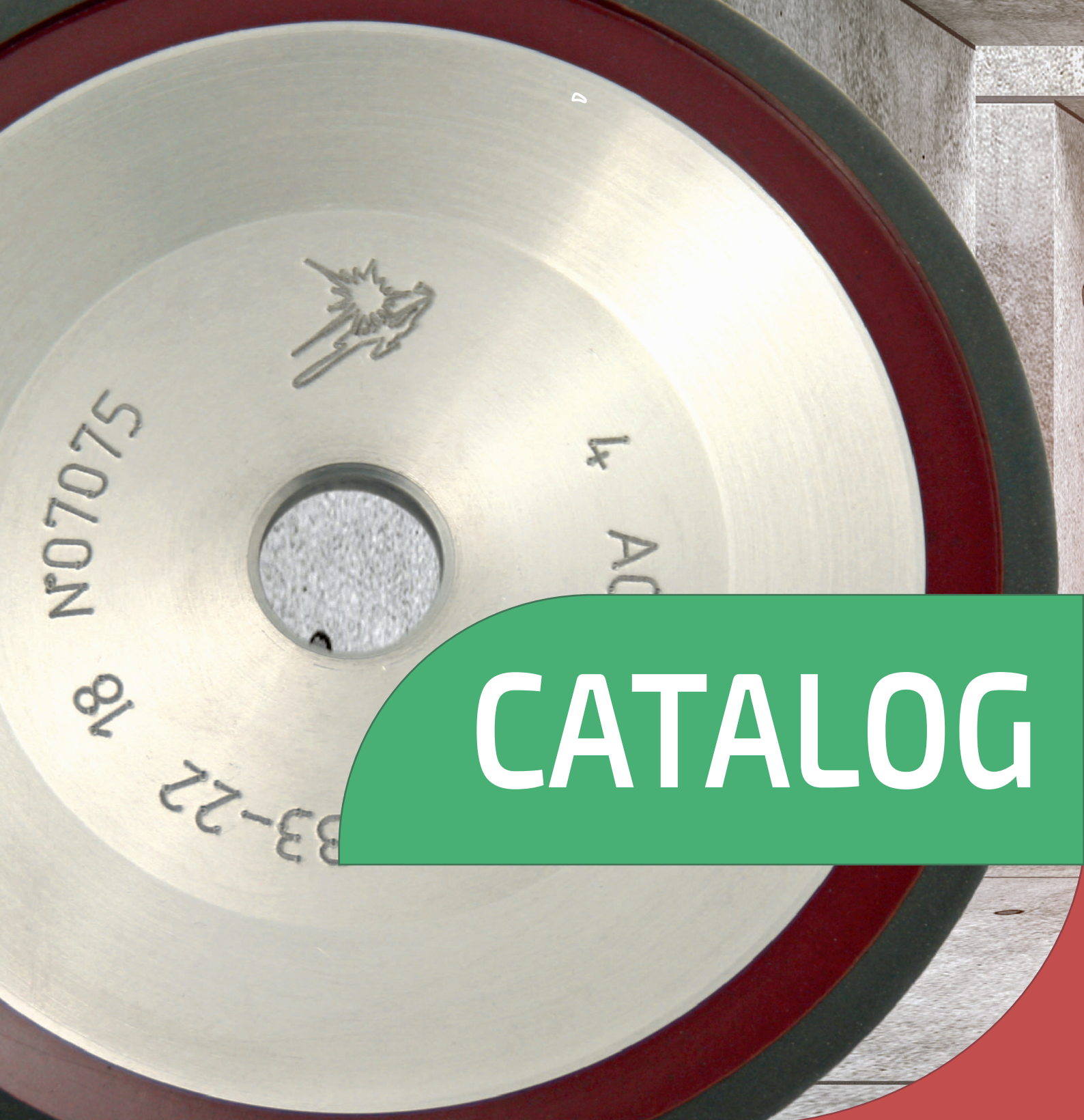




CATALOG

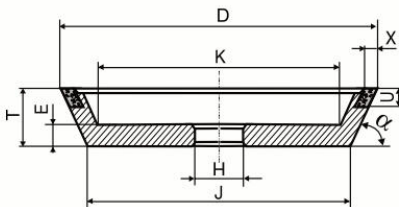
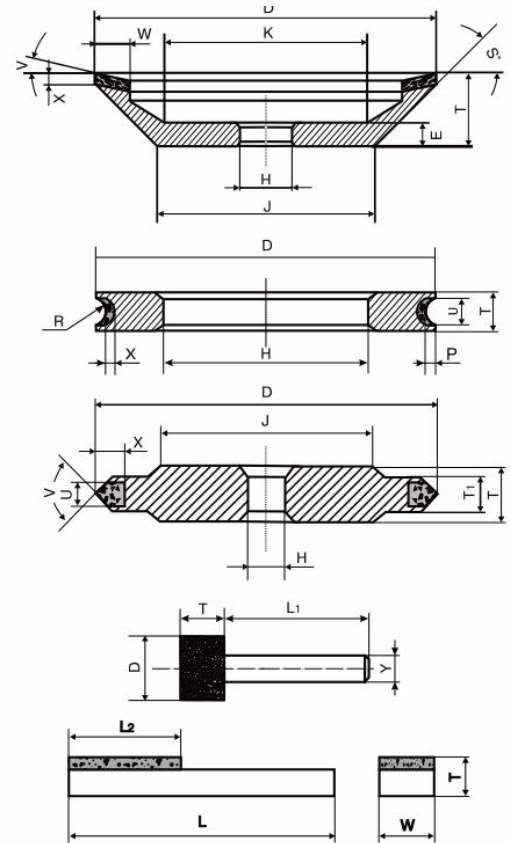
Manufacturing time:

- ✓ Resing bond tools - 4 weeks
- ✓ Metal bond tools - 6 weeks

Designation and dimensions of instruments

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

- D** - top diameter
- E** - back thickness
- H** - hole diameter
- J** - hub diameter
- K** - inside diameter of flat
- L** - total stick length
- L₁** - spindle length
- L₂** - length of diamond layer
- R** - radius
- S** - face angle
- T** - wheel thickness
- T₁** - reduced hub thickness
- U** - insert length
- V** - face angle
- W** - rim width
- X** - depth of diamond layer
- Y** - spindle diameter
- P** - depth of concavity of diamond layer



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

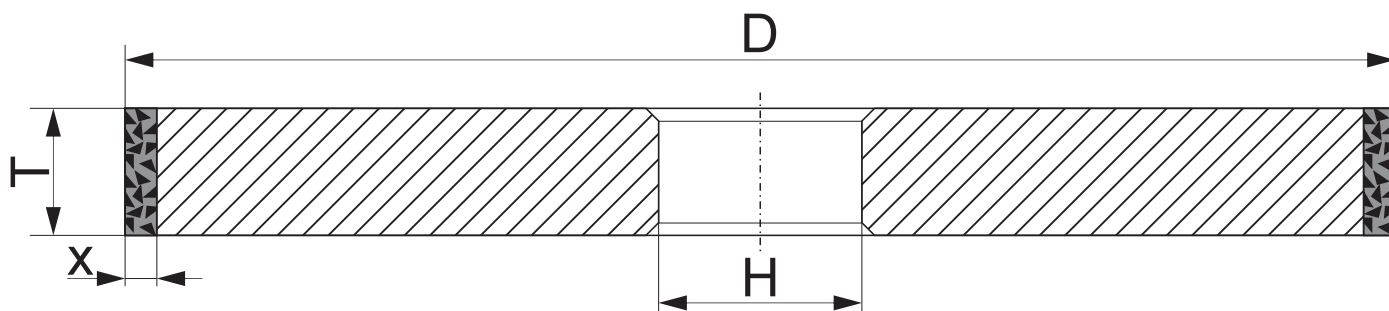
11 V 9-70

Identification number for shapes of grinding wheel cores

1		Flat wheel without recesses, $D/H \geq 1,8$
2		Rim wheel, face wheel, $D/H < 1,8$
3		Flat wheel with one-sided relief
4		Flat wheel with one-sided cone
6		Flat wheel with one-sided recess
9		Flat wheel with double-sided recess
11		Cup wheel $45^\circ < \alpha < 90^\circ$
12		Dish wheel $\alpha \leq 45^\circ$
14		Flat wheel with double-sided relief

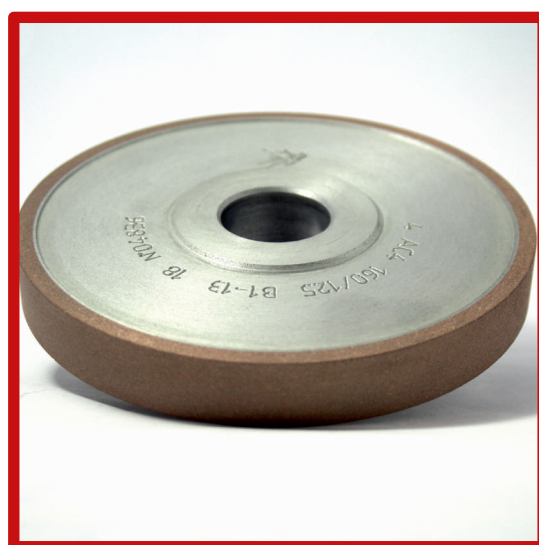
Diamond and CBN grinding wheels

1A1



Designed for sharpening and finishing carbide tools, high-speed alloy high-strength steels, cutting diamonds and other hard-to-process materials. Used for processing cylindrical, conical, flat surfaces and holes, it is possible to use for other types of processing.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.



Technical characteristics

SKU	D	T	X	H
2720-0004	16	8	2	6
2720-0010	20	10	2	6
2720-0016	25	10	3	6
2720-0022	32	10	3	10
2720-0029	40	10	3	16
2720-0031	40	16	3	16
2720-0035	50	10	3	16
2720-0037	50	16	3	16
2720-0042	63	10	3	20
2720-0044	63	16	3	20
0D0044	63	16	3	32
0T0045	80	2	3	20
2720-0045	80	3	3	20
2720-0045D	80	3	3	10
2720-0046	80	4	3	20
2720-0048	80	6	3	20
2720-0050	80	10	3	20
2720-0053	80	20	3	20
2720-0054	80	6	5	20
2720-0056	80	10	5	20
2720-0059	80	20	5	20

SKU	D	T	X	H
0D0059	80	20	5	32
2720-0063	100	6	3	20
2720-0065	100	10	3	20
2720-0068	100	20	3	20
0-0069DX	100	5	5	32
2720-0069	100	6	5	20
2720-0071	100	10	5	20
0D0071	100	10	5	32
2720-0074	100	20	5	20
0D0074	100	20	5	32
2720-0076	125	3	3	32
2720-0077	125	4	3	32
2720-0078	125	5	3	32
2720-0079	125	6	3	32
2720-0080	125	10	3	32
2720-0083	125	20	3	32
0-0084DX	125	5	5	32
2720-0084	125	6	5	32
2720-0085	125	10	5	32
2720-0085D	125	10	5	20
2720-0088	125	20	5	32

Technical characteristics

SKU	D	T	X	H
2720-0094	150	6	3	32
2720-0095	150	8	3	32
2720-0096	150	10	3	32
2720-0099	150	20	3	32
2720-0093X	150	5	5	32
2720-0100	150	6	5	32
2720-0100D	150	6	5	20
0D0100	150	6	5	120
2720-0101	150	8	5	32
2720-0102	150	10	5	32
2720-0104	150	15	5	32
2720-0105	150	20	5	32
2720-0109	200	6	3	76
2720-0109D	200	6	3	32
2720-0111	200	10	3	76
2720-0111D	200	10	3	32
2720-0114	200	20	3	76
2720-0114D	200	20	3	32
2720-0116	200	10	5	76
2720-0116D	200	10	5	32
2720-0118	200	15	5	76

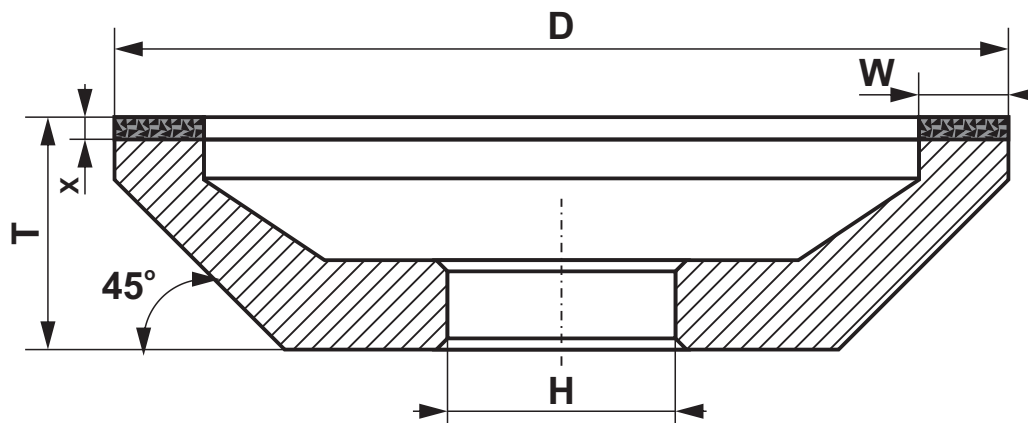
SKU	D	T	X	H
2720-0118D	200	15	5	32
2720-0119	200	20	5	76
2720-0119D	200	20	5	32
0-0119DX	200	20	10	127
2720-0120T	200	30	5	76
2720-0120TD	200	30	5	32
2720-0120	200	40	5	76
2720-0120D	200	40	5	32
2720-0126	250	10	5	76
2720-0128	250	15	5	76
2720-0129	250	20	5	76
250-25	250	25	5	76
250-30	250	30	5	76
2720-0130	250	40	5	76
2720-0137	300	15	5	76
2720-0137D	300	15	5	127
2720-0133X	300	10	5	76
2720-0133XD	300	10	5	127
2720-0138	300	20	5	76
2720-0138D	300	20	5	127
0E0139	300	30	5	76

Technical characteristics

SKU	D	T	X	H
0E0139D	300	30	5	127
0D0139	300	40	5	51
2720-0139	300	40	5	76
2720-0139D	300	40	5	127
0-0154X	400	25	5	127
0-0154XD	400	25	5	203
0B0151	400	16	4	127
0B0151D	400	16	4	203

Diamond and CBN grinding wheels

12A2-45



Designed for sharpening and debugging of multi-blade carbide tools with a straight and spiral tooth on the front and back surfaces of cutters, drills, broaches, reamers and high speed alloyed high-strength steels and other hard-to-process materials. Processing of flat surfaces of machine parts, semiconductor materials, ceramics, quartz, precious and ornamental stones.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.



Technical characteristics

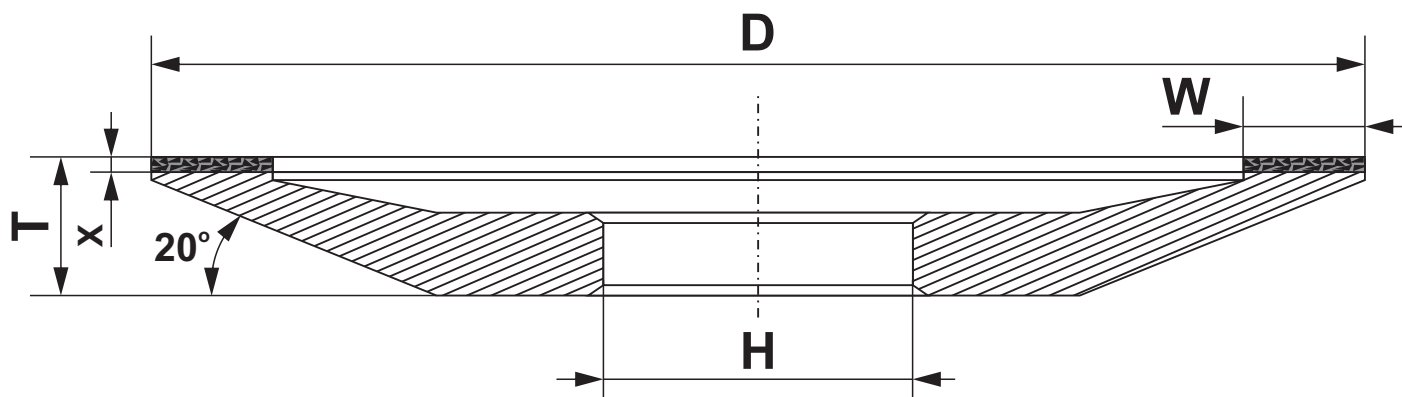
SKU	D	T	W	X	H
2724-0004X	50	21	3	3	16
4D0004X	50	21	3	3	12
2724-0117D	75	21	3	3	16
4D0117	75	21	3	3	12.7
2724-0118D	75	21	6	3	16
2724-0119	75	26,5	3	3	20
2724-0120	75	26,5	6	3	20
2724-0015	100	32	3	3	20
2724-0016X	100	32	5	3	20
4W0016	100	32	8	3	20
2724-0017	100	32	10	3	20
2724-0017D	100	32	10	3	32
2724-0027	125	40	3	3	32
2724-0028X	125	40	5	3	32
2724-0029	125	40	10	3	32
0D0031	125	42	5	5	20
2724-0031TX	125	42	5	5	32
2724-0032X	125	42	10	5	32
4D0032X	125	42	10	5	12.7
2724-0034	150	26	10	3	32
2724-0037X	150	28	10	5	32

Technical characteristics

SKU	D	T	W	X	H
2724-0039	150	40	5	3	32
2724-0040	150	40	10	3	32
2724-0041	150	40	20	3	32
2724-0042	150	42	5	5	32
4D0042	150	42	5	5	51
2724-0043X	150	42	10	5	32
2724-0044X	150	42	20	5	32
2724-0073D	200	50	10	3	32
2724-0074D	200	50	20	3	32
2724-0075XD	200	52	10	5	32
2724-0076XD	200	52	20	5	32
2724-0073	200	50	10	3	51
2724-0074	200	50	20	3	51
2724-0075X	200	52	10	5	51
2724-0076X	200	52	20	5	51
2724-0080	200	52	20	5	76

Diamond and CBN grinding wheels

12A2-20



Designed for sharpening and finishing front surface of the teeth of the reamers, solid and prefabricated cutters, circular saws, carbide tool broaches, high speed alloyed high-strength steels and other hard-to-process materials.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.



Technical characteristics

SKU	D	T	W	X	H
5BW0004	50	10	3	3	16
5WX0004	50	10	4	3	16
5B0004	50	10	7	3	20(16)
2725-0005	75	10	3	2	16
2725-0006	75	10	6	2	16
2725-0007	100	12	3	2	20
2725-0008	100	12	6	2	20
5D0008	100	12	6	2	32
2725-0009	125	16	3	2	32
2725-0010	125	16	6	2	32
5D0010	125	16	6	2	20
2725-0011	125	16	10	2	32
2725-0011TX	125	17	10	3	32
5XT0011	125	19	10	5	32
5XD0011	125	19	10	5	12.7
5XT0010	125	19	6	5	32
2725-0013	150	18	6	2	32
5T0013	150	18	6(3+3)	2	32
5B0013	150	19	6	3	32
2725-0014	150	18	10	2	32
9-5006	150	19	10	3	32

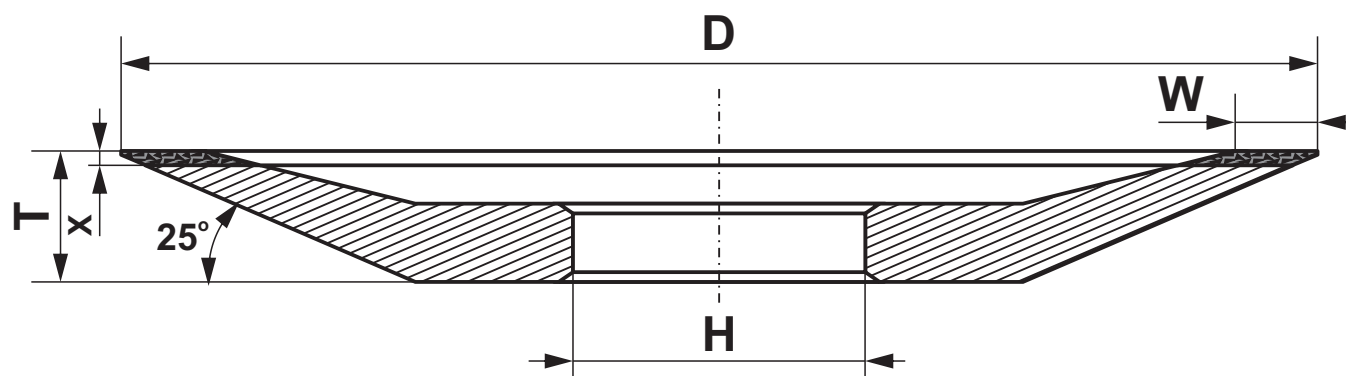
Technical characteristics

SKU	D	T	W	X	H
9-5042	175	21	10	3	32
2725-0018D	200	22	10	2	32
2725-0009XT	125	19	8(4+4)	5	32
5X0010D*	125	12.5	6	1.7	16
5XD0010*	125	12.5	6	1.7	20
5X0010*	125	12.5	6	1.7	32
5X0013D*	150	15	6	1.7	16
5XD0013*	150	15	6	1.7	20
5X0013*	150	15	6	1.7	32

*These wheels are made on the basis of prefabricated bodies from chopped aluminum and phenolic.

Diamond and CBN grinding wheels

12R4



Designed for sharpening and finishing front surface of the teeth of the reamers, solid and prefabricated cutters, circular saws, carbide tool broaches, high-speed high-strength steels and other hard-to-process materials.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

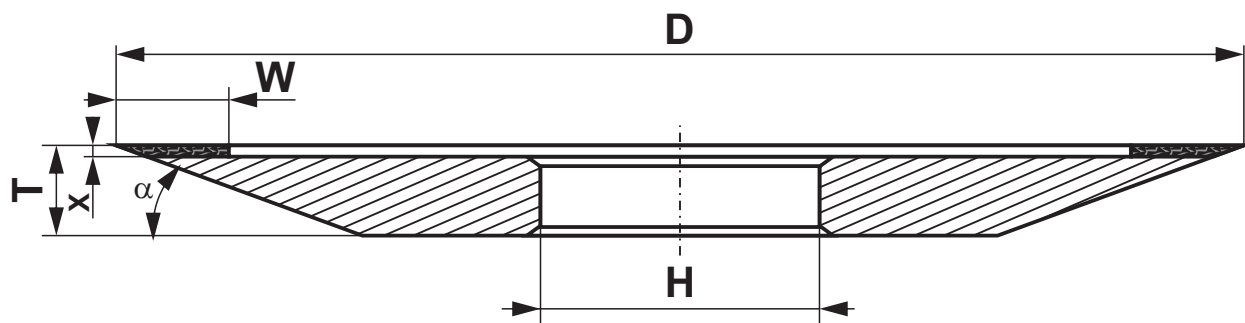


Technical characteristics

SKU	D	T	W	X	H
950041	25	6	2	2	10
950041D	25	6	2	2	12
950042	32	6	2	2	10
950042D	32	6	2	2	12
5WX0041	50	10	3	2	16
2725-0042	75	10	3	2	20
5X0042	75	10	3	3	20
5X0042D	75	10	3	3	16
5XD0042	75	10	3	6	16
5XD0042D	75	10	3	6	20
2725-0043D	100	10	3	2	20
5D0043	100	10	3	2	25
2725-0043	100	10	3	2	32
2725-0044	125	13	3	2	32
2725-0045	150	16	5	3	32
5B1051	150	16	5	3	20

Diamond and CBN grinding wheels

4B2



Designed for sharpening and finishing the front surface of the teeth of the reamers, solid and prefabricated milling cutters, circular saws, carbide tool broaches, high-speed alloyed high-strength steels and other hard-to-process materials.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

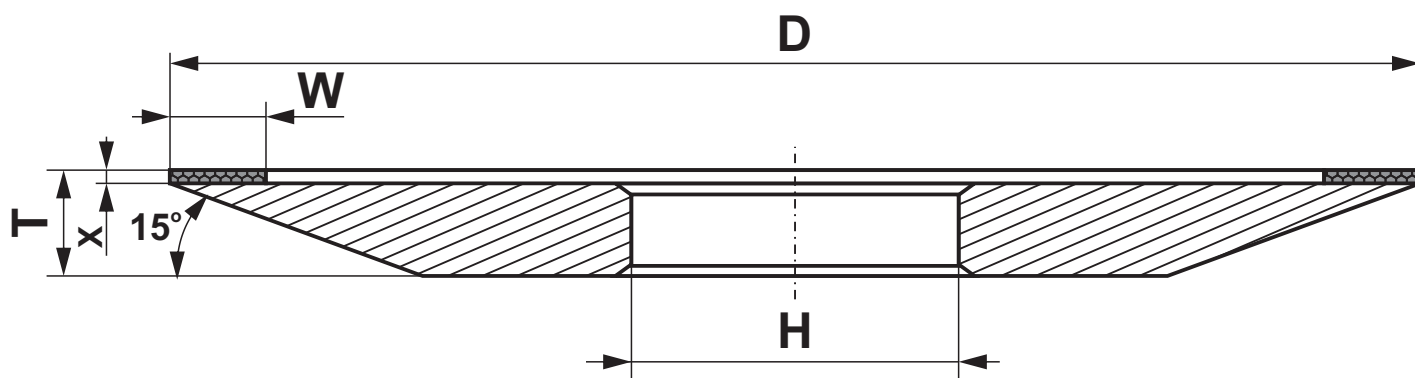


Technical characteristics

SKU	D	T	W	X	α	H
8-7008	125	10	6	2	20	32
8XT7009	150	12	6	2	20	32
8X7009	150	12	6	3	20	32
8-7010	100	10	6	1.5	20	32
8X7013	180	14	6	1.6	20	51
8X7013D	180	14	6	1.6	20	32
8WT7013	180	16	4	3	20	32
8WT7013D	180	16	4	3	20	51

Diamond and CBN grinding wheels

4A2



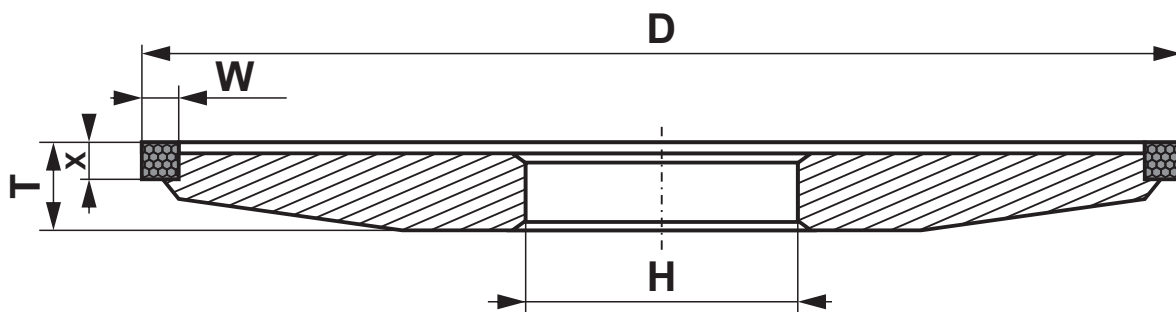
Designed for sharpening and finishing the front surface of the multi-blade cutting tool, high speed alloyed high-strength steels and other hard-to-process materials.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

SKU	D	T	W	X	H
9-9167	150	12	6	3	32

Diamond and CBN grinding wheels

4A9



Designed for sharpening and finishing special tools.

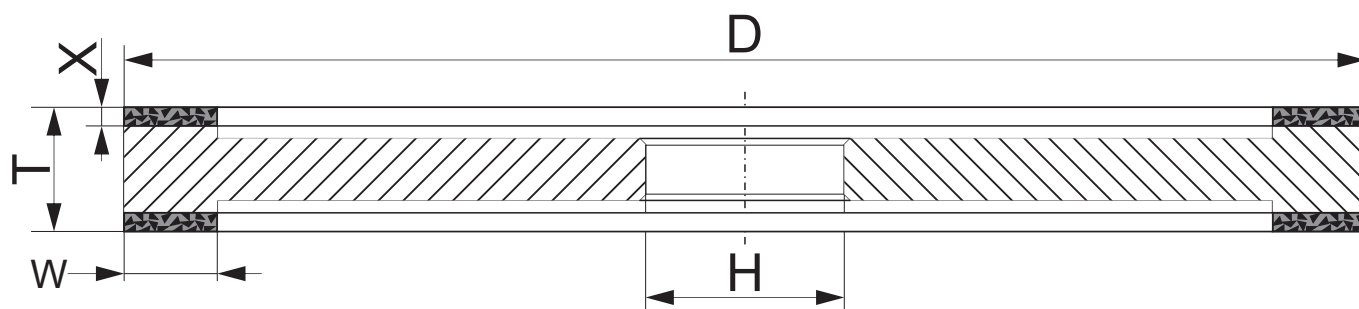
All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

SKU	D	T	W	X	H
954007	100	10	5	5	32(20)



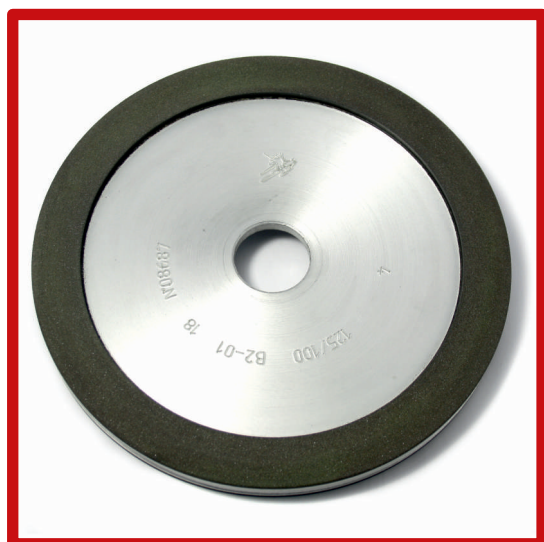
Diamond and CBN grinding wheels

9A3



Designed for sharpening and finishing carbide tools, flat and profile grinding of parts from difficult-to-process materials, high speed alloyed high-strength steels and other hard-to-process materials.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

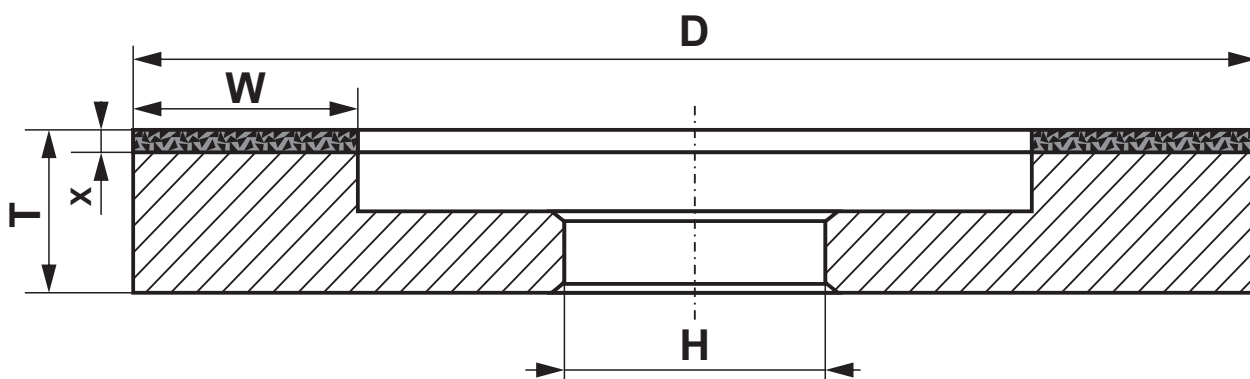


Technical characteristics

SKU	D	T	W	X	H
2723-0138	150	16	10	3	32
2723-0139	150	16	20	3	32
2723-0149	200	16	20	3	32
2723-0160	250	21	10	3	76
2723-0161	250	21	20	3	76

Diamond and CBN grinding wheels

6A2



Designed for sharpening and finishing carbide tools, cutting precious and semiprecious stones, polishing glass, high speed alloyed high-strength steels and other hard-to-process materials.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.



Technical characteristics

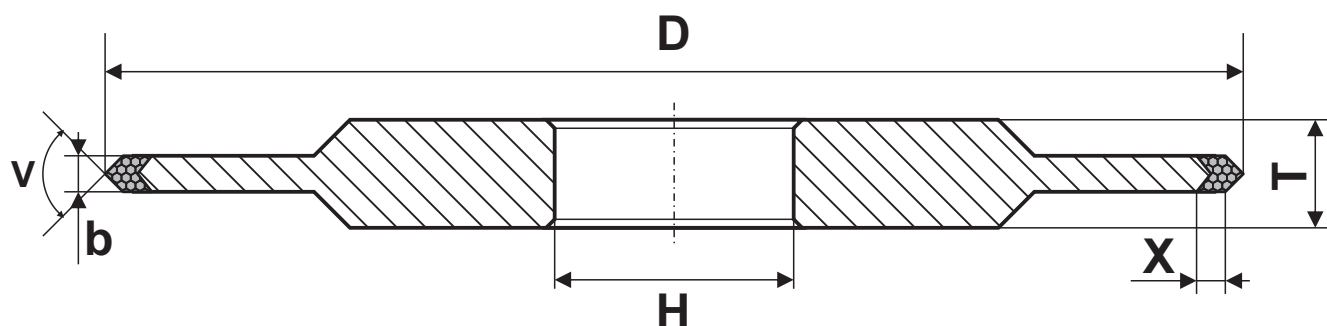
SKU	D	T	W	X	H
3XW0001	50	10	3	3	16
3TW0001	50	10	4	3	16
3TW0002	50	14	7	3	22
3TW0002D	50	14	7	3	20
3TW0002DX	50	14	7	3	16
3TDW0002	50	14	7	3	12
3TW0004	70	13	6	3	20
3TX0004	70	18	6	3	20
3TX0007	100	15	5(2.5+2.5)	6	25
3TX0011	100	16	5	6	20
3TX0012	100	32	5	6	20
3TX0012D	100	32	5	6	32
3TX0013	100	20	5(2.5+2.5)	10	25
2723-0012X	100	20	5	10	20
2723-0011D	100	24	5(2.5+2.5)	6	25
2723-0020D	125	20	5	10	25
3D0020	125	20	5(2.5+2.5)	10	32
3TX0024	125	15	10	5	32
3-2872	125	24	5	6	32
3D2827	125	24	5	6	20
3T2696	150	20	20	3	32

Technical characteristics

SKU	D	T	W	X	H
3TW0028	150	20	40	3	32
3TW0037	150	20	40	5	32
2723-0027	150	24	10	4	32
2723-0028	150	24	20	4	32
3TW0089	175	22	60	5	32
2723-0039XD	200	29	20	5	32
2723-0039X	200	29	20	5	51
2723-0039DX	200	29	20	5	76
3WT0103	300	45	80	3	51
3WTD0103	300	45	80	3	76
3TX0103	300	20	80	4	51
3TX0103D	300	20	80	4	76
3TWX0103	300	20	80	5	51
3TWX0103D	300	20	80	5	76

Diamond and CBN grinding wheels

14EE1



Designed for cutting and grinding of external and internal threads, profile grinding of shaped surfaces from hard alloy, high-speed alloyed high-strength steels and other hard-to-process materials.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

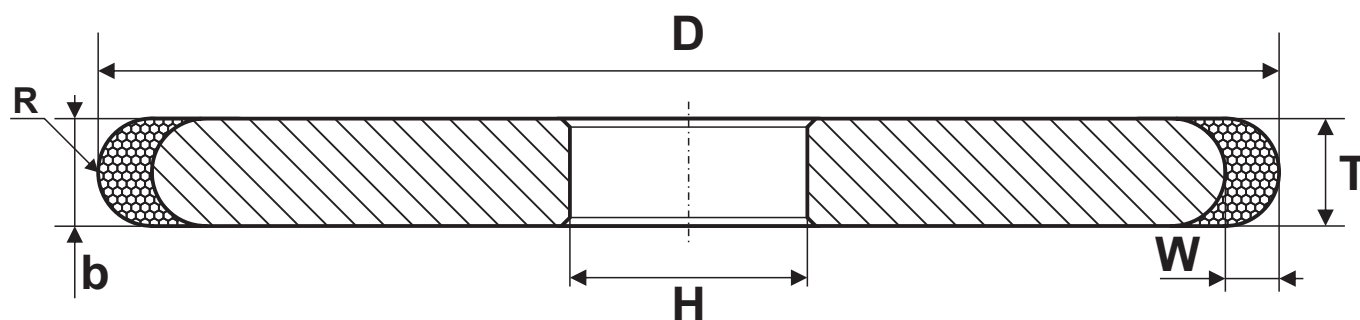


Technical characteristics

SKU	D	T	b	X	v	H
2727-0008	125	6	3	4	60	32
2727-0007	125	6	3	5	45	32
2727-0006	125	6	3	6	35	32
9T3203	125	6	3	6	30	32
2727-0009	125	6	3	4	90	32
2727-0012	150	6	3	4	60	32
2727-0011	150	6	3	5	45	32

Diamond and CBN grinding wheels

1FF1



Designed for processing chipbreaker grooves, grinding of shaped profile in carbide tools, high-speed alloyed high-strength steels and other hard-to-process materials.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

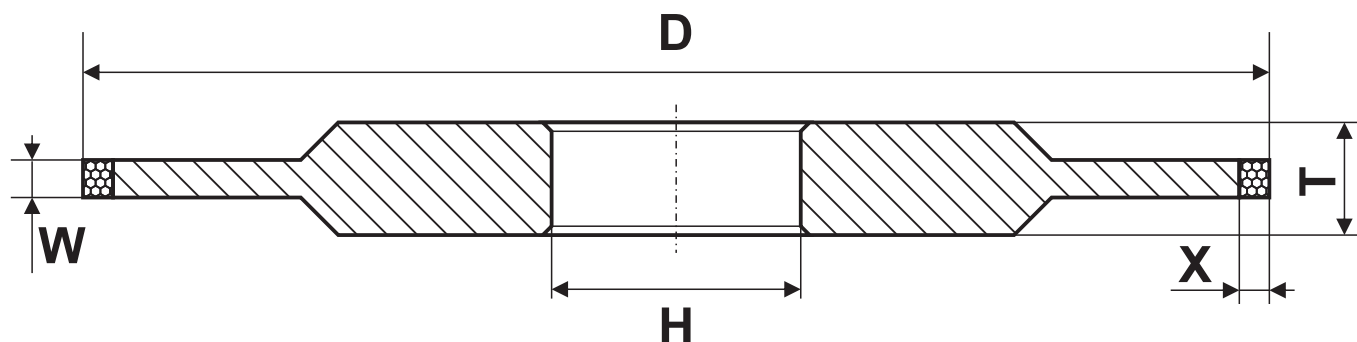


Technical characteristics

SKU	D	T	W	R	H
952014	80	6	5	3	20
952001	100	4	4	2	20
2729-0017	125	4	4	2	32
2729-0018X	125	5	5	2,5	32
2729-0019X	125	6	5	3	32
2729-0020X	125	8	5	4	32
2729-0021X	125	10	5	5	32
2729-0022	125	12	6	6	32
2729-0025X	150	10	5	5	32

Diamond and CBN grinding wheels

14A1



Designed for sharpening and finishing carbide tools, high-speed alloyed high-strength steels and other hard-to-process materials. Used for cylindrical, conical surfaces, grinding and polishing grooves and holes, it is possible to use for other types of processing.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.



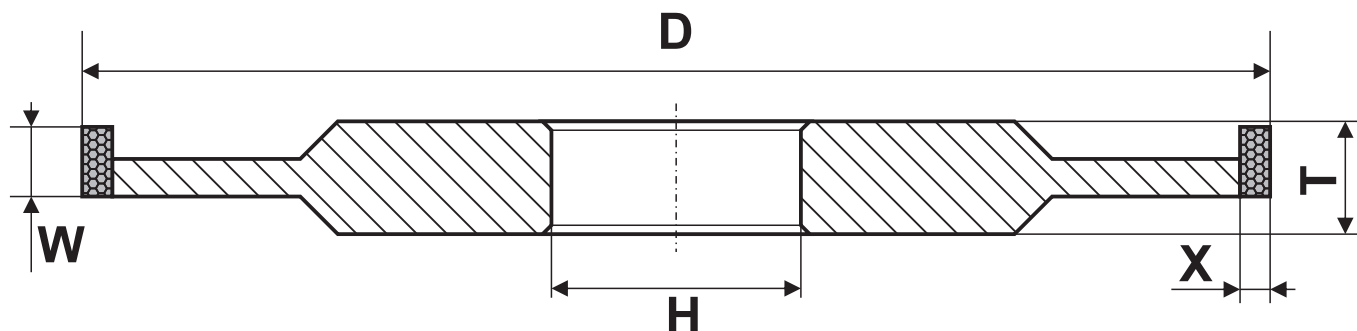
Technical characteristics

SKU	D	T	W	X	H
9S1007	80	4	3	3	20*
9S1008	80	5	4	3	20*
2720-0301	100	6	3	3	20*
9S1003	150	8	3	5	32*
9S1004	150	8	4	5	32*
9S1005	150	8	5	5	32*
9S1006	150	8	6	5	32*
0TX0323	200	10	1	5	32*
0TX0324	200	10	2	5	32*
9-3313	200	10	3	3	32*
0D0323	200	10	3	5	32*
9D3301	200	10	4	5	32*
0D0322X	200	10	5	5	32*
0TX0325	200	10	6	5	32*
0TX0325D	200	10	6	5	76
0TX0326	200	10	7	5	32*
0TD0329	250	12	3	10	40
0D0329X	250	12	3	10	76

*** Another diameter of the landing hole is possible.**

Diamond and CBN grinding wheels

14A11



Designed for sharpening and finishing carbide tools, high-speed alloyed high-strength steels and other hard-to-process materials. Used for cylindrical, conical surfaces, grinding and polishing grooves and holes, it is possible to use for other types of processing.

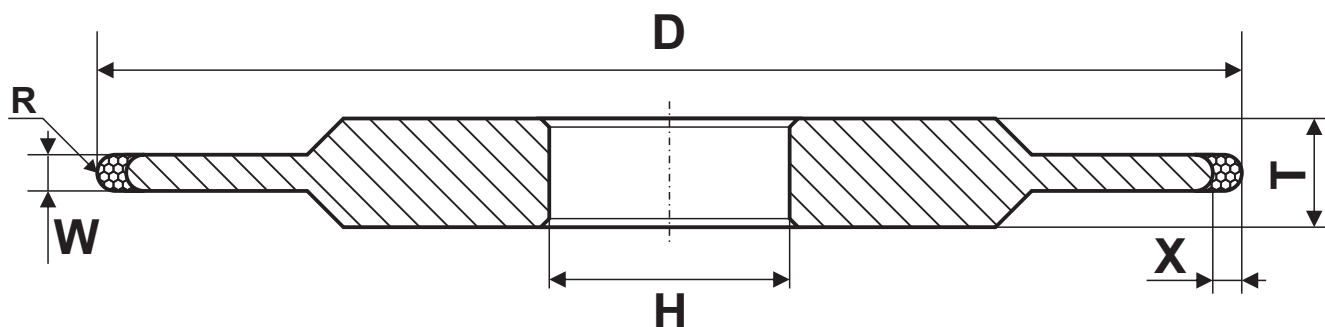
All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

SKU	D	T	W	X	H
9X2024	350	20	13	5	127

*** Another diameter of the landing hole is possible.**

Diamond and CBN grinding wheels

14FF1



Designed for processing chipbreaker grooves, grinding of shaped profile in carbide tools, high-speed alloyed high-strength steels and other hard-to-process materials.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

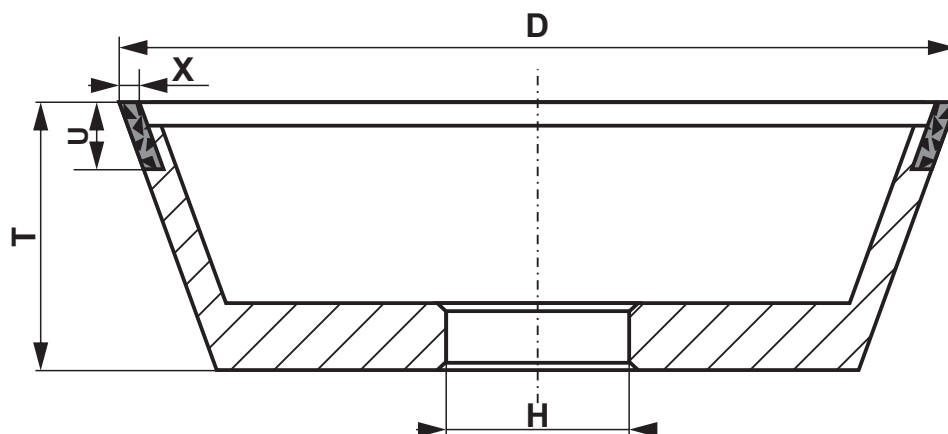


Technical characteristics

SKU	D	T	W	X	R	H
9S2014	100	4	2	4	1	20
9S2012	100	4	3	4	1,5	20
9S2009	150	8	2	5	1	32
9S2005	150	8	3	5	1,5	32
9S2005D	150	8	3	5	1,5	12
9SD2005	150	8	3	5	1,5	25
9S2006	150	8	4	5	2	32
9S2007	150	8	5	5	2,5	32
9SD2007	150	8	5	5	2,5	25
9S2008	150	8	6	5	3	32
9S2002	200	10	2	5	1	32
9S2003	200	10	3	5	1,5	32
9S2003D	200	10	3	5	1,5	60
9S2004	200	10	4	4	2	32
9S2010	200	10	6	4	3	32
9S2011	250	12	3	10	1.5	76(40)

Diamond and CBN grinding wheels

11V9-70



Designed for sharpening and finishing of carbide tools on the back and side surfaces, high-speed alloyed high-strength steels and other hard-to-process materials.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

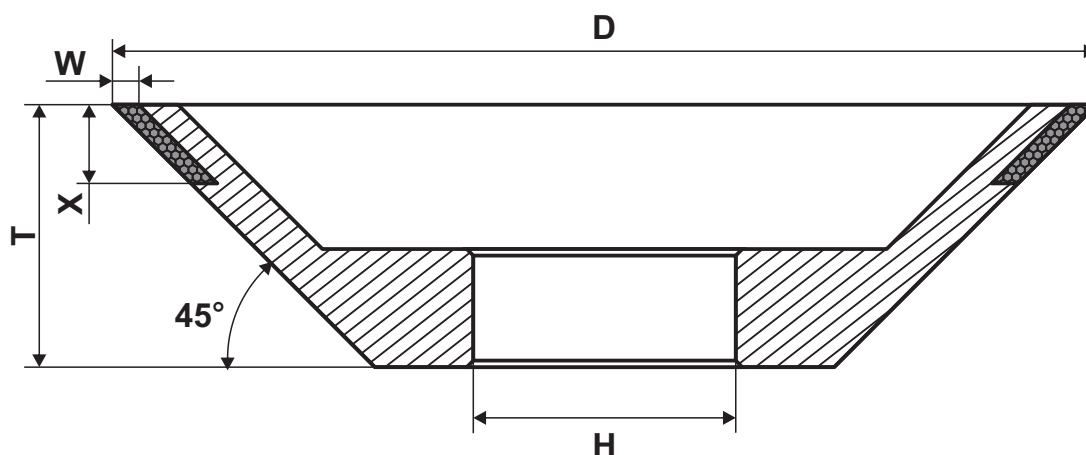


Technical characteristics

SKU	D	T	U	X	H
4-0102	75	32	6	2	20
9XS001	100	40	5	3	20
2724-0103	100	40	6	2	20
2724-0104	100	40	10	3	20
2724-0107	125	40	10	3	32

Diamond and CBN grinding wheels

12V9-45



Designed for sharpening and finishing of carbide tools on the back and side surfaces, high-speed alloyed high-strength steels and other hard-to-process materials.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

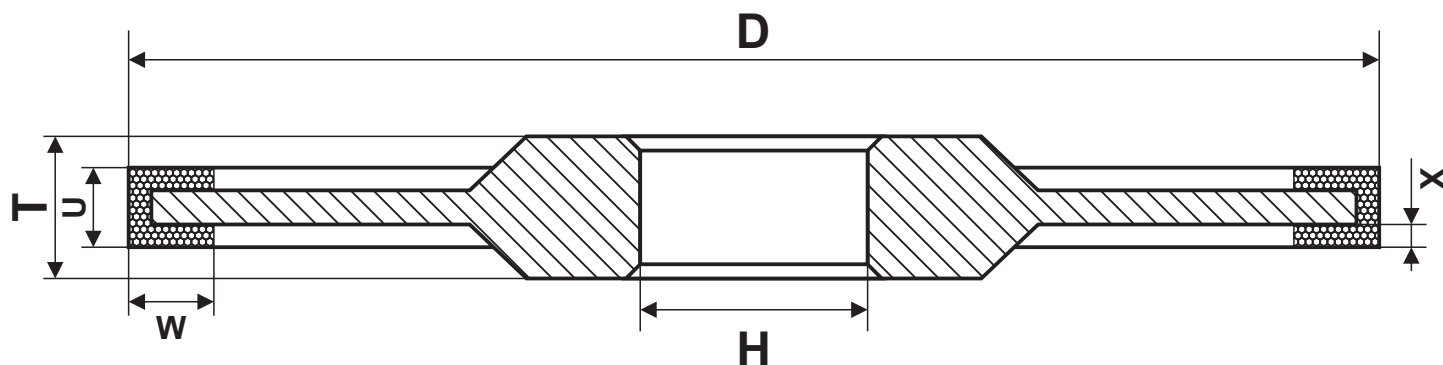
12V9-45

Technical characteristics

SKU	D	T	X	W	H
4-1503	75	20	6	2	20

Diamond and CBN grinding wheels

14U1



Designed for grinding grooves in hard alloy parts, high-speed alloyed high-strength steels and other hard-to-process materials.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

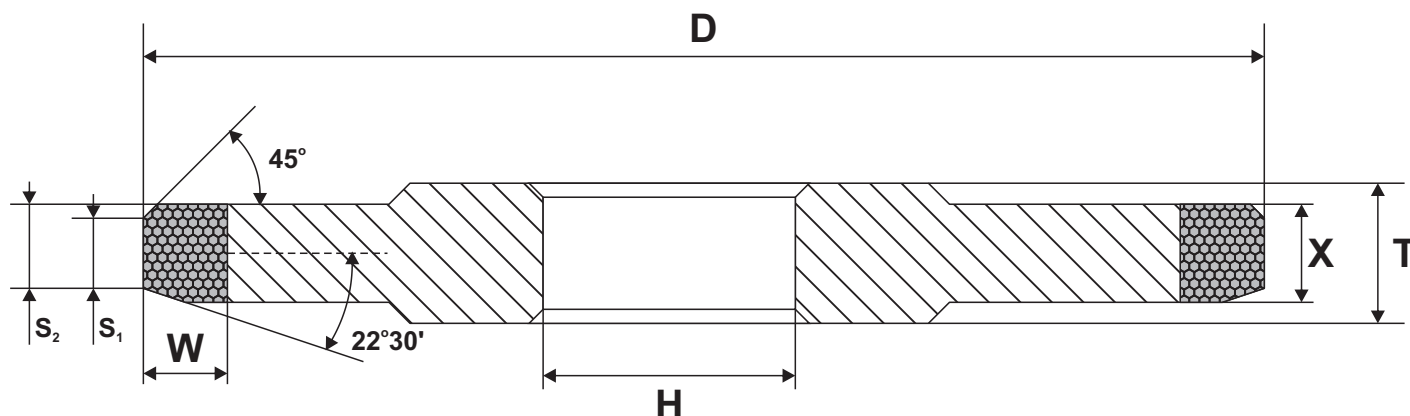
SKU	D	T	W	U	X	H
2720-0206	150	12	10	6	2	32



Also, manufacture of wheels in Premium and Elite.

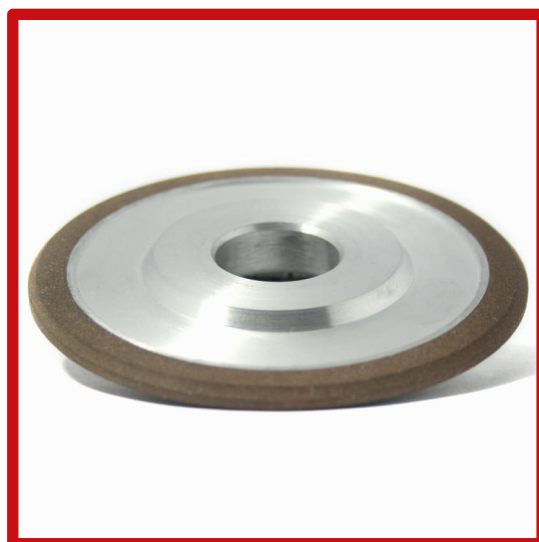
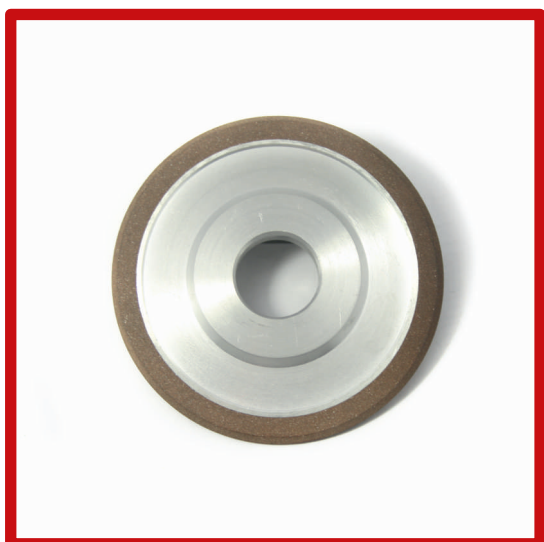
Diamond and CBN grinding wheels

14M1



Designed for sharpening and finishing carbide tools, high-speed alloyed high-strength steels and other hard-to-process materials.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

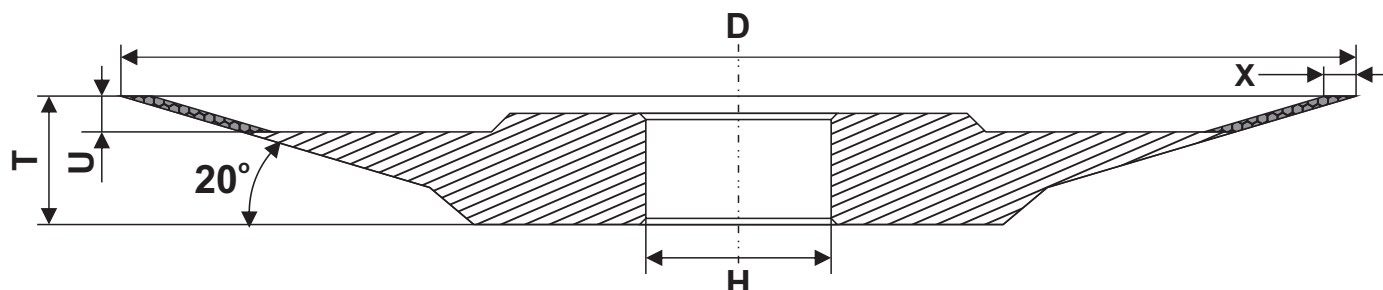


Technical characteristics

SKU	D	T	X	S1	S2	W	H
9SI001	80	7	4.5	0.9	2.7	6	20
9SI002	80	7	4.5	1.4	2.95	6	20
9SI003	80	7	4.5	1.9	3.2	6	20
9SI004	80	7	5	2.4	3.7	6	20
9SI005	80	8	5	2.8	3.9	6	20
9SI006	80	9	5.5	3.2	4.35	6	20
9SI007	80	9	6	3.7	4.85	6	20
9SI008	80	10	7	4.5	5.75	6	20

Diamond and CBN grinding wheels

12V9-20



Designed for sharpening and finishing forward surface of the teeth of circular saws, high-speed alloyed high-strength steels and other hard-to-process materials.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

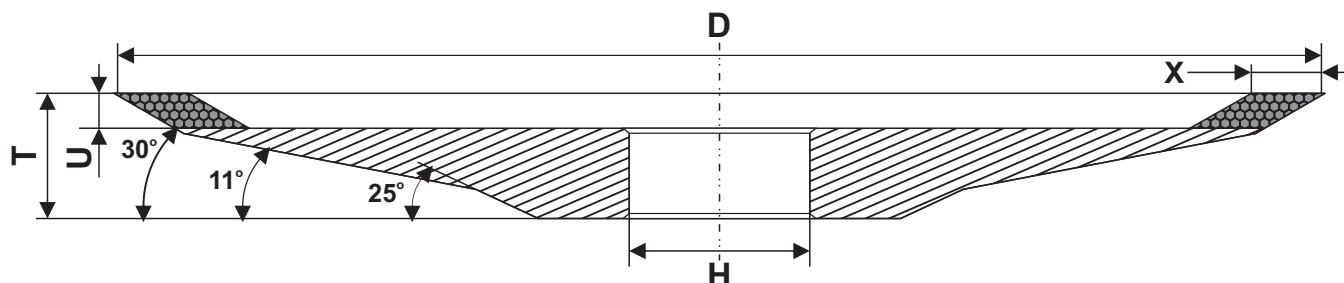
SKU	D	T	X	U	H
3-3048	125	13	2.5	4	32(20)



Also, manufacture of wheels in Premium and Elite.

Diamond and CBN grinding wheels

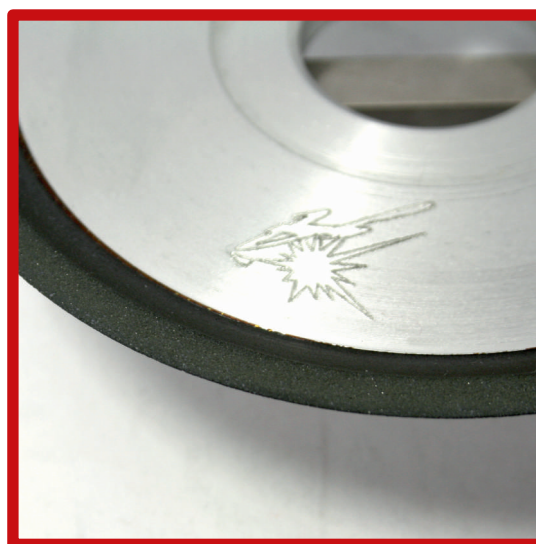
12V2-30



Designed for sharpening and finishing forward surface of the teeth of circular saws, high-speed alloyed high-strength steels and other hard-to-process materials.

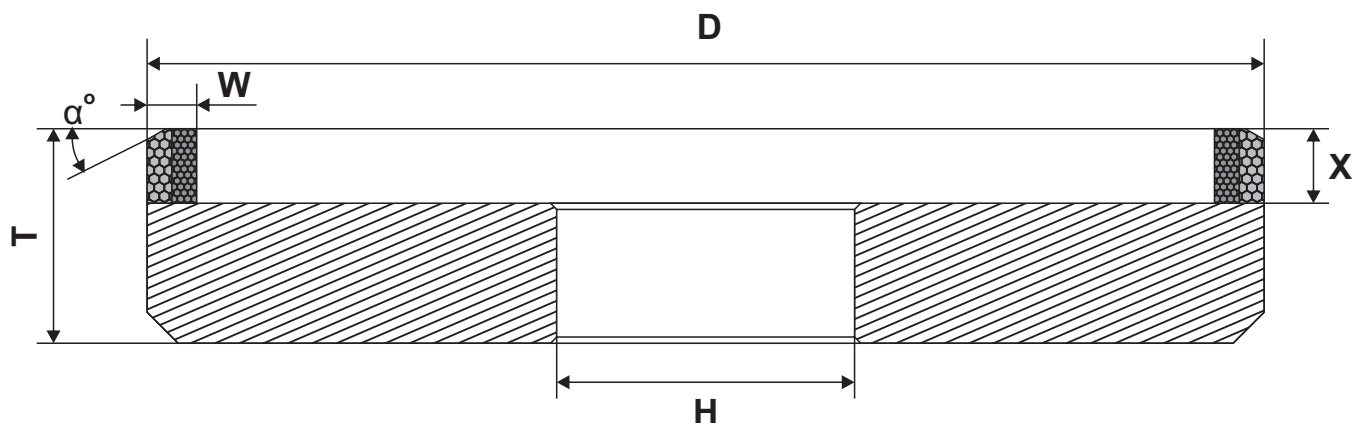
All wheels can be performed in following bonds: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

SKU	D	T	X	U	H
954003	100	10	4	2	25



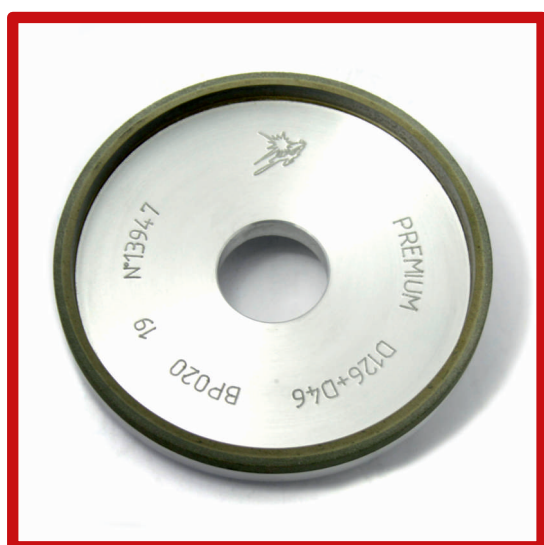
Diamond and CBN grinding wheels

12M2-45



Designed for sharpening and finishing of the forward surface of teeth of circular saws, alloyed high-strength steels, and other hard-to-process materials.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

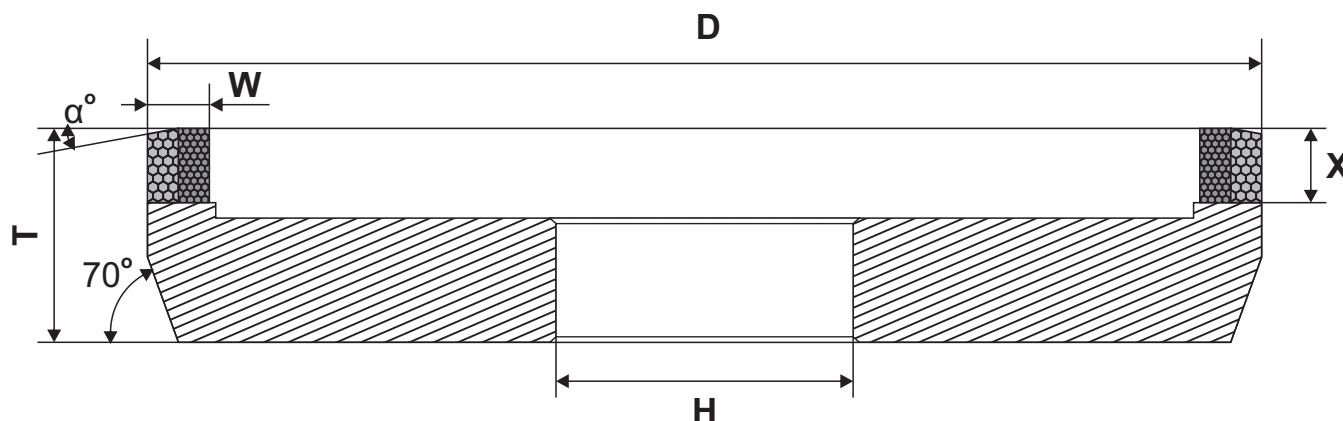


Technical characteristics

SKU	D	T	X	W	α°	H
9P3153	125	18	6	5(2.5+2.5)	9	32(31.75)
9Q3153	125	18	6	5(2.5+2.5)	4	32(31.75)
9M3153	125	18	6	5(2.5+2.5)	-	32(31.75)

Diamond and CBN grinding wheels

12M2-70



Designed for sharpening and finishing of the forward surface of teeth of circular saws, alloyed high-strength steels. and other hard-to-process materials.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

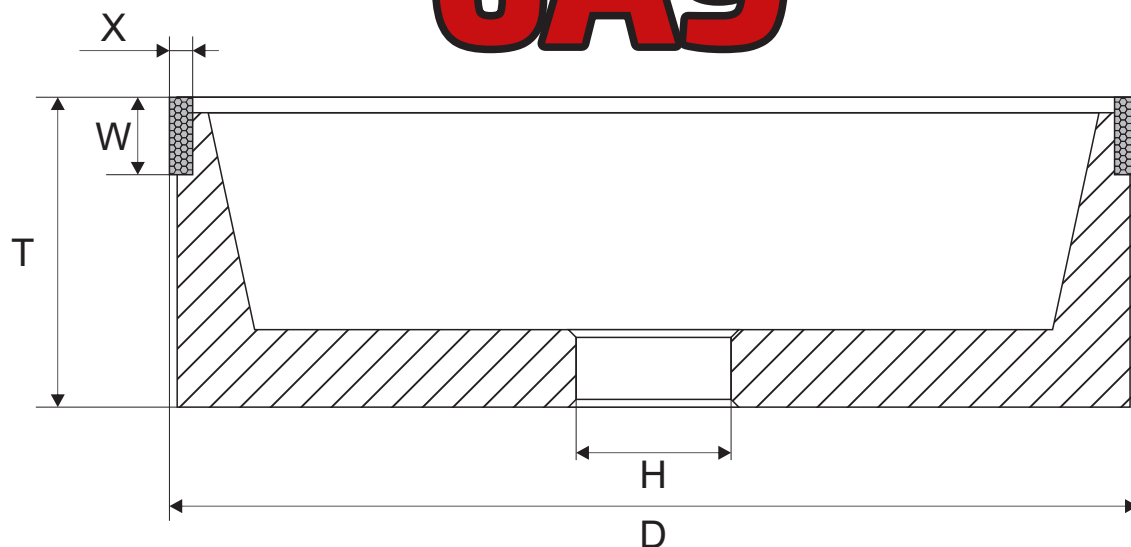


Technical characteristics

SKU	D	T	X	W	α°	H
9S4002	100	21	10	5(2.5+2.5)	7	25(20)

Diamond and CBN grinding wheels

6A9



Designed for sharpening and finishing special tools.

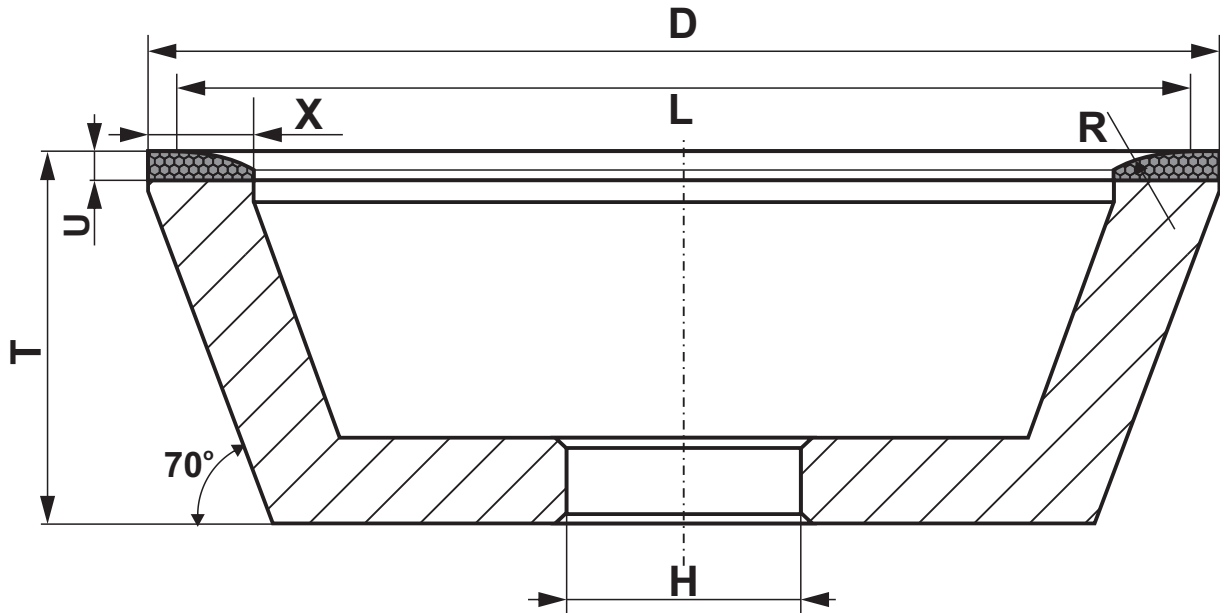
All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

SKU	D	T	W	X	H
954006	125	40	10	3	20(32)

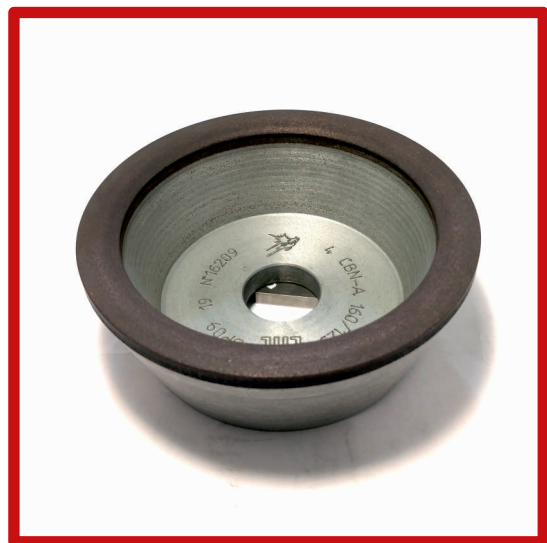


Diamond and CBN grinding wheels

11A2



Designed for sharpening and finishing of the forward surface of teeth of circular saws, alloyed high-strength steels, and other hard-to-process materials.



Diamond and CBN grinding wheels

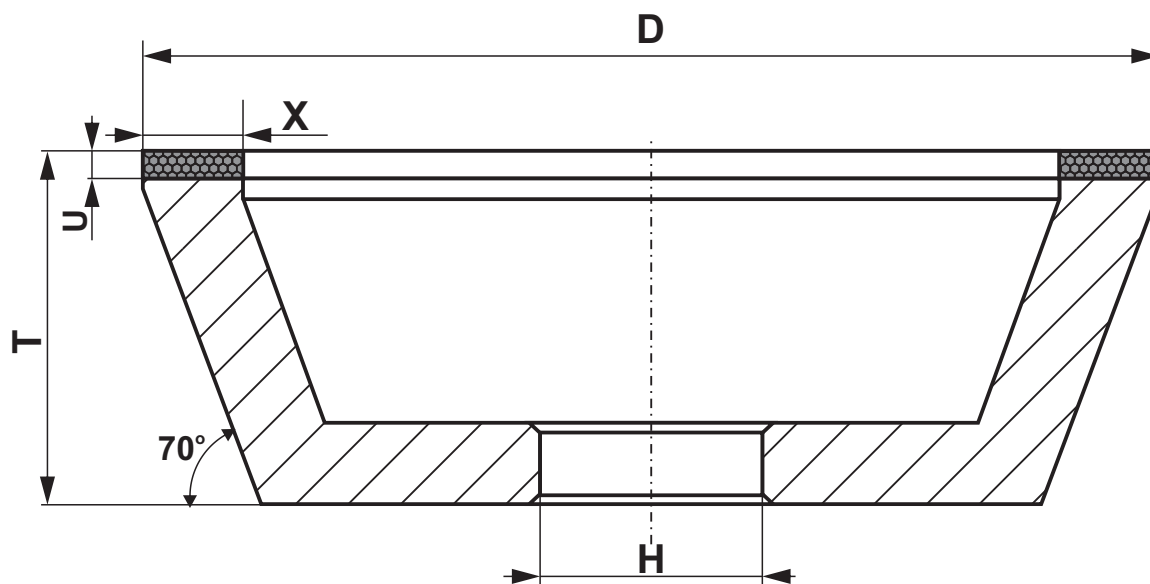
Technical characteristics

SKU	D	L	T	X	U	R	H
9S4004	150	143	55	15	5	25	32

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

Diamond and CBN grinding wheels

11A2-70



Designed for sharpening and finishing of the forward surface of teeth of circular saws, alloyed high-strength steels, and other hard-to-process materials.



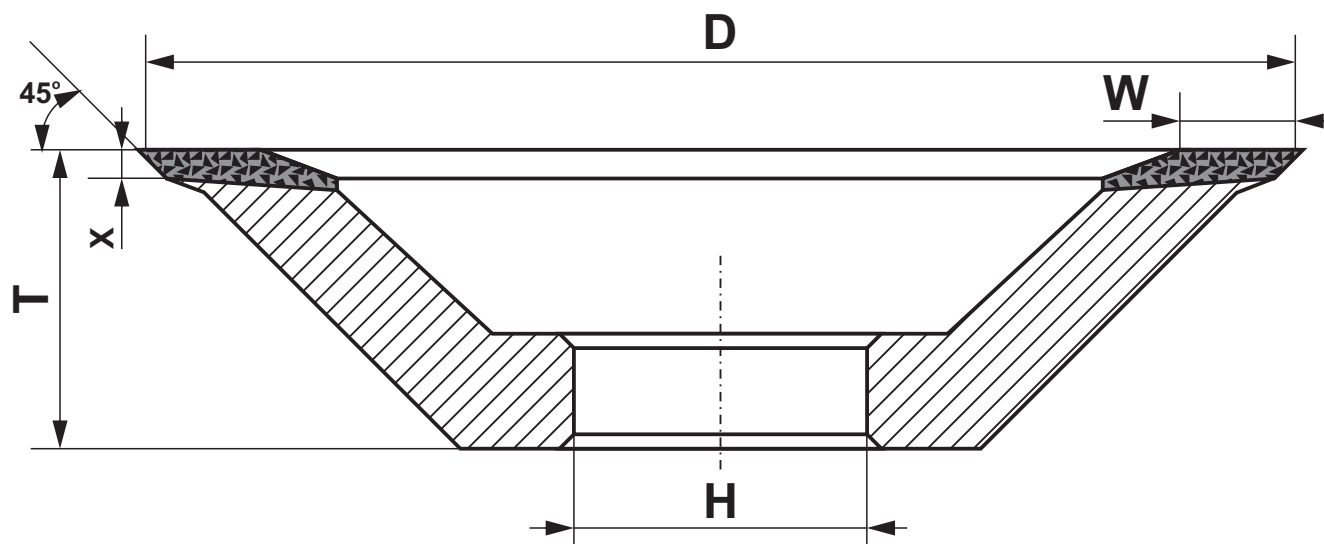
Technical characteristics

SKU	D	T	X	U	H
9S4005	150	55	15	5	32

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

Diamond and CBN grinding wheels

12B2



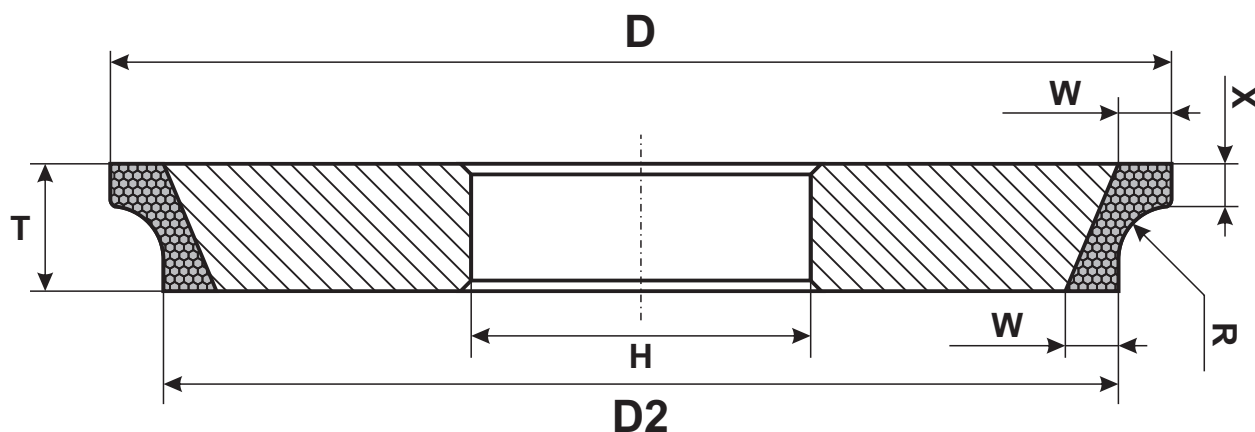
Designed for sharpening and finishing carbide tools on the back and side surfaces, high-speed alloyed high-strength steels and other hard-to-process materials.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

SKU	D	T	W	X	H
954001	75	25	6	3	20

Diamond and CBN grinding wheels

1G1



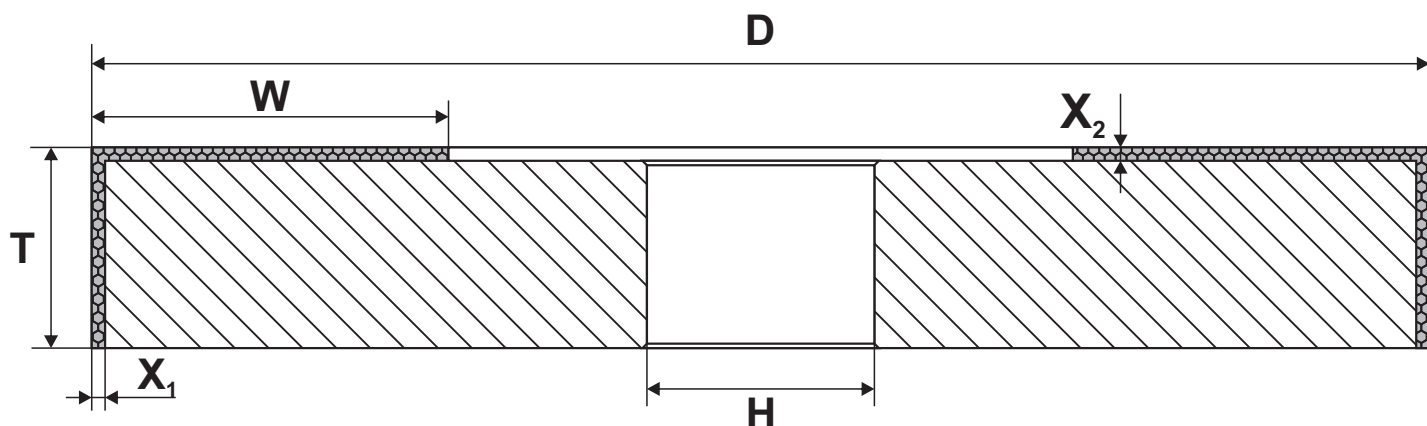
Designed for sharpening and finishing products from hard alloy, high-speed alloyed high-strength steels and other hard-to-process materials.

All wheels can be performed in the following links: organic: B2-01, B1-01, B1-13; as well as on the new high-resource links: BP02, BP04, BP05, BP07, BP09, BP10, BP11, BP14, BP15, BP17, BP21, BP30, etc. Also, powders of different hardness are used: AC4, AC6, AC15, AC20, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KP, KB, KM, etc. CBN-A, CBN-M, KM, KP, KB, and other.

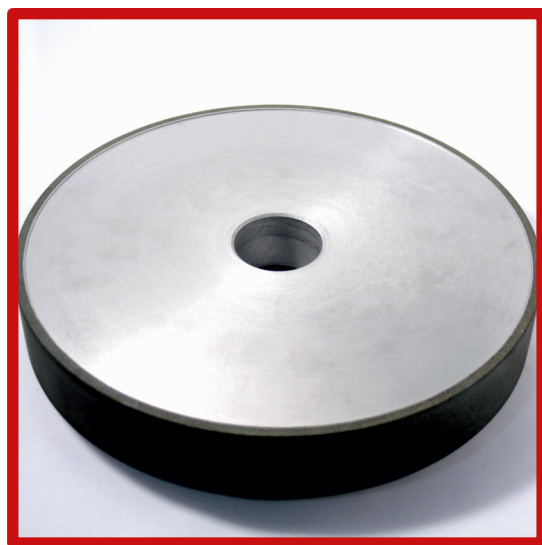
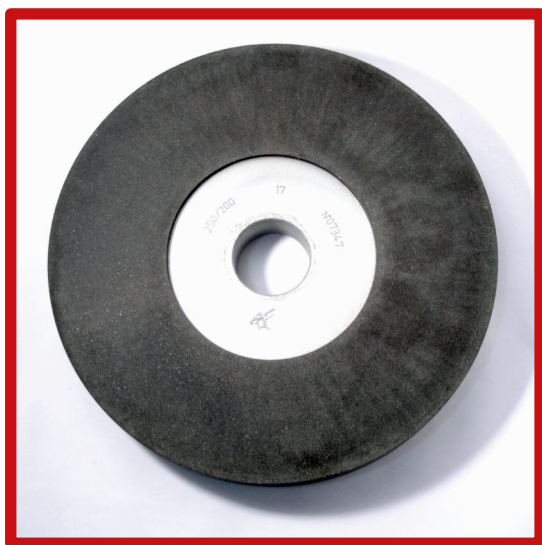
SKU	D	D2	T	W	X	R	H
9-3351	100	88	12	5	4	5	32 (20)

Diamond and CBN grinding wheels

1C1



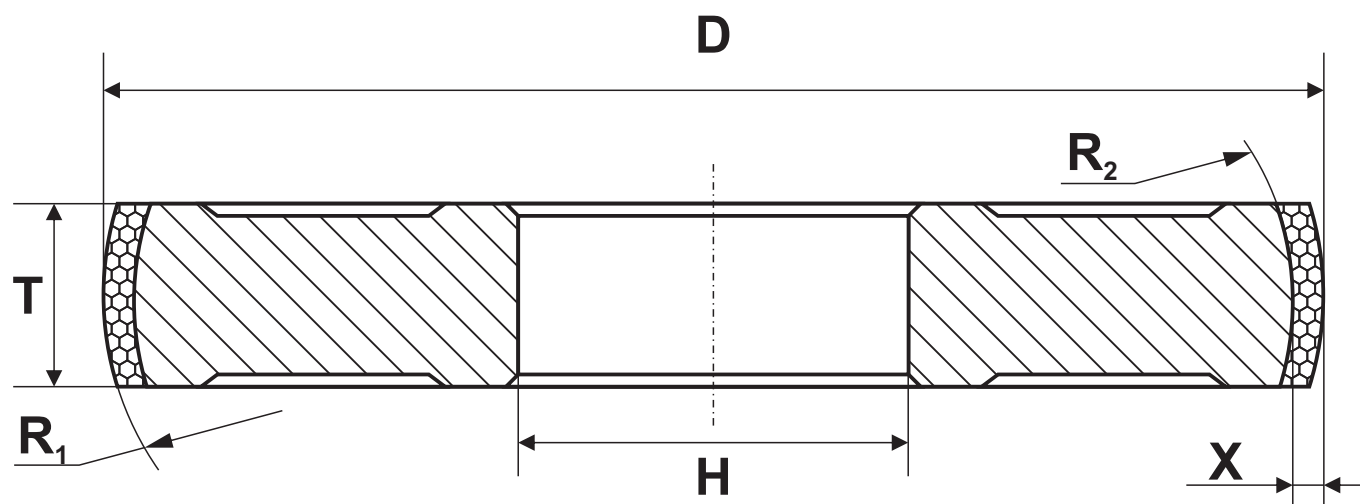
Designed for sharpening and finishing products from hard alloy, high-speed alloyed high-strength steels and other hard-to-process materials.



SKU	D	T	W	X1	X2	H
9S3045	300	45	80	5	3	51(76)

Diamond and CBN grinding wheels

1P1



Designed for sharpening and finishing products from hard alloy, high-speed alloyed high-strength steels and other hard-to-process materials.

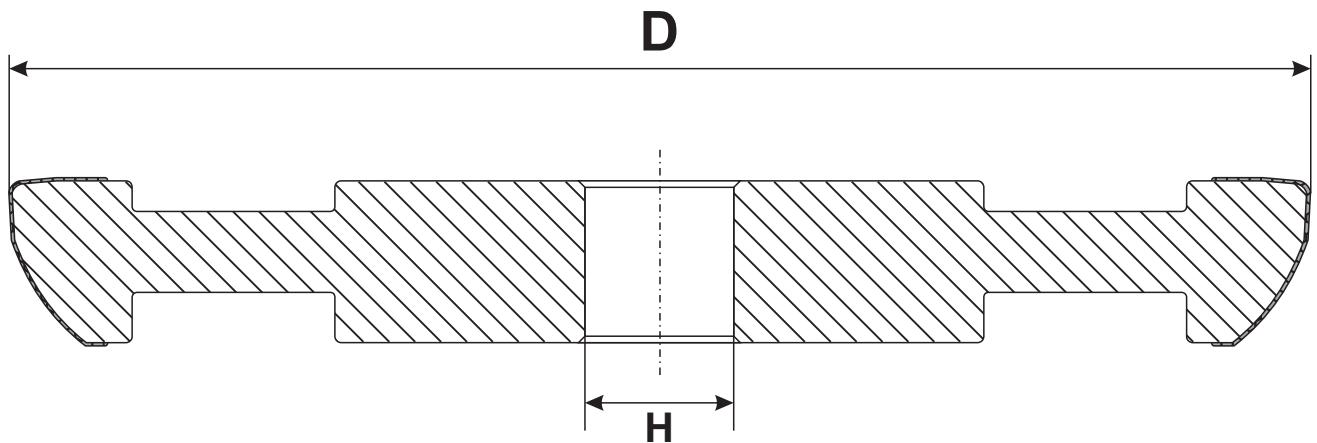
Wheel can be performed in the following metallic bond: M2-09.

Also, powders of different hardness are used: AC6, AC15, AC20, AC32, ACM, ACH, CBN1, CBN2, CBN-A, CBN-M, KM, KP, KB, and other.

SKU	D	T	X	R1	H
9SP001	100	15	3	50	20-40
9SP002	100	15	5	50	20-40
9S3001	150	15	5	75	32-80

CBN grinding wheels

1FQ1



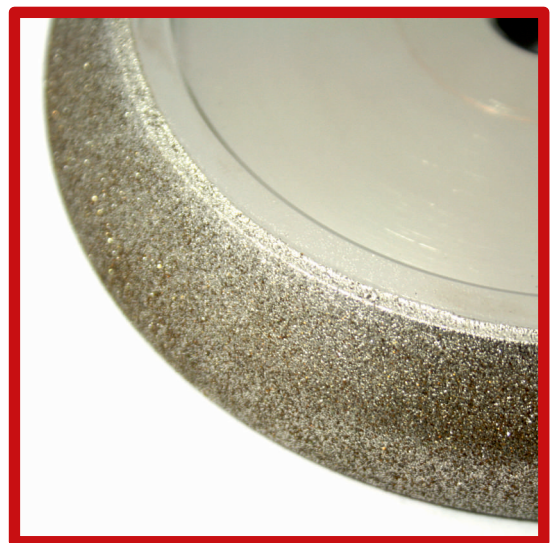
Designed for sharpening and reshaping band saws

CBN2A 125/100 - for sharpening small steps

CBN2A 160/125 - for sharpening medium and wide steps

CBN2A 250/200 - for reshaping

Made on electroplating bond ME



CBN grinding wheels

SKU	Shape type	D	H
9S6001	WM 9/29	127	12,7
9S6002			20
9S6003			32
9S6004		150	20
9S6005			32
9S6006		203	20
9S6007			25,4
9S6008			32
9S6009	WM 10/30	127	12,7
9S6010			20
9S6011			32
9S6012		150	20
9S6013			32
9S6014		203	20
9S6015			25,4
9S6016			32
9S6017	WM 13/29	127	12,7
9S6018			20
9S6019			32
9S6020		150	20
9S6021			32
9S6022		203	20
9S6023			25,4
9S6024			32

SKU	Shape type	D	H
9S6025	WM 4/32	127	12,7
9S6026			20
9S6027			32
9S6028		150	20
9S6029			32
9S6030		203	20
9S6031			25,4
9S6032			32
9S6033	WM 7/34	127	12,7
9S6034			20
9S6035			32
9S6036		150	20
9S6037			32
9S6038		203	20
9S6039			25,4
9S6040			32
9S6041	Fenes Standart	127	12,7
9S6042			20
9S6043			32
9S6044		150	20
9S6045			32
9S6046		203	20
9S6047			25,4
9S6048			32

CBN grinding wheels

SKU	Shape type	D	H
9S6049	Vortex WM	127	12,7
9S6050			20
9S6051			32
9S6052		150	20
9S6053			32
9S6054		203	20
9S6055			25,4
9S6056			32
9S6057	TTH	127	12,7
9S6058			20
9S6059			32
9S6060		150	20
9S6061			32
9S6062		203	20
9S6063			25,4
9S6064			32
9S6065	Lenox	127	12,7
9S6066			20
9S6067			32
9S6068		150	20
9S6069			32
9S6070		203	20
9S6071			25,4
9S6072			32

SKU	Shape type	D	H
9S6073	Roma	127	12,7
9S6074			20
9S6075			32
9S6076		150	20
9S6077			32
9S6078		203	20
9S6079			25,4
9S6080			32
9S6081	Munkfors	127	12,7
9S6082			20
9S6083			32
9S6084		150	20
9S6085			32
9S6086		203	20
9S6087			25,4
9S6088			32
9S6089	Munkfors (step 25)	127	12,7
9S6090			20
9S6091			32
9S6092		150	20
9S6093			32
9S6094		203	20
9S6095			25,4
9S6096			32

CBN grinding wheels

SKU	Shape type	D	H
9S6097	Armoth	127	12,7
9S6098			20
9S6099			32
9S6100		150	20
9S6101			32
9S6102		203	20
9S6103			25,4
9S6104			32
9S6105	Banholzer	127	12,7
9S6106			20
9S6107			32
9S6108		150	20
9S6109			32
9S6110		203	20
9S6111			25,4
9S6112			32
9S6113	Banholzer (step 25)	127	12,7
9S6114			20
9S6115			32
9S6116		150	20
9S6117			32
9S6118		203	20
9S6119			25,4
9S6120			32

SKU	Shape type	D	H
9S6121	Bahco	127	12,7
9S6122			20
9S6123			32
9S6124		150	20
9S6125			32
9S6126		203	20
9S6127			25,4
9S6128			32
9S6129	Hakansson	127	12,7
9S6130			20
9S6131			32
9S6132		150	20
9S6133			32
9S6134		203	20
9S6135			25,4
9S6136			32
9S6137	Hakansson (step 25)	127	12,7
9S6138			20
9S6139			32
9S6140		150	20
9S6141			32
9S6142		203	20
9S6143			25,4
9S6144			32

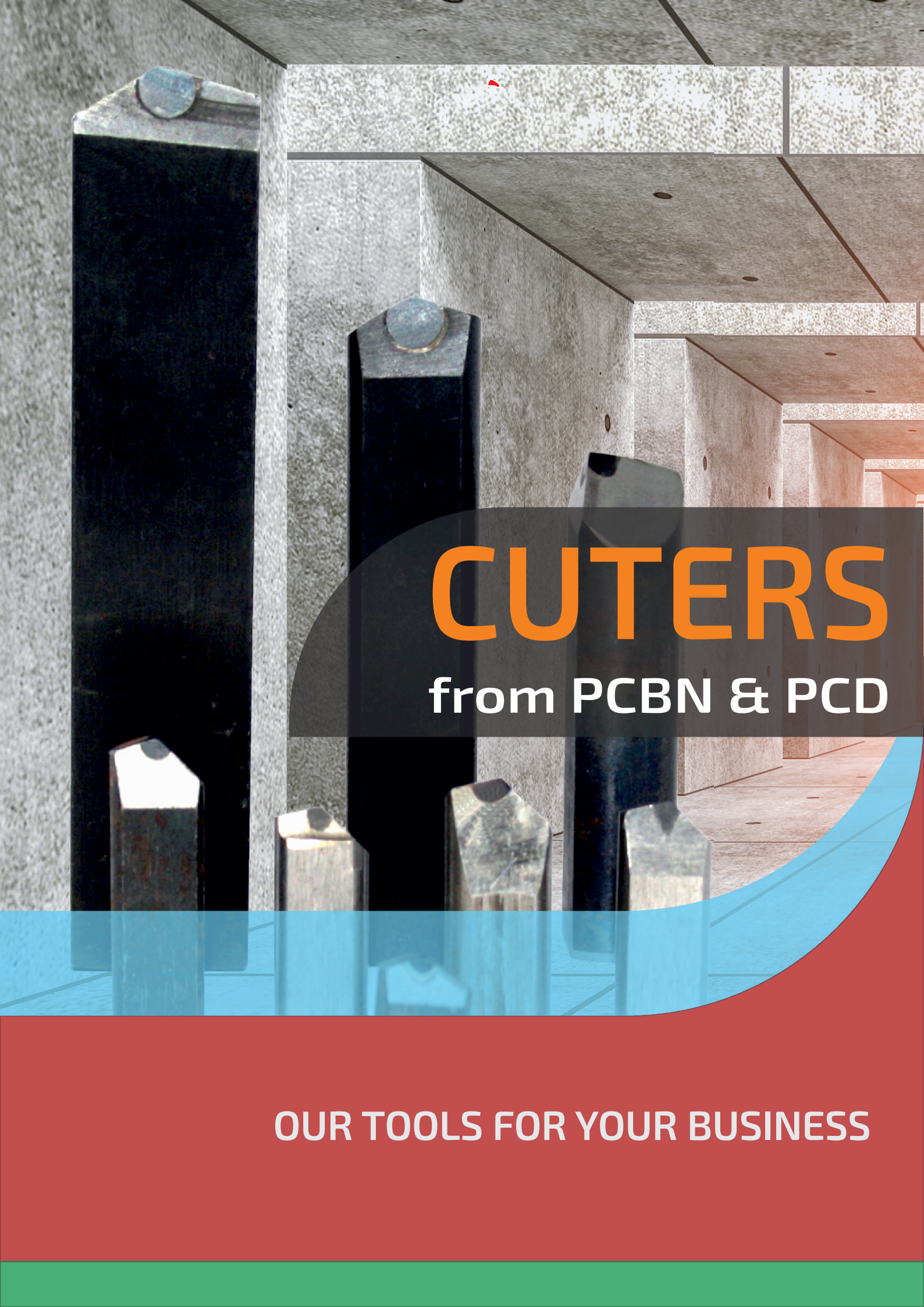
CBN grinding wheels

SKU	Shape type	D	H
9S6145	Fretsaw step 6	127	12,7
9S6146			20
9S6147			32
9S6148		150	20
9S6149			32
9S6150		203	20
9S6151			25,4
9S6152			32
9S6153	Fretsaw step 8	127	12,7
9S6154			20
9S6155			32
9S6156		150	20
9S6157			32
9S6158		203	20
9S6159			25,4
9S6160			32
9S6161	Fretsaw step 12	127	12,7
9S6162			20
9S6163			32
9S6164		150	20
9S6165			32
9S6166		203	20
9S6167			25,4
9S6168			32

SKU	Shape type	D	H
Широкие пилы			
9S6169	LS-30	150	32
9S6170		203	
9S6171	LS-35	150	32
9S6172		203	
9S6173	LS-40	150	32
9S6174		203	
9S6175	LS-45	150	32
9S6176		203	

It is possible to manufacture wheels according to samples of band saws.

7/34 - recommended for sawing tropical species that have a high silicon content;
4/32 - recommended for superhard, freezing and dry wood;
9/29 - recommended for hard and frozen wood;
10/30 - universal profile used when cutting soft and hard wood;
13/29 - increases the speed of sawing soft wood.



CUTTERS

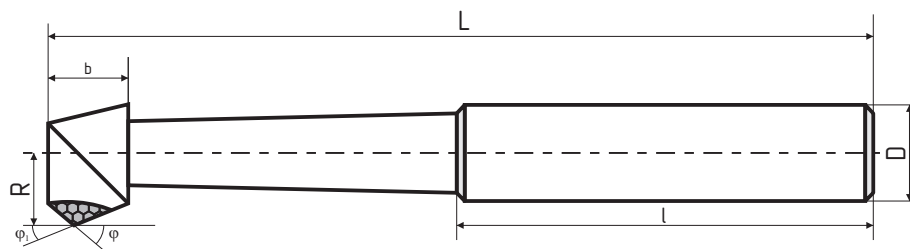
from PCBN & PCD

OUR TOOLS FOR YOUR BUSINESS

Turning boring cutters

Turning boring cutters for coordinate-boring machines. Boring of through (Pic. 1) and blind (Pic. 2) holes diameter over 4 mm.

Pic. 1

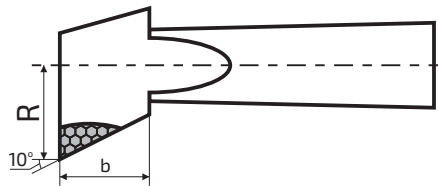


Sizes, mm.

Designation of the sizes of the cutters (inserts)	D	R	L	l	b	φ	φ ₁
31175-0091	6	2	40	20	4,0	45	10
31175-0091-1	6	2	40	20	4,0	60	10
31175-0095	6	3	45	25	5,5	45	10
31175-0095-1	6	3	45	25	5,5	60	10
31175-0101	8	4	50	25	6,5	45	10
31175-0101-1	8	4	50	25	6,5	60	10
31175-0105	8	5	55	30	6,5	45	15
31175-0105-1	8	5	55	30	6,5	60	15
31175-0112	10	6	80	42	7,0	45	15
31175-0112-1	10	6	80	42	7,0	60	15
31175-0112-3	10	8	80	42	7,0	45	15
31175-0112-4	10	8	80	42	7,0	60	15
31175-0110	12	6	70	35	6,5	45	15
31175-0110-1	12	6	70	35	6,5	60	15
31175-0113	12	8	80	40	7,0	45	15
31175-0113-1	12	8	80	40	7,0	60	15
31175-0119	12	10	100	50	7,0	45	15
31175-0119-1	12	10	100	50	7,0	60	15
31175-0121	18	10	80	45	7,0	45	15
31175-0121-1	18	10	80	45	7,0	60	15

Turning boring cutters

Pic. 2

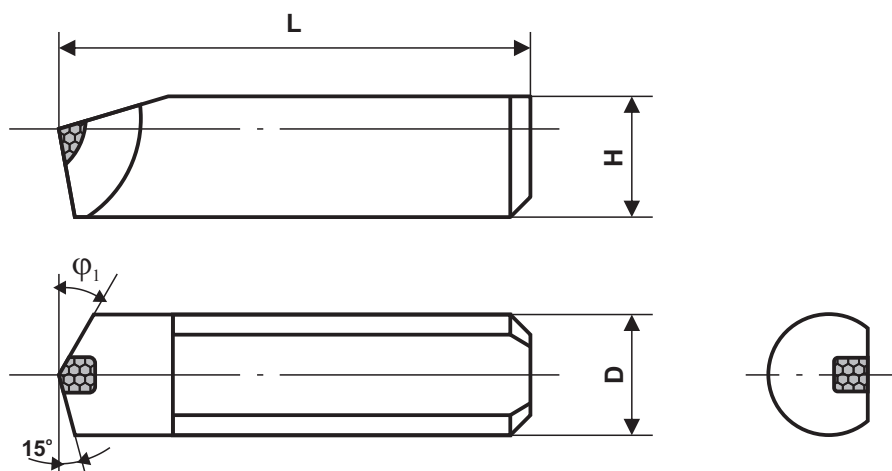


Sizes, mm.

Designation of the sizes of the cutters (inserts)	D	R	L	l	b	φ	φ_1
31175-0091-2	6	2	40	20	3,0	-	-
31175-0095-2	6	3	45	25	4,0	-	-
31175-0101-2	8	4	50	25	5,0	-	-
31175-0105-2	8	5	55	30	5,0	-	-
31175-0112-2	10	6	80	42	5,0	-	-
31175-0112-5	10	8	80	42	5,0	-	-
31175-0110-2	12	6	70	35	5,0	-	-
31175-0113-2	12	8	80	40	5,0	-	-
31175-0119-2	12	10	100	50	5,0	-	-
31175-0121-2	18	10	80	45	5,0	-	-

Boring cutters

The main sizes of circular boring cutters for straight fastenings in borstands or frames should correspond to those indicated on the drawing and in the table.



Pic. 3

Designation of the sizes of the cutters (inserts)	D, mm	H, mm	L, mm	ϕ_1
31175-0001	7,0	5,5	18,0	30°
31175-0002				45°
31175-0003	7,0	5,5	25,0	30°
31175-0004				45°
31175-0005	8,0	6,5	25,0	30°
31175-0006				45°
31175-0007	8,0	6,5	35,0	30°
31175-0008				45°
31175-0009	10,0	8,0	40,0	30°
31175-0010				45°
31175-0010-1				60°

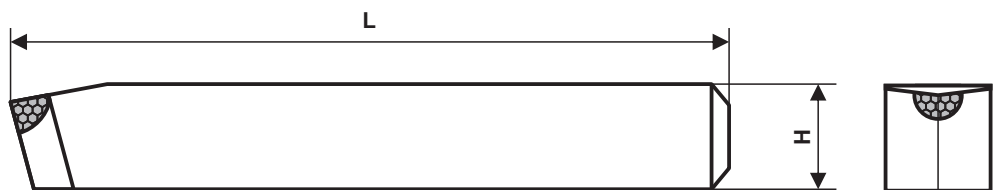
It is possible to manufacture with other standard sizes.

Boring cutters

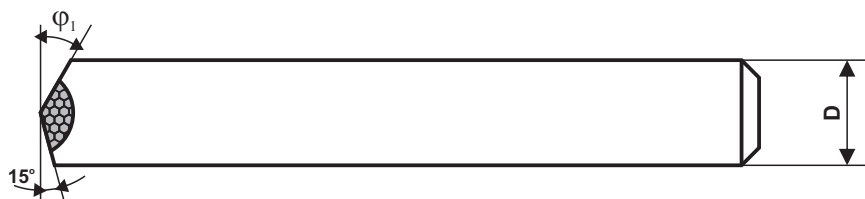
31175-0011	12,0	10,0	60,0	30°
31175-0012				45°
31175-0012-1				60°
31175-0013	16,0	12,0	80,0	30°
31175-0014				45°
31175-0014-1				60°
31175-0015	20,0	16,0	100,0	30°
31175-0016				45°
31175-0017	8,0	6,5	20,0	30°
31175-0018				45°
31175-0018-1			15,0	
31175-0018-2				
31175-0019	8,0	6,5	30,0	30°
31175-0020				45°
31175-0020-1			40,0	60°
31175-0021	10,0	8,0	30,0	30°
31175-0022				45°
31175-0022-1			16,0	
31175-0022-2				
31175-0023	12,0	10,0	40,0	30°
31175-0024				45°
31175-0025	16,0	12,0	60,0	30°
31175-0026				45°
31175-0027	20,0	16,0	80,0	30°
31175-0027-1			100,0	30x30°
31175-0028	20,0	16,0	80,0	45°

Cutters of rectangular section

The main sizes of boring cutters of single-rectangular cross-section for direct attachment should correspond to those indicated on the drawing and in the table:



Pic. 4

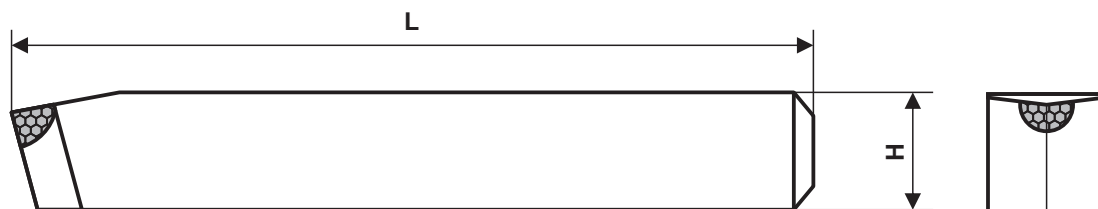


Designation of the sizes of the cutters	D, mm	H, mm	L, mm	ϕ_1
31175-0029	8,0	8,0	32,0	30°
31175-0030				45°
31175-0031	10,0	10,0	40,0	30°
31175-0032				45°
31175-0033	10,0	10,0	50,0	30°
31175-0034				45°
31175-0035	12,0	12,0	65,0	30°
31175-0036				45°
31175-0037	16,0	16,0	80,0	30°
31175-0038				45°
31175-0039	20,0	20,0	80,0	30°
31175-0040				45°

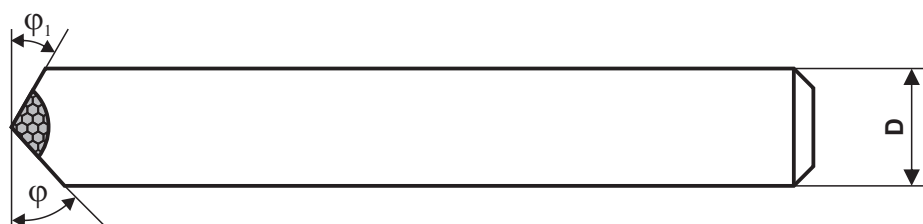
It is possible to manufacture with other standard sizes.

Cutters of rectangular section

The main sizes of boring cutters of single-rectangular section for direct attachment should correspond to those indicated on the drawing and in the table:



Pic. 5



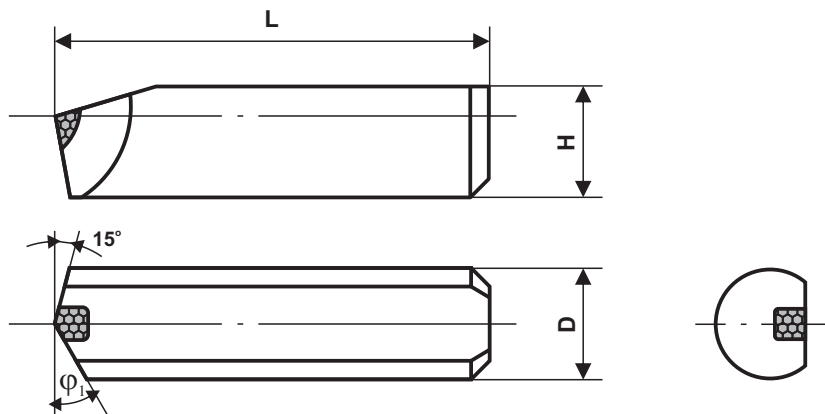
Designation of the sizes of the cutters	D, mm	H, mm	L, mm	φ	φ_1
31175-0031-1	10,0	10,0	50,0	45°	15°
31175-0032-1				30°	15°
31175-0035-1	12,0	12,0	65,0	45°	15°
31175-0035-2				45°	45°
31175-0036-1				30°	15°
31175-0037-1	16,0	16,0	80,0	45°	15°
31175-0038-1				30°	15°
31175-0038-2				10°	45°

It is possible to manufacture with other standard sizes.

Inserts to the cutter

The main sizes of round inserts to the lathe assembly to the cutter should be as indicated on drawing and in the table:

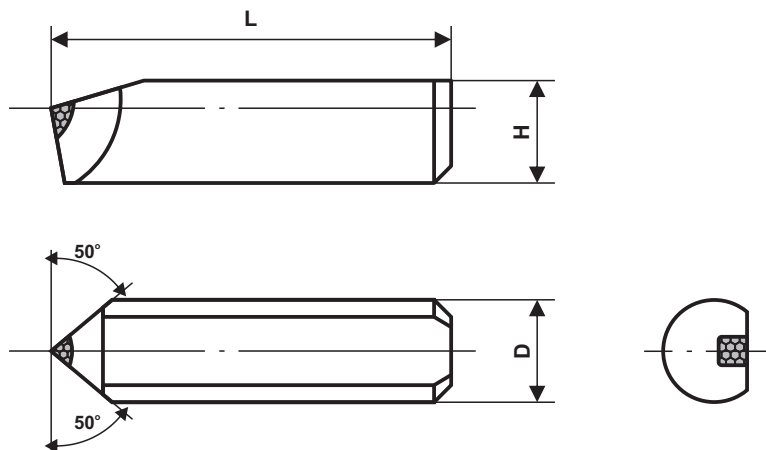
Pic. 6



Designation of the sizes of the cutters	D, mm	H, mm	L, mm	ϕ_1
31175-0041	8,0	6,5	12,0	30°
31175-0042			25,0	45°
31175-0042-1				
31175-0043	9,0	7,0	15,0	30°
31175-0044				45°
31175-0045	10,0	8,0	15,0	30°
31175-0046			40,0	45°
31175-0046-1				
31175-0047	12,0	10,0	20,0	30°
31175-0048			60,0	45°
31175-0048-1				
31175-0049	16,0	12,0	20,0	30°
31175-0050			80,0	45°
31175-0050-1				
31175-0050-2			60,0	

Inserts to the scoring tool

The main sizes of round inserts to the lathe assembly scoring incisors should be as indicated on the drawing and in the table:



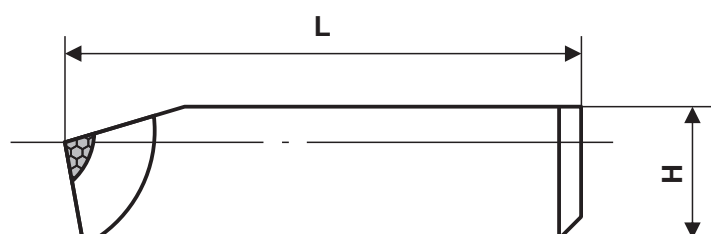
Pic. 7

Designation of the sizes of the cutters	D	H	L
31175-0051	8,0	6,5	12,0
31175-0051-1			16,0
31175-0051-2			18,0
31175-0051-3			20,0
31175-0051-4			25,0
31175-0052	9,0	7,0	12,0
31175-0053	10,0	8,0	15,0
31175-0053-1			40,0
31175-0054	10,0	8,0	20,0
31175-0055	12,0	10,0	15,0
31175-0056	12,0	10,0	20,0
31175-0056-1			60,0
31175-0057	16,0	12,0	20,0
31175-0058	16,0	12,0	30,0
31175-0058-1			80,0

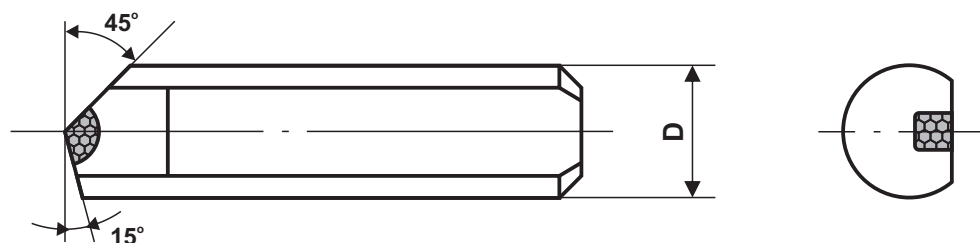
It is possible to manufacture with other standard sizes.

Round boring inserts

The main sizes of round inserts with direct attachment to the turning boring cutter for through holes should correspond to those indicated on the drawing and in the table:



Pic. 8

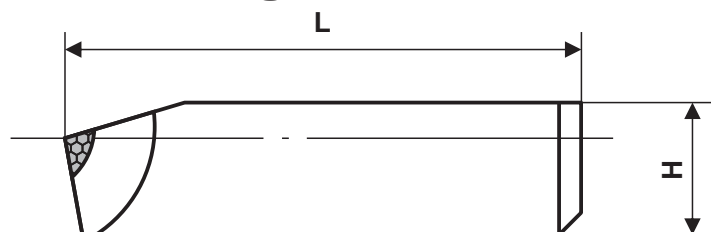


Designation of the sizes of the cutters	D	H	L
31175-0059	7,0	5,5	18,0
31175-0060	8,0	6,5	15,0
31175-0061	8,0	6,5	20,0
31175-0061-1			18,0
31175-0062	8,0	6,5	25,0
31175-0062-1			30,0
31175-0063	10,0	8,0	30,0

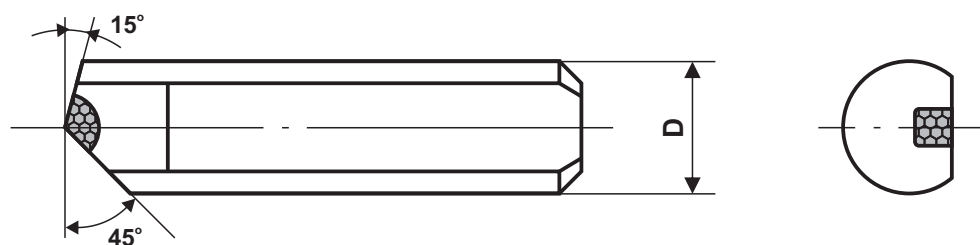
It is possible to manufacture with other standard sizes.

Round boring inserts

The main sizes of round inserts with an angle of 60 °in turning combined boring cutters for through holes should correspond to those indicated in the drawing and in the table:



Pic. 9

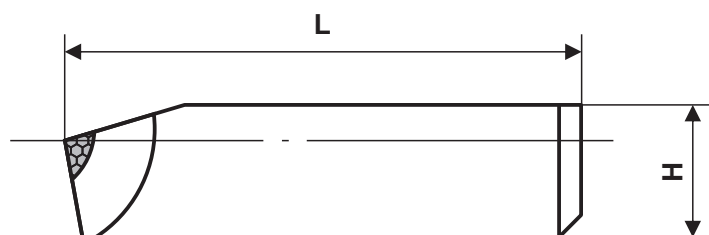


Designation of the sizes of the cutters	D	H	L
31175-0064	7,0	5,5	18,0
31175-0065	7,0	5,5	16,0
31175-0066	7,0	5,5	20,0
31175-0067	8,0	6,5	25,0
31175-0067-1	8,0	6,5	20,0
31175-0067-2	8,0	6,5	16,0
31175-0068	8,0	6,5	30,0
31175-0069	10,0	8,0	16,0
31175-0069-1	10,0	8,0	15,0
31175-0069-2	10,0	8,0	35,0

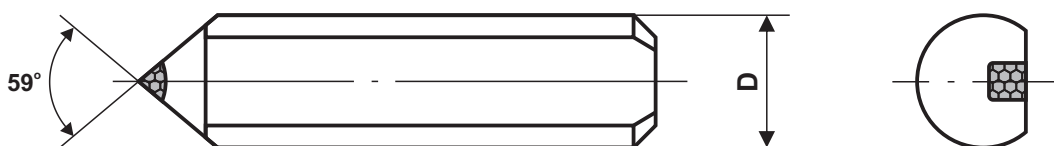
It is possible to manufacture with other standard sizes.

Round boring inserts

The main sizes of round inserts to the lathe assembly threaded cutter for cutting the outer and inner metric threads should correspond to those indicated on the drawing and in the table:



Pic. 10

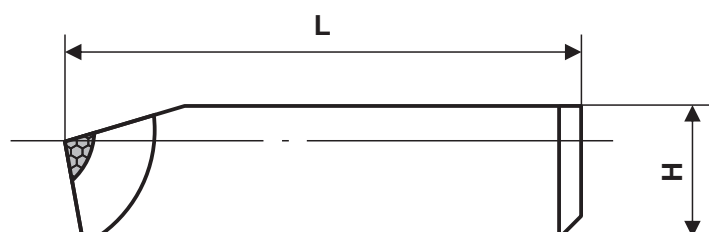


Designation of the sizes of the cutters	D	H	L
31175-0070	8,0	6,5	12,0
31175-0071	8,0	6,5	16,0
31175-0072	9,0	7,0	15,0
31175-0073	10,0	8,0	15,0
31175-0074	12,0	8,0	15,0 - 20,0

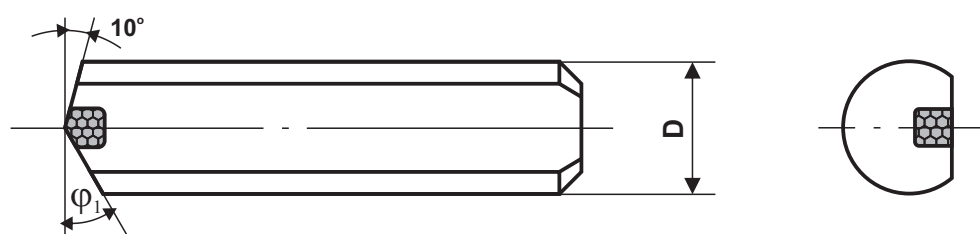
It is possible to manufacture with other standard sizes.

Round inserts

The main sizes of round inserts to the prefabricated chisel tool should correspond to those indicated on the drawing and in the table:



Pic. 11

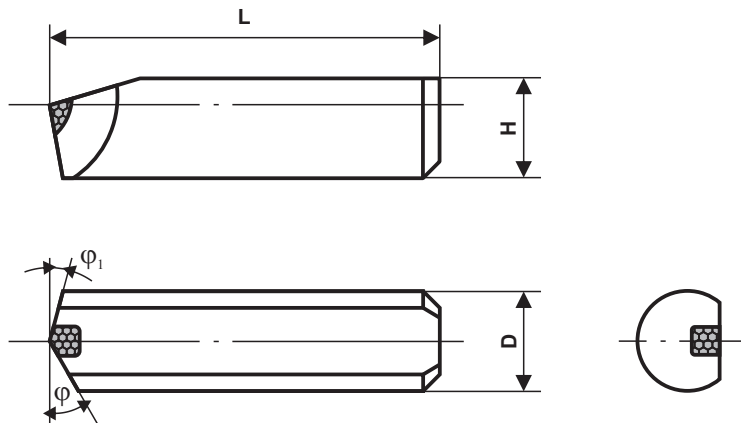


Designation of the sizes of the cutters	D	H	L	φ ₁
31175-0075	8,0	6,5	12,0	30°
31175-0076	8,0	6,5	12,0	45°
31175-0077	9,0	7,0	15,0	30°
31175-0078	9,0	7,0	15,0	45°
31175-0079	10,0	8,0	15,0	30°
31175-0080	10,0	8,0	15,0	45°

It is possible to manufacture with other standard sizes.

Inserts of round section

The main sizes of round inserts to the prefabricated chisel tool should correspond to those indicated on the drawing and in the table:



Pic. 12

Designation of the sizes of the cutters	D	H	L	φ	φ_1
31175-0081	8,0	6,5	25	45°	15°
31175-0081-1	8,0	7	18	45°	15°
31175-0081-2	8,0	7	18	47°	47°
31175-0081-3	8,0	6,5	16	45°	45°
31175-0082	8,0	6,5	25	15°	45°
31175-0082-1	8,0	6,5	25	60°	15°
31175-0082-2	10,0	8,0	40	60°	15°
31175-0082-3	12,0	10,0	60	60°	15°
31175-0083	8,0	6,5	25	30°	30°
31175-0083-1	8,0	6,5	12	30°	45°
31175-0083-2	16,0	12	30	40°	20°
31175-0083-3	16,0	12	30	50°	10°

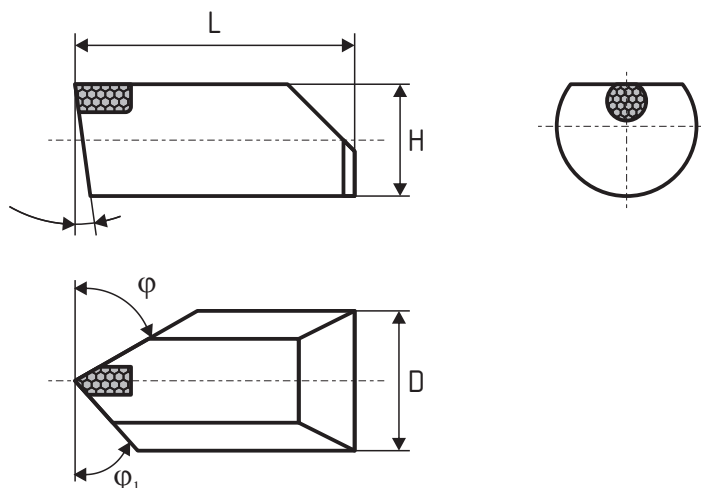
Inserts of round section

Designation of the sizes of the cutters	D	H	L	φ	φ_1
31175-0083-4	16,0	12	30	10°	45°
31175-0083-5	8,0	6,5	16	30°	30°
31175-0083-6	10,0	8,0	19	10°	45°
31175-0083-7	10,0	8,0	21	10°	45°

It is possible to manufacture with other standard sizes.

Inserts of round section

The main sizes of round inserts to the prefabricated chisel tool should correspond to those indicated on the drawing and in the table:



Pic. 13

Designation of the sizes of the cutters	D	H	L	φ_1	φ
31175-0084	8,0	6,5	16-20	45°	60°
31175-0084-1	8,0	7	22	30°	40°
31175-0085	8,0	6,5	16-20	20°	60°
31175-0085-1	8,0	7	22	40°	60°
31175-0085-2	8,0	7	22	50°	40°
31175-0086	10,0	8,0	26	10°	45°
31175-0086-1	10,0	8,0	26	60°	25°
31175-0086-2	10,0	8,0	26	25°	40°
31175-0087	16,0	12,0	60	15°	45°

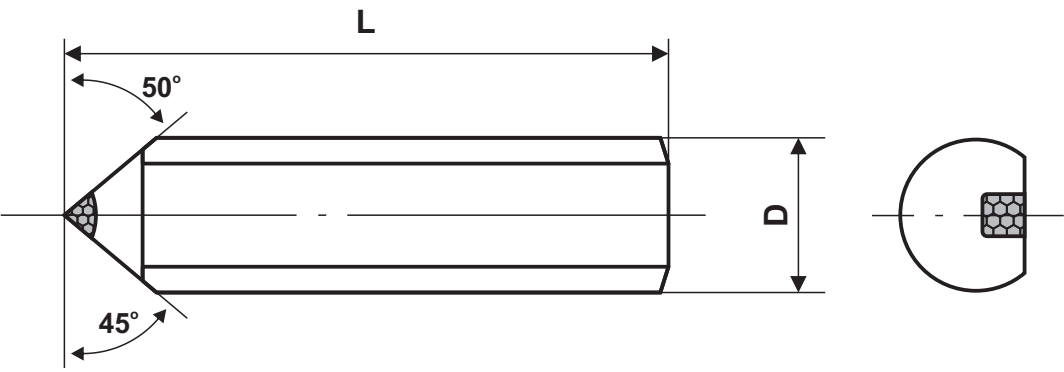
It is possible to manufacture with other standard sizes.

5

Special boring cutters

The main sizes of round inserts to the prefabricated chisel tool should correspond to those indicated on the drawing and in the table:

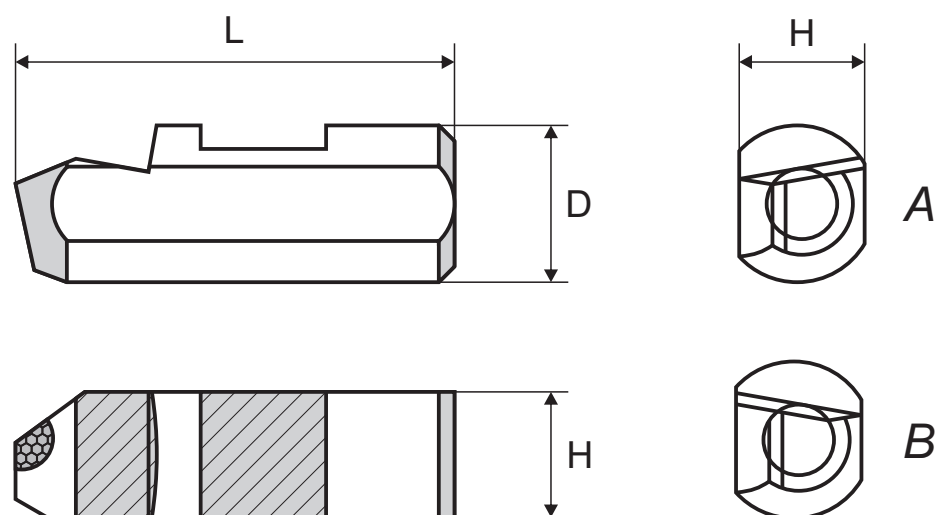
Pic. 14



Designation of the sizes of the cutters	D	L
31175-0157	8,0	16

It is possible to manufacture with other standard sizes.

Knives for end milling cutters



Pic. 15

A - right-sided, B - left-sided

Designation of the sizes of the cutters	D	H	L	
31175-0158	10	8	28	A
31175-0159	10	8	28	B
31175-0160	10	8	35	A
31175-0161	10	8	35	B

It is possible to manufacture with other standard sizes.



PASTE SUSPENSION

OUR TOOLS FOR YOUR BUSINESS

Diamond paste (suspension)

Diamond paste, designed for finishing and polishing hard-to-work materials, is indispensable in the processing of ferrous and non-ferrous metals, alloys, steels, hard alloys, semiconductor materials, glass, cermets, precious, semiprecious, and ornamental stones and other non-metallic materials.

Provides high quality of processed products.



Carat quantity in different concentrations

Powder granularity, micron	Normal, ct\kg	Elevated, ct\kg	Large, ct\kg
160/125	2000	3000	-
125/100	2000	3000	-
100/80	2000	3000	-
80/63	2000	3000	-
63/50	1000	2000	-
60/40	400	1000	2000
40/28	400	1000	2000
28/20	300	750	1500
20/14	300	750	1500
14/10	300	750	1500
10/7	200	500	1000
7/5	200	500	1000
5/3	200	500	1000
3/2	100	250	500
2/1	100	250	500
1/0	100	250	500
0,5/0	100	250	500
0,3/0	100	250	500
0,25/0	100	250	500

Pastes are made from powders: ACH, ACM, AC4, AC6. Pastes are produced with normal (**N**), elevated (**E**) and large (**L**) concentration of diamond powder; washed away by water (**W**), organic (**O**) and universal (**U**) solvents; Mape-like (**M**) and solid (**T**) in consistency. Pastes are packaged in 40; 50; 100; 200; 500; 1000 grams.

Paste from cubic boron nitride (CBN)

Paste is designed for finishing and polishing parts from hardened and alloyed steels. Pastes are produced with normal (N), elevated (E) and large (L) concentration of diamond powder; washed away by water (W), organic (O) and universal (U) solvents; Mape-like (M) and solid (T) in consistency. Pastes are made from powders of the brand: CBN-M, KM, etc., with granularity of powder from 0,5 / 0 to 60/40 and from 50/40 to 160/125. Pastes are packaged in 40; 50; 100; 200; 500; 1000 grams.

Carat quantity in different concentrations

Powder granularity, micron	Normal, ct\kg	Elevated, ct\kg	Large, ct\kg
60/40	400	1000	2000
40/28	400	1000	2000
28/20	300	750	1500
20/14	300	750	1500
14/10	300	750	1500
10/7	200	500	1000
7/5	200	500	1000
5/3	200	500	1000
3/2	100	250	500
2/1	100	250	500
1/0	100	250	500
0,5/0	100	250	500

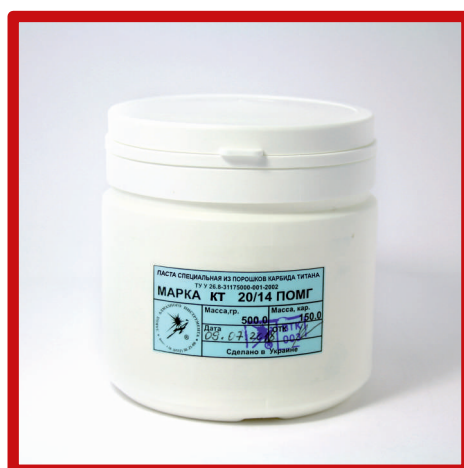


Paste from titanium carbide powders

Paste from titanium carbide powder is used for fine-tuning and polishing of aviation equipment components, precision bearings, stop-braking equipment and pneumatic actuator assemblies, fuel equipment, tooling, as well as stripping large parts of details and nodes.

Pasta is packaged in 40; 50; 100; 200; 500; 1000 grams.

Powder granularity, micron
630/500
500/400
400/315
315/250
250/200
200/160
160/125
125/100
100/80
80/63
63/50
60/40
40/28
28/20
20/14
14/10
10/7
7/5
5/3
3/2
2/1
1/0



Other tools

We also offer a wide range of other diamond tool:

- *diamond cutting wheels*
- *diamond drills*
- *diamond heads and burs*
- *diamond ruling pencils*
- *cutters made of natural, HPHT and CVD diamonds*
- *diamonds in the rim*
- *diamond needles and combs*
- *tips*
- *diamond cutters*
- *diamond rollers*
- *special diamond tools according to the samples or drawings of the customer*



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 mesh	Ukrainian Standard DSTU 3292-95 μm
Rough Grinding	D426 D301 D251 D213 D151	425/355 300/250 250/212 212/180 150/125	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

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 bond				
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 bond				
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
Metal (high stability)	D251-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
Bonds for electroplated grinding				
Metal (high productivity)	D213-D126	1,25-0,32	2,0-0,63	2,0-0,63
	D107-D91	0,63-0,20	1,25-0,63	1,25-0,63
Metal (high stability)	D213-D126	1,25-0,32	2,0-0,63	2,0-0,63
	D107-D91	0,63-0,20	1,25-0,63	1,25-0,63
Resin	D181-D07	0,50-0,1	0,63-0,16	0,63-0,16
	D91-D46	0,16-0,05	0,32-0,08	0,32-0,08

New **EXPERT** line of high-performance resin bonds

POLTAVA DIAMOND TOOLS offers new line of high-performance resin bonds called **EXPERT**

Diamond and CBN grinding wheels manufactured according to innovative technologies with usage of high-quality components, which can significantly increase the performance and durability of the wheels comparing to STANDARD line.

As our test results show, **EXPERT** bonds provide good grinding quality not only with coolant application, but also when working without it.

Application of **EXPERT** diamond resin bonded wheels

TYPE OF BOND	APPLICATION	COOLANT	PARAMETERS OF WORK
EXD21 Universal bond	For multistep grinding and sharpening of tungsten carbide tools. Most applicable for 12A2-45, 6A2, 12A2-20, 12R4 shapes and other dish and cup shaped wheels.	with coolant	Cutting speed: $V_c=20...25$ m/c Grinding depth: $t=$ up to 0,20 mm Line feed: $V_f= 0,50$ m/min
		without coolant	Cutting speed: $V_c=20...25$ m/c Grinding depth: $t=$ up to 0,10 mm Line feed: $V_f= 0,50$ m/min
	For multistep grinding and sharpening of tungsten carbide tools. Most applicable for 1A1, 14A1, 1FF1, 14FF1, 1V1 1EE1, etc. shapes.	with coolant	Cutting speed: $V_c=20...25$ m/c Grinding depth: $t=$ up to 0,07 mm Line feed: $V_f= 2,50$ m/min
		without coolant	Cutting speed: $V_c=20...25$ m/c Grinding depth: $t=$ up to 0,07 mm Line feed: $V_f= 1,50$ m/min
EXD11	For sharpening of tungsten carbide tools. Most applicable for shapes 12A2-45, 6A2, 12A2-20, 12R4 and other dish and cup shaped wheels. The bond is more wear-resistant and has better profile retention than EXD21.	with coolant	Cutting speed: $V_c=20...25$ m/c Grinding depth: $t=$ up to 0,20 mm Line feed: $V_f= 0,5$ m/min
		without coolant	Cutting speed: $V_c=20...25$ m/c Grinding depth: $t=$ up to 0,10 mm Line feed: $V_f= 0,50$ m/min
EXD12	For sharpening of tungsten carbide tools. Most applicable for shapes 1A1, 14A1, 1FF1, 14FF1, 1V1 1EE1, etc. The bond is more wear-resistant and has better profile retention than EXD21.	with coolant	Cutting speed: $V_c=20...25$ m/c Grinding depth: $t=$ up to 0,10 mm Line feed: $V_f= 1,00$ m/min
EXD31	For different shapes of wheels for multistep grinding and sharpening of tungsten carbide tools without coolant.	without coolant	Cutting speed: $V_c=20...25$ m/c Grinding depth: $t=$ up to 0,20 mm Line feed: $V_f= 0,25$ m/min
EXD41	For grinding and sharpening PCD tools	with coolant	Cutting speed: $V_c=20...25$ m/c Grinding depth: $t=$ up to 0,20 mm

NOTE: in case of increasing grinding depth, it is necessary to decrease line feed. And vice versa, in case of increasing line feed, grinding depth should be decreased.

Application of **EXPERT** CBN resin bonded wheels

TYPE OF BOND	APPLICATION	COOLANT	PARAMETERS OF WORK
EXB20 Universal bond	For multistep grinding and sharpening of high speed steel	with coolant	Cutting speed: $V_c=35$ m/c Grinding depth: $t=$ up to 0,20 mm Line feed: $V_f= 0,50....6,0$ m/min
		without coolant	Cutting speed: $V_c=32...35$ m/c Grinding depth: $t=$ up to 0,10 mm Line feed: $V_f= 0,50....6,0$ m/min
EXB10	For sharpening of high speed steel tools. The bond is more wear-resistant and has better profile retention than EXB20	with coolant	Cutting speed: $V_c=35$ m/c Grinding depth: $t=$ up to 0,20 mm Line feed: $V_f= 0,50....6,0$ m/min
		without coolant	Cutting speed: $V_c=32...35$ m/c Grinding depth: $t=$ up to 0,12 mm Line feed: $V_f= 0,50....6,0$ m/min

NOTE: in case of increasing grinding depth, it is necessary to decrease line feed. And vice versa, in case of increasing line feed, grinding depth should be decreased.



DIAMOND DRESSING ROLLERS

A Tradition of Quality since 1966



EN 13236

DIAMOND DRESSING ROLLERS



Diamond profile dressing rollers are an integral part of modern grinding technology and are mainly used in serial and mass production. Diamond rollers are used for dressing of abrasive wheels.

With the help of diamond rollers, a copy of the profile of the required part is created on the surface of the working abrasive wheel. Then the abrasive wheel transfers this profile to the workpiece. At the same time, diamond rollers allow to combine several processing transitions at once, including turning, milling and preliminary grinding.

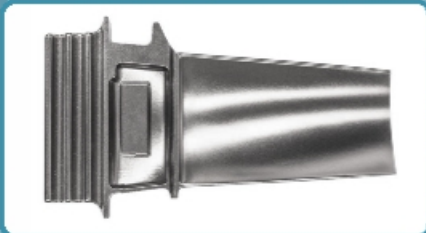
ADVANTAGES OF APPLICATION OF DIAMOND DRESSING ROLLERS:

- very short time is required for forming the surface of abrasive wheel;
- profiling of surface of abrasive wheel within one operation;
- provides high precision even at forming very complicated profiles.

POLTAVA DIAMOND TOOLS produces a wide range of diamond dressing rollers for such machine building industries as:

Aircraft construction

- manufacturing of turbine buckets for air engines;



- manufacturing of various high-precision parts for aircraft construction.

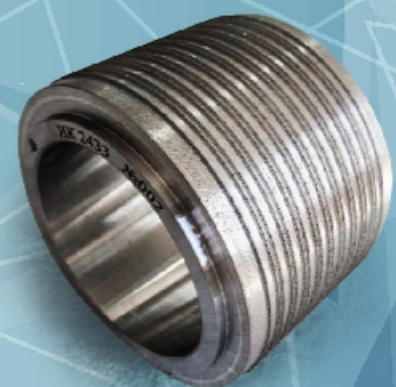


Automobile and transport machine building

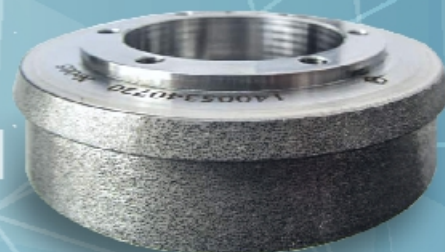
- producing of crankshafts;
- producing of ball pins;



- producing of piston rings;

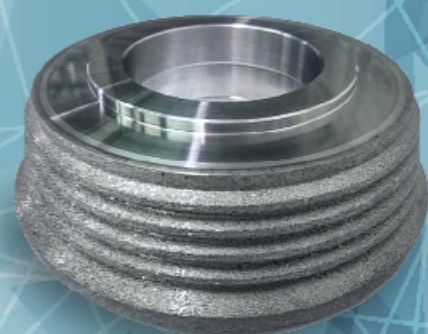


- producing of valves;
- producing of gear wheels;
- producing of parts for bearings.



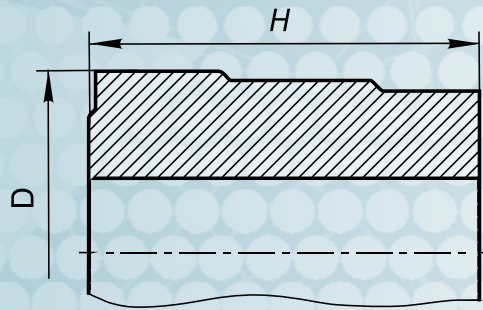
Power machine building

- producing of turbine buckets for gas-transfer stations



and other types of diamond rollers for different machine building industries.

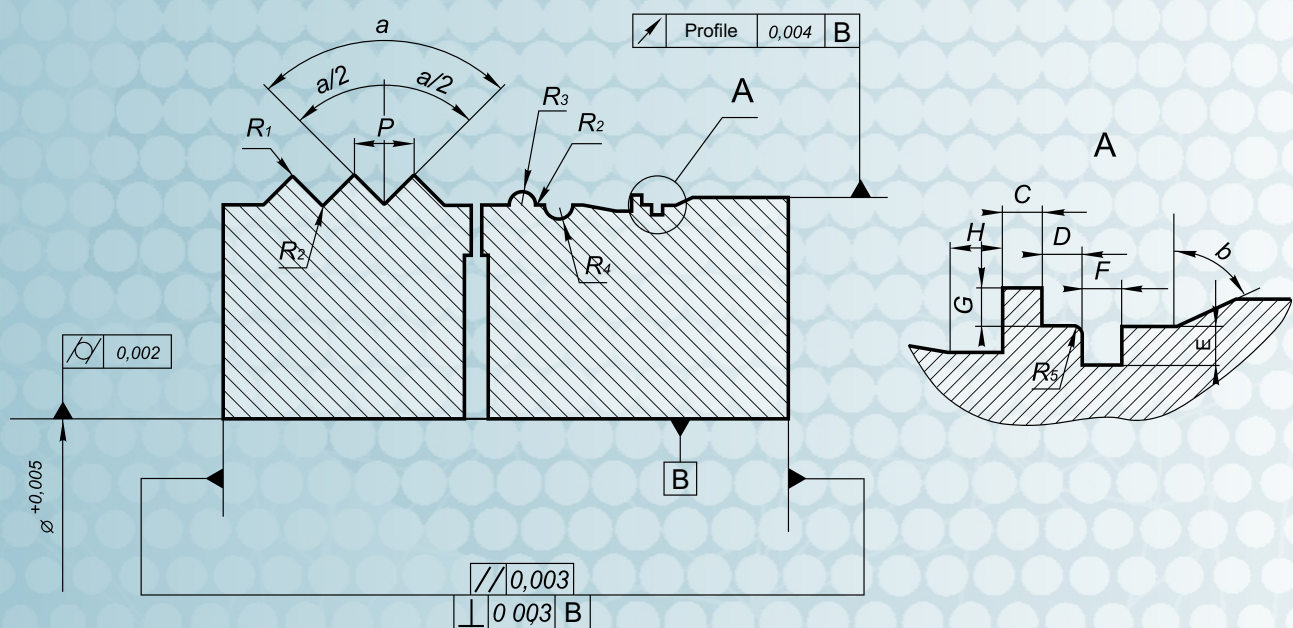
DIMENSIONS OF AVAILABLE DIAMOND ROLLERS



Parameters	Diamond roller dimensions, mm 02H*
D max	210
D min	26
H max	140
H min	8

* 02H - reverse plated method with randomly distributed diamonds

MINIMUM TOLERANCE OF DIAMOND ROLLERS SURFACES



$C = \pm 0,01$	$G = \pm 0,01$	$R_1; R_2; R_3; R_4; R_5 = \pm 0,01$
$D = \pm 0,01$	$H = \pm 0,01$	$a = \pm 3'$
$E = \pm 0,01$	$P = \pm 0,003$	$a/2 = \pm 3'$
$F = \pm 0,01$	$R_{1min} = 0,15; R_{2min} = 0,12$	$b = \pm 3'$