

## Application recommendation



Specification	Aluminum	Non and low-alloyed steels		High-alloyed steels		HSS	INOX	Tungsten carbide	Industrial ceramics	Cast iron	Dry grinding	Wet grinding	Page
		Unhardened	Hardened	Unhardened	Hardened								
STARTEC-BASIC, B				●		●						●	301, 302
STARTEC-BASIC, D								●				●	303, 304
STARTEC-XP-P, B STARTEC-HP, B				●		●						●	305
START EC- XP-P, D STARTEC-HP, D								●				●	306, 307

## Application tips

Cutting speed for CBN cup grinding wheels should be up to 30% higher than for diamond wheels

Optimum peripheral speed for CBN grinding wheels (for flute grinding) 20–25 m/s

Cutting speed recommendation for flute grinding  
Solid carbide: 16–18 m/s  
HSS: 20–25 m/s

Cutting speed recommendation for cup grinding wheels  
Solid carbide: 18–24 m/s  
HSS 20–30 m/s

Use STARTEC XP-P for optimum cutting performance

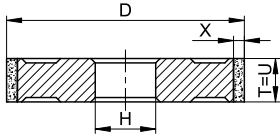
Use STARTEC HP for standard applications

Always ensure enough coolant is available

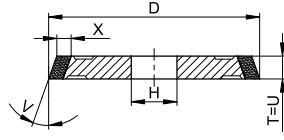
Dressing and sharpening instructions see page 310

● Extremely suitable

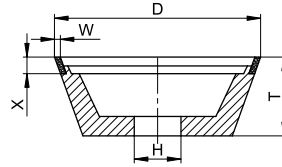
# Shapes



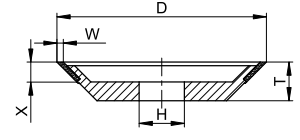
Shape 1A1



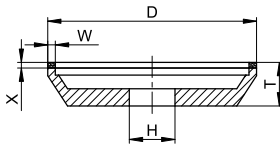
Shape 1V1



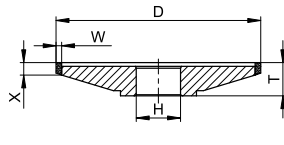
Shape 11V9



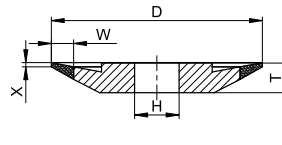
Shape 12V9



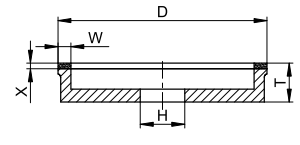
Shape 12A2D



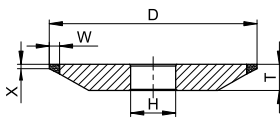
Shape 4B2



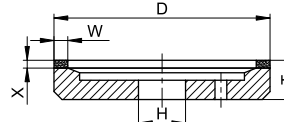
Shape 4BT9



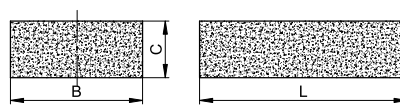
Shape 6A2



Shape 4ET9



Shape 6A2H



Shape 90AS

Precision grinding

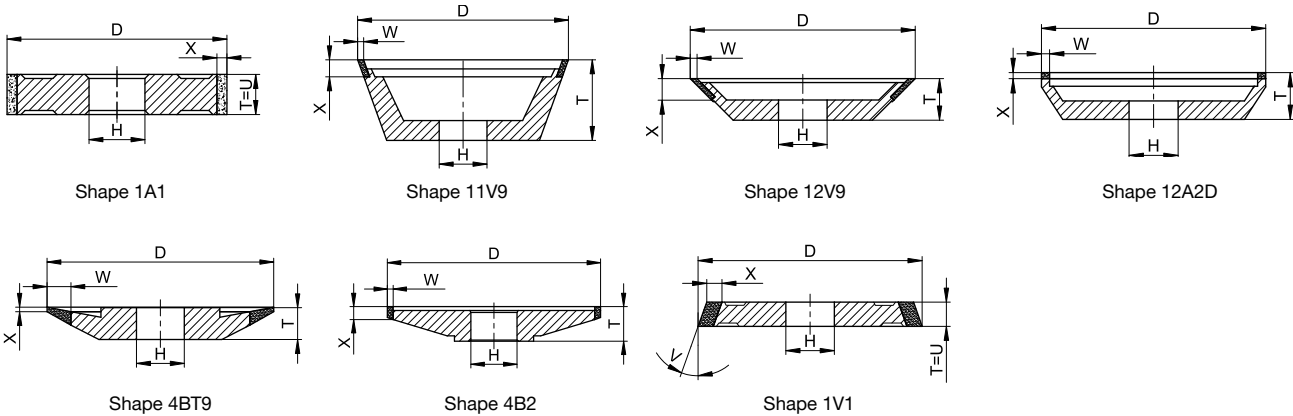
## CNC tool grinding with resin-bonded CBN for wet grinding

For non and low-alloyed steels, high-alloyed steels and HSS





Specification	Aluminium	Non and low-alloyed steels		High-alloyed steels		HSS	INOX	Tungsten carbide	Industrial ceramics	Cast iron	Dry grinding	Wet grinding
		Unhardened	Hardened	Unhardened	Hardened							
STARTEC-BASIC, B						●						●

### Recommended stock type



With this tool you can grind all cutting tools for the wood and metal industry and a variety of shear blades.

The wear-resistant bond and a high grain concentration significantly increase lifetimes compared to dry-grinding wheels.

	Shape	Type no.	DxTxH	U-X	Specification	V opt. m/s
	1A1	906950	100x6x20	6-6	BL1263PD STARTEC-BASIC	20-25
		906951	100x10x20	10-6	BL1263PD STARTEC-BASIC	20-25
		906954	125x10x20	10-6	BL1263PD STARTEC-BASIC	20-25
	11V9	75669	75x30x20	2-10	BL1263PD STARTEC-BASIC	25-30
		494983	75x30x20	2-10	BL763PD STARTEC-BASIC	25-30
		494985	100x35x20	2-10	BL763PD STARTEC-BASIC	25-30
		532564	100x35x20	3-10	BL763PD STARTEC-BASIC	25-30





## CNC tool grinding with resin-bonded CBN for wet grinding

For non and low-alloyed steels, high-alloyed steels and HSS



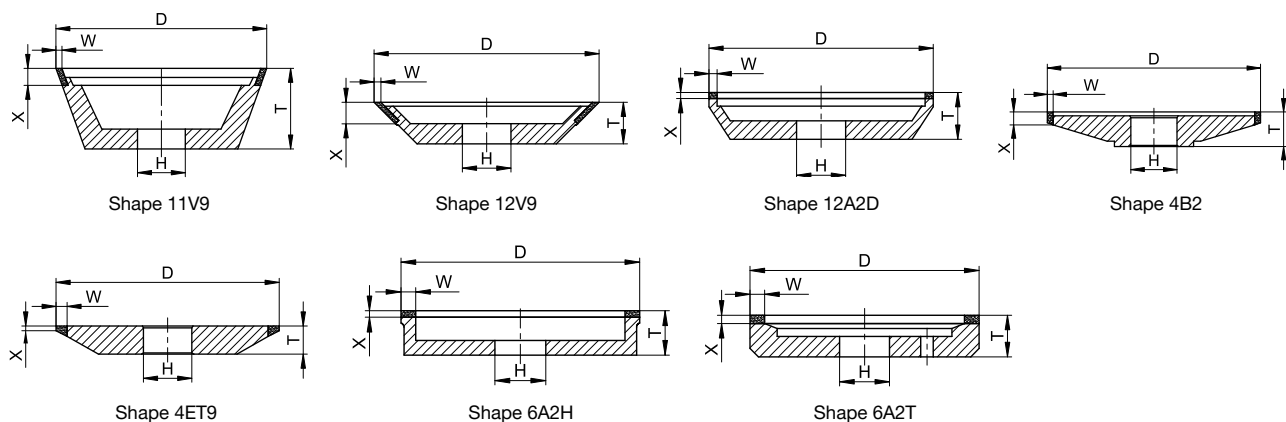
	Shape	Type no.	DxTxH	W-X	Specification	V opt. m/s	
	12V9	75679	100x20x20	2-10	BL1263PD STARTEC-BASIC	25-30	
		532571	100x20x20	2-10	BL763PD STARTEC-BASIC	25-30	
		75685	125x25x20	2-10	BL1263PD STARTEC-BASIC	25-30	
		495027	125x25x20	2-10	BL763PD STARTEC-BASIC	25-30	
	12A2D	495046	100x25x20	5-3	B 91 C100 B 42 AL		
		173085	125x25x20	15-3	B 91 C100 B 42 AL		
	4BT9	495058	125x10x20	10-1	BL1263PD STARTEC-BASIC		
	Shape	Type no.	DxTxH	U-X V	Specification	V opt. m/s	Comments
	1V1	906946	125x12x20	12-6 V45	BL1263PD STARTEC-BASIC	20-25	
		906947	150x6x20	6-6 V15	BL1263PD STARTEC-BASIC	20-25	
	4B2	667930	150x18x20	2-2xV20	B 126 C100 B 53 AL		Chip surface, hob

## CNC tool grinding with resin-bonded diamond for wet grinding For tungsten carbide



Specification	Aluminum	Non and low-alloyed steels		High-alloyed steels		HSS	INOX	Tungsten carbide	Industrial ceramics	Cast iron	Dry grinding	Wet grinding
		Unhardened	Hardened	Unhardened	Hardened							
STARTEC-BASIC, D								●				●

### Recommended stock type



With this diamond wheel you can grind all tungsten carbide cutting tools for the wood and metal industry and a variety of shear blades. Grinding wheel sets for complete machining in the diamond grain size range D126 - D54.

The wear-resistant bond and a high grain concentration significantly increase lifetimes compared to dry-grinding wheels.




	Shape	Type no.	DxTxH	W-X	Specification	V opt. m/s	Comments
	11V9	390970	75x30x20	2-10	DE643BS STARTEC-BASIC	18-25	
		357223	100x35x20	2-10	DE643BS STARTEC-BASIC	18-26	
		532514	100x35x20	3-10	DE643BS STARTEC-BASIC	18-27	
	12V9	495020	75x20x20	2-6	DE643BS STARTEC-BASIC	18-28	
		532510	100x20x20	2-10	DE643BS STARTEC-BASIC	18-29	
		532529	100x20x20	3-10	DE643BS STARTEC-BASIC	18-30	
		363993	125x25x20	2-10	DE643BS STARTEC-BASIC	18-31	
		532540	125x25x20	3-10	DE643BS STARTEC-BASIC	18-32	
	12A2D	495044	125x25x20	15-3	D 54 C75 B 48 AL		

Precision grinding



### CNC tool grinding with resin-bonded diamond for wet grinding For tungsten carbide



Shape	Type no.	DxTxH	W-X	Specification	V opt. m/s	Comments
	4B2	665141	150x18x20	2-2	DE643BX STARTEC-BASIC	Chip surface, hob
Shape	Type no.	DxTxH	W-X	Specification	Comments	
	4ET9	897024	150x14x32	10-1	18D 126 C100 B 53 AL	
	6A2H	462673	200x30x50	8-4	DE1263BP STARTEC-BASIC	
		665142	200x30x50	8-4	D 64 C75 B 52 AL	
	6A2T	470272	200x35x75	8-4	D 126 C100 B 52 AL	
		665143	200x35x75	8-4	D 64 C75 B 52 AL	

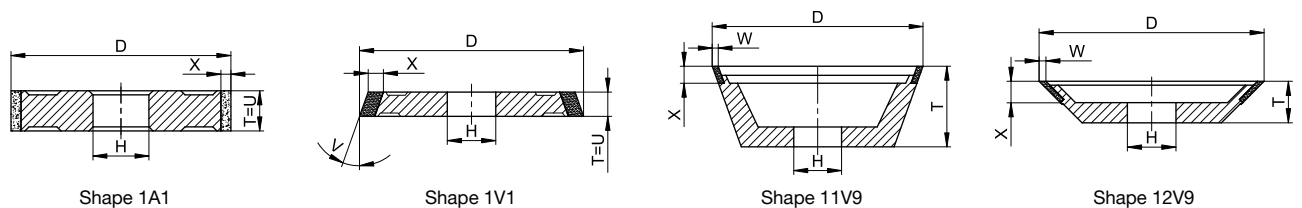
For planer and paper knives; e.g. Glöckel, Reform

### CNC tool grinding with metal bonded CBN for wet grinding For high-alloyed steels and HSS

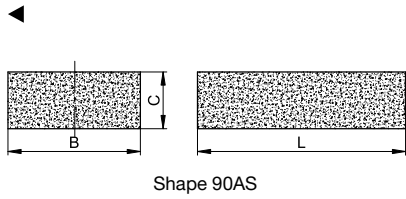


Specification	Aluminium	Non and low-alloyed steels		High-alloyed steels		HSS	INOX	Tungsten carbide	Industrial ceramics	Cast iron	Dry grinding	Wet grinding
		Unhardened	Hardened	Unhardened	Hardened							
START-EC-XP-P						●						●

#### Recommended stock type



Precision grinding



This metal-bonded CBN wheel grinds all cutting tools for the wood and metal industry. Grinding wheel sets for complete machining are available in the CBN grit size range B126 - B76. It is important that this wheel is only used for deep grinding.

The perfect combination of grit size, concentration and bond delivers exceptionally long tool lifetimes and a high level of profile accuracy.

	Shape	Type no.	DxTxH	U-X	Specification	V opt. m/s
	1A1	759826	75x6x20	6-10	B126MXPP STARTEC-XP-P	20-25
		740383	75x10x20	10-10	B126MXPP STARTEC-XP-P	20-25
		751424	100x6x20	6-10	B126MXPP STARTEC-XP-P	20-25
		763854	100x15x20	15-10	B126MXPP STARTEC-XP-P	20-25
		772440	100x12x20	12-10	B126MXPP STARTEC-XP-P	20-25
		740382	100x10x20	10-10	B126MXPP STARTEC-XP-P	20-25
		772442	125x6x20	6-10	B126MXPP STARTEC-XP-P	20-25
		772446	125x15x20	15-10	B126MXPP STARTEC-XP-P	20-25
		772444	125x12x20	12-10	B126MXPP STARTEC-XP-P	20-25
		772443	125x10x20	10-10	B126MXPP STARTEC-XP-P	20-25
		772447	150x8x20	8-10	B126MXPP STARTEC-XP-P	20-25
772448	150x12x20	12-10	B126MXPP STARTEC-XP-P	20-25		

	Shape	Type no.	DxTxH	U-X V	Specification	V opt. m/s
	1V1	772453	75x10x20	10-10 V15	B126MXPP STARTEC-XP-P	20-25
		772455	100x12x20	12-10 V45	B126MXPP STARTEC-XP-P	20-25
		772462	125x15x20	15-10 V15	B126MXPP STARTEC-XP-P	20-25
		772458	125x10x20	10-10 V15	B126MXPP STARTEC-XP-P	20-25
		772461	125x10x20	10-10 V45	B126MXPP STARTEC-XP-P	20-25
		772465	150x12x20	12-10 V10	B126MXPP STARTEC-XP-P	20-25

	Shape	Type no.	DxTxH	W-X	Specification	V opt. m/s
	11V9	34211869	75x30x20	3-10	B107BXP-P STARTEC-XP-P	20-30
		34205432	100x35x20	3-10	B107BXP-P STARTEC-XP-P	20-30
		34184813	125x40x20	3-10	B107BXP-P STARTEC-XP-P	20-30
	12V9	34207564	100x20x20	2-10	B107BXP-P STARTEC-XP-P	20-30
		34163105	125x25x20	3-10	B107BXP-P STARTEC-XP-P	20-30

	Shape	Type no.	BxCxL	Specification	PU	Comments
	90AS	678953	24x13x200	89A 240 H5A V83	10	Sharpening stick for STARTEC XP-P and HP

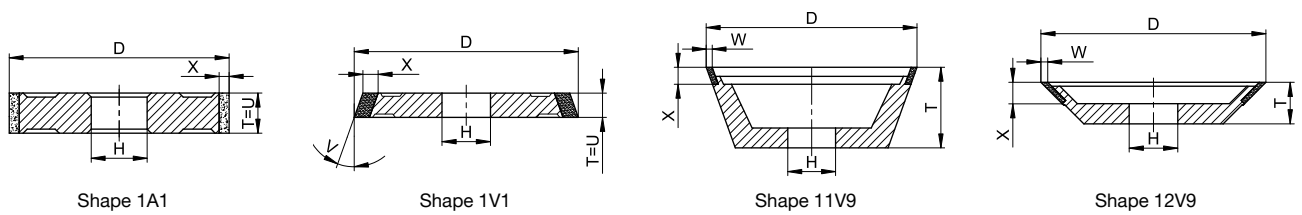
Precision grinding

## CNC tool grinding with metal-bonded diamond for wet grinding For tungsten carbide



Specification	Aluminum	Non and low-alloyed steels		High-alloyed steels		HSS	INOX	Tungsten carbide	Industrial ceramics	Cast iron	Dry grinding	Wet grinding
		Unhardened	Hardened	Unhardened	Hardened							
STARTEC-XP-P, D STARTEC-HP, D								●				●

### Recommended stock type



With this diamond wheel you can grind all tungsten carbide cutting tools for the wood and metal industry and a variety of shear blades. Grinding wheel sets for complete machining in the diamond grain size range D64 - D46. It is important that this wheel is only used for deep grinding.

The perfect combination of grit size, concentration and bond delivers exceptionally long tool lifetimes and a high level of profile accuracy.

Shape	Type no.	DxTxH	U-X	Specification	V opt. m/s	
	1A1	662236	75x6x20	6-10	D54MXPP STARTEC-XP-P	16-18
		679931	75x6x20	6-6	D54MXPP STARTEC-XP-P	16-18
		679936	75x10x20	10-6	D54MXPP STARTEC-XP-P	16-18
		742939	75x10x20	10-10	D54MXPP STARTEC-XP-P	16-18
		679938	100x6x20	6-6	D54MXPP STARTEC-XP-P	16-18
		695084	100x6x20	6-10	D54MXPP STARTEC-XP-P	16-18
		675436	100x15x20	15-10	D54MXPP STARTEC-XP-P	16-18
		679942	100x15x20	15-6	D54MXPP STARTEC-XP-P	16-18
		685346	100x12x31.75	12-6	D54MXPP STARTEC-XP-P	16-18
		724476	100x12x31.75	12-10	D54MXPP STARTEC-XP-P	16-18
		679940	100x12x20	12-6	D54MXPP STARTEC-XP-P	16-18
		700297	100x12x20	12-10	D54MXPP STARTEC-XP-P	16-18
		694995	100x10x31.75	10-6	D54MXPP STARTEC-XP-P	16-18
		711619	100x10x31.75	10-10	D54MXPP STARTEC-XP-P	16-18
		679939	100x10x20	10-6	D54MXPP STARTEC-XP-P	16-18
		682530	100x10x20	10-10	D54MXPP STARTEC-XP-P	16-18
		679945	125x6x20	6-6	D54MXPP STARTEC-XP-P	16-18
		686906	125x6x20	6-10	D54MXPP STARTEC-XP-P	16-18
		679949	125x15x20	15-6	D54MXPP STARTEC-XP-P	16-18
		683963	125x15x20	15-10	D54MXPP STARTEC-XP-P	16-18
		711866	125x12x31.75	12-10	D54MXPP STARTEC-XP-P	16-18
		712482	125x12x31.75	12-6	D54MXPP STARTEC-XP-P	16-18
		679948	125x12x20	12-6	D54MXPP STARTEC-XP-P	16-18
		682529	125x12x20	12-10	D54MXPP STARTEC-XP-P	16-18



Precision grinding





	Shape	Type no.	DxTxH	U-X	Specification	V opt. m/s
		685975	125x10x31.75	10-10	D54MXPP STARTEC-XP-P	16-18
		702678	125x10x31.75	10-6	D54MXPP STARTEC-XP-P	16-18
		679947	125x10x20	10-6	D54MXPP STARTEC-XP-P	16-18
		682527	125x10x20	10-10	D54MXPP STARTEC-XP-P	16-18
		684827	150x8x20	8-10	D54MXPP STARTEC-XP-P	16-18
		679953	150x15x20	15-10	D54MXPP STARTEC-XP-P	16-18
		679952	150x12x20	12-10	D54MXPP STARTEC-XP-P	16-18
		679951	150x10x20	10-10	D54MXPP STARTEC-XP-P	16-18

	1A1	572731	75x6x20	6-6	DN543MH STARTEC-HP	16-18
		474444	100x6x20	6-6	DN543MH STARTEC-HP	16-18
		490259	100x15x20	15-6	DN543MH STARTEC-HP	16-18
		556715	100x12x20	12-6	DN543MH STARTEC-HP	16-18
		408972	100x10x20	10-6	DN543MH STARTEC-HP	16-18
		572741	125x10x20	10-6	DN543MH STARTEC-HP	16-18

	Shape	Type no.	DxTxH	U-X V	Specification	V opt. m/s
	1V1	680097	75x6x20	6-6 V15	D54MXPP STARTEC-XP-P	16-18
		680098	75x8x20	8-10 V15	D54MXPP STARTEC-XP-P	16-18
		680099	75x10x20	10-10 V15	D54MXPP STARTEC-XP-P	16-18
		680100	100x6x20	6-10 V15	D54MXPP STARTEC-XP-P	16-18
		680102	100x10x20	10-10 V15	D54MXPP STARTEC-XP-P	16-18
		680104	100x12x20	12-10 V15	D54MXPP STARTEC-XP-P	16-18
		680107	100x12x20	12-10 V45	D54MXPP STARTEC-XP-P	16-18
		680110	100x15x20	15-10 V15	D54MXPP STARTEC-XP-P	16-18
		680112	125x6x20	6-10 V15	D54MXPP STARTEC-XP-P	16-18
		680114	125x10x20	10-10 V15	D54MXPP STARTEC-XP-P	16-18
		680115	125x10x20	10-10 V45	D54MXPP STARTEC-XP-P	16-18
		680116	125x12x20	12-10 V15	D54MXPP STARTEC-XP-P	16-18
		680118	125x12x20	12-10 V45	D54MXPP STARTEC-XP-P	16-18
		680120	125x15x20	15-10 V15	D54MXPP STARTEC-XP-P	16-18
		680123	150x10x20	10-10 V10	D54MXPP STARTEC-XP-P	16-18
	680124	150x12x20	12-10 V10	D54MXPP STARTEC-XP-P	16-18	

	Shape	Type no.	DxTxH	W-X	Specification	V opt. m/s
	11V9	34039198	75x30x20	3-10	D64BXPP STARTEC-XP-P	18-24
		34065405	75x30x20	3-10	D46BXPP STARTEC-XP-P	18-24
		34039199	100x35x20	3-10	D64BXPP STARTEC-XP-P	18-24
		34065402	100x35x20	3-10	D46BXPP STARTEC-XP-P	18-24
		34065409	125x40x20	3-10	D46BXPP STARTEC-XP-P	18-24
		34065410	125x40x20	3-10	D64BXPP STARTEC-XP-P	18-24
		12V9	34044248	100x20x20	3-10	D64BXPP STARTEC-XP-P
		34065415	125x25x20	3-10	D46BXPP STARTEC-XP-P	18-24
		34056064	125x25x20	3-10	D64BXPP STARTEC-XP-P	18-24

Precision grinding