Side Milling

Work Material		GR.1 Carbon Steel		GR.2 Low-alloyed Steel (~24HRC)		GR.3 Hi-alloyed Steel (~30HRC)		GR.4 Hardened Steel (30~38HRC)		GR.5 Hardened Steel (38~48HRC)		GR.6 Hardened Steel (48~56HRC)		GR.7 Hardened Steel (56~68HRC)	
Vc m/min		Ø1.0~2.5 63~70 Ø3.0~20 108~122		Ø1.0~2.5 63~70 Ø3.0~20 108~122		Ø1.0~2.5 63~70 Ø3.0~20 108~122		Ø1.0~2.0 63~67 Ø3.0~20 69~72		Ø1.0~2.0 63~67 Ø3.0~20 69~72		Ø1.0~20 30~45		Ø1.0~20 30~40	
Code No.	Dc	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)	RPM (min-1)	Feed (mm/min)
E164TX-1	1	20,000	240	20,000	240	20,000	240	20,000	185	20,000	185	10,000	60	9,500	40
E164TX-1.5	1.5	15,000	245	15,000	245	15,000	245	15,000	185	15,000	185	7,100	70	6,300	50
E164TX-2	2	11,000	480	11,000	480	11,000	480	10,000	300	10,000	300	6,400	150	4,800	95
E164TX-2.5	2.5	8,800	600	8,800	600	8,800	600	8,500	350	8,500	350	5,600	170	4,500	100
E164TX/E165TX-3	3	11,500	500	11,500	500	11,500	500	7,300	450	7,300	450	4,800	220	4,000	150
E164TX-3.5	3.5	10,000	510	10,000	510	10,000	510	6,400	475	6,400	475	4,200	235	3,600	185
E164TX/E165TX-4	4	8,600	515	8,600	515	8,600	515	5,600	500	5,600	500	3,600	250	3,200	220
E164TX-4.5	4.5	7,700	515	7,700	515	7,700	515	5,100	525	5,100	525	3,250	265	2,900	220
E164TX/E165TX-5	5	6,800	515	6,800	515	6,800	515	4,500	550	4,500	550	2,900	280	2,600	220
E164TX-5.5	5.5	6,300	515	6,300	515	6,300	515	4,100	575	4,100	575	2,650	290	2,350	220
E164TX/E165TX-6	6	5,800	520	5,800	520	5,800	520	3,700	600	3,700	600	2,400	300	2,100	220
E164TX-7	7	5,050	520	5,050	520	5,050	520	3,250	610	3,250	610	2,100	305	1,850	210
E164TX/E165TX-8	8	4,300	520	4,300	520	4,300	520	2,800	620	2,800	620	1,800	310	1,600	210
E164TX-9	9	3,850	530	3,850	530	3,850	530	2,550	620	2,550	620	1,600	305	1,450	195
E164TX/E165TX-10	10	3,400	540	3,400	540	3,400	540	2,300	620	2,300	620	1,400	300	1,300	180
E164TX-11	11	3,150	545	3,150	545	3,150	545	2,100	620	2,100	620	1,300	300	1,200	165
E164TX/E165TX-12	12	2,900	545	2,900	545	2,900	545	1,900	620	1,900	620	1,200	300	1,100	150
E164TX-14	14	2,650	575	2,650	575	2,650	575	1,650	550	1,650	550	1,050	265	950	125
E164TX/E165TX-16	16	2,400	610	2,400	610	2,400	610	1,400	480	1,400	480	900	230	800	120
E164TX-18	18	2,250	620	2,250	620	2,250	620	1,250	450	1,250	450	810	220	720	105
E164TX/E165TX-20	20	1,950	630	1,950	630	1,950	630	1,100	420	1,100	420	720	210	640	90
(mm)		ap:1.5D		ap:1.5D		ap:1.5D		ap:1.5D		ap:1.5D		ap:1.5D		ap:1.5D	
		ae:<3 0.02D ≥3 0.05D		ae:<3 0.02D ≥3 0.05D		ae:<3 0.02D ≥3 0.05D		ae:<3 0.02D ≥3 0.05D		ae:<3 0.02D ≥3 0.05D		ae:0.02D		ae:0.02D	

※ Notice: E165TX is Long Length series End Mills. Please adjust the parameter according

1. Please work with good rigidity / high precision facilities and collet chuck.
2. Please choose proper cutting fluid.
3. The cutting data is reference value only. Please adjust it according to your real working conditions.
4. If RPM is lower the reference value, the Feed rate (fz) and RPM should be reduced by the same proportion.
5. If vibration occurs during cutting, please reduce cutting parameter.