JAIN PRECISION TOOLS

Manufacturer of High Quality Diamond Tools
and Diamond Grinding Wheels

PRODUCT CATALOGUE

PROFILE

JAIN PRECISION TOOLS (JPT) has been found on the determination to make a conspicuous commitment to serve high quality of Diamond And CBN Grinding wheels.

Established in the year 1984 in Aurangabad Jain Precision Tools (JPT) has full-fledged sophisticated manufacturing plant of its own to give customers the highest degree of service. JPT's Research and Development team is continuously engaged in developing high Quality & to enhance life of the diamond/CBN tool.

Our QC system starts at the raw materials, and involves also checking components and finished products. We use a management philosophy that combines technology, creativity and reliability to better serve you.

Uncompromising quality and high manufacturing standards for making diamond and cbn tools, is something Jain Precision Tools passionately believes in. Moreover it distinguishes itself as offering unique and innovative customized solutions for its clients. And due to this pride we deliver diamond and cbn tools with highest customer satisfaction.

Diamond and CBN

Products like Carbide, Stainless or High-speed steel end mills, drills, punches, reamers and hole saws require multiple steps in manufacturing for same we are offering all types of Diamond / CBN wheels that comply with FEPA standards and that are used on CNC machines such as Walters, Rollomatic, ANCA, Royces, Wendt, TGT, WIDMA etc. in the following industries / applications:

- Rotary Tools- Cutting Tool Industries
- Wood Working Tools
- Tool Re-sharpening / Restoring
- Optical Profile Grinding

General Information

Diamond

Diamond is the hardest abrasive material in the world known to man. Almost 90% of the diamonds nowadays used in grinding tools are manufactured synthetically. The basic material is graphite which is transformed into the crystal lattice of the diamond with the aid of pressure and temperature in the presence of catalysts. On account of the controlled synthesis it is possible to produce diamonds with specific grinding properties for the most diverse bonding systems and grinding operations.

In metal bonds the diamonds are usually employed without a covering, with resin bonds, diamonds coated in nickel and copper are used in the majority of cases.
Synthetic diamonds are produced in diverse qualities and grit sizes

CBN

Cubic crystalline boron nitride presently is the second hardest material after diamonds. It is synthesized from the hexagonal boron nitride (a nitrogen boron compound) under pressure and temperature in the presence of catalysts, similar as Diamond is synthesized. Also cubic crystalline boron nitride is available in diverse qualities and grit sizes, and nickel-coated. The preferred application of CBN is grinding HSS qualities and of hardened steels Crystal.

Grit sizs acc. To FEPA

Diamond	Cbn	FEPA PN-85/M-59108 (um)	US STANDARD ASTM E-11 (mesh)
D181	B181	180/150	80/100
D151	B151	150/125	100/120
D126	B126	125/106	120/140
D107	B107	106/90	140/170
D91	B91	90/75	170/200
D76	B76	75/63	200/230
D64	B64	63/53	230/270
D54	B54	53/45	270/325
D46	B46	45/38	325/400

Grade

Just like conventional wheels made of aluminum oxide (Al2O3) or silicon carbide (SiC), diamond and

CBN wheels are assigned a letter to indicate the grade (hardness) of the grinding wheel, with letters nearest to the beginning of the alphabet being softer and those nearest the end being harder. Unlike conventional grinding wheels, where the cutting action of the wheel is controlled mostly by the grade (hardness) of the wheel, the cutting action of diamond and CBN wheels is mainly determined by the grit size and the concentration of the abrasive section. The terms “hard” and “soft” are a bit misleading when applied to resin bonded superabrasives. It is more accurate to speak in terms of cutting action versus durability than in terms of hard versus soft.

Softer	L
	N
	P
	R
	S
Harder	T

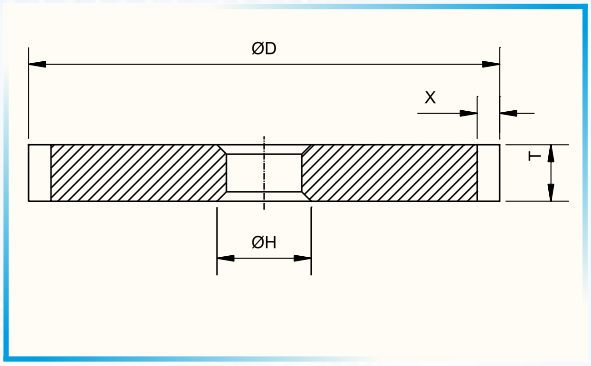
Concentration

The concentration value defines the volume fraction of diamond or CBN in the abrasive layer. Low concentration wheels have less diamond or CBN in the abrasive layer than higher concentration wheels. A low concentration wheel will cut more freely and remove material more rapidly. A high concentration wheel will hold its shape better, will have longer overall life and will tend to produce a better surface finish. The concentration should be chosen to suit the application, and a higher concentration wheel is not in all cases a better value.

Lower	25
	37
	50
	75
	100
Higher	125

Low Concentrations	Medium Concentrations	High Concentrations
(25, 37)	(50, 75):	(100, 125):
o With ultra-fine grit sizes.	o With fine grit sizes.	o With coarser grit sizes
o For very wide areas of contact.	o For improved cutting action.	o For improved form holding
o For very heat sensitive materials	o For wide areas of contact.	o For creep-feed grinding

SHAPE 1A1



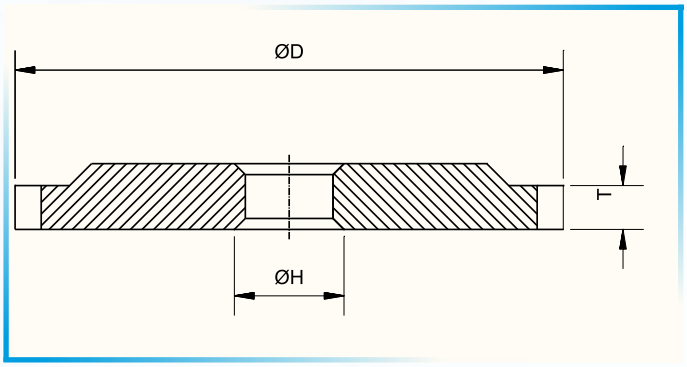
D	T	X		H
		Resin Bond	Metal Bond	
75	6 - 8 - 10 - 12	2 - 3 - 4 - 5 - 6 - 8 - 10	1 - 2 - 3	Please specify
100	6 - 8 - 10 - 12	2 - 3 - 4 - 5 - 6 - 8 - 10	1 - 2 - 3	Please specify
125	8 - 10 - 12 - 15	2 - 3 - 4 - 5		
125	8 - 10 - 12 - 15	6 - 8 - 10 – 12.5	1 - 2 - 3	Please specify
150	8 - 10 - 12 - 15 -20	2 - 3 - 4 - 5 - 6	1 - 2 - 3	Please specify
150	8 - 10 - 12 - 15 -20	8 - 10 – 12.5 - 15		
175	10 - 12 - 15 - 20	2 - 3 - 4 - 5	1 - 2 - 3	Please specify
200	10 - 12 - 15 - 20 -25	2 - 3 - 4 - 5 - 6	1 - 2 - 3	Please specify
220	12 - 15 - 20	2 - 3 - 4 - 5	1 - 2 - 3	Please specify
250	15 - 20 - 25 - 30	2 - 3 - 4 - 5		
250	15 - 20 - 25 - 30	2 - 3 - 4 - 5	1.5 - 2 - 3	Please specify
300	15 - 20 - 25 - 30	2 - 3 - 4 - 5 - 6	1.5 - 2 - 3	Please specify
300	15 - 20 - 25 - 30			
350	20 - 25 - 30	2 - 3 - 4 - 5 - 6	1.5 - 2 - 3	Please specify
350	20 - 25 - 30 - 40-50			
400	25 - 30-40 - 50	2 - 3 - 4 - 5 - 6	1.5 - 2 - 3	Please specify

Ordering example

Shape	D	T	X	H	Grit	Bond	Concentration
1A1	300	20	2	120	D126	JPT	C75

**Any layer width may be manufactured from 0.1 mm upwards.

SHAPE 3A1



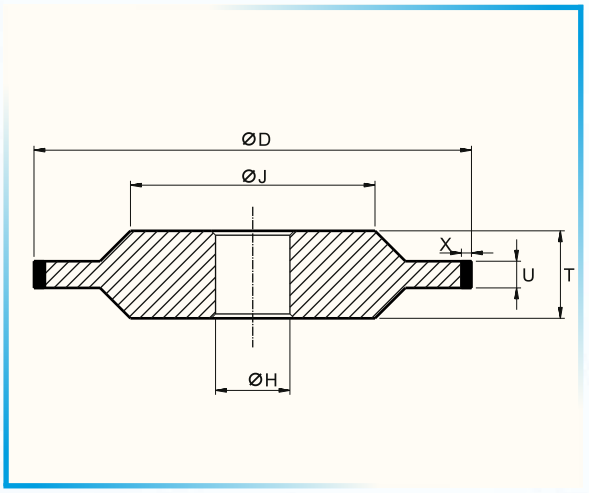
D	X	T	J	H
	Resin/Metal			
100	5	6	70	PLEASE SPECIFY
125	5	6	85	
150	5	6	100	

Ordering example

Shape	D	U	X	J	H	grit	bond	concentration
3A1	125	5	6	85	32	D91	JPT	C50

**Any layer width may be manufactured from 0.1 mm upwards.

SHAPE 14A1



D	U	X		H	T	J
		Resin Bond	Metal Bond			
75	1-2	3-6	3-6	PLEASE SPECIFY	6	50
75	3-4-5	2-3-4-6	1-2-3			
100	1-2	3-6	3-6		6	80
100	2-3-4	2-3-4-6-8-10	1-2-3		7	70
125	3-4-5-6	2-3-4-6-8-10	1-2-3		7	100
150	1-2	3-6	3-6		8	130
150	3-4-5-6	2-3-4-6-8-10	1-2-3		8	120
175	1-2	3-6	3-6		10	150
175	3-4-5-6-8	2-3-4-6-8-10	1-2-3		10	140
200	1-2	6	6		12	175
200	3-4-5-6-8	2-3-4-5-6	1-2-3		12	160
200	3-4-5-6-8	8-10-15	1-2-3		12	160
225	6-8-10	2-3-4-5	2-3-4		12	180
250	6-8-10-12	2-3-4-5	1.5-2-3		15	200
300	8-10-12	2-3-4-5-6	1.5-2-3		15	250
350	10-12-15	2-3-4-5-6	1.5-2-3		20	300
400	10-12-15-20	2-3-4-5-6	1.5-2-3		25	350
450	10-12-15-20	2-3-4-5-6			25	400

Ordering example

Shape	D	U	X	H	grit	bond	concentration
14A1	300	12	3	127	D126	jpt	C100

**Any layer width may be manufactured from 0.1 mm upwards.

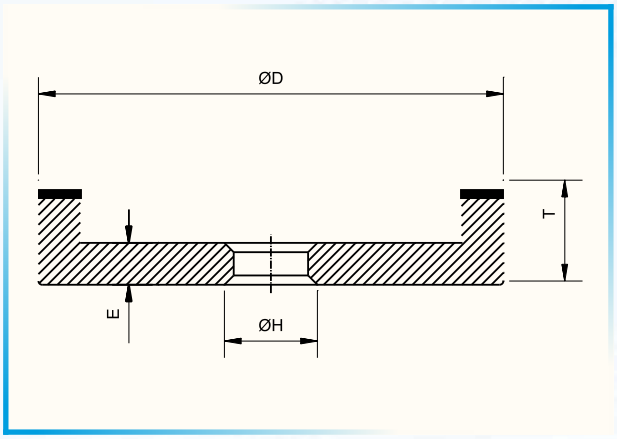
SHAPE 6A2 WHEEL

D	W	X		H	T-X	E
		RESIN BOND	METAL BOND			
50	5-6-8-10	2-3	1-2-3	PLEASE SPECIFY	20	10
75	5-6-8-10	2-3	1-2-3		20	10
100	5-6-8-10-12-15	2-3-4-6	1-2-3		23	10
125	5-6-8-10-12-15-20-25	2-3-4-6	1-2-3		23	10
150	6-8-10-12-15-20-25	2-3-4-6-8	1-2-3		23	10
175	6-8-10-12-15-20-25	2-3-4-6-8	1-2-3		25	12
200	6-8-10-15-20-25	2-3-4-6-8	1-2-3		25	13
250	6-8-10-15	3-4-6-8	1-2-3		30	15
300	8-10-12	3-4-6-8-10	1-2-3		35	20

Ordering example

Shape	D	W	X	H	grit	bond	concentration
6A2	150	6	2	20	D126	JPT	C125

**Any layer width may be manufactured from 0.1 mm upwards.



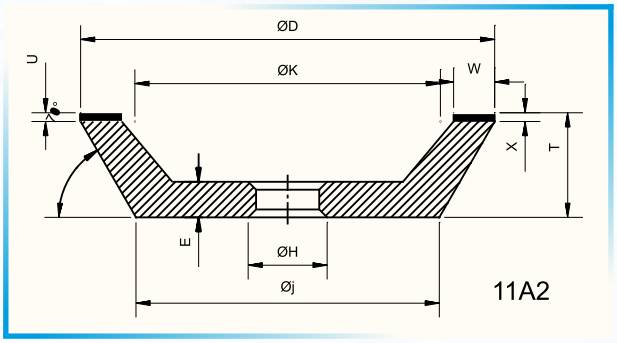
SHAPE 11A2

D	W	X		H	T-X	E
		RESIN BOND	METAL BOND			
50	3-5	2	1	PLEASE SPECIFY	20	8
75	3-6-10	or	or		20	10
100	6-8-10	3	2		20	10
125	6-8-10-12,5-15	or	or		23	10
150	6-8-10-12,5-15	4	3		23	10

Ordering example

Shape	D	W	X	H	grift	bond	concentration
11A2	125	12,5	2	20	D64	jpt	C50

**Any layer width may be manufactured from 0.1 mm upwards.

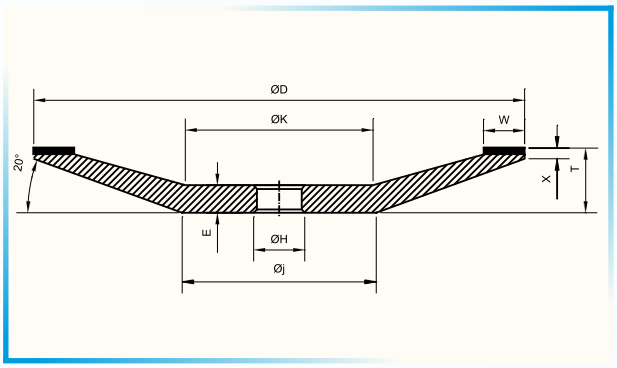


SHAPE 12A2\20⁰

D	W	X		H	T-X	E
		RESIN BOND	METAL BOND			
75	3-5-6-8-10	2-3-4	1-2-3	PLEASE SPECIFY	8	5
100	3-6-8-10	2-3-4	1-2-3		10	6
125	5-6-8-10	2-3-4	1-2-3		14	8
150	5-6-8-10	2-3-4	1-2-3		16	9
200	6-10	2-3-4	1-2-3		18	10
250	6-10	2-3-4	1-2-3		20	11
225	6-10	2-3-4	1-2-3		23	13

Ordering example

Shape	D	W	X	H	grift	bond	concentration
12A2\20	150	6	3	20	D126	jpt	C125

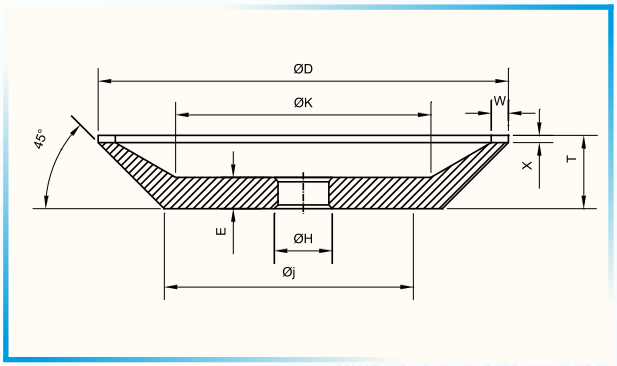


SHAPE 12A2\45⁰

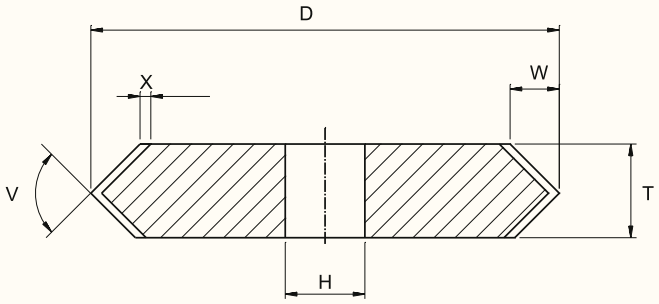
D	W	X		H	T-X	E
		RESIN BOND	METAL BOND			
50	3-5	2-3-4	1-2-3	PLEASE SPECIFY	15	8
75	3-6-10	2-3-4	1-2-3		20	9
100	4-6-10	2-3-4	1-2-3		23	10
125	5-6-8-10 -12.5-15	2-3-4	1-2-3		23	10
150	6-8-10 -12.5-15	2-3-4	1-2-3		23	10

Ordering example

Shape	D	W	X	H	grift	bond	concentration
12A2\45	150	6	3	20	D126	jpt	C125



SHAPE 1EE1 WHEEL



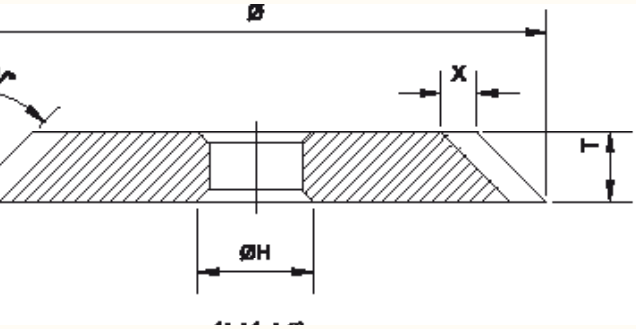
D	T	X	V	H
		Resin/Metal		
100	6	3	90	
		4	60	
		5	45	
		6	35	
125	6	3	90	
		4	60	
		5	45	
		6	35	
150	6	3	90	PLEASE
		4	60	SPECIFY
		5	45	
		6	35	
175	8	3	90	
		4	60	
		5	45	
		6	35	

Ordering example

Shape	D	T	X	H	V	Grit	Bond	C
1EE1	125	6	5	32	60	D64	JPT	C50

**Any layer width may be manufactured from 0.1 mm upwards.

SHAPE 1V1



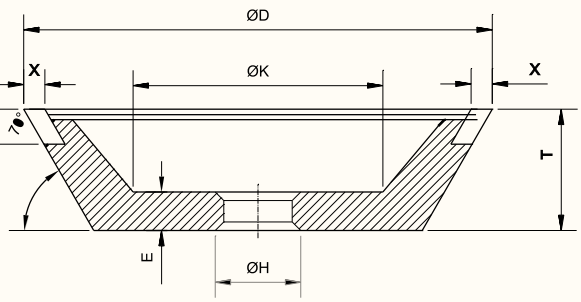
D	X		V°	H	T
	RESIN BOND	METAL BOND			
50	2-10		20°		6
75		1	to		6
100			89⁰		8
125	DEPENDING	or		Please	8
150	ON MOULD			specify	8
175		2			10
200					12
250		or			15
300		3			15

Ordering example

Shape	D	U	X	H	V	grit	Bond	Concentration
1V1	150	6	3	32	30	B100	JPT	C100

**Any layer width may be manufactured from 0.1 mm upwards.

SHAPE 11V9



D	X	U	H	T	J
	RESIN BOND/METAL BOND				
20	2	5		15	8
30	2	5		17	8
40	2	10		25	8
50	2	10	Please	30	10
75	1.5-2-3	10	specify	30	10
100	1.5-2-3	10		35	10
100	4-5	10		35	10
125	1.5-2-3	10		40	10
150	1.5-2-3	10		40	10
175	3	10		Specify	12
200	3	10		Specify	12

Ordering example

Shape	D	X	U	H	grit	bond	concentration
11V9	150	3	10	20	D64	JPT	C100

**Any layer width may be manufactured from 0.1 mm upwards.

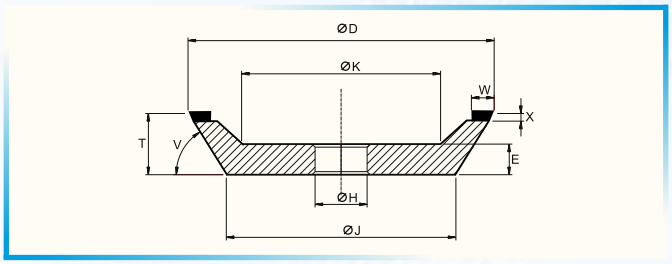
11V2 WHEEL

D	W	X	H	T	E
		RESIN BOND			
30	2	2-3-4	PLEASE	20	8
40	2	2-3-4	SPECIFY	20	9
75	4	2-3-4		30	10
100	4	2-3-4		30	10

Ordering example

shape	D	W	X	H	grit	bond	concentration
11V2	100	4	3	20	D126	JPT	C125

**Any layer width may be manufactured from 0.1 mm upwards.

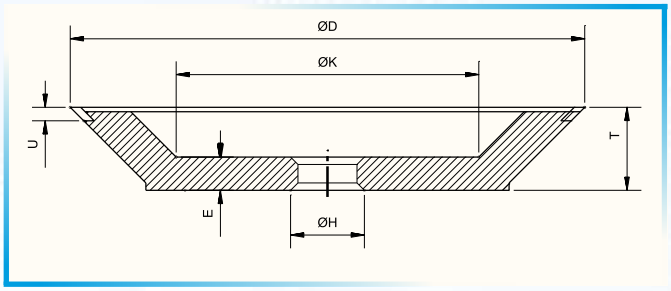


12V9 WHEEL

D	U	X	T	H
		Resin/Metal		
50	6-10	2-3	20	PLEASE
75	6-10	2-3	20	SPECIFY
100	6-10	2-3-4	20	
125	6-10	2-3-4	25	
150	6-10	2-3-4	25	

Ordering example

Shape	D	U	X	T	H	Grit	Bond	C
12V9	125	6	3	25	60	D64	JPT	C100



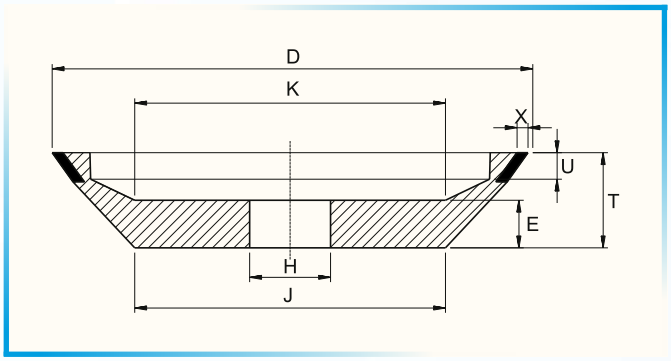
15V9 WHEEL

D	U	X	T	H
		Resin/Metal		
100	6-10	2-3	25	PLEASE
125	6-10	2-3	25	SPECIFY
150	6-10	2-3	25	
175	6-10	2-3	25	
200	6-10	2-3	25	
225	6-10	2-3	25	

Ordering example

Shape	D	U	X	T	H	grit	bond	C
15V9	200	6	3	25	32	D64	JPT	C125

**Any layer width may be manufactured from 0.1 mm upwards.



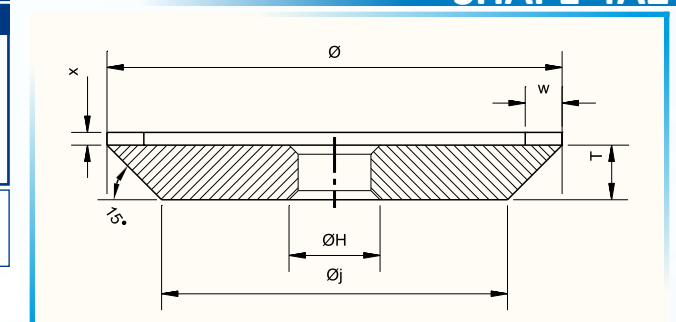
SHAPE 4A2

D	W	X		E	T	H
		Resin bond	Metal bond			
75	3-4-5-6	2-3-4	1-2-3	6	E+X	
100	3-4-5-6	2-3-4	1-2-3	6	E+X	PLEASE
125	4-5-6-8	2-3-4	1-2-3	7	E+X	SPECIFY
150	4-6-8-10	2-3-4-5-6	1-2-3	9	E+X	
175	4-6-8-10	2-3-4-5-6	1-2-3	10	E+X	
200	4-6-8-10	2-3-4-5-6	1-2-3	10	E+X	

Ordering example

Shape	D	W	X	H	grit	bond	concentration
4A2	150	6	2	20	D126	JPT	C125

**Any layer width may be manufactured from 0.1 mm upwards



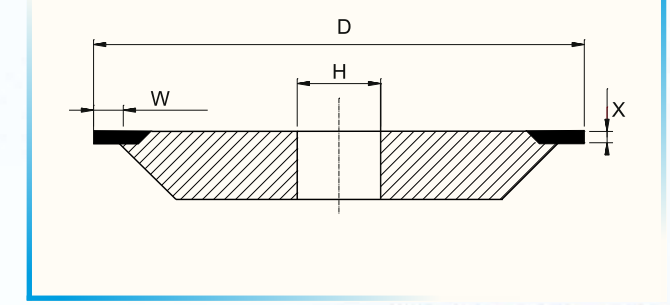
SHAPE 4A9

D	U	X	H	T
		RESIN BOND		
75	1-1.5-2-3	6		7
100	1-1.5-2-3	6	PLEASE	7
125	1-1.5-2-3	6-10	SPECIFY	8
150	1-1.5-2-3	6-10		8
164	1-1.5-2-3	10		8
175	1-1.5-2-3	10		10
200	1-1.5-2-3	6-10		10

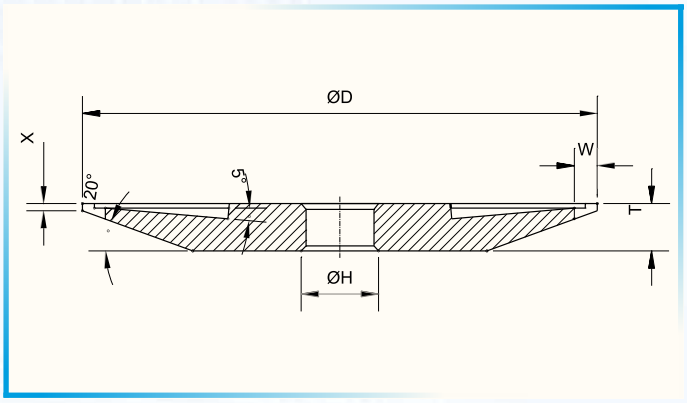
Ordering example

shape	D	U	X	H	grit	bond	concentration
4A9	100	1	6	20	D126	JPT	C100

**Any layer width may be manufactured from 0.1 mm upwards.



SHAPE 4BT9



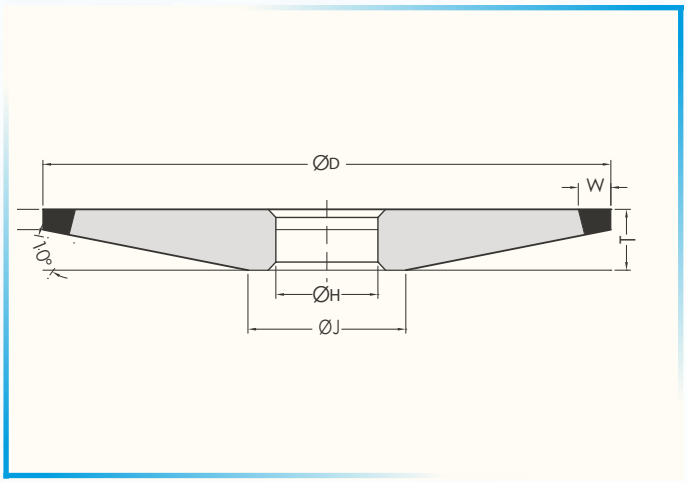
D	W	X		H	T
		RESIN BOND	METAL BOND		
45	4-6	1	1		5
60	6	1	1		8
75	6-10	1	1		8
80	6-10	1	1		8
100	6-10	1	1		10
125	6-10	1	1		12
150	6-10	1	1		15

Ordering example

shape	D	W	X	H	grit	bond	concentration
4BT9	150	6	1	32	B126	JPT	C100

**Any layer width may be manufactured from 0.1 mm upwards.

SHAPE 4ET9



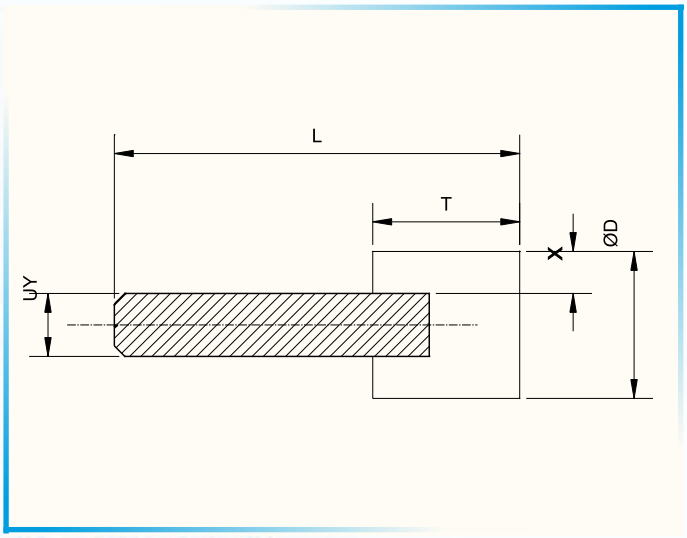
D	W	X	H	T
		RESIN BOND/METAL BOND		
75	4	1	PLEASE	6
100	4	1	SPECIFY	7
125	5	2		8
150	5	2		10

Ordering example

shape	D	W	X	H	grit	bond	concentration
4ET9	150	5	5	20	D126	JPT	C75

**Any layer width may be manufactured from 0.1 mm upwards.

SHAPE 1A1 W



D	L	Y	T	X	
				Resin	Metal
3	70	3	5	0,8	
4	70	3-6	6	1,0	1,0
5	70	3-6	6	1,2	1,2
6	70	6	8	1,8	1,8
7	70	6	8	2,0	2,0
8	70	6	8	2,0	2,0
9	70	6	10	2,2	2,2
10	70	6	10	2,5	2,5
12	70	6	10	3,0	3,0
14	70	6	10	2,0	2,0
15	70	6-8	10	2,0	2,0
16	70	6-8	10	2,0	2,0
18	70	6-8-10	10	2,0	2,0
20	70	6-8-10	10	2,0	2,0

Ordering example

Shape	D	L	Y	T	X	grit	bond	concentration
1A1 W	8	70	6	10	2,0	D100	JPT	C125

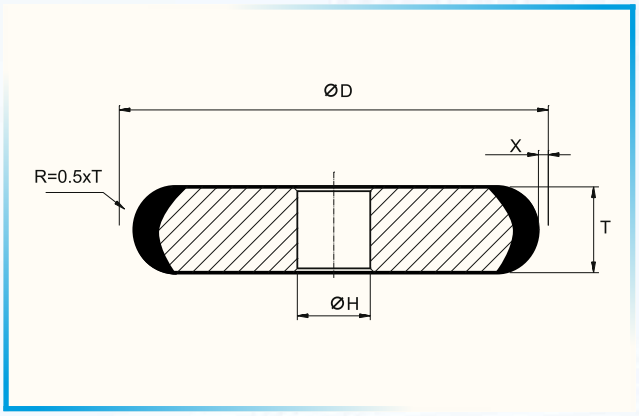
SHAPE 1FF1

D	T	R	X		H
			RESIN BOND	METAL BOND	
50	6-8-10	3-4-5	2	1	PLEASE
75	6-8-10	3-4-5	2	1	SPECIFY
100	6-8-10-12	3-4-5-6	2	1	
125	6-8-10-12	3-4-5-6	2	1	
150	6-8-10-12	3-4-5-6	2	1	

Ordering example

Shape	D	W	R	X	H	grit	bond	concentration
1FF1	150	6	/R4	1	20	D126	JPT	C75

**Any layer width may be manufactured from 0.1 mm upwards.



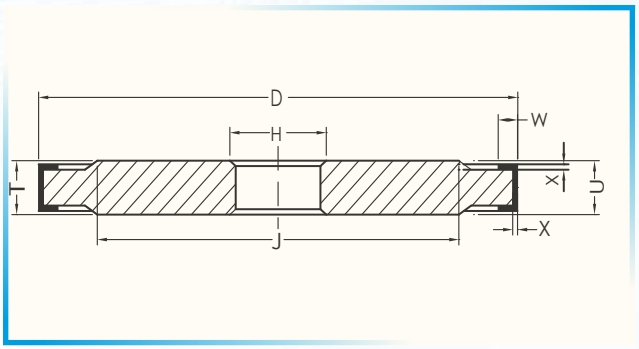
SHAPE 14U1

D	W	U	X		H	T	J
			RESIN BOND	METAL BOND			
100	6-10	4-6-10	2	1	PLEASE	8-10-12	60
125	4-6-10	6-8-10	2	1	SPECIFY	8-10-12	80
150	4-6-10	6-8-10	2	1		8-10-12	100

Ordering example

Shape	D	W	U	X	H	grit	bond	concentration
14U1	150	6	6	1	20	D126	JPT	C75

**Any layer width may be manufactured from 0.1 mm upwards.

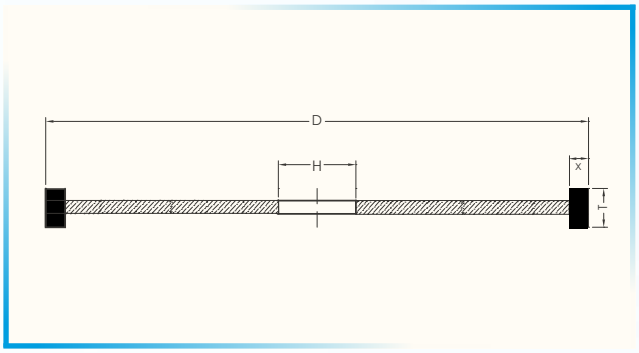


SHAPE 1A1R

D	U	X	H	E
	RESIN BOND			
75	0.8	5		0.6
75	1	5		0.8
100	0.8	5		0.6
100	1	5	PLEASE	0.8
125	1	5	SPECIFY	0.8
150	1	8		0.8
175	1.2	8		0.9
200	1.2	8		0.9

Ordering example

Shape	D	U	X	H	grit	bond	concentration
1A1R	100	1	8	20	B126	JPT	C100

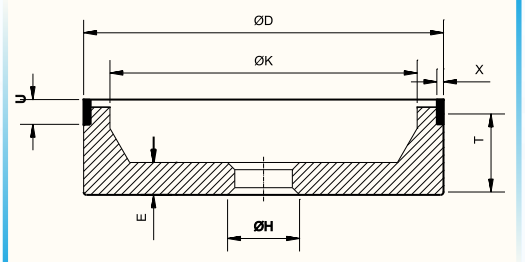


SHAPE 6A9

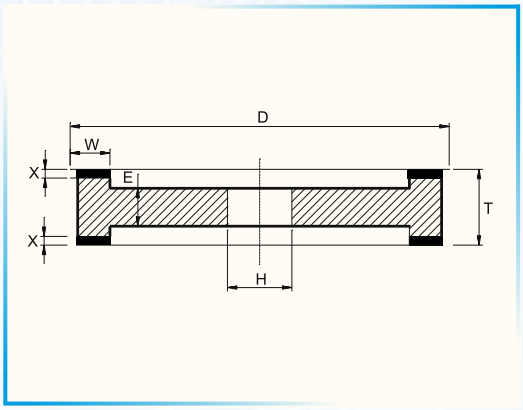
D	X		U	H	T	E
	RESIN BOND	METAL BOND				
50	1-5-2-3		6-10		25	8
75	1-5-2-3		6-10		25	10
100	1-5-2-3		6-10		30	10
125	1-5-2-3		6-10	PLEASE	30	10
150	1-5-2-3		6-10	SPECIFY	35	10
175	2-3		10		35	10
200	2-3		10		TO SPECIFICATION	TO SPECIFICATION
250	2-3		10		TO SPECIFICATION	TO SPECIFICATION
300	2-3		10		TO SPECIFICATION	TO SPECIFICATION

Ordering example

shape	D	X	U	H	grit	bond	concentration
6A 9	150	3	10	20	D64	JPT	C100



SHAPE 9A3

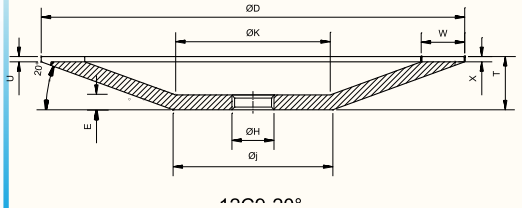


D	W	X		H	T	E
		RESIN BOND	METAL BOND			
100	6-8-10	2-3	1-2	PLEASE	22	10
125	6-8-10	2-3	1-2	SPECIFY	22	10
150	4-6-8-10-15	2-3	1-2		25 OR 35	14
175	3-4-6-8-10-15	2-3	1-2		25 OR 35	14
200	8-10-15	2-3	1-2		30	18

Ordering example

shape	D	W	X	H	T	grit	bond	concentration
9A3	150	6	3	20	35	D64	JPT	C75

SHAPE 12C9

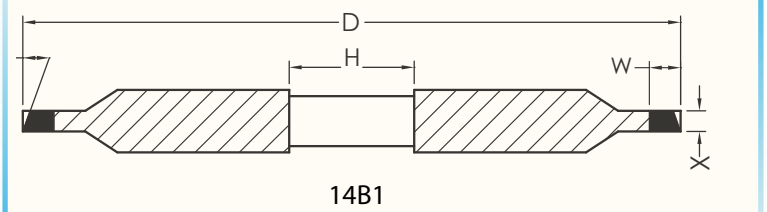


D	W	U	X		H	T	E
			RESIN BOND	METAL BOND			
100	6	4	2	1		26	10
100	10	4	2	1		26	10
100	10	4	3	2		27	10
125	6	4	2	1		26	10
125	10	4	2	1	PLEASE	26	10
125	10	4	3	2	SPECIFY	27	10
125	12.5	5	2	1		26	10
150	10	4	2	1		26	10
150	10	4	3	2		27	10
150	12.5	5	2	1		26	10
150	15	5	2	1		26	10

Ordering example

Shape	D	W	U	X	H	grit	bond	concentratio
12C9	150	10	4	3	20	D126	JPT	C75

SHAPE 14B1



14B1

D	U	X	T	H
		Resin/Metal		
80	2-3	4-5-6	6	
	4	5-6	6	
	5	6	6	
100	2-3	4-5-6	6	PLEASE
	4	5-6	6	SPECIFY
	5	6	6	
125	2-3	4-5-6	6	
	4	5-6	6	
	5	6	6	
150	2-3	4-5-6	8	
	4	5-6	8	
	5	6	8	
175	2-3-4	5-6	8	
	5	6	8	
200	2-3	5-6-7	10	
	4	6-7	10	
	5	7	10	

Ordering example

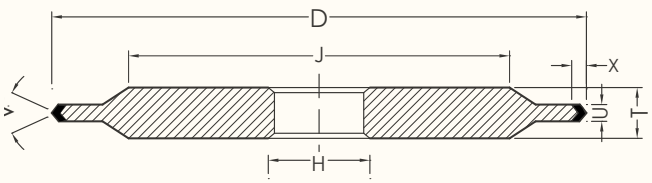
Shape	D	U	X	T	H	grit	bond	concentration
14B1	125	5	6	6	32	D64	JPT	C75

SHAPE 14EE1

D	U	X		V°	H	T	E
		RESIN BOND	METAL BOND				
100	3-4	6	3	35		6	70
100	3-4	5	2.5	45	PLEASE	6	70
100	3-4	4	2	60	SPECIFY	6	70
100	3-4	3	1.5	90		6	70
125	3-4	6	3	35		6	100
125	3-4	5	2.5	45		6	100
125	3-4	4	2	60		6	100
125	3-4	3	1.5	90		6	100
150	3-4	8	4	30		6	100
150	3-4	6	3	35		6	120
150	3-4	5	2.5	45		6	120
150	3-4	4	2	60		6	120
150	3-4	3	1.5	90		6	120
175	3-5	6	3	35		8	140
175	3-5	5	2.5	45		8	140
175	3-5	4	2	60		8	140
175	3-5	3	1	90		8	140
200	5	6	3	35		10	160
200	5	5	2.5	45		10	160
200	5	4	2	60		10	160
200	5	3	1	90		10	160

Ordering example

shape	D	U	X	H	V	grit	bond	concentration
14EE1	150	3	3	32	90	D100	JPT	C125



14EE1

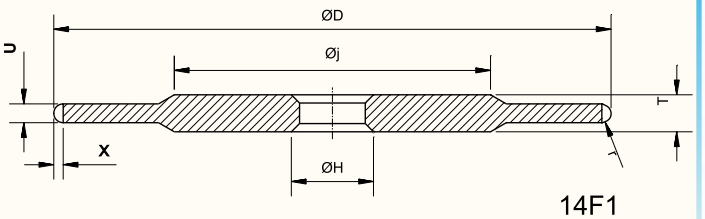
SHAPE 14F1

D	U	X	R	H	T	E
		RESIN/METAL BOND				
40	2		1		6	25
40	3	3-4-5	1.5	PLEASE	6	25
40	4		2	SPECIFY	6	25
40	5		2.5		6	25
50	2		1		6	30
50	3	3-4-5	1.5		6	30
50	4		2		6	30
50	5		2.5		6	30
75	2		1		6	50
75	3		1.5		6	50
75	4	3-4-5	2		6	50
75	5		2.5		6	50
100	2		1		6	70
100	3	3-4-5	1.5		6	70
100	4		2		6	70
100	5		2.5		6	70
125	2		1	PLEASE	8	100
125	3	3-4-5	1.5	SPECIFY	8	100
125	4		2		8	100
125	5		2.5		8	100
150	2		1		8	120
150	3		1.5		8	120
150	4	3-4-5	2		8	120
150	5		2.5		8	120

Ordering example

Shape	D	U	R	X	H	grit	bond	concentration
14F1	150	3	R1	3	32	D100	JPT	C125

*Above 175 mm will be manufacture against enquiry



14F1

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