

UXR

切削條件表 Milling Conditions

被切材料 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

濕式冷卻 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
UXR0403	20	195	15000~16000	3000~3500	0.1~0.15	3~4	溝銑 (SLOTTING)
UXR0403	20	195	15000~16000	1400~1800	0.04~0.08	3~4	溝銑 (SLOTTING)
UXR0403	20	195	15000~16000	3400~3800	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)
UXR0403	20	195	15000~16000	3400~3800	0.04~0.08	0.04~0.08	3D銑 (3D MILLING)
UXR0405	20	195	15000~16000	3000~3500	0.1~0.15	2~4	溝銑 (SLOTTING)
UXR0405	20	195	15000~16000	1400~1800	0.04~0.08	2~4	溝銑 (SLOTTING)
UXR0405	20	195	15000~16000	3400~3800	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)
UXR0405	20	195	15000~16000	3400~3800	0.04~0.08	0.04~0.08	3D銑 (3D MILLING)
UXR0603	20	215	11000~12000	3000~3500	0.15~0.18	5~6	溝銑 (SLOTTING)
UXR0603	20	215	11000~12000	1600~2000	0.05~0.1	5~6	溝銑 (SLOTTING)
UXR0603	20	215	11000~12000	3400~3800	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
UXR0603	20	215	11000~12000	3400~3800	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
UXR0605	20	215	11000~12000	3000~3500	0.15~0.18	4~6	溝銑 (SLOTTING)
UXR0605	20	215	11000~12000	1600~2000	0.05~0.1	4~6	溝銑 (SLOTTING)
UXR0605	20	215	11000~12000	3400~3800	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
UXR0605	20	215	11000~12000	3400~3800	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
UXR0610	20	215	11000~12000	3000~3500	0.15~0.18	3~6	溝銑 (SLOTTING)
UXR0610	20	215	11000~12000	1600~2000	0.05~0.1	3~6	溝銑 (SLOTTING)
UXR0610	20	215	11000~12000	3400~3800	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
UXR0610	20	215	11000~12000	3400~3800	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
UXR0803	30	235	9000~10000	2200~2600	0.15~0.2	7~8	溝銑 (SLOTTING)
UXR0803	30	235	9000~10000	1400~1800	0.05~0.11	7~8	溝銑 (SLOTTING)
UXR0803	30	235	9000~10000	3000~3400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
UXR0803	30	235	9000~10000	3200~3600	0.05~0.11	0.05~0.11	3D銑 (3D MILLING)
UXR0805	30	235	9000~10000	2200~2600	0.15~0.2	6~8	溝銑 (SLOTTING)
UXR0805	30	235	9000~10000	1400~1800	0.05~0.11	6~8	溝銑 (SLOTTING)
UXR0805	30	235	9000~10000	3000~3400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
UXR0805	30	235	9000~10000	3200~3600	0.05~0.11	0.05~0.11	3D銑 (3D MILLING)
UXR0810	30	235	9000~10000	2200~2600	0.15~0.2	5~8	溝銑 (SLOTTING)
UXR0810	30	235	9000~10000	1400~1800	0.05~0.11	5~8	溝銑 (SLOTTING)
UXR0810	30	235	9000~10000	3000~3400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
UXR0810	30	235	9000~10000	3200~3600	0.05~0.11	0.05~0.11	3D銑 (3D MILLING)
UXR1005	35	240	7500~8000	2000~2400	0.18~0.23	8~10	溝銑 (SLOTTING)
UXR1005	35	240	7500~8000	1400~1800	0.05~0.13	8~10	溝銑 (SLOTTING)
UXR1005	35	240	7500~8000	2800~3200	0.18~0.23	0.18~0.23	3D銑 (3D MILLING)
UXR1005	35	240	7500~8000	3000~3500	0.05~0.13	0.05~0.13	3D銑 (3D MILLING)
UXR1010	35	240	7500~8000	2000~2400	0.18~0.23	7~10	溝銑 (SLOTTING)
UXR1010	35	240	7500~8000	1400~1800	0.05~0.13	7~10	溝銑 (SLOTTING)
UXR1010	35	240	7500~8000	2800~3200	0.18~0.23	0.18~0.23	3D銑 (3D MILLING)
UXR1010	35	240	7500~8000	3000~3500	0.05~0.13	0.05~0.13	3D銑 (3D MILLING)

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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

濕式冷卻 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
UXR1020	35	240	7500~8000	2000~2400	0.18~0.23	5~10	溝銑 (SLOTTING)
UXR1020	35	240	7500~8000	1400~1800	0.05~0.13	5~10	溝銑 (SLOTTING)
UXR1020	35	240	7500~8000	2800~3200	0.18~0.23	0.18~0.23	3D銑 (3D MILLING)
UXR1020	35	240	7500~8000	3000~3500	0.05~0.13	0.05~0.13	3D銑 (3D MILLING)
UXR1030	35	240	7500~8000	2000~2400	0.18~0.23	3~10	溝銑 (SLOTTING)
UXR1030	35	240	7500~8000	1400~1800	0.05~0.13	3~10	溝銑 (SLOTTING)
UXR1030	35	240	7500~8000	2800~3200	0.18~0.23	0.18~0.23	3D銑 (3D MILLING)
UXR1030	35	240	7500~8000	3000~3500	0.05~0.13	0.05~0.13	3D銑 (3D MILLING)
UXR1205	40	210	5000~5500	1400~1800	0.15~0.2	10~12	溝銑 (SLOTTING)
UXR1205	40	210	5000~5500	1200~1600	0.05~0.15	10~12	溝銑 (SLOTTING)
UXR1205	40	210	5000~5500	2200~2600	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
UXR1205	40	210	5000~5500	2000~2400	0.05~0.15	0.05~0.15	3D銑 (3D MILLING)
UXR1210	40	210	5000~5500	1400~1800	0.15~0.2	9~12	溝銑 (SLOTTING)
UXR1210	40	210	5000~5500	1200~1600	0.05~0.15	9~12	溝銑 (SLOTTING)
UXR1210	40	210	5000~5500	2200~2600	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
UXR1210	40	210	5000~5500	2000~2400	0.05~0.15	0.05~0.15	3D銑 (3D MILLING)
UXR1605	60	145	2600~3000	700~1100	0.25~0.3	14~16	溝銑 (SLOTTING)
UXR1605	60	200	3500~4000	800~1100	0.05~0.18	14~16	溝銑 (SLOTTING)
UXR1605	60	160	2700~3200	1600~2000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
UXR1605	60	215	3700~4200	1400~1800	0.05~0.18	0.05~0.18	3D銑 (3D MILLING)
UXR1610	60	145	2600~3000	700~1100	0.25~0.3	13~16	溝銑 (SLOTTING)
UXR1610	60	200	3500~4000	800~1100	0.05~0.18	13~16	溝銑 (SLOTTING)
UXR1610	60	160	2700~3200	1600~2000	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
UXR1610	60	215	3700~4200	1400~1800	0.05~0.18	0.05~0.18	3D銑 (3D MILLING)

UXR

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

濕式冷卻 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
UXR0403	20	190	14000~15000	2600~3000	0.1~0.15	3~4	溝銑 (SLOTTING)
UXR0403	20	190	14000~15000	1300~1700	0.04~0.08	3~4	溝銑 (SLOTTING)
UXR0403	20	190	14000~15000	3000~3500	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)
UXR0403	20	190	14000~15000	2800~3200	0.04~0.08	0.04~0.08	3D銑 (3D MILLING)
UXR0405	20	190	14000~15000	2600~3000	0.1~0.15	2~4	溝銑 (SLOTTING)
UXR0405	20	190	14000~15000	1300~1700	0.04~0.08	2~4	溝銑 (SLOTTING)
UXR0405	20	190	14000~15000	3000~3500	0.1~0.15	0.1~0.15	3D銑 (3D MILLING)
UXR0405	20	190	14000~15000	2800~3200	0.04~0.08	0.04~0.08	3D銑 (3D MILLING)
UXR0603	20	210	10000~11000	2600~3000	0.15~0.18	5~6	溝銑 (SLOTTING)
UXR0603	20	210	10000~11000	1300~1700	0.05~0.1	5~6	溝銑 (SLOTTING)
UXR0603	20	210	10000~11000	3000~3500	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
UXR0603	20	210	10000~11000	2800~3200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
UXR0605	20	210	10000~11000	2600~3000	0.15~0.18	4~6	溝銑 (SLOTTING)
UXR0605	20	210	10000~11000	1300~1700	0.05~0.1	4~6	溝銑 (SLOTTING)
UXR0605	20	210	10000~11000	3000~3500	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
UXR0605	20	210	10000~11000	2800~3200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
UXR0610	20	210	10000~11000	2600~3000	0.15~0.18	3~6	溝銑 (SLOTTING)
UXR0610	20	210	10000~11000	1300~1700	0.05~0.1	3~6	溝銑 (SLOTTING)
UXR0610	20	210	10000~11000	3000~3500	0.15~0.18	0.15~0.18	3D銑 (3D MILLING)
UXR0610	20	210	10000~11000	2800~3200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
UXR0803	30	210	8500~9000	2000~2400	0.15~0.2	7~8	溝銑 (SLOTTING)
UXR0803	30	210	8500~9000	1200~1600	0.05~0.11	7~8	溝銑 (SLOTTING)
UXR0803	30	210	8500~9000	2800~3200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
UXR0803	30	210	8500~9000	2800~3200	0.05~0.11	0.05~0.11	3D銑 (3D MILLING)
UXR0805	30	210	8500~9000	2000~2400	0.15~0.2	6~8	溝銑 (SLOTTING)
UXR0805	30	210	8500~9000	1200~1600	0.05~0.11	6~8	溝銑 (SLOTTING)
UXR0805	30	210	8500~9000	2800~3200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
UXR0805	30	210	8500~9000	2800~3200	0.05~0.11	0.05~0.11	3D銑 (3D MILLING)
UXR0810	30	210	8500~9000	2000~2400	0.15~0.2	5~8	溝銑 (SLOTTING)
UXR0810	30	210	8500~9000	1200~1600	0.05~0.11	5~8	溝銑 (SLOTTING)
UXR0810	30	210	8500~9000	2800~3200	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
UXR0810	30	210	8500~9000	2800~3200	0.05~0.11	0.05~0.11	3D銑 (3D MILLING)
UXR1005	35	220	7000~7500	1800~2200	0.18~0.23	8~10	溝銑 (SLOTTING)
UXR1005	35	220	7000~7500	1200~1600	0.05~0.13	8~10	溝銑 (SLOTTING)
UXR1005	35	220	7000~7500	2400~2800	0.18~0.23	0.18~0.23	3D銑 (3D MILLING)
UXR1005	35	220	7000~7500	2400~2800	0.05~0.13	0.05~0.13	3D銑 (3D MILLING)
UXR1010	35	220	7000~7500	1800~2200	0.18~0.23	7~10	溝銑 (SLOTTING)
UXR1010	35	220	7000~7500	1200~1600	0.05~0.13	7~10	溝銑 (SLOTTING)
UXR1010	35	220	7000~7500	2400~2800	0.18~0.23	0.18~0.23	3D銑 (3D MILLING)
UXR1010	35	220	7000~7500	2400~2800	0.05~0.13	0.05~0.13	3D銑 (3D MILLING)

UXR

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

濕式冷卻 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
UXR1020	35	220	7000~7500	1800~2200	0.18~0.23	5~10	溝銑 (SLOTTING)
UXR1020	35	220	7000~7500	1200~1600	0.05~0.13	5~10	溝銑 (SLOTTING)
UXR1020	35	220	7000~7500	2400~2800	0.18~0.23	0.18~0.23	3D銑 (3D MILLING)
UXR1020	35	220	7000~7500	2400~2800	0.05~0.13	0.05~0.13	3D銑 (3D MILLING)
UXR1030	35	220	7000~7500	1800~2200	0.18~0.23	3~10	溝銑 (SLOTTING)
UXR1030	35	220	7000~7500	1200~1600	0.05~0.13	3~10	溝銑 (SLOTTING)
UXR1030	35	220	7000~7500	2400~2800	0.18~0.23	0.18~0.23	3D銑 (3D MILLING)
UXR1030	35	220	7000~7500	2400~2800	0.05~0.13	0.05~0.13	3D銑 (3D MILLING)
UXR1205	40	190	4500~5000	1200~1600	0.15~0.2	10~12	溝銑 (SLOTTING)
UXR1205	40	190	4500~5000	1100~1400	0.05~0.15	10~12	溝銑 (SLOTTING)
UXR1205	40	190	4500~5000	2000~2400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
UXR1205	40	190	4500~5000	1800~2200	0.05~0.15	0.05~0.15	3D銑 (3D MILLING)
UXR1210	40	190	4500~5000	1200~1600	0.15~0.2	9~12	溝銑 (SLOTTING)
UXR1210	40	190	4500~5000	1100~1400	0.05~0.15	9~12	溝銑 (SLOTTING)
UXR1210	40	190	4500~5000	2000~2400	0.15~0.2	0.15~0.2	3D銑 (3D MILLING)
UXR1210	40	190	4500~5000	1800~2200	0.05~0.15	0.05~0.15	3D銑 (3D MILLING)
UXR1605	60	140	2400~2800	700~1000	0.25~0.3	14~16	溝銑 (SLOTTING)
UXR1605	60	200	3500~4000	800~1000	0.05~0.18	14~16	溝銑 (SLOTTING)
UXR1605	60	160	2700~3200	1400~1800	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
UXR1605	60	215	3700~4200	1400~1800	0.05~0.18	0.05~0.18	3D銑 (3D MILLING)
UXR1610	60	140	2400~2800	700~1000	0.25~0.3	13~16	溝銑 (SLOTTING)
UXR1610	60	200	3500~4000	800~1000	0.05~0.18	13~16	溝銑 (SLOTTING)
UXR1610	60	160	2700~3200	1400~1800	0.25~0.3	0.25~0.3	3D銑 (3D MILLING)
UXR1610	60	215	3700~4200	1400~1800	0.05~0.18	0.05~0.18	3D銑 (3D MILLING)

UXR

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 / 油霧冷卻 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
UXR0403	20	140	11000~12000	1200~1600	0.04~0.06	3~4	溝銑 (SLOTTING)
UXR0403	20	140	11000~12000	2600~3000	0.04~0.06	0.04~0.06	3D銑 (3D MILLING)
UXR0405	20	140	11000~12000	1200~1600	0.04~0.06	2~4	溝銑 (SLOTTING)
UXR0405	20	140	11000~12000	2600~3000	0.04~0.06	0.04~0.06	3D銑 (3D MILLING)
UXR0603	20	150	7500~8500	1200~1600	0.04~0.08	5~6	溝銑 (SLOTTING)
UXR0603	20	150	7500~8500	2600~3000	0.04~0.08	0.04~0.08	3D銑 (3D MILLING)
UXR0605	20	150	7500~8500	1200~1600	0.04~0.08	4~6	溝銑 (SLOTTING)
UXR0605	20	150	7500~8500	2600~3000	0.04~0.08	0.04~0.08	3D銑 (3D MILLING)
UXR0610	20	150	7500~8500	1200~1600	0.04~0.08	3~6	溝銑 (SLOTTING)
UXR0610	20	150	7500~8500	2600~3000	0.04~0.08	0.04~0.08	3D銑 (3D MILLING)
UXR0803	30	150	5500~6500	1200~1600	0.05~0.1	7~8	溝銑 (SLOTTING)
UXR0803	30	150	5500~6500	2200~2600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
UXR0805	30	150	5500~6500	1200~1600	0.05~0.1	6~8	溝銑 (SLOTTING)
UXR0805	30	150	5500~6500	2200~2600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
UXR0810	30	150	5500~6500	1200~1600	0.05~0.1	5~8	溝銑 (SLOTTING)
UXR0810	30	150	5500~6500	2200~2600	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
UXR1005	35	160	5000~5500	1400~1800	0.05~0.12	8~10	溝銑 (SLOTTING)
UXR1005	35	160	5000~5500	2600~3000	0.05~0.12	0.05~0.12	3D銑 (3D MILLING)
UXR1010	35	160	5000~5500	1400~1800	0.05~0.12	7~10	溝銑 (SLOTTING)
UXR1010	35	160	5000~5500	2600~3000	0.05~0.12	0.05~0.12	3D銑 (3D MILLING)
UXR1020	35	160	5000~5500	1400~1800	0.05~0.12	5~10	溝銑 (SLOTTING)
UXR1020	35	160	5000~5500	2600~3000	0.05~0.12	0.05~0.12	3D銑 (3D MILLING)
UXR1030	35	160	5000~5500	1400~1800	0.05~0.12	3~10	溝銑 (SLOTTING)
UXR1030	35	160	5000~5500	2600~3000	0.05~0.12	0.05~0.12	3D銑 (3D MILLING)
UXR1205	40	140	3500~4000	1200~1600	0.05~0.13	10~12	溝銑 (SLOTTING)
UXR1205	40	140	3500~4000	1600~2000	0.05~0.13	0.05~0.13	3D銑 (3D MILLING)
UXR1210	40	140	3500~4000	1200~1600	0.05~0.13	9~12	溝銑 (SLOTTING)
UXR1210	40	140	3500~4000	1600~2000	0.05~0.13	0.05~0.13	3D銑 (3D MILLING)
UXR1605	60	150	2500~3000	800~1100	0.05~0.15	14~16	溝銑 (SLOTTING)
UXR1605	60	150	2500~3000	1400~1800	0.05~0.15	0.05~0.15	3D銑 (3D MILLING)
UXR1610	60	150	2500~3000	800~1100	0.05~0.15	13~16	溝銑 (SLOTTING)
UXR1610	60	150	2500~3000	1400~1800	0.05~0.15	0.05~0.15	3D銑 (3D MILLING)