POLTAVA DIAMOND TOOLS

A TRADITION OF QUALITY SINCE 1966

PREMIUM

DIAMOND AND CBN WHEELS

Dear Clients,

"POLTAVA DIAMOND TOOLS" has been manufacturing top-quality diamond tools for the machine building, glass, electronic and woodworking industries since 1966. It is committed to constantly improving production quality and has been certified in accordance with ISO 9001, EN13236

We offer three product lines to meet the quality demands and price requirements of our customers:

PREMIUM — our newest line of diamond and CBN wheels

- specially designed to compete with top international brands for use on CNC machines but at a substantially lower price
- used in machine building, woodworking and metallurgy for the production and sharpening of circular and band saws, metal cutting and specialty tools, as well as machine building parts

STANDARD — high quality resin and metal bonded diamond and CBN wheels for a wide range of industrial applications

Our specialists have a wealth of experience in the production and use of diamond wheels and tools, and "POLTAVA DIAMOND TOOLS" is always pleased to offer you our technical support and assistance in choosing diamond wheels and tools.

WE LOOK FORWARD TO WORKING WITH YOU!

POLTAVA
DIAMOND
TOOLS

CONTENTS

PrJSC "POLTAVA DIAMOND TOOLS" produces a wide range of diamond and CBN wheels and tools used for:

- producing and sharpening tungsten carbide and high-speed steel tools
- grinding and polishing tungsten carbide, heat-resistant, alloy-treated and stainless steels, glass, ceramics, silicon, refractories, gem stones and other materials
- cutting tungsten carbide, glass, marble, granite, quartz, and ceramics
- drilling (boring) glass.

Since 1966 the plant has been manufacturing top-quality diamond tools for the machine building, glass, electronic, and woodworking industries. It is committed to constantly improving production quality and has been certified in accordance with ISO 9001, En13236

APPLICATIONS FOR PREMIUM WHEELS

Diamond and CBN grinding wheels for the production and sharpening of metal cutting tools and specialty tools:

Grinding operations	Wheel type
Grinding of chip grooves	1A1, 14A1, 1V1, 1FF1, 14FF1
Flute grinding	1A1, 1V1, 12V9-45, 11V9-70
Clearance angle and face grinding	11V9-70, 12A2-20, 12V9-45, 6A9

Manufacturing machine-building parts:

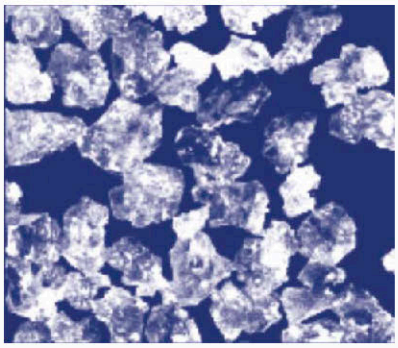
Grinding operations	Wheel type
Face grinding	1A1, 14A1, 12A2-45
Circular external centered grinding	1A1, 1FF1, 1V1
Centerless grinding	1A1

Diamond and CBN grinding wheels for the production and sharpening of band saws and circular saws made of HSS and with tungsten carbide teeth:

Grinding operations	Wheel type
Face grinding	12V9-20, 12V9-25, 4V2, 12R4, 12A2-20, 4BT9
Flank grinding	1A1
Top grinding	12A2-20, 4A2, 12V9-45, 12M2-45, 6A2

Our up-to-date manufacturing capabilities and complete production cycle, together with our advanced technology, top-grade materials and highly experienced specialists, allow us to produce wheels with standard dimensions as well as custom wheels made to individual client specifications.

APPLICATION OF DIAMOND TOOLS AND THEIR ADVANTAGES OVER ABRASIVE TOOLS



Applications of diamond tools:

- Machining, sharpening and finishing of tools made of all alloy types
- Sharpening and finishing of carbide tools
- Machining and cutting of silicon, germanium and other semiconducting materials
- Machining, cutting and finishing of tools made of ferrite, ceramic and glass materials
- Machining of graphite and carbon reinforced plastics
- Machining and cutting of reinforced fiber glass plastics, fiberplastics
- Finishing and polishing of precious stones
- Cutting, finishing and polishing of artificial and natural stones
- Machining of all types of decorative and technical glasses and porcelain
- Cutting and processing of all types of refractory materials

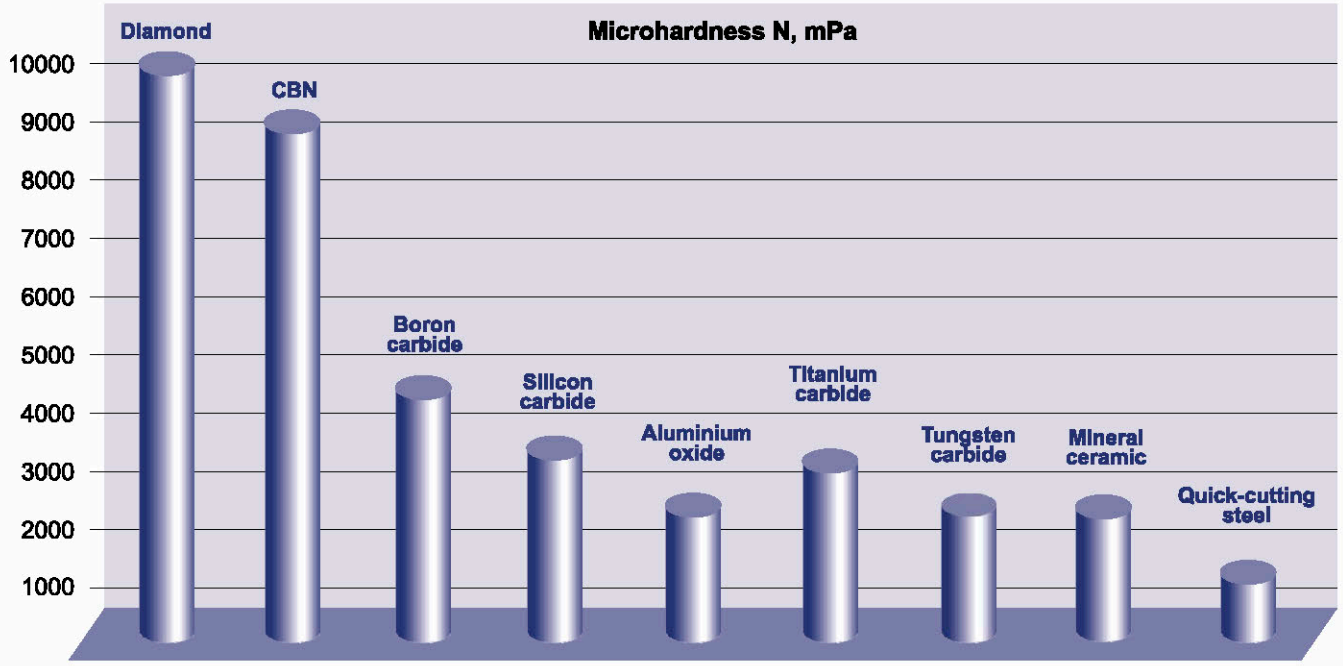
Applications of CBN tools:

- Finish grinding and sharpening of tools made of tungsten-molybdenum (P6M5) and other high-speed steels, particularly high-speed steels alloyed with vanadium and cobalt;
- Finish and final grinding of high-precision parts made of heat resistant, stainless and high-alloy steel with high hardness (HRC55 and more) when high precision is required.

Advantages of diamond and CBN grinding tools over abrasive tools:

- High wear resistance;
- Workpiece life longer after diamond tool profiling;
- Less thermal workpiece damage due to lower temperature in grinding zone;
- Longer lasting, hence reduced changeover times;
- Higher volumes at the same level of quality.

PHYSICOMECHANICAL CHARACTERISTICS OF ABRASIVE TOOL MATERIALS



International Size Standards and their applications by operation

Type of operation	FEPA International Standard	International Standard ISO 565, µm	U.S. Standard ANSI B 74.16 mesh	Ukrainian Standard DSTU 3292-95 µm
Rough Grinding	D426 D301 D251 D213 D151	425/355 300/250 250/212 212/180 180/150	40/45 50/60 60/70 70/80 100/120	400/315 315/250 250/200 200/160 160/125
Finish Grinding	D126 D107	125/106 106/90	120/140 140/170	125/100 100/80
Fine Grinding	**D91** **D76** **D64** **D54** **D46**	**90/75** **75/63** **63/53** **53/45** **45/38**	**170/200** **200/230** **230/270** **270/325** **325/400**	**80/63** **63/50** **50/40**
Fine grinding, Polishing	**M63** **M40** **M25** **M20** **M16** **M10** **M6.3** **M4.0**		**500** **550** **650** **1100** **1500** **1700** **3000** **4000**	**60/40** **40/28** **28/20** **20/14** **14/10** **10/7** **7/5** **5/3**

Choice of grit sizes for wheels used to grind and sharpen tungsten carbide

Type of Bond	Recommended range of grit sizes	Roughness of workpiece surface, Ra, µm		
		For face grinding and sharpening	For flat grinding	For circular grinding
Resin	D213 – D107	0,63 – 0,16	1,0 – 0,32	1,0 – 0,32
	D91 – D46	0,32 – 0,16	0,63 – 0,20	0,63 – 0,20
Resin (coated diamond)	D126 – D46	0,32 – 0,10	0,63 – 0,16	0,80 – 0,20
Resin (non-coated diamond)	D126 – M16	0,32 – 0,05	0,50 – 0,10	0,63 – 0,125
Metal (high productivity)	D213 – D126	1,0 – 0,32	1,25 – 0,63	1,25 – 0,63
	D107 – D91	0,50 – 0,16	1,0 – 0,32	1,25 – 0,40
	D64 – D46	0,32 – 0,16	0,63 – 0,16	0,63 – 0,32

CONCENTRATION OF DIAMOND GRAIN IN THE DIAMOND LAYER

The concentration of diamond grain is the content by weight of diamond in the diamond layer. The unit of weight for diamond grain is a carat (ct), 1ct=0,2 g. The diamond concentration is one of the most important characteristics of a diamond tool, determining its cutting ability, productivity, length of usage and cost. The choice of concentration depends on the type of tool, the form and size of the working surface, the diamond grit size, the wear-resistance of the bond, and the conditions in which the tool will be used.

The following are guidelines for the choice of diamond concentration in the diamond layer:

- for a small contact surface between the grinding wheel and the workpiece, for example as in circular grinding, a high diamond concentration should be chosen.

This provides higher wear resistance for the wheel, even at high loads:

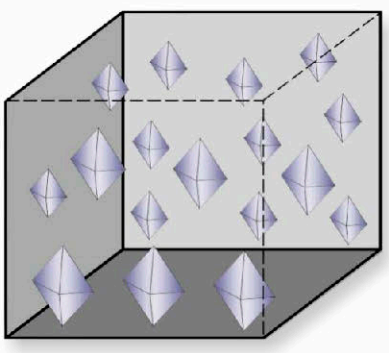
- a large contact surface necessitates lowering the grinding temperature and the grinding intensity. In this case a lower diamond concentration should be used.

Wheels are produced with diamond concentrations of 25%, 50%, 75%, 100% and 150% (It is possible to produce wheels with other concentrations if needed by the customer).

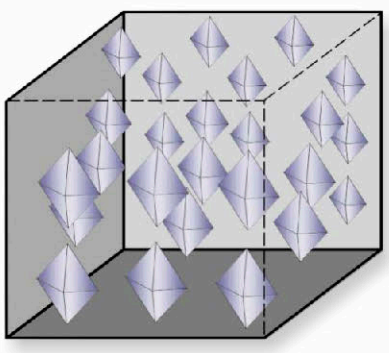
Diamond concentration by weight in the diamond layer					
Diamond concentration	25%	50%	75%	100%	150%
Diamond weight in carats per 1 cm^3 of the diamond layer, (ct/cm^3)	1,1	2,2	3,3	4,4	6,6

Diamond content by volume in the diamond layer (%)					
Diamond concentration weight	25%	50%	75%	100%	150%
Diamond volume in the diamond layer (%)	6,25	12,5	18,75	25,0	37,5

Low concentration of diamond grain



High concentration of diamond grain

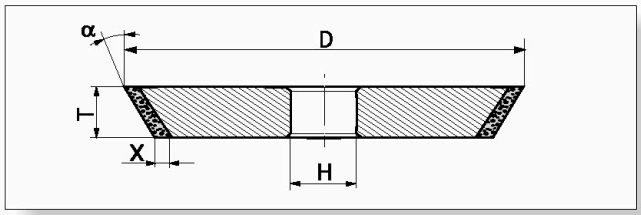


GRINDING WITH AND WITHOUT COOLANT

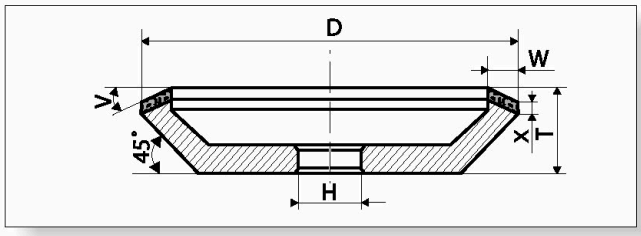
Grinding with coolant is to be preferred, since the grinding wheel is subject to less wear and can be used under more demanding conditions, thus increasing grinding productivity. In addition, the probability of thermal damage to the workpiece (the appearance of burn marks) is reduced. Liquid coolants are recommended as coolants for diamond grinding wheels.

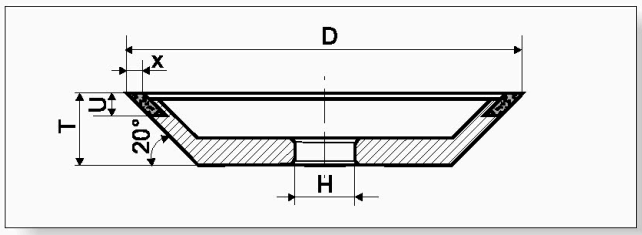
WHEEL PARAMETERS

Parameters used in the catalog are based on the FEPA standard for diamond tools



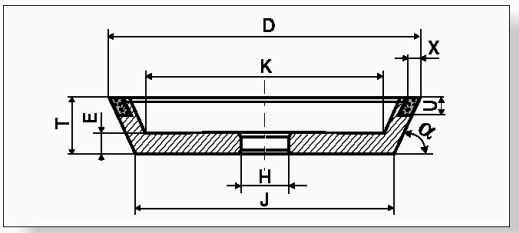
D — top diameter
H — hole diameter
T — wheel thickness
U — insert length
V — face angle
W — rim width
X — depth of diamond layer





SHAPES OF DIAMOND GRINDING WHEELS

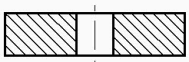
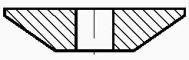
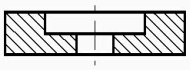
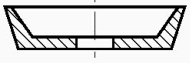
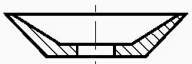
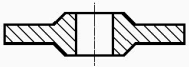
Diamond grinding wheels described in the catalog are based on the FEPA standard for diamond tools



11 V 9-70

- designation of the shape of the wheel core
- designation of the shape of the diamond layer
- designation of the diamond layer location
- additional information/modification

Identification number for shapes of grinding wheels cores

1		Flat wheel without recesses, D/H ≥ 1,8
4		Flat wheel with one-sided cone
6		Flat wheel with one-sided recess
11		Cup wheel 45°< α < 90°
12		Dish wheel α ≤ 45°
14		Flat wheel with double-sided relief

OPERATING PROCEDURES FOR GRINDING TUNGSTEN CARBIDE

1) Peripheral velocity of the wheel during grinding

Grinding type	Resin bond			
	Diamond		CBN	
	Dry	Wet	Dry	Wet
Face		20 - 30 m/sec		30 - 40 m/sec
Circular internal	8 - 12 m/sec	10 - 20 m/sec	12 - 18 m/sec	15 - 30 m/sec
Circular external		20 - 30 m/sec		30 - 40 m/sec
Sharpening	15 - 22 m/sec	18 - 28 m/sec	20 - 30 m/sec	25 - 35 m/sec

Grinding type	Metal bond	
	Diamond	CBN
	Wet	Wet
Face	20 - 25 m/sec	30 - 37 m/sec
Circular internal	12 - 20 m/sec	18 - 30 m/sec
Circular external	12 - 20 m/sec	18 - 30 m/sec
Sharpening	12 - 20 m/sec	18 - 30 m/sec

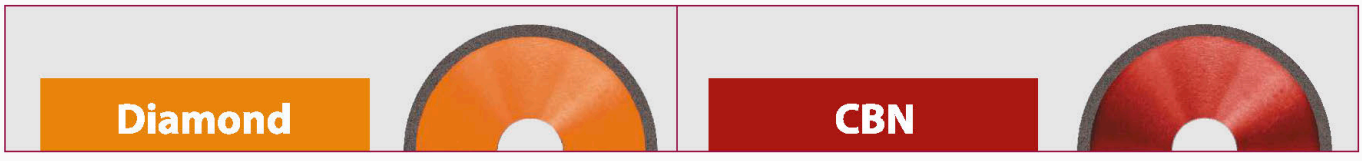
2) Feed velocity depending on grit size and type of grinding

Grinding type	Diamond grit size	Grinding depth (depending on grit size), mm	Line Feed, m/min	Cross Feed	Peripheral velocity of the workpiece, m/min
Face grinding	D 181-D 251	0,03 - 0,04	10-20	1/5 - 1/3 of the depth of the abrasive layer	-
	D 91 - D 126	0,001 - 0,02	10-20	1/5 - 1/3 of the depth of the abrasive layer	-
	D 54 - D 91	0,005 - 0,01	10-20	1/5 - 1/3 of the depth of the abrasive layer	-
Circular External	D 181 - D 251 D 91 - D 126 D 54 - D 91	0,015-0,03 0,009 - 0,010 0,005 -0,008	0,5 - 2,0 0,5 - 2,0 0,5 - 2,0	- - -	20 - 40 20 - 40 20 - 40
Sharpening	D 181 - D 251 D 91 - D 126 D 54 - D 91	0,04 - 0,5 0,04 - 0,1 0,04 - 0,08	0,5 - 3,0 0,5 - 3,0 0,5 - 3,0	- - -	- - -
Flute grinding	D 181 - D 251 * D 91 - D 126 * D 54 - D 91 *	0,1 - 6,0 0,1 - 6,0 0,1 - 6,0	0,1 - 3,0 0,1 - 3,0 0,1 - 3,0	- - -	- - -

* depending on bond

SUPERABRASIVE TYPE IS ALSO INDICATED BY THE COLOR OF THE WHEEL CORE

Diamond wheels are of orange color | **CBN wheels are of wine red color**



RECOMMENDATIONS FOR THE USE, TRUING AND DRESSING OF DIAMOND WHEELS

When using diamond grinding wheels, the following instructions should be observed:

- grinding wheels are to be mounted on holders or flanges and should not be removed until final usage has occurred;
- the tools are to be mounted securely on the machine spindle in accordance with the technical specifications of the equipment used for diamond tool machining;
- the cleaning of resin bonded diamond wheels is to be performed with a pumice stone, of metal bonded wheels with a green silicon carbide bar made with grit sizes 1 or 2 sizes larger that of the diamond wheel.

Dressing (truing) of the diamond layer is necessary to restore its shape, eliminate defects from its working surface, and to restore the required profile. As a rule this is performed without coolant. The most productive way of dressing a diamond layer is to grind it with abrasive wheels. The dressing is performed by wheels of white alumina and green silicon carbide with vitrified bonds with grit sizes 1 or 2 sizes larger than those of the diamond wheels. Wheels with a hardness of K-H are necessary for dressing resin bond wheels and wheels of a hardness of M-K are necessary for dressing metal bond wheels. The smaller the grit size of the superabrasive material, the softer the dressing tool must be.

Conditions of diamond layer dressing

Diamond grinding wheel position	Condition of dressing			
	Peripheral speed, m/s		Line feed, m/min	Cross feed, mm/double stroke
	Abrasive wheel	Diamond wheel		
Diamond grinding wheel set on a machine fixture or in the center of circular grinding or sharpening machine	25 – 35	0,5 – 1,0	1,0 – 2,0	0,02 – 0,04
Diamond grinding wheel set on the spindle of a grinding or sharpening machine	30 – 40	25 – 35	0,5 – 1,0	0,02 – 0,04

Characteristics of vitrified bonded abrasive wheels for dressing diamond layers

Diamond layer characteristics		Characteristics of profiling wheel		
Type of bonds	Diamond grade, FEPA Standard	Abrasive type	Abrasive grades	Hardness
Resin bonds	D181-D126	Aluminum oxide	20; 16; 1	M-L
	D107-D76		12; 10; 8	L-K
	D64-D46		8; 6; 4	K-J
	M40-M16		M40; M28	J

Packaging of PREMIUM wheels

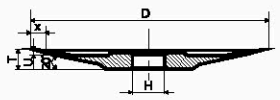
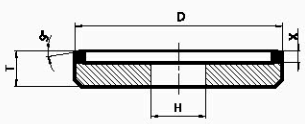
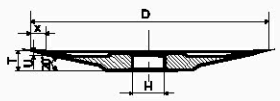
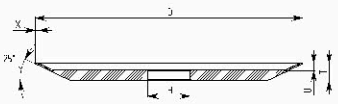
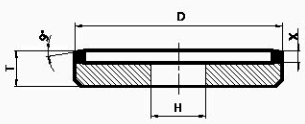
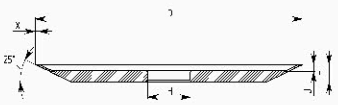
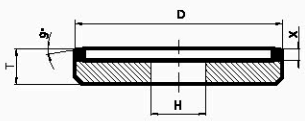
PREMIUM wheels come in special plastic packaging that prevents damage during transport and storage.

Bond types for PREMIUM Grinding Wheels

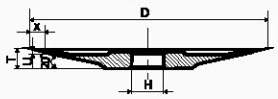
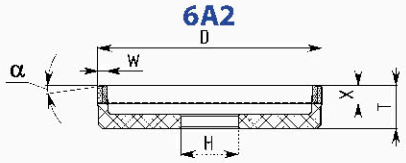
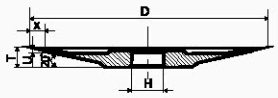
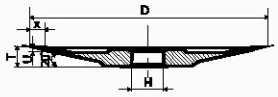
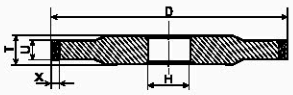
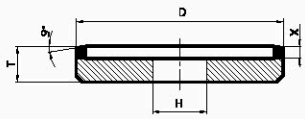
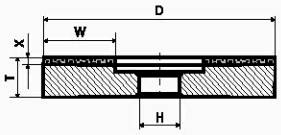
Item	Recommendations for usage	Recommended grinding parameters
B8-00	For polishing of tungsten carbide and HSS tools on CNC machines with coolants.	**Cutting speed:** diamond wheels Vc=15 – 25 m/s CBN wheels Vc=up to 35 m/s **Feed rate** V_f=0,05 – 0,1 m/min **Infeed** a_e=0,005 – 0,05 mm
B9-00	For grinding and sharpening of tungsten carbide workpieces with coolants. The bond is extremely wear resistant.	**Cutting speed:** diamond wheels Vc=15 – 25 m/s CBN wheels Vc=up to 35 m/s **Feed rate** V_f=0,1 – 0,25 m/min **Infeed** a_e=0,1 – 0,2 mm
B9-01	For sharpening and grinding of tungsten carbide and steel workpieces with coolants. Made with diamond and CBN micropowders. Recommended for face grinding of circular saw teeth and metal cutting tools.	**Cutting speed:** diamond wheels Vc=15 – 25 m/s CBN wheels Vc=up to 35 m/s **Feed rate** V_f=0,1 – 0,25 m/min **Infeed** a_e=0,1 – 0,2 mm
B9-02	For sharpening and grinding of tungsten carbide and steel workpieces with coolants. Higher wear resistance than B9-00. Recommended for flank and top grinding of circular saw teeth and metal cutting tools.	**Cutting speed:** diamond wheels Vc=15 – 25 m/s CBN wheels Vc=up to 35 m/s **Feed rate** V_f=0,1 – 0,25 m/min **Infeed** a_e=0,1 – 0,2 mm
B7-00	Grinding and sharpening of tungsten carbide and HSS workpieces with coolant. The bond is characterized by excellent cutting quality, wear resistance and high profile retention. It is recommended for sharpening disk saw teeth on all sides and also for sharpening metal cutting tools.	**Cutting speed**: diamond wheels Vc=15 - 25 m/s CBN wheels V_c=up to 35 m/s **Feed rate** V_f=0,1 - 0,25 m/min **Infeed** a_e=up to 0,8 mm
B6-00	For creepfeed grinding of tungsten carbide and HSS workpieces on CNC machines only with coolants. The bond is characterized by excellent cutting quality, wear resistance, and highest profile retention among the resin bonds.	**Cutting speed:** diamond wheels Vc=15 – 25 m/s CBN wheels Vc=up to 35 m/s **Feed rate** V_f=0,05 – 0,1 m/min **Infeed** a_e=up to 4,00 mm
M8-01	For creepfeed grinding of tungsten carbide workpieces on CNC machines only with coolants. The bond is characterized by excellent cutting quality, wear resistance, and the highest profile retention.	**Cutting speed:** diamond wheels Vc=15 – 25 m/s CBN wheels Vc=up to 35 m/s **Feed rate** V_f=0,05 – 0,1 m/min **Infeed** a_e=1,00 – 3,00 mm
M7-00	Diamond and CBN grinding wheels with innovative metal bond. Is used for creepfeed grinding flutes, production of tungsten carbide and HSS tools on CNC mashines only with coolants. The bond is characterized by excellent cutting quality, wear resistance, and the highest profile retention among the metal bonds.	**Cutting speed:** diamond wheels Vc=15 – 25 m/s CBN wheels Vc=up to 35 m/s **Feed rate** V_f=0,05 – 0,1 m/min **Infeed** a_e=up to 6,00 mm
B1000	For cutting tungsten carbide and for sharpening and grinding without coolant.	**Cutting speed:** diamond wheels Vc=15 – 25 m/s CBN wheels Vc=up to 35 m/s
B1002	For cylindrical and flat grinding of tungsten carbide workpieces with coolants.	**Cutting speed:** diamond wheels Vc=15 – 25 m/s CBN wheels Vc=up to 35 m/s **Feed rate** V_f=5 – 10 m/min **Infeed** a_e=up to 0,05 mm

Grinding machine types and wheels used

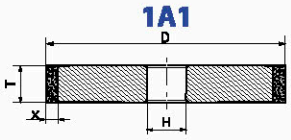
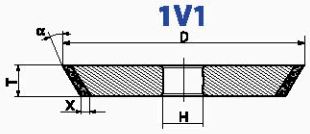
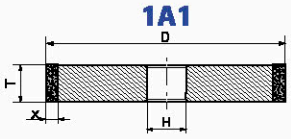
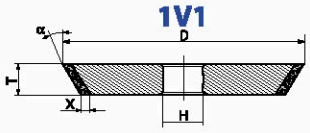
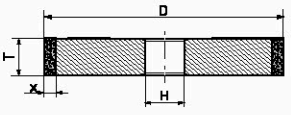
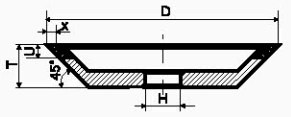
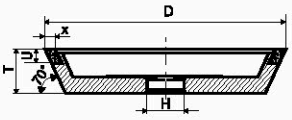
Sharpening and manufacturing of circular saws

Grinding machine type/ Wheel shape	Grinding wheel	
	Catalog number	Dimensions
VOLLMER CP 200		
12V9-20 	3-3048	D: 125 | T: 13 | X: 2,5 | U: 4 | H: 32
12M2-45 	9P3153	D: 125 | T: 18 | X: 6 | W: 5 (2,5+2,5) | H: 32
VOLLMER CHD 251		
12V9-20 	3-3048	D: 125 | T: 13 | X: 2,5 | U: 4 | H: 32
	3-3049	D: 200 | T: 13 | X: 2,3 | U: 4 | H: 32
12V9-25 	3-3068	D: 200 | T: 13 | X: 2,5 | U: 5,5 | H: 32
12M2-45 	9P3153	D: 125 | T: 18 | X: 6 | W: 5 (2,5+2,5) | H: 32
VOLLMER CHD 270		
12V9-25 	3-3068	D: 200 | T: 13 | X: 2,5 | U: 5,5 | H: 32
VOLLMER CL 200		
12M2-45 	9P3153	D: 125 | T: 18 | X: 6 | U: 5 (2,5+2,5) | H: 3

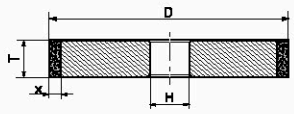
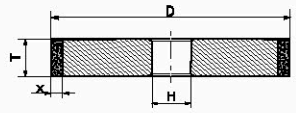
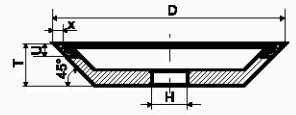
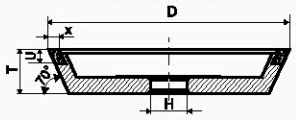
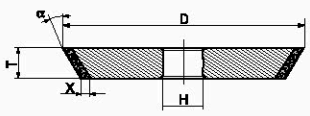
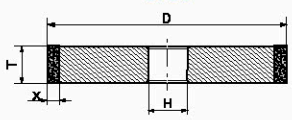
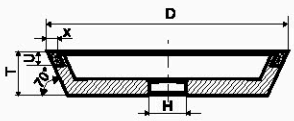
Sharpening and manufacturing of circular saws

Grinding machine type/ Wheel shape	Grinding wheel	
	Catalog number	Dimensions
VOLLMER CX 100		
12V9-20 	**3-3048**	D: 125; W: 13; X: 2,5; U: 4; H: 32
6A2 	**3M0008**	D: 125; W: 5 (2,5+2,5); X: 10; T: 24; H: 32; α°: 8
WALTER CNC5		
12V9-20 	**3-3049**	D: 200; T: 13; X: 2,3; U: 4; H: 32
AKEMAT U6 R2		
12V9-20 	**3-3049**	D: 200; T: 13; X: 2,3; U: 4; H: 32
WEINIG		
14A1 	**9F3301**	D: 200; T: 10; U: 4; X: 5; H: 32
	0D0324	D: 200; T: 10; U: 5; X: 5; H: 32
LINSINGER (VOLLMER CHD351)		
12M2-45 	**9M3153**	D: 125; T: 24; X: 6; W: 5 (2,5+2,5); H: 32
GOECKEL		
6A2 	**3M0038**	D: 200; W: 10; X: 4; T: 29; H: 32

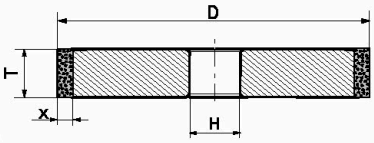
Sharpening and manufacturing of metal-cutting tools

Grinding machine type/ Wheel shape	Grinding wheel	
	Catalog number	Dimensions
WALTER HMC500		
1A1 	0-0072	D: 100 | T: 12 | X: 5 | H: 20
1V1 	9B3208	D: 100 | T: 12 | X: 6 | α°: 45 | H: 20
WALTER HELITRONIC MINI POWER		
1A1 	0-0071	D: 100 | T: 10 | X: 5 | H: 20
1V1 	9B3208	D: 100 | T: 12 | X: 6 | α°: 45 | H: 20
HAWEMAT 3000 CNC		
1A1 	0-0071	D: 100 | T: 10 | X: 5 | H: 20
12V9-45 	4-1510	D: 100 | U: 10 | X: 2 | T: 20 | H: 20
11V9-70 	4-0110	D: 75 | U: 10 | X: 3 | T: 30 | H: 20

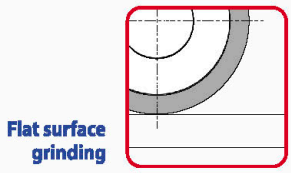
Sharpening and manufacturing of metal-cutting tools

Grinding machine type/ Wheel shape	Grinding wheel	
	Catalog number	Dimensions
WALTER HELITRONIC POWER 600		
1A1 	0D0086	D: 125 | T: 12 | X: 5 | H: 20
	0D0085	D: 125 | T: 8 | X: 5 | H: 20
MICHAEL DECKEL S20E TURBO		
1A1 	0-0071	D: 100 | T: 10 | X: 5 | H: 20
12V9-45 	3-2841	D: 100 | U: 10 | X: 3 | T: 20 | H: 20
11V9-70 	4-0103	D: 100 | U: 6 | X: 2 | T: 40 | H: 31,75
ANCA RX7, MX5 Linear, MX7 Linear		
1V1 	9-3249	D: 100 | T: 6 | X: 5 | α°: 45 | H: 31,75
	9-3241	D: 125 | T: 10 | X: 6 | α°: 45 | H: 31,75
1A1 	0-0174	D: 125 | T: 10 | X: 10 | H: 31,75
11V9-70 	4M0104	D: 100 | U: 10 | X: 2 | T: 35 | H: 31,75

1A1 STRAIGHT GRINDING WHEELS



1A1 D*T*X*H



Application:

- Used for machining of conical, cylindrical and flat surfaces, cylindrical and conical apertures;
- Machining of cylindrical surface parts and surface ends at one set-up;
- Sharpening and finishing of carbide tools.

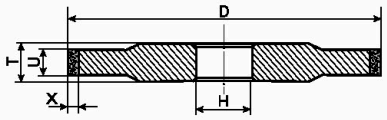
Catalog number D	D, mm T	T, mm	X, mm H	H, mm
0-0048	80	6	3	20
0-0054	80	6	5	20
0-0050	80	10	3	20
0-0056	80	10	5	20
0-0053	80	20	3	20
0-0059	80	20	5	20
0-0063	100	6	3	20
0-0065	100	10	3	20
0-0071	100	10	5	20
0-0068	100	20	3	20
0-0079	125	6	3	32
0-0080	125	10	3	32
0-0085	125	10	5	32
0-0174	125	10	10	31,75
0-0083	125	20	3	32
0-0088	125	20	5	32
0-0089	125	32	5	32
0-0094	150	6	3	32
0-0100	150	6	5	32
0-0096	150	10	3	32
0-0102	150	10	5	32
0-0099	150	20	3	32
0-0105	150	20	5	32
0-0109	200	6	3	76
0-0116	200	10	5	76
0-0119	200	20	5	76
0-0120	200	40	5	76
0-0126	250	10	5	76
0-0129	250	20	5	76
0-0131	250	50	5	76
0-0145	300	15	5	127
0-0146	300	20	5	127
0-0139	300	40	5	76
0-0149	350	20	5	127
0-0150	400	10	4	127
9-7004	400	20	5	127
0-0154	400	25	6	127
0-0155	400	40	6	127
0-0162	500	20	6	203
0-0167	500	32	20	203
0-0169	500	50	6	305
600-25	600	25	6	127
600-40	600	40	6	305

Example of an order for a straight grinding wheel 1A1 (catalog number 0-0065), parameters 100-10-3-20 with diamond grit size D76, with resin bond: **0-0065 1A1 100-10-3-20 D76 B6-00 PREMIUM**

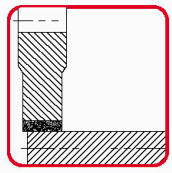
The plant produces the above-mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
Example of an order for a straight CBN wheel 1A1 (catalog number 0-0065), parameters 100-10-3-20 with CBN grit size B76, with resin bond: **0-0065 1A1 100-10-3-20 B76 B6-00 PREMIUM**

Other specifications and sizes are available on request.

14A1 STRAIGHT FLAT GRINDING WHEELS



14A1 D*T*U*X*H



Cylindrical surface grinding

Application:
- Used for machining of conical, cylindrical and flat surfaces, cylindrical and conical apertures;
- Machining of cylindrical surface parts and surface ends at one set-up;
- Sharpening and finishing of carbide tools.

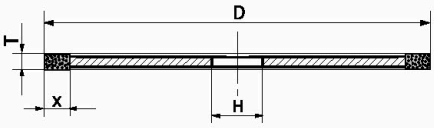
Catalog number	D, mm	T, mm	U, mm	X, mm	H, mm
0-0301	100	6	3	3	20
0-0304	100	6	5	5	20
0-0305	125	6	3	3	32
0-0306	125	6	5	3	32
0-0309	150	8	3	3	32
0-0312	150	8	5	5	32
0-0316	150	10	9	7	32
0-0319	175	8	3	5	51
0-0320	175	8	5	5	51
0-0322	200	10	5	3	51
0-0327	200	10	7	7	51
0-0329	200	10	3	5	51
0-0333	250	10	7	7	51
0-0335	250	10	5	5	76

Example of an order for a straight grinding wheel 14A1 (catalog number 0-0309), parameters 150-8-3-3-32 with diamond grit size D76, with resin bond: **0-0309 14A1 150-8-3-3-32 D76 B6-00 PREMIUM**

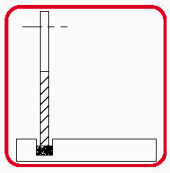
The plant produces the above-mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
Example of an order for a straight CBN wheel 14A1 (catalog number 0-0309), parameters 150-8-3-3-32, with CBN grit size B76, with resin bond: **0-0309 14A1 150-8-3-3-32 B76 B6-00 PREMIUM**

Other specifications and sizes are available on request.

1A1R CUT-OFF WHEELS



1A1R D*T*X*H



Material cutting

Application:
- Used for cutting carbide and high-speed steels.

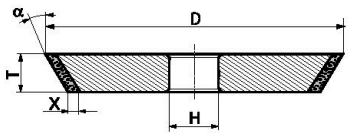
Catalog number	D, mm	T, mm	X, mm	H, mm
9-1003	75	1.0	5	10
6-0167	100	1.0	5	20
6-0206	150	1.2	5	32
6-4002	200	1.0	10	32
6D0234	200	1.5	5	30
6Q0234	200	1.2	5	30
6M0701	300	1.2	10	35

Example of an order for a straight grinding wheel 1A1R (catalog number 6-0206), parameters 150-1.2-5-32 with diamond grit size D251, with resin bond: **6-0206 1A1R 150-1.2-5-32 D251 B1000 PREMIUM**

The plant produces the above-mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
bond:Example of an order for a straight CBN wheel 1A1R (catalog number 6-0206), parameters 150-1.2-5-32 with CBN grit size B213, with resin **6-0206 1A1R 150-1.2-5-32 B213 B1000 PREMIUM**

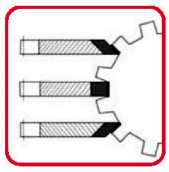
Other specifications and sizes are available on request.

1V1 GRINDING WHEELS



1V1 D*T*X* α *H

Application:
- Used for grinding of cylindrical and tapered surfaces;
- Grinding of chip grooves and flute grinding.



Machining of teeth

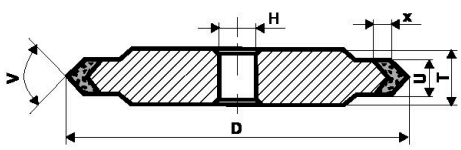
Catalog number	D, mm	T, mm	X, mm	α,°	H, mm
9-3248	100	6	5	30	31,75
9-3249	100	6	5	45	31,75
9-3222	100	10	3	20	20,00
9B9999	100	10	6	30	20,00
9-3206	100	12	6	15	31,75
9-3207	100	12	6	30	31,75
9-3208	100	12	6	45	31,75
9-3220	125	6	6	30	50,80
9-3241	125	10	6	45	31,75
9-3262	125	10	6	45	20,00
9-3209	125	12	6	15	31,75
9-3214	125	12	3	10	31,75
9-3215	125	12	3	15	31,75
9-3216	125	12	3	20	31,75
9-3217	125	12	3	25	31,75
9-3218	125	12	3	30	31,75
9-3219	125	12	3	45	31,75

Example of an order for a wheel 1V1 (catalog number 9-3248), parameters 100-6-5-30-31,75 with diamond grit size D64, with resin bond: **9-3248 1V1 100-6-5-30-31,75 D64 B7-00 PREMIUM**

The plant produces the above-mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
Example of an order for a CBN wheel 1V1 (catalog number 9-3248), parameters 100-6-5-30-31,75, with CBN grit size B64, with resin bond: **9-3248 1V1 100-6-5-30-31,75 B64 B7-00 PREMIUM**

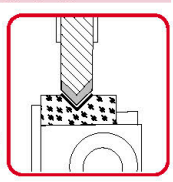
Other specifications and sizes are available on request.

14EE1 FLAT GRINDING WHEELS WITH DOUBLE-SIDED CONICAL PROFILE



14EE1 D*T*U*X*V*H

Application:
- Grinding of profiled workpieces made of carbide and other hard-to-process materials.



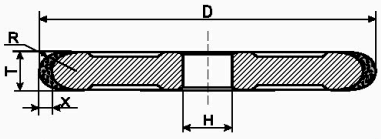
Profile grinding

Catalog number	D, mm	T, mm	U, mm	X, mm	V,°	H, mm
7-0162	80	10	7	5	40	22
9-3229	125	6	3	3	90	32
9-3133	125	6	3	4	60	32
9-3203	125	6	3	6	35	32
9-3251	150	6	3	4	60	32
9-3201	150	6	3	4	50	32
3-2840	200	12	5	4	30	32

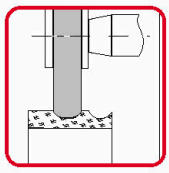
Example of an order for a grinding wheel 14EE1 (catalog number 9-3133), parameters 125-6-3-4-60-32 with diamond grit size D64, with resin bond: **9-3133 14EE1 125 6-3-4-60-32 D64 B7-00 PREMIUM**

The plant produces the above-mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
Example of an order for a CBN wheel 14EE1 (catalog number 9-3133), parameters 125-6-3-4-60-32 with CBN grit size B64, with resin bond: **9-3133 14EE1 125 6-3-4-60-32 B64 B7-00 PREMIUM**

1FF1 FLAT GRINDING WHEELS WITH SEMICIRCULAR-CONVEX PROFILE



1FF1 D*T*X*R*H



Profile grinding

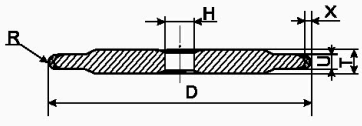
Application:
- Used for machining chip-breaking flutes in tools;
- Profile grinding.

Catalog number	D, mm	T, mm	X, mm	R, mm	H, mm
9-0001	50	2	2	1	16
9-0003	50	4	4	2	16
9-0004	75	4	4	2	20
9-0008	75	10	4	5	20
5-9156	80	40	5	26	32
9-0009	100	4	4	2	20
9-0016	100	20	6	10	20
9-0017	125	4	4	2	32
9-0019	125	6	4	3	32
9-0021	125	10	4	5	32
9-0025	150	10	4	5	32
9-0028	150	20	6	10	32
9-0029	200	20	6	10	51
9-0030	200	30	6	15	51
9-0031	250	20	6	10	51
9-2802	300	30	5	15	42

Example of an order for a wheel 1FF1 (catalog number 9-0017), parameters 125-4-4-2-32 with diamond grit size D76, with resin bond:
9-0017 1FF1 125-4-4-2-32 D76 B7-00 PREMIUM

The plant produces the above-mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
Example of an order for a CBN wheel 1FF1 (catalog number 9-0017), parameters 125-4-4-2-32, with CBN grit size B76, with resin bond:
9-0017 1FF1 125-4-4-2-32 B76 B7-00 PREMIUM
Other specifications and sizes are available on request.

14FF1 FLAT GRINDING WHEELS WITH SEMICIRCULAR-CONVEX PROFILE



14FF1 D*T*U*X*R*H

Profile grinding

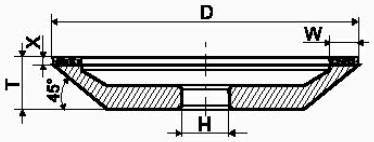
Application:
- Used for machining chip-breaking flutes in tools;
- Profile grinding.

Catalog number	D, mm	T, mm	U, mm	X, mm	R, mm	H, mm
9-2515	150	8,5	4	4	2	32
9-2653	200	10	3	4	1,5	60
9-2640	200	10	4	4	2	60
9-2655	200	10	6	4	3	60
9-0304	200	12	10	5	5	127

Example of an order for a wheel 14FF1 (catalog number 9-2515), parameters 150-8,5-4-4-2-32 with diamond grit size D76, with resin bond: **9-2515 14FF1 150-8,5-4-4-2-32 D76 B7-00 PREMIUM**

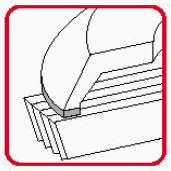
The plant produces the above-mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
Example of an order for a CBN wheel 14FF1 (catalog number 9-2515), parameters150-8,5-4-4-2-32, with CBN grit size B76, with resin bond: **9-2515 14FF1 150-8,5-4-4-2-32 B76 B7-00 PREMIUM**
Other specifications and sizes are available on request.

12A2-45 CUP GRINDING WHEELS



12A2-45° D*W*X*T*H

Application:
- Used for sharpening and finishing of front and back surfaces of multiple-blade carbide tools (with straight and spiral teeth), cutters, drills and other tools.



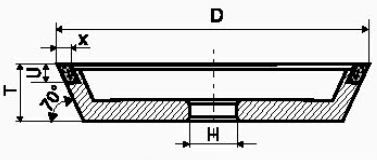
Face grinding

Catalog number	D, mm	W, mm	X, mm	T, mm	H, mm
4-0015	100	3	3	32	20
4-0016	100	5	3	32	20
4-0017	100	10	3	32	20
4-0027	125	3	3	40	32
4-0028	125	5	3	40	32
4-0029	125	10	3	40	32
4-0031	125	5	5	42	32
4-0040	150	10	3	40	32
4-0043	150	10	5	42	32
4-0041	150	20	3	40	32
9-0044	150	20	5	42	32

Example of an order for a cup wheel 12A2-45 (catalog number 4-0041), parameters 150-20-3-40-32 with diamond grit size D107, with resin bond: **4-0041 12A2-45 150-20-3-40-32 D107 B9-00 PREMIUM**

The plant produces the above-mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
Example of an order for a CBN wheel 12A2-45 (catalog number 4-0041), parameters 150-20-3-40-32, with CBN grit size B107, with resin bond: **4-0041 12A2-45 150-20-3-40-32 B107 B9-00 PREMIUM**
Other specifications and sizes are available on request.

11V9-70 TAPERED CUP GRINDING WHEELS



11V9-70° D*U*X*T*H

Application:
- Used for sharpening and finishing of back and side surfaces of carbide tools.

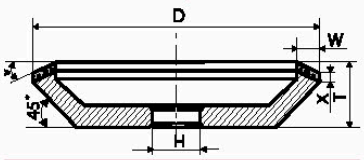
Sharpening of back and side surfaces

Catalog number	D, mm	U, mm	X, mm	T, mm	H, mm
4-0101	50	3	1,5	20	16
4-0102	75	6	2	32	20
4-0103	100	6	2	40	20
4-0104	100	10	2	40	20
4M0104	100	10	2	35	31.75
9-5002	100	10	3	40	20
4-0106	125	8	3	40	32
4-0107	125	10	3	40	32
4-0108	150	6	3	40	32
4-0109	150	10	3	40	51

Example of an order for a cup wheel 11V9-70 (catalog number 4-0109), parameters 150-10-3-40-51 with diamond grit size D126, with resin bond: **4-0109 11V9-70 150-10-3-40-51 D126 B9-00 PREMIUM**

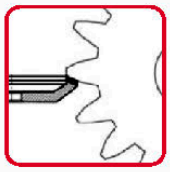
The plant produces the above-mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
Example of an order for a CBN wheel 11V9-70 (catalog number 4-0109), parameters 150-10-3-40-51, with CBN grit size B54, with resin bond: **4-0109 11V9-70 150-10-3-40-51 B54 B9-00 PREMIUM**
Other specifications and sizes are available on request.

12V5-45 CUP GRINDING WHEELS



12V5-45° D*T*W*X*V*H

Application:
- Used for sharpening and finishing (top grinding) of multiple-blade carbide tools (with straight and spiral teeth), cutters, drills and other tools.



Ram sharpening

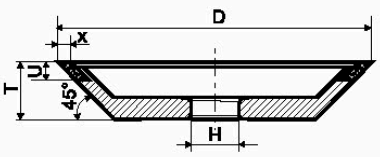
Catalog number	D, mm	T, mm	W, mm	X, mm	V, °	H, мм
4-0127	100	32	3	4	15	20
4-0128	100	32	3	4	25	20
4-0129	100	32	6	4	15	20
4-0130	100	32	6	4	25	20
4-0131	125	40	3	4	15	32
4-0132	125	40	3	4	25	32
4-0133	125	40	6	4	15	32
4-0134	125	40	6	4	25	32
4-0135	150	40	6	5	15	32
9-0136	150	40	6	5	25	32
9-0137	150	40	6	5	15	51
9-0138	150	40	6	5	25	51

Example of an order for a cup wheel 12V5-45 (catalog number 4-0129), parameters 100-32-6-4-15-20 with diamond grit size D126, with resin bond: **4-0129 12V5-45 100-32-6-4-15-20 D126 B9-00 PREMIUM**

The plant produces the above-mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
Example of an order for a CBN wheel 12V2-45 (catalog number 4-0129), parameters 100-32-6-4-15-20, with CBN grit size B107, with resin bond: **4-0129 12V5-45 100-32-6-4-15-20 B107 B9-00 PREMIUM**

Other specifications and sizes are available on request.

12V9-45 CUP GRINDING WHEELS



12V9-45° D*U*X*T*H

Application:
- Used for sharpening and finishing (top grinding) of cutting tools.

Top grinding

Catalog number	D, mm	U, mm	X, mm	T, mm	H, mm
4-2513	75	10	4	12	31,75
4-2503	75	6	1,5	18	31,75
4-1503	75	6	2	20	20
9-3154	75	6	3,5	20	10
9-3107	75	10	6	20	20
4-2510	100	6	1,5	18	31,75
9-3109	100	6	3	20	20
4-1510	100	10	2	20	20
4-2512	100	10	3	20	31,75
9-3108	125	10	3	25	20

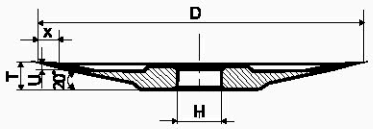
Example of an order for a cup wheel 12V9-45 (catalog number 4-1503), parameters 75-6-2-20-20 with diamond grit size D76, with resin bond: **4-1503 12V9-45 75-6-2-20-20 D76 B9-00 PREMIUM**

The plant produces the above-mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
Example of an order for a CBN wheel 12V9-45 (catalog number 4-1503), parameters 75-6-2-20-20, with CBN grit size B76, with resin bond: **4-1503 12V9-45 75-6-2-20-20 B76 B9-00 PREMIUM**

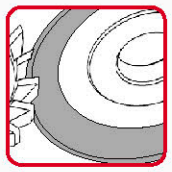
Other specifications and sizes are available on request.

12V9-20 DISH GRINDING WHEELS

Application:
- Used for sharpening and finishing (face grinding) of circular saw teeth and other tungsten carbide tools.



12V9-20° D*T*X*U*H



Face grinding

Catalog number	D, mm	T, mm	X, mm	U, mm	H, mm
3-3048	125	13	2,5	4	32
3D3048	125	13	2,5	4	20
3-3045	150	13	2,3	4	32
3-3043	175	13	2,5	4	32
3-3049	200	13	2,3	4	32

Example of an order for a dish wheel 12V9-20 (catalog number 3-3048), parameters 125-13-2,5-4-32 with diamond grit size D64, with resin bond: **3-3048 12V9-20 125-13-2,5-4-32 D64 B9-00 PREMIUM**

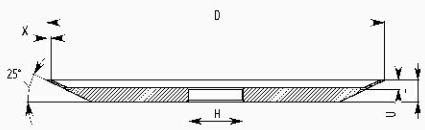
The plant produces the above-mentioned shapes and dimensions with Cubic Boron Nitride (CBN).

Example of an order for a CBN wheel 12V9-20 (catalog number 3-3048), parameters 125-13-2,5-4-32 with CBN grit size B64, with resin bond: **3-3048 12V9-20 125-13-2,5-4-32 B64 B9-00 PREMIUM**

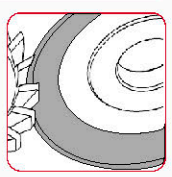
Other specifications and sizes are available on request.

12V9-25 DISH GRINDING WHEELS

Application:
- Used for sharpening and finishing (face grinding) of circular saw teeth and other tungsten carbide tools.



12V9-25° D*T*X*U*H



Face grinding

Catalog number	D, mm	T, mm	X, mm	U, mm	H, mm
3-3069	75	10	2,3	4	20
3-3068	200	13	2,5	5,5	32

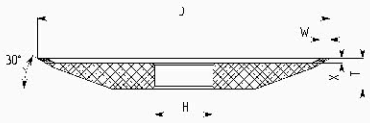
Example of an order for a dish wheel 12V9-25 (catalog number 3-3068), parameters 200-13-2,5-5,5-32 with diamond grit size D64, with resin bond: **3-3068 12V9-25 200-13-2,5-5,5-32 D64 B9-00 PREMIUM**

The plant produces the above-mentioned shapes and dimensions with Cubic Boron Nitride (CBN).

Example of an order for a CBN wheel 12V9-25 (catalog number 3-3068), parameters 200-13-2,5-5,5-32 with CBN grit size B64, with resin bond: **3-3068 12V9-25 200-13-2,5-5,5-32 B64 B9-00 PREMIUM**

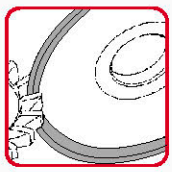
Other specifications and sizes are available on request.

4V2 DISH GRINDING WHEELS



4V2 D*W*X*T*H

Application:
- Used for sharpening and finishing (face grinding) of circular saw teeth and other tungsten carbide tools.



Face grinding

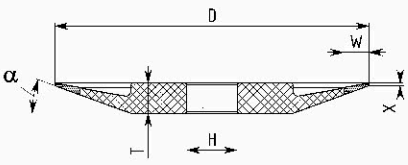
Catalog number	D, mm	W, mm	X, mm	T, mm	H, mm
0-3001	100	4	2	13	25
0Q3002	125	4	2	13	32

Example of an order for a dish wheel 4V2 (catalog number 0-3001), parameters 100-4-2-13-25 with diamond grit size D46, with resin bond: **0-3001 4V2 100-4-2-13-25 D46 B9-00 PREMIUM**

The plant produces the above-mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
Example of an order for a CBN wheel 4V2 (catalog number 0-3001), parameters 100-4-2-13-25 with CBN grit size B46, with resin bond: **0-3001 4V2 100-4-2-13-25 B46 B9-00 PREMIUM**

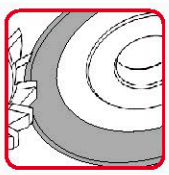
Other specifications and sizes are available on request.

4BT9 DISH GRINDING WHEELS



4BT9 D*T*X*W*H

Application:
- Used for sharpening and finishing (face grinding) of circular saw teeth and other tungsten carbide tools.



Face grinding

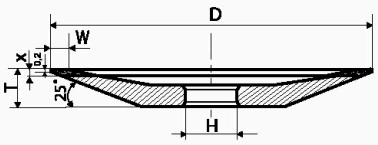
Catalog number	D, mm	T, mm	X, mm	W, mm	H, mm
5-0400	75	8	1	10	20
3-3035	125	12	1	10	20

Example of an order for a dish grinding wheels 4BT9 (catalog number 3–3035), parameters 125-12-1-10-20 with diamond grit size D64, with resin bond: **3–3035 4BT9 125-12-1-10-20 D64 B9-00 PREMIUM**

The plant produces the above- mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
Example of an order for a dish grinding wheels 4BT9 (catalog number 3–3035), parameters 125-12-1-10-20 with CBN grit size B64, with resin bond: **3–3035 4BT9 125-12-1-10-20 B64 B9-00 PREMIUM**

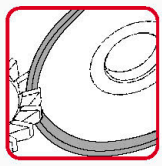
Other specifications and sizes are available on request.

12R4 DISH GRINDING WHEELS



12R4 D*W*X*T*H

Application:
- Used for sharpening and finishing of front surfaces of reamer teeth, cutters, circular saws, drawing dies and tools made of tungsten carbide.



Face grinding

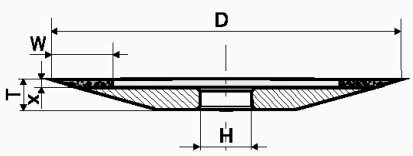
Catalog number	D, mm	W, mm	X, mm	T, mm	H, mm
5-0041	50	2	1,5	6	16
5-0042	75	3	2	10	20
5-1031	100	3	2	10	32
5-1041	125	3	2	13	32
5-1051	150	5	3	16	32
5-1052	150	5	3	16	51

Example of an order for a dish wheel 12R4 (catalog number 5-1041), parameters 125-3-2-13-32 with diamond grit size D64, with resin bond: **5-1041 12R4 125-3-2-13-32 D64 B9-00 PREMIUM**

The plant produces the above-mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
Example of an order for a CBN wheel 12R4 (catalog number 5-1041), parameters 125-3-2-13-32, with CBN grit size B64, with resin bond: **5-1041 12R4 125-3-2-13-32 B64 B9-00 PREMIUM**

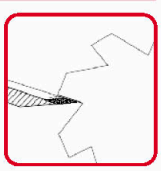
Other specifications and sizes are available on request.

4B2 DISH GRINDING WHEELS



4B2 D*T*X*W*H

Application:
- Used for sharpening and finishing (face grinding) of circular saw teeth and other tungsten carbide tools.



Face grinding

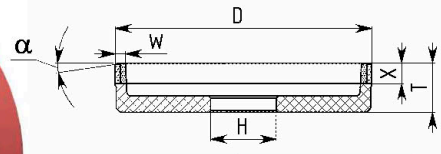
Catalog number	D, mm	T, mm	X, mm	W, mm	H, mm
8-7002	100	10	1,5	6	31,75
8-7010	100	10	1,5	6	32
8-7008	125	10	2	6	32
8-7004	150	12	1,5	6	31,75
8-7009	150	12	1,5	6	32

Example of an order for a dish wheel 4B2 (catalog number 8-7008), parameters 125-10-2-6-32 with diamond grit size D64, with resin bond: **8-7008 4B2 125-10-2-6-32 D64 B9-00 PREMIUM**

The plant produces the above-mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
Example of an order for a CBN wheel 4B2 (catalog number 8-7008), parameters 125-10-2-6-32, with CBN grit size B64, with resin bond: **8-7008 4B2 125-10-2-6-32 B64 B9-00 PREMIUM**

Other specifications and sizes are available on request.

6A2 FLAT RECESSED GRINDING WHEELS

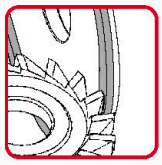


6A2 D*W*X*T*H*α°

Application

- Used for sharpening and finishing (top grinding) of circular saw teeth and other tungsten carbide tools.

Sharpening of circular saw



Catalog number	D, mm	W, mm	X, mm	T, mm	H, mm	α°
3K2671	100	5(2,5+2,5)	10	24	25	4
3-0088	125	5(2,5+2,5)	10	24	32	—
3M0088	125	5(2,5+2,5)	10	24	32	8
3J0088	125	5(2,5+2,5)	10	24	32	4

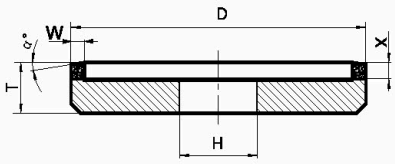
Example of an order for a grinding wheels 6A2 (catalog number 3-0088), parameters 125-5(2,5+2,5)-10-24-32 with diamond grit size D46/D126, with resin bond: **3-0088 6A2 125-5(2,5+2,5)-10-24-32 D46/D126 B9-00 PREMIUM**

The plant produces the above- mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
Example of an order for a grinding wheels 6A2 (catalog number 3-0088), parameters 125-5(2,5+2,5)-10-24-32 with CBN grit size B46/B126, with resin bond: **3-0088 6A2 125-5(2,5+2,5)-10-24-32 B46/B126 B9-00 PREMIUM**

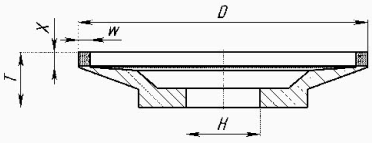
Other specifications and sizes are available on request.

12M2-45 GRINDING WHEELS

9P3153, 9A3153



9M3153

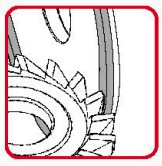


12M2-45 D*T*X*W*H*α°

Application

- Used for sharpening and finishing (top grinding) of circular saw teeth and other tungsten carbide tools.

Sharpening of circular saw



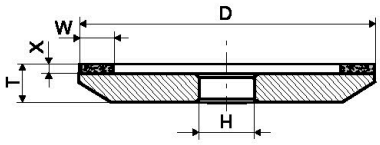
Catalog number	D, mm	T, mm	X, mm	W, mm	H, mm	α°
9P3153	125	18	6	5(2,5+2,5)	32	9
9A3153	125	18	6	5(2,5+2,5)	32	4
9M3153	125	24	6	5(2,5+2,5)	32	—

Example of an order for a grinding wheels 12M2-45 (catalog number 9P3153), parameters 125-18-6-5(2,5+2,5)-32 with diamond grit size D46/D126, with resin bond: **9P3153 12M2-45 125-18-6-5(2,5+2,5)-32 D46/D126 B9-00 PREMIUM**

The plant produces the above- mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
Example of an order for a grinding wheels 12M2-45 (catalog number 9P3153), parameters 125-18-6-5(2,5+2,5)-32 with CBN grit size B46/B126, with resin bond: **9P3153 12M2-45 125-18-6-5(2,5+2,5)-32 B46/B126 B9-00 PREMIUM**

Other specifications and sizes are available on request.

4A2 DISH GRINDING WHEELS



4A2 D*T*X*W*H

Application:
- Used for sharpening and finishing (face grinding) of multiple-blade tools.

Milling cutter face grinding

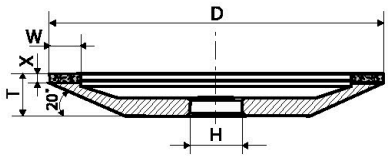
Catalog number	D, mm	T, mm	X, mm	W, mm	H, mm
9-8151	100	10	2	3	20
4-1140	100	10	1	6	22,20
4-1116	100	10	1,5	6	31,75
9-9161	125	10	3	6	31,75
9-9166	125	10	3	6	32
9-9165	125	10	2	8	20
9-8158	150	12	3	5	20
9-9162	150	12	3	6	31,75
9-9167	150	12	3	6	32

Example of an order for a dish wheel 4A2 (catalog number 9-8151), parameters 100-10-2-3-20 with diamond grit size M63, with resin bond: **9-8151 4A2 100-10-2-3-20 M63 B9-00 PREMIUM**

The plant produces the above-mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
Example of an order for a CBN wheel 4A2 (catalog number 9-8151), parameters 100-10-2-3-20, with CBN grit size B126, with resin bond: **9-8151 4A2 100-10-2-3-20 B126 B9-00 PREMIUM**

Other specifications and sizes are available on request.

12A2-20 DISH GRINDING WHEELS



12A2-20° D*T*X*W*H

Application:
- Used for sharpening and finishing of front surfaces of reamer teeth, cutters, circular saws, drawing dies and tools made of tungsten carbide.

Tool face sharpening

Catalog number	D, mm	T, mm	X, mm	W, mm	H, mm
5-0005	75	10	2	3	16
5-0006	75	10	2	6	16
5-0007	100	12	2	3	20
5-0008	100	12	2	6	20
5-0009	125	16	2	3	32
5-0010	125	16	2	6	32
5-0011	125	16	2	10	32
5-0012	150	18	2	3	51
5-0013	150	18	2	6	51
5-0014	150	18	2	10	51

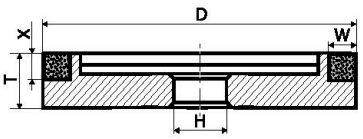
Example of an order for a dish wheel 12A2-20 (catalog number 5-0014), parameters 150-18-2-10-51 with diamond grit size D64, with resin bond: **5-0014 12A2-20 150-18-2-10-51 D64 B9-00 PREMIUM**

The plant produces the above-mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
Example of an order for a CBN wheel 12A2-20 (catalog number 5-0014), parameters 150-18-2-10-51, with CBN grit size B64, with resin bond: **5-0014 12A2-20 150-18-2-10-51 B64 B9-00 PREMIUM**

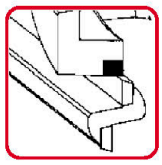
Other specifications and sizes are available on request.

6A9 RECESSED FLAT GRINDING WHEELS

Application:
- Used for sharpening and finishing of special tools.



6A9 D*W*X*T*H



Saw end surface sharpening

Catalog number	D, mm	W, mm	X, mm	T, mm	H, mm
9-8150	100	3	6	30	20
9-3421	125	3	6,5	18	32
3-2843	125	5(2,5+2,5)	6	20	32

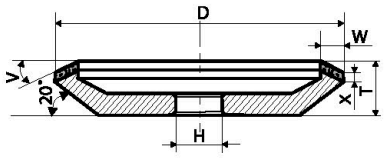
Example of an order for a wheel 6A9 (catalog number 9-8150), parameters 100-3-6-30-20 with diamond grit size M63, with resin bond: **9-8150 6A9 100-3-6-30-20 M63 B9-00 PREMIUM**

The plant produces the above-mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
Example of an order for a CBN wheel 6A9 (catalog number 9-8150), parameters 100-3-6-30-20, with CBN grit size B54, with resin bond: **9-8150 6A9 100-3-6-30-20 B54 B9-00 PREMIUM**

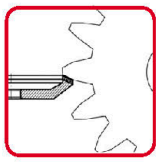
Other specifications and sizes are available on request.

12V5-20 DISH GRINDING WHEELS

Application:
- Used for sharpening and finishing of multiple-blade tools cutter back surfaces (with straight and spiral teeth), drills and other tools made of tungsten carbide.



12V5-20 D*T*W*X*V*H



Ram sharpening

Catalog number	D, mm	T, mm	W, mm	X, mm	V,°	H, mm
5-0078	75	10	5	2	25	20
5-0080	100	10	3	2	25	20
5-0086	125	13	5	2	25	32
5-0090	150	16	10	3	25	32

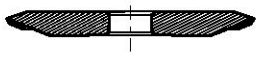
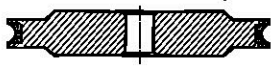
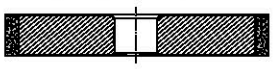
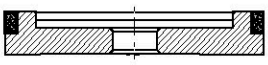
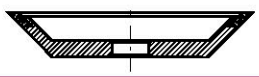
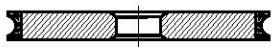
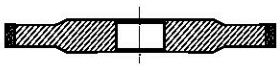
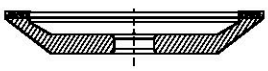
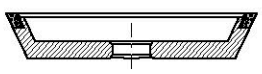
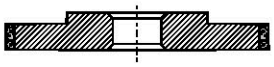
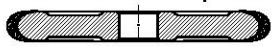
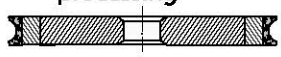
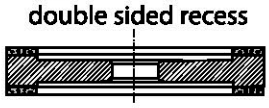
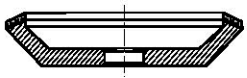
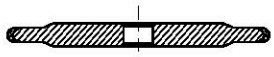
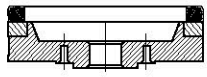
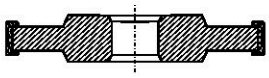
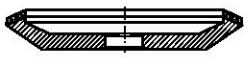
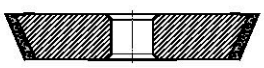
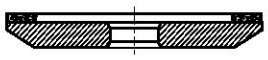
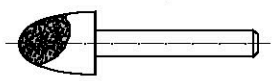
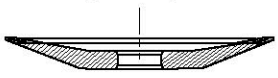
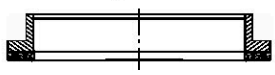
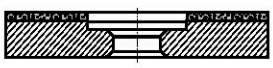
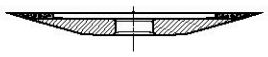
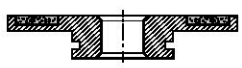
Example of an order for a dish wheel 12V5-20 (catalog number 5-0086), parameters 125-13-5-2-25-32 with diamond grit size D126, with resin bond: **5-0086 12V5-20 125-13-5-2-25-32 D126 B9-00 PREMIUM**

The plant produces the above-mentioned shapes and dimensions with Cubic Boron Nitride (CBN).
Example of an order for a CBN wheel 12V5-20 (catalog number 5-0086), parameters 125-13-5-2-25-32, из CBN with CBN grit size B54, with resin bond: **5-0086 12V5-20 125-13-5-2-25-32 B54 B9-00 PREMIUM**

Other specifications and sizes are available on request.

WHEELS IN OUR STANDARD PRODUCT LINE

In addition to PREMIUM wheels with increased wheel life for use under severe grinding conditions, POLTAVA DIAMOND TOOLS offers its STANDARD product line for use in mass production in the machine building industry, as well as in the production and sharpening of metal cutting tools and saws.

Item	Item	Item	Item
Diamond and CBN grinding wheels for machine building	**6A2T** Flat grinding wheels 	**12D9** Dish grinding wheels 	**14F6V** Flat grinding wheels with semicircular-concave profile 
1A1 Straight grinding wheels 	**6A9** Recessed flat grinding wheels 	**12V9-45** Cup grinding wheels 	**1F6V** Flat grinding wheels with semicircular-concave profile 
14A1 Straight flat grinding wheels 	**12A2-45** Cup grinding wheels 	**11V9-70** Cup grinding wheels 	**2F6V** Flat grinding wheels with semicircular-concave profile 
3A1 Straight grinding wheels 	**12A2-20** Dish grinding wheels 	**1FF1** Flat grinding wheels with semicircular convex profile 	**1DD6V** Diamond wheels for glass processing 
9A3 Flat grinding wheels with double sided recess 	**12V5-45** Cup grinding wheels 	**14FF1** Grinding wheels with semicircular convex profile 	**6A2** Flat recessed diamond grinding wheels 
14U1 Three-sided grinding wheels 	**12V5-20** Dish grinding wheels 	**AW** Cylindrical diamond mounted points 	**1EE1** Flat grinding wheels with double-sided conical profile 
1V1 Grinding wheels 	**4A2** Dish grinding wheels 	**F1W** Vaulted diamond mounted points 	**14EE1** Flat grinding wheels with double-sided conical profile 
1A1R Cutting wheels 	**12R4** Dish grinding wheels 	**EW** Conical diamond mounted points 	**2A2** Ring wheels 
6A2 Recessed flat grinding wheels 	**4B2** Dish grinding wheels 	**Diamond tools for processing nonmetals**	**1A2** Flat grinding wheels 

QUESTIONNAIRE

for selecting PREMIUM wheels made by PrJSC "POLTAVADIAMOND TOOLS"

Contact information:
Company name: _____
Company address: _____
Contact person: _____
Tel.: _____ Fax: _____ e-mail: _____

Characteristics of the grinding wheel currently used:

Manufacturer	Wheel shape	Wheel size (DxTxXxH mm)	Diamond grit size	Bond type	Catalog number
		x x x			

Wheel life, number of workpieces per shift: _____
Approximate number of wheels used annually: _____
Type and make of equipment
the wheel is used on: _____

Grinding parameters

Grinding type	Grinding depth, mm	Peripheral velocity, m/sec.	Line feed mm/min.	Cross feed, mm/min	With/without coolant (brand and type of coolant)
Tool sharpening					
Tool manufacturing					
Saw sharpening					
Face grinding					
Circular external					
Circular internal					
Other _____					

Workpiece material:
Tungsten carbide (brand and type): _____
High speed steel (brand and type): _____
Other material: _____

Type of abrasive used for dressing: _____

Please send the completed questionnaire to us at:
Fax: +38 (0532) 503820, 503821
e-mail: pdt@poltavadiamond.com.ua

POLTAVA DIAMOND TOOLS

PrJSC "POLTAVA DIAMOND TOOLS"

e-mail: pdt@poltavadiamond.com.ua
www.poltavadiamond.com.ua

Our official representative:

Tel.:
Fax:
e-mail:

ISO 9001 BUREAU VERITAS Certification

Quality Management System ISO 9001

EN 13236