

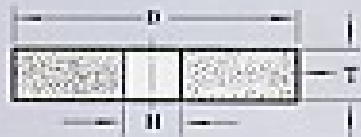
# Bonded Abrasives



# SURFACE GRINDING WHEELS & SEGMENTS


Products of this kind are usually used on horizontal reciprocating table surface grinders, vertical spindle rotary table or reciprocating table surface grinders, or horizontal spindle rotary table surface grinders materials to be ground include cast iron, nonferrous metal, soft steel, hardened steel, 300(or 400) series stainless steel, tool steel, high speed steel, die steel, malleable iron & steel castings, alnico, brass, bronze, chrome plate, etc.

The wheel's abrasive material and bond type to be chosen depend on the material to be grind.

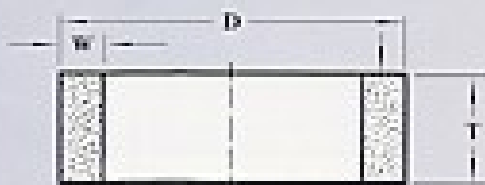


## Straight Grinding Wheels (Type 1)

Unit:mm




D	T									H	
	15	32	45	50	63	75	100	125	150		200
250	*	*									32
300		*	*	*							75,127
350		*	*	*							75,127,200
400		*	*	*	*						127
450		*	*	*	*	*					160,200
500		*	*	*	*	*	*				200
600		*	*	*	*	*	*	*			254,305
750		*	*	*	*	*	*	*	*		
900		*	*	*	*	*	*	*	*		305



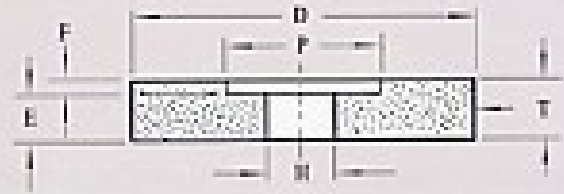
## Cylinder Wheels (Type 2)

Unit:mm



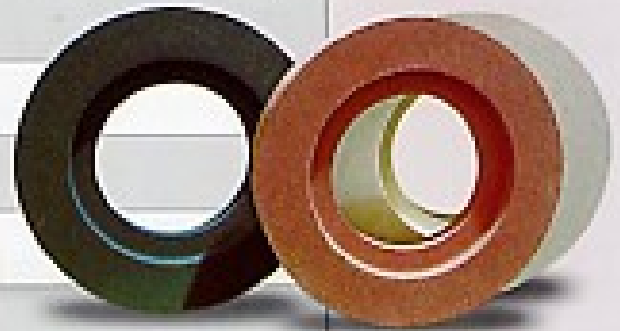
D	T	W
50	80	7.5
		10
250	125	35
		50
300	100	25
		35
350	125	50
		55
450	125	100
	150	
	125	
500	150	60
600	100	

## Grinding Wheels, Recessed on One Side (Type 5)

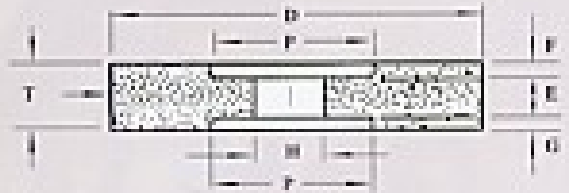


Unit:mm

D	300		350		400		500				600		
T	40	50	40	63	50	63	75	75	100	150	75	100	150
H	127	127	127	127	203	203	305	305		305		250	
P	200	200	200	200	265	265	375	375		375			
F	13	20	13	30	20	20	25	30		25			

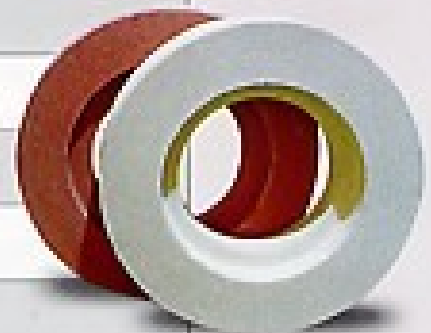


## Grinding Wheels, Recessed on Two Sides (Type 7)

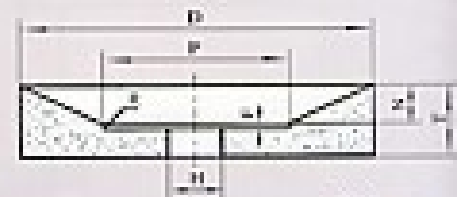


Unit:mm

D	300	350	400	500			600			750	900	900
T	50	63	50	50	63	75	100	50	63	75	100	100
H	127	127	203	305	203	305	305	305	305	305	305	305
P	200	200	265	375	265	375	375	375	375	375	375	375
F=G	10	16	10	10	16	10	16	25	16	25	16	25



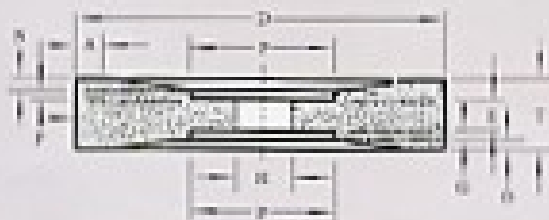
## Grinding Wheels, Dish shape & Recessed Same (Type 23)



Unit:mm

	D	T	H	P	N	R	F
	300	40.50	127	200	18	3	2
	350	50	127	265	15	3	10
	400	50	203	265	18	4	7
	500	50	203	375	17	4	8
	600	75	305	375	20	5	15
	750	75	305	500	22	5	13

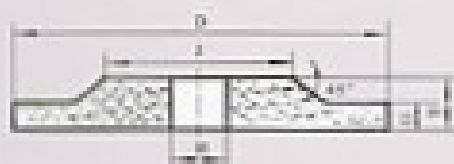




## Grinding Wheels, Dished & Recessed on both Sides (Type 26)

Units: mm

D	T	H	P	F=G	N=O
500	63,75	305	375	8	8
600	63			14	2
	75				6
750	75	500	500	5	11
900	63,75,100			2	14



## Grinding Wheels, Raised Hub on One Side (Type 38)

Units: mm

D	T	U					J	H
		6	8	10	13	16		
500	16	•	•				350	305
	20			•	•			
600	20		•	•				
	25				•	•		



## Grinding Wheels, Type 1, N Face

Units: mm

D	T	H	T <sub>1</sub>	β
600	25	305	15	45°
	32		14	44°
	40		24	
	75,100		10	20°
750	40		6	30°
	50		14	34°
	63		36	
	75		54	45°
	125		10	
	160		14	64°
	200		16	
	900		75	15
90,110,125,160,200		20		
		15	64°	



# CENTERLESS & REGULATING WHEELS



## Centerless Grinding Wheels, (Vitrified & Resinoid, Type 1 or 7)

Centimeters

D	T									H	P
	100	125	150	200	250	300	400	500	600		
300	•	•								127	200
350		•	•							127	200
400	•	•	•	•	•					203	265
450			•	•						203	265
500	•	•	•	•	•	•	•	•	•	305	375
600			•	•	•	•	•	•		305	375
750							•	•		350	435



## Centerless Rubber Regulating Wheels (Type 1 or 7)

Centimeters

D	T									H	P
	100	125	150	200	250	300	400	500	600		
200	•									75	-
250		•								127	-
300			•	•	•	•		•		127	200
350		•	•	•	•	•				127	200
		•	•	•	•	•				203	265
400				•				•		203	265
				•				•		127	200
450			•							250	265
500	•		•	•						305	375



# TOOLROOM GRINDING WHEELS

## Straight Grinding Wheels (Type 1)

D(mm)	T(mm)	H(mm)	Abrasive	Grit
100	13 thru 32	20,25	WA,A, C,GC	46 thru 220
150	13 thru 32			
200	20 thru 32			
250	20 thru 50	25,32		
300	20 thru 50	25,32,75		
350	20 thru 50			



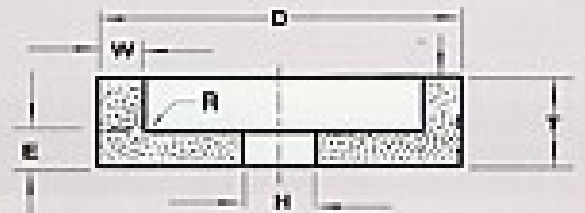
Note: Diamond & CBN Wheels are commonly used in toolroom grinding. Choice can be made with reference to the chapter "Superabrasives and its products".

## Plain (Straight) Cup Wheels (Type 6)

Unit:mm

D	T	H	W	E	R
40	25	13	4	5	3
50	32	13	5	7	3
60	32	20	5	7	3
75	40	20	5	8	3
100	50	20	7.5	10	4
125	63	32,65	7.5,12.5	13	4
150	63	65	25	25	5
			12.5	13	
	80	32	12.5	15	
200	63	32,75	15	18	5
			25	25	
250	100	150	25	25	5

Mainly used for sharpening milling cutters, reamers, expanding drills, broaches, papercutting knives, tobacco slicing knives, etc. The wheels with the diameter of 200-250mm can be used to grind the lathe tools.

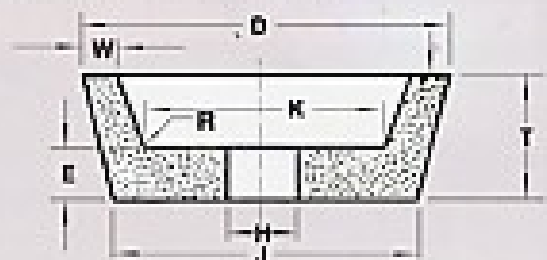


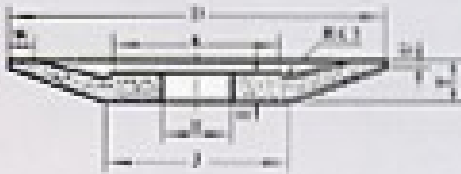
## Flaring Cup Wheels (Type 11)

Unit:mm

D	T	H	W	E	J	K	R
50	25	13	5	7	32	23	3
75	32	20		10	52	44	
100	30	20	10	10	50	40	4
			7.5		75	62	
125	35	32	10	10	66	55	
			45	13	92	75	
150	35	32	12.5	13	91	81	5
			50	10	15	114	
175	63	32	22.5	25	102	85	
200	63	32	25	25	127	106	
250	140	100	30	40	201	155	
300	150	140	35	40	247	191	

Mainly used for sharpening milling cutters, reamers, broaches, expanding drills, slotting gear tools, disc form lathe tools.





## Dish Grinding Wheels (Type 12a) ■

Mainly used for sharpening milling cutters, reamers, gear slotters and other cutting tools. The wheels of diameter exceeding 300mm are mainly used to grind gear slotters.

Unit:mm

D	T	H	K	J	W	U	R
75	8	13	30	30	4	2	5
100	10	20	40	40	6	2	6
125	13	32	50	50	6	3	8
150	16		60	60	8	4	10
200	20		80	81	10	4	12
250	25	127	100	103	13	6	15
300	28		180	181	15	4	13
350	25	127	180	193	25	4	18
400				243			
500	32	203	255	291	35	4	27
600				406		6	24
800	35	400	500	770	40	3	30

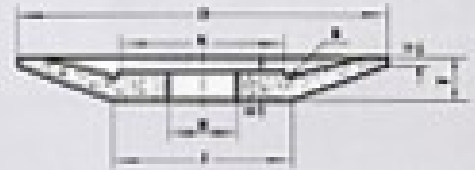


## Dish Grinding Wheels (Type 12b) ■

Mainly used for grinding gears.

Unit:mm

D	T	H	J	K	U	E	R
225	15	40	120	105	2,4,6,8	16	4
275	20	40	125	105		2,4,6,8	16
	25						
350	27	55	170	130	5,8,10,12	22	6
450	29	127	255	205		5,8,10,12	22



## C Face Straight Wheels (Type 1, C Face) ■

Mainly used for repairing and grinding all kinds of gears.

Unit:mm

D	T					H
	8	10	13	16	25	
175	•	•				32
200		•	•	•		
250		•	•	•		
300				•		32
			•	•		75
350					•	127
						127

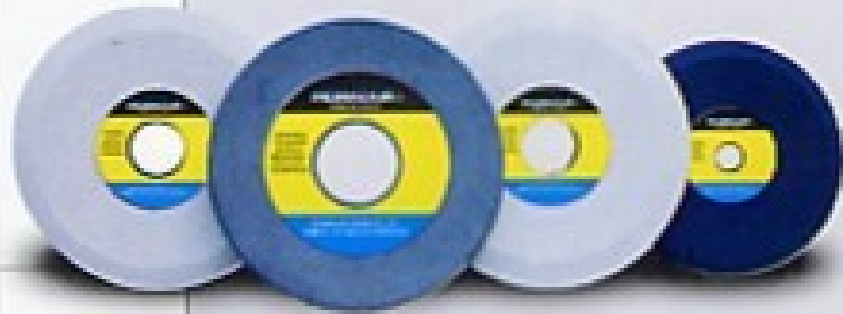
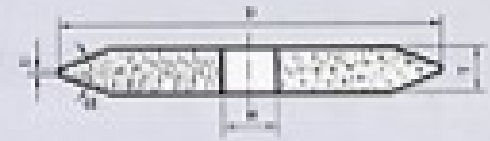


## Wheels Tapered Two Sides (Type 4)

The wheels with diameter 125mm-300mm are mainly used for grinding saw teeth. The wheels with diameter 350mm-500mm and of thickness slightly more than 13mm are mainly used for grinding single screw thread.

Unit:mm

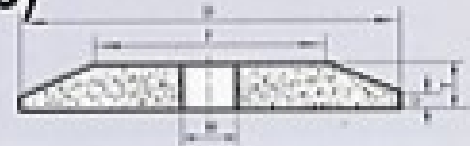
D	T	H	U	$\alpha$	
125	13	20	4	40°	
	16	20,32	4		
	20	20	6		
150	16	32	4		
	20		6		
200	13,16	75	4		
250	10,13,16	75	4		
	20,25	75	6		
300	20,32	75	11		
	25	127	6		
350	10,16,25,32	127	3		50°
	8	160			
400	8,10,13	203			
	10	305			



## Wheels Tapered One Side (Type 3)

Unit:mm

D	T	H	J	U
75	6	13	30	2
80	13	20	45	3
100	6,8	20	55	2
125	8	32	57	2
	10		65	
	10		59	
150	13	32	68	3
	6		141	
	8		118	
175	10	32	123	3
	10		127	
	13		87	
200	16	32	103	3
	10		170	
	13		136	
250	10	32,127	162	3
	13		225	
	16		203	
300	25	305	362	5
	40		540	
	50		704	



Mainly used for sharpening lathe tools, milling cutters, reamers, drills, broaches hobs and gear slotters.





# THREAD GRINDING WHEELS

The thread grinding wheels have the characteristics of uniform structure, correct hardness, geometrical precision and durable edge. Wheel of this kind are mainly used for grinding fine pitch crews, screws, studs, bolts, taps, pipe thread taps.

## Straight Thread Grinding Wheels (Type 1)

Unit:mm					
D	T	H	Bond	Speed(m/s)	Remark
350	8	160	Vitrified	45 50 60	For multi-rib thread grinding
	10				
400	8	203			
	10				
	13				
400	32	203			
450	20	229			
	25				
500	10	305			



## Wheels Tapered on both Sides (Type 4)

Unit:mm					
D	T	H	U	$\alpha$	
350	8	160	3	50°	
400	8	203			
	10				
	13				
500	10	305			

Note: \* $\alpha$  is adjustable as the customer's requirements.



## Flute Grinding Wheels (Type 1)

The wheels covered by this application are used primarily for fluting, slotting, clearing, gashing on cutting tools such as tap reamers, drills, end mills, router bits, etc. Whereas in thread grinding, stock removal amounts are relatively small, in flute grinding the plunge operation removes larger amounts of material in a single pass.

D(mm)	T(mm)	H(mm)	Abrasive	Grit	Bond	Speed(m/s)
250	76	4 thru 10	WA, A, PA, SA	100 thru 120	B	60 80
300	203	2.5 thru 6				
380	203	4 thru 12				
400	203	5 thru 10				
457	203	8 thru 16				



# ROLL GRINDING WHEELS (RESINOID, SHELLAC)

They are suitable for grinding

- Hot-strip mill rolls (commonly called "chilled iron rolls") which are usually nickel grain or nickel chill castings, alloyed with chrome nickel and molybdenum;
- Cold strip mill rolls which are most forged steel with a few being 86CrMOV7 or 4Cr5MOSiV1;
- Back-up rolls which are usually steel with a few being cast iron;
- Paper mill rolls which are usually chilled iron with a few kinds of steel and some rubber.

Unit:mm

Type	D	T	H
7	1070	152	508
	915	152	508
	900	100	304.8
1	900	90	304.8
	915	100	305
	900	100	305
	800	80	305
	750	100	304.8
	750	75	305
	610	65	254

Note: Special specifications can be made on the customers' specific requirements.



# DISC GRINDING WHEELS (Type 36)

They are used mainly for grinding flat and parallel parts, such as bearing parts, clutch plates, piston rings springs, valve plates, chainsaw blades, alnico magnets, dies gears, plumbing fixtures.

Unit:mm

D	T	H	Remark	D	T	H	Remark
203	32	115		585	65	195	With hole
350	60	195				203	
355	50	150	With hole			280	
381	65	152				405	
400	40 thru 63	50		585	80	425	
		203		600	60	50	
450	100	355		610	70	25	With hole
455	125	345		750	63	30	
		379				50	
458	129	383				50	With hole & slot
500	60	19				350	
		20	With slot			350	With hole
500	40 thru 50	50		750	94	600	
500	50	245		760	80	25	With hole & slot
500	63	305				252	With hole & slot
500	75	305				600	
585	65	19					

Note: Special specifications can be made on the customers' specific requirements.



# SNAGGING WHEELS

Snagging wheels are used in the automotive, ship building and steel fabrication industries, and in general maintenance shops, also in forging shops, foundries and some steel mills.

## Portable Snagging Wheels (Type 1)

Unit:mm

D	T	H	Abrasives	Bond	Grit	Speed(m/s)
150	25	25	A, ZA	B	16 thru 24	50
200						

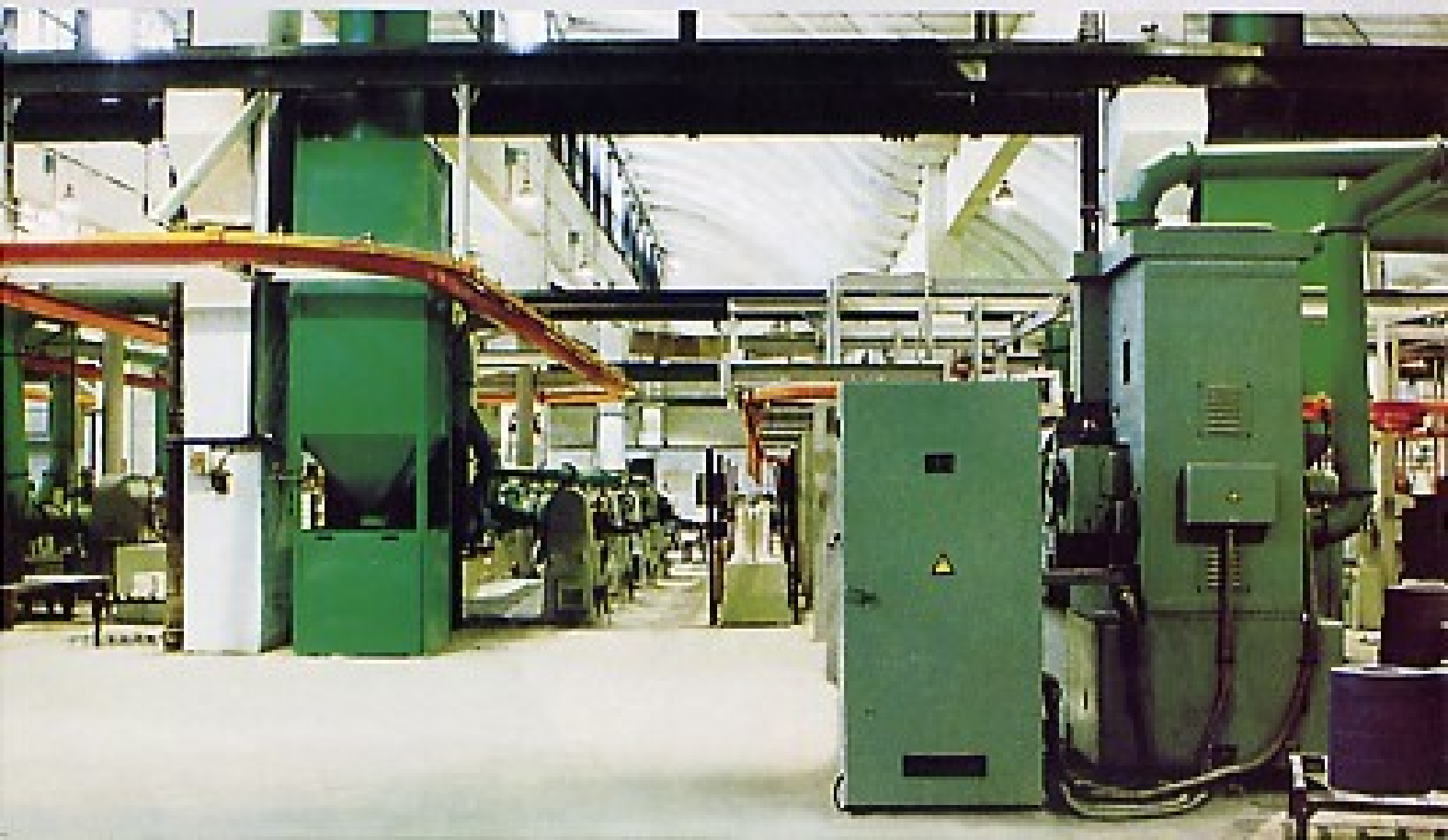
They are used for grinding aluminium castings, brass or bronze castings, gray iron castings, malleable iron and steel castings etc.

## High-Pressure Snagging Wheels (Type 1)

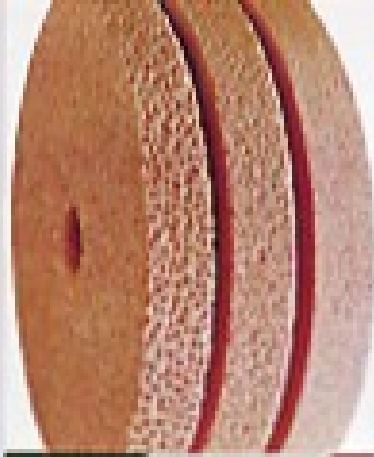
High-pressure snagging wheels refer to the large diameter snagging wheels, which are ideal for applications which require high speed and fast removal of large amounts of metal. They are mainly used for grinding billets of stainless steels, high carbon steels, low alloy steels, etc.

Unit:mm

D	T	H	Abrasive	Grit	Grade	Bond	Max. Speed (m/s)
540	65	203	ZA	F8	Y	B	80
610	75			F10			
760	75						



# CREEPFEED GRINDING WHEELS (Type 1 or 7)



## Creepfeed Grinding

Creepfeed grinding is a milling operation performed with an abrasive wheel. Different from customary reciprocating grinding, creepfeed is grinding technique capable of removing metal from a solid workpiece-up to 25mm of stock removal in

a single pass. Because creep feed grinding demands the use of a soft open wheel, it is especially appropriate for applications where burn and burn-free parts are absolutely vital, as they are in the electronics ceramics and aerospace industries.

## The Wheel

Grinding wheels are specially designed to meet the harsh demands of creepfeed grinding. They are composed of sharp aluminium oxide or tough silicon carbide abrasive, Creepfeed wheels are produced by a process that results in a product that is extremely open in structure. The open structure has its unique advantages:

- providing a place for the chip to go until it can be thrown out.
- facilitating the transportation of the metal-working fluid through the cut.
- lowering the pressure and reducing the risk of burning

D(mm)	T(mm)	H(mm)	Grit	Abrasive	Grade	Max. Speed (m/s)
500	20 thru 200	203 254 305	46 thru 100	A, WA, PA, SA, A/WA, A/SA, W/WA, SIC	A thru J	35 50
600	20 thru 200	203 305				

## Center-depressed Wheels (Type 27) ■

Dimension(D × T × H)		Max. Speed		Packing(box)			Application
Inch	Metric (mm)	R.P.M	M/S	PCS × Ctn (bag)	L × W × H(cm)	Weight (kg/box)	
9 × 1/4 × 7/8	230 × 6 × 22	6640	80	20 × 2 (bags)	49 × 24.7 × 15.2	24	For metal, stone, etc.
7 × 1/4 × 7/8	180 × 6 × 22	8490	80	25 × 2 (ctns)	37 × 19.7 × 19.7	19	
5 × 1/4 × 7/8	125 × 6 × 22	12220	80	25 × 4(ctns)	36 × 27 × 14	10	
4.5 × 1/4 × 7/8	115 × 6 × 22	13290	80		39 × 26 × 14	15	
4 × 1/4 × 5/8	100 × 6 × 16	15280	80		37 × 23.5 × 11.5	24	

## Center-depressed Cut-off Wheels (Type 42) ■

Dimension(D × T × H)		Max. Speed		Packing(box)			Application
Inch	Metric (mm)	R.P.M	M/S	PCS × Ctn (bag)	L × W × H(cm)	Weight (kg/box)	
9 × 1/8 × 7/8	230 × 3 × 22	6640	80	25 × 2 (bags)	24 × 24 × 18	14	For metal, stone, etc.
7 × 1/8 × 7/8	180 × 3 × 22	8490	80	50 × 2 (ctns)	41.5 × 20.5 × 19.5	18	
5 × 1/8 × 7/8	125 × 3 × 22	12220	80	50 × 4 (ctns)	40 × 27.5 × 14.5	16	
4.5 × 1/8 × 7/8	115 × 3 × 22	13290	80	25 × 8 (ctns)	51.5 × 25.6 × 10	15	
4 × 1/8 × 5/8	100 × 3 × 16	15280	80	25 × 8 (ctns)	45.5 × 23 × 10	12	

## GLASS GRINDING WHEELS (Type 5) ■

The polyurethane-bonded wheels are specially made for the glass industry.

Unit:mm

D	T	H	P	F	Grit
150	30	70	100	20	Coarse Medium Fine
130	30	60	90	20	

Note: Special specifications can be made on the customers' specific requirements.

