



STERN

2025
June



Milling Tools **Turning Tools**

-  **Quality**
-  **Raw material**
-  **Reduce Costs Improve Efficiency**

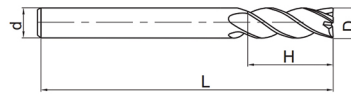
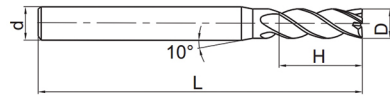


ENDMILL BALLNOSE TIPRADIUS ROUGH ALUMINIUM
55 HRC



High performance machining

- Factory standard
- Centre cutting



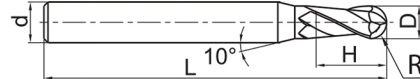
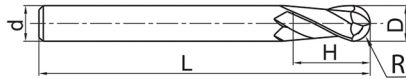
	Type	Dimensions(mm)				Type	Dimensions(mm)			
		D	H	L	d		D	H	L	d
END-MILLING-55HRC	0.3~0.9x3Dx50x4D	0.3~0.4	3D	50	4	8x20x60x8D	8	20	60	8
	1x3x50x4D	1	3	50	4	8x30x75x8D	8	30	75	8
	1x3x50x6D	1	3	50	6	8x35x100x8D	8	35	100	8
	1.5x4.5x50x4D	1.5	4.5	50	4	8x40x120x8D	8	40	120	8
	1.5x3x50x6D	1.5	3	50	6	8x40x150x8D	8	40	150	8
	2x6x50x2D	2	6	50	2	8x45x200x8D	8	45	200	8
	2x6x50x4D	2	6	50	4	9x25x75x10D	9	25	75	10
	2x6x50x6D	2	6	50	6	10x25x75x10D	10	25	75	10
	2.5x8x50x4D	2.5	8	50	4	10x40x100x10D	10	40	100	10
	2.5x8x50x6D	2.5	8	50	6	10x55x120x10D	10	55	120	10
	3x9x50x3D	3	9	50	3	10x55x150x10D	10	55	150	10
	3x9x50x4D	3	9	50	4	10x60x200x10D	10	60	200	10
	3x9x50x6D	3	9	50	6	11x30x75x12D	11	30	75	12
	3x12x75x3D	3	12	75	3	12x30x75x12D	12	30	75	12
	3x12x75x6D	3	12	75	6	12x45x100x12D	12	45	100	12
	3x15x100x3D	3	15	100	3	12x60x120x12D	12	60	120	12
	3.5x12x50x4D	3.5	12	50	4	12x60x150x12D	12	60	150	12
	4x12x50x4D	4	12	50	4	12x65x200x12D	12	65	200	12
	4x12x50x6D	4	12	50	6	13x45x100x14D	13	45	100	14
	4x15x75x4D	4	15	75	4	14x45x100x14D	14	45	100	14
	4x15x75x6D	4	15	75	6	14x50x150x14D	14	50	150	14
	4x20x100x4D	4	20	100	4	14x70x200x14D	14	70	200	14
	4.5x12x50x6D	4.5	12	50	6	15x45x100x15D	15	45	100	16
	5x13x50x5D	5	13	50	5	16x45x100x16D	16	45	100	16
	5x13x50x6D	5	13	50	6	16x70x150x16D	16	70	150	16
	5x20x75x5D	5	20	75	5	16x75x200x16D	16	75	200	16
	5x25x100x5D	5	25	100	5	18x45x100x18D	18	45	100	18
	6x16x50x6D	6	16	50	6	18x50x150x18D	18	50	150	18
	6x25x75x6D	6	25	75	6	20x45x100x20D	20	45	100	20
	6x30x100x6D	6	30	100	6	20x70x150x20D	20	70	150	20
	6x35x150x6D	6	35	150	6	20x75x200x20D	20	75	200	20
	7x20x60x8D	7	20	60	8					

P	M	K	N	S	H
✓	✓	✓		✓	✓

Solid carbide milling-55HRC

High performance machining

- Factory standard
- Centre cutting

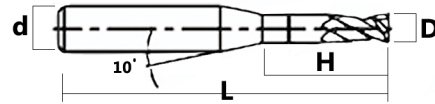


BALLNOSE-MILLING-2F	Type	Dimensions(mm)				Type	Dimensions(mm)			
		D	H	L	d		D	H	L	d
	R0.15x0.6x50x4D	0.3	0.6	50	4	R2.5x10x50x5D	5	10	50	5
	R0.20x0.6x50x4D	0.4	0.6	50	4	R2.5x10x75x5D	5	10	75	5
	R0.25x0.6x50x4D	0.5	0.6	50	4	R2.5x10x100x5D	5	10	100	5
	R0.30x0.6x50x4D	0.6	0.6	50	4	R3.0x12x50x6D	6	12	50	6
	R0.5x2x50x4D	1	2	50	4	R3.0x12x75x6D	6	12	75	6
	R0.5x2x50x6D	1	2	50	6	R3.0x12x100x6D	6	12	100	6
	R0.75x3x50x4D	1.5	3	50	4	R3.0x12x150x6D	6	12	150	6
	R1.0x2x50x2D	2	2	50	2	R3.5x14x60x8D	7	14	60	8
	R1.0x2x50x4D	2	2	50	4	R4.0x16x60x8D	8	16	60	8
	R1.0x6x75x2D	2	6	75	2	R4.0x16x75x8D	8	16	75	8
	R1.0x6x75x4D	2	6	75	4	R4.0x16x100x8D	8	16	100	8
	R1.0x6x100x2D	2	6	100	2	R4.0x16x150x8D	8	16	150	8
	R1.25x5x50x4D	2.5	5	50	4	R5.0x20x75x10D	10	20	75	10
	R1.25x5x50x6D	2.5	5	50	6	R5.0x20x100x10D	10	20	100	10
	R1.5x6x50x3D	3	6	50	3	R5.0x20x150x10D	10	20	150	10
	R1.5x6x50x4D	3	6	50	4	R5.0x20x200x10D	10	20	200	10
	R1.5x6x100x3D	3	6	100	3	R6.0x24x75x12D	12	24	75	12
	R2.0x8x50x4D	4	8	50	4	R6.0x24x100x12D	12	24	100	12
	R2.0x8x75x4D	4	8	75	4	R6.0x24x150x12D	12	24	150	12
	R2.0x8x100x4D	4	8	100	4	R6.0x24x200x12D	12	24	200	12

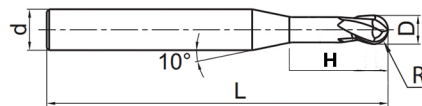
P	M	K	N	S	H
✓	✓	✓		✓	✓

High performance machining

- Factory standard
- Centre cutting



END-MILLING-TALL NECK-4F	Type	Dimensions(mm)				Type	Dimensions(mm)			
		D	H	L	d		D	H	L	d
	1.0x9x50x4D	1.0	9	50	4	2.0x9x50x4D	2.0	9	50	4
	1.0x16x50x4D	1.0	16	50	4	2.0x16x50x4D	2.0	16	50	4
	1.0x16x50x6D	1.0	16	50	6	2.0x16x50x6D	2.0	16	50	6
	1.0x20x50x4D	1.0	20	50	4	2.0x20x50x6D	2.0	20	50	6
	1.0x25x75x4D	1.0	25	75	4	2.0x25x75x4D	2.0	25	75	4
	1.5x9x50x4D	1.5	9	50	4	2.5x16x50x4D	2.5	16	50	4
	1.5x16x50x4D	1.5	16	50	4	2.5x20x50x4D	2.5	20	50	4
	1.5x16x50x6D	1.5	16	50	6	2.5x25x75x4D	2.5	25	75	4
	1.5x20x50x4D	1.5	20	50	4					
	1.5x25x75x4D	1.5	25	75	4					



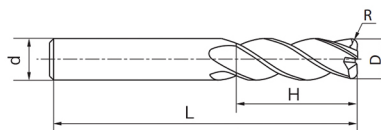
BALLNOSE-MILLING TALL NECK-2F	Type	Dimensions(mm)				Type	Dimensions(mm)			
		D	H	L	d		D	H	L	d
	R0.5x10x50x4D	1.0	10	50	4	R0.75x20x50x4D	1.5	20	50	4
	R0.5x16x50x4D	1.0	16	50	4	R1.0x10x50x4D	2.0	10	50	4
	R0.5x20x50x4D	1.0	20	50	4	R1.0x16x50x4D	2.0	16	50	4
	R0.75x10x50x4D	1.5	10	50	4	R1.0x20x50x4D	2.0	20	50	4
	R0.75x16x50x4D	1.5	16	50	4					

P	M	K	N	S	H
✓	✓	✓		✓	✓

High performance machining

-Factory standard

-Centre cutting

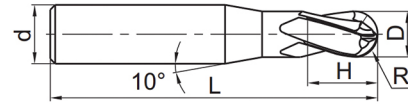
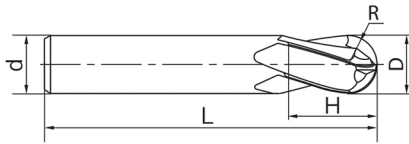


	Type	D	Tipradius(R)					Dimensions(mm)		
			R0.5	R1.0	R1.5	R2.0	R3.0	H	L	d
TIPRADIUS-MILLING-4F	2x6x50x2D	2	★					6	50	2
	2x9x50x4D	2	★					9	50	4
	2x9x50x6D	2	★					9	50	6
	3x9x50x3D	3	★	★				9	50	3
	3x9x50x4D	3	★					9	50	4
	3x9x50x6D	3	★					9	50	6
	3x12x75x3D	3	★	★				12	75	3
	3x12x75x4D	3	★					12	75	4
	3x12x75x6D	3	★					12	75	6
	3x15x100x3D	3	★					15	100	3
	4x12x50x4D	4	★	★				12	50	4
	4x12x50x6D	4	★	★				12	50	6
	4x15x75x4D	4	★	★				15	75	4
	4x15x75x6D	4	★	★				15	75	6
	4x20x100x4D	4	★					20	100	4
	5x13x50x5D	5	★	★				13	50	5
	5x20x75x5D	5	★	★				20	75	5
	5x25x100x5D	5	★	★				25	100	5
	6x16x50x6D	6	★	★				16	50	6
	6x25x75x6D	6	★	★				25	75	6
	6x30x100x6D	6	★	★				30	100	6
	6x35x150x6D	6	★					35	100	6
	8x20x60x8D	8	★	★				20	60	8
	8x30x75x8D	8	★	★		★		30	75	8
	8x35x100x8D	8	★	★				35	100	8
	8x40x150x8D	8	★	★				40	150	8
	10x25x75x10D	10	★	★	★	★	★	25	75	10
	10x40x100x10D	10	★	★	★	★	★	40	100	10
	10x55x150x10D	10	★	★				55	150	10
	10x60x200x10D	10	★	★				60	200	10
	12x30x75x12D	12	★	★	★	★	★	30	75	12
	12x45x100x12D	12	★	★	★	★	★	45	100	12
	12x60x150x12D	12	★	★				60	150	12
	14x45x100x14D	14		★		★	★	45	100	14
	16x45x100x16D	16		★		★	★	45	100	16

P	M	K	N	S	H
✓	✓	✓		✓	✓

High performance machining

- Factory standard
- Centre cutting



BALLNOSE-MILLING-4F	Type	Dimensions(mm)				Type	Dimensions(mm)			
		D	H	L	d		D	H	L	d
	R1.25x5x50x4D-4F	2.5	5	50	4	R4.0x16x100x8D-4F	8	16	100	8
	R1.5x6x50x3D-4F	3	6	50	3	R5.0x20x75x10D-4F	10	20	75	10
	R1.5x6x100x3D-4F	3	6	100	3	R5.0x20x100x10D-4F	10	20	100	10
	R2.0x8x50x4D-4F	4	8	50	4	R6.0x24x75x12D-4F	12	24	75	12
	R2.0x8x100x4D-4F	4	8	100	4	R6.0x24x100x12D-4F	12	24	100	12
	R2.5x10x50x5D-4F	5	10	50	5	R7.0x28x100x14D-4F	14	28	100	14
	R2.5x10x100x5D-4F	5	10	100	5	R8.0x32x100x16D-4F	16	32	100	16
	R3.0x12x50x6D-4F	6	12	50	6	R8.0x32x150x16D-4F	16	32	150	16
	R3.0x12x100x6D-4F	6	12	100	6	R10.0x40x100x20D-4F	20	40	100	20
	R4.0x16x60x8D-4F	8	16	60	8	R10.0x40x150x20D-4F	20	40	150	20



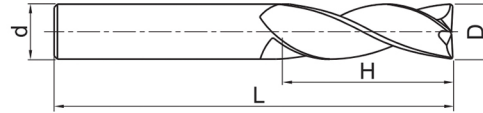
END-MILLING-4F ROUGH	Type	Dimensions(mm)			
		D	H	L	d
	6x16x50x6D	6	16	50	6
	8x20x50x8D	8	20	60	8
	10x25x75x10D	10	25	75	10
	12x30x75x12D	12	30	75	12
	16x45x100x16D	16	45	100	16
	20x45x100x20D	20	45	100	20

P	M	K	N	S	H
✓	✓	✓		✓	✓

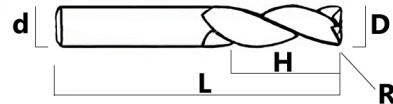
Solid carbide milling-55HRC

High performance machining

- Factory standard
- Centre cutting



	Type	Dimensions(mm)				Type	Dimensions(mm)			
		D	H	L	d		D	H	L	d
END-MILLING-3F ALUMINIUM	2x6x50x4D	2	6	50	4	10x25x75x10D	10	25	75	10
	3x9x50x3D	3	9	50	3	10x40x100x10D	10	40	100	10
	3x12x75x3D	3	12	75	3	10x55x150x10D	10	55	150	10
	3x15x100x3D	3	15	100	3	12x30x75x12D	12	30	75	12
	4x12x50x4D	4	12	50	4	12x45x100x12D	12	45	100	12
	4x15x75x4D	4	15	75	4	12x60x150x12D	12	60	150	12
	4x20x100x4D	4	20	100	4	14x45x100x14D	14	45	100	14
	5x13x50x5D	5	13	50	5	14x50x150x14D	14	50	150	14
	5x20x75x5D	5	20	75	5	16x45x100x16D	16	45	100	16
	5x25x100x5D	5	25	100	5	16x50x150x16D	16	50	150	16
	6x16x50x6D	6	16	50	6	18x45x100x18D	18	45	100	18
	6x25x75x6D	6	25	75	6	18x50x150x18D	18	50	150	18
	6x30x100x6D	6	30	100	6	20x45x100x20D	20	45	100	20
	8x20x60x8D	8	20	60	8	20x70x150x20D	20	70	150	20
	8x30x75x8D	8	30	75	8					
	8x35x100x8D	8	35	100	8					
	8x40x150x8D	8	40	150	8					

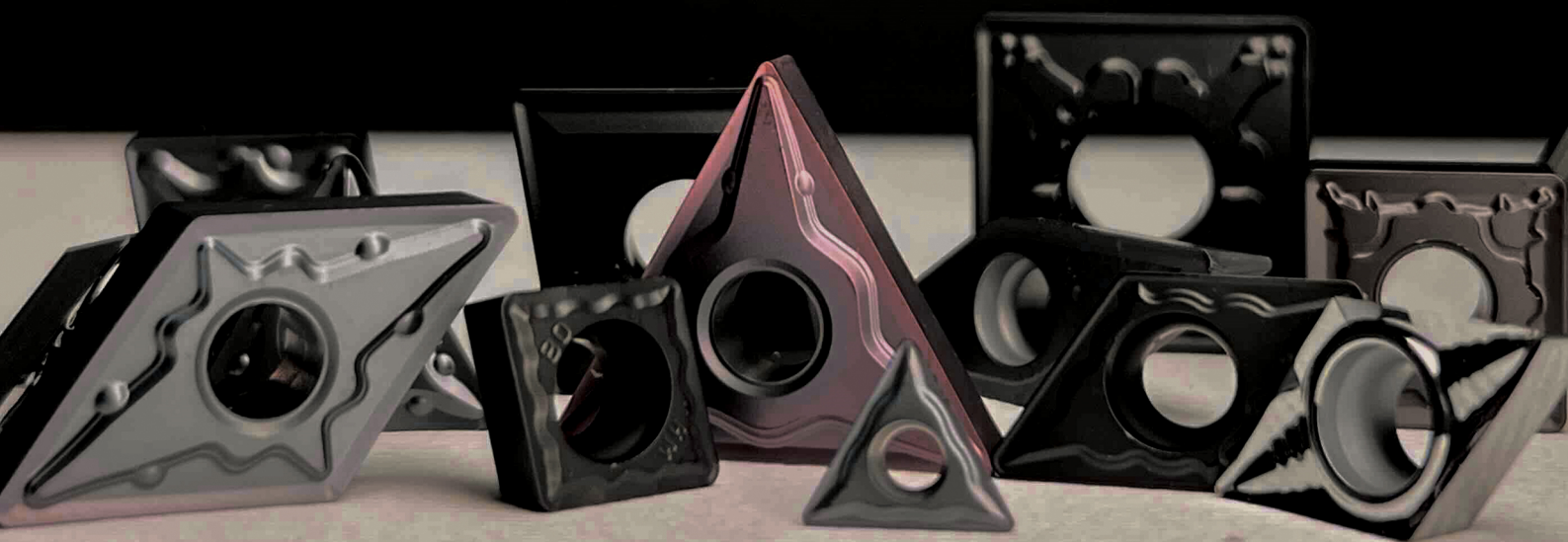


	Type	D	R	Dimensions(mm)		
				H	L	d
TIP RADIUS - MILLING-3F ALUMINIUM	3x9x50x3D	3	0.5	9	50	3
	4x12x50x4D	4	0.5	12	50	4
	5x13x50x5D	5	0.5	13	50	5
	6x16x50x6D	6	0.5	16	50	6

P	M	K	N	S	H
			✓		



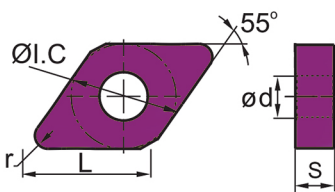
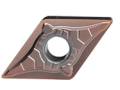
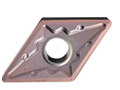
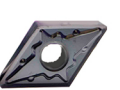
- DNMG
- TNMG
- CNMG
- DCMT
- CCMT
- WNMG
- TCMT
- DCGX
- CCGX
- VCGX



- Ideal&Normal machining conditions
 ☼ Unfavourable machining conditions

DN**	L	I.C	S	d
15 06	15.5	12.7	6.35	5.16

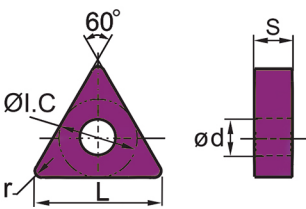
TURNING INSERT

DN** Positive insert					CVD		PVD	
	P	Steel	☼				●	
	K	Cast iron		☼			●	
	M	Stainless steel					☼	●
	N	Aluminium						
	S	Super alloy					☼	●
	H	Hard metal	☼					
	ISO	r	a _p	f	CW4125	CW3115D	CW1125	CW1530
	DNMG150604-TM	0.4	0.1-0.5	0.5-4.0	★			
	DNMG150608-TM	0.8	0.5-3.0	0.1-0.5	★			
	DNMG150612-PT	12	1.0-5.5	0.15-0.6	★			
	DNMG150616-PT	16	1.0-5.5	0.2-0.6	★			
	DNMG150608-FC	0.8	0.5-4.0	0.15-0.4		★		
	DNMG150612-FC	12	1.0-6.0	0.2-0.6		★		
	DNMG150604-MSF	0.4	0.5-2.5	0.10-0.3			★	
	DNMG150608-MM	0.8	0.5-2.5	0.10-0.3			★	
	DNMG150604-MSF	0.4	0.5-3.0	0.05-0.2				★
	DNMG150608-MM	0.8	1.0-3.0	0.05-0.3				★

- Ideal&Normal machining conditions
 ☼ Unfavourable machining conditions

TN**	L	I.C	S	d
16 04	16.5	9.525	4.76	3.81
22 04	22	12.7	4.76	5.16

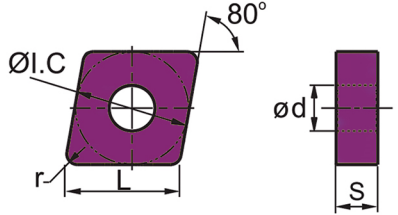
TURNING INSERT

TN**Positive insert					CVD		PVD	
					P Steel ☼ K Cast iron ☼ M Stainless steel ☼ N Aluminium ☼ S Super alloy ☼ H Hard metal ☼			
	ISO	r	ap	f	CW4125	CW3115D	CW1125	CW1530
	TNMG220404-MM	0.4	0.5-3.0	0.05-0.3	★			
	TNMG220408-MM	0.8	0.5-4.0	0.1-0.5	★			
	TNMG220408-KM	0.8	0.5-3.0	0.05-0.25		★		
	TNMG220412-KM	12	1.0-6.0	0.20-0.6		★		
	TNMG220404-MM	0.4	0.5-2.5	0.05-0.2			★	
	TNMG220408-MM	0.8	0.5-2.5	0.1-0.3			★	
	TNMG220404-MM	0.4	0.5-2.5	0.05-0.2				★
	TNMG220404-MM	0.8	0.5-2.5	0.1-0.3				★
	TNMG160404-MA	0.4	0.5-3.0	0.1-0.3				★
	TNMG160408-MA	0.8	0.5-3.0	0.05-0.2				★

- Ideal&Normal machining conditions
 ⊗ Unfavourable machining conditions

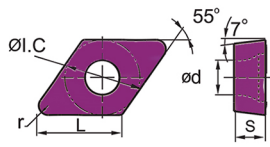
CN**	L	I.C	S	d
12 04	12.9	12.7	4.76	5.16
16 06	16.1	15.875	6.35	6.35
19 06	19.3	19.05	6.35	7.94

TURNING INSERT

CN** Positive insert					CVD		PVD	
					P Steel 			
					K Cast iron 			
					M Stainless steel 			
					N Aluminium 			
					S Super alloy 			
					H Hard metal 			
	ISO	r	ap	f	CW4125	CW3115D	CW1125	CW1530
	CNMG120404-TM	0.4	0.2-2.0	0.05-0.3	★			
	CNMG120408-TM	0.8	0.5-2.0	0.1-0.4	★			
	CNMG120412-PM	12	2.0-5.5	0.15-0.6	★			
	CNMG120408-KM	0.8	1.0-5.0	0.2-0.5		★		
	CNMG120412-KM	12	1.0-5.0	0.2-0.5		★		
	CNMA120416-KM	16	1.0-5.0	0.2-0.5		★		
	CNMA120416	16	0.2-7.0	0.15-0.65		★		
	CNMG120404-MM	0.4	0.5-3.0	0.05-0.3			★	
	CNMG120408-MM	0.8	0.10-7.5	0.10-0.3			★	
	CNMG120404-MM	0.4	0.5-2.5	0.05-0.2				★
	CNMG120408-MM	0.8	1.0-3.0	0.1-0.3				★
	CNMG160608-TC	0.8	2.0-6.0	0.25-0.6	★			
	CNMG190612-TC	12	1.0-7.0	0.15-0.6	★			

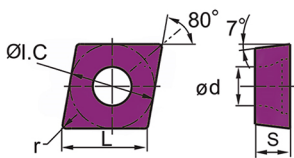
- Ideal&Normal machining conditions
 ⊗ Unfavourable machining conditions

DC**	L	I.C	S	d
07 02	7.8	6.35	2.38	2.8
11 T3	11.6	9.525	3.97	4.4

DC** Positive insert						CVD		PVD	
					(P) Steel				
					(K) Cast iron				
					(M) Stainless steel				
					(N) Aluminium				
					(S) Super alloy				
					(H) Hard metal				
	ISO	r	ap	f	CW4125	CW3115D	CW1125	CW1530	
	DCMT070204-MP	0.8	0.5-3.0	0.08-0.3				★	
	DCMT070208-MP	0.8	0.5-3.0	0.05-0.2				★	
	DCMT11T302-TF	0.2	0.2-2.0	0.05-0.2				★	
	DCMT11T304-MP	0.4	0.2-2.0	0.10-0.3				★	
	DCMT11T308-MP	0.8	0.8-3.0	0.08-0.3				★	
	DCMT11T308-HM	0.8	1.0-3.0	0.05-0.2		★			

- Ideal&Normal machining conditions
 ⊗ Unfavourable machining conditions

CCMT	L	I.C	S	d
06 02	6.4	6.35	2.38	2.8
09 T3	9.7	9.525	3.97	4.4
12 04	12.9	12.7	4.76	5.56

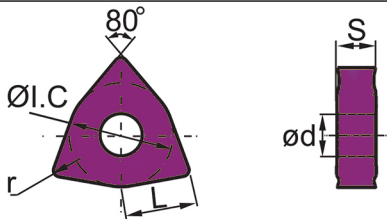
CC** Positive insert					CVD		PVD	
				(P) Steel				
				(K) Cast iron				
				(M) Stainless steel				
				(N) Aluminium				
				(S) Super alloy				
				(H) Hard metal				
	ISO	r	ap	f	CW4125	CW3115D	CW1125	CW1530
	CCMT060204-MP	0.4	0.8-3.0	0.05-0.2				★
	CCMT060208-MP	0.4	0.5-3.0	0.05-0.2				★
	CCMT09T304-MP	0.4	0.8-3.0	0.08-0.3				★
	CCMT09T308-MP	0.8	0.2-2.0	0.05-0.2				★
	CCMT09T308-HM	0.8	0.5-3.0	0.1-0.4		★		
	CCMT120408-TM	0.8	0.5-3.0	0.1-0.5	★			
	CCMT120408-TM	0.8	1.0-6.0	0.2-0.6		★		

○ Ideal&Normal machining conditions

✳ Unfavourable machining conditions

WN**	L	I.C	S	d
08 04	8.7	12.7	4.76	5.16

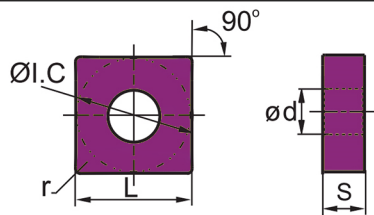
TURNING INSERT

WN** Positive insert						CVD		PVD	
					P Steel				
					K Cast iron				
					M Stainless steel				
					N Aluminium				
					S Super alloy				
					H Hard metal				
	ISO	r	ap	f	CW4125	CW3115D	CW1125	CW1530	
	WNG080404-TM	0.4	0.5-3.0	0.1-0.5	★				
	WNG080408-TM	0.8	1.0-5.0	0.1-0.5	★				
	WNG080412-TM	12	1.0-5.5	0.15-0.6	★				
	WNG080412-TC	12	2.0-6.0	0.25-0.6		★			
	WNG080404-MM	0.4	0.5-3.0	0.05-0.3			★		
	WNG080408-MM	0.8	1.0-3.0	0.1-0.3			★		
	WNG080404-MM	0.4	0.5-2.5	0.05-0.2				★	
	WNG080408-MM	0.8	1.0-3.0	0.1-0.3				★	

- Ideal&Normal machining conditions
- ⊗ Unfavourable machining conditions

SN**	L	I.C	S	d
12 04	12.7	12.7	4.76	5.16
15 06	15.875	15.875	6.35	6.35
19 06	19.05	19.05	6.35	7.94

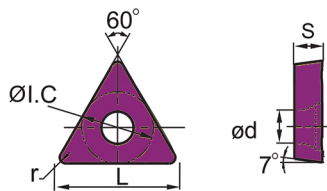
TURNING INSERT

SN** Positive insert					CVD		PVD	
					P Steel	⊗	○	
					K Cast iron	⊗	○	
					M Stainless steel		⊗	○
					N Aluminium			
					S Super alloy		⊗	○
					H Hard metal	⊗		
	ISO	r	ap	f	CW4125	CW3115D	CW1125	CW1530
	SNMG120408-TM	0.8	1.0-5.0	0.25-0.7	★			
	SNMG120412-TC	12	1.0-5.0	0.2-0.5		★		
	SNMG150612-PM	12	2.0-6.0	0.25-0.6	★			
	SNMG190612-PM	12	1.0-7.5	0.2-0.69	★			

GENERAL TURNING

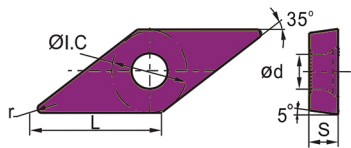
- Ideal&Normal machining conditions
 ⊗ Unfavourable machining conditions

TC**	L	I.C	S	d
09 02	9.63	5.56	2.38	2.5
11 02	11	6.35	2.38	2.8
16 T3	16.5	9.525	3.97	4.4
22 04	22	12.7	4.76	5.5

TC** Positive insert					CVD		PVD	
								
					P	Steel	⊗	●
					K	Cast iron	⊗	●
					M	Stainless steel	⊗	●
					N	Aluminium		
					S	Super alloy	⊗	●
					H	Hard metal	⊗	
	ISO	r	ap	f	CW4125	CW3115D	CW1125	CW1530
	TCMT090204-TM	0.4	0.1-2.0	0.05-0.2				★
	TCMT110208-TM	0.8	1.0-5.0	0.1-0.5	★			
	TCMT16T308-TM	0.8	1.0-3.0	0.1-0.3				★
	TCMT220408-TR	0.8	1.0-4.0	0.15-0.5	★			

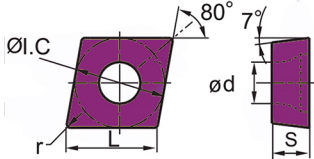
- Ideal&Normal machining conditions
 ⊗ Unfavourable machining conditions

VBMT	L	I.C	S	d
16 04	16.5	9.525	4.76	4.4

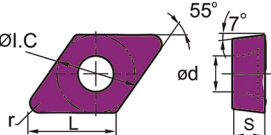
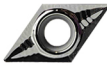
VB** Positive insert					CVD		PVD	
								
					P	Steel	⊗	●
					K	Cast iron	⊗	●
					M	Stainless steel	⊗	●
					N	Aluminium		
					S	Super alloy	⊗	●
					H	Hard metal	⊗	
	ISO	r	ap	f	CW4125	CW3115D	CW1125	CW1530
	VBMT160404-MT	0.4	0.2-2.0	0.05-0.2				★
	VBMT160408-MT	0.8	0.8-3.0	0.08-0.3				★

TURNING/MILLING INSERT

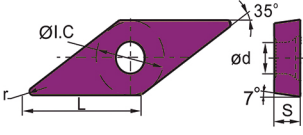
- Ideal&Normal machining conditions
 ☼ Unfavourable machining conditions

CC** Positive					CVD
					P Steel K Cast iron M Stainless steel N Aluminium S Super alloy H Hard metal
ISO	r	ap	f	N Aluminium	
	CCGX09T302-AK	0.2	1.0-5.0	0.05-0.5	★
	CCGX09T304-AK	0.4	1.0-5.0	0.05-0.5	★
	CCGX09T308-AK	0.8	1.0-5.0	0.05-0.5	★

d	4.4
S	3.97
I.C	9.525
L	9.7
CCGX	09 T3

DC** Positive					CVD
					P Steel K Cast iron M Stainless steel N Aluminium S Super alloy H Hard metal
ISO	r	ap	f	N Aluminium	
	DCGX11T302-AK	0.2	1.0-5.0	0.05-0.5	★
	DCGX11T304-AK	0.4	1.0-5.0	0.05-0.5	★
	DCGX11T308-AK	0.8	1.0-5.0	0.05-0.5	★

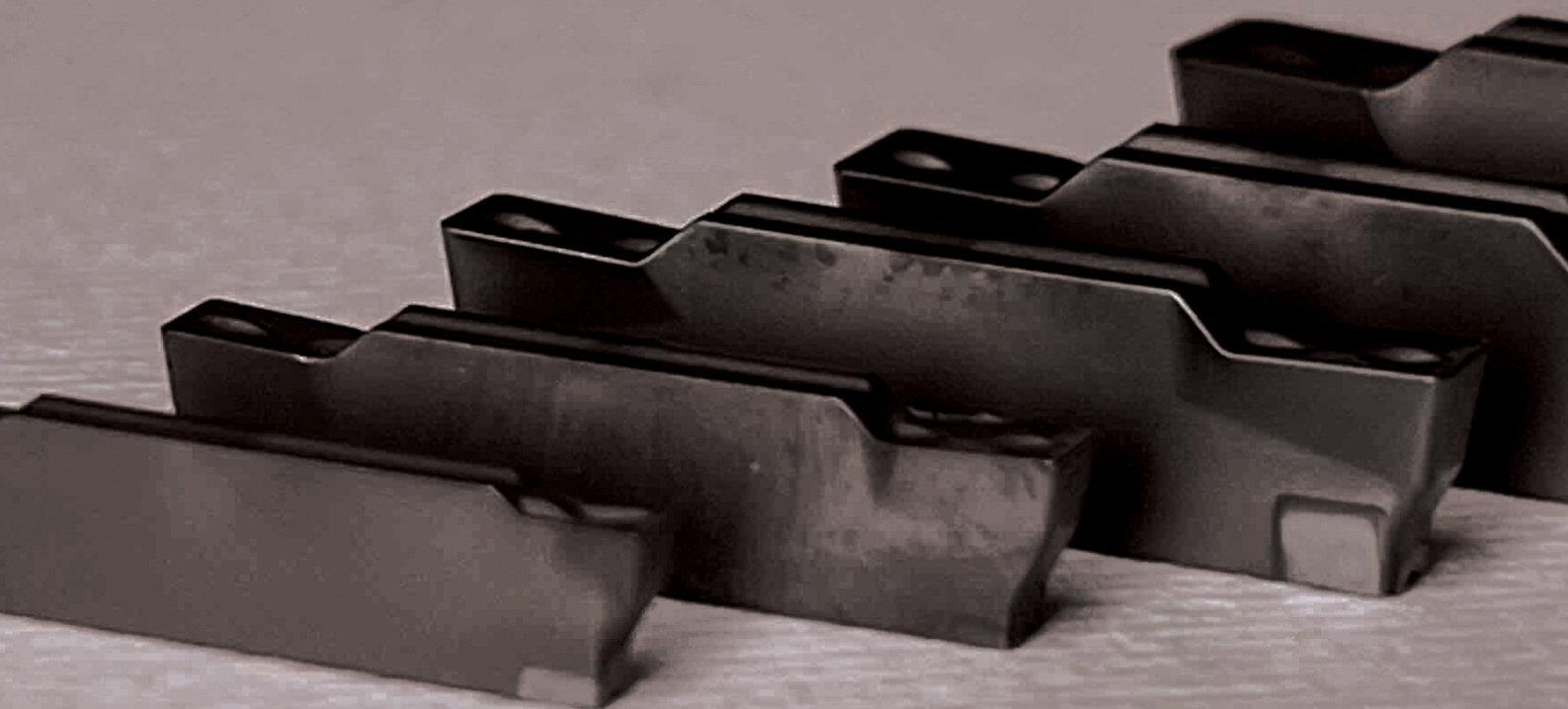
d	4.4
S	3.97
I.C	9.525
L	11.6
DCGX	11 T3

VC** Positive					CVD
					P Steel K Cast iron M Stainless steel N Aluminium S Super alloy H Hard metal
ISO	r	ap	f	N Aluminium	
	VCGX09T302-AK	0.2	1.0-5.0	0.05-0.5	★
	VCGX09T304-AK	0.4	1.0-5.0	0.05-0.5	★
	VCGX09T308-AK	0.8	1.0-5.0	0.05-0.5	★

d	4.4
S	4.76
I.C	9.525
L	16.6
VCGX	16 04

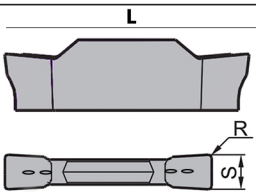


- MGMN200
- MGMN250
- MGMN300
- MGMN400
- MGMN500



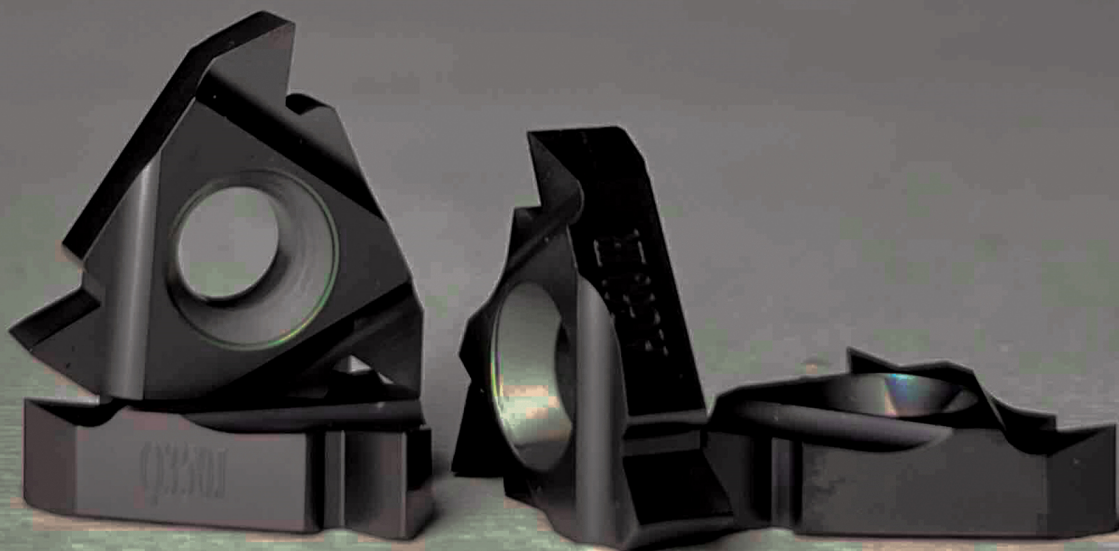
GROVING INSERT

○ Ideal&Normal machining conditions
 ☼ Unfavourable machining conditions

MG** Positive						CVD		PVD	
						P Steel ☼ K Cast iron ☼ M Stainless steel ☼ N Aluminium S Super alloy ☼ H Hard metal ☼			
	ISO	R±0.05	La max	S±0.1	f	CW4125	CW3115D	CW1125	CW1530
	MGMN2002-N	0.2	16	2	0.05-0.2				★
	MGMN2503-N	0.3	18.5	2.5	0.05-0.2				★
	MGMN3003-N	0.3	21	3	0.1-0.3				★
	MGMN4004	0.4	21	4	0.1-0.3				★
	MGMN5004-N	0.4	26	5	0.1-0.3				★



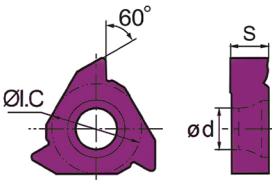
- 11ER-AG60
- 11IR-AG60
- 16ER-AG60
- 16IR-AG60
- 22ER-AG60
- 22IR-AG60

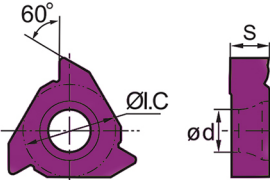


- Ideal&Normal machining conditions
 ⊗ Unfavourable machining conditions

R/LT**N/W	I.C	S	d
11	6.35	3.18	2.8
16	9.525	3.97	4.4
22	12.7	5.56	5.5

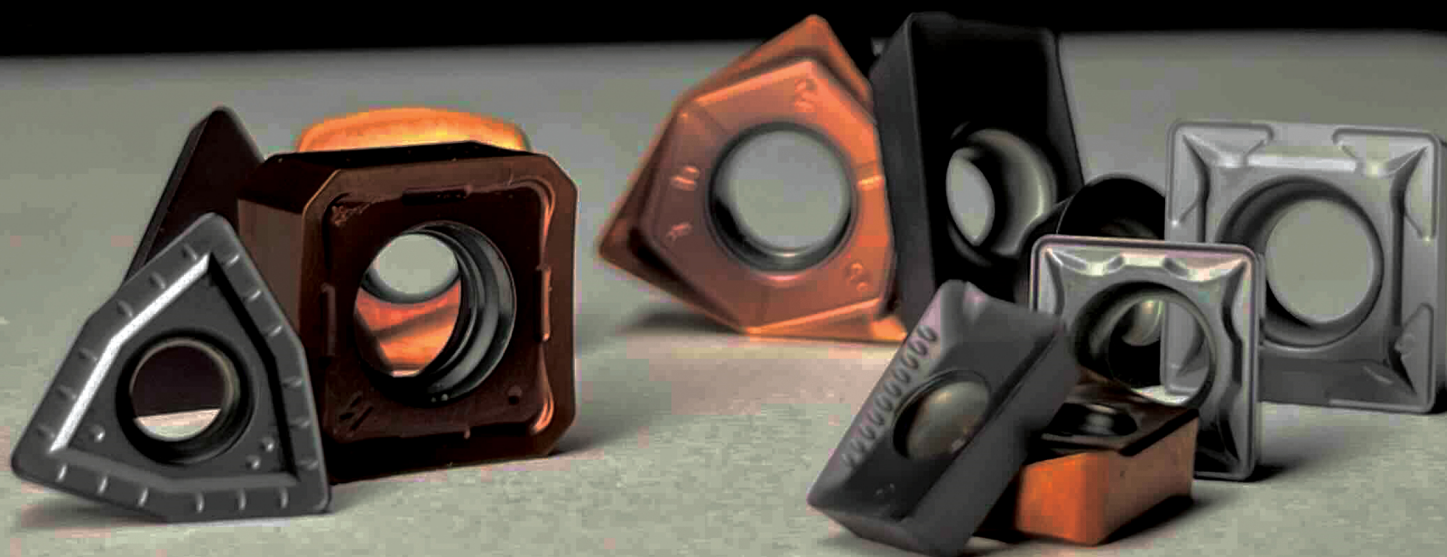
Treading inserts

ISO metric coarse thread 60° full profile				CVD		PVD	
				P Steel	⊗	●	
				K Cast iron	⊗	●	
				M Stainless steel		●	
				N Aluminium			
				S Super alloy		●	
				H Hard metal	⊗		
	External	ISO	Pitch(mm)	CW4125	CW3115D	CW1125	CW1530
	11ER-AG60	11	0.5-2				★
	16ER-AG60	16	1-3				★
	22ER-AG60	22	3.5-6				★

ISO metric coarse thread 60° full profile				CVD		PVD	
				P Steel	⊗	●	
				K Cast iron	⊗	●	
				M Stainless steel		●	
				N Aluminium			
				S Super alloy		●	
				H Hard metal	⊗		
	External	ISO	Pitch(mm)	CW4125	CW3115D	CW1125	CW1530
	11IR-AG60	11	0.5-2				★
	16IR-AG60	16	1-3				★
	22IR-AG60	22	3.5-6				★

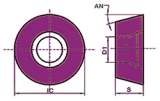
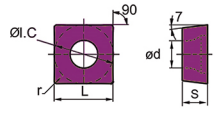
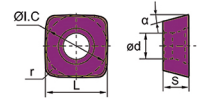
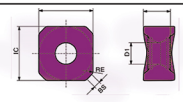
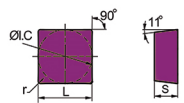
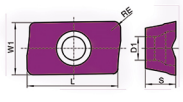


- RDMT10T3
- RDMT1204
- SCMT09T308
- SCMT120408
- SDMT120512
- SNMX1205ANN
- SPUN120308
- SPUN150408
- APKT1035PDSR
- APKT160408
- LNMU0303ZER
- WNMU080608
- TPUN160308
- TPUN220408
- WCMX030208
- WCMX040208
- WCMX050308
- WCMX06T308
- WCMX080408



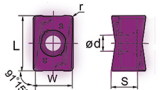
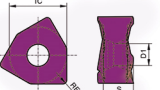
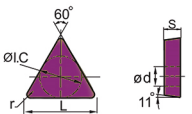
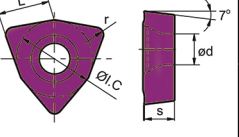
MILLING INSERT

		PVD	
P	Steel		
K	Cast iron		
M	Stainless steel		
N	Aluminium		
S	Super alloy		
H	Hard metal		

Milling Positive	ISO		r	L	IC	S	d	f	CW1125	CW1530
		RDMT10T3MO-MM	-	10.00	10.00	3.97	4.5	0.1-0.3		★
		RDMT1204MO-MM	-	12.00	12.00	4.76	5.5	0.1-0.4		★
		SCMT09T308-MP	0.8	9.525	9.525	3.97	4.4	0.05-0.2		★
		SCMT120408-MP	0.8	12.7	12.7	4.76	5.56	0.1-0.3		★
		SDMT120512-GM	12	12.7	12.7	5.56	4.6	0.1-0.3		★
		SNMX1205ANN-M	-	12.4	12.4	5.7	5.9	0.1-0.3		★
		SPUN120308-SKR	0.8	12.7	12.7	3.18	-	0.1-0.3		★
		SPUN150408-SKR	0.8	15.875	15.875	4.76	-	0.1-0.4		★
		APKT1035PDSR	0.4	10.6	10.6	3.24	2.6	0.1-0.4		★
		APKT160408-ZM	0.8		17.65	9.64	4.76	0.1-0.4		★

MILLING INSERT

		PVD	
P	Steel		●
K	Cast iron		●
M	Stainless steel		●
N	Aluminium		
S	Super alloy		●
H	Hard metal		

Milling Positive	ISO		r	L	IC	S	d	f	CW1125	CW1530
		LNMU0303ZER-MJ	-	11.58	11.58	4.45	2.65	0.1-0.3		★
		WNMU080608EN-M	0.8	12.00	12.00	6.35	4.6	0.1-0.4		★
		TPUN160308-SKR	0.8	16.5	9.525	3.18	-	0.1-0.3		★
		TPUN220408-SKR	0.8	22	12.7	4.76	-	0.1-0.4		★
		WCMX030208-UK	0.8	3.8	5.56	2.8	2.8	0.1-0.4		★
		WCMX040208-UK	0.8	4.3	6.35	3.1	3.1	0.1-0.4		★
		WCMX050308-UK	0.8	5.4	7.94	3.2	3.2	0.1-0.4		★
		WCMX06T308-UK	0.8	6.5	9.525	3.7	3.7	0.1-0.4		★
		WCMX080408-UK	0.8	8.7	12.7	4.3	4.3	0.1-0.4		★

TURNING & MILLING

ISO		General Turning		General Milling	Threading	Grooving
Code		Coating		Coating	Coating	Coating
		CVD	PVD	PVD	PVD	PVD
P Steel	P01					
	P10		CW1530	CW1530	CW1530	CW1530
	P20	CW4125	CW1530	CW1530	CW1530	CW1530
	P30	CW4125	CW1530		CW1530	CW1530
	P40					
M Stainless Steel	M01					
	M10		CW1530	CW1530	CW1530	CW1530
	M20		CW1530 CW1125	CW1530 CW1125	CW1530 CW1125	CW1530 CW1125
	M30		CW1125	CW1125	CW1125	CW1125
K Cast iron	K01					
	K10	CW3115D	CW3115D N20 CW1530	CW1530 CW3115D	CW1530	CW1530
	K20	CW3115D	CW3115D N20 CW1530	CW1530 CW3115D	CW1530	CW1530
	K30					
N Non ferrous metal	N01					
	N10	N20		N20		N20
	N20	N20		N20		N20
	N30					
S Heat resistant alloy & Ti alloy	S01					
	S10		CW1530 CW1125	CW1530 CW1125	CW1530 CW1125	CW1530 CW1125
	S20		CW1530 CW1125	CW1530 CW1125	CW1530 CW1125	CW1530 CW1125
	S30					
H Super hard metal	H01					
	H10					
	H20					
	H30					

CW4125

Comprising of thick TiCN and Al₂O₃ coating, the grade has high capability against plastic deformation and good hardness of cutting edge. It is preferred grade for machining of steel from finishing to roughing. Under the same cutting conditions, the cutting speed can be increased by more than 25%, while the tool life can be 30% longer under the same cutting speed.

CW3115D

CVD coated grade, which is the combination of hard substrate and coating (medium thick Al₂O₃ + Thick TiCN), has good flaking resistance. It is suitable for turning of cast iron at high speed, and light intermittent cutting can be supported even at moderate. It is also suitable for milling of cast iron.

- The combination of thick coating and substrate with good hardness and impact resistance gives the inserts excellent resistance and stability under high temperature, and improves wear resistance of inserts. Inserts also satisfy the requirements of high speed and high feed rate when machining cast iron.
- The appearance of shining full back is easily identified.
- Working efficiency has been improved. Both the coating and the substrate are suitable for machining cast iron at high speed and high feed rate. Cutting speed can be increased by 30%.
- Cost is reduced as tool life is increased by 40%-50%.
- High machining stability.

CW1125

Suitable for relatively small workpieces which require high surface smoothness.

PVD coating grade of finishing of stainless steel

Superfine TiAlN nano coating added with wear-resistant and heat-resistant, providing effective protection for the cutting edge. Special coating technology ensures stronger combination of coating and substrate. It is suitable for extra finishing of stainless steel.

CW1530

PVD coated P10-P30/M10-M25 carbide substrate for finishing to medium application of stainless steel and steel (milling). Good wear resistance in a wide application field.

	Range of machining	Grade	Vc (m/min)
 STEEL	For finishing	CW1530	180-360
	For semi-finishing	CW4125	280-440
	For roughing	CW4125	200-320
 Stainless steel	For finishing	CW1530	110-270
	For semi-finishing	CW1125	160-300
	For roughing	CW1125	140-260
 Cast iron	For finishing	CW1530	140-220
	For semi-finishing	CW3115D	160-300
	For roughing	CW3115D	160-300
 Heat resistant Alloy Ti alloy	For finishing	CW1530	110-270
	For semi-finishing	CW1125	160-300
	For roughing	CW1125	140-260

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Our company (**STERN**) is the basis of manufacturing and selling CNC cutting tools with a large scale, advanced production, advanced equipment and technology, and using quality raw materials.

-Starting from the very beginning of material selection, we strictly control each procedure and implement to guarantee the stable quality of products.

-We offer considerate and professional technology services regarding order of standard or non-standard tailor-made products.

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