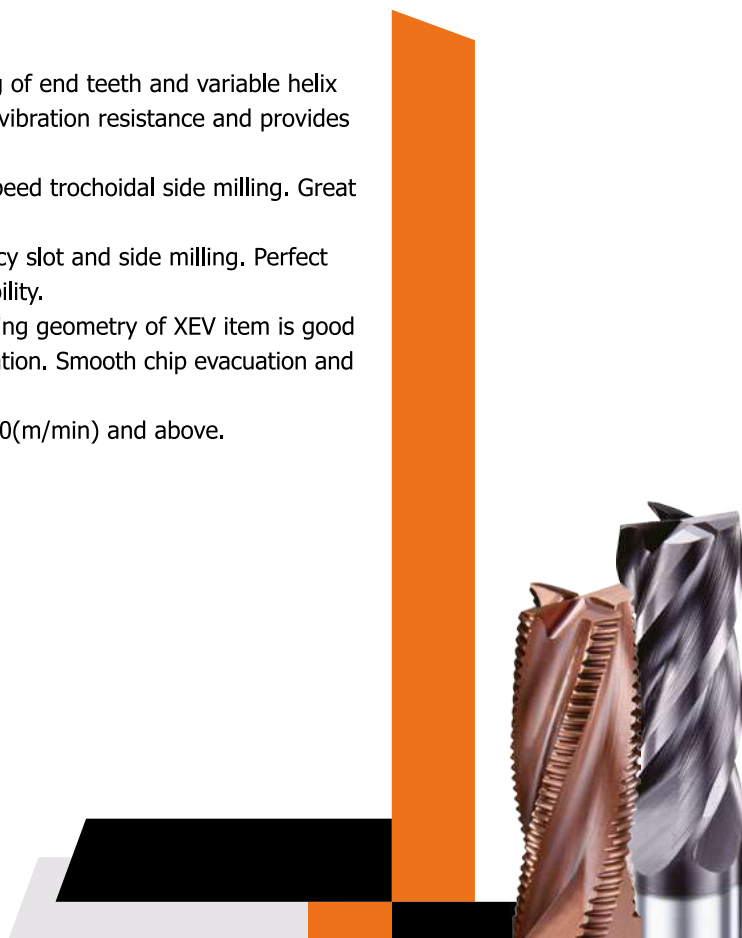


UNEQUAL FLUTE SPACING & VARIABLE HELIX SERIES



Unequal Flute Spacing & Variable Helix Series

1. Unequal spacing of end teeth and variable helix design improve vibration resistance and provides longer tool life.
2. Ideal for high speed trochoidal side milling. Great efficiency.
3. 1D high efficiency slot and side milling. Perfect anti-vibration ability.
4. The unique cutting geometry of XEV item is good for plunge operation. Smooth chip evacuation and high efficacy.
5. Vc can reach 200(m/min) and above.





Notes for Unequal Flute Spacing and Variable Helix Series



- I.** All milling condition provided by DHF Application Center are tested by Germany DMG635V machine which has very good spindle torque and rigidity. If using Germany DMG machine, the user can exactly follow the milling conditions on the catalog. Otherwise, the user should adjust the milling condition according to its equipment capability and actual machining condition.
- II.** Use high rigidity and high clamping tool holder. Tool run-out to be controlled under 0.01mm.
- III.** The unique design of variable helix contributes to superb vibration resistance. Ideal for side milling for better performance and tool life.
- a) High speed trochoidal side milling is suggested for machines with poor rigidity.
 - b) High speed trochoidal side milling or high performance slotting and side milling is suggested for machines with good rigidity.
- IV.** Coolant delivery is a key factor.
- a) The chip evacuation takes away the heat during machining and furthermore prevents deformation of workpiece.
 - b) A successful coolant delivery can keep the temperature of both work material and cutting tool lower and achieve an efficient chip removal. Coolant should be applied directly to the contact area of the tool and workpiece to have the maximum effect.
- V.** Distinguish the milling sound.
- Applying the correct cutting data will maintain good tool life and the milling sound is smooth and quiet. If not, it should be adjusted.
- a) When the milling sound is piercing, please reduce the spindle rotation speed (S) and the feed rate (Feed).
 - b) When the milling sound is deep and vibrating, please raise the spindle rotation speed (S) and the feed rate (Feed).
- When the milling sound is smaller and quieter, it represents the cutting data of the operation is nearly perfect.
- VI.** The unique cutting geometry of XEV item is suitable for plunge milling (material below HRC45), while stainless steels, titanium alloy and materials which are stickier and with lower chip removal capability are not applicable.
- VII.** The special chip removal geometry of XPZ is not only ideal for side milling but suitable for slot milling difficult-to-cut materials, such as stainless steel 0.5~1D. Its slot milling capability is superior to XEV, XEB, XEA items.

For Technical Support, please contact

tech@endmill.com.tw



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GUIDE LINES TO ICONS

CARBIDE



Micro grain.



Super micro grain.

GRAIN SIZE



Grain size is 0.4 μm



Grain size is 0.6 μm

ROUGHING



Small Roughing.

HELIX ANGLE



18°~22°



33°~37°



36°~38°



43°~47°

Helix Angle is 18°~47°

FLUTE



4 Flutes

WORK MATERIAL HARDNESS



HRC > 55



HRC > 60

Work material hardness is up to HRC55 、 HRC60

COATING



G10

Good at hard cutting material and general steel material.
Wet cutting & MQL cutting.



T2

Good at high speed cutting. Dry cutting.

CUTTING PERFORMANCE



Excellent



Good



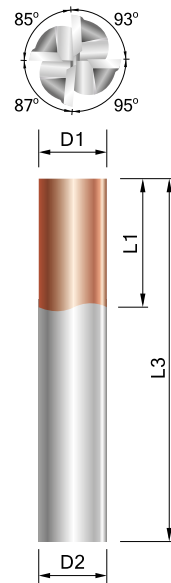
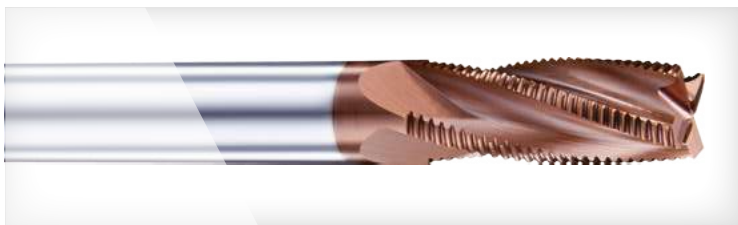
Acceptable



No

XWB

End Mills



Super
mg

0.4
μm

18°-22°

Roughing

4 Flutes

HRC
55

G10



Dry Machining



Emulsion Machining



MQL (Mist)



Oil Machining



Finishing

Semi-finishing

Roughing

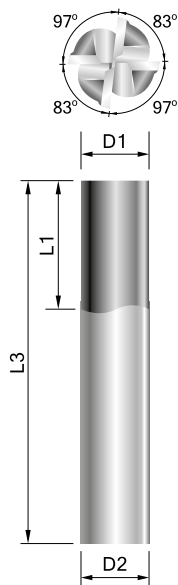
Type No.	D1 Diameter	L1 Flute Length	L3 O.A.L.	D2 Shank Dia.
XWB0604	6.0	13	50	6
XWB0804	8.0	16	60	8
XWB1004	10.0	22	75	10
XWB1204	12.0	26	75	12

unit : mm

D1	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	$\begin{matrix} 0 \\ -0.045 \end{matrix}$

D2(h6)	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	$\begin{matrix} 0 \\ -0.011 \end{matrix}$

unit : mm



XEA End Mills



D1	D1 Tolerance
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	$\begin{matrix} 0 \\ -0.04 \end{matrix}$

D2(h6)	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	$\begin{matrix} 0 \\ -0.013 \end{matrix}$

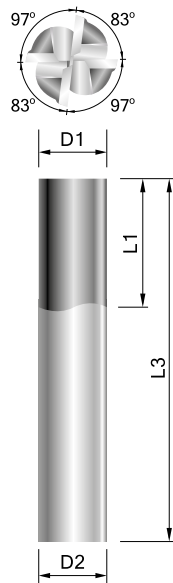
unit : mm

Type No.	D1 Diameter	L1 Flute Length	L3 O.A.L.	D2 Shank Dia.
XEA0304	3.0	6	50	6
XEA0404	4.0	9	50	6
XEA0504	5.0	11	50	6
XEA0604	6.0	13	50	6
XEA0804	8.0	16	60	8
XEA1004	10.0	22	75	10
XEA1204	12.0	26	75	12
XEA1604	16.0	36	100	16
XEA2004	20.0	40	100	20

unit : mm

XEB

End Mills



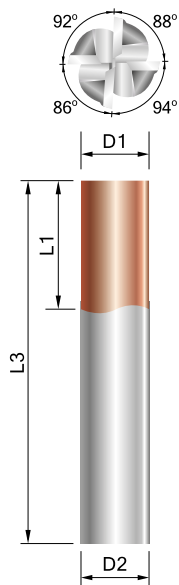
Type No.	D1 Diameter	L1 Flute Length	L3 O.A.L.	D2 Shank Dia.
XEB0304	3.0	6	50	6
XEB0404	4.0	9	50	6
XEB0504	5.0	11	50	6
XEB0604	6.0	13	50	6
XEB0804	8.0	16	60	8
XEB1004	10.0	22	75	10
XEB1204	12.0	26	75	12
XEB1604	16.0	36	100	16
XEB2004	20.0	40	100	20

unit : mm

D1	D1 Tolerance
3.0	$\begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix}$
4.0	$\begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix}$
5.0	$\begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix}$
6.0	$\begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix}$
8.0	$\begin{smallmatrix} 0 \\ -0.025 \end{smallmatrix}$
10.0	$\begin{smallmatrix} 0 \\ -0.03 \end{smallmatrix}$
12.0	$\begin{smallmatrix} 0 \\ -0.035 \end{smallmatrix}$
16.0	$\begin{smallmatrix} 0 \\ -0.04 \end{smallmatrix}$
20.0	$\begin{smallmatrix} 0 \\ -0.04 \end{smallmatrix}$

D2(h6)	D2 Tolerance
Ø6	$\begin{smallmatrix} 0 \\ -0.008 \end{smallmatrix}$
Ø8	$\begin{smallmatrix} 0 \\ -0.009 \end{smallmatrix}$
Ø10	$\begin{smallmatrix} 0 \\ -0.009 \end{smallmatrix}$
Ø12	$\begin{smallmatrix} 0 \\ -0.011 \end{smallmatrix}$
Ø16	$\begin{smallmatrix} 0 \\ -0.011 \end{smallmatrix}$
Ø20	$\begin{smallmatrix} 0 \\ -0.013 \end{smallmatrix}$

unit : mm



XEV

End Mills



Finishing



Semi-finishing



Roughing

D1	D1 Tolerance
3.0	$\begin{matrix} 0 \\ -0.035 \end{matrix}$
4.0	$\begin{matrix} 0 \\ -0.035 \end{matrix}$
5.0	$\begin{matrix} 0 \\ -0.035 \end{matrix}$
6.0	$\begin{matrix} 0 \\ -0.035 \end{matrix}$
8.0	$\begin{matrix} 0 \\ -0.035 \end{matrix}$
10.0	$\begin{matrix} 0 \\ -0.04 \end{matrix}$
12.0	$\begin{matrix} 0 \\ -0.04 \end{matrix}$
16.0	$\begin{matrix} 0 \\ -0.045 \end{matrix}$
20.0	$\begin{matrix} 0 \\ -0.045 \end{matrix}$

D2(h6)	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

Type No.	D1 Diameter	L1 Flute Length	L3 O.A.L.	D2 Shank Dia.
XEV0304	3.0	8	50	6
XEV0404	4.0	11	50	6
XEV0504	5.0	13	50	6
XEV0604	6.0	15	50	6
XEV0804	8.0	20	60	8
XEV1004	10.0	22	75	10
XEV1204	12.0	26	75	12
XEV1604	16.0	36	100	16
XEV2004	20.0	40	100	20

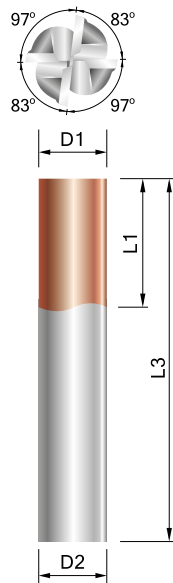
unit : mm



XEV is not Suitable for Stainless Steel Plunge Milling.

XPZ

End Mills



Type No.	D1 Diameter	L1 Flute Length	L3 O.A.L.	D2 Shank Dia.
XPZ0304	3.0	8	50	6
XPZ0404	4.0	11	50	6
XPZ0504	5.0	13	50	6
XPZ0604	6.0	16	50	6
XPZ0804	8.0	20	60	8
XPZ1004	10.0	22	75	10
XPZ1204	12.0	26	75	12
XPZ1604	16.0	36	100	16
XPZ2004	20.0	40	100	20

unit : mm

D1	D1 Tolerance
3.0	$\begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix}$
4.0	$\begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix}$
5.0	$\begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix}$
6.0	$\begin{smallmatrix} 0 \\ -0.02 \end{smallmatrix}$
8.0	$\begin{smallmatrix} 0 \\ -0.025 \end{smallmatrix}$
10.0	$\begin{smallmatrix} 0 \\ -0.03 \end{smallmatrix}$
12.0	$\begin{smallmatrix} 0 \\ -0.035 \end{smallmatrix}$
16.0	$\begin{smallmatrix} 0 \\ -0.04 \end{smallmatrix}$
20.0	$\begin{smallmatrix} 0 \\ -0.04 \end{smallmatrix}$

D2(h6)	D2 Tolerance
Ø6	$\begin{smallmatrix} 0 \\ -0.008 \end{smallmatrix}$
Ø8	$\begin{smallmatrix} 0 \\ -0.009 \end{smallmatrix}$
Ø10	$\begin{smallmatrix} 0 \\ -0.009 \end{smallmatrix}$
Ø12	$\begin{smallmatrix} 0 \\ -0.011 \end{smallmatrix}$
Ø16	$\begin{smallmatrix} 0 \\ -0.011 \end{smallmatrix}$
Ø20	$\begin{smallmatrix} 0 \\ -0.013 \end{smallmatrix}$

unit : mm

XWB

Test Conditions

Tool Test Report

DHF							
	DMG-635V	35/25KW	130/87Nm	18000min	Heidenhain-iTNC530	SK40(=BT40=HSK63A)	

Type No.	Work Material	Extension Length	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type	Coating
XWB1004	P20//1.2311 (HRc32)	34mm	95	2700	300	15	8	Side milling	G10
WWB1004	P20//1.2311 (HRc32)	34mm	95	2700	300	15	8	Side milling	G10

Conclusion

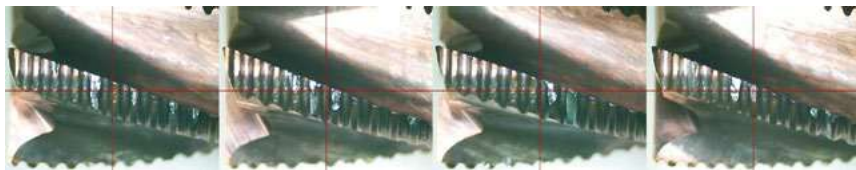
- Based on endmill side milling
- Work material : P20//1.2311(HRC32)
- Coolant way : Wet

Test Results

Type No.	Tool life	The best coolant way
XWB1004	Cut 950mm(worn but not broken)	Wet
WWB1004	Cut 535mm(broken)	Wet

Tool photo after machining

XWB1004



WWB1004



Tool Breakage

XEA

Test Conditions

Tool Test Report

DHF						
	DMG-635V	35/25KW	130/87Nm	18000min	Heidenhain-iTNC530	SK40(=BT40=HSK63A)

Type No.	Work Material	Extension Length	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type	Coating
XEA1004	P20//1.2311 (HRC32)	32mm	100	3000	1200	10	2	Side milling	T2
ETA1004	P20//1.2311 (HRC32)	32mm	100	3000	1200	10	2	Side milling	T2

Conclusion

- ① Based on endmill side milling
- ② Work material : P20//1.2311(HRC32)
- ③ Coolant way : Wet

Test Results

Type No.	Tool life	The best coolant way	Total Test Time
XEA1004	100%	濕式 Wet	300 min
ETA1004	50%	濕式 Wet	300 min

Tool photo after machining

XEA1004



ETA1004



XEB

Test Conditions

Tool Test Report

DHF						
	DMG-635V	35/25KW	130/87Nm	18000min	Heidenhain-iTNC530	SK40(=BT40=HSK63A)

Type No.	Work Material	Extension Length	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type	Coating
XEB1004	P20//1.2311 (HRc32)	36mm	190	6000	4000	10	0.5	Trochoidal Side milling	T2
ETB1004	P20//1.2311 (HRc32)	36mm	190	6000	4000	10	0.5	Trochoidal Side milling	T2

Conclusion

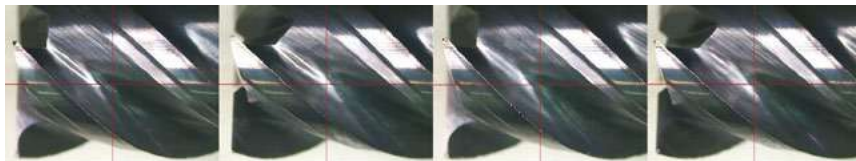
- ① Based on endmill side milling
- ② Work material : P20//1.2311(HRC32)
- ③ Coolant way : Wet

Test Results

Type No.	Tool life	The best coolant way	Total Test Time
XEB1004	100%	Wet	420 min
ETB1004	55%	Wet	420 min

Tool photo after machining

XEB1004



ETB1004



XEV

Test Conditions

Tool Test Report

	Work Material	Extension Length	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type	Coating
XEV0604	S50C	22mm	100	5000	Plunge : 200 Slotting : 400	6	6	Plunge and slotting	G10
Competitor's Brand	S50C	22mm	100	5000	Plunge : 200 Slotting : 400	6	6	Plunge and slotting	X

型號 Type No.	Coolant Type	Total Test Time and Total Cutting Length	Note
XEV0604	Dry Coolant	720 Slottings in 80 Minutes	Tool Remained in Good Condition after 720 Slottings
Competitor's Brand	Dry Coolant	380 Slottings in 45 Minutes	Tool broken after 380 Slottings

Conclusion

- ① Based on plunge milling slot milling
- ② Work material : S50C
- ③ Coolant way : Dry coolant

Test Results

Item	Result	Tool life
DHF XEV0604	Excellent	100%
Competitor's brand(Broken)	Fine	55%



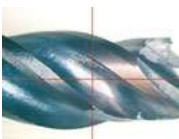
Plunge Milling Example

Tool photo after machining

XEV0604



Competitor's brand(Broken)



Tool Breakage

XPZ

Test Conditions

Tool Test Report

DHF						
	DMG-635V	35/25KW	130/87Nm	18000min	Heidenhain-iTNC530	SK40(=BT40=HSK63A)

Type No.	Work Material	Extension Length	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type	Coating
XPZ1004	SUS304 // 1.4301	32mm	130	4000	1600	10	1	Side milling	G10
UPZ1004	SUS304 // 1.4301	32mm	130	4000	1600	10	1	Side milling	G10

Conclusion

- Based on endmill side milling
- Work material : SUS304//1.430
- Coolant way : Wet

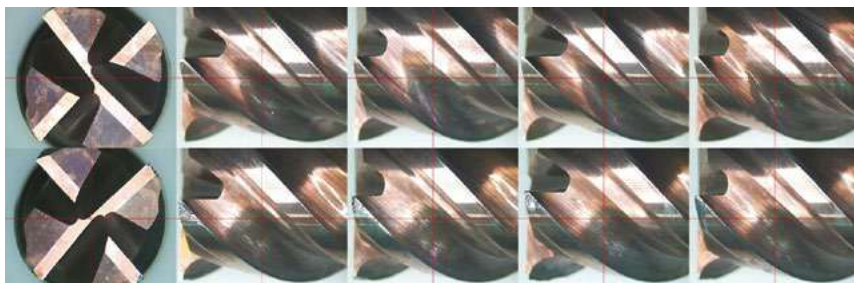
Test Results

Type No.	Tool life	The best coolant way	Total Test Time
XPZ1004	100%	Wet	420 min
UPZ1004	50%	Wet	420 min

Tool photo after machining

XPZ1004

UPZ1004



THE STATEMENT OF COPYRIGHT

1. As mentioned above in this manual, the cutting data is tested and provided by the **DHF Technical Applications Center**. All Rights Reserved.
2. All test results are provided by DHF high quality control of productions.
There is no responsibility and value of reference for other brand products.
3. Only certain tables for our cutting tools are recited. For any further complete information, please contact **DHF Technical Applications Center**.

XWB

MILLING CONDITIONS

Work Material	Coolant Type
Carbon steels/Cast Iron	
S50C / Fc250 / S5440 : 1.1210 / 0.6025 / 1.0036 : 1050 / N0.35 / A570 Gr.45 (~HRc22)	Wet coolant

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XWB0604	22	90	4500~5000	400~700	2	6	Slotting
XWB0604	22	90	4500~5000	400~700	4	6	Slotting
XWB0604	22	90	4500~5000	300~450	6	6	Slotting
XWB0604	22	90	4500~5000	200~400	12	6	Slotting
XWB0604	22	90	4500~5000	300~500	6	5.5	Side Milling
XWB0804	30	100	3800~4300	400~700	2	8	Slotting
XWB0804	30	100	3800~4300	700~1000	4	8	Slotting
XWB0804	30	100	3800~4300	400~700	8	8	Slotting
XWB0804	30	100	3800~4300	300~500	16	8	Slotting
XWB0804	30	100	3700~4200	300~600	8	7.5	Side Milling
XWB1004	33	95	2800~3300	400~700	2	10	Slotting
XWB1004	33	95	2800~3300	400~700	4	10	Slotting
XWB1004	33	95	2800~3300	500~800	8	10	Slotting
XWB1004	33	95	2800~3300	300~500	10	10	Slotting
XWB1004	33	95	2800~3300	300~600	20	10	Slotting
XWB1004	33	95	2800~3300	300~600	10	9.5	Side Milling
XWB1204	40	90	2200~2600	400~700	3	12	Slotting
XWB1204	40	90	2200~2600	300~500	6	12	Slotting
XWB1204	40	90	2200~2600	300~500	9	12	Slotting
XWB1204	40	90	2200~2600	300~500	12	12	Slotting
XWB1204	40	90	2200~2600	200~400	18	12	Slotting
XWB1204	40	90	2200~2600	300~500	12	11.5	Side Milling

XWB

MILLING CONDITIONS

Work Material	Coolant Type
Chromium Molybdenum Alloy Steels SCM440 : 1.7225 : 4140 : 42CrMoA (HRC25~28)	Wet coolant

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XWB0604	22	85	4200~4700	300~500	2	6	Slotting
XWB0604	22	85	4200~4700	300~500	4	6	Slotting
XWB0604	22	85	4200~4700	150~300	6	6	Slotting
XWB0604	22	85	4200~4700	100~200	12	6	Slotting
XWB0604	22	85	4200~4700	200~400	6	5.5	Side Milling
XWB0804	30	95	3500~4000	300~500	2	8	Slotting
XWB0804	30	95	3500~4000	400~700	4	8	Slotting
XWB0804	30	95	3500~4000	300~500	8	8	Slotting
XWB0804	30	95	3500~4000	150~300	16	8	Slotting
XWB0804	30	95	3500~4000	200~400	8	7.5	Side Milling
XWB1004	33	80	2400~2800	300~500	2	10	Slotting
XWB1004	33	80	2400~2800	300~600	4	10	Slotting
XWB1004	33	80	2400~2800	300~600	8	10	Slotting
XWB1004	33	80	2400~2800	200~350	10	10	Slotting
XWB1004	33	80	2400~2800	150~300	20	10	Slotting
XWB1004	33	80	2400~2800	200~400	10	9.5	Side Milling
XWB1204	40	75	1800~2200	300~500	3	12	Slotting
XWB1204	40	75	1800~2200	200~400	6	12	Slotting
XWB1204	40	75	1800~2200	150~300	9	12	Slotting
XWB1204	40	75	1800~2200	150~300	12	12	Slotting
XWB1204	40	75	1800~2200	70~130	18	12	Slotting
XWB1204	40	75	1800~2200	100~200	12	11.5	Side Milling

XWB

MILLING CONDITIONS

Work Material	Coolant Type
Alloy Tool Steels / Carbon Tool Steels P20/ P5/ SK3/ SKD61/ SKD11 : 1.2311/ 1.1545/ 1.2379/ 1.2344 : H13/D2 (HRC23~32)	Wet coolant

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XWB0604	22	85	4200~4700	300~500	2	6	Slotting
XWB0604	22	85	4200~4700	300~500	4	6	Slotting
XWB0604	22	85	4200~4700	150~300	6	6	Slotting
XWB0604	22	85	4200~4700	100~200	9~12	6	Slotting
XWB0604	22	85	4200~4700	200~400	6	5.5	Side Milling
XWB0804	30	95	3500~4000	300~500	2	8	Slotting
XWB0804	30	95	3500~4000	400~700	4	8	Slotting
XWB0804	30	95	3500~4000	300~500	8	8	Slotting
XWB0804	30	95	3500~4000	150~300	12~16	8	Slotting
XWB0804	30	95	3500~4000	200~400	8	7.5	Side Milling
XWB1004	33	80	2400~2800	300~500	2	10	Slotting
XWB1004	33	80	2400~2800	300~600	4	10	Slotting
XWB1004	33	80	2400~2800	300~600	8	10	Slotting
XWB1004	33	80	2400~2800	200~350	10	10	Slotting
XWB1004	33	80	2400~2800	150~300	15~20	10	Slotting
XWB1004	33	80	2400~2800	200~400	10	9.5	Side Milling
XWB1204	40	80	1900~2300	300~500	3	12	Slotting
XWB1204	40	80	1900~2300	200~400	6	12	Slotting
XWB1204	40	80	1900~2300	150~300	9	12	Slotting
XWB1204	40	80	1900~2300	150~300	12	12	Slotting
XWB1204	40	80	1900~2300	70~130	14~18	12	Slotting
XWB1204	40	80	1900~2300	100~200	12	11.5	Side Milling

XWB

MILLING CONDITIONS

Work Material	Coolant Type
Stainless Steels SUS304 : 1.4301 : AISI 304 (HRC28~32)	Wet coolant

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XWB0604	22	80	4000~4500	400~550	1	6	Slotting
XWB0604	22	80	4000~4500	350~450	1.5	6	Slotting
XWB0604	22	80	4000~4500	300~420	3	6	Slotting
XWB0604	22	80	4000~4500	200~270	6	6	Slotting
XWB0604	22	80	4000~4500	200~270	6	5.7	Side Milling
XWB0804	28	80	3000~3500	350~480	2	8	Slotting
XWB0804	28	80	3000~3500	270~360	4	8	Slotting
XWB0804	28	80	3000~3500	240~320	6	8	Slotting
XWB0804	28	80	3000~3500	200~260	8	8	Slotting
XWB0804	28	80	3000~3500	200~260	8	7.7	Side Milling
XWB1004	32	80	2400~2800	350~500	2	10	Slotting
XWB1004	32	80	2400~2800	300~400	3.5	10	Slotting
XWB1004	32	80	2400~2800	250~320	5	10	Slotting
XWB1004	32	80	2400~2800	200~260	10	10	Slotting
XWB1004	32	80	2400~2800	200~260	10	9.7	Side Milling
XWB1204	38	80	1900~2300	260~420	2	12	Slotting
XWB1204	38	80	1900~2300	200~300	4	12	Slotting
XWB1204	38	80	1900~2300	180~260	6	12	Slotting
XWB1204	38	80	1900~2300	150~210	10	12	Slotting
XWB1204	38	80	1900~2300	120~200	12	12	Slotting
XWB1204	38	80	1900~2300	100~190	12	11.7	Side Milling

XEA

MILLING CONDITIONS

Work Material							Coolant Type
Carbon steels/Cast Iron							Dry coolant
S50C / Fc250 / SS440 : 1.1210 / 0.6025 / 1.0036 : 1050 / N0.35 / A570 Gr.45 (~HRc22)							
Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEA0304	18	150	15000~16000	4200~4700	5	0.2	Trochoidal Side Milling
XEA0304	18	150	15000~16000	3000~3500	5	0.3	Trochoidal Side Milling
XEA0304	18	150	15000~16000	1400~1900	5	0.5	Trochoidal Side Milling
XEA0304	18	150	15000~16000	600~900	5	1	Trochoidal Side Milling
XEA0304	18	120	12000~13000	180~280	1.5~2	3	Slotting
XEA0304	18	150	15000~16000	300~500	5	1.3~1.5	Side Milling
XEA0404	18	170	13000~14000	4000~4500	6	0.2	Trochoidal Side Milling
XEA0404	18	170	13000~14000	1800~2300	6	0.4	Trochoidal Side Milling
XEA0404	18	170	13000~14000	800~1200	6	0.8	Trochoidal Side Milling
XEA0404	18	170	13000~14000	600~800	6	1.2	Trochoidal Side Milling
XEA0404	18	145	11000~12000	200~300	2~4	4	Slotting
XEA0404	18	170	13000~14000	600~800	6	1.4~1.6	Side Milling
XEA0504	20	200	12000~13000	4500~5000	8	0.2	Trochoidal Side Milling
XEA0504	20	200	12000~13000	1900~2400	8	0.5	Trochoidal Side Milling
XEA0504	20	200	12000~13000	900~1200	8	1	Trochoidal Side Milling
XEA0504	20	180	11000~12000	600~800	8	1.4~1.6	Trochoidal Side Milling
XEA0504	20	165	10000~11000	250~350	2~4	5	Slotting
XEA0504	20	180	11000~12000	600~800	8	1.4~1.6	Side Milling
XEA0604	20	200	10000~11000	6000~6500	9	0.2	Trochoidal Side Milling
XEA0604	20	200	10000~11000	4500~5000	9	0.5	Trochoidal Side Milling
XEA0604	20	200	10000~11000	2300~2800	9	1	Trochoidal Side Milling
XEA0604	20	170	8700~9200	1200~1600	9	1.4~1.6	Trochoidal Side Milling
XEA0604	20	170	8700~9200	350~500	3~5	6	Slotting
XEA0604	20	170	8700~9200	1200~1500	6~9	1.4~1.6	Side Milling
XEA0804	24	200	7800~8300	6500~7000	12	0.2	Trochoidal Side Milling
XEA0804	24	200	7800~8300	4700~5200	12	0.5	Trochoidal Side Milling
XEA0804	24	195	7500~8000	3000~3500	12	1	Trochoidal Side Milling
XEA0804	24	195	7500~8000	1500~2000	12	2	Trochoidal Side Milling
XEA0804	24	150	5700~6200	450~600	8	8	Slotting
XEA0804	24	170	6500~7000	1400~1900	12	1.5~2	Side Milling

XEA

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEA1004	32	200	6000~6500	5000~5500	15	0.5	Trochoidal Side Milling
XEA1004	32	200	6000~6500	2800~3300	15	1	Trochoidal Side Milling
XEA1004	32	170	5300~5800	1600~2000	15	2	Trochoidal Side Milling
XEA1004	32	170	5300~5800	1000~1400	15	3	Trochoidal Side Milling
XEA1004	32	150	4500~5000	500~700	10	10	Slotting
XEA1004	32	150	4500~5000	1200~1800	15	2	Side Milling
XEA1204	35	225	5800~6300	3800~4300	18	0.5	Trochoidal Side Milling
XEA1204	35	225	5800~6300	1900~2400	18	1	Trochoidal Side Milling
XEA1204	35	225	5800~6300	900~1400	18	2	Trochoidal Side Milling
XEA1204	35	225	5800~6300	600~1000	18	3	Trochoidal Side Milling
XEA1204	35	135	3300~3800	300~450	12	12	Slotting
XEA1204	35	225	5800~6300	600~900	18	3	Side Milling
XEA1604	50	300	5800~6300	2600~3100	24	0.5	Trochoidal Side Milling
XEA1604	50	300	5800~6300	1000~1500	24	1	Trochoidal Side Milling
XEA1604	50	300	5800~6300	450~750	24	2	Trochoidal Side Milling
XEA1604	50	265	5000~5500	350~600	24	3	Trochoidal Side Milling
XEA1604	50	130	2300~2800	130~220	3~4	16	Slotting
XEA1604	50	265	5000~5500	350~600	24	3	Side Milling
XEA2004	50	300	4500~5000	1600~2100	30	0.5	Trochoidal Side Milling
XEA2004	50	230	3300~3800	800~1200	30	1	Trochoidal Side Milling
XEA2004	50	200	2800~3300	400~550	30	2	Trochoidal Side Milling
XEA2004	50	135	1900~2400	130~220	3~4	20	Slotting
XEA2004	50	200	2800~3300	400~550	30	2	Side Milling

XEA

MILLING CONDITIONS

Work Material							Coolant Type
Chromium Molybdenum Alloy Steels SCM440 : 1.7225 : 4140 : 42CrMoA (HRC25~28)							Dry coolant
Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEA0304	18	150	15000~16000	4000~4500	5	0.2	Trochoidal Side Milling
XEA0304	18	150	15000~16000	2500~3000	5	0.3	Trochoidal Side Milling
XEA0304	18	150	15000~16000	1300~1700	5	0.5	Trochoidal Side Milling
XEA0304	18	150	15000~16000	600~800	5	1	Trochoidal Side Milling
XEA0304	18	120	12000~13000	180~250	1.5~2	3	Slotting
XEA0304	18	150	15000~16000	300~450	5	1.3~1.5	Side Milling
XEA0404	18	170	13000~14000	3800~4300	6	0.2	Trochoidal Side Milling
XEA0404	18	170	13000~14000	1600~2100	6	0.4	Trochoidal Side Milling
XEA0404	18	170	13000~14000	800~1100	6	0.8	Trochoidal Side Milling
XEA0404	18	170	13000~14000	500~700	6	1.2	Trochoidal Side Milling
XEA0404	18	145	11000~12000	200~350	2~4	4	Slotting
XEA0404	18	170	13000~14000	550~750	6	1.4~1.6	Side Milling
XEA0504	20	200	12000~13000	4200~4700	8	0.2	Trochoidal Side Milling
XEA0504	20	200	12000~13000	1700~2200	8	0.5	Trochoidal Side Milling
XEA0504	20	200	12000~13000	800~1100	8	1	Trochoidal Side Milling
XEA0504	20	180	11000~12000	500~800	8	1.4~1.6	Trochoidal Side Milling
XEA0504	20	165	10000~11000	230~330	2~4	5	Slotting
XEA0504	20	180	11000~12000	550~750	8	1.4~1.6	Side Milling
XEA0604	20	200	10000~11000	5700~6200	9	0.2	Trochoidal Side Milling
XEA0604	20	200	10000~11000	4000~4500	9	0.5	Trochoidal Side Milling
XEA0604	20	200	10000~11000	1900~2400	9	1	Trochoidal Side Milling
XEA0604	20	170	8700~9200	1100~1500	9	1.4~1.6	Trochoidal Side Milling
XEA0604	20	170	8700~9200	300~450	3~5	6	Slotting
XEA0604	20	170	8700~9200	1100~1400	6~9	1.4~1.6	Side Milling
XEA0804	24	200	7800~8300	6000~6500	12	0.2	Trochoidal Side Milling
XEA0804	24	200	7800~8300	4200~4700	12	0.5	Trochoidal Side Milling
XEA0804	24	195	7500~8000	2300~2800	12	1	Trochoidal Side Milling
XEA0804	24	195	7500~8000	1300~1700	12	2	Trochoidal Side Milling
XEA0804	24	150	5700~6200	400~550	8	8	Slotting
XEA0804	24	170	6500~7000	1300~1700	12	1.5~2	Side Milling

XEA

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEA1004	32	200	6000~6500	4500~5000	15	0.5	Trochoidal Side Milling
XEA1004	32	200	6000~6500	2500~3000	15	1	Trochoidal Side Milling
XEA1004	32	170	5300~5800	1500~2000	15	2	Trochoidal Side Milling
XEA1004	32	170	5300~5800	900~1300	15	3	Trochoidal Side Milling
XEA1004	32	150	4500~5000	450~650	10	10	Slotting
XEA1004	32	150	4500~5000	1100~1600	15	2	Side Milling
XEA1204	35	225	5800~6300	3500~4000	18	0.5	Trochoidal Side Milling
XEA1204	35	225	5800~6300	1800~2200	18	1	Trochoidal Side Milling
XEA1204	35	225	5800~6300	900~1300	18	2	Trochoidal Side Milling
XEA1204	35	225	5800~6300	600~900	18	3	Trochoidal Side Milling
XEA1204	35	135	3300~3800	300~450	12	12	Slotting
XEA1204	35	225	5800~6300	600~800	18	3	Side Milling
XEA1604	50	300	5800~6300	2400~2900	24	0.5	Trochoidal Side Milling
XEA1604	50	300	5800~6300	1000~1300	24	1	Trochoidal Side Milling
XEA1604	50	300	5800~6300	450~700	24	2	Trochoidal Side Milling
XEA1604	50	265	5000~5500	350~550	24	3	Trochoidal Side Milling
XEA1604	50	130	2300~2800	130~200	3~4	16	Slotting
XEA1604	50	265	5000~5500	350~550	24	3	Side Milling
XEA2004	50	300	4500~5000	1500~1900	30	0.5	Trochoidal Side Milling
XEA2004	50	230	3300~3800	800~1100	30	1	Trochoidal Side Milling
XEA2004	50	200	2800~3300	400~500	30	2	Trochoidal Side Milling
XEA2004	50	135	1900~2400	130~200	3~4	20	Slotting
XEA2004	50	200	2800~3300	400~500	30	2	Side Milling

XEA

MILLING CONDITIONS

Work Material							Coolant Type
Alloy Tool Steels / Carbon Tool Steels							Dry coolant
P20/ P5/ SK3/ SKD61/ SKD11 : 1.2311/ 1.1545/ 1.2379/ 1.2344 : H13/D2 (HRc23~32)							
Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEA0304	18	150	15000~16000	3700~4200	5	0.2	Trochoidal Side Milling
XEA0304	18	130	14000~15000	2300~2800	5	0.3	Trochoidal Side Milling
XEA0304	18	130	14000~15000	1200~1600	5	0.5	Trochoidal Side Milling
XEA0304	18	130	14000~15000	500~800	5	1	Trochoidal Side Milling
XEA0304	18	120	12000~13000	150~250	1.5~2	3	Slotting
XEA0304	18	130	14000~15000	250~400	5	1.3~1.5	Side Milling
XEA0404	18	170	13000~14000	3800~4300	6	0.2	Trochoidal Side Milling
XEA0404	18	155	12000~13000	1500~2000	6	0.4	Trochoidal Side Milling
XEA0404	18	150	11500~12500	700~1000	6	0.8	Trochoidal Side Milling
XEA0404	18	150	11500~12500	500~600	6	1.2	Trochoidal Side Milling
XEA0404	18	130	10000~11000	180~280	2~3	4	Slotting
XEA0404	18	150	11500~12500	500~700	6	1.4~1.6	Side Milling
XEA0504	20	170	10500~11500	4000~4500	8	0.2	Trochoidal Side Milling
XEA0504	20	155	9500~10500	1500~2000	8	0.5	Trochoidal Side Milling
XEA0504	20	155	9500~10500	700~1000	8	1	Trochoidal Side Milling
XEA0504	20	155	9500~10500	500~700	8	1.4~1.6	Trochoidal Side Milling
XEA0504	20	130	8000~9000	200~300	2~4	5	Slotting
XEA0504	20	155	9500~10500	500~700	8	1.4~1.6	Side Milling
XEA0604	20	155	8000~8500	5500~6000	9	0.2	Trochoidal Side Milling
XEA0604	20	155	8000~8500	3500~4000	9	0.5	Trochoidal Side Milling
XEA0604	20	135	7000~7500	1600~2100	9	1	Trochoidal Side Milling
XEA0604	20	135	7000~7500	1000~1300	9	1.4~1.6	Trochoidal Side Milling
XEA0604	20	130	6800~7300	250~400	3~5	6	Slotting
XEA0604	20	130	6800~7300	1000~1300	9	1.4~1.6	Side Milling
XEA0804	24	200	7800~8300	5500~6000	12	0.2	Trochoidal Side Milling
XEA0804	24	200	7800~8300	3300~3800	12	0.5	Trochoidal Side Milling
XEA0804	24	195	7500~8000	1800~2300	12	1	Trochoidal Side Milling
XEA0804	24	195	7500~8000	1000~1400	12	2	Trochoidal Side Milling
XEA0804	24	150	5700~6200	350~500	6~8	8	Slotting
XEA0804	24	170	6500~7000	1000~1400	12	1.5~2	Side Milling

XEA

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEA1004	32	200	6000~6500	4000~4500	15	0.5	Trochoidal Side Milling
XEA1004	32	200	6000~6500	2000~2500	15	1	Trochoidal Side Milling
XEA1004	32	170	5300~5800	1300~1800	15	2	Trochoidal Side Milling
XEA1004	32	150	4500~5000	800~1200	15	3	Trochoidal Side Milling
XEA1004	32	150	4500~5000	400~550	10	10	Slotting
XEA1004	32	150	4500~5000	900~1300	15	2	Side Milling
XEA1204	35	225	5800~6300	3500~4000	18	0.5	Trochoidal Side Milling
XEA1204	35	200	5000~5500	1700~2200	18	1	Trochoidal Side Milling
XEA1204	35	200	5000~5500	800~1200	18	2	Trochoidal Side Milling
XEA1204	35	200	5000~5500	600~800	18	3	Trochoidal Side Milling
XEA1204	35	135	3300~3800	200~350	8~12	12	Slotting
XEA1204	35	200	5000~5500	600~800	18	3	Side Milling
XEA1604	50	300	5800~6300	2100~2600	24	0.5	Trochoidal Side Milling
XEA1604	50	300	5800~6300	900~1300	24	1	Trochoidal Side Milling
XEA1604	50	300	5800~6300	400~650	24	2	Trochoidal Side Milling
XEA1604	50	265	5000~5500	300~500	24	3	Trochoidal Side Milling
XEA1604	50	130	2300~2800	130~200	3~4	16	Slotting
XEA1604	50	265	5000~5500	300~500	24	3	Side Milling
XEA2004	50	300	4500~5000	1400~1800	30	0.5	Trochoidal Side Milling
XEA2004	50	230	3300~3800	700~900	30	1	Trochoidal Side Milling
XEA2004	50	200	2800~3300	350~450	30	2	Trochoidal Side Milling
XEA2004	50	135	1900~2400	120~180	3~4	20	Slotting
XEA2004	50	200	2800~3300	350~450	30	2	Side Milling

XEA

MILLING CONDITIONS

Work Material							Coolant Type
Stainless Steels							Wet coolant
SUS304 : 1.4301 : AISI 304 (HRC28~32)							
Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEA0304	18	135	14000~15000	3000~3500	5	0.2	Trochoidal Side Milling
XEA0304	18	135	14000~15000	2000~2500	5	0.3	Trochoidal Side Milling
XEA0304	18	120	12000~13000	1000~1500	5	0.4	Trochoidal Side Milling
XEA0304	18	135	14000~15000	200~400	0.2	3	Slotting
XEA0304	18	120	12000~13000	300~400	3	0.5~0.7	Side Milling
XEA0304	18	120	12000~13000	180~300	3	1~1.2	Side Milling
XEA0404	18	140	10500~11500	3500~4000	6	0.2	Trochoidal Side Milling
XEA0404	18	140	10500~11500	2000~2500	6	0.3	Trochoidal Side Milling
XEA0404	18	120	9000~10000	1200~1600	6	0.5	Trochoidal Side Milling
XEA0404	18	120	9000~10000	400~600	0.2	4	Slotting
XEA0404	18	120	9000~10000	300~500	4	0.8~1	Side Milling
XEA0404	18	120	9000~10000	200~400	4	1.2~1.5	Side Milling
XEA0504	20	140	8700~9200	3800~4300	8	0.2	Trochoidal Side Milling
XEA0504	20	140	8700~9200	2300~2800	8	0.3	Trochoidal Side Milling
XEA0504	20	120	7400~7900	1300~1800	8	0.5	Trochoidal Side Milling
XEA0504	20	135	8300~8800	250~350	0.3	5	Slotting
XEA0504	20	120	7400~7900	400~600	5	0.8~1	Side Milling
XEA0504	20	120	7400~7900	280~450	5	1.2~1.5	Side Milling
XEA0604	20	155	8000~8500	5500~6000	9	0.2	Trochoidal Side Milling
XEA0604	20	140	7300~7800	4500~5000	9	0.3	Trochoidal Side Milling
XEA0604	20	120	6000~6500	2500~3000	9	0.5	Trochoidal Side Milling
XEA0604	20	135	7000~7500	200~350	0.8~1.2	6	Slotting
XEA0604	20	125	6500~7000	300~500	6	1.5~2	Side Milling
XEA0604	20	125	6500~7000	200~400	6	2.5~3	Side Milling
XEA0804	24	200	7800~8300	5000~5500	12	0.2	Trochoidal Side Milling
XEA0804	24	170	6500~7000	3700~4200	12	0.3	Trochoidal Side Milling
XEA0804	24	170	6500~7000	2500~3000	12	0.5	Trochoidal Side Milling
XEA0804	24	145	5500~6000	200~400	1.5~2	8	Slotting
XEA0804	24	105	4000~4500	400~600	8	1.5~2	Side Milling
XEA0804	24	105	4000~4500	250~450	8	3~4	Side Milling

XEA

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEA1004	32	170	5300~5800	4000~4500	15	0.3	Trochoidal Side Milling
XEA1004	32	170	5300~5800	2500~3000	15	0.5	Trochoidal Side Milling
XEA1004	32	150	4500~5000	1200~1700	15	1	Trochoidal Side Milling
XEA1004	32	130	3800~4300	200~400	2~3	10	Slotting
XEA1004	32	100	2800~3300	400~600	10	2.5~3	Side Milling
XEA1004	32	100	2800~3300	250~450	10	4~5	Side Milling
XEA1204	35	235	6000~6500	3800~4300	18	0.3	Trochoidal Side Milling
XEA1204	35	235	6000~6500	2500~3000	18	0.5	Trochoidal Side Milling
XEA1204	35	160	4000~4500	1000~1500	18	1	Trochoidal Side Milling
XEA1204	35	125	3000~3500	200~400	2~3	12	Slotting
XEA1204	35	110	2600~3100	300~500	12	3~4	Side Milling
XEA1204	35	110	2600~3100	200~400	12	5~6	Side Milling

Coolant Type

Dry coolant

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEA1604	50	200	3800~4300	2000~2500	24	0.3	Trochoidal Side Milling
XEA1604	50	200	3800~4300	1400~1800	24	0.5	Trochoidal Side Milling
XEA1604	50	200	3800~4300	600~1000	24	1	Trochoidal Side Milling
XEA1604	50	110	2000~2400	150~230	2~3	16	Slotting
XEA1604	50	110	2000~2400	280~450	16	1.5~2	Side Milling
XEA1604	50	110	2000~2400	150~230	16	3~4	Side Milling
XEA2004	50	200	2900~3400	1600~2000	30	0.3	Trochoidal Side Milling
XEA2004	50	200	2900~3400	1100~1500	30	0.5	Trochoidal Side Milling
XEA2004	50	150	2200~2700	500~800	30	1	Trochoidal Side Milling
XEA2004	50	110	1600~2000	140~200	2~3	20	Slotting
XEA2004	50	110	1600~2000	180~280	20	2~3	Side Milling

XEB

MILLING CONDITIONS

Work Material	Coolant Type
Carbon steels/Cast Iron S50C / Fc250 / SS440 : 1.1210 / 0.6025 / 1.0036 : 1050 / N0.35 / A570 Gr.45 (~HRc22)	Dry coolant

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEB0304	18	150	15000~16000	4700~5200	5	0.2	Trochoidal Side Milling
XEB0304	18	150	15000~16000	3500~4000	5	0.3	Trochoidal Side Milling
XEB0304	18	150	15000~16000	1700~2200	5	0.5	Trochoidal Side Milling
XEB0304	18	150	15000~16000	900~1100	5	1	Trochoidal Side Milling
XEB0304	18	150	15000~16000	900~1100	5	1	Side Milling
XEB0304	18	150	15000~16000	300~500	5	1.5	Side Milling
XEB0304	18	120	12000~13000	200~300	1.5~3	3	Slotting
XEB0404	18	195	15000~16000	5000~5500	6	0.2	Trochoidal Side Milling
XEB0404	18	195	15000~16000	4000~4500	6	0.3	Trochoidal Side Milling
XEB0404	18	195	15000~16000	2000~2500	6	0.5	Trochoidal Side Milling
XEB0404	18	195	15000~16000	1000~1300	6	1	Trochoidal Side Milling
XEB0404	18	195	15000~16000	1000~1300	6	1	Side Milling
XEB0404	18	195	15000~16000	450~650	6	2	Side Milling
XEB0404	18	145	11000~12000	300~400	2~4	4	Slotting
XEB0504	20	200	12000~13000	6000~6500	8	0.2	Trochoidal Side Milling
XEB0504	20	200	12000~13000	4000~4500	8	0.3	Trochoidal Side Milling
XEB0504	20	200	12000~13000	2500~3000	8	0.5	Trochoidal Side Milling
XEB0504	20	200	12000~13000	1200~1500	8	1	Trochoidal Side Milling
XEB0504	20	200	12000~13000	600~800	8	2	Trochoidal Side Milling
XEB0504	20	200	12000~13000	1200~1500	8	1	Side Milling
XEB0504	20	200	12000~13000	600~800	8	2	Side Milling
XEB0504	20	180	11000~12000	350~450	3~5	5	Slotting
XEB0604	20	220	11000~12000	7000~7500	9	0.2	Trochoidal Side Milling
XEB0604	20	220	11000~12000	5500~6000	9	0.5	Trochoidal Side Milling
XEB0604	20	220	11000~12000	3200~3700	9	1	Trochoidal Side Milling
XEB0604	20	220	11000~12000	1700~2200	9	2	Trochoidal Side Milling

XEB

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEB0604	20	220	11000~12000	1300~1800	9	3	Trochoidal Side Milling
XEB0604	20	220	11000~12000	1800~2300	6	2	Side Milling
XEB0604	20	220	11000~12000	500~700	6	5	Side Milling
XEB0604	20	220	11000~12000	450~650	4~6	6	Slotting
XEB0804	25	220	8500~9000	7000~7500	12	0.2	Trochoidal Side Milling
XEB0804	25	220	8500~9000	6000~6500	12	0.5	Trochoidal Side Milling
XEB0804	25	220	8500~9000	3700~4200	12	1	Trochoidal Side Milling
XEB0804	25	220	8500~9000	2500~3000	12	2	Trochoidal Side Milling
XEB0804	25	220	8500~9000	1500~2000	12	3	Trochoidal Side Milling
XEB0804	25	195	7500~8000	1100~1600	12	4	Trochoidal Side Milling
XEB0804	25	195	7500~8000	1100~1600	12	4	Side Milling
XEB0804	25	195	7500~8000	500~700	12	7	Side Milling
XEB0804	25	195	7500~8000	500~700	8	8	Slotting
XEB1004	30	315	9500~10500	6000~6500	15	0.5	Trochoidal Side Milling
XEB1004	30	315	9500~10500	3500~4000	15	1	Trochoidal Side Milling
XEB1004	30	200	6000~6500	2000~2500	15	2	Trochoidal Side Milling
XEB1004	30	200	6000~6500	1200~1700	15	3	Trochoidal Side Milling
XEB1004	30	200	6000~6500	1000~1300	15	4	Trochoidal Side Milling
XEB1004	30	200	6000~6500	1000~1300	15	4	Side Milling
XEB1004	30	200	6000~6500	650~800	15	9	Side Milling
XEB1004	30	135	4000~4500	650~800	10	10	Slotting
XEB1204	34	330	10000~11000	6000~6500	18	0.5	Trochoidal Side Milling
XEB1204	34	330	10000~11000	3500~4000	18	1	Trochoidal Side Milling
XEB1204	34	235	6000~6500	1500~2000	18	2	Trochoidal Side Milling
XEB1204	34	235	6000~6500	1000~1300	18	3	Trochoidal Side Milling
XEB1204	34	170	4200~4700	800~1100	18	4	Trochoidal Side Milling

XEB

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEB1204	34	170	4200~4700	800~1100	18	4	Side Milling
XEB1204	34	145	3600~4100	350~550	18	9	Side Milling
XEB1204	34	145	3600~4100	500~650	12	12	Slotting
XEB1604	50	415	8000~8500	3500~4000	24	0.5	Trochoidal Side Milling
XEB1604	50	340	6500~7000	1500~2000	24	1	Trochoidal Side Milling
XEB1604	50	300	5800~6300	700~1000	24	2	Trochoidal Side Milling
XEB1604	50	300	5800~6300	500~750	24	3	Trochoidal Side Milling
XEB1604	50	300	5800~6300	500~750	24	3	Side Milling
XEB1604	50	100	2000~2400	150~250	4	16	Slotting
XEB2004	50	300	4500~5000	2000~2500	30	0.5	Trochoidal Side Milling
XEB2004	50	250	3700~4200	1000~1400	30	1	Trochoidal Side Milling
XEB2004	50	230	3300~3800	500~700	30	2	Trochoidal Side Milling
XEB2004	50	200	2800~3300	300~500	30	3	Side Milling
XEB2004	50	100	1400~1800	150~230	3~4	20	Slotting

XEB

MILLING CONDITIONS

Work Material	Coolant Type
Chromium Molybdenum Alloy Steels SCM440 : 1.7225 : 4140 : 42CrMoA (HRc25~28)	Dry coolant

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEB0304	18	150	15000~16000	4500~5000	5	0.2	Trochoidal Side Milling
XEB0304	18	150	15000~16000	3300~3800	5	0.3	Trochoidal Side Milling
XEB0304	18	150	15000~16000	1600~2100	5	0.5	Trochoidal Side Milling
XEB0304	18	150	15000~16000	800~1100	5	1	Trochoidal Side Milling
XEB0304	18	150	15000~16000	800~1100	5	1	Side Milling
XEB0304	18	150	15000~16000	300~500	5	1.5	Side Milling
XEB0304	18	120	12000~13000	200~300	1.5~3	3	Slotting
XEB0404	18	195	15000~16000	4700~5200	6	0.2	Trochoidal Side Milling
XEB0404	18	195	15000~16000	3700~4200	6	0.3	Trochoidal Side Milling
XEB0404	18	195	15000~16000	1800~2300	6	0.5	Trochoidal Side Milling
XEB0404	18	195	15000~16000	1000~1200	6	1	Trochoidal Side Milling
XEB0404	18	195	15000~16000	1000~1200	6	1	Side Milling
XEB0404	18	195	15000~16000	450~600	6	2	Side Milling
XEB0404	18	145	11000~12000	300~400	2~4	4	Slotting
XEB0504	20	200	12000~13000	6000~6500	8	0.2	Trochoidal Side Milling
XEB0504	20	200	12000~13000	4000~4500	8	0.3	Trochoidal Side Milling
XEB0504	20	200	12000~13000	2500~3000	8	0.5	Trochoidal Side Milling
XEB0504	20	200	12000~13000	1200~1500	8	1	Trochoidal Side Milling
XEB0504	20	200	12000~13000	600~800	8	2	Trochoidal Side Milling
XEB0504	20	200	12000~13000	1200~1500	8	1	Side Milling
XEB0504	20	200	12000~13000	600~800	8	2	Side Milling
XEB0504	20	180	11000~12000	350~450	3~5	5	Slotting
XEB0604	20	220	11000~12000	6500~7000	9	0.2	Trochoidal Side Milling
XEB0604	20	220	11000~12000	5000~5500	9	0.5	Trochoidal Side Milling
XEB0604	20	220	11000~12000	2700~3200	9	1	Trochoidal Side Milling
XEB0604	20	220	11000~12000	1500~2000	9	2	Trochoidal Side Milling

XEB

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEB0604	20	220	11000~12000	1200~1700	9	3	Trochoidal Side Milling
XEB0604	20	220	11000~12000	1300~1800	6	2	Side Milling
XEB0604	20	220	11000~12000	500~650	6	5	Side Milling
XEB0604	20	220	11000~12000	450~650	6	4~6	Slotting
XEB0804	25	220	8500~9000	6500~7000	12	0.2	Trochoidal Side Milling
XEB0804	25	220	8500~9000	5000~5500	12	0.5	Trochoidal Side Milling
XEB0804	25	220	8500~9000	3000~3500	12	1	Trochoidal Side Milling
XEB0804	25	220	8500~9000	2200~2700	12	2	Trochoidal Side Milling
XEB0804	25	220	8500~9000	1200~1700	12	3	Trochoidal Side Milling
XEB0804	25	195	7500~8000	1000~1500	12	4	Trochoidal Side Milling
XEB0804	25	195	7500~8000	1000~1500	12	4	Side Milling
XEB0804	25	195	7500~8000	500~650	12	7	Side Milling
XEB0804	25	195	7500~8000	450~600	8	8	Slotting
XEB1004	30	300	9000~10000	5500~6000	15	0.5	Trochoidal Side Milling
XEB1004	30	300	9000~10000	3200~3700	15	1	Trochoidal Side Milling
XEB1004	30	200	6000~6500	1800~2300	15	2	Trochoidal Side Milling
XEB1004	30	200	6000~6500	1100~1600	15	3	Trochoidal Side Milling
XEB1004	30	200	6000~6500	900~1200	15	4	Trochoidal Side Milling
XEB1004	30	200	6000~6500	900~1200	15	4	Side Milling
XEB1004	30	200	6000~6500	600~750	15	9	Side Milling
XEB1004	30	135	4000~4500	550~700	10	10	Slotting
XEB1204	34	330	10000~11000	5500~6000	18	0.5	Trochoidal Side Milling
XEB1204	34	330	10000~11000	3200~3700	18	1	Trochoidal Side Milling
XEB1204	34	235	6000~6500	1400~1900	18	2	Trochoidal Side Milling
XEB1204	34	235	6000~6500	900~1200	18	3	Trochoidal Side Milling
XEB1204	34	170	4200~4700	700~1100	18	4	Trochoidal Side Milling

XEB

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEB1204	34	170	4200~4700	700~1100	18	4	Side Milling
XEB1204	34	145	3600~4100	300~500	18	9	Side Milling
XEB1204	34	145	3600~4100	400~600	12	12	Slotting
XEB1604	50	415	8000~8500	3300~3800	24	0.5	Trochoidal Side Milling
XEB1604	50	340	6500~7000	1400~1900	24	1	Trochoidal Side Milling
XEB1604	50	300	5800~6300	700~1000	24	2	Trochoidal Side Milling
XEB1604	50	300	5800~6300	500~700	24	3	Trochoidal Side Milling
XEB1604	50	300	5800~6300	500~700	24	3	Side Milling
XEB1604	50	100	2000~2400	150~250	3~4	16	Slotting
XEB2004	50	300	4500~5000	2000~2300	30	0.5	Trochoidal Side Milling
XEB2004	50	250	3700~4200	1000~1300	30	1	Trochoidal Side Milling
XEB2004	50	230	3300~3800	450~650	30	2	Trochoidal Side Milling
XEB2004	50	200	2800~3300	300~500	30	3	Side Milling
XEB2004	50	100	1400~1800	150~230	3~4	20	Slotting

XEB

MILLING CONDITIONS

Work Material	Coolant Type
Alloy Tool Steels / Carbon Tool Steels P20/ P5/ SK3/ SKD61/ SKD11 : 1.2311/ 1.1545/ 1.2379/ 1.2344 : H13/D2 (HRc23~32)	Dry coolant

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEB0304	18	135	14000~15000	4000~4500	5	0.2	Trochoidal Side Milling
XEB0304	18	135	14000~15000	2700~3200	5	0.3	Trochoidal Side Milling
XEB0304	18	135	14000~15000	1500~1800	5	0.5	Trochoidal Side Milling
XEB0304	18	135	14000~15000	700~900	5	1	Trochoidal Side Milling
XEB0304	18	135	14000~15000	700~900	5	1	Side Milling
XEB0304	18	135	14000~15000	300~500	5	1.5	Side Milling
XEB0304	18	115	11500~12500	180~300	1.5~3	3	Slotting
XEB0404	18	170	13000~14000	4500~5000	6	0.2	Trochoidal Side Milling
XEB0404	18	170	13000~14000	3000~3500	6	0.3	Trochoidal Side Milling
XEB0404	18	170	13000~14000	1600~2100	6	0.5	Trochoidal Side Milling
XEB0404	18	170	13000~14000	800~1000	6	1	Trochoidal Side Milling
XEB0404	18	170	13000~14000	800~1000	6	1	Side Milling
XEB0404	18	170	13000~14000	350~550	6	2	Side Milling
XEB0404	18	145	11000~12000	200~300	2~3	4	Slotting
XEB0504	20	190	11500~12500	5000~5500	8	0.2	Trochoidal Side Milling
XEB0504	20	190	11500~12500	3000~3500	8	0.3	Trochoidal Side Milling
XEB0504	20	190	11500~12500	1800~2300	8	0.5	Trochoidal Side Milling
XEB0504	20	190	11500~12500	900~1200	8	1	Trochoidal Side Milling
XEB0504	20	190	11500~12500	500~650	8	2	Trochoidal Side Milling
XEB0504	20	190	11500~12500	900~1200	8	1	Side Milling
XEB0504	20	190	11500~12500	500~650	8	2	Side Milling
XEB0504	20	170	10000~11000	200~300	3~5	5	Slotting
XEB0604	20	220	11000~12000	6500~7000	9	0.2	Trochoidal Side Milling
XEB0604	20	210	10500~11500	3700~4200	6	0.5	Trochoidal Side Milling
XEB0604	20	210	10500~11500	1600~2100	6	1	Trochoidal Side Milling
XEB0604	20	210	10500~11500	1000~1300	6	2	Trochoidal Side Milling

XEB

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEB0604	20	210	10500~11500	800~1200	6	3	Trochoidal Side Milling
XEB0604	20	210	10500~11500	1000~1300	6	2	Side Milling
XEB0604	20	160	8000~9000	300~450	6	5	Side Milling
XEB0604	20	160	8000~9000	250~400	4~6	6	Slotting
XEB0804	25	220	8500~9000	6000~6500	12	0.2	Trochoidal Side Milling
XEB0804	25	195	7500~8000	3700~4200	12	0.5	Trochoidal Side Milling
XEB0804	25	165	6300~6800	2000~2500	12	1	Trochoidal Side Milling
XEB0804	25	165	6300~6800	1000~1500	12	2	Trochoidal Side Milling
XEB0804	25	145	5500~6000	700~1000	12	3	Trochoidal Side Milling
XEB0804	25	145	5500~6000	600~800	12	4	Trochoidal Side Milling
XEB0804	25	145	5500~6000	600~800	12	4	Side Milling
XEB0804	25	145	5500~6000	450~650	12	7	Side Milling
XEB0804	25	135	5000~5500	400~550	6~8	8	Slotting
XEB1004	30	190	5800~6300	4200~4700	15	0.5	Trochoidal Side Milling
XEB1004	30	175	5300~5800	2700~3200	15	1	Trochoidal Side Milling
XEB1004	30	175	5300~5800	1700~2200	15	2	Trochoidal Side Milling
XEB1004	30	175	5300~5800	1100~1500	15	3	Trochoidal Side Milling
XEB1004	30	175	5300~5800	800~1100	15	4	Trochoidal Side Milling
XEB1004	30	175	5300~5800	800~1100	15	4	Side Milling
XEB1004	30	175	5300~5800	450~650	15	9	Side Milling
XEB1004	30	135	4000~4500	400~600	8~10	10	Slotting
XEB1204	34	300	7700~8200	4500~5000	18	0.5	Trochoidal Side Milling
XEB1204	34	300	7700~8200	2500~3000	18	1	Trochoidal Side Milling
XEB1204	34	220	5700~6200	1200~1600	18	2	Trochoidal Side Milling
XEB1204	34	220	5700~6200	700~1000	18	3	Trochoidal Side Milling
XEB1204	34	160	4000~4500	500~800	18	4	Trochoidal Side Milling

XEB

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEB1204	34	160	4000~4500	600~900	18	4	Side Milling
XEB1204	34	120	3000~3500	200~350	12	9	Side Milling
XEB1204	34	120	3000~3500	200~350	10~12	12	Slotting
XEB1604	50	280	5300~5800	2500~3000	24	0.5	Trochoidal Side Milling
XEB1604	50	280	5300~5800	1000~1500	24	1	Trochoidal Side Milling
XEB1604	50	225	4300~4800	600~900	24	2	Trochoidal Side Milling
XEB1604	50	225	4300~4800	350~600	24	3	Trochoidal Side Milling
XEB1604	50	230	4000~4500	350~550	24	3	Side Milling
XEB1604	50	95	1800~2200	150~230	6~8	16	Slotting
XEB2004	50	280	4300~4800	1700~2200	30	0.5	Trochoidal Side Milling
XEB2004	50	230	3300~3800	800~1200	30	1	Trochoidal Side Milling
XEB2004	50	200	2800~3300	400~600	30	2	Trochoidal Side Milling
XEB2004	50	150	2200~2600	200~400	30	3	Side Milling
XEB2004	50	90	1300~1700	130~200	4~6	20	Slotting

XEB

MILLING CONDITIONS

Work Material	Coolant Type
Stainless Steels SUS304 : 1.4301 : AISI 304 (HRC28~32)	Wet coolant

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEB0304	18	135	14000~15000	4000~4500	5	0.2	Trochoidal Side Milling
XEB0304	18	135	14000~15000	2500~3000	5	0.3	Trochoidal Side Milling
XEB0304	18	135	14000~15000	1200~1500	5	0.5	Trochoidal Side Milling
XEB0304	18	115	11500~12500	600~800	5	0.7~1	Trochoidal Side Milling
XEB0304	18	115	11500~12500	600~800	5	0.7~1	Side Milling
XEB0304	18	115	11500~12500	200~350	5	1.2~1.5	Side Milling
XEB0304	18	110	11000~12000	300~500	0.2~0.3	3	Slotting
XEB0404	18	170	13000~14000	4500~5000	6	0.2	Trochoidal Side Milling
XEB0404	18	170	13000~14000	3000~3500	6	0.3	Trochoidal Side Milling
XEB0404	18	170	13000~14000	1500~2000	6	0.5	Trochoidal Side Milling
XEB0404	18	170	13000~14000	700~1000	6	0.7~1	Trochoidal Side Milling
XEB0404	18	170	13000~14000	700~1000	6	0.7~1	Side Milling
XEB0404	18	170	13000~14000	300~500	6	1.2~1.5	Side Milling
XEB0404	18	110	8000~9000	400~600	0.2~0.3	4	Slotting
XEB0504	20	170	10000~11000	4800~5300	8	0.2	Trochoidal Side Milling
XEB0504	20	170	10000~11000	3200~3700	8	0.3	Trochoidal Side Milling
XEB0504	20	170	10000~11000	1500~2000	8	0.5	Trochoidal Side Milling
XEB0504	20	170	10000~11000	700~1000	8	0.7~1	Trochoidal Side Milling
XEB0504	20	170	10000~11000	300~500	8	1.2~1.5	Trochoidal Side Milling
XEB0504	20	170	10000~11000	700~1000	8	0.7~1	Side Milling
XEB0504	20	170	10000~11000	300~500	8	1.2~1.5	Side Milling
XEB0504	20	130	8000~8500	300~500	0.3~0.4	5	Slotting
XEB0604	20	210	10500~11500	6000~6500	9	0.2	Trochoidal Side Milling
XEB0604	20	210	10500~11500	4000~4500	9	0.5	Trochoidal Side Milling
XEB0604	20	150	7700~8200	1800~2300	9	1	Trochoidal Side Milling
XEB0604	20	150	7700~8200	800~1100	9	2	Trochoidal Side Milling

XEB

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEB0604	20	150	7700~8200	600~750	9	3	Trochoidal Side Milling
XEB0604	20	150	7700~8200	800~1100	9	2	Side Milling
XEB0604	20	150	7700~8200	500~750	9	3	Side Milling
XEB0604	20	150	7700~8200	200~400	1.5~2	6	Slotting
XEB0804	25	210	8000~8500	5500~6000	12	0.2	Trochoidal Side Milling
XEB0804	25	210	8000~8500	4500~5000	12	0.5	Trochoidal Side Milling
XEB0804	25	150	5800~6300	1700~2200	12	1	Trochoidal Side Milling
XEB0804	25	150	5800~6300	800~1200	12	2	Trochoidal Side Milling
XEB0804	25	150	5800~6300	700~900	12	3	Trochoidal Side Milling
XEB0804	25	150	5800~6300	500~750	12	4	Trochoidal Side Milling
XEB0804	25	150	5800~6300	500~750	12	4	Side Milling
XEB0804	25	150	5800~6300	400~500	12	6	Side Milling
XEB0804	25	130	4800~5300	250~450	2~3	8	Slotting
XEB1004	30	200	6000~6500	4700~5200	15	0.5	Trochoidal Side Milling
XEB1004	30	130	3800~4300	2100~2600	15	1	Trochoidal Side Milling
XEB1004	30	130	3800~4300	1100~1500	15	2	Trochoidal Side Milling
XEB1004	30	130	3800~4300	700~1100	15	3	Trochoidal Side Milling
XEB1004	30	130	3800~4300	600~900	15	4	Trochoidal Side Milling
XEB1004	30	130	3800~4300	600~900	15	4	Side Milling
XEB1004	30	130	3800~4300	400~600	15	9	Side Milling
XEB1004	30	130	3800~4300	250~450	3~4	10	Slotting
XEB1204	34	290	7500~8000	4500~5000	18	0.5	Trochoidal Side Milling
XEB1204	34	290	7500~8000	2500~3000	18	1	Trochoidal Side Milling
XEB1204	34	310	8000~8500	1200~1500	18	2	Trochoidal Side Milling
XEB1204	34	110	2600~3100	600~900	18	3	Side Milling
XEB1204	34	110	2600~3100	500~750	18	3~4	Side Milling

XEB

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEB1204	34	125	3000~3500	300~500	18	5~7	Side Milling
XEB1204	34	125	3000~3500	200~400	3~4	12	Slotting
XEB1604	50	200	3800~4300	2000~2400	24	0.5	Trochoidal Side Milling
XEB1604	50	200	3800~4300	800~1200	24	1	Trochoidal Side Milling
XEB1604	50	200	3700~4200	500~800	24	2	Side Milling
XEB1604	50	150	2800~3300	300~550	24	3	Side Milling
XEB1604	50	110	2000~2400	150~230	3~4	16	Slotting
XEB2004	50	200	2800~3300	1500~1900	24	0.5	Trochoidal Side Milling
XEB2004	50	180	2500~3000	700~1000	24	1	Trochoidal Side Milling
XEB2004	50	150	2200~2600	300~500	24	2	Side Milling
XEB2004	50	100	1500~1800	120~180	3~4	16	Slotting

XEB

MILLING CONDITIONS

Work Material	Coolant Type
Prehardened Steels NAK80 : 1.2083 : AISI420 : M310 (HRC36~42)	Dry coolant

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEB0304	18	135	14000~15000	3500~4000	5	0.2	Trochoidal Side Milling
XEB0304	18	135	14000~15000	2000~2500	5	0.3	Trochoidal Side Milling
XEB0304	18	135	14000~15000	1200~1500	5	0.5	Trochoidal Side Milling
XEB0304	18	115	11500~12500	300~450	5	1~1.5	Side Milling
XEB0304	18	115	11500~12500	180~280	1.2~1.5	3	Slotting
XEB0404	18	170	13000~14000	3800~4300	6	0.2	Trochoidal Side Milling
XEB0404	18	170	13000~14000	2500~3000	6	0.3	Trochoidal Side Milling
XEB0404	18	170	13000~14000	1300~1600	6	0.5	Trochoidal Side Milling
XEB0404	18	145	11000~12000	300~500	6	1~1.5	Side Milling
XEB0404	18	145	11000~12000	200~300	1.5~2	4	Slotting
XEB0504	20	190	11500~12500	4000~4500	8	0.2	Trochoidal Side Milling
XEB0504	20	190	11500~12500	2500~3000	8	0.3	Trochoidal Side Milling
XEB0504	20	190	11500~12500	1500~1800	8	0.5	Trochoidal Side Milling
XEB0504	20	150	9000~10000	750~1000	8	1	Trochoidal Side Milling
XEB0504	20	150	9000~10000	750~1000	8	1	Side Milling
XEB0504	20	150	9000~10000	200~300	2~3	5	Slotting
XEB0604	20	200	10000~11000	4500~5000	9	0.2	Trochoidal Side Milling
XEB0604	20	190	9500~10500	2700~3200	6	0.5	Trochoidal Side Milling
XEB0604	20	160	8000~9000	1200~1500	6	1	Trochoidal Side Milling
XEB0604	20	140	7200~7700	800~1000	6	1.5	Trochoidal Side Milling
XEB0604	20	140	7200~7700	700~900	6	1.5~2	Side Milling
XEB0604	20	140	7200~7700	250~400	3~4	6	Slotting
XEB0804	25	195	7500~8000	5000~5500	12	0.2	Trochoidal Side Milling
XEB0804	25	170	6500~7000	2500~3000	12	0.5	Trochoidal Side Milling
XEB0804	25	145	5500~6000	1200~1500	12	1	Trochoidal Side Milling
XEB0804	25	145	5500~6000	800~1000	12	2	Trochoidal Side Milling
XEB0804	25	145	5500~6000	600~800	12	3	Side Milling

XEB

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEB0804	25	145	5500~6000	450~600	12	4	Side Milling
XEB0804	25	135	5000~5500	300~500	4~5	8	Slotting
XEB1004	30	175	5300~5800	4000~4500	15	0.3	Trochoidal Side Milling
XEB1004	30	150	4500~5000	2500~3000	15	0.5	Trochoidal Side Milling
XEB1004	30	150	4500~5000	1300~1600	15	1	Trochoidal Side Milling
XEB1004	30	150	4500~5000	700~850	15	2	Trochoidal Side Milling
XEB1004	30	135	4000~4500	600~750	15	3	Side Milling
XEB1004	30	120	3500~4000	500~600	15	4	Side Milling
XEB1004	30	120	3500~4000	300~500	5~6	10	Slotting
XEB1204	34	275	7000~7500	4500~5000	18	0.3	Trochoidal Side Milling
XEB1204	34	220	5700~6200	2500~3000	18	0.5	Trochoidal Side Milling
XEB1204	34	220	5700~6200	1200~1600	18	1	Trochoidal Side Milling
XEB1204	34	220	5700~6200	700~1000	18	2	Trochoidal Side Milling
XEB1204	34	160	4000~4500	600~900	18	3	Side Milling
XEB1204	34	120	3000~3500	200~350	12	6	Side Milling
XEB1204	34	120	3000~3500	200~350	6~7	12	Slotting
XEB1604	50	265	5000~5500	2500~3000	24	0.3	Trochoidal Side Milling
XEB1604	50	225	4300~4800	1000~1500	24	0.5	Trochoidal Side Milling
XEB1604	50	225	4300~4800	600~900	24	1	Trochoidal Side Milling
XEB1604	50	225	4300~4800	350~600	24	2	Trochoidal Side Milling
XEB1604	50	230	4000~4500	300~500	24	3	Side Milling
XEB1604	50	95	1800~2200	150~230	6~8	16	Slotting
XEB2004	50	230	3300~3800	1400~1800	30	0.5	Trochoidal Side Milling
XEB2004	50	230	3300~3800	800~1000	30	1	Trochoidal Side Milling
XEB2004	50	150	2200~2600	400~600	30	2	Trochoidal Side Milling
XEB2004	50	150	2200~2600	200~400	30	3	Side Milling
XEB2004	50	90	1300~1700	120~180	4~6	20	Slotting

MILLING CONDITIONS

Work Material							Coolant Type
Carbon steels/Cast Iron							Wet coolant
S50C / Fc250 / SS440 : 1.1210 / 0.6025 / 1.0036 : 1050 / N0.35 / A570 Gr.45 (~HRc22)							
Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEV0304	20	115	11500~12500	4000~4500	6	0.25	Trochoidal Side Milling
XEV0304	20	115	11500~12500	1700~2200	6	0.5	Trochoidal Side Milling
XEV0304	20	115	11500~12500	Plunge:300 Slotting:650	3	3	Plunge & Slotting
XEV0304	20	115	11500~12500	700~900	6	1	Side Milling
XEV0304	20	115	11000~12000	500~700	3	3	Slotting
XEV0404	20	150	11500~12500	6500~7000	8	0.3	Trochoidal Side Milling
XEV0404	20	150	11500~12500	3500~4000	8	0.5	Trochoidal Side Milling
XEV0404	20	115	8700~9200	Plunge:350 Slotting:750	4	4	Plunge & Slotting
XEV0404	20	150	11500~12500	1600~2000	8	1	Side Milling
XEV0404	20	115	8700~9200	600~800	4	4	Slotting
XEV0504	22	185	11500~12500	7000~7500	10	0.3	Trochoidal Side Milling
XEV0504	22	185	11500~12500	4500~5000	10	0.5	Trochoidal Side Milling
XEV0504	22	140	8700~9200	Plunge:400 Slotting:800	5	5	Plunge & Slotting
XEV0504	22	185	11500~12500	2000~2500	10	1	Side Milling
XEV0504	22	115	8700~9200	600~800	5	5	Slotting
XEV0604	22	200	10000~11000	7500~8000	12	0.3	Trochoidal Side Milling
XEV0604	22	200	10000~11000	5000~5500	12	0.5	Trochoidal Side Milling
XEV0604	22	200	10000~11000	3000~3500	12	1	Trochoidal Side Milling
XEV0604	22	170	8700~9200	Plunge:450 Slotting:900	6	6	Plunge & Slotting
XEV0604	22	105	5000~6000	Plunge:250 Slotting:500	6	6	Plunge & Slotting
XEV0604	22	155	8000~8500	3000~3500	12	1	Side Milling
XEV0604	22	140	7300~7800	800~1000	12	3	Side Milling
XEV0604	22	170	8700~9200	600~800	6	6	Slotting
XEV0804	28	265	10000~11000	7500~8000	15	0.5	Trochoidal Side Milling
XEV0804	28	170	6500~7000	4000~4500	15	1	Trochoidal Side Milling
XEV0804	28	140	5300~5800	Plunge:400 Slotting:800	8	8	Plunge & Slotting
XEV0804	28	140	5300~5800	800~1100	12	4	Side Milling

XEV

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEV0804	28	140	5300~5800	600~900	12	7	Side Milling
XEV0804	28	140	5300~5800	650~850	8	8	Slotting
XEV0804	28	140	5300~5800	450~650	12	8	Slotting
XEV1004	34	315	9000~10000	7500~8000	20	0.5	Trochoidal Side Milling
XEV1004	34	280	8500~9500	4000~4500	15	1	Trochoidal Side Milling
XEV1004	34	140	4200~4700	Plunge:400 Slotting:800	10	10	Plunge & Slotting
XEV1004	34	200	6000~6500	800~1000	15	5	Side Milling
XEV1004	34	140	4200~4700	600~900	15	9	Side Milling
XEV1004	34	140	4200~4700	650~850	10	10	Slotting
XEV1004	34	160	4700~5200	450~650	15	10	Slotting
XEV1204	37	255	6500~7000	3200~3700	18	0.5	Trochoidal Side Milling
XEV1204	37	280	7200~7700	1400~1800	18	1	Trochoidal Side Milling
XEV1204	37	100	2400~2800	Plunge:160 Slotting:400	12	12	Plunge & Slotting
XEV1204	37	115	2800~3200	400~650	18	2~3	Side Milling
XEV1204	37	115	2800~3200	200~350	18	5~6	Side Milling
XEV1204	37	100	2400~2800	250~400	12	12	Slotting
XEV1604	50	275	5300~5800	2000~2500	24	0.5	Trochoidal Side Milling
XEV1604	50	240	4500~5000	700~1200	24	0.8~1	Trochoidal Side Milling
XEV1604	50	70	1300~1700	Plunge:130 Slotting:250	8	16	Plunge & Slotting
XEV1604	50	175	3300~3800	250~400	24	2~3	Side Milling
XEV1604	50	70	1300~1700	150~280	6~8	16	Slotting
XEV2004	55	250	3800~4300	1300~1800	30	0.5	Trochoidal Side Milling
XEV2004	55	220	3300~3800	500~900	30	0.8~1	Trochoidal Side Milling
XEV2004	55	70	900~1300	Plunge:100 Slotting:170	6~8	20	Plunge & Slotting
XEV2004	55	160	2300~2700	200~300	30	2~3	Side Milling
XEV2004	55	70	900~1300	130~210	6~8	20	Slotting

XEV

MILLING CONDITIONS

Work Material							Coolant Type
Chromium Molybdenum Alloy Steels SCM440 : 1.7225 : 4140 : 42CrMoA (HRC25~28)							Wet coolant
Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEV0304	20	115	11500~12500	4000~4500	6	0.25	Trochoidal Side Milling
XEV0304	20	115	11500~12500	1700~2200	6	0.5	Trochoidal Side Milling
XEV0304	20	115	11500~12500	Plunge:300 Slotting:650	3	3	Plunge & Slotting
XEV0304	20	115	11500~12500	700~900	6	1	Side Milling
XEV0304	20	115	11000~12000	500~700	3	3	Slotting
XEV0404	20	150	11500~12500	6500~7000	8	0.3	Trochoidal Side Milling
XEV0404	20	150	11500~12500	3500~4000	8	0.5	Trochoidal Side Milling
XEV0404	20	115	8700~9200	Plunge:350 Slotting:750	4	4	Plunge & Slotting
XEV0404	20	150	11500~12500	1600~2000	8	1	Side Milling
XEV0404	20	115	8700~9200	600~800	4	4	Slotting
XEV0504	22	185	11500~12500	7000~7500	10	0.3	Trochoidal Side Milling
XEV0504	22	185	11500~12500	4500~5000	10	0.5	Trochoidal Side Milling
XEV0504	22	140	8700~9200	Plunge:400 Slotting:800	5	5	Plunge & Slotting
XEV0504	22	185	11500~12500	2000~2500	10	1	Side Milling
XEV0504	22	115	8700~9200	600~800	5	5	Slotting
XEV0604	22	200	10000~11000	7500~8000	12	0.3	Trochoidal Side Milling
XEV0604	22	200	10000~11000	5000~5500	12	0.5	Trochoidal Side Milling
XEV0604	22	200	10000~11000	3000~3500	12	1	Trochoidal Side Milling
XEV0604	22	170	8700~9200	Plunge:450 Slotting:900	6	6	Plunge & Slotting
XEV0604	22	105	5000~6000	Plunge:250 Slotting:500	6	6	Plunge & Slotting
XEV0604	22	155	8000~8500	3000~3500	12	1	Side Milling
XEV0604	22	140	7300~7800	800~1000	12	3	Side Milling
XEV0604	22	170	8700~9200	600~800	6	6	Slotting
XEV0804	28	265	10000~11000	7500~8000	15	0.5	Trochoidal Side Milling
XEV0804	28	170	6500~7000	4000~4500	15	1	Trochoidal Side Milling
XEV0804	28	140	5300~5800	Plunge:400 Slotting:800	8	8	Plunge & Slotting
XEV0804	28	140	5300~5800	800~1100	12	4	Side Milling

XEV

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEV0804	28	140	5300~5800	600~900	12	7	Side Milling
XEV0804	28	140	5300~5800	650~850	8	8	Slotting
XEV0804	28	140	5300~5800	450~650	12	8	Slotting
XEV1004	34	315	9000~10000	7500~8000	20	0.5	Trochoidal Side Milling
XEV1004	34	280	8500~9500	4000~4500	15	1	Trochoidal Side Milling
XEV1004	34	140	4200~4700	Plunge:400 Slotting:800	10	10	Plunge & Slotting
XEV1004	34	200	6000~6500	800~1000	15	5	Side Milling
XEV1004	34	140	4200~4700	600~900	15	9	Side Milling
XEV1004	34	140	4200~4700	650~850	10	10	Slotting
XEV1004	34	160	4700~5200	450~650	15	10	Slotting
XEV1204	37	255	6500~7000	3200~3700	18	0.5	Trochoidal Side Milling
XEV1204	37	280	7200~7700	1400~1800	18	0.8~1	Trochoidal Side Milling
XEV1204	37	100	2400~2800	Plunge:160 Slotting:400	12	12	Plunge & Slotting
XEV1204	37	115	2800~3200	400~650	18	2~3	Side Milling
XEV1204	37	115	2800~3200	200~350	18	5~6	Side Milling
XEV1204	37	100	2400~2800	250~400	12	12	Slotting
XEV1604	50	275	5300~5800	2000~2500	24	0.5	Trochoidal Side Milling
XEV1604	50	240	4500~5000	700~1200	24	0.8~1	Trochoidal Side Milling
XEV1604	50	70	1300~1700	Plunge:130 Slotting:250	8	16	Plunge & Slotting
XEV1604	50	175	3300~3800	250~400	24	2~3	Side Milling
XEV1604	50	70	1300~1700	150~280	6~8	16	Slotting
XEV2004	55	250	3800~4300	1300~1800	30	0.5	Trochoidal Side Milling
XEV2004	55	220	3300~3800	500~900	30	0.8~1	Trochoidal Side Milling
XEV2004	55	70	900~1300	Plunge:100 Slotting:160	6~8	20	Plunge & Slotting
XEV2004	55	160	2300~2700	200~300	30	2~3	Side Milling
XEV2004	55	70	900~1300	130~210	6~8	20	Slotting

XEV

MILLING CONDITIONS

Work Material							Coolant Type
Alloy Tool Steels / Carbon Tool Steels							Wet coolant
P20/ P5/ SK3/ SKD61/ SKD11 : 1.2311/ 1.1545/ 1.2379/ 1.2344 : H13/D2 (HRc23~32)							
Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEV0304	20	115	11500~12500	3000~3500	6	0.25	Trochoidal Side Milling
XEV0304	20	115	11500~12500	1300~1700	6	0.5	Trochoidal Side Milling
XEV0304	20	100	10000~11000	Plunge:200 Slotting:400	3	3	Plunge & Slotting
XEV0304	20	115	11500~12500	600~800	6	1	Side Milling
XEV0304	20	100	10000~11000	300~420	3	3	Slotting
XEV0404	20	150	11500~12500	5000~5500	8	0.3	Trochoidal Side Milling
XEV0404	20	150	11500~12500	2500~3000	8	0.5	Trochoidal Side Milling
XEV0404	20	100	7800~8300	Plunge:220 Slotting:420	4	4	Plunge & Slotting
XEV0404	20	130	10000~11000	1100~1400	8	1	Side Milling
XEV0404	20	100	7800~8300	300~450	4	4	Slotting
XEV0504	22	150	9000~10000	5000~5500	10	0.3	Trochoidal Side Milling
XEV0504	22	150	9000~10000	3000~3500	10	0.5	Trochoidal Side Milling
XEV0504	22	100	6000~6500	Plunge:250 Slotting:450	5	5	Plunge & Slotting
XEV0504	22	130	8000~8500	1200~1600	10	1	Side Milling
XEV0504	22	100	6000~6500	300~500	5	5	Slotting
XEV0604	22	150	7700~8200	6000~6500	9~12	0.25	Trochoidal Side Milling
XEV0604	22	150	7700~8200	3200~3700	9~12	0.4	Trochoidal Side Milling
XEV0604	22	110	5500~6000	Plunge:300 Slotting:600	6	6	Plunge & Slotting
XEV0604	22	110	5500~6000	1400~1800	9~12	1	Side Milling
XEV0604	22	110	5500~6000	350~550	9~12	3	Side Milling
XEV0604	22	110	5500~6000	400~600	6	6	Slotting
XEV0804	28	230	8800~9300	5500~6000	12~15	0.2~0.4	Trochoidal Side Milling
XEV0804	28	170	6500~7000	2500~3000	12~15	0.6~0.7	Trochoidal Side Milling
XEV0804	28	140	5300~5800	Plunge:300 Slotting:600	8	8	Plunge & Slotting
XEV0804	28	140	5300~5800	500~700	12	4	Side Milling

XEV

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEV0804	28	140	5300~5800	350~550	12	7	Side Milling
XEV0804	28	140	5300~5800	400~600	8	8	Slotting
XEV0804	28	140	5300~5800	250~450	12	8	Slotting
XEV1004	34	280	8500~9500	6500~7000	15	0.5	Trochoidal Side Milling
XEV1004	34	280	8500~9500	3500~4000	15	1	Trochoidal Side Milling
XEV1004	34	140	4200~4700	Plunge:300 Slotting:600	10	10	Plunge & Slotting
XEV1004	34	140	4200~4700	500~700	15	5	Side Milling
XEV1004	34	140	4200~4700	350~550	15	9	Side Milling
XEV1004	34	140	4200~4700	500~700	10	10	Slotting
XEV1004	34	140	4200~4700	250~450	15	10	Slotting
XEV1204	37	255	6500~7000	3000~3500	18	0.5	Trochoidal Side Milling
XEV1204	37	255	6500~7000	1200~1600	18	0.8~1	Trochoidal Side Milling
XEV1204	37	100	2400~2800	Plunge:120 Slotting:250	12	12	Plunge & Slotting
XEV1204	37	115	2800~3200	350~550	18	2~3	Side Milling
XEV1204	37	115	2800~3200	180~300	18	5~6	Side Milling
XEV1204	37	100	2400~2800	180~300	12	12	Slotting
XEV1604	50	215	4000~4500	1500~2000	24	0.5	Trochoidal Side Milling
XEV1604	50	200	3800~4300	600~1000	24	0.8~1	Trochoidal Side Milling
XEV1604	50	70	1300~1700	Plunge:110 Slotting:220	8	16	Plunge & Slotting
XEV1604	50	150	2800~3200	200~350	24	2~3	Side Milling
XEV1604	50	70	1300~1700	120~220	6~8	16	Slotting
XEV2004	55	215	3200~3600	1000~1500	30	0.5	Trochoidal Side Milling
XEV2004	55	200	2900~3400	450~750	30	0.8~1	Trochoidal Side Milling
XEV2004	55	70	900~1300	Plunge:90 Slotting:150	6~8	20	Plunge & Slotting
XEV2004	55	150	2200~2600	170~270	30	2~3	Side Milling
XEV2004	55	70	900~1300	100~180	6~8	20	Slotting

XEV

MILLING CONDITIONS

Work Material							Coolant Type
Stainless Steels SUS304 : 1.4301 : AISI 304 (HRC28~32)							Wet coolant
Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEV0304	20	115	11500~12500	3700~4200	6	0.15~0.2	Trochoidal Side Milling
XEV0304	20	115	11500~12500	2200~2700	6	0.25~0.3	Trochoidal Side Milling
XEV0304	20	90	9500~10000	250~400	6	0.8~1	Side Milling
XEV0304	20	90	9500~10000	200~400	0.8~1	3	Slotting
XEV0404	20	150	11500~12500	3700~4200	8	0.15~0.2	Trochoidal Side Milling
XEV0404	20	150	11500~12500	2200~2700	8	0.25~0.3	Trochoidal Side Milling
XEV0404	20	90	7000~7500	300~500	8	0.8~1	Side Milling
XEV0404	20	90	7000~7500	250~400	1~1.5	4	Slotting
XEV0504	22	150	9000~10000	3700~4200	5~8	0.15~0.2	Trochoidal Side Milling
XEV0504	22	150	9000~10000	2200~2700	5~8	0.25~0.3	Trochoidal Side Milling
XEV0504	20	95	5800~6300	350~550	5~8	0.8~1	Side Milling
XEV0504	20	95	5800~6300	300~450	1.5~2	5	Slotting
XEV0604	22	200	10000~11000	4000~4500	6~9	0.15~0.2	Trochoidal Side Milling
XEV0604	22	200	10000~11000	2500~3000	6~9	0.25~0.3	Trochoidal Side Milling
XEV0604	22	95	4800~5300	250~450	6~9	1.5~2	Side Milling
XEV0604	22	95	4800~5300	200~320	6~9	3~4	Side Milling
XEV0604	22	95	4800~5300	300~450	2~3	6	Slotting
XEV0804	28	250	10000~10500	5000~5500	8~12	0.2~0.3	Trochoidal Side Milling
XEV0804	28	230	8800~9300	3000~3500	8~12	0.4~0.5	Trochoidal Side Milling
XEV0804	28	100	3800~4300	250~450	8~12	3~4	Side Milling
XEV0804	28	100	3800~4300	200~320	8~12	5~7	Side Milling
XEV0804	28	105	4000~4500	200~350	2~3	8	Slotting
XEV1004	34	270	8000~9000	4500~5000	15	0.3~0.4	Trochoidal Side Milling
XEV1004	34	270	8000~9000	1500~2000	15	0.6~0.8	Trochoidal Side Milling
XEV1004	34	95	2800~3300	300~500	10~15	3~5	Side Milling
XEV1004	34	95	2800~3300	180~300	10~15	7~9	Side Milling

XEV

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XEV1004	34	125	3800~4300	200~350	3~4	10	Slotting
XEV1204	37	255	6500~7000	2500~3000	18	0.5	Trochoidal Side Milling
XEV1204	37	235	6000~6500	1000~1400	18	0.8~1	Trochoidal Side Milling
XEV1204	37	85	2000~2500	250~450	18	2~3	Side Milling
XEV1204	37	85	2000~2500	150~250	18	5~6	Side Milling
XEV1204	37	85	2000~2500	130~200	3~4	12	Slotting
XEV1604	50	215	4000~4500	1400~1800	24	0.5	Trochoidal Side Milling
XEV1604	50	200	3800~4200	600~900	24	0.8~1	Trochoidal Side Milling
XEV1604	50	150	2800~3200	200~300	24	2~3	Side Milling
XEV1604	50	70	1300~1700	150~280	3~4	16	Slotting
XEV2004	55	215	3200~3600	900~1400	30	0.5	Trochoidal Side Milling
XEV2004	55	200	2900~3400	400~600	30	0.8~1	Trochoidal Side Milling
XEV2004	55	150	2200~2600	170~250	30	2~3	Side Milling
XEV2004	55	70	900~1300	150~250	3~4	20	Slotting



XEV is not Suitable for Stainless Steel Plunge Milling

XPZ

MILLING CONDITIONS

Work Material	Coolant Type
Carbon steels/Cast Iron S50C / Fc250 / SS440 : 1.1210 / 0.6025 / 1.0036 : 1050 / N0.35 / A570 Gr.45 (~HRc22)	Wet coolant

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XPZ0304	18	150	15000~16000	4700~5200	5	0.2	Trochoidal Side Milling
XPZ0304	18	150	15000~16000	3500~4000	5	0.3	Trochoidal Side Milling
XPZ0304	18	150	15000~16000	1700~2200	5	0.5	Trochoidal Side Milling
XPZ0304	18	150	15000~16000	800~1100	5	1	Trochoidal Side Milling
XPZ0304	18	150	15000~16000	800~1100	5	1	Side Milling
XPZ0304	18	150	15000~16000	350~550	5	1.5	Side Milling
XPZ0304	18	120	12000~13000	200~300	1.5~3	3	Slotting
XPZ0404	18	195	15000~16000	5000~5500	6	0.2	Trochoidal Side Milling
XPZ0404	18	195	15000~16000	3700~4200	6	0.3	Trochoidal Side Milling
XPZ0404	18	195	15000~16000	1900~2400	6	0.5	Trochoidal Side Milling
XPZ0404	18	195	15000~16000	900~1200	6	1	Trochoidal Side Milling
XPZ0404	18	195	15000~16000	900~1200	6	1	Side Milling
XPZ0404	18	195	15000~16000	450~600	6	2	Side Milling
XPZ0404	18	145	11000~12000	250~350	2~4	4	Slotting
XPZ0504	20	200	12000~13000	6000~6500	8	0.2	Trochoidal Side Milling
XPZ0504	20	200	12000~13000	4000~4500	8	0.3	Trochoidal Side Milling
XPZ0504	20	200	12000~13000	2200~2700	8	0.5	Trochoidal Side Milling
XPZ0504	20	200	12000~13000	1100~1400	8	1	Trochoidal Side Milling
XPZ0504	20	200	12000~13000	600~800	8	2	Trochoidal Side Milling
XPZ0504	20	200	12000~13000	1100~1400	8	1	Side Milling
XPZ0504	20	200	12000~13000	600~800	8	2	Side Milling
XPZ0504	20	180	11000~12000	300~400	3~5	5	Slotting
XPZ0604	20	220	11000~12000	7000~7500	9	0.2	Trochoidal Side Milling
XPZ0604	20	220	11000~12000	5500~6000	9	0.5	Trochoidal Side Milling
XPZ0604	20	220	11000~12000	3000~3500	9	1	Trochoidal Side Milling
XPZ0604	20	220	11000~12000	1400~1900	9	2	Trochoidal Side Milling

XPZ

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XPZ0604	20	200	10000~11000	1200~1700	9	3	Trochoidal Side Milling
XPZ0604	20	200	10000~11000	1400~1900	6	2	Side Milling
XPZ0604	20	200	10000~11000	450~650	6	5	Side Milling
XPZ0604	20	200	10000~11000	400~600	4~6	6	Slotting
XPZ0804	25	220	8500~9000	7000~7500	12	0.2	Trochoidal Side Milling
XPZ0804	25	220	8500~9000	5500~6000	12	0.5	Trochoidal Side Milling
XPZ0804	25	220	8500~9000	3500~4000	12	1	Trochoidal Side Milling
XPZ0804	25	210	8000~8500	2500~3000	12	2	Trochoidal Side Milling
XPZ0804	25	200	7800~8300	1300~1800	12	3	Trochoidal Side Milling
XPZ0804	25	195	7500~8000	900~1400	12	4	Trochoidal Side Milling
XPZ0804	25	195	7500~8000	900~1400	12	4	Side Milling
XPZ0804	25	195	7500~8000	450~700	12	7	Side Milling
XPZ0804	25	195	7500~8000	450~700	8	8	Slotting
XPZ1004	30	315	9500~10500	6000~6500	15	0.5	Trochoidal Side Milling
XPZ1004	30	315	9500~10500	3200~3700	15	1	Trochoidal Side Milling
XPZ1004	30	200	6000~6500	1800~2300	15	2	Trochoidal Side Milling
XPZ1004	30	200	6000~6500	1100~1600	15	3	Trochoidal Side Milling
XPZ1004	30	200	6000~6500	900~1200	15	4	Trochoidal Side Milling
XPZ1004	30	200	6000~6500	900~1200	15	4	Side Milling
XPZ1004	30	200	6000~6500	600~800	15	9	Side Milling
XPZ1004	30	135	4000~4500	600~800	10	10	Slotting
XPZ1204	34	330	10000~11000	6000~6500	18	0.5	Trochoidal Side Milling
XPZ1204	34	310	8000~8500	3200~3700	18	1	Trochoidal Side Milling
XPZ1204	34	220	5500~6000	1300~1800	18	2	Trochoidal Side Milling
XPZ1204	34	235	5500~6000	800~1300	18	3	Trochoidal Side Milling
XPZ1204	34	170	4200~4700	650~1100	18	4	Trochoidal Side Milling

XPZ

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XPZ1204	34	170	4200~4700	650~1100	18	4	Side Milling
XPZ1204	34	145	3600~4100	350~550	18	9	Side Milling
XPZ1204	34	145	3600~4100	400~600	12	12	Slotting
XPZ1604	50	280	5300~5800	3500~4000	24	0.5	Trochoidal Side Milling
XPZ1604	50	280	5300~5800	1500~2000	24	1	Trochoidal Side Milling
XPZ1604	50	225	4300~4800	700~1000	24	2	Trochoidal Side Milling
XPZ1604	50	225	4300~4800	500~750	24	3	Trochoidal Side Milling
XPZ1604	50	225	4300~4800	500~750	24	3	Side Milling
XPZ1604	50	100	2000~2400	150~250	6~8	16	Slotting
XPZ2004	50	300	4500~5000	2000~2500	30	0.5	Trochoidal Side Milling
XPZ2004	50	250	3700~4200	1000~1400	30	1	Trochoidal Side Milling
XPZ2004	50	230	3300~3800	500~700	30	2	Trochoidal Side Milling
XPZ2004	50	200	2800~3300	300~500	30	3	Side Milling
XPZ2004	50	100	1400~1800	150~230	4~6	20	Slotting

XPZ

MILLING CONDITIONS

Work Material	Coolant Type
Chromium Molybdenum Alloy Steels SCM440 : 1.7225 : 4140 : 42CrMoA (HRC25~28)	Wet coolant

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XPZ0304	18	150	15000~16000	4500~5000	5	0.2	Trochoidal Side Milling
XPZ0304	18	150	15000~16000	3300~3800	5	0.3	Trochoidal Side Milling
XPZ0304	18	150	15000~16000	1500~2000	5	0.5	Trochoidal Side Milling
XPZ0304	18	150	15000~16000	800~1100	5	1	Trochoidal Side Milling
XPZ0304	18	150	15000~16000	900~1200	5	1	Side Milling
XPZ0304	18	150	15000~16000	350~500	5	1.5	Side Milling
XPZ0304	18	120	12000~13000	200~300	1.5~3	3	Slotting
XPZ0404	18	195	15000~16000	4700~5200	6	0.2	Trochoidal Side Milling
XPZ0404	18	195	15000~16000	3500~4000	6	0.3	Trochoidal Side Milling
XPZ0404	18	195	15000~16000	1700~2200	6	0.5	Trochoidal Side Milling
XPZ0404	18	195	15000~16000	900~1100	6	1	Trochoidal Side Milling
XPZ0404	18	195	15000~16000	900~1100	6	1	Side Milling
XPZ0404	18	195	15000~16000	400~550	6	2	Side Milling
XPZ0404	18	145	11000~12000	250~350	2~4	4	Slotting
XPZ0504	20	200	12000~13000	5500~6000	8	0.2	Trochoidal Side Milling
XPZ0504	20	200	12000~13000	3500~4000	8	0.3	Trochoidal Side Milling
XPZ0504	20	200	12000~13000	2000~2500	8	0.5	Trochoidal Side Milling
XPZ0504	20	200	12000~13000	1000~1300	8	1	Trochoidal Side Milling
XPZ0504	20	200	12000~13000	500~700	8	2	Trochoidal Side Milling
XPZ0504	20	200	12000~13000	1000~1300	8	1	Side Milling
XPZ0504	20	200	12000~13000	500~700	8	2	Side Milling
XPZ0504	20	180	11000~12000	250~350	3~5	5	Slotting
XPZ0604	20	220	11000~12000	6700~7200	9	0.2	Trochoidal Side Milling
XPZ0604	20	220	11000~12000	5000~5500	6	0.5	Trochoidal Side Milling
XPZ0604	20	220	11000~12000	2800~3300	6	1	Trochoidal Side Milling
XPZ0604	20	220	11000~12000	1300~1800	6	2	Trochoidal Side Milling

XPZ

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XPZ0604	20	220	11000~12000	1200~1600	6	3	Trochoidal Side Milling
XPZ0604	20	220	11000~12000	1300~1800	6	2	Side Milling
XPZ0604	20	220	11000~12000	450~650	6	5	Side Milling
XPZ0604	20	220	11000~12000	350~550	6	4~6	Slotting
XPZ0804	25	220	8500~9000	6700~7200	12	0.2	Trochoidal Side Milling
XPZ0804	25	220	8500~9000	5000~5500	12	0.5	Trochoidal Side Milling
XPZ0804	25	220	8500~9000	3000~3500	12	1	Trochoidal Side Milling
XPZ0804	25	220	8500~9000	2000~2500	12	2	Trochoidal Side Milling
XPZ0804	25	220	8500~9000	1100~1600	12	3	Trochoidal Side Milling
XPZ0804	25	195	7500~8000	900~1200	12	4	Trochoidal Side Milling
XPZ0804	25	195	7500~8000	900~1200	12	4	Side Milling
XPZ0804	25	195	7500~8000	450~650	12	7	Side Milling
XPZ0804	25	195	7500~8000	450~650	8	8	Slotting
XPZ1004	30	300	9000~10000	5500~6000	15	0.5	Trochoidal Side Milling
XPZ1004	30	300	9000~10000	3000~3500	15	1	Trochoidal Side Milling
XPZ1004	30	200	6000~6500	1700~2200	15	2	Trochoidal Side Milling
XPZ1004	30	200	6000~6500	1100~1600	15	3	Trochoidal Side Milling
XPZ1004	30	200	6000~6500	900~1200	15	4	Trochoidal Side Milling
XPZ1004	30	200	6000~6500	900~1200	15	4	Side Milling
XPZ1004	30	200	6000~6500	500~700	15	9	Side Milling
XPZ1004	30	135	4000~4500	600~800	8~10	10	Slotting
XPZ1204	34	330	10000~11000	6000~6500	18	0.5	Trochoidal Side Milling
XPZ1204	34	310	8000~8500	3200~3700	18	1	Trochoidal Side Milling
XPZ1204	34	220	5500~6000	1300~1800	18	2	Trochoidal Side Milling
XPZ1204	34	235	5500~6000	800~1300	18	3	Trochoidal Side Milling
XPZ1204	34	170	4200~4700	650~1100	18	4	Trochoidal Side Milling

XPZ

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XPZ1204	34	170	4200~4700	650~1100	18	4	Side Milling
XPZ1204	34	145	3600~4100	350~550	18	9	Side Milling
XPZ1204	34	145	3600~4100	400~600	12	12	Slotting
XPZ1604	50	280	5300~5800	3500~4000	24	0.5	Trochoidal Side Milling
XPZ1604	50	280	5300~5800	1500~2000	24	1	Trochoidal Side Milling
XPZ1604	50	225	4300~4800	700~1000	24	2	Trochoidal Side Milling
XPZ1604	50	225	4300~4800	500~750	24	3	Trochoidal Side Milling
XPZ1604	50	225	4300~4800	500~750	24	3	Side Milling
XPZ1604	50	100	2000~2400	150~250	6~8	16	Slotting
XPZ2004	50	300	4500~5000	2000~2500	30	0.5	Trochoidal Side Milling
XPZ2004	50	250	3700~4200	1000~1400	30	1	Trochoidal Side Milling
XPZ2004	50	230	3300~3800	500~700	30	2	Trochoidal Side Milling
XPZ2004	50	200	2800~3300	300~500	30	3	Side Milling
XPZ2004	50	100	1400~1800	150~230	4~6	20	Slotting

XPZ

MILLING CONDITIONS

Work Material	Coolant Type
Alloy Tool Steels / Carbon Tool Steels P20/ P5/ SK3/ SKD61/ SKD11 : 1.2311/ 1.1545/ 1.2379/ 1.2344 : H13/D2 (HRc23~32)	Wet coolant

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XPZ0304	18	135	14000~15000	4200~4700	5	0.2	Trochoidal Side Milling
XPZ0304	18	135	14000~15000	2800~3300	5	0.3	Trochoidal Side Milling
XPZ0304	18	135	14000~15000	1500~1800	5	0.5	Trochoidal Side Milling
XPZ0304	18	135	14000~15000	700~900	5	1	Trochoidal Side Milling
XPZ0304	18	135	14000~15000	700~900	5	1	Side Milling
XPZ0304	18	135	14000~15000	300~500	5	1.5	Side Milling
XPZ0304	18	115	11500~12500	180~300	1.5~3	3	Slotting
XPZ0404	18	170	13000~14000	4500~5000	6	0.2	Trochoidal Side Milling
XPZ0404	18	170	13000~14000	3000~3500	6	0.3	Trochoidal Side Milling
XPZ0404	18	170	13000~14000	1600~2100	6	0.5	Trochoidal Side Milling
XPZ0404	18	170	13000~14000	800~1000	6	1	Trochoidal Side Milling
XPZ0404	18	170	13000~14000	800~1000	6	1	Side Milling
XPZ0404	18	170	13000~14000	350~550	6	2	Side Milling
XPZ0404	18	145	11000~12000	200~300	2~3	4	Slotting
XPZ0504	20	190	11500~12500	5000~5500	8	0.2	Trochoidal Side Milling
XPZ0504	20	190	11500~12500	3000~3500	8	0.3	Trochoidal Side Milling
XPZ0504	20	190	11500~12500	1800~2300	8	0.5	Trochoidal Side Milling
XPZ0504	20	190	11500~12500	900~1200	8	1	Trochoidal Side Milling
XPZ0504	20	190	11500~12500	500~650	8	2	Trochoidal Side Milling
XPZ0504	20	190	11500~12500	900~1200	8	1	Side Milling
XPZ0504	20	190	11500~12500	500~650	8	2	Side Milling
XPZ0504	20	170	10000~11000	200~300	3~5	5	Slotting
XPZ0604	20	220	11000~12000	6500~7000	9	0.2	Trochoidal Side Milling
XPZ0604	20	210	10500~11500	3700~4200	6	0.5	Trochoidal Side Milling
XPZ0604	20	210	10500~11500	1600~2100	6	1	Trochoidal Side Milling
XPZ0604	20	210	10500~11500	1000~1300	6	2	Trochoidal Side Milling

XPZ

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XPZ0604	20	210	10500~11500	800~1200	6	3	Trochoidal Side Milling
XPZ0604	20	210	10500~11500	1000~1300	6	2	Side Milling
XPZ0604	20	160	8000~9000	300~450	6	5	Side Milling
XPZ0604	20	160	8000~9000	250~400	4~6	6	Slotting
XPZ0804	25	220	8500~9000	6000~6500	12	0.2	Trochoidal Side Milling
XPZ0804	25	195	7500~8000	3700~4200	12	0.5	Trochoidal Side Milling
XPZ0804	25	165	6300~6800	2000~2500	12	1	Trochoidal Side Milling
XPZ0804	25	165	6300~6800	1000~1500	12	2	Trochoidal Side Milling
XPZ0804	25	145	5500~6000	700~1000	12	3	Trochoidal Side Milling
XPZ0804	25	145	5500~6000	600~800	12	4	Trochoidal Side Milling
XPZ0804	25	145	5500~6000	600~800	12	4	Side Milling
XPZ0804	25	145	5500~6000	450~650	12	7	Side Milling
XPZ0804	25	135	5000~5500	400~550	6~8	8	Slotting
XPZ1004	30	190	5800~6300	4200~4700	15	0.5	Trochoidal Side Milling
XPZ1004	30	175	5300~5800	2700~3200	15	1	Trochoidal Side Milling
XPZ1004	30	175	5300~5800	1700~2200	15	2	Trochoidal Side Milling
XPZ1004	30	175	5300~5800	1100~1500	15	3	Trochoidal Side Milling
XPZ1004	30	175	5300~5800	800~1100	15	4	Trochoidal Side Milling
XPZ1004	30	175	5300~5800	800~1100	15	4	Side Milling
XPZ1004	30	175	5300~5800	450~650	15	9	Side Milling
XPZ1004	30	135	4000~4500	400~600	8~10	10	Slotting
XPZ1204	34	300	7700~8200	4500~5000	18	0.5	Trochoidal Side Milling
XPZ1204	34	300	7700~8200	2500~3000	18	1	Trochoidal Side Milling
XPZ1204	34	220	5700~6200	1200~1600	18	2	Trochoidal Side Milling
XPZ1204	34	220	5700~6200	700~1000	18	3	Trochoidal Side Milling
XPZ1204	34	160	4000~4500	500~800	18	4	Trochoidal Side Milling

XPZ

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XPZ1204	34	160	4000~4500	600~900	18	4	Side Milling
XPZ1204	34	120	3000~3500	200~350	12	9	Side Milling
XPZ1204	34	120	3000~3500	200~350	10~12	12	Slotting
XPZ1604	50	280	5300~5800	2500~3000	24	0.5	Trochoidal Side Milling
XPZ1604	50	280	5300~5800	1000~1500	24	1	Trochoidal Side Milling
XPZ1604	50	225	4300~4800	600~900	24	2	Trochoidal Side Milling
XPZ1604	50	225	4300~4800	350~600	24	3	Trochoidal Side Milling
XPZ1604	50	230	4000~4500	350~550	24	3	Side Milling
XPZ1604	50	95	1800~2200	150~230	6~8	16	Slotting
XPZ2004	50	280	4300~4800	1700~2200	30	0.5	Trochoidal Side Milling
XPZ2004	50	230	3300~3800	800~1200	30	1	Trochoidal Side Milling
XPZ2004	50	200	2800~3300	400~600	30	2	Trochoidal Side Milling
XPZ2004	50	150	2200~2600	200~400	30	3	Side Milling
XPZ2004	50	90	1300~1700	130~200	4~6	20	Slotting

XPZ

MILLING CONDITIONS

Work Material	Coolant Type
Stainless Steels SUS304 : 1.4301 : AISI 304 (HRC28~32)	Wet coolant

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XPZ0304	18	135	14000~15000	4000~4500	5	0.2	Trochoidal Side Milling
XPZ0304	18	135	14000~15000	2500~3000	5	0.3	Trochoidal Side Milling
XPZ0304	18	135	14000~15000	1400~1700	5	0.5	Trochoidal Side Milling
XPZ0304	18	115	11500~12500	600~900	5	0.8~1	Trochoidal Side Milling
XPZ0304	18	115	11500~12500	300~450	5	1.3~1.5	Side Milling
XPZ0304	18	110	11000~12000	600~800	0.2~0.3	3	Slotting
XPZ0304	18	110	11000~12000	150~250	1.2~1.5	3	Slotting
XPZ0404	18	170	13000~14000	4200~4700	6	0.2	Trochoidal Side Milling
XPZ0404	18	170	13000~14000	2700~3200	6	0.3	Trochoidal Side Milling
XPZ0404	18	170	13000~14000	1500~1800	6	0.5	Trochoidal Side Milling
XPZ0404	18	170	13000~14000	700~900	6	0.7~1	Trochoidal Side Milling
XPZ0404	18	170	13000~14000	700~900	6	0.7~1	Side Milling
XPZ0404	18	170	13000~14000	300~500	6	1.2~1.5	Side Milling
XPZ0404	18	110	8000~9000	200~250	1.5~2	4	Slotting
XPZ0504	20	170	10000~11000	4500~5000	8	0.2	Trochoidal Side Milling
XPZ0504	20	170	10000~11000	3000~3500	8	0.3	Trochoidal Side Milling
XPZ0504	20	170	10000~11000	1800~2300	8	0.5	Trochoidal Side Milling
XPZ0504	20	170	10000~11000	900~1200	8	0.7~1	Trochoidal Side Milling
XPZ0504	20	170	10000~11000	500~650	8	1.2~1.5	Trochoidal Side Milling
XPZ0504	20	170	10000~11000	900~1200	8	0.7~1	Side Milling
XPZ0504	20	170	10000~11000	500~650	8	1.2~1.5	Side Milling
XPZ0504	20	130	8000~8500	200~300	2~3	5	Slotting
XPZ0604	20	210	10500~11500	6000~6500	9	0.2	Trochoidal Side Milling
XPZ0604	20	210	10500~11500	3500~4000	9	0.5	Trochoidal Side Milling
XPZ0604	20	150	7700~8200	1500~2000	9	1	Trochoidal Side Milling
XPZ0604	20	150	7700~8200	800~1100	9	2	Trochoidal Side Milling

XPZ

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XPZ0604	20	150	7700~8200	500~700	9	3	Trochoidal Side Milling
XPZ0604	20	150	7700~8200	800~1100	9	2	Side Milling
XPZ0604	20	150	7700~8200	500~700	9	3	Side Milling
XPZ0604	20	130	6800~7300	200~350	4~6	6	Slotting
XPZ0804	25	210	8000~8500	5500~6000	12	0.2	Trochoidal Side Milling
XPZ0804	25	210	7500~8000	4000~4500	12	0.5	Trochoidal Side Milling
XPZ0804	25	135	5000~5500	1500~2000	12	1	Trochoidal Side Milling
XPZ0804	25	115	4200~4700	700~1100	12	2	Trochoidal Side Milling
XPZ0804	25	115	4200~4700	600~900	12	3	Trochoidal Side Milling
XPZ0804	25	115	4200~4700	500~700	12	4	Trochoidal Side Milling
XPZ0804	25	115	4200~4700	500~700	12	4	Side Milling
XPZ0804	25	130	4800~5300	250~400	3~4	8	Slotting
XPZ0804	25	130	4800~5300	200~300	6~8	8	Slotting
XPZ1004	30	200	6000~6500	5000~5500	15	0.5	Trochoidal Side Milling
XPZ1004	30	130	3800~4300	2100~2600	15	1	Trochoidal Side Milling
XPZ1004	30	130	3800~4300	1100~1500	15	2	Trochoidal Side Milling
XPZ1004	30	130	3800~4300	700~1100	15	3	Trochoidal Side Milling
XPZ1004	30	130	3800~4300	600~900	15	4	Trochoidal Side Milling
XPZ1004	30	130	3800~4300	400~600	15	9	Side Milling
XPZ1004	30	130	3800~4300	250~450	4~5	10	Slotting
XPZ1004	30	130	3800~4300	200~400	8~10	10	Slotting
XPZ1204	34	245	6200~6700	4500~5000	18	0.5	Trochoidal Side Milling
XPZ1204	34	160	4000~4500	1900~2400	18	1	Trochoidal Side Milling
XPZ1204	34	150	3800~4300	900~1200	18	2	Trochoidal Side Milling
XPZ1204	34	150	3800~4300	600~800	18	3	Side Milling
XPZ1204	34	140	3500~4000	250~450	18	4~5	Side Milling

XPZ

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XPZ1204	34	115	2800~3200	180~280	5~6	12	Slotting
XPZ1204	34	115	2800~3200	150~230	10~12	12	Slotting
XPZ1604	50	200	3800~4300	2000~2500	24	0.5	Trochoidal Side Milling
XPZ1604	50	200	3800~4300	800~1300	24	1	Trochoidal Side Milling
XPZ1604	50	200	3800~4300	500~800	24	2	Side Milling
XPZ1604	50	190	3500~4000	400~600	24	3	Side Milling
XPZ1604	50	95	1700~2100	150~200	6~8	16	Slotting
XPZ2004	50	220	3300~3800	1400~1800	24	0.5	Trochoidal Side Milling
XPZ2004	50	180	2500~3000	700~900	24	1	Trochoidal Side Milling
XPZ2004	50	150	2200~2600	300~500	24	2	Side Milling
XPZ2004	50	100	1500~1800	120~180	4~6	16	Slotting

XPZ

MILLING CONDITIONS

Work Material							Coolant Type
Prehardened Steels NAK80 : 1.2083 : AISI420 : M310 (HRC36~42)							Wet coolant
Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XPZ0304	18	135	14000~15000	3500~4000	5	0.2	Trochoidal Side Milling
XPZ0304	18	135	14000~15000	2000~2500	5	0.3	Trochoidal Side Milling
XPZ0304	18	135	14000~15000	1200~1500	5	0.5	Trochoidal Side Milling
XPZ0304	18	115	11500~12500	300~450	5	1~1.5	Side Milling
XPZ0304	18	115	11500~12500	180~280	1.2~1.5	3	Slotting
XPZ0404	18	170	13000~14000	3800~4300	6	0.2	Trochoidal Side Milling
XPZ0404	18	170	13000~14000	2500~3000	6	0.3	Trochoidal Side Milling
XPZ0404	18	170	13000~14000	1300~1600	6	0.5	Trochoidal Side Milling
XPZ0404	18	145	11000~12000	300~500	6	1~1.5	Side Milling
XPZ0404	18	145	11000~12000	200~300	1.5~2	4	Slotting
XPZ0504	20	190	11500~12500	4000~4500	8	0.2	Trochoidal Side Milling
XPZ0504	20	190	11500~12500	2500~3000	8	0.3	Trochoidal Side Milling
XPZ0504	20	190	11500~12500	1500~1800	8	0.5	Trochoidal Side Milling
XPZ0504	20	150	9000~10000	750~1000	8	1	Trochoidal Side Milling
XPZ0504	20	150	9000~10000	750~1000	8	1	Side Milling
XPZ0504	20	150	9000~10000	200~300	2~3	5	Slotting
XPZ0604	20	200	10000~11000	4500~5000	9	0.2	Trochoidal Side Milling
XPZ0604	20	190	9500~10500	2700~3200	6	0.5	Trochoidal Side Milling
XPZ0604	20	160	8000~9000	1200~1500	6	1	Trochoidal Side Milling
XPZ0604	20	140	7200~7700	800~1000	6	1.5	Trochoidal Side Milling
XPZ0604	20	140	7200~7700	700~900	6	1.5~2	Side Milling
XPZ0604	20	140	7200~7700	250~400	3~4	6	Slotting
XPZ0804	25	195	7500~8000	5000~5500	12	0.2	Trochoidal Side Milling
XPZ0804	25	170	6500~7000	2500~3000	12	0.5	Trochoidal Side Milling
XPZ0804	25	145	5500~6000	1200~1500	12	1	Trochoidal Side Milling
XPZ0804	25	145	5500~6000	800~1000	12	2	Trochoidal Side Milling
XPZ0804	25	145	5500~6000	600~800	12	3	Side Milling

XPZ

MILLING CONDITIONS

Type No.	Extension Length (mm)	Cutting Speed (m/min)	Speed (min ⁻¹)	Feed (mm/min)	(Aa) Cut of Depth	(Ap) Cut of Width	Milling Type
XPZ0804	25	145	5500~6000	450~600	12	4	Side Milling
XPZ0804	25	135	5000~5500	300~500	4~5	8	Slotting
XPZ1004	30	175	5300~5800	4000~4500	15	0.3	Trochoidal Side Milling
XPZ1004	30	150	4500~5000	2500~3000	15	0.5	Trochoidal Side Milling
XPZ1004	30	150	4500~5000	1300~1600	15	1	Trochoidal Side Milling
XPZ1004	30	150	4500~5000	700~850	15	2	Trochoidal Side Milling
XPZ1004	30	135	4000~4500	600~750	15	3	Side Milling
XPZ1004	30	120	3500~4000	500~600	15	4	Side Milling
XPZ1004	30	120	3500~4000	300~500	5~6	10	Slotting
XPZ1204	34	275	7000~7500	4500~5000	18	0.3	Trochoidal Side Milling
XPZ1204	34	220	5700~6200	2500~3000	18	0.5	Trochoidal Side Milling
XPZ1204	34	220	5700~6200	1200~1600	18	1	Trochoidal Side Milling
XPZ1204	34	220	5700~6200	700~1000	18	2	Trochoidal Side Milling
XPZ1204	34	160	4000~4500	600~900	18	3	Side Milling
XPZ1204	34	120	3000~3500	200~350	12	6	Side Milling
XPZ1204	34	120	3000~3500	200~350	6~7	12	Slotting
XPZ1604	50	265	5000~5500	2500~3000	24	0.3	Trochoidal Side Milling
XPZ1604	50	225	4300~4800	1000~1500	24	0.5	Trochoidal Side Milling
XPZ1604	50	225	4300~4800	600~900	24	1	Trochoidal Side Milling
XPZ1604	50	225	4300~4800	350~600	24	2	Trochoidal Side Milling
XPZ1604	50	230	4000~4500	300~500	24	3	Side Milling
XPZ1604	50	95	1800~2200	150~230	6~8	16	Slotting
XPZ2004	50	230	3300~3800	1400~1800	30	0.5	Trochoidal Side Milling
XPZ2004	50	230	3300~3800	800~1000	30	1	Trochoidal Side Milling
XPZ2004	50	150	2200~2600	400~600	30	2	Trochoidal Side Milling
XPZ2004	50	150	2200~2600	200~400	30	3	Side Milling
XPZ2004	50	90	1300~1700	120~180	4~6	20	Slotting



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