

K-PRIX[®]

QUALITY ABRASIVE PRODUCTS



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K-PRIX means the
combination of quality,
cost and service...

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 **CHEIL GRINDING WHEEL IND. CO., LTD.**

MAKE YOUR BUSINESS BETTER AND SAFER



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INTRODUCTION

Since 1955, Cheil Grinding Wheel Ind. Co., Ltd. has been manufacturing high quality grinding wheel products to meet the wide range of industrial grinding, cutting and finishing applications. In addition to the tight quality control standards, high performance, safety and durability more than 150,000 different specifications have been manufacturing in variations of Vitrified, Resinoid, Rubber, Epoxy, MgO, CBN, Diamond wheel. Since the first introduction of K-PRIX brand abrasive products in 1984, they have earned worldwide recognition as the combination of quality, cost and service.

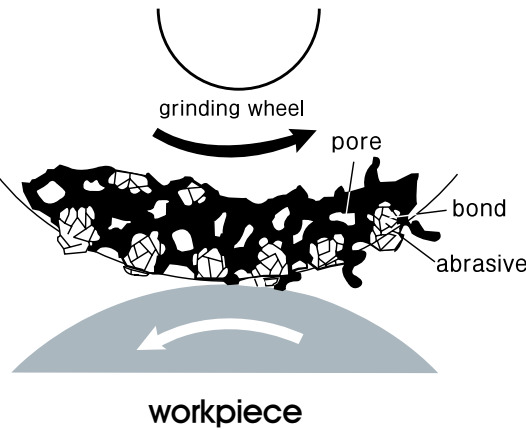


ABRASIVE

Kinds	Character	Application
A Regular AluminumOxide	· High hardness and toughness · Crystal Form : α -Al ₂ O ₃ · True density : 3.96g/cm ³ · Melting point : 2000°C · Hardness : Mohs 9.0	Unhardened common steel SS
WA White AluminumOxide	Crystal Form : α -Al ₂ O ₃ · True density : 3.96g/cm ³ · Melting point : 2000°C · 99% Al ₂ O ₃ · Hardness : Mohs 9.0	· Hardened carbon steel · Alloy steel · Tool steel (SxxC, Scr, SK, SUH)
32A SA	Single crystal · True density : 3.96g/cm ³ · Hardness : Mohs 9.0 · Melting point : 2000°C · Particle shape : sharp	Including Cr.W stainless steel · Tool steel(SUS, SKH, SUH)
C GC	98% SiC · Crystal Form : Hexagonal system · True density : 3.20g/cm ³ · Hardness : Mohs 9.0 · Melting point : 2300°C	· Ceramics polishing · Plastic · Rubber · Non-ferrous metals
PA RA Pink AluminiumOxide	99.5% Al ₂ O ₃ , Crystal Form : α -Al ₂ O ₃ · True density : 3.97g/cm ³ · Melting point : 2000°C · Hardness : Mohs 9.0	· Hardened carbon steel · Alloy steel · Tool steel (SxxC, Scr, SK, SUH)
Z AZ Zirconia Aluminium Oxide	Crystal Form : Mono-Clinic · True density : 3.97g/cm ³ · Melting point : 1900°C · 71% Al ₂ O ₃ +25% ZrO ₂	· Alloy steel · Stainless steel · Cast iron

GRINDING WHEEL

A grinding wheel is a self-sharpening tool composed of discrete abrasive grains held together by a bonding agent with composite structure of many clearance allowance for the cutting edges. The characteristics of a grinding wheel depends upon the combined elements of abrasive, grit size, grade, structure and bond.



The main components of Grinding wheel

Element	Character
Abrasive	The abrasive grain is the element that actually performs the cutting activity in the grinding process. And the choice of abrasive grain depends on the material to be ground.
Bond	The role of bond is to hold the individual grains together. The type of bond depends on the operating speed of wheel, the type of operation and the surface finish required.
Pore	The exists between grains and bond. In order to provide chip clearance, air space(pore) must be existed between grains and bond. Dense spacing is denoted by low numbers and open spacing by high numbers.

GRIT

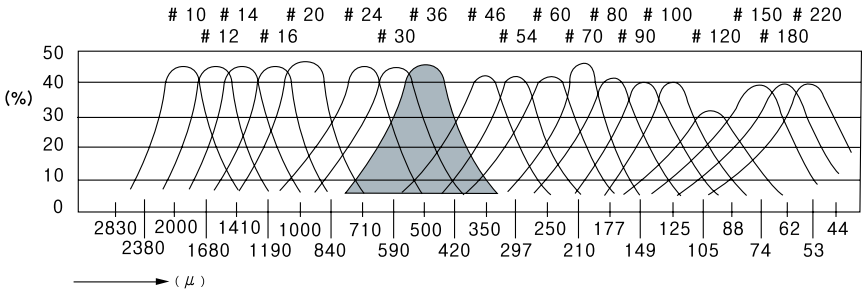
The size of abrasive grain is indicated in terms of the mesh(Screen size), coarser grains by low numbers and finer grains by high numbers. Coarse grits are in use for soft, ductile, stringy materials for fast stock removal rough grinding, large contact area, high grinding pressure. Finer grits in use for obtaining smooth finish, hard & brittle materials, small contact area and form holding of small & narrow corners.



Grit size of grinding wheels

Group	Grain size
Coarse grain	8 10 12 14 16 20 24
Normal grain	30 36 46 54 60 70
Fine grain	80 90 100 120 150 180 220
Very fine grain	240 280 320 400 500 600 700 800 1000 1200 2500

Grit distribution graph

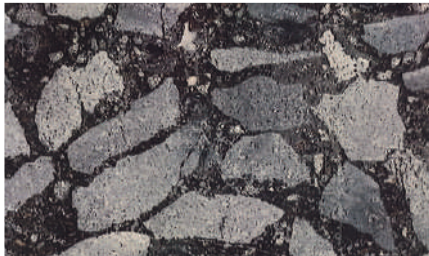


GRADE(STRENGTH OF BONDING)

The relative holding power of the bond which holds abrasive grains within a wheel—degree of "hardness" of strength is indicated softer grades in low alphabet and harder grades in high alphabet.



Abrasive grains with light bond coating and weak connecting bond posts as in a relatively soft grade wheel. (Bright areas are the pores, required for chip clearance).

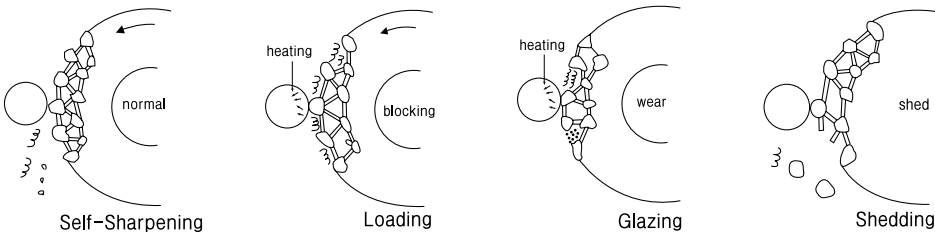


Abrasive grains of same size but with heavier bond coating and thicker, stronger bond posts as in a hard grade wheel.

Grade Table

Very soft	Soft	Medium	Hard	Very hard
A,B,C,D,E,F,G	H,I,J,K	L,M,N,O	P,Q,R,S	T,U,V,W,X,Y,Z

Normal Grinding and Abnormal Grinding



STRUCTURE

The relative grain spacing in a wheel. Dense spacing is denoted by low numbers and open spacing by high numbers. Wheel structures are depending upon the material to be ground, rate of stock removal, accuracy and surface finish required.

Structure table

Structure Number	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Grain Percentage(%)	62	60	58	56	54	52	50	48	46	44	42	40	38	36	34
Short designation	Dense(D)					Medium(M)					Open(W)				

BOND

"Posts" holding abrasive grains in the wheel. The type of bond which depends on the wheel operating speed, the type of operation and the surface finishing required. K-PRIX grinding wheels are made with five types of bonds: (V)Vitrified, (B)Resinoid, (MgO) Oxychloride magnesium, (E)Epoxy, (R)Rubber.

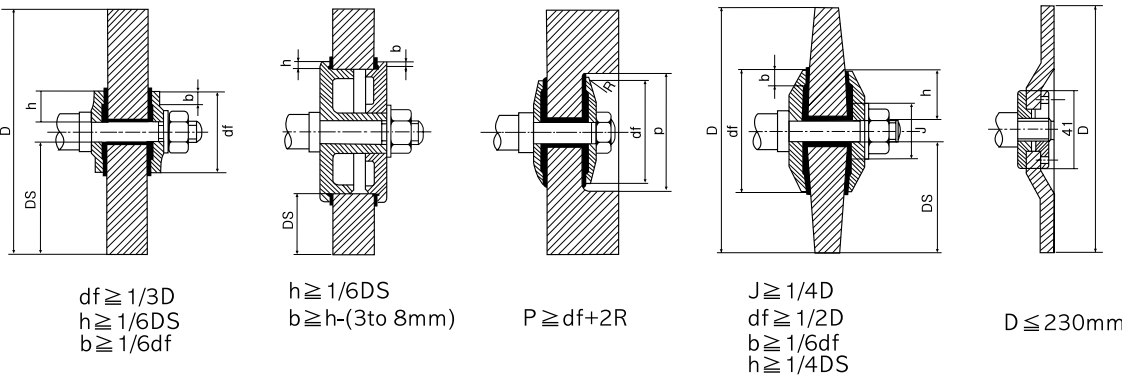
BOND		MARK	Manufacturing method	Character
Vitrified	Ceramic Bond	V	Make up of feldspar and clays selected for their fusibility and carefully processed. The pressed blanks are dried in chambers with automatically controlled temperature and then baked in kilns at a temperature about 1300°C.	Porosity and strength of wheels made with this bond give high stock removal and their rigidity helps in the attainment of high precision grinding works. This bond is not affected by water, acid, oils or ordinary temperature variations.
Resinoid	Synthetic Resin bond	B	The mixture consist of abrasive, synthetic resin and a plasticizer. The blanks are placed in kilns without previously dried. The bonding agent is hardened at temperature between 160°C and 200°C.	This bond is excellent for cut-off wheels, depressed center wheels, especially for ultra high speed work. Accuracy is not the first considering factor.
MgO	Oxychloride Magnesium Bond	O	The abrasive grains are added into a mixture of the magnesium oxide and magnesium chloride which is formed and hardened at ordinary temperature.	This bond is excellent for cool cutting even without a coolant and is very suitable for grinding springs, bearing house by double disc grinders. Also, it is widely used in dry grinding works.
Epoxy	Epoxy Bond	E	It is madeup of the mixture of abrasives, Epoxy binder and then hardened at a normal temperature.	The epoxy wheel is not affected by water and acid, and more elastic than resinoid wheel. It is widely used in need of high stock removal works.
Rubber	Rubber Bond	R	It is made with natural or synthetic rubber as a binder and cured at a low temperature.	The rubber wheel which has a good elasticity and strong hardness is used under the wet grinding condition for precision grinding works as the regulating wheels for centerless grinding works. The weakness of the rubber wheels is certainly to be used with the coolant because of a variation by heating at a high revolution speed.

CHEIL GRINDING WHEEL MARKING

WA		60		K		7		V
ABRASIVES		GRIT SIZE		GRADE		STRUCTURE		BOND TYPE
A	Regular	10	Coarse	A	Soft	1	Dense	V:Vitrified
	Aluminum Oxide	12		B		2		B:Resinoid
		14		C		3		R:Rubber
WA	White	16		D		4		O:MgO
	Aluminium Oxide	20		E		5		E: Epoxy
19A	Mixture of A&WA	24		F		6		
		30		G		7	To	
FA	Semi-friable	36		H		8		
	Aluminium Oxide	46		I		9		
PA,RA	Pink	54	To	J	To	10		
		60		K		11		
	Aluminium Oxide	80		L		12		
SA(HA)	Single Crystal	100		M		13	Open	
		120		N		14		
	Aluminium Oxide	150		O				
23A	Mixture of A&SA	180		P				
		220		Q				
AZ	Zirconium Oxide	280		R				
		320		S				
C	Black	400		T				
	Silicon Carbide	500		U				
GC	Green	600	Fine	V	Hard			
	Silicon Carbide	800		W				
		1000		X				
RC	Mixture of C&GC	1200		Y				
				Z				

GENERAL SAFETY GUIDE FLANGES

Grinding elements should be fastened safely. This should be done with fastening flanges as shown in the diagrams below.



FACTORS AFFECTING WHEEL SELECTION

Considering to select a suitable specification of grinding wheel

1. The material to be ground and its hardness
 - ABRASIVE : Aluminum oxide for steel and steel alloys.
Silicon carbide for cast iron, non-ferrous and non-metallics.
 - GRIT SIZE : Fine grit for brittle materials. Coarse grit for ductile materials.
 - GRADE : Hard grade for soft materials. Soft grade for hard materials.
2. The amount of stock to be removed and the finish required
 - GRIT SIZE : Coarse grit for rapid stock removal as in rough grinding.
Fine grit for high finishing.
 - BOND : Vitrified for precision cutting. Resinoid and Rubber for high speed cutting.
3. Wet or dry
 - GRADE : Wet grinding, as a rule, permits use of wheels at least one grade harder than that of dry grinding without danger of burning the work.
4. The wheel speed
 - BOND : Standard vitrified wheels are not exceeding 2,000mpm, for higher speeds are up to 3,600mpm.
Standard organic bonded wheels(Resinoid, Rubber or Epoxy) are used of most applications over 2,000mpm up to 6,000mpm.
 - NOTE : Do not exceed the safe operating speed shown on a wheel tag or blotter.
5. The contact area of grinding
 - GRIT SIZE : Coarse grit for large contact area.
Fine grit for small contact area.
 - GRADE : The smaller contact area, the harder wheel.

PROTECTIVE GUARDS

Grinding elements should be covered by wheel guards on the grinding machine; These guards should be made of a suitable material, depending on the type of machine and use.

Diagram 1 Shows a wheel guard for a pedestal grinding machine(wheel stand); The effect angle of aperture should not exceed 65°.

Diagram 2 Shows a wheel guard, adjustable along the axis, for a manual grinding machine at the face of which the grinding element is applied.

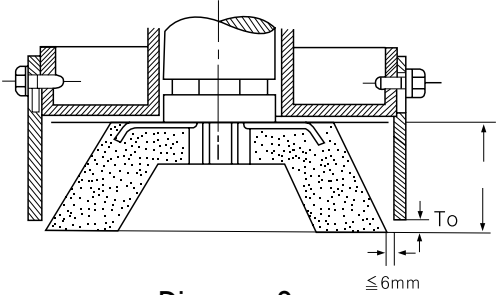
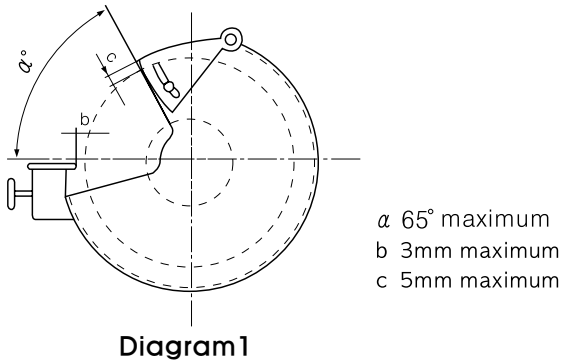


Diagram2

Diagram1



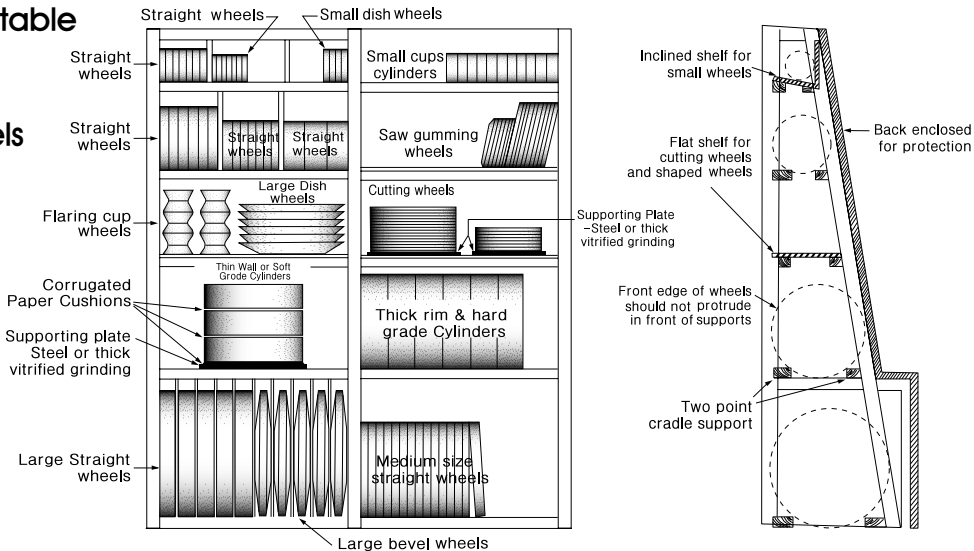
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STORE PROPERLY

DO :	DON'T :
1. Do check all shipments of grinding wheel for possible damage in transit.	1. Don't accept shipments of grinding wheels that show damage to the pallet, box or container.
2. Do carefully inspect the wheels in a shipment as they are unpacked.	2. Don't store grinding wheel in random manner or in an unprotected place.
3. Do ring test each vitrified wheel 4" and larger before mounting.	3. Don't handle grinding wheels carelessly.
4. Do store grinding wheels in a rack or on shelves designed to accept and protect them.	4. Don't retain wheels that may have been damaged or abused.
5. Do handle grinding wheels carefully because they are fragile and can be easily chipped, cracked or broken.	5. Don't store wheels in a random manner with no regard to how long they have been in steroge.
6. Do store wheels so that the oldest wheel in stock are used first.	
7. Do store wheels in a dry, protected area free from extreme variations in temperature.	

A rack design suitable for handling of a wide variety of abrasive wheels



HANDLE SAFELY

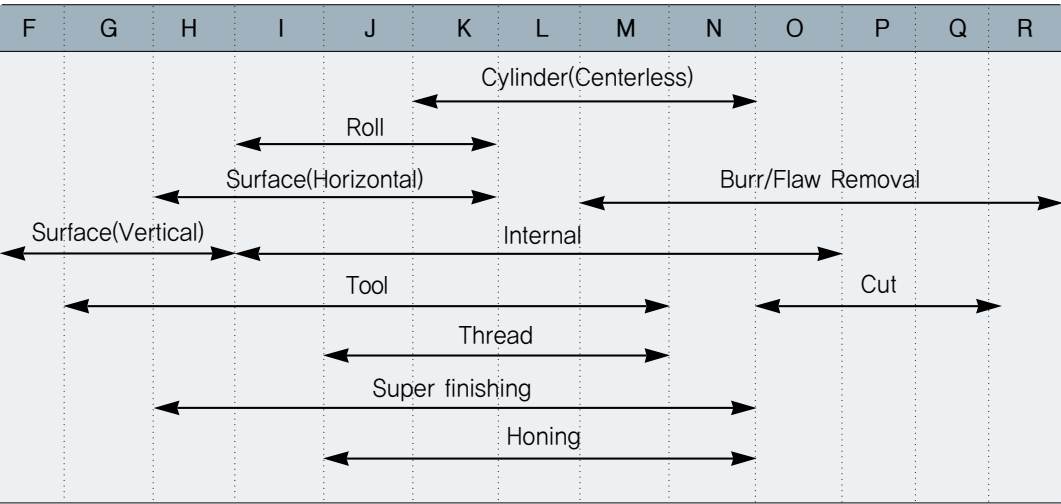
DO :	DONT :
1. DO always HANDLE AND STORE wheels in a CAREFUL manner.	1. DON'T use a wheel that HAS BEEN DROPPED or DAMAGED.
2. DO VISUALLY INSPECT all wheels before mounting for possible damage in transit	2. DON'T FORCE a wheel onto the machine or ALTER the size of the mounting hole-if wheel won't fit the machine, get one that will.
3. DO MAKE SURE MACHINE SPEED does not exceed MAXIMUM OPERATING SPEED marked on wheel or on its container	3. DON'T ever EXCEED MAXIMUM OPERATING SPEED established for the wheel.
4. DO CHECK MOUNTING FLANGES for equal and correct diameter. (Should bel at least 1/3 diameter of the wheel.)	4. DON'T use mounting flanges of which the bearing surfaces ARE NOT CLEAN, FLAT AND FREE FROM BURRS.
5. DO USE MOUNTING BLOTTERS supplied with wheels.	5. DON'T TIGHTEN the mounting nut EXCESSIVELY.
6. DO be sure WORK REST is properly adjusted.(Should be center of wheel or above and no more than 1/8" away form wheel.)	6. DON'T grind on the SIDE OF THE WHEEL unless wheel is specifically designed for that purpose. (See the current ANSI B7.1 Safety Requirements for exceptions.)
7. DO always USE A PROPERLY DESIGNED SAFETY GUARD covering at least one-half of the grinding wheel.	7. DON'T start the machine until the WHEEL GUARD IS IN PLACE.
8. DO allow NEWLY MOUNTED WHEELS to run at operating speed, with guard in place, for at least one minute before grinding.	8. DON'T STAND DIRECTLY IN FRONT of a grinding wheel whenever a grinder is started.
9. DO always WEAR SAFETY GLASSES or equivalent proper eye protection when grinding.	9. DON'T grind material for which the WHEEL IS NOT DESIGNED.
10. DO TURN OFF COOLANT before stopping wheel to avoid creating an out-of-balance condition.	10. DON'T JAM work into the wheel.
	11. DON'T GRIND without proper ventilation.

TROUBLE SHOOTING

Precision grinding – Cylindrical, Centerless, Surface, Tool & Cutter

The problem	The Cause	The Solution
Chatter-spaced Marks on the Work Surface	Machine Vibration	Check alignment & couplings
	Infeed rate too low	Increase infeed rate
	Work speed too slow	Increase work speed
	Wheel out of balance	Rebalance carefully, repeat after truing
	Wheel out of round	True before & after balancing. True sides safely
Scratching-Poor	Wheel too hard	Select softer grade or coarser grit
	Machine vibration	Check for vibration of the machine & for vibration transmitted to the machine. Repair/replace machine parts
Poor finish	Dirty Coolant	Provide efficient filter, clean tank often, flush guards
	Faulty wheel conditioning	Use sharper tools, flush wheel after conditioning, condition more frequently
	Wheel out of round	Repeat truing process, true sides to face.
	Wheel too coarse	Select finer grit size
	Wheel too soft	Select harder grade, decrease work speed & infeed rate.
Heat/Stress Damage (Burning)	Infeed rate too high	Reduce rate of infeed
	Work speed too slow	Increase work speed
	Insufficient coolant	Increase coolant flow & check direction
	Wheel speed too high	Reduce wheel speed
	Insufficient conditioning	Condition wheel more frequently
	Wheel too hard	Select softer grade wheel
	Wheel too dense	Use more open structured wheel
Wheel Loading or Glazing	Faulty wheel conditioning	Use sharper tool, flush wheel after conditioning. Condition more frequently
	Faulty coolant	Increase coolant flow, Use cleaner, thinner coolant
	Wheel acts too hard	Increase infeed rate, work speed. Use softer or coarser wheel

TYPE OF GRINDING OPERATION AND RANGE OF AVAILABLE GRAIN SIZE



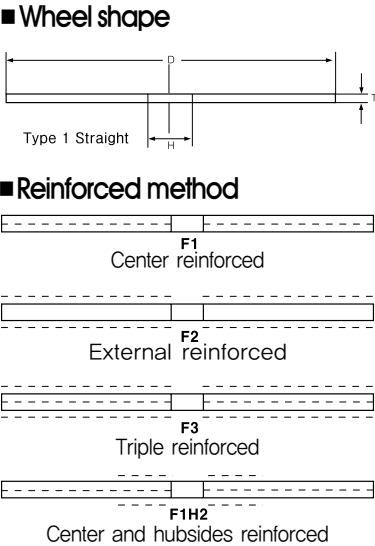
Variation of grade for grinding conditions

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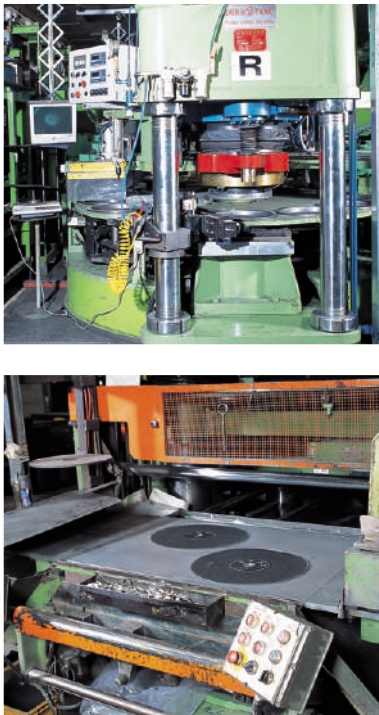
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CUT-OFF WHEELS

K-PRIX reinforced cut-off wheels are designed to easy performance, safety, low cost and ready availability for use with a wide range of ferrous and non-ferrous metal cutting applications such as bar stock, structural steel, tubing, sheet metal and etc. Reinforced cut-off wheels are used in all cutting operations where the work piece or the wheels is controlled by hand-held machines such as potable grinders, circular saws, chop saws, gas saws, stationary and swing flame cut-off machines.



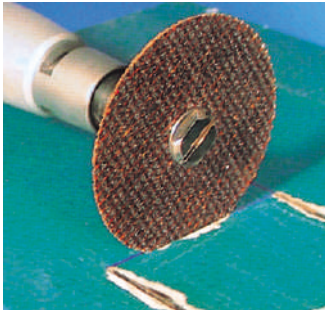
General selection(specification)



	A24R	General purpose wheels for the broad range of steel and ferrous metal.
	A30P	Fast cut wheels give a soft, free cutting action, and are especially good for efficient cutting of hard metals.
	A24LL	Long life wheels are designed for longer wheel life and good cutting performance.
	Z24	Zirconium wheel delivers the utmost in extra wheel life with fast cutting.
	ST24	Is for exceptional fast and cool cutting on stainless steel and hard materials.
	AL36	Is for first choice of many aluminum applications and non-ferrous metals with load-resistance.
	C24R	Is for general purpose applications in concrete, stone, masonry products.

Mini Cut-off wheels

For use on small wheel grinders, die grinders with straight or flexible shafts, K-PRIX external reinforced Mini cut-off wheels are used in various metal cutting, grooving, grinding and smoothing operations at foundries, fabrication shops, power plants, refineries and tool rooms.



Available wheel size & Standard Packing Quantity

Wheel size (DxTxH)		Max.RPM	Inner box/master carton Quantity(pcs)
Inch	mm		
2 x (1/32, 3/64, 1/16, 5/64, 1/8, 3/16) x (1/4,3/8)	50 x (1, 1.2, 1.6, 2, 3, 5) x (6.35, 9.53)	38,460	100 / 500
2 1/2 x (1/32, 3/64, 1/16, 5/64, 1/8, 3/16) x (1/4,3/8)	63 x (1, 1.2, 1.6, 2, 3, 5) x (6.35, 9.53)	30,000	100 / 500
3 x (1/32, 3/64, 1/16, 5/64, 1/8, 3/16) x (1/4,3/8)	75 x (1, 1.2, 1.6, 2, 3, 5) x (6.35, 9.53)	25,460	100 / 500
4 x (1/32, 3/64, 1/16, 5/64, 1/8, 3/16) x (1/4,3/8)	100 x (1, 1.2, 1.6, 2, 3, 5) x (6.35, 9.53)	19,090	100 / 500

※ Please specify wheel thickness (T) and hole (H) when order.

Cut-off wheels on Circular Saw & Portable Angle Grinder

For use on circular saws and portable angle grinders into a fast, effective and economical tools cut metal, stainless steel, concrete, brick & masonry. K-PRIX external reinforced cut-off wheels meet the needs of quality performance, low cost and ready availability.



Available wheel size & Standard Packing Quantity

Wheel size (DxTxH)		Max. RPM	Standard packing
Inch	mm		
4 x (3/32, 1/8) x 5/8	100 x (2.5, 3) x 15.88	15,000	50
4 1/2 x (3/32, 1/8) x 7/8	115 x (2.5, 3) x 22.23	13,300	50
5 x (3/32, 1/8) x 7/8	125 x (2.5, 3) x 22.23	12,000	50
6 x (3/32, 1/8) x 7/8	150 x (2.5, 3) x 22.23	10,000	25
6 1/2 x (3/32, 1/8) x 7/8	165 x (2.5, 3) x 22.23	9,000	25
7 x (3/32, 1/8) x 7/8	180 x (2.5, 3) x 22.23	8,500	25
8 x (3/32, 1/8) x 7/8	205 x (2.5, 3) x 22.23	7,500	25
9 x (3/32, 1/8) x 7/8	230 x (2.5, 3) x 22.23	6,500	25

※ Hole in ◇ (diamond), 1/2"(12.7), 5/8"(15.88), 20, 7/8"(22.23), 1"(25.4), 1 1/8"(28.58), 30mm, 1 3/8"(34.92) available upon request, please specify(H) hole size when order.



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Cut-off wheels on Chopsaw

To meet the larger demand of the fast, clean and safe cutting on popular chopsaw machines in every metal fabricator—indeed any industry. K-PRIX provides two type of reinforced chopsaw wheel. (F2) external reinforced wheels for use on high powered chopsaws and (F1) center reinforced wheels on low powered chopsaws.

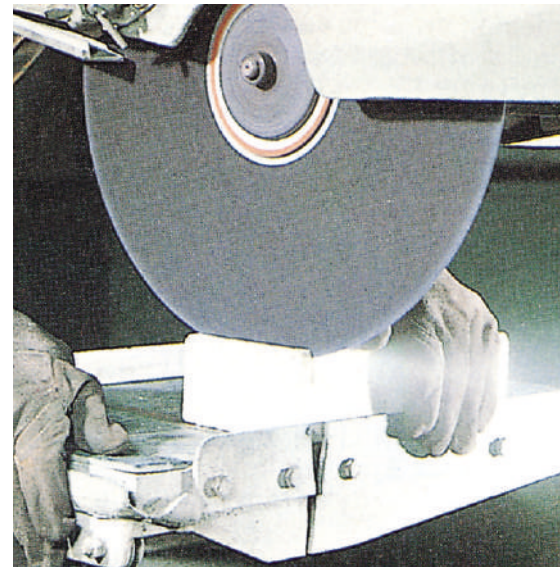


Available wheel size & Standard Packing Quantity

Wheel size (DxTxH)		Max.RPM		Standard packing
Inch	mm	F1	F2	
10 x (3/32, 1/8) x 1	255 x (2.5, 3) x 25.4	4,810	6,110	10
12 x (3/32, 1/8) x 1	305 x (2.5, 3) x 25.4	4,010	5,090	10
14 x (3/32, 1/8) x 1	355 x (2.5, 3) x 25.4	3,440	4,370	10
16 x (1/8, 5/32) x 1	405 x (3, 4) x 25.4	3,010	3,810	10

Cut-off wheels on Stationary Machine

These external reinforced wheels are designed for use on normal chopsaws, oscillation machines, and other cutting machines where the work piece is fixed and the cutting plane of the wheel is controlled by hand-held.



Available wheel size & Standard Packing Quantity

Wheel size (DxTxH)		Max. RPM	Standard packing
Inch	mm		
7 x 1/16 x H	180 x 1.6 x H	8,500	50
7 x 3/32 x H	180 x 2.5 x H	8,500	25
8x 1/16 x H	205 x 1.6 x H	7,500	50
8x 3/32 x H	205 x 2.5 x H	7,500	25
10 x 3/32 x H	255 x 2.5 x H	6,110	10
10 x 1/8 x H	255 x 3 x H	6,110	10
12 x 3/32 x 1	305 x 2.5 x 25.4	5,090	10
12 x 1/8 x 1	305 x 3 x 25.4	5,090	10
14 x 3/32 x 1	355 x 2.5 x 25.4	4,370	10
14 x 1/8 x 1	355 x 3 x 25.4	4,370	10
16 x 1/8 x 1	405 x 3 x 25.4	3,810	10
16 x 5/32 x 1	405 x 4 x 25.4	3,810	10
18 x 5/32 x 1	455 x 4 x 25.4	3,000	10
18 x 3/16 x 1	455 x 4.7 x 25.4	3,000	8
20 x 5/32 x 1	510 x 4 x 25.4	2,710	10
20 x 3/16 x 1	510 x 4.7 x 25.4	2,710	8
24 x 1/4 x 1	610 x 6 x 25.4	2,260	5

Cut-off wheels on High speed gas/electric saw

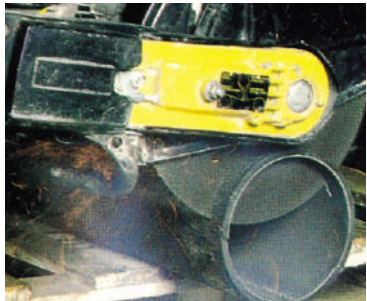
K-PRIX high speed cut-off wheels are constructed of quality abrasive grains, extra high tensile fiber glass reinforcing and special resin bonds for the fast cutting, long wheel life and safety in gasoline (petroleum) and electric motor driven portable high speed saw applications and in high speed stationary machine applications.



A24R-HS	general purpose for metal
C24R-HS	general purpose for concrete brick and other masonry
A30P-HS	specially designed for rail track cut.
AC24-HS	for cutting ductile iron, cast iron, reinforced concrete pipe
C16T-HS	for free cutting action on asphalt.

※ Proper wheel selection gives maximum wheel life and quickest cut in respective applications.

Available wheel size & Standard Packing Quantity



Wheel size (DxTxH)		Max.RPM	Standard packing
Inch	mm		
12 x 1/8 x (1, 7/8, 20mm)	305 x 3 x (25.4, 22.23, 20)	6,300	10
12 x 5/32 x (1, 7/8, 20mm)	305 x 4 x (25.4, 22.23, 20)	6,300	10
14 x 1/8 x (1, 7/8, 20mm)	355 x 3 x (25.4, 22.23, 20)	5,400	10
14 x 5/32 x (1, 7/8, 20mm)	355 x 4 x (25.4, 22.23, 20)	5,400	10
16 x 1/8 x (1, 20mm, 1.1/4)	405 x 3 x (25.4, 20, 31.75)	4,780	10
16 x 5/32 x (1, 20mm, 1.1/4)	405 x 5 x (25.4, 20, 31.75)	4,780	10

Non reinforced Cut-off wheels

K-PRIX non-reinforced cut-off wheels are constructed of quality abrasive grains and special resin bond for fast cutting and long wheel life, and are widely used in various metal cutting, grooving at power plant, Aero space and Tool & Die industry.



Available wheel size

Wheel size (DxTxH)		Max.RPM
Inch	mm	
4 x (1/32, .045, 1/16, 5/64, 1/8) x H	100 x (1, 1.2, 1.6, 2, 3) x H	11900
6 x (1/32, .045 1/16, 5/64, 1/8) x H	150 x (1, 1.2, 1.6, 2, 3) x H	7958
7 x (1/32, .045, 1/16, 5/64, 1/8) x H	180 x (1, 1.2, 1.6, 2, 3) x H	6820
8 x (.045, 1/16, 5/64, 1/8) x H	205 x (1.2, 1.6, 2, 3) x H	5968
9 x (.045, 1/16, 5/64, 1/8) x H	230 x (1.2, 1.6, 2, 3) x H	5261
10 x (1/16, 5/64, 1/8) x H	255 x (1.6, 2, 3) x H	4774
11 x (1/16, 5/64, 1/8) x H	280 x (1.6, 2, 3) x H	4320
12 x (1/16, 5/64, 1/8) x H	305 x (1.6, 2, 3) x H	3967
14 x (1/16, 5/64, 1/8) x H	355 x (1.6, 2, 3) x H	3400
16 x (3/32, 7/64, 1/8, 5/32) x H	405 x (2.5, 2.8, 3, 4) x H	2900

※ Please specify whee (T)Thickness and (H)hole when order.

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DEPRESSED CENTER WHEELS

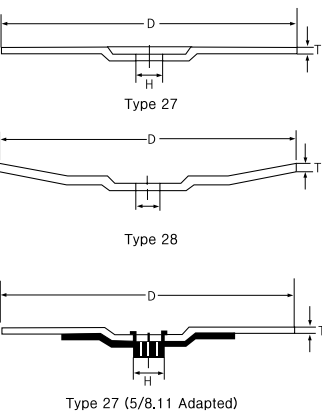
K-PRIX Depressed Center type grinding wheels and cutting wheels with the utmost in premium grinding performance are designed for use on right angle vertical shaft portable grinders whether electric or air powered. The unique of K-PRIX wheels have made them a popular and standard item in industry today. And they are widely used for such jobs as grinding off and smoothing weld bead, cleaning metal surface, cut-off gate and raiser, and finishing surface.



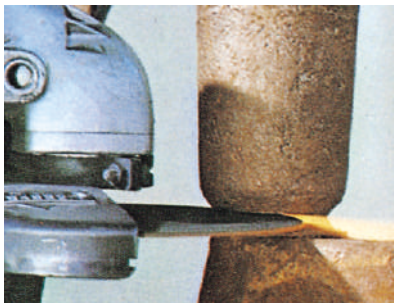
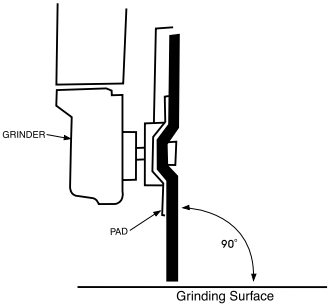
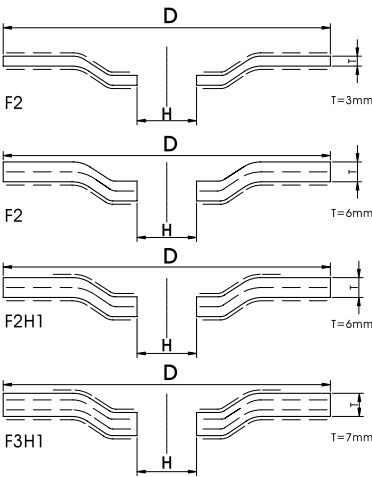
General selection (specification)

	A24R (FOR GENERAL PURPOSE) is designed to provide high performance with long life for all general purpose stock removal metal working.
	C24R (FOR STONE) is for general purpose application in concrete, stone, masonry products.
	ST36 (FOR STAINLESS STEEL, IRON FREE) is for exceptional fast and cool cutting on stainless steel and hard materials.
	AL36 (FOR ALUMINIUM) is specially designed to resist loading when grinding aluminium and other non-ferrous metals.

Wheel shapes



Reinforced method



- 1. Additional specifications are available upon request.
- 2. Special requirements are available on request.

Available wheel size & Standard Packing Quantity

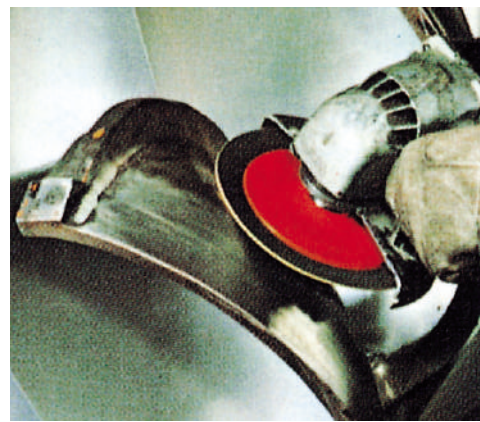
Wheel size (DxTxH)		MAX.RPM	Standard packing
Inch	mm		
3 x 1/8 x 3/8	75 x 3 x 9.53	20,000	50
3 x 5/32 x 3/8	75 x 4 x 9.53	20,000	40
3 x 1/4 x 3/8	75 x 6 x 9.53	20,000	25
4 x 3/32 x 5/8	100 x 2.5 x 15.88	15,000	50
4 x 1/8 x 5/8	100 x 3 x 15.88	15,000	50
4 x 5/32 x 5/8	100 x 4 x 15.88	15,000	40
4 x 3/16 x 5/8	100 x 4.7 x 15.88	15,000	30
4 x 1/4 x 5/8	100 x 6 x 15.88	15,000	25
4 1/2 x 3/32 x 7/8	115 x 2.5 x 22.23	13,300	50
4 1/2 x 1/8 x 7/8	115 x 3 x 22.23	13,300	50
4 1/2 x 5/32 x 7/8	115 x 4 x 22.23	13,300	40
4 1/2 x 1/4 x 7/8	115 x 6 x 22.23	13,300	25
5 x 3/32 x 7/8	125 x 2.5 x 22.23	12,000	50
5 x 1/8 x 7/8	125 x 3 x 22.23	12,000	50
5 x 1/4 x 7/8	125 x 6 x 22.23	12,000	25
6 x 1/8 x 7/8	150 x 3 x 22.23	10,000	50
6 x 5/32 x 7/8	150 x 4 x 22.23	10,000	40
6 x 1/4 x 7/8	150 x 6 x 22.23	10,000	25
7 x 1/8 x 7/8	180 x 3 x 22.23	8,500	50
7 x 1/4 x 7/8	180 x 6 x 22.23	8,500	25
7 x 3/11 x 7/8	180 x 7 x 22.23	8,500	25
7 x 5/16 x 7/8	180 x 8 x 22.23	8,500	20
7 x 3/8 x 7/8	180 x 10 x 22.23	8,500	15
9 x 1/8 x 7/8	230 x 3 x 22.23	6,500	50
9 x 1/4 x 7/8	230 x 6 x 22.23	6,500	25
9 x 3/11 x 7/8	230 x 7 x 22.23	6,500	25
9 x 5/16 x 7/8	230 x 8 x 22.23	6,500	20
4 1/2 x 1/8 x 5/8-11	Adapted	13,300	10
4 1/2 x 1/4 x 5/8-11	Adapted	13,300	10
5 x 1/8 x 5/8-11	Adapted	12,000	10
5 x 1/4 x 5/8-11	Adapted	12,000	10
7 x 1/8 x 5/8-11	Adapted	8,500	10
7 x 1/4 x 5/8-11	Adapted	8,500	10
9 x 1/8 x 5/8-11	Adapted	6,500	10
9 x 1/4 x 5/8-11	Adapted	6,500	10

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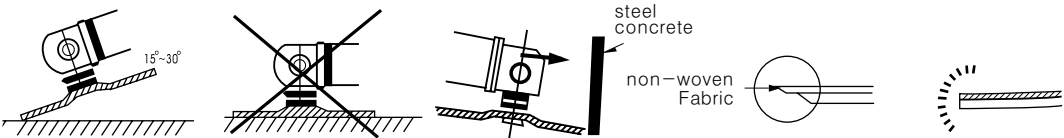
FLEXIBLE GRINDING WHEELS

K-PRIX Flexible grind wheel made by an excellent technology, is the wheel of renovating a new image of flexibility. Depressed center flexible wheel sits lightly on the surface of the work piece, absorb frictional impacts and vibration for right angle grinders in both smooth grinding and fine finishing operations with impressive grinding ratio of stock removal. K-PRIX flexible wheel flexes to follow contoured surfaces, performs on a wide range of materials, and gives smooth running on your grinders. Please use flexible wheel with the supporting pad for flexibility and efficient operation.



Abrasive	Application
AC	General Purpose for metal and masonry.
WA	For stainless steel, tool steels
GC	For concrete, masonry, glass, cast iron.

Wheel size (DxTxH)		Max.RPM	Std. Pkg
Inch	mm		
4 x 3/32 x 5/8	100 x 2,5 x 15,88	13,500	50
4,1/2 x 3/32 x 7/8	115 x 2,5 x 22,23	12,000	50
5 x 1/8 x 7/8	125 x 3 x 22,23	10,000	50
7 x 1/8 x 7/8	180 x 3 x 22,23	7,500	50



Make Your Business Better and Safer



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GENERAL PURPOSE WHEELS FOR BENCH AND PEDESTAL GRINDERS

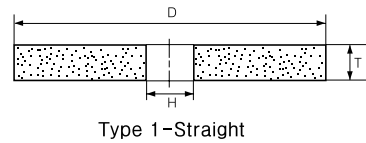
K-PRIX vitrified bonded general purpose grinding wheels for use on bench, floor stand and pedestal grinders are most economic and efficient in grinding of all steels. They are designed for use of versatile off-hand grinding in deburring bar stock after cutting, and touching-up reconditioning and sharpening tools where precision grinding is not required.



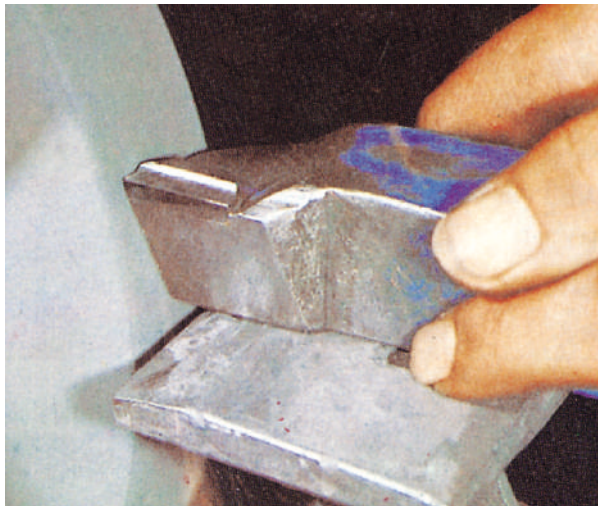
Specification guide

- **Aluminum Oxide Wheels** (Gray color) are used for grinding all metals in a variety of grinding operations ranging from rough sharpening of miscellaneous work pieces to the off-hand grinding or sharpening of tools.
 - **Extra coarse** : A24 for fast, free cutting and rough grinding.
 - **Coarse** : A36/A46 for greater stock removal desired and surface finishing not critical on jobs.
 - **Medium** : A60/A80 for general grinding to obtain acceptable metal removal and finish.
 - **Fine** : A100/A120 for fine clean-up, reconditioning and deburring applications of small tools.
- **Green Silicon Carbide Wheels** (green color) are used on the same machine to resharpeneing carbide tools and carbide-tipped saws, lathe tools, saws, milling cutters, masonry drill bits.
 - **Coarse** : GC46/GC60 for fast and rough grinding of new tungsten carbide, salvaging broken or damaged tools.
 - **Medium** : GC80 most common grit for grinding of every tungsten carbide tools.
 - **Fine** : GC100/GC120 for fine finishing, reconditioning and deburring applications.

Wheel shape



To make wheel adaptable to many different sizes of spindles, hole reducing bushings can be packed with the wheel at a nominal charge upon request.



Available wheel size and Standard packing

Wheel size (DxTxH)		Max.RPM	Standard packing
Inch	mm		
3 x 1/2 x 1/2	75 x 13 x 12,7	8,276	80
3 x 3/4 x 1/2	75 x 19 x 12,7	8,276	80
3 x 1 x 1/2	75 x 25 x 12,7	8,276	80
4 x 1/2 x 1/2	100 x 13 x 12,7	6,207	40
4 x 3/4 x 1/2	100 x 19 x 12,7	6,207	20
4 x 1 x 1/2	100 x 25 x 12,7	6,207	20
5 x 1/2 x 1/2	125 x 13 x 12,7	4,966	25
5 x 3/4 x 1/2	125 x 19 x 12,7	4,966	20
5 x 1 x 1/2	125 x 25 x 12,7	4,966	20
6 x 1/2 x 1 1/4	150 x 13 x 31,75	4,136	25
6 x 3/4 x 1 1/4	150 x 19 x 31,75	4,136	20
6 x 1 x 1 1/4	150 x 25 x 31,75	4,136	20
7 x 1/2 x 1 1/4	180 x 13 x 31,75	3,600	30
7 x 3/4 x 1 1/4	180 x 19 x 31,75	3,600	20
7 x 1 x 1 1/4	180 x 25 x 31,75	3,600	20
8 x 1/2 x 1 1/4	205 x 13 x 31,75	3,170	15
8 x 3/4 x 1 1/4	205 x 19 x 31,75	3,170	10
8 x 1 x 1 1/4	205 x 25 x 31,75	3,170	10
8 x 1 1/4 x 1 1/4	205 x 32 x 31,75	3,170	8
8 x 1 1/2 x 1 1/4	205 x 38 x 31,75	3,170	7

Wheel size (DxTxH)		Max.RPM	Standard packing
Inch	mm		
10 x 3/4 x 1 1/4	255 x 19 x 31,75	2,483	10
10 x 1 x 1 1/4	255 x 25 x 31,75	2,483	10
10 x 1 1/4 x 1 1/4	255 x 32 x 31,75	2,483	8
10 x 1 1/2 x 1 1/4	255 x 38 x 31,75	2,483	7
10 x 2 x 1 1/4	255 x 50 x 31,75	2,483	5
12 x 1 x 1 1/4	305 x 25 x 31,75	2,069	5
12 x 1 1/4 x 1 1/4	305 x 32 x 31,75	2,069	4
12 x 1 1/2 x 1 1/4	305 x 38 x 31,75	2,069	4
12 x 2 x 1 1/2	305 x 50 x 38,1	2,069	3
14 x 1 x 1 1/2	355 x 25 x 38,1	1,800	5
14 x 1 1/2 x 1 1/2	355 x 38 x 38,1	1,800	4
14 x 2 x 1 1/2	355 x 50 x 38,1	1,800	3
14 x 3 x 1 1/2	355 x 75 x 38,1	1,800	2
16 x 2 x 1 1/2	405 x 50 x 38,1	1,552	2
16 x 3 x 1 1/2	405 x 75 x 38,1	1,552	1
18 x 2 x 1 1/2	455 x 50 x 38,1	1,379	2
18 x 3 x 1 1/2	455 x 75 x 38,1	1,379	1

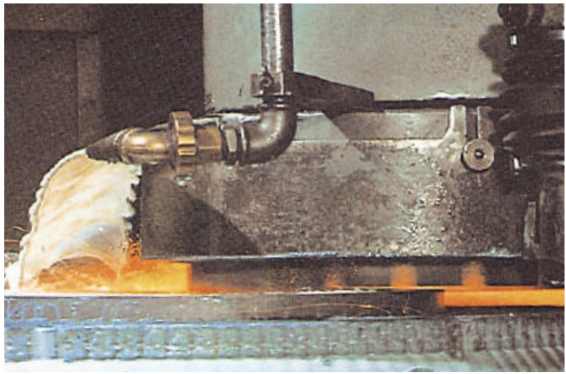
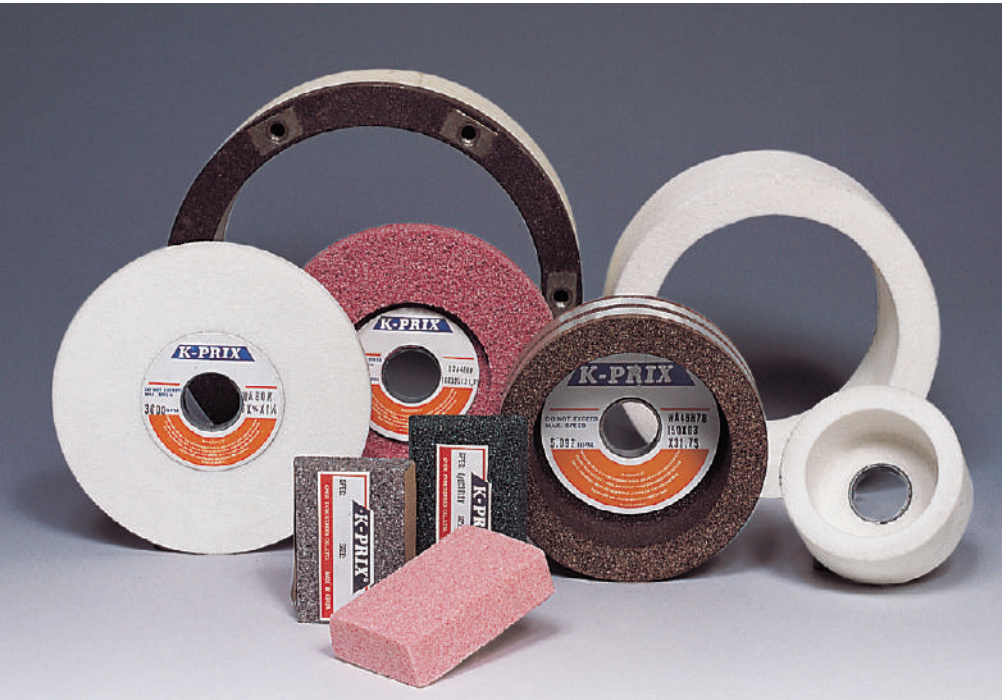
※ Specific hole sizes are not shown on above, please specify (H) hole size when order.

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SURFACE GRINDING WHEELS AND SEGMENTS

For reason of economy and productivity as well as quality of surface finish, accuracy and appearance, K-PRIX surface grinding wheels and segments are primarily used to produce flat surface in all tool rooms and production shops in the machine tool, air craft, automotive, cutlery, mold & die and hand tool industries.



Wheels on horizontal spindle grinders



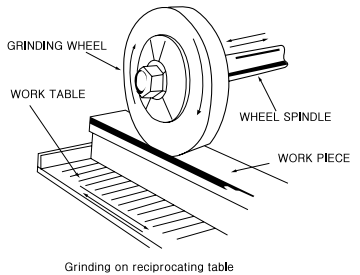
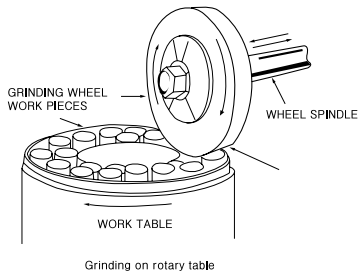
Wheels on vertical spindle grinders



Segments



Types of grinding



Wheels on horizontal spindle grinders

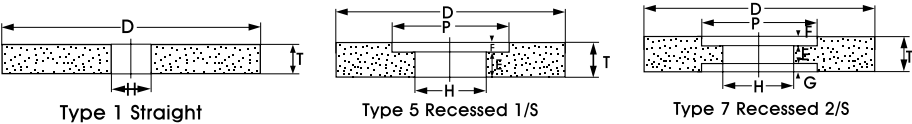
K-PRIX provides the wide variety of wheels shaped in type 1, 5, 7, in horizontal spindle type surface grinding machines.

Type 1 straight wheels or type 5, 7 recessed wheels in diameters ranging from 6"(150mm) to 36"(915mm) and in thickness from 1/8"(3mm) to 4"(100mm) are normally used on horizontal spindle reciprocating table and rotary table grinders.

Specification guide

Material to be ground	Specification		
	D.6"-10"(150-255mm)	D.12"-16"(305-405mm)	D.18"-24"(455-610mm)
Steel <ul style="list-style-type: none">- unhardened (soft)- hardened- tool & high speed- nitrided	19A46K WA46J SA60J WA46I C80J	19A46J WA46I SA54I WA36H C60I	19A36J WA36I SA46H WA36G C60H
Die steel <ul style="list-style-type: none">- hardened- annealed	SA60I WA46J	SA54H WA46I	SA46H WA46I
Stainless steel <ul style="list-style-type: none">- heat treated	SA60I FA60H	SA54I FA60I	SA46H FA46I
Cast Iron <ul style="list-style-type: none">- ductile- gray- chilled	SA60K 23A46J C46K	SA54J 23A36I C36J	SA46I 23A36I C36I
Stellite	23A0J5	23A46I	23A46H
Chrome plating	SA80J	SA80I	SA60H
Tungsten carbide <ul style="list-style-type: none">- roughing- finishing	GC60I GC120I	GC46H GC120H	- -
Bronze, brass	C54J	C54J	C46I

wheel shapes



Available wheel size

Common wheel sizes (DxTxH)	
Inch	mm
6 x (1/4, 3/8, 1/2, 5/8, 3/4, 1) x H	150 x (6, 10, 13, 16, 19, 25) x H
7 x (1/4, 3/8, 1/2, 5/8, 3/4, 1, 1.1/4) x H	180 x (6, 10, 13, 16, 19, 25, 32) x H
8 x (1/4, 3/8, 1/2, 5/8, 3/4, 1, 1.1/4) x H	205 x (6, 10, 13, 16, 19, 25, 32) x H
10 x (3/4, 1, 1.1/4, 1.1/2, 2) x H	255 x (19, 25, 32, 38, 50) x H
12 x (1, 1.1/4, 1.1/2, 2) x H	305 x (25, 32, 38, 50) x H
14 x (1, 1.1/4, 1.1/2, 2) x H	355 x (25, 32, 38, 50) x H
16 x (2, 3, 4) x H	405 x (50, 75, 100) x H
18 x (2, 3, 4) x H	455 x (50, 75, 100) x H
20 x (2, 3, 4) x H	510 x (50, 75, 100) x H

※ specify (H) hole size when order

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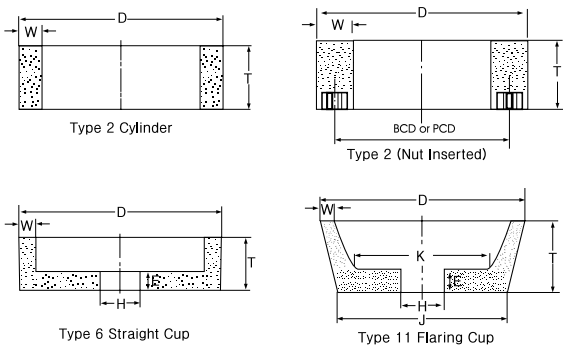
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Wheels on vertical spindle grinders



Cylinder wheels, cup wheels are generally used on vertical spindle rotary and reciprocating table surface grinding machines. K-PRIX provides a wide range of plane/plate mounted nut inserted type cylinder wheels, straight/tapered cup wheels which are composed with selected abrasive grits, grades, structures and best bonding systems to match any material removal or finish requirement from precision tool grinding room to rugged production job.

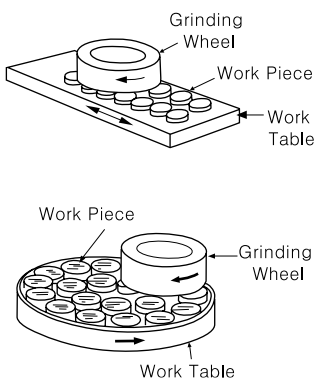
■ wheel shapes



■ Specification guide

Material to be ground	Starting specification for Cup & Cylinder
Steel	
–unhardened steel	19A46J
–(broad contact) hardened steel	SA46H
–(narrow contact) hardened steel	SA46I
–tool and high speed steel	SA46I
Die steel	WA46I
Stainless steel	SA46I
Cast Iron	C36I
Bronze, Brass, Ceramic	C46J

■ Types of grinding



Available wheel size

Type 2 (Ring / Cylinder)

Common wheel sizes (DxTxH)	
Inch	mm
8 x (3.1/2, 4, 4.1/2) x H	205 x (90, 100, 115) x H
10 x (3.1/2, 4, 4.1/2, 5, 5.1/2, 6, 7) x H	255 x (90, 100, 115, 125, 140, 150, 180) x H
12 x (4.1/2, 5) x H	305 x (115, 125) x H
14 x (4.1/2, 5) x H	355 x (115, 125) x H
16 x (4.1/2, 5) x H	405 x (115, 125) x H

Type 6 & 11 (Straight cup/ Flaring cup)

Common wheel sizes (DxTxH)	
Inch	mm
3 x 1.1/2 x H	75 x 38 x H
4 x (2, 2.1/2) x H	100 x (50, 63) x H
5 x (1.1/2, 1.3/4, 2, 2.1/2, 3) x H	125 x (38, 45, 50, 63, 75) x H
6 x (2, 3, 3.1/2) x H	150 x (50, 75, 90) x H
6.1/2 x (3, 3.1/4) x H	165 x (75, 85) x H
7 x (3, 3.5/32, 3.1/2, 4) x H	180 x (75, 80, 90, 100) x H
8 x (3.1/2, 4, 5) x H	205 x (90, 100, 125) x H
10 x (3.1/2, 4, 5, 6) x H	255 x (90, 100, 125, 150) x H
12 x (4, 4.1/2, 5) x H	305 x (100, 115, 125) x H
14 x (4, 5, 6, 8) x H	405 x (100, 125, 150, 205) x H

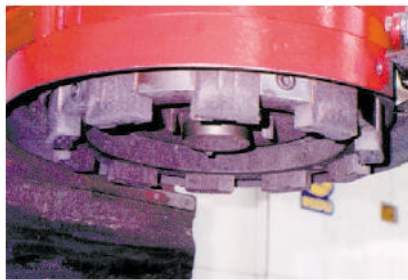
※ Please specify (H) Hole size when order

Segments

Segments are generally used on rotary table surface grinding machines and K-PRIX provides wide range of all purpose shapes, sizes and specifications of segments which are composed with selected abrasives in grits, grades, structures and best bonding systems to match any material removal or finish requirement from precision tool grinding room to rugged production job.



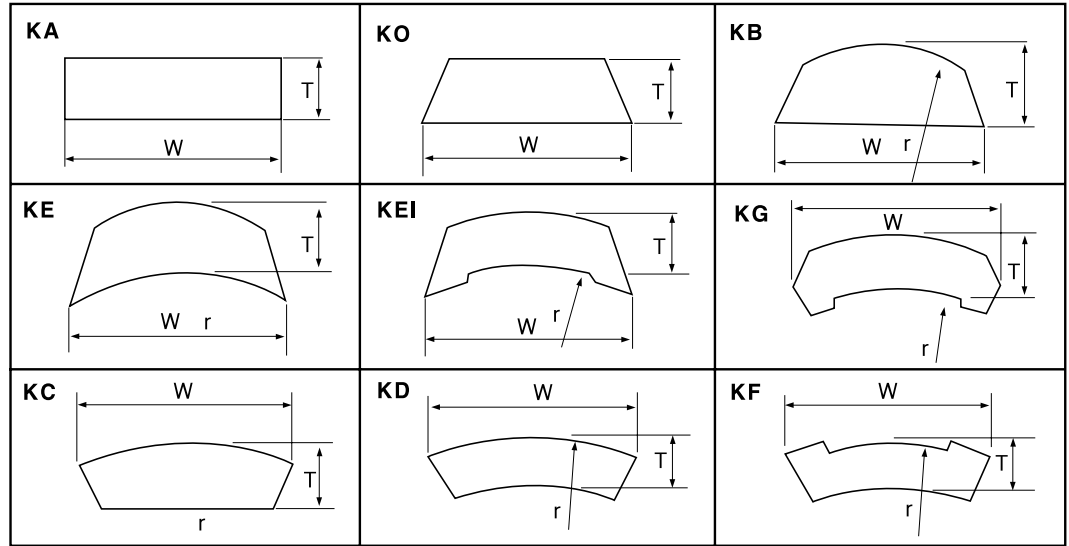
■ Specification guide



Material to be ground	Specification
Steel – unhardened steel,	19A36I
– (broad contact) hardened steel	32A36G
– (narrow contact) hardened steel	WA46H
– tool and high speed	SA46H
Die steel	WA36H
Stainless steel	SA46G
Cast Iron	C24H, C30I
Bronze, Brass, Ceramic	C46J

■ General shapes

W = width T = thickness

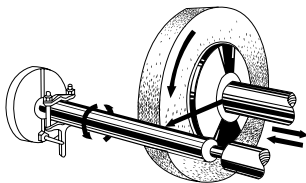


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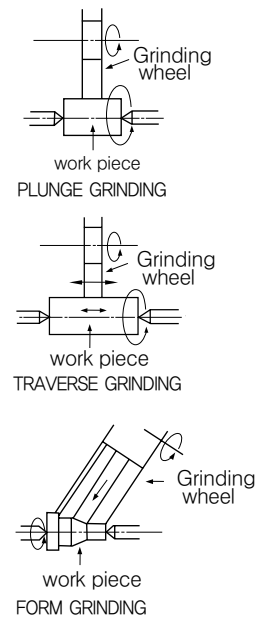
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CYLINDRICAL GRINDING WHEELS

In this type of grinding the work is revolved of its axis between centers.
K-PRIX cylindrical grinding wheels work to a very high degree of accuracy and finish.
K-PRIX cylindrical grinding wheels are used extensively throughout the automotive engine, turbine, bearing, shipbuilding, aircraft and metal working industries as well as production shops and tool rooms.



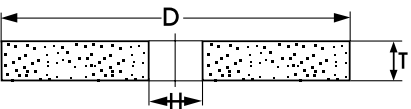
■Type of grinding



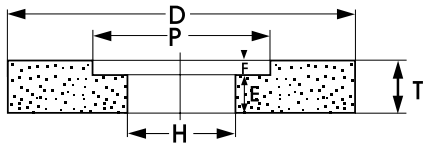
■Specification guide

Material to be ground	Specification	
	D<18″(455mm)	D ≥ 18″(455mm)
Steel		
–unhardened (soft)	19A46M	19A46L
–castings	A36L	A36K
–hardened,	WA60K	WA54I
–high speed	WA60I	WA60H
–molybden	SA46K	SA46J
–nitrided	GC80I	GC60H
Stainless steel	GC60K	GC54J
–heat treated	57K60K	57A54K
Iron		
–cast	C60K	C54J
–chilled	C60J	C54I
Stellite	23A46M	23A46L
Chrome plating	SA60K	SA54J
Tungsten carbide		
–roughing	GC60J	GC54I
–finishing	GC120H	GC120G
Aluminum, Bronze		
Brass, Copper	C60I	C54H
Plastic, Rubber	C46J	C46I

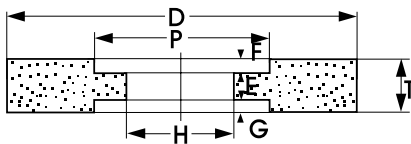
■ Wheel shapes



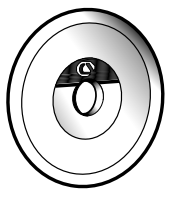
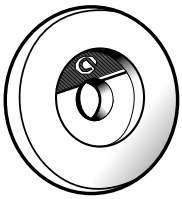
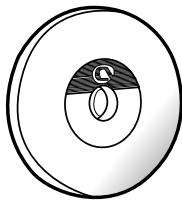
Type 1 Straight



Type 5 Recessed 1/S



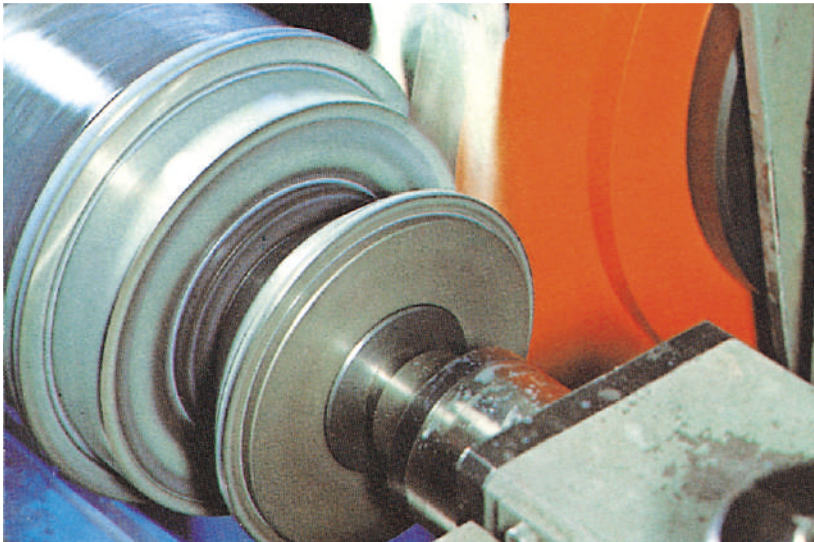
Type 7 Recessed 2/S



Available wheel size

Wheel size (DxTxH)	
Inch	mm
6 x 1/2 x 1.1/4	150 x 13 x 31.75
10 x (1/2, 3/4, 1) x 3	255 x (13, 19, 25) x 76.2
12 x (1, 1.1/4, 1.1/2, 2) x 5	305 x (25, 32, 38, 50) x 127
14 x (1, 1.1/4, 1.1/2, 2) x 5	355 x (25, 32, 38, 50) x 127
16 x (1, 1.1/2, 2.1/2, 3) x 5	405 x (25, 38, 50, 63, 75) x 127
18 x (2, 2.1/2, 3) x 5	455 x (50, 63, 75) x 127
20 x (2, 2.1/2, 3, 4) x 12	510 x (50, 63, 75, 100) x 304.8
24 x (2, 3, 4) x 12	610 x (50, 75, 100) x 304.8
30 x (2, 3, 4) x 12	760 x (50, 75, 100) x 304.8

※ Specific hole sizes are not shown on above, please specify (H) hole size when order.





K-PRIX®

K-PRIX means the combination of quality, cost and service...

TOOL ROOM WHEELS

The selection of correct grinding wheel for tool sharpening is very important to successful job finishing of tools.
K-PRIX tool room grinding wheels cover all tool room jobs such as reconditioning and sharpening of various types of tools and cutters.
Straight wheels, cup wheels, dish wheels, mounted wheels and cut-off wheels are applicable for drills, broaches, taps, milling cutters, metal saws, reamers, gears, dies, hobs and other tools.



TOOL AND CUTTER GRINDING WHEELS
STANDARD SELECTION GUIDE

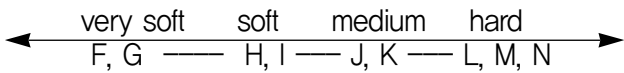
Abrasve

- WA is most conventional for tool & die steels.
- RA is suitable for grinding high alloyed steel.
- SA is ideal for grinding heat sensitive high alloyed steel and high speed steel.
- GC is widely used for grinding cemented carbide tools.
- CW is the most efficient for tools and cutters.

Grit Size

#36,46,54,60,80,100,120,150,180,220 and finer grits

Grade (Hardness)

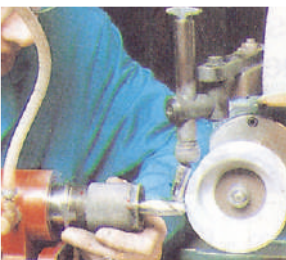


Type 1, STRAIGHT WHEELS

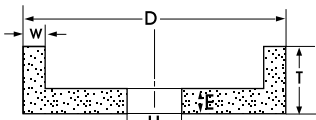
Available wheel size

Size(inch)	Size(mm)	Max. RPM.
4 x 1/4 x H	100 x 6 x H	6,110
4 x 3/8 x H	100 x 10 x H	6,110
4 x 1/2 x H	100 x 13 x H	6,110
4 x 5/8 x H	100 x 16 x H	6,110
4 x 3/4 x H	100 x 19 x H	6,110
4 x 1 x H	100 x 25 x H	6,110
5 x 1/4 x H	125 x 6 x H	5,095
5 x 3/8 x H	125 x 10 x H	5,095
5 x 1/2 x H	125 x 13 x H	5,095
5 x 5/8 x H	125 x 16 x H	5,095
5 x 3/4 x H	125 x 19 x H	5,095
5 x 1 x H	125 x 25 x H	5,095
6 x 1/8 x H	150 x 3 x H	4,136
6 x 5/32 x H	150 x 4 x H	4,136
6 x 1/4 x H	150 x 6 x H	4,136
6 x 3/8 x H	150 x 10 x H	4,136
6 x 1/2 x H	150 x 13 x H	4,136
6 x 5/8 x H	150 x 16 x H	4,136
6 x 3/4 x H	150 x 19 x H	4,136
6 x 1 x H	150 x 25 x H	4,136
7 x 1/8 x H	180 x 3 x H	3,600
7 x 5/32 x H	180 x 4 x H	3,600
7 x 3/16 x H	180 x 5 x H	3,600
7 x 1/4 x H	180 x 6 x H	3,600
7 x 5/16 x H	180 x 8 x H	3,600
7 x 3/8 x H	180 x 10 x H	3,600
7 x 1/2 x H	180 x 13 x H	3,600
7 x 5/8 x H	180 x 16 x H	3,600
7 x 3/4 x H	180 x 19 x H	3,600
7 x 1 x H	180 x 25 x H	3,600
7 x 1.1/4 x H	180 x 32 x H	3,600
8 x 5/16 x H	205 x 8 x H	3,100
8 x 3/8 x H	205 x 10 x H	3,100
8 x 1/2 x H	205 x 13 x H	3,100
8 x 5/8 x H	205 x 16 x H	3,100
8 x 3/4 x H	205 x 19 x H	3,100
8 x 1 x H	205 x 25 x H	3,100
8 x 1.1/4 x H	205 x 32 x H	3,100
9 x 3/4 x H	230 x 19 x H	2,770
9 x 1 x H	230 x 25 x H	2,770
10 x 1/2 x H	255 x 13 x H	2,483
10 x 3/4 x H	255 x 19 x H	2,483
10 x 1 x H	255 x 25 x H	2,483
10 x 1.1/4 x H	255 x 32 x H	2,483
12 x 3/4 x H	305 x 19 x H	2,069
12 x 1 x H	305 x 25 x H	2,069
12 x 1.1/4 x H	305 x 32 x H	2,069
12 x 1.1/2 x H	305 x 38 x H	2,069
12 x 2 x H	305 x 50 x H	2,069
14 x 3/4 x H	355 x 19 x H	1,800
14 x 1 x H	355 x 25 x H	1,800
14 x 1.1/4 x H	355 x 32 x H	1,800
14 x 1.1/2 x H	355 x 38 x H	1,800
14 x 2 x H	355 x 50 x H	1,800
16 x 1.1/4 x H	405 x 32 x H	1,570
16 x 1.1/2 x H	405 x 38 x H	1,570
16 x 2 x H	405 x 50 x H	1,570
18 x 2 x H	455 x 50 x H	1,400
18 x 2.1/2 x H	455 x 63 x H	1,400
20 x 2 x H	508 x 50 x H	1,254
20 x 2.1/2 x H	508 x 63 x H	1,254

TYPE 6, STRAIGHT CUP WHEELS



Wheel shape



Type 6 – Straight cup

Available wheel size

Size(inch)	Size(mm)	Max. RPM.
3 x 1.1/2 x H	75 x 40 x H	7,643
4 x 1.1/2 x H	100 x 40 x H	5,733
4 x 2 x H	100 x 50 x H	
4 x 3 x H	100 x 75 x H	
5 x 1.1/2 x H	125 x 38 x H	4,856
5 x 1.3/4 x H	125 x 45 x H	
5 x 2 x H	125 x 50 x H	
5 x 2.1/4 x H	125 x 63 x H	
6 x 2 x H	150 x 50 x H	3,822
6 x 2.1/2 x H	150 x 63 x H	
6 x 3 x H	150 x 75 x H	
7 x 2 x H	180 x 50 x H	3,185
7 x 2.1/2 x H	180 x 63 x H	
7 x 3 x H	180 x 75 x H	

※ Wall(W), Back(E) and Hole(H) size as ordered.

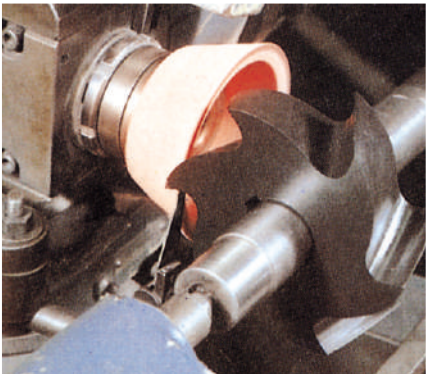
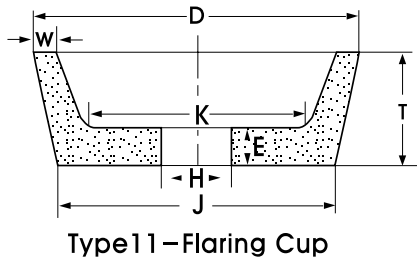
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TYPE 11, FLARING CUP WHEELS



Wheel shape



Available wheel size

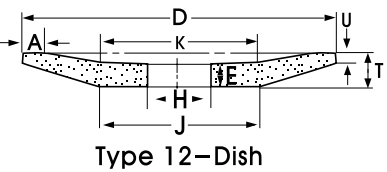
Size(inch)	Size(mm)	Max. RPM.
3 x 1.1/4 x H	75 x 32 x H	7,643
3 x 1.1/2 x H	75 x 38 x H	
3.1/2 x 1.1/4 x H	90 x 32 x H	6,369
3.1/2 x 1.1/2 x H	90 x 38 x H	
4 x 1.1/2 x H	100 x 40 x H	5,733
4 x 2 x H	100 x 50 x H	
5 x 1.1/2 x H	125 x 40 x H	4,856
5 x 1.3/4 x H	125 x 45 x H	
5 x 2 x H	125 x 50 x H	3,822
6 x 1.1/2 x H	150 x 40 x H	
6 x 1.3/4 x H	150 x 45 x H	
6 x 2 x H	150 x 50 x H	
6 x 2.1/2 x H	150 x 63 x H	3,185
6 x 3 x H	150 x 75 x H	
7 x 2 x H	180 x 50 x H	
7 x 2.1/2 x H	180 x 63 x H	
7 x 3 x H	180 x 75 x H	

※ Arbor Hole(H) size as ordered.
Specify W,E,J,K sizes when order.

TYPE 12, DISH WHEELS



Wheel shape



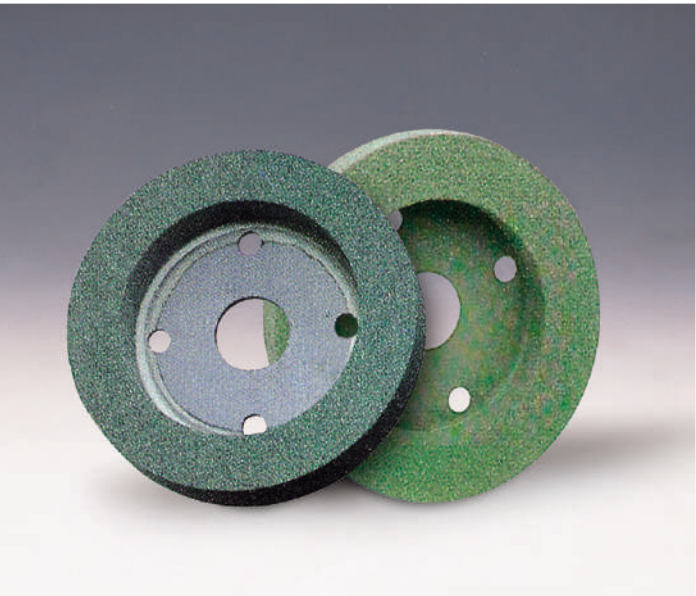
Available wheel size

size(inch)	size(mm)	Max. RPM
3 x 1/2 x H	75 x 13 x H	8,439
3.1/2 x 1/2 x H	90 x 13 x H	7,077
4 x 1/2 x H	100 x 13 x H	6,369
5 x 1/2 x H	125 x 13 x H	5,095
5 x 5/8 x H	125 x 16 x H	
6 x 1/2 x H	150 x 13 x H	4,246
6 x 5/8 x H	150 x 16 x H	
6 x 3/4 x H	150 x 19 x H	
7 x 5/8 x H	180 x 16 x H	3,539
7 x 3/4 x H	180 x 19 x H	

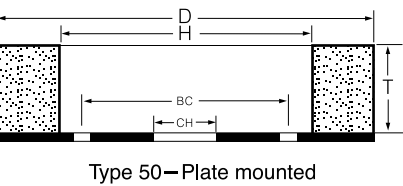
※ Arbor Hole(H) size as ordered.
Specify E, J, K, U, A sizes when order.

TYPE 50, PLATE MOUNTED WHEELS

GC(Green Silicon carbide) grain is widely used for grinding cemented carbide tools.



Wheel shape



Available wheel size

size(inch)	size(mm)	Max. rpm.
6 x 1 x 4	150 x 25 x 100	3,501
6 x 1.1/2 x 4	150 x 38 x 100	3,501
7 x 1 x 5	180 x 25 x 127	3,001
7 x 1.1/2 x 5	180 x 38 x 127	3,001

※ Specify (CH) center hole diameter (BC) bolt circle diameter, No. and diameter of holes.

MOUNTED POINT WHEELS



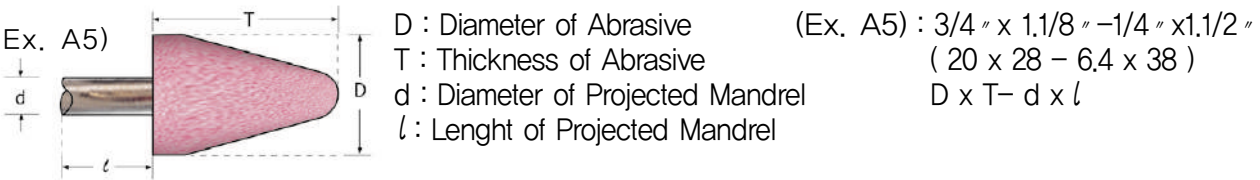
MOUNTED POINTS FOR DEBURRING, SHARPENING AND INTERNAL GRINDING

Specification guide

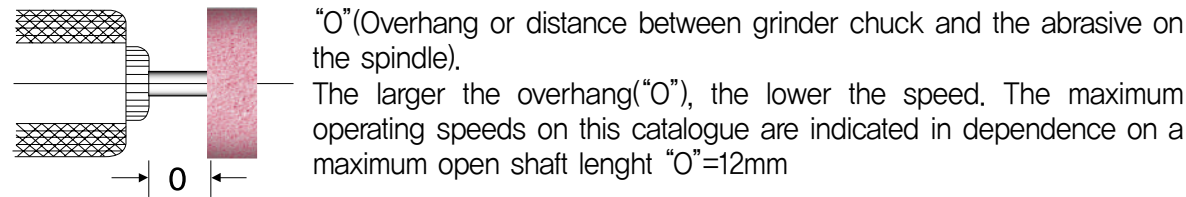
ABRASIVE	A	Regular Alumium Oxide—soft steel & cast iron
	WA	White Aluminium Oxide—hard steel, GENERAL PURPOSE
	PA	Pink Aluminium Oxide—cool cutting works for hardened steel
	SA	Single Crystal Aluminium Oxide—superior forming & long life
	C	Dark Silicon Carbide—cast iron, non-ferrous, non-metal
	GC	Green Silicon Carbide—cemented carbide
GRIT	16,24,36,46,60,80,100,120,150,180,220,240,320	
GRADE	H, I, J, K, L, M, N, O, P, Q, R, S, T	
BOND	V(Vitrified), B(Resinoid), R(Rubber)	

When ordering, please specify :
Specification(marking)
* Shape No by catalogue, if listed.
* Diameter(D) & length(l) of projected (unless otherwise specified, standard shaft dimension will be delivered).
* Kind of material to be ground.

Marking of Mounted Point's Dimension

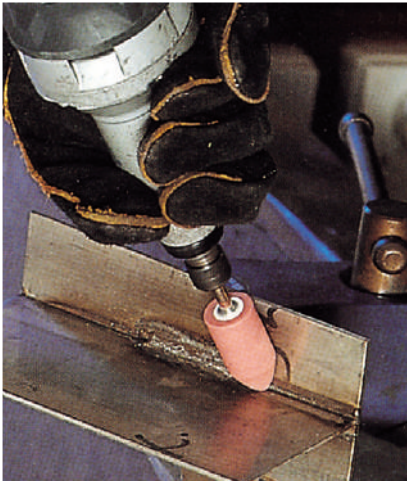


MAXIMUM OPERATION SPEED



GROUP "A" STANDARD SHAPE (A1 – A39)

K-PRIX mounted point is offering of high quality, fast stock removal and a full range of standard shapes.



Available wheel size

Shape No.	Dimension—mm(inch) Dia X Thick (DXT)	Mandrel Diameter mm(Inch)	Max.RPM O = 12mm	Shape No.	Dimension—mm(inch) Dia X Thick (DXT)	Mandrel Diameter mm(Inch)	Max.RPM O = 12mm
A 1	20 X 63 (3/4 X 2 1/2)	6 (1/4)	19,800	A 23	20 X 25 (3/4 X 1)	6 (1/4)	39,370
A 2	25 X 32 (1 X 1 1/4)	6 (1/4)	38,000	A 24	6 X 20 (1/4 X 3/4)	6 (1/4)	76,500
A 3	25 X 70 (1 X 2 3/4)	6 (1/4)	16,100	A 25	Ø25 (1)	6 (1/4)	35,620
A 4	32 X 32 (1.1/4 X 1 1/4)	6 (1/4)	30,560	A 26	Ø16 (5/8)	6 (1/4)	61,120
A 5	20 X 28 (3/4 X 1 1/8)	6 (1/4)	45,000	A 31	35 X 25 (1.3/8 X 1)	6 (1/4)	27,780
A 6	20 X 28 (3/4 X 1 1/8)	6 (1/4)	39,000	A 32	25 X 16 (1 X 5/8)	6 (1/4)	38,200
A 11	22 X 50 (7/8 X 2)	6 (1/4)	19,860	A 33	25 X 13(1 X 1/2)	6(1/4)	38,200
A 12	18 X 32 (11/16 X 1 1/4)	6 (1/4)	48,000	A 34	38 X 10 (1 1/2 X 3/8)	6 (1/4)	25,470
A 13	28 X 28 (1.1/8 X 1 1/8)	6 (1/4)	33,950	A 35	25 X 10 (1 X 3/8)	6 (1/4)	38,200
A 14	18 X 22 (11/16 X 7/8)	6 (1/4)	55,560	A 36	40 X 10 (1.5/8 X 3/8)	6 (1/4)	23,520
A 15	6 X 27 ((1/4 X 1.1/16)	6 (1/4)	72,750	A 37	32 X 6 (1.1/4 X 1/4)	6 (1/4)	30,560
A 21	25 X 25 (1 X 1)	6 (1/4)	34,500	A 38	25 X 25 (1 X 1)	6 (1/4)	34,500
A 22	19 X 16 (3/4 X 5/8)	6 (1/4)	50,930	A 39	20 X 20 (3/4 X 3/4)	6 (1/4)	47,250



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




















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













GROUP "B" STANDARD SHAPE (B41 – B135)

K-PRIX mounted point is offering of high quality, fast stock removal, and a full range of standard shapes.

Available wheel size

Shape No.		Dimension-mm(inch) Dia X Thick (DXT)	Mandrel Diameter mm(Inch)	Max.RPM O = 12mm
	B 41	16 X 16 (5/8 x 5/8)	3 , 6 (1/8,1/4)	33,750
	B 42	13 X 20 (1/2 X 3/4)	3 , 6 (1/8,1/4)	33,750
	B 43	6 X 8 (1/4 X 5/16)	3 (1/8)	81,370
	B 44	6 X 10 (7/32 X 3/8)	3 (1/8)	68,400
	B 45	5 X 8 (3/16X 5/16)	3 (1/8)	104,250
	B 46	3 X 8 (1/8 X 5/16)	3 (1/8)	105,000
	B 51	11 X 20 (7/16 X 3/4)	3 , 6 (1/8,1/4)	45,370
	B 52	10 X 20 (3/8 X 3/4)	3 , 6 (1/8,1/4)	45,370
	B 53	6 X 16 (1/4 X 5/8)	3 (1/8)	60,000
	B 54	6 X 13 (1/4 X 1/2)	3 (1/8)	60,000
	B 55	3 X 6 (1/8 X 1/4)	3 (1/8)	105,000
	B 61	20 X 8 (3/4 X 5/16)	3 , 6 (1/8,1/4)	38,250
	B 62	13 X 10 (1/2 X 3/8)	3 , 6 (1/8,1/4)	41,020
	B 63	6 X 5 (1/4 X 3/16)	3 (1/8)	92,400
	B 64	6 X 2 (1/4 X 1/6)	3 (1/8)	105,000
	B 65	3 X 3 (1/8 X 1/8)	3 (1/8)	105,000
	B 69	8 X 2 (5/16 X 1/10)	3 (1/8)	105,000
	B 70	20 X 3 (3/4 X 1/8)	3 (1/8)	50,930
	B 71	16 X 3 (5/8 X 1/8)	3 (1/8)	61,120
	B 72	13 X 3(1/2 X 1/8)	3 (1/8)	73,500
	B 73	13 X 3 (1/2 X 1/8)	3 (1/8)	73,500
	B 81	20 X 8 (3/4 X 5/16)	3 (1/8)	50,930
	B 82	13 X 6 (1/2 X 1/4)	3 (1/8)	76,390
	B 83	10 X 5 (3/8 X 3/16)	3 (1/8)	87,600
	B 84	8 X 5 (5/16 X 3/16)	3 (1/8)	105,000

Shape No.		Dimension-mm(inch) Dia X Thick (DXT)	Mandrel Diameter mm(Inch)	Max.RPM O = 12mm
	B 91	13 X 16 (1/2 X 5/8)	3 , 6 (1/8,1/4)	34,500
	B 92	6 X 6 (1/4 X 1/4)	3 (1/8)	81,370
	B 95	3 X 5 (1/8 X 3/16)	3 (1/8)	105,000
	B 96	3 X 6 (1/8 X 1/4)	3 (1/8)	105,000
	B 97	3 X 10 (1/8 X 3/8)	3 (1/8)	105,000
	B 98	2 X 6 (3/32 X 1/4)	3 (1/8)	105,000
	B 101	16 X 18 (5/8 X 11/16)	3 , 6 (1/8,1/4)	33,750
	B 102	16 X 13 (5/8 X 1/2)	3 (1/8)	45,370
	B 103	16 X 5 (5/8 X 3/16)	3 , 6 (1/8,1/4)	61,120
	B 104	8 X 10 (5/16 X 3/8)	3 (1/8)	68,400
	B 105	6 X 6 (1/4 X 1/4)	3 (1/8)	104,250
	B 106	3 X 3 (1/8 X 1/8)	3 (1/8)	105,000
	B 111	11 X 18 (7/16 X 11/16)	3 , 6 (1/8,1/4)	33,750
	B 112	10 X 13 (3/8 X 1/2)	3 (1/8)	45,370
	B 114	6 X 10 (7/32 X 3/8)	3 (1/8)	68,400
	B 115	2 X 3 (3/32 X 1/8)	3 (1/8)	105,000
	B 121	Ø13 (1/2)	3 , 6 (1/8,1/4)	45,370
	B 122	Ø10 (3/8)	3 (1/8)	61,650
	B 123	Ø5 (3/16)	3 (1/8)	104,250
	B 124	Ø3 (1/8)	3 (1/8)	105,000
	B 125	Ø6 (1/4)	3 (1/8)	125,000
	B 131	13 X 13 (1/2 X 1/2)	3 , 6 (1/8,1/4)	34,500
	B 132	10 X 13 (3/8 X 1/2)	3 , 6 (1/8,1/4)	45,370
	B 133	10 X 10 (3/8 X 3/8)	3 , 6 (1/8,1/4)	54,000
	B 135	6 X 13 (1/4 X 1/2)	3 , 6 (1/8,1/4)	60,000










































GROUP "W" STANDARD SHAPE
(W142 – W242)



K-PRIX mounted point is offering of high quality, fast stock removal, and a full range of standard shapes.



Available wheel size

Shape No.		Dimension-mm(inch) Dia X Thick (DXT)	Mandrel Diameter mm(Inch)	Max.RPM O = 12mm
	W142	2,5 X 6 (3/32 X 1/4)	3 (1/8)	105,000
	W143	3 X 3 (1/8 X 1/8)	3 (1/8)	105,000
	W144	3 X 6 (1/8 X 1/4)	3 (1/8)	105,000
	W145	3 X 10 (1/8 X 3/8)	3 (1/8)	105,000
	W146	3 X 13 (1/8 X 1/2)	3 (1/8)	105,000
	W149	4 X 6 (5/32 X 1/4)	3 (1/8)	105,000
	W152	5 X 6 (3/16 X 1/4)	3 (1/8)	105,000
	W153	5 X 10 (3/16 X 3/8)	3 (1/8)	80,850
	W154	5 X 13 (3/16 X 1/2)	3 (1/8)	70,500
	W158	6 X 3 (1/4 X 1/8)	3 (1/8)	105,000
	W160	6 X 6 (1/4 X 1/4)	3 (1/8)	81,370
	W162	6 X 10 (1/4 X 3/8)	3 (1/8)	68,400
	W163	6 X 13 (1/4 X 1/2)	3 (1/8)	60,000
	W164	6 X 20 (1/4 X 3/4)	3,6(1/8,1/4)	45,900
	W167	8 X 6 (5/11 X 1/4)	3 (1/8)	75,000
	W170	8 X 13 (5/16 X 1/2)	3 (1/8)	52,500
	W173	10 X 3 (3/8 X 1/8)	3 (1/8)	87,600
	W174	10 X 6 (3/8 X 1/4)	3 (1/8)	69,000
	W175	10 X 10 (3/8 X 3/8)	3,6(1/8,1/4)	54,000
	W176	10 X 13 (3/8 X 1/2)	3,6(1/8,1/4)	45,370
	W177	10 X 20 (3/8 X 3/4)	3,6(1/8,1/4)	33,750
	W178	10 X 25 (3/8 X 1)	3,6(1/8,1/4)	26,250
	W179	10 X 32 (3/8 X 1.1/4)	3,6(1/8,1/4)	45,750
	W182	13 X 3 (1/2 X 1/8)	3,6(1/8,1/4)	73,500
	W183	13 X 6 (1/2 X 1/4)	3,6(1/8,1/4)	51,750
	W184	13 X 10 (1/2 X 3/8)	3,6(1/8,1/4)	41,020
	W185	13 X 13 (1/2 X 1/2)	3,6(1/8,1/4)	34,500
	W186	13 X 20 (1/2 X 3/4)	3,6(1/8,1/4)	26,250
	W187	13 X 25 (1/2 X 1)	3,6(1/8,1/4)	20,620
	W188	13 X 38 (1/2 X 1.1/2)	3,6(1/8,1/4)	30,370
	W189	13 X 50 (1/2 X 2)	3,6(1/8,1/4)	24,000
	W191	16 X 3 (5/8 X 1/8)	3 (1/8)	58,870
	W194	16 X 13 (5/8 X 1/2)	3,6(1/8,1/4)	29,400
	W195	16 X 20 (5/8 X 3/4)	3,6(1/8,1/4)	17,620
	W196	16 X 25 (5/8 X 1)	3,6(1/8,1/4)	35,250
	W197	16 X 50 (5/8 X 2)	3,6(1/8,1/4)	21,000
	W200	20 X 3 (3/4 X 1/8)	3,6(1/8,1/4)	50,930
	W201	20 X 6 (3/4 X 1/4)	3,6(1/8,1/4)	38,250
	W202	20 X 10 (3/4 X 3/8)	3,6(1/8,1/4)	30,600
	W203	20 X 13 (3/4 X 1/2)	3,6(1/8,1/4)	25,500
	W204	20 X 20 (3/4 X 3/4)	3,6(1/8,1/4)	18,900
	W205	20 X 25 (3/4 X 1)	6 (1/4)	34,500
	W207	20 X 38 (3/4 X 1.1/2)	6 (1/4)	24,000
	W208	20 X 50 (3/4 X 2)	6 (1/4)	18,750
	W215	25 X 3 (1 X 1/8)	3,6(1/8,1/4)	38,200
	W216	25 X 6 (1 X 1/4)	3,6(1/8,1/4)	30,520
	W217	25 X 10 (1 X 3/8)	3,6(1/8,1/4)	38,200
	W218	25 X 13 (1 X 1/2)	6 (1/4)	38,200
	W220	25 X 25 (1 X 1)	6 (1/4)	25,500
	W221	25 X 38 (1 X 1.1/2)	6 (1/4)	19,120
	W222	25 X 50 (1 X 2)	6 (1/4)	15,900
	W225	32 X 6 (1.1/4 X 1/4)	3,6(1/8,1/4)	30,560
	W226	32 X 10 (1.1/4 X 3/8)	6 (1/4)	30,560
	W227	32 X 13 (1.1/4 X 1/2)	3 (1/8)	30,560
	W228	32 X 20 (1.1/4 X 3/4)	6 (1/4)	30,520
	W230	32 X 32 (1.1/4 X 1.1/4)	6 (1/4)	20,400
	W232	32 X 50 (1.1/4 X 2)	6 (1/4)	14,250
	W235	38 X 6 (1.1/2 X 1/4)	6 (1/4)	25,470
	W236	38 X 13 (1.1/2 X 1/2)	6 (1/4)	25,470
	W237	38 X 25 (1.1/2 X 1)	6 (1/4)	22,500
	W238	38 X 38 (1.1/2 X 1.1/2)	6 (1/4)	15,600
	W242	50 X 25 (2 X 1)	6 (1/4)	19,100

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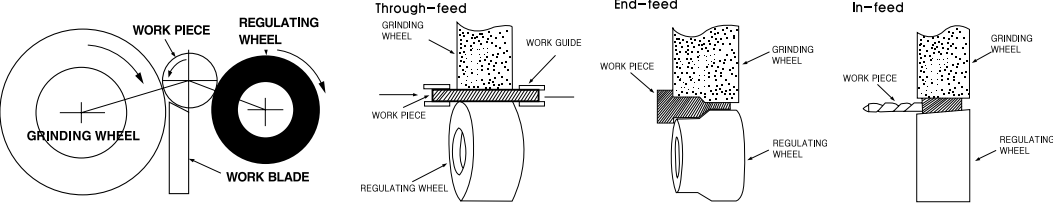
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CENTERLESS GRINDING WHEELS

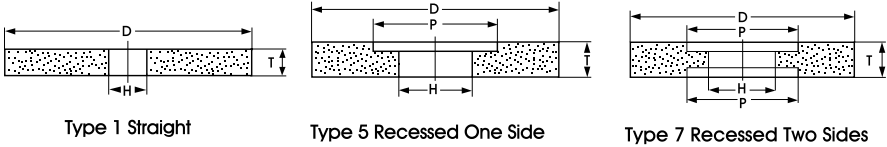
For mass-production of straight cylindrical and tapered shapes to precise tolerance of sizes, shapes along with finish quickly and easily, K-PRIX centerless grinding wheels and rubber regulating wheel(the drive mechanism for the workpiece) are used for Through-Feed, In-Feed, End-Feed grinding throughout the automotive, machine tool producer, bearing, accurate pin manufacturer, aircraft, steel mill, turbine blades, fastener manufacturing and even in finishing rod producer as well as general shops.



Type of grinding

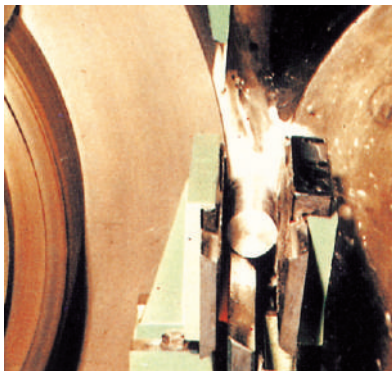


Wheel shapes



Specification Guide

Material to be ground	Starting specification
General purpose steel	19A60L / 23A60M
Unhardened(soft) steel	A60M
Hardened steel	FA60K
High speed steel	WA60L / 23A60L
Bars	FA60M / C46Q
Heat treated Stainless steel	GC54K / SA46L / FA60L
Tungsten carbide	GC60J
Cast Iron	C36L
Aluminum, Brass, Copper, Bronze	C46K
Porcelain, Ceramics	GC60K

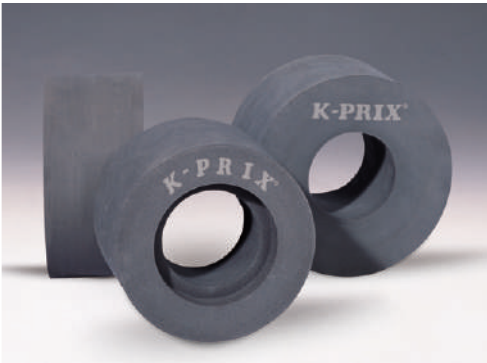


Available wheel size

Diameter (Inch)	Thickness(Inch)																	MAX. RPM
	2	3	4	5	6	7	8	9	10	11	12	13	14	16	18	20		
10																	2,500	
12																	2,000	
14																	1,800	
15																	1,650	
16																	1,550	
18																	1,400	
20																	1,250	
24																	1,050	
26																	950	

RUBBER REGULATING WHEELS

The regulating wheels for centerless grinding wheels are rubber bonded, and are with 7"(180mm) to 18"(455mm) in diameter and the same thickness as the centerless grinding wheel.



Specification Guide

Application	Specification
For General Purpose	A80RR1 / A120RR1
For Tough Grinding	A60RR2 / A80RR2

Available wheel size

Diameter (Inch)	Thickness(Inch)										MAX. RPM
	2	3	4	5	6	7	8	9	10	12	
7											1,200
8											1,100
9											1,000
10											900
11											800
12											750
13											700
14											650
16											560
18											500



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CRANKSHAFT GRINDING WHEELS

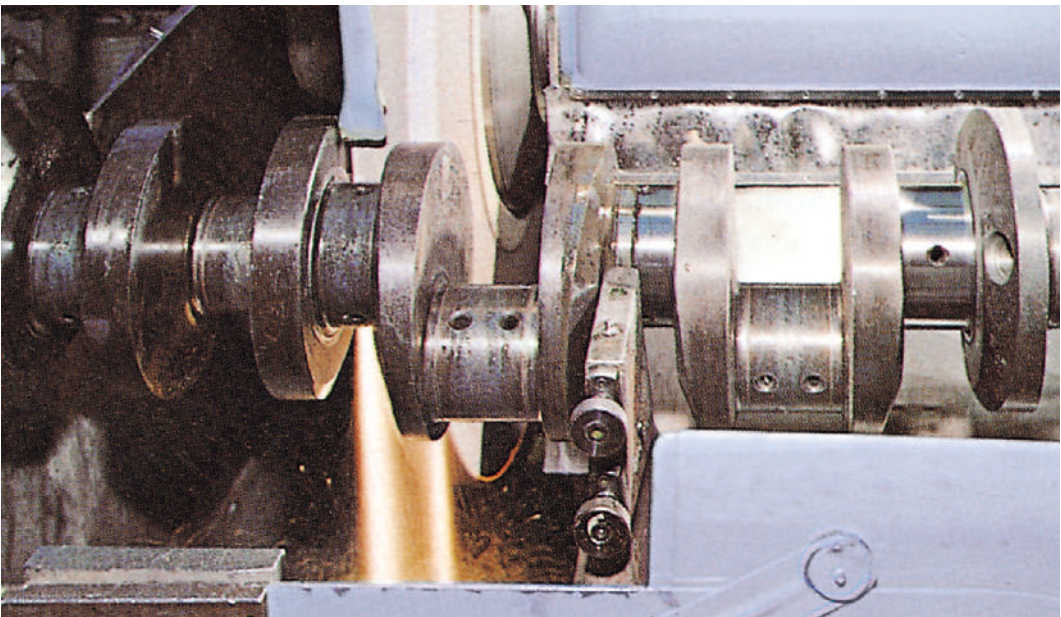
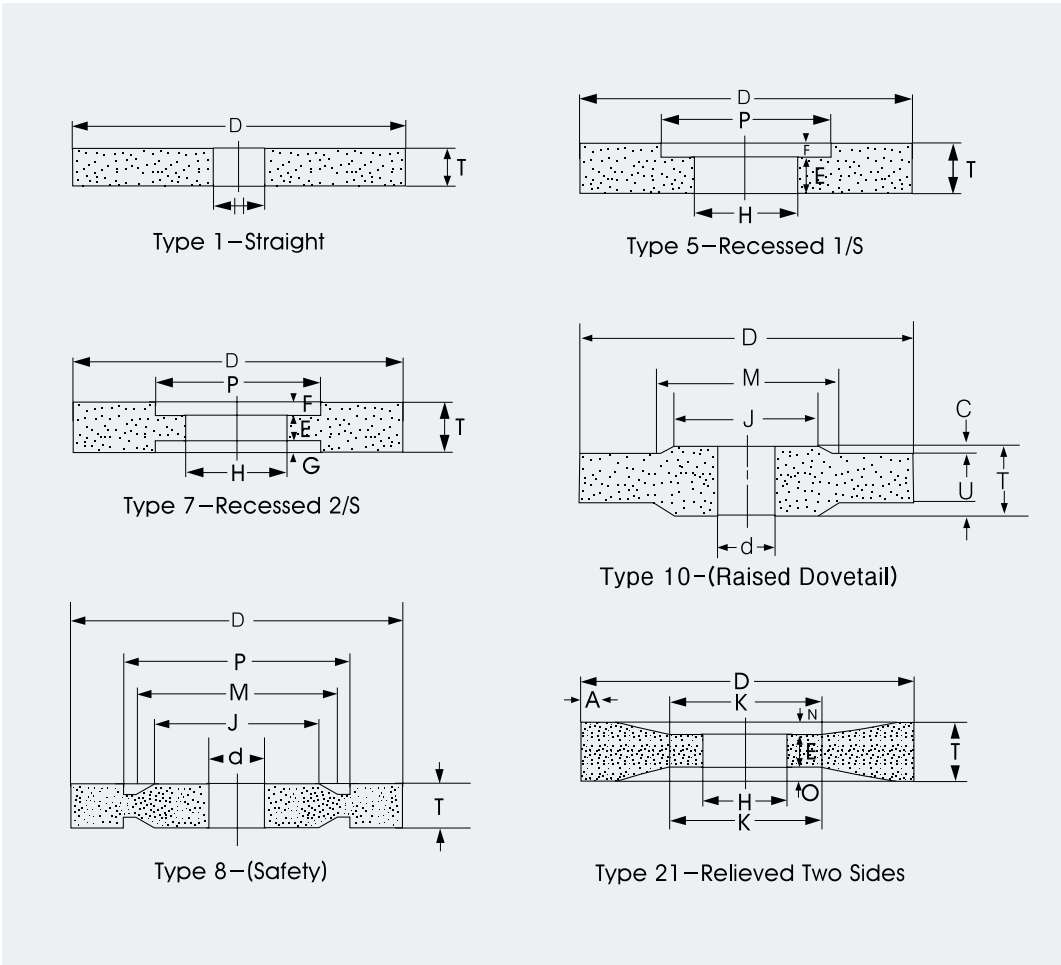
Crankshaft grinding wheels are one of special class of K-PRIX production program.
K-PRIX offers special thickness dimension(8500SFPM-43M/SEC) and higher speed machines to the automotive, truck, diesel, aircraft, and also to many engine rebuilding shops for dimensional accuracy, corner radii and surface finish as well as large stock removal.
Most of crankshaft wheels are type 1,5,7,8,10 and 21 ranging from 18"(455mm) up to 48"(1220mm) in diameter and 1/2"(12.7mm) to 2.1/2" (63.5mm) thickness.



Specification guide

Application			Specification
Production grinding	Automobile(passenger car)	rough	FA46P
	crankshaft, pin & bearing	finish	23A60O
	Automobile pin	forged steel	FA54N
		spheriodic graphite iron	FA80P
	Truck & tractor (diesel engine)	before nitriding	FA46M
	crankshaft	after nitriding	FA60L
	Multi-wheels equipped		FA60M
	Cast iron	rough	FA46N
		finish	19A60L
Re-grinding	Hardened steel	pin	FA54N
		bearing	23A60L
	Nitrided steel	pin	FA60M
		bearing	FA60N
Re-grinding	Auto mobile crankshaft truck &	Automobile crankshaft	19A60O
	Tractor crankshaft	Truck & tractor crankshaft	19A60N

Wheel shapes



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CAM SHAFT GRINDING WHEELS

Cam shaft grinding is another special line of K-PRIX grinding applications. Cam grinding wheels are used in the manufacturing of gasoline and diesel engines, and are normally custom-built to the machine and the part to be ground. K-PRIX provides close dimension tolerance wheels for production cam grinding in the automobile, truck, ship building, locomotive, farm equipment and engine industry as well as cam grinding in engine rebuilding shops. Vitrified & resin bonded type 1 straight wheels ranging from 16"(405mm) to 28"(710mm) diameters with thickness from 1/2"(12,7mm) to 2"(50mm) are most popular.



Specification guide.

Application		Starting specification
Automobile(passenger car) cam - cast alloys & forgings	rough finish	FA54N A80M / WA80L
Automobile cam - hardened steel	rough finish	19A60M A80L / WA80K
Truck & tractors - forgings	rough finish	19A60L / FA54L 19A80M / FA80M
Cast Iron	rough finish	FA54L FA80M
Chilled Iron	rough finish	FA54L FA80M

RESIN BONDED SNAGGING WHEELS



K-PRIX snagging wheels are manufactured for a wide use of heavy stock removal in foundries, welding shops, metal fabricators, steel mills, shipyards, etc., and offers a complete line of engineered snagging wheels of high performance and many types such as straight wheels, flaring cups, cones & plugs and mounted points.

PORTABLE SNAGGING WHEEL

- ▷Straight type Snagging Wheel is for used on straight grinders.
- ▷Cup Type Snagging Wheel is for used on angle grinders.
- ▷Cone & Plug Wheels are for used on straight grinders
- ▷Mounted Point Wheels are for used on straight grinders or pointer grinders.

Specification guide.

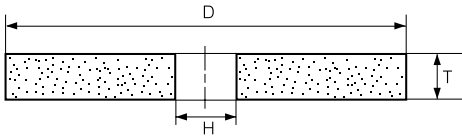
- ▶Metal/Steel : A16P,A16Q,A16R,A24P,A24Q,A24R
- ▶Cast Iron : AC16, AC20, AC24
- ▶Concrete/Masonry : C16R,C20R,C24R

Available wheel size

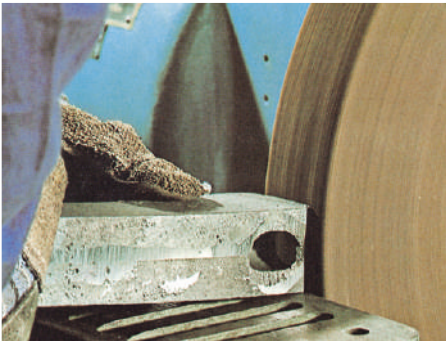
WHEEL SIZE(DXTXH)		MAX.RPM
inch	mm	
2 X 1/2 X H	50 X 13 X H	18,300
2 X 3/4 X H	50 X 20 X H	18,300
2 1/2 X 1 1/2 X H	65 X 13 X H	14,500
2 1/2 X 3/4 X H	65 X 20 X H	14,500
3 X 1/2 X H	80 X 13 X H	11,500
3 X 3/4 X H	80 X 20 X H	11,500
4 X 1/2 X H	100 X 13 X H	9,100
4 X 3/4 X H	100 X 20 X H	9,100
4 X 1 X H	100 X 25 X H	9,100
5 X 3/4 X H	125 X 20 X H	7,300
5 X 1 X H	125 X 25 X H	7,300
6 X 1 X H	150 X 25 X H	6,050
8 X 1 X H	205 X 25 X H	4,530
10 X 1 X H	255 X 25 X H	3,740
10 X 1 1/4 X H	255 X 32 X H	3,740
10 X 1 1/2 X H	255 X 40 X H	3,740
12 X 1 1/4 X H	305 X 32 X H	3,130
12 X 1 1/2 X H	305 X 40 X H	3,130
12 X 2 X H	305 X 50 X H	3,130
14 X 1 1/2 X H	355 X 40 X H	2,690
14 X 2 X H	355 X 50 X H	2,690
16 X 1 1/2 X H	405 X 40 X H	2,350
16 X 2 X H	405 X 50 X H	2,350

※ Please specify arbor hole(H) size when order.

Wheel shape



Type 1-Straight



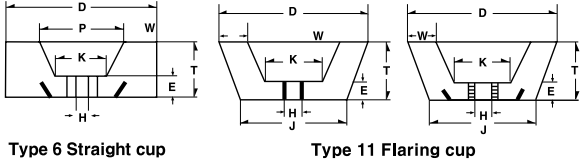
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CUP WHEELS



Wheel shapes



Available wheel size

WHEEL SIZE(DXTXH)		MAX.RPM
inch	mm	
4 x 2 x H rim: 3/4, back: 3/4	100/75 X 50 X H rim: 20, back : 20	9,070
4,1/2 x 2 x H rim: 3/4, back: 3/4	115/95 X 50 X H rim: 20, back : 20	8,060
5 x 2 x H rim: 1", back: 3/4	125/108 X 50 X H rim: 25, back : 20	7,250
6 x 2 x H rim: 1,1/2, back: 3/4	150/113 X 50 X H rim: 40, back : 20	6,040

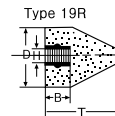
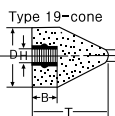
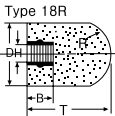
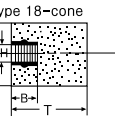
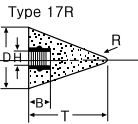
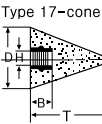
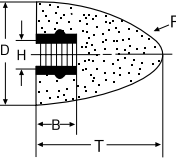
※ Please specify arbor hole(H) size when order.
Arbor hole(H) 7/8"(22,23mm), 5/8"-11, M14 available upon request.

CONE & PLUGS



Wheel shapes

Type 16-cone

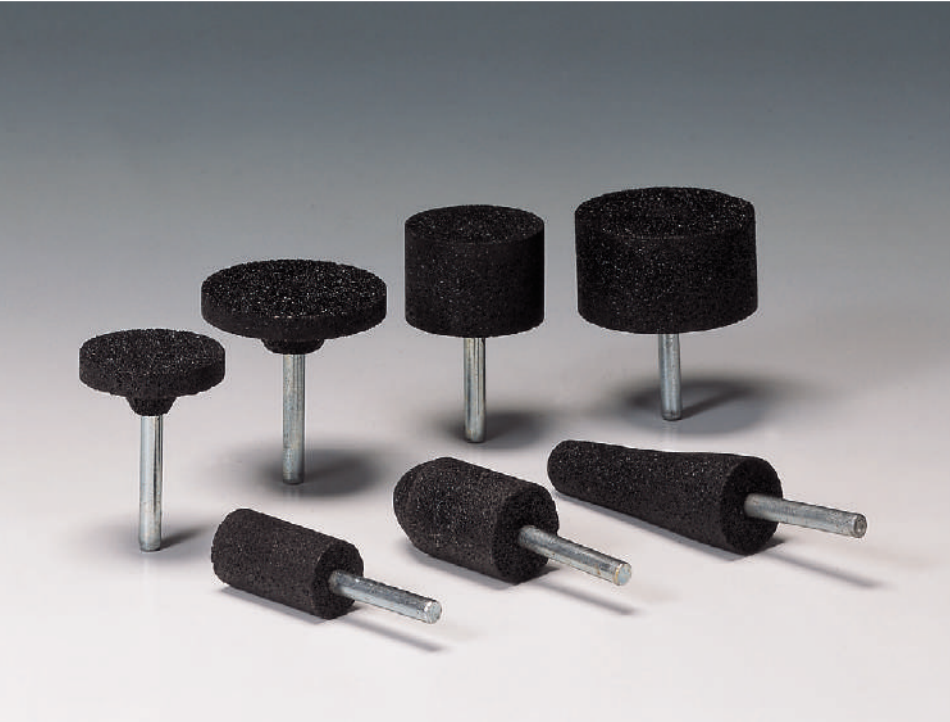


Available wheel size

Wheel Type	WHEEL SIZE(DXTXH)		MAX.RPM
	inch	mm	
Type 16	1,1/4 x 3 x H	32 x 75 x H	27500
	1,1/2 x 1,1/2 x H	38 X 40 X H	24000
	1,1/2 x 2 x H	38 X 50 X H	24000
	1,1/2 x 2 x H	38 X 50 X H	24000
	1,1/2 x 2,1/2 x H	38 X 63 X H	24000
	2 x 3 x H	50 X 75 X H	18000
Type 17	1 x 1,3/8 x H	25 X 35 X H	35000
	1 x 2 x H	25 X 50 X H	35000
	1,1/2 x 1,1/2 x H	38 X 40 X H	24000
	1,1/2 x 2 x H	38 X 50 X H	24000
	1,1/2 x 2,1/2 x H	38 X 63 X H	24000
	1 x 1,1/2 x H	25 X 40 X H	35000
Type 18 & Type 18R	1 x 2 x H	25 X 50 X H	35000
	1 x 3 x H	25 X 75 X H	35000
	1,1/2 x 1,1/2 x H	38 X 38 X H	24000
	1,1/2 x 2 x H	38 X 50 X H	24000
	1,1/2 x 2,1/2 x H	38 X 63 X H	24000
	1,1/2 x 3 x H	38 X 75 X H	24000
	1,3/4 x 3 x H	44 X 75 X H	20000
	2 x 2 x H	50 X 50 X H	18000
	2 x 2,1/2 x H	50 X 63 X H	18000
	2 x 3 x H	50 X 75 X H	18000
	2 x 4 x H	50 X 100 X H	18000
	3 x 3 x H	75 X 75 X H**	11800
	3 x 4 x H	75 X 100 X H**	11800
	** Available only with Type 18R		

※ Please specify arbor hole(H) 3/8"-16, 3/8"-24, 5/8"-11 when order.
Other shapes and sizes are available upon request.

RESIN BONDED MOUNTED POINT WHEELS



Available wheel size

Wheel Type	Size(DXTXd)	MAX.RPM	Wheel Type	Size(DXTXd)	MAX.RPM
CS	13 X 32 X 6	30,370	CK	19 X 38 X 6	45,000
	19 X 38 X 6	24,000		25 X 38 X 6	34,500
	25 X 25 X 6	25,500	CSU	19 X 38 X 6	45,000
	38 X 25 X 6	22,500		25 X 35 X 6	34,500
	45 X 22 X 6	23,520		25 X 50 X 6	34,500
	38 X 13 X 6	25,470	CT	38 X 6 X 6	25,470
	50 X 13 X 6	19,100		50 X 6 X 6	19,100

CS TYPE	CK TYPE	CJ TYPE	CSU TYPE	CT TYPE



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HEAVY DUTY SNAGGING WHEELS



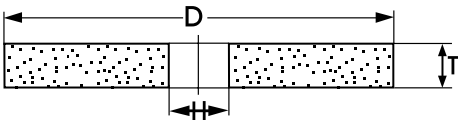
PERIPHERAL REVOLUTION SPEED

Reinforced Wheels for high speed at 3800mpm(63m/sec)
Non-reinforced Wheels for low speed at 2880mpm(48m/sec)

Specification guide.

Material to be ground	PEDESTAL GRINDER	SWING FRAME GRINDER
Mild Steel, Carbon Steel	A162QB, A162RB, A24QB, A24RB	AZ14SB, AZ16QB
Alloyed Steel	A24PB	A16QB
Tool Steel, HS Steel	A24PB,	A300B
Stainless Steel	ST24N, ST36O	AZ16Q, AZ20QB
Chilled Iron,	A16PB, A24OB	AZ16QB, A16PB
Brass, Bronze	C202PB, C302NB	AC16PB

Wheel shape



Type 1 Straight

Available wheel size

WHEEL SIZE(DXTXH)	
inch	mm
12 x 1 x H	305 x 25 x H
12 x 1.1/4 x H	305 x 32 x H
12 x 1.1/2 x H	305 x 38 x H
12 x 2 x H	305 x 50 x H
14 x 1 x H	355 x 25 x H
14 x 1.1/4 x H	355 x 32 x H
14 x 1.1/2 x H	355 x 38 x H
14 x 2 x H	355 x 50 x H
14 x 2.1/2 x H	355 x 63 x H
16 x 1.1/2 x H	405 x 38 x H
16 x 2 x H	405 x 50 x H
16 x 2.1/2 x H	405 x 63 x H
16 x 3 x H	405 x 75 x H
18 x 1.1/2 x H	455 x 38 x H
18 x 2 x H	455 x 50 x H
18 x 2.1/2 x H	455 x 63 x H
18 x 3 x H	455 x 75 x H
20 x 2 x H	508 x 50 x H
20 x 2.1/2 x H	508 x 63 x H
20 x 3 x H	508 x 75 x H
24 x 2 x H	610 x 50 x H
24 x 2.1/2 x H	610 x 63 x H
24 x 3 x H	610 x 75 x H
30 x 2 x H	760 x 50 x H
30 x 2.1/2 x H	760 x 64 x H
30 x 3 x H	760 x 75 x H

※ Specify Max. operating speed(r.p.m.)
※ Specify arbor hole size when order

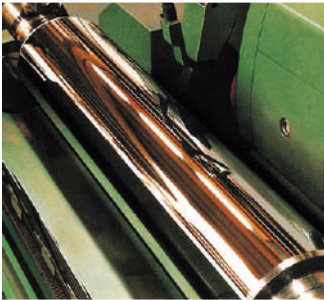
ROLL GRINDING WHEELS



Roll Grinding is a specialized form of cylindrical grinding and precision grinding of various kind of rolls. Roll grinding wheels are used in the re-grinding and production grinding of rolls for the Steel, Brass, Copper, Aluminium, Printing paper and textile industries. Most roll grinding wheels are type 1, 5 or 7 ranging from 14" (355mm) to 42"(1065mm) diameter and 1.1/2(38mm) to 6"(150mm) thickness. Also, the bonding material is normally Resinoid Bonded but some times Vitrified Bonded wheel is used. The general hardness is from "F" to "N" and most common grit size is from #24 to #120 but it depends on the grinding conditions.

Technical tips

The grade of the wheel depends on the horsepower of the machine and the material being ground. In general, duel wheel grinders require softer grades than single wheel grinders. A soft grade wheel requieres hard materials than soft materials.



Specification guide

Roll	Raw Material of Roll	Hardness	Usage	Specification
Hot mill work Roll	Chilled Iron Granite Cast Iron(FCD)	Hs 60–80	Rough Grinding Finish Grinding	GC36K7B GC80J7B
	Cast steel Adamite Steel	Hs 35–50	Rough Grinding Finish Grinding	WA30L6B WA60K7B
Hot mill Back–up Roll	Cast Steel	Hs 40–50	Rough Grinding Finish Grinding	WA30K7B WA60J7B
Cold mill Work Roll	Hardened steel	Hs 90–100	Rough Grinding Semi–finish grinding Finish Grinding Finish grinding	WA36J7B WA60J7B WA120J7B WA240I7B
Cold mill Back–up Roll	Hardened steel Cast steel	Hs 55–70	Rough Grinding Finish Grinding	WA30J7B WA80J7B
Sendzimir Mill Roll	Alloy Tool Steel	HRc 60–64	Rough Grinding Finish Grinding Finish Grinding Super–finish grinding	GC46H7B GC120H8B GC220F8B GC600F8B
Aluminum Foil Roll	High hardened steel	Hs. 90–100	Rough Grinding Finish Grinding Super–finish Grinding	WA60J7B WA240I7B GC320G8B
Paper Mill Roll	Chilled Iron	Hs 60–80	Rough Grinding Finish Grinding	GC36J7B GC60J7B
	Granite, Brass, Rubber		Rough Grinding Finish Grinding	GC36J7B GC30H10B
Stainless Steel Roll	Soft stainless steel	300 series	Rough & Finish Grinding	GC46J8B
	Hard stainless steel	400 series	Rough & Finish Grinding	WA46J7B

Available wheel size

Common Wheel Sizes (DxTxH)	
inch	mm
30 x 2 x H	760 x 50 x H
30 x 3 x H	760 x 76 x H
36 x 4 x H	915 x 100 x H
36 x 5 x H	915 x 125 x H
36 x 6 x H	915 x 150 x H
42 x 4 x H	1065 x 100 x H
42 x 5 x H	1065 x 125 x H

※ Please specify arbor hole(H) size when order.

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MGO & EPOXY WHEELS / DISCS

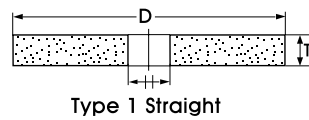
K-PRIX provides Magnesia(MgO) & Epoxy(E) Bonded grinding wheels in various sizes, shapes, and specifications for cool, fast, finish grinding application at the factory for producing hand tools, scissors, knives, springs, automobile parts, and surface finishing of stainless steel.



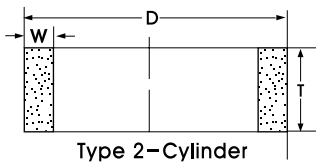
Application

Hand Tools, Scissors, Knives,
Springs, Stainless steel finishing.
Stones

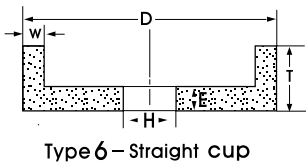
Wheel shape



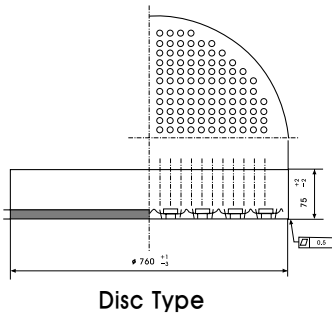
Type 1 Straight



Type 2-Cylinder



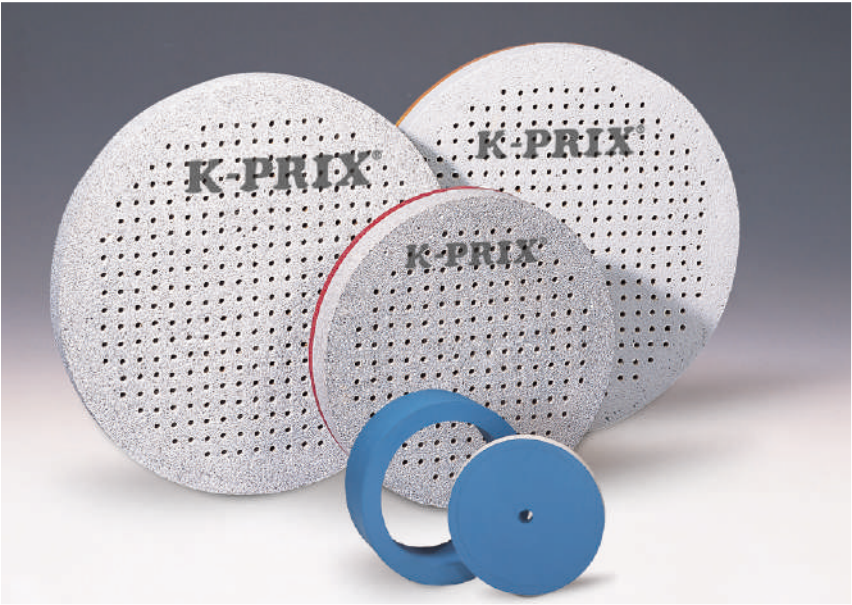
Type 6-Straight cup



Disc Type

MGO WHEELS / DISCS

MgO grinding wheels are produced using magnesia as binder. As having specific character of low heat generation and superior efficiency of heat dispersion, they are not only widely used at grinding cutlery, knives, scissors, shanks under wet condition but also various kind of industrial springs under dry condition.



Available specification & wheel size

	Material to be ground	shape	wheel selection	
			specification	size(DxTxH)
WET	house hold knives, scissors industrial knives, scissors farming knives	Flat	WA150H/J	255X25X25.4 305X25X25.4 355X25~40X25.4
		Cylindrical	19A100~320H/M	255X120X155 255X120X185 255X128X197 255X127X215 355X125X276 355X125X290
	steel shanks	Flat	WA150H	610X130X150.2
	DRY	heat teated springs automobile spring vessel spring sheet spring electronic spring toy & bed spring	Nut inserted Disc	WA90H
19A46N				330X60X0
19A46N				355X60X0
WA46M				455X70X0
WA24N~P				610X75X0
19A30/36M				660X75X0
19A24M				660X75X280
19A30/36M				760X80X0
19A20/24M				915X80X0

※ Please provide us a detailed drawings when inquire nut inserted Discs.

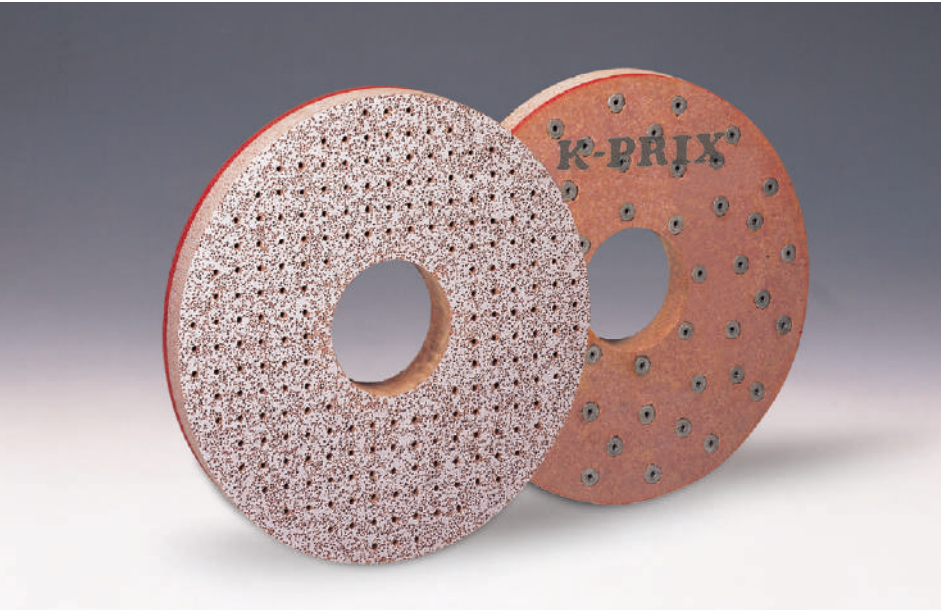


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EPOXY DISCS

Epoxy discs are newly developed grinding discs made with epoxy resin as binder. This is widely used at the manufacturing plants where requires mass production and productivity because of its possibility of reducing heat generation.



Application

Machine parts, Scissors, Knives, Springs, Stainless steel finishing.

Specification Guide

MATERIAL	ROUGHNESS	CHARACTER	SPECIFICATION	WHEEL DIA.
con-rod	rough grinding	cast iron	88A46JE	Φ760
	finishing		88A120JE	Φ760
bearing housing	rough grinding	melliabile steel cast iron	WA46ME	Φ585
				Φ760
valve plate	rough grinding	cold rolled iron plate hot rolled iron plate	19A46KE	Φ585
				Φ760
	finishing	cold rolled iron plate hot rolled iron plate	19A120KE	Φ585
				Φ760
piston ring	rough grinding		WA60ME	Φ585
	finishing		WA100ME	Φ585



MOLD STONES

Mold stone is made by a high purity abrasive grain and vitrified bonds as binder. As of its high purity and grade, it provides an excellent efficiency in mold processing.



Type & Grain size

Type	Grain size			
VH	120	150	180	
MF	240	320	400	
MS	3000			
HS	180	320	600	1000
	240	400	800	1200
VB	120	150	800	
	180	400	1200	
RB	120	240	400	
	180	320	600	
BH	400	1200	2000	
	800	1500	3000	
SF	2000	3000	4000	
FS	220/320			



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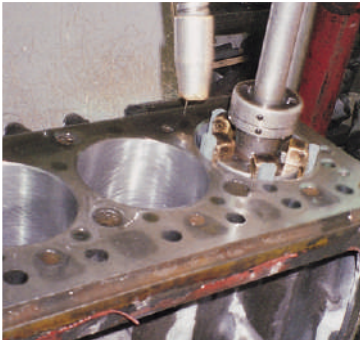
Available shapes & sizes

Shape	Size(mm)		Shape	Size(mm)	
	C X B X L	1.5 x 6 x 100		D X L	3 x 100
		3 x 6 x 100			10 x 150
		3 x 13 x 100			4 x 100
		5 x 13 x 150			13 x 150
		1.5 x 13 x 150			6 x 150
	B X B X L	4 x 4 x 100		D X L	6 x 150
		6 x 6 x 150			10 x 150
		13 x 13 x 100			13 x 150
		25 x 25 x 150			
	B X L	6 x 150		L X B X C X C L	100 x 25 x 6.4 x 2
		10 x 150			100 x 25 x 11.1 x 5
					115 x 45 x 11.5 x 5
					115 x 45 x 9.5 x 3.2
					115 x 45 x 13 x 5

Round, Half round, Triangle is for Ms type only other type available on request

Characteristic

TYPE		
VH320	VH	VH is the product made by vitrified method using a high purity white aluminum oxide. Especially, because of its high hardness and resistance to the impact from outside, it is not broken easily. Therefore it is widely used for surface finishing process after EDM process, edge and deep grooves processing.
MF600	MF (SMF)	MF(SMF) is the product made by vitrified method using a high purity white aluminum oxide. In order to increasing the self-sharpening, it is made by controlling the hardness and character of binder, widely applied to a comparatively high hardness alloy steel. It provides the grinding effect with less hand-pressure.
MS320	MS	MS is the high tenacity product made by vitrified method using aluminum oxide. Because of its excellent grinding effect, it is widely used form rough grinding to finishing process and is suitable for general steel.
HS220	HS	Hs is the product made by vitrified method using a high purity green silicon carbide abrasive. Because of its hard abrasive grain itself, sharp edges, and high self-sharpening, it is applied to the hardened material that is difficult grinding. Process stuffs : stainless steel, hard alloy steel, SUS400, glasses and non-metal materials.
VB400	VB	VB is added plastic product made by vitrified method using high purity aluminum oxide. Because of its unbreakable character on rough surface, excellent cutting ability and feeling of smooth touch, it is widely used for all kinds of mold finishing.
RB320	RB	RB is the product for difficult processing material that is combined aluminum oxide with plastic. It is an excellent product that its sharpe is not broken easily, not remains "scratch" and fast removal of deep processing marks. Processing material : beryllium and SKD hard steel material.
BH800	BH	BH is the product made by fused aluminum oxide and plastic. It is the excellent product that has a good elasticity and no scratch. Also, it makes a plain surface with fast cutting ability, when it is used on rough surface.
SF3000	SF	SF is a soft product that is combined high purity fine aluminum oxide with refined fine vitrified binder. It is used for the final finishing process before using diamond compound.
	FS	FS is the product combined artificial fiber with plastic. It is especially suitable for narrow and deep grooves processing due to improving cutting efficiency and preventing the breakage caused the axis of artificial fiber.



HONING STONES

Honing stone is widely used in the automobile engine cylinder, motorcycle engine, oil pressure cylinder, machine part finishing work, refrigerator, freezer, and aircraft etc. Recently, the demand of CBN and diamond honing stone is increasing, because of the development of honing processing automation. In order to increase the precision and efficiency which is important in honing technology, we are developing and producing various kinds of products.



Feature of sulfur impregnation

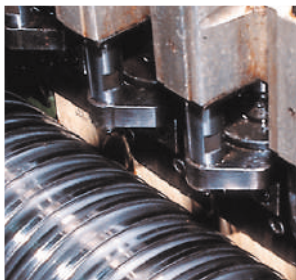
- 1. The prevention of loading problem on the stone.
- 2. Reduce the heat rising, cause the lubrication.
- 3. Excellent surface of workpiece caused by cleaning the abrasive.

Characteristic & Grain size

Abrasive	A, WA, RA, MA, C, GC, SD, CBN			
Grain size	# 80~ # 2000			
Bond type	V : Vitrified B : Resinoid M : Metal			
Size	Rectangle (mm)	T 1~25	W 1~25	L 14~300
	Shell Spherical (mm)	D 10~40	H 7~37	L 25~50
impregnation	Sulfur, Wax, Oil			

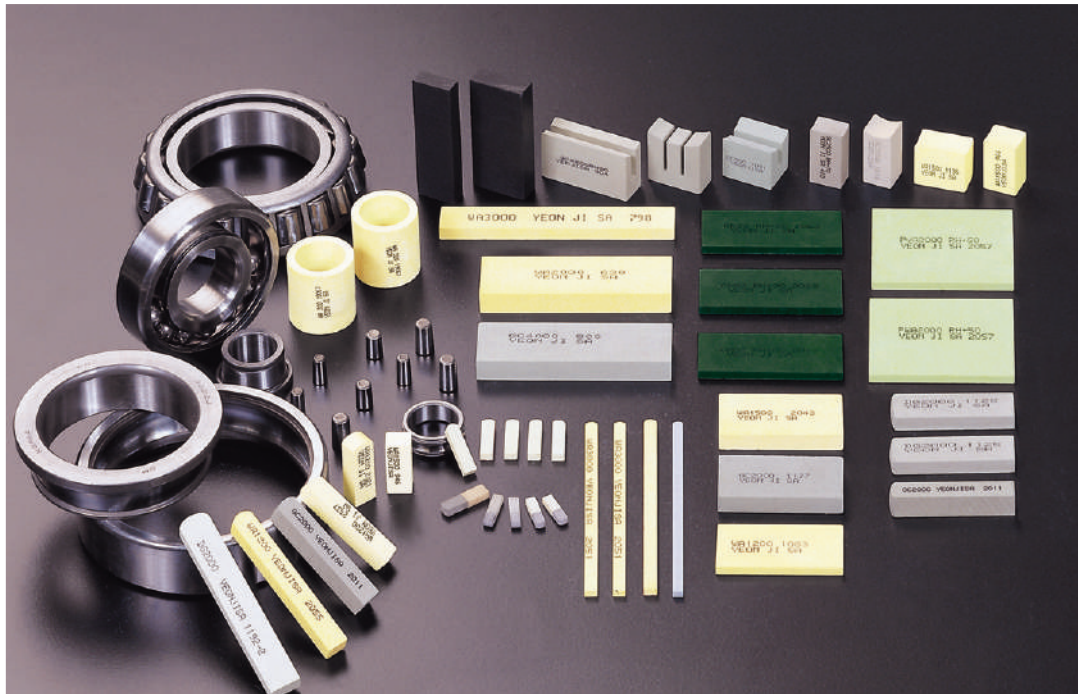
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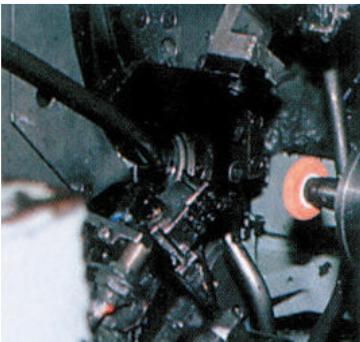
SUPER FINISHING STONES

Super finishing stone is composed of the fine grit abrasive. The demand of super finishing stones are now increasing because the fine finishing works are widely applied to the rotative or driving parts of the internal engines, gauge shaft, bearing and others in order to improve the precision and life of the machine. Especially, recently developed CBN super finishing stone have a good abrasion-proof, so it contributes to save the cost a lot.



Characteristic & Grain size

Abrasive	WA, GC, RA, MG, CR, CT, CBN, SD, CBN		
Grain size	# 400~ # 12000		
Bond type	V : Vitrified	B : Resinoid	
	Rectangle (mm)	T W	L
Size	Precision	0.5mm~100mm	under 100mm
		+0~-0.05mm	±0.1mm
impregnation	S(sulfur), W(wax)		
Hardness	RH 40 ~ 100		



INTERNAL GRINDING WHEELS

Internal Grinding Wheel is used in internal and external of Bearing, small cylinder, compressor parts, injection nozzle parts, ABS parts, CVJ parts, and gear etc.



Characteristic

Normal Abrasives

Abrasives	A, WA, C, GC, MA, RA, MG (mixing)	
Grain size	#60 ~# 400	
Bond type	V : Vitrified	
Size	Straight wheel	D× T× H
	Mounted wheel	D× T× Y
impregnation	S(sulfur)	

Super Abrasives

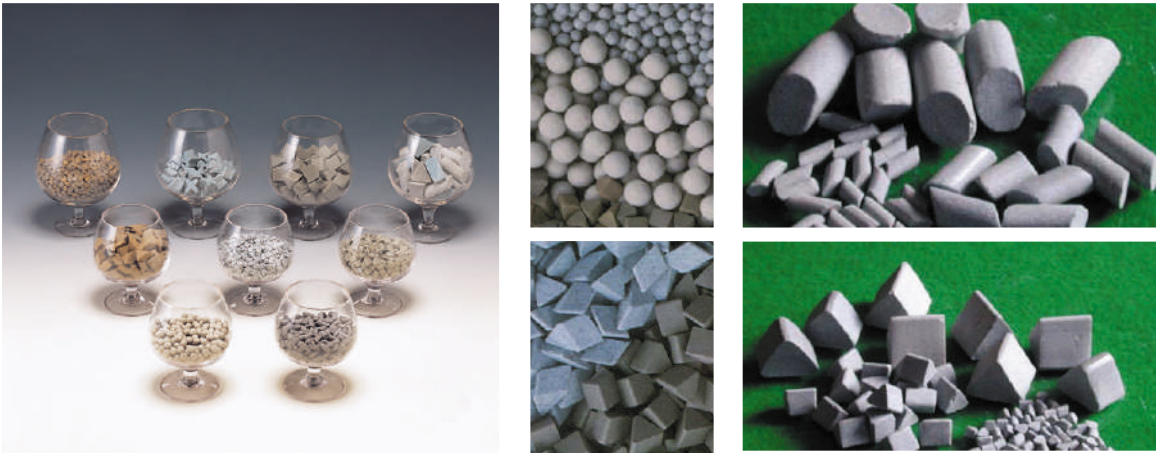
Abrasive	CBN, CM (Ceramic grain)	
Grain size	#100~#600	
Bond type	V : Vitrified	
Size	Straight wheel	D× T× H
impregnation	S(sulfur)	



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BARREL STONE



What is Barrel finishing?

Barrel finishing is a surface conditioning operation in which a mixture of metallic or non-metallic parts, abrasive media, and various compound, is placed in a rotating drum(called the "Barrel").
As you choose proper barrel grinding stone according to quality, shape, size and grinding purpose, you can experience the best grinding effects, cost-down and elevation of goods.

The purpose of Barrel stone

- * To descale after formation & rounding corners.
- * To eliminate the scars after heating.
- * To improve surface finish for polishing.
- * To grinding before plating and coating.
- * To burnish for low micro inch finishes.
- * To eliminate scars and burrs.

Use of the barrel grinding stone

Barrel finishing methods may be applied successfully in many plants, large or small, to replace costly hand-finishing operations on either metallic or non-metallic parts such as iron, steel, stainless steel, brass, bronze, copper, aluminum, zinc, magnesium, many of the rare metals and most alloys in common use, including the newer high temperature alloys, and plastics.

All manufacturing processes are applicable

Including stamping, forging, coining, sand mold casting, die casting, permanent and plastic molds, parts machined by milling, screw machine, shaper, drills, and all others.



STANDARD SHAPE AND SPECIFICATION

shape	T	TK	CK	D	S
	TRIANGLE	TRIANGLE	CYLINDER	DIAMOND	SPHERE
	STRAIGHT CUT	45° ANGLE CUT	20°, 30°, 45° ANGLE CUT		
USAGE	METAL	H.M.F.L	H.M.F.L	H.M	H.M.F.L
Size	AXBXC mm	AXBXC mm	AXBXC mm	AXBXC mm	AXBXC mm
	6 6X6X6	6 6X6X6	5 5X10	1 55X35X18	6 6
	10 10X10X8	10 10X10X7	6 6X12	2 55X35X24	7 7
	12 12X12X10	12 12X12X9	8 8X16	3 45X30X16	8 8
	15 15X15X12	15 15X15X11	10 10X20	4 45X30X20	10 10
	20 20X20X14	20 20X20X13	12 12X25	12	12
	25 25X25X16	25 25X25X15	15 15X30	15	15
	30 30X30X18	30 30X30X17	20 20X35	18	18
			25 25X40	20	20

















Selection guide








Use	Grade	Remarks
General-finish	H	Abrasive capability is so excellent. To use for deburring and descaling.
Good finish	R.VR.A	Available for scars on surface.
Fine finish	M.S	Before plating, Brilliant effects with some kinds of compound.
Finest finish	F	Fine finishing and hardness.
Ultra-fine finish	FM.FF	Ultra-fine finishing of ferrous and non-ferrous metal as a ceramic material. Non-ferrous metal as a ceramic material.

CAUTIONS OF BARREL GRINDING

1. Choose the machine according to the kind and size of the processing materials.(rotating, vibration, centrifugal)
2. Choose the quality and size of the barrel grinding stone according to the size and hardness of the processing materials.
3. Choose the quality of the barrel grinding stones according to the shape of processing materials. (R-type, D-type, T-type, B-type, C-type, X-type, etc.)
4. Choose the quality of the barrel grinding stones according to the usage of processing. (heavy, medium, light, fine, ultra-fine, etc.)
5. Properly adjusting the quantity of the stone and additional materials in the container, so that can be reduced rates of inferior and increased grinding effects and brilliant capability.(reduce water rate in heavy grinding and increase for fine finishing.)
6. Use correct compound and rate of compound to have more grinding effect.

SELECTION OF TYPE

	Heavy stock removal	Medium stock removal	Finishing	Polishing
T-TYPE	<div>TH</div> 	<div>TM</div> 	<div>TF</div> 	<div>TL</div> 
TK-TYPE	<div>TKH</div> 	<div>TKM</div> 	<div>TKF</div> 	<div>TKL</div> 
CK-TYPE	<div>CKH</div> 	<div>CKM</div> 	<div>CKF</div> 	<div>CKL</div> 
S-TYPE	<div>SH</div> 	<div>SM</div> 	<div>SF</div> 	<div>SL</div> 

<div>DH</div> 	<div>3A 1,2,3,7,10,12,15,20,25,30</div> 
<div>TR</div> 	<div>7A #10, #12, #14</div> 
<div>STR</div> 	<div>BA #5, #8, #10, #12, #14, #16, #20</div> 
<div>PC</div> 	<div>CL 1,7,3,0,4,5</div> 