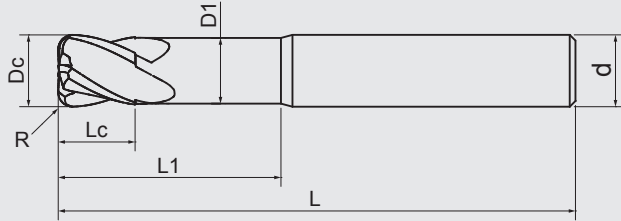


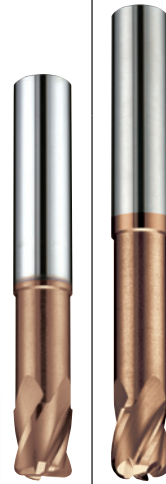
F615TX / F619TX

**Toric End Mills**

Honing cutting edge with AITiSiN Nano multilayer coating to improve tool life effectively.



**VHM Carbide**
**AITiSiN TX**
30°
4
75°
R
**Steel <62HRC**



Suitable for profile surface machining, roughing and finishing in cutting different steel below 62HRC and cast Iron.

P
P  
H
H  
K
K

**DIN 6527 Standard Length**

Dc 0 -0.02	R ±0.02	Lc mm	L mm	d h5	L1 mm	D1 mm	F615TX AITiSiN				
3	R0.3	4	57	6	14	2.8	●				
3	R0.5	4	57	6	14	2.8	●				
4	R0.3	5	57	6	16	3.7	●				
4	R0.5	5	57	6	16	3.7	●				
4	R1	5	57	6	16	3.7	●				
6	R0.5	7	57	6	20	5.5	●				
6	R1	7	57	6	20	5.5	●				
6	R1.5	7	57	6	20	5.5	●				
8	R0.5	9	63	8	26	7.4	●				
8	R1	9	63	8	26	7.4	●				
8	R1.5	9	63	8	26	7.4	●				
8	R2	9	63	8	26	7.4	●				
10	R0.5	11	72	10	31	9.2	●				
10	R1	11	72	10	31	9.2	●				
10	R1.5	11	72	10	31	9.2	●				
10	R2	11	72	10	31	9.2	●				
10	R2.5	11	72	10	31	9.2	●				
12	R0.5	13	83	12	37	11	●				
12	R1	13	83	12	37	11	●				
12	R1.5	13	83	12	37	11	●				
12	R2	13	83	12	37	11	●				
12	R3	13	83	12	37	11	●				
16	R2	17	92	16	43	14.5	●				
16	R4	17	92	16	43	14.5	●				

**Long Length**

Dc 0 -0.02	R ±0.02	Lc mm	L mm	d h5	L1 mm	D1 mm		F619TX AITiSiN			
6	R0.5	7	70	6	33	5.5		●			
6	R1	7	70	6	33	5.5		●			
6	R1.5	7	70	6	33	5.5		●			
8	R0.5	9	80	8	43	7.4		●			
8	R1	9	80	8	43	7.4		●			
8	R2	9	80	8	43	7.4		●			
10	R0.5	11	90	10	49	9.2		●			
10	R1	11	90	10	49	9.2		●			
10	R2	11	90	10	49	9.2		●			
10	R2.5	11	90	10	49	9.2		●			
12	R0.5	13	100	12	54	11		●			
12	R1	13	100	12	54	11		●			
12	R2	13	100	12	54	11		●			
12	R3	13	100	12	54	11		●			
16	R2	17	115	16	66	14.5		●			
16	R4	17	115	16	66	14.5		●			

## Cutting Conditions

F615TX F619TX								
		cutting speed Vc (m/min)	feed per tooth fz(mm)	ae	ap	cutting speed Vc (m/min)	feed per tooth fz(mm)	ap
<b>Carbon Steel Materials</b>								
P	GR1 Carbon Steel	280	0.011xDc	0.4xDc	0.03xDc	360	0.008xDc	0.01xDc
	GR2 <24HRC Low-alloyed Steel	260	0.011xDc	0.4xDc	0.03xDc	320	0.008xDc	0.01xDc
	GR3 <30HRC Hi-alloyed Steel	230	0.009xDc	0.4xDc	0.03xDc	270	0.008xDc	0.01xDc
<b>Hardened Steel Materials</b>								
H	GR4 30-38HRC Hardened Steel	100	0.008xDc	0.4xDc	0.03xDc	180	0.006xDc	0.01xDc
	GR5 38-48HRC Hardened Steel	80	0.007xDc	0.3xDc	0.02xDc	160	0.005xDc	0.01xDc
	GR6 48-56HRC Hardened Steel	60	0.006xDc	0.2xDc	0.01xDc	140	0.004xDc	0.01xDc
<b>Cast Iron Materials</b>								
K	GR9-1 Grey cast iron	280	0.02xDc	0.4xDc	0.03xDc	360	0.008xDc	0.01xDc
	GR9-2 Nodular cast iron	250	0.02xDc	0.4xDc	0.03xDc	320	0.008xDc	0.01xDc

All cutting data serve for orientation only and should be adapted individually to the technical conditions on location

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.