DIAMOND TOOLS

- Removal rates at the level of leading European manufacturers
- Prices up to 60% below comparable European wheels
- New bond types
- Custom-tailored approach to the selection of PREMIUM grinding wheels for specific production processes
- Technical support by our company specialists

A TRADITION OF QUALITY SINCE 1966

PREMIUM

DIAMOND AND CBN WHEELS

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.

Top-quality diamond tools for the machine building, glass, electronic, and wood industries.

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	11V9-20, 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:

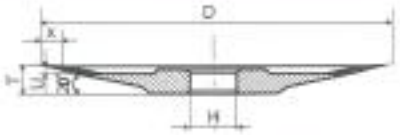
Grinding operations	Wheel type
Face grinding	12V9-20, 12V9-25, 4V2, 12R4, 12A2-20, 4BT9
Flank grinding	1A1
Top grinding	12A2-20, 4A2, 12V9-45, 12M2-45, 6A2

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.

12V9-20 PREMIUM

DISH GRINDING WHEELS

12V9-20° D*T*X*U*H



Sharpening and finishing, face grinding of circular saw teeth and other tungsten carbide tools.

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

12V9-25 PREMIUM

DISH GRINDING WHEELS

12V9-25° D*T*X*U*H

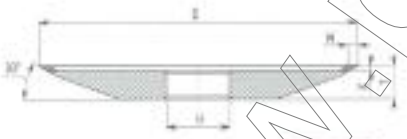
Sharpening and finishing, face grinding of circular saw teeth and other tungsten carbide tools.

Code	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

4V2 PREMIUM

DISH GRINDING WHEELS

4V2 D*W*X*T*H



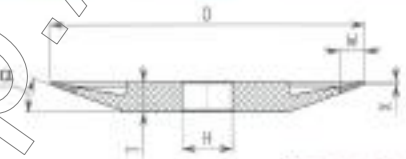
Sharpening and finishing, face grinding of circular saw teeth and other tungsten carbide tools.

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

4BT9 PREMIUM

DISH GRINDING WHEELS

4BT9 D*T*X*W*H



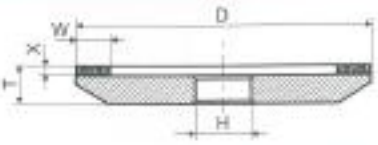
Sharpening and finishing, face grinding of circular saw teeth and other tungsten carbide tools.

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

4A2 PREMIUM

DISH GRINDING WHEELS

4A2 D*T*X*W*H



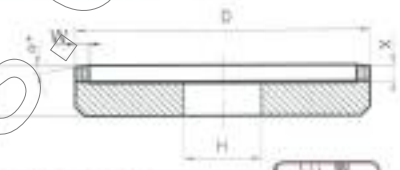
Sharpening and finishing (face grinding) of multiple-blade tools

Code	D, mm	T, mm	X, mm	W, mm	H, mm
9-8151	100	10	2	3	20
9-9166	125	10	3	6	32

12M2-45 PREMIUM

GRINDING WHEELS

12M2-45 D*T*X*W*H*α°



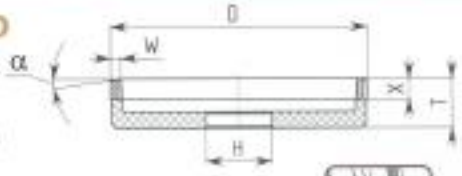
Sharpening and finishing, top grinding of circular saw teeth and other tungsten carbide tools.

Code	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	–

6A2 PREMIUM

FLAT RECESSED GRINDING WHEELS

6A2 D*W*X*T*H*α°



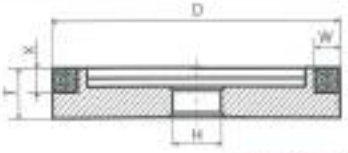
Sharpening and finishing, top grinding of circular saw teeth and other tungsten carbide tools.

Code	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

6A9 PREMIUM

FLAT RECESSED GRINDING WHEELS

6A9 D*W*X*T*H



Sharpening and finish grinding of specialty tools.

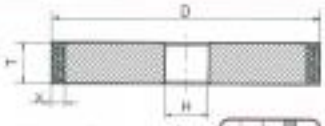
Code	D, mm	W, mm	X, mm	T, mm	H, mm
9-8150	100	3	6	30	20
9-3421	125	3	6,5	40	32

Wheels with other dimensions are also available.

1A1 PREMIUM

STRAIGHT GRINDING WHEELS

1A1 D*T*X*H



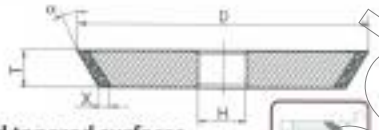
- Machining of cylindrical, tapered and flat surfaces, cylindrical and tapered bores;
- Simultaneous machining of cylindrical surfaces and projecting edges;
- Sharpening and finishing of tungsten carbide tools.

Code	D, mm	T, mm	X, mm	H, mm
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
0-0071	100	10	5	20
9-8021	100	10	10	20
9-3193	100	12	6	31,75
0-0079	125	6	3	32
0-0085	125	10	5	32
0-0074	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
0-0096	150	10	3	32
0-0102	150	10	5	32
0-0099	150	20	3	32

1V1 PREMIUM

FLAT TAPERED GRINDING WHEELS

1V1 D*T*X*α*H



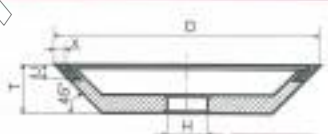
Machining of cylindrical and tapered surfaces.

Code	D, mm	T, mm	X, mm	α°	H, mm
9-3248	100	6	5	30	31,75
9-9998	100	10	10	45	20
9-3222	100	10	3	20	20
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
9A3238	125	10	10	15	20
9-3211	125	12	6	20	31,75
9-3214	125	12	3	10	31,75
9-3217	125	12	3	25	31,75
9-3219	125	12	3	45	31,75
5-5555	125	12	3	20	20
3-2981	150	12	6	45	31,75

12V9-45 PREMIUM

TAPERED CUP GRINDING WHEELS

12V9-45° D*U*X*T*H



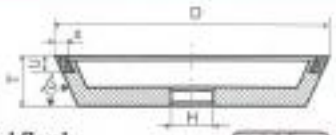
Sharpening and finishing, top grinding of cutting tools.

Code	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
9-3107	75	10	6	6	20
4-2510	100	6	1,5	20	31,75
4-1510	100	10	2	18	20
4-2512	100	10	3	20	31,75
3-2841	100	10	3	20	20
9-3108	125	10	3	25	20

11V9-70 PREMIUM

TAPERED CUP GRINDING WHEELS

11V9-70° D*U*X*T*H



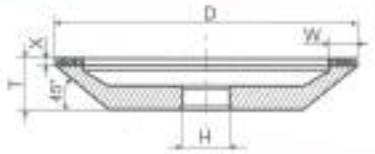
Sharpening and finishing, top and flank grinding of tungsten carbide tools.

Code	D, mm	U, mm	X, mm	T, mm	H, mm
4-0102	75	6	2	32	20
4-0103	100	6	2	40	20
4-0104	100	10	2	40	20
9-5002	100	10	3	40	20
3-2924	125	10	3	40	20
4-0105	125	6	3	40	32
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

12A2-45 PREMIUM

CUP GRINDING WHEELS

12A2-45° D*W*X*T*H



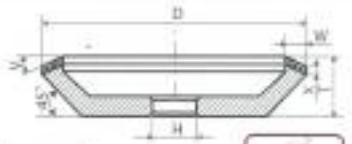
Sharpening and finishing of multi-blade carbide tools with straight and spiral teeth, top grinding of cutters, drills, and other tools.

Code	D, mm	W, mm	X, mm	T, mm	H, mm
4-9075	75	25	3	10	20
4-0018	75	6	3	21	20
4-0015	100	3	3	32	20
4-0016	100	5	3	32	20
4-0017	100	10	3	32	20
4-0028	125	5	2	40	32
4-0029	125	10	3	40	32
4-0031	125	5	5	42	32
4-0043	150	10	5	42	32
4-0041	150	20	3	40	32
4-0044	150	20	5	42	32

12V5-45 PREMIUM

CUP GRINDING WHEELS

12V5-45° D*T*W*X*V*H



Sharpening and finishing of multi-blade carbide tools with straight and spiral teeth, top grinding of cutters, drills, and other tools.

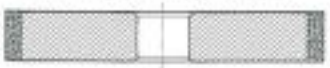
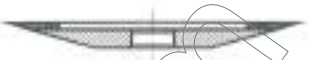
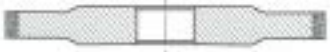
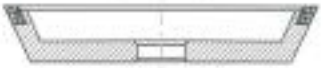
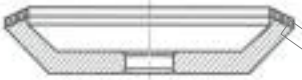
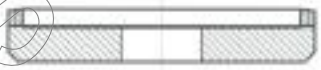
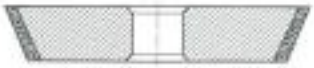
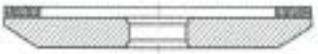
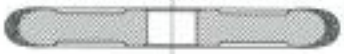
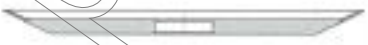
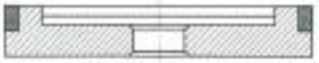
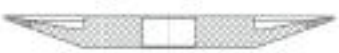
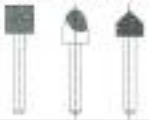
Code	D, mm	T, mm	W, mm	X, mm	V,°	H, mm
4-0127	100	32	3	4	15	20
4-0128	100	32	3	4	25	20
4-0129	100	32	6	4	15	20
4-0130	100	32	6	4	25	20
4-0131	125	40	3	4	15	32
4-0132	125	40	3	4	25	32
4-0133	125	40	6	4	15	32
4-0134	125	40	6	4	25	32
4-0135	150	40	6	5	15	32
4-0136	150	40	6	5	25	32
4-0137	150	40	6	5	15	51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

Wheels with other dimensions are also available.

Bond types for PREMIUM Grinding Wheels

Item	Recommendations for usage	Recommended grinding parameters
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	Resin bond for sharpening and grinding of parts from tungsten carbide and high-speed steels with and without coolant. Recommended for face grinding of circular saws and metal-cutting tools. The bond B9-01 is softer than the bond B9-00.	**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	Resin bond B7-00 for manufacturing and sharpening of tools from tungsten carbide and high-speed steels on CNC machines with a coolant. The bond has high cutting properties, wear resistance and high edge resistance. The B7-00 bond is harder than the B9-00 bond.	**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 2,00 mm
B6-01	Resin bond B6-01 for deep infeed grinding (manufacturing and sharpening) of tungsten carbide tools and high-speed steels on CNC machines with a coolant. The bond has high cutting properties, wear resistance and high edge resistance.	**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
M7-00	M7-01 metal bond wheels for deep infeed grinding are used for manufacturing of metal cutting tools from tungsten carbide and high-speed steels on CNC machines with a coolant. The bond has high cutting properties, wear resistance and edge resistance. Metal bonded M7-01 wheels work at higher feed rates than metal bonded M7-00 wheels.	**Cutting speed:** diamond wheels Vc=15 – 25 m/s CBN wheels Vc=up to 35 m/s **Feed rate** V_f=0,05 m/min **Infeed** a_e=up to 6,00 mm
M7-01	M7-01 metal bond wheels for deep infeed grinding are used for manufacturing of metal cutting tools from tungsten carbide and high-speed steels on CNC machines with a coolant. The bond has high cutting properties, wear resistance and edge resistance. Metal bonded M7-01 wheels work at higher feed rates than metal bonded M7-00 wheels.	**Cutting speed:** diamond wheels Vc=15 – 25 m/s CBN wheels Vc=up to 35 m/s **Feed rate** V_f=0,05 – 0,08 m/min **Infeed** a_e=up to 6,00 mm
RMH01	Hybrid-bonded wheels RMH01 for deep infeed grinding are used for manufacturing of metal cutting tools from tungsten carbide and high-speed steels on CNC machines with a coolant. The bond has very high cutting properties, particular wear resistance and edge resistance. Hybrid- bonded wheels are dressed easier than metal bond wheels.	**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

WHEEL SHAPES PRODUCED WITH OUR NEW BONDS

Grinding wheels	Grinding wheels	Grinding wheels
1A1 Straight grinding wheels 	**12A2-45** Cup grinding wheels 	**4B2** Dish grinding wheels 
14A1 Straight grinding wheels 	**11V9-70** Cup grinding wheels 	**6A2** Flat recessed grinding wheels 
1A1R Cut-off wheels 	**12V5-45** Cup grinding wheels 	**12M2-45** Grinding wheels 
1V1 Grinding wheels (special) 	**12V9-45** Cup grinding wheels 	**4A2** Dish grinding wheels 
14EE1 Flat grinding wheels with double-sided conical profile 	**12V9-20** Dish grinding wheels 	**12A2-20** Dish grinding wheels 
1FF1 Flat grinding wheels with semicircular convex profile 	**12V9-25** Dish grinding wheels 	**6A9** Recessed flat grinding wheels 
14FF1 Grinding wheels with semicircular convex profile 	**4V2** Dish grinding wheels 	**12V5-20** Dish grinding wheels 
9A3 Flat with double-sided recess 	**4BT9** Dish grinding wheels 	**AW F1W EW** Diamond mounted points 
14U1 Straight three-sided 	**12R4** Dish grinding wheels 	**Wheels with other dimensions are also available.**