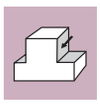
F695TX 極超微粒鎢鋼塗層深溝圓頭立銑刀

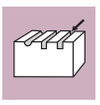
Ball Nose End Mills For Rib Processing

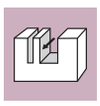
SMG Carbide

AlTiSiN TX

Type of Operation







Work Material

P	H	M	K	N	S
●	●		○	○	

P	鋼鐵 Steel
H	硬化鋼 <38HRC Hardened Steel
H	硬化鋼 <48HRC Hardened Steel
H	硬化鋼 <56HRC Hardened Steel
H	硬化鋼 <68HRC Hardened Steel
K	鑄鐵 Cast Iron
N	銅 Copper

Feature of product:

2刃球頭深溝立銑刀

廣泛用於精微模具、深溝清角、微小3D曲面。

搭配奈米多層膜塗層具有優異的潤滑及耐磨性。

高精密R值與各式規格齊全。

可用於各式鋼鐵材料及電極銅。

Code No. F695TX-R×L1

R ±0.005	L1 mm	Lc mm	L mm	d h5	D1 mm	AlTiSiN F695TX
0.1 R	0.5	0.16	50	4	0.18	●
0.1 R	1	0.16	50	4	0.18	●
0.1 R	1.5	0.16	50	4	0.18	●
0.1 R	2	0.16	50	4	0.18	●
0.1 R	3	0.16	50	4	0.18	●
0.15R	1	0.24	50	4	0.27	●
0.15R	1.5	0.24	50	4	0.27	●
0.15R	2	0.24	50	4	0.27	●
0.15R	3	0.24	50	4	0.27	●
0.2 R	1	0.3	50	4	0.37	●
0.2 R	1.5	0.3	50	4	0.37	●
0.2 R	2	0.3	50	4	0.37	●
0.2 R	3	0.3	50	4	0.37	●
0.2 R	4	0.3	50	4	0.37	●
0.2 R	5	0.3	50	4	0.37	●
0.25R	1	0.4	50	4	0.45	●
0.25R	2	0.4	50	4	0.45	●
0.25R	3	0.4	50	4	0.45	●
0.25R	4	0.4	50	4	0.45	●
0.25R	5	0.4	50	4	0.45	●
0.25R	6	0.4	50	4	0.45	●
0.25R	8	0.4	50	4	0.45	●
0.25R	10	0.4	50	4	0.45	●
0.3 R	1	0.5	50	4	0.55	●
0.3 R	2	0.5	50	4	0.55	●
0.3 R	3	0.5	50	4	0.55	●
0.3 R	4	0.5	50	4	0.55	●
0.3 R	5	0.5	50	4	0.55	●
0.3 R	6	0.5	50	4	0.55	●
0.3 R	8	0.5	50	4	0.55	●
0.3 R	10	0.5	50	4	0.55	●
0.3 R	12	0.5	50	4	0.55	●
0.4 R	2	0.6	50	4	0.75	●
0.4 R	3	0.6	50	4	0.75	●
0.4 R	4	0.6	50	4	0.75	●
0.4 R	5	0.6	50	4	0.75	●
0.4 R	6	0.6	50	4	0.75	●
0.4 R	8	0.6	50	4	0.75	●
0.4 R	10	0.6	50	4	0.75	●
0.4 R	12	0.6	50	4	0.75	●
0.5 R	2	0.8	50	4	0.95	●
0.5 R	3	0.8	50	4	0.95	●
0.5 R	4	0.8	50	4	0.95	●
0.5 R	5	0.8	50	4	0.95	●
0.5 R	6	0.8	50	4	0.95	●
0.5 R	8	0.8	50	4	0.95	●
0.5 R	10	0.8	50	4	0.95	●
0.5 R	12	0.8	50	4	0.95	●
0.5 R	16	0.8	50	4	0.95	●
0.5 R	20	0.8	60	4	0.95	●
0.5 R	25	0.8	60	4	0.95	●
0.6 R	2	1	50	4	1.15	●
0.6 R	4	1	50	4	1.15	●
0.6 R	6	1	50	4	1.15	●
0.6 R	8	1	50	4	1.15	●
0.6 R	10	1	50	4	1.15	●
0.6 R	12	1	50	4	1.15	●
0.6 R	16	1	50	4	1.15	●
0.75R	2	1.2	50	4	1.15	●
0.75R	4	1.2	50	4	1.45	●
0.75R	6	1.2	50	4	1.45	●
0.75R	8	1.2	50	4	1.45	●
0.75R	10	1.2	50	4	1.45	●
0.75R	12	1.2	50	4	1.45	●

R ±0.005	L1 mm	Lc mm	L mm	d h5	D1 mm	AlTiSiN F695TX
0.75R	12	1.2	50	4	1.45	●
0.75R	16	1.2	50	4	1.45	●
0.75R	20	1.2	60	4	1.45	●
0.75R	25	1.2	60	4	1.45	●
0.75R	30	1.2	70	4	1.45	●
1 R	3	1.6	50	4	1.45	●
1 R	4	1.6	50	4	1.95	●
1 R	6	1.6	50	4	1.95	●
1 R	8	1.6	50	4	1.95	●
1 R	10	1.6	50	4	1.95	●
1 R	12	1.6	50	4	1.95	●
1 R	16	1.6	50	4	1.95	●
1 R	20	1.6	60	4	1.95	●
1 R	25	1.6	60	4	1.95	●
1 R	30	1.6	70	4	1.95	●
1 R	35	1.6	75	4	1.95	●
1 R	40	1.6	80	4	1.95	●
1.5 R	6	2.4	50	6	2.85	●
1.5 R	8	2.4	50	6	2.85	●
1.5 R	10	2.4	50	6	2.85	●
1.5 R	12	2.4	50	6	2.85	●
1.5 R	16	2.4	60	6	2.85	●
1.5 R	20	2.4	60	6	2.85	●
1.5 R	25	2.4	70	6	2.85	●
1.5 R	30	2.4	70	6	2.85	●
1.5 R	35	2.4	80	6	2.85	●
1.5 R	40	2.4	80	6	2.85	●
2 R	8	3.2	60	6	3.85	●
2 R	10	3.2	60	6	3.85	●
2 R	12	3.2	60	6	3.85	●
2 R	16	3.2	60	6	3.85	●
2 R	20	3.2	70	6	3.85	●
2 R	25	3.2	70	6	3.85	●
2 R	30	3.2	80	6	3.85	●
2 R	35	3.2	80	6	3.85	●
2 R	40	3.2	90	6	3.85	●
2 R	45	3.2	100	6	3.85	●
2 R	50	3.2	100	6	3.85	●
2.5 R	10	4	60	6	4.85	●
2.5 R	20	4	70	6	4.85	●
2.5 R	30	4	80	6	4.85	●
2.5 R	40	4	90	6	4.85	●
2.5 R	50	4	100	6	4.85	●
3 R	12	4.8	60	6	5.85	●
3 R	20	4.8	70	6	5.85	●
3 R	30	4.8	80	6	5.85	●
3 R	40	4.8	90	6	5.85	●
3 R	50	4.8	100	6	5.85	●

F695TX 切削條件參考表

Recommended Milling Conditions

General processing 普通加工

被削材 Work Material		GR.1 碳鋼/GR.2 低合金鋼/GR.3 高合金鋼 Carbon Steel/Low-alloyed Steel/Hi-alloyed Steel (~24HRC) (~30HRC)				GR.4 硬化鋼 Hardened Steel (30~38HRC) / GR.5 硬化鋼 Hardened Steel (38~48HRC)				GR.6 硬化鋼 Hardened Steel (48~56HRC)				GR.7 硬化鋼 Hardened Steel (56~68HRC)			
型號 Code No.	刃徑×顎長 Dc×Ll	RPM 迴轉速度 (min-1)	Feed 進給速度 (mm/min)	ap (mm)	ae (mm)	RPM 迴轉速度 (min-1)	Feed 進給速度 (mm/min)	ap (mm)	ae (mm)	RPM 迴轉速度 (min-1)	Feed 進給速度 (mm/min)	ap (mm)	ae (mm)	RPM 迴轉速度 (min-1)	Feed 進給速度 (mm/min)	ap (mm)	ae (mm)
F695TX-R	0.1R×0.5	50,000	325	0.01	0.01	45,500	273	0.01	0.01	37,800	189	0.01	0.01	35,700	147	0.01	0.01
F695TX-R	0.1R×1.5	45,900	325	0.006	0.006	45,500	273	0.006	0.006	37,800	189	0.006	0.006	35,700	147	0.006	0.006
F695TX-R	0.1R×2	45,900	269	0.006	0.006	45,500	273	0.006	0.006	37,800	189	0.006	0.006	35,700	147	0.006	0.006
F695TX-R	0.1R×3	44,500	212	0.003	0.003	40,500	173	0.003	0.003	30,240	121	0.003	0.003	33,500	110	0.003	0.003
F695TX-R	0.15R×1	43,200	432	0.01	0.01	36,000	360	0.01	0.01	30,750	278	0.01	0.01	30,750	233	0.01	0.01
F695TX-R	0.15R×1.5	39,282	400	0.01	0.01	34,000	3,000	0.01	0.01	29,000	250	0.01	0.01	29,000	220	0.01	0.01
F695TX-R	0.15R×2	38,700	333	0.01	0.01	32,250	278	0.008	0.008	27,750	203	0.008	0.008	27,750	173	0.006	0.008
F695TX-R	0.15R×3	34,200	288	0.005	0.005	28,500	240	0.007	0.006	24,000	180	0.006	0.006	24,000	150	0.004	0.006
F695TX-R	0.2R×1	43,200	594	0.03	0.03	36,000	495	0.018	0.024	27,750	338	0.015	0.024	27,750	285	0.013	0.024
F695TX-R	0.2R×1.5	43,200	560	0.02	0.02	36,000	460	0.018	0.024	27,750	320	0.015	0.024	27,750	260	0.012	0.024
F695TX-R	0.2R×2	43,200	531	0.016	0.016	36,000	443	0.018	0.024	27,750	300	0.015	0.024	27,750	255	0.012	0.024
F695TX-R	0.2R×3	36,900	378	0.01	0.01	30,750	315	0.012	0.012	23,250	210	0.011	0.012	23,250	180	0.009	0.012
F695TX-R	0.2R×4	34,500	360	0.01	0.01	2,850	300	0.009	0.012	22,500	203	0.009	0.012	22,500	173	0.007	0.012
F695TX-R	0.2R×5	26,100	297	0.01	0.01	21,750	248	0.008	0.012	19,500	195	0.007	0.012	19,500	158	0.005	0.012
F695TX-R	0.25R×1/0.25R×2/0.25R×3	34,200	522	0.03	0.045	33,000	720	0.03	0.04	26,000	400	0.02	0.04	26,000	230	0.012	0.03
F695TX-R	0.25R×4	34,200	522	0.02	0.04	28,500	435	0.017	0.024	23,250	300	0.014	0.024	23,250	165	0.009	0.012
F695TX-R	0.25R×5	29,700	432	0.02	0.03	24,750	360	0.012	0.012	22,500	293	0.009	0.012	22,500	150	0.008	0.012
F695TX-R	0.25R×6	25,200	360	0.01	0.03	21,000	300	0.008	0.012	20,250	248	0.005	0.012	20,250	150	0.005	0.010
F695TX-R	0.25R×8	25,200	360	0.01	0.02	21,000	300	0.008	0.012	20,250	248	0.005	0.012	20,250	150	0.005	0.010
F695TX-R	0.25R×10	23,500	300	0.006	0.01	18,000	270	0.006	0.01	20,000	210	0.005	0.01	20,000	130	0.005	0.01
F695TX-R	0.3R×1/0.3R×2/0.3R×3	34,500	693	0.04	0.07	30,000	630	0.03	0.1	24,000	420	0.025	0.1	24,000	370	0.025	0.1
F695TX-R	0.3R×4/0.3R×5/0.3R×6	31,500	414	0.02	0.04	26,250	450	0.020	0.072	19,500	285	0.016	0.072	19,500	240	0.013	0.072
F695TX-R	0.3R×8	21,600	360	0.02	0.04	18,000	300	0.009	0.036	17,250	240	0.006	0.036	17,250	203	0.005	0.036
F695TX-R	0.3R×10	20,500	330	0.008	0.03	16,500	300	0.006	0.03	15,000	200	0.005	0.03	15,000	170	0.005	0.03
F695TX-R	0.3R×12	20,000	300	0.005	0.03	15,000	250	0.006	0.03	13,500	170	0.005	0.03	13,500	150	0.005	0.03
F695TX-R	0.5R×2/0.5R×3/0.5R×4	29,500	710	0.07	0.18	25,500	630	0.06	0.2	16,800	380	0.05	0.2	15,500	370	0.01	0.18
F695TX-R	0.5R×5/0.5R×6/0.5R×8	28,800	693	0.05	0.18	24,000	5,775	0.057	0.2	16,500	360	0.045	0.2	14,025	360	0.009	0.180
F695TX-R	0.5R×10	15,840	477	0.03	0.1	13,200	398	0.024	0.060	12,375	315	0.018	0.060	11,550	225	0.009	0.060
F695TX-R	0.5R×12	15,840	477	0.02	0.08	13,200	398	0.024	0.060	12,375	315	0.018	0.060	11,550	225	0.009	0.060
F695TX-R	0.5R×16	13,860	396	0.02	0.05	11,550	330	0.018	0.060	10,725	270	0.014	0.060	9,075	180	0.005	0.036
F695TX-R	0.5R×20	12,870	324	0.02	0.04	10,725	270	0.013	0.036	9,900	225	0.009	0.036	7,425	135	0.005	0.024
F695TX-R	0.5R×25	11,500	300	0.01	0.035	10,000	240	0.01	0.03	8,800	200	0.009	0.03	7,400	110	0.005	0.02
F695TX-R	0.75R×2/0.75R×4/0.75R×6	19,500	1,000	0.15	0.2	19,500	900	0.15	0.2	12,000	550	0.12	0.2	11,000	500	0.09	0.2
F695TX-R	0.75R×8/0.75R×10	14,670	630	0.1	0.155	12,225	525	0.084	0.180	9,075	338	0.069	0.180	9,075	300	0.057	0.180
F695TX-R	0.75R×12/0.75R×16	14,670	630	0.06	0.1	12,225	525	0.084	0.180	9,075	338	0.069	0.180	9,075	300	0.057	0.180
F695TX-R	0.75R×20	11,160	432	0.04	0.05	9,300	360	0.016	0.060	8,700	293	0.012	0.060	8,700	270	0.010	0.060
F695TX-R	0.75R×25	10,000	390	0.03	0.03	9,000	300	0.03	0.03	8,500	250	0.01	0.03	8,200	250	0.01	0.03
F695TX-R	0.75R×30	9,000	380	0.02	0.02	8,500	300	0.02	0.02	8,000	240	0.01	0.01	7,500	220	0.01	0.01
F695TX-R	1R×3/1R×4/1R×6/1R×8	17,000	1,200	0.2	0.2	14,500	1,000	0.2	0.2	10,000	850	0.15	0.2	10,000	650	0.08	0.2
F695TX-R	1R×10/1R×12/1R×16	16,650	1,008	0.05	0.15	13,875	840	0.05	0.15	9,900	653	0.05	0.15	9,900	533	0.03	0.15
F695TX-R	1R×20	13,230	522	0.05	0.05	11,025	435	0.05	0.05	8,700	435	0.05	0.05	8,700	360	0.05	0.05
F695TX-R	1R×30	9,540	405	0.03	0.03	7,950	338	0.03	0.03	7,650	338	0.03	0.03	7,650	270	0.03	0.03
F695TX-R	1R×40	9,100	300	0.02	0.02	7,200	280	0.02	0.02	7,200	260	0.01	0.01	6,800	230	0.01	0.01
F695TX-R	1.5R×6/1.5R×8/1.5R×10	11,610	1,512	0.15	0.2	9,675	1,260	0.1	0.2	6,900	975	0.15	0.2	4,800	533	0.15	0.2
F695TX-R	1.5R×12/1.5R×16	11,610	1,359	0.1	0.2	9,675	1,133	0.1	0.2	6,900	878	0.15	0.2	4,800	488	0.15	0.2
F695TX-R	1.5R×20	9,045	1,067	0.1	0.15	7,538	889	0.13	0.15	6,075	780	0.13	0.15	4,350	443	0.09	0.15
F695TX-R	1.5R×30	7,920	702	0.07	0.07	6,600	585	0.07	0.07	6,075	585	0.04	0.07	4,350	315	0.04	0.07
F695TX-R	1.5R×40	6,350	450	0.03	0.03	6,350	450	0.03	0.03	5,400	450	0.03	0.03	3,600	250	0.03	0.03
F695TX-R	2R×8/2R×10/2R×12	8,730	1,404	0.15	0.2	7,275	1,170	0.1	0.2	5,100	908	0.2	0.2	5,100	735	0.15	0.2
F695TX-R	2R×16/2R×20	8,730	1,287	0.13	0.2	7,275	1,073	0.1	0.2	5,100	833	0.2	0.2	5,100	660	0.15	0.2
F695TX-R	2R×30	7,560	1,125	0.1	0.15	6,300	938	0.1	0.16	4,500	735	0.15	0.15	4,500	585	0.15	0.15
F695TX-R	2R×40	5,940	855	0.08	0.1	4,950	713	0.07	0.15	4,500	735	0.1	0.15	4,500	585	0.1	0.15
F695TX-R	2R×50	5,310	423	0.05	0.1	4,425	353	0.05	0.1	4,200	368	0.05	0.1	4,200	293	0.050	0.05
F695TX-R	2.5R×10/2.5R×20	7644	764	0.15	0.3	7262	726	0.15	0.3	6899	690	0.15	0.2	6554	621	0.13	0.2
F695TX-R	2.5R×30	5733	570	0.1	0.2	5446	542	0.1	0.2	5174	514	0.1	0.15	4657	489	0.1	0.15
F695TX-R	2.5R×40	5415	550	0.08	0.15	5144	523	0.08	0.15	4887	496	0.05	0.15	4398	472	0.05	0.15
F695TX-R	2.5R×50	5096	500	0.08	0.1	4841	475	0.08	0.1	4599	451	0.05	0.1	4139	429	0.05	0.1
F695TX-R	3R×12/3R×20	5839	640	0.2	0.3	5547	608	0.2	0.3	5270	578	0.2	0.15	4743	549	0.2	0.1
F695TX-R	3R×30	4778	590	0.13	0.2	4539	561	0.13	0.2	4312	532	0.1	0.1	3881	506	0.1	0.2
F695TX-R	3R×40	4512	550	0.13	0.2	4286	523	0.13	0.2	4072	496	0.1	0.1	3665	472	0.1	0.2
F695TX-R	3R×50	4247	500	0.1	0.15	4034	475	0.1	0.15	3833	451	0.1	0.1	3449	429	0.05	0.15

切入深度 (mm)