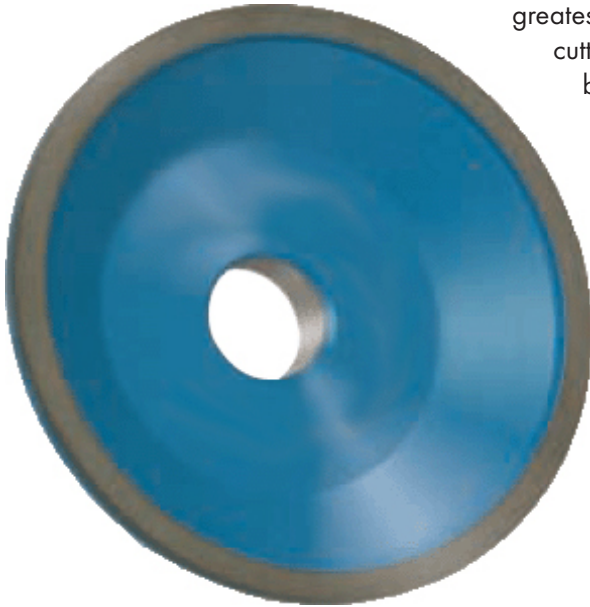


RESIN BONDED GRINDING TOOLS WITH DIAMOND GRITS for grinding PCD and PCBN cutting tools

As superabrasives, PCD (polycrystal diamond) and PCBN (polycrystal cubic boronitride) have brought about great advances in the cutting tool industry, especially in the field of inserts - cutting plates used for turning and milling in the metal processing industry, and saws in the lumber industry. On such cutting plates, PCD or PCBN are sintered onto the tungsten carbide base of the cutting section, which is exposed to the greatest wear. This considerably increases the wear resistance of the cutting tool. Profiles, or final forms, of such tools are manufactured by wire erosion as well as grinding, but they are extremely difficult to produce. Even though the layer is thin (~0.5 mm), it can be ground/sharpened two to three times, depending on wear, which increases the efficiency of the cutting tool.

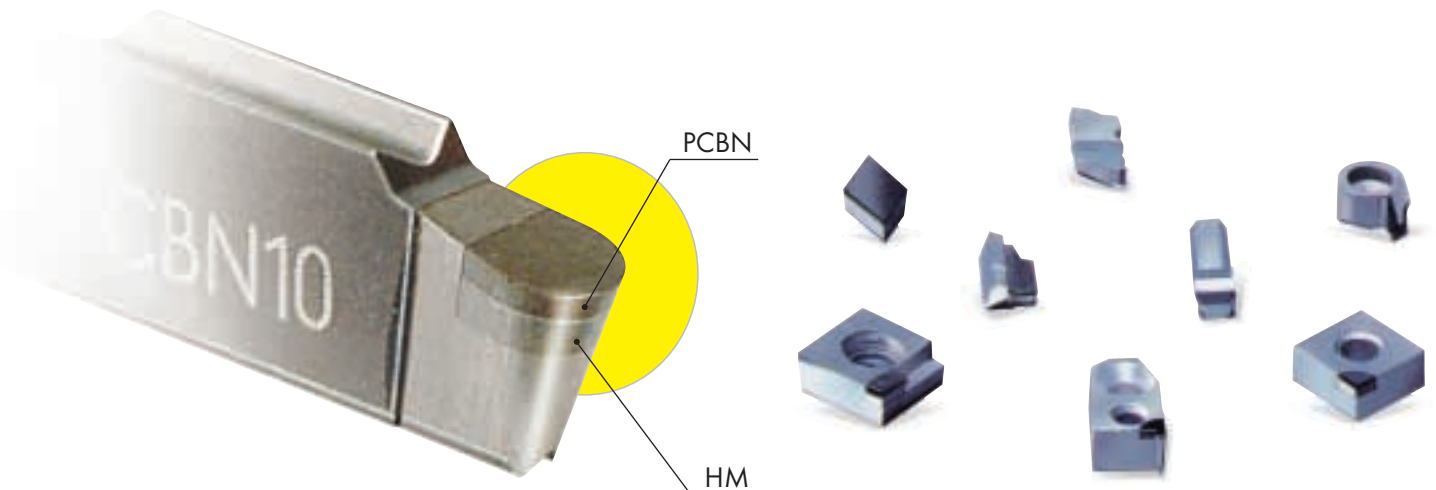


Resin bonded grinding tools for PCD/PCBN are intended for specialized high-precision machines with hydraulic feed, adjustable pressure and oscillatory movement of the workpiece (Lach, Ewag, Aghaton). They are emulsion-cooled.

Designation of grinding tools for PCD:

12A2/45°-A 125x15x4x20 D25 RJK C100

Grinding tools are mostly cup-shaped, with high rigidity and good blade balance. Axial whipping of the abrasive ring is reduced to below 0.01 mm. The abrasive ring quality is made especially for this type of machining - special qualities of non-coated diamond are selected, usually in granulations of 15-30 microns and a concentration of 100 for fine machining.



More demanding types of PCD tools (profiles) are ground using EDG (electrical discharge grinding). Some manufacturers produce grinding tools for PCD also in metal bond and vitrified bond.



NEW

VITRIFIED BONDED GRINDING TOOLS with CBN and DIAMOND GRITS

Highly productive grinding of hard-to-work materials, such as high-speed steels, tool steels, high-alloy chromium, titanium and nickel steels, and very hard tungsten carbides, requires appropriate grinding tools to ensure cost-efficient machining of these materials, as well as to fulfill their greater dimensional accuracy and ground surface quality requirements.

Vitrified bonded grinding tools with CBN and diamond grit fulfill these high requirements!

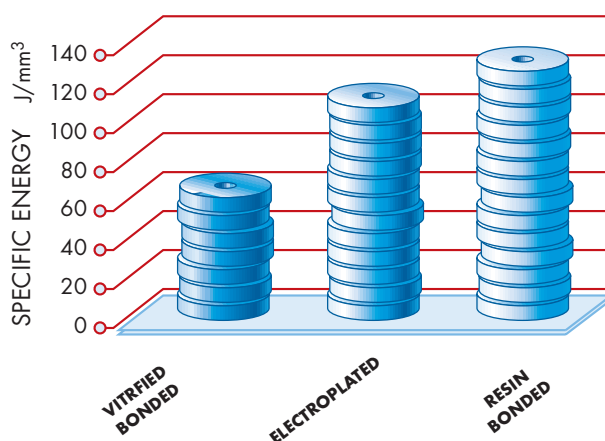


CBN abrasive grits

Diamond abrasive grits

- They can be profiled.
- They do not require frequent dressing with diamond dressing tools, as do conventional vitrified bonded grinding tools, or additional opening of their grinding surface structure.
- They can be manufactured with controlled porosity.
- The pores serve as openings for chip removal and also feed the coolant into the grinding zone, preventing heating of the workpiece.
- The open structure of these tools enables optimum penetration of sharp grinding grit into the workpiece surface enabling high grinding efficacy, increased productivity and reduced cost.
- They can be used for internal grinding, external cylindrical grinding, creep-feed grinding, tool grinding, etc.

The main criterion of grinding efficacy is minimum specific energy consumption!



NEW



GRINDING TOOL TYPES

Page 30

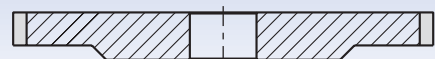
1A1



31

Page 30

3A1



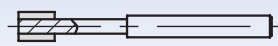
32

14A1



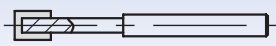
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1A1W



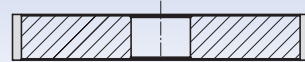
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1A8W



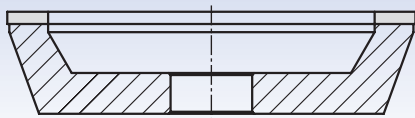
34

1A1



35

11A2



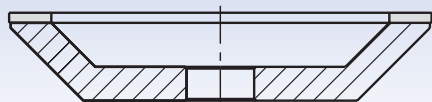
36

12A2-20°

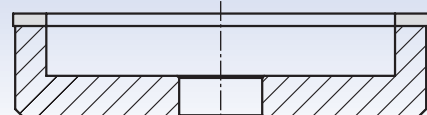


37

12A2-45°



6A2





Dressing of grinding tools and opening of the structure

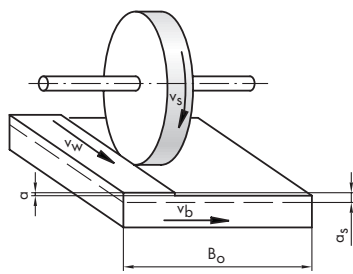
If the grinding parameters are not optimal, the abrasive ring wears unevenly. Vitrified bonded (SiC) grinding tools G-K are used for dressing. Their grit size must be one grade coarser than that of the superabrasive grits, which are dressed. Both grinding tools here revolve in the same direction, whereby the peripheral speed of the SiC grinding tool is 15-25 m/s, and that of the superabrasive grinding tool is lower by half.

Grinding tools with abrasive rings on the face can also be dressed by rubbing them against SiC 160-180 abrasive grits, which are applied onto a flat metal or glass surface. This reopens the surface of a dulled grinding tool, even though the grinding tools are already self-sharpening when correctly used. The structure of dulled grinding tools can also be opened using a grinding stone, which is enclosed with the grinding tool. A wet grinding stone is pressed against the rotating grinding tool by hand. Resin bonded CBN grinding tools for flat surface grinding of hardened steels are sometimes also dressed by grinding into soft steels at a peripheral speed of approx. 15 m/s.

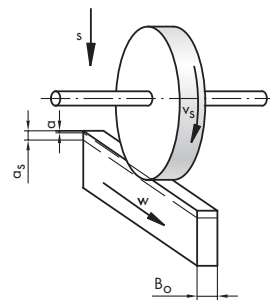
Ordering

When ordering grinding tools, please state all the necessary parameters in your order: tool type, dimensions and quality. For repeat orders, grinding tool identification number will suffice.

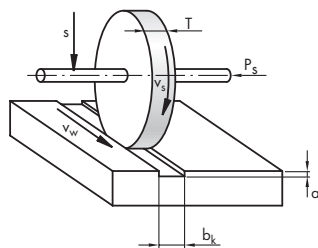
- If you are already using the grinding tool, order an identical one (all data required for the order is engraved on the tool and also can be found on the label on the box). If your grinding tool is not manufactured by SUMENG, please add the manufacturer's name in your order (in addition to the prescribed data).



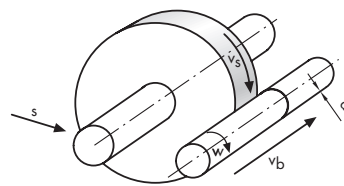
Surface grinding with cross feed



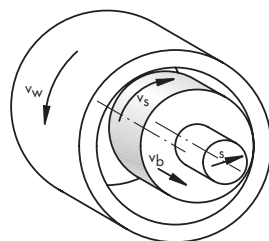
Surface grinding



Profile grinding



External cylindrical grinding



Internal cylindrical grinding

- v_s - peripheral speed
- v_w - speed of workpiece motion
- v_b - cross feed speed
- s - tool transverse feed rate
- a - grinding depth per turn
- a_s - total grinding depth
- B_o - ground surface width
- G - volume grinding ratio
- V_w - volume of removed material
- V_s - volume amount of wear of wheel

GRINDING REPORT

The purpose of the grinding report is to listen to clients' opinions and respond to their needs. If the grinding tool is not included in our standard product range, please provide data under A and B when ordering.

CUSTOMER DATA:

Produced on order No.: _____
Shape and quality of grinding wheel: _____
Dimension of grinding wheel: _____

Customer: _____
Address: _____
Contact person: _____ Phone: _____

A WORKPIECE DATA:

Description: _____ Material: _____
Hardness: _____ Surface finish: N, R_a, R_t, R_z _____

B GRINDING METHOD:

Grinding method: _____
Grinding machine: _____ Power of main spindle P_s : _____ W
Grinding wheel peripheral speed v_s : _____ m/s or rpm _____ min^{-1}
Workpiece speed v_w : _____ m/min or rpm _____ min^{-1}
Infeed a : _____ mm
Cross feed speed v_b : _____ mm
Grinding allowance a_s : _____ mm
Other process parameters: _____
Cooling: YES NO Coolant type (designation): _____
Flow rate (pressure): _____ l/min

GRINDING REPORT:

Surface finish: _____	Observations: _____
Material removal volume V_w : _____	_____
Grinding wheel layer volume V_s : _____	_____
Process (grinding) time t_s : _____	_____
Dressing infeed a_d : _____	_____
Dressing frequency: _____	_____
G ratio $G = V_w / V_s$: _____	_____

COMPARISON WITH SIMILAR GRINDING WHEELS FROM OTHER MANUFACTURERS:

Manufacturer: _____ Wheel designation: _____
Notes: _____
 Better Equal Worse

TESTED SAMPLE:

Tested sample: Appropriate Semi-appropriate
 Inappropriate, why? _____

Signature, date _____



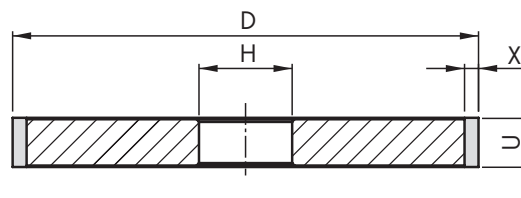
01



Surface grinding with tool circumference and external cylindrical grinding

1A1

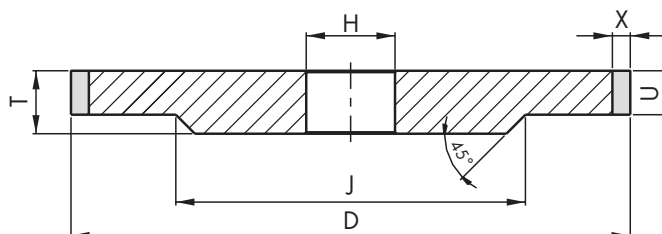
D x U x X x H
 Grinding tool - disc



D	X	T=U
100	2 3 4 5	6 8 10 12 15
125	2 3 4 5 6	6 8 10 12 15
150	2 3 4 5	6 8 10 12 15
175	3 5 6 10	6 8 10 15 20 25
200	3 4 5 6	6 10 15 20 25
220	3	10 15 20 25
250	3	10 15 20 25
300	3	10 15 20 25 30
350	3	10 15 20 25 30
400	3	10 15 20 25 30
500	3 6	10 15 20 25 30

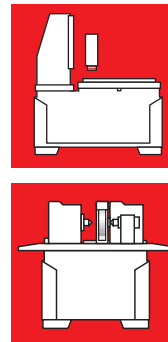
3A1

D x U x X x H
 Grinding tool - disc



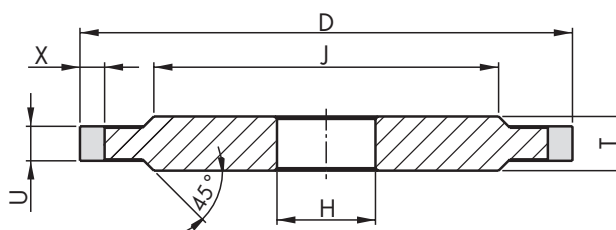
D	U	X	J	T
100	5 10	3 5	70	10 15
125	5 10	3 5	100	10 15
150	5 10	3 5	120	10 15
175	8 10 15	3 5	140	15 25
200	10 15	3 5	160	15 25
220	10 15	3 5	180	15 25
250	10 15	3	200	15 25
300	10 15	3	250	15 25
350	15 25	3	300	15 25
400	10 15	3	350	15 25
500	10 15	3 6	400	15 25

01





14A1

D x U x X x H
 Grinding tool - disc



D	U	X	J	T
125	5 10	5	95	10 15
150	5 10	5	120	10 15
175	5 10	5	140	10 15
200	5 10	5	160	10 15
250	10	3	200	16
300	10	3	240	16
350	10	3	280	16
400	10	3	330	16
500	10	3 6	430	18

Quality of grinding tools for surface and external cylindrical grinding

Ground material	Grit type	Grit size	Bond	Concentration	Notes
Steels					
 Non-hardened steel	B	107 - 181	BMR	75 - 100	
Tool steel	B	64 - 126	BM75	50 - 75	
High-speed steels (HSS)	B	64 - 126	BMRT	50 - 75	
Hard metals					
 Tungsten carbides	D	46 - 151	BMR, BMN	75 - 100	

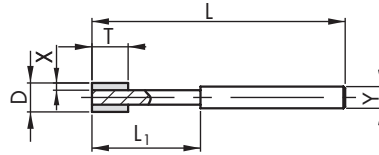


Internal cylindrical grinding

1A1W

D x T x X x Y x L

Grinding tool - mounted point

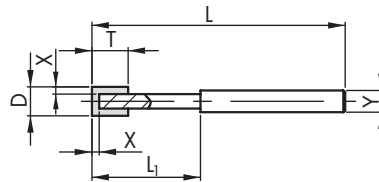


D	T	X	L	L1	Y
4	5	1	(45) 70	20	6
5	6	1.5	(45) 70	20	6
6	6	2	70	20	6
7	6 8 10	2	70	20	6
8	8 10	2	70	20	6
9	8 10	2	70	20	6
10	8 10	2	70		6
12	8 10	2	70		6
15	8 10 15	2	70		(6) 8
18	8 10 15	2	70		(6) 8
20	8 10 15	3	70		(6) 8

1A8W

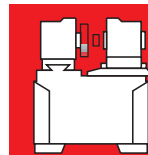
D x T x X x Y x L

Grinding tool - mounted point



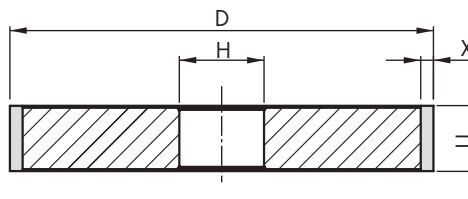
D	T	X	L	L1	Y
4	5	1	(45) 70	20	6
5	6	1.5	(45) 70	20	6
6	6	2	70	20	6
7	6 8 10	2	70	20	6
8	8 10	2	70	20	6
9	8 10	2	70	20	6
10	8 10	2	70		6
12	8 10	2	70		6
15	8 10 15	2	70		(6) 8
18	8 10 15	2	70		(6) 8
20	8 10 15	3	70		(6) 8





1A1



D x U x X x H
 Grinding tool - roll



D	H	X	T=U
6	3	2	6 8 10
7	3	2	6 8 10
8	4	2	6 8 10
9	4 5	2	10 15
10	4 6	2	10 15
12	4 6 8	2	10 15
15	*	2	10 15 20
18	*	2	10 15 20
20	*	2 3	10 15 20
22	*	3 5	10 15 20
25	*	3 5	10 15 20
30	*	3 5	10 15 20
35	*	3	6 10
40	*	3 5	5 6 8 10 15 20
45	*	4	5 6 8 10 15 20
50	*	3	5 6 8 10 15 20
55	*	3	5 6 8 10 12
63	*	5	5 6 8 10 12
75	*	3 4 5	5 6 8 10 12 15
80	*	3	6 8 10 12 15
85	*	3	6 8 10 12 15
90	*	3	6 8 10 12 15
100	*	2 3 4 5	6 8 10 12 15

* Bore diameter (H) manufactured to order

Quality of grinding tools for internal cylindrical grinding

Ground material	Grit type	Grit size	Bond	Concentration	Notes
Steels  Non-hardened steel Tool steel	B	107 - 181	BMK	75 - 100	
	B	64 - 126	BMK	100	
Hard metals  Tungsten carbides	D	46 - 151	V80, V80T	100	

03

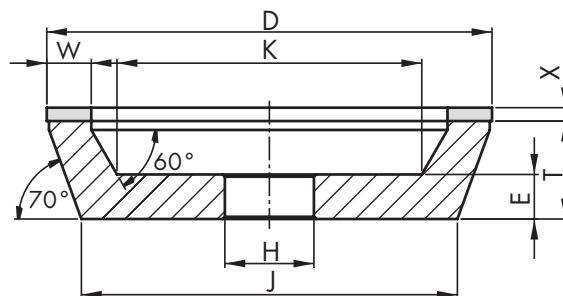


Face surface grinding

11A2

D x W x X x H

Grinding tool - cup



D	X	W	T	E	K	J
50	2 3	10	13	8	27	41
75	2 3		18	10		62
75		3 4 5 6 10	18	10	62 60 58 56 48	62
100	2 3		22	10		84
100		3 4 5 6 8 10	22	10	82 80 78 76 72 68	84
125	2 3 4		23	10		109
125		3 4 5 6 10 12.5 15	23	10	106 104 102 100 92 87 82	109
150	2 3 4		23	10		134
150		6 8 10 12.5 15 20	23	10	125 121 117 112 107 97	134
175	2 3 4		23	12		159
175		6 10 15	23	12	153 145 135	159
200	2 3 4		23	12		184
200		6 8 10 15	23	12	178 174 170 160	184
250	2 3 4		23	12		234
250		10 15	23	12	220 210	234

Face surface grinding

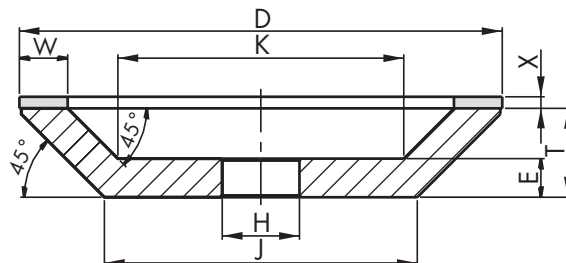
03



12A2-45°

D x W x Y x H

Grinding tool - conical plate



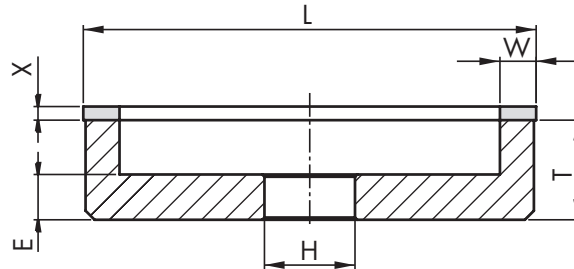
D	X	W	T	E	K	J
50	2 3	10	13	8	20	25 26
75	2 3		18	10		40 41
75		3 4 5 6 10	18	10	53 51 49 47 39	
100	2 3		22	10		57 58
100		3 4 5 6 8 10	22	10	70 68 66 64 60 56	
125	1 2 3 4		23	10		79 80 81 82
125		3 4 5 6 10 12.5	23	10	93 91 89 87 79 74	
150	2 3 4		23	10	112	105 106 107
150		6 8 10 12.5 20	23	10	112 108 104 99 94 84	
175	2 3 4		23	12		130 131 132
175		6 10 15	23	12	141 133 123	
200	2 3 4		23	12		155 156 157
200		6 8 10 15	23	12	166 162 158 148	
250	2 3 4		23	12		205 206 207
250		10 15	23	12	148 208 198	

The standard bore diameter (H) is $\varnothing 20$ H7; other diameters and grinding tools of other dimensions are manufactured to order.



6A2

D x W x X x H
 Grinding tool - cylindrical cup



D	W	X	T	E
30	3	2 3	18	8
40	3 4	2 3	20	8
45	3	2 3	20	8
50	3 5	2 3	20	10
55	10	2 3 4	20	10
63	5 10	2 3	20	10
75	2 3 4 5	2 3	20	10
75	6 10	2 3 4	20	10
90	6	2 3	22	10
100	2 3 4 4.5 5	2 3	22	10
100	6 8 10 12.5	2 3 4	22	10
125	2 3 4 5 6 8 10 12.5 25	2 3 4	22	10
150	3 5 6 8 10 12.5 15 20	2 3 4	22	10
175	3 4 5 6 10 15 20	2 3 4	24	13
200	4 5 6 8 10 15 20	2 3 4	25	13
250	6 10 15	2 3 4	25	13

Face surface grinding

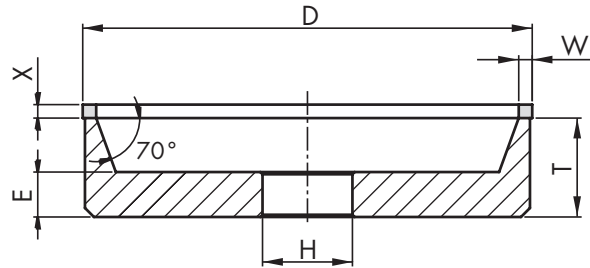
03



6A2-1

D x W x X x H

Grinding tool - cup






D	X	W	T	E	K
30	2	3	18	8	17
40	2	3 4	20	8	25 23
45	2	3	20	8	30
50	2	3 5	20	10	37 33
55	2	10	20	10	28
63	2	5 10	20	10	46 36
75	2	2 3 4 5	20	10	64 62 60 58
100	2	3 4 5	22	10	85 83 82
125	2	3 4 5 6	22	10	110 108 106 104
150	2	3 4 5 6	22	10	135 133 131 129
175	3	5 6	24	13	157 155
200	4	4 5	25	13	183 181

Quality of grinding tools for face surface grinding

03



Ground material	Grit type	Grit size	Bond	Concentration	Notes
Steels					
 Non-hardened steel	B	107 - 181	BMR	75 - 100	
Tool steel	B	64 - 126	BM75	50 - 75	
High-speed steels (HSS)	B	64 - 126	BMRT	50 - 75	
Hard metals					
 Tungsten carbides	D	46 - 151	BMR, BMRT	75 - 100	
Technical ceramics					
	D	91 - 151	BMR	75	

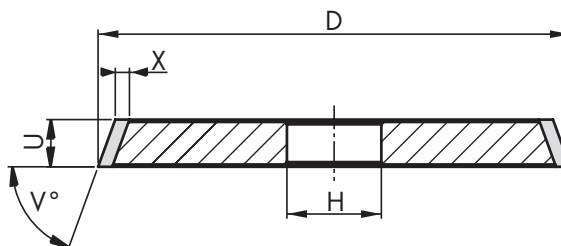




Face surface grinding

1V1

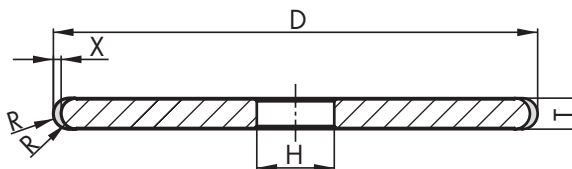
D x X x U/V°
 Grinding tool - disc



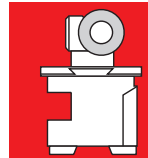
D	X	U	V°
40	1.5 2 3	5	70
75	1.5 2 3	6	45 70
75	1.5 2 3	10	70
90	1.5 2 3	6	70
90	1.5 2 3	10	70
100	1.5 2 3	6	45 70
100	1.5 2 3	10	70
125	1.5 2 3	6	45
125	1.5 2 3	10	45 70
125	5	10	80

1FF1

D x T x X/R x H
 Grinding tool - disc



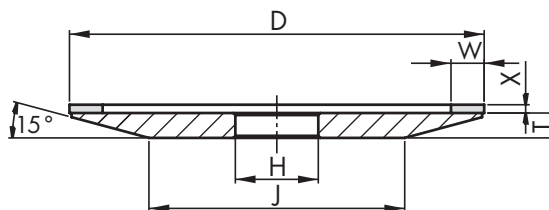
D	R	X	T
75	2	2	4
75	4	2	8
125	3	2	6
125	4	2	8
125	8	2	16
150	2.5	2	5
150	10	2	20



4A2

D x W x X x H

Grinding tool - disc

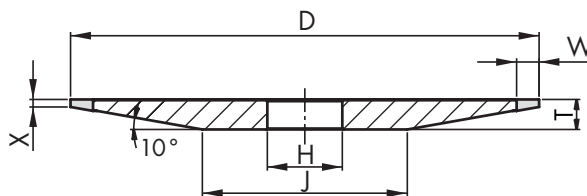


D	X	T	J
75	2 3 4	6	37 40 44
100	2 3 4	8	47 50 54
125	2 3 4	8	72 75 79
150	2 3 4	8	97 100 104
175	2 3 4	10	107 111 114

4ET9

D x W x X x H

Grinding tool - disc



D	X	W	T	J
50	1	6	4	14
50	1 2	5	4	14 25
75	1 2	6	5	27 39
100	1 2	6	6	41 52
125	1 2	6	8	43 55
125	1 2	6	8	43 55
150	1 2	6 10	10	43 57

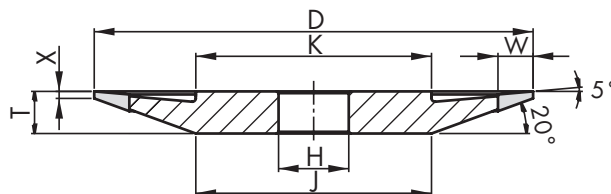
04



Tool grinding and sharpening

4BT9

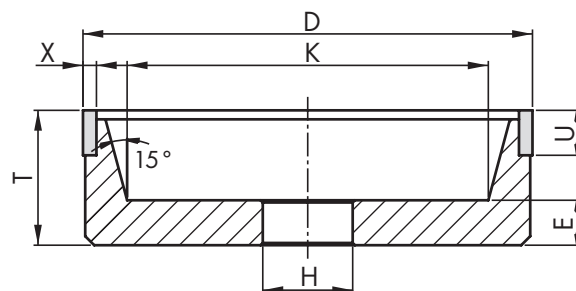
D x W x X x H
 Grinding tool - disc



D	X	W	T	J
50	12	10	6	20 26
75	12	6 10	8	34 40
100	12	6 10	10	48 54
125	12	6 10	12	62 68
150	12	6 10	14	76 82

6A9

D x X x U x H
 Grinding tool - cup



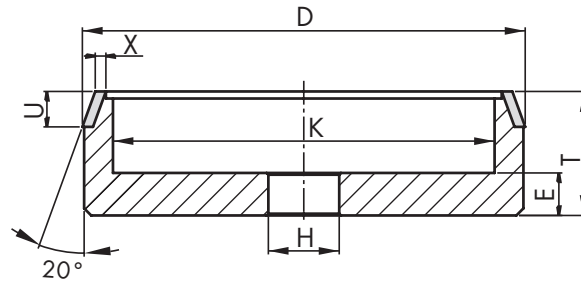
D	X	U	T	E	K
50	2 3	6 10	20	8	37 35
75	2 3	6 10	25	10	60 58
100	2 3	6 10	30	10	82 80
125	2 3 4	6 10	30	10	107 105 103
150	2 3 4	6 10	35	10	130 128 126

The standard bore diameter (H) is $\varnothing 20$ H7; other diameters and grinding tools of other dimensions are manufactured to order.



6V9

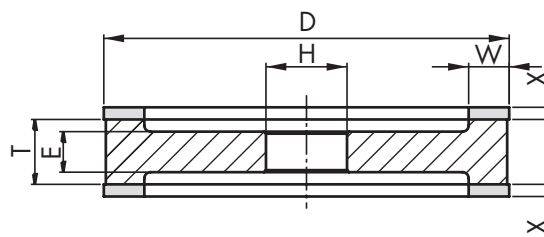
D x X x U x H
 Grinding tool - cup



D	X	U	T	E	K
75	2	6	25	8	63
75	3	6	25	8	61
75	2	10	25	8	60
75	3	10	25	8	58
100	2	6	30	10	88
100	3	6	30	10	86
100	2	10	30	10	85
100	3	10	30	10	83
125	2	6	35	10	113
125	3	6	35	10	111
125	2	10	35	10	110
125	3	10	35	10	108
150	2	10	35	10	135
150	3	10	35	10	133

9A3

D x W x X x H
 Grinding tool - disc



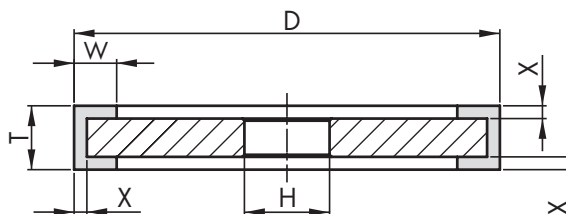
D	W	X	T	E
75	6	2 3 4	22	10
100	6 10	2 3 4	22	10
125	6 10	2 3 4	22	10
150	10 15	2 3 4	25	14
175	6 10 15	2 3 4	25	14
200	10 15	3 4	30	18



Tool grinding and sharpening

9U1

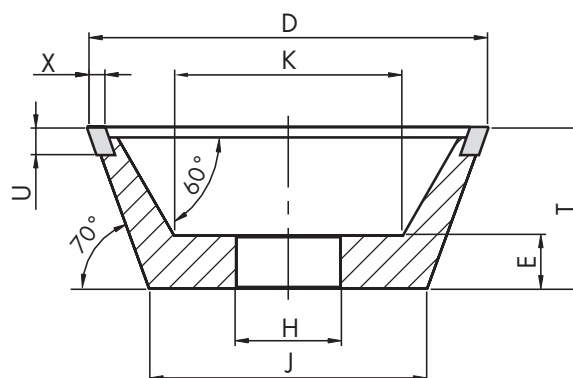
D x T x W x X x H
 Grinding tool - disc



D	T	W	X
75	10 15	6 10	2 3
100	10 15	6 10	2 3
125	10 15	6 10	2 3
150	10 15	6 10	2 3

11V9

D x X x U x H
 Grinding tool - conical cup



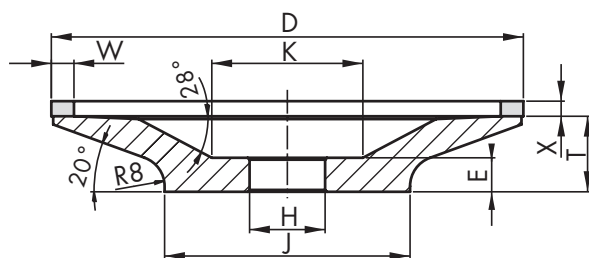
D	X	U	T	E	K	J
40	1.5 2 3	5	18	8	22 21 19	26
50	2 3	5	20	8	29 27	34
75	1.5 2 3	6 10	30	10	46 45 43	52
90	1.5 2 3	6 10	35	10	55 54 52	64
100	1.5 2 3	6 10	35	10	65 64 62	74
125	1.5 2 3	6 10	40	10	84 83 81	95
150	1.5 2 3	6 10	50	10	98 97 95	113



Tool grinding and sharpening

12A2-45°S

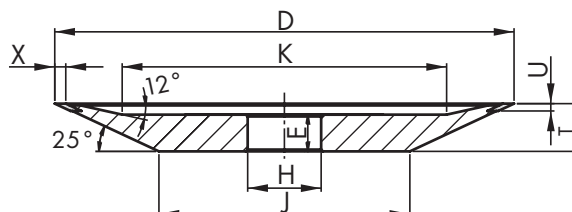
D x W x X x H
 Grinding tool - plate



D	X	W	T	E	K	J
100	2 3 4	6	18	8	34	49
125	2 3 4	6	19	9	56	74
150	2 3 4	6	20	10	78	99
175	2 3 4	6	20	10	93	114
200	2 3 4	6	21	11	128	149

12V9-25°

D x X x U x H
 Grinding tool - plate

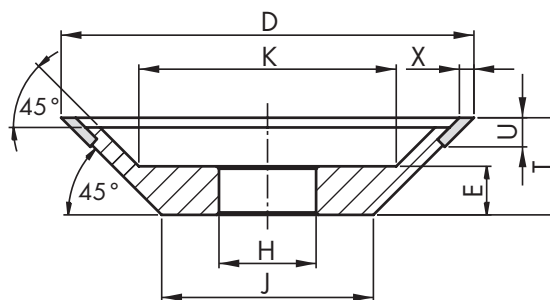


D	X	U	T	E	K	J
100	3	2	12	10	72	50
125	3	2	13	10	88	70
150	3	3	16	10	86	82



12V9-45°

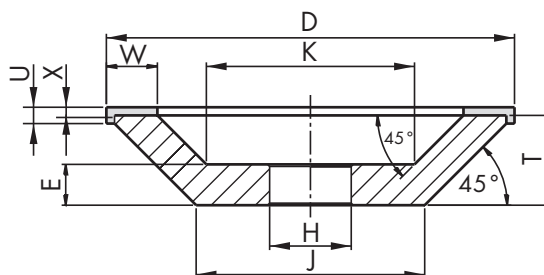
D x X x U x H
 Grinding tool - cup



D	X	U	T	E	K			J
50	2	5	15	8	26			19
75	1.5 2 3	6	20	8	42 41	39		34
85	1.5 2 3	6	20	10	56 55	53		44
100	1.5 2 3	6 10	20	10	71 70	68		59
125	1.5 2 3	6 10	25	10	86 85	83		74
150	1.5 2 3	6 10	25	10	111 110	108		99
175	1.5 2 3	6 10	25	10	136 135	133		124

12C9

D x W x X/U x H
 Grinding tool - cup



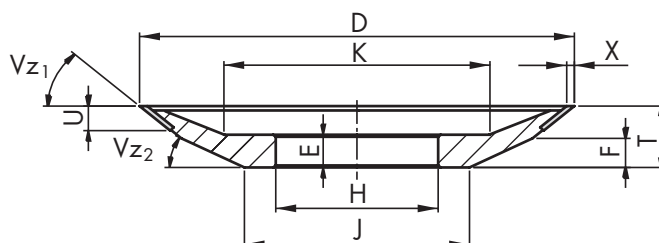
D	X	W	T	E	U	K			J
50	1	3 5	18	10	2	28 24			14
75	2	6 8 10	22	10	4	39 35	31		31
100	2	6 8 10 12.5	22	10	4	64 60	56 51		56
125	2	6 8 10 12.5	22	10	4	89 85	81 76		81
150	2	8 10 12.5 15	22	10	4	110 106	101 96		106



Tool grinding and sharpening

15V9

D x X x U x H
 Grinding tool - plate



D	X	U	T	E	K	Vz ₁	Vz ₂	V _n	J ₁	F	J
85	2	6	15	8	52	45	30	27	69	7	45
75	2	6	13	6	38	45	30	22	59	5	43
75	3	6	13	6	38	45	30	25	59	5	43
100	2	6	20	11	57	45	30	25	84	12	42
100	3	6	20	11	57	45	30	27	84	12	42
150	2	6	20	11	76	30	20	14	122	12	56
150	3	6	20	11	76	30	20	15	122	12	56
150	2	6	20	11	79	45	30	14	134	12	92
150	3	6	20	11	79	45	30	15	134	12	92
175	2	8	25	11	85	45	30	18	155	15	103
200	2	6	25	11	95	45	30	15	184	17	125

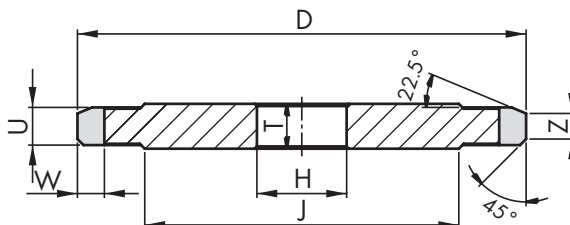




Tool grinding and sharpening (product range for wood)

1SM

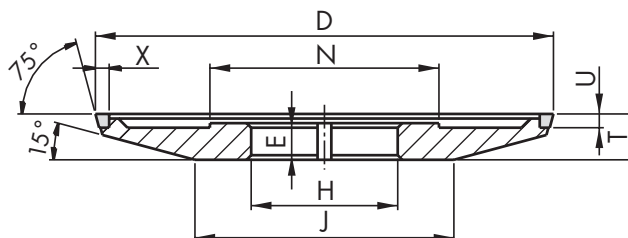
D x W x U/Z x H
 Grinding tool - disc



	d	D	Z	W	T	U	J
drill diameter of the key insertion device	4	75	0.9	6	4.5	7	51
	6	75	1.9	6	4.5	7	51
	8	75	2.8	6	5	7	51
	10	75	3.7	6	6.4	7	51
	12	75	4.7	6	7.4	7	51
	14	75	5.7	6	8.4	7	51

VD-4B9

D x X x U x H
 Grinding tool - disc



D	U	X	H	T	E	N
75	3	3	*	10	8	50
100	1.8	3	*	9	8.2	50
100	3	3	*	10	8	50
100	3.8	3	*	10	7.2	50
100	4	4.5	*	10	7	50
125	1.8	3	*	12	11.2	62
125	3.8	3	*	14	11.2	62
150	1.8	3	*	12	11.2	75
150	3.8	3	*	14	11.2	75

* Variants with H=25 and 3x5 groove (designated as VD), and H=32 without groove (designated as VB), are used the most. Other bore variants with nonstandard U and X values are made to order.

The standard bore diameter (H) is $\varnothing 20$ H7; other diameters and grinding tools of other dimensions are manufactured to order.

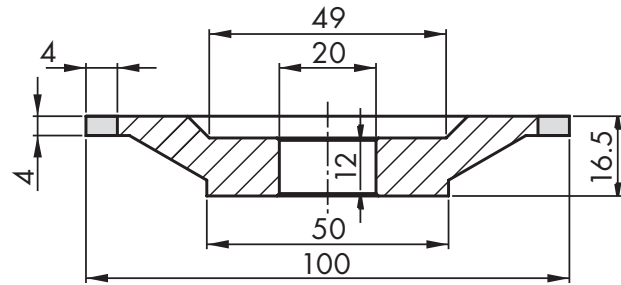
04



Tool grinding and sharpening (product range for wood)

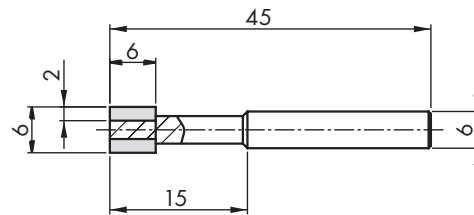
VD-12A1

Grinding tool - plate



US-1A1W

Grinding tool - mounted point



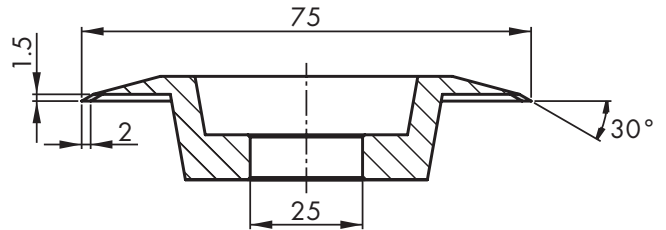
04



Tool grinding and sharpening (product range for wood)

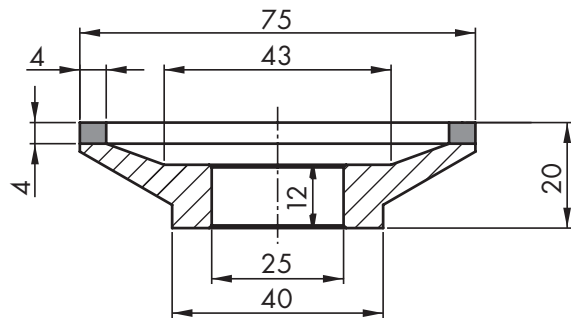
LL-11V2

Grinding tool



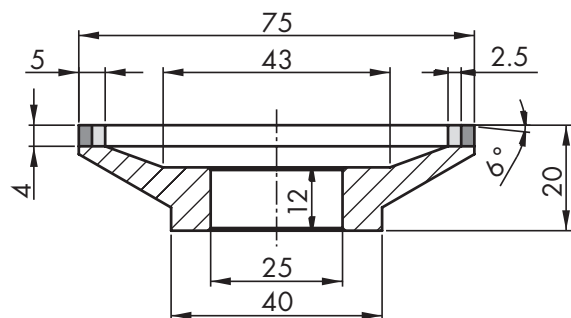
LL-12A2

Grinding tool - plate



LL-12A2-DV

Grinding tool - plate







The standard bore diameter (H) is $\text{Ø}20 \text{ H7}$; other diameters and grinding tools of other dimensions are manufactured to order.

Quality of grinding tools for tool grinding and sharpening

04



Ground material	Grit type	Grit size	Bond	Concentration	Notes
Steels  Tool steel High-speed steels (HSS)	B B	46 - 126 46 - 126	BME , V80 BMRT, V80	100 - 125 100 - 125	V80 for wet grinding
Hard metals  Tungsten carbides	D	46 - 151	BMR, BMRT V80	75 - 125	
PCD,PCBN 	D	10 - 30 microns	RJK, BR	100 - 125	
Stellites 	B	64 -126	BMR, BMRT	75 - 100	



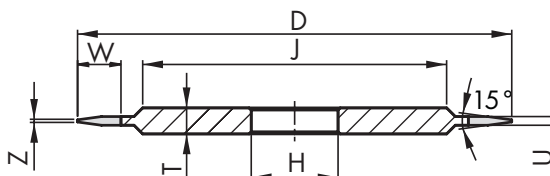
05



Profile grinding

14E1

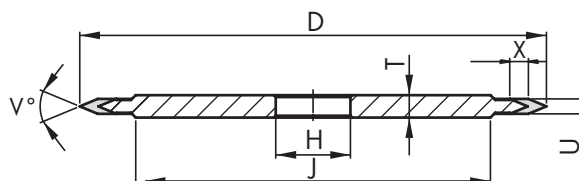
D x W x Z x H
 Grinding tool - disc



D	W	Z	T	J	U	V°
100	10	0.5	7	70	3	15
125	10	0.5	7	95	3	15
150	10	0.5	7	120	3	15

14EE1

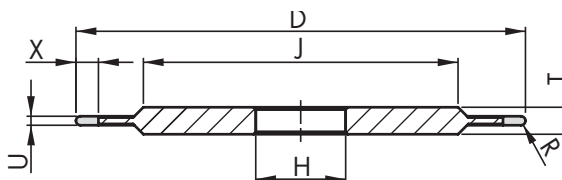
D x U x X/V° x H
 Grinding tool - disc



D	U	X	V°	J	T
125	4	5	45	95	6
150	4	3	90	120	6

14F1

D x U x X/R x H
 Grinding tool - disc



D	U	X	T	J
50	2 3 4 5	3 5	6	30
75	2 3 4 5	3 5	6	50
100	2 3 4 5	3 5	6	70
125	2 3 4 5	3 5	6	95
150	2 3 4 5	3 5	6	120
175	2 3 4 5	3 5	6	140
200	2 3 4 5	3 5	10	160
250	2 3 4 5	5 8	10	200



*Produced on steel cores

The standard bore diameter (H) is Ø20 H7; other diameters and grinding tools of other dimensions are manufactured to order.

Quality of grinding tools for profile grinding

05



Ground material	Grit type	Grit size	Bond	Concentration	Notes
Steels 	Tool steel	B	76 - 151	BMEG, V80	V80 for wet grinding
	High-speed steels (HSS)	B	76 - 151	BMRG, V80	
Hard metals 	Tungsten carbides	D	46 - 151	BM4R, V80	100 - 125

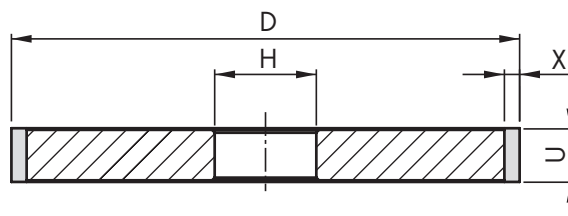




CNC tool grinding

1A1

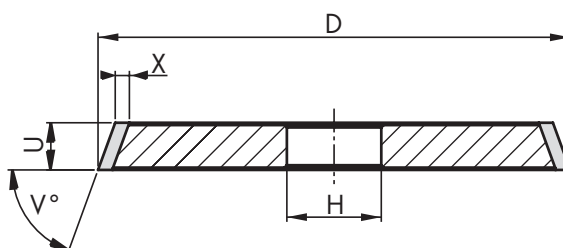
D x U x X
 Grinding tool - disc



D	U	X	H
75	10	5	20 31.75
100	10 12 15	5 10	20 31.75
125	10 12 15	5 10	20 31.75
150	10 12 15	5 10	20 31.75

1V1

D x U x X
 Grinding tool - disc



D	U	X	V°	H
75	6	3	45 70	20 31.75
75	10	3 5	70	20 31.75
100	6	3	45 70	20 31.75
100	10	3 5	70	20 31.75
125	6	3	45	20 31.75
125	10	3	45 70	20 31.75
125	10	5	80	20 31.75
125	12	5	75	20 31.75
125	15	5	70	20 31.75
150	10	3	45 70	20 31.75