

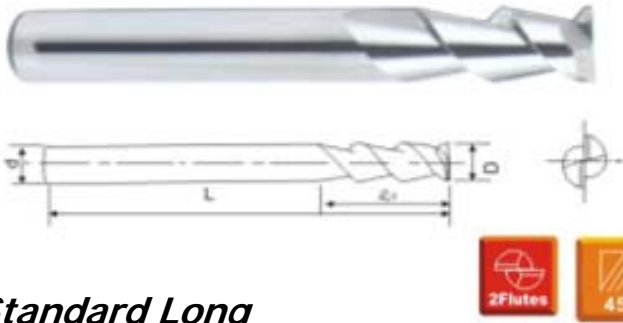


超微粒鎢鋼銑刀

ULTRAFINE TUNGSTEN STEEL MILLING CUTTER



2 Flutes Solid Carbide Endmill of Aluminum Cutting



General Cutting Parameters :

- 1 . Cutting Speed : $V_c = 130m(120m-180m)/min$
 - 2 . Cutting Depth : $a_p = 1/3D(1/8D - 1/2D)$
 - 3 . Cutting Width : $a_e = 1/2D(1/4D - 1D)$
 - 4 . Feed per Flute : $f_z = 0.15mm(0.02-0.2)$
- Cutting parameters should be suitably modified based on different processing materials and hardness. (Reference page:p28~p32)

Standard Long

Model No.	Cutting Diameter (D)	Flute Length (e1)	Over Length (L)	Shank Diameter (d)	Flute (T)	Coating
2F500K010050D04	1.0	3.0	50	4	2	
2F500K015050D04	1.5	4.5	50	4	2	
2F500K020050D04	2.0	6.0	50	4	2	
2F500K025050D04	2.5	7.5	50	4	2	
2F500K030050D04	3.0	9.0	50	4	2	
2F500K035050D04	3.5	10.5	50	4	2	
2F500K040050D04	4.0	12.0	50	4	2	
2F500K045050D06	4.5	13.5	50	6	2	
2F500K050050D06	5.0	15.0	50	6	2	
2F500K055050D06	5.5	16.5	50	6	2	
2F500K060050D06	6.0	18.0	50	6	2	
2F500K080060D08	8.0	24.0	60	8	2	
2F500K100075D10	10.0	30.0	75	10	2	
2F500K120075D12	12.0	36.0	75	12	2	
2F500K160100D16	16.0	48.0	100	16	2	
2F500K200100D20	20.0	60.0	100	20	2	

Extra Long

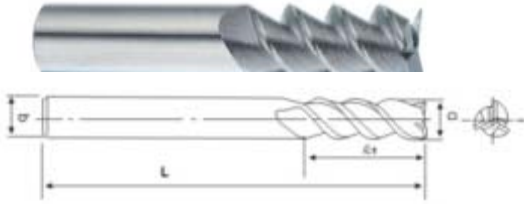
Model No.	Cutting Diameter (D)	Flute Length (e1)	Over Length (L)	Shank Diameter (d)	Flute (T)	Coating
2F500K040075D04	4.0	16	75	4	2	
2F500K040075D06	4.0	16	75	6	2	
2F500K050075D06	5.0	20	75	6	2	
2F500K060075D06	6.0	24	75	6	2	
2F500K080075D08	8.0	32	75	8	2	
2F500K100100D10	10.0	40	100	10	2	
2F500K120100D12	12.0	48	100	12	2	
2F500K140100D14	14.0	56	100	14	2	

Super Long

Model No.	Cutting Diameter (D)	Flute Length (e1)	Over Length (L)	Shank Diameter (d)	Flute (T)	Coating
2F500K040100D04	4.0	20	100	4	2	
2F500K040100D06	4.0	20	100	6	2	
2F500K060100D06	6.0	30	100	6	2	
2F500K080100D08	8.0	40	100	8	2	
2F500K100100D10	10.0	50	100	10	2	
2F500K120100D12	12.0	60	100	12	2	



3 Flutes Solid Carbide Endmill of Aluminum Cutting


General Cutting Parameters :

- 1 . Cutting Speed : $V_c = 130m(120m-180m)/min$
 - 2 . Cutting Depth : $a_p = 1/3D(1/8D - 1/2D)$
 - 3 . Cutting Width : $a_e = 1/2D(1/4D - 1D)$
 - 4 . Feed per Flute : $f_z = 0.15mm(0.02-0.2)$
- Cutting parameters should be suitably modified based on different processing materials and hardness. (Reference page:p28~p32)

Standard Long

Model No.	Cutting Diameter (D)	Flute Length (e1)	Over Length (L)	Shank Diameter (d)	Flute (T)	Coating
3F500K010050D04	1.0	3.0	50	4	3	
3F500K015050D04	1.5	4.5	50	4	3	
3F500K020050D04	2.0	6.0	50	4	3	
3F500K025050D04	2.5	7.5	50	4	3	
3F500K030050D04	3.0	9.0	50	4	3	
3F500K035050D04	3.5	10.5	50	4	3	
3F500K040050D04	4.0	12.0	50	4	3	
3F500K045050D06	4.5	13.5	50	6	3	
3F500K050050D06	5.0	15.0	50	6	3	
3F500K055050D06	5.5	16.5	50	6	3	
3F500K060050D06	6.0	18.0	50	6	3	
3F500K080060D08	8.0	24.0	60	8	3	
3F500K10007DD10	10.0	30.0	75	10	3	
3F500K120075D12	12.0	36.0	75	12	3	
3F500K160100D16	16.0	48.0	100	16	3	
3F500K200100D20	20.0	60.0	100	20	3	

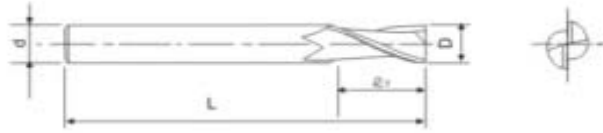
Extra Long

Model No.	Cutting Diameter (D)	Flute Length (e1)	Over Length (L)	Shank Diameter (d)	Flute (T)	Coating
3F500K040075D04	4.0	16	75	4	3	
3F500K040075D06	4.0	16	75	6	3	
3F500K050075D06	5.0	20	75	6	3	
3F500K060075D06	6.0	24	75	6	3	
3F500K080075D08	8.0	32	75	8	3	
3F500K100100D10	10.0	40	100	10	3	
3F500K120100D12	12.0	48	100	12	3	
3F500K140100D14	14.0	56	100	14	3	

Super Long

Model No.	Cutting Diameter (D)	Flute Length (e1)	Over Length (L)	Shank Diameter (d)	Flute (T)	Coating
3F500K040100D04	4.0	20	100	4	3	
3F500K040100D06	4.0	20	100	6	3	
3F500K060100D06	6.0	30	100	6	3	
3F500K080100D08	8.0	40	100	8	3	
3F500K100100D10	10.0	50	100	10	3	
3F500K120100D12	12.0	60	100	12	3	

2 Flutes Solid Carbide Endmill



Standard Long

General Cutting Parameters :

- 1 . Cutting Speed : $V_c = 130\text{m}(120\text{m}-180\text{m})/\text{min}$
 - 2 . Cutting Depth : $a_p = 1/3D(1/8D - 1/2D)$
 - 3 . Cutting Width : $a_e = 1/2D(1/4D - 1D)$
 - 4 . Feed per Flute : $f_z = 0.15\text{mm}(0.02-0.2)$
- Cutting parameters should be suitably modified based on different processing materials and hardness. (Reference page:p28~p32)

Model No.	Cutting Diameter (D)	Flute Length (e1)	Over Length (L)	Shank Diameter (d)	Flute (T)	Coating
2F500005-050D04	0.5	1.5	50	4	2	AlTiN
2F500010-050D04	1.0	3.0	50	4	2	AlTiN
2F500015-050D04	1.5	4.5	50	4	2	AlTiN
2F500020-050D04	2.0	6.0	50	4	2	AlTiN
2F500025-050D04	2.5	7.5	50	4	2	AlTiN
2F500030-050D04	3.0	9.0	50	4	2	AlTiN
2F500035-050D04	3.5	10.5	50	4	2	AlTiN
2F500040-050D04	4.0	12.0	50	4	2	AlTiN
2F500005-050D06	0.5	1.5	50	6	2	AlTiN
2F500010-050D06	1.0	3.0	50	6	2	AlTiN
2F500015-050D06	1.5	4.5	50	6	2	AlTiN
2F500020-050D06	2.0	6.0	50	6	2	AlTiN
2F500025-050D06	2.5	7.5	50	6	2	AlTiN
2F500030-050D06	3.0	9.0	50	6	2	AlTiN
2F500035-050D06	3.5	10.5	50	6	2	AlTiN
2F500040-050D06	4.0	12.0	50	6	2	AlTiN
2F500045-050D06	4.5	13.5	50	6	2	AlTiN
2F500050-050D06	5.0	15.0	50	6	2	AlTiN
2F500055-050D06	5.5	16.5	50	6	2	AlTiN
2F500060-050D06	6.0	18.0	50	6	2	AlTiN
2F500070-060D08	7.0	21.0	60	8	2	AlTiN
2F500080-060D08	8.0	24.0	60	8	2	AlTiN
2F500090-075D10	9.0	27.0	75	10	2	AlTiN
2F500100-075D10	10.0	30.0	75	10	2	AlTiN
2F500110-075D12	11.0	33.0	75	12	2	AlTiN
2F500120-075D12	12.0	36.0	75	12	2	AlTiN
2F500140-075D14	14.0	42.0	75	14	2	AlTiN
2F500140L100D16	14.0	42.0	100	16	2	AlTiN
2F500160-100D16	16.0	48.0	100	16	2	AlTiN
2F500180-100D18	18.0	54.0	100	18	2	AlTiN
2F500180L100D20	18.0	54.0	100	20	2	AlTiN
2F500200-100D20	20.0	60.0	100	20	2	AlTiN

1. Suitable for $HRC \leq 50$ tough material (Carbon Steel, Cast Steel, Alloy Steel, Cast Iron, and Die Steel).
2. Profile endmill with sharp cutting edge.
3. Good chip removal ; Durability ; High Precision.
4. Base metal of workpiece : FC, SS400, S45C, SCM, SKS, SKD,



4 Flutes Solid Carbide Endmill



Standard Long



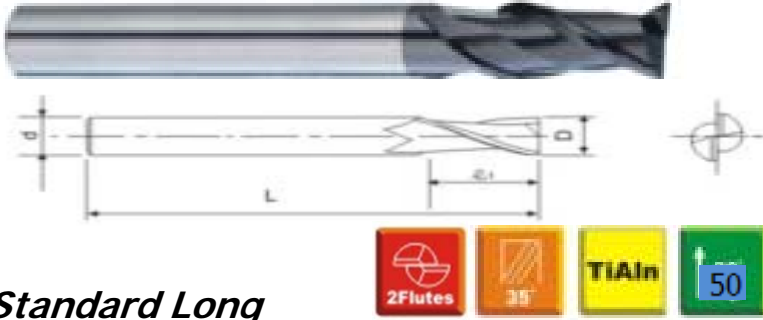
General Cutting Parameters :

- 1 . Cutting Speed : $V_c = 130m(120m-180m)/min$
 - 2 . Cutting Depth : $a_p = 1/3D(1/8D - 1/2D)$
 - 3 . Cutting Width : $a_e = 1/2D(1/4D - 1D)$
 - 4 . Feed per Flute : $f_z = 0.15mm(0.02-0.2)$
- Cutting parameters should be suitably modified based on different processing materials and hardness. (Reference page:p28~p32)

Model No.	Cutting Diameter (D)	Flute Length (e1)	Over Length (L)	Shank Diameter (d)	Flute (T)	Coating
4F500005-050D04	0.5	1.5	50	4	4	AlTiN
4F500010-050D04	1.0	3.0	50	4	4	AlTiN
4F500015-050D04	1.5	4.5	50	4	4	AlTiN
4F500020-050D04	2.0	6.0	50	4	4	AlTiN
4F500025-050D04	2.5	7.5	50	4	4	AlTiN
4F500030-050D04	3.0	9.0	50	4	4	AlTiN
4F500035-050D04	3.5	10.5	50	4	4	AlTiN
4F500040-050D04	4.0	12.0	50	4	4	AlTiN
4F500005-050D06	0.5	1.5	50	6	4	AlTiN
4F500010-050D06	1.0	3.0	50	6	4	AlTiN
4F500015-050D06	1.5	4.5	50	6	4	AlTiN
4F500020-050D06	2.0	6.0	50	6	4	AlTiN
4F500025-050D06	2.5	7.5	50	6	4	AlTiN
4F500030-050D06	3.0	9.0	50	6	4	AlTiN
4F500035-050D06	3.5	10.5	50	6	4	AlTiN
4F500040-050D06	4.0	12.0	50	6	4	AlTiN
4F500045-050D06	4.5	13.5	50	6	4	AlTiN
4F500050-050D06	5.0	15.0	50	6	4	AlTiN
4F500055-050D06	5.5	16.5	50	6	4	AlTiN
4F500060-050D06	6.0	18.0	50	6	4	AlTiN
4F500070-060D08	7.0	21.0	60	8	4	AlTiN
4F500080-060D09	8.0	24.0	60	8	4	AlTiN
4F500090-075D10	9.0	27.0	75	10	4	AlTiN
4F500100-075D10	10.0	30.0	75	10	4	AlTiN
4F500110-075D12	11.0	33.0	75	12	4	AlTiN
4F500120-075D12	12.0	36.0	75	12	4	AlTiN
4F500140-075D14	14.0	42.0	75	14	4	AlTiN
4F500140-100D16	14.0	42.0	100	16	4	AlTiN
4F500160-100D16	16.0	48.0	100	16	4	AlTiN
4F500180-100D18	18.0	54.0	100	18	4	AlTiN
4F500180-100D20	18.0	54.0	100	20	4	AlTiN
4F500200-100D20	20.0	60.0	100	20	4	AlTiN

1. Suitable for $HRC \leq 50$ tough material (Carbon Steel, Cast Steel, Alloy Steel, Cast Iron, and Die Steel).
2. Profile endmill with sharp cutting edge.
3. Good chip removal ; Durability ; High Precision.
4. Base metal of workpiece : FC, SS400, S45C, SCM, SKS, SKD,

Extra Long 2 Flutes Solid Carbide Endmill



General Cutting Parameters :

- 1 . Cutting Speed : $V_c = 130\text{m}(120\text{m}-180\text{m})/\text{min}$
 - 2 . Cutting Depth : $a_p = 1/3D(1/8D - 1/2D)$
 - 3 . Cutting Width : $a_e = 1/2D(1/4D-1D)$
 - 4 . Feed per Flute : $f_z = 0.15\text{mm}(0.02-0.2)$
- Cutting parameters should be suitably modified based on different processing materials and hardness. (Reference page:p28~p32)

Standard Long

Model No.	Cutting Diameter (D)	Flute Length (e1)	Over Length (L)	Shank Diameter (d)	Flute (T)	Coating
2F500040-075D04	4.0	16	75	4	2	AlTiN
2F500030-075D06	3.0	13	75	6	2	AlTiN
2F500040-075D06	4.0	16	75	6	2	AlTiN
2F500050-075D06	5.0	20	75	6	2	AlTiN
2F500060-075D06	6.0	24	75	6	2	AlTiN
2F500080-075D08	8.0	32	75	8	2	AlTiN
2F500100-100D10	10.0	40	100	10	2	AlTiN
2F500120-100D12	12.0	48	100	12	2	AlTiN
2F500140-150D16	14.0	56	150	16	2	AlTiN
2F500160-150D16	16.0	64	150	16	2	AlTiN
2F500180-150D20	18.0	72	150	20	2	AlTiN
2F500200-150D20	12.0	80	150	20	2	AlTiN

Extra Long

Model No.	Cutting Diameter (D)	Flute Length (e1)	Over Length (L)	Shank Diameter (d)	Flute (T)	Coating
2F500040-100D04	4.0	20	100	4	2	AlTiN
2F500060-100D06	6.0	30	100	6	2	AlTiN
2F500080-100D08	8.0	40	100	8	2	AlTiN
2F500100-150D10	10.0	50	150	10	2	AlTiN
2F500120-150D12	12.0	60	150	12	2	AlTiN
2F500160-200D16	16.0	80	200	16	2	AlTiN
2F500200-200D20	20.0	100	200	20	2	AlTiN

1. Suitable for $HRC \leq 50$ tough material (Carbon Steel, Cast Steel, Alloy Steel, Cast Iron, and Die Steel).
2. Profile endmill with sharp cutting edge.
3. Good chip removal ; Durability ; High Pricision.
4. Base metal of workpiece : FC, SS400, S45C, SCM, SKS, SKD,



Extra Long 4 Flutes Solid Carbide Endmill



Standard Long



General Cutting Parameters :

- 1 . Cutting Speed : $V_c = 130m(120m-180m)/min$
 - 2 . Cutting Depth : $a_p = 1/3D(1/8D - 1/2D)$
 - 3 . Cutting Width : $a_e = 1/2D(1/4D-1D)$
 - 4 . Feed per Flute : $f_z = 0.15mm(0.02-0.2)$
- Cutting parameters should be suitably modified based on different processing materials and hardness. (Reference page:p28~p32)

Model No.	Cutting Diameter (D)	Flute Length (e1)	Over Length (L)	Shank Diameter (d)	Flute (T)	Coating
4F50040-075D04	4.0	16	75	4	4	AlTiN
4F50030-075D06	3.0	13	75	6	4	AlTiN
4F50040-075D06	4.0	16	75	6	4	AlTiN
4F50050-075D06	5.0	20	75	6	4	AlTiN
4F50060-075D06	6.0	24	75	6	4	AlTiN
4F50080-075D08	8.0	32	75	8	4	AlTiN
4F50100-100D10	10.0	40	100	10	4	AlTiN
4F50120-100D12	12.0	48	100	12	4	AlTiN
4F50140-150D16	14.0	56	150	16	4	AlTiN
4F50160-150D16	16.0	64	150	16	4	AlTiN
4F50180-150D20	18.0	72	150	20	4	AlTiN
4F50200-150D20	20.0	80	150	20	4	AlTiN

Super Long

Model No.	Cutting Diameter (D)	Flute Length (e1)	Over Length (L)	Shank Diameter (d)	Flute (T)	Coating
4F500040-100D04	4.0	20	100	4	4	AlTiN
4F500060-100D06	6.0	30	100	6	4	AlTiN
4F500080-100D08	8.0	40	100	8	4	AlTiN
4F500100-150D10	10.0	50	150	10	4	AlTiN
4F500120-150D12	12.0	60	150	12	4	AlTiN
4F500160-200D16	16.0	80	200	16	4	AlTiN
4F500200-200D20	20.0	100	200	20	4	AlTiN

1. Suitable for $HRC \leq 50$ tough material (Carbon Steel, Cast Steel, Alloy Steel, Cast Iron, and Die Steel).
2. Profile endmill with sharp cutting edge.
3. Good chip removal ; Durability ; High Precision.
4. Base metal of workpiece : FC, SS400, S45C, SCM, SKS, SKD,

2 Flutes Ball-nose Solid Carbide Endmill



Standard Long

General Cutting Parameters :

- 1 . Cutting Speed : $V_c = 130\text{m}(120\text{m}-180\text{m})/\text{min}$
 - 2 . Cutting Depth : $a_p = 1/3D(1/8D - 1/2D)$
 - 3 . Cutting Width : $a_e = 1/2D(1/4D - 1D)$
 - 4 . Feed per Flute : $f_z = 0.15\text{mm}(0.02-0.2)$
- Cutting parameters should be suitably modified based on different processing materials and hardness. (Reference page:p28~p32)

Model No.	Cutting Diameter (D)	Flute Length (e1)	Over Length (L)	Shank Diameter (d)	Flute (T)	Coating
2F500R050050D04	R0.5	2	50	4	2	AlTiN
2F500R075050D04	R0.75	3	50	4	2	AlTiN
2F500R100050D04	R1.0	4	50	4	2	AlTiN
2F500R125050D04	R1.25	5	50	4	2	AlTiN
2F500R150050D04	R1.5	6	50	4	2	AlTiN
2F500R200050D04	R2.0	8	50	4	2	AlTiN
2F500R050050D06	R0.5	2	50	6	2	AlTiN
2F500R075050D06	R0.75	3	50	6	2	AlTiN
2F500R100050D06	R1.0	4	50	6	2	AlTiN
2F500R150050D06	R1.5	6	50	6	2	AlTiN
2F500R200050D06	R2.0	10	50	6	2	AlTiN
2F500R300050D06	R3.0	12	50	6	2	AlTiN
2F500R400060D08	R4.0	16	60	8	2	AlTiN
2F500R500075D10	R5.0	20	75	10	2	AlTiN
2F500R600075D12	R6.0	24	75	12	2	AlTiN
2F500R800100D16	R8.0	30	100	16	2	AlTiN
2F500R100100D20	R10.0	32	100	20	2	AlTiN

Extra Long

Model No.	Cutting Diameter (D)	Flute Length (e1)	Over Length (L)	Shank Diameter (d)	Flute (T)	Coating
2F500R200075D04	R2.0	8	75	4	2	AlTiN
2F500R300075D06	R3.0	12	75	6	2	AlTiN
2F500R400075D08	R4.0	16	75	8	2	AlTiN
2F500R500100D10	R5.0	20	100	10	2	AlTiN
2F500R600100D12	R6.0	24	100	12	2	AlTiN

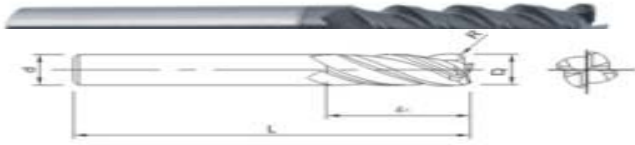
Super Long

Model No.	Cutting Diameter (D)	Flute Length (e1)	Over Length (L)	Shank Diameter (d)	Flute (T)	Coating
2F500R200100D04	R2.0	8	100	4	2	AlTiN
2F500R300100D06	R3.0	12	100	6	2	AlTiN
2F500R400100D08	R4.0	16	100	8	2	AlTiN
2F500R500150D10	R5.0	20	150	10	2	AlTiN
2F500R600150D12	R6.0	24	150	12	2	AlTiN

1. Suitable for $HRC \leq 50$ tough material (Carbon Steel, Cast Steel, Alloy Steel, Cast Iron, and Die Steel).
2. Profile endmill with sharp cutting edge.
3. Good chip removal ; Durability ; High Precision.
4. Base metal of workpiece : FC, SS400, S45C, SCM, SKS, SKD,



4 Flutes Carbide Radius End mill



General Cutting Parameters :

- 1 . Cutting Speed : $V_c = 130m(120m-180m)/min$
 - 2 . Cutting Depth : $a_p = 1/3D(1/8D - 1/2D)$
 - 3 . Cutting Width : $a_e = 1/2D(1/4D-1D)$
 - 4 . Feed per Flute : $f_z = 0.15mm(0.02-0.2)$
- Cutting parameters should be suitably modified based on different processing materials and hardness. (Reference page:p28~p32)

Standard Long



Model No.	Cutting Diameter (D)	(R)	Flute Length (e1)	Over Length (L)	Shank Diameter (d)	Flute (T)	Coating
50B010R02050D04	1.0	0.2	2	50	4	4	AlTiN
50B015R02050D04	1.5	0.2	3	50	4	4	AlTiN
50B020R02050D04	2.0	0.2	4	50	4	4	AlTiN
50B025R02050D04	2.5	0.2	5	50	4	4	AlTiN
50B030R05050D04	3.0	0.5	6	50	4	4	AlTiN
50B040R05050D04	4.0	0.5	8	50	4	4	AlTiN
50B050R05050D06	5.0	0.5	12	50	6	4	AlTiN
50B060R05050D06	6.0	0.5	12	50	6	4	AlTiN
50B080R05060D08	8.0	0.5	16	60	8	4	AlTiN
50B100R05075D10	10.0	0.5	20	75	10	4	AlTiN
50B120R05075D12	12.0	0.5	24	75	12	4	AlTiN
50B040R05075D04	4.0	0.5	8	75	4	4	AlTiN
50B060R05075D06	6.0	0.5	12	75	6	4	AlTiN
50B080R05075D08	8.0	0.5	16	75	8	4	AlTiN
50B040R05100D04	4.0	0.5	8	100	4	4	AlTiN
50B060R05100D06	6.0	0.5	12	100	6	4	AlTiN
50B080R05100D08	8.0	0.5	16	100	8	4	AlTiN
50B100R05100D10	10.0	0.5	20	100	10	4	AlTiN
50B120R05100D12	12.0	0.5	24	100	12	4	AlTiN
50B030R10050D04	3.0	1.0	6	50	4	4	AlTiN
50B040R10050D04	4.0	1.0	8	50	4	4	AlTiN
50B050R10050D06	5.0	1.0	12	50	6	4	AlTiN
50B060R10050D06	6.0	1.0	12	50	6	4	AlTiN
50B080R10060D08	8.0	1.0	16	60	8	4	AlTiN
50B040R10075D04	4.0	1.0	8	75	4	4	AlTiN
50B060R10075D06	6.0	1.0	12	75	6	4	AlTiN
50B080R10075D08	8.0	1.0	16	75	8	4	AlTiN
50B100R10075D10	10.0	1.0	20	75	10	4	AlTiN
50B120R10075D12	12.0	1.0	24	75	12	4	AlTiN
50B040R10100D04	4.0	1.0	8	100	4	4	AlTiN
50B060R10100D06	6.0	1.0	12	100	6	4	AlTiN
50B080R10100D08	8.0	1.0	16	100	8	4	AlTiN
50B100R10100D10	10.0	1.0	20	100	10	4	AlTiN
50B120R10100D12	12.0	1.0	24	100	12	4	AlTiN

1. Suitable for HRC ≤ 50 tough material (Carbon Steel, Cast Steel, Alloy Steel, Cast Iron, and Die Steel).
2. Profile endmill with sharp cutting edge.
3. Good chip removal ; Durability ; High Precision.
4. Base metal of workpiece : FC, SS400, S45C, SCM, SKS, SKD,