



CNC TOOL GRINDING

Productivity demands are constantly growing for applications that involve machining an extremely wide range of different materials. At the same time, quality requirements are also increasing. Both of these requirements demand perfectly ground cutting tools that have been manufactured on the most modern CNC tool grinding machines.

For this purpose, TYROLIT provides you with a perfectly tailored range of products. This ensures that you fully exploit the advantages of the CNC machines used in the manufactur-

ing of cutting tools. You therefore increase your productivity and, at the same time, fulfil the high quality requirements.

In the following, you can find grinding

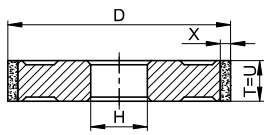
tools that fulfil the requirements of the tool manufacturer just as well as those of the tool regrinder.

Application recommendation

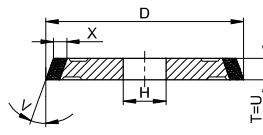


Specifica- tion	Page	Alu	Non and low-alloyed steels		High-alloyed steels		HSS	INOX	Tungsten carbide	Industrial ceramics	Cast iron	Dry grinding	Wet grinding
			Unhardened	Hardened	Unhardened	Hardened							
STARTEC- BASIC, B	290, 291					●	●						●
STARTEC- BASIC, D	292, 293								●				●
STARTEC- XP-P, B STARTEC- HP, B	294, 295					●	●						●
STARTEC- XP-P, D STARTEC- HP, D	295, 296, 297								●				●

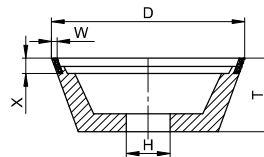
Shapes



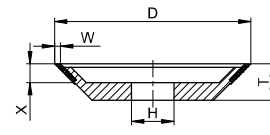
Shape 1A1



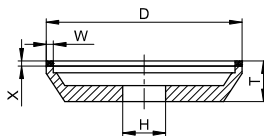
Shape 1V1



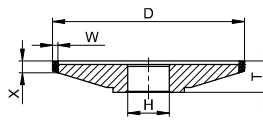
11V9



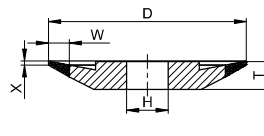
Shape 12V9



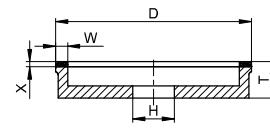
Shape 12A2D



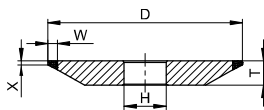
Shape 4B2



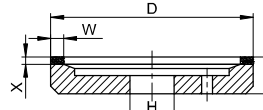
Shape 4BT9



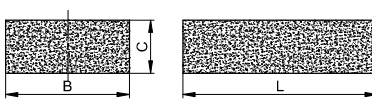
Shape 6A2



Shape 4ET9



Shape 6A2H



Shape 90AS

● Extremely suitable

Precision grinding

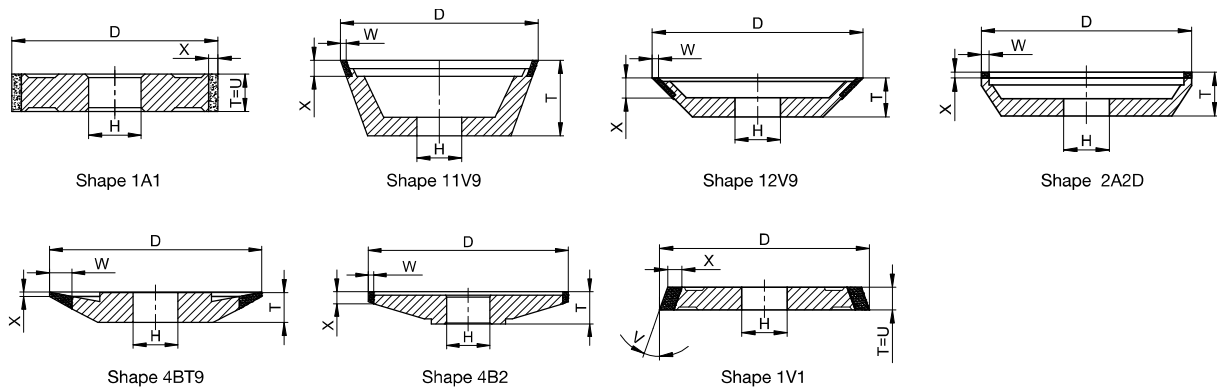
CNC TOOL GRINDING WITH RESIN-BONDED CBN FOR WET GRINDING

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



Specification	Aluminum	Non and low-alloyed steels		High-alloyed steels		HSS	INOX	Carbide metal	Industrial ceramics	Castiron	Dry grinding	Wet grinding
		Unhardened	Hardened	Unhardened	Hardened							
STARTEC-BASIC, B						●	●					●



Recommended stock type



Precision grinding

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.

		Type no.	DxTxH	U-X	Specification	Vc 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





		Type no.	DxTxH	U-X	Specification	Vc 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	51B 91 C100 B 42 AL		
		173085	125x25x20	15-3	51B 91 C100 B 42 AL		
	4BT9	495058	125x10x20	10-1	BL1263PD STARTEC-BASIC		
		Type no.	DxTxH	U-X V	Specification	Vc 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	51B 126 C100 B 53 AL		Chip surface, hob

Precision grinding

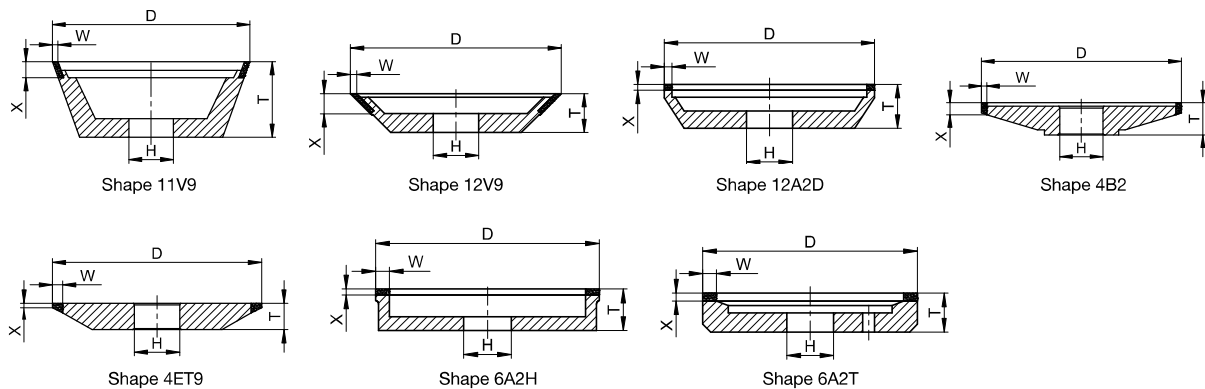
CNC TOOL GRINDING WITH RESIN-BONDED DIAMOND FOR WET GRINDING

For tungsten carbide



Specification	Aluminum	Non and low-alloyed steels		High-alloyed steels		HSS	INOX	Carbide metal	Industrial ceramics	Castiron	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.

Precision grinding

	Type no.	DxTxH	W-X	Specification	Vc 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	11D 54 C75 B 48 AL	





	Type no.	DxTxH	W-X	Specification	Vc m/s	Comments
	4B2	665141	150x18x20	2-2	DE643BX STARTEC-BASIC	Chip surface, hob
	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	11D 64 C75 B 52 AL	For planer and paper knives; e.g. Glöckel, Reform
	6A2T	470272	200x35x75	8-4	11D 126 C100 B 52 AL	
		665143	200x35x75	8-4	11D 64 C75 B 52 AL	

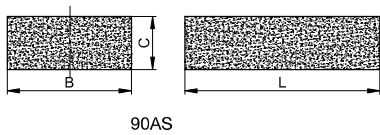
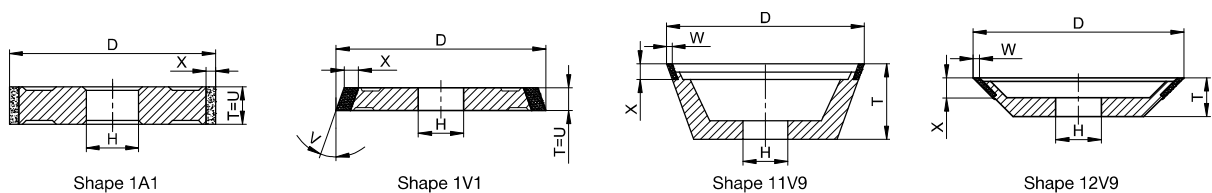
CNC TOOL GRINDING WITH METAL-BONDED CBN FOR WET GRINDING

For high-alloyed steels and HSS



Specification	Alu- minium	Non and low-alloyed steels		High-alloyed steels		HSS	INOX	Carbide metal	Industrial ceramics	Castiron	Dry grinding	Wet grinding
		Unhardened	Hardened	Unhardened	Hardened							
STATEC- XP-P						●	●					●

Recommended stock type



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.


Precision grinding

	Type no.	DxTxH	U-X	Specification	Vc 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
	Type no.	DxTxH	U-X V	Specification	Vc 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





	Type no.	DxTxH	W-X	Specification	Vc 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

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

Precision grinding

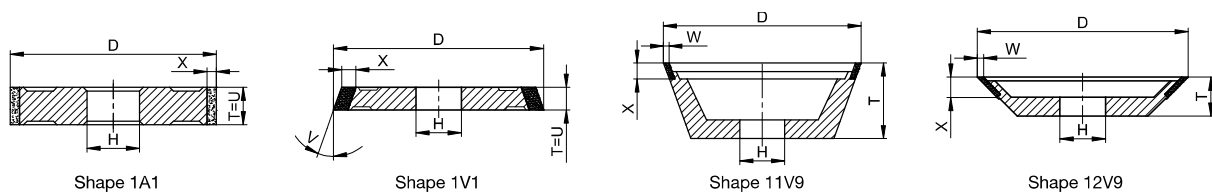
CNC TOOL GRINDING WITH METAL-BONDED DIAMOND FOR WET GRINDING

For tungsten carbide



Specification	Aluminum	Non and low-alloyed steels		High-alloyed steels		HSS	INOX	Carbide metal	Industrial ceramics	Castiron	Dry grinding	Wet grinding
		Unhardened	Hardened	Unhardened	Hardened							
STAREC-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.





	Type no.	DxTxH	U-X	Specification	Vc 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
		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





	Type no.	DxTxH	U-X V	Specification	Vc 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		
	Type no.	DxTxH	W-X	Specification	Vc 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	18-24
		34065415	125x25x20	3-10	D46BXPP STARTEC-XP-P	18-24
		34056064	125x25x20	3-10	D64BXPP STARTEC-XP-P	18-24