

UPB

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 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
UPB0205	65	35	5800~6300	700~900	0.05~0.1	0.1~0.2	3D銑 (3D MILLING)
UPB0205	65	40	6200~6700	600~800	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
UPB0210	65	35	5800~6300	800~1200	0.05~0.1	0.1~0.2	3D銑 (3D MILLING)
UPB0210	65	40	6200~6700	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
UPB0215	65	35	5800~6300	800~1200	0.05~0.1	0.1~0.2	3D銑 (3D MILLING)
UPB0215	65	40	6200~6700	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
UPB0220	65	35	5800~6300	900~1300	0.05~0.1	0.1~0.2	3D銑 (3D MILLING)
UPB0220	65	40	6200~6700	800~1200	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
UPB0305	65	40	4000~4500	1000~1400	0.05~0.1	0.1~0.2	3D銑 (3D MILLING)
UPB0305	65	45	4500~5000	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
UPB0310	65	40	4000~4500	1100~1500	0.05~0.1	0.1~0.2	3D銑 (3D MILLING)
UPB0310	65	45	4500~5000	900~1300	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
UPB0315	65	40	4000~4500	1100~1500	0.05~0.1	0.1~0.2	3D銑 (3D MILLING)
UPB0315	65	45	4500~5000	900~1300	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
UPB0320	65	40	4000~4500	1200~1600	0.05~0.1	0.1~0.2	3D銑 (3D MILLING)
UPB0320	65	45	4500~5000	900~1300	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
UPB0405	60	50	3800~4300	1200~1600	0.05~0.15	0.2~0.3	3D銑 (3D MILLING)
UPB0405	60	55	4200~4700	1200~1600	0.05~0.15	0.05~0.15	3D銑 (3D MILLING)
UPB0410	60	50	3800~4300	1200~1600	0.05~0.15	0.2~0.3	3D銑 (3D MILLING)
UPB0410	60	55	4200~4700	1200~1600	0.05~0.15	0.05~0.15	3D銑 (3D MILLING)
UPB0415	60	50	3800~4300	1300~1700	0.05~0.15	0.2~0.3	3D銑 (3D MILLING)
UPB0415	60	55	4200~4700	1200~1600	0.05~0.15	0.05~0.15	3D銑 (3D MILLING)
UPB0420	60	50	3800~4300	1400~1800	0.05~0.15	0.2~0.3	3D銑 (3D MILLING)
UPB0420	60	55	4200~4700	1200~1600	0.05~0.15	0.05~0.15	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

濕式冷卻 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
UPB0205	65	35	5800~6300	600~800	0.05~0.1	0.1~0.2	3D銑 (3D MILLING)
UPB0205	65	40	6200~6700	500~700	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
UPB0210	65	35	5800~6300	700~1100	0.05~0.1	0.1~0.2	3D銑 (3D MILLING)
UPB0210	65	40	6200~6700	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)
UPB0215	65	35	5800~6300	700~1100	0.05~0.1	0.1~0.2	3D銑 (3D MILLING)
UPB0215	65	40	6200~6700	700~1100	0.05~0.1	0.05~0.1	3D銑 (3D MILLING)

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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
UPB0220	65	35	5800~6300	800~1200	0.05~0.1	0.1~0.2	3D銑(3D MILLING)
UPB0220	65	40	6200~6700	700~1100	0.05~0.1	0.05~0.1	3D銑(3D MILLING)
UPB0305	65	40	4000~4500	900~1300	0.05~0.1	0.1~0.2	3D銑(3D MILLING)
UPB0305	65	45	4500~5000	600~1000	0.05~0.1	0.05~0.1	3D銑(3D MILLING)
UPB0310	65	40	4000~4500	1000~1400	0.05~0.1	0.1~0.2	3D銑(3D MILLING)
UPB0310	65	45	4500~5000	800~1200	0.05~0.1	0.05~0.1	3D銑(3D MILLING)
UPB0315	65	40	4000~4500	1000~1400	0.05~0.1	0.1~0.2	3D銑(3D MILLING)
UPB0315	65	45	4500~5000	800~1200	0.05~0.1	0.05~0.1	3D銑(3D MILLING)
UPB0320	65	40	4000~4500	1100~1500	0.05~0.1	0.1~0.2	3D銑(3D MILLING)
UPB0320	65	45	4500~5000	800~1200	0.05~0.1	0.05~0.1	3D銑(3D MILLING)
UPB0405	60	50	3800~4300	1000~1400	0.05~0.15	0.2~0.3	3D銑(3D MILLING)
UPB0405	60	55	4200~4700	1000~1400	0.05~0.15	0.05~0.15	3D銑(3D MILLING)
UPB0410	60	50	3800~4300	1000~1400	0.05~0.15	0.2~0.3	3D銑(3D MILLING)
UPB0410	60	55	4200~4700	1000~1400	0.05~0.15	0.05~0.15	3D銑(3D MILLING)
UPB0415	60	50	3800~4300	1100~1500	0.05~0.15	0.2~0.3	3D銑(3D MILLING)
UPB0415	60	55	4200~4700	1000~1400	0.05~0.15	0.05~0.15	3D銑(3D MILLING)
UPB0420	60	50	3800~4300	1200~1600	0.05~0.15	0.2~0.3	3D銑(3D MILLING)
UPB0420	60	55	4200~4700	1000~1400	0.05~0.15	0.05~0.15	3D銑(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

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
UPB0205	65	25	4000~4500	300~500	0.05~0.1	0.05~0.1	3D銑(3D MILLING)
UPB0210	65	25	4000~4500	500~700	0.05~0.1	0.05~0.1	3D銑(3D MILLING)
UPB0215	65	25	4000~4500	500~700	0.05~0.1	0.05~0.1	3D銑(3D MILLING)
UPB0220	65	25	4000~4500	600~800	0.05~0.1	0.05~0.1	3D銑(3D MILLING)
UPB0305	65	30	2800~3300	400~600	0.05~0.1	0.05~0.1	3D銑(3D MILLING)
UPB0310	65	30	2800~3300	600~800	0.05~0.1	0.05~0.1	3D銑(3D MILLING)
UPB0315	65	30	2800~3300	600~800	0.05~0.1	0.05~0.1	3D銑(3D MILLING)
UPB0320	65	30	2800~3300	700~900	0.05~0.1	0.05~0.1	3D銑(3D MILLING)
UPB0405	60	30	2200~2600	600~800	0.05~0.1	0.05~0.1	3D銑(3D MILLING)
UPB0410	60	30	2200~2600	700~1000	0.05~0.1	0.05~0.1	3D銑(3D MILLING)
UPB0415	60	30	2200~2600	700~1000	0.05~0.1	0.05~0.1	3D銑(3D MILLING)
UPB0420	60	30	2200~2600	800~1100	0.05~0.1	0.05~0.1	3D銑(3D MILLING)