800~1000	0.18~0.23	5~8	溝銼 (SLOTTING)
RTA0810	30	135	5200~5600	600~800	0.07~0.1	5~8	溝銼 (SLOTTING)
RTA0810	30	80	3000~3500	600~900	8~16	0.18~0.23	側銼 (SIDE MILLING)
RTA0810	30	90	3400~3800	600~800	8~16	0.07~0.1	側銼 (SIDE MILLING)
RTA0810	30	105	4000~4500	1600~1800	0.18~0.23	0.18~0.23	3D銼 (3D MILLING)
RTA0810	30	185	7200~7700	1000~1400	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)

RTA

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTA1005	35	100	3000~3400	700~1000	0.2~0.25	8~10	溝銑 (SLOTTING)
RTA1005	35	135	4200~4600	600~800	0.07~0.1	8~10	溝銑 (SLOTTING)
RTA1005	35	80	2400~2800	500~700	10~20	0.15~0.2	側銑 (SIDE MILLING)
RTA1005	35	90	2800~3200	450~650	10~20	0.07~0.1	側銑 (SIDE MILLING)
RTA1005	35	105	3200~3600	1200~1600	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTA1005	35	185	5800~6200	1000~1400	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTA1010	35	100	3000~3400	700~1000	0.2~0.25	7~10	溝銑 (SLOTTING)
RTA1010	35	135	4200~4600	600~800	0.07~0.1	7~10	溝銑 (SLOTTING)
RTA1010	35	80	2400~2800	500~700	10~20	0.15~0.2	側銑 (SIDE MILLING)
RTA1010	35	90	2800~3200	450~650	10~20	0.07~0.1	側銑 (SIDE MILLING)
RTA1010	35	105	3200~3600	1200~1600	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTA1010	35	185	5800~6200	1000~1400	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTA1015	35	100	3000~3400	700~1000	0.2~0.25	6~10	溝銑 (SLOTTING)
RTA1015	35	135	4200~4600	600~800	0.07~0.1	6~10	溝銑 (SLOTTING)
RTA1015	35	80	2400~2800	500~700	10~20	0.15~0.2	側銑 (SIDE MILLING)
RTA1015	35	90	2800~3200	450~650	10~20	0.07~0.1	側銑 (SIDE MILLING)
RTA1015	35	105	3200~3600	1200~1600	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTA1015	35	185	5800~6200	1000~1400	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTA1020	35	100	3000~3400	700~1000	0.2~0.25	5~10	溝銑 (SLOTTING)
RTA1020	35	135	4200~4600	600~800	0.07~0.1	5~10	溝銑 (SLOTTING)
RTA1020	35	80	2400~2800	500~700	10~20	0.15~0.2	側銑 (SIDE MILLING)
RTA1020	35	90	2800~3200	450~650	10~20	0.07~0.1	側銑 (SIDE MILLING)
RTA1020	35	105	3200~3600	1200~1600	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTA1020	35	185	5800~6200	1000~1400	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTA1210	40	75	2000~2400	600~900	0.2~0.25	9~12	溝銑 (SLOTTING)
RTA1210	40	145	3800~4200	800~1000	0.07~0.12	9~12	溝銑 (SLOTTING)
RTA1210	40	70	1800~2200	600~800	12~24	0.15~0.2	側銑 (SIDE MILLING)
RTA1210	40	70	1800~2200	300~500	12~24	0.07~0.12	側銑 (SIDE MILLING)
RTA1210	40	140	3600~4000	1000~1200	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTA1210	40	150	4500~5000	1200~1500	0.07~0.12	0.07~0.12	3D銑 (3D MILLING)
RTA1220	40	75	2000~2400	600~900	0.2~0.25	7~12	溝銑 (SLOTTING)
RTA1220	40	145	3800~4200	800~1000	0.07~0.12	7~12	溝銑 (SLOTTING)
RTA1220	40	70	1800~2200	600~800	12~24	0.15~0.2	側銑 (SIDE MILLING)
RTA1220	40	70	1800~2200	300~500	12~24	0.07~0.12	側銑 (SIDE MILLING)
RTA1220	40	140	3600~4000	1000~1200	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTA1220	40	150	4500~5000	1200~1500	0.07~0.12	0.07~0.12	3D銑 (3D MILLING)

RTA

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTA0205	12	60	9000~9500	700~900	0.11~0.14	1~2	溝銑 (SLOTTING)
RTA0205	12	60	9000~9500	700~900	0.05~0.07	1~2	溝銑 (SLOTTING)
RTA0205	12	90	14000~15000	1000~1200	0.11~0.14	1~2	溝銑 (SLOTTING)
RTA0205	12	90	14000~15000	900~1100	0.05~0.07	1~2	溝銑 (SLOTTING)
RTA0205	12	60	9000~9500	900~1100	2~4	0.12~0.15	側銑 (SIDE MILLING)
RTA0205	12	60	9000~9500	700~900	2~4	0.05~0.07	側銑 (SIDE MILLING)
RTA0205	12	85	13500~14000	1100~1300	2~4	0.12~0.15	側銑 (SIDE MILLING)
RTA0205	12	85	13500~14000	800~1000	2~4	0.05~0.07	側銑 (SIDE MILLING)
RTA0205	12	60	9000~9500	1000~1200	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTA0205	12	60	9000~9500	1000~1200	0.05~0.07	0.05~0.07	3D銑 (3D MILLING)
RTA0205	12	140	22000~23000	1600~2000	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTA0205	12	140	22000~23000	1600~2000	0.05~0.07	0.05~0.07	3D銑 (3D MILLING)
RTA0305	12	85	8800~9300	600~800	0.12~0.15	1~3	溝銑 (SLOTTING)
RTA0305	12	85	8800~9300	700~900	0.06~0.08	1~3	溝銑 (SLOTTING)
RTA0305	12	100	10500~11000	1000~1200	0.12~0.15	1~3	溝銑 (SLOTTING)
RTA0305	12	100	10500~11000	900~1100	0.06~0.08	1~3	溝銑 (SLOTTING)
RTA0305	12	85	8800~9300	800~1000	3~6	0.12~0.15	側銑 (SIDE MILLING)
RTA0305	12	85	8800~9300	700~900	3~6	0.06~0.08	側銑 (SIDE MILLING)
RTA0305	12	85	8800~9300	1000~1200	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTA0305	12	85	8800~9300	1000~1200	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)
RTA0305	12	145	15000~16000	1700~2000	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTA0305	12	155	16000~17000	1600~2000	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)
RTA0405	14	95	7800~8200	600~800	0.12~0.15	2~4	溝銑 (SLOTTING)
RTA0405	14	100	8000~8400	600~900	0.06~0.08	2~4	溝銑 (SLOTTING)
RTA0405	14	85	6500~7000	700~900	4~8	0.12~0.15	側銑 (SIDE MILLING)
RTA0405	14	85	6500~7000	400~600	4~8	0.06~0.08	側銑 (SIDE MILLING)
RTA0405	14	110	8700~9200	800~1100	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTA0405	14	110	8700~9200	1000~1300	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)
RTA0405	14	145	11000~12000	1200~1400	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTA0405	14	155	12000~13000	1300~1700	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)
RTA0410	14	95	7800~8200	600~800	0.12~0.15	1~4	溝銑 (SLOTTING)
RTA0410	14	100	8000~8400	600~900	0.06~0.08	1~4	溝銑 (SLOTTING)
RTA0410	14	85	6500~7000	700~900	4~8	0.12~0.15	側銑 (SIDE MILLING)
RTA0410	14	85	6500~7000	400~600	4~8	0.06~0.08	側銑 (SIDE MILLING)
RTA0410	14	110	8700~9200	800~1100	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTA0410	14	110	8700~9200	1000~1300	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)
RTA0410	14	145	11000~12000	1200~1400	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTA0410	14	155	12000~13000	1300~1700	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)

RTA

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTA0505	17	85	5200~5700	900~1100	0.15~0.18	3~5	溝銼 (SLOTTING)
RTA0505	17	120	7300~7800	800~1200	0.06~0.08	3~5	溝銼 (SLOTTING)
RTA0505	17	85	5200~5700	800~1000	5~10	0.15~0.18	側銼 (SIDE MILLING)
RTA0505	17	95	5800~6300	600~800	5~10	0.06~0.08	側銼 (SIDE MILLING)
RTA0505	17	135	8300~8800	1300~1700	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
RTA0505	17	135	8300~8800	1200~1600	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0505	17	160	10000~10500	1600~1900	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
RTA0505	17	160	10000~10500	1500~1800	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0510	17	85	5200~5700	900~1100	0.15~0.18	2~5	溝銼 (SLOTTING)
RTA0510	17	120	7300~7800	800~1200	0.06~0.08	2~5	溝銼 (SLOTTING)
RTA0510	17	85	5200~5700	800~1000	5~10	0.15~0.18	側銼 (SIDE MILLING)
RTA0510	17	95	5800~6300	600~800	5~10	0.06~0.08	側銼 (SIDE MILLING)
RTA0510	17	135	8300~8800	1300~1700	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
RTA0510	17	135	8300~8800	1200~1600	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0510	17	160	10000~10500	1600~1900	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
RTA0510	17	160	10000~10500	1500~1800	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0605	20	85	4200~4700	800~1000	0.15~0.18	4~6	溝銼 (SLOTTING)
RTA0605	20	115	5700~6200	800~1200	0.06~0.08	4~6	溝銼 (SLOTTING)
RTA0605	20	85	4200~4600	700~900	6~12	0.15~0.18	側銼 (SIDE MILLING)
RTA0605	20	90	4400~4800	500~700	6~12	0.06~0.08	側銼 (SIDE MILLING)
RTA0605	20	135	7200~7600	1200~1600	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
RTA0605	20	135	7200~7600	1200~1600	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0610	20	85	4200~4700	800~1000	0.15~0.18	3~6	溝銼 (SLOTTING)
RTA0610	20	115	5700~6200	800~1200	0.06~0.08	3~6	溝銼 (SLOTTING)
RTA0610	20	85	4200~4600	700~900	6~12	0.15~0.18	側銼 (SIDE MILLING)
RTA0610	20	90	4400~4800	500~700	6~12	0.06~0.08	側銼 (SIDE MILLING)
RTA0610	20	135	7200~7600	1200~1600	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
RTA0610	20	135	7200~7600	1200~1600	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0805	30	100	3800~4300	800~1000	0.18~0.23	6~8	溝銼 (SLOTTING)
RTA0805	30	135	5200~5600	600~800	0.07~0.1	6~8	溝銼 (SLOTTING)
RTA0805	30	80	3000~3500	600~900	8~16	0.18~0.23	側銼 (SIDE MILLING)
RTA0805	30	90	3400~3800	600~800	8~16	0.07~0.1	側銼 (SIDE MILLING)
RTA0805	30	105	4000~4500	1600~1800	0.18~0.23	0.18~0.23	3D銼 (3D MILLING)
RTA0805	30	185	7200~7700	1000~1400	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
RTA0810	30	100	3800~4300	800~1000	0.18~0.23	5~8	溝銼 (SLOTTING)
RTA0810	30	135	5200~5600	600~800	0.07~0.1	5~8	溝銼 (SLOTTING)
RTA0810	30	80	3000~3500	600~900	8~16	0.18~0.23	側銼 (SIDE MILLING)
RTA0810	30	90	3400~3800	600~800	8~16	0.07~0.1	側銼 (SIDE MILLING)
RTA0810	30	105	4000~4500	1600~1800	0.18~0.23	0.18~0.23	3D銼 (3D MILLING)
RTA0810	30	185	7200~7700	1000~1400	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)

RTA

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 - AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTA1005	35	100	3000~3400	700~1000	0.2~0.25	8~10	溝銼 (SLOTTING)
RTA1005	35	135	4200~4600	600~800	0.07~0.1	8~10	溝銼 (SLOTTING)
RTA1005	35	80	2400~2800	500~700	10~20	0.15~0.2	側銼 (SIDE MILLING)
RTA1005	35	90	2800~3200	450~650	10~20	0.07~0.1	側銼 (SIDE MILLING)
RTA1005	35	105	3200~3600	1200~1600	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
RTA1005	35	185	5800~6200	1000~1400	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
RTA1010	35	100	3000~3400	700~1000	0.2~0.25	7~10	溝銼 (SLOTTING)
RTA1010	35	135	4200~4600	600~800	0.07~0.1	7~10	溝銼 (SLOTTING)
RTA1010	35	80	2400~2800	500~700	10~20	0.15~0.2	側銼 (SIDE MILLING)
RTA1010	35	90	2800~3200	450~650	10~20	0.07~0.1	側銼 (SIDE MILLING)
RTA1010	35	105	3200~3600	1200~1600	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
RTA1010	35	185	5800~6200	1000~1400	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
RTA1015	35	100	3000~3400	700~1000	0.2~0.25	6~10	溝銼 (SLOTTING)
RTA1015	35	135	4200~4600	600~800	0.07~0.1	6~10	溝銼 (SLOTTING)
RTA1015	35	80	2400~2800	500~700	10~20	0.15~0.2	側銼 (SIDE MILLING)
RTA1015	35	90	2800~3200	450~650	10~20	0.07~0.1	側銼 (SIDE MILLING)
RTA1015	35	105	3200~3600	1200~1600	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
RTA1015	35	185	5800~6200	1000~1400	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
RTA1020	35	100	3000~3400	700~1000	0.2~0.25	5~10	溝銼 (SLOTTING)
RTA1020	35	135	4200~4600	600~800	0.07~0.1	5~10	溝銼 (SLOTTING)
RTA1020	35	80	2400~2800	500~700	10~20	0.15~0.2	側銼 (SIDE MILLING)
RTA1020	35	90	2800~3200	450~650	10~20	0.07~0.1	側銼 (SIDE MILLING)
RTA1020	35	105	3200~3600	1200~1600	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
RTA1020	35	185	5800~6200	1000~1400	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
RTA1210	40	75	2000~2400	600~900	0.2~0.25	9~12	溝銼 (SLOTTING)
RTA1210	40	145	3800~4200	800~1000	0.07~0.12	9~12	溝銼 (SLOTTING)
RTA1210	40	70	1800~2200	600~800	12~24	0.15~0.2	側銼 (SIDE MILLING)
RTA1210	40	70	1800~2200	300~500	12~24	0.07~0.12	側銼 (SIDE MILLING)
RTA1210	40	140	3600~4000	1000~1200	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
RTA1210	40	150	4500~5000	1200~1500	0.07~0.12	0.07~0.12	3D銼 (3D MILLING)
RTA1220	40	75	2000~2400	600~900	0.2~0.25	7~12	溝銼 (SLOTTING)
RTA1220	40	145	3800~4200	800~1000	0.07~0.12	7~12	溝銼 (SLOTTING)
RTA1220	40	70	1800~2200	600~800	12~24	0.15~0.2	側銼 (SIDE MILLING)
RTA1220	40	70	1800~2200	300~500	12~24	0.07~0.12	側銼 (SIDE MILLING)
RTA1220	40	140	3600~4000	1000~1200	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
RTA1220	40	150	4500~5000	1200~1500	0.07~0.12	0.07~0.12	3D銼 (3D MILLING)

RTA

切削條件表

Milling Conditions

被切削材 Work Material

熱處理鋼 : Hardened Steels

SKD61/ STAVAX / 17-4PH : 1.2083 / 1.2344 / 1.4542 : H13 / 420 (HRC48~54)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTA0205	12	60	9000~9500	600~800	0.03~0.05	1~2	溝銼 (SLOTTING)
RTA0205	12	60	9000~9500	300~500	2~4	0.03~0.05	側銼 (SIDE MILLING)
RTA0205	12	60	9000~9500	600~800	0.03~0.05	0.03~0.05	3D銼 (3D MILLING)
RTA0205	12	140	22000~23000	1400~1600	0.03~0.05	0.03~0.05	3D銼 (3D MILLING)
RTA0305	12	85	8800~9300	600~800	0.04~0.06	1~3	溝銼 (SLOTTING)
RTA0305	12	75	8000~8500	300~500	3~6	0.04~0.06	側銼 (SIDE MILLING)
RTA0305	12	85	8800~9300	600~800	0.04~0.06	0.04~0.06	3D銼 (3D MILLING)
RTA0305	12	145	15000~16000	1400~1600	0.04~0.06	0.04~0.06	3D銼 (3D MILLING)
RTA0405	14	90	7200~7600	600~800	0.04~0.06	2~4	溝銼 (SLOTTING)
RTA0405	14	75	6000~6400	300~500	4~8	0.04~0.06	側銼 (SIDE MILLING)
RTA0405	14	110	8700~9200	600~800	0.04~0.06	0.04~0.06	3D銼 (3D MILLING)
RTA0405	14	140	11000~12000	1000~1200	0.04~0.06	0.04~0.06	3D銼 (3D MILLING)
RTA0410	14	90	7200~7600	600~800	0.04~0.06	1~4	溝銼 (SLOTTING)
RTA0410	14	75	6000~6400	300~500	4~8	0.04~0.06	側銼 (SIDE MILLING)
RTA0410	14	110	8700~9200	600~800	0.04~0.06	0.04~0.06	3D銼 (3D MILLING)
RTA0410	14	140	11000~12000	1000~1200	0.04~0.06	0.04~0.06	3D銼 (3D MILLING)
RTA0505	17	95	6000~6600	800~1000	0.05~0.07	3~5	溝銼 (SLOTTING)
RTA0505	17	75	4800~5200	400~600	5~10	0.05~0.07	側銼 (SIDE MILLING)
RTA0505	17	135	8600~9000	800~1000	0.05~0.07	0.05~0.07	3D銼 (3D MILLING)
RTA0505	17	145	9000~10000	1200~1400	0.05~0.07	0.05~0.07	3D銼 (3D MILLING)
RTA0510	17	95	6000~6600	800~1000	0.05~0.07	2~5	溝銼 (SLOTTING)
RTA0510	17	75	4800~5200	400~600	5~10	0.05~0.07	側銼 (SIDE MILLING)
RTA0510	17	135	8600~9000	800~1000	0.05~0.07	0.05~0.07	3D銼 (3D MILLING)
RTA0510	17	145	9000~10000	1200~1400	0.05~0.07	0.05~0.07	3D銼 (3D MILLING)
RTA0605	20	95	5000~5500	800~1000	0.05~0.07	4.5	溝銼 (SLOTTING)
RTA0605	20	75	4000~4400	400~600	6~12	0.05~0.07	側銼 (SIDE MILLING)
RTA0605	20	135	7200~7600	1000~1200	0.05~0.07	0.05~0.07	3D銼 (3D MILLING)
RTA0610	20	95	5000~5500	800~1000	0.05~0.07	3~6	溝銼 (SLOTTING)
RTA0610	20	75	4000~4400	400~600	6~12	0.05~0.07	側銼 (SIDE MILLING)
RTA0610	20	135	7200~7600	1000~1200	0.05~0.07	0.05~0.07	3D銼 (3D MILLING)
RTA0805	30	135	5200~5700	600~800	0.06~0.08	6~8	溝銼 (SLOTTING)
RTA0805	30	85	3200~3700	400~600	8~16	0.06~0.08	側銼 (SIDE MILLING)
RTA0805	30	150	6000~6500	800~1000	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA0810	30	135	5200~5700	600~800	0.06~0.08	5~8	溝銼 (SLOTTING)
RTA0810	30	85	3200~3700	400~600	8~16	0.06~0.08	側銼 (SIDE MILLING)
RTA0810	30	150	6000~6500	800~1000	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTA1005	35	135	4200~4600	600~800	0.07~0.1	8.5	溝銼 (SLOTTING)
RTA1005	35	85	2600~3000	400~600	10~20	0.07~0.1	側銼 (SIDE MILLING)
RTA1005	35	150	4800~5200	800~1000	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)

RTA

切削條件表

Milling Conditions

 熱處理鋼 : *Hardened Steels*
SKD61/ STAVAX / 17-4PH : 1.2083 / 1.2344 / 1.4542 : H13 / 420 (HRc48-54)

被切削材 Work Material

濕式切削 Wet coolant

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTA1010	35	135	4200~4600	600~800	0.07~0.1	7~10	溝銑 (SLOTTING)
RTA1010	35	85	2600~3000	400~600	10~20	0.07~0.1	側銑 (SIDE MILLING)
RTA1010	35	150	4800~5200	800~1000	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTA1015	35	135	4200~4600	600~800	0.07~0.1	6~10	溝銑 (SLOTTING)
RTA1015	35	85	2600~3000	400~600	10~20	0.07~0.1	側銑 (SIDE MILLING)
RTA1015	35	150	4800~5200	800~1000	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTA1020	35	135	4200~4600	600~800	0.07~0.1	5~10	溝銑 (SLOTTING)
RTA1020	35	85	2600~3000	400~600	10~20	0.07~0.1	側銑 (SIDE MILLING)
RTA1020	35	150	4800~5200	800~1000	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTA1210	40	100	2600~3000	600~800	0.07~0.12	9~12	溝銑 (SLOTTING)
RTA1210	40	60	1600~2000	300~400	12~24	0.07~0.12	側銑 (SIDE MILLING)
RTA1210	40	130	3400~3800	600~800	0.07~0.12	0.07~0.12	3D銑 (3D MILLING)
RTA1220	40	100	2600~3000	600~800	0.07~0.12	7~12	溝銑 (SLOTTING)
RTA1220	40	60	1600~2000	300~400	12~24	0.07~0.12	側銑 (SIDE MILLING)
RTA1220	40	130	3400~3800	600~800	0.07~0.12	0.07~0.12	3D銑 (3D MILLING)

RTD

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
 S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 / 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTD0202	12	60	9000~10000	900~1100	0.1~0.12	1~2	溝銑 (SLOTTING)
RTD0202	12	60	9000~10000	800~1000	0.04~0.06	1~2	溝銑 (SLOTTING)
RTD0202	12	100	16000~17000	1100~1300	0.1~0.12	1~2	溝銑 (SLOTTING)
RTD0202	12	100	16000~17000	1000~1200	0.04~0.06	1~2	溝銑 (SLOTTING)
RTD0202	12	60	9000~10000	1100~1300	2~4	0.1~0.12	側銑 (SIDE MILLING)
RTD0202	12	60	9000~10000	800~1000	2~4	0.04~0.06	側銑 (SIDE MILLING)
RTD0202	12	85	13500~15000	1200~1400	2~4	0.1~0.12	側銑 (SIDE MILLING)
RTD0202	12	85	13500~15000	900~1100	2~4	0.04~0.06	側銑 (SIDE MILLING)
RTD0202	12	60	9000~10000	1100~1400	0.1~0.12	0.1~0.12	3D銑 (3D MILLING)
RTD0202	12	60	9000~10000	1100~1400	0.04~0.06	0.04~0.06	3D銑 (3D MILLING)
RTD0202	12	145	23000~24000	1400~1800	0.1~0.12	0.1~0.12	3D銑 (3D MILLING)
RTD0202	12	145	23000~24000	1400~1800	0.04~0.06	0.04~0.06	3D銑 (3D MILLING)
RTD0205	12	60	9000~10000	900~1100	0.1~0.12	0.5~2	溝銑 (SLOTTING)
RTD0205	12	60	9000~10000	800~1000	0.04~0.06	0.5~2	溝銑 (SLOTTING)
RTD0205	12	100	16000~17000	1100~1300	0.1~0.12	0.5~2	溝銑 (SLOTTING)
RTD0205	12	100	16000~17000	1000~1200	0.04~0.06	0.5~2	溝銑 (SLOTTING)
RTD0205	12	60	9000~10000	1100~1300	2~4	0.1~0.12	側銑 (SIDE MILLING)
RTD0205	12	60	9000~10000	800~1000	2~4	0.04~0.06	側銑 (SIDE MILLING)
RTD0205	12	85	13500~15000	1200~1400	2~4	0.1~0.12	側銑 (SIDE MILLING)
RTD0205	12	85	13500~15000	900~1100	2~4	0.04~0.06	側銑 (SIDE MILLING)
RTD0205	12	60	9000~10000	1100~1400	0.1~0.12	0.1~0.12	3D銑 (3D MILLING)
RTD0205	12	60	9000~10000	1100~1400	0.04~0.06	0.04~0.06	3D銑 (3D MILLING)
RTD0205	12	145	23000~24000	1400~1800	0.1~0.12	0.1~0.12	3D銑 (3D MILLING)
RTD0205	12	145	23000~24000	1400~1800	0.04~0.06	0.04~0.06	3D銑 (3D MILLING)
RTD0305	12	85	9000~10000	900~1100	0.12~0.15	1~3	溝銑 (SLOTTING)
RTD0305	12	85	9000~10000	800~1000	0.06~0.08	1~3	溝銑 (SLOTTING)
RTD0305	12	100	10500~11000	1100~1300	0.12~0.15	1~3	溝銑 (SLOTTING)
RTD0305	12	100	10500~11000	1000~1200	0.06~0.08	1~3	溝銑 (SLOTTING)
RTD0305	12	80	8500~9000	1100~1300	3~6	0.12~0.15	側銑 (SIDE MILLING)
RTD0305	12	80	8500~9000	800~1000	3~6	0.06~0.08	側銑 (SIDE MILLING)
RTD0305	12	85	9000~10000	1200~1400	3~6	0.12~0.15	側銑 (SIDE MILLING)
RTD0305	12	85	9000~10000	900~1100	3~6	0.06~0.08	側銑 (SIDE MILLING)
RTD0305	12	85	9000~10000	1100~1400	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTD0305	12	85	9000~10000	1100~1400	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)
RTD0305	12	145	15000~16000	1400~1800	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTD0305	12	150	16000~17000	1400~1800	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)

RTD

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTD0405	14	100	8000~8400	1000~1200	0.15~0.18	2~4	溝銑 (SLOTTING)
RTD0405	14	100	8000~8400	1000~1200	0.07~0.1	2~4	溝銑 (SLOTTING)
RTD0405	14	85	6800~7200	1000~1200	4~8	0.15~0.18	側銑 (SIDE MILLING)
RTD0405	14	85	6500~7500	800~1000	4~8	0.07~0.1	側銑 (SIDE MILLING)
RTD0405	14	110	8700~9200	1000~1200	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
RTD0405	14	110	8700~9200	1200~1600	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0405	14	150	12000~13000	1600~2000	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
RTD0405	14	165	13000~14000	1600~2000	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0505	17	90	5800~6400	1200~1400	0.15~0.18	3~5	溝銑 (SLOTTING)
RTD0505	17	130	8000~8500	1000~1400	0.07~0.1	3~5	溝銑 (SLOTTING)
RTD0505	17	95	6000~7000	1000~1200	5~10	0.15~0.18	側銑 (SIDE MILLING)
RTD0505	17	95	6000~7000	800~1000	5~10	0.07~0.1	側銑 (SIDE MILLING)
RTD0505	17	135	8500~9000	1400~1800	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
RTD0505	17	135	8500~9000	1300~1600	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0505	17	160	10000~11000	1600~2000	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
RTD0505	17	160	10000~11000	1400~1800	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0510	17	90	5800~6400	1200~1400	0.15~0.18	2~5	溝銑 (SLOTTING)
RTD0510	17	130	8000~8500	1000~1400	0.07~0.1	2~5	溝銑 (SLOTTING)
RTD0510	17	95	6000~7000	1000~1200	5~10	0.15~0.18	側銑 (SIDE MILLING)
RTD0510	17	95	6000~7000	800~1000	5~10	0.07~0.1	側銑 (SIDE MILLING)
RTD0510	17	135	8500~9000	1400~1800	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
RTD0510	17	135	8500~9000	1300~1600	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0510	17	160	10000~11000	1600~2000	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
RTD0510	17	160	10000~11000	1400~1800	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0605	20	90	4800~5400	1400~1600	0.15~0.2	4~6	溝銑 (SLOTTING)
RTD0605	20	130	6800~7200	1400~1600	0.07~0.1	4~6	溝銑 (SLOTTING)
RTD0605	20	95	5000~6000	1000~1200	6~12	0.15~0.2	側銑 (SIDE MILLING)
RTD0605	20	95	5000~6000	800~1000	6~12	0.07~0.1	側銑 (SIDE MILLING)
RTD0605	20	160	8500~9000	1800~2200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTD0605	20	160	8500~9000	1600~2000	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0610	20	90	4800~5400	1400~1600	0.15~0.2	3~6	溝銑 (SLOTTING)
RTD0610	20	130	6800~7200	1400~1600	0.07~0.1	3~6	溝銑 (SLOTTING)
RTD0610	20	95	5000~6000	1000~1200	6~12	0.15~0.2	側銑 (SIDE MILLING)
RTD0610	20	95	5000~6000	800~1000	6~12	0.07~0.1	側銑 (SIDE MILLING)
RTD0610	20	160	8500~9000	1800~2200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTD0610	20	160	8500~9000	1600~2000	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)

RTD

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
 S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTD0805	30	135	5200~5800	1000~1400	0.2~0.25	6~8	溝銑 (SLOTTING)
RTD0805	30	145	5800~6200	1000~1200	0.07~0.11	6~8	溝銑 (SLOTTING)
RTD0805	30	90	3500~4000	1000~1200	8~16	0.2~0.25	側銑 (SIDE MILLING)
RTD0805	30	90	3500~4000	700~1000	8~16	0.07~0.11	側銑 (SIDE MILLING)
RTD0805	30	190	7500~8500	2000~2400	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTD0805	30	190	7500~8500	1400~1800	0.07~0.11	0.07~0.11	3D銑 (3D MILLING)
RTD0810	30	135	5200~5800	1000~1400	0.2~0.25	5~8	溝銑 (SLOTTING)
RTD0810	30	145	5800~6200	1000~1200	0.07~0.11	5~8	溝銑 (SLOTTING)
RTD0810	30	90	3500~4000	1000~1200	8~16	0.2~0.25	側銑 (SIDE MILLING)
RTD0810	30	90	3500~4000	700~1000	8~16	0.07~0.11	側銑 (SIDE MILLING)
RTD0810	30	190	7500~8500	2000~2400	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTD0810	30	190	7500~8500	1400~1800	0.07~0.11	0.07~0.11	3D銑 (3D MILLING)
RTD1005Z	30	135	4200~4700	1200~1600	0.25~0.3	8~10	溝銑 (SLOTTING)
RTD1005Z	30	145	4500~5000	800~1000	0.08~0.13	8~10	溝銑 (SLOTTING)
RTD1005Z	30	90	2800~3200	800~1200	10~20	0.25~0.3	側銑 (SIDE MILLING)
RTD1005Z	30	90	2800~3200	700~900	10~20	0.1~0.15	側銑 (SIDE MILLING)
RTD1005Z	30	190	6000~7000	2400~2800	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTD1005Z	30	190	6000~7000	1400~1800	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
RTD1005	35	135	4200~4700	1200~1600	0.25~0.3	8~10	溝銑 (SLOTTING)
RTD1005	35	145	4500~5000	800~1000	0.08~0.13	8~10	溝銑 (SLOTTING)
RTD1005	35	90	2800~3200	800~1200	10~20	0.25~0.3	側銑 (SIDE MILLING)
RTD1005	35	90	2800~3200	700~900	10~20	0.08~0.13	側銑 (SIDE MILLING)
RTD1005	35	190	6000~7000	2100~2500	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTD1005	35	190	6000~7000	1400~1800	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
RTD1010Z	30	135	4200~4700	1200~1600	0.25~0.3	7~10	溝銑 (SLOTTING)
RTD1010Z	30	145	4500~5000	800~1000	0.08~0.13	7~10	溝銑 (SLOTTING)
RTD1010Z	30	90	2800~3200	800~1200	10~20	0.25~0.3	側銑 (SIDE MILLING)
RTD1010Z	30	90	2800~3200	700~900	10~20	0.1~0.15	側銑 (SIDE MILLING)
RTD1010Z	30	190	6000~7000	2400~2800	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTD1010Z	30	190	6000~7000	1400~1800	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
RTD1010	35	135	4200~4700	1200~1600	0.25~0.3	7~10	溝銑 (SLOTTING)
RTD1010	35	145	4500~5000	800~1000	0.08~0.13	7~10	溝銑 (SLOTTING)
RTD1010	35	90	2800~3200	800~1200	10~20	0.25~0.3	側銑 (SIDE MILLING)
RTD1010	35	90	2800~3200	700~900	10~20	0.1~0.15	側銑 (SIDE MILLING)
RTD1010	35	190	6000~7000	2100~2500	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTD1010	35	190	6000~7000	1400~1800	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)

RTD

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTD1020Z	30	135	4200~4700	1200~1600	0.25~0.3	5~10	溝銑 (SLOTTING)
RTD1020Z	30	145	4500~5000	800~1000	0.08~0.13	5~10	溝銑 (SLOTTING)
RTD1020Z	30	90	2800~3200	800~1200	10~20	0.25~0.3	側銑 (SIDE MILLING)
RTD1020Z	30	90	2800~3200	700~900	10~20	0.1~0.15	側銑 (SIDE MILLING)
RTD1020Z	30	190	6000~7000	2400~2800	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTD1020Z	30	190	6000~7000	1400~1800	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
RTD1020	35	135	4200~4700	1200~1600	0.25~0.3	5~10	溝銑 (SLOTTING)
RTD1020	35	145	4500~5000	800~1000	0.08~0.13	5~10	溝銑 (SLOTTING)
RTD1020	35	90	2800~3200	800~1200	10~20	0.25~0.3	側銑 (SIDE MILLING)
RTD1020	35	90	2800~3200	700~900	10~20	0.1~0.15	側銑 (SIDE MILLING)
RTD1020	35	190	6000~7000	2100~2500	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTD1020	35	190	6000~7000	1400~1800	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
RTD1030Z	30	135	4200~4700	1200~1600	0.25~0.3	3~10	溝銑 (SLOTTING)
RTD1030Z	30	145	4500~5000	800~1000	0.08~0.13	3~10	溝銑 (SLOTTING)
RTD1030Z	30	90	2800~3200	800~1200	10~20	0.25~0.3	側銑 (SIDE MILLING)
RTD1030Z	30	90	2800~3200	700~900	10~20	0.1~0.15	側銑 (SIDE MILLING)
RTD1030Z	30	190	6000~7000	2400~2800	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTD1030Z	30	190	6000~7000	1400~1800	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
RTD1030	35	135	4200~4700	1200~1600	0.25~0.3	3~10	溝銑 (SLOTTING)
RTD1030	35	145	4500~5000	800~1000	0.08~0.13	3~10	溝銑 (SLOTTING)
RTD1030	35	90	2800~3200	800~1200	10~20	0.25~0.3	側銑 (SIDE MILLING)
RTD1030	35	90	2800~3200	700~900	10~20	0.1~0.15	側銑 (SIDE MILLING)
RTD1030	35	190	6000~7000	2100~2500	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTD1030	35	190	6000~7000	1400~1800	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
RTD1210	40	145	3800~4200	1200~1600	0.25~0.3	9~12	溝銑 (SLOTTING)
RTD1210	40	150	4000~4500	1400~1600	0.1~0.15	9~12	溝銑 (SLOTTING)
RTD1210	40	105	2800~3200	1000~1200	12~24	0.25~0.3	側銑 (SIDE MILLING)
RTD1210	40	105	2800~3200	600~800	12~24	0.1~0.15	側銑 (SIDE MILLING)
RTD1210	40	170	4500~5000	1600~2000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTD1210	40	190	5000~5500	1600~2000	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)
RTD1220	40	145	3800~4200	1200~1600	0.25~0.3	7~12	溝銑 (SLOTTING)
RTD1220	40	150	4000~4500	1400~1600	0.1~0.15	7~12	溝銑 (SLOTTING)
RTD1220	40	105	2800~3200	1000~1200	12~24	0.25~0.3	側銑 (SIDE MILLING)
RTD1220	40	105	2800~3200	600~800	12~24	0.1~0.15	側銑 (SIDE MILLING)
RTD1220	40	170	4500~5000	1600~2000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTD1220	40	190	5000~5500	1600~2000	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)

RTD

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
 S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTD1230	40	145	3800~4200	1200~1600	0.25~0.3	5~12	溝銼 (SLOTTING)
RTD1230	40	150	4000~4500	1400~1600	0.1~0.15	5~12	溝銼 (SLOTTING)
RTD1230	40	105	2800~3200	1000~1200	12~24	0.25~0.3	側銼 (SIDE MILLING)
RTD1230	40	105	2800~3200	600~800	12~24	0.1~0.15	側銼 (SIDE MILLING)
RTD1230	40	170	4500~5000	1600~2000	0.25~0.3	0.25~0.3	3D銼 (3D MILLING)
RTD1230	40	190	5000~5500	1600~2000	0.1~0.15	0.1~0.15	3D銼 (3D MILLING)

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
 P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTD0202	12	60	9000~10000	800~1000	0.1~0.12	1~2	溝銼 (SLOTTING)
RTD0202	12	60	9000~10000	800~1000	0.04~0.06	1~2	溝銼 (SLOTTING)
RTD0202	12	100	16000~17000	1000~1200	0.1~0.12	1~2	溝銼 (SLOTTING)
RTD0202	12	100	16000~17000	1000~1200	0.04~0.06	1~2	溝銼 (SLOTTING)
RTD0202	12	60	9000~10000	1000~1200	2~4	0.1~0.12	側銼 (SIDE MILLING)
RTD0202	12	60	9000~10000	700~900	2~4	0.04~0.06	側銼 (SIDE MILLING)
RTD0202	12	60	9000~10000	1000~1200	0.1~0.12	0.1~0.12	3D銼 (3D MILLING)
RTD0202	12	60	9000~10000	1000~1200	0.04~0.06	0.04~0.06	3D銼 (3D MILLING)
RTD0202	12	140	22000~23000	1200~1600	0.1~0.12	0.1~0.12	3D銼 (3D MILLING)
RTD0202	12	145	23000~24000	1200~1600	0.04~0.06	0.04~0.06	3D銼 (3D MILLING)
RTD0205	12	60	9000~10000	800~1000	0.1~0.12	0.5~2	溝銼 (SLOTTING)
RTD0205	12	60	9000~10000	800~1000	0.04~0.06	0.5~2	溝銼 (SLOTTING)
RTD0205	12	100	16000~17000	1000~1200	0.1~0.12	0.5~2	溝銼 (SLOTTING)
RTD0205	12	100	16000~17000	1000~1200	0.04~0.06	0.5~2	溝銼 (SLOTTING)
RTD0205	12	60	9000~10000	1000~1200	2~4	0.1~0.12	側銼 (SIDE MILLING)
RTD0205	12	60	9000~10000	700~900	2~4	0.04~0.06	側銼 (SIDE MILLING)
RTD0205	12	60	9000~10000	1000~1200	0.1~0.12	0.1~0.12	3D銼 (3D MILLING)
RTD0205	12	60	9000~10000	1000~1200	0.04~0.06	0.04~0.06	3D銼 (3D MILLING)
RTD0205	12	140	22000~23000	1200~1600	0.1~0.12	0.1~0.12	3D銼 (3D MILLING)
RTD0205	12	145	23000~24000	1200~1600	0.04~0.06	0.04~0.06	3D銼 (3D MILLING)

RTD

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 / Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRc23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTD0305	12	85	9000~10000	800~1000	0.12~0.15	1~3	溝銑 (SLOTTING)
RTD0305	12	85	9000~10000	800~1000	0.06~0.08	1~3	溝銑 (SLOTTING)
RTD0305	12	100	10500~11000	1100~1300	0.12~0.15	1~3	溝銑 (SLOTTING)
RTD0305	12	100	10500~11000	1000~1200	0.06~0.08	1~3	溝銑 (SLOTTING)
RTD0305	12	80	8500~9000	1000~1200	3~6	0.12~0.15	側銑 (SIDE MILLING)
RTD0305	12	80	8500~9000	700~900	3~6	0.06~0.08	側銑 (SIDE MILLING)
RTD0305	12	85	9000~10000	1000~1200	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTD0305	12	85	9000~10000	1000~1200	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)
RTD0305	12	140	14000~15000	1400~1800	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTD0305	12	150	16000~17000	1400~1800	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)
RTD0405	14	100	8000~8400	800~1000	0.15~0.18	2~4	溝銑 (SLOTTING)
RTD0405	14	100	8000~8400	800~1000	0.07~0.1	2~4	溝銑 (SLOTTING)
RTD0405	14	85	6800~7200	800~1000	4~8	0.15~0.18	側銑 (SIDE MILLING)
RTD0405	14	85	6500~7000	500~700	4~8	0.07~0.1	側銑 (SIDE MILLING)
RTD0405	14	110	8700~9200	800~1000	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
RTD0405	14	110	8700~9200	1000~1200	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0405	14	140	11000~12000	1400~1800	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
RTD0405	14	150	12000~13000	1400~1800	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0505	17	90	5800~6400	800~1000	0.15~0.18	3~5	溝銑 (SLOTTING)
RTD0505	17	115	7200~7600	1000~1200	0.07~0.1	3~5	溝銑 (SLOTTING)
RTD0505	17	85	5400~6000	800~1000	5~10	0.15~0.18	側銑 (SIDE MILLING)
RTD0505	17	90	5800~6400	600~800	5~10	0.07~0.1	側銑 (SIDE MILLING)
RTD0505	17	95	6000~7000	1000~1200	5~10	0.15~0.18	側銑 (SIDE MILLING)
RTD0505	17	95	6000~7000	800~1000	5~10	0.07~0.1	側銑 (SIDE MILLING)
RTD0505	17	130	8000~8500	800~1200	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
RTD0505	17	130	8000~8500	1000~1400	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0505	17	160	10000~11000	1600~1800	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
RTD0505	17	160	10000~11000	1300~1700	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0510	17	90	5800~6400	800~1000	0.15~0.18	2~5	溝銑 (SLOTTING)
RTD0510	17	115	7200~7600	1000~1200	0.07~0.1	2~5	溝銑 (SLOTTING)
RTD0510	17	85	5400~6000	800~1000	5~10	0.15~0.18	側銑 (SIDE MILLING)
RTD0510	17	90	5800~6400	600~800	5~10	0.07~0.1	側銑 (SIDE MILLING)
RTD0510	17	95	6000~7000	1000~1200	5~10	0.15~0.18	側銑 (SIDE MILLING)
RTD0510	17	95	6000~7000	800~1000	5~10	0.07~0.1	側銑 (SIDE MILLING)
RTD0510	17	130	8000~8500	800~1200	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
RTD0510	17	130	8000~8500	1000~1400	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0510	17	160	10000~11000	1600~1800	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
RTD0510	17	160	10000~11000	1300~1700	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)

RTD

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTD0605	20	90	4800~5400	1000~1400	0.15~0.2	4~6	溝銑 (SLOTTING)
RTD0605	20	115	6000~6400	1200~1400	0.07~0.1	4~6	溝銑 (SLOTTING)
RTD0605	20	85	4500~5000	800~1000	6~12	0.15~0.2	側銑 (SIDE MILLING)
RTD0605	20	90	4800~5200	600~800	6~12	0.07~0.1	側銑 (SIDE MILLING)
RTD0605	20	160	8500~9000	1000~1400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTD0605	20	160	8500~9000	1400~1800	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0610	20	90	4800~5400	1000~1400	0.15~0.2	3~6	溝銑 (SLOTTING)
RTD0610	20	115	6000~6400	1200~1400	0.07~0.1	3~6	溝銑 (SLOTTING)
RTD0610	20	85	4500~5000	800~1000	6~12	0.15~0.2	側銑 (SIDE MILLING)
RTD0610	20	90	4800~5200	600~800	6~12	0.07~0.1	側銑 (SIDE MILLING)
RTD0610	20	160	8500~9000	1000~1400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTD0610	20	160	8500~9000	1400~1800	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0805	30	100	4000~4500	700~1000	0.2~0.25	6~8	溝銑 (SLOTTING)
RTD0805	30	140	5500~6000	800~1000	0.07~0.11	6~8	溝銑 (SLOTTING)
RTD0805	30	90	3500~4000	700~900	8~16	0.2~0.25	側銑 (SIDE MILLING)
RTD0805	30	90	3500~4000	600~800	8~16	0.07~0.11	側銑 (SIDE MILLING)
RTD0805	30	100	4000~4500	1400~1800	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTD0805	30	185	7200~7700	1200~1600	0.07~0.11	0.07~0.11	3D銑 (3D MILLING)
RTD0810	30	100	4000~4500	700~1000	0.2~0.25	5~8	溝銑 (SLOTTING)
RTD0810	30	140	5500~6000	800~1000	0.07~0.11	5~8	溝銑 (SLOTTING)
RTD0810	30	90	3500~4000	700~900	8~16	0.2~0.25	側銑 (SIDE MILLING)
RTD0810	30	90	3500~4000	600~800	8~16	0.07~0.11	側銑 (SIDE MILLING)
RTD0810	30	100	4000~4500	1400~1800	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTD0810	30	185	7200~7700	1200~1600	0.07~0.11	0.07~0.11	3D銑 (3D MILLING)
RTD1005Z	30	100	3200~3600	800~1100	0.25~0.3	8~10	溝銑 (SLOTTING)
RTD1005Z	30	140	4400~4800	800~1000	0.08~0.13	8~10	溝銑 (SLOTTING)
RTD1005Z	30	90	2800~3200	700~1000	10~20	0.25~0.3	側銑 (SIDE MILLING)
RTD1005Z	30	90	2800~3200	600~800	10~20	0.08~0.13	側銑 (SIDE MILLING)
RTD1005Z	30	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTD1005Z	30	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
RTD1005	35	100	3200~3600	800~1100	0.25~0.3	8~10	溝銑 (SLOTTING)
RTD1005	35	140	4400~4800	800~1000	0.08~0.13	8~10	溝銑 (SLOTTING)
RTD1005	35	90	2800~3200	700~1000	10~20	0.25~0.3	側銑 (SIDE MILLING)
RTD1005	35	90	2800~3200	600~800	10~20	0.08~0.13	側銑 (SIDE MILLING)
RTD1005	35	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTD1005	35	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)

RTD

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 / Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTD1010Z	30	100	3200~3600	800~1100	0.25~0.3	7~10	溝銼 (SLOTTING)
RTD1010Z	30	140	4400~4800	800~1000	0.08~0.13	7~10	溝銼 (SLOTTING)
RTD1010Z	30	90	2800~3200	700~1000	10~20	0.25~0.3	側銼 (SIDE MILLING)
RTD1010Z	30	90	2800~3200	600~800	10~20	0.08~0.13	側銼 (SIDE MILLING)
RTD1010Z	30	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銼 (3D MILLING)
RTD1010Z	30	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銼 (3D MILLING)
RTD1010	35	100	3200~3600	800~1100	0.25~0.3	7~10	溝銼 (SLOTTING)
RTD1010	35	140	4400~4800	800~1000	0.08~0.13	7~10	溝銼 (SLOTTING)
RTD1010	35	90	2800~3200	700~1000	10~20	0.25~0.3	側銼 (SIDE MILLING)
RTD1010	35	90	2800~3200	600~800	10~20	0.08~0.13	側銼 (SIDE MILLING)
RTD1010	35	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銼 (3D MILLING)
RTD1010	35	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銼 (3D MILLING)
RTD1020Z	30	100	3200~3600	800~1100	0.25~0.3	5~10	溝銼 (SLOTTING)
RTD1020Z	30	140	4400~4800	800~1000	0.08~0.13	5~10	溝銼 (SLOTTING)
RTD1020Z	30	90	2800~3200	700~1000	10~20	0.25~0.3	側銼 (SIDE MILLING)
RTD1020Z	30	90	2800~3200	600~800	10~20	0.08~0.13	側銼 (SIDE MILLING)
RTD1020Z	30	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銼 (3D MILLING)
RTD1020Z	30	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銼 (3D MILLING)
RTD1020	35	100	3200~3600	800~1100	0.25~0.3	5~10	溝銼 (SLOTTING)
RTD1020	35	140	4400~4800	800~1000	0.08~0.13	5~10	溝銼 (SLOTTING)
RTD1020	35	90	2800~3200	700~1000	10~20	0.25~0.3	側銼 (SIDE MILLING)
RTD1020	35	90	2800~3200	600~800	10~20	0.08~0.13	側銼 (SIDE MILLING)
RTD1020	35	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銼 (3D MILLING)
RTD1020	35	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銼 (3D MILLING)
RTD1030Z	30	100	3200~3600	800~1100	0.25~0.3	3~10	溝銼 (SLOTTING)
RTD1030Z	30	140	4400~4800	800~1000	0.08~0.13	3~10	溝銼 (SLOTTING)
RTD1030Z	30	90	2800~3200	700~1000	10~20	0.25~0.3	側銼 (SIDE MILLING)
RTD1030Z	30	90	2800~3200	600~800	10~20	0.08~0.13	側銼 (SIDE MILLING)
RTD1030Z	30	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銼 (3D MILLING)
RTD1030Z	30	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銼 (3D MILLING)
RTD1030	35	100	3200~3600	800~1100	0.25~0.3	3~10	溝銼 (SLOTTING)
RTD1030	35	140	4400~4800	800~1000	0.08~0.13	3~10	溝銼 (SLOTTING)
RTD1030	35	90	2800~3200	700~1000	10~20	0.25~0.3	側銼 (SIDE MILLING)
RTD1030	35	90	2800~3200	600~800	10~20	0.08~0.13	側銼 (SIDE MILLING)
RTD1030	35	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銼 (3D MILLING)
RTD1030	35	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銼 (3D MILLING)

RTD

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 / Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTD1210	40	90	2400~2800	800~1000	0.25~0.3	9~12	溝銼 (SLOTTING)
RTD1210	40	145	3800~4200	1200~1400	0.1~0.15	9~12	溝銼 (SLOTTING)
RTD1210	40	70	1800~2200	600~800	12~24	0.25~0.3	側銼 (SIDE MILLING)
RTD1210	40	75	1900~2300	400~600	12~24	0.1~0.15	側銼 (SIDE MILLING)
RTD1210	40	150	4000~4400	1200~1400	0.25~0.3	0.25~0.3	3D銼 (3D MILLING)
RTD1210	40	180	4700~5200	1400~1800	0.1~0.15	0.1~0.15	3D銼 (3D MILLING)
RTD1220	40	90	2400~2800	800~1000	0.25~0.3	7~12	溝銼 (SLOTTING)
RTD1220	40	145	3800~4200	1200~1400	0.1~0.15	7~12	溝銼 (SLOTTING)
RTD1220	40	70	1800~2200	600~800	12~24	0.25~0.3	側銼 (SIDE MILLING)
RTD1220	40	75	1900~2300	400~600	12~24	0.1~0.15	側銼 (SIDE MILLING)
RTD1220	40	150	4000~4400	1200~1400	0.25~0.3	0.25~0.3	3D銼 (3D MILLING)
RTD1220	40	180	4700~5200	1400~1800	0.1~0.15	0.1~0.15	3D銼 (3D MILLING)
RTD1230	40	90	2400~2800	800~1000	0.25~0.3	5~12	溝銼 (SLOTTING)
RTD1230	40	145	3800~4200	1200~1400	0.1~0.15	5~12	溝銼 (SLOTTING)
RTD1230	40	70	1800~2200	600~800	12~24	0.25~0.3	側銼 (SIDE MILLING)
RTD1230	40	75	1900~2300	400~600	12~24	0.1~0.15	側銼 (SIDE MILLING)
RTD1230	40	150	4000~4400	1200~1400	0.25~0.3	0.25~0.3	3D銼 (3D MILLING)
RTD1230	40	180	4700~5200	1400~1800	0.1~0.15	0.1~0.15	3D銼 (3D MILLING)

被切削材 Work Material

調質鋼 / 預硬鋼 / Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTD0202	12	60	9000~10000	800~1000	0.1~0.12	1~2	溝銼 (SLOTTING)
RTD0202	12	60	9000~10000	800~1000	0.04~0.06	1~2	溝銼 (SLOTTING)
RTD0202	12	100	16000~17000	1000~1200	0.1~0.12	1~2	溝銼 (SLOTTING)
RTD0202	12	100	16000~17000	1000~1200	0.04~0.06	1~2	溝銼 (SLOTTING)
RTD0202	12	60	9000~10000	1000~1200	2~4	0.1~0.12	側銼 (SIDE MILLING)
RTD0202	12	60	9000~10000	700~900	2~4	0.04~0.06	側銼 (SIDE MILLING)
RTD0202	12	60	9000~10000	1000~1200	0.1~0.12	0.1~0.12	3D銼 (3D MILLING)
RTD0202	12	60	9000~10000	1000~1200	0.04~0.06	0.04~0.06	3D銼 (3D MILLING)
RTD0202	12	140	22000~23000	1200~1600	0.1~0.12	0.1~0.12	3D銼 (3D MILLING)
RTD0202	12	145	23000~24000	1200~1600	0.04~0.06	0.04~0.06	3D銼 (3D MILLING)

RTD

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTD0205	12	60	9000~10000	800~1000	0.1~0.12	0.5~2	溝銑 (SLOTTING)
RTD0205	12	60	9000~10000	800~1000	0.04~0.06	0.5~2	溝銑 (SLOTTING)
RTD0205	12	100	16000~17000	1000~1200	0.1~0.12	0.5~2	溝銑 (SLOTTING)
RTD0205	12	100	16000~17000	1000~1200	0.04~0.06	0.5~2	溝銑 (SLOTTING)
RTD0205	12	60	9000~10000	1000~1200	2~4	0.1~0.12	側銑 (SIDE MILLING)
RTD0205	12	60	9000~10000	700~900	2~4	0.04~0.06	側銑 (SIDE MILLING)
RTD0205	12	60	9000~10000	1000~1200	0.1~0.12	0.1~0.12	3D銑 (3D MILLING)
RTD0205	12	60	9000~10000	1000~1200	0.04~0.06	0.04~0.06	3D銑 (3D MILLING)
RTD0205	12	140	22000~23000	1200~1600	0.1~0.12	0.1~0.12	3D銑 (3D MILLING)
RTD0205	12	145	23000~24000	1200~1600	0.04~0.06	0.04~0.06	3D銑 (3D MILLING)
RTD0305	12	85	9000~10000	800~1000	0.12~0.15	1~3	溝銑 (SLOTTING)
RTD0305	12	85	9000~10000	800~1000	0.06~0.08	1~3	溝銑 (SLOTTING)
RTD0305	12	100	10500~11000	1100~1300	0.12~0.15	1~3	溝銑 (SLOTTING)
RTD0305	12	100	10500~11000	1000~1200	0.06~0.08	1~3	溝銑 (SLOTTING)
RTD0305	12	80	8500~9000	1000~1200	3~6	0.12~0.15	側銑 (SIDE MILLING)
RTD0305	12	80	8500~9000	700~900	3~6	0.06~0.08	側銑 (SIDE MILLING)
RTD0305	12	85	9000~10000	1000~1200	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTD0305	12	85	9000~10000	1000~1200	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)
RTD0305	12	140	14000~15000	1400~1800	0.12~0.15	0.12~0.15	3D銑 (3D MILLING)
RTD0305	12	150	16000~17000	1400~1800	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)
RTD0405	14	100	8000~8400	800~1000	0.15~0.18	2~4	溝銑 (SLOTTING)
RTD0405	14	100	8000~8400	800~1000	0.07~0.1	2~4	溝銑 (SLOTTING)
RTD0405	14	85	6800~7200	800~1000	4~8	0.15~0.18	側銑 (SIDE MILLING)
RTD0405	14	85	6500~7000	500~700	4~8	0.07~0.1	側銑 (SIDE MILLING)
RTD0405	14	110	8700~9200	800~1000	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
RTD0405	14	110	8700~9200	1000~1200	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0405	14	140	11000~12000	1400~1800	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
RTD0405	14	150	12000~13000	1400~1800	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0505	17	90	5800~6400	800~1000	0.15~0.18	3~5	溝銑 (SLOTTING)
RTD0505	17	115	7200~7600	1000~1200	0.07~0.1	3~5	溝銑 (SLOTTING)
RTD0505	17	85	5400~6000	800~1000	5~10	0.15~0.18	側銑 (SIDE MILLING)
RTD0505	17	90	5800~6400	600~800	5~10	0.07~0.1	側銑 (SIDE MILLING)
RTD0505	17	95	6000~7000	1000~1200	5~10	0.15~0.18	側銑 (SIDE MILLING)
RTD0505	17	95	6000~7000	800~1000	5~10	0.07~0.1	側銑 (SIDE MILLING)
RTD0505	17	130	8000~8500	800~1200	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
RTD0505	17	130	8000~8500	1000~1400	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0505	17	160	10000~11000	1600~1800	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
RTD0505	17	160	10000~11000	1300~1700	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)

RTD

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRc36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTD0510	17	90	5800~6400	800~1000	0.15~0.18	2~5	溝銑 (SLOTTING)
RTD0510	17	115	7200~7600	1000~1200	0.07~0.1	2~5	溝銑 (SLOTTING)
RTD0510	17	85	5400~6000	800~1000	5~10	0.15~0.18	側銑 (SIDE MILLING)
RTD0510	17	90	5800~6400	600~800	5~10	0.07~0.1	側銑 (SIDE MILLING)
RTD0510	17	95	6000~7000	1000~1200	5~10	0.15~0.18	側銑 (SIDE MILLING)
RTD0510	17	95	6000~7000	800~1000	5~10	0.07~0.1	側銑 (SIDE MILLING)
RTD0510	17	130	8000~8500	800~1200	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
RTD0510	17	130	8000~8500	1000~1400	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0510	17	160	10000~11000	1600~1800	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
RTD0510	17	160	10000~11000	1300~1700	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0605	20	90	4800~5400	1000~1400	0.15~0.2	4~6	溝銑 (SLOTTING)
RTD0605	20	115	6000~6400	1200~1400	0.07~0.1	4~6	溝銑 (SLOTTING)
RTD0605	20	85	4500~5000	800~1000	6~12	0.15~0.2	側銑 (SIDE MILLING)
RTD0605	20	90	4800~5200	600~800	6~12	0.07~0.1	側銑 (SIDE MILLING)
RTD0605	20	160	8500~9000	1000~1400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTD0605	20	160	8500~9000	1400~1800	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0610	20	90	4800~5400	1000~1400	0.15~0.2	3~6	溝銑 (SLOTTING)
RTD0610	20	115	6000~6400	1200~1400	0.07~0.1	3~6	溝銑 (SLOTTING)
RTD0610	20	85	4500~5000	800~1000	6~12	0.15~0.2	側銑 (SIDE MILLING)
RTD0610	20	90	4800~5200	600~800	6~12	0.07~0.1	側銑 (SIDE MILLING)
RTD0610	20	160	8500~9000	1000~1400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTD0610	20	160	8500~9000	1400~1800	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTD0805	30	100	4000~4500	700~1000	0.2~0.25	6~8	溝銑 (SLOTTING)
RTD0805	30	140	5500~6000	800~1000	0.07~0.11	6~8	溝銑 (SLOTTING)
RTD0805	30	90	3500~4000	700~900	8~16	0.2~0.25	側銑 (SIDE MILLING)
RTD0805	30	90	3500~4000	600~800	8~16	0.07~0.11	側銑 (SIDE MILLING)
RTD0805	30	100	4000~4500	1400~1800	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTD0805	30	185	7200~7700	1200~1600	0.07~0.11	0.07~0.11	3D銑 (3D MILLING)
RTD0810	30	100	4000~4500	700~1000	0.2~0.25	5~8	溝銑 (SLOTTING)
RTD0810	30	140	5500~6000	800~1000	0.07~0.11	5~8	溝銑 (SLOTTING)
RTD0810	30	90	3500~4000	700~900	8~16	0.2~0.25	側銑 (SIDE MILLING)
RTD0810	30	90	3500~4000	600~800	8~16	0.07~0.11	側銑 (SIDE MILLING)
RTD0810	30	100	4000~4500	1400~1800	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTD0810	30	185	7200~7700	1200~1600	0.07~0.11	0.07~0.11	3D銑 (3D MILLING)
RTD1005Z	30	100	3200~3600	800~1100	0.25~0.3	8~10	溝銑 (SLOTTING)
RTD1005Z	30	140	4400~4800	800~1000	0.08~0.13	8~10	溝銑 (SLOTTING)
RTD1005Z	30	90	2800~3200	700~1000	10~20	0.25~0.3	側銑 (SIDE MILLING)
RTD1005Z	30	90	2800~3200	600~800	10~20	0.08~0.13	側銑 (SIDE MILLING)
RTD1005Z	30	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTD1005Z	30	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)

RTD

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTD1005	35	100	3200~3600	800~1100	0.25~0.3	8~10	溝銼 (SLOTTING)
RTD1005	35	140	4400~4800	800~1000	0.08~0.13	8~10	溝銼 (SLOTTING)
RTD1005	35	90	2800~3200	700~1000	10~20	0.25~0.3	側銼 (SIDE MILLING)
RTD1005	35	90	2800~3200	600~800	10~20	0.08~0.13	側銼 (SIDE MILLING)
RTD1005	35	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銼 (3D MILLING)
RTD1005	35	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銼 (3D MILLING)
RTD1010Z	30	100	3200~3600	800~1100	0.25~0.3	7~10	溝銼 (SLOTTING)
RTD1010Z	30	140	4400~4800	800~1000	0.08~0.13	7~10	溝銼 (SLOTTING)
RTD1010Z	30	90	2800~3200	700~1000	10~20	0.25~0.3	側銼 (SIDE MILLING)
RTD1010Z	30	90	2800~3200	600~800	10~20	0.08~0.13	側銼 (SIDE MILLING)
RTD1010Z	30	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銼 (3D MILLING)
RTD1010Z	30	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銼 (3D MILLING)
RTD1010	35	100	3200~3600	800~1100	0.25~0.3	7~10	溝銼 (SLOTTING)
RTD1010	35	140	4400~4800	800~1000	0.08~0.13	7~10	溝銼 (SLOTTING)
RTD1010	35	90	2800~3200	700~1000	10~20	0.25~0.3	側銼 (SIDE MILLING)
RTD1010	35	90	2800~3200	600~800	10~20	0.08~0.13	側銼 (SIDE MILLING)
RTD1010	35	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銼 (3D MILLING)
RTD1010	35	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銼 (3D MILLING)
RTD1020Z	30	100	3200~3600	800~1100	0.25~0.3	5~10	溝銼 (SLOTTING)
RTD1020Z	30	140	4400~4800	800~1000	0.08~0.13	5~10	溝銼 (SLOTTING)
RTD1020Z	30	90	2800~3200	700~1000	10~20	0.25~0.3	側銼 (SIDE MILLING)
RTD1020Z	30	90	2800~3200	600~800	10~20	0.08~0.13	側銼 (SIDE MILLING)
RTD1020Z	30	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銼 (3D MILLING)
RTD1020Z	30	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銼 (3D MILLING)
RTD1020	35	100	3200~3600	800~1100	0.25~0.3	5~10	溝銼 (SLOTTING)
RTD1020	35	140	4400~4800	800~1000	0.08~0.13	5~10	溝銼 (SLOTTING)
RTD1020	35	90	2800~3200	700~1000	10~20	0.25~0.3	側銼 (SIDE MILLING)
RTD1020	35	90	2800~3200	600~800	10~20	0.08~0.13	側銼 (SIDE MILLING)
RTD1020	35	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銼 (3D MILLING)
RTD1020	35	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銼 (3D MILLING)
RTD1030Z	30	100	3200~3600	800~1100	0.25~0.3	3~10	溝銼 (SLOTTING)
RTD1030Z	30	140	4400~4800	800~1000	0.08~0.13	3~10	溝銼 (SLOTTING)
RTD1030Z	30	90	2800~3200	700~1000	10~20	0.25~0.3	側銼 (SIDE MILLING)
RTD1030Z	30	90	2800~3200	600~800	10~20	0.08~0.13	側銼 (SIDE MILLING)
RTD1030Z	30	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銼 (3D MILLING)
RTD1030Z	30	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銼 (3D MILLING)

RTD

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTD1030	35	100	3200~3600	800~1100	0.25~0.3	3~10	溝銑 (SLOTTING)
RTD1030	35	140	4400~4800	800~1000	0.08~0.13	3~10	溝銑 (SLOTTING)
RTD1030	35	90	2800~3200	700~1000	10~20	0.25~0.3	側銑 (SIDE MILLING)
RTD1030	35	90	2800~3200	600~800	10~20	0.08~0.13	側銑 (SIDE MILLING)
RTD1030	35	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTD1030	35	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
RTD1210	40	90	2400~2800	800~1000	0.25~0.3	9~12	溝銑 (SLOTTING)
RTD1210	40	145	3800~4200	1200~1400	0.1~0.15	9~12	溝銑 (SLOTTING)
RTD1210	40	70	1800~2200	600~800	12~24	0.25~0.3	側銑 (SIDE MILLING)
RTD1210	40	75	1900~2300	400~600	12~24	0.1~0.15	側銑 (SIDE MILLING)
RTD1210	40	150	4000~4400	1200~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTD1210	40	180	4700~5200	1400~1800	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)
RTD1220	40	90	2400~2800	800~1000	0.25~0.3	7~12	溝銑 (SLOTTING)
RTD1220	40	145	3800~4200	1200~1400	0.1~0.15	7~12	溝銑 (SLOTTING)
RTD1220	40	70	1800~2200	600~800	12~24	0.25~0.3	側銑 (SIDE MILLING)
RTD1220	40	75	1900~2300	400~600	12~24	0.1~0.15	側銑 (SIDE MILLING)
RTD1220	40	150	4000~4400	1200~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTD1220	40	180	4700~5200	1400~1800	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)
RTD1230	40	90	2400~2800	800~1000	0.25~0.3	5~12	溝銑 (SLOTTING)
RTD1230	40	145	3800~4200	1200~1400	0.1~0.15	5~12	溝銑 (SLOTTING)
RTD1230	40	70	1800~2200	600~800	12~24	0.25~0.3	側銑 (SIDE MILLING)
RTD1230	40	75	1900~2300	400~600	12~24	0.1~0.15	側銑 (SIDE MILLING)
RTD1230	40	150	4000~4400	1200~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTD1230	40	180	4700~5200	1400~1800	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)

RTD

切削條件表

Milling Conditions

熱處理鋼 : Hardened Steels

SKD61/ STAVAX / 17-4PH : 1.2083 / 1.2344 / 1.4542 : H13 / 420 (HRc48-54)

被切削材 Work Material

濕式切削 Wet coolant

冷卻方式 Coolant Type

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTD0202	12	60	9000~10000	800~1000	0.03~0.05	1~2	溝銼 (SLOTTING)
RTD0202	12	100	16000~17000	1000~1200	0.03~0.05	1~2	溝銼 (SLOTTING)
RTD0202	12	60	9000~10000	700~900	2~4	0.03~0.05	側銼 (SIDE MILLING)
RTD0202	12	60	9000~10000	1000~1200	0.03~0.05	0.03~0.05	3D銼 (3D MILLING)
RTD0202	12	145	23000~24000	1200~1600	0.03~0.05	0.03~0.05	3D銼 (3D MILLING)
RTD0205	12	60	9000~10000	800~1000	0.03~0.05	0.5~2	溝銼 (SLOTTING)
RTD0205	12	100	16000~17000	1000~1200	0.03~0.05	0.5~2	溝銼 (SLOTTING)
RTD0205	12	60	9000~10000	700~900	2~4	0.03~0.05	側銼 (SIDE MILLING)
RTD0205	12	60	9000~10000	1000~1200	0.03~0.05	0.03~0.05	3D銼 (3D MILLING)
RTD0205	12	145	23000~24000	1200~1600	0.03~0.05	0.03~0.05	3D銼 (3D MILLING)
RTD0305	12	85	9000~10000	800~1000	0.04~0.06	1~3	溝銼 (SLOTTING)
RTD0305	12	100	10500~11000	1000~1200	0.04~0.06	1~3	溝銼 (SLOTTING)
RTD0305	12	80	8500~9000	700~900	3~6	0.04~0.06	側銼 (SIDE MILLING)
RTD0305	12	85	9000~10000	800~1000	0.04~0.06	0.04~0.06	3D銼 (3D MILLING)
RTD0305	12	150	16000~17000	1000~1200	0.04~0.06	0.04~0.06	3D銼 (3D MILLING)
RTD0405	14	100	8000~8400	800~1000	0.05~0.07	2~4	溝銼 (SLOTTING)
RTD0405	14	75	6000~6400	400~600	4~8	0.05~0.07	側銼 (SIDE MILLING)
RTD0405	14	110	8700~9200	800~1000	0.05~0.07	0.05~0.07	3D銼 (3D MILLING)
RTD0405	14	140	11000~12000	1200~1600	0.05~0.07	0.05~0.07	3D銼 (3D MILLING)
RTD0505	17	105	6600~7200	1000~1200	0.06~0.08	3~5	溝銼 (SLOTTING)
RTD0505	17	80	5000~5500	600~800	5~10	0.06~0.08	側銼 (SIDE MILLING)
RTD0505	17	150	9200~9700	1200~1400	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTD0505	17	160	10000~11000	1300~1500	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTD0510	17	105	6600~7200	1000~1200	0.06~0.08	2~5	溝銼 (SLOTTING)
RTD0510	17	80	5000~5500	600~800	5~10	0.06~0.08	側銼 (SIDE MILLING)
RTD0510	17	150	9200~9700	1200~1400	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTD0510	17	160	10000~11000	1300~1500	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTD0605	20	105	5500~6000	1000~1200	0.06~0.08	4~6	溝銼 (SLOTTING)
RTD0605	20	80	4200~4600	600~800	6~12	0.06~0.08	側銼 (SIDE MILLING)
RTD0605	20	150	7800~8300	1200~1400	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTD0610	20	105	5500~6000	1000~1200	0.06~0.08	3~6	溝銼 (SLOTTING)
RTD0610	20	80	4200~4600	600~800	6~12	0.06~0.08	側銼 (SIDE MILLING)
RTD0610	20	150	7800~8300	1200~1400	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTD0805	30	140	5500~6000	600~800	0.08~0.1	6~8	溝銼 (SLOTTING)
RTD0805	30	90	3500~4000	600~800	8~16	0.08~0.1	側銼 (SIDE MILLING)
RTD0805	30	150	6000~6500	1000~1200	0.08~0.1	0.08~0.1	3D銼 (3D MILLING)
RTD0810	30	140	5500~6000	600~800	0.08~0.1	5~8	溝銼 (SLOTTING)
RTD0810	30	90	3500~4000	600~800	8~16	0.08~0.1	側銼 (SIDE MILLING)
RTD0810	30	150	6000~6500	1000~1200	0.08~0.1	0.08~0.1	3D銼 (3D MILLING)

RTD

切削條件表

Milling Conditions

被切削材 Work Material

熱處理鋼 : Hardened Steels
SKD61/ STAVAX / 17-4PH : 1.2083 / 1.2344 / 1.4542 : H13 / 420 (HRC48~54)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTD1005Z	30	140	4400~4800	600~800	0.08~0.12	8~10	溝銑 (SLOTTING)
RTD1005Z	30	90	2800~3200	600~800	10~20	0.08~0.12	側銑 (SIDE MILLING)
RTD1005Z	30	150	4800~5200	1000~1200	0.08~0.12	0.08~0.12	3D銑 (3D MILLING)
RTD1005	35	140	4400~4800	600~800	0.08~0.12	8~10	溝銑 (SLOTTING)
RTD1005	35	90	2800~3200	600~800	10~20	0.08~0.12	側銑 (SIDE MILLING)
RTD1005	35	150	4800~5200	1000~1200	0.08~0.12	0.08~0.12	3D銑 (3D MILLING)
RTD1010Z	30	140	4400~4800	600~800	0.08~0.12	7~10	溝銑 (SLOTTING)
RTD1010Z	30	90	2800~3200	600~800	10~20	0.08~0.12	側銑 (SIDE MILLING)
RTD1010Z	30	150	4800~5200	1000~1200	0.08~0.12	0.08~0.12	3D銑 (3D MILLING)
RTD1010	35	140	4400~4800	600~800	0.08~0.12	7~10	溝銑 (SLOTTING)
RTD1010	35	90	2800~3200	600~800	10~20	0.08~0.12	側銑 (SIDE MILLING)
RTD1010	35	150	4800~5200	1000~1200	0.08~0.12	0.08~0.12	3D銑 (3D MILLING)
RTD1020Z	30	140	4400~4800	600~800	0.08~0.12	5~10	溝銑 (SLOTTING)
RTD1020Z	30	90	2800~3200	600~800	10~20	0.08~0.12	側銑 (SIDE MILLING)
RTD1020Z	30	150	4800~5200	1000~1200	0.08~0.12	0.08~0.12	3D銑 (3D MILLING)
RTD1020	35	140	4400~4800	600~800	0.08~0.12	5~10	溝銑 (SLOTTING)
RTD1020	35	90	2800~3200	600~800	10~20	0.08~0.12	側銑 (SIDE MILLING)
RTD1020	35	150	4800~5200	1000~1200	0.08~0.12	0.08~0.12	3D銑 (3D MILLING)
RTD1030Z	30	140	4400~4800	600~800	0.08~0.12	3~10	溝銑 (SLOTTING)
RTD1030Z	30	90	2800~3200	600~800	10~20	0.08~0.12	側銑 (SIDE MILLING)
RTD1030Z	30	150	4800~5200	1000~1200	0.08~0.12	0.08~0.12	3D銑 (3D MILLING)
RTD1030	35	140	4400~4800	600~800	0.08~0.12	3~10	溝銑 (SLOTTING)
RTD1030	35	90	2800~3200	600~800	10~20	0.08~0.12	側銑 (SIDE MILLING)
RTD1030	35	150	4800~5200	1000~1200	0.08~0.12	0.08~0.12	3D銑 (3D MILLING)
RTD1210	40	105	2800~3300	800~1000	0.1~0.15	9~12	溝銑 (SLOTTING)
RTD1210	40	60	1600~2000	300~500	12~24	0.1~0.15	側銑 (SIDE MILLING)
RTD1210	40	130	3400~3800	800~1200	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)
RTD1220	40	105	2800~3300	800~1000	0.1~0.15	7~12	溝銑 (SLOTTING)
RTD1220	40	60	1600~2000	300~500	12~24	0.1~0.15	側銑 (SIDE MILLING)
RTD1220	40	130	3400~3800	800~1200	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)
RTD1230	40	105	2800~3300	800~1000	0.1~0.15	5~12	溝銑 (SLOTTING)
RTD1230	40	60	1600~2000	300~500	12~24	0.1~0.15	側銑 (SIDE MILLING)
RTD1230	40	130	3400~3800	800~1200	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)

LRTA

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTA0405	40	70	5400~5800	700~900	0.06~0.08	1~4	溝銼 (SLOTTING)
LRTA0405	40	90	7000~7400	1100~1300	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
LRTA0410	40	70	5400~5800	700~900	0.06~0.08	1~4	溝銼 (SLOTTING)
LRTA0410	40	90	7000~7400	1100~1300	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
LRTA0603	40	80	4000~4400	600~800	0.15~0.18	4~6	溝銼 (SLOTTING)
LRTA0603	40	75	3800~4200	400~600	0.06~0.08	4~6	溝銼 (SLOTTING)
LRTA0603	40	45	2000~2400	600~800	6~12	0.15~0.18	側銼 (SIDE MILLING)
LRTA0603	40	65	3200~3600	400~700	6~12	0.06~0.08	側銼 (SIDE MILLING)
LRTA0603	40	90	4500~5000	1300~1500	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
LRTA0603	40	120	6300~6800	1200~1400	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
LRTA0605	40	80	4000~4400	600~800	0.15~0.18	4~6	溝銼 (SLOTTING)
LRTA0605	40	75	3800~4200	400~600	0.06~0.08	4~6	溝銼 (SLOTTING)
LRTA0605	40	45	2000~2400	600~800	6~12	0.15~0.18	側銼 (SIDE MILLING)
LRTA0605	40	65	3200~3600	400~700	6~12	0.06~0.08	側銼 (SIDE MILLING)
LRTA0605	40	90	4500~5000	1300~1500	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
LRTA0605	40	120	6300~6800	1200~1400	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
LRTA0610	40	80	4000~4400	600~800	0.15~0.18	4~6	溝銼 (SLOTTING)
LRTA0610	40	75	3800~4200	400~600	0.06~0.08	4~6	溝銼 (SLOTTING)
LRTA0610	40	45	2000~2400	600~800	6~12	0.15~0.18	側銼 (SIDE MILLING)
LRTA0610	40	65	3200~3600	400~700	6~12	0.06~0.08	側銼 (SIDE MILLING)
LRTA0610	40	90	4500~5000	1300~1500	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
LRTA0610	40	120	6300~6800	1200~1400	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
LRTA0803	50	65	2400~2900	500~700	0.2~0.25	6~8	溝銼 (SLOTTING)
LRTA0803	50	65	2400~2900	400~600	0.07~0.1	6~8	溝銼 (SLOTTING)
LRTA0803	50	65	2400~2900	500~700	8~16	0.2~0.25	側銼 (SIDE MILLING)
LRTA0803	50	65	2400~2900	400~600	8~16	0.07~0.1	側銼 (SIDE MILLING)
LRTA0803	50	120	4500~5000	1200~1400	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
LRTA0803	50	120	4500~5000	1100~1300	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
LRTA0805	50	65	2400~2900	500~700	0.2~0.25	6~8	溝銼 (SLOTTING)
LRTA0805	50	65	2400~2900	400~600	0.07~0.1	6~8	溝銼 (SLOTTING)
LRTA0805	50	65	2400~2900	500~700	8~16	0.2~0.25	側銼 (SIDE MILLING)
LRTA0805	50	65	2400~2900	400~600	8~16	0.07~0.1	側銼 (SIDE MILLING)
LRTA0805	50	120	4500~5000	1200~1400	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
LRTA0805	50	120	4500~5000	1100~1300	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
LRTA0810	50	65	2400~2900	500~700	0.2~0.25	5~8	溝銼 (SLOTTING)
LRTA0810	50	65	2400~2900	400~600	0.07~0.1	5~8	溝銼 (SLOTTING)
LRTA0810	50	65	2400~2900	500~700	8~16	0.2~0.25	側銼 (SIDE MILLING)
LRTA0810	50	65	2400~2900	400~600	8~16	0.07~0.1	側銼 (SIDE MILLING)
LRTA0810	50	120	4500~5000	1200~1400	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
LRTA0810	50	120	4500~5000	1100~1300	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)

LRTA

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
 S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTA1002	60	65	1800~2200	400~600	0.2~0.25	8~10	溝銑 (SLOTTING)
LRTA1002	60	65	1800~2300	400~600	0.07~0.1	8~10	溝銑 (SLOTTING)
LRTA1002	60	65	1800~2200	400~600	10~20	0.2~0.25	側銑 (SIDE MILLING)
LRTA1002	60	65	1800~2200	400~600	10~20	0.07~0.1	側銑 (SIDE MILLING)
LRTA1002	60	95	2700~3200	1000~1200	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA1002	60	120	3600~4000	900~1100	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTA1003	60	65	1800~2200	400~600	0.2~0.25	8~10	溝銑 (SLOTTING)
LRTA1003	60	65	1800~2300	400~600	0.07~0.1	8~10	溝銑 (SLOTTING)
LRTA1003	60	65	1800~2200	400~600	10~20	0.2~0.25	側銑 (SIDE MILLING)
LRTA1003	60	65	1800~2200	400~600	10~20	0.07~0.1	側銑 (SIDE MILLING)
LRTA1003	60	95	2700~3200	1000~1200	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA1003	60	120	3600~4000	900~1100	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTA1005	60	65	1800~2200	400~600	0.2~0.25	8~10	溝銑 (SLOTTING)
LRTA1005	60	65	1800~2300	400~600	0.07~0.1	8~10	溝銑 (SLOTTING)
LRTA1005	60	65	1800~2200	400~600	10~20	0.2~0.25	側銑 (SIDE MILLING)
LRTA1005	60	65	1800~2200	400~600	10~20	0.07~0.1	側銑 (SIDE MILLING)
LRTA1005	60	95	2700~3200	1000~1200	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA1005	60	120	3600~4000	900~1100	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTA1010	60	65	1800~2200	400~600	0.2~0.25	7~10	溝銑 (SLOTTING)
LRTA1010	60	65	1800~2300	400~600	0.07~0.1	7~10	溝銑 (SLOTTING)
LRTA1010	60	65	1800~2200	400~600	10~20	0.2~0.25	側銑 (SIDE MILLING)
LRTA1010	60	65	1800~2200	400~600	10~20	0.07~0.1	側銑 (SIDE MILLING)
LRTA1010	60	95	2700~3200	1000~1200	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA1010	60	120	3600~4000	900~1100	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTA1020	60	65	1800~2200	400~600	0.2~0.25	6~10	溝銑 (SLOTTING)
LRTA1020	60	65	1800~2300	400~600	0.07~0.1	6~10	溝銑 (SLOTTING)
LRTA1020	60	65	1800~2200	400~600	10~20	0.2~0.25	側銑 (SIDE MILLING)
LRTA1020	60	65	1800~2200	400~600	10~20	0.07~0.1	側銑 (SIDE MILLING)
LRTA1020	60	95	2700~3200	1000~1200	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA1020	60	120	3600~4000	900~1100	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTA1205	60	80	1900~2200	800~1000	0.2~0.25	10~12	溝銑 (SLOTTING)
LRTA1205	60	85	2000~2400	600~800	0.07~0.12	10~12	溝銑 (SLOTTING)
LRTA1205	60	80	1800~2200	400~600	12~24	0.2~0.25	側銑 (SIDE MILLING)
LRTA1205	60	95	2200~2700	400~600	12~24	0.07~0.12	側銑 (SIDE MILLING)
LRTA1205	60	160	4000~4500	1000~1200	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA1205	60	160	4000~4500	900~1100	0.07~0.12	0.07~0.12	3D銑 (3D MILLING)

LRTA

切削條件表 Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTA1210	60	80	1900~2200	800~1000	0.2~0.25	9~12	溝銑 (SLOTTING)
LRTA1210	60	85	2000~2400	600~800	0.07~0.12	9~12	溝銑 (SLOTTING)
LRTA1210	60	80	1800~2200	400~600	12~24	0.2~0.25	側銑 (SIDE MILLING)
LRTA1210	60	95	2200~2700	400~600	12~24	0.07~0.12	側銑 (SIDE MILLING)
LRTA1210	60	160	4000~4500	1000~1200	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA1210	60	160	4000~4500	900~1100	0.07~0.12	0.07~0.12	3D銑 (3D MILLING)
LRTA1220	60	80	1900~2200	800~1000	0.2~0.25	7~12	溝銑 (SLOTTING)
LRTA1220	60	85	2000~2400	600~800	0.07~0.12	7~12	溝銑 (SLOTTING)
LRTA1220	60	80	1800~2200	400~600	12~24	0.2~0.25	側銑 (SIDE MILLING)
LRTA1220	60	95	2200~2700	400~600	12~24	0.07~0.12	側銑 (SIDE MILLING)
LRTA1220	60	160	4000~4500	1000~1200	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA1220	60	160	4000~4500	900~1100	0.07~0.12	0.07~0.12	3D銑 (3D MILLING)

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRc23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTA0405	40	55	4200~4600	600~800	0.06~0.08	1~4	溝銑 (SLOTTING)
LRTA0405	40	90	7000~7400	1000~1200	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)
LRTA0410	40	55	4200~4600	600~800	0.06~0.08	1~4	溝銑 (SLOTTING)
LRTA0410	40	90	7000~7400	1000~1200	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)
LRTA0603	40	60	3000~3400	500~700	0.15~0.18	4~6	溝銑 (SLOTTING)
LRTA0603	40	75	3800~4200	600~800	0.06~0.08	4~6	溝銑 (SLOTTING)
LRTA0603	40	50	2400~2800	300~500	6~12	0.06~0.08	側銑 (SIDE MILLING)
LRTA0603	40	80	4000~4500	1100~1300	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
LRTA0603	40	115	6000~5000	1000~1200	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)
LRTA0605	40	60	3000~3400	500~700	0.15~0.18	4~6	溝銑 (SLOTTING)
LRTA0605	40	75	3800~4200	600~800	0.06~0.08	4~6	溝銑 (SLOTTING)
LRTA0605	40	50	2400~2800	300~500	6~12	0.06~0.08	側銑 (SIDE MILLING)
LRTA0605	40	80	4000~4500	1100~1300	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
LRTA0605	40	115	6000~5000	1000~1200	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)
LRTA0610	40	60	3000~3400	500~700	0.15~0.18	4~6	溝銑 (SLOTTING)
LRTA0610	40	75	3800~4200	600~800	0.06~0.08	4~6	溝銑 (SLOTTING)
LRTA0610	40	50	2400~2800	300~500	6~12	0.06~0.08	側銑 (SIDE MILLING)
LRTA0610	40	80	4000~4500	1100~1300	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
LRTA0610	40	115	6000~5000	1000~1200	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)

LRTA

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRc23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTA0803	50	60	2200~2700	500~700	0.2~0.25	6~8	溝銑 (SLOTTING)
LRTA0803	50	60	2200~2700	400~600	0.07~0.1	6~8	溝銑 (SLOTTING)
LRTA0803	50	60	2200~2700	400~600	8~16	0.07~0.1	側銑 (SIDE MILLING)
LRTA0803	50	110	4200~4700	1100~1300	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA0803	50	110	4200~4700	1000~1200	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTA0805	50	60	2200~2700	500~700	0.2~0.25	6~8	溝銑 (SLOTTING)
LRTA0805	50	60	2200~2700	400~600	0.07~0.1	6~8	溝銑 (SLOTTING)
LRTA0805	50	60	2200~2700	400~600	8~16	0.07~0.1	側銑 (SIDE MILLING)
LRTA0805	50	110	4200~4700	1100~1300	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA0805	50	110	4200~4700	1000~1200	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTA0810	50	60	2200~2700	500~700	0.2~0.25	5~8	溝銑 (SLOTTING)
LRTA0810	50	60	2200~2700	400~600	0.07~0.1	5~8	溝銑 (SLOTTING)
LRTA0810	50	60	2200~2700	400~600	8~16	0.07~0.1	側銑 (SIDE MILLING)
LRTA0810	50	110	4200~4700	1100~1300	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA0810	50	110	4200~4700	1000~1200	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTA1002	60	70	2000~2400	500~700	0.2~0.25	8~10	溝銑 (SLOTTING)
LRTA1002	60	90	2600~3000	400~600	0.07~0.1	8~10	溝銑 (SLOTTING)
LRTA1002	60	45	1200~1600	350~500	10~20	0.07~0.1	側銑 (SIDE MILLING)
LRTA1002	60	105	3200~3600	800~1000	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA1002	60	110	3400~3800	800~1000	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTA1003	60	70	2000~2400	500~700	0.2~0.25	8~10	溝銑 (SLOTTING)
LRTA1003	60	90	2600~3000	400~600	0.07~0.1	8~10	溝銑 (SLOTTING)
LRTA1003	60	45	1200~1600	350~500	10~20	0.07~0.1	側銑 (SIDE MILLING)
LRTA1003	60	105	3200~3600	800~1000	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA1003	60	110	3400~3800	800~1000	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTA1005	60	70	2000~2400	500~700	0.2~0.25	8~10	溝銑 (SLOTTING)
LRTA1005	60	90	2600~3000	400~600	0.07~0.1	8~10	溝銑 (SLOTTING)
LRTA1005	60	45	1200~1600	350~500	10~20	0.07~0.1	側銑 (SIDE MILLING)
LRTA1005	60	105	3200~3600	800~1000	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA1005	60	110	3400~3800	800~1000	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTA1010	60	70	2000~2400	500~700	0.2~0.25	7~10	溝銑 (SLOTTING)
LRTA1010	60	90	2600~3000	400~600	0.07~0.1	7~10	溝銑 (SLOTTING)
LRTA1010	60	45	1200~1600	350~500	10~20	0.07~0.1	側銑 (SIDE MILLING)
LRTA1010	60	105	3200~3600	800~1000	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA1010	60	110	3400~3800	800~1000	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTA1020	60	70	2000~2400	500~700	0.2~0.25	5~10	溝銑 (SLOTTING)
LRTA1020	60	90	2600~3000	400~600	0.07~0.1	5~10	溝銑 (SLOTTING)
LRTA1020	60	45	1200~1600	350~500	10~20	0.07~0.1	側銑 (SIDE MILLING)
LRTA1020	60	105	3200~3600	800~1000	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA1020	60	110	3400~3800	800~1000	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)

LRTA

切削條件表 Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRc23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTA1205	60	80	1800~2200	600~800	0.2~0.25	10~12	溝銼 (SLOTTING)
LRTA1205	60	95	2300~2700	500~700	0.07~0.12	10~12	溝銼 (SLOTTING)
LRTA1205	60	45	1000~1300	250~400	12~24	0.07~0.12	側銼 (SIDE MILLING)
LRTA1205	60	150	3700~4200	800~1000	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
LRTA1205	60	150	3700~4200	800~1000	0.07~0.12	0.07~0.12	3D銼 (3D MILLING)
LRTA1210	60	80	1800~2200	600~800	0.2~0.25	9~12	溝銼 (SLOTTING)
LRTA1210	60	95	2300~2700	500~700	0.07~0.12	9~12	溝銼 (SLOTTING)
LRTA1210	60	45	1000~1300	250~400	12~24	0.07~0.12	側銼 (SIDE MILLING)
LRTA1210	60	150	3700~4200	800~1000	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
LRTA1210	60	150	3700~4200	800~1000	0.07~0.12	0.07~0.12	3D銼 (3D MILLING)
LRTA1220	60	80	1800~2200	600~800	0.2~0.25	7~12	溝銼 (SLOTTING)
LRTA1220	60	95	2300~2700	500~700	0.07~0.12	7~12	溝銼 (SLOTTING)
LRTA1220	60	45	1000~1300	250~400	12~24	0.07~0.12	側銼 (SIDE MILLING)
LRTA1220	60	150	3700~4200	800~1000	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
LRTA1220	60	150	3700~4200	800~1000	0.07~0.12	0.07~0.12	3D銼 (3D MILLING)

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRc36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTA0405	40	55	4200~4600	600~800	0.06~0.08	1~4	溝銼 (SLOTTING)
LRTA0405	40	90	7000~7400	1000~1200	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
LRTA0410	40	55	4200~4600	600~800	0.06~0.08	1~4	溝銼 (SLOTTING)
LRTA0410	40	90	7000~7400	1000~1200	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
LRTA0603	40	60	3000~3400	500~700	0.15~0.18	4~6	溝銼 (SLOTTING)
LRTA0603	40	75	3800~4200	600~800	0.06~0.08	4~6	溝銼 (SLOTTING)
LRTA0603	40	50	2400~2800	300~500	6~12	0.06~0.08	側銼 (SIDE MILLING)
LRTA0603	40	80	4000~4500	1100~1300	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
LRTA0603	40	115	6000~5000	1000~1200	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
LRTA0605	40	60	3000~3400	500~700	0.15~0.18	4~6	溝銼 (SLOTTING)
LRTA0605	40	75	3800~4200	600~800	0.06~0.08	4~6	溝銼 (SLOTTING)
LRTA0605	40	50	2400~2800	300~500	6~12	0.06~0.08	側銼 (SIDE MILLING)
LRTA0605	40	80	4000~4500	1100~1300	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
LRTA0605	40	115	6000~5000	1000~1200	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)

LRTA

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRc36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTA0610	40	60	3000~3400	500~700	0.15~0.18	4~6	溝銑 (SLOTTING)
LRTA0610	40	75	3800~4200	600~800	0.06~0.08	4~6	溝銑 (SLOTTING)
LRTA0610	40	50	2400~2800	300~500	6~12	0.06~0.08	側銑 (SIDE MILLING)
LRTA0610	40	80	4000~4500	1100~1300	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
LRTA0610	40	115	6000~5000	1000~1200	0.06~0.08	0.06~0.08	3D銑 (3D MILLING)
LRTA0803	50	60	2200~2700	500~700	0.2~0.25	6~8	溝銑 (SLOTTING)
LRTA0803	50	60	2200~2700	400~600	0.07~0.1	6~8	溝銑 (SLOTTING)
LRTA0803	50	60	2200~2700	400~600	8~16	0.07~0.1	側銑 (SIDE MILLING)
LRTA0803	50	110	4200~4700	1100~1300	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA0803	50	110	4200~4700	1000~1200	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTA0805	50	60	2200~2700	500~700	0.2~0.25	6~8	溝銑 (SLOTTING)
LRTA0805	50	60	2200~2700	400~600	0.07~0.1	6~8	溝銑 (SLOTTING)
LRTA0805	50	60	2200~2700	400~600	8~16	0.07~0.1	側銑 (SIDE MILLING)
LRTA0805	50	110	4200~4700	1100~1300	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA0805	50	110	4200~4700	1000~1200	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTA0810	50	60	2200~2700	500~700	0.2~0.25	5~8	溝銑 (SLOTTING)
LRTA0810	50	60	2200~2700	400~600	0.07~0.1	5~8	溝銑 (SLOTTING)
LRTA0810	50	60	2200~2700	400~600	8~16	0.07~0.1	側銑 (SIDE MILLING)
LRTA0810	50	110	4200~4700	1100~1300	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA0810	50	110	4200~4700	1000~1200	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTA1002	60	70	2000~2400	500~700	0.2~0.25	8~10	溝銑 (SLOTTING)
LRTA1002	60	90	2600~3000	400~600	0.07~0.1	8~10	溝銑 (SLOTTING)
LRTA1002	60	45	1200~1600	350~500	10~20	0.07~0.1	側銑 (SIDE MILLING)
LRTA1002	60	105	3200~3600	800~1000	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA1002	60	110	3400~3800	800~1000	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTA1003	60	70	2000~2400	500~700	0.2~0.25	8~10	溝銑 (SLOTTING)
LRTA1003	60	90	2600~3000	400~600	0.07~0.1	8~10	溝銑 (SLOTTING)
LRTA1003	60	45	1200~1600	350~500	10~20	0.07~0.1	側銑 (SIDE MILLING)
LRTA1003	60	105	3200~3600	800~1000	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA1003	60	110	3400~3800	800~1000	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTA1005	60	70	2000~2400	500~700	0.2~0.25	8~10	溝銑 (SLOTTING)
LRTA1005	60	90	2600~3000	400~600	0.07~0.1	8~10	溝銑 (SLOTTING)
LRTA1005	60	45	1200~1600	350~500	10~20	0.07~0.1	側銑 (SIDE MILLING)
LRTA1005	60	105	3200~3600	800~1000	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA1005	60	110	3400~3800	800~1000	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTA1010	60	70	2000~2400	500~700	0.2~0.25	7~10	溝銑 (SLOTTING)
LRTA1010	60	90	2600~3000	400~600	0.07~0.1	7~10	溝銑 (SLOTTING)
LRTA1010	60	45	1200~1600	350~500	10~20	0.07~0.1	側銑 (SIDE MILLING)
LRTA1010	60	105	3200~3600	800~1000	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTA1010	60	110	3400~3800	800~1000	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)

LRTA

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRc36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTA1020	60	70	2000~2400	500~700	0.2~0.25	5~10	溝銼 (SLOTTING)
LRTA1020	60	90	2600~3000	400~600	0.07~0.1	5~10	溝銼 (SLOTTING)
LRTA1020	60	45	1200~1600	350~500	10~20	0.07~0.1	側銼 (SIDE MILLING)
LRTA1020	60	105	3200~3600	800~1000	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
LRTA1020	60	110	3400~3800	800~1000	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
LRTA1205	60	80	1800~2200	600~800	0.2~0.25	10~12	溝銼 (SLOTTING)
LRTA1205	60	95	2300~2700	500~700	0.07~0.12	10~12	溝銼 (SLOTTING)
LRTA1205	60	45	1000~1300	250~400	12~24	0.07~0.12	側銼 (SIDE MILLING)
LRTA1205	60	150	3700~4200	800~1000	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
LRTA1205	60	150	3700~4200	800~1000	0.07~0.12	0.07~0.12	3D銼 (3D MILLING)
LRTA1210	60	80	1800~2200	600~800	0.2~0.25	9~12	溝銼 (SLOTTING)
LRTA1210	60	95	2300~2700	500~700	0.07~0.12	9~12	溝銼 (SLOTTING)
LRTA1210	60	45	1000~1300	250~400	12~24	0.07~0.12	側銼 (SIDE MILLING)
LRTA1210	60	150	3700~4200	800~1000	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
LRTA1210	60	150	3700~4200	800~1000	0.07~0.12	0.07~0.12	3D銼 (3D MILLING)
LRTA1220	60	80	1800~2200	600~800	0.2~0.25	7~12	溝銼 (SLOTTING)
LRTA1220	60	95	2300~2700	500~700	0.07~0.12	7~12	溝銼 (SLOTTING)
LRTA1220	60	45	1000~1300	250~400	12~24	0.07~0.12	側銼 (SIDE MILLING)
LRTA1220	60	150	3700~4200	800~1000	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
LRTA1220	60	150	3700~4200	800~1000	0.07~0.12	0.07~0.12	3D銼 (3D MILLING)

被切削材 Work Material

熱處理鋼 : Hardened Steels
SKD61/ STAVAX / 17-4PH : 1.2083 / 1.2344 / 1.4542 : H13 / 420 (HRc48~54)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTA0405	40	55	4200~4600	400~600	0.04~0.06	1~4	溝銼 (SLOTTING)
LRTA0405	40	90	7000~7400	400~600	0.04~0.06	0.04~0.06	3D銼 (3D MILLING)
LRTA0410	40	55	4200~4600	400~600	0.04~0.06	1.5	溝銼 (SLOTTING)
LRTA0410	40	90	7000~7400	400~600	0.04~0.06	0.04~0.06	3D銼 (3D MILLING)
LRTA0603	40	75	3800~4200	300~500	0.05~0.07	4.5	溝銼 (SLOTTING)
LRTA0603	40	45	2400~2800	300~500	6~12	0.05~0.07	側銼 (SIDE MILLING)
LRTA0603	40	90	4800~5200	600~800	0.05~0.07	0.05~0.07	3D銼 (3D MILLING)
LRTA0605	40	75	3800~4200	300~500	0.05~0.07	4~6	溝銼 (SLOTTING)
LRTA0605	40	45	2400~2800	300~500	6~12	0.05~0.07	側銼 (SIDE MILLING)
LRTA0605	40	90	4800~5200	600~800	0.05~0.07	0.05~0.07	3D銼 (3D MILLING)

LRTA

切削條件表

Milling Conditions

被切削材 Work Material

熱處理鋼 : Hardened Steels

SKD61/ STAVAX / 17-4PH : 1.2083 / 1.2344 / 1.4542 : H13 / 420 (HRC48~54)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTA0610	40	75	3800~4200	300~500	0.05~0.07	4~6	溝銼 (SLOTTING)
LRTA0610	40	45	2400~2800	300~500	6~12	0.05~0.07	側銼 (SIDE MILLING)
LRTA0610	40	90	4800~5200	600~800	0.05~0.07	0.05~0.07	3D銼 (3D MILLING)
LRTA0803	50	60	2200~2700	300~500	0.06~0.08	6~8	溝銼 (SLOTTING)
LRTA0803	50	50	2000~2500	300~500	8~16	0.06~0.08	側銼 (SIDE MILLING)
LRTA0803	50	110	4200~4700	600~800	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
LRTA0805	50	60	2200~2700	300~500	0.06~0.08	6~8	溝銼 (SLOTTING)
LRTA0805	50	50	2000~2500	300~500	8~16	0.06~0.08	側銼 (SIDE MILLING)
LRTA0805	50	110	4200~4700	600~800	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
LRTA0810	50	60	2200~2700	300~500	0.06~0.08	5~8	溝銼 (SLOTTING)
LRTA0810	50	50	2000~2500	300~500	8~16	0.06~0.08	側銼 (SIDE MILLING)
LRTA0810	50	110	4200~4700	600~800	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
LRTA1002	60	75	2400~2800	300~500	0.07~0.1	8~10	溝銼 (SLOTTING)
LRTA1002	60	50	1600~2000	300~500	10~20	0.07~0.1	側銼 (SIDE MILLING)
LRTA1002	60	110	3400~3800	600~800	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
LRTA1003	60	75	2400~2800	300~500	0.07~0.1	8~10	溝銼 (SLOTTING)
LRTA1003	60	50	1600~2000	300~500	10~20	0.07~0.1	側銼 (SIDE MILLING)
LRTA1003	60	110	3400~3800	600~800	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
LRTA1005	60	75	2400~2800	300~500	0.07~0.1	8.5	溝銼 (SLOTTING)
LRTA1005	60	50	1600~2000	300~500	10~20	0.07~0.1	側銼 (SIDE MILLING)
LRTA1005	60	110	3400~3800	600~800	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
LRTA1010	60	75	2400~2800	300~500	0.07~0.1	7~10	溝銼 (SLOTTING)
LRTA1010	60	50	1600~2000	300~500	10~20	0.07~0.1	側銼 (SIDE MILLING)
LRTA1010	60	110	3400~3800	600~800	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
LRTA1020	60	75	2400~2800	300~500	0.07~0.1	5~10	溝銼 (SLOTTING)
LRTA1020	60	50	1600~2000	300~500	10~20	0.07~0.1	側銼 (SIDE MILLING)
LRTA1020	60	110	3400~3800	600~800	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
LRTA1205	60	70	1800~2200	300~500	0.07~0.12	9.5	溝銼 (SLOTTING)
LRTA1205	60	70	1800~2200	200~400	12~24	0.07~0.12	側銼 (SIDE MILLING)
LRTA1205	60	105	2700~3200	500~700	0.07~0.12	0.07~0.12	3D銼 (3D MILLING)
LRTA1210	60	70	1800~2200	300~500	0.07~0.12	9~12	溝銼 (SLOTTING)
LRTA1210	60	70	1800~2200	200~400	12~24	0.07~0.12	側銼 (SIDE MILLING)
LRTA1210	60	105	2700~3200	500~700	0.07~0.12	0.07~0.12	3D銼 (3D MILLING)
LRTA1220	60	70	1800~2200	300~500	0.07~0.12	7~12	溝銼 (SLOTTING)
LRTA1220	60	70	1800~2200	200~400	12~24	0.07~0.12	側銼 (SIDE MILLING)
LRTA1220	60	105	2700~3200	500~700	0.07~0.12	0.07~0.12	3D銼 (3D MILLING)

LRTD

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTD0405	40	70	5400~5800	1000~1200	0.07~0.1	2~4	溝銑 (SLOTTING)
LRTD0405	40	115	9000~10000	1200~1600	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTD0410	40	70	5400~5800	1000~1200	0.07~0.1	1~4	溝銑 (SLOTTING)
LRTD0410	40	115	9000~10000	1200~1600	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTD0602	40	75	4000~4600	600~800	0.15~0.2	5~6	溝銑 (SLOTTING)
LRTD0602	40	95	5000~5500	1200~1400	0.07~0.1	5~6	溝銑 (SLOTTING)
LRTD0602	40	60	3200~3600	1000~1200	6~12	0.15~0.2	側銑 (SIDE MILLING)
LRTD0602	40	60	3200~3600	600~800	6~12	0.07~0.1	側銑 (SIDE MILLING)
LRTD0602	40	90	4800~5400	1800~2200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
LRTD0602	40	135	7200~7600	1200~1600	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTD0603	40	75	4000~4600	600~800	0.15~0.2	5~6	溝銑 (SLOTTING)
LRTD0603	40	95	5000~5500	1200~1400	0.07~0.1	5~6	溝銑 (SLOTTING)
LRTD0603	40	60	3200~3600	1000~1200	6~12	0.15~0.2	側銑 (SIDE MILLING)
LRTD0603	40	60	3200~3600	600~800	6~12	0.07~0.1	側銑 (SIDE MILLING)
LRTD0603	40	90	4800~5400	1800~2200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
LRTD0603	40	135	7200~7600	1200~1600	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTD0605	40	75	4000~4600	600~800	0.15~0.2	4~6	溝銑 (SLOTTING)
LRTD0605	40	95	5000~5500	1200~1400	0.07~0.1	4~6	溝銑 (SLOTTING)
LRTD0605	40	60	3200~3600	1000~1200	6~12	0.15~0.2	側銑 (SIDE MILLING)
LRTD0605	40	60	3200~3600	600~800	6~12	0.07~0.1	側銑 (SIDE MILLING)
LRTD0605	40	90	4800~5400	1800~2200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
LRTD0605	40	135	7200~7600	1200~1600	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTD0610	40	75	4000~4600	600~800	0.15~0.2	3~6	溝銑 (SLOTTING)
LRTD0610	40	95	5000~5500	1200~1400	0.07~0.1	3~6	溝銑 (SLOTTING)
LRTD0610	40	60	3200~3600	1000~1200	6~12	0.15~0.2	側銑 (SIDE MILLING)
LRTD0610	40	60	3200~3600	600~800	6~12	0.07~0.1	側銑 (SIDE MILLING)
LRTD0610	40	90	4800~5400	1800~2200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
LRTD0610	40	135	7200~7600	1200~1600	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
LRTD0803	50	65	2500~3000	800~1000	0.2~0.25	7~8	溝銑 (SLOTTING)
LRTD0803	50	75	3000~3500	600~800	0.08~0.12	7~8	溝銑 (SLOTTING)
LRTD0803	50	90	3500~4000	500~800	8~16	0.2~0.25	側銑 (SIDE MILLING)
LRTD0803	50	65	2500~3000	500~800	8~16	0.08~0.12	側銑 (SIDE MILLING)
LRTD0803	50	115	4500~5200	1000~1400	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTD0803	50	165	6500~7000	1000~1400	0.08~0.12	0.08~0.12	3D銑 (3D MILLING)
LRTD0805	50	65	2500~3000	800~1000	0.2~0.25	6~8	溝銑 (SLOTTING)
LRTD0805	50	75	3000~3500	600~800	0.08~0.12	6~8	溝銑 (SLOTTING)
LRTD0805	50	90	3500~4000	500~800	8~16	0.2~0.25	側銑 (SIDE MILLING)
LRTD0805	50	65	2500~3000	500~800	8~16	0.08~0.12	側銑 (SIDE MILLING)
LRTD0805	50	115	4500~5200	1000~1400	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTD0805	50	165	6500~7000	1000~1400	0.08~0.12	0.08~0.12	3D銑 (3D MILLING)

LRTD

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
 S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTD0810	50	65	2500~3000	800~1000	0.2~0.25	5~8	溝銑 (SLOTTING)
LRTD0810	50	75	3000~3500	600~800	0.08~0.12	5~8	溝銑 (SLOTTING)
LRTD0810	50	90	3500~4000	500~800	8~16	0.2~0.25	側銑 (SIDE MILLING)
LRTD0810	50	65	2500~3000	500~800	8~16	0.08~0.12	側銑 (SIDE MILLING)
LRTD0810	50	115	4500~5200	1000~1400	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTD0810	50	165	6500~7000	1000~1400	0.08~0.12	0.08~0.12	3D銑 (3D MILLING)
LRTD1002	60	65	2000~2400	800~1000	0.25~0.3	9~10	溝銑 (SLOTTING)
LRTD1002	60	75	2400~2800	500~800	0.08~0.13	9~10	溝銑 (SLOTTING)
LRTD1002	60	90	2800~3200	500~800	10~20	0.25~0.3	側銑 (SIDE MILLING)
LRTD1002	60	65	2000~2400	500~800	10~20	0.1~0.15	側銑 (SIDE MILLING)
LRTD1002	60	115	3600~4200	1000~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1002	60	165	5200~5600	1000~1400	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
LRTD1003	60	65	2000~2400	800~1000	0.25~0.3	9~10	溝銑 (SLOTTING)
LRTD1003	60	75	2400~2800	500~800	0.08~0.13	9~10	溝銑 (SLOTTING)
LRTD1003	60	90	2800~3200	500~800	10~20	0.25~0.3	側銑 (SIDE MILLING)
LRTD1003	60	65	2000~2400	500~800	10~20	0.1~0.15	側銑 (SIDE MILLING)
LRTD1003	60	115	3600~4200	1000~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1003	60	165	5200~5600	1000~1400	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
LRTD1005	60	65	2000~2400	800~1000	0.25~0.3	10~20	溝銑 (SLOTTING)
LRTD1005	60	75	2400~2800	500~800	0.08~0.13	10~20	溝銑 (SLOTTING)
LRTD1005	60	90	2800~3200	500~800	10~20	0.25~0.3	側銑 (SIDE MILLING)
LRTD1005	60	65	2000~2400	500~800	10~20	0.08~0.13	側銑 (SIDE MILLING)
LRTD1005	60	115	3600~4200	1000~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1005	60	165	5200~5600	1000~1400	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
LRTD1010	60	65	2000~2400	800~1000	0.25~0.3	7~10	溝銑 (SLOTTING)
LRTD1010	60	75	2400~2800	500~800	0.08~0.13	7~10	溝銑 (SLOTTING)
LRTD1010	60	90	2800~3200	500~800	10~20	0.25~0.3	側銑 (SIDE MILLING)
LRTD1010	60	65	2000~2400	500~800	10~20	0.1~0.15	側銑 (SIDE MILLING)
LRTD1010	60	115	3600~4200	1000~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1010	60	165	5200~5600	1000~1400	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
LRTD1020	60	65	2000~2400	800~1000	0.25~0.3	5~10	溝銑 (SLOTTING)
LRTD1020	60	75	2400~2800	500~800	0.08~0.13	5~10	溝銑 (SLOTTING)
LRTD1020	60	90	2800~3200	500~800	10~20	0.25~0.3	側銑 (SIDE MILLING)
LRTD1020	60	65	2000~2400	500~800	10~20	0.1~0.15	側銑 (SIDE MILLING)
LRTD1020	60	115	3600~4200	1000~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1020	60	165	5200~5600	1000~1400	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)

LRTD

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTD1205	60	75	2000~2400	800~1200	0.25~0.3	10~12	溝銑 (SLOTTING)
LRTD1205	60	105	2800~3200	800~1000	0.1~0.15	10~12	溝銑 (SLOTTING)
LRTD1205	60	80	1900~2300	800~1000	12~24	0.2~0.3	側銑 (SIDE MILLING)
LRTD1205	60	80	1900~2300	400~600	12~24	0.1~0.15	側銑 (SIDE MILLING)
LRTD1205	60	150	4000~4500	1400~1800	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1205	60	170	4500~5000	1200~1600	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)
LRTD1210	60	75	2000~2400	800~1200	0.25~0.3	9~12	溝銑 (SLOTTING)
LRTD1210	60	105	2800~3200	800~1000	0.1~0.15	9~12	溝銑 (SLOTTING)
LRTD1210	60	80	1900~2300	800~1000	12~24	0.25~0.3	側銑 (SIDE MILLING)
LRTD1210	60	80	1900~2300	400~600	12~24	0.1~0.15	側銑 (SIDE MILLING)
LRTD1210	60	150	4000~4500	1400~1800	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1210	60	170	4500~5000	1200~1600	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)
LRTD1220	60	75	2000~2400	800~1200	0.25~0.3	7~12	溝銑 (SLOTTING)
LRTD1220	60	105	2800~3200	800~1000	0.1~0.15	7~12	溝銑 (SLOTTING)
LRTD1220	60	80	1900~2300	800~1000	12~24	0.25~0.3	側銑 (SIDE MILLING)
LRTD1220	60	80	1900~2300	400~600	12~24	0.1~0.15	側銑 (SIDE MILLING)
LRTD1220	60	150	4000~4500	1400~1800	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1220	60	170	4500~5000	1200~1600	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)
LRTD1610	100	75	1500~1800	700~1100	0.3~0.35	13~16	溝銑 (SLOTTING)
LRTD1610	100	90	1800~2100	400~600	0.12~0.17	13~16	溝銑 (SLOTTING)
LRTD1610	100	75	1500~1800	600~800	16~32	0.3~0.35	側銑 (SIDE MILLING)
LRTD1610	100	75	1500~1800	400~600	16~32	0.12~0.17	側銑 (SIDE MILLING)
LRTD1610	100	150	3000~3400	1400~1800	0.3~0.35	0.3~0.35	3D銑 (3D MILLING)
LRTD1610	100	170	3400~3800	800~1200	0.12~0.17	0.12~0.17	3D銑 (3D MILLING)
LRTD1620	100	75	1500~1800	700~1100	0.3~0.35	11~16	溝銑 (SLOTTING)
LRTD1620	100	90	1800~2100	400~600	0.12~0.17	11~16	溝銑 (SLOTTING)
LRTD1620	100	75	1500~1800	600~800	16~32	0.3~0.35	側銑 (SIDE MILLING)
LRTD1620	100	75	1500~1800	400~600	16~32	0.12~0.17	側銑 (SIDE MILLING)
LRTD1620	100	150	3000~3400	1400~1800	0.3~0.35	0.3~0.35	3D銑 (3D MILLING)
LRTD1620	100	170	3400~3800	800~1200	0.12~0.17	0.12~0.17	3D銑 (3D MILLING)

LRTD

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRc23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTD0405	40	65	5000~5500	800~1000	0.07~0.1	1~4	溝銼 (SLOTTING)
LRTD0405	40	115	9000~10000	1000~1400	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
LRTD0410	40	65	5000~5500	800~1000	0.07~0.1	1~4	溝銼 (SLOTTING)
LRTD0410	40	115	9000~10000	1000~1400	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
LRTD0602	40	70	3600~4000	600~800	0.15~0.2	5~6	溝銼 (SLOTTING)
LRTD0602	40	85	4500~5000	1000~1200	0.07~0.1	5~6	溝銼 (SLOTTING)
LRTD0602	40	30	1600~2000	200~400	6~12	0.15~0.2	側銼 (SIDE MILLING)
LRTD0602	40	50	2700~3200	400~600	6~12	0.07~0.1	側銼 (SIDE MILLING)
LRTD0602	40	90	4800~5400	1000~1400	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
LRTD0602	40	130	6800~7200	1200~1600	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
LRTD0603	40	70	3600~4000	600~800	0.15~0.2	5~6	溝銼 (SLOTTING)
LRTD0603	40	85	4500~5000	1000~1200	0.07~0.1	5~6	溝銼 (SLOTTING)
LRTD0603	40	30	1600~2000	200~400	6~12	0.15~0.2	側銼 (SIDE MILLING)
LRTD0603	40	50	2700~3200	400~600	6~12	0.07~0.1	側銼 (SIDE MILLING)
LRTD0603	40	90	4800~5400	1000~1400	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
LRTD0603	40	130	6800~7200	1200~1600	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
LRTD0605	40	70	3600~4000	600~800	0.15~0.2	4~6	溝銼 (SLOTTING)
LRTD0605	40	85	4500~5000	1000~1200	0.07~0.1	4~6	溝銼 (SLOTTING)
LRTD0605	40	30	1600~2000	200~400	6~12	0.15~0.2	側銼 (SIDE MILLING)
LRTD0605	40	50	2700~3200	400~600	6~12	0.07~0.1	側銼 (SIDE MILLING)
LRTD0605	40	90	4800~5400	1000~1400	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
LRTD0605	40	130	6800~7200	1200~1600	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
LRTD0610	40	70	3600~4000	600~800	0.15~0.2	3~6	溝銼 (SLOTTING)
LRTD0610	40	85	4500~5000	1000~1200	0.07~0.1	3~6	溝銼 (SLOTTING)
LRTD0610	40	30	1600~2000	200~400	6~12	0.15~0.2	側銼 (SIDE MILLING)
LRTD0610	40	50	2700~3200	400~600	6~12	0.07~0.1	側銼 (SIDE MILLING)
LRTD0610	40	90	4800~5400	1000~1400	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
LRTD0610	40	130	6800~7200	1200~1600	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
LRTD0803	50	65	2400~2800	600~800	0.2~0.25	7~8	溝銼 (SLOTTING)
LRTD0803	50	90	3500~4000	500~700	0.08~0.12	7~8	溝銼 (SLOTTING)
LRTD0803	50	35	1200~1600	250~350	8~16	0.2~0.25	側銼 (SIDE MILLING)
LRTD0803	50	50	1800~2200	400~600	8~16	0.08~0.12	側銼 (SIDE MILLING)
LRTD0803	50	115	4500~5200	800~1000	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
LRTD0803	50	150	5700~6300	800~1200	0.08~0.12	0.08~0.12	3D銼 (3D MILLING)
LRTD0805	50	65	2400~2800	600~800	0.2~0.25	6~8	溝銼 (SLOTTING)
LRTD0805	50	90	3500~4000	500~700	0.08~0.12	6~8	溝銼 (SLOTTING)
LRTD0805	50	35	1200~1600	250~350	8~16	0.2~0.25	側銼 (SIDE MILLING)
LRTD0805	50	50	1800~2200	400~600	8~16	0.08~0.12	側銼 (SIDE MILLING)
LRTD0805	50	115	4500~5200	800~1000	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
LRTD0805	50	150	5700~6300	800~1200	0.08~0.12	0.08~0.12	3D銼 (3D MILLING)

LRTD

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 / Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTD0810	50	65	2400~2800	600~800	0.2~0.25	5~8	溝銑 (SLOTTING)
LRTD0810	50	90	3500~4000	500~700	0.08~0.12	5~8	溝銑 (SLOTTING)
LRTD0810	50	35	1200~1600	250~350	8~16	0.2~0.25	側銑 (SIDE MILLING)
LRTD0810	50	50	1800~2200	400~600	8~16	0.08~0.12	側銑 (SIDE MILLING)
LRTD0810	50	115	4500~5200	800~1000	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTD0810	50	150	5700~6300	800~1200	0.08~0.12	0.08~0.12	3D銑 (3D MILLING)
LRTD1002	60	65	2000~2400	600~800	0.25~0.3	9~10	溝銑 (SLOTTING)
LRTD1002	60	90	2800~3200	500~700	0.08~0.13	9~10	溝銑 (SLOTTING)
LRTD1002	60	35	1000~1300	200~300	10~20	0.2~0.25	側銑 (SIDE MILLING)
LRTD1002	60	40	1200~1600	400~600	10~20	0.08~0.13	側銑 (SIDE MILLING)
LRTD1002	60	115	3600~4000	800~1000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1002	60	150	4800~5200	800~1200	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
LRTD1003	60	65	2000~2400	600~800	0.25~0.3	8~10	溝銑 (SLOTTING)
LRTD1003	60	90	2800~3200	500~700	0.08~0.13	8~10	溝銑 (SLOTTING)
LRTD1003	60	35	1000~1300	200~300	10~20	0.2~0.25	側銑 (SIDE MILLING)
LRTD1003	60	40	1200~1600	400~600	10~20	0.08~0.13	側銑 (SIDE MILLING)
LRTD1003	60	115	3600~4000	800~1000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1003	60	150	4800~5200	800~1200	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
LRTD1005	60	65	2000~2400	600~800	0.25~0.3	8~10	溝銑 (SLOTTING)
LRTD1005	60	90	2800~3200	500~700	0.08~0.13	8~10	溝銑 (SLOTTING)
LRTD1005	60	35	1000~1300	200~300	10~20	0.2~0.25	側銑 (SIDE MILLING)
LRTD1005	60	40	1200~1600	400~600	10~20	0.08~0.13	側銑 (SIDE MILLING)
LRTD1005	60	115	3600~4000	800~1000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1005	60	150	4800~5200	800~1200	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
LRTD1010	60	65	2000~2400	600~800	0.25~0.3	7~10	溝銑 (SLOTTING)
LRTD1010	60	90	2800~3200	500~700	0.08~0.13	7~10	溝銑 (SLOTTING)
LRTD1010	60	35	1000~1300	200~300	10~20	0.2~0.25	側銑 (SIDE MILLING)
LRTD1010	60	40	1200~1600	400~600	10~20	0.08~0.13	側銑 (SIDE MILLING)
LRTD1010	60	115	3600~4000	800~1000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1010	60	150	4800~5200	800~1200	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
LRTD1020	60	65	2000~2400	600~800	0.25~0.3	5~10	溝銑 (SLOTTING)
LRTD1020	60	90	2800~3200	500~700	0.08~0.13	5~10	溝銑 (SLOTTING)
LRTD1020	60	35	1000~1300	200~300	10~20	0.2~0.25	側銑 (SIDE MILLING)
LRTD1020	60	40	1200~1600	400~600	10~20	0.08~0.13	側銑 (SIDE MILLING)
LRTD1020	60	115	3600~4000	800~1000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1020	60	150	4800~5200	800~1200	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)

LRTD

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTD1205	60	70	1800~2200	800~1000	0.25~0.3	10~12	溝銑 (SLOTTING)
LRTD1205	60	95	2500~2800	600~800	0.1~0.15	10~12	溝銑 (SLOTTING)
LRTD1205	60	30	700~1000	200~300	12~24	0.15~0.25	側銑 (SIDE MILLING)
LRTD1205	60	45	1100~1400	300~450	12~24	0.1~0.15	側銑 (SIDE MILLING)
LRTD1205	60	150	4000~4500	800~1000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1205	60	150	4000~4500	1000~1400	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)
LRTD1210	60	70	1800~2200	800~1000	0.25~0.3	9~12	溝銑 (SLOTTING)
LRTD1210	60	95	2500~2800	600~800	0.1~0.15	9~12	溝銑 (SLOTTING)
LRTD1210	60	30	700~1000	200~300	12~24	0.15~0.25	側銑 (SIDE MILLING)
LRTD1210	60	45	1100~1400	300~450	12~24	0.1~0.15	側銑 (SIDE MILLING)
LRTD1210	60	150	4000~4500	800~1000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1210	60	150	4000~4500	1000~1400	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)
LRTD1220	60	70	1800~2200	800~1000	0.25~0.3	7~12	溝銑 (SLOTTING)
LRTD1220	60	95	2500~2800	600~800	0.1~0.15	7~12	溝銑 (SLOTTING)
LRTD1220	60	30	700~1000	200~300	12~24	0.15~0.25	側銑 (SIDE MILLING)
LRTD1220	60	45	1100~1400	300~450	12~24	0.1~0.15	側銑 (SIDE MILLING)
LRTD1220	60	150	4000~4500	800~1000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1220	60	150	4000~4500	1000~1400	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)
LRTD1610	100	70	1200~1600	600~900	0.3~0.35	13~16	溝銑 (SLOTTING)
LRTD1610	100	85	1500~1800	300~500	0.12~0.17	13~16	溝銑 (SLOTTING)
LRTD1610	100	30	500~800	200~350	16~32	0.3~0.35	側銑 (SIDE MILLING)
LRTD1610	100	45	800~1100	200~350	16~32	0.12~0.17	側銑 (SIDE MILLING)
LRTD1610	100	150	3000~3400	1200~1600	0.3~0.35	0.3~0.35	3D銑 (3D MILLING)
LRTD1610	100	150	3000~3400	700~1000	0.12~0.17	0.12~0.17	3D銑 (3D MILLING)
LRTD1620	100	70	1200~1600	600~900	0.3~0.35	11~16	溝銑 (SLOTTING)
LRTD1620	100	85	1500~1800	300~500	0.12~0.17	11~16	溝銑 (SLOTTING)
LRTD1620	100	30	500~800	200~350	16~32	0.3~0.35	側銑 (SIDE MILLING)
LRTD1620	100	45	800~1100	200~350	16~32	0.12~0.17	側銑 (SIDE MILLING)
LRTD1620	100	150	3000~3400	1200~1600	0.3~0.35	0.3~0.35	3D銑 (3D MILLING)
LRTD1620	100	150	3000~3400	700~1000	0.12~0.17	0.12~0.17	3D銑 (3D MILLING)

LRTD

切削條件表

Milling Conditions

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTD0405	40	65	5000~5500	800~1000	0.07~0.1	1~4	溝銼 (SLOTTING)
LRTD0405	40	115	9000~10000	1000~1400	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
LRTD0410	40	65	5000~5500	800~1000	0.07~0.1	1~4	溝銼 (SLOTTING)
LRTD0410	40	115	9000~10000	1000~1400	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
LRTD0602	40	70	3600~4000	600~800	0.15~0.2	5~6	溝銼 (SLOTTING)
LRTD0602	40	85	4500~5000	1000~1200	0.07~0.1	5~6	溝銼 (SLOTTING)
LRTD0602	40	30	1600~2000	200~400	6~12	0.15~0.2	側銼 (SIDE MILLING)
LRTD0602	40	50	2700~3200	400~600	6~12	0.07~0.1	側銼 (SIDE MILLING)
LRTD0602	40	90	4800~5400	1000~1400	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
LRTD0602	40	130	6800~7200	1200~1600	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
LRTD0603	40	70	3600~4000	600~800	0.15~0.2	5~6	溝銼 (SLOTTING)
LRTD0603	40	85	4500~5000	1000~1200	0.07~0.1	5~6	溝銼 (SLOTTING)
LRTD0603	40	30	1600~2000	200~400	6~12	0.15~0.2	側銼 (SIDE MILLING)
LRTD0603	40	50	2700~3200	400~600	6~12	0.07~0.1	側銼 (SIDE MILLING)
LRTD0603	40	90	4800~5400	1000~1400	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
LRTD0603	40	130	6800~7200	1200~1600	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
LRTD0605	40	70	3600~4000	600~800	0.15~0.2	4~6	溝銼 (SLOTTING)
LRTD0605	40	85	4500~5000	1000~1200	0.07~0.1	4~6	溝銼 (SLOTTING)
LRTD0605	40	30	1600~2000	200~400	6~12	0.15~0.2	側銼 (SIDE MILLING)
LRTD0605	40	50	2700~3200	400~600	6~12	0.07~0.1	側銼 (SIDE MILLING)
LRTD0605	40	90	4800~5400	1000~1400	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
LRTD0605	40	130	6800~7200	1200~1600	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
LRTD0610	40	70	3600~4000	600~800	0.15~0.2	3~6	溝銼 (SLOTTING)
LRTD0610	40	85	4500~5000	1000~1200	0.07~0.1	3~6	溝銼 (SLOTTING)
LRTD0610	40	30	1600~2000	200~400	6~12	0.15~0.2	側銼 (SIDE MILLING)
LRTD0610	40	50	2700~3200	400~600	6~12	0.07~0.1	側銼 (SIDE MILLING)
LRTD0610	40	90	4800~5400	1000~1400	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
LRTD0610	40	130	6800~7200	1200~1600	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
LRTD0803	50	65	2400~2800	600~800	0.2~0.25	7~8	溝銼 (SLOTTING)
LRTD0803	50	90	3500~4000	500~700	0.08~0.12	7~8	溝銼 (SLOTTING)
LRTD0803	50	35	1200~1600	250~350	8~16	0.2~0.25	側銼 (SIDE MILLING)
LRTD0803	50	50	1800~2200	400~600	8~16	0.08~0.12	側銼 (SIDE MILLING)
LRTD0803	50	115	4500~5200	800~1000	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
LRTD0803	50	150	5700~6300	800~1200	0.08~0.12	0.08~0.12	3D銼 (3D MILLING)
LRTD0805	50	65	2400~2800	600~800	0.2~0.25	6~8	溝銼 (SLOTTING)
LRTD0805	50	90	3500~4000	500~700	0.08~0.12	6~8	溝銼 (SLOTTING)
LRTD0805	50	35	1200~1600	250~350	8~16	0.2~0.25	側銼 (SIDE MILLING)
LRTD0805	50	50	1800~2200	400~600	8~16	0.08~0.12	側銼 (SIDE MILLING)
LRTD0805	50	115	4500~5200	800~1000	0.2~0.25	0.2~0.25	3D銼 (3D MILLING)
LRTD0805	50	150	5700~6300	800~1200	0.08~0.12	0.08~0.12	3D銼 (3D MILLING)

LRTD

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRc36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTD0810	50	65	2400~2800	600~800	0.2~0.25	5~8	溝銑 (SLOTTING)
LRTD0810	50	90	3500~4000	500~700	0.08~0.12	5~8	溝銑 (SLOTTING)
LRTD0810	50	35	1200~1600	250~350	8~16	0.2~0.25	側銑 (SIDE MILLING)
LRTD0810	50	50	1800~2200	400~600	8~16	0.08~0.12	側銑 (SIDE MILLING)
LRTD0810	50	115	4500~5200	800~1000	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
LRTD0810	50	150	5700~6300	800~1200	0.08~0.12	0.08~0.12	3D銑 (3D MILLING)
LRTD1002	60	65	2000~2400	600~800	0.25~0.3	9~10	溝銑 (SLOTTING)
LRTD1002	60	90	2800~3200	500~700	0.08~0.13	9~10	溝銑 (SLOTTING)
LRTD1002	60	35	1000~1300	200~300	10~20	0.2~0.25	側銑 (SIDE MILLING)
LRTD1002	60	40	1200~1600	400~600	10~20	0.08~0.13	側銑 (SIDE MILLING)
LRTD1002	60	115	3600~4000	800~1000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1002	60	150	4800~5200	800~1200	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
LRTD1003	60	65	2000~2400	600~800	0.25~0.3	8~10	溝銑 (SLOTTING)
LRTD1003	60	90	2800~3200	500~700	0.08~0.13	8~10	溝銑 (SLOTTING)
LRTD1003	60	35	1000~1300	200~300	10~20	0.2~0.25	側銑 (SIDE MILLING)
LRTD1003	60	40	1200~1600	400~600	10~20	0.08~0.13	側銑 (SIDE MILLING)
LRTD1003	60	115	3600~4000	800~1000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1003	60	150	4800~5200	800~1200	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
LRTD1005	60	65	2000~2400	600~800	0.25~0.3	8~10	溝銑 (SLOTTING)
LRTD1005	60	90	2800~3200	500~700	0.08~0.13	8~10	溝銑 (SLOTTING)
LRTD1005	60	35	1000~1300	200~300	10~20	0.2~0.25	側銑 (SIDE MILLING)
LRTD1005	60	40	1200~1600	400~600	10~20	0.08~0.13	側銑 (SIDE MILLING)
LRTD1005	60	115	3600~4000	800~1000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1005	60	150	4800~5200	800~1200	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
LRTD1010	60	65	2000~2400	600~800	0.25~0.3	7~10	溝銑 (SLOTTING)
LRTD1010	60	90	2800~3200	500~700	0.08~0.13	7~10	溝銑 (SLOTTING)
LRTD1010	60	35	1000~1300	200~300	10~20	0.2~0.25	側銑 (SIDE MILLING)
LRTD1010	60	40	1200~1600	400~600	10~20	0.08~0.13	側銑 (SIDE MILLING)
LRTD1010	60	115	3600~4000	800~1000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1010	60	150	4800~5200	800~1200	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
LRTD1020	60	65	2000~2400	600~800	0.25~0.3	5~10	溝銑 (SLOTTING)
LRTD1020	60	90	2800~3200	500~700	0.08~0.13	5~10	溝銑 (SLOTTING)
LRTD1020	60	35	1000~1300	200~300	10~20	0.2~0.25	側銑 (SIDE MILLING)
LRTD1020	60	40	1200~1600	400~600	10~20	0.08~0.13	側銑 (SIDE MILLING)
LRTD1020	60	115	3600~4000	800~1000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1020	60	150	4800~5200	800~1200	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)

LRTD

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTD1205	60	70	1800~2200	800~1000	0.25~0.3	10~12	溝銑 (SLOTTING)
LRTD1205	60	95	2500~2800	600~800	0.1~0.15	10~12	溝銑 (SLOTTING)
LRTD1205	60	30	700~1000	200~300	12~24	0.15~0.25	側銑 (SIDE MILLING)
LRTD1205	60	45	1100~1400	300~450	12~24	0.1~0.15	側銑 (SIDE MILLING)
LRTD1205	60	150	4000~4500	800~1000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1205	60	150	4000~4500	1000~1400	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)
LRTD1210	60	70	1800~2200	800~1000	0.25~0.3	9~12	溝銑 (SLOTTING)
LRTD1210	60	95	2500~2800	600~800	0.1~0.15	9~12	溝銑 (SLOTTING)
LRTD1210	60	30	700~1000	200~300	12~24	0.15~0.25	側銑 (SIDE MILLING)
LRTD1210	60	45	1100~1400	300~450	12~24	0.1~0.15	側銑 (SIDE MILLING)
LRTD1210	60	150	4000~4500	800~1000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1210	60	150	4000~4500	1000~1400	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)
LRTD1220	60	70	1800~2200	800~1000	0.25~0.3	7~12	溝銑 (SLOTTING)
LRTD1220	60	95	2500~2800	600~800	0.1~0.15	7~12	溝銑 (SLOTTING)
LRTD1220	60	30	700~1000	200~300	12~24	0.15~0.25	側銑 (SIDE MILLING)
LRTD1220	60	45	1100~1400	300~450	12~24	0.1~0.15	側銑 (SIDE MILLING)
LRTD1220	60	150	4000~4500	800~1000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
LRTD1220	60	150	4000~4500	1000~1400	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)
LRTD1610	100	70	1200~1600	600~900	0.3~0.35	13~16	溝銑 (SLOTTING)
LRTD1610	100	85	1500~1800	300~500	0.12~0.17	13~16	溝銑 (SLOTTING)
LRTD1610	100	30	500~800	200~350	16~32	0.3~0.35	側銑 (SIDE MILLING)
LRTD1610	100	45	800~1100	200~350	16~32	0.12~0.17	側銑 (SIDE MILLING)
LRTD1610	100	150	3000~3400	1200~1600	0.3~0.35	0.3~0.35	3D銑 (3D MILLING)
LRTD1610	100	150	3000~3400	700~1000	0.12~0.17	0.12~0.17	3D銑 (3D MILLING)
LRTD1620	100	70	1200~1600	600~900	0.3~0.35	11~16	溝銑 (SLOTTING)
LRTD1620	100	85	1500~1800	300~500	0.12~0.17	11~16	溝銑 (SLOTTING)
LRTD1620	100	30	500~800	200~350	16~32	0.3~0.35	側銑 (SIDE MILLING)
LRTD1620	100	45	800~1100	200~350	16~32	0.12~0.17	側銑 (SIDE MILLING)
LRTD1620	100	150	3000~3400	1200~1600	0.3~0.35	0.3~0.35	3D銑 (3D MILLING)
LRTD1620	100	150	3000~3400	700~1000	0.12~0.17	0.12~0.17	3D銑 (3D MILLING)

LRTD

切削條件表

Milling Conditions

被切削材 Work Material

熱處理鋼 : Hardened Steels

SKD61/ STAVAX / 17-4PH : 1.2083 / 1.2344 / 1.4542 : H13 / 420 (HRC48~54)

冷卻方式 Coolant Type

乾式切削 Dry coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTD0405	40	60	4500~5000	600~800	0.05~0.07	2~4	溝銼 (SLOTTING)
LRTD0405	40	100	8000~9000	600~800	0.05~0.07	0.05~0.07	3D銼 (3D MILLING)
LRTD0410	40	60	4500~5000	600~800	0.05~0.07	2~4	溝銼 (SLOTTING)
LRTD0410	40	100	8000~9000	600~800	0.05~0.07	0.05~0.07	3D銼 (3D MILLING)
LRTD0602	40	85	4500~5000	600~800	0.06~0.08	5~6	溝銼 (SLOTTING)
LRTD0602	40	50	2700~3200	400~600	6~12	0.06~0.08	側銼 (SIDE MILLING)
LRTD0602	40	120	6200~6600	800~1000	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
LRTD0603	40	85	4500~5000	600~800	0.06~0.08	5~6	溝銼 (SLOTTING)
LRTD0603	40	50	2700~3200	400~600	6~12	0.06~0.08	側銼 (SIDE MILLING)
LRTD0603	40	120	6200~6600	800~1000	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
LRTD0605	40	85	4500~5000	600~800	0.06~0.08	4~6	溝銼 (SLOTTING)
LRTD0605	40	50	2700~3200	400~600	6~12	0.06~0.08	側銼 (SIDE MILLING)
LRTD0605	40	120	6200~6600	800~1000	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
LRTD0610	40	85	4500~5000	600~800	0.06~0.08	3~6	溝銼 (SLOTTING)
LRTD0610	40	50	2700~3200	400~600	6~12	0.06~0.08	側銼 (SIDE MILLING)
LRTD0610	40	120	6200~6600	800~1000	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
LRTD0803	50	90	3500~4000	450~650	0.08~0.12	7~8	溝銼 (SLOTTING)
LRTD0803	50	50	1800~2200	300~500	8~16	0.08~0.12	側銼 (SIDE MILLING)
LRTD0803	50	120	4600~5000	800~1100	0.08~0.12	0.08~0.12	3D銼 (3D MILLING)
LRTD0805	50	90	3500~4000	450~650	0.08~0.12	6~8	溝銼 (SLOTTING)
LRTD0805	50	50	1800~2200	300~500	8~16	0.08~0.12	側銼 (SIDE MILLING)
LRTD0805	50	120	4600~5000	800~1100	0.08~0.12	0.08~0.12	3D銼 (3D MILLING)
LRTD0810	50	90	3500~4000	450~650	0.08~0.12	5~8	溝銼 (SLOTTING)
LRTD0810	50	50	1800~2200	300~500	8~16	0.08~0.12	側銼 (SIDE MILLING)
LRTD0810	50	120	4600~5000	800~1100	0.08~0.12	0.08~0.12	3D銼 (3D MILLING)
LRTD1002	60	90	2800~3200	400~600	0.08~0.12	9~10	溝銼 (SLOTTING)
LRTD1002	60	60	1800~2200	400~600	10~20	0.08~0.12	側銼 (SIDE MILLING)
LRTD1002	60	125	4000~4500	800~1000	0.08~0.12	0.08~0.12	3D銼 (3D MILLING)
LRTD1003	60	90	2800~3200	400~600	0.08~0.12	8~10	溝銼 (SLOTTING)
LRTD1003	60	60	1800~2200	400~600	10~20	0.08~0.12	側銼 (SIDE MILLING)
LRTD1003	60	125	4000~4500	800~1000	0.08~0.12	0.08~0.12	3D銼 (3D MILLING)
LRTD1005	60	90	2800~3200	400~600	0.08~0.12	8~10	溝銼 (SLOTTING)
LRTD1005	60	60	1800~2200	400~600	10~20	0.08~0.12	側銼 (SIDE MILLING)
LRTD1005	60	125	4000~4500	800~1000	0.08~0.12	0.08~0.12	3D銼 (3D MILLING)
LRTD1010	60	90	2800~3200	400~600	0.08~0.12	7~10	溝銼 (SLOTTING)
LRTD1010	60	60	1800~2200	400~600	10~20	0.08~0.12	側銼 (SIDE MILLING)
LRTD1010	60	125	4000~4500	800~1000	0.08~0.12	0.08~0.12	3D銼 (3D MILLING)
LRTD1020	60	90	2800~3200	400~600	0.08~0.12	5~10	溝銼 (SLOTTING)
LRTD1020	60	60	1800~2200	400~600	10~20	0.08~0.12	側銼 (SIDE MILLING)
LRTD1020	60	125	4000~4500	800~1000	0.08~0.12	0.08~0.12	3D銼 (3D MILLING)

LRTD

切削條件表

Milling Conditions

被切削材 Work Material

 熱處理鋼 : *Hardened Steels*
 SKD61/ STAVAX / 17-4PH : 1.2083 / 1.2344 / 1.4542 : H13 / 420 (HRc48-54)

冷卻方式 Coolant Type

乾式切削 Dry coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
LRTD1205	60	75	2000~2400	400~600	0.1~0.15	10~12	溝銼 (SLOTTING)
LRTD1205	60	70	1800~2200	350~500	12~24	0.1~0.15	側銼 (SIDE MILLING)
LRTD1205	60	120	3200~3600	600~800	0.1~0.15	0.1~0.15	3D銼 (3D MILLING)
LRTD1210	60	75	2000~2400	400~600	0.1~0.15	9~12	溝銼 (SLOTTING)
LRTD1210	60	70	1800~2200	350~500	12~24	0.1~0.15	側銼 (SIDE MILLING)
LRTD1210	60	120	3200~3600	600~800	0.1~0.15	0.1~0.15	3D銼 (3D MILLING)
LRTD1210	60	75	2000~2400	400~600	0.1~0.15	7~12	溝銼 (SLOTTING)
LRTD1210	60	70	1800~2200	350~500	12~24	0.1~0.15	側銼 (SIDE MILLING)
LRTD1210	60	120	3200~3600	600~800	0.1~0.15	0.1~0.15	3D銼 (3D MILLING)
LRTD1610	100	75	1300~1700	300~500	0.12~0.17	13~16	溝銼 (SLOTTING)
LRTD1610	100	60	1000~1300	200~350	16~32	0.12~0.17	側銼 (SIDE MILLING)
LRTD1610	100	120	2200~2600	700~900	0.12~0.17	0.12~0.17	3D銼 (3D MILLING)
LRTD1620	100	75	1300~1700	300~500	0.12~0.17	11~16	溝銼 (SLOTTING)
LRTD1620	100	60	1000~1300	200~350	16~32	0.12~0.17	側銼 (SIDE MILLING)
LRTD1620	100	120	2200~2600	700~900	0.12~0.17	0.12~0.17	3D銼 (3D MILLING)

RTB

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
 S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTB0305	12	90	9500~10000	800~1200	0.15~0.2	3	溝銼 (SLOTTING)
RTB0305	12	90	9500~10000	800~1200	0.05~0.1	3	溝銼 (SLOTTING)
RTB0305	12	90	9500~10000	700~1100	6	0.05~0.1	側銼 (SIDE MILLING)
RTB0305	12	90	9500~10000	800~1200	6	0.15~0.2	側銼 (SIDE MILLING)
RTB0305	12	90	9500~10000	1400~1800	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB0305	12	90	9500~10000	1200~1600	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTB0305	12	145	15000~16000	1800~2200	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB0305	12	145	15000~16000	1600~2000	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTB0405	12	100	7500~8000	800~1200	0.05~0.1	4	溝銼 (SLOTTING)
RTB0405	12	100	7500~8000	1000~1400	0.15~0.2	4	溝銼 (SLOTTING)
RTB0405	12	100	7500~8000	700~1000	0.3	4	溝銼 (SLOTTING)
RTB0405	12	95	7200~7700	700~1100	8	0.05~0.1	側銼 (SIDE MILLING)
RTB0405	12	95	7200~7700	1000~1400	8	0.15~0.2	側銼 (SIDE MILLING)
RTB0405	12	95	7200~7700	700~1000	8	0.3	側銼 (SIDE MILLING)
RTB0405	12	120	9500~10000	1400~1800	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB0405	12	120	9500~10000	1400~1800	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTB0405	12	160	12000~13000	2000~2400	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB0405	12	160	12000~13000	1800~2200	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTB0505	17	115	7200~7700	800~1200	0.05~0.1	5	溝銼 (SLOTTING)
RTB0505	17	115	7200~7700	1000~1400	0.15~0.25	5	溝銼 (SLOTTING)
RTB0505	17	115	7200~7700	700~1000	0.35	5	溝銼 (SLOTTING)
RTB0505	17	100	6200~6700	700~1100	10	0.05~0.1	側銼 (SIDE MILLING)
RTB0505	17	100	6200~6700	1000~1400	10	0.15~0.25	側銼 (SIDE MILLING)
RTB0505	17	100	6200~6700	700~1000	10	0.4	側銼 (SIDE MILLING)
RTB0505	17	150	9200~9700	1400~1800	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB0505	17	150	9200~9700	1400~1800	0.15~0.25	0.15~0.25	3D銼 (3D MILLING)
RTB0505	17	165	10000~11000	1800~2200	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB0505	17	165	10000~11000	1800~2200	0.15~0.25	0.15~0.25	3D銼 (3D MILLING)
RTB0510	17	115	7200~7700	800~1200	0.05~0.1	5	溝銼 (SLOTTING)
RTB0510	17	115	7200~7700	1000~1400	0.15~0.25	5	溝銼 (SLOTTING)
RTB0510	17	115	7200~7700	700~1000	0.35	5	溝銼 (SLOTTING)
RTB0510	17	100	6200~6700	700~1100	10	0.05~0.1	側銼 (SIDE MILLING)
RTB0510	17	100	6200~6700	1000~1400	10	0.15~0.25	側銼 (SIDE MILLING)
RTB0510	17	100	6200~6700	700~1000	10	0.4	側銼 (SIDE MILLING)
RTB0510	17	150	9200~9700	1400~1800	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB0510	17	150	9200~9700	1400~1800	0.15~0.25	0.15~0.25	3D銼 (3D MILLING)
RTB0510	17	165	10000~11000	1800~2200	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB0510	17	165	10000~11000	1800~2200	0.15~0.25	0.15~0.25	3D銼 (3D MILLING)

RTB

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTB0605	20	120	6200~6700	800~1200	0.05~0.1	6	溝銑 (SLOTTING)
RTB0605	20	120	6200~6700	1000~1400	0.15~0.25	6	溝銑 (SLOTTING)
RTB0605	20	120	6200~6700	700~1100	0.4	6	溝銑 (SLOTTING)
RTB0605	20	100	5200~5700	700~1000	12	0.05~0.1	側銑 (SIDE MILLING)
RTB0605	20	95	4800~5300	1000~1400	12	0.15~0.25	側銑 (SIDE MILLING)
RTB0605	20	100	5200~5700	700~1100	12	0.4	側銑 (SIDE MILLING)
RTB0605	20	170	8700~9200	1600~2000	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB0605	20	170	8700~9200	1800~2200	0.15~0.25	0.15~0.25	3D銑 (3D MILLING)
RTB0610	20	120	6200~6700	800~1200	0.05~0.1	6	溝銑 (SLOTTING)
RTB0610	20	120	6200~6700	1000~1400	0.15~0.25	6	溝銑 (SLOTTING)
RTB0610	20	120	6200~6700	700~1100	0.4	6	溝銑 (SLOTTING)
RTB0610	20	100	5200~5700	700~1000	12	0.05~0.1	側銑 (SIDE MILLING)
RTB0610	20	95	4800~5300	1000~1400	12	0.15~0.25	側銑 (SIDE MILLING)
RTB0610	20	100	5200~5700	700~1100	12	0.4	側銑 (SIDE MILLING)
RTB0610	20	170	8700~9200	1600~2000	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB0610	20	170	8700~9200	1800~2200	0.15~0.25	0.15~0.25	3D銑 (3D MILLING)
RTB0805	25	130	5000~5500	800~1200	0.05~0.1	8	溝銑 (SLOTTING)
RTB0805	25	130	5000~5500	1200~1600	0.2~0.3	8	溝銑 (SLOTTING)
RTB0805	25	130	5000~5500	700~1100	0.5	8	溝銑 (SLOTTING)
RTB0805	25	95	3500~4000	700~1000	16	0.05~0.1	側銑 (SIDE MILLING)
RTB0805	25	95	3500~4000	1200~1600	16	0.2~0.3	側銑 (SIDE MILLING)
RTB0805	25	95	3500~4000	800~1200	16	0.5	側銑 (SIDE MILLING)
RTB0805	25	200	7700~8200	2000~2400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB0805	25	200	7700~8200	2400~2800	0.2~0.3	0.2~0.3	3D銑 (3D MILLING)
RTB0810	25	130	5000~5500	800~1200	0.05~0.1	8	溝銑 (SLOTTING)
RTB0810	25	130	5000~5500	1200~1600	0.2~0.3	8	溝銑 (SLOTTING)
RTB0810	25	130	5000~5500	700~1100	0.5	8	溝銑 (SLOTTING)
RTB0810	25	95	3500~4000	700~1000	16	0.05~0.1	側銑 (SIDE MILLING)
RTB0810	25	95	3500~4000	1200~1600	16	0.2~0.3	側銑 (SIDE MILLING)
RTB0810	25	95	3500~4000	800~1200	16	0.5	側銑 (SIDE MILLING)
RTB0810	25	200	7700~8200	2000~2400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB0810	25	200	7700~8200	2400~2800	0.2~0.3	0.2~0.3	3D銑 (3D MILLING)
RTB1005Z	35	135	4000~4500	700~1100	0.05~0.1	10	溝銑 (SLOTTING)
RTB1005Z	35	135	4000~4500	1400~1800	0.2~0.3	10	溝銑 (SLOTTING)
RTB1005Z	35	135	4000~4500	800~1200	0.5	10	溝銑 (SLOTTING)
RTB1005Z	35	75	2200~2700	400~700	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1005Z	35	95	2800~3300	1600~2000	20	0.2~0.3	側銑 (SIDE MILLING)
RTB1005Z	35	95	2800~3300	1000~1400	20	0.5	側銑 (SIDE MILLING)
RTB1005Z	35	220	6700~7200	2000~2400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1005Z	35	220	6700~7200	2400~2800	0.2~0.3	0.2~0.3	3D銑 (3D MILLING)

RTB

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
 S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTB1005	35	135	4000~4500	700~1100	0.05~0.1	10	溝銑 (SLOTTING)
RTB1005	35	135	4000~4500	1400~1800	0.2~0.3	10	溝銑 (SLOTTING)
RTB1005	35	135	4000~4500	800~1200	0.5	10	溝銑 (SLOTTING)
RTB1005	35	75	2200~2700	400~700	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1005	35	95	2800~3300	1600~2000	20	0.2~0.3	側銑 (SIDE MILLING)
RTB1005	35	95	2800~3300	1000~1400	20	0.5	側銑 (SIDE MILLING)
RTB1005	35	220	6700~7200	2000~2400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1005	35	220	6700~7200	2400~2800	0.2~0.3	0.2~0.3	3D銑 (3D MILLING)
RTB1010Z	35	135	4000~4500	700~1100	0.05~0.1	10	溝銑 (SLOTTING)
RTB1010Z	35	135	4000~4500	1400~1800	0.2~0.3	10	溝銑 (SLOTTING)
RTB1010Z	35	135	4000~4500	800~1200	0.5	10	溝銑 (SLOTTING)
RTB1010Z	35	75	2200~2700	400~700	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1010Z	35	95	2800~3300	1600~2000	20	0.2~0.3	側銑 (SIDE MILLING)
RTB1010Z	35	95	2800~3300	1000~1400	20	0.5	側銑 (SIDE MILLING)
RTB1010Z	35	220	6700~7200	2000~2400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1010Z	35	220	6700~7200	2400~2800	0.2~0.3	0.2~0.3	3D銑 (3D MILLING)
RTB1010	35	135	4000~4500	700~1100	0.05~0.1	10	溝銑 (SLOTTING)
RTB1010	35	135	4000~4500	1400~1800	0.2~0.3	10	溝銑 (SLOTTING)
RTB1010	35	135	4000~4500	800~1200	0.5	10	溝銑 (SLOTTING)
RTB1010	35	75	2200~2700	400~700	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1010	35	95	2800~3300	1600~2000	20	0.2~0.3	側銑 (SIDE MILLING)
RTB1010	35	95	2800~3300	1000~1400	20	0.5	側銑 (SIDE MILLING)
RTB1010	35	220	6700~7200	2000~2400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1010	35	220	6700~7200	2400~2800	0.2~0.3	0.2~0.3	3D銑 (3D MILLING)
RTB1020Z	35	135	4000~4500	700~1100	0.05~0.1	10	溝銑 (SLOTTING)
RTB1020Z	35	135	4000~4500	1400~1800	0.2~0.3	10	溝銑 (SLOTTING)
RTB1020Z	35	135	4000~4500	800~1200	0.5	10	溝銑 (SLOTTING)
RTB1020Z	35	75	2200~2700	400~700	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1020Z	35	95	2800~3300	1600~2000	20	0.2~0.3	側銑 (SIDE MILLING)
RTB1020Z	35	95	2800~3300	1000~1400	20	0.5	側銑 (SIDE MILLING)
RTB1020Z	35	220	6700~7200	2000~2400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1020Z	35	220	6700~7200	2400~2800	0.2~0.3	0.2~0.3	3D銑 (3D MILLING)
RTB1020	35	135	4000~4500	700~1100	0.05~0.1	10	溝銑 (SLOTTING)
RTB1020	35	135	4000~4500	1400~1800	0.2~0.3	10	溝銑 (SLOTTING)
RTB1020	35	135	4000~4500	800~1200	0.5	10	溝銑 (SLOTTING)
RTB1020	35	75	2200~2700	400~700	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1020	35	95	2800~3300	1600~2000	20	0.2~0.3	側銑 (SIDE MILLING)
RTB1020	35	95	2800~3300	1000~1400	20	0.5	側銑 (SIDE MILLING)
RTB1020	35	220	6700~7200	2000~2400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1020	35	220	6700~7200	2400~2800	0.2~0.3	0.2~0.3	3D銑 (3D MILLING)

RTB

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTB1030Z	35	135	4000~4500	700~1100	0.05~0.1	10	溝銼 (SLOTTING)
RTB1030Z	35	135	4000~4500	1400~1800	0.2~0.3	10	溝銼 (SLOTTING)
RTB1030Z	35	135	4000~4500	800~1200	0.5	10	溝銼 (SLOTTING)
RTB1030Z	35	75	2200~2700	400~700	20	0.05~0.1	側銼 (SIDE MILLING)
RTB1030Z	35	95	2800~3300	1600~2000	20	0.2~0.3	側銼 (SIDE MILLING)
RTB1030Z	35	95	2800~3300	1000~1400	20	0.5	側銼 (SIDE MILLING)
RTB1030Z	35	220	6700~7200	2000~2400	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB1030Z	35	220	6700~7200	2400~2800	0.2~0.3	0.2~0.3	3D銼 (3D MILLING)
RTB1030	35	135	4000~4500	700~1100	0.05~0.1	10	溝銼 (SLOTTING)
RTB1030	35	135	4000~4500	1400~1800	0.2~0.3	10	溝銼 (SLOTTING)
RTB1030	35	135	4000~4500	800~1200	0.5	10	溝銼 (SLOTTING)
RTB1030	35	75	2200~2700	400~700	20	0.05~0.1	側銼 (SIDE MILLING)
RTB1030	35	95	2800~3300	1600~2000	20	0.2~0.3	側銼 (SIDE MILLING)
RTB1030	35	95	2800~3300	1000~1400	20	0.5	側銼 (SIDE MILLING)
RTB1030	35	220	6700~7200	2000~2400	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB1030	35	220	6700~7200	2400~2800	0.2~0.3	0.2~0.3	3D銼 (3D MILLING)
RTB1210	37	150	3700~4200	800~1200	0.05~0.1	12	溝銼 (SLOTTING)
RTB1210	37	150	3700~4200	1400~1800	0.2~0.3	12	溝銼 (SLOTTING)
RTB1210	37	150	3700~4200	1000~1400	0.5	12	溝銼 (SLOTTING)
RTB1210	37	115	2800~3300	500~800	24	0.05~0.1	側銼 (SIDE MILLING)
RTB1210	37	115	2800~3300	1200~1600	24	0.2~0.3	側銼 (SIDE MILLING)
RTB1210	37	115	2800~3300	800~1100	24	0.5	側銼 (SIDE MILLING)
RTB1210	37	185	4700~5200	1600~2000	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB1210	37	185	4700~5200	2000~2400	0.2~0.3	0.2~0.3	3D銼 (3D MILLING)
RTB1220	37	150	3700~4200	800~1200	0.05~0.1	12	溝銼 (SLOTTING)
RTB1220	37	150	3700~4200	1400~1800	0.2~0.3	12	溝銼 (SLOTTING)
RTB1220	37	150	3700~4200	1000~1400	0.5	12	溝銼 (SLOTTING)
RTB1220	37	115	2800~3300	500~800	24	0.05~0.1	側銼 (SIDE MILLING)
RTB1220	37	115	2800~3300	1200~1600	24	0.2~0.3	側銼 (SIDE MILLING)
RTB1220	37	115	2800~3300	800~1100	24	0.5	側銼 (SIDE MILLING)
RTB1220	37	185	4700~5200	1600~2000	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB1220	37	185	4700~5200	2000~2400	0.2~0.3	0.2~0.3	3D銼 (3D MILLING)
RTB1230	37	150	3700~4200	800~1200	0.05~0.1	12	溝銼 (SLOTTING)
RTB1230	37	150	3700~4200	1400~1800	0.2~0.3	12	溝銼 (SLOTTING)
RTB1230	37	150	3700~4200	1000~1400	0.5	12	溝銼 (SLOTTING)
RTB1230	37	115	2800~3300	500~800	24	0.05~0.1	側銼 (SIDE MILLING)
RTB1230	37	115	2800~3300	1200~1600	24	0.2~0.3	側銼 (SIDE MILLING)
RTB1230	37	115	2800~3300	800~1100	24	0.5	側銼 (SIDE MILLING)
RTB1230	37	185	4700~5200	1600~2000	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB1230	37	185	4700~5200	2000~2400	0.2~0.3	0.2~0.3	3D銼 (3D MILLING)

RTB

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTB0305	12	90	9500~10000	800~1200	0.15~0.2	3	溝銼 (SLOTTING)
RTB0305	12	90	9500~10000	800~1200	0.05~0.1	3	溝銼 (SLOTTING)
RTB0305	12	90	9500~10000	700~1100	6	0.05~0.1	側銼 (SIDE MILLING)
RTB0305	12	90	9500~10000	800~1200	6	0.15~0.2	側銼 (SIDE MILLING)
RTB0305	12	90	9500~10000	1400~1800	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB0305	12	90	9500~10000	1200~1600	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTB0305	12	145	15000~16000	1800~2200	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB0305	12	145	15000~16000	1600~2000	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTB0405	12	100	7500~8000	800~1200	0.05~0.1	4	溝銼 (SLOTTING)
RTB0405	12	100	7500~8000	1000~1400	0.15~0.2	4	溝銼 (SLOTTING)
RTB0405	12	95	7200~7700	700~1100	8	0.05~0.1	側銼 (SIDE MILLING)
RTB0405	12	95	7200~7700	800~1200	8	0.15~0.2	側銼 (SIDE MILLING)
RTB0405	12	120	9500~10000	1400~1800	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB0405	12	120	9500~10000	1400~1800	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTB0405	12	160	12000~13000	2000~2400	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB0405	12	160	12000~13000	1800~2200	0.15~0.2	0.15~0.2	3D銼 (3D MILLING)
RTB0505	17	115	7200~7700	800~1200	0.05~0.1	5	溝銼 (SLOTTING)
RTB0505	17	115	7200~7700	1000~1400	0.15~0.25	5	溝銼 (SLOTTING)
RTB0505	17	95	5700~6200	700~1100	10	0.05~0.1	側銼 (SIDE MILLING)
RTB0505	17	95	5700~6200	800~1200	10	0.15~0.25	側銼 (SIDE MILLING)
RTB0505	17	150	9200~9700	1400~1800	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB0505	17	150	9200~9700	1400~1800	0.15~0.25	0.15~0.25	3D銼 (3D MILLING)
RTB0505	17	165	10000~11000	1800~2200	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB0505	17	165	10000~11000	1800~2200	0.15~0.25	0.15~0.25	3D銼 (3D MILLING)
RTB0510	17	115	7200~7700	800~1200	0.05~0.1	5	溝銼 (SLOTTING)
RTB0510	17	115	7200~7700	1000~1400	0.15~0.25	5	溝銼 (SLOTTING)
RTB0510	17	95	5700~6200	700~1100	10	0.05~0.1	側銼 (SIDE MILLING)
RTB0510	17	95	5700~6200	800~1200	10	0.15~0.25	側銼 (SIDE MILLING)
RTB0510	17	150	9200~9700	1400~1800	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB0510	17	150	9200~9700	1400~1800	0.15~0.25	0.15~0.25	3D銼 (3D MILLING)
RTB0510	17	165	10000~11000	1800~2200	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB0510	17	165	10000~11000	1800~2200	0.15~0.25	0.15~0.25	3D銼 (3D MILLING)
RTB0605	20	120	6200~6700	800~1200	0.05~0.1	6	溝銼 (SLOTTING)
RTB0605	20	120	6200~6700	1000~1400	0.15~0.25	6	溝銼 (SLOTTING)
RTB0605	20	95	4800~5300	700~1000	12	0.05~0.1	側銼 (SIDE MILLING)
RTB0605	20	95	4800~5300	800~1200	12	0.15~0.25	側銼 (SIDE MILLING)
RTB0605	20	170	8700~9200	1600~2000	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB0605	20	170	8700~9200	1600~2000	0.15~0.25	0.15~0.25	3D銼 (3D MILLING)

RTB

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 / Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTB0610	20	120	6200~6700	800~1200	0.05~0.1	6	溝銑 (SLOTTING)
RTB0610	20	120	6200~6700	1000~1400	0.15~0.25	6	溝銑 (SLOTTING)
RTB0610	20	95	4800~5300	700~1000	12	0.05~0.1	側銑 (SIDE MILLING)
RTB0610	20	95	4800~5300	800~1200	12	0.15~0.25	側銑 (SIDE MILLING)
RTB0610	20	170	8700~9200	1600~2000	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB0610	20	170	8700~9200	1600~2000	0.15~0.25	0.15~0.25	3D銑 (3D MILLING)
RTB0805	25	130	5000~5500	700~1100	0.05~0.1	8	溝銑 (SLOTTING)
RTB0805	25	130	5000~5500	1000~1400	0.2~0.3	8	溝銑 (SLOTTING)
RTB0805	25	95	3500~4000	700~1000	16	0.05~0.1	側銑 (SIDE MILLING)
RTB0805	25	95	3500~4000	800~1200	16	0.2~0.3	側銑 (SIDE MILLING)
RTB0805	25	200	7700~8200	2000~2400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB0805	25	200	7700~8200	2200~2600	0.2~0.3	0.2~0.3	3D銑 (3D MILLING)
RTB0810	25	130	5000~5500	700~1100	0.05~0.1	8	溝銑 (SLOTTING)
RTB0810	25	130	5000~5500	1000~1400	0.2~0.3	8	溝銑 (SLOTTING)
RTB0810	25	95	3500~4000	700~1000	16	0.05~0.1	側銑 (SIDE MILLING)
RTB0810	25	95	3500~4000	800~1200	16	0.2~0.3	側銑 (SIDE MILLING)
RTB0810	25	200	7700~8200	2000~2400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB0810	25	200	7700~8200	2200~2600	0.2~0.3	0.2~0.3	3D銑 (3D MILLING)
RTB1005Z	35	135	4000~4500	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTB1005Z	35	135	4000~4500	800~1200	0.2~0.3	10	溝銑 (SLOTTING)
RTB1005Z	35	95	2800~3300	500~800	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1005Z	35	95	2800~3300	1200~1600	20	0.2~0.3	側銑 (SIDE MILLING)
RTB1005Z	35	220	6700~7200	2000~2400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1005Z	35	220	6700~7200	2200~2600	0.2~0.3	0.2~0.3	3D銑 (3D MILLING)
RTB1005	35	135	4000~4500	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTB1005	35	135	4000~4500	800~1200	0.2~0.3	10	溝銑 (SLOTTING)
RTB1005	35	95	2800~3300	500~800	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1005	35	95	2800~3300	1200~1600	20	0.2~0.3	側銑 (SIDE MILLING)
RTB1005	35	220	6700~7200	2000~2400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1005	35	220	6700~7200	2200~2600	0.2~0.3	0.2~0.3	3D銑 (3D MILLING)
RTB1010Z	35	135	4000~4500	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTB1010Z	35	135	4000~4500	800~1200	0.2~0.3	10	溝銑 (SLOTTING)
RTB1010Z	35	95	2800~3300	500~800	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1010Z	35	95	2800~3300	1200~1600	20	0.2~0.3	側銑 (SIDE MILLING)
RTB1010Z	35	220	6700~7200	2000~2400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1010Z	35	220	6700~7200	2200~2600	0.2~0.3	0.2~0.3	3D銑 (3D MILLING)

RTB

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTB1010	35	135	4000~4500	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTB1010	35	135	4000~4500	800~1200	0.2~0.3	10	溝銑 (SLOTTING)
RTB1010	35	95	2800~3300	500~800	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1010	35	95	2800~3300	1200~1600	20	0.2~0.3	側銑 (SIDE MILLING)
RTB1010	35	220	6700~7200	2000~2400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1010	35	220	6700~7200	2200~2600	0.2~0.3	0.2~0.3	3D銑 (3D MILLING)
RTB1020Z	35	135	4000~4500	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTB1020Z	35	135	4000~4500	800~1200	0.2~0.3	10	溝銑 (SLOTTING)
RTB1020Z	35	95	2800~3300	500~800	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1020Z	35	95	2800~3300	1200~1600	20	0.2~0.3	側銑 (SIDE MILLING)
RTB1020Z	35	220	6700~7200	2000~2400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1020Z	35	220	6700~7200	2200~2600	0.2~0.3	0.2~0.3	3D銑 (3D MILLING)
RTB1020	35	135	4000~4500	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTB1020	35	135	4000~4500	800~1200	0.2~0.3	10	溝銑 (SLOTTING)
RTB1020	35	95	2800~3300	500~800	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1020	35	95	2800~3300	1200~1600	20	0.2~0.3	側銑 (SIDE MILLING)
RTB1020	35	220	6700~7200	2000~2400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1020	35	220	6700~7200	2200~2600	0.2~0.3	0.2~0.3	3D銑 (3D MILLING)
RTB1030Z	35	135	4000~4500	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTB1030Z	35	135	4000~4500	800~1200	0.2~0.3	10	溝銑 (SLOTTING)
RTB1030Z	35	95	2800~3300	500~800	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1030Z	35	95	2800~3300	1200~1600	20	0.2~0.3	側銑 (SIDE MILLING)
RTB1030Z	35	220	6700~7200	2000~2400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1030Z	35	220	6700~7200	2200~2600	0.2~0.3	0.2~0.3	3D銑 (3D MILLING)
RTB1030	35	135	4000~4500	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTB1030	35	135	4000~4500	800~1200	0.2~0.3	10	溝銑 (SLOTTING)
RTB1030	35	95	2800~3300	500~800	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1030	35	95	2800~3300	1200~1600	20	0.2~0.3	側銑 (SIDE MILLING)
RTB1030	35	220	6700~7200	2000~2400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1030	35	220	6700~7200	2200~2600	0.2~0.3	0.2~0.3	3D銑 (3D MILLING)
RTB1210	37	150	3700~4200	700~1100	0.05~0.1	12	溝銑 (SLOTTING)
RTB1210	37	150	3700~4200	800~1200	0.2~0.3	12	溝銑 (SLOTTING)
RTB1210	37	115	2800~3300	500~800	24	0.05~0.1	側銑 (SIDE MILLING)
RTB1210	37	115	2800~3300	1000~1400	24	0.2~0.3	側銑 (SIDE MILLING)
RTB1210	37	185	4700~5200	1400~1800	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1210	37	185	4700~5200	1800~2200	0.2~0.3	0.2~0.3	3D銑 (3D MILLING)

RTB

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTB1220	37	150	3700~4200	700~1100	0.05~0.1	12	溝銼 (SLOTTING)
RTB1220	37	150	3700~4200	800~1200	0.2~0.3	12	溝銼 (SLOTTING)
RTB1220	37	115	2800~3300	500~800	24	0.05~0.1	側銼 (SIDE MILLING)
RTB1220	37	115	2800~3300	1000~1400	24	0.2~0.3	側銼 (SIDE MILLING)
RTB1220	37	185	4700~5200	1400~1800	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB1220	37	185	4700~5200	1800~2200	0.2~0.3	0.2~0.3	3D銼 (3D MILLING)
RTB1230	37	150	3700~4200	700~1100	0.05~0.1	12	溝銼 (SLOTTING)
RTB1230	37	150	3700~4200	800~1200	0.2~0.3	12	溝銼 (SLOTTING)
RTB1230	37	115	2800~3300	500~800	24	0.05~0.1	側銼 (SIDE MILLING)
RTB1230	37	115	2800~3300	1000~1400	24	0.2~0.3	側銼 (SIDE MILLING)
RTB1230	37	185	4700~5200	1400~1800	0.05~0.1	0.05~0.1	3D銼 (3D MILLING)
RTB1230	37	185	4700~5200	1800~2200	0.2~0.3	0.2~0.3	3D銼 (3D MILLING)

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTB0305	12	85	9000~10000	800~1000	0.12~0.15	1~3	溝銼 (SLOTTING)
RTB0305	12	85	9000~10000	800~1000	0.06~0.08	1~3	溝銼 (SLOTTING)
RTB0305	12	80	8500~9000	1000~1200	3~6	0.12~0.15	側銼 (SIDE MILLING)
RTB0305	12	80	8500~9000	700~900	3~6	0.06~0.08	側銼 (SIDE MILLING)
RTB0305	12	85	9000~10000	1000~1200	0.12~0.15	0.12~0.15	3D銼 (3D MILLING)
RTB0305	12	85	9000~10000	1000~1200	0.06~0.08	0.06~0.08	3D銼 (3D MILLING)
RTB0405	14	100	8000~8400	800~1000	0.15~0.18	2~4	溝銼 (SLOTTING)
RTB0405	14	100	8000~8400	800~1000	0.07~0.1	2~4	溝銼 (SLOTTING)
RTB0405	14	85	6800~7200	800~1000	4~8	0.15~0.18	側銼 (SIDE MILLING)
RTB0405	14	85	6500~7000	500~700	4~8	0.07~0.1	側銼 (SIDE MILLING)
RTB0405	14	110	8700~9200	800~1000	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
RTB0405	14	110	8700~9200	1000~1200	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)
RTB0505	17	90	5800~6400	800~1000	0.15~0.18	3~5	溝銼 (SLOTTING)
RTB0505	17	115	7200~7600	1000~1200	0.07~0.1	3~5	溝銼 (SLOTTING)
RTB0505	17	85	5400~6000	800~1000	5~10	0.15~0.18	側銼 (SIDE MILLING)
RTB0505	17	90	5800~6400	600~800	5~10	0.07~0.1	側銼 (SIDE MILLING)
RTB0505	17	130	8000~8500	800~1200	0.15~0.18	0.15~0.18	3D銼 (3D MILLING)
RTB0505	17	130	8000~8500	1000~1400	0.07~0.1	0.07~0.1	3D銼 (3D MILLING)

RTB

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTB0510	17	90	5800~6400	800~1000	0.15~0.18	2~5	溝銑 (SLOTTING)
RTB0510	17	115	7200~7600	1000~1200	0.07~0.1	2~5	溝銑 (SLOTTING)
RTB0510	17	85	5400~6000	800~1000	5~10	0.15~0.18	側銑 (SIDE MILLING)
RTB0510	17	90	5800~6400	600~800	5~10	0.07~0.1	側銑 (SIDE MILLING)
RTB0510	17	130	8000~8500	800~1200	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
RTB0510	17	130	8000~8500	1000~1400	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTB0605	20	90	4800~5400	1000~1400	0.15~0.2	4~6	溝銑 (SLOTTING)
RTB0605	20	115	6000~6400	1200~1400	0.07~0.1	4~6	溝銑 (SLOTTING)
RTB0605	20	85	4500~5000	800~1000	6~12	0.15~0.2	側銑 (SIDE MILLING)
RTB0605	20	90	4800~5200	600~800	6~12	0.07~0.1	側銑 (SIDE MILLING)
RTB0605	20	160	8500~9000	1000~1400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTB0605	20	160	8500~9000	1400~1800	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTB0610	20	90	4800~5400	1000~1400	0.15~0.2	3~6	溝銑 (SLOTTING)
RTB0610	20	115	6000~6400	1200~1400	0.07~0.1	3~6	溝銑 (SLOTTING)
RTB0610	20	85	4500~5000	800~1000	6~12	0.15~0.2	側銑 (SIDE MILLING)
RTB0610	20	90	4800~5200	600~800	6~12	0.07~0.1	側銑 (SIDE MILLING)
RTB0610	20	160	8500~9000	1000~1400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
RTB0610	20	160	8500~9000	1400~1800	0.07~0.1	0.07~0.1	3D銑 (3D MILLING)
RTB0805	30	100	4000~4500	700~1000	0.2~0.25	6~8	溝銑 (SLOTTING)
RTB0805	30	140	5500~6000	800~1000	0.07~0.11	6~8	溝銑 (SLOTTING)
RTB0805	30	90	3500~4000	700~900	8~16	0.2~0.25	側銑 (SIDE MILLING)
RTB0805	30	90	3500~4000	600~800	8~16	0.07~0.11	側銑 (SIDE MILLING)
RTB0805	30	100	4000~4500	1400~1800	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTB0805	30	185	7200~7700	1200~1600	0.07~0.11	0.07~0.11	3D銑 (3D MILLING)
RTB0810	30	100	4000~4500	700~1000	0.2~0.25	5~8	溝銑 (SLOTTING)
RTB0810	30	140	5500~6000	800~1000	0.07~0.11	5~8	溝銑 (SLOTTING)
RTB0810	30	90	3500~4000	700~900	8~16	0.2~0.25	側銑 (SIDE MILLING)
RTB0810	30	90	3500~4000	600~800	8~16	0.07~0.11	側銑 (SIDE MILLING)
RTB0810	30	100	4000~4500	1400~1800	0.2~0.25	0.2~0.25	3D銑 (3D MILLING)
RTB0810	30	185	7200~7700	1200~1600	0.07~0.11	0.07~0.11	3D銑 (3D MILLING)
RTB1005Z	30	100	3200~3600	800~1100	0.25~0.3	8~10	溝銑 (SLOTTING)
RTB1005Z	30	140	4400~4800	800~1000	0.08~0.13	8~10	溝銑 (SLOTTING)
RTB1005Z	30	90	2800~3200	700~1000	10~20	0.25~0.3	側銑 (SIDE MILLING)
RTB1005Z	30	90	2800~3200	600~800	10~20	0.08~0.13	側銑 (SIDE MILLING)
RTB1005Z	30	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTB1005Z	30	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)

RTB

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTB1005	35	100	3200~3600	800~1100	0.25~0.3	8~10	溝銑 (SLOTTING)
RTB1005	35	140	4400~4800	800~1000	0.08~0.13	8~10	溝銑 (SLOTTING)
RTB1005	35	90	2800~3200	700~1000	10~20	0.25~0.3	側銑 (SIDE MILLING)
RTB1005	35	90	2800~3200	600~800	10~20	0.08~0.13	側銑 (SIDE MILLING)
RTB1005	35	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTB1005	35	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
RTB1010Z	30	100	3200~3600	800~1100	0.25~0.3	7~10	溝銑 (SLOTTING)
RTB1010Z	30	140	4400~4800	800~1000	0.08~0.13	7~10	溝銑 (SLOTTING)
RTB1010Z	30	90	2800~3200	700~1000	10~20	0.25~0.3	側銑 (SIDE MILLING)
RTB1010Z	30	90	2800~3200	600~800	10~20	0.08~0.13	側銑 (SIDE MILLING)
RTB1010Z	30	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTB1010Z	30	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
RTB1010	35	100	3200~3600	800~1100	0.25~0.3	7~10	溝銑 (SLOTTING)
RTB1010	35	140	4400~4800	800~1000	0.08~0.13	7~10	溝銑 (SLOTTING)
RTB1010	35	90	2800~3200	700~1000	10~20	0.25~0.3	側銑 (SIDE MILLING)
RTB1010	35	90	2800~3200	600~800	10~20	0.08~0.13	側銑 (SIDE MILLING)
RTB1010	35	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTB1010	35	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
RTB1020Z	30	100	3200~3600	800~1100	0.25~0.3	5~10	溝銑 (SLOTTING)
RTB1020Z	30	140	4400~4800	800~1000	0.08~0.13	5~10	溝銑 (SLOTTING)
RTB1020Z	30	90	2800~3200	700~1000	10~20	0.25~0.3	側銑 (SIDE MILLING)
RTB1020Z	30	90	2800~3200	600~800	10~20	0.08~0.13	側銑 (SIDE MILLING)
RTB1020Z	30	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTB1020Z	30	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
RTB1020	35	100	3200~3600	800~1100	0.25~0.3	5~10	溝銑 (SLOTTING)
RTB1020	35	140	4400~4800	800~1000	0.08~0.13	5~10	溝銑 (SLOTTING)
RTB1020	35	90	2800~3200	700~1000	10~20	0.25~0.3	側銑 (SIDE MILLING)
RTB1020	35	90	2800~3200	600~800	10~20	0.08~0.13	側銑 (SIDE MILLING)
RTB1020	35	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTB1020	35	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
RTB1030Z	30	100	3200~3600	800~1100	0.25~0.3	3~10	溝銑 (SLOTTING)
RTB1030Z	30	140	4400~4800	800~1000	0.08~0.13	3~10	溝銑 (SLOTTING)
RTB1030Z	30	90	2800~3200	700~1000	10~20	0.25~0.3	側銑 (SIDE MILLING)
RTB1030Z	30	90	2800~3200	600~800	10~20	0.08~0.13	側銑 (SIDE MILLING)
RTB1030Z	30	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTB1030Z	30	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)

RTB

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTB1030	35	100	3200~3600	800~1100	0.25~0.3	3~10	溝銑 (SLOTTING)
RTB1030	35	140	4400~4800	800~1000	0.08~0.13	3~10	溝銑 (SLOTTING)
RTB1030	35	90	2800~3200	700~1000	10~20	0.25~0.3	側銑 (SIDE MILLING)
RTB1030	35	90	2800~3200	600~800	10~20	0.08~0.13	側銑 (SIDE MILLING)
RTB1030	35	100	3200~3600	1600~2000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTB1030	35	185	5800~6200	1300~1700	0.08~0.13	0.08~0.13	3D銑 (3D MILLING)
RTB1210	40	90	2400~2800	800~1000	0.25~0.3	9~12	溝銑 (SLOTTING)
RTB1210	40	145	3800~4200	1200~1400	0.1~0.15	9~12	溝銑 (SLOTTING)
RTB1210	40	70	1800~2200	600~800	12~24	0.25~0.3	側銑 (SIDE MILLING)
RTB1210	40	75	1900~2300	400~600	12~24	0.1~0.15	側銑 (SIDE MILLING)
RTB1210	40	150	4000~4400	1200~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTB1210	40	180	4700~5200	1400~1800	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)
RTB1220	40	90	2400~2800	800~1000	0.25~0.3	7~12	溝銑 (SLOTTING)
RTB1220	40	145	3800~4200	1200~1400	0.1~0.15	7~12	溝銑 (SLOTTING)
RTB1220	40	70	1800~2200	600~800	12~24	0.25~0.3	側銑 (SIDE MILLING)
RTB1220	40	75	1900~2300	400~600	12~24	0.1~0.15	側銑 (SIDE MILLING)
RTB1220	40	150	4000~4400	1200~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTB1220	40	180	4700~5200	1400~1800	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)
RTB1230	40	90	2400~2800	800~1000	0.25~0.3	5~12	溝銑 (SLOTTING)
RTB1230	40	145	3800~4200	1200~1400	0.1~0.15	5~12	溝銑 (SLOTTING)
RTB1230	40	70	1800~2200	600~800	12~24	0.25~0.3	側銑 (SIDE MILLING)
RTB1230	40	75	1900~2300	400~600	12~24	0.1~0.15	側銑 (SIDE MILLING)
RTB1230	40	150	4000~4400	1200~1400	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
RTB1230	40	180	4700~5200	1400~1800	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)

RTB

切削條件表

Milling Conditions

熱處理鋼 : Hardened Steels

SKD61/ STAVAX / 17-4PH : 1.2083 / 1.2344 / 1.4542 : H13 / 420 (HRc48-54)

被切削材 Work Material

乾式 / 油霧切削 Dry/MQL coolant

冷卻方式 Coolant Type

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTB0305	12	90	9500~10000	700~1100	0.05~0.1	3	溝銑 (SLOTTING)
RTB0305	12	80	8000~8500	700~1100	6	0.05~0.1	側銑 (SIDE MILLING)
RTB0305	12	90	9500~10000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB0305	12	135	14000~15000	900~1300	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB0405	12	95	7200~7700	700~1100	0.05~0.1	4	溝銑 (SLOTTING)
RTB0405	12	80	6000~6500	700~1000	8	0.05~0.1	側銑 (SIDE MILLING)
RTB0405	12	110	8700~9200	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB0405	12	145	11000~12000	1200~1600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB0505	17	110	6800~7300	700~1100	0.05~0.1	5	溝銑 (SLOTTING)
RTB0505	17	80	4800~5300	700~1000	10	0.05~0.1	側銑 (SIDE MILLING)
RTB0505	17	150	9200~9700	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB0510	17	110	6800~7300	700~1100	0.05~0.1	5	溝銑 (SLOTTING)
RTB0510	17	80	4800~5300	700~1000	10	0.05~0.1	側銑 (SIDE MILLING)
RTB0510	17	150	9200~9700	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB0605	20	110	5700~6200	700~1000	0.05~0.1	6	溝銑 (SLOTTING)
RTB0605	20	80	4000~4500	500~800	12	0.05~0.1	側銑 (SIDE MILLING)
RTB0605	20	150	7700~8200	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB0610	20	110	5700~6200	700~1000	0.05~0.1	6	溝銑 (SLOTTING)
RTB0610	20	80	4000~4500	500~800	12	0.05~0.1	側銑 (SIDE MILLING)
RTB0610	20	150	7700~8200	1000~1400	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB0805	25	110	4200~4700	700~1000	0.05~0.1	8	溝銑 (SLOTTING)
RTB0805	25	85	3200~3700	500~800	16	0.05~0.1	側銑 (SIDE MILLING)
RTB0805	25	155	6000~6500	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB0810	25	110	4200~4700	700~1000	0.05~0.1	8	溝銑 (SLOTTING)
RTB0810	25	85	3200~3700	500~800	16	0.05~0.1	側銑 (SIDE MILLING)
RTB0810	25	155	6000~6500	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1005Z	35	125	3800~4300	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTB1005Z	35	75	2200~2700	500~800	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1005Z	35	155	4700~5200	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1005	35	125	3800~4300	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTB1005	35	75	2200~2700	500~800	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1005	35	155	4700~5200	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1010Z	35	125	3800~4300	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTB1010Z	35	75	2200~2700	500~800	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1010Z	35	155	4700~5200	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1010	35	125	3800~4300	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTB1010	35	75	2200~2700	500~800	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1010	35	155	4700~5200	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)

RTB

切削條件表

Milling Conditions

被切削材 Work Material

熱處理鋼 : Hardened Steels
SKD61/ STAVAX / 17-4PH : 1.2083 / 1.2344 / 1.4542 : H13 / 420 (HRc48~54)

冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
RTB1020Z	35	125	3800~4300	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTB1020Z	35	75	2200~2700	500~800	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1020Z	35	155	4700~5200	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1020	35	125	3800~4300	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTB1020	35	75	2200~2700	500~800	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1020	35	155	4700~5200	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1030Z	35	125	3800~4300	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTB1030Z	35	75	2200~2700	500~800	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1030Z	35	155	4700~5200	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1030	35	125	3800~4300	700~1000	0.05~0.1	10	溝銑 (SLOTTING)
RTB1030	35	75	2200~2700	500~800	20	0.05~0.1	側銑 (SIDE MILLING)
RTB1030	35	155	4700~5200	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1210	37	110	2700~3200	700~1100	0.05~0.1	12	溝銑 (SLOTTING)
RTB1210	37	75	1800~2300	400~700	24	0.05~0.1	側銑 (SIDE MILLING)
RTB1210	37	130	3200~3700	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1220	37	110	2700~3200	700~1100	0.05~0.1	12	溝銑 (SLOTTING)
RTB1220	37	75	1800~2300	400~700	24	0.05~0.1	側銑 (SIDE MILLING)
RTB1220	37	130	3200~3700	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
RTB1230	37	110	2700~3200	700~1100	0.05~0.1	12	溝銑 (SLOTTING)
RTB1230	37	75	1800~2300	400~700	24	0.05~0.1	側銑 (SIDE MILLING)
RTB1230	37	130	3200~3700	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)

HTA / HTD

切削條件表

Milling Conditions

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

被切削材 Work Material		乾式切削 Dry coolant		HTD ^{3T} 冷卻方式 Coolant Type		濕式切削 Wet coolant	
型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
HTA HTD 0203	11	125	19000~20000	1300~1600	0.04~0.06	2	溝銼 (SLOTTING)
0203	11	125	19000~20000	1100~1300	0.1~0.15	2	溝銼 (SLOTTING)
0203	11	105	16000~17000	1000~1200	2~4	0.04~0.06	側銼 (SIDE MILLING)
0203	11	100	15500~16000	1000~1200	2~4	0.1~0.15	側銼 (SIDE MILLING)
HTA HTD 0303	15	140	14500~15000	1300~1600	0.04~0.08	3	溝銼 (SLOTTING)
0303	15	125	13000~13500	1100~1300	0.1~0.2	3	溝銼 (SLOTTING)
0303	15	105	11000~11500	900~1100	3~6	0.04~0.08	側銼 (SIDE MILLING)
0303	15	100	10500~11000	1000~1200	3~6	0.1~0.2	側銼 (SIDE MILLING)
HTA HTD 0403	16	140	10700~11200	1100~1400	0.04~0.08	4	溝銼 (SLOTTING)
0403	16	125	9500~10000	1000~1200	0.2~0.3	4	溝銼 (SLOTTING)
0403	16	105	8000~8500	800~1000	4~8	0.04~0.08	側銼 (SIDE MILLING)
0403	16	100	7800~8200	900~1100	4~8	0.2~0.3	側銼 (SIDE MILLING)
HTA HTD 0503	19	140	8500~9000	1100~1400	0.05~0.1	5	溝銼 (SLOTTING)
0503	19	125	7800~8200	1000~1200	0.3~0.4	5	溝銼 (SLOTTING)
0503	19	105	6700~7000	800~1000	5~10	0.05~0.1	側銼 (SIDE MILLING)
0503	19	100	6300~6600	900~1100	5~10	0.3~0.4	側銼 (SIDE MILLING)
HTA HTD 0603	20	140	7300~7600	1000~1300	0.05~0.15	6	溝銼 (SLOTTING)
0603	20	125	6600~6800	1000~1200	0.4~0.6	6	溝銼 (SLOTTING)
0603	20	105	5500~5800	700~900	6~12	0.05~0.1	側銼 (SIDE MILLING)
0603	20	100	5000~5300	1000~1200	6~12	0.5~0.7	側銼 (SIDE MILLING)
HTA HTD 0803	25	140	5500~5800	1000~1200	0.05~0.15	8	溝銼 (SLOTTING)
0803	25	110	4300~4600	700~900	0.6~0.7	8	溝銼 (SLOTTING)
0803	25	105	4100~4300	600~800	8~16	0.05~0.1	側銼 (SIDE MILLING)
0803	25	100	3900~4200	1000~1200	8~16	0.5~1	側銼 (SIDE MILLING)
HTA HTD 1003	30	140	4400~4600	900~1100	0.05~0.15	10	溝銼 (SLOTTING)
1003	30	95	2800~3000	500~700	0.8~1.2	10	溝銼 (SLOTTING)
1003	30	105	3300~3500	600~800	10~20	0.05~0.12	側銼 (SIDE MILLING)
1003	30	105	3300~3500	1000~1200	10~20	0.5~0.8	側銼 (SIDE MILLING)
HTA HTD 1203	37	140	3700~4000	900~1100	0.05~0.2	12	溝銼 (SLOTTING)
1203	37	110	2800~3000	500~700	0.8~1.2	12	溝銼 (SLOTTING)
1203	37	105	2700~2900	500~700	12~24	0.05~0.12	側銼 (SIDE MILLING)
1203	37	100	2600~2800	1100~1300	12~24	0.5~1	側銼 (SIDE MILLING)
HTA HTD 1603	50	140	2700~3000	700~900	0.05~0.2	16	溝銼 (SLOTTING)
1603	50	105	2000~2200	400~600	0.8~1.2	16	溝銼 (SLOTTING)
1603	50	105	2000~2200	400~600	16~32	0.05~0.12	側銼 (SIDE MILLING)
1603	50	90	1700~2000	700~900	16~32	0.5~1	側銼 (SIDE MILLING)
HTA HTD 2003	50	140	2100~2300	700~900	0.05~0.25	20	溝銼 (SLOTTING)
2003	50	105	1500~1700	400~600	0.8~1.2	20	溝銼 (SLOTTING)
2003	50	105	1500~1700	300~500	20~40	0.05~0.15	側銼 (SIDE MILLING)
2003	50	90	1400~1600	500~700	20~40	0.5~1	側銼 (SIDE MILLING)

HTA / HTD

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)HTA^{3T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

HTD^{3T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
HTA HTD 0203	11	110	17000~18000	1300~1600	0.04~0.06	2	溝銼 (SLOTTING)
0203	11	110	17000~18000	1100~1300	0.1~0.15	2	溝銼 (SLOTTING)
0203	11	105	16000~17000	1000~1200	2~4	0.04~0.06	側銼 (SIDE MILLING)
0203	11	100	15500~16000	1000~1200	2~4	0.1~0.15	側銼 (SIDE MILLING)
HTA HTD 0303	15	140	14500~15000	1300~1600	0.04~0.08	3	溝銼 (SLOTTING)
0303	15	125	13000~13500	1000~1200	0.1~0.2	3	溝銼 (SLOTTING)
0303	15	105	11000~11500	900~1100	3~6	0.04~0.08	側銼 (SIDE MILLING)
0303	15	100	10500~11000	900~1100	3~6	0.1~0.2	側銼 (SIDE MILLING)
HTA HTD 0403	16	140	10700~11200	1100~1400	0.04~0.08	4	溝銼 (SLOTTING)
0403	16	125	9500~10000	900~1100	0.2~0.3	4	溝銼 (SLOTTING)
0403	16	105	8000~8500	800~1000	4~8	0.04~0.08	側銼 (SIDE MILLING)
0403	16	100	7800~8200	800~1000	4~8	0.2~0.3	側銼 (SIDE MILLING)
HTA HTD 0503	19	140	8500~9000	1100~1400	0.05~0.1	5	溝銼 (SLOTTING)
0503	19	125	7800~8200	900~1100	0.3~0.4	5	溝銼 (SLOTTING)
0503	19	105	6700~7000	800~1000	5~10	0.05~0.1	側銼 (SIDE MILLING)
0503	19	100	6300~6600	900~1100	5~10	0.3~0.4	側銼 (SIDE MILLING)
HTA HTD 0603	20	140	7300~7600	1000~1300	0.05~0.15	6	溝銼 (SLOTTING)
0603	20	125	6600~6800	900~1100	0.5~0.7	6	溝銼 (SLOTTING)
0603	20	105	5500~5800	700~900	6~12	0.05~0.15	側銼 (SIDE MILLING)
0603	20	100	5000~5300	900~1100	6~12	0.5~0.7	側銼 (SIDE MILLING)
HTA HTD 0803	25	140	5500~5800	1000~1200	0.05~0.15	8	溝銼 (SLOTTING)
0803	25	110	4300~4600	650~850	0.6~0.7	8	溝銼 (SLOTTING)
0803	25	105	4100~4300	600~800	8~16	0.05~0.1	側銼 (SIDE MILLING)
0803	25	100	3900~4200	900~1100	8~16	0.5~1	側銼 (SIDE MILLING)
HTA HTD 1003	30	140	4400~4600	900~1100	0.05~0.15	10	溝銼 (SLOTTING)
1003	30	95	2800~3000	400~600	0.8~1.2	10	溝銼 (SLOTTING)
1003	30	105	3300~3500	600~800	10~20	0.05~0.12	側銼 (SIDE MILLING)
1003	30	100	3000~3200	1000~1200	10~20	0.5~0.8	側銼 (SIDE MILLING)
HTA HTD 1203	37	140	3700~4000	900~1100	0.05~0.2	12	溝銼 (SLOTTING)
1203	37	110	2800~3000	400~500	0.8~1.2	12	溝銼 (SLOTTING)
1203	37	105	2700~2900	500~700	12~24	0.05~0.12	側銼 (SIDE MILLING)
1203	37	100	2600~2800	1000~1200	12~24	0.5~1	側銼 (SIDE MILLING)
HTA HTD 1603	50	140	2700~3000	700~900	0.05~0.2	16	溝銼 (SLOTTING)
1603	50	105	2000~2200	400~500	0.8~1.2	16	溝銼 (SLOTTING)
1603	50	105	2000~2200	400~600	16~32	0.05~0.12	側銼 (SIDE MILLING)
1603	50	90	1700~2000	700~900	16~32	0.5~1	側銼 (SIDE MILLING)
HTA HTD 2003	50	140	2100~2300	700~900	0.05~0.25	20	溝銼 (SLOTTING)
2003	50	105	1500~1700	400~500	0.8~1.2	20	溝銼 (SLOTTING)
2003	50	105	1500~1700	300~500	20~40	0.05~0.15	側銼 (SIDE MILLING)
2003	50	90	1400~1600	500~700	20~40	0.5~1	側銼 (SIDE MILLING)

HTA / HTD

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

HTA ^{3T} 冷卻方式 Coolant Type		乾式切削 Dry coolant		HTD ^{3T} 冷卻方式 Coolant Type		濕式切削 Wet coolant	
型號 Type NO.	刀具伸長量 Extension Length(mm)	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) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
HTA HTD 0203	11	110	17000~18000	1300~1600	0.04~0.06	2	溝銼 (SLOTTING)
0203	11	110	17000~18000	1100~1300	0.1~0.15	2	溝銼 (SLOTTING)
0203	11	105	16000~17000	1000~1200	2~4	0.04~0.06	側銼 (SIDE MILLING)
0203	11	100	15500~16000	1000~1200	2~4	0.1~0.15	側銼 (SIDE MILLING)
HTA HTD 0303	15	140	14500~15000	1300~1600	0.04~0.08	3	溝銼 (SLOTTING)
0303	15	125	13000~13500	1000~1200	0.1~0.2	3	溝銼 (SLOTTING)
0303	15	105	11000~11500	900~1100	3~6	0.04~0.08	側銼 (SIDE MILLING)
0303	15	100	10500~11000	900~1100	3~6	0.1~0.2	側銼 (SIDE MILLING)
HTA HTD 0403	16	140	10700~11200	1100~1400	0.04~0.08	4	溝銼 (SLOTTING)
0403	16	125	9500~10000	900~1100	0.2~0.3	4	溝銼 (SLOTTING)
0403	16	105	8000~8500	800~1000	4~8	0.04~0.08	側銼 (SIDE MILLING)
0403	16	100	7800~8200	800~1000	4~8	0.2~0.3	側銼 (SIDE MILLING)
HTA HTD 0503	19	140	8500~9000	1100~1400	0.05~0.1	5	溝銼 (SLOTTING)
0503	19	125	7800~8200	900~1100	0.3~0.4	5	溝銼 (SLOTTING)
0503	19	105	6700~7000	800~1000	5~10	0.05~0.1	側銼 (SIDE MILLING)
0503	19	100	6300~6600	900~1100	5~10	0.3~0.4	側銼 (SIDE MILLING)
HTA HTD 0603	20	140	7300~7600	1000~1300	0.05~0.15	6	溝銼 (SLOTTING)
0603	20	125	6600~6800	900~1100	0.5~0.7	6	溝銼 (SLOTTING)
0603	20	105	5500~5800	700~900	6~12	0.05~0.15	側銼 (SIDE MILLING)
0603	20	100	5000~5300	900~1100	6~12	0.5~0.7	側銼 (SIDE MILLING)
HTA HTD 0803	25	140	5500~5800	1000~1200	0.05~0.15	8	溝銼 (SLOTTING)
0803	25	110	4300~4600	650~850	0.6~0.7	8	溝銼 (SLOTTING)
0803	25	105	4100~4300	600~800	8~16	0.05~0.1	側銼 (SIDE MILLING)
0803	25	100	3900~4200	900~1100	8~16	0.5~1	側銼 (SIDE MILLING)
HTA HTD 1003	30	140	4400~4600	900~1100	0.05~0.15	10	溝銼 (SLOTTING)
1003	30	95	2800~3000	400~600	0.8~1.2	10	溝銼 (SLOTTING)
1003	30	105	3300~3500	600~800	10~20	0.05~0.12	側銼 (SIDE MILLING)
1003	30	100	3000~3200	1000~1200	10~20	0.5~0.8	側銼 (SIDE MILLING)
HTA HTD 1203	37	140	3700~4000	900~1100	0.05~0.2	12	溝銼 (SLOTTING)
1203	37	110	2800~3000	400~500	0.8~1.2	12	溝銼 (SLOTTING)
1203	37	105	2700~2900	500~700	12~24	0.05~0.12	側銼 (SIDE MILLING)
1203	37	100	2600~2800	1000~1200	12~24	0.5~1	側銼 (SIDE MILLING)
HTA HTD 1603	50	140	2700~3000	700~900	0.05~0.2	16	溝銼 (SLOTTING)
1603	50	105	2000~2200	400~500	0.8~1.2	16	溝銼 (SLOTTING)
1603	50	105	2000~2200	400~600	16~32	0.05~0.12	側銼 (SIDE MILLING)
1603	50	90	1700~2000	700~900	16~32	0.5~1	側銼 (SIDE MILLING)
HTA HTD 2003	50	140	2100~2300	700~900	0.05~0.25	20	溝銼 (SLOTTING)
2003	50	105	1500~1700	400~500	0.8~1.2	20	溝銼 (SLOTTING)
2003	50	105	1500~1700	300~500	20~40	0.05~0.15	側銼 (SIDE MILLING)
2003	50	90	1400~1600	500~700	20~40	0.5~1	側銼 (SIDE MILLING)

ITA / ITH

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

ITA^{3T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

ITH^{3T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ITA ITH 0303	15	140	14500~15000	1300~1600	0.04~0.08	3	溝銑 (SLOTTING)
0303	15	125	13000~13500	1100~1300	0.1~0.2	3	溝銑 (SLOTTING)
0303	15	105	11000~11500	900~1100	3~6	0.04~0.08	側銑 (SIDE MILLING)
0303	15	100	10500~11000	1000~1200	3~6	0.1~0.2	側銑 (SIDE MILLING)
ITA ITH 0403	16	140	10700~11200	1100~1400	0.04~0.08	4	溝銑 (SLOTTING)
0403	16	125	9500~10000	1000~1200	0.2~0.3	4	溝銑 (SLOTTING)
0403	16	105	8000~8500	800~1000	4~8	0.04~0.08	側銑 (SIDE MILLING)
0403	16	100	7800~8200	900~1100	4~8	0.2~0.3	側銑 (SIDE MILLING)
ITA ITH 0603	20	140	7300~7600	1000~1300	0.05~0.15	6	溝銑 (SLOTTING)
0603	20	125	6600~6800	1000~1200	0.4~0.6	6	溝銑 (SLOTTING)
0603	20	105	5500~5800	700~900	6~12	0.05~0.1	側銑 (SIDE MILLING)
0603	20	100	5000~5300	1000~1200	6~12	0.5~0.7	側銑 (SIDE MILLING)
ITA ITH 0803	25	140	5500~5800	1000~1200	0.05~0.15	8	溝銑 (SLOTTING)
0803	25	110	4300~4600	700~900	0.6~0.7	8	溝銑 (SLOTTING)
0803	25	105	4100~4300	600~800	8~16	0.05~0.1	側銑 (SIDE MILLING)
0803	25	100	3900~4200	1000~1200	8~16	0.5~1	側銑 (SIDE MILLING)
ITA ITH 1003	30	140	4400~4600	900~1100	0.05~0.15	10	溝銑 (SLOTTING)
1003	30	95	2800~3000	500~700	0.8~1.2	10	溝銑 (SLOTTING)
1003	30	105	3300~3500	600~800	10~20	0.05~0.12	側銑 (SIDE MILLING)
1003	30	105	3300~3500	1000~1200	10~20	0.5~0.8	側銑 (SIDE MILLING)
ITA ITH 1203	37	140	3700~4000	900~1100	0.05~0.2	12	溝銑 (SLOTTING)
1203	37	110	2800~3000	500~700	0.8~1.2	12	溝銑 (SLOTTING)
1203	37	105	2700~2900	500~700	12~24	0.05~0.12	側銑 (SIDE MILLING)
1203	37	100	2600~2800	1100~1300	12~24	0.5~1	側銑 (SIDE MILLING)
ITA ITH 1603	50	140	2700~3000	700~900	0.05~0.2	16	溝銑 (SLOTTING)
1603	50	105	2000~2200	400~600	0.8~1.2	16	溝銑 (SLOTTING)
1603	50	105	2000~2200	400~600	16~32	0.05~0.12	側銑 (SIDE MILLING)
1603	50	90	1700~2000	700~900	16~32	0.5~1	側銑 (SIDE MILLING)
ITA ITH 2003	50	140	2100~2300	700~900	0.05~0.25	20	溝銑 (SLOTTING)
2003	50	105	1500~1700	400~600	0.8~1.2	20	溝銑 (SLOTTING)
2003	50	105	1500~1700	300~500	20~40	0.05~0.15	側銑 (SIDE MILLING)
2003	50	90	1400~1600	500~700	20~40	0.5~1	側銑 (SIDE MILLING)

ITA / ITH

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 / Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

ITA^{3T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

ITH^{3T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ITA ITH 0303	15	140	14500~15000	1300~1600	0.04~0.08	3	溝銑 (SLOTTING)
0303	15	125	13000~13500	1000~1200	0.1~0.2	3	溝銑 (SLOTTING)
0303	15	105	11000~11500	900~1100	3~6	0.04~0.08	側銑 (SIDE MILLING)
0303	15	100	10500~11000	900~1100	3~6	0.1~0.2	側銑 (SIDE MILLING)
ITA ITH 0403	16	140	10700~11200	1100~1400	0.04~0.08	4	溝銑 (SLOTTING)
0403	16	125	9500~10000	900~1100	0.2~0.3	4	溝銑 (SLOTTING)
0403	16	105	8000~8500	800~1000	4~8	0.04~0.08	側銑 (SIDE MILLING)
0403	16	100	7800~8200	800~1000	4~8	0.2~0.3	側銑 (SIDE MILLING)
ITA ITH 0603	20	140	7300~7600	1000~1300	0.05~0.15	6	溝銑 (SLOTTING)
0603	20	125	6600~6800	900~1100	0.5~0.7	6	溝銑 (SLOTTING)
0603	20	105	5500~5800	700~900	6~12	0.05~0.15	側銑 (SIDE MILLING)
0603	20	100	5000~5300	900~1100	6~12	0.5~0.7	側銑 (SIDE MILLING)
ITA ITH 0803	25	140	5500~5800	1000~1200	0.05~0.15	8	溝銑 (SLOTTING)
0803	25	110	4300~4600	650~850	0.6~0.7	8	溝銑 (SLOTTING)
0803	25	105	4100~4300	600~800	8~16	0.05~0.1	側銑 (SIDE MILLING)
0803	25	100	3900~4200	900~1100	8~16	0.5~1	側銑 (SIDE MILLING)
ITA ITH 1003	30	140	4400~4600	900~1100	0.05~0.15	10	溝銑 (SLOTTING)
1003	30	95	2800~3000	400~600	0.8~1.2	10	溝銑 (SLOTTING)
1003	30	105	3300~3500	600~800	10~20	0.05~0.12	側銑 (SIDE MILLING)
1003	30	100	3000~3200	1000~1200	10~20	0.5~0.8	側銑 (SIDE MILLING)
ITA ITH 1203	37	140	3700~4000	900~1100	0.05~0.2	12	溝銑 (SLOTTING)
1203	37	110	2800~3000	400~500	0.8~1.2	12	溝銑 (SLOTTING)
1203	37	105	2700~2900	500~700	12~24	0.05~0.12	側銑 (SIDE MILLING)
1203	37	100	2600~2800	1000~1200	12~24	0.5~1	側銑 (SIDE MILLING)
ITA ITH 1603	50	140	2700~3000	700~900	0.05~0.2	16	溝銑 (SLOTTING)
1603	50	105	2000~2200	400~500	0.8~1.2	16	溝銑 (SLOTTING)
1603	50	105	2000~2200	400~600	16~32	0.05~0.12	側銑 (SIDE MILLING)
1603	50	90	1700~2000	700~900	16~32	0.5~1	側銑 (SIDE MILLING)
ITA ITH 2003	50	140	2100~2300	700~900	0.05~0.25	20	溝銑 (SLOTTING)
2003	50	105	1500~1700	400~500	0.8~1.2	20	溝銑 (SLOTTING)
2003	50	105	1500~1700	300~500	20~40	0.05~0.15	側銑 (SIDE MILLING)
2003	50	90	1400~1600	500~700	20~40	0.5~1	側銑 (SIDE MILLING)

ITA / ITH

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)ITA^{3T} 冷卻方式 Coolant Type

乾式切削 Dry coolant

ITH^{3T} 冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
ITA ITH 0303	15	140	14500~15000	1300~1600	0.04~0.08	3	溝銑 (SLOTTING)
0303	15	125	13000~13500	1000~1200	0.1~0.2	3	溝銑 (SLOTTING)
0303	15	105	11000~11500	900~1100	3~6	0.04~0.08	側銑 (SIDE MILLING)
0303	15	100	10500~11000	900~1100	3~6	0.1~0.2	側銑 (SIDE MILLING)
ITA ITH 0403	16	140	10700~11200	1100~1400	0.04~0.08	4	溝銑 (SLOTTING)
0403	16	125	9500~10000	900~1100	0.2~0.3	4	溝銑 (SLOTTING)
0403	16	105	8000~8500	800~1000	4~8	0.04~0.08	側銑 (SIDE MILLING)
0403	16	100	7800~8200	800~1000	4~8	0.2~0.3	側銑 (SIDE MILLING)
ITA ITH 0603	20	140	7300~7600	1000~1300	0.05~0.15	6	溝銑 (SLOTTING)
0603	20	125	6600~6800	900~1100	0.5~0.7	6	溝銑 (SLOTTING)
0603	20	105	5500~5800	700~900	6~12	0.05~0.15	側銑 (SIDE MILLING)
0603	20	100	5000~5300	900~1100	6~12	0.5~0.7	側銑 (SIDE MILLING)
ITA ITH 0803	25	140	5500~5800	1000~1200	0.05~0.15	8	溝銑 (SLOTTING)
0803	25	110	4300~4600	650~850	0.6~0.7	8	溝銑 (SLOTTING)
0803	25	105	4100~4300	600~800	8~16	0.05~0.1	側銑 (SIDE MILLING)
0803	25	100	3900~4200	900~1100	8~16	0.5~1	側銑 (SIDE MILLING)
ITA ITH 1003	30	140	4400~4600	900~1100	0.05~0.15	10	溝銑 (SLOTTING)
1003	30	95	2800~3000	400~600	0.8~1.2	10	溝銑 (SLOTTING)
1003	30	105	3300~3500	600~800	10~20	0.05~0.12	側銑 (SIDE MILLING)
1003	30	100	3000~3200	1000~1200	10~20	0.5~0.8	側銑 (SIDE MILLING)
ITA ITH 1203	37	140	3700~4000	900~1100	0.05~0.2	12	溝銑 (SLOTTING)
1203	37	110	2800~3000	400~500	0.8~1.2	12	溝銑 (SLOTTING)
1203	37	105	2700~2900	500~700	12~24	0.05~0.12	側銑 (SIDE MILLING)
1203	37	100	2600~2800	1000~1200	12~24	0.5~1	側銑 (SIDE MILLING)
ITA ITH 1603	50	140	2700~3000	700~900	0.05~0.2	16	溝銑 (SLOTTING)
1603	50	105	2000~2200	400~500	0.8~1.2	16	溝銑 (SLOTTING)
1603	50	105	2000~2200	400~600	16~32	0.05~0.12	側銑 (SIDE MILLING)
1603	50	90	1700~2000	700~900	16~32	0.5~1	側銑 (SIDE MILLING)
ITA ITH 2003	50	140	2100~2300	700~900	0.05~0.25	20	溝銑 (SLOTTING)
2003	50	105	1500~1700	400~500	0.8~1.2	20	溝銑 (SLOTTING)
2003	50	105	1500~1700	300~500	20~40	0.05~0.15	側銑 (SIDE MILLING)
2003	50	90	1400~1600	500~700	20~40	0.5~1	側銑 (SIDE MILLING)

VTA

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRc23~32)

冷卻方式 Coolant Type

乾式切削 Dry coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
VTA0606	20	130	6700~7200	1300~1500	0.1~0.2	4~6	溝銑 (SLOTTING)
VTA0606	20	130	6700~7200	1000~1300	0.05~0.1	4~6	溝銑 (SLOTTING)
VTA0606	20	85	4000~4500	1000~1200	6~12	0.15~0.25	側銑 (SIDE MILLING)
VTA0606	20	85	4000~4500	800~1000	6~12	0.05~0.12	側銑 (SIDE MILLING)
VTA0806	25	130	4800~5300	1300~1600	0.1~0.2	6~8	溝銑 (SLOTTING)
VTA0806	25	130	4800~5300	1000~1300	0.05~0.1	6~8	溝銑 (SLOTTING)
VTA0806	25	85	3200~3500	1200~1500	8~16	0.2~0.3	側銑 (SIDE MILLING)
VTA0806	25	85	3200~3500	700~900	8~16	0.05~0.15	側銑 (SIDE MILLING)
VTA1006	30	130	4000~4500	1300~1600	0.15~0.25	8~10	溝銑 (SLOTTING)
VTA1006	30	130	4000~4500	1000~1300	0.05~0.15	8~10	溝銑 (SLOTTING)
VTA1006	30	85	2500~3000	1100~1400	10~20	0.2~0.3	側銑 (SIDE MILLING)
VTA1006	30	85	2500~3000	650~850	10~20	0.05~0.15	側銑 (SIDE MILLING)
VTA1206	35	130	3200~3700	1100~1400	0.15~0.25	10~12	溝銑 (SLOTTING)
VTA1206	35	130	3200~3700	900~1200	0.05~0.15	10~12	溝銑 (SLOTTING)
VTA1206	35	85	2000~2500	900~1200	12~24	0.2~0.3	側銑 (SIDE MILLING)
VTA1206	35	85	2000~2500	600~800	12~24	0.05~0.15	側銑 (SIDE MILLING)
VTA1606	50	130	2400~2900	900~1200	0.15~0.25	14~16	溝銑 (SLOTTING)
VTA1606	50	130	2400~2900	700~900	0.05~0.15	14~16	溝銑 (SLOTTING)
VTA1606	50	85	1500~2000	800~1000	16~32	0.2~0.4	側銑 (SIDE MILLING)
VTA1606	50	85	1500~2000	500~700	16~32	0.05~0.2	側銑 (SIDE MILLING)

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRc36~45)

冷卻方式 Coolant Type

乾式切削 Dry coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
VTA0606	20	130	6700~7200	1300~1500	0.1~0.2	4~6	溝銑 (SLOTTING)
VTA0606	20	130	6700~7200	1000~1300	0.05~0.1	4~6	溝銑 (SLOTTING)
VTA0606	20	85	4000~4500	1000~1200	6~12	0.15~0.25	側銑 (SIDE MILLING)
VTA0606	20	85	4000~4500	800~1000	6~12	0.05~0.12	側銑 (SIDE MILLING)
VTA0806	25	130	4800~5300	1300~1600	0.1~0.2	6~8	溝銑 (SLOTTING)
VTA0806	25	130	4800~5300	1000~1300	0.05~0.1	6~8	溝銑 (SLOTTING)
VTA0806	25	85	3200~3500	1200~1500	8~16	0.2~0.3	側銑 (SIDE MILLING)
VTA0806	25	85	3200~3500	700~900	8~16	0.05~0.15	側銑 (SIDE MILLING)
VTA1006	30	130	4000~4500	1300~1600	0.15~0.25	8~10	溝銑 (SLOTTING)
VTA1006	30	130	4000~4500	1000~1300	0.05~0.15	8~10	溝銑 (SLOTTING)
VTA1006	30	85	2500~3000	1100~1400	10~20	0.2~0.3	側銑 (SIDE MILLING)
VTA1006	30	85	2500~3000	650~850	10~20	0.05~0.15	側銑 (SIDE MILLING)

VTA

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRc36~45)

冷卻方式 Coolant Type

乾式切削 Dry coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
VTA1206	35	130	3200~3700	1100~1400	0.15~0.25	10~12	溝銑 (SLOTTING)
VTA1206	35	130	3200~3700	900~1200	0.05~0.15	10~12	溝銑 (SLOTTING)
VTA1206	35	85	2000~2500	900~1200	12~24	0.2~0.3	側銑 (SIDE MILLING)
VTA1206	35	85	2000~2500	600~800	12~24	0.05~0.15	側銑 (SIDE MILLING)
VTA1606	50	130	2400~2900	900~1200	0.15~0.25	14~16	溝銑 (SLOTTING)
VTA1606	50	130	2400~2900	700~900	0.05~0.15	14~16	溝銑 (SLOTTING)
VTA1606	50	85	1500~2000	800~1000	16~32	0.2~0.4	側銑 (SIDE MILLING)
VTA1606	50	85	1500~2000	500~700	16~32	0.05~0.2	側銑 (SIDE MILLING)

被切削材 Work Material

熱處理鋼 : Hardened Steels
SKD61/ STAVAX / 17-4PH : 1.2083 / 1.2344 / 1.4542 : H13 / 420 (HRc48~54)

冷卻方式 Coolant Type

乾式切削 Dry coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
VTA0606	20	100	5000~5500	1000~1200	0.1~0.2	4~6	溝銑 (SLOTTING)
VTA0606	20	100	5000~5500	800~1000	0.05~0.1	4~6	溝銑 (SLOTTING)
VTA0606	20	75	3800~4300	700~1000	6~12	0.1~0.2	側銑 (SIDE MILLING)
VTA0606	20	75	3800~4300	500~700	6~12	0.05~0.1	側銑 (SIDE MILLING)
VTA0806	25	100	3800~4300	1100~1300	0.1~0.2	6~8	溝銑 (SLOTTING)
VTA0806	25	100	3800~4300	900~1200	0.05~0.1	6~8	溝銑 (SLOTTING)
VTA0806	25	75	2800~3300	800~1100	8~16	0.15~0.25	側銑 (SIDE MILLING)
VTA0806	25	75	2800~3300	500~700	8~16	0.05~0.12	側銑 (SIDE MILLING)
VTA1006	30	100	3000~3500	1000~1300	0.15~0.25	8~10	溝銑 (SLOTTING)
VTA1006	30	100	3000~3500	800~1100	0.05~0.15	8~10	溝銑 (SLOTTING)
VTA1006	30	75	2200~2600	800~1100	10~20	0.2~0.3	側銑 (SIDE MILLING)
VTA1006	30	75	2200~2600	500~700	10~20	0.05~0.15	側銑 (SIDE MILLING)
VTA1206	35	100	2500~3000	800~1100	0.15~0.25	10~12	溝銑 (SLOTTING)
VTA1206	35	100	2500~3000	700~1000	0.05~0.15	10~12	溝銑 (SLOTTING)
VTA1206	35	75	1800~2200	700~900	12~24	0.2~0.3	側銑 (SIDE MILLING)
VTA1206	35	75	1800~2200	450~650	12~24	0.05~0.15	側銑 (SIDE MILLING)
VTA1606	50	100	1800~2300	700~900	0.15~0.25	14~16	溝銑 (SLOTTING)
VTA1606	50	100	1800~2300	600~800	0.05~0.15	14~16	溝銑 (SLOTTING)
VTA1606	50	75	1300~1700	600~800	16~32	0.2~0.4	側銑 (SIDE MILLING)
VTA1606	50	75	1300~1700	300~500	16~32	0.05~0.2	側銑 (SIDE MILLING)

VTB

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
VTB0606	20	130	6700~7200	1000~1300	0.05~0.1	4~6	溝銼 (SLOTTING)
VTB0606	20	130	6700~7200	1400~1600	0.1~0.2	4~6	溝銼 (SLOTTING)
VTB0606	20	85	4000~4500	800~1000	6~12	0.05~0.12	側銼 (SIDE MILLING)
VTB0606	20	85	4000~4500	1100~1300	6~12	0.15~0.25	側銼 (SIDE MILLING)
VTB0806	25	130	4800~5300	1000~1300	0.05~0.1	6~8	溝銼 (SLOTTING)
VTB0806	25	130	4800~5300	1400~1600	0.1~0.2	6~8	溝銼 (SLOTTING)
VTB0806	25	85	3200~3500	700~900	8~16	0.05~0.15	側銼 (SIDE MILLING)
VTB0806	25	85	3200~3500	1300~1500	8~16	0.2~0.3	側銼 (SIDE MILLING)
VTB1006	30	130	4000~4500	1000~1300	0.05~0.15	8~10	溝銼 (SLOTTING)
VTB1006	30	130	4000~4500	1400~1600	0.15~0.25	8~10	溝銼 (SLOTTING)
VTB1006	30	85	2500~3000	650~850	10~20	0.05~0.15	側銼 (SIDE MILLING)
VTB1006	30	85	2500~3000	1200~1400	10~20	0.2~0.3	側銼 (SIDE MILLING)
VTB1206	35	130	3200~3700	900~1200	0.05~0.15	10~12	溝銼 (SLOTTING)
VTB1206	35	130	3200~3700	1200~1400	0.15~0.25	10~12	溝銼 (SLOTTING)
VTB1206	35	85	2000~2500	600~800	12~24	0.05~0.15	側銼 (SIDE MILLING)
VTB1206	35	85	2000~2500	1000~1300	12~24	0.2~0.3	側銼 (SIDE MILLING)
VTB1606	50	130	2400~2900	700~900	0.05~0.15	14~16	溝銼 (SLOTTING)
VTB1606	50	130	2400~2900	1000~1300	0.15~0.25	14~16	溝銼 (SLOTTING)
VTB1606	50	85	1500~2000	500~700	16~32	0.05~0.2	側銼 (SIDE MILLING)
VTB1606	50	85	1500~2000	900~1100	16~32	0.2~0.4	側銼 (SIDE MILLING)

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRc23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
VTB0606	20	130	6700~7200	1000~1300	0.05~0.1	4~6	溝銼 (SLOTTING)
VTB0606	20	130	6700~7200	1300~1500	0.1~0.2	4~6	溝銼 (SLOTTING)
VTB0606	20	85	4000~4500	800~1000	6~12	0.05~0.12	側銼 (SIDE MILLING)
VTB0606	20	85	4000~4500	1000~1200	6~12	0.15~0.25	側銼 (SIDE MILLING)
VTB0806	25	130	4800~5300	1000~1300	0.05~0.1	6~8	溝銼 (SLOTTING)
VTB0806	25	130	4800~5300	1300~1600	0.1~0.2	6~8	溝銼 (SLOTTING)
VTB0806	25	85	3200~3500	700~900	8~16	0.05~0.15	側銼 (SIDE MILLING)
VTB0806	25	85	3200~3500	1200~1500	8~16	0.2~0.3	側銼 (SIDE MILLING)
VTB1006	30	130	4000~4500	1000~1300	0.05~0.15	8~10	溝銼 (SLOTTING)
VTB1006	30	130	4000~4500	1300~1600	0.15~0.25	8~10	溝銼 (SLOTTING)
VTB1006	30	85	2500~3000	650~850	10~20	0.05~0.15	側銼 (SIDE MILLING)
VTB1006	30	85	2500~3000	1100~1400	10~20	0.2~0.3	側銼 (SIDE MILLING)

VTB

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRc23~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
VTB1206	35	130	3200~3700	900~1200	0.05~0.15	10~12	溝銼 (SLOTTING)
VTB1206	35	130	3200~3700	1100~1400	0.15~0.25	10~12	溝銼 (SLOTTING)
VTB1206	35	85	2000~2500	600~800	12~24	0.05~0.15	側銼 (SIDE MILLING)
VTB1206	35	85	2000~2500	900~1200	12~24	0.2~0.3	側銼 (SIDE MILLING)
VTB1606	50	130	2400~2900	700~900	0.05~0.15	14~16	溝銼 (SLOTTING)
VTB1606	50	130	2400~2900	900~1200	0.15~0.25	14~16	溝銼 (SLOTTING)
VTB1606	50	85	1500~2000	500~700	16~32	0.05~0.2	側銼 (SIDE MILLING)
VTB1606	50	85	1500~2000	800~1000	16~32	0.2~0.4	側銼 (SIDE MILLING)

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRc36~45)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
VTB0606	20	130	6700~7200	1000~1300	0.05~0.1	4~6	溝銼 (SLOTTING)
VTB0606	20	130	6700~7200	1300~1500	0.1~0.2	4~6	溝銼 (SLOTTING)
VTB0606	20	85	4000~4500	800~1000	6~12	0.05~0.12	側銼 (SIDE MILLING)
VTB0606	20	85	4000~4500	1000~1200	6~12	0.15~0.25	側銼 (SIDE MILLING)
VTB0806	25	130	4800~5300	1000~1300	0.05~0.1	6~8	溝銼 (SLOTTING)
VTB0806	25	130	4800~5300	1300~1600	0.1~0.2	6~8	溝銼 (SLOTTING)
VTB0806	25	85	3200~3500	700~900	8~16	0.05~0.15	側銼 (SIDE MILLING)
VTB0806	25	85	3200~3500	1200~1500	8~16	0.2~0.3	側銼 (SIDE MILLING)
VTB1006	30	130	4000~4500	1000~1300	0.05~0.15	8~10	溝銼 (SLOTTING)
VTB1006	30	130	4000~4500	1300~1600	0.15~0.25	8~10	溝銼 (SLOTTING)
VTB1006	30	85	2500~3000	650~850	10~20	0.05~0.15	側銼 (SIDE MILLING)
VTB1006	30	85	2500~3000	1100~1400	10~20	0.2~0.3	側銼 (SIDE MILLING)
VTB1206	35	130	3200~3700	900~1200	0.05~0.15	10~12	溝銼 (SLOTTING)
VTB1206	35	130	3200~3700	1100~1400	0.15~0.25	10~12	溝銼 (SLOTTING)
VTB1206	35	85	2000~2500	600~800	12~24	0.05~0.15	側銼 (SIDE MILLING)
VTB1206	35	85	2000~2500	900~1200	12~24	0.2~0.3	側銼 (SIDE MILLING)
VTB1606	50	130	2400~2900	700~900	0.05~0.15	14~16	溝銼 (SLOTTING)
VTB1606	50	130	2400~2900	900~1200	0.15~0.25	14~16	溝銼 (SLOTTING)
VTB1606	50	85	1500~2000	500~700	16~32	0.05~0.2	側銼 (SIDE MILLING)
VTB1606	50	85	1500~2000	800~1000	16~32	0.2~0.4	側銼 (SIDE MILLING)

VTB

切削條件表

Milling Conditions

被切削材 Work Material

沃斯田鐵系不銹鋼 : Stainless Steels
SUS304 : 1.4301 : AISI 304 (HRC28~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
VTB0606	20	130	6700~7200	1000~1300	0.05~0.12	4	溝銑 (SLOTTING)
VTB0606	20	115	5800~6300	1600~2000	0.12~0.25	4~6	溝銑 (SLOTTING)
VTB0606	20	85	4500~4800	650~850	6~12	0.05~0.12	側銑 (SIDE MILLING)
VTB0606	20	85	4500~4800	1400~1800	6~12	0.12~0.3	側銑 (SIDE MILLING)
VTB0806	25	130	4800~5300	900~1200	0.05~0.15	6	溝銑 (SLOTTING)
VTB0806	25	115	4300~4800	1800~2200	0.15~0.3	6~8	溝銑 (SLOTTING)
VTB0806	25	80	3000~3200	650~850	8~16	0.05~0.15	側銑 (SIDE MILLING)
VTB0806	25	80	3000~3200	1800~2200	8~16	0.2~0.4	側銑 (SIDE MILLING)
VTB1006	28	130	4000~4500	900~1200	0.05~0.15	8	溝銑 (SLOTTING)
VTB1006	28	115	3300~3800	1600~2000	0.15~0.3	8~10	溝銑 (SLOTTING)
VTB1006	28	85	2700~2900	700~900	10~20	0.05~0.2	側銑 (SIDE MILLING)
VTB1006	28	85	2700~2900	1600~2000	10~20	0.2~0.45	側銑 (SIDE MILLING)
VTB1206	35	130	3200~3700	900~1200	0.05~0.15	10	溝銑 (SLOTTING)
VTB1206	35	115	2700~3200	1400~1800	0.15~0.3	10~12	溝銑 (SLOTTING)
VTB1206	35	85	2200~2400	700~900	12~24	0.05~0.2	側銑 (SIDE MILLING)
VTB1206	35	85	2200~2400	1400~1800	12~24	0.2~0.45	側銑 (SIDE MILLING)
VTB1606	50	130	2400~2900	700~900	0.05~0.2	14	溝銑 (SLOTTING)
VTB1606	50	115	2000~2500	800~1100	0.2~0.4	14~16	溝銑 (SLOTTING)
VTB1606	50	85	1600~1800	600~700	16~32	0.05~0.2	側銑 (SIDE MILLING)
VTB1606	50	85	1600~1800	800~1100	16~32	0.2~0.4	側銑 (SIDE MILLING)

WUA^{3T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
 S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WUA0603	22	105	5300~5800	600~800	1~1.5	6	溝銼 (SLOTTING)
WUA0603	22	105	5300~5800	350~550	2~3	6	溝銼 (SLOTTING)
WUA0603	22	105	5300~5800	200~400	5~6	6	溝銼 (SLOTTING)
WUA0603	22	105	5300~5800	400~600	6	1.2~2	側銼 (SIDE MILLING)
WUA0603	22	105	5300~5800	300~500	6	2~3	側銼 (SIDE MILLING)
WUA0603	22	105	5300~5800	200~400	6	4~5	側銼 (SIDE MILLING)
WUA0803	26	110	4200~4700	600~800	2	8	溝銼 (SLOTTING)
WUA0803	26	110	4200~4700	350~550	3~4	8	溝銼 (SLOTTING)
WUA0803	26	110	4200~4700	200~350	7~8	8	溝銼 (SLOTTING)
WUA0803	26	110	4200~4700	400~550	8	1.5~2	側銼 (SIDE MILLING)
WUA0803	26	115	4400~4900	300~500	8	3~4	側銼 (SIDE MILLING)
WUA0803	26	110	4200~4700	200~400	8	6~7	側銼 (SIDE MILLING)
WUA1003	35	75	2000~2500	450~650	2	10	溝銼 (SLOTTING)
WUA1003	35	55	1600~2100	180~380	4~5	10	溝銼 (SLOTTING)
WUA1003	35	55	1600~2100	150~300	9~10	10	溝銼 (SLOTTING)
WUA1003	35	75	2000~2500	300~500	20	1~1.5	側銼 (SIDE MILLING)
WUA1003	35	60	1700~2100	200~400	10	4~5	側銼 (SIDE MILLING)
WUA1003	35	55	1600~2100	150~300	10	8~9	側銼 (SIDE MILLING)
WUA1203	38	75	1700~2200	350~550	1~2	12	溝銼 (SLOTTING)
WUA1203	38	70	1600~2000	130~250	5~6	12	溝銼 (SLOTTING)
WUA1203	38	70	1600~2000	100~180	9~10	12	溝銼 (SLOTTING)
WUA1203	38	70	1600~2000	250~400	24	1~2	側銼 (SIDE MILLING)
WUA1203	38	70	1600~2000	130~250	12	5~6	側銼 (SIDE MILLING)
WUA1203	38	70	1600~2000	100~180	12	9~10	側銼 (SIDE MILLING)
WUA1403	50	75	1500~1900	300~500	1~2	14	溝銼 (SLOTTING)
WUA1403	50	70	1400~1800	120~220	4~5	14	溝銼 (SLOTTING)
WUA1403	50	70	1400~1800	100~170	7~8	14	溝銼 (SLOTTING)
WUA1403	50	70	1400~1800	200~400	28	1~2	側銼 (SIDE MILLING)
WUA1403	50	70	1400~1800	120~220	14	4~5	側銼 (SIDE MILLING)
WUA1403	50	70	1400~1800	100~170	14	7~8	側銼 (SIDE MILLING)
WUA1603	50	75	1300~1700	250~400	1~2	16	溝銼 (SLOTTING)
WUA1603	50	70	1200~1600	100~200	4~5	16	溝銼 (SLOTTING)
WUA1603	50	70	1200~1600	100~160	6~7	16	溝銼 (SLOTTING)
WUA1603	50	70	1200~1600	200~350	32	1~2	側銼 (SIDE MILLING)
WUA1603	50	70	1200~1600	100~200	16	4~5	側銼 (SIDE MILLING)
WUA1603	50	70	1200~1600	100~160	16	6~7	側銼 (SIDE MILLING)

WUA^{3T}

切削條件表 Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WUA1803	50	75	1100~1500	200~350	1~2	18	溝銼 (SLOTTING)
WUA1803	50	70	1000~1400	100~150	4~5	18	溝銼 (SLOTTING)
WUA1803	50	70	1000~1400	80~130	6~7	18	溝銼 (SLOTTING)
WUA1803	50	70	1000~1400	200~350	36	1~2	側銼 (SIDE MILLING)
WUA1803	50	70	1000~1400	100~150	18	4~5	側銼 (SIDE MILLING)
WUA1803	50	70	1000~1400	80~130	18	6~7	側銼 (SIDE MILLING)
WUA2003	50	75	1000~1400	200~350	1~2	20	溝銼 (SLOTTING)
WUA2003	50	70	900~1300	100~150	4~5	20	溝銼 (SLOTTING)
WUA2003	50	70	900~1300	80~130	6~7	20	溝銼 (SLOTTING)
WUA2003	50	70	900~1300	200~350	40	1~2	側銼 (SIDE MILLING)
WUA2003	50	70	900~1300	100~150	20	4~5	側銼 (SIDE MILLING)
WUA2003	50	70	900~1300	80~130	20	6~7	側銼 (SIDE MILLING)

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式 / 油霧切削 Wet/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WUA0603	22	95	4900~5300	450~650	1~1.5	6	溝銼 (SLOTTING)
WUA0603	22	95	4900~5300	200~400	2~3	6	溝銼 (SLOTTING)
WUA0603	22	95	4900~5300	150~250	5~6	6	溝銼 (SLOTTING)
WUA0603	22	95	4900~5300	450~650	12	1~1.5	側銼 (SIDE MILLING)
WUA0603	22	95	4900~5300	250~400	6	2~3	側銼 (SIDE MILLING)
WUA0603	22	95	4900~5300	150~280	6	4~5	側銼 (SIDE MILLING)
WUA0803	25	105	4000~4500	400~600	1.5~2	8	溝銼 (SLOTTING)
WUA0803	25	105	4000~4500	300~450	3~4	8	溝銼 (SLOTTING)
WUA0803	25	105	4000~4500	200~350	7~8	8	溝銼 (SLOTTING)
WUA0803	25	110	4200~4700	300~500	16	1.5~2	側銼 (SIDE MILLING)
WUA0803	25	110	4200~4700	300~400	8	3~4	側銼 (SIDE MILLING)
WUA0803	25	110	4200~4700	200~350	8	6~7	側銼 (SIDE MILLING)

WUA^{3T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式 / 油霧切削 Wet/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WUA1003	35	75	2000~2500	300~450	2	10	溝銼 (SLOTTING)
WUA1003	35	60	1700~2100	150~250	4~5	10	溝銼 (SLOTTING)
WUA1003	35	60	1800~2000	100~180	9~10	10	溝銼 (SLOTTING)
WUA1003	35	60	1700~2100	200~400	20	1~2	側銼 (SIDE MILLING)
WUA1003	35	60	1700~2100	120~220	20	4~5	側銼 (SIDE MILLING)
WUA1003	35	60	1800~2000	100~180	10	8~9	側銼 (SIDE MILLING)
WUA1203	38	75	1700~2200	300~400	1~2	12	溝銼 (SLOTTING)
WUA1203	38	60	1400~1800	130~200	5~6	12	溝銼 (SLOTTING)
WUA1203	38	60	1400~1800	100~150	9~10	12	溝銼 (SLOTTING)
WUA1203	38	60	1400~1800	200~350	24	1~2	側銼 (SIDE MILLING)
WUA1203	38	60	1400~1800	130~200	12	5~6	側銼 (SIDE MILLING)
WUA1203	38	60	1400~1800	100~160	12	9~10	側銼 (SIDE MILLING)
WUA1403	50	75	1500~1900	300~400	1~2	14	溝銼 (SLOTTING)
WUA1403	50	70	1400~1800	120~180	4~5	14	溝銼 (SLOTTING)
WUA1403	50	70	1400~1800	100~150	7~8	14	溝銼 (SLOTTING)
WUA1403	50	70	1400~1800	200~350	28	1~2	側銼 (SIDE MILLING)
WUA1403	50	70	1400~1800	100~180	14	4~5	側銼 (SIDE MILLING)
WUA1403	50	70	1400~1800	100~150	14	7~8	側銼 (SIDE MILLING)
WUA1603	50	75	1300~1700	250~350	1~2	16	溝銼 (SLOTTING)
WUA1603	50	70	1200~1600	100~170	4~5	16	溝銼 (SLOTTING)
WUA1603	50	70	1200~1600	100~130	6~7	16	溝銼 (SLOTTING)
WUA1603	50	70	1200~1600	200~300	32	1~2	側銼 (SIDE MILLING)
WUA1603	50	70	1200~1600	100~170	16	4~5	側銼 (SIDE MILLING)
WUA1603	50	70	1200~1600	100~130	16	6~7	側銼 (SIDE MILLING)
WUA1803	50	75	1100~1500	200~300	1~2	18	溝銼 (SLOTTING)
WUA1803	50	70	1000~1400	100~130	4~5	18	溝銼 (SLOTTING)
WUA1803	50	70	1000~1400	80~110	6~7	18	溝銼 (SLOTTING)
WUA1803	50	70	1000~1400	200~300	36	1~2	側銼 (SIDE MILLING)
WUA1803	50	70	1000~1400	90~120	18	4~5	側銼 (SIDE MILLING)
WUA1803	50	70	1000~1400	80~110	18	6~7	側銼 (SIDE MILLING)
WUA2003	50	75	1000~1400	200~300	1~2	20	溝銼 (SLOTTING)
WUA2003	50	70	900~1300	100~130	4~5	20	溝銼 (SLOTTING)
WUA2003	50	70	900~1300	80~110	6~7	20	溝銼 (SLOTTING)
WUA2003	50	70	900~1300	200~300	40	1~2	側銼 (SIDE MILLING)
WUA2003	50	70	900~1300	90~120	20	4~5	側銼 (SIDE MILLING)
WUA2003	50	70	900~1300	80~110	20	6~7	側銼 (SIDE MILLING)

WUA^{3T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

濕式 / 油霧切削 Wet/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WUA0603	22	95	4900~5300	400~550	1~1.5	6	溝銼 (SLOTTING)
WUA0603	22	95	4900~5300	200~350	2~3	6	溝銼 (SLOTTING)
WUA0603	22	95	4900~5300	200~350	6	2~3	側銼 (SIDE MILLING)
WUA0603	22	95	4900~5300	150~220	6	3~4	側銼 (SIDE MILLING)
WUA0803	25	105	4000~4500	400~500	1.5~2	8	溝銼 (SLOTTING)
WUA0803	25	105	4000~4500	200~350	3~4	8	溝銼 (SLOTTING)
WUA0803	25	110	4200~4700	200~350	8	3~4	側銼 (SIDE MILLING)
WUA0803	25	110	4200~4700	200~300	8	4~5	側銼 (SIDE MILLING)
WUA1003	35	75	2000~2500	300~400	2	10	溝銼 (SLOTTING)
WUA1003	35	60	1700~2100	150~200	4~5	10	溝銼 (SLOTTING)
WUA1003	35	60	1700~2100	120~180	20	4~5	側銼 (SIDE MILLING)
WUA1003	35	60	1800~2000	100~130	10	5~6	側銼 (SIDE MILLING)
WUA1203	38	75	1700~2200	250~350	1~2	12	溝銼 (SLOTTING)
WUA1203	38	60	1400~1800	120~160	5~6	12	溝銼 (SLOTTING)
WUA1203	38	60	1400~1800	120~180	12	5~6	側銼 (SIDE MILLING)
WUA1203	38	60	1400~1800	100~130	12	6~7	側銼 (SIDE MILLING)
WUA1403	50	75	1500~1900	200~300	1~2	14	溝銼 (SLOTTING)
WUA1403	50	70	1400~1800	120~150	4~5	14	溝銼 (SLOTTING)
WUA1403	50	70	1400~1800	100~130	14	4~5	側銼 (SIDE MILLING)
WUA1403	50	70	1400~1800	100~120	14	6~7	側銼 (SIDE MILLING)
WUA1603	50	75	1300~1700	200~300	1~2	16	溝銼 (SLOTTING)
WUA1603	50	70	1200~1600	120~150	4~5	16	溝銼 (SLOTTING)
WUA1603	50	70	1200~1600	100~130	16	4~5	側銼 (SIDE MILLING)
WUA1603	50	70	1200~1600	100~120	16	6~7	側銼 (SIDE MILLING)
WUA1803	50	75	1100~1500	200~250	1~2	18	溝銼 (SLOTTING)
WUA1803	50	70	1000~1400	90~110	4~5	18	溝銼 (SLOTTING)
WUA1803	50	70	1000~1400	90~110	18	4~5	側銼 (SIDE MILLING)
WUA1803	50	70	1000~1400	80~100	18	6~7	側銼 (SIDE MILLING)
WUA2003	50	75	1000~1400	200~250	1~2	20	溝銼 (SLOTTING)
WUA2003	50	70	900~1300	90~110	4~5	20	溝銼 (SLOTTING)
WUA2003	50	70	900~1300	90~110	20	4~5	側銼 (SIDE MILLING)
WUA2003	50	70	900~1300	80~100	20	6~7	側銼 (SIDE MILLING)

WUA^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

鑄鐵 : Cast Iron
FC250

冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WUA0604	20	110	5800~6200	1100~1400	1	6	溝銼 (SLOTTING)
WUA0604	20	110	5800~6200	800~1000	2~3	6	溝銼 (SLOTTING)
WUA0604	20	110	5800~6200	600~800	5~6	6	溝銼 (SLOTTING)
WUA0604	20	110	5800~6200	1300~1600	6~12	0~1	側銼 (SIDE MILLING)
WUA0604	20	110	5800~6200	600~800	6	2~3	側銼 (SIDE MILLING)
WUA0604	20	110	5800~6200	500~700	6	4~5	側銼 (SIDE MILLING)
WUA0804	25	110	4300~4600	1100~1400	1	8	溝銼 (SLOTTING)
WUA0804	25	110	4300~4600	700~900	3~4	8	溝銼 (SLOTTING)
WUA0804	25	105	4100~4400	500~700	7~8	8	溝銼 (SLOTTING)
WUA0804	25	110	4300~4600	1300~1600	8~16	0~1	側銼 (SIDE MILLING)
WUA0804	25	110	4300~4600	500~700	8	3~4	側銼 (SIDE MILLING)
WUA0804	25	110	4300~4600	400~600	8	6~7	側銼 (SIDE MILLING)
WUA1004	30	110	3500~3800	1100~1400	1.5	10	溝銼 (SLOTTING)
WUA1004	30	105	3200~3500	500~700	4~5	10	溝銼 (SLOTTING)
WUA1004	30	105	3200~3500	300~500	9~10	10	溝銼 (SLOTTING)
WUA1004	30	105	3200~3500	1300~1600	10~20	0~1	側銼 (SIDE MILLING)
WUA1004	30	105	3200~3500	500~700	10	4~5	側銼 (SIDE MILLING)
WUA1004	30	105	3200~3500	300~500	10	8~9	側銼 (SIDE MILLING)
WUA1204	35	105	2700~3000	900~1200	1.5	12	溝銼 (SLOTTING)
WUA1204	35	105	2700~3000	400~600	5~6	12	溝銼 (SLOTTING)
WUA1204	35	105	2700~3000	300~450	9~10	12	溝銼 (SLOTTING)
WUA1204	35	105	2700~3000	900~1200	12~24	0~1.5	側銼 (SIDE MILLING)
WUA1204	35	105	2700~3000	400~600	12	5~6	側銼 (SIDE MILLING)
WUA1204	35	105	2700~3000	300~450	12	9~10	側銼 (SIDE MILLING)
WUA1404	40	105	2300~2600	800~1100	2	14	溝銼 (SLOTTING)
WUA1404	40	105	2300~2600	400~500	6~7	14	溝銼 (SLOTTING)
WUA1404	40	105	2300~2600	300~400	8~9	14	溝銼 (SLOTTING)
WUA1404	40	105	2300~2600	800~1100	14~28	0~1.5	側銼 (SIDE MILLING)
WUA1404	40	105	2300~2600	400~600	14	6~7	側銼 (SIDE MILLING)
WUA1404	40	105	2300~2600	300~450	14	8~9	側銼 (SIDE MILLING)
WUA1604	45	105	2000~2300	700~900	2	16	溝銼 (SLOTTING)
WUA1604	45	105	2000~2300	250~350	5~6	16	溝銼 (SLOTTING)
WUA1604	45	105	2000~2300	150~250	7~8	16	溝銼 (SLOTTING)
WUA1604	45	105	2000~2300	700~900	16	0~1.5	側銼 (SIDE MILLING)
WUA1604	45	105	2000~2300	300~400	16	5~6	側銼 (SIDE MILLING)
WUA1604	45	105	2000~2300	200~300	16	7~8	側銼 (SIDE MILLING)

WUA^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

鑄鐵 : Cast Iron
FC250

冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WUA1804	45	105	1700~2000	600~800	2	18	溝銑 (SLOTTING)
WUA1804	45	105	1700~2000	250~350	5~6	18	溝銑 (SLOTTING)
WUA1804	45	105	1700~2000	150~250	7~8	18	溝銑 (SLOTTING)
WUA1804	45	105	1700~2000	600~800	18	0~1.5	側銑 (SIDE MILLING)
WUA1804	45	105	1700~2000	250~350	18	5~6	側銑 (SIDE MILLING)
WUA1804	45	105	1700~2000	180~280	18	7~8	側銑 (SIDE MILLING)
WUA2004	50	105	1500~1800	500~700	2	20	溝銑 (SLOTTING)
WUA2004	50	105	1500~1800	200~300	5~6	20	溝銑 (SLOTTING)
WUA2004	50	105	1500~1800	150~250	7~8	20	溝銑 (SLOTTING)
WUA2004	50	105	1500~1800	500~700	20	0~1.5	側銑 (SIDE MILLING)
WUA2004	50	105	1500~1800	220~320	20	5~6	側銑 (SIDE MILLING)
WUA2004	50	105	1500~1800	150~250	20	7~8	側銑 (SIDE MILLING)

被切削材 Work Material

碳素鋼 : Carbon Steels
S50C / SS400 : 1.1210 / 1.0036 : 1050 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WUA0604	20	90	4700~5000	800~1000	1.5	6	溝銑 (SLOTTING)
WUA0604	20	90	4700~5000	350~550	2~3	6	溝銑 (SLOTTING)
WUA0604	20	90	4700~5000	250~450	5~6	6	溝銑 (SLOTTING)
WUA0604	20	90	4700~5000	600~800	12	1.5	側銑 (SIDE MILLING)
WUA0604	20	90	4700~5000	350~550	6	2~3	側銑 (SIDE MILLING)
WUA0604	20	90	4700~5000	300~500	6	4~5	側銑 (SIDE MILLING)
WUA0804	25	90	3500~3700	800~1000	2	8	溝銑 (SLOTTING)
WUA0804	25	90	3500~3700	400~600	3~4	8	溝銑 (SLOTTING)
WUA0804	25	90	3500~3700	250~450	7~8	8	溝銑 (SLOTTING)
WUA0804	25	90	3500~3700	450~650	16	2	側銑 (SIDE MILLING)
WUA0804	25	90	3500~3700	400~600	8	3~4	側銑 (SIDE MILLING)
WUA0804	25	90	3500~3700	300~500	8	6~7	側銑 (SIDE MILLING)

WUA^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 : Carbon Steels
 S50C / SS400 : 1.1210 / 1.0036 : 1050 / A570 Gr.45(~HRc22)

冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WUA1004	30	90	2800~3000	600~800	2	10	溝銼 (SLOTTING)
WUA1004	30	90	2800~3000	300~400	4~5	10	溝銼 (SLOTTING)
WUA1004	30	90	2800~3000	200~350	9~10	10	溝銼 (SLOTTING)
WUA1004	30	90	2800~3000	400~500	20	1~2	側銼 (SIDE MILLING)
WUA1004	30	90	2800~3000	300~400	10	4~5	側銼 (SIDE MILLING)
WUA1004	30	90	2800~3000	200~350	10	8~9	側銼 (SIDE MILLING)
WUA1204	35	90	2300~2600	550~750	2	12	溝銼 (SLOTTING)
WUA1204	35	90	2300~2600	300~450	5~6	12	溝銼 (SLOTTING)
WUA1204	35	90	2300~2600	200~350	9~10	12	溝銼 (SLOTTING)
WUA1204	35	90	2300~2600	400~500	24	1~2	側銼 (SIDE MILLING)
WUA1204	35	90	2300~2600	300~400	12	5~6	側銼 (SIDE MILLING)
WUA1204	35	90	2300~2600	200~350	12	9~10	側銼 (SIDE MILLING)
WUA1404	40	90	1900~2200	550~750	2	14	溝銼 (SLOTTING)
WUA1404	40	90	1900~2200	300~450	6~7	14	溝銼 (SLOTTING)
WUA1404	40	90	1900~2200	200~350	8~9	14	溝銼 (SLOTTING)
WUA1404	40	90	1900~2200	400~500	28	1~2	側銼 (SIDE MILLING)
WUA1404	40	90	1900~2200	300~400	14	6~7	側銼 (SIDE MILLING)
WUA1404	40	90	1900~2200	200~350	14	8~9	側銼 (SIDE MILLING)
WUA1604	45	90	1700~2000	550~750	2	16	溝銼 (SLOTTING)
WUA1604	45	90	1700~2000	200~300	5~6	16	溝銼 (SLOTTING)
WUA1604	45	90	1700~2000	150~250	7~8	16	溝銼 (SLOTTING)
WUA1604	45	90	1700~2000	400~500	32	1~2	側銼 (SIDE MILLING)
WUA1604	45	90	1700~2000	200~300	16	5~6	側銼 (SIDE MILLING)
WUA1604	45	90	1700~2000	150~250	16	7~8	側銼 (SIDE MILLING)
WUA1804	45	90	1500~1800	450~650	2	18	溝銼 (SLOTTING)
WUA1804	45	90	1500~1800	200~300	5~6	18	溝銼 (SLOTTING)
WUA1804	45	90	1500~1800	150~250	7~8	18	溝銼 (SLOTTING)
WUA1804	45	90	1500~1800	300~400	36	1~2	側銼 (SIDE MILLING)
WUA1804	45	90	1500~1800	200~300	18	5~6	側銼 (SIDE MILLING)
WUA1804	45	90	1500~1800	150~250	18	7~8	側銼 (SIDE MILLING)
WUA2004	50	90	1200~1500	450~650	2	20	溝銼 (SLOTTING)
WUA2004	50	90	1200~1500	200~300	5~6	20	溝銼 (SLOTTING)
WUA2004	50	90	1200~1500	150~250	7~8	20	溝銼 (SLOTTING)
WUA2004	50	90	1200~1500	300~400	40	1~2	側銼 (SIDE MILLING)
WUA2004	50	90	1200~1500	200~300	20	5~6	側銼 (SIDE MILLING)
WUA2004	50	90	1200~1500	150~220	20	7~8	側銼 (SIDE MILLING)

WUA^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 / Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式 / 油霧切削 Wet/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WUA0604	20	90	4700~5000	700~900	1.5	6	溝銑 (SLOTTING)
WUA0604	20	90	4700~5000	300~500	2~3	6	溝銑 (SLOTTING)
WUA0604	20	90	4700~5000	250~400	5~6	6	溝銑 (SLOTTING)
WUA0604	20	90	4700~5000	500~700	12	1.5	側銑 (SIDE MILLING)
WUA0604	20	90	4700~5000	350~500	6	2~3	側銑 (SIDE MILLING)
WUA0604	20	90	4700~5000	300~450	6	4~5	側銑 (SIDE MILLING)
WUA0804	25	90	3500~3700	700~900	2	8	溝銑 (SLOTTING)
WUA0804	25	90	3500~3700	350~550	3~4	8	溝銑 (SLOTTING)
WUA0804	25	90	3500~3700	250~450	7~8	8	溝銑 (SLOTTING)
WUA0804	25	90	3500~3700	450~650	16	2	側銑 (SIDE MILLING)
WUA0804	25	90	3500~3700	350~500	8	3~4	側銑 (SIDE MILLING)
WUA0804	25	90	3500~3700	250~450	8	6~7	側銑 (SIDE MILLING)
WUA1004	30	90	2800~3000	500~700	2	10	溝銑 (SLOTTING)
WUA1004	30	90	2800~3000	250~350	4~5	10	溝銑 (SLOTTING)
WUA1004	30	90	2800~3000	180~280	9~10	10	溝銑 (SLOTTING)
WUA1004	30	90	2800~3000	400~500	20	1~2	側銑 (SIDE MILLING)
WUA1004	30	90	2800~3000	300~400	10	4~5	側銑 (SIDE MILLING)
WUA1004	30	90	2800~3000	200~300	10	8~9	側銑 (SIDE MILLING)
WUA1204	35	90	2300~2600	400~600	2	12	溝銑 (SLOTTING)
WUA1204	35	90	2300~2600	200~300	5~6	12	溝銑 (SLOTTING)
WUA1204	35	90	2300~2600	170~250	9~10	12	溝銑 (SLOTTING)
WUA1204	35	90	2300~2600	350~450	24	1~2	側銑 (SIDE MILLING)
WUA1204	35	90	2300~2600	200~300	12	5~6	側銑 (SIDE MILLING)
WUA1204	35	90	2300~2600	170~270	12	9~10	側銑 (SIDE MILLING)
WUA1404	40	90	1900~2200	400~600	2	14	溝銑 (SLOTTING)
WUA1404	40	90	1900~2200	300~400	6~7	14	溝銑 (SLOTTING)
WUA1404	40	90	1900~2200	200~300	8~9	14	溝銑 (SLOTTING)
WUA1404	40	90	1900~2200	350~450	28	1~2	側銑 (SIDE MILLING)
WUA1404	40	90	1900~2200	250~350	14	6~7	側銑 (SIDE MILLING)
WUA1404	40	90	1900~2200	150~250	14	8~9	側銑 (SIDE MILLING)
WUA1604	45	90	1700~2000	350~500	2	16	溝銑 (SLOTTING)
WUA1604	45	90	1700~2000	150~220	5~6	16	溝銑 (SLOTTING)
WUA1604	45	90	1700~2000	120~180	7~8	16	溝銑 (SLOTTING)
WUA1604	45	90	1700~2000	250~350	32	1~2	側銑 (SIDE MILLING)
WUA1604	45	90	1700~2000	150~220	16	5~6	側銑 (SIDE MILLING)
WUA1604	45	90	1700~2000	120~180	16	7~8	側銑 (SIDE MILLING)

WUA^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRc23~32)

冷卻方式 Coolant Type

濕式 / 油霧切削 Wet/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WUA1804	45	90	1500~1800	300~450	2	18	溝銑 (SLOTTING)
WUA1804	45	90	1500~1800	150~220	5~6	18	溝銑 (SLOTTING)
WUA1804	45	90	1500~1800	120~180	7~8	18	溝銑 (SLOTTING)
WUA1804	45	90	1500~1800	250~350	36	1~2	側銑 (SIDE MILLING)
WUA1804	45	90	1500~1800	150~220	18	5~6	側銑 (SIDE MILLING)
WUA1804	45	90	1500~1800	120~180	18	7~8	側銑 (SIDE MILLING)
WUA2004	50	90	1200~1500	300~450	2	20	溝銑 (SLOTTING)
WUA2004	50	90	1200~1500	150~220	5~6	20	溝銑 (SLOTTING)
WUA2004	50	90	1200~1500	120~180	7~8	20	溝銑 (SLOTTING)
WUA2004	50	90	1200~1500	250~350	40	1~2	側銑 (SIDE MILLING)
WUA2004	50	90	1200~1500	150~220	20	5~6	側銑 (SIDE MILLING)
WUA2004	50	90	1200~1500	120~180	20	7~8	側銑 (SIDE MILLING)

WUA^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

濕式 / 油霧切削 Wet/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WUA0604	20	90	4700~5000	600~800	1.5	6	溝銼 (SLOTTING)
WUA0604	20	90	4700~5000	300~450	2~3	6	溝銼 (SLOTTING)
WUA0604	20	90	4700~5000	400~600	12	1.5	側銼 (SIDE MILLING)
WUA0604	20	90	4700~5000	300~450	6	2~3	側銼 (SIDE MILLING)
WUA0804	25	90	3500~3700	600~800	2	8	溝銼 (SLOTTING)
WUA0804	25	90	3500~3700	300~450	3~4	8	溝銼 (SLOTTING)
WUA0804	25	90	3500~3700	400~600	16	2	側銼 (SIDE MILLING)
WUA0804	25	90	3500~3700	300~450	8	3~4	側銼 (SIDE MILLING)
WUA1004	30	90	2800~3000	400~600	2	10	溝銼 (SLOTTING)
WUA1004	30	90	2800~3000	200~300	4~5	10	溝銼 (SLOTTING)
WUA1004	30	90	2800~3000	350~450	20	1~2	側銼 (SIDE MILLING)
WUA1004	30	90	2800~3000	200~300	10	4~5	側銼 (SIDE MILLING)
WUA1204	35	90	2300~2600	300~500	2	12	溝銼 (SLOTTING)
WUA1204	35	90	2300~2600	180~280	5~6	12	溝銼 (SLOTTING)
WUA1204	35	90	2300~2600	250~350	24	1~2	側銼 (SIDE MILLING)
WUA1204	35	90	2300~2600	150~250	12	5~6	側銼 (SIDE MILLING)
WUA1404	40	90	1900~2200	300~500	2	14	溝銼 (SLOTTING)
WUA1404	40	90	1900~2200	180~280	6~7	14	溝銼 (SLOTTING)
WUA1404	40	90	1900~2200	250~350	28	1~2	側銼 (SIDE MILLING)
WUA1404	40	90	1900~2200	150~250	14	6~7	側銼 (SIDE MILLING)
WUA1604	45	90	1700~2000	250~400	2	16	溝銼 (SLOTTING)
WUA1604	45	90	1700~2000	140~200	5~6	16	溝銼 (SLOTTING)
WUA1604	45	90	1700~2000	200~300	32	1~2	側銼 (SIDE MILLING)
WUA1604	45	90	1700~2000	140~200	16	5~6	側銼 (SIDE MILLING)
WUA1804	45	90	1500~1800	250~400	2	18	溝銼 (SLOTTING)
WUA1804	45	90	1500~1800	140~200	5~6	18	溝銼 (SLOTTING)
WUA1804	45	90	1500~1800	200~300	36	1~2	側銼 (SIDE MILLING)
WUA1804	45	90	1500~1800	120~180	18	5~6	側銼 (SIDE MILLING)
WUA2004	50	90	1200~1500	250~400	2	20	溝銼 (SLOTTING)
WUA2004	50	90	1200~1500	120~200	5~6	20	溝銼 (SLOTTING)
WUA2004	50	90	1200~1500	200~300	40	1~2	側銼 (SIDE MILLING)
WUA2004	50	90	1200~1500	100~180	20	5~6	側銼 (SIDE MILLING)

WWA^{3T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WWA0603	22	105	5300~5800	700~900	1~1.5	6	溝銼 (SLOTTING)
WWA0603	22	105	5300~5800	350~500	2~3	6	溝銼 (SLOTTING)
WWA0603	22	105	5300~5800	250~400	5~6	6	溝銼 (SLOTTING)
WWA0603	22	100	5000~5500	400~600	6	1.2~2	側銼 (SIDE MILLING)
WWA0603	22	100	5000~5500	300~500	6	2~3	側銼 (SIDE MILLING)
WWA0603	22	105	5300~5800	200~400	6	4~5	側銼 (SIDE MILLING)
WWA0803	28	125	4700~5200	550~750	2	8	溝銼 (SLOTTING)
WWA0803	28	125	4700~5200	300~450	3~4	8	溝銼 (SLOTTING)
WWA0803	28	125	4700~5200	150~300	7~8	8	溝銼 (SLOTTING)
WWA0803	28	125	4700~5200	400~550	8	1.5~2	側銼 (SIDE MILLING)
WWA0803	28	125	4700~5200	300~450	8	3~4	側銼 (SIDE MILLING)
WWA0803	28	125	4700~5200	200~400	8	6~7	側銼 (SIDE MILLING)
WWA1003	35	60	1700~2100	450~650	2	10	溝銼 (SLOTTING)
WWA1003	35	60	1700~2100	180~380	4~5	10	溝銼 (SLOTTING)
WWA1003	35	60	1700~2100	150~300	9~10	10	溝銼 (SLOTTING)
WWA1003	35	60	1700~2100	300~500	20	1.5~2	側銼 (SIDE MILLING)
WWA1003	35	60	1700~2100	200~400	10	4~5	側銼 (SIDE MILLING)
WWA1003	35	60	1700~2100	150~300	10	8~9	側銼 (SIDE MILLING)
WWA1203	38	75	1700~2200	350~550	1~2	12	溝銼 (SLOTTING)
WWA1203	38	70	1600~2000	130~250	5~6	12	溝銼 (SLOTTING)
WWA1203	38	70	1600~2000	100~180	9~10	12	溝銼 (SLOTTING)
WWA1203	38	70	1600~2000	250~400	24	1~2	側銼 (SIDE MILLING)
WWA1203	38	70	1600~2000	130~250	12	5~6	側銼 (SIDE MILLING)
WWA1203	38	70	1600~2000	100~180	12	9~10	側銼 (SIDE MILLING)
WWA1403	50	75	1500~1900	300~500	1~2	14	溝銼 (SLOTTING)
WWA1403	50	70	1400~1800	120~220	4~5	14	溝銼 (SLOTTING)
WWA1403	50	70	1400~1800	100~170	7~8	14	溝銼 (SLOTTING)
WWA1403	50	70	1400~1800	200~400	28	1~2	側銼 (SIDE MILLING)
WWA1403	50	70	1400~1800	120~220	14	4~5	側銼 (SIDE MILLING)
WWA1403	50	70	1400~1800	100~170	14	7~8	側銼 (SIDE MILLING)
WWA1603	50	75	1300~1700	250~400	1~2	16	溝銼 (SLOTTING)
WWA1603	50	70	1200~1600	100~200	4~5	16	溝銼 (SLOTTING)
WWA1603	50	70	1200~1600	100~160	6~7	16	溝銼 (SLOTTING)
WWA1603	50	70	1200~1600	200~350	32	1~2	側銼 (SIDE MILLING)
WWA1603	50	70	1200~1600	100~200	16	4~5	側銼 (SIDE MILLING)
WWA1603	50	70	1200~1600	100~160	16	6~7	側銼 (SIDE MILLING)

WWA^{3T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WWA1803	50	75	1100~1500	200~350	1~2	18	溝銼 (SLOTTING)
WWA1803	50	70	1000~1400	100~150	4~5	18	溝銼 (SLOTTING)
WWA1803	50	70	1000~1400	80~130	6~7	18	溝銼 (SLOTTING)
WWA1803	50	70	1000~1400	200~350	36	1~2	側銼 (SIDE MILLING)
WWA1803	50	70	1000~1400	100~150	18	4~5	側銼 (SIDE MILLING)
WWA1803	50	70	1000~1400	80~130	18	6~7	側銼 (SIDE MILLING)
WWA2003	50	75	1000~1400	200~350	1~2	20	溝銼 (SLOTTING)
WWA2003	50	70	900~1300	100~150	4~5	20	溝銼 (SLOTTING)
WWA2003	50	70	900~1300	80~130	6~7	20	溝銼 (SLOTTING)
WWA2003	50	70	900~1300	200~350	40	1~2	側銼 (SIDE MILLING)
WWA2003	50	70	900~1300	100~150	20	4~5	側銼 (SIDE MILLING)
WWA2003	50	70	900~1300	80~130	20	6~7	側銼 (SIDE MILLING)

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式 / 油霧切削 Wet/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WWA0603	22	95	4900~5300	400~600	1~1.5	6	溝銼 (SLOTTING)
WWA0603	22	95	4900~5300	200~400	2~3	6	溝銼 (SLOTTING)
WWA0603	22	95	4900~5300	150~250	5~6	6	溝銼 (SLOTTING)
WWA0603	22	95	4900~5300	450~650	12	1~1.5	側銼 (SIDE MILLING)
WWA0603	22	95	4900~5300	250~400	6	2~3	側銼 (SIDE MILLING)
WWA0603	22	95	4900~5300	150~280	6	4~5	側銼 (SIDE MILLING)
WWA0803	28	100	3800~4300	300~500	1.5~2	8	溝銼 (SLOTTING)
WWA0803	28	105	4000~4500	250~400	3~4	8	溝銼 (SLOTTING)
WWA0803	28	95	3600~4000	120~250	7~8	8	溝銼 (SLOTTING)
WWA0803	28	95	3600~4000	180~280	8	3~4	側銼 (SIDE MILLING)
WWA0803	28	95	3600~4000	120~250	8	6~7	側銼 (SIDE MILLING)

WWA^{3T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

濕式 / 油霧切削 Wet/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WWA1003	35	60	1700~2200	300~500	2	10	溝銑 (SLOTTING)
WWA1003	35	60	1700~2100	150~250	4~5	10	溝銑 (SLOTTING)
WWA1003	35	60	1700~2100	100~180	9~10	10	溝銑 (SLOTTING)
WWA1003	35	60	1700~2100	200~400	20	1.5~2	側銑 (SIDE MILLING)
WWA1003	35	60	1700~2000	150~250	10~20	4~5	側銑 (SIDE MILLING)
WWA1003	35	60	1700~2100	100~180	10	8~9	側銑 (SIDE MILLING)
WWA1203	38	75	1700~2200	300~400	1~2	12	溝銑 (SLOTTING)
WWA1203	38	60	1400~1800	130~200	5~6	12	溝銑 (SLOTTING)
WWA1203	38	60	1400~1800	100~150	9~10	12	溝銑 (SLOTTING)
WWA1203	38	60	1400~1800	200~350	24	1~2	側銑 (SIDE MILLING)
WWA1203	38	60	1400~1800	130~200	12	5~6	側銑 (SIDE MILLING)
WWA1203	38	60	1400~1800	100~160	12	9~10	側銑 (SIDE MILLING)
WWA1403	50	75	1500~1900	300~400	1~2	14	溝銑 (SLOTTING)
WWA1403	50	70	1400~1800	120~180	4~5	14	溝銑 (SLOTTING)
WWA1403	50	70	1400~1800	100~150	7~8	14	溝銑 (SLOTTING)
WWA1403	50	70	1400~1800	200~350	28	1~2	側銑 (SIDE MILLING)
WWA1403	50	70	1400~1800	100~180	14	4~5	側銑 (SIDE MILLING)
WWA1403	50	70	1400~1800	100~150	14	7~8	側銑 (SIDE MILLING)
WWA1603	50	75	1300~1700	250~350	1~2	16	溝銑 (SLOTTING)
WWA1603	50	70	1200~1600	100~170	4~5	16	溝銑 (SLOTTING)
WWA1603	50	70	1200~1600	100~130	6~7	16	溝銑 (SLOTTING)
WWA1603	50	70	1200~1600	200~300	32	1~2	側銑 (SIDE MILLING)
WWA1603	50	70	1200~1600	100~170	16	4~5	側銑 (SIDE MILLING)
WWA1603	50	70	1200~1600	100~130	16	6~7	側銑 (SIDE MILLING)
WWA1803	50	75	1100~1500	200~300	1~2	18	溝銑 (SLOTTING)
WWA1803	50	70	1000~1400	100~130	4~5	18	溝銑 (SLOTTING)
WWA1803	50	70	1000~1400	80~110	6~7	18	溝銑 (SLOTTING)
WWA1803	50	70	1000~1400	200~300	36	1~2	側銑 (SIDE MILLING)
WWA1803	50	70	1000~1400	90~120	18	4~5	側銑 (SIDE MILLING)
WWA1803	50	70	1000~1400	80~110	18	6~7	側銑 (SIDE MILLING)
WWA2003	50	75	1000~1400	200~300	1~2	20	溝銑 (SLOTTING)
WWA2003	50	70	900~1300	100~130	4~5	20	溝銑 (SLOTTING)
WWA2003	50	70	900~1300	80~110	6~7	20	溝銑 (SLOTTING)
WWA2003	50	70	900~1300	200~300	40	1~2	側銑 (SIDE MILLING)
WWA2003	50	70	900~1300	90~120	20	4~5	側銑 (SIDE MILLING)
WWA2003	50	70	900~1300	80~110	20	6~7	側銑 (SIDE MILLING)

WWA^{3T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 : AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

濕式 / 油霧切削 Wet/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WWA0603	22	95	4900~5300	400~550	1~1.5	6	溝銼 (SLOTTING)
WWA0603	22	95	4900~5300	200~350	2~3	6	溝銼 (SLOTTING)
WWA0603	22	95	4900~5300	200~350	6	2~3	側銼 (SIDE MILLING)
WWA0603	22	95	4900~5300	150~220	6	3~4	側銼 (SIDE MILLING)
WWA0803	25	105	4000~4500	400~500	1.5~2	8	溝銼 (SLOTTING)
WWA0803	25	105	4000~4500	200~350	3~4	8	溝銼 (SLOTTING)
WWA0803	25	110	4200~4700	200~350	8	3~4	側銼 (SIDE MILLING)
WWA0803	25	110	4200~4700	200~300	8	4~5	側銼 (SIDE MILLING)
WWA1003	35	75	2000~2500	300~400	2	10	溝銼 (SLOTTING)
WWA1003	35	60	1700~2100	150~200	4~5	10	溝銼 (SLOTTING)
WWA1003	35	60	1700~2100	120~180	20	4~5	側銼 (SIDE MILLING)
WWA1003	35	60	1800~2000	100~130	10	5~6	側銼 (SIDE MILLING)
WWA1203	38	75	1700~2200	250~350	1~2	12	溝銼 (SLOTTING)
WWA1203	38	60	1400~1800	120~160	5~6	12	溝銼 (SLOTTING)
WWA1203	38	60	1400~1800	120~180	12	5~6	側銼 (SIDE MILLING)
WWA1203	38	60	1400~1800	100~130	12	6~7	側銼 (SIDE MILLING)
WWA1403	50	75	1500~1900	200~300	1~2	14	溝銼 (SLOTTING)
WWA1403	50	70	1400~1800	120~150	4~5	14	溝銼 (SLOTTING)
WWA1403	50	70	1400~1800	100~130	14	4~5	側銼 (SIDE MILLING)
WWA1403	50	70	1400~1800	100~120	14	6~7	側銼 (SIDE MILLING)
WWA1603	50	75	1300~1700	200~300	1~2	16	溝銼 (SLOTTING)
WWA1603	50	70	1200~1600	120~150	4~5	16	溝銼 (SLOTTING)
WWA1603	50	70	1200~1600	100~130	16	4~5	側銼 (SIDE MILLING)
WWA1603	50	70	1200~1600	100~120	16	6~7	側銼 (SIDE MILLING)
WWA1803	50	75	1100~1500	200~250	1~2	18	溝銼 (SLOTTING)
WWA1803	50	70	1000~1400	90~110	4~5	18	溝銼 (SLOTTING)
WWA1803	50	70	1000~1400	90~110	18	4~5	側銼 (SIDE MILLING)
WWA1803	50	70	1000~1400	80~100	18	6~7	側銼 (SIDE MILLING)
WWA2003	50	75	1000~1400	200~250	1~2	20	溝銼 (SLOTTING)
WWA2003	50	70	900~1300	90~110	4~5	20	溝銼 (SLOTTING)
WWA2003	50	70	900~1300	90~110	20	4~5	側銼 (SIDE MILLING)
WWA2003	50	70	900~1300	80~100	20	6~7	側銼 (SIDE MILLING)

WWA^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron

S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRc22)

冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WWA0604	20	90	4700~5000	700~900	1.5	6	溝銼 (SLOTTING)
WWA0604	20	90	4700~5000	350~550	2~3	6	溝銼 (SLOTTING)
WWA0604	20	90	4700~5000	250~450	5~6	6	溝銼 (SLOTTING)
WWA0604	20	90	4700~5000	600~800	12	1.5	側銼 (SIDE MILLING)
WWA0604	20	90	4700~5000	350~550	6	2~3	側銼 (SIDE MILLING)
WWA0604	20	90	4700~5000	300~500	6	4~5	側銼 (SIDE MILLING)
WWA0804	25	90	3500~3700	800~1000	2	8	溝銼 (SLOTTING)
WWA0804	25	90	3500~3700	350~550	3~4	8	溝銼 (SLOTTING)
WWA0804	25	90	3500~3700	250~450	7~8	8	溝銼 (SLOTTING)
WWA0804	25	90	3500~3700	450~650	16	2	側銼 (SIDE MILLING)
WWA0804	25	90	3500~3700	350~550	8	3~4	側銼 (SIDE MILLING)
WWA0804	25	90	3500~3700	250~450	8	6~7	側銼 (SIDE MILLING)
WWA1004	30	90	2800~3000	600~800	2	10	溝銼 (SLOTTING)
WWA1004	30	90	2800~3000	300~400	4~5	10	溝銼 (SLOTTING)
WWA1004	30	90	2800~3000	200~350	9~10	10	溝銼 (SLOTTING)
WWA1004	30	90	2800~3000	400~500	20	1~2	側銼 (SIDE MILLING)
WWA1004	30	90	2800~3000	300~400	10	4~5	側銼 (SIDE MILLING)
WWA1004	30	90	2800~3000	200~350	10	8~9	側銼 (SIDE MILLING)
WWA1204	35	90	2300~2600	500~700	2	12	溝銼 (SLOTTING)
WWA1204	35	90	2300~2600	200~350	4~5	12	溝銼 (SLOTTING)
WWA1204	35	90	2300~2600	200~300	6~7	12	溝銼 (SLOTTING)
WWA1204	35	90	2300~2600	350~450	24	1~2	側銼 (SIDE MILLING)
WWA1204	35	90	2300~2600	200~350	12	4~5	側銼 (SIDE MILLING)
WWA1204	35	90	2300~2600	200~300	12	6~7	側銼 (SIDE MILLING)
WWA1404	40	90	1800~2200	400~600	2	14	溝銼 (SLOTTING)
WWA1404	40	90	1800~2200	200~350	4~5	14	溝銼 (SLOTTING)
WWA1404	40	90	1800~2200	200~300	6~7	14	溝銼 (SLOTTING)
WWA1404	40	90	1800~2200	400~500	28	1~2	側銼 (SIDE MILLING)
WWA1404	40	90	1800~2200	200~350	14	4~5	側銼 (SIDE MILLING)
WWA1404	40	90	1800~2200	200~300	14	6~7	側銼 (SIDE MILLING)
WWA1604	45	90	1700~2000	400~600	2	16	溝銼 (SLOTTING)
WWA1604	45	90	1700~2000	200~300	4~5	16	溝銼 (SLOTTING)
WWA1604	45	90	1700~2000	150~250	6~7	16	溝銼 (SLOTTING)
WWA1604	45	90	1700~2000	400~500	32	1~2	側銼 (SIDE MILLING)
WWA1604	45	90	1700~2000	250~350	16	4~5	側銼 (SIDE MILLING)
WWA1604	45	90	1700~2000	150~250	16	6~7	側銼 (SIDE MILLING)

WWA^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

碳素鋼 / 鑄鐵 : Carbon Steels / Cast Iron
S50C / Fc250 / SS400 : 1.1210 / 0.6025 / 1.0036 : 1050 / NO.35 / A570 Gr.45 (~HRC22)

冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WWA1804	45	90	1500~1800	400~600	2	18	溝銑 (SLOTTING)
WWA1804	45	90	1500~1800	200~300	4~5	18	溝銑 (SLOTTING)
WWA1804	45	90	1500~1800	150~250	6~7	18	溝銑 (SLOTTING)
WWA1804	45	90	1500~1800	300~400	36	1~2	側銑 (SIDE MILLING)
WWA1804	45	90	1500~1800	200~300	18	4~5	側銑 (SIDE MILLING)
WWA1804	45	90	1500~1800	150~250	18	6~7	側銑 (SIDE MILLING)
WWA2004	50	90	1200~1500	400~600	2	20	溝銑 (SLOTTING)
WWA2004	50	90	1200~1500	200~300	4~5	20	溝銑 (SLOTTING)
WWA2004	50	90	1200~1500	150~250	6~7	20	溝銑 (SLOTTING)
WWA2004	50	90	1200~1500	300~400	40	1~2	側銑 (SIDE MILLING)
WWA2004	50	90	1200~1500	200~300	20	4~5	側銑 (SIDE MILLING)
WWA2004	50	90	1200~1500	150~250	20	6~7	側銑 (SIDE MILLING)

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WWA0604	20	90	4700~5000	600~800	1.5	6	溝銑 (SLOTTING)
WWA0604	20	90	4700~5000	350~500	2~3	6	溝銑 (SLOTTING)
WWA0604	20	90	4700~5000	250~400	5~6	6	溝銑 (SLOTTING)
WWA0604	20	90	4700~5000	600~800	12	1.5	側銑 (SIDE MILLING)
WWA0604	20	90	4700~5000	350~500	6	2~3	側銑 (SIDE MILLING)
WWA0604	20	90	4700~5000	300~450	6	4~5	側銑 (SIDE MILLING)
WWA0804	25	90	3500~3700	700~900	2	8	溝銑 (SLOTTING)
WWA0804	25	90	3500~3700	350~500	3~4	8	溝銑 (SLOTTING)
WWA0804	25	90	3500~3700	250~400	7~8	8	溝銑 (SLOTTING)
WWA0804	25	90	3500~3700	450~650	16	2	側銑 (SIDE MILLING)
WWA0804	25	90	3500~3700	350~500	8	3~4	側銑 (SIDE MILLING)
WWA0804	25	90	3500~3700	250~400	8	6~7	側銑 (SIDE MILLING)

WWA^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

合金工具鋼 / 碳工具鋼 : Alloy Tool Steels / Carbon Tool Steels
P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRC23~32)

冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WWA1004	30	90	2800~3000	500~700	2	10	溝銼 (SLOTTING)
WWA1004	30	90	2800~3000	250~350	4~5	10	溝銼 (SLOTTING)
WWA1004	30	90	2800~3000	150~300	9~10	10	溝銼 (SLOTTING)
WWA1004	30	90	2800~3000	400~500	20	1~2	側銼 (SIDE MILLING)
WWA1004	30	90	2800~3000	250~350	10	4~5	側銼 (SIDE MILLING)
WWA1004	30	90	2800~3000	150~300	10	8~9	側銼 (SIDE MILLING)
WWA1204	35	90	2300~2600	400~600	2	12	溝銼 (SLOTTING)
WWA1204	35	90	2300~2600	200~300	5~6	12	溝銼 (SLOTTING)
WWA1204	35	90	2300~2600	200~250	9~10	12	溝銼 (SLOTTING)
WWA1204	35	90	2300~2600	300~400	24	1~2	側銼 (SIDE MILLING)
WWA1204	35	90	2300~2600	200~300	12	5~6	側銼 (SIDE MILLING)
WWA1204	35	90	2300~2600	150~250	12	9~10	側銼 (SIDE MILLING)
WWA1404	40	90	1900~2200	400~550	2	14	溝銼 (SLOTTING)
WWA1404	40	90	1900~2200	200~300	6~7	14	溝銼 (SLOTTING)
WWA1404	40	90	1900~2200	180~250	8~9	14	溝銼 (SLOTTING)
WWA1404	40	90	1900~2200	350~450	28	1~2	側銼 (SIDE MILLING)
WWA1404	40	90	1900~2200	200~300	14	6~7	側銼 (SIDE MILLING)
WWA1404	40	90	1900~2200	150~250	14	8~9	側銼 (SIDE MILLING)
WWA1604	45	90	1700~2000	400~500	2	16	溝銼 (SLOTTING)
WWA1604	45	90	1700~2000	170~270	5~6	16	溝銼 (SLOTTING)
WWA1604	45	90	1700~2000	150~200	7~8	16	溝銼 (SLOTTING)
WWA1604	45	90	1700~2000	300~400	32	1~2	側銼 (SIDE MILLING)
WWA1604	45	90	1700~2000	200~300	16	5~6	側銼 (SIDE MILLING)
WWA1604	45	90	1700~2000	120~200	16	7~8	側銼 (SIDE MILLING)
WWA1804	45	90	1500~1800	350~450	2	18	溝銼 (SLOTTING)
WWA1804	45	90	1500~1800	170~230	5~6	18	溝銼 (SLOTTING)
WWA1804	45	90	1500~1800	120~200	7~8	18	溝銼 (SLOTTING)
WWA1804	45	90	1500~1800	250~350	36	1~2	側銼 (SIDE MILLING)
WWA1804	45	90	1500~1800	170~230	18	5~6	側銼 (SIDE MILLING)
WWA1804	45	90	1500~1800	120~180	18	7~8	側銼 (SIDE MILLING)
WWA2004	50	90	1200~1500	350~450	2	20	溝銼 (SLOTTING)
WWA2004	50	90	1200~1500	170~230	5~6	20	溝銼 (SLOTTING)
WWA2004	50	90	1200~1500	120~200	7~8	20	溝銼 (SLOTTING)
WWA2004	50	90	1200~1500	250~350	40	1~2	側銼 (SIDE MILLING)
WWA2004	50	90	1200~1500	170~230	20	5~6	側銼 (SIDE MILLING)
WWA2004	50	90	1200~1500	120~180	20	7~8	側銼 (SIDE MILLING)

WWA^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

調質鋼 / 預硬鋼 : Prehardened Steels
NAK80 : 1.2083 - AISI420 : M310 (HRC36~45)

冷卻方式 Coolant Type

乾式 / 油霧切削 Dry/MQL coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WWA0604	22	80	4200~4400	350~450	1.5	6	溝銼 (SLOTTING)
WWA0604	22	80	4200~4400	300~420	3	6	溝銼 (SLOTTING)
WWA0604	22	80	4200~4400	500~700	6	1	側銼 (SIDE MILLING)
WWA0604	22	80	4200~4400	450~600	6	2	側銼 (SIDE MILLING)
WWA0604	22	80	4200~4400	250~320	6	3	側銼 (SIDE MILLING)
WWA0804	28	80	3200~3400	350~480	2	8	溝銼 (SLOTTING)
WWA0804	28	80	3200~3400	270~360	4	8	溝銼 (SLOTTING)
WWA0804	28	80	3200~3400	350~480	8	2	側銼 (SIDE MILLING)
WWA0804	28	80	3200~3400	270~360	8	4	側銼 (SIDE MILLING)
WWA0804	28	80	3200~3400	200~260	8	7.7	側銼 (SIDE MILLING)
WWA1004	32	80	2500~2700	350~500	2	10	溝銼 (SLOTTING)
WWA1004	32	80	2500~2700	300~400	3.5	10	溝銼 (SLOTTING)
WWA1004	32	80	2500~2700	350~500	10	1	側銼 (SIDE MILLING)
WWA1004	32	80	2500~2700	300~400	10	3	側銼 (SIDE MILLING)
WWA1004	32	80	2500~2700	200~300	10	5	側銼 (SIDE MILLING)
WWA1204	38	80	2000~2200	260~420	2	12	溝銼 (SLOTTING)
WWA1204	38	80	2000~2200	200~300	4	12	溝銼 (SLOTTING)
WWA1204	38	80	2000~2200	300~400	12	1	側銼 (SIDE MILLING)
WWA1204	38	80	2000~2200	180~260	12	4	側銼 (SIDE MILLING)
WWA1204	38	80	2000~2200	100~190	12	6	側銼 (SIDE MILLING)
WWA1404	42	80	1700~1900	200~360	2	14	溝銼 (SLOTTING)
WWA1404	42	80	1700~1900	150~250	4	14	溝銼 (SLOTTING)
WWA1404	42	80	1700~1900	200~300	14	2	側銼 (SIDE MILLING)
WWA1404	42	80	1700~1900	70~110	14	5	側銼 (SIDE MILLING)
WWA1404	42	80	1700~1900	70~110	14	7	側銼 (SIDE MILLING)
WWA1604	47	80	1500~1700	200~280	2	16	溝銼 (SLOTTING)
WWA1604	47	80	1500~1700	130~200	4	16	溝銼 (SLOTTING)
WWA1604	47	80	1500~1700	180~260	16	2	側銼 (SIDE MILLING)
WWA1604	47	80	1500~1700	50~100	16	6	側銼 (SIDE MILLING)
WWA1604	47	80	1500~1700	50~100	16	8	側銼 (SIDE MILLING)
WWA1804	50	80	1300~1500	200~250	2	18	溝銼 (SLOTTING)
WWA1804	50	80	1300~1500	130~180	4	18	溝銼 (SLOTTING)
WWA1804	50	80	1300~1500	170~240	18	1	側銼 (SIDE MILLING)
WWA1804	50	80	1300~1500	50~100	18	6	側銼 (SIDE MILLING)
WWA1804	50	80	1300~1500	50~100	18	8	側銼 (SIDE MILLING)
WWA2004	50	80	1150~1350	180~230	2	20	溝銼 (SLOTTING)
WWA2004	50	80	1150~1350	120~160	4	20	溝銼 (SLOTTING)
WWA2004	50	80	1150~1350	160~230	20	1	側銼 (SIDE MILLING)
WWA2004	50	80	1150~1350	80~120	20	5	側銼 (SIDE MILLING)
WWA2004	50	80	1150~1350	50~80	20	8	側銼 (SIDE MILLING)

WWA^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

沃斯田鐵系不銹鋼 : Stainless Steels
SUS304 : 1.4301 : AISI 304 (HRc28-32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WWA0604	22	80	4200~4400	400~550	1	6	溝銑 (SLOTTING)
WWA0604	22	80	4200~4400	350~450	1.5	6	溝銑 (SLOTTING)
WWA0604	22	80	4200~4400	300~420	3	6	溝銑 (SLOTTING)
WWA0604	22	80	4200~4400	170~220	6	6	溝銑 (SLOTTING)
WWA0604	22	80	4200~4400	500~700	6	1	側銑 (SIDE MILLING)
WWA0604	22	80	4200~4400	450~600	6	2	側銑 (SIDE MILLING)
WWA0604	22	80	4200~4400	250~320	6	3	側銑 (SIDE MILLING)
WWA0604	22	80	4200~4400	170~220	6	5.7	側銑 (SIDE MILLING)
WWA0804	28	80	3200~3400	350~480	2	8	溝銑 (SLOTTING)
WWA0804	28	80	3200~3400	270~360	4	8	溝銑 (SLOTTING)
WWA0804	28	80	3200~3400	240~320	6	8	溝銑 (SLOTTING)
WWA0804	28	80	3200~3400	200~260	8	8	溝銑 (SLOTTING)
WWA0804	28	80	3200~3400	350~480	8	2	側銑 (SIDE MILLING)
WWA0804	28	80	3200~3400	270~360	8	4	側銑 (SIDE MILLING)
WWA0804	28	80	3200~3400	200~260	8	7.7	側銑 (SIDE MILLING)
WWA1004	32	80	2500~2700	350~500	2	10	溝銑 (SLOTTING)
WWA1004	32	80	2500~2700	300~400	3.5	10	溝銑 (SLOTTING)
WWA1004	32	80	2500~2700	250~320	5	10	溝銑 (SLOTTING)
WWA1004	32	80	2500~2700	200~260	10	10	溝銑 (SLOTTING)
WWA1004	32	80	2500~2700	350~500	10	1	側銑 (SIDE MILLING)
WWA1004	32	80	2500~2700	200~300	10	5	側銑 (SIDE MILLING)
WWA1004	32	80	2500~2700	200~260	10	9.7	側銑 (SIDE MILLING)
WWA1204	38	80	2000~2200	260~420	2	12	溝銑 (SLOTTING)
WWA1204	38	80	2000~2200	200~300	4	12	溝銑 (SLOTTING)
WWA1204	38	80	2000~2200	180~260	6	12	溝銑 (SLOTTING)
WWA1204	38	80	2000~2200	150~210	10	12	溝銑 (SLOTTING)
WWA1204	38	80	2000~2200	120~200	12	12	溝銑 (SLOTTING)
WWA1204	38	80	2000~2200	300~400	12	1	側銑 (SIDE MILLING)
WWA1204	38	80	2000~2200	180~260	12	6	側銑 (SIDE MILLING)
WWA1204	38	80	2000~2200	100~190	12	11.7	側銑 (SIDE MILLING)
WWA1404	42	80	1700~1900	200~360	2	14	溝銑 (SLOTTING)
WWA1404	42	80	1700~1900	150~250	4	14	溝銑 (SLOTTING)
WWA1404	42	80	1700~1900	120~200	6	14	溝銑 (SLOTTING)
WWA1404	42	80	1700~1900	100~150	10	14	溝銑 (SLOTTING)
WWA1404	42	80	1700~1900	200~300	14	1	側銑 (SIDE MILLING)
WWA1404	42	80	1700~1900	70~110	14	7	側銑 (SIDE MILLING)
WWA1404	42	80	1700~1900	70~110	7	13.7	側銑 (SIDE MILLING)

WWA^{4T}

切削條件表

Milling Conditions

被切削材 Work Material

 沃斯田鐵系不銹鋼 : Stainless Steels
 SUS304 : 1.4301 : AISI 304 (HRC28~32)

冷卻方式 Coolant Type

濕式切削 Wet coolant

型號 Type NO.	刀具伸長量 Extension Length(mm)	切削速度 (m/min) Cutting Speed	迴轉速度 Speed (min ⁻¹)	進給速度 Feed (mm/min)	加工深度 (Aa) Depth of Cut	加工寬度 (Ap) Width of Cut	加工方式 Milling Type
WWA1604	47	80	1500~1700	200~280	2	16	溝銼 (SLOTTING)
WWA1604	47	80	1500~1700	130~200	4	16	溝銼 (SLOTTING)
WWA1604	47	80	1500~1700	100~170	6	16	溝銼 (SLOTTING)
WWA1604	47	80	1500~1700	80~100	10	16	溝銼 (SLOTTING)
WWA1604	47	80	1500~1700	180~260	16	1	側銼 (SIDE MILLING)
WWA1604	47	80	1500~1700	50~100	16	8	側銼 (SIDE MILLING)
WWA1604	47	80	1500~1700	50~100	8	15.7	側銼 (SIDE MILLING)
WWA1804	50	80	1300~1500	200~250	2	18	溝銼 (SLOTTING)
WWA1804	50	80	1300~1500	130~180	4	18	溝銼 (SLOTTING)
WWA1804	50	80	1300~1500	100~150	6	18	溝銼 (SLOTTING)
WWA1804	50	80	1300~1500	80~100	10	18	溝銼 (SLOTTING)
WWA1804	50	80	1300~1500	170~240	18	1	側銼 (SIDE MILLING)
WWA1804	50	80	1300~1500	50~100	18	6	側銼 (SIDE MILLING)
WWA1804	50	80	1300~1500	50~100	9	17.7	側銼 (SIDE MILLING)
WWA2004	50	80	1150~1350	180~230	2	20	溝銼 (SLOTTING)
WWA2004	50	80	1150~1350	120~160	4	20	溝銼 (SLOTTING)
WWA2004	50	80	1150~1350	100~140	6	20	溝銼 (SLOTTING)
WWA2004	50	80	1150~1350	70~90	10	20	溝銼 (SLOTTING)
WWA2004	50	80	1150~1350	160~230	20	1	側銼 (SIDE MILLING)
WWA2004	50	80	1150~1350	80~120	20	5	側銼 (SIDE MILLING)
WWA2004	50	80	1150~1350	50~80	10	19.7	側銼 (SIDE MILLING)

DHF標準系列刀具推薦表【一】

SELECTION OF DHF Standard Series (1)

被切削材 Work Material	平刀 End Mills			圓鼻刀 Corner Radius End Mills			球刀 Ball Nose End Mills		
	第一推薦 First Selection	第二推薦 Second Selection	第三推薦 Third Selection	第一推薦 First Selection	第二推薦 Second Selection	第三推薦 Third Selection	第一推薦 First Selection	第二推薦 Second Selection	第三推薦 Third Selection
紅銅 Copper C1100 / 2.0090 / B152C11000	ETH	ETB	ETG ETA	RTB	RTD	RTG RTA	BTH	BTB	BTA
碳素鋼 Carbon Steels S50C / S5400 : 1.1210 / 1.0036 : 1050 / A570 Gr.45 (~HRc 22)	ETH	ETB	ETG ETA	RTB	RTD	RTG RTA	BTB	BTH	BTA
合金工具鋼/碳工具鋼 Alloy Tool Steels / Carbon Tool Steels P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRc 23~32)	ETH	ETB	ETG ETA	RTB	RTD	RTG RTA	BTB	BTH	BTA
調質鋼/預硬鋼 Prehardened Steels NAK80 : 1.2083 : AISI420 : M310 (HRc36~45)	ETH	ETB	ETA	RTB	RTD	RTG RTA	BTB	BTH	BTA
熱處理鋼 Hardened Steels SKD61 / STAVAX / 17-4PH : 1.2083 / 1.2344 / 1.4542 : H13 / 420 (HRc48~54)	ETH	ETB	ETA	RTB	RTD	RTG RTA	BTB	BTH	BTA
沃斯田鐵系不銹鋼 Stainless Steels : SUS304 : 1.4301 : AISI 304 (HRc 28~32)	ETH	ETB	ETG ETA	RTB	RTD	RTG RTA	BTH	BTB	BTA
(麻田散鐵, 析出硬化) 系不銹鋼 Stainless Steels SUS420J2 / SUS630 : 1.2083 / 1.4542 : AISI 420 / 17-4PH (HRc 28~32)	ETH	ETB	ETG ETA	RTB	RTD	RTG RTA	BTH	BTB	BTA
鈦合金/純鈦 Titanium Alloy / Pure Titanium Ti-6Al-4V / Ti-2 : 3.7165 / 3.7035 : Gr5 / Gr2 : TC4 / TA1	-	ETH	ETB	-	RTB	RTD	-	BTH	BTB

DHF標準系列刀具推薦表 (二)

SELECTION OF DHF Standard Series (2)

被切削材 Work Material	平刀 End Mills			圓鼻刀 Corner Radius End Mills			球刀 Ball Nose End Mills		
	第一推薦 First Selection	第二推薦 Second Selection	第三推薦 Third Selection	第一推薦 First Selection	第二推薦 Second Selection	第三推薦 Third Selection	第一推薦 First Selection	第二推薦 Second Selection	第三推薦 Third Selection
紅銅 Copper C1100 / 2.0090 / B152C11000	ITH HTD	HEH IEH JEH	-	LRTD	LRTA	-	HBH IBH JBH	HBA IBA JBA	-
	LFTH	-	-						
碳素鋼 Carbon Steels S50C / S5400 : 1.1210 / 1.0036 : 1050 / A570 Gr.45 (~HRc 22)	VTB	HTA ITA	HEA IEA JEA	LRTD	LRTA	-	HBH IBH JBH	HBA IBA JBA	-
	LFTH WWA	LFTA WUA	-						
合金工具鋼/碳工具鋼 Alloy Tool Steels / Carbon Tool Steels P20 / P5 / SK3 / SKD61 / SKD11 : 1.2311 / 1.1545 / 1.2379 / 1.2344 : H13 / D2 (HRc 23~32)	VTB	HTA ITA	HEA IEA JEA	LRTD	LRTA	-	HBH IBH JBH	HBA IBA JBA	-
	LFTH WWA	LFTA WUA	-						
調質鋼/預硬鋼 Prehardened Steels NAK80 : 1.2083 : AISI420 : M310 (HRc36~45)	VTB	HTA ITA	HEA IEA JEA	LRTD	LRTA	-	HBH IBH JBH	HBA IBA JBA	-
	LFTH WWA	LFTA WUA	-						
熱處理鋼 Hardened Steels SKD61 / STAVAX / 17-4PH : 1.2083 / 1.2344 / 1.4542 : H13 / 420 (HRc48~54)	VTA	HEH IEH JEH	-	LRTD	LRTA	-	HBH IBH JBH	HBA IBA JBA	-
	LFTA	-	-						
沃斯田鐵系不銹鋼 Stainless Steels : SUS304 : 1.4301 : AISI 304 (HRc 28~32)	VTB	ITH HTD	HEA IEA JEA	LRTD	LRTA	-	HBH IBH JBH	HBA IBA JBA	-
	LFTH WWA	WUA	-						
(麻田散鐵, 析出硬化) 系不銹鋼 Stainless Steels SUS420J2 / SUS630 : 1.2083 / 1.4542 : AISI 420 / 17-4PH (HRc 28~32)	VTB	ITH HTD	HEA IEA JEA	LRTD	LRTA	-	HBH IBH JBH	HBA IBA JBA	-
	LFTH WWA	WUA	-						

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